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# CONTENTS

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There is in some cases a discrepancy between the figures from the Central and a State Government relating to the same subject. This is generally pointed out in a foot-note.


| | Page |
|---|---|
| Index to Advertisers | v |
| Trade Directory for Buyers | x |
| Political Map of India | *Opp. page* 1 |
| Physiography | 1 |
| Meteorology | 2 |
| Metric System of Weights and Measures | 5 |
| Railways | 7 |
| Overseas Communications Service | 15 |
| Institutions for the Blind in India | 15 |
| Production (Industrial) 1964 | 16 |
| Family Planning | 18 |
| India's Foreign Liabilities & Assets—1961 | 20 |
| Posts and Telegraphs | 30 |
| Social Welfare in India | 32 |
| Arecanut Industry | 35 |
| Coffee Industry | 36 |
| Coir Industry | 37 |
| Jute Industry | 38 |
| Lac Industry | 39 |
| Sugar Industry | 41 |
| Tobacco Industry | 44 |
| Mines and Minerals | 45 |
| A Tourist's Guide | 54 |
| U. N. Aid to India | 64 |
| Colombo Plan | 65 |
| Defence Services | 70 |
| Indians Overseas | 77 |
| Bhoodan | 82 |
| Some All India Corporations | 83 |
| Insurance | 89 |
| Broadcasting | 93 |
| Housing | 96 |
| Administration of Justice | 98 |
| Laws of 1963 | 102 |
| Constitution of India | 103 |
| State Corporations | 108 |
| Import and Export Trade | 114 |
| The Co-operative Movement (1962-63) | 123 |
| Govt. Industrial Undertakings | 132 |
| Ports | 148 |
| Fisheries | 153 |
| Research | 159 |
| Cottage Industries and Handicrafts | 164 |
| Handicrafts | 169 |
| Film Industry | 170 |
| Sericulture and Silk | 174 |
| Textile Industry | 178 |
| Shipping Companies & Airw | 181 |
| Irrigation | 188 |
| Population | 194 |
| Livestock | 212 |
| General Elections | 216–243 |
| Roads | 243 |
| Food | 247 |
| U. S. Aid to India | 251 |
| Churches in India | 255 |
| Christian Missions in India | 257 |
| Money Supply | 259 |
| Public Finance | 260 |
| Public Services | 265 |
| Forests | 269 |
| Index Number | 271 |
| Community Development Projects and Panchayaths | 272 |

| | Page |
|---|---|
| Awards and Prizes | 277 |
| Glass Industry | 281 |
| Non-Ferrous Industry | 282 |
| Paper Industry | 285 |
| Petroleum Industry | 286 |
| Plastics Industry | 289 |
| Rayon Industry | 290 |
| Rubber Industry | 292 |
| Shipping Industry | 293 |
| Small-Scale Industries | 295 |
| Steel Industry | 298 |
| Woollen Industry | 300 |
| Foreign Aid to India | 302 |
| Official Language Problem | 307 |
| Educa... | 310 |
| The Press | 324 |
| Public Health | 330 |
| Agriculture | 340 |
| Labour | 354 |
| State Budgets | 375 |
| Refugees and Rehabilitation | 377 |
| Bullion | 380 |
| Foreign Exchange Controls | 382 |
| National Income | 385 |
| Banking | 387 |
| Civil Aviation | 390 |
| Alcohol Industry | 391 |
| Hides, Skins & Leather | 393 |
| Tea Industry | 394 |
| Vegetable Oil Industry | 20[illegible] |
| Miscellaneous Industries | 401 |
| Prohibition | 403 |
| Sports | 404 |
| Military Assistance to India | 405 |
| Educational Statistics (1962-63) | 415 |
| Andaman and Nicobar Islands | 417 |
| Andhra Pradesh | *Opp. page* 418 |
| Map of Andhra Pradesh | 425 |
| Commercial Firms | 427 |
| Classified List of Trades and Professions | 434 |
| Assam State | 438 |
| North-East Frontier Agency | 440 |
| Delhi | 456 |
| Commercial Firms | 465 |
| Classified List of Trades and Professions | 499 |
| Goa, Daman and Diu | *Opp. page* 500 |
| Map of Goa | 501 |
| Dadra and Nagar Haveli | 502 |
| Gujarat | *Opp. page* 504 |
| Map of Gujarat | 506 |
| Ahmedabad District | 511 |
| Commercial Firms | 512 |
| Classified List of Trades and Professions | 535 |
| Amreli District | 535 |
| Banaskantha District | 535 |
| Baroda District | 539 |
| Bhavnagar District | 540 |
| Broach District | 540 |
| Bulsar District | 540 |
| Dangs District | 540 |
| Jamnagar District | 5 1 |
| Junagadh District | 541 |
| Kaira District | 542 |
| Kutch District | |

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PHOSPHOR — BRONZE — SECTION — TUBES

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| | Page |
|---|---|
| Mehsana District | 543 |
| Panch Mahals District | 543 |
| Rajkot District | 544 |
| Sabarkantha District | 544 |
| Surat District | 544 |
| Surendranagar District | 546 |
| Himachal Pradesh | 546 |
| Jammu and Kashmir State | 547 |
| Kerala | 549 |
| Map of Kerala | *Opp. page* 550 |
| Laccadive, Minicoy and Amindivi Islands | 557 |
| Madhya Pradesh | 558 |
| Map of Madhya Pradesh | *Opp. page* 560 |
| Madras State | 565 |
| Map of Madras State | *Opp. page* 566 |
| Commercial Firms | 579 |
| Classified List of Trades and Professions | 584 |
| Coimbatore Commercial Firms | 605 |
| Coimbatore Classified List of Trades and Professions | 606 |
| Maharashtra | 614 |
| Map of Maharashtra | *Opp. page* 614 |
| Greater Bombay | 621 |
| Map of Greater Bombay | *Opp. page* 622 |
| Rainfall of Bombay | 628 |
| Associations (Trade & Commercial) in Gr. Bombay | 629 |
| Benevolent Institutions in Greater Bombay | 637 |
| Chambers of Commerce in Greater Bombay | 643 |
| Churches in Greater Bombay | 644 |
| Cinemas in Greater Bombay | 646 |
| Clubs in Greater Bombay | 646 |
| Cultural, Political, Professional, Scientific and Social Institutions in Greater Bombay | 648 |
| Educational Institutions in Greater Bombay | 660 |
| Hospitals, Maternity Homes etc. in Greater Bombay | 672 |
| Missionary and Religious Societies in Greater Bombay | 675 |
| Reading Rooms and Libraries in Greater Bombay | 676 |
| Swimming Pools and Baths in Greater Bombay | 676 |
| Banks and Bankers | 677 |
| Classified List of Overseas Firms with names of Bombay Agents/Representatives | 683 |
| Commercial Firms in Bombay | 700 |
| Classified List of Trades and Professions in Bombay | 774 |
| Ahmednagar District | 977 |
| Akola District | 977 |
| Amravati District | 978 |
| Aurangabad District | 978 |
| Bhandara District | 979 |
| Bhir District | 979 |
| Buldana District | 979 |
| Chanda District | 979 |
| Dhulia District | 980 |
| Jalgaon District | 980 |
| Kolaba District | 981 |
| Kolhapur District | 981 |
| Nagpur District | 982 |
| Nanded District | 983 |
| Nasik District | 984 |
| Osmanabad District | 984 |
| Parbhani District | 984 |
| Poona District | 985 |
| Ratnagiri District | 990 |
| Sangli District | 991 |
| Satara District | 992 |
| Sholapur District | 993 |
| Thana District | 993 |
| Wardha District | 994 |
| Yeotmal District | 994 |
| Manipur | 994 |
| Mysore State | 995 |
| Map of Mysore State | *Opp. page* 996 |
| Bangalore District | 1009 |
| Mysore District | 1009 |
| Trades and Professions | 1010 |
| Nagaland | 1014 |
| Pondicherry | 1015 |
| The Punjab | 1017 |
| Map of the Punjab | *Opp. page* 968 |
| Rajasthan State | 1022 |
| Classified List of Trades and Professions | 1027 |
| West Bengal | 1027 |
| Commercial Firms | 1043 |
| Classified List of Trades and Professions | 1057 |
| States Administrative Personnel | 1121 |
| Government of India Personnel | 1142 |
| Indian Political Representatives Abroad | 1162 |
| Indian Government Trade Representatives Abroad | 1167 |
| Embassies in India | 1168 |
| Legations in India | 1169 |
| High Commissions in India | 1170 |
| Foreign Consular Offices in India | 1170 |
| U. N. Bodies in India | 1173 |
| Trade Commissions | 1173 |
| Some Women's Associations | 1175 |
| Who's Who in India | 1176 |
| Late Particulars | 1271 |
| Akhil Bharat Hindu Mahasabha | 1271 |
| All India Forward Bloc | 1271 |
| Bharatiya Jan Sangh | 1271 |
| Communist Party of India | 1272 |
| Dravida Munnetra Kazhagam | 1273 |
| Indian National Congress | 1274 |
| Peasants' and Workers' Party of India | 1276 |
| Praja Socialist Party | 1276 |
| The Republican Party of India | 1276 |
| Revolutionary Socialist Party | 1277 |
| Samyukta Socialist Party | 1277 |
| Shiromani Akali Dal | 1277 |
| Swatantra Party | 1278 |
| Automobile Industry | 1279 |
| Capital Market | 1283 |
| Industrial Structure & Policy | 1287 |
| India's Frontier with China | 1292 |
| Map of Ladakh | *Opp. page* 1294 |
| Map of NEFA | *Opp. page* 1296 |
| Indo-Pakistan Relations | 1297 |
| Third and Fourth Five-Year Plans | 1301 |
| Airway Companies (*Contd.*) | 1315 |
| Events of the Year 1965 | 1316 |
| Cement Industry | 1317 |
| Chemical and Pharmaceutical Industry | 1318 |
| Bihar State | 1323 |
| Orissa State | 1331 |
| Tripura | 1335 |
| Uttar Pradesh | 1336 |
| Maharashtra State (*Contd.*) | 1346 |
| Education (*Contd.*) | 1348 |
| Awards (*Contd.*) | 1349 |
| Community Development (*Contd.*) (Table) | 1350 |
| Merchant Navy Training Board | 1351 |
| All India Corporations | 1351 |
| State Corporations | 1351 |
| Govt. Industrial Undertakings (*Contd.*) | 1352 |
| Budgets (Railway & Central) 1966-67 (*Contd.*) | 1354 |
| Famous Houses | 1361 |
| **GENERAL INDEX** | 1365 |

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# INDEX TO ADVERTISERS


| | Page |
|---|---|
| A. D. Wills Rowat (I) Pr. Ltd. | 882 |
| A. H. Shah & Co., Pr. Ltd. | 700 |
| Abbas & Co. | 826 |
| Abdulhusein Peerbhai & Sons | 935 |
| Abdullabhai Fidaalli & Co. | 954 |
| Ahmedabad Electricity Co. Ltd. | 521 |
| Ahura Printing Press | 922 |
| Alpha Electric & Engineering Co. | 836 |
| Amritlal Bhurabhai & Co. | 703, 807 |
| Arc Brazer | 970 |
| Arcoy Industries | 512 |
| Armstrong Smith Ltd. | 704 |
| Artytoys | 900 |
| Arya Vaidya Sala | vi |
| Aryan Brush Co. Ltd. | 798 |
| Asgarali & Co. | 859 |
| Asian Chemical Co. | 806 |
| Asiatic Electric Trading Co. | 841 |
| Asiatic Travel Service | 964 |
| Azad Brush Co. | 798 |
| B-Tex Ointment Mfg. Co. | 908 |
| B. N. Sur & Co. | 488 |
| Baldota Brothers | 887 |
| Bank of Baroda Ltd. | ix |
| Bank of India Ltd. | vi |
| Bank of Maharashtra | viii |
| Bharat Chemicals Co. | 808, 823 |
| Bharat Dyes & Chemical Co. | 832 |
| Bhavnagar Oil & Chemical Industries Pr. Ltd. | 899 |
| Bliss & Cotton | 474 |
| Blow Blast Pr. Ltd. | 918 |
| Bombay General Freight Carriers Pr. Ltd. | 963 |
| Bombay Miscellanies Pr. Ltd. | 784 |
| Bombay Philatelic Co. | 941 |
| Bombay Stationery Mart | 942 |
| Boxpack Paper Industries Pr. Ltd. | 803, 901 |
| British Machinery Supplies Co. | 495 |
| C. Itoh & Co. Ltd. | 713 |
| Cambay Tool Steel Co. | 961 |
| Camlin Pr. Ltd. | 871 |
| Canning Mitra Phoenix Ltd. | 844 |
| Capital Industries Pr. Ltd. | iv |
| Chartered Bank | ii |
| Chemical Industrial & Pharmaceutical Laboratories Ltd. | 1362 |
| Chettinad Cement Corpn. Ltd. | 588 |
| Chic Cosmetics Pr. Ltd. | 715 |
| Chinubhai Kalidass & Brothers | 815 |
| Chunilal & Co. | 875 |
| Chuttan Lall Mattumal | 482 |
| Columbia Chemi-Colour Industries Pr. Ltd. | 832 |
| Commercial Art Engravers Ltd. | 868 |
| Crompton Parkinson | 717 |
| D. Jamnadas & Co. | 808 |
| Deepak Industries | 790, 845 |

| | Page |
|---|---|
| Delton Cable Co. | 458 |
| Devidayal Metal Industries | *Back Cover* |
| Devidayal Cable Industries Ltd. | 719, 801 |
| Devidayal (Sales) Pr. Ltd. (Pest Control Dept.) | 778 |
| Devidayal Stainless Steel Industries Pr. Ltd. | 719 |
| Devidayal Stainless Steel Industries Pr. Ltd. (Stamping Divn.) | 719 |
| Devidayal Tube Industries Ltd. | 896 |
| Dharamdas M. Jhaveri & Co. | 961 |
| Dhiraj Steel Co. | 961 |
| Didwania Bros., Pr. Ltd. | 468 |
| Duke & Sons Pr. Ltd. | 777 |
| Durga Laboratories | 832 |
| Dwarkadas Velji Talpatriwala | 951 |
| Eagle Plastics & Industrial Corpn. | 776 |
| East Asiatic Co. (India) Pr. Ltd. | 458, 580 |
| Eastern Trading Co. | 852 |
| Electronics Ltd. | 467 |
| Elmeca Works | 1011 |
| Esooffally Esmailji Karachiwala & Co. | 935 |
| Esso Standard Eastern Inc. | 722 |
| Everest Calendar Co. | 802 |
| Evergreen Wirecloth Factory | 580, 722, 849, 973 |
| Express Block & Engraving Studios Pr. Ltd. | 923 |
| Famous Ladders Mfg. Co. | 783, 879 |
| Fancy Corporation Ltd. | 844 |
| Finlay, James & Co. Ltd. | 723 |
| Fire Bricks & Refractories | 850 |
| Forbes Forbes Campbell & Co. Ltd. | 725 |
| Fyrfo Pr. Ltd. | 851 |
| G. K. Kansara | 888 |
| Gandhi Sons & Co. | 883 |
| George Oakes Ltd. | 727 |
| Golden Dyes Corpn. (India) Pr. Ltd. | 833 |
| Goldfilled Mercantile Co. | 906 |
| Goolamhoosein Valiji Arsiwalla | 856 |
| Greaves Cotton & Crompton Parkinson Ltd. | 729 |
| Great India Net Industry | 973 |
| Guest, Keen, Williams Ltd. | 730 |
| Gyro Laboratories Pr. Ltd. | 843 |
| H. P. Brothers | 826 |
| Haribhai Jeebhai & Co. | 809 |
| Heptoola Nooredin & Co. | 935 |
| Hercules Rolling Shutters Pr. Ltd. | 929 |
| Hind Dyes Mfg. Co. Pr. Ltd. | 833 |
| Hindustan Elec. & Radio Corpn. | 839 |
| Hindustan Engineering Works | 946 |
| Hindustan Machine Tools Ltd. | 1011 |
| Hindustan Plastic Co. | 917 |
| Hindustan Scale Co. | 971 |
| Hindustan Steel Products | 496, 497 |
| Honesty Trading Corpn. | 962 |
| Imanes | 940 |
| Imperial Tobacco Co. | *Inside Back Cover* |
| India Tool Steel Mart | 960 |

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8 ALWAYE Sales Depot, Bank Road

| | Page |
|---|---|
| Indian Furnace Co. Pr. Ltd. | *Top Edge* |
| Indian Oxygen Ltd. | 736 |
| Indian Textile Journal | 736, 894 |
| Industrial Mill Gin Stores | 845 |
| Industrial Plastics Corpn. Ltd. | 918 |
| International Burner Mfg. Co. | 869 |
| International Research Laboratories | 833 |
| J. B. Advani & Co. Pr. Ltd. | 1363 |
| J. K. Organisation | 1364 |
| J. K. Paper Mills | 1048 |
| Jaam Chemie Colour Co. | 856 |
| Jafkay Engineering Corpn. | 781 |
| Jai Hind Roadways | 963 |
| Jairamdas & Sons | 928, 959 |
| Janata Auto Sales & Service | 787 |
| Jayant Paper Box Factory | 803 |
| Jayantilal M. Mehta | 833 |
| Johnson & Phillips Ltd. | 740 |
| K. Parikh & Co. | 874 |
| K. Wadia | 875 |
| K. C. P. Limited | 597 |
| K. T. Steel Industries Pr. Ltd. | 947 |
| Kamani Engineering Corp. Ltd. | 478 |
| Kangan Pr. Ltd. | 857 |
| Kapadia Bros. | 903 |
| Kashyap Chemical Industries | 806 |
| Kemicolor Industries | 953 |
| Kilburns | 742, 784 |
| Kirtikumar Chandulal & Co. | 809 |
| Konel Corporation | 886 |
| Kooverji Devshi & Co. Pr. Ltd. | 851 |
| Kwality Tool Steel Corpn. | 961 |
| Lee & Muirhead (India) Pr. Ltd. | 816, 964 |
| M. Somnath & Co. | 942 |
| M. L. Mansukhani & Co. Pr. Ltd. | 966 |
| M. V. Joshi & Co. Talpatriwala | 952 |
| Mangatram Bros. | 963 |
| Manilal Brothers | 482 |
| Manubhai Shah & Co. | 808 |
| Marf & Co. | 776 |
| Martin Burn Ltd. | 1042 |
| Mazagon Dock Ltd. | 747 |
| Mechaids Corporation | 848 |
| Mehta Engineering Stores | 959 |
| Mehta Manufacturers | 800 |
| Mehta Nanavati & Co. | 818 |
| Merchant Brothers | 930 |
| Merchant Steam Navigation Co. Pr. Ltd. | 936 |
| Metal Perforators Pr. Ltd. | 545 |
| Metal Printers Co. | 957 |
| Mohamadi Fine Art & Litho Works | 881 |
| Modern Glass Mart | 856 |
| Morarji Peraj & Co. Talpatriwala | 695, 897 |
| Munshiram Manoharlal | 471 |
| Mysore Sugandhi Dhoop Factory | 777 |
| V. Jamnadas & Co. | 964 |
| National & Grindlays Bank Ltd. | *Inside Front Cover* |

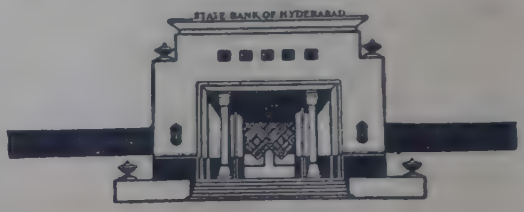
| | Page |
|---|---|
| Navbharat Corporation | 936 |
| Neptune Waterproof Mfg. Co. | 969 |
| New India Industries Ltd. | 538 |
| New Kem Insulations | 871 |
| New Standard Chemical Co. Pr. Ltd. | 810 |
| Nirvan Industries Pr. Ltd. | 921 |
| Noble Paints & Varnish Co. Pr. Ltd. | 903 |
| Noble Stationery Mart | 943 |
| Nomanbhai Abdealli & Co. | 916 |
| Oswal Book Mfrs. Depot | 795 |
| Organo Chemical Industries & Organo Rubber Reclaiming Co. Pr. Ltd. | 494 |
| P. Ratilal & Co. | 890 |
| P. K. Velu & Co. Pr. Ltd. | 756 |
| Packing Materials Corpn. | 971 |
| Parry & Co. Ltd. | 754 |
| Paulson Paints Cellulose Works | 903 |
| Pluck & Co. | 776, 789 |
| Poonam Trading Co. | 461 |
| Premier Aerated Waters Pr. Ltd. | *Spine* |
| Premier Suppliers Pr. Ltd. | 462 |
| Pure Ice Cream Co. | 865 |
| Qwality Electro-Metallizing Industries | 844 |
| R. S. Traders (Industrial Divn.) | 909 |
| Radio & Electricals Mfg. Co. Ltd. | 1013 |
| Raj & Co. | 922 |
| Rajaram Bhiku & Sons | 777 |
| Rajat Stationery Mart | 795 |
| Raji Chopra & Sons | 819 |
| Rapid Transport Co. | 963 |
| Ravi Brothers Pr. Ltd. | 481 |
| Ravindra Heracus Ltd. | 877 |
| Reliable Water Supply Service of India Pr. Ltd. | 497 |
| Rex Stores | 924 |
| Richardson & Cruddas Ltd. | 759 |
| Rockhard Fire Engineers | 851 |
| S. C. (India) Pr. Ltd. | ii |
| S. K. Kabbur Pr. Ltd. | 833 |
| S. R. Brothers | 776 |
| Safeglas Corpn. Pr. Ltd. | 857 |
| Saru Smelting & Refining Corpn. Pr. Ltd. | xix |
| Saurashtra Paints Pr. Ltd. | 903 |
| Shah Book Mfg. Depot | 795 |
| Sheth Stores Trading Co. | 791 |
| Shree Ramtirth Yogashram | *Facing Inside Back Cover* |
| Shroff Transport Service | 964 & *Long Edge* |
| Siesta Industrial & Trading Corporation | 947 |
| Simplex Machine Tools Co. | 960 |
| Simplex Timber Mart | 782, 878 |
| Singer Sewing Machine Co. | 763 |
| Sopher & Co. | 840 |
| Sorabji Naoroji & Co. | 764, 865 |
| Special Steels Ltd. | 965 |
| State Bank of Hyderabad | viii |
| Standard Garage | 789 |
| Standard Trading Co. | 1074 |
| Sterling Dyes Pr. Ltd. | 834 |

| | PAGE |
|---|---|
| Straw Products Ltd. | 1102 |
| Sun Process Works | 923 |
| Supreme Industrial Works | 884 |
| Supreme Mill Stores | 891 |
| Surat Electricity Co. | 545 |
| Swastik Industrial Mill Stores | 917 |
| Swastik Rolling Shutters & Engg. Works | 929 |
| T. Lakhamshi Ladha & Co. | 952 |
| Tata Iron & Steel Co. Ltd. | 767 |
| Three Brothers | 775 |
| Tool & Alloy Steel | 960 |
| Umrao Industries | 545 |
| Unichem Laboratories Ltd. | 910 |
| Union Acid & Chemical Co. | 774 |
| Union Bank of India Ltd. | ix |
| United Steel Agency (India) | 962 |
| United Steel Companies (India) Pr. Ltd. | 770 |
| Universal Book Corpn. | 796 |
| Universal Calendar Mfg. Co. | 802 |
| Universal Trading Co. | 791 |
| Variety (Agents) Pr. Ltd. | 962 |
| Victory Flask Co. Pr. Ltd. | 967 |
| Vijaya Laxmi Transport Corporation | 964 |
| Vinay Calendar Co. | 803 |
| Vishwa Bharati Trading Co. | *Bottom Edge* |
| Vulcan-Laval Ltd. | 771 |
| Warden & Co. Pr. Ltd. | 969 |
| Wheito Corpn. | 811, 834 |



## STATE BANK OF HYDERABAD

(Subsidiary of the State Bank of India)




**All types of Banking and Foreign Exchange Business undertaken through H.O. and branches.**

**ANDHRA PRADESH :** Head Office in Hyderabad and 64 branches, including 18 in Hyderabad.

**MAHARASHTRA STATE :** 26 branches, including 2 in Bombay.

**MYSORE STATE :** 14 branches.

**MADRAS STATE :** 2 branches.

## THE BANK OF MAHARASHTRA LIMITED

**1177, Budhwar Peth, Poona-2.**

**Board of Directors.**

Shri V. P. Varde, (*Chairman*)
Shri B. M. Gupte,
Shri S. L. Kirloskar,
Shri R. B. Banthia,
Shri V. R. Dafle,
Shri M. S. Parkhe, (*Vice-Chairman*)
Shri M. V. Shah,
Shri J. K. Rege,
Shri V. S. Shirgaonkar,
Shri M. L. Apte,
Shri V. S. Vaidya.

*More than 100 Branches in Maharashtra, M.P., A.P., Goa and Mysore. Complete Range of Banking Service of every sort, including Foreign Exchange.*

*Working Funds exceed Rs. 50 crores.*

**C. V. Joag,**
*General Manager.*

# THE BANK OF BARODA LIMITED
## for Complete Banking Service

**CAPITAL STRUCTURE 31-12-1964**

| | | |
|---|---|---|
| Capital Authorised | Rs. | 8,00,00,000 |
| Capital Issued & Subscribed | ,, | 4,00,00,000 |
| Capital called up & paid up | ,, | 2,00,00,000 |
| Reserve Funds & other Reserves | ,, | 2,42,61,510 |
| Working Funds | ,, | 2,12,88,53,370 |

There are over 245 offices in India and in London, Nairobi, Mombasa, Kampala, Dar-es-Salaam, Moshi, Mbale, Mwanza, Jinja, Kisumu, Naraingunj (East Pakistan), Port Louis (Mauritius), Lautoka and Suva (Fiji Islands).

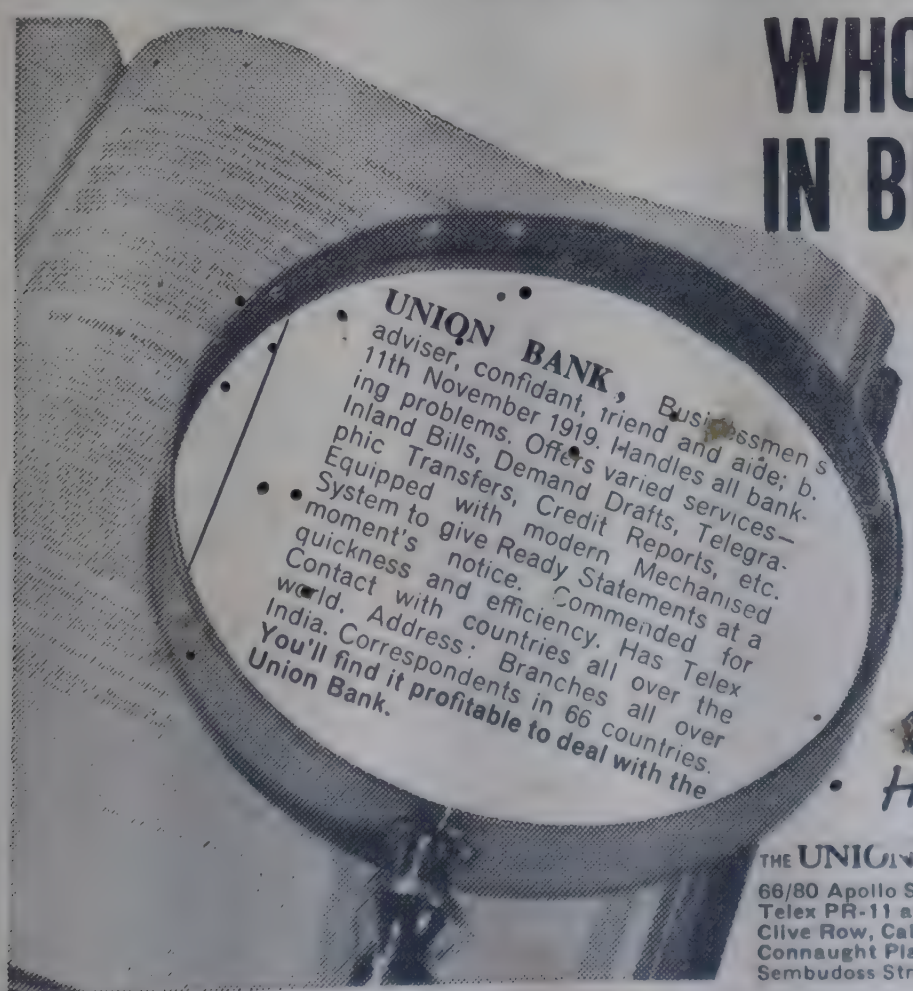
**BOARD OF DIRECTORS**

Shri R. D. Birla (*Chairman*)
Shri Kantilal Nahalchand
Shri Naval H. Tata
Shri Anandlal Hiralal Sheth
Shri Chinubhai Chimanbhai
Shri B. K. Daphtary
Lt.-Col. H.H. The Maharaja Fatehsinh Gaekwad of Baroda
Shri Keshav Prasad Goenka
Shri Narsing Dass Bangur
Shri Rasesh Navinchandra Mafatlal
Shri N. M. Chokshi (*Managing Director*)
Shri A. M. M. Arunachalam
Shri Navanitlal Sakarlal Shodhan

**THE BANK OF BARODA LIMITED** (Estd. 1908) Head Office : Baroda



# WHO'S WHO IN BUSINESS


UNION BANK, Businessmen's adviser, confidant, friend and aide; b. 11th November 1919. Handles all banking problems. Offers varied services— Inland Bills, Demand Drafts, Telegraphic Transfers, Credit Reports, etc. Equipped with modern Mechanised System to give Ready Statements at a moment's notice. Commended for quickness and efficiency. Has Telex Contact with countries all over the world. Address: Branches all over India. Correspondents in 66 countries. You'll find it profitable to deal with the Union Bank.

Union Bank Helps People

THE UNION BANK [illegible] LTD.
Andheri.
66/80 Apollo Street, Fort, Bombay.
Telex PR-11 and Telex 297.
Clive Row, Calcutta: Telex 228.
Connaught Place, New Delhi: Telex 311.
Sembudoss Street, Madras: Telex 332.

ASP/UBI/33

# TRADE DIRECTORY FOR BUYERS

**ABRASIVES & GRINDING WHEELS**

**M. DESAI & CO.,**

163, Narayan Dhuru Street, Bombay 3.

Authorised Dealers of Bonded & Coated Abrasives by Carbo Uni. Ltd., Grinding Wheels of all types ; Emery, Aloxite & Silicon Carbide Paper & Cloth in Sheets, Rolls, Belts & Discs etc.

Phone : 323248. Grams : "EMDESAICO."

---

**ACCOUNTS & EXERCISE BOOKS MFRS.**

**CRYSTAL STATIONERY MART,**

146, Abdul Rehman Street, Bombay 3.

Manufacturers of Exercise and Account Books and other Stationery.

Phones : 324461, 325853.

Grams : "CRISMART."

---

**ACCOUNTS & EXERCISE BOOKS MFRS.**

**JANATA BOOK MANUFACTURING DEPOT**

Manufacturers of Scholar Regd. I. M. Exercise Books, Accounts Books and Allied Products ; 219, Abdul Rehman St., Bombay-3 B.R. ; Phone : 325890.

---

**ACIDS, CHEMICALS ETC.**

**NAVSARI OIL PRODUCTS PRIVATE LTD.**

Factory & Head Office : Navsari ; Bombay Office : Mehta House, Apollo Street, Bombay-1 ; Leading Manufacturers and Suppliers of Stearic Acid, Oleic Acid, Glycerine, Metallic Stearates, Fatty Acids in both distilled and undistilled grades, Wire Drawing Lubricants, Nickel Catalyst for Oil hydrogenation.

---

**AGRICULTURAL HARDWARE FITTINGS**

**J. NAGARDAS & COMPANY**

55/3, Canning Street, Calcutta-1

Stockists of Aluminium Sheets, Corrugated, Circles, Extrusions, Sections, Moul[illegible], Wires, Rivets, Tubings, Ingots, Architectural Hardware Fittings, Covered Conductors etc., etc.

Phone : 31[illegible], Grams : "UNNATI"

---

**AGRICULTURAL IMPLEMENTS MFRS.**

**SHIVAJI WORKS LTD.,**

Shiva-Shahi, Dist. Sholapur. Phone : 236, 1536 ; Director's Residence : 492, Grams : "SHIVOK" ; Manufacturers of Precision Castings, Vices of various types and ranges ; S. P. Pumps, Hand Pumps, Hotsprings and Agricultural Implements.

---

**AGRICULTURAL MACHINERY**

**ARVIND BROTHERS PVT. LTD.,**

Machinery for Agriculture, Irrigation, Power etc.

4, Saklat Place, Calcutta-13.

Phone : 234621 & 234622 ;

Grams : "ABHIYANTA".

---

**ALUMINIUM INDUSTRY**

**THE ALUMINIUM INDUSTRIES LTD.,**

Regd. & Head Office : No. 1, Ceramic Factory Road, Kundra, (Kerala).

Phone : 21-3, 44 & 52. Grams : ALUMINIUM. Manufacturers of conductor grade Aluminium Rods, ACSR (Aluminium Conductor Steel Reinforced), All-Aluminium Conductors, Conductor Accessories and Tools, High Tensile Galvanised Steel Core Wire, Insulated Aluminium Cables for Outdoor Weather proof and indoor wiring applications as well as underground Power Transmission.

*Managing Agents :*

SESHASAYEE BROTHERS (Travancore) Pr. LTD.

---

**ALUMINIUM INDUSTRY**

**ALUMINIUM ALLOYS & CASTINGS PVT. LTD.,**

Udhna, Dist. : Surat.

Manufacturers of Aluminium Alloys, Aluminium Castings, Zinc Based Alloys and Zinc Based Alloy Castings, Door Fittings and Door Closers.

---

**ASBESTOS PRODUCTS**

**R. MOHANLAL & CO.,**

38, Bibijan Street, Bombay-3.

Phone : 324929. Grams : "HANDTAPS."

Speciality : All kinds of Asbestos Packings, Jointings, Leather & Rubber Beltings, Vulcanised Fibre Sheets and Allied Accessories.

---

**ASBESTOS CEMENT PRODUCTS**

**ROBSAN & CO. PRIVATE LTD.,**

Stockists & Agents of EVEREST Asbestos Cement Corrugated and Trafford Sheets, Plain Sheets, Pipes & Cutters ; P-14, Mission Row Extension, Calcutta-1.

Phone : 234555 & 237675.

Grams : "ANULATUKUS".

---

**ASBESTOS TEXTILES PACKINGS AND JOINTINGS**

Contact :

**HIRALAL GOKALDAS DALAL & CO.,**

45, Nagdevi Cross Lane, Bombay-3 BR.

Phone : 321594. Grams : "HIRAGOCUL."

Importers & Dealers of Mill gin Stores, Engineering Hardware Tools etc.

(Estd : 1910)

---

**AUTOMOBILE PARTS & ACCESSORIES**

**ASSOCIATED AUTO PARTS PVT. LTD.**

445, Lamington Road, BOMBAY 4 BR.

Distributors of G.M. Parts and Accessories, Hella Horns, Flashers and Head Lamps, Tex Wiper Arms and Blades, QHR Tie Rod Ends, Dunlop wheels, Banco Royal Gaskets, AN Brand Fancy Wheel Covers, ABC—STEYR Bearings, Diamond Timing chains etc.

Tel. Address : "CHEVPARTS." Phone : 22047

Phone : 121 (9 Lines) 122 (9 Lines), Grams : "AUTOSERVIS."

---

**AUTOMOBILE PARTS & ACCESSORIES**

**AUTO SERVICE LTD.,**

P.O. Box 39, Vasco Da Gama, Goa.

*Distributors for :* Hindustan Ambassador Cars, Bedford Trucks, Perkins Engines, Massey-Ferguson Tractors & Implements, Crompton Batteries.

---

**AUTOMOBILE PARTS & ACCESSORIES**

**KATARA MOTOR CO.,**

Modi Chambers, Bombay-4.

Phone : 72097. Grams : "KATARAMOTO."

Importers and Stockists of Spares for Perkins-T. M. Benz, Dodgekew Bedford-J-4, Austin, Fiat, Hillman, Hindustan Series etc.

---

**AUTOMOBILE PARTS & ACCESSORIES**

**Messrs. KHUBCHAND SAGARMAL,**

Hindustan Motors Dealers, Jalgaon.

Bedford Trucks & Ambassador Cars, Petrol, Motor Spare Parts, Tyres, Tubes etc.

---

**AUTOMOBILE PARTS & ACCESSORIES**

**UNITED ENGINEERING WORKS,**

Manufacturers of Cylinder Liners (Sleeves), Valve Guides, V. Seat Bars, P. O. Box No. 1023, Ramkumar Mills Compound, Saraspur, Ahmedabad-2.

Phone : 24032. Grams : "AUTOLINE".

# TRADE DIRECTORY FOR BUYERS

**AUTOMOBILE PARTS & ACCESSORIES**

**CHAMPION AUTO PARTS CO.,**

Avantikabai Gokale Road,
Bombay-4.

Phone : 30624. Grams : "CHAMPAUTO."

Importers & Stockists of Automobile Parts.

---

**AUTOMOBILE PARTS & ACCESSORIES**

**S. A. PATEL & CO.,**

Shahupuri—Kolhapur.

*Distributors :*

Cooper Engineering Ltd.,
Hindustan Electric Co. Ltd.,

*Authorised Stockists :*

Larsen & Toubro Ltd.

---

**AUTOMOBILE PARTS & ACCESSORIES**

**SAROSH MOTORS PRIVATE LTD.,**

Kings Road, Ahmednagar.

Dealers in Automobiles & Parts.

---

**AUTOMOBILE PARTS & ACCESSORIES**

**CHEAP MOTOR STORES,**

Stockists of Genuine 'FORD' Parts and other Automobile Accessories, Opera House Tram Terminus, Bombay-4.

Phone : 30675. Grams : "CHEAPMOTOR."

---

**AUTOMOBILE PARTS & ACCESSORIES**

**LA-PRENCA INDUSTRIES PVT. LTD.,**

III-A, Mahatma Gandhi Road, Bombay-1.

Manufacturers of Piston Assemblies for Automobiles, Tractors, Compressors and Industrial Engines ; Phone : 252067 (Office), 692457 (Factory).

---

**AUTOMOBILE PARTS & ACCESSORIES**

**ENGINE VALVES LTD.,**

Madras-16.

Manufacturers of TRANCO Valves for all Internal Combustion Engines in Technical Collaboration with FARNBOROUGH ENGINEERING CO. LTD., ENGLAND & ATE valves for Tata Mercedes Benz and Shakti MAN Vehicles.

Under Licence from :

ALFRED TEVES LG., WEST GERMANY.

Phone : 80197/80198.

---

**BALL & ROLLER BEARINGS**

**BALL BEARING & MACHINERY CORPORATION**

172-74, Nagdevi Street, Bombay-3.

Grams : "BUSYAR."

Stockists and Sole Agents of SEALMASTER, FEDERAL & SRO Swiss Bearings ; Also Stockists of Precision NORMA & NBC Bearings.

---

**BALL & ROLLER BEARINGS**

**FLEXICONS LIMITED,**

Udhna, Dist. Surat.

Manufacturers of Self-lubricating Bearings & Structural Parts both Ferrous & Non-Ferrous.

---

**BALL & ROLLER BEARINGS**

**SHETH STORES TRADING CO.,**

Specialists in Ball & Roller Bearings, Authorised Stockists in SKF, NBC NORMA BEARINGS.

238, Masjid Bunder Road, Bombay-3.

Phone : 322757. Grams : "TROLLEY."

---

**BALL & ROLLER BEARINGS**

**STEPHENS ADAMSONS MFG. CO.,**

(Sealmaster Ball Bearing Pillow Block Units) Aurora, Illinois, U.S.A. ; Sole Agents : Harchandrai Sons, 172/74, Nagdevi Street, Bombay-3.

Phone : 327377 & 326647

---

**BALL & ROLLER BEARINGS**

**BHARAT TRADING CO.**

71, Nagdevi Cross Lane,
BOMBAY 3.

Importers & Stockists of Industrial & Automobile Bearings.

PHONE : 323250 & 324338.

---

**BALL & ROLLER BEARINGS**

**PURUSHOTTAM SOMABHAI & CO.,**

36, Sarang Street, Post Box 3014, Bombay-3.

Grams : "FORESIGHT."

Importers and Stockists of wide Range, all brands of world renowned Ball and Roller Bearings for Automobiles, Textile & Paper Mills, Sugar Mills and all other Industries.

---

**BALL & ROLLER BEARINGS**

**ANIL BEARING STORES,**

163, Narayan Dhuru Street, Bombay 3.

*Authorised Stockists :* SKF & NBC Bearings, Ball & Taper Roller Bearings and Steel Balls.

Phone : 323552 ; Grams : "CHEAPSTORE."

---

**BALL & ROLLER BEARINGS**

**BOMBAY BALL BEARING SUPPLYING CO.,**

349/353, Samuel Street, Bombay-3.

Phone : 321151. Grams : "GOLABADAM." Stockists of all kinds of Ball & Roller Bearings.

---

**BALL & ROLLER BEARINGS**

**INTERNATIONAL BEARING CO.,**

61, Commercial Chambers, Masjid Bunder Road, Bombay 3 ; Importers and Stockists of all kinds of Ball, Roller, Taper Roller & Thurst Bearings.

Phone : 324712. Grams : "INTERDEAL."

---

**BALL & ROLLER BEARINGS**

**SHAH BROTHERS,**

524, Sandhurst Road, Bombay 4.

Phone : 72508.

Importers & Stockists of Tapered Ball & Roller Bearings.

---

**BALL-PEN INK MFRS.**

**PRIMSTO**

Ball Pen Ink in all colours.

89, Princess Street,
Bombay-2 (BR)

Phone : 39611.

---

**BOILER TUBES**
(with Test Certificate)

**M. J. PATEL & CO.**

177, Nagdevi Street, Bombay 3.

Stockists of Hydraulic Tubes, Steam Pipes, Boiler Tubes & Fittings.

Phone : 327931

---

**BOLTS, NUTS & SCREWS**

**FIT TIGHT NUTS & BOLTS LTD.,**

Old Ashram, Andheri-Kurla Road, Bombay 58. Phone : 573053, 573385, 6, 7. Grams : "FIT-TIGHT" ; Andheri. Manufacturers of Cold Forged High Tensile Precision Nuts, Bolts & Socket Head Cap Screws to B.S. DIN & SAE Specifications.

# TRADE DIRECTORY FOR BUYERS

**BOLTS, NUTS & SCREWS**

**FREE INDIA METAL PRODUCTS CO.,**

Manufacturers and Stockists of Bolts, Nuts, Rivets, Washers, General Hardware, Mill gin Stores and Commission Agents; 65–67, Bhajipala Lane, Bombay 3; Phone: 326924. Grams: "ROUNDBOLT."

---

**BOLTS, NUTS & SCREWS**

**MAHARASHTRA HARDWARE STORES,**

Stockists for G.K.W. Products, Bolts, Nuts, Screws, Washers, Rivets Sheet Metal Screws, Rose Nails, Wire Nails, Coast Screws, etc., 94, Sarang Street, Bombay 3.

Phone: 327991; Grams: "BOLTARAM."

---

**BOLTS, NUTS & SCREWS**

**MOHANLAL JAICHAND & CO.,**

100, Narayan Dhuru Street, Bombay-3.

Phone: 322380. Grams: "ATMARTHI."

Importers & Stockists of SAE, BSW, NC METRIC THREAD Bolts, Nuts, Rivets, Allen Cap, Grub Screws, Spring Washers, Coach Screws, Sheet Metal Screws etc.

---

**BOLTS, NUTS & SCREWS**

**S. MOHANLAL & CO.,**

Direct Importers and Manufacturers of all kinds of Bolts and Screws; Sole Selling Agents for India "SURELOCK" Steel Spring Washers; Tawawala Building, 34, Pathakwadi, Bombay 2, BR.

Phone: 30240/20915; Grams: "SOCKETREWS."

---

**BUILDERS HARDWARE**

**VERTEX MANUFACTURING CO. LTD.,**

222, Sir Mathuradas Vissanji Road, Andheri (East), Bombay-69; Phone: 572438; Manufacturers of Vertex Builders Hardware such as Brass hinges, Barrel Bolts, Mortice Locks, handles etc.

---

**BUILDING MATERIAL**

**J. N. RAJA & CO.,**

51, C. P. Tank Road, Bombay-4.

Dealers in Cement — Laddi — Tandur — Shahabad — Kotah — Glazed Tiles Sagol — Cement Sheets — bricks — Sand — Lime etc., Phone: 334429.

---

**CABLES & WIRES**

**PYROTENAX INDIA LTD.,**

Manufacturers of Pyrotenax Mineral Insulated Copper or Aluminium Covered Cables.

9, Wallace Street, Bombay-1.

Phone: 26-3031. Grams: "ALPYRO."

---

**CABLES & WIRES**

**ORIENTAL POWER CABLES LTD.,**

P. O. Cable Nagar, Dist. Kota (Rajasthan).

(In technical collaboration with Sumitomo Electric Industries Ltd., Japan); Manufacturers of Paper Insulated Power Cables upto 33 Kv Paper Insulated Cables for use in mines PVC Insulated, PVC Sheathed Cables; Can manufacture above cables to any specification. Bombay Office: Warden House, 3rd floor, Sir P. M. Road, Bombay 1.

---

**CARDBOARD BOX MFRS.**

**STANDARD PAPER BOX MFG. CO.,**

51, Mangaldas Road, Lohar Street, Bombay-2.

Phone: 20774. Grams: "ROSYTONE."

Factory at: Hanuman Lane, Gowallia Chawl Lane, Bombay.

Manufacturers of Cardboard and Corrugated Boxes.

---

**CASEIN**

**CREAM, BUTTER, GHEE**

**WESTERN CREAMERIES**

Nadiad (Gujarat State).

---

**CASEIN MFRS.**

**THE CHAMPION DAIRY CO.**

(Estd: 1903)
New Petit Mansion,
Sleater Road, Grant Road,
Bombay 7.

Phone: 73383. Grams: "CREAM".

Manufacturers of Superfine and Other Varieties of Lactic Casein.

---

**CASEIN AND DAIRY PRODUCTS**

**DOSHI BROTHERS**

P. O. Box 11, Anand
(Gujarat).

*Products:* Lactic Casein, Tinned Butter, Ghee, Dairy Appliances.

---

**CASTINGS**

**SURESH ENGINEERING CO. PVT. LTD.,**

414-B, Walbat Road, Goregaon East, Bombay 62;

Phone: 692832.

Manufacturers of Grey Iron Castings to I.S.I. grades upto 3 tonnes individual casting.

---

**CASTINGS**

Pressure-Tight castings of Gun Metal, Bronze, aluminium, completely machined at very competitive.

*Contact:*

**INDUSTRIAL CASTING CO.,**

Asha-Usha Mills Estate, Vikroli, Bombay-79.
Phone: 581741, 251493.

---

**CASTINGS**

Castings in Grey Cast Iron for Grey Iron Castings Suitable for all industries in various qualities and tensile strength.

*Consult:*

**MURLIMAL SHRIKISHANDAS & CO. (INDIA) PVT. LTD.,**

New Iron Market, Carnac Bunder, Bombay 9.

Factory: Agra Road, Bhandup.
Phone: 325148 (Office), 581933 (Factory).

---

**CEMENT**

**SNOWCEM INDIA LTD.,**

The House of Cement Specialities. Makers of: SNOWCEM Decorative Waterproof Cement Coating.

IMPERMO Cement Waterproofing Compound.
COLORCRETE Coloured Portland Cement.
HARDCRETE Concrete Waterproofing & Hardening Liquid.

SURFACIT Concrete Surface Hardening Liquid.

Office: 31, Murzban Road, Chandivali, Bombay 70; Phone: 581860 & 581538.

---

**CHEMICALS**

For

Your requirements in Chemicals, Solvents

&

Intermediates

*Please Contact:*

**SHANTILAL DHARMSHI**

349/53, Samuel Street, Bombay-3.

Phone: 323058, 325763. Grams: 'SANTITOLIA', Bombay-3.

# TRADE DIRECTORY FOR BUYERS

CHEMICALS

**HENRY S. CLARK & CO.,**

Manufacturers of Bismuth & Iron Salts, Citrates, Fine Chemicals & Drugs; P-33, Mission Row Extension, Calcutta-13.

Phone : 235888. Grams : "BRITARKE".

---

CHEMICALS

**MODERN CHEMICAL WORKS**

22, Janki Nivas, N. C. Kelkar Road, Bombay-28.

Phone : 60454. Grams : "LYCINE".

Manufacturers of Industrial Oils, Soaps, Surface active Agents and a few other organic chemicals.

---

CHEMICALS

**MENTHOL B. P. INDIAN**

Manufactured by :
BHAVANA CHEMICALS LTD.,
Baroda-2.
Distributors :
GOPALJEE & CO.,
218, Samuel Street, Vadgadi, Bombay-3.
Phone : Office : 323421, 324206. Res. : 473346.
Grams : "HINGMAKER."

---

CHEMICALS

**SODIUM CYANIDE**

Industrial Solvents.
Ex-stock.

INTERNATIONAL IMPORT EXPORT CO.,
35, Indu Chambers, 5th Floor, 349/53, Samuel Street, Vadgadi, Bombay-3.
Phone : 329382. Grams : "SUKETU."

---

CHEMICALS & SIZING MATERIALS

**KIRTIKUMAR & CO.**

(Established 1948)

80, Bhandari Street, Mandvi, Bombay 3.
Direct Importers & Stockists of Industrial Chemicals.

Phone : 321583.
'Grams : " LALITKIRTI. "

---

CHEMICAL ENGINEERS

**ARGUS COMMERCIAL CORPORATION,**

113, Commerce House, 140, Medows St., Bombay-1.

Specialists in Designing, Fabrication and Erection of Chemical & Pharmaceutical Plant and Equipments.

---

CHEMICAL ENGINEERING EQUIPMENTS

Phone : 8389 ; Grams : "SARAYANTRA."

**SARABHAI MACHINERY**

(Karamchand Premchand Pr. Ltd.)
Post Box No. 72, Baroda.

Manufacturers of equipment for Chemical Industry, *e.g.*, Reaction Kettles, Vacuum Dryers, Forced Draught Dryers, Sterilizers, Blenders, Fractionating Columns, Germinators and other custom-built equipments in Stainless Steel, Mild Steel, Copper, Aluminium, Monel and Hastelloy.

---

CIRCLIPS

**FAIRFIELD MANUFACTURING CO.,**

Hanuman Bldg., 4th Floor, Tambakanta, Pydhonie, Bombay-3 (BR).

Phones : 324323 & 323758.
Grams : "MASRANICOY."

Manufacturers of Spring Washers, Shakeproof Washers, Circlips and Precision Strip Forms ; Factory at : Masrani Estate, Halav Bridge, Kurla, Bombay-70 (AS).

---

COCKS & VALVES

**ABDUL SAMAD ABDUL KADAR & SONS,**

1839, Panchpatti, Kalupur, Ahmedabad 1.
Phone :24543 ; Grams : "FOOTVALVE".
Manufacturers of Gun-metal and Cast Iron Valves & Cocks for water, Steam, Oil, Chemicals & Boiler Mountings, Pipe Fittings, Sanitary Fittings, Fire Fighting Appliances, Hose Fittings, Agricultural implements and Textile Machinery Spares.

---

COLOUR & CHEMICALS

COLORCEM : Waterproof Cement Paint.
WETSEAL : Waterproofing Compound.
FASTONATE : Floor Hardener.
SUPERSET : Liquid Rapid Hardener & Waterproofing.

**JAYANT COLOR & CHEMICAL INDUSTRIES**

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Phone : 331607 & 333266.
Grams : "FASTONATE".

Also Arterete, Jayrock, Jaycor.

---

CONDIMENTS & SPICES

**MERWANJEE POONJIAJEE & SONS PRIVATE LTD.**

Poonjiajee Building,
Prince's Dock, Frere Road, BOMBAY 9.
Phone : 332933 'Grams : " CHUTNEY "
Manufacturers & Exporters of " Sun Brand " Chutneys, Pickles, Curry Powder and other Indian Condiments ; Also Manufacturers of 'Knigh' Jelly Crystals, Custard Powder, Corn Flour, Toilet Papers etc.

---

CONDUIT PIPES & ACCESSORIES

**NATIONAL CONDUITS**

Manufacturers and Suppliers of High Grade Conduit Pipes and Accessories.

138, Canning Street, Post Box No. 851, Calcutta-1.

Factory : Regent Grove, Tollygunge, Calcutta-40.

Phone : 221049, 229711/12, 227966 (Office). 467437 (Factory).

---

CONFECTIONERY MFRS.

**SATHE BISCUIT & CHOCOLATE CO. LTD.,**

**POONA-2**

Manufacturers of

Chocolate & Biscuits

---

CONVEYOR BELTS MFRS.

**R. D. ASHER (Engineering Division),**

10, Bruce Street, Bombay-1.

Phone : 255777 & 531959;

Grams : "ITINERANT";

Manufacturers of EUREKA Steel Processing Conveyor Belts.

---

CURIOS MFRS.

**IVORY HOUSE,**

1/1398, Kumarapuram, Trivandrum, XI.

Manufacturers and Exporters of Ivory, Rosewood & Horn Curios, Statuettes, Lucky Beans & Quality Articles.

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CYCLES & CYCLE ACCESSORIES

*Visit or write*

**GUPTA CYCLE COMPANY**

172, Princess Street,
BOMBAY No. 2 BR.

Manufacturers' accredited Dealers for India Hercules, Philips, B.S.A., Raleigh, Humber, Robinhood, Atlas, Eastern Star Cycles and Dunlop Goodyear, National Rubber Tyres & Tubes.

**and also Leading Export House in**

CYCLES & CYCLE PARTS

well represented in Middle East, South East Asia and East and West Africa.

'Phone : 38588. 'Grams : "GUPTACYCLE."

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DIES & JIGS

Combination Dies to Maximum Accuracy. Undertake Fabrication of Metal Parts and Machines to Drawing.

**KIV GROUP INDUSTRIES**

Sun Mill Compound
Lower Parel, Bombay-13.

# TRADE DIRECTORY FOR BUYERS

DIESEL ENGINES

## KIRLOSKAR OIL ENGINES LTD.,

Office & Factory : Elphinstone Road, Kirkee, Poona-3.

Phone : 57346, 57347 & 57348.

Grams : "KOEL"—Poona.

Manufacturers of High Speed Diesel Engines and Thinwalled Bearings.

---

DIESEL ENGINES

## DIGVIJAY AUTO INDUSTRIES,

Manufacturers of Individually Cast GEM Piston Rings for Diesel Oil Engines ; 61, Mohamed Ali Road, (1st Floor), Bombay-3 ; Phone : 324366. Factory : Near Khoga Gate, Jamnagar (Gujrat).

---

DIESEL ENGINES

## RATHI & SONS,

Kamptee Road, Nagpur.

Authorised Distributors for : Indian Diesel Engines, Kirloskar Electric Motors, LT-LK Starters & Switchgears Pumps & Pumpsets etc.

---

DRAWING OFFICE EQUIPMENT

Artists' Materials, Surveying and Mathematical Instruments

## ALLIED DRAWING STORES

Govt. Contractors & Suppliers,

29, Hornby Road, Bombay 1.

Phone : 261403. Grams : "ARTCORNER."

---

DRAWING OFFICE EQUIPMENT

## DRAWING OFFICE EQUIPMENT CO.

Dealers in Drawing & Artists' Materials, Survey & Mathematical Instruments.

Himalaya House,
79-C, Palton Road,
Bombay 1.

Phone : 261403.

---

DRUMS MANUFACTURERS

## K. T. KUBAL & CO. PRIVATE LTD.

(Estd. 1926)

40, Foras Road, Bombay 8.

Phone : 41179.

Manufacturers of Electrical Welded Drums and Containers ; Manufacturers and Exporters of famous "KUBAL" Masala Curry Powder.

---

DUPLICATORS

Ewaat

## APEX ENTERPRISES

Manufacturers of "EWAAT" Duplicating Machines.

17, 5th Floor, Mohatta Market, Palton Road, Bombay-1.

Phone : 266314. Grams : "APEXRISES."

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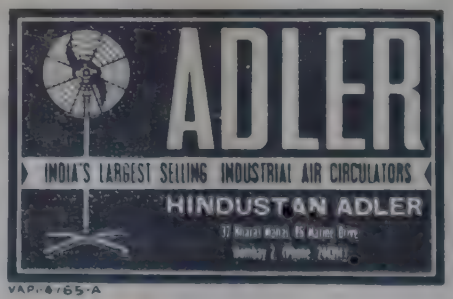
ELECTRIC FANS

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ELECTRIC CONTROL PANELS

## RASIKLAL NIHALCHAND,

9, Dr. Velkar (Kolbhat) Street, Bombay-2 (BR).

Phone : 39331.

Manufacturers of Electric Control Panels, Process Control Cubicals.

---

ELECTRIC FANS

## CALCUTTA FAN WORKS PVT. LTD.,

Manufacturers of all types of Domestic & Industrial Fans.

30, Chowringhee Road, Calcutta-16.

Phone : 237552 & 237553.

Grams : "KALKATAFAN".

---

ELECTRIC MOTORS MFRS.

## BBC ELECTRIC MOTORS

From ½ to 10 H. P.

Single and Three Phase.

Manufacturers :

## BHANGAR BROS. & CO. PVT. LTD.

Jogeshwari, Bombay-60.

Phone : 571938.

---

ELECTRIC MOTORS MFRS.

## OGALE GLASS WORKS LTD.,

P. O. Ogalevadi, Dist. Satara, Maharashtra State.

Phone : Karad 238. Grams : "GLASWORKS" Ogalevadi.

Manufacturers of Glassware, Lanterns, Stoves, Enamelware, Electric Induction Motors.

---

ELECTRIC SWITCHGEARS MFRS.

## KIRON TEXTILE INDUSTRIES,

Yusuf Bldg., Mahatma Gandhi Road, Bombay-1.

Phone : 253224. Grams : "YANTRAYUG."

Manufacturers of L.T. & H.T. Electrical Switch and Controlgears, Switchboard Panels, Circuit Breakers, H.T. Gang operated Airbreak Switches, Dropont Fuses, etc.

---

ELECTRIC SWITCHGEARS MFRS.

## VERTEX MANUFACTURING CO. LTD.,

222, Sir Mathuradas Vissanji Road, Andheri (East), Bombay-69.

Phone : 572438.

Manufacturers of "Sentinel" Metal Clad Switch & Fusegear such as Switch-Fuses, Isolators, Changeover Switches and Distribution Fuseboards.

---

ELECTRIC TRANSFORMERS

## WESTERN ENG. & MFG. WORKS

Near Gandhi Baug,
Dhrangadhra (Gujarat).

Phone : 140. Grams : "GODSPEED".

Manufacturers of all types of Electrical Power Transformers.

---

ELECTRICAL ACCESSORIES MFRS.

## TWILIGHT PRODUCTS

Manufacturers of well-known 'TRISHUL' Brand Household and Industrial Switches 139-G, Ghod Bunder Road, Agarwal Industrial Estate, Jogeshwari, Bombay 60.

Phone : 573001 ; Grams : "TRISHUL."

# TRADE DIRECTORY FOR BUYERS

**ELECTRICAL ACCESSORIES & MOTORS**

**POPULAR ELECTRIC STORES**
(Estd. 1933)
414, Hararwala Building,
Corner of Golpitha, BOMBAY 4.
Wholesale and Retail dealers in everything Electrical. Stockists of Electrical Motors and Dynamos.
Phone No. 332359.

---

**ELECTRICAL ENGINEERS**

**ASMOPAL ENGINEERING CO.,**

Sunder Mahal, 141, Marine Drive, Bombay-1. Engineers & Manufacturers; Specialists in Electrical Rewinding, Meters/Instruments repairs, manufacture of Electric Motors; Testing of Bondon gauges, Pressure Vessels and lifting Tackles under the Factories Act.

Phone : 242848, Ext. : 2 ;

Grams : "RAJVALUER".

Factory : C/16-17, Shri Ram Industrial Estate, Wadala, Bombay-31.

---

**ELECTRICAL EQUIPMENT**

**LAXMI ELECTRIC TRADING CO.**
(Estd. 1930)
Stockists of everything Electrical including Fans, Marlex Appliances such as Musical Bells, Gong Bells, Sirens etc., Also Refrigerators.
SALES & SERVICE
21-23, Lohar Chawl, P.O. Box No. 2494
Bombay 2.
Phone : 29048 Grams : "LAXELAC."

---

**ELECTRICAL GOODS**

Phone : 264883. Grams : "BETWITCH."

**RAVIN TRADING CO.,**
5, Mohatta Market, Palton Road, Bombay 1.
Dealers in Everything Electrical, Specialists in H.T. & L.T. Underground Cables, H.T. & L.T. Insulators, Tropodur, Wires, Switches & Motor Control Gears.
Branch : Mody Chambers, Deharmendra Road, Rajkot.

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**ELECTRICAL GOODS**

**ALLIANCE ELECTRIC MART**
Importers & Exporters
67, Lohar Chawl, Bombay 2.
Dealers in Wires & Cables, Electrical Switchgear, Accessories, Fans, Fluorescent & Lighting Fittings.
Phone : 39229.

---

**ELECTRICAL GOODS**

**AMERICAN ELECTRIC & ENGINEERING CO.**
Electrical Engineers, Importers, Stockists & Contractors
11-12, "Himalaya House", Hornby & Palton Roads,
BOMBAY-1
Phone : 263575. Grams : "AMERICTRIC."

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**ELECTRICAL GOODS**

**COSMIC TRADERS**
Yusuf Bldg., Veer Nariman Road,
Bombay-1.
Phone : 253224. Grams : "YANTRAYUG."
Importers & Stockists of L.T. Oil Circuit Breakers, Switchgears, Oil immersed on Air Break, Direct on Line Starters, Reversers, Star Delta Starters, Limit Switches, Underground Cables, Wires etc.

---

**ELECTRICAL GOODS**

For Electrical Test Equipment.

**N. J. ELECTRONICS**

65, Ashok Chambers, Broach Street,
Bombay 9.
Phone : 328509.

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**ELECTRICAL GOODS**

**B. B. ELECTRIC & AUTO STORES**
98, Princess Street, Bombay 2.
'GRAMS : "BIBIELECT". Phone : 30795.
Direct Importers of all types of Electrical Goods, Winding Wires & Insulating Materials.
*Show Room :*
Peerbhoy Building, Pathak Wadi, Lohar Chawl.
*Trade inquiries invited.*

---

**ELECTRICAL GOODS**

**AETCO**

**ASIATIC ELECTRIC TRADING COMPANY**
46-48, Lohar Chawl, Bombay 2.
Phone : 29886. Tel. Add. : "ASIALIGHT"
Specialised Suppliers & Service Engineers for all types of Heating & Cooking Equipments; Stockists of Wires & Cables, Switchgear Material. All types of Fans, Air Circulators & Exhaust Fans, Labour Saving & Kitchen Aid Appliances, Lighting Equipment etc., etc.

---

**ELECTRICAL GOODS**

**BIPINKUMAR ELECTRIC CORPN.**
Direct Importers of Everything Electrical.
*Sole Selling Agents for*
TROPEX CABLES V.I.R., C.T.S. & W/P.
PHILCO Resin Cord Solder Wires
Post Box No. 2308.
14, Tavawala Building, Lohar Chawl,
Bombay 2.
Grams: "BIPINDEV." Phone: 30684 & 22185.

---

**ELECTRICAL GOODS**
Specialists in Pipes, Fittings, Wires & Switchgears.
Stockists of Everything Electrical.
Distributors for
"C.T.L." Conduit Pipes, Dahisar.
**CHANDRODAYA ELECTRIC CO.**
Bhangwadi, Kalbadevi Road,
Bombay 2.
Phone : 22579. Grams : "TRICYCLE."

---

**ELECTRICAL GOODS**
"NSDA" Switchgears, Cables & Instruments.
**NATIONAL SUPPLY & DISTRIBUTING AGENCY**
Jay Mahal, 20-48, Lohar Chawl,
Bombay 2.
Manufacturers and Government Suppliers for Electrical Switchgears, Meters & Switchboards.
Phone : 39274. Grams : "ELECTLAMPS".

---

**ELECTRICAL GOODS**

**RAICHAND & SONS**
5, Picket Cross Road.
BOMBAY 2.
Direct Importers of Electrical Goods.
Phone : 23838. GRAMS : "PARAMITE."

---

**ELECTRICAL GOODS**

**BENGAL LAMP**
*for*
BETTER LIGHT WITH LONGER LIFE

★

**BELREX FAN**
*for*
BETTER BREEZE AT LESSER CONSUMPTION

★

**"UKA" ACCESSORIES**
SUCH AS SWITCH, PLUG HOLDER, CEILING ROSE ETC.
*for*
SUPERIOR QUALITY—BETTER WORKMANSHIP

★

SOLE DISTRIBUTORS :
**U. K. AGENCIES**
2/16 Western India House, Sir Pherozeshah Mehta Road, Bombay 1.
Phone : 253195. Grams : "BEBELT."

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**ELECTRICAL GOODS**

**INTERNATIONAL ELECTRIC TRADING CO.**
63, Princess Street, 1st floor, BOMBAY 2.
Direct Importers & Distributors of M.E.M. I.C. Switches, Fuse Units & Motor Control Gears, Conduit Pipes & Conduit Accessories, Fans, Meters, Wires & Cables, Fluorescent Tubes and its Accessories, Electric Lamps and accessories and Copper Wire. Phone : (Office) 20613, Res. : 472289 ; Grams : "INTERLITE", Bombay-2 BR.

# TRADE DIRECTORY FOR BUYERS

**ELECTRICAL GOODS**

**RAVAL & CO.**

Shreeji Bhuvan, Lohar Chawl, Bombay 2.
Phone : 23720. Grams : "GODSPEED".
Branch at 12-B, Lower Chitpur Road, Calcutta. Phone : 345651.

Stockists of :

I.C.C. & C.C.I. Wires, Trailing Flexibles, Piledsta Power & PVC. Tropodur Control Cables and Transformers.

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**ELECTRICAL GOODS**

**B. MANIAR & CO.,**

Mani Bhuvan, 2nd Floor, 9, Pathakwadi, Lohar Chawl, Bombay-2.

Stockists of TROPODUR P.V.C. Insulated Cables for Power & Control, Wires of all Sizes, Trailing Flexible Cables and imported D.Z. & T.D.Z. Cartridge Fuse Units.

Phone : 20802. Grams : "CARTFUSE."

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**ELECTRICAL GOODS**

**S. K. & COMPANY**

Gopal Nivas, 133, Princess Street, BOMBAY 2.

Phone : 30026.

**Dealers in everything Electrical.**

**Stockists of Fluorescent Lamps and other Accessories.**

---

**ELECTRICAL GOODS**

Factories & Contractors

for

Wires, Switchgear, Accessories & Other Electrical Materials.

Please Contact :

**EXPRESS TRADING CO.,**

Sai Bhuvan, 141, Princess St., Bombay-2.

Phone : 22152.

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**ELECTRICAL GOODS**

**SHREE MAHAVIR ELECTRIC TRADING CO.**

182, Zaveri Bazar, Bombay 2.

**Direct Importers, Exporters and Stockists of all types of Electric Accessories, Autowires, Nichromewires, Lamps, Insulating Materials. Distributors for "SMICO" Electrical Gas Lighters.**

**Phone : 38722. Grams : "DIPOTSAVI."**

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**ELECTRICAL GOODS**

Reliable House for Electrical Requisites.

Manufacturers of "SUNRISE" Switchgears —Fans—Lamps—Meters, etc., etc.

**ZENITH ELECTRIC STORES**

51, Lohar Chawl,
BOMBAY 2.

Phone : 23125. Grams : "ALLANABANDA."

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**ELECTRICAL GOODS & ACCESSORIES**

**JASHVANT C. SHAH & CO.**

Navroz Baug, Navrozi Lane, Ghatkopar,

Bombay-77.

India's Foremost Indenting House

(For Details Please See Com. Firms Section)

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**ELECTRICAL GOODS & ACCESSORIES**

**V. N. BOLINJKAR & SONS.**

Nimmco Bldg., Industrial Estate, Lalbaug, Bombay-12.

Specialise in Electrical Stampings & accessories, Press Tools, Industrial Holloware of Small Size, Sheet Metal fabrication.

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**ELECTRICALS & MACHINERY**

Everything in Electrical goods, Heavy & light machinery tools & Hardware, Refrigeration, Road making equipments, Plants, Machinery, Workshop machinery, Wood working machinery etc.

Distributors & Dealers (M. P. Area), AEI India Pvt. Ltd., Calcutta.
Steel & Allied Products, Calcutta.
Belrex India Ltd., Calcutta.
A. C. Milter & Co., Calcutta.
East Asiatic Co. India Pvt. Ltd., (Bombay Machinery).

**AGRICULTURAL & INDUSTRIAL CORPN.,**

17, Maharani Road, opp. Central Kotwali, Indore-2. Phone : 6652. Grams : "CROWN".

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**ELECTRICALS & MACHINERY**

*Stockists of* Fractional Squirrel Cage & Slip-ring Electric Motors from ½ to 130 H.P. Starters, Exhaust Fans, Sewing Machines, Motors, Switchgears and Distribution boards. *Sole Agents for* "MARLEX" Electric Appliances.

**VEEJAY'S TRADING CORPORATION**

Ahmed Bldg., Lohar Chawl, Bombay 2.

Phone : 39637 Grams : "LAXELEC."

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**ELEVATING TRUCKS**

**NEWORKS PRIVATE LTD.,**

F-28/29, Industrial Estate, Naini, Allahabad, India.

Manufacturers of Jacks, Pipe Bending Machines, Trolleys, Elevating Trucks etc.

---

**ENAMEL SIGNBOARDS**

Advertisement Signboards, Name Plates, Notice Boards, Canal Gauges, Caution Boards, House Numbering Plates, etc.

**THE POINEER ENAMELLING WORKS**

24, Lakshmi Building,
Sir P. M. Road, Bombay 1.

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**ENGINEERS & CONTRACTORS**

**JASH ENGINEERING INDUSTRIES**

(Formerly National Engineering Works), Industrial Estate, Pologround, Indore-3, M.P.; Manufacturers of Machine Tools, Surface Plates, Straight Edges, Inspection and Marking Tables, C.I. & M.S. Bed Plates, Work Holding Tables, Assembly Tables, Sluice Gates for Irrigation, Sewage & Water Treatment Plants etc. Specific Job Orders involving Heavy Castings, Fabrication, Stress & relieving Machining, Repairs etc. Undertaken. Installed Capacity to manufacture the largest Cast Iron in the Country.

**LARGE ACCURATE FLAT SURFACE OUR BUSINESS**

Phone : 5681 & 6958. Grams : "NATIONAL"

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**ENGRAVERS & DIE-SINKERS**

Phone : 8389 ; Grams : "SARAYANTRA."

**SARABHAI MACHINERY**

(Karamchand Premchand Pr. Ltd.)
Post Box No. 72, Baroda.

**Manufacturers of intricate moulds of special nature and high precision machined parts to customers' requirements.**

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**FILTERS**

**CRYSTAL FILTER CO.,**

Manufacturers of Water Purification, Treatment and Sterilization Equipment suitable to meet various requirements.

33/1/1, Nataban Paul Road, Howrah, West Bengal.

Phone : 662420.

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**FIRE EXTINGUISHERS & APPLIANCES**

**MINIMAX LTD.,**

Mercantile Buildings, Lall Bazar Street, Calcutta-1.

Phone : 223675 & 223676.

# TRADE DIRECTORY FOR BUYERS

FIRE PROTECTION ENGINEERS

**INDUSTRIAL COMMERCIAL CORPN.,**

157-59, Narayan Dhuru Street, Bombay-3.
Phone : 321937.

Manufacturers of Terylene, Flax Plain, Rubber-lined Fire Hose Pipes with full Range of Fire Fighting Equipments.

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FIRE WORKS MFRS.

**DADA FIRE WORKS PRIVATE LTD.,**

(Inc. 1953)
H.O. 240/42, Juma Masjid, Bombay-2.
Phone : 325662.
Grams : "DADASPARKS (KB)."

Manufacturers and Exporters of "Dada" Sparklers & Crackers ; Factory : Dadanagar, Fursungi, Taluka Haveli, Dist. Poona.

---

FLASHLIGHTS

## GEEP FLASHLIGHT INDUSTRIES LTD.,

28, South Road, Allahabad-1.

Manufacturers 'GEEP', 'JANTA' & 'ALFA' flashlights for doctors, travellers, hunters and householders made of High quality brass & Aluminium Case and in different sizes and colours.

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FOLDING CHAIRS & TABLES

**CROMELITE (INDIA) PRIVATE LTD.,**

Manufacturers of Steel Folding Furniture, P-35, India Exchange Place, Calcutta-1.
Phone : 227601 (3 Lines) Office : 663561 & 662330 (Works). Grams : "ASHOKKILA", Calcutta.

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FOUNDRY EQUIPMENTS

## KULKARNI FOUNDRIES PVT. LTD.,

Hadapsar Industrial Estate, Poona-13.

Phone : 24737. Grams : "FOUNDERS", Poona.

Manufacturers of High Duty and Alloyed Cast Iron Castings and Full Range of "Pneumac". Foundry Equipment including fully mechanised Oil Fired-Rotary Fernaces for both Ferrous and Non-ferrous Metals.

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FOUNTAIN PENS

**GEM & CO.**

Pen Specialists
325-326, Netaji Bose Road, Madras 1.

Direct Importers
Wholesale & Retail
Sales and Service

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FURNITURE

**MINERVA FURNITURE WORKS**

Furnishers and Interior Decorators, Painting Contractors, Dealers in Electric Fittings, Venetian Blinds, Iron Grills and Shutters, Complete Home & Office Furnishing — Authorised Dealers in Dunlopillo Cushions, Salva Mattresses, and Azok Folding Chairs — Also Furniture on Hire.
67-71, Queen's Road, Opp. Marine Lines Station, Bombay 2. Phone : 29708.

---

GEARS

## POPULAR INDUSTRIES

Phone : 592136.

A-40, Wagle Industrial Estate, Road No. 11, Thana, Bombay.

Manufacturers of Gears, Spur, Helical & Chain Sprocket to Customers' Specifications and Gears for Automobile Oil Pumps, Timing, Camshaft, Crankshaft etc.

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GEARS

## NAPCO BEVEL GEAR OF INDIA LTD.,

3, Friends Colony, New Delhi-14 ;

INDIA'S LARGEST NON-CAPTIVE GEAR PLANT.

Manufacturers of a Complete line of Precision and quality Gears for Automobiles. Aircrafts, Tractors, Earthmoving Equipment and Industrial applications in Collaboration with Napco Industries Inc. U.S.A.

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GHEE & BUTTER MFRS.

**KEVENTER(S) PVT. LTD., EDWARD,**

100% Keventer's Pure Ghee & Pasteurised Butter, Tops in quality and Freshness ; Sardar Patel Road, New Delhi.
Regd. Office : 10, Darya Ganj, Delhi-6.
Phone : 271506.
Dairy : Sardar Patel Road, Delhi-11.
Phone : 35451.
Manager : D. K. Jain.

---

GLASS

**PRAKASH MIRROR CO.,**

463, Tardeo Road, Bombay-34.

Phone : 77958. Grams : "BAAZ MIRROR".

Makers of Decorative Glass and Mirrors in modern designs.

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GLASS

Phone : 8389. Grams : "SARAYANTRA."

**SARABHAI MACHINERY**

(Karanchand Premchand Pr. Ltd.)
Post Box No. 72, Baroda.

Manufacturers of intricate moulds of special nature.

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GLASS TABLEWARE, ENAMELWARE, LAMPWARE & CROCKERY

**S. R. DOSSA & CO.**

106, Sheriff Devji Street, Bombay 3.

Importers, Retailers and Distributors in High Class Indian Crockery Glassware, Lampware, Enamelledware, Cutlery, Domestic Hardware, etc.
Phone : Office : 321548. Res. : 245491.
Grams : "GLASSWOOL."

---

GLASSWARE MFRS.

**OGALE GLASS WORKS LTD.,**

P. O. Ogalevadi, Dist. Satara, Maharashtra State.

Phone : Karad 238.
Grams : "GLASWORKS" Ogalevadi.

Manufacturers of Glassware, Lanterns, Stoves, Enamelware, Electric Induction Motors.

---

GLASSWARE MANUFACTURERS

**UNITED GLASS WORKS Private LTD.**

Manufacturers of Bottles and Glassware.
111, Bhandari-Chakla Street, Bombay 3 (BR.).
*Factory :*—326, Bail Bazar, Old Kurla, Bombay 70 (AS.). Phone : 51459.

Phone : 322381-3. Grams : "GLASSBOTS"

---

GLASSWARE MANUFACTURERS

**ALL INDIA GLASS WORKS PRIVATE LTD.**

Manufacturers of all kinds of Bottles and Glassware.
111, Bhandari Street, BOMBAY 3 (BR.)
Factory : 326, Bail Bazar, Old Kurla, Bombay 70 (AS.) Phone : 55122.
Phone : 322381-3. Grams : "WHEELBRAND."

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GLOVES

Available from Ready Stock

**INDUSTRIAL RUBBER GLOVES**

Acid & Alkali Proof from Colloid Dipping Tank

*Manufacturers :*

**S. THAKOR & CO.**

Khadia, Char Rasta, Ahmedabad-1

# TRADE DIRECTORY FOR BUYERS

**GREETING CARDS**

**SHABBAR TRADING CORPORATION**

212, Abdul Rehman Street,
Bombay 3.

Manufacturers of X'mas, New Year, Divali, Idd, Sankrant, Papeti, Birthday and Wedding Invitation Cards.

Phone: 321893.
Grams: "GREETCARDS"

---

**GREETING CARDS**

**LUCKY TRADING CORPORATION,**

272, Abdul Rehman Street, Bombay 3.

Manufacturers of Greeting Cards for Divali, X-mas, New Year, Idd, Birthday and Wedding Cards in New various attractive designs.

Phone: 327760.

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**GREETING CARDS**

**TAJ PRINTING WORKS,**

46/A, Cawasji Patel Street, Fort, Bombay-1.
Phone: 252432.

Commercial and Art Printers, Manufacturers of Invitation Cards, Greeting Cards and Calendars.

---

**HARDWARE, TOOLS & FILES MERCHANTS**

**ABDULLABHAI FAIZULLABHAI PRIVATE LTD.**

60/62, KHOKA BAZAR, BOMBAY-3
Phone: 326708 Grams: "SMILING"

---

**INCANDESCENT LANTERNS, MANTLES & STOVES**

**RASIKLAL & CO.,**

Peerbhoy Bldg., 89, Princess Street, Bombay 2.
Sole Agents for "Cock" Leader brand Lanterns, Stoves, Mantles, Blow lamps and Parts.

Phone: 22182. Grams: "COCKLITE."

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**JACKS**

**NEWORKS PVT. LTD.**

F-28/29, Industrial Estate, Naini, Allahabad (India).

Manufacturers of Jacks, Pipes Bending Machines, Trolleys, Elevating Truck etc.

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**LABORATORY & SCIENTIFIC EQUIPMENTS**

For Research and Pharmaceutical Laboratories

**PL**
**VACUUM OVENS**

*Manufacturers:*

**PHARMALAB INDUSTRIES,**

Star Metal Compound, Vikhroli, Bombay 83.
Phone: 581327.

---

**LEAD MFRS.**

**UNIVERSAL METAL REFINERY CO.**

Churi Wadi, Goregaon (East), Bombay-62.

Phone: 691369. Grams: "UNIVERSAL".
Manufacturers of Lead Slabs, Antimonial Lead, Lead Grids also Plastic Vent Plugs and Lead Washers.

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**LUBRICATING OILS & GREASES**

**MOTOR & GENERAL STORES SUPPLYING CO.,**

Kothari Mansion, Opp. G.P.O., Bombay-1.
Phone: 263902. Grams: "ARMSLUBOIL".
Importers of Lubricating Oils-greases-Petroleum Jellies and all other Petroleum Products.

---

**MACHINE TOOLS**

**PERFECT MACHINE TOOLS CO.**

Bell Building, Sir P. M. Road, Bombay-1.

Phone: 252211-12.

A perfect Tool for every Engineering Trade.

PMT

* Machine Tools.
* Wood working Machinery.
* Industrial Plants.

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**MACHINERY MFRS.**

**SINGHASINI ENGINEERING WORKS.**

84/25, Factory Area, Kanpur.

Manufacturers of Well Designed Plants and Machinery viz. JAW CRUSHER, DISINTEGRATOR PULVERISER for crushing, coarse grinding and pulverising to finess.

For Particulars please Contact.

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**MACHINERY MFRS.**

**MYSORE MACHINERY MFRS. LTD.**

5th Mile Mysore Road, Bangalore-2.

Phone: 2332. Grams: "MYMACHAN".

Manufacturers of Textile Machinery, Agricultural Implements, Steel Structurers etc.

---

**MARBLE & TILES**

**ACME TILES MFG. CO.**

(Estd. 1939).

Manufacturers of Marble, Mosaic, Terrazzo, Plain & Non-slippery Cement Tiles.

*Office:* 494, Duncan Road, BOMBAY 4.
*Factory:* 85, Mori Road, Mahim, BOMBAY 16.
Factory: 65610. Phone: 333387.
Grams: "EKMITILE."

---

**MAGNETIC SEPARATORS**

Drum, Pulley, Overband Type Suspension, Chute, Prong Type

**ELECTROMAGNETIC BRAKES**

Vibrating Feeders

Electric Impact Vibrators

**AC/DC SOLENOIDS**

Drum Controllers & Resistances

Contact Manufacturers

**MAGNETO ELECTRICALS**

Second Floor, Sorab House, Dahanukar Estate, Tulsipipe Road, Dadar,

Bombay 28.

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**MARBLE, TILES & SANITARYWARE**

**C. BHOGILAL & CO.**

(Estd. 1914)

Also Bath-tubs, Fittings, Water Heaters, Stoneware Pipes, Cement Waterproofers, Concrete Hardeners, Acid & Alkali Resisting Cements.
Accredited Stockists:
Johnson Tiles.
Hindustan Twyfords Sanitaryware.

Hanuman Building,
Behind Reserve Bank,
310, Bazargate Street, Fort,
BOMBAY 1.

Phone: 251452. Grams: "FASHION."

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**MARBLE & TILES**

**DUNCAN STONE CO.**

Marble & Tiles Merchants,
Stockists of 'Johnson' Tiles.

500, Maulana Azad Road,
BOMBAY 4, BR.

Phones: Resi.: 20985. Office: 332409. Grams: "TILERIES."

# TRADE DIRECTORY FOR BUYERS

**MARBLE, TILES, SANITARYWARES**

## N. M. MEHTA & CO.

(Estd. 1915).

Sanitaryware & Bath Room Fittings of all types and makes, Glazed Tiles, Marble, 'Everest' Asbestos Cement Pipes and Fittings, ITC Galvanised Pipes, Lead Pipes and Stoneware Pipes & Fittings, Comfort, Deluxe Plastic W.C. Seats etc.

*Sole Agents for :*

'Waterlock' Cement Waterproofing Compound, Government tested & Approved.

*We Distribute & Sell :*

Fordham Flushing Cisterns, Bombay Potteries.

4-10, Old Custom House Road, BOMBAY 1.

Phone : 255047. Grams : "EMBOSSED."

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**MARBLE, TILES & SANITARYWARES**

## MOHANLAL & CO.

(Estd. 35 years)

491, Duncan Road, Bombay 4.

Dealers in Marble, Tiles, Sanitarywares, Shabad & Tandur Stones, Colours, white cement, etc. Phone : 332431.

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**MARBLE, TILES & SANITARYWARES**

## NATIONAL TILES & INDUSTRIES (PRIVATE) LTD.

Manufacturers of Marble Mosaic Terrazzo, Non-Slippery, Heavy Duty Steelcrete & Acid Resisting Tiles, 31, Hamam Street, Bombay 1.

Phone: 251007, 256392. Grams: "NECTILES."

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**METAL MFRS. & MERCHANTS**

## POPULAR METAL WORKS & ROLLING MILLS.

Sion, Bombay 22. Phone : 471778 & 474139.

Manufacturers of Brass, Copper Cold Rolled Industrial Sheatings & Aluminium Circles, Sheets, Utensils etc.

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**METAL MFRS. & MERCHANTS**

## SHANTILAL HIRALAL & CO.,

63/65, Kika Street, Bombay-4.

Phone : 331459, 334479.

Grams : "LESSPROFIT."

Dealers in all kinds of Non-ferrous Metal, Metal Scraps, Brass Rods, Tubes and Pipes in all Sizes & 'K' Brand Brass sheets etc.

---

**METAL MFRS. & MERCHANTS**

## SHUJA METAL CENTRE.

55-57, Nakhuda Street, Bombay-3.

Phone : 322361.

Direct Importers and Stockists of Copper, Brass, Stainless Steel, Aluminium and Phosphor Bronze Rods, Pipes, Sheets, Sheathings, Wires, Strips & Tin, Lead, Zinc Ingots etc.

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**METAL MFRS. & MERCHANTS**

## PRAVINCHANDRA D. BROS.

105, Kika Street, Gulalwadi, Bombay-4.

Phone : 332419. Grams : "RODSBRASS."

Dealers & Stockists of Non-ferrous Metals & Semi-finished Products, Copper & Brass Rods, Pipes, Sheets, Sheathing, Wire Strips etc. Phosphor Bronze Rods & Wires, Aluminium Sheets, Rods, Wires & Tubes, Stainless Steel Sheets, Tubes & Rods.

---

**METAL LABELS & DIALS**

Metal Labels and Dials in Aluminium Anodised Dials, Brass & Stainless Steel Etched.

Reasonable Rates—Neat Workmanship

Manufacturers :

**NEW KRISHNA METAL ARTS**

Parekh Nagar, Bombay-67.

---

**NON-FERROUS METALS & ALLOYS**

## SARU SMELTING & REFINING CORPORATION PRIVATE LTD.

SARU

Manufacturers of all sorts of Non-ferrous Metals and Alloys, specialists in Resin and Flux Cored Solder Wire, Tin Lead Fuse Wire, Bearing Metals, Tin-Solders, Type Metals, Gun Metal, Bronze, Silver Solder and Brazing Alloys, Welding Rods etc. Approved Suppliers to Central and State Governments, Railways, etc.

*Regd. Office.*—Sardhana Road, Meerut. Phone No. 2942.

Tele. Address : "METAL MEERUT."

*Directors :* S. P. Jain, S. S. Jain, Dr. N. G. Chatterjee, K. C. Modi, R. D. Mithal, M. S. Jain, D. P. Jain.

*General Manager.*—Multan Singh Jain, M.A.

*Technical Manager.*—D. P. Jain.

*Secretary.*—B. B. Rajwanshi, M.A., LL.B., D.E.A.

*Sales Manager.*—Sri Pal Jain, M.A., D.B.A.

*Branches :*

CALCUTTA—16A/1, Mahatma Gandhi Road, Tel. Address : "SARUCOR."

*Manager.*—R. N. Mohinta, B.SC., B.A.

*Delhi.*—30, Chawri Bazar, Delhi.

*Representative :* R. C. Jain.

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**NEON SIGNS**

**GLOW SIGNS**

**MERCURY SWITCHES**

*Manufactured by*

## L. KANT & CO.

Estd. : 1936.

*Managing Director :* L. M. Chkradeo, B.A. (Hons.), M.Sc., C.L.I.Sc.

318, Charni Road, Bombay-4.

Phone : 22539. Grams : "KANTCO".

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**OFFICE EQUIPMENTS**

## AJAX PRODUCTS CO.

Unit No. A2, Industrial Estate, Padi-Ambattur

Phone : 60284.

Manufacturers of Steel, Office equipment and Franking Machines.

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**OIL SEALS**

## "SPARE-AGE"

OIL SEALS

Contact Manufacturers

**SPARE-AGE MOTORS (INDIA)**

9-B, Purshottam Bldg., Tribhuvan Road, Bombay-4.

Factory Phone : 522213.

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**OIL SEALS, CIRCLIPS**

Contact

**WESTERN MACHINERY CO.,**

22, Basement, Commerce House, Nagindas Master Road (Medows Street), Bombay-1.

---

**OVENS (DRYING)**

Hot air drying ovens for pharmaceutical, textile and other Industrial applications, steam heated finned coil and electric heaters.

## GROVERS PVT. LTD.

Annie Besant Road, Worli, Bombay 18.

Phone : 73248. Grams : "TECACO".

# TRADE DIRECTORY FOR BUYERS

**OVENS (DRYING)**

**"GUJRAT"**

Electric & Steam Drying Oven 12, 24, 48, 96 & 192 Tray units & Centrifuge Hydroextractor, Heavy & Light Duty (Three Point Suspensions) Basket size: 16", 20", 26" & 36". Ideal for Dyes, Pharmaceuticals, Paints, Plastics, Textiles & Chemicals etc.

For Particulars Contact:

**NEW GUJRAT SAFE & STEEL WORKS**

Janata Industries Compound, Opp. Phoenix Mills, Tulsipipe Road, Lower Parel, Bombay-13

Phones: 252932-332146.

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**OVENS & FURNACES**

Standard models or made to specifications.

Contact:

**INDUSTRIAL & AGRICULTURAL HEATING APPLIANCES.**

174, Rambagh, Indore (India).

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**PACKING MATERIALS**

**CORRUGATING & PAPER PROCESSING CO.,**

Manufacturers of Packaging both for inland and export purposes.

243, Barrackpore Trunk Road, Calcutta-36.

Phone: 563140.

---

**PAINTS**

**RAJKAMAL SUPPLYING STORES**

Direct Importers and Stockists of Paints, Dry Colours, Brushes, Varnishes and Artist Materials, Manufacturers of Chromes, Lakes, Dry & Poster Colours.

295, Abdul Rehman Street, BOMBAY 3.

Phone: 321895. Grams: "RAJPAINT."

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**PAINTS & VARNISHES**

**ALLIED TRADING CO.**

39, Nagdevi Street, BOMBAY 3.

Importers and Stockists of Cellulose Lacquers, Thinners, Synthetic Enamel Paints, and Spray Painting Equipment, Marine Paints. Importers of Spray Painting equipment and guns & Respirators, Rother Brushes etc.

Phone: 324160. Grams: "LINSEEDOIL."

---

**PAINTS & VARNISHES**

NOBLE PAINTS

Chief Stockists:

**KAPADIA BROTHERS (Estd. 1910)**

Paint Merchants & Painting Contractors.

81, Abdul Rehman Street, Bombay-3.

Phone: 324108. Grams: "DECORATORS."

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**PAPER**

**BHARAT PAPER MART**

(Estd: 1932)

Bharat Bhuvan, 51, Sutar Chawl, Bombay-2

Grams: "GLAZE." P.O. Box 2245.

Phone: Office: 325329. Resi: 75727.

Distributors for Titaghur Paper Mills, India Paper Pulp Co., Bengal Paper Mill Co. Ltd., Calcutta.

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**PAPER**

**CHARLES MORGAN & CO., LTD.**

*Bombay Agent:*

**Wiggins Teape & Alex. Pirie**

Branch of Tribeni Tissues Pvt. Ltd.

Kamani Chambers, 32, Nicol Road, Bombay 1.

Telegrams: "WINCHMORE." Tel. No. 261622.

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**PAPER**

**SHREE KRISHNA COMMERCIAL CORPORATION.**

75/79, Old Hanuman Lane, Bombay-2.

Phone: 38548.

Stockists: West Coast Paper Mills Ltd.

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**PAPER**

**WIGGINS, TEAPE OVERSEAS SALES LTD.**

"GATEWAY" PAPERS, MANUFACTURERS.

Group Office: Wiggins Teape & Alex. Pirie.

Branch of Tribeni Tissues Pvt. Ltd.

Kamani Chambers,

32, Nicol Road, Bombay 1.

Telegrams: "WINCHMORE." Tel. No. 261622.

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**PAPER & BOARDS**

**BOMBAY SALES AGENCIES**

*Stockists for* West Coast Paper Mills Ltd., Dandeli, Sirpur Paper Mills Ltd., Sirpur; 51-52, Podar Chambers, Parsi Bazar Street, Bombay 1.

Phone: 253113, 254465.

Grams: "PANQUICK."

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**PAPER & BOARDS**

**R. K. GANDHI & CO.**

(Estd. 1930).

Aga Khan Building, Dalal Street, Fort, Bombay 1

Agents for: Messrs. Storm & Bull Ltd., Oslo, Norway. Indent Orders for all kinds of Paper & Boards Invited. Authorised Stockists and Distributors for Murari Paper Mills Ltd. Stockists of Indian made Velvet Papers in different Colours.

Phone: 255684. Grams: "BOARDPAPER."

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**PAPER & BOARDS**

**PRAHLADRAI DALMIA & SONS**

Authorised Distributors for Papers and Boards Mfrd. by Rohtas Industries Ltd. Dalmia Nagar.

51, Poddar Chambers, Parsi Bazar Street, Fort, Bombay 1.

Grams: "PANQUICK."

Phone: 253113, 254465.

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**PAPER STRAW BOARDS**

**THE ROYAL PAPER STORES**

Direct Importers & Stockists of all kinds of Paper, Straw Boards and Bookbinding Materials.

187-89, Abdul Rehman St., Mapla Building, BOMBAY 3.

Phone: 321103. Grams: "ROSTOPAPER."

Trade Enquiries Solicited.

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**PHARMACEUTICAL MACHINERY & SUPPLY**

For Pharmaceutical Industries Stainless Steel

PL

FILTER PRESS with TRANSFER PUMP

*Manufacturers:*

**PHARMALAB INDUSTRIES**

Star Metal Compound, Vikhroli, Bombay 83.

Phone: 581327.

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**PHOTOGRAPHIC STORES**

**MODERN PHOTO STORES STUDIO**

358, Lamington Road, BOMBAY 7.

Authorised Dealers of

KODAK — GEVAERT — ILFORD-SELO & AGFA.

---

**PIPE BENDING MACHINES**

**NEWORKS PRIVATE LTD.,**

F-28/29, Industrial Estate, Naini, Allahabad (India).

Manufacturers of Jacks, Pipe Bending Machines, Trolleys, Elevating Truck, etc.

---

**PIPES & FITTINGS**

**B. C. MASHRUWALA & BROS.,**

657, Kapasia Bazar, Ahmedabad-2.

Importers & Stockists of all Sorts of Pipes, Pipe-Fittings, Boiler Tubes, Beam Pipes, English Hopkinsons' Bronze Iron & Steel Valves & Boiler Mountings. Agents: "Venus" Brand G. M. & Iron Valves; Branch: 139, Nagdevi Street, Bombay 3.

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**PIPES & FITTINGS**

**HATIMBHOY GOOLAMHUSEIN & BROS.**

(Estd: 1894)

193-A, Nagdevi Street, Bombay-3.

Phone: 326752. Grams: "FITTINGS."

Stockists of all kinds of Pipes, Fittings, Hardware Material, Valves & Cocks etc.

# TRADE DIRECTORY FOR BUYERS

**PIPES & FITTINGS**

## RAMESHCHANDRA SANTARAM,

205, Sant Tukaram Road, Carnac Bunder, Bombay-9.

Phone : 322214.

Stockists of Pipes for Water, Gas, Steam from 15 mm to 100 mm in Zenith Indian Tube, Kalinga, Gujarat Tube makes.

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**PIPES & FITTINGS**

**STANDARD PIPES & FITTINGS CO.,**

93-A, Nagdevi Street, Bombay-3.

Phone : 323444. Grams : "STANDPIPES".

Importers and Stockists of Pipes & Fittings for Water, Gas and Steam, Sanitary Wares, Hardware & Mill Stores.

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**PLASTIC GOODS MFRS.**

**MUTUAL STEEL INDUSTRIES**

47, Kandivli Industrial Estate, Kandivli (West), Bombay-67 NB.
Phone : 692843.

Plastic Moulders in Compression and Injection ; Manufacturers of Bakelite and Plastic Radio Cabinets and "TIDY HOME" Plastic Housewares.

---

**PLASTIC GOODS MFRS.**

**PREM BROTHERS**

Manufacturers of Polythene Bags, Sheets, Wardrobes & Shoe Racks ; Dealers in Plastic Sheeting and Table Cloth.

86, Commercial Chambers, Masjid Bunder Road, Bombay-3.

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**PLASTIC GOODS MFRS.**

**SUPREME INDUSTRIES LTD.**

Wadala, Bombay-31.

Manufacturers of Plastic Machinery, Moulds, Articles for Household & Industry, Industrial Paints, Adhesives & Waterproofing Compounds.

Phones : 62181–2.

Grams : "SILPRODUCT"—Bombay (Dadar).

---

**PLASTIC GOODS MFRS.**

**BOMBAY ELECTRICAL SLEEVING & TUBING CO.**

Plastic Age Brand Polythene Pipes.

1 AL-Karim Manzil, 1st Floor, 15, Palton Road, Behind Crawford Market, Bombay-1.

Phone : 26-4165.

---

**PRECISION PARTS MFRS.**

Precision Turned Spare Parts on AUTOMATS & CAPSTAN.

**DAHYALAL KARIA & CO.,**

Office Tel. : 264439.

Factory :
Shri Ram Industrial Estates, 13, Katrak Road, Wadala, Bombay-31.

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**PRECISION PARTS MFRS.**

**INDIA AUTOMATICS,**

Factory : Universal Nut & Bolt Co.'s Compound, Falkland Bridge, Tardeo, Bombay-7.
Phone : 244061.

Manufacturers of Precision Work on Auto Screw Machines & Capstan Lathes for Aircraft, Automobiles, Radios etc.

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**PRECISION TOOLS**

Universal Tool & Cutter Grinding Machine, Continuous Belt Sawding & Polishing Machines, Bolts & Nuts Making Machinery.
Industrial Stirrers.
Oil Fired Forging Furnaces.
All types of Collets Precision Tool-room work undertaken.

**MACOSTEELS**

1076, Haines Road, Worli Naka, Bombay 18.
Phone : 70328.

---

**PRINTING**

Get your flats, Showrooms, Offices beautified by Experts, with latest Colour Schemes, best quality paints, at lower rates for estimates ring up — 321727.

**B. UTTAM SINGH KESAR SINGH**

(Estd. 1898)

108, Narain Dhuru Street, Bombay-3.

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**PRINTING PRESS MATERIAL & MACHINERY**

**PAPER PULP & MACHINE CO.,**

7, Kumpta Street, Ballard Estate, Bombay-1.

Phones : 263386 & 263387.
Grams : "LIONBRAND".

Sole Importers into India of the Products of John Dickinson & Co. Ltd., London.

---

**PUMPS MFRS.**

**MODY INDUSTRIES (P.C.) PVT. LTD.,**

62, Bhawanishanker Road, Dadar, Bombay 28.

Phone : 451746.

Manufacturers of Pumps for all purposes. "BERESFORD".

Domestic
Contractor
Submersible.

---

**ROPERIES**

**SHA GOVINDJI PADAMSHI KATHAWALA**

(Katha Department)

Coir String, Coir Ropes, Bamboo Mattings Merchants.

371–73, Narshi Natha Street, Katha Bazar, Bombay 9 (BR).
Phone : 323738. Grams : "BAMBOOMATS".
Branch : Jew Town, Mattanchery P.O., Cochin No. 2.

---

**REFRIGERATION EQUIPMENTS**

Water Coolers, Industrial Water Chilling Plants, dehumidifiers, walk-in-coolers, deep freezer and condensing units.

## GROVERS PVT. LTD.,

Annie Besant Road, Worli, Bombay-18.

Phone : 73248. Grams : "IFCACO".

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**ROPE MERCHANTS**

Phone : 322485. Grams : "RAJKOTWALA".

**ADAMJI KADERBHOY**

(Estd. 1894).

337, Katha Bazar, P.O. Box : 5846 Bombay 9.

Manufacturers : Stockists of Manilla, Sisal, Hemp, Wire and Coir Ropes, Coir Mattings, Jute Ropes and Products, Flax, Twines, Cordages, Flax Canvas and Tarpaulins, Chains, Chain Slings and all kinds of lifting Tackle and Shipchandlery Stores. Exporters and Importers.

*Selling Agents :*

The Ganges Rope Co. Ltd., Calcutta.

*Sole Agents in India* (Except South)
WEBSTER & CO., LTD.
Sunderland (England).

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**ROSIN & TURPENTINE**

## TRUNIZ INTERNATIONAL CORPN.,

Dada Manzil, Mohamedalli Road, Bombay 3.

Phone : 327211.

Manufacturers' Representatives, Stockists & Suppliers of Rosin, Turpentine, Chemicals to leading Paint, Soap and Paper Industries.

Grams : "TRUCORPO".

---

**SAFETY EQUIPMENTS**

**STANDARD EQUIPMENT CORPORATION**

A/6, Shri Ram Industrial Estate, 13, Katrak Road, (Naigaun X Rd.), Bombay 31 (DD).

Specialised in all types of hand gloves, Apron, Safety Goggles, Respirators, Face Guard, Hand Shield, Gum Boots, Leg Guards etc., Also ask for Industrial Trolley Wheels and Tyres, Ebonite Rods & Sheets and Industrial Rubber and Ebonite parts to your specification.

# TRADE DIRECTORY FOR BUYERS

**ROTARY DUPLICATORS**

## SHOURIE DUPLICATORS PVT. LTD.,

Industrial area, Najafgarh Road,
New Delhi-15.

Phone : 51333. Grams : "SHOURIE".

Marketing & Complete range of hand & electrically operated duplicators in F'Cap & double F'Cap Sizes.

---

**SANITARY APPLIANCES—PLUMBING MATERIALS**

**THAKUR DASS SUREKA,**

Manufacturers of T.D.S. Products—Sanitary, Drainage, Plumbing & Tubewell Requisites.
40, College Street, Calcutta-12.
Phones : 342461 & 346947.
Grams : "FLUSHPIPE".

---

**SANITARYWARE**

By
PARSHURAM

Vitreous-Hygienic
Super-White

also in pleasing

Pastel Colours, Complete Range in Sanitaryware, Wash Basins, Closets Indian and European Style, Stall Urinals & Sinks for Laboratory & Kitchens bidet etc.

## THE PARSHURAM POTTERY WORKS CO. LTD.,

Morvi, Gujarat (India).
People Prefer Parshuram.

Grams : "POTTERY".

---

**SANITARYWARES & FITTINGS**

**R. MOOLCHAND & CO.,**

44, Nagdevi Cross Lane, Bombay-3.
Direct Importers, Sanitarywares, Tiles, Bath Tubs, Fancy Bathroom Fittings
Phone : Office 324207. Resi 78837.
Grams : "POTTERY".

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**SANITARYWARES & FITTINGS**

## MYSORE STONEWARE PIPES & POTTERIES LTD.,

(Estd. 1937)

Regd. Office : 80, Sixth Cross Road, Gandhinagar, Bangalore City.

Phone : 22368. Grams : "MYSOREPIPE".

Manufacturers of Sanitary Sewer Pipes, Fittings, Firebricks and other Sanitary articles, Bathroom requirements & Floor & Wall tiles of various designs.

---

**SCIENTIFIC & LABORATORY INSTRUMENTS**

## CENTRAL SCIENTIFIC SUPPLIES CO. LTD.,

17, Stringer Street, Madras 1.

Dealers in Scientific Instruments, Pure chemicals, Laboratory Equipments of all kinds ; suppliers to Schools, Colleges, Research, Engineering and Polytechnic Institutions.

---

**SCIENTIFIC & LABORATORY EQUIPMENTS**

## POPULAR SCIENTIFIC WORKS,

Udyognagar, Udhna, Gujarat.

Phone : 68.

Manufacturers of QUICO brand Suction and Vacuum Pumps, Ovens, Incubators, Water Baths & Stills, Shadowless Lamps, Stirrers and Shakers, Autoclaves & Sterilisers, Operation Tables and Hospital furnitures, Centerfugies and Hot Plates, Kgheldal Distillation Units, Soxhlet Heaters, Laboratory Appliances etc. etc.

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**SPORTS & GAMES**

Please Contact :

**A. N. KAPUR & CO.,**

Court House, Dhobitalao, Bombay-2.

Phone : 22776. Grams : "SANDAL".

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**SPRINGS**

**SPRING STEEL STRIPS,**

Available
Ex-Stock
INDUSTRIES COMBINE
32, Apollo Street, Bombay 1.
Phone : 251469.

---

**SPRINGS**

**BHARAT COMMERCIAL ENTERPRISES,**

'PAL' Automobile Springs manufactures from High grade imported Silicon Manganese Spring Steel under Rigid Quality Control.
25, Chittaranjan Avenue, Calcutta-12.

Phone : 233571.

---

**SPRINGS**

**STRIP & COIL SPRINGS**

For quality & Precision.
Contact :

**CRESCENT SPRINGS**

301, Grant Road Corner, Gokhale Compound, Bombay-7.
Phone : 71344.

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**SPRINGS**

## TENCOM INDUSTRIAL CORPORATION

31, Forbes Street, Bombay-1.
Phone : 253275.

Manufacturers of Precision Springs (all Industrial types).

*Suppliers to :*

Leading Industries & Government Undertakings all over India. Works : "Giriraj". Tokersey Jivraj Road, Bombay-15.

Phone : 61929.

---

**STAR WASHERS**

**FAIRFIELD MANUFACTURING CO.**

Hanuman Bldg., 4th Floor, Tambakanta, Pydhonie, Bombay-3 (BR).
Phones : 323123 & 323758.
Grams : "MASRANICOY".
Manufacturers of Spring Washers, Shakeproof Washers, Circlips and Precision Strip Forms.
Factory at : Masrani Estate, Halav Bridge, Kurla, Bombay-70 (AS).

# TRADE DIRECTORY FOR BUYERS

**SPRING WASHERS**

**FAIRFIELD MANUFACTURING CO.,**

Hanuman Bldg., 4th Floor, Tambakanta, Pydhonie, Bombay-3 (BR).
Phones : 324323 & 323758.
Grams : "MASRANICOY."
Manufacturers of Spring Washers, Shakeproof Washers, Circlips and Precision Strip Forms; Factory at : Masrani Estate, Halav Bridge, Kurla, Bombay-70 (AS).

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**STATIONERS**

**JAGJIVANDAS NANDLAL & CO.,**

(Estd. 1916).
237, Abdul Rehman Street, Bombay 3.
Wholesale Stationers, Sole Distributors for Electric Pen-Pencil Typewriting Carbon Papers, Electric Staples in Sizes : 24/6, 26/6 and B. 8.
Phone : 323634. Grams : "SWANHOUSE."

---

**STEAM CONTROL EQUIPMENTS MFRS.**

**SPIRAX-MARSHALL LTD.,**

Pimpri, Poona-18, Maharashtra State.

Manufacturers of "SPIRAX" for efficient, economical and profitable use of steam.

---

**STEEL**

**STEEL TUBES OF INDIA,**

157, Princess Street, Bombay 2.
Manufacturers of ERW MS Steel tubes & G. I. Pipes in Technical Collaboration with Kashiharas, Japan ; Factory : 27-34, Industrial Estate, Indore (M.P.).

---

**STEEL CASTINGS**

**STEEL CAST CORPORATION,**

Ravapari Road, Bhavnagar.

Specialists in Steel Castings as per Customers' Specification.

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**STEELS FILES**

**SHAH & BROTHERS,**

234, Nagdevi Street, Bombay 3.

Authorised Distributors for J.K., Johnbaker and Hindustan Files.

Phone : 326797. Grams : "STEELGRIPS."

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**STEEL FURNITURE MFRS.**

**MERCURY ENGINEERING WORKS,**

156, Zaveri Bazar, 3rd Floor, Bombay-2 (BR).

Manufacturers of Steel Furniture for Office, Home, Hospitals and Canteens and Undertakers of Fabrication of Steel Structures including Steel Window & Doors.

---

**STEEL FURNITURE MFRS.**

**CHANDAN METAL PRODUCTS PRIVATE LTD.**

Manufacturers of Steel Furniture and Equipment for Offices, Homes, Hospitals, Canteens, Libraries, etc. Executive Office & Works : Gorwa Road, Chemical Industries P.O., Baroda-3.

---

**STEEL FURNITURE MFRS.**

**VENUS STEEL PRODUCTS (INDIA),**

301, Kalbadevi Road, Bombay 2.

Manufacturers of VENUS quality Steel Furniture for Home, Office, Hospital, Canteen, etc., etc.

Phones : 22333 (Office), 571125 (Factory).

---

**STRUCTURAL & MECHANICAL ENGINEERS**

**INDIAN COMMERCE & INDUSTRIES CO. PVT. LTD.,**

Beehive Bldg., 95, Broadway, Madras 1.

Phones : 21071 & 21138.

Grams : "LUCKLY & BEEHIVE".

Manufacturers of Steel Structurals, Ferrous & Non-ferrous Alloys & Steel Castings, Machinery Parts, Electric Overhead Line materials, Transformers Structures, Cross Arms, Lamp Brackets & Fittings.

---

**SURGICAL GOODS**

**K. CHAPMAN & CO.,**

462, Sardar Vallabhbhai Patel Road, Bombay-4.

Phone : 70448. Grams : "TRUSSWORKS."
Manufacturers of Hernia Trusses, Abdominal Belts, Deformity Appliances and Artificial Limbs.

---

**TALLOW MFRS.**

Manufacturers of CONC. TEX TALLOW and other Textile Auxiliaries.
Dr. Yagnik's

**KEMICOLOR INDUSTRIES,**

195, D. Naoroji Road, Bombay-1.
Phone : 261192.

---

**TENTS & TARPAULINS**

**ALIBHAI SHARAFALI RASIWALA**

Manufacturers of Tents, Tarpaulins, Niwars and Handloom-Sail cloth, Ropes & Twines, Exporters & Importers.

428, Katha Bazar, Bombay 9.

Phone : 325927. Grams : "TARPOLERS".

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**TENTS & TARPAULINS**

**RATANSHI LALJI,**

56, H. Rasul Jiwa Compound, Clerk Road, Bombay-11.
Manufacturers and Exporters of 'Rajendra' brand Tarpaulin and Dealers in all kinds of Canvas.
(Proofing Dept. Rajendra Waterproofing Co.).
Phone : 77839. Grams : "RATANKARIA."

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**TOOLS**

**GUJARAT-MACHINE TOOLS INDUSTRY**

1-10, Industrial Estate, Baroda 3.

Manufacturers of GMT Dowel Pins & Jig Bushes (Hardened & Ground) Drill Sleeves (Hardened & Ground).

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**TILES & BRICKS**

**DHOLPUR STONE CO.,**

Barauli (*via* Dholpur), C. Rly.,

Manufacturers of "STONACID" acid & Alkali Proof (Buff Coloured) Stone, Tiles & Bricks extensively used in Heavy Electrical and Chemical Industries, Rayon and Textile Mills, Pickling Plants and other Industries where Chemicals, acids and alkalis are used and stored.

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**TOOL, ALLOY & SPECIAL STEEL.**

Tool & Alloy Steel
Specialists in
Bohler & Saville's Steel

**INDIA TOOL STEEL MART**

(Importers & Stockists)
200, Trimbak Pursuram Street, Golpitha, Bombay 4 (BR).
Phone : 331420. Grams : "RAPIDEXTRA."

# TRADE DIRECTORY FOR BUYERS

TOOLS

## HANSA TOOLS INDUSTRIES,

P. O. Baroda Rayon, Udhna, (Dist. Surat).

Manufacturers of Engineers' Files, Dreadnaught Files, Precision Files, Needle Files; H.S.S. Tool Bits (All types) Plane Irons & Firmer Chisels.

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TOOL, ALLOY & SPECIAL STEEL

## LACHHMIDHAR KANSHIRAM

201, Masjid Bunder Road, Bombay 3.

Stockists of High Speed, High Carbon, High Chromium, Oil Hardening Non-Shrinking, Carbon, Silver, Stainless and En Specification Steels.

Phone : 322048. Grams : "IRONGOODS".

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TOOL, ALLOY & SPECIAL STEEL

## MINING TOOLS CO.,

Empire House, Dr. Dadabhai Naoroji Road, Bombay-1.

Call—262025.

Manufacturers of Tungsten Carbide Tipped Rock Drill Stems, Rotary Coal, Boring Tools and Pneumatic Chisles; Factory : 581196.

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TROLLEYS

## NEWORKS PVT. LTD.,

F-28/29, Industrial Estate, Naini, Allahabad, (India).

Manufacturers of Jacks, Pipes, Bending Machines, Trolleys, Elevating Truck etc.

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UMBRELLA MFRS.

## BHARAT UMBRELLA MFG. CO.,

65, New Hanuman Lane, Bombay-2.

Grams : "DHARUV."

Exporters, Specialists in Umbrella Cloth.

Phone : 39319.

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VALVES

Stainless Steel, 316 Bar Stock-Gate, Needle & Gauge Glass Valves, Amonia Cylinder Valves Y, Y2, E & B types Chlorine cylinder valves, S. S. Non-Return Valves, H. P. Bronze Valves tested to 2,000 lbs. P. S. I. Contact :

## RAMNIKLAL JIVANLAL KINARIVALA & CO.,

Raja Mehta's St., Ahmedabad.

Phone : 24559.

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WELDING ACCESSORIES

## POONAM TRADING CO.,

Importers and Stockists of Welding Electrodes, Cast Iron Machinable and Non-Machinable, Mild Steel, Stainless Steel, Manganese Steel, Bronze & Hard Facing Electrode Stellite. Rods, Gas & Arc Welding Accessories.

133-C, Dharamtolla Street, Calcutta-13.

Phone : 245337. Grams : "WELDINGROD."

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ZIP FASTERNERS

## HOME INDUSTRIES CORPORATION

Home of "HOMCO" Brand Zip Fasterners. Available in all Sizes & Lengths.

Inquire :

64, Commercial Chambers, Masjid Bunder Road, Bombay-3.

Phone : 34997. Grams : "DESIHUNAR."

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WIRES (PRESTRESSED CONCRETE)

## PRARA AGENCIES,

21, New Cloth Market, Ahmedabad-2.

Phone : 51351. Grams : "PRARA".

Sales Organisers to :

Tensile Steel Ltd., Baroda.

Manufacturers of Tensile's Prestressed Concrete Wire.

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WIRE ROPES

## ELDEE WIRE ROPES,

Eldee Chambers, 3, Broach Street, Bombay-9.

Phones : 321141, 327848, 327689.

Grams : "ELDEEROPES."

Manufacturers of quality Steel Wire Ropes & Stranded Wire; Works at : Lekhraj Devraj Industrial Estate, Saki Naka, Kurla-Vihar Road, Bombay 70. Registered with D.G.S. & D. Railways and State Governments.

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WOOD POLISH

## TEJUMAL HOTCHAND & CO.,

B.P.T. Plot No. 25; Sewri Fort Road, Sewri, Bombay 15.

Phone : 63019.

(3 p.m.—7 p.m.).

Manufacturers of best kinds of Furniture Polish; Importers and wholesale dealers in Denatured Spirits & Rosin—Suppliers to leading Industrial Concerns.

# PHYSIOGRAPHY

## STATES, TERRITORIES

The country is divided into 16 States and nine Territories. The latter are under Central administration.

The 16 States (with the capital towns in brackets) are:

Andhra Pradesh (Hyderabad), Assam (Shillong), Bihar (Patna), Gujarat (Ahmedabad*), Kerala (Trivandrum), Madhya Pradesh (Bhopal), Madras (Madras), Maharashtra (Bombay), Mysore (Bangalore), Nagaland (Kohima), Orissa (Bhubaneshwar), Punjab (Chandigarh), Rajasthan (Jaipur), Uttar Pradesh (Lucknow), West Bengal (Calcutta), Jammu and Kashmir (Srinagar).

The nine Territories (with capital towns in brackets) are:

The Andaman and Nicobar Islands (Port Blair), the Laccadive, Minicoy and Amindivi Islands (temporary headquarters: Kozhikode, Kerala), Delhi (Delhi), Himachal Pradesh (Simla), Manipur (Imphal), Tripura (Agartala), Dadra and Nagar Haveli (Sylvasa), Goa, Diu and Daman (Panjim) and Pondicherry (Pondicherry).

In addition, there is one territorial unit: The North-East Frontier Agency, administered by the Governor of Assam as Agent of the Central Government.

## GEOGRAPHY

India is about 1,850 miles from east to west, and about 2,000 miles from north to south. Its land frontier is about 9,425 miles long and the sea frontier about 3,535 miles.

The total land area is 12,61,817 sq. miles.

According to the 1961 census the total population is 439,234,771.

The percentage decade variation during 1951-61 is 21·51.

The land frontier with Pakistan is about 4,959 miles long (east and west together). Of this about 2,810 miles are demarcated.

In shape India is like a triangle with its base resting on the Himalaya Mountains in the north and its apex running far into the ocean in the south. At the southern extremity the triangle tapers with a pear-shaped curve to a point called Cape Comorin now called Kanya Kumari.

India lies entirely to the north of the equator. From south to north including Kashmir, it stretches from 8° north latitude to 37° north latitude, with the Tropic of Cancer cutting it roughly into two halves. West to east it stretches from about 66° 20′ east longitude to 97° east longitude.

Broadly speaking, India is shut off from the mainland of Asia by the Himalaya Mountains, the highest mountain range in the world. Going from west to east along the country's land frontier are Pakistan, Chinese Turkestan, Tibet, China, Burma and Pakistan.

In the south, the country is surrounded on all sides by water—the Arabian Sea in the west, the Indian Ocean in the south and the Bay of Bengal in the east.

India is so vast and diversified that expressions like 'average rainfall,' 'average temperature' have no meaning. The average annual rainfall in the Thar desert is 4 inches, while that in Cherrapunji is 425.

Similarly places in Kashmir have a minimum temperature of 49° F. while places in Rajasthan have recorded a maximum temperature of 120° F. So one can only speak of local averages rather than of national averages.

Compared with the size of the country, the coast-line is short, as there are few bays or inlets. Hence there are also very few harbours. The fact is the west coast is rocky and the sea is deep near the coast, while in the east the sea is extremely shallow so that big ocean-going ships have to weigh anchor at some distance from the shore.

The only so-called natural harbours are Bombay and Goa, while Madras, Vishakapatnam and Port Okha are examples of purely artificial harbours built by human enterprise.

The principal ports in India are (going from west to east along the coast), Kandla, Bedi Bunder, Port Okha, Porbandar, Surat, Bombay, Mormugao, Mangalore, Kozhikode (Calicut), Cochin, Alleppey, Quilon, Tuticorin, Dhanushkodi, Nagapattinam, Karikal, Cuddalore, Pondicherry, Madras, Masulipatnam, Kakinada, Vishakapatnam and Calcutta.

## MOUNTAIN WALL

India can be divided into three natural regions—1. the mountain wall, 2. the Plain of Hindustan, and 3. the Indian Plateau.

Let us take the mountain wall first. From the Pamir Knot in the far north two mountain ranges radiate one in the south-east and easterly direction called the Himalayas, and the other in a south-western direction reaching almost down to the sea, called the Sulaiman Range in the north and the Kirthar Range in the south.

In the east the mountain wall between India and Burma is called by different names in different places. In the north, for instance, it is known as the Patkoi Hills, further south as the Naga Hills. In Assam it is called Jaintia, Khasi and Garo. Southward are the Lushai Hills, then lastly there are the Arakan Yoma which finally reach the sea at Cape Negrais and continue in the Andaman and Nicobar Islands.

Of the various ranges which constitute the mountain wall of India the Himalayas are the most noteworthy. Extending like a scimitar for a distance of 1,500 miles along the northern frontiers of the country they form the loftiest mountain range in the whole world, and contain many of the highest mountain peaks, Mount Everest 29,141 ft., Mount Godwin Austen 28,250 ft., and Kanchenjunga 28,146 ft.

There are no easy ways in and out through the mountain wall which shuts off India from the rest of Asia, but there are a few difficult passes. In the very north are the Zojila Pass and the Shipki Pass which lead out of Kashmir and Punjab respectively. Then from Shipki right down to Darjeeling there is no route across the mountain wall. Across the Burma frontier again there are a few routes but they are of little use for purposes of communication.

The following is a more detailed description of the mountain region.

In the east on the border of Burma the mountain wall is much lower. Here it can more accurately be described as a range of hills rather than of mountains. This region is wet, forested and very thinly populated. The region round about Cherrapunji in Assam has the highest rainfall in the world.

Then from Darjeeling to Kashmir are the Himalayas proper, over 1,500 miles in length and 150 to 300 miles in breadth. The Himalayas are thus not a mountain chain in the proper sense of the word. They can be described as a series of parallel but converging ranges intersected by valleys and big plateaus.

Hence the Himalayas themselves can be further sub-divided into three parallel zones, the Great Himalayas with an average elevation of 20,000 ft., always covered with snow; the Lesser Himalayas, the middle range, with an average elevation of 15,000 feet; and finally the Outer Himalayas lying between the Lesser Himalayas and the plains with an average elevation of about 3,500 feet.

Two of the longitudinal valleys which separate the mountain ranges are worth a note. They are the Vale of Kashmir and the valley of Kathmandu in Nepal. Both the valleys are fertile, extensive and from a tourist's point of view a dream of beauty.

## PLAIN OF HINDUSTAN

Geologically, the Ganges plain can be considered as the fore-deep of the mountains to the north of it. This fore-deep extends thousands of feet below the sea-level, though since its formation it has been filled in by deposit. In the east this deposit consists of alluvial material from the mountains, in the west it consists of material blown by the wind. All through the deposit is fine grained made up chiefly of muds and sands.

The Plain of Hindustan extends from the Bay of Bengal in the east to the Pakistan frontier in the west; that is to say, it is about 1,900 miles long and from 150 to 200 miles broad. Throughout this vast tract of land not a hill can be seen. The slope from the mountains to the sea is so gradual that about 100 miles from the mouth of the River Ganges the surface is no more than 500 feet above sea-level.

The Plain of Hindustan is probably the most important part of the country. For one thing, it contains some of the richest soils in the world. Second, it is on the Plain of Hindustan that the whole drama of race conflict and race assimilation was played out, a drama which finally shaped the political and cultural destiny of both India and its neighbour Pakistan.

Going into more detail the Plain of Hindustan is formed by the basins of three distinct river systems. In the far west are the Beas and Sutlej, tributaries of the Indus draining into the Arabian Sea. Further east is the River Ganges with its tributaries the Jamuna, Gogra, Rapti and Gandak which flows south-eastwards into the Bay of Bengal. The capital of the Indian Republic Delhi stands on the water-shed between the Indus and the Ganges river basins. The third of the three river systems, the Brahmaputra rises beyond the Himalayas, turns east and enters India at its eastern extremity and joins the Ganges before reaching the Bay of Bengal. The Brahmaputra has no important tributaries.

The rivers of Hindustan are notable in three respects: 1. They give a constant supply of water, 2. The land through which they flow is broad, flat and fertile and eminently suitable for irrigation, 3. Because water flows perennially they are navigable through the greater part of the year.

As we go from west to east in the plain rainfall increases and so do the fertility of the soil and the density of population.

## INDIAN PLATEAU

The third of the natural regions into which the country is divided is called the Indian Plateau because it comprises a three-sided table-land covering the whole of the country in the south except for two narrow coastal strips in the east and the west.

The Indian Plateau is marked off from the Plain of Hindustan by a confused mass of hill ranges running with a general direction of east to west. Three of these ranges have been distinguished by the names of Vindhyas, Satpuras and Ajantas respectively. They stand from 1,500 feet to over 4,000 feet high and though pierced by road and railway at the present time were not easy to cross in the

* Actually a new capital is to be built outside the city.

old days and thus formed a barrier of hill and jungle between the northern and the southern portions of the country.

The Indian Plateau is higher in the west and the south than in the east and north. Along the western and eastern edges of the plateau run the Western and Eastern Ghats. They start southward, from the extremities of the Vindhya mountain system and run along the western and eastern coasts of the country and unite to form a sort of upheaved angle towards their southern extremity.

The Western Ghats run through the States of Maharashtra and Mysore and ascend to an average height of about 3,000 feet while some of the peaks are anything between 5,000 feet and 9,000 feet high.

The Eastern Ghats stretch down the States of Andhra Pradesh and Madras and have an average elevation of 1,500 feet.

The inner triangular plateau which the Western and Eastern Ghats form far in the south is seamed with little ranges of hills exceeding 4,000 feet in height the best known among which are the Nilgiris. It is on the Nilgiris that Ootacamund the famous summer capital of Madras State stands.

**Drainage Systems.**—There are three systems of drainage in the Indian Plateau—one towards the north, the second towards the west and the third towards the east. The drainage from the northern or Vindhya edge of the plateau falls into the Ganges. Two rivers Narmada and Tapti carry the rainfall of the southern slopes of the Vindhya and Satpura mountains respectively in almost parallel lines into the Arabian Sea.

Further south, as we have already stated, the plateau is much higher in the west than the east. So the drainage has to make its way across the whole breadth of the plateau eastwards until it falls into the Bay of Bengal.

The most important rivers are the Mahanadi, the Godavari, the Krishna and the Cauvery. These rivers differ from the rivers of the Plain of Hindustan in three ways: 1. They are fed only by the monsoon rains and therefore do not yield a constant supply of water, 2. Their valleys are less suitable for irrigation, 3. And finally, they are not navigable for certain seasons in the year when parts of the river dry up.

From a geological point of view the Indian Plateau consists mainly of very old crystalline rocks—much older than the Himalayan fold mountains.

On some of the edges of the plateau in the north-east for instance, are areas of sedimentary rocks from which the country obtains most of its coal. About nine-tenths of the coal resources of India lie in Jharia in Bihar and Ranigunj in West Bengal, though coal-bearing beds are also found in the valley of the Godavari and the northern slopes of the Vindhyas.

The north-west of the plateau is covered by vast stretches of lava called the Deccan lavas. This region is one of the largest areas of lava in the world, covering as it does an area of 250,000 square miles with a total thickness of several thousand feet. In spite of the great extent of the lavas there are few or no signs of volcano.

In the rest of the Plateau valuable minerals occur here and there among old crystalline rocks. Gold is obtained in Mysore, manganese in Andhra, Mysore and Madhya Pradesh, copper and iron in Bihar and Orissa, mica in Andhra and the south-east. The point about diamonds is of some interest. They occur in sand-stones or conglomerate in Panna in Madhya Pradesh or Kurnool in Andhra, though no diamond bearing igneous rocks are found.

Two groups of very small islands in the Bay of Bengal, the Andamans and the Nicobars, and one group in the Arabian Sea the Laccadives are part of the Republic of India.

So is the quasi-island of Kutch off the Kathiawar Peninsula in western India. Kutch is a dry, rocky, treeless country.

The main cultivated plants include rice, wheat, pulses and grains. Among the important seeds grown are castor, sesamum and ground-nut.

The chief fruit trees include mango, coconut, arecanut and certain citrus fruit. Apples, peaches, pears, apricots and walnuts are confined chiefly to the Himalayan valleys.

There are tea plantations over large areas on the mountains in the north-east and south, while coffee, cardamom, pepper and rubber are extensively grown in the south. In some of the damper regions the cinchona is successfully cultivated.

Among the wild animals are the tiger, the elephant, leopard, panther, the cheetah, the marbled and jungle cat, the wolf, jackal, wild dog, the black and the Himalayan bear, the rhinoceros, crocodile, wild hog, wild ass, antelope, gazelle, sambhar, spotted deer, bison, wild buffalo, many kinds of reptile (cobra, Russel's viper).

Among the domestic animals are cattle, buffaloes, sheep, goats, horses and ponies, mules and donkeys, camels, and of course, fowl.

Birds include the parrot, peacock, maina, different kinds of vulture and eagle, kingfisher, pigeons, ducks, partridges, plover, quail and snipe.

Among the more useful insects are the bee, silk worm, coceus laca (the one that gives lac). Mosquitoes abound everywhere. Locust invasions are not frequent.

Edible fish include the carp family, cat fishes the hilsa and mahseer.

# METEOROLOGY

**Normal Monthly and Annual Maximum Temperature in Shade at Selected Stations in India.**

| Stations | Elevation in metres | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **HILL STATIONS** | | ° C. | ° C. | ° C. | ° C. | ° C. | ° C. | ° C. | ° C. | ° C. | ° C. | ° C. | ° C. | °C. |
| Darjeeling | 2,128 | 9·2 | 10·1 | 13·8 | 17·3 | 17·8 | 18·8 | 19·6 | 19·4 | 19·2 | 17·8 | 14·4 | 11·2 | 15·7 |
| Shillong | 1,500 | 15·6 | 16·9 | 21 3 | 23·4 | 23·3 | 23·6 | 24·1 | 23·9 | 23·5 | 21·7 | 18·9 | 16·4 | 21·1 |
| Simla | 2,202 | 8·6 | 9·3 | 13·9 | 18·8 | 22·9 | 23·9 | 21·6 | 20·2 | 20·2 | 17·9 | 14·6 | 10·3 | 16·9 |
| **COASTAL STATIONS** | | | | | | | | | | | | | | |
| Bombay | 11 | 28·4 | 28·4 | 30·1 | 31·7 | 32·8 | 31·4 | 29·7 | 29·4 | 29·7 | 31·6 | 31·9 | 30·3 | 30·5 |
| Madras | 16 | 29·6 | 31·3 | 33·0 | 35·3 | 38·5 | 37·6 | 35·7 | 34·9 | 34·4 | 32·3 | 29·7 | 28·9 | 33·4 |
| **STATIONS ON THE PLAINS** | | | | | | | | | | | | | | |
| Allahabad | 98 | 23·8 | 26·2 | 33·2 | 39·2 | 41·7 | 39·3 | 33·4 | 31·9 | 33·1 | 32·4 | 28·6 | 24·3 | 32·3 |
| Calcutta | 6 | 26·4 | 28·7 | 33·6 | 36·0 | 35·3 | 33 6 | 31·9 | 31·7 | 32·2 | 31·8 | 29·0 | 26·3 | 31·4 |
| Kanpur | 126 | 22 2 | 25·0 | 31·9 | 37·4 | 41·2 | 39 3 | 33·6 | 32·1 | 32·7 | 32·9 | 28·2 | 23·3 | 31·7 |
| Cuttack | 27 | 28·4 | 31 2 | 35·9 | 38·4 | 38·6 | 35·3 | 31·9 | 31·7 | 32·2 | 32·1 | 29 4 | 27·3 | 31·0 |
| New Delhi | 216 | 21·1 | 24·3 | 30·6 | 37·1 | 41·2 | 40·2 | 35·1 | 33·6 | 33·7 | 33·3 | 28·8 | 23·1 | 31·8 |
| Lucknow | 111 | 23·3 | 25·9 | 32·7 | 38·6 | 40·8 | 37·9 | 33·6 | 32·5 | 33·3 | 33·0 | 28·8 | 24·4 | 32·1 |
| Patna | 53 | 22 8 | 25·4 | 32·1 | 37·2 | 37·9 | 35·7 | 32·6 | 31·7 | 32·1 | 31·4 | 27·8 | 23·7 | 30·9 |
| **PLATEAU STATIONS** | | | | | | | | | | | | | | |
| Dehra Dun | 682 | 18·9 | 20·7 | 26·3 | 32·2 | 35·6 | 34·3 | 30·3 | 29·2 | 29·3 | 28·3 | 24·1 | 20·4 | 27·5 |
| Nagpur | 310 | 28·6 | 32·1 | 36·5 | 40·2 | 43·3 | 38·3 | 31·3 | 30·7 | 31·3 | 32·1 | 29·9 | 28·4 | 33·5 |

**Normal Monthly and Annual Minimum Temperature in Shade at Selected Stations in India.**

| Stations | Elevation in metres | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Hill Stations** | For elevation, see table of maximum temperature normals | ° C. | ° C. | ° C. | ° C. | ° C. | ° C. | ° C. | ° C. | ° C. | ° C. | ° C. | ° C. | ° C. |
| Darjeeling | | 2·9 | 3·8 | 7·1 | 10·3 | 12·3 | 14·5 | 15·3 | 15·2 | 14·4 | 11·1 | 7·2 | 3·6 | 9·8 |
| Shillong | | 3·8 | 5·8 | 10·4 | 13·9 | 15·1 | 17·2 | 18·1 | 17·8 | 16·4 | 12·7 | 7·9 | 4·4 | 11·9 |
| Simla | | 1·9 | 2·3 | 6·4 | 10·3 | 14·3 | 15·6 | 15·1 | 15·1 | 13·5 | 10·8 | 6·8 | 4·1 | 9·7 |
| **Coastal Stations** | | | | | | | | | | | | | | |
| Bombay | | 19·3 | 19·7 | 22·2 | 24·5 | 26·4 | 25·9 | 24·8 | 24·5 | 24·3 | 24·2 | 22·5 | 20·4 | 23·2 |
| Madras | | 19·5 | 20·2 | 22·4 | 25·6 | 27·6 | 27·3 | 26·3 | 25·6 | 25·1 | 23·9 | 22·2 | 20·5 | 23·9 |
| **Stations on the Plains** | | | | | | | | | | | | | | |
| Allahabad | | 8·4 | 10·5 | 16·1 | 21·9 | 26·6 | 28·3 | 26·6 | 25·8 | 24·8 | 19·5 | 12·4 | 8·4 | 19·0 |
| Calcutta | | 12·6 | 15·2 | 20·4 | 24·2 | 25·3 | 25·9 | 25·9 | 25·7 | 25·6 | 23·2 | 17·6 | 12·8 | 21·2 |
| Kanpur | | 7·6 | 10·6 | 15·6 | 21·4 | 26·9 | 28·3 | 26·6 | 25·9 | 24·6 | 18·9 | 12·2 | 8·1 | 18·9 |
| Cuttack | | 15·4 | 18·2 | 22·1 | 25·3 | 26·6 | 26·4 | 25·7 | 25·6 | 25·4 | 23·6 | 18·8 | 14·8 | 22·3 |
| New Delhi | | 7·3 | 9·4 | 14·8 | 21·4 | 26·7 | 28·7 | 26·9 | 26·1 | 24·3 | 18·5 | 11·4 | 6·8 | 18·5 |
| Lucknow | | 8·4 | 10·8 | 15·9 | 21·6 | 25·7 | 27·6 | 26·4 | 25·9 | 24·7 | 19·2 | 12·3 | 8·5 | 18·9 |
| Patna | | 10·6 | 12·7 | 17·9 | 23·1 | 25·6 | 26·6 | 26·6 | 26·5 | 26·1 | 22·7 | 16·1 | 11·3 | 20·5 |
| **Plateau Stations** | | | | | | | | | | | | | | |
| Dehra Dun | | 6·7 | 8·1 | 12·3 | 16·9 | 21·2 | 23·4 | 23·2 | 22·7 | 20·8 | 15·7 | 10·6 | 7·3 | 15·7 |
| Nagpur | | 12·8 | 15·3 | 19·2 | 24·1 | 28·7 | 26·9 | 24·1 | 23·8 | 23·3 | 19·7 | 13·9 | 11·7 | 20·3 |

**Normal Monthly and Annual Rainfall at Selected Stations in India.**

| Stations | Elevation in metres | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Hill Stations** | For elevation, see table of maximum temperature normals | mm. | mm. | mm. | mm. | mm. | mm. | mm. | mm. | mm. | mm. | mm. | mm. | mm. |
| Darjeeling | | 13·5 | 30·2 | 47·7 | 105·2 | 244·6 | 614·2 | 836·2 | 674·6 | 480·1 | 137·4 | 20·6 | 6·9 | 3211·2 |
| Shillong | | 13·2 | 26·9 | 50·0 | 129·5 | 286·8 | 461·3 | 346·7 | 317·3 | 299·5 | 170·7 | 40·9 | 7·1 | 2149·9 |
| Simla | | 66·3 | 74·2 | 59·9 | 46·0 | 64·3 | 153·4 | 414·0 | 428·0 | 169·7 | 30·0 | 13·2 | 31·5 | 1550·5 |
| **Coastal Stations** | | | | | | | | | | | | | | |
| Bombay | | 3·6 | 2·0 | 1·3 | 0·8 | 16·5 | 484·1 | 616·5 | 340·1 | 263·9 | 64·5 | 13·5 | 2·0 | 1808·8 |
| Madras | | 35·8 | 10·4 | 7·4 | 15·5 | 26·2 | 47·2 | 91·4 | 116·3 | 118·9 | 305·8 | 354·6 | 138·4 | 1267·9 |
| **Stations on the Plains** | | | | | | | | | | | | | | |
| Allahabad | | 21·6 | 16·0 | 14·2 | 4·3 | 16·0 | 128·0 | 319·0 | 254·8 | 212·3 | 59·4 | 7·9 | 8·6 | 1062·1 |
| Calcutta | | 9·4 | 29·7 | 34·5 | 44·5 | 139·5 | 296·9 | 325·4 | 328·2 | 252·7 | 113·8 | 20·6 | 4·6 | 1599·8 |
| Kanpur | | 14·2 | 16·8 | 7·4 | 5·6 | 8·1 | 81·0 | 273·1 | 284·5 | 172·5 | 33·0 | 8·9 | 7·1 | 912·2 |
| Cuttack | | 8·1 | 19·8 | 26·4 | 27·2 | 90·7 | 252·7 | 327·4 | 340·4 | 247·9 | 135·6 | 41·1 | 5·8 | 1523·1 |
| New Delhi | | 25·1 | 21·1 | 12·9 | 8·4 | 13·2 | 77·0 | 178·6 | 183·6 | 122·9 | 10·2 | 2·5 | 10·9 | 666·4 |
| Lucknow | | 19·3 | 18·3 | 8·6 | 6·3 | 19·6 | 113·3 | 304·8 | 292·1 | 188·0 | 32·5 | 5·6 | 8·1 | 1016·5 |
| Patna | | 15·0 | 18·8 | 10·7 | 6·9 | 35·6 | 181·4 | 294·1 | 332·5 | 218·4 | 58·4 | 8·6 | 5·6 | 1186·0 |
| **Plateau Stations** | | | | | | | | | | | | | | |
| Dehra Dun | | 58·9 | 62·7 | 32·0 | 16·5 | 36·8 | 217·2 | 668·0 | 731·3 | 269·7 | 32·0 | 8·9 | 25·9 | 2159·9 |
| Nagpur | | 9·4 | 16·5 | 15·2 | 15·2 | 19·3 | 224·0 | 370·8 | 290·1 | 203·5 | 55·1 | 19·6 | 11·9 | 2159·9 |

## SUB-DIVISIONAL MEANS OF RAINFALL IN MILLIMETRES DURING THE MONSOON

### JUNE TO SEPTEMBER 1964

| SUB-DIVISION. | JUNE TO SEPTEMBER. | | | |
|---|---|---|---|---|
| | Actual. | Normal. | Departure from Normal. | Percentage Departure from Normal. |
| 1 | 2 | 3 | 4 | 5 |
| | mm. | mm. | mm. | mm. |
| 1. Bay Islands | 2078 | 1777 | +302 | +17 |
| 2. Assam (including Manipur and Tripura) | 1472 | 1446 | + 26 | + 2 |
| 3. Sub-Himalayan West Bengal | 2587 | 2255 | +333 | +15 |
| 4. Gangetic West Bengal | 978 | 1217 | −239 | −20 |
| 5. Orissa | 1220 | 1131 | + 89 | + 8 |
| 6. Bihar Plateau | 1078 | 1125 | − 47 | − 4 |
| 7. Bihar Plains | 950 | 1018 | − 68 | − 7 |
| 8. Uttar Pradesh, East | 871 | 919 | − 47 | − 5 |
| 9. Uttar Pradesh, West | 1114 | 882 | +233 | +26 |
| 10. Punjab (I) (including Delhi) | 915 | 570 | +344 | +60 |
| 11. Himachal Pradesh | 1068 | 1239 | −172 | −14 |
| 12. Jammu and Kashmir | 347 | 334 | + 13 | + 4 |
| 13. Rajasthan, West | 316 | 258 | + 58 | +23 |
| 14. Rajasthan, East | 583 | 601 | − 18 | − 3 |
| 15. Madhya Pradesh, West | 939 | 930 | + 8 | + 1 |
| 16. Madhya Pradesh, East | 1357 | 1234 | +123 | +10 |
| 17. Gujarat Region | 1022 | 864 | +158 | +18 |
| 18. Saurashtra and Kutch | 601 | 486 | +115 | +24 |
| 19. Konkan | 2287 | 2133 | +154 | + 7 |
| 20. Madhya Maharashtra | 630 | 509 | +121 | +24 |
| 21. Marathwada | 588 | 663 | − 75 | −11 |
| 22. Vidarbha | 990 | 969 | + 21 | + 2 |
| 23. Coastal Andhra Pradesh | 731 | 528 | +202 | +38 |
| 24. Telangana | 816 | 767 | + 49 | + 6 |
| 25. Rayalaseema | 688 | 393 | +296 | +75 |
| 26. Madras State | 350 | 270 | + 80 | +30 |
| 27. Coastal Mysore | 2834 | 2925 | − 91 | − 3 |
| 28. Interior Mysore, North | 891 | 584 | +307 | +53 |
| 29. Interior Mysore, South | 604 | 417 | +188 | +45 |
| 30. Kerala | 1749 | 1736 | + 13 | + 1 |
| 31. Arabian Sea Islands | 1230 | 915 | +315 | +34 |

*Note :* In the calculation of excesses and defects and their percentages, rainfall figures are taken correct to 0·1 mm.

### MONSOON RAINFALL SUMMARY—1964.

The rainfall was in large excess in the Punjab (I), Rayalaseema and north Interior Mysore and in moderate excess in west Uttar Pradesh, coastal Andhra Pradesh, the Madras State, south Interior Mysore and the Arabian Sea Islands. It was slightly more in the Bay Islands, Sub-Himalayan West Bengal, west Rajasthan, Gujarat State and Madhya Maharashtra and slightly less in Gangetic West Bengal, Himachal Pradesh and Marathwada. The rainfall was normal over the rest of the country.

*Chief Features.*—(*i*) Rapid advance of the southwest monsoon despite its slightly delayed onset; (*ii*) Normal activity of the monsoon with spells of heavy rains leading to floods in north and central India; and (*iii*) Delayed withdrawal of the monsoon from northwest India.

*June.*—Under the influence of a cyclonic storm in the Bay of Bengal, the south-west monsoon had advanced into the southeast Bay of Bengal and south Bay Islands upto Lat. 10°N towards the end of the first week of May. By the end of the month, it extended into the north Bay Islands and the remaining parts of the southeast Bay. The Arabian Sea branch of the monsoon set in over south Kerala on 5th June, about five days later than the normal date. A severe cyclonic storm of small extent with a core of hurricane winds developed over the east central Arabian Sea off the Konkan coast and moving northwards crossed the Kathiawar coast near Naliya on 12th. Under its influence the monsoon rapidly advanced northwards and set in over the entire west coast by 12th. At about the same time, the Bay branch of the monsoon began to advance into Assam and by 15th it covered the whole of northeast India. A low pressure area moving northwestwards from the northwest Bay of Bengal during the third week caused the extension of the monsoon into Gujarat State and most parts of Madhya Pradesh and of Uttar Pradesh by 25th. The last phase of advance of the monsoon was in association with a Bay depression during the first week of July and the monsoon extended to cover the entire country by 5th July.

The severe cyclonic storm in the Arabian Sea mentioned above caused large-scale destruction of life and property in Saurashtra and Kutch and along the Kathiawar coast in the second week of June.

The premonsoon thundershower activity was quite pronounced over Assam during the first week and all the rivers in Assam rose in spate following the heavy rains. With the onset of the monsoon the heavy rains continued there during the second week. The monsoon activity was fairly good and sustained during the second half of the month over northeast India. According to press reports, the Brahmaputra rose above the danger level at many places particularly during the third week, inundating and damaging vast areas of paddy and jute crops. More than four lakh persons were affected by the floods. In north Bengal also the Torsa and Teesta were in high floods during the last week. Spells of heavy rains occurred in the central parts of the country and adjoining areas during the last ten days of the month as a result of the development and movement of two low pressure areas from the head Bay of Bengal.

After the initial spell of heavy rains which occurred at the time of the setting in of the monsoon along the west coast, the monsoon remained weak to moderate or the rest of the month. However, the rainfall activity increased appreciably over the Konkan and coastal Mysore during the second half of the month. The other parts of the Peninsula also received a few spells of showers with increased rainfall during the last week.

Two western disturbances moving eastwards across the Western Himalayas caused dust or thunderstorms over many parts of northwest India during the first week. A spell of good rains occurred over this area about the middle of the month when the remnants of the severe cyclonic storm from the Arabian sea moved over to the Punjab (I). The rainfall was particularly heavy in Jammu and Kashmir where the Srinagar-Jammu road was reported to have breached at some places due to the flood waters of the Jhelum. Mainly dry weather prevailed over northwest India during the second fortnight except for the rainfall in the Western Himalayas during the last week due to the advancing monsoon current in the low levels.

*July.*—The monsoon activity was well maintained over practically the entire country during this month.

A low pressure area lying over Bihar Plateau and neighbourhood towards the end of June moved westwards and merged into the seasonal low by 3rd. This was followed by a depression which formed over the head Bay of Bengal on 3rd and moved in a northwesterly direction. Under their influence the monsoon activity was well maintained over most parts of the country, being particularly strong over the central belt of the country from Orissa to Gujarat State and also over the Konkan and Kerala. Sambalpur recorded 31 cm of rain on 5th and Broach 22 cm and Surat 21 cm on 7th.

The axis of the monsoon trough shifted to the north of its normal position and lay close to the foot of the Himalayas on most of the days during the period 8th to 18th. In association with it, the monsoon activity was more marked over

north India with heavy to very heavy rains occurring at a number of places in the Himalayas and adjoining plains. According to press reports, the Brahmaputra in Assam, the Bagamati, the Kamla and the Ganga in north Bihar, the Jumna near Delhi and the Beas and Markanda in the Punjab (I) rose in spate due to the heavy rains and flooded low lying areas. Standing crops over vast areas were damaged and a number of villages were also affected. The monsoon was weak to moderate over the remaining parts of the country except for a few spells of heavy rain along the west coast during the above period.

Two low pressure areas developing over Orissa and southeast Madhya Pradesh on 20th and over Vidarbha on 24th respectively, moved in a northwesterly direction. Under their influence the monsoon activity was sustained till the end of the month over the country outside the west coast where it was weak during the last week. As a result of the heavy rains in the central parts of the country in the third week, the flood waters of the Morna river were reported to have inundated low lying areas in Akola district and washed away standing crops over an area of about 5,000 acres.

An unusual spell of good rainfall occurred in Madras State and Andhra Pradesh during the last week as a result of a trough of low pressure moving from the east into the extreme south Peninsula. The monsoon activity revived along the west coast towards the end of the month.

*August.*—The monsoon activity along the west coast was sustained during the first week as a result of the development of an upper air trough over the east central Arabian Sea off the Konkan Kanara coasts. A cyclonic storm of very small extent developing in the Arabian Sea off Bombay on 7th caused heavy rains and squally weather in the north Konkan. The monsoon was moderate to weak over the Peninsula and also over Assam and West Bengal during the last three weeks of the month. However, spells of good rainfall occurred in Madras State and Andhra Pradesh particularly towards the end of the month.

Four depressions and a low pressure area forming in the north Bay of Bengal and moving inland during the period from 5th to the end of the month were responsible for the fairly good activity of the monsoon over the central parts of the country, and northwest India after the first week. Of these, the first three depressions were deep. The spells of heavy rains led to floods in Assam, north Bengal and north Bihar during the first week, in east Uttar Pradesh during the second and third weeks, in Madhya Pradesh during the third week and in Bihar State, east Rajasthan, the Punjab (I) and Delhi areas during the second fortnight. The floods were reported to have affected hundreds of villages and caused serious damage to standing crops and many road breaches.

*September.*—The monsoon activity was well sustained over the country outside northwest India as a result of the development and movement of five low pressure systems from the Bay of Bengal, the last two intensifying into deep depressions.

The first low pressure area formed over the head Bay of Bengal on 7th and moving west-northwestwards persisted over Uttar Pradesh from 11th to 15th. The heavy rainfall activity prevailing over northeast India during the first week extended to east Uttar Pradesh and east Madhya Pradesh during the second week. The river Bagamati in Muzaffarpur rose in floods causing damage to paddy crops and disruption of communication services in the first week. The second low pressure system developed as a trough in the southwest Bay of Bengal off the Coromandel coast on 3rd and moving across the south Peninsula persisted over the Arabian sea off Malabar Kanara coasts from 6th to 9th. Under its influence there was good rainfall activity in the Peninsula during the first week. The monsoon continued to be active over the Peninsula till the end of the third week under the influence of the third low pressure area. This system formed over the east central Bay of Bengal on 11th and moving westwards into the east central Arabian Sea across the north Peninsula recurved northeastwards to Uttar Pradesh by 21st. Later it became unimportant. Under its influence the monsoon activity was maintained over the Peninsula, the central parts of the country, Gujarat State and Uttar Pradesh during the third week. According to newspaper reports, many of the rivers in Gujarat State were in floods due to the heavy rains and inundated low lying areas and caused damage to many houses.

During the last week of the month two deep depressions moving inland from the Bay of Bengal kept up the monsoon activity over the country. The first one which formed over the head Bay on 23rd moved northwestwards to the Punjab (I) by 26th. The spell of heavy rains caused by it led to serious floods in west Uttar Pradesh and the Punjab (I) where a number of houses were reported to have been damaged and vast areas inundated. The second deep depression formed on 27th over the west central Bay of Bengal and crossing coast near Kakinada weakened into a low pressure area over Telangana and neighbourhood by 30th. It caused heavy rains in Andhra Pradesh and other parts of the north Peninsula. Rentachintala recorded 23 cm of rain on 29th.

The five low pressure systems including the two deep depressions mentioned above maintained the monsoon activity over the country upto the end of the month. Consequently the withdrawal of the monsoon was delayed. A trough in the high level westerlies which developed over West Pakistan and Afghanistan on 24th persisted there till 28th and later moved away eastwards across the Western Himalayas by 29th. In its wake, the monsoon withdrew from northwest India by 28th, about a fortnight after the normal date. By 15th October the monsoon had withdrawn from Uttar Pradesh, central parts of the country, northeast India and north Peninsula and was confined to the south Peninsula.

*Season as a whole.*—The monsoon set in over south Kerala in the first week of June about five days later than the normal date. It advanced rapidly and covered the entire country by 5th July. The monsoon activity was well maintained over the country upto the end of September. The monsoon began to withdraw from northwest India by the end of September, about a fortnight later than the normal date. The further withdrawal from the other parts of the country outside the south Peninsula was completed by the middle of October. The duration of the monsoon period in north India was two to three weeks longer than the normal. The activity of the monsoon was generally normal over the country but there were spells of heavy rains leading to floods in north and Central India.

# METRIC SYSTEM OF WEIGHTS AND MEASURES

FOLLOWING the acceptance of the metric system in principle by the Lok Sabha, the Government of India sponsored in Parliament legislation to adopt the metric system. The Standards of Weights and Measures Bill received the President's assent in December 1956. This Act defines the primary units of mass and length, units of capacity, time, electric current and luminosity, and the scale of temperature.

The metric system was chosen for its inherent advantages. It is simple and easy to learn and remember. Its use makes calculations easier. The metric system is one of the two major international systems of weights and measures recognised everywhere in the world.

## PRIMARY UNITS

The primary unit of length is the metre and of mass the kilogram. The international definitions of the metre and the kilogram have been adopted in substance. The standards of Weights and Measures Act, 1956, defined the kilogram as the mass of the platinum-iridium cylinder declared as the international prototype of the kilogram. The metre is the distance under prescribed conditions between the two median lines on the platinum-iridium bar maintained at the International Bureau of Weights and Measures, and declared International Prototype of the Metre. In October 1960, the Eleventh General (International) Conference on Weights and Measures redefined the metre in terms of the wavelength of the orange-red radiation in vacuum of krypton 86. The Standards of Weights and Measures Act, 1956, was therefore amended in 1964, adopting the new definition. According to the new definition, the metre is the length equal to 1,650,763·73 wavelengths, in vacuum, of the radiation corresponding to the transition between the $2P_{10}$ and $5d_5$ levels of the krypton atom of mass 86. The change in the definition does not make any significant difference to the length of the metre; only the basic concept underlying the definition will change.

The litre or the volume of one kilogram of water under specified conditions, would be the unit of capacity. The second, the unit of time, has been defined with reference to the length of the tropical year 1900. The unit of electric current would be the ampere, and of luminosity the candela. Temperature would be measured by the Centigrade scale.

A survey on the financial implications of the metric change-over was undertaken. The survey has revealed that the change has cost the Central and State Governments, industries, trade and the public, a total amount of Rs. 12 crores.

## NATIONAL PROTOTYPES

The Central Government are required, by law, to acquire and keep in their custody a Standard Kilogram and a Standard Metre conforming to the definitions, to a very high degree of accuracy. These would be called the National Prototypes of the Metre and the Kilogram. The prototypes must be authenticated against the International Prototypes maintained by the International Bureau of Weights and Measures. The acquisition of these prototypes was not easy; there are only a few manufacturers who can manufacture standards of such high accuracy. A Standard Kilogram and a Standard Metre were purchased with the help of the International Bureau of Weights and Measures. They have been deposited at the National Physical Laboratory, after verification against the International Prototypes, by the Director of the International Bureau. Under the Standards of Weights and Measures Rules, the N.P.L. has been declared the custodian of the National Standards. The Standards will be got verified by the Director, International Bureau, once in every 10 years.

## REFERENCE STANDARDS

Since weights and measures are enforced by the State Governments they must have standard weights and measures of high accuracy. The Act has placed on the Central Government the

duty of supplying a set of such Standards free to each State Government. These are called Reference Standards. The Reference Standards of weight and length are manufactured by the Bombay Mint, and verified against the National prototypes by the National Physical Laboratory. The Bombay Mint is the only organisation in India which is capable of manufacturing standards of this accuracy.

The Act lays down only the primary units. The Central Government has been authorised to declare secondary units with reference to primary units. There is an important stipulation that every secondary unit must be an integral power of 10, positive or negative, of the corresponding primary unit.

It was recognised that the introduction of the new system of measurement would entail much preparatory work. A period of 10 years was, therefore, allowed for its adoption in all spheres. It would be introduced gradually. The Act, therefore, gave the Government the discretion to introduce the new weights and measures by convenient stages. The Government might, for instance, introduce weights first, followed by capacity and length measures. Government might first introduce the new system in certain areas or types of undertakings, and later extend it to others in the light of experience. After the new weights or measures were introduced in an area or class of undertakings, the older weights and measures might be permitted for a period upto 3 years.

## LAW TO ENFORCE WEIGHTS AND MEASURES

While the Standards of Weights and Measures Act, 1956, laid down the standards, it has no provision to enable the State to effectively enforce the standard weights and measures. It did not give powers to punish people found using non-standard or false weights. Further legislation was, therefore, necessary for the enforcement of weights and measures.

Under the Constitution the State Legislature, and not Parliament, is the competent authority to make laws for enforcement of weights and measures. This meant the risk of each State making its own Weights and Measures Law without relevance to the laws of the neighbouring States. If this was allowed to happen, even though the metric system would have been established throughout the country, the denominations of weights and measures used, their designs and accuracy, specifications for weighing and measuring instruments, and penalties for using false or non-standard weights, would vary from State to State. Such a state of affairs would handicap trade, particularly foreign trade, and hinder the manufacture and distribution of weights, measures and instruments in India.

It was, therefore, decided by the Central Govt. to draft a Model Weights and Measures (Enforcement) Bill in consultation with the State Governments. All the States accepted the Model Bill, and State Legislatures have enacted it into law. The Union Territories of Delhi, Himachal Pradesh, Tripura and Manipur have adopted the Rajasthan Weights & Measures (Enforcement) Act, 1958. All the States and Union Territories have also accepted and enforced Model Rules recommended to them. The Weights & Measures (Enforcement) Acts in force in States and Union Territories are, therefore, virtually identical.

The main purpose of the enforcement laws is to :

*i*) specify denominations, shapes, designs and accuracy of weights and measures used in trade, as well as the capacities, sensitiveness, accuracy and constructional details of weighing and measuring instruments,

*ii*) lay down procedures for verifying weights, measures and instruments,

*iii*) prohibit the use in transactions of non-standard or false weights, measures and instruments, and prescribe penalties for their use,

*iv*) authorise the appointment of Controllers and other officers for enforcing weights and measures, and to define their duties and powers.

Specifications for weights, measures and instruments were drawn up by a Committee appointed by the Indian Standards Institution. Manufacturers, technical experts and the Departments of Weights and Measures, were represented in the Committee. These specifications were virtually incorporated in the States Weights and Measures (Enforcement) Rules.

## METRIC SYSTEM IN INDUSTRY

All the major industries have adopted the metric system. In buying materials and stores and selling products, prices and quantities are expressed in metric units. Accounts and statistics are also maintained in the metric system. So far, however, no significant changes have been introduced in the quality or design of products, to conform to the the metric system ; the bulk of the productive equipment in Industry continues to be on the inch pound system. In documents relating to sales, however, the quality descriptions are given in metric units by exact conversion of the dimensions.

The metric system was not imposed on industry from above. The dates on which it was introduced and the manner of introduction were suggested by the representatives of industry themselves. Industry was helped to change over by assistance in supply of scarce materials or imported spare parts and components. For instance, the oil companies were given licences to import parts for the conversion of petrol dispensing pumps in use throughout the country. Manufacturers of weighing machines were allowed to import spare parts for converting to the metric system a large number of weighing machines in use in industry and trade. Such imports were, of course, limited to components which are not manufactured in sufficient quantities in India. A special study showed that such components are relatively few. The value of components imported has therefore, been small.

## KILOMETRE STONES ON ROADS

The kilometre has been adopted as the unit of distance by rail. Distances along rail tracks have been marked in kilometres. With the adoption of the metric system in road transport, it has become necessary to mark distances on roads also in kilometres. But setting up kilometre stones on roads is more arduous and costly. The total length of roads including National Highways and State Roads, is about 375,000 miles or 6,000,000 kilometres. There are also other roads like District and Village Roads, Canal Roads and Forest Roads. The work will be carried out first on National Highways. The mile stones will be allowed to stand for the time being; the kilometre and the mile stones would be on opposite sides of the roads. On roads to be built in future, only kilometre stones will be set up. They will be put up on the left side of a person standing with his back to the starting point.

Kilometre stones are to be of the same design throughout the country. A suitable design recommended by the Indian Roads Congress has been accepted by the Governments. Distances will be marked on the stones in international numerals. Local or Devnagri numerals will not be used. Place names will be written in Roman, Devnagri or the local script, only one script being used on any particular stone. The writing on the stone at the starting point or zero kilometre will be in the Roman script. Successive stones will be in Devnagri, local script, Roman script, and so on, in that order. The stone will have a white background with letters in black. The top semi-circular portion will be painted canary yellow on National Highways, brilliant green on State Roads, and white on major District Roads.

## METRIC SYSTEM IN EDUCATION

The ultimate success of the metric system will depend on the young now in schools. Though the metric system is familiar to educated people in India, it has remained limited to the realm of knowledge and not of experience. Even the educated, therefore, find difficulty in using the metric system in ordinary dealings. Their minds can form concepts of weights or dimensions only with reference to the inch-pound or the Indian systems. The generation at school, on the other hand, will have experience of metric system in ordinary dealings, from a very early age. It is important, therefore, that they should be taught the metric system ; this requires teaching at a very early stage in schools ; in arithmetic and allied subjects, all examples and illustrations must be in this system.

These changes involve revision of school syllabi, and more important, of text-books ; in some cases they amount to re-writing large parts of the books. The school syllabus has been revised in many States and text-books have been suitably changed incorporating the metric system. In the field of higher education, the inch-pound system has been in exclusive use in engineering colleges. A change here would, therefore, involve replacement or recalibration of tools and instruments in addition to text-books.

Technical institutions have, however, adopted the metric system according to a phased programme. In engineering and medical colleges teaching is now based mainly on the metric system.

The metric system of weights & measures has now become compulsory throughout the country in trade and commerce. This is a significant land-mark in the history of India where a welter of weights & measures has so long prevailed.

## SIMPLE CONVERSION TABLES

| | WEIGHTS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ***Tons to Metric Tonnes*** | | | | | | | | | | |
| Tons | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Metric Tonnes | 1·02 | 2·03 | 3·05 | 4·06 | 5·08 | 6·10 | 7·11 | 8·13 | 9·14 | 10·16 |
| ***Pounds (av) to Kilograms*** | | | | | | | | | | |
| Pounds | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Kilograms | 0·45 | 0·91 | 1·36 | 1·81 | 2·27 | 2·72 | 3·18 | 3·63 | 4·08 | 4·54 |
| ***Tolas to Grams*** | | | | | | | | | | |
| Tolas | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Grams | 11·66 | 23·33 | 34·99 | 46·66 | 58·32 | 69·98 | 81·65 | 93·31 | 104·97 | 116·64 |
| ***Seers to Kilograms*** | | | | | | | | | | |
| Seers | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Kilograms | 0·93 | 1·87 | 2·80 | 3·73 | 4·67 | 5·60 | 6·53 | 7·46 | 8·40 | 9·33 |
| ***Maunds to Quintals*** | | | | | | | | | | |
| Maunds | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Quintals | 0·37 | 0·75 | 1·12 | 1·49 | 1·87 | 2·24 | 2·61 | 2·99 | 3·36 | 3·73 |

## SIMPLE CONVERSION TABLES—(*Contd.*)

### LENGTH

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Miles to Kilometres* | | | | | | | | | | | | | |
| Miles | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Kilometres | | | 1·61 | 3·22 | 4·83 | 6·44 | 8·05 | 9·66 | 11·27 | 12·87 | 14·48 | 16·09 | |
| *Yards to Metres* | | | | | | | | | | | | | |
| Yards | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Metres | | | 0·91 | 1·83 | 2·74 | 3·66 | 4·57 | 5·49 | 6·40 | 7·32 | 8·23 | 9·14 | |
| *Inches to Millimetres* | | | | | | | | | | | | | |
| Inches | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| Millimetres | 25·40 | 50·80 | 76·20 | 101·60 | 127·00 | 152·40 | 177·80 | 203·20 | 228·60 | 254·00 | 279·40 | 304·80 | |

### AREA

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Acres to Hectares* | | | | | | | | | | | | | |
| Acres | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Hectares | | | 0·40 | 0·81 | 1·21 | 1·62 | 2·02 | 2·43 | 2·83 | 3·24 | 3·64 | 4·05 | |
| *Square Yards to Square Metres* | | | | | | | | | | | | | |
| Square Yards | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Square Metres | | | 0·84 | 1·67 | 2·51 | 3·34 | 4·18 | 5·02 | 5·85 | 6·69 | 7·53 | 8·36 | |

### CAPACITY

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Gallons (Imperial) to Litres* | | | | | | | | | | | | | |
| Gallons | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| Litres | | | 4·55 | 9·09 | 13·64 | 18·18 | 22·73 | 27·28 | 31·82 | 36·37 | 40·91 | 45·46 | |

# RAILWAYS

THE total route kilometrage of all the railways in India on March 31, 1964 was 57,584·80. The total electrified route kilometrage was 1,802·50.

The total route kilometrage is made up of the following :

Govt. railways (k.m.) 56,922·76.

Non-Govt. railways—662·04.

The total capital at charge of Govt. railways on March 31, 1964 was Rs. 1,988·24 crores.

There are three kinds of gauge, broad (1·676m.), metre (1·000m.) and narrow (0·762m.). There is also a light gauge usually laid on the mountains (0·610m). An example of this last is the Darjeeling-Himalayan.

The total route kilometrage by gauge was as follows :

Broad gauge : 27,459·39

Metre gauge : 25,142·95

Narrow gauge : 4,982·55

There are in all 6,854 railway stations. In any one day of 24 hours, over 5 million people travel by rail and over 5 lakh tons of goods (food, cloth, raw materials and finished products) begin a rail journey from one part to another in India.

The total number of employees, permanent and temporary, on all the railways at the end of 1963-64 was, 1,275,768, excluding casual labourers. The railways have a fleet service of approximately 11,540 locomotives, 29,551 coaching vehicles and 289,400 wagons or freight cars. About 10,000 trains run daily.

### ZONAL ADMINISTRATION*

The entire Government railway system is now grouped into eight administrations : the Southern Railway, the Western Railway, the Central Railway, the Northern Railway, the Eastern Railway, the South-Eastern Railway, the North-Eastern Railway and the North-East Frontier Railway.

The headquarters of the Southern Railway is at Madras, of the Western Railway at Bombay, of the Central Railway also at Bombay, of the Northern Railway at Delhi, of the Eastern Railway at Calcutta, of the South-Eastern Railway also at Calcutta, of the North-Eastern at Gorakhpur and the North-East Frontier Railway at Pandu.

Some of these railways comprise smaller systems.

There are ten non-Government Railways. The route kilometrage is given in brackets after the name :—

Ahmadpur-Katwa (51·25) ; Arrah-Sasaram Light (114·54) ; Bankura-Damodar River (107·91) ; Bhuktiarpur-Bihar Light (53·11) ; Burdwan-Katwa (59·57) ; Dehri-Rohtas Light (104·61) ; Futwa-Islampur (47·09) ; Howrah-Amta Light (86·35) ; Howrah-Sheakhala Light (31·04) ; Shahdara (Delhi)-Saharanpur Light (172·96).

They are all narrow gauge (0·762 m.) except the two Howrah-Amta and Howrah-Sheakhala which are 0·610 m.

The highest administrative authority for the railways is the Railway Board.

The Indian Railway Conference Association, New Delhi, is a sort of clearing house for all railways.

The railways are now organized on a Divisional basis.

There are a number of Committees which have been associated with the Railway Administration : Standing Finance Committee, Central Advisory Council, Railway Rates Tribunal, Indian Railway Fuel Committee.

There are also a number of standardization Committees such as for bridges, structure, track, signalling and inter-locking, building, locomotive, carriage and wagon, electrical, specifications.

There are also Railway Users' Consultative Committees at the zonal, regional and national level. There is a Time Tables Committee, Suburban Railway Users' Consultative Committee, Passenger Amenities Committee, Catering Supervisory Committee, Book-Stall Committee. A Public Co-operative Committee consisting of members from National Railway Users' Consultative Council and members of Parliament was formed to combat crime. Zonal Parliamentary Committees have been constituted which meet the respective General Managers of the Zonal Railways in company with the Railway Minister and the Railway Board.

There are Railway Service Commissions in Bombay, Calcutta, Allahabad and Madras.

There is a training college for railway officers and staff at Baroda and 50 Training Schools.

There is a Railway Testing and Research Centre at Lucknow and a sub-centre at Chittaranjan mainly to help in the promotion of self-sufficiency in railway stores.

* The new zone, the South Central Zone, has been set up with headquarters at Secunderabad. The capital investment of the Indian Railways as of July 1965 was Rs. 3,000 crores.

## STATISTICS

The principal statistics for the year 1963-64 are given below. The first column shows the position for all railways, the second only for Government railways :

| — | All Railways | Government Railways. |
|---|---|---|
| **Capital at charge (Rs. crores)[7]** | 2,166·49 | 1,988·24 |
| **Route kilometrage (March 31)** | 57,584·80 | 56,922·76 |
| Gross earnings (Rs. crores)[1] | 633·84* | 632·04* |
| **Total working expenses (Rs. crores)[2]** | 474·74† | 473·06† |
| Operating ratio (per cent)[3] | 74·90 | 74·85 |
| No. of passengers originating (million) | 1,887·99 | 1,867·49 |
| **Passenger k.m. (million)** | 88,942·52 | 88,526·53 |
| Earnings from carriage of passengers (Rs. crores) | 186·15* | 185·15* |
| Average earnings per passenger kilometre (Paise) | 2·09* | 2·09* |
| Freight tonnes originating (million) | 193·39 | 192·23 |
| Freight tonnes k.m. (million) | 106,905·18 | 106,840·59 |
| Earnings from carriage of goods (Rs. crores)[5] | 387·04 | 386·38 |
| Average earnings per freight tonne k.m. (Paise) | 4·36 | 4·36 |
| **Total train k.m. (million)** | 424·21 | 420·70 |
| Gross earnings per train k.m. (Rs.) | 15·9* | 15·9* |
| Working expenses[2] per train k.m. (Rs.) | 12·1† | 12·2† |
| Net earnings[4] per train k.m. (Rs.) | 3·76* | 3·79* |
| Net earnings[4] per mean k.m. worked (Rs.) | 27,574* | 27,870·00* |

([1]) 'Gross earnings' represent the true earnings in an accounting period irrespective of whether the amounts have been realised or not. They include earnings from Marmugao Harbour and also earnings awaiting realisation. ([2]) 'Working expenses' are the administrative figures of railway accounts representing true expenses of the railway system in an accounting period irrespective of whether the expenses have been disbursed. ([3]) 'Operating ratio' shown here represents the percentage of working expenses to gross earnings as defined in explanations at ([1]) & ([2]) above. ([4]) 'Freight tonnes originating, includes the tonnage of railway stores and materials carried in material/ballast trains on open lines for railway project works. These statistics were not taken into account in earlier years. ([5]) 'Earnings' from carriage goods' exclude from demurrage, wharfage etc. ([6]) 'Net earnings' represents gross earnings minus working expenses, as defined in explanation ([1]) and ([2]) above. ([7]) 'Capital at charge' includes the capital outlay on worked lines but excludes that on railway manufacturing units and miscellaneous independent projects such as the Chittaranjan Locomotive Works, the Integral Coach Factory, the Diesel Locomotive Works etc.

* Includes the element of passenger fare tax with effect from April 1, 1961. † During 1963-64, the contribution to the Depreciation Reserve Fund was Rs. 80 crores against Rs. 67 crores in 1962-63, Rs. 65 crores in 1961-62 and Rs. 45 crores in the previous years.

Other information about Indian Railways for 1963-64 is given below :—

| | |
|---|---|
| *New Lines opened to Traffic* | 407·03 k.m. |
| *Lines under Construction* | 2,206·29 k.m. |
| *Total No. of Locos (March 31, 1964)* | 11,541 |
| *No. of Steam Locos (including sentinel types)* | 10,810 |
| *No. of Diesel Electric Locos* | 414 |
| *No. of Electric Locos* | 245 |
| *No. of Diesel Hydraulic and Mechanical* | 72 |
| *No. of Passenger Carriages (excluding brake vans and Railway service vehicles) March 31, 1964)* | 29,551 |
| *Total No. of Seats (March 31, 1964)* | 1,500,612 |
| *No. of air conditioned seats* | 3,983 |
| *No. of 1st Class seats* | 103,781 |
| *No. of 2nd Class seats* | 66,761 |
| *No. of 3rd Class seats* | 1,327,087 |
| *No. of Goods Wagons (March 31, 1964)* | 329,528 |
| *Total carrying Capacity in tonnes* | 6,250,368 |
| *Total No. of Passengers Carried ('000)* | 1,867,495·6 |
| *No. of A.C.* | 198·8 |
| *No. of 1st Class Passengers ('000)* | 51,511·5 |
| *No. of 2nd Class Passengers ('000)* | 11,914·3 |
| *No. of 3rd Class Passengers ('000)* | 1,805,979·4 |
| *Total passenger k.m. ('000)* | 88,520,526 |
| *Average k.m. a passenger carried* | 47·4 |
| *Total Earnings from Passengers (Rs. in '000)* | 1,85,14,92 |
| *Earnings from A.C. Passengers (Rs. in '000)* | 1,73,25 |
| *Earnings from 1st Class Passengers (Rs. in '000)* | 13,39,71 |
| *Earnings from 2nd Class Passengers (Rs. in '000)* | 7,56,90 |
| *Earnings from 3rd Class Passengers (Rs. in '000)* | 1,62,45,06 |
| *Goods Carried ('000 tonnes)* | 192,229 |
| *Net tonne k.m. ('000)* | 106,840,589 |
| *Average k.m. a tonne of Goods was Carried* | 544·8 |
| *Total fuel consumed in terms of coal in tonnes* | 18,924,980 |
| *Value of stores imported direct (Rs. in '000)* | 28,46,85 |
| *Value of imported stores purchased in India (Rs. in '000)* | 6,53,43 |
| *Value of stores of indigenous origin (Rs. in '000)* | 2,51,69,26 |
| *Cost of Police and Railway Protection Force (in Rupees)* | 7,97,59,142 |
| *Capital at charge, Chittaranjan Works (Rs. in '000)* | 29,39,57 |
| *Capital at charge, Integral Coach Factory (Rs. in '000)* | 15,47,92 |
| *Capital at charge, Diesel Locomotive Works (Rs. in '000)* | 9,53,59 |
| *Capital at charge, D. B. K. Railway Project (Rs. in '000)* | 35,92,91 |
| *Railway Electrification (Rs. in '000)* | 76,49,79 |
| *Railway Board (Rs. in '000)* | 6,87,27 |

## STAFF

| | |
|---|---|
| *The total strength of Staff including non-gest. railways (March 31, 1964)* | 1,265,174† |
| *Class I and II Staff* | 5,874 |
| *Class III and IV Staff* | 1,269,894 |
| *Class III running staff* | 60,864 |
| *Class III Staff other than Workshop artisans and running* | 291,634 |
| *Class III Staff, Workshop artisan* | 162,884 |
| *Class IV running staff* | 26,479 |
| *Class IV other than Workshop artisan and running* | 320,490 |
| *Class IV Workshop artisan* | 202,567 |
| *The total cost of all Staff (Rs in '000)* | 2,48,46,81 |
| *The total cost of Class I and Class II (Rs. in '000)* | 6,63,84 |
| *The total cost of Class III running staff (Rs. in '000)* | 21,65,36 |
| *The total cost of Class III staff other than Workshop and artisan (Rs. in '000)* | 83,34,60 |
| *The total cost of Class III 'staff, Workshop and artisan (Rs. in '000)* | 38,74,61 |
| *The total cost of Class IV running staff (Rs. in '000)* | 5,81,01 |
| *The total cost of Class IV staff other than workshop artisan and running (Rs. in '000)* | 66,74,86 |
| *Class IV, workshop and artisan (Rs. in '000)* | 26,01,03 |
| *Total cost of workshop artisan staff, Class III or IV (Rs. in'000)* | 64,75,64 |
| *Man-days lost due to Sickness for classes other than I and II* | 18,257,615 |
| *Man-days lost due to Strikes and labour trouble by staff other than Class I & II* | 112,133 |
| *Total Man-days lost* | 18,369,748 |
| *No. of attacks by various kinds of diseases* | 478,110 |
| *No. of deaths due to various kinds of diseases* | 499 |

### Female Employees

| | |
|---|---|
| *Total No. of Female Employees* | 13,310 |
| *Class I and II Officers* | 11 |
| *Class III Staff :* | |
| *Workshop and artisan staff* | 2 |
| *Clerks* | 2,987 |
| *Stenographers* | 111 |
| *Nurses* | 1,463 |
| *Teachers* | 937 |
| *Others* | 1,296 |
| *Class IV Staff :* | |
| *Workshop and artisan staff* | 460 |
| *Other than workshop and artisan staff* | 6,043 |

## ACCIDENTS

Only one major accident took place during the year 1963-64, details of which are given below :—

On the 8th of March, 1964, 38 Down Madras-Howrah Express collided head on with goods train No. 548 Up, shortly before midnight, which was standing on the main line at Kantapur Station. As a result of the accident, 22 persons were killed and 110 injured of whom 29 received grievous injuries. The cost of damage to the railway property was estimated at approximately Rs. 6,07,000. The findings of the Additional Commissioner of Railway Safety, Eastern Circle, Calcutta, who inquired into the case was that the accident was caused by the derailment of 38 Down Madras-Howrah Express on the main line which was at the time occupied by 548 Up goods.

Accidents classified under different heads :—

*Collisions* : Collisions involving passenger trains 82 ; Collisions involving goods trains or goods vehicles 94 ; Collisions between light engines 3

*Derailments* : Derailment of passenger trains 172 ; Derailments of trains other than passenger 1,275.

*Failure of engines and rolling stock* : Failure of engines owing to faulty design, material or workmanship in the mechanical department 1,142 ; Failure of couplings and draft gear 1,471, failure of axles 4 ; Failure of break apparatus 7 ; Failure of tyre and wheels 5 ; Other rolling stock failures 320.

† Excludes Railway Board staff.

*Failure of permanent way :* Broken rails 125 ; Failure of bridges, tunnels, etc. Nil ; Flooding of portions of permanent way 33 ; Landslips 22.

*Fires :* Fire in trains, at stations and bridges 262.

*Other Accidents :* Passenger trains taking the wrong roads through points but not derailed 4 ; Train wrecking 6 ; Attempted train wrecking 74 ; Trains running into road traffic and or road traffic running into trains at level crossings 167 ; Running over obstructions 162 ; Running over cattle 1,000 ; Miscellaneous 257. Total 7,756.

*Claims :* No *ad-hoc* Claims Commissioner was appointed during the year 1963-64. Out of the total number of 200 claims on hand with the four Claim Commissioners, 48 claims were rejected and 139 settled for Rs. 4,23,661·93 Paise.

**Casualties 1962-63 & 1963-64**

| | Killed | | Injured | |
|---|---|---|---|---|
| | 1962-63 | 1963-64 | 1962-63 | 1963-64 |
| Passengers | 549 | 408 | 3,503 | 3,153 |
| Railway Servants | 316 | 332 | 23,840 | 23,981 |
| Other than passengers & Railway Staff | 548 | 507 | 508 | 524 |
| Trespassers | 4,138 | 3,977 | 2,023 | 2,176 |
| Suicides | 362 | 364 | 32 | 47 |
| Total | 5,913 | 5,588 | 29,906 | 29,881 |

## CENTRAL RAILWAY, 1963-64
(Victoria Terminus, Bombay 1)

| | | |
|---|---|---|
| *Total Route Kilometrage* | | 8,823·63 |
| *Broad Gauge* | | 6,111·36 |
| *Metre Gauge* | | 1,545·53 |
| *Narrow Gauge* | | 1,166·74 |
| *New Construction in Hand, Kilometrage* | | 150·18 |
| *Kilometrage Electrified* | | 297·54 |
| *Capital at Charge* (Rs. in Crores) | | 324·20 |
| *Gross Earnings* ,, ,, ,, | | 116·72 |
| *Working Expenses* ,, ,, ,, | | 79·50 |
| *Net Earnings* ,, ,, ,, | | 37·22 |
| *No. of Locos actually running on March 31, 1964* | *Steam* | 1,576 |
| | *Electric* | 102 |
| | *Diesel* | 95 |
| *Total No. of Passenger Carriages actually running on March 31, 1964* | | 3,152 |
| *Seats by Classes—* | | |
| *Air Conditioned* | | 316 |
| *First Class* | | 21,675 |
| *Second Class* | | 6,211 |
| *Third Class* | | 2,07,850 |
| *No. of Passengers Carried* (in millions) | | 442·8 |
| *No. of Wagons actually running on March 31, 1964* | *Covered* | 34,555 |
| | *Open* | 12,824 |
| *Tonnage carried* (in millions) | | 41·76 |
| *Total No. of Staff on March 31, 1964* | | 2,16,469 |

## EASTERN RAILWAY, 1963-64
(Fairlie Place, Calcutta)

| | |
|---|---|
| *Total Route Kilometrage* | 4,049·40 |
| *Broad Gauge* | 4,021·82 |
| *Metre Gauge* | Nil |
| *Narrow Gauge* | 27·58 |
| *Capital at charge* (Rs. in Crores) | 296·80 |
| *Gross earnings* (Rs. in Crores) | 90·17 |
| *Working expenses* (Rs. in Crores) | 66·39 |
| *Net earnings* (Rs. in Crores) | 23·78 |
| *No. of Railway stock on 31-3-64 :* | |
| (a) *Steam* | 1,498 |
| *Diesel* | 86 |
| *Electric* | 70 |
| (b) *Electric Multiple Units (in vehicle units)* | 292 |
| (c) *Passenger Carriages (in vehicle units)* | 2,804 |
| (d) *Other Coaching vehicles (in vehicle units)* | 1,191 |
| (e) *Wagons (in vehicle units)* | 66,129 |
| *No. of passengers carried* | 294·5 million |
| *Total tonnage lifted (originating)* | 52·3 million |
| *Staff (on 31-3-64)* | 1,86,083 |

## NORTHERN RAILWAY, 1963-64
(Baroda House, New Delhi 1)

| | | | |
|---|---|---|---|
| *Total Kilometrage* | | | 8,718·213 |
| *Broad Gauge* | | | 5,212·230 |
| *Metre Gauge* | | | 3,245·544 |
| *Narrow Gauge* | | | 260·439 |
| *Mileage Electrified* | | | Nil |
| *Capital at Charge* (in Rs.) | | | 290,04,68,623 |
| *Working Expenses* (Rs. in lakhs) | | | 7,000 |
| *No. of Passengers Carried on the System* (in million) | | | 189·00 |
| *Net receipts* (in Rs.) | | | 22,34,56,575 |
| *No. of Locos :* | *B.G.* | *M.G.* | *N.G.* |
| *Steam* | 1,293 | 357 | 51 |
| *Diesel* | 15 | Nil | 5 |
| *Electrical* | Nil | Nil | Nil |
| *No. of passenger coaches* | 2,519 | 770 | 123 |
| *Passenger carrying capacity :* | | | |
| *Air-conditioned* | 257 | 52 | Nil |
| *1st Class* | 10,170 | 1,705 | 435 |
| *2nd Class* | 10,685 | 1,863 | 264 |
| *3rd Class* | 164,434 | 37,113 | 3,125 |
| *No. of Goods Wagons, open :* | | | |
| *High sided* | 11,678 | 961 | 73 |
| *Low sided* | 569 | 288 | Nil |
| *No. of Goods Wagons, covered* | 24,432 | 5,341 | 116 |
| *Tonnage lifted (Tonnes in million)* | | | 32·78 |
| *Staff (Total)* | | | 185,251 |

## NORTH-EASTERN RAILWAY, 1963-64
(Gorakhpur)

| | |
|---|---|
| *Total Kilometrage* | 4,961·609 |
| *Broad Gauge* | 52·47 |
| *Metre Gauge* | 4,909·139 |
| *Narrow Gauge* | Nil |
| *New Construction in Hand* | Nil |
| *Kilometrage Electrified* | Nil |
| *Capital at Charge* (Rs. in Crores) | 93·11 |
| *Gross Earnings* (Rs. in Crores) | 29·61 |
| *Working Expenses* (Rs. in Crores) | 27·76 |
| *Net Earnings* (Rs. in Crores) | 1·85 |
| *Total No. of Engines on line* (in units) | 820 |
| *No. of Locos (Electric)* | Nil |
| *No. of Passenger Coaches* | 2,353 |
| *Passenger Carrying Capacity :—* | |
| (a) *Air Conditioned* | 136 |
| (b) *1st Class* | 5,393 |
| (c) *2nd Class* | 8,346 |
| (d) *3rd Class* | 112,811 |
| *Total* | 126,686* |
| *No. of Passengers Carried* (in '000) | 122,124 |
| *No. of Goods Wagons, Covered* (in units) | 19,512 |
| *No. of Goods Wagons, Open* ,, | 4,359 |
| *No. of Goods Wagons, Special* ,, | 3,671 |
| *Tonnage lifted* (tons in thousands) | 7,290 |
| *No. of Staff (Total)* (in units) | 86,650 |

*(Including three reserved carriages with 12 berths in 1st Class and 12 dining and Buffet cars with 302 seats against 3rd Class respectively).

## NORTH-EAST FRONTIER RAILWAY, 1963-64
(Pandu, Assam)

The following particulars as on March 31, 1964:

| | | |
|---|---|---|
| *Mileage electrified* | | Nil |
| *Capital at Charge in Rs. Crores* | | 137 |
| *No. of Locos :* | | |
| *Steam* | M.G. 443 | N.G. 31 B.G. 67 |
| *Diesel :* | M.G. 61 B.G. Nil | N.G. Nil |
| *Electric* | Nil | |
| *No. of passenger coaches* | | 1,164 M.G. 138 B.G. |
| *Passenger carrying capacity† :* | | |
| *Air-Conditioned* | | 70 M.G. |
| *1st Class* | | 2,641 M.G. 828 B.G. |
| *2nd Class* | | 3,160 M.G. 936 B.G. |
| *3rd Class* | | 49,654 M.G. 8,158 B.G. |
| *No. of passengers carried (on the system)* | | 44,218,100 |
| *No. of goods wagons (covered) M.G. in units* | | 6,905 M.G. |
| *No. of goods wagons (open) M.G. in units* | | 2,533 |
| *Tons carried (Total)* | | 93,93,000 |
| *No. of staff (Total)* | | 69,337 |

†Excluding 252 seats in Buffet/Dining cars and two berths in a State Saloon.

## SOUTHERN RAILWAY, 1963-64
(Madras Central, Madras)

| | |
|---|---|
| *Total Route Kilometrage* | 10,067·08 |
| *Broad Gauge* | 3,181·58 |
| *Metre Gauge* | 6,731·49 |
| *Narrow Gauge* | 154·01 |
| *New Construction in Hand :* | |
| *Bangalore-Salem Line* | 229·33 km. |
| *Manamadurai-Virudhunagar Line* | 65·97 km. |
| *Kilometrage electrified* | 36·08 |
| *Capital at Charge* (Rs. in Crores) | 272·64 |
| *Gross Revenue Receipts* (Rs. in Crores) | 82·20 |
| *Working Expenses* (Rs. in Crores) | 69·00 |
| *Net Revenue Receipts* (Rs. in Crores) | 13·20 |
| *Average no. on line daily :* | |
| *No. of Locos (Steam)* | 1,803 |
| *No. of Locos (Electric)* | 4 |
| *No. of Locos (Diesel Electric)* | 5 |
| *No. of Passenger Coaches* | 3,821 |
| *Air Conditioned Passenger Seating Capacity* | 582 |
| *I Class* | 13,638 |
| *II* ,, | 10,842 |
| *III* ,, | 240,361 |
| *No. of Passengers Carried* (in thousands) | 261,510 |
| *No. of Goods Wagons (Covered)* | 22,214 |
| *No. of Goods Wagons (Open)* | 10,025 |
| *Tonnage lifted* (tonnes in thousands) | 24,468 |
| *Staff (Total)* | 173,626 |

### SOUTH-EASTERN RAILWAY, 1963-64

(Garden Reach, Calcutta 23)

| | |
|---|---|
| *Total Route Kilometrage* | 5,877·47 |
| *Broad gauge* | 4,472·11 |
| *Metre gauge* | Nil |
| *Narrow gauge* | 1,405·36 |
| *Kilometrage electrified* | 572·37 |
| *Kilometrage under construction* | 230·95 |
| *Number of Locos :* | |
| *Steam* | 1,126 |
| *Diesel* | 85 |
| *Electric* | 69 |
| *Railcars* | Nil |
| *No. of passenger coaches* | 1,921 |
| *No. of goods wagons :* | |
| *Covered* | 13,080 |
| *Open* | 21,032 |
| *No. of staff* | 1,47,961 |
| *Passenger carrying capacity :* | |
| *Air-conditioned* | 320 |
| *1st class* | 7,642 |
| *2nd class* | 5,804 |
| *3rd class* | 88,883 |
| *No. of Passengers carried* | 97,090,613 |
| *Tonnes of goods lifted* | 48,643,466 |
| *Capital at charge* | Rs. 3,23,02,16,304 |
| *Gross earnings* | Rs. 1,00,67,67,304 |
| *Working expenses* | Rs. 63,07,50,613 |
| *Net earnings* | Rs. 37,60,16,691 |

### WESTERN RAILWAY, 1963-64

(Churchgate, Bombay)

| | |
|---|---|
| *Total Route Kilometrage* | 9,755·42 |
| *Broad Gauge* | 2,634·53 |
| *Metre Gauge* | 5,898·15 |
| *Narrow Gauge* | 1,222·74 |
| *Kilometrage electrified* | 60·17 |
| *Capital at Charge* (Rs. in Crores) | 231·60 |
| *Gross Revenue Receipts* (Rs. in Crores) | 96·73 |
| *Working Expenses* (Rs. in Crores) | 70·82 |
| *Net Revenue Receipts* (Rs. in Crores) | 25·91 |
| *No. of Locos (Steam)* | 1,726 |
| *No. of Locos (Diesel Electric)* | 14 |
| *No. of Locos (Diesel Hydraulic)* | 20 |
| *No. of Locos (Diesel Mechanical)* | 7 |
| *Electric Motor Coaches* | 93 |
| *No. of Passenger Coaches* | 4,135 |
| *Passenger carrying capacity (Seats by classes)—* | |
| *Air conditioned—* | |
| *Broad Gauge* | 422 |
| *Metre Gauge* | 100 |
| *1st Class—* | |
| *Broad Gauge* | 11,438 |
| *Metre Gauge* | 6,971 |
| *Narrow Gauge* | 925 |
| *2nd Class—* | |
| *Broad Gauge* | 3,936 |
| *Metre Gauge* | 5,523 |
| *3rd Class—* | |
| *Broad Gauge* | 80,634 |
| *Metre Gauge* | 116,594 |
| *Narrow Gauge* | 12,231 |
| *No. of Passengers carried* (in thousands) | 493,538 |
| *No. of Goods Wagons (covered)* | 26,446 |
| *No. of special wagons* | 6,510 |
| *No. of Goods Wagons (open)* | 9,903 |
| *Tons carried* (in thousands) | 30,278 |
| *No. of staff* | 175,326 |

## RAILWAY BUDGET

(Rupees in crores)

| | Actuals 1963-64 | Budget 1964-65 | Revised Estimate 1964-65 | Budget 1965-66 |
|---|---|---|---|---|
| Gross Traffic Receipts | 632·21 | 668·00 | 660·00 | 716·00(A) |
| Working expenses net, i.e. after taking credits or recoveries | 392·13 | 414·68 | 432·68 | 457·84 |
| Appropriation to Depreciation Reserve Fund | 80·00 | 83·00 | 83·00 | 85·00 |
| Appropriation to Pension Fund | — | 19·00 | 11·50 | 12·00 |
| Net Miscellaneous Expenditure (including cost of works charged to revenue) | 14·89 | 17·22 | 15·81 | 16·02 |
| Total : | 487·01 | 533·90 | 542·99 | 570·86 |
| Net Railway Revenue | 145·19 | 134·10 | 117·01 | 145·14 |
| Payments to General Revenues : | | | | |
| (*a*) Dividend on Railway Capital-at-Charge (4·25 per cent for 1962-63, 4·50 per cent for 1963-64 and 5·75 per cent on fresh capital for 1964-65 and 1965-66) | 83·45 | 90·73 | 92·02 | 103·40 |
| (*b*) In lieu of Passenger Fare Tax | 12·50 | 12·50 | 12·50 | 12·50 |
| NET SURPLUS | 49·24 | 30·87 | 12·49 | 29·24 |
| Operating Ratio (per cent) | 74·7 | 77·4 | 79·9 | 77·5 |

(*A*) This includes Rs. 21 crores expected as additional revenue, as a result of the adjustments proposed in fares and freight rates, made up of Rs. 13·50 crores under passenger, Rs. 6·90 crores under goods and Rs. 60 lakhs under other coaching earnings.

**The Budget Estimates of working expenses under different demands for 1965-66 are given below :—**

| | (In crores of rupees) |
|---|---|
| Demand No. 4.—Administration | 52·70 |
| Demand No. 5.—Repairs and Maintenance | 167·75 |
| Demand No. 6.—Operating Staff | 106·79 |
| Demand No. 7.—Operation (Fuel) | 107·78 |
| Demand No. 8.—Operation other than Staff and Fuel | 32·84 |
| Demand No. 9.—Misc. Expenses | 30·05 |
| Demand No. 10.—Labour Welfare | 20·17 |
| TOTAL | 518·08 |
| Credits or recoveries | —60·24 |
| Net | 457·84 |

| | |
|---|---|
| Appropriation to Depreciation Reserve Fund | 85·00 |
| Appropriation to Pension Fund | 12·00 |
| Payments to Worked Lines | 0·16 |

**Other categories of expenditure in Rs. lakhs :**

Rolling stock (excluding stock provided as part of Electrification Projects) : 127,11 ; Machinery and Plant : 3,86 ; Track Renewals : 45,27 ; Bridge Works : 5,81 ; Traffic Facilities : 73,71 ; Signalling and Interlocking works, etc. : 10,99 ; Workshops (including production units,namely, Diesel Locomotive Works, Chittaranjan Locomotive Works and Integral Coach Factory, but excluding those provided as part of Electrification Prajects), 14,23; Electrification (includes also Electric Rolling Stock for the traffic level with reference to which Electrification is sanctioned) : 24,89 ; Other Electrical Works : 1,61 ; Staff Quarters : 7,65 ; Amenities for staff : 3,26 ; Passenger and other Railway Users' Amenities : 3,38 ; New Lines ; 40,20 ; Restoration of dismantled lines :— ; Other specified works : 4,17 ; Purchase of Railway Lines : 83 ; Investments in Government Industrial Undertakings—Road Services : 3,21 ; Increase or decrease in balances under :—(*a*) Stores, Suspense :—11,45; (*b*) Manufacture Suspense : 2,24 ; (*c*) Miscellaneous Advances :—303 ; Credits or recoveries : (*a*) Credits for released materials :—11,30 ; (*b*) Other credits:—1,14 ; Total : 345,50 ; Probable Savings :—50 ; Net: 345,00.

**Some individual items on the receipts side are given below :**

| | (In crores of rupees) Budget Estimate 1965-66 |
|---|---|
| Passenger Earnings— | |
| Upper | 26·60 |
| Third | 194·90 |
| Other Coaching Earnings | 34·60 |
| Goods Earnings | 441·90 |
| Other Sundry Earnings | 19·00 |
| Total Earnings | 717·00 |
| Suspense | — 1·00 |
| Gross Traffic Receipts | 716·00 |

The programme of new acquisitions (i.e.) items included in the Budget for the first time includes provision for the following units of Rolling Stock : (*a*) Locomotives—(*i*) Steam 220 ; (*ii*) Diesel 182 ; (*iii*) Electric 10 ; (*b*) Boilers 36 ; (*c*) (*i*) Carriages 1,161 ; (*ii*) Rail Cars—; (*iii*) Electric Multiple Units—; (*d*) Wagons (in terms of 4-wheeler) 31,954.

### BUDGET SPEECH

Below we give relevant points from the speech which the Railway Minister Mr. S. K. Patil made while presenting the Railway Budget for 1965-66 on February 18, 1965.

An increase in passenger fares and a selective enhancement of freights on heavy merchandise, accompanied by a reduction in a few high-rated commodities, were proposed in the Railway Budget for 1965-66.

With gross traffic receipts placed at Rs. 716 crores and expenses at Rs. 570·86 crores, the net Railway revenue for next year is estimated to be Rs. 457·84 crores and the net surplus (after making payments to general revenues and to the States in lieu of passenger fare tax) at Rs. 29·24 crores.

The new levies are expected to net in Rs. 21 crores including Rs. 6·90 crores under goods, Rs. 13·50 crores under passenger and Rs. 60 lakhs under "other coaching" earnings.

The increases on freight rates will be between 4 per cent. and 7 per cent. on heavy merchandise like iron and steel, cement, stone, limestone and ores and about 8 per cent. on non-dangerous petroleum products. The increases are limited to commodities which bear low rates at present and move in bulk.

These increases were necessary, the Minister pointed out, to meet at least in part the additional commitments. These had already increased in 1964-65 by Rs. 18 crores over the level postulated in the budget, on various accounts, including the effect of the increase in dearness allowance announced in May, 1964, and again in January, 1965, following the Das Commission recommendations, and the educational concessions introduced from May, 1964.

## WAGE BILL

The wage bill and total expenses would inevitably be at a still higher level in 1965-66 on account of the impact of the Das Commission recommendations for full 12 months instead of only six months in the current year.

### Revised Estimates 1964-65

In presenting the revised estimates for 1964-65, the Railway Minister stated that during the year the railways had provided all the goods transport needed and added substantially to the number of passenger trains. Although the railways had prepared themselves to move 17 million tonnes of more goods traffic in 1964-65 than in the previous year, the extra traffic did not materialise to that extent owing to slackening of demand for transport.

Coal traffic during the first nine months of this year was nearly less than 2½ million tonnes in comparison with the corresponding months of last year. Raw materials traffic to steel plants also dropped slightly during this period while the increase of export ore was hardly one-fourth of the extra one million tonnes anticipated.

The increase in other revenue earning traffic of about 1½ million tonnes up to December was much less than the 5 million additional tonnes envisaged for this year. "There have been signs of revival of traffic in the last few weeks but we may at the best close the year with an increase of about 3 million tonnes over last year," the Railway Minister observed.

Under the circumstances, a shortfall of about Rs. 25 crores was likely on the budget estimates of Rs. 432 crores for goods earnings. This has, however, been compensated to an appreciable extent by a heavy increase in passenger earnings, which were likely to touch the figure of Rs. 200 crores against the estimated Rs. 184 crores. Other coaching earnings and sundry earnings were expected to approximate closely to the budget estimates. In the net, traffic receipts were placed at Rs. 660 crores, which was Rs. 8 crores, or about 1¼ per cent. less than the budget.

## WORKING EXPENSES

Working expenses, on the other hand, have increased by Rs. 18 crores over the budget of Rs. 414·68 crores and are now estimated at Rs. 432·68 crores. This is almost entirely attributable to the increase in the wage bill during the year.

There have been two revisions in the rates of dearness allowance since the budget—the one announced in May, 1964, with effect from February 1, 1964 and the other last month with effect from October 1, 1964. Their impact on the working expenses for the current year is Rs. 6·58 crores and Rs. 8·2 crores respectively.

## STAFF COSTS

Taken together with the post-budget Central Government scheme for reimbursement of school fees, the cost of these measures is Rs. 16 crores even in the current year. In addition, there has been a revision of the rates of running, mileage and over-time allowances at a cost of Rs. 1·44 crores. In all, the element of staff costs in working expenses has gone up by Rs. 19 crores.

There have been four successive additions to the cost of coal during the year and with the sales tax and excise duty on it, this accounts for an increase of Rs. 1·19 crores. There have also been increases in civil engineering works undertaken for the protection of the track, restoration of the Pamban bridge, extra costs on retrospective upward revision of the tariff for elecric power for traction, 'on account' payment of Rs. 1·5 crores for the rental for telegraph and telephone wires and other minor sundry items.

Although these have been partially offset by the reduction due to economy measures and lower expenditure due to the level of traffic being below anticipation, the net effect is an increase in working expenses of Rs. 18 crores for which supplementary demands are being presented. While there was a reduction of Rs. 1·5 crores in the allotment for open line works, and lesser appropriation to the pension fund based on actuarial calculations using recent data about options by staff, the dividend payable to general revenues increased by Rs. 1·3 crores, owing to higher capital expenditure, resulting in shrinkage of the surplus from Rs. 30·87 crores anticipated in the budget to Rs. 12·49 crores only.

## WORKS EXPENDITURE

In the context of the current economic situation, the programme of works and other capital expenditure has been fixed at a level of Rs. 365 crores, which is Rs. 5 crores less than what was provided for in the budget and Rs. 15 crores less than what was further contemplated.

In recent years, substantial improvements in operation and increase in efficiency enabled the railways to absorb a fair proportion of the increase in the cost of staff, capital equipment and stores. Better utilisation of locomotives, for instance, has reduced the number of goods locomotives required for moving one million net-tonne kilometres per day from 25 in 1950-51 to 20 in 1963-64. On the metre gauge the number has come down from 65 to 42.

Wagon utilisation improved by over 36 per cent. resulting in saving in additional capital investment for doubling traffic capacity. The incentive scheme in railway workshops and the rationalisation coupled with mechanisation of traffic accounting and statistics are similar instances of obtaining larger output by keeping down at the same time the number employed.

The financial results for 1963-64 showed an improvement of over Rs. 5 crores in passenger earnings and over Rs. 3½ crores in goods earnings, as well as a reduction of Rs. 1·3 crores in suspense awaiting realisation, bringing the gross traffic receipts to nearly Rs. 10 crores—1·6 per cent. more than the revised estimates.

On the expenditure side, there was a marginal saving of Rs. 1·2 crores or about one-fourth of one per cent. on working expenses and a saving of about a crore of rupees on works charged to revenue, which was virtually offset by an equivalent increase in the dividend payable to general revenues. The year's working thus showed a surplus of Rs. 49·24 crores (which was credited to the development fund) as against the revised estimate of Rs. 37·75 crores.

Turning to the budget estimates for 1965-66, the Minister said that an increase of about 10 million tonnes in originating revenue traffic had been tentatively estimated. It included half a million tonnes of finished steel and pig iron, about 2½ million tonnes more of raw materials for steel plants, including coal, a million tonnes more of export ores and another million tonnes of cement. At the present levels of freight goods earning on this extra traffic would be about Rs. 28 crores and the total of goods earnings would be about Rs. 435 crores.

## PASSENGER EARNINGS

In view of the faster rate of growth of passenger traffic this year, an increase of about four per cent. could be postulated in the budget year. At the present level of fares, this would mean an increase of Rs. 8 crores in passenger earnings. On this basis, gross traffic receipts would be Rs. 696 crores—Rs. 36 crores more than the current year.

From these increased earnings expected in 1964-65 have to be met the additional dividend on the increased capital (Rs. 11½ crores), the additional depreciation provision (Rs. 2 crores) and the additional expenditure on maintaining the increased assets and operating the additional services to earn the estimated Rs. 36 crores (Rs. 18 crores approximately on the assumption of no increase in the principal items of cost such as fuel and per capita staff costs).

In fact, however, provision has to be made in 1965-66 for the full 12 months for the cost of educational concessions introduced on May 1, 1964, and for the increase in dearness allowance following the Das Commission's recommendations which have been in operation only for half of the current year. These alone add Rs. 9 crores to the working expenditure of 1965-66 over and above the level of 1964-65.

These increases add up to over Rs. 40 crores on the current year, so that, on this reckoning, the surplus at the end of the year will be only Rs. 8 crores. This is roughly one-fourth of the annual expenditure of about Rs. 30 crores to be met from the development fund that can be fed only from surpluses. A surplus of Rs. 35 crores has to be earned in order to finance works chargeable to the development fund and to enable the railways to maintain a reasonably satisfactory return on the present enhanced capital.

On the other hand, although a surplus of Rs. 30 crores was budgeted for ultimately no more than Rs. 12·49 crores is now expected this year. It would be even less in the normal course next year. This underlines the need for adopting suitable means for raising the surpluses to a satisfactory figure and explains the proposed increase in freight rates and passenger fares.

The suggested changes in fares and freight, the Minister pointed out, took into account the extra commitments today and had been deliberately devised to be low enough for the railways to absorb part of the shock themselves, passing on to the users substantially less than the additional burden falling on the railways.

There is no cushion left now with the result that if costs rise further beyond the control of the railways and their capacity to absorb them, it may become necessary to make further adjustments to ensure the financial soundness of the railways.

The Minister, however, assured the House that in such an eventuality again only the minimum and unavoidable additional burden would be passed on to the railway users.

### Vigilance Organisation

The Vigilance Organisation of the Railway Board maintained close liaison with the Administrative Vigilance Division of the Ministry of Home Affairs as well as the Central Bureau of Investigation which came into being in the beginning of the year 1963-64, with the erstwhile Delhi Special Police Establishment as a division of the bureau. The Central Investigating Agency of the Vigilance Directorate investigated 514 cases during the year, of which 245 cases were referred to the Railway Administrations for taking departmental actions. At the beginning of the year 2,246 cases were pending with the Railways and 3,923 cases were registered during the year. Out of the total of 6,169 cases 1,841 were dropped as the allegations lacked substance

and too minor. In 1,691 cases actions were finalised, leaving a balance of 2,637 cases to the end of the year.

As a result of departmental actions by the zonal railways the number of officers and staff involved were as follows :—

Dismissal from service 30; Removal from service 95; Compulsory retirement 3; Reduction 89; Stoppage of increments/passes etc. 669; Other punishments 267.

Having indulged in irregular practices during the year 5 contractors have been blacklisted.

## PASSENGER SERVICES

The addition during the year, of over 28,500 more passenger train kilometres a day, is more than twice the average annual increase during the last ten years. 54 new trains and 61 new suburban trains were introduced on the Broad Gauge and the run of 40 trains and 33 suburban trains extended. Among the new trains introduced last October is the Taj Express, a vestibuled train with coaches specially designed for elegance and comfort, which covers the 195 kilometres between Delhi and Agra in three hours. Bookings for sightseeing tours by road, of Agra and Fatehpur Sikri, can be made along with train tickets, enabling tourists to visit these historic cities and return to Delhi comfortably in a day. On the Metre Gauge, 69 new trains including two suburban trains were introduced, and the run of 23 trains, including one suburban train extended. Four new trains were added on the narrow gauge. Proposals have been approved, or are under consideration, for a further large increase in passenger trains in the next timetable. A total of 2,460 fans were fitted in the older Third Class coaches to bring them on a par with the new coaches in which fans are part of the original equipment. At the end of October last, 250 Third Class Sleeper coaches were running on the Broad Gauge and 124 on the Metre Gauge, and it is hoped to raise these numbers to 340 sleeper coaches on the Broad Gauge and 257 on the Metre Gauge by the end of this year. About 120 more Broad Gauge Third Class sleepers are programmed to be added next year.

## MODERNISATION PLANS

The modernisation of signalling systems, the extension of automatic signalling, the replacement of semaphore signals by colour light signals, track circuiting and the installation of route relay interlocking at a number of important stations are improving the factor of safety.

The sales turn-over of departmental catering rose to nearly Rs. 4 crores in 1963-64, and for the first time showed a profit, though small. Modern equipment, like refrigerators, hot boxes, gas or electric cooking ranges, etc. is being provided, and dining car waiters are being given more uniforms of good quality to improve their turnout.

## LABOUR RELATIONS

Relations with organised labour remained generally cordial, and many matters of importance to the staff were discussed and settled at the quarterly meetings of the Permanent Negotiating Machinery with the two Railway Labour Federations. Joint Committees of officers and staff also functioned at various levels for the improvement of operational and administrative efficiency, while Production Committees in which labour is associated with management in selected workshops, proved useful in improving the quality and quantity of production.

## STAFF WELFARE

During 1963-64, the daily average attendance of out-patients at Railway hospitals and health centres increased by over 10 per cent and the annual cost per head of free medical and health services rose from Rs. 71·5 to Rs. 74·9, reflecting *inter alia* the higher cost of medicines and diet charges, and the commissioning of three hospitals and 18 health units and of 675 hospital beds.

14,704 staff quarters were constructed during 1963-64 and it is expected to add 17,500 more staff quarters during 1964-65 and an equal number in 1965-66, raising the total number of staff quarters to nearly 4,76,000. The substantial subsidy on railway quarters is increasing every year with higher initial cost of construction and the rise in the interest rate and in the cost of repairs and maintenance.

During 1963-64, about 3,300 staff used the 16 holiday homes in the country. Twelve new primary schools were opened, one middle school upgraded to high school and a high school raised to higher secondary standard last year. There are 731 railway schools functioning now, including two intermediate colleges. 2,709 Railway scholarships involving an expenditure of Rs. 8·67 lakhs were current during 1963-64. The Central Government scheme for the reimbursement of tuition fees paid by employees for children in middle, high or secondary schools is another amenity added during the year, at an annual cost to the Railway, roughly estimated at about Rs. 1½ crores.

## TRAINING STAFF

### Central Institutions

"In-plant" training facilities exist on the different Zonal Railways and Manufacturing Units. There are in addition a number of central training institutions like the Railway Staff College, Baroda, for gazetted officers, the Training Centre at Jamalpur for apprentice Mechanical Engineers, Advanced Permanent Way Training School, Poona, the Indian Railway School of Signal Engineering and Telecommunications, Secunderabad, Diesel Training Centre, Gaya and the Loco Training School for the Operation and Maintenance of A.C. Electric Locomotives at Asansol. The Railways also continue to take advantage of the offer of training facilities abroad, extended under the various technical aid plans or by foreign Governments and agencies.

Facilities continue to be afforded to the Railway employees for undergoing training in different Workers' Education Centres.

There were 238 railway installations such as major workshops, electrical power houses and sub-stations, printing presses etc. governed by the Factory Act, 1948. The number of staff of different categories including casual labour in these factories was 196,120. 101 canteens were also provided to them.

## REVIEW OF 1963-64

The main items are given in the table at the beginning of this article. Below we give some more points. The comparison whenever made is with figures for 1962-63 :—

The Government Railways carried 13·46 million tonnes more of originating freight traffic and 118 million more passengers than in 1962-63.

The addition in goods traffic, in terms of tonne kilometres is, to the extent of 148 million.

The number of passengers originating as well as passenger kilometres in Government Railways increased from 1,750 to 1,867 million and from 83,991 to 88,527 million respectively.

### Transportation

The traffic as a whole, passenger and goods, increased substantially over the previous year. The passenger traffic increased by 6·74 per cent in terms of passengers originating and 5·40 per cent in terms of passenger kilometres. The additional goods traffic originated during 1963-44 was 13·5 million tonnes and in terms of net tonne kilometre increase was 6·10 per cent.

*Punctuality :* The percentage of passenger and mixed trains not losing time to the total number of trains run on all Govt. Railways during 1963-64, is given below (Figures in brackets are for 1962-63).

*Broad Gauge :* All trains (87·52) 85·2; Mail and important through trains (85·49) 85·02; Mixed trains (90·17) 88·83; Suburban (94·86) 95·91; Other passenger trains (81·67) 81·82. Further improvement in the punctuality of trains has been hampered by rains, floods and pulling of alarm chains.

During 1963-64 there were 84,333 cases of alarm chain pulling against 72,567 cases in the previous year.

The number of wagons loaded on the broad gauge during 1963-64 was 7,570,029, an increase of 510,831 wagons or 7·38 per cent over 1962-63. On the metre gauge the figure was 3,783,702, an increase of 205,747 wagons or 5·74 per cent more than 1962-63.

There was considerable increase in the case of wagons. The number of public service wagons in use by all Indian Railways at the end of 1963-64 in the broad gauge wagon pool was 271,980, that is 18,979 wagons more than that of the previous year, representing 7·50 per cent.

The number of public service wagons in use in the metre gauge wagon pool at the end of the year was 101,392 that is, 4,248 wagons or 4·37 per cent more than that of 1962-63 figures.

### Claims, Compensations and Refunds

The number of new claims received this year, including some reopened, was 523,351 which compares with 524,741 in last year. The number of claims settled was 530,062 as against 536,301 during the previous year and the number outstanding at the close of the year was 28,098 against 34,809 at the end of 1962-63. The net amount paid as compensation was Rs. 4·20 crores for goods lost or damaged as against Rs. 3·56 crores in 1962-63.

During the year 1963-64, 17,905 fresh suits were instituted against 20,643 in 1962-63. At the end of 1962-63 the number of suits pending was 20,693. Of all the suits 9,368 were settled out of court, 4,907 were dismissed and 4,805 were decreed, leaving a balance of 19,518 at the end of the year.

## COMPLAINTS

At the beginning of the year 1,428 complaints were pending disposal and 42,869 complaints were received during the year. Of these 42,639 were disposed of in the course of the year. The average time taken in the disposal of a complaint dropped from 39·2 days to 38·9 days.

### Security Measures

During the year 3,972 criminals were arrested. Fire was opened on 31 occasions against armed and desperate wagon looters, which resulted in the death of 12 criminals and injuries to 7 during the year. In a number of cases the Central Crime Bureau succeeded in apprehending miscreants red-handed by surprise raids they organised. The number of cases of theft of booked consignments dropped from 2,180 in 1962-63 to 2,016 in 1963-64. 3,466 cases of pilferages involving a loss of Rs. 1,30,150 were registered during the year, against 5,981 cases involving a loss of Rs. 4,99,324 in 1962-63. The stolen property amounting to Rs. 3,42,258 was recovered during the year, against Rs. 2,69,216 in the previous year.

In 47 cases the dog squads of the Railway Protection Force were utilised and 74 persons were arrested.

In the year 1963-64 the Fire Service Organisation of the Railway Protection Force dealt with 1,620 cases of fire within railway premises against 1,505 cases during the previous year.

## NEW LINES

New lines totalling 407 km. in length were opened to public traffic on Indian Railways during the year 1963-64. New lines totalling 2,206 km. were either under construction or sanctioned during the same year. Surveys for 1,455·4 km. of new lines were also ordered.

New lines opened to the public during 1963-64.

| Railways | New Lines | Gauge | K.m. |
|---|---|---|---|
| Eastern | Chandrapura - Muri - Ranchi - Bondamunda Project - Hatia - Nawagaon .. .. | Broad | 135·38 |
| | Diversion between Nimtita and Tildanga .. | Do. | 14·57 |
| | Robertsganj - Garhwa Road Railway Project - Nagaruntari-Chopan .. .. | Do. | 98·01 |
| Northern | Robertsganj - Garhwa Road Railway Project-Chopan-Churk .. .. .. | Do. | 20·20 |
| Southern | Virudhunagar-Aruppukottai .. .. | Metre | 22·64 |
| Dandakaranya-Balangir—Kiriburu Railway Projects. | Sambalpur - Titilagarh Project - Bargarh - Balangir Bimalagarh - Kiriburu .. .. | Broad | 75·00 |
| | | Do. | 41·23 |
| | Total .. .. .. .. .. | | 407·03 |

Lines under Construction during 1963-64

| Railway | New Lines | Gauge | K.m. |
|---|---|---|---|
| Central | Diva Panvel - Uran Panvel - Apta | Broad | 69·92 |
| | Butibori - Umrer .. .. .. .. | Do. | 37·03 |
| | Morwa (Singrauli) - Katni (Southern portion) .. .. .. .. | Do. | 106·00 |
| Northern | Madhopur - Kathua .. .. .. .. | Do. | 8·69 |
| | Hindumalkot - Sriganganagar Ghaziabad - Tughlakabad including second Yamuna Bridge .. .. .. .. .. | Do. | 27·56 |
| | Delhi Avoiding Lines (Ring Railway) .. | Do. | 26·55 |
| | Morwa (Singrauli) - Katni .. .. | Do. | 17·67 |
| | Singrauli - Obra .. .. .. .. | Do. | 150·00 |
| North-East Frontier | Kalkalighat - Dharmanagar Rangapara North - North Lakhimpur - Murkong Selek | Metre | 56·47 |
| | | | 31·86 |
| | North Lakhimpur - Murkong Selek Broad gauge rail link from near Siliguri to Jogighopa in Assam .. .. .. .. | Broad | 268·78 |
| Southern | Manamadurai - Virudhunagar | Metre | 47·30 |
| | Manamadurai - Aruppukottai portion | Do. | 229·28 |
| | Bangalore - Salem .. .. .. .. | Broad | 23·47 |
| | Broad Gauge connection from Mangalore Station to port site at Panambur .. .. | | |
| South Eastern | Rail link to serve the proposed port at Haldia Branch line to serve Korea coal fields and spur from Karonji to Block 11-A in C.I.C. .. .. .. .. .. | Do. | 69·71 |
| South-Eastern | Tiger Hill to Duman Hill portion Chamba - Korba Extension across Hasadeo river | Broad | 4·38 |
| | | Do. | 16·67 |
| Western | Udaipur - Himmatnagar .. .. .. | Metre | 210·18 |
| | Guna (Rothai) - Shajapur - Maksi .. | Broad | 193·35 |
| Dandakaranya—Balangir—Kiriburu Railway Projects | Kottavalasa - Bailadilla .. .. .. | Do. | 450·52 |
| | Total .. .. .. .. .. | | 2,206·29 |

New Surveys sanctioned during the year 1963-64

| Railway | New Lines | Gauge | Approximate K.m. |
|---|---|---|---|
| Eastern | Ramgarh - Mafapnari .. .. .. | Broad | 43·00 |
| | Mael - Maraphari .. .. .. .. | Do. | 56·00 |
| Northern | Jammu - Riasi (extension of Kathua - Jammu survey) .. .. .. .. | Do. | 48·00 |
| | Daurala - Mawana - Hastinapur (preliminary engineering - Cum - traffic survey) | Do. | 30·00 |
| Southern | Tirunelveli - Nagarcoil Trivandrum with a branch to Cape Comorin (preliminary engineering and traffic survey) .. .. | Metre | 185·00 |
| | Conversion of Miraj - Mormugao and Londa Hospet including the branch lines Miraj—Kolhapur and Alnawar - Dandeli (Preliminary engineering and traffic surveys) .. | Broad | 608·40 |
| South-Eastern | Sini—Pendrasafi and Gomharria - Asanboni avoiding lines and a third line between Sini and Gomharria along with allied facilities .. .. .. .. | Do. | 101·00 |
| | Tomka - Daiteri and Nayagarh areas with Paradip Port .. .. .. .. | Do. | 384·00 |
| | Total .. .. .. .. .. | | 1,455·40 |

## EXTERNAL ASSISTANCE

An amount of $67·5 million (Rs. 32·14 crores) sanctioned as a loan by the International Development Association, an affiliate body of the World Bank, was drawn by Sept. 30, 1964.

An amount of $15·8 million (Rs. 7·5 crores), for the purchase of 54 broad gauge diesel locomotives, was sanctioned by the Agency for International Development of the U.S. Govt. in the financial year of 1963-64 and another loan of $19 million (Rs. 9·05 crores) was sanctioned from the Export-Import Bank of Washington for the purchase of plant and machinery for the manufacture of 29 locomotives at the Diesel Locomotive Works, Varanasi. A further loan of $7·2 million (Rs. 3·4 crores) for the purchase of 25 broad gauge diesel locomotives was sought from the United States Agency for International Development and was sanctioned in the financial year 1964-65.

**Passenger Amenities :** An amount of Rs. 2·37 crores was incurred, on provision for amenities on station premises and trains for the convenience of passengers and other railway users, during 1963-64. The facility of sleeping accommodation in third class was extended to five more pairs in 1963-64 and brought up the total to 46 pairs—36 on the broad gauge and 10 on the metre gauge.

*Improved lower class coaches :* All passenger coaches are at present built indigenously to the latest design. 310 broad gauge, 176 metre gauge and 52 narrow gauge lower class coaches were placed in service during the year, apart from 172 broad gauge, 37 metre gauge and 7 narrow upper class composite coaches, as well as 174 broad gauge electric multiple unit coaches containing III class accommodation.

*City Booking Offices, Agencies, Out-agencies, Street Collection, etc. :* For the convenience of the travelling public and trade 12 out-agencies—three on the Central, two on the Northern, one on the N-E Frontier, two on the Southern and four on the Western Railways—were opened during the year. 34 Out-agencies—one on Central, five on the Northern, one on the North Eastern, 20 on the Southern, four on the South Eastern and three on the Western Railways—were closed. One city booking agency on the Southern Railway and two on the South Eastern Railway were opened while one was closed on the South Eastern Railway.

Street collection and delivery services were introduced at Trivandrum and Madurai Cities while street collection and delivery services at Quilon, Bangalore City, Bangalore Cantonment and Bombay Carnac Bridge Goods Depot were discontinued due to lack of traffic.

*Catering arrangements :* Departmental catering obtained at 95 stations and in 23 pairs of passenger trains. At other stations catering arrangements continued to be managed by the contractors, numbering about 5,000. Steps were taken to improve the quality of the food and service.

The sale of fresh, cheap, hygienic food packets was continued at important stations, for the convenience of passengers. Milk bars were opened at stations where good milk was locally available.

*Steps to alleviate overcrowding in trains :* An overall provision of 15 per cent increase in the passenger transport capacity has been made in the Third Plan, and 1,734 broad gauge and 1,762 metre gauge additional passenger carrying coaches have been provided to cater for additional traffic to bring down the intensity of overcrowding in the trains.

The following are the main heads of passenger amenities with expenditure (Rs. in thousands): Water supply at stations, etc. 18,35; Retiring rooms and waiting accommodation etc. 20,84; Refreshment rooms and vendors' stalls of all description 4,42; Provision of latrines 14,86; Extending, raising and widening, surfacing and other improvements 85,51; Over-bridges, subways and extensions 14,20; Bathing facilities at stations 59; Improvement to existing carriages such as fans etc. 20,48; Improved lighting and provision for fans on stations, platforms and

waiting rooms, etc. 16.84 ; Opening of new flag stations or conversion of halts into flag stations 3,29 ; Miscellaneous improvements, namely, provision of seats, hedges, etc. 9,54.

*Electrification :* Good progress was made in the introduction of 25 kv AC electrification traction on various sections of the Eastern & South Eastern Railways during the year. Electrification work was completed on 189 route kilometres (equivalent to 462 track kilometres). The total length of track electrified including the above during the previous and current Plan periods aggregates to 1,417 kilometres (150 route kilometres on DC and 1,267 route kilometres on 25 kv AC) against the total of 2,864 route kilometres programmed for electrification by the end of the Third Plan.

## TOURIST TRAFFIC

For the convenience of tourists retiring rooms were provided at Adra, Agra Cantonment, Balugan, Harpalpur, Hardoi, Hazaribagh Road, Ongole, Puri and Sonepore. Two of the double-bed retiring rooms provided at Agra Cantonment and one double-bed retiring room each at Vijayawada and Madurai junction are air-conditioned.

"Travel as You Like" tickets over the Indian Railway system, on a lump sum rate of Rs. 560 available for 30 days in the airconditioned coach (and in Class I where Aircondition is not available) continued to be issued. Usually a concession of 15 per cent on airconditioned class is allowed for tourists.

**Purchases :** The payment on the account of purchase of equipment and stores by the railways during 1963-64 amounted to Rs. 286·69 crores, against Rs. 266·99 crores in 1962-63.

**Staff Benefits :** The relations between the Railway Administration and labour were generally cordial. The permanent negotiating machinery for settlement of disputes continued to function satisfactorily for the year.

*Permanent negotiating machinery for settlement of disputes :* At the first tier of the machinery, *viz.*, on the zonal railways, 32 meetings were held at the headquarters' level and 819 meetings at the district/divisional/workshop level during the year. In all 16,794 items were discussed in these meetings and over 87 per cent of these items were finalised within one year.

At the second tier of the machinery, at the Railway Board's level 7 periodical meetings were held with the National Federation of Indian Railwaymen and All India Railwaymen's Federation. 156 items were discussed at these meetings and nearly 93 per cent of these items were finalised within the year 1963-64.

Joint Committees of management & staff and offices also continued to function satisfactorily. At the close of 1963-64 over 460 joint committees were functioning on the railways. For promoting better understanding between the administration and staff, Staff councils advisory committees for welfare works are also functioning. 295 such councils held 762 meetings during the year.

The advisory committee for welfare works on each railway, at which representatives of labour are also associated in the formulation of welfare schemes, functioned satisfactorily.

*Compensation :* During the year an amount of Rs. 9,73,464 was paid as compensation in the case of 257 employees who died in accident while at service. Similarly an amount of Rs. 3,93,850 and 3,99,077 were paid to 489 persons who met with permanent disablement and 9,588 persons with temporary disablement respectively as compensation.

*Service Condition :* The age of compulsory retirement of railway servants was raised from 55 years to 58 years from Dec. 1, 1962.

*Staff Quarters :* During the year 1963-64, 14,704 staff quarters were constructed on Indian Railways. The details of the quarters are as follows : Type I : 8,880 ; Type II : 5,165 ; Type III : 411 ; Type IV : 139 and Barracks 154

*Medical Department :* Hospitals 86 ; Health Units 544; Beds (hospitals and health units) 7,566 ; Beds reserved for T.B. patients in Railway hospitals 586; Beds in T.B. sanatoria 1,138 ; Cost of medical services Rs. 626.21,000 ; Cost of health services Rs. 341,39,000 ; Number of doctors 2,023 ; Number of operations performed 203,008.

**Appointments :** During 1963-64, 402 appointments both permanent and temporary were made in the gazetted cadre by direct recruitment, while 86 promotions were made from class II service to class I services.

Out of the 402 appointments 181 were in the Civil Engineering department and 28 were in the Transportation and Commercial department in the Gazetted Railway Services.

The Railway Service Commission recommended 28,097 candidates for appointment, 2,980 for technical side and 25,117 for the non-technical side of the railway.

During the year 390 officers received training in the Railway Staff College at Baroda.

Arrangements were made for the briefing of 71 officers and 78 non-gazetted staff before sending them abroad for training.

The total number of employees belonging to Scheduled Castes and Scheduled Tribes at the end of 1963-64 on the Govt. Railways, including the office of the Railway Board and the staff employed on construction works respectively were as follows (Figures for Sch. Tribes are given in brackets) :—Class I 64 (3) ; Class II 61 (8) ; Class III 40,526 (4,060) ; Class IV 1,58,134 (26,397).

Scheduled Castes and Scheduled Tribes candidates recommended by the Rly Service Commissions for Class III category during the year were 4,189 and 2,174 and for Class IV category were 4,279 and 233 respectively.

**Commercial Advertising :** The income from this source rose from Rs. 31,93,151 in 1962-63 to Rs. 39,11,298 in 1963-64.

## TICKETLESS TRAVEL

Number of passengers detected travelling without ticket 9,006,051 ; Amount of fare and excess charges realised Rs. 2,23,76,056 ; Number of passengers who paid the fare and excess charges on demand 8,646,544 ; Number of passengers prosecuted 241,185 ; Number of cases of unbooked and improperly booked luggage 1,221,331 ; Amount realised against unbooked and improperly booked luggage 33,43,428.

## MISCELLANEOUS

*Interchange with Pakistan :* The Indian Railways made over to the Pakistan Railways 71,772 broad gauge wagons (including 61,979 loaded) and 16,162 metre-gauge wagons (including 10,524 loaded). A total of 72,202 broad-gauge wagons including 23,173 loaded, and 16,055 metre-gauge wagons, including 15,731 loaded, were received. The Pakistan Railways were a creditor to the Indian Railways to the extent of an average of 129 wagons daily in respect of broad-gauge, and a debtor to the extent of 198 wagons daily in respect of the metre-gauge.

During the year, 7,104 railway employees qualified in Hindi, 271 in Hindi type-writing and 66 in Hindi Shorthand. 325 Hindi teaching centres were functioning on the Railways towards the close of the year and 25,034 employees were booked for training in Hindi, 199 in Hindi type-writing and 112 in Hindi shorthand.

## THIRD FIVE YEAR PLAN

The Railway capital programme placed at Rs. 1,477 crores was increased to Rs. 1,581·50 crores during the year and was further revised and raised to Rs. 1,642·56 crores.

*Freight Traffic :* Freight traffic rose from 160·5 million in 1961-62, 178·8 million in 1962-63 to 192·2 million in 1963-64.

*Passenger Traffic :* During the first three years of the Plan suburban traffic has increased by 28·9 per cent (in term of passengers originating) over the level of 1960-61, and non-suburban traffic by 8·39 per cent.

The extension of Rangapara-North Lakhimpur line to Murkongselek and the extension of the broad gauge line from Siliguri to Jogighopa and the new lines required for the export of iron ore *viz.*, the Bailadilla-Kottavalasa and the Hospet-Guntakal broad gauge lines are given high priority in the Plan for the completion of the same at the target dates.

The electrification of lines taken up by the end of the Second Plan and at the beginning of the Third Plan will, by and large be completed.

All other projects and schemes approved till 1963-64 are making satisfactory progress.

*Chittaranjan Locomotive Works :* The Chittaranjan Locomotive. Works produced 117 WG class and 55 WP class broad gauge steam locomotives and 2 DC and 2 AC gauge electric locomotives during 1963-64. The total output of steam locomotives since inception was 1,691 and that of electric locomotives was 23 as at the end of 1963-64. The factory manufactured 186 locomotive boilers during the year. Number of boilers manufactured upto 31st March 1964 was 1,558.

*Diesel Locomotive Works :*

By the end of March 1964 it was to complete the work of 3 locomotives from imported components, as per the schedule ; but actually four were dispatched from the works.

*Level Crossings :* The Govt. Railways had 38,954 level crossings at the end of the year. In replacement of level crossings, 12 over/under bridges were constructed during 1963-64 and 22 were in progress. 275 unmanned level crossings were manned and 135 manned level Crossings were provided with lifting barriers in place of swing gates.

*Bridges :* The Railways had 96,212 bridges at the end of the year 1963-64. Out of this 7,425 were major bridges. During this year more than 1,000 bridges were rebuilt.

Third Plan provision and actual expenditure during 1963-64.

(Rs. in crores)

| Plan-Head | Plan Outlay | Actuals 1963-64 |
|---|---|---|
| Rolling stock .. | 537·06 | 102·46 |
| Machinery and plant | 12·25 | 2·00 |
| Track renewals .. | 202·42 | 47·37 |
| Bridge works .. | 27·53 | 4·53 |
| Line capacity works .. | 321·45 | 71·11 |
| Signalling and Safety | 38·95 | 8·02 |
| Workshops and Sheds | 55·12 | 12·39 |
| Electrification .. | 81·61 | 16·74 |
| Other electrical works | 5·21 | 0·78 |
| Staff quarters.. .. | 42·50 | 9·24 |
| Staff welfare .. .. | 17·14 | 3·69 |
| User's amenities .. | 14·10 | 2·37 |
| New lines .. .. | 211·90 | 49·37 |
| Other specified works | 22·20 | 7·20 |
| Investment in roads | 8·58 | 0·64 |
| Store suspense, manufacture suspense, miscellaneous advances etc. .. | 44·32 | 36·39 |
| Total .. | 1,642·56 | 374·30 |

# OVERSEAS COMMUNICATIONS SERVICE

INDIA'S Overseas Telecommunications networks of telegraph, telephone, radio-photo and telex services are managed by the Overseas Communications Service. The administrative Head of the department is the Director-General with headquarters at Bombay.

The Service has 4 gate-way Centres for handling international communications at Bombay, Calcutta, New Delhi and Madras. The network consists of submarine telegraph cable systems from Bombay and Madras and wireless telegraph and radio-telephone systems from all the 4 Centres. The submarine telegraph cables as such are owned and maintained by Cable & Wireless Limited, London.

As on 11th March 1964, the Overseas Telecommunications network of India consists of :—

*Direct Wireless Telegraph Services :*—With Afghanistan, Australia, Britain (4 independent circuits), Burma, China (2 links : Peking & Shanghai), Egypt, France, Federal Republic of Germany, Indonesia, Iran, Iraq, Italy, Japan, Malaysia, Poland, Philippines, Roumania, Switzerland, Thailand, U.S.A. (2 independent circuits), U.S.S.R., Vietnam (North), Vietnam (South) and Yugoslavia.

*Direct Radio-Telephone Services :*—With Aden, Afghanistan, Australia (2 independent circuits), Bahrain, Britain (4 independent circuits), Burma (2 links from Poona & Calcutta), China, East Africa, Egypt, Ethiopia, France, Federal Republic of Germany, Hongkong, Indonesia, Iran, Iraq, Japan (2 independent circuits), Malaysia, Poland, Saudi Arabia, Switzerland, U.S.S.R. and Vietnam (South).

*Direct Radio-photo Services:*—With Britain, China, France, Federal Republic of Germany, Italy, Japan, Poland and U.S.S.R. All these services, with the exception of those with China and Poland, are operated directly from Bombay, Calcutta as well as New Delhi. The services with China and Poland are operated from New Delhi only. Through these direct connections with international trunk routes, telegraph services are available with practically all the countries of the world. Similarly telephone service is available with a large number of countries in the world as given below.

*Switched Radio-Telephone Services :*—Abadan, Algeria, Argentina, Asmara, Austria, Balearic Islands, Barbados, Belgium, Bermuda, Brazil, British Guinia, Bulgaria, Burundi, Canada, Canary Islands, Central Africa Republic, Ceuta, Chad Republic, Chile, Congo, Cuba, Costa Rica, Cyprus, Czechoslovakia, Denmark, Doha, Dubai, Faroe Islands, Federal Republic of Germany, Fiji, Finland, France, French Sahara, Forbisher Bay (Canada), Gabon Republic, German Democratic Republic, Ghana, Gibraltar, Goosbay Labrador (Canada), Greece, Guatemala, Hawaii, Honduras, Hungary, Iceland, Irish Republic (Eire), Israel, Italy, Jamaica, Jordan, Kenya, Kuwait, Lebanon, Leeward Islands, Libya, Luxembourg, Malawi, Mauritius, Mongolian People's Republic, Manila, Mexico, Morocco, Muscat, Netherlands, Newfoundland, New Zealand, Nicaragua, Nigeria, Norway, Panama Philippines, Poland, Qatar, Rhodesia, Roumania, Ruanda, Ryukyu Islands, Sarawak, Sierra Leone, Spain, Spanish North Africa, South Africa, South West Africa, Sudan, Sweden, Switzerland, Tanzania, Tangier, Trinidad, Tunisia, Uganda, U.A.R., United States of America, Vatican City, West Irian, Windward Islands, and Yugoslavia and Ocean Liners which are equipped with the necessary equipment.

Radio-photo service is available with 22 other countries as shown below :

*Switched Radio-photo Services :*—Australia, Belgium, Canada, Czechoslovakia, Cyprus, Denmark, Egypt, Finland, France, Germany, Greece, Ghana, Italy, Kingston Jamaica, Malaysia, Nigeria, Norway, Portugal, Roumania, Sweden, South Africa, Switzerland, Yugoslavia and U.S.A.

*Multi-Address Press Broadcast (Telegraph) Services:*—The Overseas Communications Service provides news transmissions by radio-telegraph on behalf of the Ministry of External Affairs simultaneously to about 39 Indian Consular posts around the world. Similar facilities for broadcasting news transmission to multiple reception-point are also provided to the Press Trust of India from Bombay.

*Programme Transmissions Service :*—Facilities are offered for "programme transmissions" *i.e.* spoken despatches by representatives and Correspondents of foreign Broadcast Organisations for broadcast by their respective principals.

*Leased Telegraph Channels Service :*—Leased teleprinter channels for private customers on rental basis was introduced as a new facility by O.C.S. in the year 1957. This Service has since then expanded rapidly and 23 such channels are in use, as on 15th April 1965, by business concerns and Government agencies. This facility provides means of communication by Teleprinters directly between the parties.

*International Telex Services :*—The international telex service is the most modern form of facility available to the public and, as with other countries in the world, there is a very large and phenomenally growing demand for the provision of such service.

International telex service was introduced for the first time in India in June, 1960 linking the Bombay/Ahmedabad group of subscribers with London, and *via* London with a number of countries in the world.

*Direct Telex Services :*—United Kingdom (3 independent circuits—one each from Bombay, Calcutta and New Delhi) Japan, Federal Republic of Germany and Philippines. Through these direct connections with International network, telex service is available with 53 other countries as shown below.

*Switched Telex Services :*—Aden, Algeria, Argentina, Australia, Austria, Bahrain, Belgium, Bermuda, Brazil, Bulgaria, Canada, Czechoslovakia, Denmark, Ethiopia, Faroe Islands, Fiji, Federal Republic of West Germany, Finland, France, German Democratic Republic, Ghana, Greece, Hongkong, Hungary, Iceland, Irish Republic, Israel, Italy, Jamaica, Kenya-Uganda-Tanzania, Lebanon, Luxemburg, Malaysia, Malta, Mexico, Netherlands, New Zealand, Norway, Peru, Philippines, Poland, Republic of Sudan, Roumania, Spain, Sweden, Switzerland, Uruguay, U.S.A., USSR, Thailand and Yugoslavia.

Plans are under-way for integration of all international telex services with the internal telex system, which the Indian P. & T. has made available to the Indian public in the 4 cities of Calcutta, Bombay, New Delhi and Madras from mid-1963.

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# INSTITUTIONS FOR THE BLIND IN INDIA

*Andhra Pradesh :* Government School for the Blind, Cuddapah. Lutheran School for the Blind, Rentachintala, Guntur District ; Government School for the Blind, Malakpet, Hyderabad ; Disabled Children's School for the Blind, Amravati Road, Guntur ; School for the Blind, Kottagudan ; Andhra Pradesh Welfare Association for the Blind, Himayath Nagar, Hyderabad ; Andhra's Blind Model School, Rest House Road, Bhimavaram, West Guntur District ; Association for the Welfare of the Blind, Hyderabad.

*Assam :* Blind School attached to the Sreemantha Shankar Mission, P. O. Nowgong, New Gond District.

*Bihar :* Home for the Homeless, Muzaffarpur ; Maharani Adhirani Kameshwari Priya Andh Vidyalaya, Darbhanga ; Netraheen Chhatra Vidyalaya, Mundichak, Bhagalpur ; S.P.G. Mission Blind School, Ranchi ; Patna Blind School, P.O. Kadam Kuan, Patna ; Blind Relief Society, Dhanbad.

*Delhi :* Blind Relief Association, Room No. 37, Theatre Communications Building, Connaught Circus, New Delhi ; Blind Social Welfare Society, 96, Panchkuin Road, New Delhi ; Institution for the Blind, Panchkuin Road, New Delhi ; Rashtriya Virja Nand Andh Kanya Vidyalaya, New Rajinder Nagar, Shankar Road, New Delhi ; National Society for the Prevention of Blindness, 11/B, Gangaram Hospital Marg, New Delhi 5.

*Gujarat :* Andh Kanya Prakash Grih (Light House for Blind Girls), Narayanapura, Ellis Bridge, Ahmedabad ; Andh Mahila Vikash Grih, Gondal Road, Near Swami Narayan Gurukul, Rajkot ; Blindmen's Association Maganbhai Kendra, Kameswari Poll, Ahmedabad ; Krishnakumarsinhji School & Home for the Blind, Bhavnagar, Kathiawar ; School for the Blind, Ellis Bridge, Ahmedabad ; Govt. Blind School, Baroda ; School for the Blind, Visavadar, Saurashtra ; The Tata Agricultural & Rural Training Centre for the Blind, Phansa ; Government School for Deaf, Mutes and Blind, Maliya Bhavan Rajkot ; The Kalpana Nursery School and Home for Deaf, Dumb and Blind Children, C/o. School for Deaf Mutes and the Blind, Navrangpura, Ahmedabad ; Adult Training Centre for the Blind, Navrangpura, Ahmedabad ; A. M. Andhjanshala, Race Course, Athwa Lines, Surat ; The Baroda Association for the Blind, Mahajan Lane Raopura, Baroda ; Dohad Andh Jan.. Vidyalaya, Dohad ; Meghji Pethraj Blind School, Junagadh ; National Association for the Blind (Gujarat State Branch), C/o Adult Training Centre for the Blind, Behind University Professors' Quarters, University Campus, Navrangpura, Ahmedabad 9 ; Shikshan Samiti, Bodeldy, P.O. Kinwat, Nadiad District ; Shri Andh Sarvodaya Mandal, Gondal Road, Near Swaminarayan Gurukul, Rajkot ; Shri Bharatiya Pragna Chakshu Gurukul, Porbunder.

*Jammu-Kashmir :* Residential School for the Blind, Ved Mandir, Jammu ; Shri Abedananda Home for the Blind, Srinagar, Kashmir.

*Kerala :* Kerala Blind Welfare Association, Mankadapallipuram, Malappuram ; School for the Blind, Kunnamkulam, Talapally, Trichur Dt. ; School for the Blind, Deaf & Dumb, Trivandrum ; Rotary School for the Blind, Alwaye ; School for the Blind, Olessa, Kottayam. National Association for the Blind, (Kerala State Branch), C/o Government Ophthalmic Hospital, Trivandrum 1.

*Madhya Pradesh :* Madhya Pradesh Welfare Association for the Blind, 83, Bozanket Market, Pandey's Building, Indore ; Shri Madhav Andh Ashram, Nai Sarak, Laskar, Gwalior ; School for the Blind attached to the Christian Hospital

& Dispensaries, Mungeli, Bilaspur Dt.; Deaf, Dumb & Blind Vidhyalaya, Indore; Government Blind and Deaf School, Bhopal; Child Guidance Clinic & Handicapped Children's Colony, 102, Cherital, Jabalpur.

*Madras:* Blind Relief Association, 17, Gang Shala, Pondicherry; Blind Relief Association, 48, Thennamaram Street, Vellore; Government School for the Blind, Poonamallee; Government School for the Blind, Shivpet, Salem; Madras Christian College (Students Service for the Blind); Tambaram, Chingleput Dt.; School for the Blind & Deaf, Cathedral Post, Madras 6; School for the Blind, Palayamkottai, Tirunelveli 2; School for the Blind, Swedish Mission Hospital, Tirupattur, Ramanathapuram Dt.; School for the Blind, Sir T. Desikachariar Building, Puttur, Tiruchirapalli; TELC Home & School for the Blind, Moses Gnanabaraam Eye Hospital, Coimbatore-1; National Academy of Teacher of the Blind, C/o School for the Blind, Palayamkottai, Tirunelveli 2; National Association for the Blind, (Madras State Branch), 27/1-A, Mount Road, Saidapeth, Madras 15; St. Louis Institute for the Deaf and Blind, Madras 20.

*Maharashtra:* Andh Pragati Mandal, 52, B.D.D. Chawl, Worli, Bombay-18; Blind Boy's Institute, Ajini Ambajari Road, Nagpur; Blind Men's Association, C/o Shri R. M. Alpaiwalla, 177/179, Lamington Cross Road, Bombay-7; Blind Relief Association, Congress Bhuvan Bassein, Thana District; Blind Relief Association, 475-83, Kalbadevi Road, Bombay-2; Dadar School for the Blind, 160, Dadasaheb Phalke Road, Dadar, Bombay-14; Government School for the Blind, Nasik; Haji Allarakha Sonawala Andh & Anath Stree Ashram, 37, Gilbert Hill, Versova Road, Andheri, Bombay-58; Happy Home & School for the Blind, 52, B.D.D. Chawls, Worli, Bombay-18; Industrial Home for Blind Women, 160, Dadasaheb Phalke Road, Dadar, Bombay-14; Kishanlal Jalan Charity Trust, 339-41, Kalbadevi Road, Bombay-2; M. N. Banajee Industrial Home for the Blind, 280, Swami Vivekananda Road, Jogeshwari, Bombay-60; National Christian Council, Nagpur, Maharashtra; N.S.D. Industrial Home for the Blind, 52, B.D.D. Chawl, Worli, Bombay-18; Poona School & Home for the Blind, Koregaon Park, Poona; Poona Blind Men's Association, 82, Rasta Peth, Poona; Rambai Mukti Mission, Kedgaon, Poona District; Victoria Memorial School for the Blind, 73, Tardeo Road, Bombay 7; The Workshop for the Blind, Dr. Annie Besant Road, Worli, Bombay-18; Blind Home, Chembur, Bombay-17, Government School for the Blind, Bhandara; Industrial Institute for the Blind, Deaf & Dumb, Near Tata Parsi Girls' High School, Nagpur. School for the Blind, Deopur, Dhulia; National Association of the Instructors of the Blind, 22, Jal Bungalow, Arab Lane, Corner Grant Road, Bombay 8.

*Mysore:* Blind Relief Association, Bijapur; Government School for the Blind, Hubli, Dharwar District; School for the Blind, Myscre; Vocational Institute for Women at Mysore City with a Section for Blind Girls, Mysore; Divine Light School for the Blind, White Field, Bangalore; Government School for the Blind, Kasargod, South Kanara District.

*Orissa:* Orissa State Council for Child Welfare, Raj Bhavan, Cuttack.

*Punjab:* Bharatiya Andh Hitakarini Sabha, 2212-13, Gurudwara Building, Inside Lohgarh Gate, Amritsar; District Council for the Welfare of the Handicapped, Home for the Blind, Tulsiram Ashram, Ferozepore; Government Institute for the Blind, Panipat; Institute for the Blind, Andh Vidyalaya, Amritsar; S.D. Institute for the Blind, Ambala Cantt.; Soorma Singh Ashram, Amritsar; Training Centre for the Adult Blind, Sonepat.

*Rajasthan:* Government School for the Blind, Adarshnagar, Ajmer; Seth Anandilal Poddar Institute for the Deaf, Dumb & Blind, Jaipur; Education Department, Government of Rajasthan, Bikaner.

*Uttar Pradesh:* Ahmedi School for the Blind, Civil Lines, Aligarh; Central Braille Press, Rajpur Road, Dehra Dun; Kashi Seva Samiti, Varanasi; Model School for Blind Children, Rajpur Road, Dehra Dun; School for the Blind (Andh Vidyalaya), 110/26, Nehru Nagar, Kanpur; School for the Blind attached to the Eye Hospital, Sitapur; Sharp Memorial School for the Blind, Rajpur Road, Dehra Dun; Training Centre for Adult Blind, Rajpur Road, Dehra Dun; Kunwarlal Singh Industrial School for the Blind, Kutcheri Road, Manipuri; Government School for the Blind, Lucknow; Allahabad School & Home for the Blind, P.O. Naini, Allahabad; Madrasa Nabeena, Nageena, Bijnor; Government School, Gorakhpur; Blind Association, 9-C, Civil Lines, Gorakhpur; Blind School, Bhadaini, Varanasi.

*West Bengal:* Blind Persons' Association, 174, Shyam Prasad Mookerjee Road, Calcutta 26; Kalimpong Home for the Blind, Kalimpong, Darjeeling District; Light House for the Blind, 174, Shyam Prasad Mookerjee Road, Calcutta 26; Ramkrishna Mission Ashram, P.O. Narendrapur, Dist. 24 Parganas; Calcutta Blind School, P.O. Behala, Calcutta-23; Association for the Prevention of Blindness, 94, Chittaranjan Avenue, Calcutta.

# PRODUCTION (INDUSTRIAL) 1964

| Industry | Accounting Units | No. of Units | Estimated* Production |
|---|---|---|---|
| **TOOLS** | | | |
| Coated abrasives | Reams | 5 | 1,72,743 |
| Grinding wheels | kg. | 7 | 30,35,276 |
| **LIGHT ELECTRICAL ENGINEERING INDUSTRIES** | | | |
| Brass lamp holders | Nos. | 6 | 45,22,000 |
| Dry batteries | Mill. cells. | 5 | 283 |
| Domestic refrigerators | Nos. | 6 | 29,000 |
| Electric fans | ,, | 26 | 10,50,000 |
| Electrical accessories | ,, | 11 | 1,64,40,000 |
| Fluorescent tubes | Mill. Nos. | 3 | 3·40 |
| GLS and other similar lamps | ,, | 13 | 70 |
| House service metres | Nos. | 11 | 14,00,000 |
| Miniature lamps | Mill. Nos. | 10 | 34 |
| Measuring instruments | Nos. | 6 | 83,000 |
| Room air-conditioners | ,, | 8 | 11,000 |
| Radio receivers | ,, | 20 | 4,60,000 |
| Storage batteries | ,, | 12 | 7,84,000 |
| **INSTRUMENTS** | | | |
| Box cameras | Nos. | 2 | 33,578 |
| Clinical thermometres | ,, | 3 | 14,55,000 |
| Levels | ,, | 7 | 7,720 |
| Mathematical Instruments (Geometry boxes) | Gross | 3 | 23,891 |
| Microscopes | Nos. | 8 | 4,884 |
| Pressure gauges | ,, | 3 | 68,020 |
| Theodolites | ,, | 4 | 795 |
| Water metres | ,, | 5 | 1,28,687 |
| **MEDICAL INSTRUMENTS** | | | |
| Medical/Surgical instruments, equipment and appliances | Lakhs (Rupees) | 2 | 59·00 |

| Industry | Accounting Units | No. of Units | Estimated* Production |
|---|---|---|---|
| **HEAVY MECHANICAL ENGINEERING INDUSTRIES** | | | |
| Conduit pipes | Mill. R. Meters | 11 | 2·09 |
| Welding electrodes | Th. R. Meters | 7 | N.A. |
| Wire Rope | Tons | 6 | 9,778 |
| Steel Pipes | Tonnes | 13 | 2,15,363 |
| **LIGHT MECHANICAL ENGINEERING INDUSTRIES** | | | |
| Ball bearings | Mill. Nos. | 3 | 6·3 |
| Beltings: Cotton & Hair | Tonnes | 10 | 572 |
| ,, Rubber Ply transmission | ,, | 8 | 1,956 |
| ,, Conveyor | ,, | 5 | 2,825 |
| Bicycle complete | Nos. | 20 | 14,20,650 |
| Bicycle spare parts and accessories | Mill. Rs. | 51 | 88 |
| Duplicators | Nos. | 4 | 4,627 |
| Incandescent lamps | Nos. | 4 | 1,34,038 |
| Gramophone needles | Mill. Nos. | 1 | 316 |
| Sewing machine needles | ,, | 2 | 1·95 |
| Hand sewing needles | ,, | 1 | 87 |
| Sewing machines | Nos. | 9 | 1,92,021 |
| Steel balls | Hundred Nos. | 4 | 91,76,114 |
| Steel belt lacing | Tonnes | 4 | 492 |
| Stoves, Pressure type | Nos. | 5 | 1,71,396 |
| Stoves, Non-pressure type | ,, | 2 | 2,68,442 |
| Typewriters | Nos. | 4 | 45,131 |
| Zip fasteners | Metres | 6 | 28,31,847 |
| Building hardware | M. Tons. | 23 | 8,277 |
| Bolts, nuts, rivets, dogspikes and washers | Tonnes | 42 | 33,600 |
| Clocks | Th. Nos. | 5 | 56·90 |
| Crown cork | Mill. Nos. | 6 | 1,035 |
| Expanded metal | Mill. Tons | 4 | 1,546·72 |
| Hurricane lantern | Mill. Nos. | 10 | 5·58 |
| Laminated (auto) leaf springs | M. Tons. | 10 | 19,747 |

* Based on actuals for the first nine months and estimated production for October, November and December.

| Industry | Accounting Units | No. of Units | Estimated* Production |
|---|---|---|---|
| **LIGHT MECHANICAL ENGINEERING INDUSTRIES—*Contd.*** | | | |
| Machine screws | Mill. Nos. | 13 | 459·68 |
| Wood screws | ,, | 20 | 1,449·78 |
| Steel furniture | Tonnes | 23 | 31,944 |
| Steel link chain | ,, | 3 | 253 |
| Time-pieces | M. Nos. | 3 | 0·237 |
| Umbrella ribs | Mill. Dozen Sets | 6 | 0·367 |
| Razor blades | Mill. Nos. | 6 | 879·08 |
| Wire products like wire gauge netting and chain link fencing | Tonnes | 5 | 1,180 |
| **ALKALIES AND ALLIED CHEMICALS** | | | |
| Bleaching Powder | Tonnes | 1 | 7,850 |
| Bromides | ,, | 1 | 200 |
| Bromine | ,, | 1 | 150 |
| Calcium carbide | ,, | 4 | 40,000 |
| Calcium carbonate | ,, | 4 | 5,400 |
| Hydrogen peroxide | ,, | 1 | 2,800 |
| Phosphorous trichloride | ,, | 1 | 200 |
| Potassium chlorate | ,, | 3 | 3,650 |
| Sodium bicarbonate | ,, | 2 | 13,800 |
| Sodium bisulphite | ,, | 5 | 950 |
| Sodium hydrosulphite | ,, | 3 | 3,800 |
| Sodium perborate | ,, | 1 | 500 |
| Sodium sulphite | ,, | 4 | 650 |
| Sodium thiosulphate | ,, | 5 | 1,340 |
| **ACIDS AND MISCELLANEOUS CHEMICALS** | | | |
| Alum | Tonnes | 13 | 2,250 |
| Alumina Ferric | ,, | 19 | 75,000 |
| Aluminium sulphate (Iron Free) | ,, | 15 | 4,700 |
| Ammonium chloride | ,, | 2 | 18,000 |
| Bichromates | ,, | 6 | 6,800 |
| Calcium chloride | ,, | 3 | 2,200 |
| Copper sulphate | ,, | 4 | 5,000 |
| Ferrous sulphate | ,, | 9 | 4,000 |
| Magnesium chloride | ,, | 3 | 5,500 |
| Magnesium sulphate | ,, | 16 | 3,744 |
| Nitric Acid (Industrial use) | ,, | 22 | 11,000 |
| Sodium sulphate | ,, | 18 | 34,500 |
| Sodium sulphide | ,, | 7 | 2,800 |
| Zinc chloride | ,, | 3 | 400 |
| *Miscellaneous Chemicals (Gases):—* | | | |
| Argon gas | Th. Cu. Metres | 1 | 48 |
| Carbon dioxide | Tonnes | 18 | 9,500 |
| D. Acetylene | Th. Cu. Metres | 10 | 4,350 |
| Hydrogen gas | ,, | 2 | 181 |
| Nitrogen gas | ,, | 5 | 510 |
| Nitrous oxide gas | Million Litres | 1 | 169 |
| Oxygen gas | Th. Cu. Metres | 17 | 25,000 |
| *Electroplating Chemicals (Basic):—* | | | |
| Chromic acid | Tonnes | 5 | 300 |
| Nickel ammonium sulphate | ,, | 4 | 1·6 |
| Nickel carbonate | ,, | 5 | 7 |
| ,, Chloride | ,, | 4 | 130 |
| ,, sulphate | ,, | 5 | 480 |
| *Compound Electroplating Salts:—* | | | |
| Brass salts | ,, | 3 | 8·5 |
| Cadmium salts | ,, | 3 | 50 |
| Copper salts | ,, | 4 | 27 |
| Metal cleaner | ,, | 4 | 918 |
| Nickel electroplating salts | ,, | 6 | 271 |
| Silver salts | ,, | 3 | 1·2 |
| Tin salts | ,, | 4 | 11 |
| Zinc salts | ,, | 4 | 65 |
| *Water Treatment Chemicals:—* | | | |
| Alfloc powder | ,, | 1 | 500 |
| Sodium aluminate | ,, | 2 | 905 |
| Sodium hexametaphosphate | ,, | 1 | 792 |
| *Activated Chemicals:—* | | | |
| Activated bleaching earth | ,, | 3 | 4,100 |
| Activated carbon | ,, | 3 | 562 |

| Industry | Accounting Units | No. of Units | Estimated* Production |
|---|---|---|---|
| **ACIDS AND MISCELLANEOUS CHEMICALS—*Contd.*** | | | |
| *Others:—* | | | |
| Barium carbonate | Tonnes | 4 | 1,100 |
| Firefighting foam compound | Th. Litres | 1 | 216 |
| Fluxes | Tonnes | 8 | 1,891 |
| Gas mantles | Th. Gross | 3 | 130 |
| Heat treatment salts | Tonnes | 4 | 1,765 |
| Potassium permanganate | Tonnes | 2 | 330 |
| Pyrotechnic aluminium powder | ,, | 1 | 210 |
| Rare earth | ,, | 1 | 2,500 |
| **ALCOHOL AND ORGANIC CHEMICALS** | | | |
| Beer | K.L. | 3 | 14,352 |
| Yeast | M.T. | 3 | 387 |
| Ethyl Alcohol | K.L. | 61 | 1,50,880 |
| **PLASTIC AND PLASTIC CHEMICALS** | | | |
| Leather cloth | K. metres | 6 | 8,922 |
| Linoleum | ,, | 1 | 856 |
| *Moulding powders/resins:—* | | | |
| P. V. C. resins/composition | Tonnes | 2 | 6,972 |
| Phenolic laminates | ,, | 2 | 1,646 |
| Plastic moulded goods | Mill. Nos. | 49 | 1,050 |
| Polythene films and lay flat tubings | Tonnes | 8 | 2,200 |
| P.V.C. Flexible sheets | ,, | 2 | 2,004 |
| **CEMENT INDUSTRY** | | | |
| A.C. Sheets and pipes | M. Tonnes | 7 | 3,51,593 |
| Cement | M. Tonnes | 37 | 96,27,606 |
| **INDUSTRIAL EXPLOSIVES** | | | |
| Nitro Compounds | Tonnes | 1 | 16,360 |
| Safety fuses | Mill. Coils | 2 | 9·81 |
| **CERAMIC INDUSTRIES** | | | |
| Abrasive grains | Tonnes | 3 | 1,064 |
| *Ceramics:—* | | | |
| Glazed tiles | Tonnes | 7 | 4,961 |
| Insulators (H.T.) | ,, | 9 | 4,573 |
| Insulators (L.T.) | ,, | 17 | 4,807 |
| Sanitarywares | ,, | 20 | 10,602 |
| Stoneware pipes | ,, | 21 | 70,685 |
| Stoneware (Containers) | ,, | 25 | 9,127 |
| Whitewares | ,, | 44 | 19,180 |
| Refractories | ,, | 54 | 6,93,318 |
| **GLASS AND ALLIED INDUSTRIES** | | | |
| *Glass and glasswares:—* | | | |
| Bottlewares | Tonnes | 85 | 1,32,600 |
| Glass shells | Mill. pcs. | 3 | 72·14 |
| | Tonnes | | 2,544 |
| Laboratory glassware | Tonnes | 14 | 3,507 |
| Lampware | ,, | 48 | 21,665 |
| Flat glass | Mill. sq. Metres | 9 | 10·26 |
| | Tonnes | | 55,332 |
| Table & pressedwares | Tonnes | 49 | 49,265 |
| Vacuum flasks | Mill. Nos. | 7 | 1·97 |
| | Tonnes | | 1,084 |
| Enamelware | Mill. pcs. | 24 | 27·08 |
| Liquid gold | M. Grammes | 5 | 3·80 |
| Synthetic stones | Th. Kilos | 1 | 13·04 |
| **PAPER INDUSTRIES** | | | |
| Paper & paper boards | M. Tons | 45 | 4,80,000 |
| Newsprint | ,, | 1 | 29,188 |
| *Carbon Paper Industry:—* | | | |
| Carbon paper | Th. Boxes of 100 sheets | 6 | 4,588 |
| Duplicating stencils | Reams | 3 | 72,345 |
| Typewriter ribbons | Mill. Nos. | 6 | 3·1 |
| Rayon Grade Pulp | M. Tons | 1 | 39,783 |

* Based on actuals for the first nine months and estimated production for October, November and December.

| Industry | Accounting Units | No. of Units | Estimated* Production |
|---|---|---|---|
| **TIMBER INDUSTRIES** | | | |
| *Cork products* | | | |
| Cork discs | Million Nos. | 2 | 706 |
| Cork sheets | Mill. Sq. Metres | 2 | 1·15 |
| Cork stoppers | Million Nos. | 2 | 214 |
| Hard board | Mill. Sq. Metres | 2 | 2·45 |
| Insulation board | ,, | 1 | 0·52 |
| Matches | Mill. boxes 50 sticks each | 6 | 4,088 |
| Plywood (Commercial) | Mill. Sq. Metres | 71 | 10·29 |
| Plywood (Teachest) | Mill. Sq. Metres | | 9·01 |
| Glue | Kgs. | 7 | 22,22,000 |
| *Leather footwear :* | | | |
| Indigenous type of leather footwear by organised units | pairs | 12 | 60,36,000 |
| Western type of leather footwear by organised units | ,, | 12 | 80,40,000 |
| Myrobalan extracts | Tonnes | 3 | 1,051 |
| Pickers | Nos. | 5 | 15,00,000 |
| *Tanned hides* | | | |
| Chrome tanning of hides by organised units | Hides | 12 | 9,15,000 |
| Vegetable tanning of hides by organised units (expressed in terms of cowhides one buff. hide = 2 cowhides) | Cowhides | 32 | 32,80,000 |

| Industry | Accounting Units | No. of Units | Estimated* Production |
|---|---|---|---|
| **RUBBER MANUFACTURES** | | | |
| *Belts :* | | | |
| Fan belts | Nos. | 6 | 13,11,720 |
| Vee belts (Industrial) | ,, | 5 | 17,28,960 |
| Camel back | Kgs. | 8 | 65,59,170 |
| Dipped rubber goods | Nos. | 8 | 29,94,65,580 |
| Ebonite | Kgs. | 13 | 1,28,880 |
| *Hoses :* | | | |
| Radiator hoses | Nos. | 8 | 2,63,150 |
| Vacuum brake hoses | ,, | 7 | 13,40,170 |
| Other type of hoses | Metres | 16 | 67,70,210 |
| Latex foam sponge | Kgs. | 7 | 10,83,310 |
| Rubber footwear | pairs | 15 | 4,64,36,590 |
| *Tubes :* | | | |
| Giant Tubes | Nos. | 7 | 12,98,505 |
| Motor Tubes | ,, | 7 | 7,17,335 |
| Motorcycle Tubes | ,, | 3 | 2,43,760 |
| A.D.V. | ,, | 3 | 1,60,055 |
| Aero | ,, | 1 | 4,885 |
| Bicycle | ,, | 11 | 1,50,49,840 |
| Off-the-road | ,, | 3 | 10,415 |
| Tractors | ,, | 3 | 77,480 |
| *Tyres* | | | |
| Automobile (Giant) | Nos. | 8 | 12,36,095 |
| ,, (Motor) | ,, | 7 | 6,60,300 |
| ,, (Motorcycle) | ,, | 3 | 1,54,400 |
| A.D.V. | ,, | 3 | 90,110 |
| Aero | ,, | 1 | 15,460 |
| Bicycle | ,, | 11 | 1,62,33,430 |
| Cab | Metres | 3 | 50,105 |
| Off-the-road | Nos. | 3 | 9,790 |
| Tractor | ,, | 3 | 69,695 |
| Rubberised fabrics | Metres | 11 | 46,50,650 |

* Based on actuals for the first 9 months and estimated production for October, November and December.

For the twelve months January—December 1964, the index averaged 174·6 against 163·6 for the previous calendar year, showing a modest rise of 6·7 per cent.

The average adjusted index for the fiscal year 1964-65 worked out at 177·9 and was higher by 6·5 per cent compared with the average index of 1963-64.

This was substantially lower than the annual rate of expansion of 11·1 per cent envisaged during the Third Plan period.

The rate of growth of industrial production during the first four years of the Third Plan is indicated in the table below.

| Fiscal Year | % rise over the previous year |
|---|---|
| 1961-62 | 6·5 |
| 1962-63 | 8·0 |
| 1963-64 | 9·4 |
| 1964-65 | 6·5 |
| Third Plan Target | 11·1 |

# FAMILY PLANNING

**It is now widely accepted that the success of the schemes of economic development of India will be considerably hampered unless due attention is paid to the problem of growing population.**

**It is estimated that India's population was expected to increase from 439 million in 1961 to 560 million in 1971 and 695 million in 1981. And unless the rate of growth was checked by family planning to an extent hitherto unknown in this country it would outstrip supply of food and neutralize the benefits of increased production through the Plans.**

**Family planning as an official programme was launched in the First Five Year Plan, as part of Government of India's policy for population control.**

During the Second Plan period high level Family Planning Boards were formed at the Centre and in the States. A Director of Family Planning was posted in the Union Health Ministry and whole time Family Planning Officers were appointed in the States. Training Centres and centrally financed field units were set up to provide orientation of Family Planning field workers. Research in Demography, on Reproductive Physiology and on the Communication Aspects of Family Planning was firmly established. The National awareness of the Family Planning was further reorganised through mass education media and many lakhs of posters, pamphlets and folders on the subject were distributed. In addition, slides and exhibits were also utilised. Public minded leaders in States and districts were appointed as honorary Family Planning Education Leaders to mobilise local interests and support to village leaders' camps to increase direct local participation in the programme. The aims of the Family Planning Programme as set out by the Planning Commission in the Third Five Year Plan are :—

1. Wide-spread education to create the necessary local background for a large Family Planning Programme; 2. Integration of Family Planning activities with the normal health services; 3. Provision of Family Planning Services including facilities for sterilization through medical and health centres and facilities for distribution of contraceptives; 4. Development of training programmes in medical colleges and other teaching institutions; and 5. Utilisation for the Family Planning campaign of local voluntary leadership to the largest extent possible.

During all these years a four-fold Family Planning Programme has been developed viz., Education, Service, Training and Research.

The allocation for family planning in the Third Plan is Rs. 27 crores.

### Service

Services have been increased considerably throughout the country during the Third Plan period. The expenditure during the first four years is more than the total expenditure incurred during the First and the Second Plan period, as will be evident from the budget figures given below:—

Estimated Expenditure (Rs. in lakhs)

| | First Plan | Second Plan | Third Plan | | | | Budget Provision |
|---|---|---|---|---|---|---|---|
| | | | 1961-62 | 1962-63 | 1963-64 | 1964-65 | 1965-66 |
| Service | 7·99 | 55·54 | 23·28 | 45·86 | 68·58 | 51·78 | 82·07 |
| Training | 0·40 | 15·34 | 5·22 | 7·53 | 7·66 | 21·25 | 27·17 |
| Education | — | — | 4·33 | 9·37 | 20·12 | 31·41 | 45·93 |
| Research | 3·99 | 22·86 | 10·20 | 10·46 | 13·68 | 13·33 | 19·28 |
| Central Organisation | 2·13 | 6·62 | 3·46 | 3·06 | 3·41 | 7·23 | 8·18 |
| Grant to State Governments | — | 115·22 | 68·24 | 164·09 | 186·90 | 300·00 | 457·00 |
| Total | 14·51 | 215·58 | 114·73 | 240·37 | 300·30 | 425·00 | 639·63 |

The number of Family Welfare Planning Centres has been increased from 147 at the end of the First Plan to 15,808 at the end of April 1965 (Rural 13,901 and Urban 1,907).

### Sterilization

High priority is also being given to voluntary sterilization schemes and sterilization facilities have been provided at medical institutions on an appreciable scale. Sterilisation camps are also being held in some States to intensify sterilisation programme. Assistance of private surgeons is being obtained by giving them Rs. 100 per day as honorarium provided they perform a minimum of 10 operations per day. Special casual leave is being given to Government servants for undergoing sterilization operations. Free transport facilities are also provided to persons coming for operations. In some of the States monetary incentives are also being given to the persons undergoing such operations.

The number of sterilization operations have risen from 6,787 in 1956 to 9,05,579 upto the end of April 1965 (males 6,15,701 and females 2,89,878).

**Contraceptives :** Contraceptives are supplied free of cost to all couples without reference to their income in rural areas. In urban areas all contraceptives are distributed free to people with income upto Rs. 300 per month, at half of the cost price to those with incomes between Rs. 301 to Rs. 500 and at cost price to those with incomes above Rs. 500 per month.

The off-take of contraceptives in India since 1956 has increased considerably as detailed below from the reports received from a few principal dealers.

(No. in millions)

| Year | Diaphragm | Jellies | Condoms | Foam Tablets |
|---|---|---|---|---|
| 1956 .. .. | 0·025 | 0·078 | 0·062 | 0·246 |
| 1957 .. .. | 0·089 | 0·078 | 0·143 | 0·082 |
| 1958 .. .. | 0·022 | 0·076 | 0·727 | 4·836 |
| 1959 .. .. | 0·053 | 0·430 | 0·656 | 7·912 |
| 1960 .. .. | 0·143 | 0·307 | 0·346 | 14·980 |
| 1961 .. .. | 0·343 | 0·632 | 6·863 | 15·882 |
| 1962 .. .. | 0·481 | 0·571 | 7·807 | 7·628 |
| 1963 .. .. | 0·091 | 0·611 | 12·879 | 13·500 |
| 1964 .. .. (Jan. to June) | 0·301 | 0·259 | 7·033 | 4·875 |
| Relative increase .. | 3·64 | 7·86 | 207·72 | 54·87 |

This does not give the total consumption.

### Production of Contraceptives

The estimated licensed/permitted production capacity of rubber contraceptives in India is 381·21 million pieces per year. Actual production, however, is very small. The Bombay Latex Dispersions Private Ltd., Bombay, have started production of condom on a small scale. Messrs. London Rubber Industries India (P) Ltd. have also started production of condoms. The Govt. of India has decided to start manufacturing rubber contraceptives in the public sector. The factory will be installed in Kerala State. At present the bulk of rubber contraceptives required in India are being imported. The import figures of rubber contraceptives from 1958 onwards are given below :—

| Year | No. of pieces (in millions) | Cost (in millions of Rs.) |
|---|---|---|
| 1958.. .. | 6·343 | 0·409 |
| 1959.. .. | 6·437 | 0·578 |
| 1960.. .. | 13·016 | 1·432 |
| 1961.. .. | 27·746 | 2·917 |
| 1962.. .. | 24·633 | 2·221 |
| 1963.. .. | 17·437 | 1·579 |
| 1964.. .. (Jan. to May) | 12·385 | 0·993 |

Major part of chemical contraceptives is met by indigenous production. Foam tablets and contraceptive cream manufactured at the Medical Store Depot have been tested and found satisfactory. The Medical Store Depot will go into production soon.

Contraceptives are tested by the Government of India before being allowed to be sold in India for public use. Testing of contraceptives is done at the Indian Cancer Research Centre, Bombay for laboratory and clinical tests of chemical contraceptives. Rubber contraceptives are tested at the Chief Inspectorate of Textiles and Clothings, Kanpur. Toxicity of ingredients used in chemical contraceptives as well as lubricating solutions of condoms are tested at the Central Drug Research Institute, Lucknow. Chemical analysis of the ingredients for determining the stated percentage is tested at the Central Drugs Laboratory, Calcutta.

*Intra-Uterine Contraceptive Device :* The Advisory Committee on Scientific Aspects of Family Planning of the Indian Council of Medical Research in their meeting held at Aurangabad on Jan. 5, 1965 reviewed the progress of work on I.U.C.D. After studying the data presented in this meeting from clinical studies conducted in India as well as the reports of the Second International Conference on Intra-Uterine Contraceptive held in New York in October 1964, the Advisory Committee came to the conclusion that the I.U.C.D. is safe, effective and acceptable and should be made available through all medical and health centres having requisite facilities.

The Union Government has accepted the recommendation of the Indian Council of Medical Research that I.U.C.D. is effective and acceptable and that for the present the loop should be used.

The Union Health Ministry has suggested to the State Governments that efforts should be made to introduce the I.U.C.D. in at least 50 per cent of the cases handled by maternity hospitals, post-natal clinics and other institutions as part of the crash programme of family planning.

The Second Plan started with 21 rural and 125 urban clinics (now these clinics are redesignated as Family Welfare Planning Centres). By the end of April 1965 there were 15,808 Family Welfare Planning Centres functioning in the country.

| | Rural | Urban | Total |
|---|---|---|---|
| Regular Centres .. .. .. .. | 4,520 | 1,263 | 5,783 |
| Contraceptive Distribution Centres .. | 9,381 | 644 | 10,025 |
| Total .. .. .. .. | 13,901 | 1,907 | 15,808 |

### Training

There are three Family Planning Training Centres under the Directorate General of Health Services *viz.* (*i*) Family Planning Training & Research Centre, Bombay, (*ii*) Family Planning Training, Demonstration & Experimental Centre, Ramnagaram, Mysore, (*iii*) Family Planning Institute, New Delhi.

Training in Family Planning is provided at the All India Institute of Hygiene and Public Health, Calcutta. Besides these, there are 16 training centres in different States run and managed by the State Governments with 100 per cent Central assistance. These training centres give regular training to doctors, social workers, and para-medical personnel who are working in Family Planning Programme. They also give short-term Job-Orientation to these people. Besides these centres, 16 Central Family Planning Field Units have been created in each of the 16 States for giving short-term Job-Orientation training as well as orientation to other people not directly engaged in Family Planning work but who indirectly can help the Family Planning movement. The total number of persons trained up to April 1965 is 55,088. Besides, several thousands have been given orientation in family planning. The Govt. of India has decided that in addition to the 16 existing training centres in the various states, there should be 28 more training centres *i.e.* one training centre for about ten million of population in each State.

There are also five Family Welfare Planning Training Centres run by voluntary organisations with 100 per cent assistance from the Government of India. These centres are located one each at Delhi, Nagpur, Hyderabad, Madras and Allahabad. They give nine months' training to women workers for Family Planning work in rural and urban areas, mostly in rural areas. They are being converted into training centres for auxiliary nurse midwives.

Training is also imparted to medical students during their under-graduate course as well as to nurses, lady health visitors, public health nurses and auxiliary nurse midwives. Training is now an integral part of the Training Programme for the above category of personnel. Training in Re-productive Physiology, Communication Research and Demography are also given at various centres in India.

Fellowship programmes have been evolved for higher studies in Communication Research, Demography and Reproductive Physiology abroad. Fellowships are offered by the Ford Foundation and the Population Council.

### Education

The educational activities are mainly based on community educational work which can produce the group support needed for adoption of Family Planning and providing specific information about contraceptives and sterilization. All available educational media are being exploited. Upto December 1964, 23,20,000 posters, 47,90,000 folders and 55,24,500 pamphlets on Family Planning have been prepared in English, Hindi and other regional languages and distributed to the people. Approximately 4,400 Cinema slides on Family Planning have been produced for display in cinemas throughout the country. 1,000 slides on sterilization in males and 1,000 slides of sterilization in females have been produced for training purposes. Seventeen films on Family Planning have been produced so far and have been shown widely. Regular programmes relating to Family Planning are broadcast over the radio from all stations.

Education is also being imparted through orientation camps by the State Governments, voluntary organisations, Honorary Family Planning Education Leaders and Central Family Planning Field Units.

Audio-Visual equipment with projectors and mobile vans are being provided in each district for extensive educational activities.

**Research**

Regular research is being conducted on medical and biological aspects of Family Planning, Demography and Communication. Demographic Research is being conducted at seven centres, *viz.* Demographic Training and Research Centre, Bombay, Demographic Research Centre, Indian Statistical Institute, Calcutta, Demographic Research Centre, Institute of Economic Growth, Delhi, Demographic Research Centre, Dharwar, Demographic Research Centre, Department of Statistics, University of Kerala, Trivandrum, Gokhale Institute of Politics and Economics, Poona and Demographic Research Centre, Indian Institute of Population Studies, Madras. Research on medical and biological aspects or reproduction are being conducted at a number of places including All India Institute of Medical Sciences, New Delhi, Central Drug Research Institute, Lucknow, Indian Cancer Research Centre, Bombay, Zoology Department of Delhi University and in various other universities and medical colleges. Communication Research is being undertaken at the Family Planning Institute, New Delhi, Demographic Research Centre, Bombay, University of Kerala Rural Health Centre, Gandhigram, Indian Statistical Institute, Calcutta, Planning Research and Action Institute, Lucknow, Lady Hardinge Medical College, New Delhi, New Delhi Family Planning Association, New Delhi and All India Institute of Hygiene and Public Health, Calcutta.

The Central Family Planning Institute, New Delhi was established in 1962 mainly for the advancement of knowledge in various aspects of the Family Planning movement in India, *i.e.* educational, social, medical, biological, statistical, demographical, organisation and supply. In order to facilitate expeditious achievements of its objects, the Govt. of India has decided to register the Central Family Planning Institute as autonomous body and the Institute was registered under the Societies Registration Act of 1860 with effect from March 22, 1965. It is to be run by a 33-member General Council under the chairmanship of the Union Health Minister.

Based on the Family Planning Programme Report for 1962-63, the Family Planning Programme has been carefully reviewed by the Central Family Planning Board in April, 1963. The entire programme has been re-organised with effect from October, 1963 with emphasis on extension education and extension approach. The proposed main goal for the programme is now to accelerate the rate of adoption of Family Planning so as to reduce the birth rate in India to 25 births per 1,000 population as early as possible. The operational goal to achieve this objective will be to create for 90 per cent of the married adult population of India the three basic conditions needed in accelerating the adoption of Family Planning by couples *viz.* group acceptance, knowledge about Family Planning and ready availability of services and supply.

Under the Third Plan an allotment of Rs. 26,97,57,000 has been made for Family Planning with the assurance that this amount can be doubled if required. Of this, Rs. 2,000 lakhs are in the Union and Rs. 697·57 lakhs in the State sectors. During 1965-66, the Union Govt. proposes to spend Rs. 1,170·85 lakhs on the programme of population control.

**Evaluation of Family Planning :** The Central Family Planning Board set up an experts Committee to evaluate the work carried out so far and to chalk out a programme for the 4th Five-Year Plan. The committee is composed of technical experts, representatives of the Planning Commission and the Ministries of Health, Education, Community Development, Information and Broadcasting and Commerce and Industry. The Health Minister, Dr. Sushila Nayar is the Chairman of the committee and Lady Rama Rao and Smt. Soundram Ramachandran its two pro-Chairmen. An appraisal committee has been touring the country to assess the progress of the family planning programmes and to plan future operations according to the needs and capacity of each State.

# INDIA'S FOREIGN LIABILITIES AND ASSETS—1961

This article gives a detailed account of the country's foreign liabilities and assets based on the data obtained under the 1961 Survey conducted by the Exchange Control Department of the Reserve Bank of India. The Survey is confined to long-term foreign obligations and official institutions. Annual assessments of foreign investments in India, based on limited information furnished by the foreign controlled companies, have been made from 1956 onwards. Besides determining the relationship between total assets and total liabilities and indicating the international creditor/debtor position, the Survey throws light on the structure of the country's assets and liabilities abroad and the distribution of external debt. Further, the data indicate the extent of the growth in the value of private foreign investments, the earnings of enterprises and developments in investments, by various foreign countries, in the major industries. Information has also been collected in respect of the size of assets, earnings and distribution of profits and pattern of foreign collaboration arrangements. The statistics presented in this article are derived mainly from returns filed by various institutions in the private and public sectors. The Survey was designed to cover all long-term foreign liabilities and assets, defined to include (1) net foreign liabilities of branches of foreign companies operating in India, (*ii*) shares and debentures of Indian and foreign joint-stock companies, (*iii*) securities issued by Governments and semi-official institutions (Indian and foreign), (*iv*) actuarial reserve value (or cash surrender value) of policies and the present value of future payments on annuities, in respect of life assurance, and the value of unexpired risk in respect of non-life insurance payable by Indian insurance companies to persons resident abroad, (*v*) loans and advances including inter-branch and inter-company advances maturing on or after January 1, 1963, as also long-term loans obtained by the private sector from official institutions, (*vi*) deposits maturing on or after January 1, 1963, and (*vii*) immovable property like lands and estates, buildings, factories and mines owned in foreign countries, by official agencies and private institutions in India.

## PRIVATE AND OFFICIAL

Obligations have been classified into private and official. The former covers all foreign assets and liabilities of business enterprises. The official sector covers all the foreign assets and liabilities of the Central Government and its various departments and offices, of State Governments and quasi-Government organisations such as Municipalities and Port Trusts, as well as the Reserve Bank of India.

## DIRECT AND PORTFOLIO INVESTMENTS

Investments of non-residents may be broadly classified into two main groups—'direct' investments and 'portfolio' investments. Direct investment is investment made to create or expand some kind of permanent interest in an enterprise (such an investment is usually in the form of equity ownership); it implies a degree of control over the management of the concern. In the case of portfolio investment, in contrast, the investor has no intention of playing an important role in framing the policies of the enterprise; he is primarily influenced by such considerations as income yield, tax advantages, marketability and general safety of principal.

## TRENDS—MID-1948—END-1961

Overall change in India's Debtor/Creditor Position since 1948 : Since mid-1948, India had in a period of thirteen and a half years not only liquidated foreign assets substantially but, particularly after 1955, incurred considerable foreign liabilities making India increasingly a net debtor on international account. Considered from the angle of obligations owed and owned abroad, the country's investment position had changed by as much as Rs. 3,302 crores between mid-1948 and end-1961.

**India's International Investment Position**

(Official & Non-official Sectors)

(Rs. crores)

| | LIABILITIES | | | ASSETS | | | Net Position |
|---|---|---|---|---|---|---|---|
| | Short-term | Long-term | Total | Short-term | Long-term | Total | |
| OFFICIAL SECTOR | | | | | | | |
| Mid–1948 .. | 55·5 | 122·6 | 178·1 | 1208·8 | 730·8 | 1939·6 | +1761·5 |
| End–1955 .. | 16·6 | 189·5 | 206·1 | 455·8 | 720·5 | 1176·3 | + 970·2 |
| End–1961 .. | 449·8 | 1179·4 | 1629·2 | 133·3 | 450·9 | 584·2 | −1045·0 |
| NON-OFFICIAL SECTOR | | | | | | | |
| Mid–1948 .. | 38·4 | 287·7 | 326·1 | 11·5 | 57·6 | 69·1 | − 257·0 |
| End–1955 .. | 64·0 | 497·6 | 561·6 | 55·2 | 62·9 | 118·1 | − 443·5 |
| End–1961 .. | 64·6 | 810·4 | 875·0 | 51·6 | 70·9 | 122·5 | − 752·5 |
| TOTAL | | | | | | | |
| Mid–1948 .. | 93·9 | 410·3 | 504·2 | 1220·3 | 788·4 | 2008·7 | +1504·5 |
| End–1955 .. | 80·6 | 687·1 | 767·7 | 511·0 | 783·4 | 1294·4 | + 526·7 |
| End–1961 .. | 514·4 | 1989·8 | 2504·2 | 184·9 | 521·8 | 706·7 | −1797·5 |

## COUNTRY-WISE CHANGES

The aggregate change in total foreign liabilities and total foreign assets was the combined result of substantial changes in India's position *vis-a-vis* a number of countries. The net position with the U.K. worsened by Rs. 1,773 crores, which was very largely due to the sharp decline of Rs. 1,406·6 crores in gross assets, for the rise in gross liabilities was only Rs. 366·5 crores. With regard to the U.S.A. and West Germany, the net liabilities owed by India to the U.S.A. increased by Rs. 855 crores and those to Germany by Rs. 153 crores. Assistance by the U.S.S.R. resulted in India having a net liability of Rs. 68·5 crores by 1961. There was at the end of 1961, a net liability to Japan of Rs. 29 crores and to Canada of Rs. 19·5 crores. The change in the position *vis-a-vis* the international institutions was an increase in net liabilities to the tune of Rs. 311·8 crores as a result partly of drawings on the IBRD loans and partly purchases of currencies from the I.M.F.

## SECTOR-WISE CHANGES

The official sector was responsible for the rise in the net foreign liabilities to the extent of Rs. 2,806·5 crores out of a total of Rs. 3,302 crores. The main items which induced the change on the liability side were: (1) increased loans from official sources and the IBRD (Rs. 978 crores), (2) net drawings on the IMF (Rs. 119 crores), (3) increased short-term deposits (Rs. 354 crores) mainly in favour of the U.S.A. On the assets side, the main item was the decline of Rs. 1,373 crores in holdings of foreign securities both long-term and short-term, arising out of overall balance of payments deficits; and that was only partially offset by increased assets resulting from enlarged subscriptions to international organisations and the loan to Burma.

The non-official sector, on the other hand, was responsible for Rs. 495·5 crores, mainly due to the increase in long-term foreign investments in business enterprises of Rs. 416·4 crores. The remainder was accounted for by the increase in miscellaneous liabilities of business enterprises, namely, inter-company loans and advances, and changes in the short-term liabilities and assets of financial institutions.

## TRENDS IN BUSINESS ENTERPRISES

The United Kingdom continues to hold the lead as the principal investor with the U.S. in second position. Earlier, most of the investments were in branches or wholly-owned subsidiaries, whereas in more recent years joint ventures with Indian companies are on the increase. Another feature is the participation of residents in the shares of companies in which foreign concerns play an important role. A part of the foreign capital in Indian industry in recent years has come in the form of loans from foreign governments and international institutions.

The latest Survey shows that the book value of foreign investments in India increased from Rs. 264·6 crores in mid-1948 to Rs. 681 crores at end-1961. The total net increase in foreign investments in business enterprises during the 13½ years ended 1961 was of the order of Rs. 383·2 crores; of this, investment from private sources amounted to Rs. 284 crores and the balance of Rs. 99 crores represented inflow into the private sector from official sources (vide table below).

**Outstanding Foreign Investments† in Business Enterprises in the Private Sector**

(Rs. crores)

| | Total* | Of which | |
|---|---|---|---|
| | | Private sources abroad | Official sources abroad |
| June 1948 | 264·6 | 264·6 | — |
| December 1953 | 397·1 | 397·1 | — |
| ,, 1955 | 442·4 | 439·7 | 2·7 |
| ,, 1956 | 478·3 | 463·5 | 14·8 |
| ,, 1957 | 532·0 | 484·3 | 47·7 |
| ,, 1958 | 562·5 | 488·6 | 73·9 |
| ,, 1959 | 582·8 | 498·9 | 83·9 |
| ,, 1960 | 634·7 | 552·2 | 82·5 |
| ,, 1961 | 681·0 | 581·7 | 99·3 |

† Exclude foreign investments in insurance companies.
* Includes valuation changes.

Country-wise, the U.K. was the principal investor accounting for nearly two-thirds of the total in 1961. U.S. investments had grown to Rs. 95·9 crores at end-1961 from Rs. 11 crores in mid-1948.

The contribution of non-resident capital to India's industrial development has been particularly significant in certain spheres e.g., well over half the increased foreign investments between mid-1948 and end-1961 has been in the broad area of manufacturing and petroleum. In manufacturing alone, non-resident investments have grown from Rs. 70 crores at the end of June 1948 to well over Rs. 290 crores at end-1961, while petroleum investments have shown a more than six-fold rise over the 13½ years from Rs. 22·3 crores to Rs. 152·5 crores. Within the manufacturing group, a development in recent years has been the influx of foreign capital into the metals and metal products industry and chemicals and allied products. From 1948 to end-1961 the inflow of fresh capital from private sources contributed an estimated Rs. 244 crores to the increase in investments in business enterprises in India while profits which were retained accounted for about Rs. 173 crores or 41 per cent of the gross inflow of private capital of Rs. 417 crores. The net inflow from foreign private sources (after adjusting for valuation changes over 13½ years) aggregated Rs. 284 crores. Gross official lending to business enterprises in India amounted to Rs. 117 crores. Thus the net foreign investment in business enterprises in India from private and official sources abroad during the 13½ years aggregated Rs. 383 crores yielding an average annual net investment of Rs. 28·4 crores.

## OVERALL INTERNATIONAL INVESTMENT POSITION, END-1955—END-1961

India was a net creditor on international account to the extent of Rs. 526·7 crores at end-1955. The position has altered considerably since then and the results obtained under the present Survey indicate that the country was a net debtor on international account to the tune of Rs. 1,797·5 crores at end-1961. Aggregate liabilities of the country rose from Rs. 767·7 crores at the end of 1955 to Rs. 2,504·2 crores at the end of 1961, while foreign assets declined by as much as Rs. 587·7 crores to reach a low of Rs. 706·7 crores in the same period (see table 1).

The main components of this change are (*a*) the liquidation of Rs. 261·6 crores worth of long-term investments, (*b*) the increase in long-term obligations (mostly to the U.S., the U.K., IBRD and Germany) of Rs. 1,302·7 crores, (*c*) the sale of short-term assets of Rs. 326·1 crores and (*d*) an increase in short-term obligations (principally arising out of PL 480 and PL 665 assistance) of Rs. 433·8 crores.

A succession of large current account deficits resulted in the heavy drawals on the country's foreign assets amounting to Rs. 588 crores and the growth in liabilities of Rs. 1,736·5 crores was the result of foreign loans and credits on official account.

## OFFICIAL AND NON-OFFICIAL SECTOR

At the end of 1961, net indebtedness abroad by the non-official sector was Rs. 752·5 crores. In contrast, the official sector, which till 1955 had enjoyed a net creditor position, emerged as a net debtor to the tune of Rs. 1,045 crores at end-1961. (See table I).

India's net international country-wise investment position is given in the table below. Whereas in the case of Pakistan and Burma, India continues to have a net creditor position, she is in a debtor position with the U.S.A., the U.K., Germany, the U.S.S.R., International Institutions and other industrial countries.

**India's International Investment Position—Country-wise Summary**

(Rs. crores)

| | December 31, 1955* | | | December 31, 1961 | | |
|---|---|---|---|---|---|---|
| | Liabilities | Assets | Net Position | Liabilities | Assets | Net Position |
| Burma | 5·7 | 9·9 | + 4·2 | 14·1 | 26·7 | + 12·6 |
| Canada | 3·7 | 2·9 | − 0·8 | 21·1 | 1·6 | − 19·5 |
| Germany (West) | 4·8 | 0·4 | − 4·4 | 172·9 | 18·0 | − 154·9 |
| Japan | 2·9 | 0·2 | − 2·7 | 31·1 | 2·1 | − 29·0 |
| Pakistan | 51·7 | 320·5 | +268·8 | 43·0 | 321·7 | + 278·7 |
| Switzerland | 8·7 | 0·2 | − 8·5 | 14·3 | 0·4 | − 13·9 |
| U. K. | 445·8 | 874·9 | +429·1 | 664·7 | 184·6 | − 480·1 |
| U. S. A. | 137·0 | 39·4 | − 97·6 | 916·9 | 57·1 | − 859·8 |
| U. S. S. R. | — | — | — | 68·5 | — | − 68·5 |
| International Institutions | 29·3 | 19·3 | − 10·0 | 371·6 | 56·6 | − 315·0 |
| Other Countries | 78·1 | 26·7 | − 51·4 | 186·0 | 37·9 | − 148·1 |
| Total | 767·7 | 1294·4 | +526·7 | 2504·2 | 706·7 | −1797·5 |

* Revised.

The country's net debtor position of Rs. 1,797·5 crores was the result mainly of an excess of liabilities over assets in respect of the following items viz., loans and advances (Rs. 1,190 crores), business investments (Rs. 670 crores) and deposits (Rs. 408 crores) partially offset by a 'net' foreign asset under the item, government securities (Rs. 140 crores) and residual items (Rs. 331 crores).

## FOREIGN LIABILITIES AND ASSETS OF BUSINESS ENTERPRISES, END-1955—END-1961

*Liabilities of business enterprises in private ownership :* Foreign business investments in India, excluding investments in State-owned undertakings have risen steadily over the last six years by Rs. 225 crores to reach a total of Rs. 667 crores by end-1961.

### Direct Investments

Between 1955 and 1961, the book value of foreign direct investment increased from Rs. 386·5 crores to Rs. 528·4 crores giving an annual average increase of Rs. 24 crores. Most of the increase in direct investments took place in the foreign-controlled rupee companies; the holdings of the foreign-controlled equity in the rupee companies rising over the six years by Rs. 114 crores to Rs. 257 crores at end-1961. The increase in investments through branches was much smaller, for net assets of branches rose by only Rs. 28 crores to Rs. 271 crores between end-1951 and end-1961. The share of branches in total foreign business investments declined from 55 per cent in 1955 to a little over 40 per cent in 1961. Between 1955 and 1961, it is the foreign controlled rupee companies that attracted a larger volume of foreign capital, the subsidiaries of the foreign parent companies alone being responsible for a rise in investment in this sector of Rs. 87·5 crores out of a total of Rs. 114 crores. (See tables below).

**Relative Shares of Different types of Foreign Business Investments**

(Per cent)

| | End-1955 | End-1961 |
|---|---|---|
| DIRECT INVESTMENTS | 87·4 | 79·2 |
| 1. Net assets of branches | 54·9 | 40·7 |
| 2. Shares held abroad in controlled companies of which: | 32·4 | 38·5 |
| (*a*) Subsidiaries | 27·0 | 31·0 |
| (*b*) Other controlled | 5·4 | 7·5 |
| PORTFOLIO INVESTMENTS | 12·6 | 20·8 |
| 1. Portfolio equity holdings by non-residents in Indian joint-stock companies | 8·8 | 6·5 |
| 2. Creditor capital from private sources abroad invested in Indian joint-stock companies | 3·2 | 1·3 |
| 3. Creditor capital from official sources in Indian joint-stock companies | 0·6 | 13·0 |
| TOTAL | 100·0 | 100·0 |

**Principal Changes in Foreign Business Investments in India**

(Rs. crores)

| | Outstanding End-1955 | Outstanding End-1961 | Net Change |
|---|---|---|---|
| DIRECT INVESTMENTS | 386·5 | 528·4 | +141·9 |
| (*a*) Branches | 243·1 | 271·5 | + 28·4 |
| (*b*) Subsidiaries | 119·4 | 206·9 | + 87·5 |
| (*c*) Other Controlled | 24·0 | 50·0 | + 26·0 |
| PORTFOLIO INVESTMENTS | 55·9 | 138·5 | + 82·6 |
| (*a*) Portfolio equity holdings by non-residents in Indian joint-stock companies | 39·2 | 43·0 | + 3·8 |
| (*b*) Creditor capital from private sources abroad invested in Indian joint-stock companies | 14·0 | 9·0 | — 5·0 |
| (*c*) Creditor capital from official sources in Indian joint-stock companies | 2·7 | 86·5 | + 83·8 |
| TOTAL | 442·4 | 666·9 | +224·5 |

### Total foreign liabilities and assets of business enterprises in India:

Between 1955 and 1961, foreign investors, taking both the business enterprises in private ownership and the State-owned undertakings together, invested a further Rs. 239 crores in India, raising the aggregate book value of business investments in India to Rs. 681 crores at end-1961. Miscellaneous business liabilities amounted to Rs. 74·5 crores, raising the long-term foreign liability of business enterprises in India to Rs. 755 crores. Against this liability, foreign assets of Indian joint stock companies (excluding banks and insurance companies) at end-1961 totalled Rs. 38 crores.

Gross foreign liabilities of joint-stock companies in the private sector at end-1961 amounted to Rs. 484 crores; net of assets, these would be Rs. 446·2 crores. Net liabilities for all business enterprises (including branches and joint stock companies) would amount to Rs. 717 crores.

## INFLOW OF FOREIGN INVESTMENTS INTO BUSINESS ENTERPRISES IN INDIA

Net inflow of foreign capital into the private sector: The total net foreign investment in the private sector for the period 1956-61 is Rs. 234·9 crores or Rs. 39 crores per annum, raising the level of total outstanding foreign investment in the private sector from Rs. 442·4 crores in 1955 to Rs. 681 crores in 1961 (see table below).

**Pattern of Capital Inflow* 1956-61**

(Rs. crores)

| Inflow from | 1956-61 | 1956-61 Annual Average | 1954-55 Annual Average |
|---|---|---|---|
| A. PRIVATE SOURCES (NET INFLOW) | 138·3 | 23·1 | 14·1 |
| 1. GROSS INFLOW | 211·4 | 35·2 | 19·1 |
| (*i*) Retained Earnings | 82·3 | 13·7 | 11·6 |
| (*ii*) Cash Inflow | 27·2 | 4·5 | 1·5 |
| (*iii*) Non-cash Inflow | 101·9 | 17·0 | 6·0 |
| 2. OUTFLOW | 73·1 | 12·2 | 5·0 |
| B. OFFICIAL SOURCES (NET INFLOW) | 96·6 | 16·1 | 1·4 |
| 1. Gross Inflow | 114·3 | 19·0 | 1·4 |
| 2. Outflow | 17·7 | 2·9 | — |
| C. GROSS INFLOW INTO THE PRIVATE SECTOR | 325·7 | 54·3 | 20·5 |
| D. GROSS OUTFLOW | 90·8 | 15·1 | 5·0 |
| E. NET INFLOW INTO THE PRIVATE SECTOR | 234·9 | 39·2 | 15·5 |

*Note :* The inflow has been computed, wherever possible, by ignoring valuation changes; to this extent, the figures in this table will not compare with the figures of outstanding levels of foreign investments. * Includes inflow of capital in Government undertakings.

**Official Capital in the Private Sector:**

During 1956-61, about 59 per cent of the net growth in foreign business investment was from private sources and the remainder about 41 per cent from official sources. (See table below).

**OUTSTANDING FOREIGN OFFICIAL CAPITAL IN THE PRIVATE SECTOR**

(Crores of Rupees)

| | End 1955 (I.B.R.D.) | End 1961 | | | | | |
|---|---|---|---|---|---|---|---|
| | | U.S.A. | Japan | Czecho-slovakia | Rumania | I.B.R.D. | Total |
| PLANTATIONS | — | — | — | — | — | — | — |
| MINING | — | — | — | — | — | — | — |
| PETROLEUM | — | — | — | — | 3·9 | — | 3·9 |
| MANUFACTURING | 2·0 | 14·7 | — | 2·3 | — | 57·9 | 74·9 |
| Textile Products | — | 0·7 | — | — | — | — | 0·7 |
| Machinery and Machine Tools | — | 0·3 | — | 2·3 | — | — | 2·6 |
| Metals and Metal Products | 2·0 | 5·1 | — | — | — | 57·9 | 63·0 |
| Chemicals and Allied Products | — | 3·0 | — | — | — | — | 3·0 |
| Others | — | 5·6 | — | — | — | — | 5·6 |
| SERVICES | 0·7 | 1·6 | 1·1 | — | — | 17·8 | 20·5 |
| Construction, Utilities and Transport | 0·7 | 1·6 | 1·1 | — | — | 11·7 | 14·4 |
| Financial | — | — | — | — | — | 6·1 | 6·1 |
| TOTAL | 2·7 | 16·3 | 1·1 | 2·3 | 3·9 | 75·7 | 99·3 |

*Note:* Official capital from the U.S.A. includes loans from D.L.F. and rupee loans out of the P. L. 480 funds under the Cooley Amendment.

**Trends in re-invested profits:**

Nearly one-third of the foreign share of Rs. 238·8 crores of earnings of foreign controlled companies in the 1956-61 period was retained in India for further investment. In 1956, Rs. 19·2 crores out of earnings of Rs. 46·4 crores was retained in India. This resulted from substantial earnings by the petroleum companies. In 1957 and 1958 both earnings and reinvested earnings were down considerably; but in 1959 and 1960 as earnings recovered, the amount retained averaged Rs. 14 crores per year and this was further raised to Rs. 15·8 crores in 1961. (See table below).

**PROFITS OF FOREIGN CONTROLLED COMPANIES, 1956-1961**

(Crores of Rupees)

| Business Activity | 1956 | | | 1957 | | | 1958 | | | 1959 | | | 1960 | | | 1961 | | | 1956-61 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | E | D | R | E | D | R | E | D | R | E | D | R | E | D | R | E | D | R | E | D | R |
| Plantations | 10·7 | 9·0 | 1·7 | 5·3 | 6·8 | −1·5 | 4·9 | 6·3 | −1·4 | 5·7 | 4·8 | 0·9 | 6·7 | 6·4 | 0·3 | 6·7 | 5·3 | 1·4 | 40·1 (16·8) | 38·6 (96·3) | 1·5 (3·7) |
| Mining | 1·2 | 1·1 | 0·1 | 1·9 | 0·5 | 1·4 | 1·2 | 1·1 | 0·1 | 1·2 | 0·1 | 1·1 | 1·4 | 0·6 | 0·8 | 1·0 | 0·1 | 0·9 | 7·9 (3·3) | 3·5 (44·3) | 4·4 (55·7) |
| Petroleum | 16·6 | 6·9 | 9·7 | 12·5 | 7·1 | 5·4 | 11·0 | 5·4 | 5·6 | 10·8 | 4·5 | 6·3 | 10·0 | 3·9 | 6·1 | 8·0 | 5·9 | 2·1 | 68·9 (28·9) | 33·7 (48·9) | 35·2 (51·1) |
| Manufacturing | 12·4 | 6·8 | 5·6 | 10·7 | 6·9 | 3·8 | 12·9 | 7·8 | 5·1 | 16·1 | 9·0 | 7·1 | 17·8 | 11·5 | 6·3 | 22·2 | 13·4 | 8·8 | 92·1 (38·6) | 55·4 (60·1) | 36·7 (39·9) |
| Services | 5·6 | 3·6 | 2·0 | 4·6 | 4·3 | 0·3 | 4·5 | 4·8 | −0·3 | 4·0 | 4·8 | −0·8 | 4·6 | 4·1 | 0·5 | 6·4 | 3·8 | 2·6 | 29·7 (12·4) | 25·3 (85·2) | 4·4 (14·8) |
| TOTAL | 46·4 | 27·3 | 19·2 | 35·1 | 25·6 | 9·5 | 34·5 | 25·4 | 9·1 | 37·9 | 23·3 | 14·6 | 40·6 | 26·5 | 14·1 | 44·3 | 28·5 | 15·8 | 238·8 (100) | 156·5 (65·5) | 82·3 (34·5) |

*Note:* 1. Figures refer to proportionate profits and exclude profits of insurance companies.
2. Figures in brackets indicate percentages to total.
E denotes Earned. D denotes Distributed. R denotes Retained.

The table above shows that over the six-year period 1956-61, profits retained by foreign-controlled plantations were barely 3·7 per cent of the total earnings of this sector; in fact the proportion of earnings paid as dividends to total earnings in this industry was the highest. Even in the years when profits of tea companies were low, as in 1957 and 1958, the tendency was to distribute amounts higher than those actually earned, viz., to draw on past profits with a view to maintaining the level of dividends. Thus, out of Rs. 40 crores profit earned by the plantation group, as much as Rs. 38·6 crores were remitted, so that the contribution of retained earnings as a source of finance was negligible in this industry.

Profits earned by the petroleum concerns aggregated Rs. 68·9 crores during 1956-61. Profits distributed averaged a little under half the earnings, so that for this industry reinvested profits have accounted for two-fifths of the gross inflow.

Earnings of manufacturing enterprises advanced from Rs. 12·4 crores in 1956 to Rs. 22·2 crores in 1961. For the six-year period, earnings of manufacturing companies amounted to Rs. 92·1 crores or 38·6 per cent of the total reported earnings of the foreign controlled sector. On an average during this period 60 per cent of the earnings in this industry group were distributed and 40 per cent retained. Manufacturing earnings ploughed back in this period totalled Rs. 36·7 crores as against a fresh inflow (including inflow from official sources) into this sector of Rs. 139·4 crores.

## FRESH CAPITAL INFLOW

For the six years 1956 through 1961, the cash inflow amounted to Rs. 27·2 crores, accounting for 12·8 per cent of the gross addition in the value of foreign business investments over the period. Industry-wise, 93 per cent of the capital inflow in the shape of cash investments has been for manufacturing enterprises, chemicals attracting Rs. 5·7 crores, electrical goods Rs. 3·8 crores, metal and metal products and machinery

and machine tools Rs. 2·9 crores and Rs. 2·5 crores respectively. Cash investments in other manufacturing industries amounted to Rs. 9·6 crores. The inflow of net cash investments touched a peak of Rs. 43 crores in 1960. In 1961 it fell back to Rs. 17 crores. (See table below).

**INFLOW OF FOREIGN INVESTMENTS INTO THE PRIVATE SECTOR, END 1955—END 1961**

(Crores of Rupees)

| | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1956-61 | Annual Average |
|---|---|---|---|---|---|---|---|---|
| A. Private Sources (Net Inflow) | 23·8 | 20·8 | 2·5 | 10·2 | 51·7 | 29·3 | 138·3 | 23·1 |
| 1. Gross Inflow | 30·8 | 26·8 | 28·1 | 25·7 | 63·2 | 36·8 | 211·4 | 35·2 |
| (i) Retained Earnings | 19·2 | 9·5 | 9·1 | 14·6 | 14·1 | 15·8 | 82·3 | 13·7 |
| (ii) Cash Inflow | 3·1 | 5·8 | 4·8 | 3·3 | 6·2 | 4·0 | 27·2 | 4·5 |
| (iii) Non-cash Inflow | 8·5 | 11·4 | 14·2 | 7·8 | 43·0 | 17·0 | 101·9 | 17·0 |
| 2. Outflow | 7·0 | 6·0 | 25·5 | 15·5 | 11·5 | 7·5 | 73·1 | 12·2 |
| B. Official Sources (Net Inflow) | 12·1 | 32·9 | 26·2 | 10·0 | −1·4 | 16·8 | 96·6 | 16·1 |
| 1. Gross Inflow | 12·1 | 32·9 | 26·4 | 12·6 | 5·2 | 25·1 | 114·3 | 19·0 |
| 2. Outflow | — | — | 0·2 | 2·6 | 6·6 | 8·3 | 17·7 | 2·9 |
| C. Gross Inflow into the Private Sector | 42·9 | 59·7 | 54·5 | 38·3 | 68·4 | 61·9 | 325·7 | 54·3 |
| D. Gross Outflow | 7·0 | 6·0 | 25·7 | 18·1 | 18·1 | 15·8 | 90·8 | 15·1 |
| E. Net Inflow into the Private Sector | 35·9 | 53·7 | 28·7 | 20·2 | 50·3 | 46·1 | 234·9 | 39·2 |

*Note:* (1) The inflow has been computed wherever possible, by eliminating valuation changes; to this extent the figures in this statement will not compare with those relating to outstanding levels.

(2) Exclude insurance companies.

## CAPITAL INFLOW BY INDUSTRIES

The table below presents the capital inflow under main business activities.

**Foreign Business Investments***

(Rs. crores)

| | End-1955 | End-1961 | Increase (+) Decrease (−) |
|---|---|---|---|
| 1. PLANTATIONS | 87·2 | 103·8 | + 16·6 |
| 2. MINING | 9·3 | 12·4 | + 3·1 |
| 3. PETROLEUM | 104·0 | 152·5 | + 48·5 |
| 4. MANUFACTURING | 129·1 | 295·0 | +165·9 |
| (a) Foods, Beverages, etc. | 29·0 | 36·1 | + 7·1 |
| (b) Textile Products | 21·8 | 21·4 | − 0·4 |
| (c) Transport Equipment | 3·6 | 13·0 | + 9·4 |
| (d) Machinery & Machine Tools | 5·0 | 14·0 | + 9·0 |
| (e) Metals & Metal Products | 11·1 | 95·1 | + 84·0 |
| (f) Electrical Goods & Machinery | 14·6 | 14·8 | + 0·2 |
| (g) Chemicals & Allied Products | 20·3 | 54·1 | + 33·8 |
| (h) Miscellaneous | 23·7 | 46·5 | + 22·8 |
| 5. SERVICES | 112·8 | 117·3 | + 4·5 |
| TOTAL | 442·4 | 681·0 | +238·6§ |

* Including investments in Government undertakings. § Includes valuation changes.

## CAPITAL INFLOW BY COUNTRIES

For the period 1956-61, the U.K. and the U.S.A. supplied between them 57 per cent of the net capital inflow while the IBRD contributed about 31 per cent. More recently, other countries like Canada, Germany, Italy and Japan have made some investments but they are yet small. For instance Canadian investments increased from Rs. 2·3 crores in 1955 to Rs. 6·5 crores at the end of 1961, and German-owned long-term private investments expanded by Rs. 8·1 crores to Rs. 10·5 crores.

**Inflow by Country of Origin**

(Rs. crores)

| | Outstanding Investments as at the end of | | Net Inflow | Gross Inflow‡ |
|---|---|---|---|---|
| | 1955† | 1961 | | |
| U.K. | 365·9 | 447·6 | 78·0* | 140·3 |
| Private | 365·9 | 447·6 | 78·0* | 140·3 |
| Official | — | — | — | — |
| U.S.A. | 39·6 | 95·9 | 56·2 | 63·4 |
| Private | 39·6 | 79·6 | 39·9 | 47·1 |
| Official | — | 16·3 | 16·3 | 16·3 |
| CANADA | 2·3 | 6·5 | 4·2 | |
| Private | 2·3 | 6·5 | 4·2 | |
| Official | — | — | — | |
| SWITZERLAND | 5·7 | 9·3 | 3·6 | |
| Private | 5·7 | 9·3 | 3·6 | |
| Official | — | — | — | TOTAL 122·0 |
| GERMANY (WEST) | 2·4 | 10·5 | 8·1 | |
| Private | 2·4 | 10·5 | 8·1 | Private 24·0 |
| Official | — | — | — | |
| JAPAN | 0·2 | 3·2 | 3·0 | Official 98·0 |
| Private | 0·2 | 2·1 | 1·9 | |
| Official | — | 1·1 | 1·1 | |
| OTHERS | 26·3 | 108·0 | 81·8 | |
| Private | 23·6 | 26·1 | 2·5 | |
| Official | 2·7 | 81·9 | 79·2 | |
| TOTAL | 442·4 | 681·0 | 234·9* | 325·7 |
| Private | 439·7 | 581·7 | 138·3* | 211·4 |
| Official | 2·7 | 99·3 | 96·6 | 114·3 |

‡ Estimated. * Adjusted for revaluation of assets. † Revised.

### Collaboration Arrangements of business enterprises in private ownership

Several of the foreign controlled rupee companies as well as Indian joint stock companies have entered into arrangements whereby facilities are provided by the foreign partner in the shape of technical skills, licensing and franchise, trade marks and patents. Such arrangements are called collaboration arrangements.

Out of a total of 897 Indian joint-stock companies with foreign liabilities or assets that reported, 197 companies reported the existence of 302 collaboration arrangements. 142 companies having only one agreement each, 42 companies having 2-3 agreements each and 13 companies having more than 3 agreements.

**Statewise distribution of Companies with collaboration arrangements**

| | |
|---|---|
| Maharashtra | 97 |
| West Bengal | 37 |
| Madras | 21 |
| Gujarat | 13 |
| Delhi | 11 |
| Mysore | 6 |
| Orissa | 3 |
| U.P. | 2 |
| Other States | 7 |
| TOTAL | 197 |

**Country-wide distribution of collaboration agreements**

| Country | No. of Agreements | Per cent |
|---|---|---|
| U.K. | 136 | 45 |
| U.S.A. | 45 | 15 |
| Germany (West) | 44 | 15 |
| Japan | 21 | 7 |
| Switzerland | 13 | 4 |
| France | 12 | 4 |
| Italy | 8 | 3 |
| Scandinavian countries | 7 | 2 |
| Others | 16 | 5 |
| TOTAL | 302 | 100 |

**Industry-wise, Country-wise Distribution of Collaboration Agreements in the Manufacturing Sector**

| Manufacturing | U.K. | U.S.A. | Germany (West) | Switzerland | Japan | Others | Total |
|---|---|---|---|---|---|---|---|
| 1. Food Products | 1 | — | — | — | — | — | 1 |
| 2. Textile Products | 6 | 8 | 1 | 1 | 4 | 1 | 21 |
| 3. Transport Equipment | 12 | 7 | 5 | — | — | 2 | 26 |
| 4. Machinery & Machine Tools | 35 | 6 | 10 | 4 | 2 | 14 | 71 |
| 5. Metals & Metal Products | 9 | 4 | 3 | — | 3 | 6 | 25 |
| 6. Electrical Goods | 25 | 1 | 10 | 3 | 2 | 3 | 44 |
| 7. Chemicals & Allied Products | 12 | 8 | 8 | 4 | 6 | 10 | 48 |
| 8. Others | 19 | 9 | 5 | — | 4 | 4 | 41 |
| TOTAL | 119 | 43 | 42 | 12 | 21 | 40 | 277 |

**Collaboration Arrangements in State-owned enterprises:**

The growth of the public sector in India has resulted in a number of collaboration arrangements between the Government of India and foreign interests, typical illustrations being the Bhilai, Rourkela and Durgapur steel ventures, Hindustan Aircraft,† Hindustan Antibiotics, Praga Tools, etc. This Survey gives information on 52 collaboration agreements made by 22 Government undertakings.

**Country-wise Distribution of Agreements Reported by Government Undertakings**

| | No. of Agreements | Per cent |
|---|---|---|
| U.K. | 19 | 37 |
| U.S.A. | 7 | 13 |
| Germany (West) | 8 | 15 |
| France | 4 | 8 |
| Japan | 3 | 6 |
| Italy | 2 | 4 |
| Switzerland | 1 | 2 |
| East European Countries | 6 | 11 |
| Others | 2 | 4 |
| TOTAL | 52 | 100 |

**Industry-wise Distribution of Collaboration Agreements in Government Undertakings**

| | No. of Agreements | Per cent |
|---|---|---|
| MANUFACTURING | | |
| Textile Products | 1 | 2 |
| Transport Equipment | 10 | 19 |
| Machinery and Machine Tools | 13 | 25 |
| Metals and Metal Products | 6 | 11 |
| Electrical Goods | 9 | 18 |
| Chemicals & Allied Products | 11 | 21 |
| Others | 2 | 4 |
| TOTAL | 52 | 100 |

**Size-wise Distribution of Assets of the Foreign Controlled Sector:**

The total assets of the 791 foreign controlled companies aggregated Rs. 1,033 crores at end-1961.

NUMBER OF UNITS AND THE VALUE OF TOTAL ASSETS, 1961 CLASSIFICATION BY SIZE OF UNIT

(Rs. crores)

| | Number of Units | Total Value | Resources of not less than Rs. one crore per unit | | Resources less than Rs. one crore per unit | |
|---|---|---|---|---|---|---|
| | | | No. | Value | No. | Value |
| ALL COMPANIES | 791 | 1033·2 | 200 | 901·6 | 591 | 131·6 |
| Branches | 336 | 271·5 | 58 | 223·6 | 278 | 47·9 |
| Subsidiaries | 213 | 487·2 | 80 | 445·7 | 133 | 41·5 |
| Other controlled | 242 | 274·5 | 62 | 232·2 | 180 | 42·3 |

**Foreign Liabilities and Assets of the Banking and Insurance Sector, End-1955—End-1961:**

This chapter deals with the external position of financial institutions, namely, banks and insurance companies, which because of the special nature of their operations, have been distinguished from commercial and industrial undertakings. Movements in the banking system's foreign liabilities and assets are very largely of a short-term nature and for that reason are dealt with separately from business investments.

OVERALL FOREIGN LIABILITIES AND ASSETS OF THE BANKING SYSTEM

(Rs. crores)

| | End-1955 | | | End-1961 | | | Net Inflow (+) or Outflow (−) |
|---|---|---|---|---|---|---|---|
| | Assets | Liabilities | Net | Assets | Liabilities | Net | |
| Long-term | 4·7 | 7·5 | − 2·8 | 5·0 | 5·0 | — | − 2·8 |
| Short-term | 51·8 | 52·4 | − 0·6 | 47·5 | 53·2 | − 5·7 | + 5·1 |
| TOTAL | 56·5 | 59·9 | − 3·4 | 52·5 | 58·2 | − 5·7 | + 2·3 |

Net Assets (+) Net Liabilities (−)

FOREIGN ASSETS AND LIABILITIES OF THE BANKING SYSTEM

(Rs. crores)

| Country | Assets | | Liabilities | | Net Assets (+) or Net Liabilities (−) | | Inflow (+) or Outflow (−)* |
|---|---|---|---|---|---|---|---|
| | End-1955 | End-1961 | End-1955 | End-1961 | End-1955 | End-1961 | |
| Burma | 0·6 | 0·6 | 2·8 | 1·9 | − 2·2 | − 1·3 | − 0·9 |
| Ceylon | 1·1 | 1·0 | 2·4 | 0·7 | − 1·3 | + 0·3 | − 1·6 |
| Germany (West) | 0·3 | 0·6 | 0·1 | 1·3 | + 0·2 | − 0·7 | + 0·9 |
| Malaya | 3·3 | 4·1 | 4·1 | 8·3 | − 0·8 | − 4·2 | + 3·4 |
| Pakistan | 2·6 | 3·8 | 3·4 | 1·8 | − 0·8 | + 2·0 | − 2·8 |
| Switzerland | — | 0·1 | 1·8 | 1·4 | − 1·8 | − 1·3 | − 0·5 |
| U. K. | 32·3 | 26·8 | 21·2 | 11·1 | +11·1 | +15·7 | − 4·6 |
| U. S. A. | 7·4 | 8·0 | 1·0 | 3·4 | + 6·4 | + 4·6 | + 1·8 |
| Other Countries | 8·9 | 7·5 | 23·1 | 28·3 | −14·2 | −20·8 | + 6·6 |
| TOTAL | 56·5 | 52·5 | 59·9 | 58·2 | − 3·4 | − 5·7 | + 2·3 |

* Increase in net assets or decrease in net liabilities (−) and decrease in net assets or increase in net liabilites (+).

*Source :* Survey data for long-term items and Exchange Control records for short-term assets and liabilities.

† Now merged with Aircraft Manufacturing Depot, Kanpur to form Hindustan Aeronautics Ltd.

**Insurance Companies:**

With the setting up of the Life Insurance Corporation of India in 1956, consequent on the nationalisation of life business, only insurance companies engaged in non-life business remained. At end-December 1961, there were 73 Indian insurance companies transacting one or more classes of general insurance business, of which 46 companies reported that they had foreign assets and liabilities totalling Rs. 3·2 crores and Rs. 8·5 crores respectively. The net position of Indian insurance companies showed a net foreign liability of Rs. 5·2 crores.

FOREIGN LIABILITIES AND ASSETS OF INDIAN INSURANCE COMPANIES AS AT END-1961

(Rs. lakhs)

| | Liabilities | Assets | Net Position |
|---|---|---|---|
| U.K. | 2,55 | 1,04 | +1,51 |
| U. S. A. | 7 | 2 | + 5 |
| Canada | 11 | 29 | — 18 |
| Malaya | 63 | 14 | + 49 |
| Pakistan | 32 | 69 | — 37 |
| British East Africa | 4 | 6 | — 2 |
| Ceylon | 16 | 13 | + 3 |
| Burma | 27 | 12 | + 15 |
| Other Countries | 4,32 | 74 | +3,58 |
| TOTAL | 8,47 | 3,23 | +5,24 |

*Life Insurance Corporation:* The total foreign liabilities of the L.I.C. as on Dec. 31, 1961 aggregated Rs. 42·2 crores and foreign assets Rs. 19·8 crores, resulting in a net foreign liability of nearly Rs. 22 crores.

**OFFICIAL SECTOR, 1961**

With the progress of development programmes in the country, foreign liabilities of the official sector registered a steep rise during 1961. Also, its foreign assets declined further.

**Foreign Liabilities of the Official Sector**

(Crores of Rupees)

| | Mid.-1948 | End-1953 | End-1955 | End-1961 |
|---|---|---|---|---|
| Australia | — | 0·1 | 0·1 | 0·2 |
| Burma | 2·9 | 1·0 | 0·8 | 0·5 |
| Canada | — | 0·2 | 0·3 | 13·6 |
| Ceylon | 10·1 | 2·4 | 2·4 | 0·1 |
| Germany (West) | 3·1 | 3·1 | 2·1 | 144·4 |
| Japan | 3·0 | 1·9 | 2·7 | 24·0 |
| Malaya | — | 0·2 | 0·2 | 0·2 |
| New Zealand | — | 0·1 | 0·1 | 0·1 |
| Pakistan | 25·4 | 29·1 | 24·8 | 18·1 |
| Switzerland | 0·1 | 0·2 | 0·3 | 0·3 |
| U.K. | 70·4 | 30·8 | 33·9 | 171·7 |
| U.S.A. | 2·6 | 91·1 | 91·9 | 411·0 |
| U.S.S.R. | — | — | — | 67·7 |
| International Institutions | — | 69·2 | 26·3 | 288·0 |
| Other Countries | 5·0 | 4·1 | 3·6 | 39·5 |
| TOTAL | 122·6 | 233·6 | 189·5 | 1179·4 |

**Foreign Assets of the Official Sector**

(Crores of Rupees)

| | Mid.-1948 | End-1953 | End-1955 | End-1961 |
|---|---|---|---|---|
| Australia | 0·1 | 0·1 | 0·2 | — |
| Burma | 52·7 | 48·5 | 6·0 | 19·3 |
| Canada | 0·1 | 0·1 | 0·1 | 0·1 |
| Ceylon | — | — | — | 0·1 |
| Germany (West) | 1·1 | 0·2 | — | — |
| Japan | 1·8 | 0·1 | 0·1 | — |
| Malaya | — | 0·1 | 0·1 | — |
| New Zealand | — | — | — | — |
| Pakistan | 301·0 | 300·7 | 300·8 | 300·5 |
| Switzerland | — | 0·4 | — | — |
| U.K. | 360·7 | 402·1 | 392·9 | 71·4 |
| U.S.A. | — | 0·5 | 0·6 | 1·0 |
| U. S. S. R. | — | — | — | — |
| International Institutions | 11·8 | 19·3 | 19·3 | 56·6 |
| Other Countries | 1·5 | 0·7 | 0·4 | 1·9 |
| TOTAL | 730·8 | 772·8 | 720·3 | 450·9 |

## I FOREIGN BUSINESS INVESTMENTS AS AT END 1961

*By Industry*

(Crores of Rupees)

| | BUSINESS ENTERPRISES IN PRIVATE OWNERSHIP | | | | | | | | STATE-OWNED ENTERPRISES | | | Total Business Investments (9 + 12) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Direct Investments | | | Portfolio Investments | | | Total (3 + 6) | Official sources | Total (7 + 8) | Equity | Loans from official sources | Total | |
| | Branches | Controlled Rupee Cos. | Total | Equity | Creditor | Total | | | | | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| PLANTATIONS .. | 92·6 | 7·9 | 100·5 | 3·2 | 0·1 | 3·3 | 103·8 | — | 103·8 | — | — | — | 103·8 |
| MINING .. .. | 10·9 | — | 10·9 | 1·5 | — | 1·5 | 12·4 | — | 12·4 | — | — | — | 12·4 |
| PETROLEUM .. | 86·3 | 61·8 | 148·1 | 0·3 | 0·2 | 0·5 | 148·6 | — | 148·6 | — | 3·9 | 3·9 | 152 5 |
| MANUFACTURING .. | 26·2 | 160·6 | 186·8 | 26·5 | 6·1 | 32·6 | 219·4 | 69·8 | 289·2 | 0·7 | 5·1 | 5·8 | 295·0 |
| Foods, Beverages, etc. .. .. | 5·5 | 28·2 | 33·7 | 1·4 | 1·0 | 2·4 | 36·1 | — | 36·1 | — | — | — | 36·1 |
| *Cigarettes and Tobacco* .. | — | 25·6 | 25·6 | 0·2 | — | 0·2 | 25·8 | — | 25·8 | — | — | — | 25·8 |
| *Others* .. .. | 5·5 | 2·6 | 8·1 | 1·2 | 1·0 | 2·2 | 10·3 | — | 10·3 | — | — | — | 10·3 |
| Textile Products | 9·8 | 4·2 | 14·0 | 6·1 | 0·6 | 6·7 | 20·7 | 0·7 | 21·4 | — | — | — | 21·4 |
| *Cotton Goods* .. | — | 3·1 | 3·1 | 2·9 | 0·2 | 3·1 | 6·2 | — | 6·2 | — | — | — | 6·2 |
| *Jute and Coir Goods* .. | 9·8 | 0·4 | 10·2 | 1·3 | 0·3 | 1·6 | 11·8 | — | 11·8 | — | — | — | 11·8 |
| *Others* .. .. | — | 0·7 | 0·7 | 1·9 | 0·1 | 2·0 | 2·7 | 0·7 | 3·4 | — | — | — | 3·4 |
| Transport Equipment .. .. | — | 8·6 | 8·6 | 4·2 | 0·2 | 4·4 | 13·0 | — | 13·0 | — | — | — | 13·0 |
| *Automobiles and Accessories* .. | — | 4·2 | 4·2 | 2·2 | 0·1 | 2·3 | 6·5 | — | 6·5 | — | — | — | 6·5 |
| *Others* .. .. | — | 4·4 | 4·4 | 2·0 | 0·1 | 2·1 | 6·5 | — | 6·5 | — | — | — | 6·5 |
| Machinery and Machine Tools | 1·0 | 6·9 | 7·9 | 2·2 | 1·3 | 3·5 | 11·4 | 0·3 | 11·7 | — | 2·3 | 2·3 | 14·0 |
| Metals and Metal Products .. | 2·2 | 24·5 | 26·7 | 5·0 | 0·4 | 5·4 | 32·1 | 63·0 | 95·1 | — | — | — | 95·1 |
| *Iron and Steel Products* .. | −0·2 | 15·5 | 15·3 | 4·8 | 0·3 | 5·1 | 20·4 | 57·9 | 78·3 | — | — | — | 78·3 |
| *Others* .. .. | 2·4 | 9·0 | 11·4 | 0·2 | 0·1 | 0·3 | 11·7 | 5·1 | 16·8 | — | — | — | 16·8 |
| Electrical Goods and Machinery | — | 12·0 | 12·0 | 2·5 | 0·2 | 2·7 | 14·7 | — | 14·7 | 0·1 | — | 0·1 | 14·8 |
| Chemicals and Allied Products | 3·7 | 43·9 | 47·6 | 2·0 | 0·9 | 2·9 | 50·5 | 0·2 | 50·7 | 0·6 | 2·8 | 3·4 | 54·1 |
| *Chemicals* .. | — | 12·3 | 12·3 | 1·7 | 0·6 | 2·3 | 14·6 | — | 14·6 | 0·6 | 2·8 | 3·4 | 18·0 |
| *Medicines and Pharmaceuticals* | 3·4 | 14·4 | 17·8 | 0·1 | — | 0·1 | 17·9 | 0·2 | 18·1 | — | — | — | 18·1 |
| *Others* .. .. | 0·3 | 17·2 | 17·5 | 0·2 | 0·3 | 0·5 | 18·0 | — | 18·0 | — | — | — | 18·0 |
| Miscellaneous .. | 4·0 | 32·3 | 36·3 | 3·1 | 1·5 | 4·6 | 40·9 | 5·6 | 46·5 | — | — | — | 46·5 |
| *Buildings and Building Materials* .. | 1·3 | 2·8 | 4·1 | 1·7 | 0·3 | 2·0 | 6·1 | 0·7 | 6·8 | — | — | — | 6·8 |
| *Rubber Goods* .. | — | 18·7 | 18·7 | 0·6 | 0·1 | 0·7 | 19·4 | 3·7 | 23·1 | — | — | — | 23·1 |
| *Others* .. .. | 2·7 | 10·8 | 13·5 | 0·8 | 1·1 | 1·9 | 15·4 | 1·2 | 16·6 | — | — | — | 16·6 |
| SERVICES .. .. | 55·5 | 26·6 | 82·1 | 11·5 | 2·6 | 14·1 | 96·2 | 16·7 | 112·9 | 0·6 | 3·8 | 4·4 | 117·3 |
| Trading .. .. | 15·7 | 11·7 | 27·4 | 1·8 | 0·1 | 1·9 | 29·3 | — | 29·3 | — | — | — | 29·3 |
| *Foods, Beverages, etc.* .. | 4·9 | — | 4·9 | — | — | — | 4·9 | — | 4·9 | — | — | — | 4·9 |
| *Textile Products* | 0·1 | 0·3 | 0·4 | 0·2 | — | 0·2 | 0·6 | — | 0·6 | — | — | — | 0·6 |
| *Transport Equipment* .. | — | 0·1 | 0·1 | 0·2 | — | 0·2 | 0·3 | — | 0·3 | — | — | — | 0·3 |
| *Machinery and Machine Tools* | 2·9 | 1·6 | 4·5 | 0·1 | — | 0·1 | 4·6 | — | 4·6 | — | — | — | 4·6 |
| *Metals and Metal Products* | — | 0·2 | 0·2 | — | — | — | 0·2 | — | 0·2 | — | — | — | 0·2 |
| *Electrical Goods and Machinery* | 3·6 | 3·9 | 7·5 | 0·1 | — | 0·1 | 7·6 | — | 7·6 | — | — | — | 7·6 |
| *Chemicals and Allied Products* | 0·8 | 3·1 | 3·9 | 0·2 | — | 0·2 | 4·1 | — | 4·1 | — | — | — | 4·1 |
| *Exporters and Importers* .. | − 0·5 | 1·4 | 0·9 | 0·2 | — | 0·2 | 1·1 | — | 1·1 | — | — | — | 1 1 |
| *Miscellaneous* | 3·9 | 1·1 | 5·0 | 0·8 | 0·1 | 0·9 | 5·9 | — | 5·9 | — | — | — | 5·9 |
| Construction, Utilities and Transport .. | 36·7 | 1·6 | 38·3 | 2·7 | 0·3 | 3·0 | 41·3 | 10·6 | 51·9 | 0·6 | 3·8 | 4·4 | 56 3 |
| Financial .. | 0·3 | 2·5 | 2·8 | 2·5 | 1·0 | 3·5 | 6·3 | 6 1 | 12 4 | — | — | — | 12·4 |
| Miscellaneous .. | 2·8 | 10·8 | 13·6 | 4·5 | 1·2 | 5·7 | 19·3 | — | 19 3 | — | — | — | 19 3 |
| *Managing Agency* .. | 1·8 | 9·3 | 11·1 | 4·3 | 1·1 | 5·4 | 16·5 | — | 16 5 | — | — | — | 16 5 |
| *Others* .. .. | 1·0 | 1·5 | 2·5 | 0·2 | 0·1 | 0·3 | 2·8 | — | 2·8 | — | — | — | 2 8 |
| TOTAL .. .. | 271·5 | 256·9 | 528·4 | 43·0 | 9·0 | 52·0 | 580·4 | 86·5 | 66[illegible]·9 | 1·3 | 12·8 | 14·1 | 681 0 |

*Note:* 1. Exclude foreign liabilities of banks and insurance companies.
2. Include valuation changes.

## II OUTSTANDING FOREIGN BUSINESS INVESTMENTS

*By Country and by Industry*

(Crores of Rupees)

| | Mid 1948 | | | End 1953 | | | End 1955 | | | End 1961 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Portfolio | | | Total |
| | Direct | Portfolio | Total | Direct | Portfolio | Total | Direct | Portfolio | Total | Direct | Private Cos. | Govt. Cos. | Total | |
| CANADA | — | — | — | — | — | — | 1·9 | 0·4 | 2·3 | 6·3 | 0·2 | — | 0·2 | 6·5 |
| Plantations | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mining | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Petroleum | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Manufacturing | — | — | — | — | — | — | 1·9 | 0·4 | 2·3 | 6·3 | 0·2 | — | 0·2 | 6·5 |
| Services | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| GERMANY (WEST) | 0·1 | — | 0·1 | 0·1 | — | 0·1 | 0·6 | 1·8 | 2·4 | 4·2 | 5·0 | 0·3 | 6·3 | 10·5 |
| Plantations | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mining | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Petroleum | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Manufacturing | — | — | — | 0·1 | — | 0·1 | 0·6 | 1·8 | 2·4 | 3·9 | 5·7 | 0·3 | 6·0 | 9·9 |
| Services | — | — | — | — | — | — | — | — | — | 0·3 | 0·3 | — | 0·3 | 0·6 |
| ITALY | — | — | — | — | — | — | — | — | — | 2·4 | 1·8 | — | 1·8 | 4·2 |
| Plantations | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mining | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Petroleum | — | — | — | — | — | — | — | — | — | — | 0·1 | — | 0·1 | 0·1 |
| Manufacturing | — | — | — | — | — | — | — | — | — | 2·4 | 1·6 | — | 1·6 | 4·0 |
| Services | — | — | — | — | — | — | — | — | — | — | 0·1 | — | 0·1 | 0·1 |
| JAPAN | — | 0·2 | 0·2 | — | 0·1 | 0·1 | — | 0·2 | 0·2 | 0·9 | 1·2 | 1·1 | 2·3 | 3·2 |
| Plantations | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mining | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Petroleum | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Manufacturing | — | — | — | — | 0·1 | 0·1 | — | 0·2 | 0·2 | 0·9 | 1·2 | — | 1·2 | 2·1 |
| Services | — | — | — | — | — | — | — | — | — | — | — | 1·1 | 1·1 | 1·1 |
| SWEDEN | — | — | — | — | — | — | — | — | — | 4·4 | — | — | — | 4·4 |
| Plantations | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mining | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Petroleum | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Manufacturing | — | — | — | — | — | — | — | — | — | 3·1 | — | — | — | 3·1 |
| Services | — | — | — | — | — | — | — | — | — | 1·3 | — | — | — | 1·3 |
| SWITZERLAND | 4·6 | 0·7 | 5·3 | 4·6 | 1·4 | 6·0 | 4·2 | 1·5 | 5·7 | 7·6 | 1·7 | — | 1·7 | 9·3 |
| Plantations | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mining | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Petroleum | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Manufacturing | — | — | — | 1·9 | 1·3 | 3·2 | 2·1 | 1·5 | 3·6 | 6·9 | 0·7 | — | 0·7 | 7·6 |
| Services | — | — | — | 2·7 | 0·1 | 2·8 | 2·1 | — | 2·1 | 0·7 | 1·0 | — | 1·0 | 1·7 |
| U.K. | 179·6 | 26·4 | 206·0 | 279·3 | 47·1 | 326·4 | 330·8 | 35·1 | 365·9 | 419·0 | 27·8 | 0·8 | 28·6 | 447·6 |
| Plantations | — | — | — | 64·0 | 6·3 | 70·3 | 80·8 | 5·4 | 86·2 | 100·5 | 2·9 | — | 2·9 | 103·4 |
| Mining | — | — | — | 6·2 | 1·8 | 8·0 | 7·8 | 1·2 | 9·0 | 10·8 | 1·0 | — | 1·0 | 11·8 |
| Petroleum | — | — | — | 60·6 | — | 60·6 | 79·0 | 0·1 | 79·1 | 101·1 | 0·3 | — | 0·3 | 101·4 |
| Manufacturing | — | — | — | 78·6 | 18·4 | 97·0 | 83·9 | 15·1 | 99·0 | 130·7 | 14·2 | 0·4 | 14·6 | 145·3 |
| Services | — | — | — | 69·9 | 20·6 | 90·5 | 79·3 | 13·2 | 92·5 | 75·9 | 9·4 | 0·4 | 9·8 | 85·7 |
| U.S.A. | 10·2 | 1·0 | 11·2 | 27·6 | 2·5 | 30·0 | 36·7 | 2·9 | 39·6 | 76·0 | 17·1 | 2·8 | 19·9 | 95·9 |
| Plantations | — | — | — | — | 0·1 | 0·1 | — | 0·1 | 0·1 | — | 0·1 | — | 0·1 | 0·1 |
| Mining | — | — | — | — | 0·1 | 0·1 | — | 0·1 | 0·1 | — | — | — | — | — |
| Petroleum | — | — | — | 16·2 | 0·3 | 16·5 | 24·7 | 0·1 | 24·8 | 47·0 | 0·1 | — | 0·1 | 47·1 |
| Manufacturing | — | — | — | 8·6 | 1·0 | 9·6 | 9·6 | 1·2 | 10·8 | 27·4 | 14·6 | 2·8 | 17·4 | 44·8 |
| Services | — | — | — | 2·8 | 1·0 | 3·8 | 2·4 | 1·5 | 3·9 | 1·6 | 2·3 | — | 2·3 | 3·9 |
| OTHER COUNTRIES | 16·6 | 16·4 | 33·0 | 14·7 | 14·6 | 29·4 | 12·4 | 13·9 | 26·3 | 7·6 | 82·7 | 9·1 | 91·8 | 99·4 |
| Plantations | — | — | — | 0·1 | 1·0 | 1·1 | — | 0·9 | 0·9 | — | 0·3 | — | 0·3 | 0·3 |
| Mining | — | — | — | — | 0·3 | 0·3 | — | 0·2 | 0·2 | 0·1 | 0·5 | — | 0·5 | 0·6 |
| Petroleum | — | — | — | — | — | — | — | 0·1 | 0·1 | — | — | 3·9 | 3·9 | 3·9 |
| Manufacturing | — | — | — | 5·9 | 8·3 | 14·2 | 2·6 | 8·1 | 10·7 | 5·2 | 64·2 | 2·3 | 66·5 | 71·7 |
| Services | — | — | — | 8·8 | 5·0 | 13·8 | 9·8 | 4·6 | 14·4 | 2·3 | 17·7 | 2·9 | 20·6 | 22·9 |
| ALL COUNTRIES | 211·1 | 44·7 | 255·8 | 326·3 | 65·7 | 392·0 | 386·5 | 55·9 | 442·4 | 528·4 | 138·5 | 14·1 | 152·6 | 681·0 |
| Plantations | — | — | 52·2 | 64·1 | 7·4 | 71·5 | 80·8 | 6·4 | 87·2 | 100·5 | 3·3 | — | 3·3 | 103·8 |
| Mining | — | — | 11·5 | 6·2 | 2·2 | 8·4 | 7·8 | 1·5 | 9·3 | 10·9 | 1·5 | — | 1·5 | 12·4 |
| Petroleum | — | — | 22·3 | 76·8 | 0·3 | 77·1 | 103·6 | 0·4 | 104·0 | 148·1 | 0·5 | 3·9 | 4·4 | 152·5 |
| Manufacturing | — | — | 70·7 | 95·0 | 29·1 | 124·1 | 100·7 | 28·4 | 129·1 | 186·8 | 102·4 | 5·8 | 108·2 | 295·0 |
| Services | — | — | 99·1 | 84·2 | 26·7 | 110·9 | 93·6 | 19·2 | 112·8 | 82·1 | 30·8 | 4·4 | 35·2 | 117·3 |

*Note:* Figures for 1948 and 1953 are inclusive of liabilities of insurance companies as the breakup is not available.

## III NET INFLOW OF FOREIGN BUSINESS INVESTMENTS,* END 1955—END 1961

(Crores of Rupees)

| | Direct Investments | | | | | Portfolio Investments | Total Business Investments (5) + (6) |
|---|---|---|---|---|---|---|---|
| | Branches | Controlled Rupee Companies | | | Total (1) + (4) | | |
| | | Subsidiaries | Others | Total (2) + (3) | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| PLANTATIONS | 9·0 | 6·7 | 0·3 | 7·0 | 16·0 | — 3·1 | 12·9 |
| MINING | 5·6 | — 1·7 | — 0·8 | — 2·5 | 3·1 | — | 3·1 |
| PETROLEUM | 3·7 | 25·7 | 15·1 | 40·8 | 44·5 | 4·0 | 48·5 |
| MANUFACTURING | 3·6 | 62·6 | 19·9 | 82·5 | 86·1 | 79·8 | 165·9 |
| Foods, Beverages, etc. | 3·3 | 1·8 | 0·6 | 2·4 | 5·7 | 1·4 | 7·1 |
| (i) *Cigarettes & Tobacco* | — | 2·4 | — | 2·4 | 2·4 | 0·1 | 2·5 |
| (ii) *Others* | 3·3 | — 0·6 | 0·6 | — | 3·3 | 1·3 | 4·6 |
| Textile Products | 0·7 | 1·1 | 0·7 | 1·8 | 2·5 | — 2·9 | — 0·4 |
| (i) *Cotton Goods* | — 0·1 | 0·9 | 1·0 | 1·9 | 1·8 | — 3·6 | — 1·8 |
| (ii) *Jute & Coir Goods* | 0·5 | — | — 0·3 | — 0·3 | 0·5 | — 1·7 | — 1·2 |
| (iii) *Others* | — | 0·2 | — | 0·2 | 0·2 | 2·4 | 2·6 |
| Transport Equipment | — 0·3 | 3·4 | 2·6 | 6·0 | 5·7 | 3·7 | 9·4 |
| (i) *Automobiles & Accessories* | — | 1·7 | 2·4 | 4·1 | 4·1 | 1·7 | 5·8 |
| (ii) *Others* | — 0·3 | 1·7 | 0·2 | 1·9 | 1·6 | 2·0 | 3·6 |
| Machinery & Machine Tools | 0·2 | 2·5 | 3·6 | 6·1 | 6·3 | 2·7 | 9·0 |
| Metals & Metal Products | 2·2 | 14·1 | 4·5 | 18·6 | 20·8 | 63·2 | 84·0 |
| (i) *Iron & Steel Products* | — 0·2 | 8·7 | 2·6 | 11·3 | 11·1 | 57·8 | 68·9 |
| (ii) *Others* | 2·4 | 5·4 | 1·9 | 7·3 | 9·7 | 5·4 | 15·1 |
| Electrical Goods & Machinery | — 4·3 | 1·4 | 1·9 | 3·3 | — 1·0 | 1·2 | 0·2 |
| Chemicals & Allied Products | 2·3 | 23·5 | 3·8 | 27·3 | 29·6 | 4·2 | 33·8 |
| (i) *Chemicals* | — | 7·5 | 2·8 | 10·3 | 10·3 | 4·9 | 15·2 |
| (ii) *Medicines & Pharmaceuticals* | 2·1 | 8·7 | 0·8 | 9·5 | 11·6 | — 0·6 | 11·0 |
| (iii) *Others* | 0·2 | 7·3 | 0·2 | 7·5 | 7·7 | — 0·1 | 7·6 |
| Miscellaneous | — 0·5 | 14·8 | 2·2 | 17·0 | 16·5 | 6·3 | 22·8 |
| (i) *Buildings & Building Materials* | — 0·5 | — 0·6 | 0·1 | — 0·5 | — 1·0 | 1·3 | 0·3 |
| (ii) *Rubber Goods* | — | 11·4 | 1·2 | 12·6 | 12·6 | 3·9 | 16·5 |
| (iii) *Others* | — | 4·0 | 0·9 | 4·9 | 4·9 | 1·1 | 6·0 |
| SERVICES | 2·8 | — 5·8 | — 8·5 | —14·3 | —11·5 | 16·0 | 4·5 |
| Trading | 0·3 | 4·0 | — 0·9 | 3·1 | 3·4 | — 0·9 | 2·5 |
| (i) *Foods, Beverages, etc.* | 1·5 | — | — | — | 1·5 | — | 1·5 |
| (ii) *Textile Products* | — 0·5 | 0·1 | — | 0·1 | — 0·4 | — | — 0·4 |
| (iii) *Transport Equipment* | — | — 0·1 | — | — 0·1 | — 0·1 | — | — 0·1 |
| (iv) *Machinery & Machine Tools* | — 1·8 | — | — 0·1 | — 0·1 | — 1·9 | — 1·0 | — 2·9 |
| (v) *Metals & Metal Products* | — | — 0·7 | — | — 0·7 | — 0·7 | — | — 0·7 |
| (vi) *Electrical Goods & Machinery* | 2·1 | 2·9 | 0·2 | 3·1 | 5·2 | 0·1 | 5·3 |
| (vii) *Chemicals & Allied Products* | 0·2 | 1·1 | 0·3 | 1·4 | 1·6 | 0·1 | 1·7 |
| (viii) *Exporters & Importers* | — 2·8 | 0·4 | — 1·1 | — 0·7 | — 3·5 | — 0·4 | — 3·9 |
| (ix) *Miscellaneous* | 1·6 | 0·3 | — 0·2 | 0·1 | 1·7 | 0·3 | 2·0 |
| Construction, Utilities & Transport | 1·6 | — | — 1·1 | — 1·1 | 0·5 | 13·1 | 13·6 |
| Financial | — | — 7·6 | — 1·8 | — 9·4 | — 9·4 | 4·4 | — 5·0 |
| Miscellaneous | 0·9 | — 2·2 | — 4·7 | — 6·9 | — 6·0 | — 0·6 | — 6·6 |
| (i) *Managing Agency* | — | — 3·3 | — 4·9 | — 8·2 | — 8·2 | — | — 8·2 |
| (ii) *Others* | 0·9 | 1·1 | 0·2 | 1·3 | 2·2 | — 0·6 | 1·6 |
| TOTAL | 24·7 | 87·5 | 26·0 | 113·5 | 138·2 | 96·7 | 234·9 |

* Includes State-owned enterprises.

*Note:* (1) The inflow has been computed wherever possible, by eliminating valuation changes; to this extent the figures in this statement will not compare with those relating to outstanding levels.

(2) Exclude insurance companies.

## IV FOREIGN ASSETS AND LIABILITIES OF THE BANKING SYSTEM

(Crores of Rupees)

| | End 1959 | | | End 1960 | | | End 1961 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Assets | Liabilities | Net Assets | Assets | Liabilities | Net Assets | Assets | Liabilities | Net Assets |
| Burma | 1·0 | 1·6 | — 0·6 | 1·1 | 2·3 | — 1·2 | 0·6 | 1·9 | — 1·3 |
| Ceylon | 1·2 | 1·3 | — 0·1 | 1·6 | 1·0 | + 0·6 | 1·0 | 0·7 | + 0·3 |
| Germany (West) | 0·6 | 1·6 | — 1·0 | 0·7 | 1·4 | — 0·7 | 0·6 | 1·3 | — 0·7 |
| Malaya | 2·9 | 9·9 | — 7·0 | 5·4 | 6·8 | — 1·4 | 4·1 | 8·3 | — 4·2 |
| Pakistan | 2·0 | 2·3 | — 0·3 | 2·3 | 2·1 | + 0·2 | 3·8 | 1·8 | + 2·0 |
| Switzerland | 0·2 | 1·4 | — 1·2 | 0·2 | 1·4 | — 1·2 | 0·1 | 1·4 | — 1·3 |
| U.K. | 33·6 | 15·9 | + 17·7 | 27·1 | 25·3 | + 1·8 | 26·8 | 11·1 | + 15·7 |
| U.S.A. | 7·3 | 1·5 | + 5·8 | 8·8 | 1·6 | + 7·2 | 8·0 | 3·4 | + 4·6 |
| Other Countries | 9·7 | 24·0 | — 14·3 | 11·3 | 31·3 | — 20·0 | 7·5 | 28·3 | — 20·8 |
| TOTAL | 58·5 | 59·5 | — 1·0 | 58·5 | 73·2 | — 14·7 | 52·5 | 58·2 | — 5·7 |

*Source:* Survey data for long-term items and Exchange Control records for short-term obligations and claims.

# POSTS AND TELEGRAPHS

THE Indian Posts and Telegraphs Department comes under the administrative control of the Government of India, in the Department of Communications. The Secretary of the Department holds charge of the office of the Director-General, Posts and Telegraphs as also that of the Chairman of the Posts and Telegraphs Board. The Posts and Telegraphs Board and the Director-General, Posts and Telegraphs between them exercise all the powers of the Department of Posts and Telegraphs in administrative matters. The Department discharges also certain agency functions like the work of Post Office Savings Bank, issuing National Savings Certificates and Postal Life Insurance Policies, collection of Broadcasting Receiver Licence and antipiracy work on behalf of other Departments of the Government.

The six members of the Posts and Telegraphs Board, who are ex-officio Joint Secretaries to the Government of India, are in charge of Posts, Telecommunications Development, Banking and Insurance, Telecommunications operations, Administration and Finance.

For purposes of administration the whole country has been divided into a number of territorial and functional units. The major units are under the charge of officers of senior administrative grade and (the minor units) under officers of junior administrative grade. There are at present 14 territorial units called P. & T. circles *viz.*, Andhra, Assam, Bihar, Bombay, Gujarat, Kerala, Madhya Pradesh, Madras, Mysore, Orissa, Punjab, Rajasthan, U.P. and West Bengal, five functional telephone units at Bombay, Calcutta, Madras, Hyderabad and Bangalore, two Telecommunication Units *viz.* Delhi, Jammu & Kashmir and one postal functional unit at Delhi.

In addition to these, administrative units on an All-India functional basis have also been set up *viz.* Additional Chief Engineer, P. & T., Jabalpur; Director, Training Centre, Jabalpur; General Manager, P. & T. Workshops, Calcutta; General Manager, Electrification Circle, Calcutta; Chief Controller of Telegraph Stores, Calcutta; Deputy Director of Postal Life Insurance, Calcutta; Superintendent of Forms and Seals, Aligarh; Posts & Telegraphs Training Centre, Saharanpur. Besides, there are other regional administrative units *viz.* Regional Directors Telecommunications, Bombay, Madras, Calcutta; Regional Directors, R.M.S./Bombay/Madras/Lucknow, Postal Stores Depot at Calcutta/Nasik and the Postal Training Centre, Baroda.

**Budget Estimates**

The revised estimates for 1964-65: gross receipts: Rs. 126·19 crores; working expenses (net): Rs. 117·54 crores; dividend to general revenues: Rs. 8·65 crores.

1965-66 Budget: gross receipts: Rs. 141·37 crores; working expenses (net): Rs. 131·01 crores; dividend to general revenues: Rs. 10·36 crores.

On 1st April 1964 the total capital outlay of the department stood at Rs. 213·15 crores. At the end of 1964-65 and ensuing years it is expected to be at Rs. 240·28 crores and Rs. 273·96 crores respectively.

*Staff:* 457,888 (including 169,353 extra departmental employees) and 2,309 gazetted officers (as on March 31, 1964).

*Traffic Statistics:* (1964-65 estimates: Figures are in millions): Postal articles 6,015; Registered articles 149·8; Money orders 103·6; Savings Bank transactions 41·8; Telegrams 43·1; Trunk Calls 52·7; Value of money orders issued (in crores of rupees) 452·5; Telephones (in thousands) 761.

The no. of complaints received during 1964 (Jan. to Dec.) was 709,469 and those finally disposed of were 698,662. This works out to 0·0118 per cent of the total traffic (about 6,015 millions) against 0·119 per cent in the previous year.

*Propagation of Hindi:* Measures were stepped up for the greater use of Hindi in the Department. With this end in view the following steps were taken: (*i*) Staff of Administrative and Operative offices were exhorted to learn Hindi by their respective target dates. As on Sept. 30, 1964, 57,981 employees remained to be trained in Hindi Language and 1,320 to be trained in Hindi typewriting and 485 in Hindi stenography; (*ii*) Besides training facilities available with the Ministry of Home Affairs classes, nearly 15 night schools are conducted in the country; (*iii*) As an incentive for the above a scheme for the grant of cash awards to the P. & T. candidates who secure high percentage of marks in Hindi examinations is in operation; (*iv*) Work of propagation of Hindi in Circles has been entrusted to Welfare/Labour Officers; (*v*) Conveyance charges from the office to the place where Hindi classes are conducted are being paid to the Hindi trainees.

It has been decided to put Hindi to actual use by: (*i*) Replying Hindi communication in Hindi; (*ii*) Printing invitation cards etc. in Hindi; (*iii*) Issuing circulars and orders concerning class IV employees in Hindi also; (*iv*) making entry in the service records to the effect of passing Hindi Examinations; (*v*) introducing Hindi noting and drafting in the P. & T offices, located in Hindi speaking areas; (*vi*) Procuring Hindi typewriters; (*vii*) Displaying Office sign-board and officers' name-plates in Hindi also; (*viii*) Utilising Hindi knowing and Hindi trained staff for doing Hindi work; (*ix*) Printing stamps, seals, letter heads, etc., in Hindi.

*Translation:* (*i*) Legal and statutory literature of the Department has been sent to the Ministry of Law for translation into Hindi; (*ii*) Two of the technical P. & T. Manuals have been sent to the Ministry of Education for Hindi translation, (*iii*) About 1,000 terms to be used in P. & T. signboards, name plates etc., have been finalised in Hindi and circulated to the Heads of Circle and Administrative Offices; (*iv*) The work of translating P. & T. Manuals etc., have been taken up.

*Broadcasting Receiving Licences:* With a view to giving facility for renewal of Broadcast Receiver Licences a few important town post offices were also authorised to renew licences other than the Head Post Offices.

Licences for imported radio sets have been introduced through a rationalised procedure by which notices are issued only after allowing a sufficient margin of time in the cases where licences have not been issued.

It is proposed to issue broadcast receivers' licences in the form of an elegant book from the middle of 1965. One licence book will last for a period of 6 years. On introduction of the book form of licences, the renewed fee will be realised in the shape of stamps for which purpose a new series of B.R.L. stamps will be issued. The time taken for the renewal of a licence at the post office counter will be reduced by about 75 per cent after introduction of the book form of the licence.

## POSTS

The opening of post offices in rural areas continued to be governed by the liberalised policy which came into force from 1st March 1959.

Out of the 23,000 post offices proposed to be opened during the Third Five Year Plan, 15,297 offices were opened during the first three years of the Plan period and 1,754 offices during the current financial year up to the end of December 1964, bringing the total number of new Post Offices to 17,051. Of this number 1,259 are in the urban areas and the rest in rural areas. About 2,700 more post offices were expected to be opened by 31st March 1965.

Special attention was also paid to the opening of post offices in 'very backward' areas including border areas. Out of the 200 post offices proposed to be opened in the backward areas an enhanced loss of Rs. 2,500 per annum per post office has been fixed during the Third Five Year Plan period. Against this target, sanction has been issued so far for 186 post offices, out of which 166 post offices have already been opened.

The fulfilment of the target of 23,000 new post offices in the Third Plan depends on the provision of adequate funds in 1965-66, the last year of the Third Plan; because a cut of Rs. 8 lakhs was imposed on the funds allotted for the opening of the post offices during 1964-65.

62 Extra-Departmental offices were upgraded into Departmental Sub-offices during 1964-65 and about 689 more offices were expected to be upgraded by the end of March 1965.

Total no. of letter boxes as on 1st Dec. 1963: 183,074 (rural 137,862; urban 45,212). Total no. as on 1st Dec. 1964: 189,280 (rural 143,394; urban 45,886).

In rural areas 885 runners' lines covering a total distance of 14,165 kilometres were converted during the year ending 31st March 1964 into various speedier modes of conveyance.

Noticeable improvement has been effected in the frequency of delivery service in rural areas. More villages have been provided with a daily delivery service bringing the number of such villages as on Dec. 1, 1964 to 304.754 as against 284,818 at the close of the previous year.

In India a post office covers an average area of 35·48 sq. kilometres.

*Panchayati Postal Scheme:* A new scheme called the Panchayati Postal Scheme has been introduced on an experimental basis. It is being tried in Maharashtra State. The scheme is designed to work with active cooperation of the villagers. The chief advantage of this scheme lies in the provision of these basic facilities at reduced cost.

*Mobile Post Offices:*—The urban mobile post offices at Delhi, Madras, Calcutta, Bombay and Nagpur continued to function during the year on all days including Sundays and Postal holidays. Ahmedabad Mobile Post office started functioning from Feb. 1964, and two more have been sanctioned, one for Bhilai and an additional one for Delhi. A rural mobile P.O. for serving the industrial colliery belt of Hazaribagh District in Bihar State was expected to commence by the end of 1965.

*Postal Life Insurance:* Total number of policies for postal life insurance accepted from April to December 1964 was 9,715 (civil wing 9,406; military wing 309) for Rs. 2,48,41,400 (civil wing Rs. 2,29,61,900; military wing Rs. 18,79,500).

*Commemorative Stamps:* Occasion, date and denomination respectively are as follows:

Pt. Jawaharlal Nehru, 12th June 1964, 0·15 P.; Dr. Asutosh Mookerjee, 29th June 1964, 0·15 P.; Sri Aurobindo, 15th Aug. 1964, 0·15 P.; Raja Rammohan Roy, 27th Sept. 1964, 0·15 P.; International Organisation for Standardization (ISO) 6th General Assembly, 9th Nov. 1964, 0·15 P.; Children's Day (1964), 14th Nov. 1964, 0·15 P.; St. Thomas, 2nd Dec. 1964, 0·15 P.; XXII International Geological Congress, 14th Dec. 1964, 0·15 P.; Jamsetji N. Tata, 7th Jan. 1965, 0·15 P.; Lala Lajpatrai, 28th Jan. 1965, 0·15 P.; XX Congress-International Chamber of Commerce, 8th Feb. 1965, 0·15 P.; 2nd National Maritime Day, 5th April 1965, 0·15 P.; Abraham Lincoln, 15th April 1965, 0·15 P.; Centenary of the International Telecommunication Union, 17th May 1965, 0·15 P.; First Death Anniversary of Jawaharlal Nehru, 27th May 1965, 0·15 P.; International Co-operation Year, 26th June 1965, 0·15 P.

Commemorative Stamps to be issued during the rest of 1965.

Mt. Everest Indian Team's Success,* 15th Aug. 1965; Picking of tea leaves,* 15th Aug. 1965; Pandit Govind Ballabh Pant, 10th Sept. 1965; Sardar Vallabhbhai Patel, 31st Oct. 1965; Deshbandhu Chittaranjan Das, 5th Nov. 1965; Atomic Reactor, Trombay, 14th Nov. 1965; (This stamp will be in the definitive series and will be priced Rs. 10); Vidyapati, celebrated Poet of Mithila, 17th Nov. 1965.

## TELEGRAPHS

Two hundred and sixty-five telegraph offices were opened during the period April to December 1964, thus bringing the total number of offices to 8,077.

More than 4,000 telegraph offices have been opened, some even at a loss to provide telegraph facilities at district, sub-divisional and tehsil headquarters in different parts of the country. Telephone facilities are also provided at district, sub-divisional and tehsil headquarters and towns with population of over 20,000.

Two combined offices were converted into departmental telegraph offices during 1964-65, increasing the total number of DTOs to 187.

Upto 31st Dec. 1964, 73 telegraph circuits were leased to Government, press and industrial concerns, thus the total number of leased circuits were raised to 542. It was expected that this number would increase to 583 by the end of the financial year 1964-65.

*Telex and International Telex :* The most important development in the transmission of printed information was the commissioning of the Teleprinter Exchanges at New Delhi, Calcutta, Bombay and Madras on 24th June 1964. There are 544 Telex subscribers in the above cities at present.

This system was introduced at New Delhi during 1964-65. The service at Bombay was expanded by the addition of 2 channels and opening of additional teleprinter circuits to London.

A total of 570 VFT Channels have been added this year and 400 additioned channels were expected to be commissioned before March 1965.

*Teleprinters :* As on 31st Dec. 1964, the total number of teleprinters in use was 2,632. This includes 72 teleprinters in *Devnagri* keynotes. 200 additional teleprinters were expected to be brought into service during the remaining period of the year 1964-65.

*Phonogram :* Phonogram service was introduced in 35 stations during the year raising the total number of such stations to 957. Over 3·5 million messages were booked and 9·1 lakh messages were conveyed on phone to addresses from April to Dec. 1964.

*Indian Language Telegraph Service in Devnagri Script :* This system has been introduced in 29 more offices during the year by which the total number of such offices has gone up to 2,100.

*Greetings :* Over 1·55 million greeting telegrams in English and 12,000 in Devnagri Script were delivered in pictorial forms and envelopes during the year 1964-65.

*Photo-telegraph Service :*—This was introduced in India with effect from Oct. 30, 1962 on a regular basis between India & Cyprus *via* London.

## TELEPHONES

There has been a steady progress in the implementation of extending telephone facilities to rural and undeveloped areas.

The total number of telephones in the country as in June 1965 was about 7,32,000. By the end of the Third Plan, telephone connections are expected to touch a figure of 8,61,000.

*Expansion of Exchanges :* The equipped capacity of the departmental exchanges has increased from 5,35,815 to 5,81,630 during 1963-64.

The total number of connections given under O.Y.T. scheme upto December 31, 1964 was 77,843 and the revenue accrued from the subscribers under the scheme was Rs. 18,73,53,731.

At present this system is in force at Ahmedabad, Amritsar, Bangalore, Bombay, Calcutta, Delhi, Hyderabad, Kanpur, Madras, Nagpur and Verawal.

*Trunk Exchanges :* A total of 159 trunk positions were installed during the year 1963-64. Another 100 trunk positions are expected to be installed by 31st March 1965.

*International Trunk Telephone Service :* As per an agreement signed by the respective Govts. of India and Nepal on 25th June 1964 the Indo-Nepal Telecommunication Service came into operation with effect from 1st Oct. 1964 with the provision of a direct Radio-Telephone link between Calcutta and Kathmandu and a radio teleprinter link between Delhi and Kathmandu.

Two new radio telephone channels have been provided between Poona and Sydney to cope with the pressure of traffic between India and U.S.A.

During the year trunk telephone service has been extended to Mauritius, Netherlands, Malawi and Libya. The total member of countries /places for which the telephone is available from India is 114.

*Coaxial Cables :* In order to provide a large number of high grade circuits between important cities in the country, the laying of control trunk cable was taken up in 1958. By the end of March 1964 over 1,300 miles cables had been laid out of 2,000 miles required to connect Calcutta, Delhi, and Bombay on a standard 2-tube coaxial cable. During the period April to December 1964 another 400 miles cables were laid. The availability of circuits on this route has made it possible to introduce Subscriber Trunk Dialling on Delhi-Jaipur, Delhi-Kanpur and Agra-Kanpur routes. Patna-Sasaram section will also be completed soon when it will be possible to introduce S.T.D. facility between Delhi and Patna.

The introduction of this system in Madras-Bombay line covering Belgaum, Bangalore, Madras is expected to be completed before the end of the Third Plan. A standard 2-tube coaxial cable has already been laid on the Delhi-Jullundur route covering 300 miles. The other works are in progress.

The work in the Madras-Ernakulam route is also to be completed before the end of the Third Plan.

*Microwave :* Plans have been finalised and equipment ordered for introducing microwave transmission for the first time in the public telephone network in India. Work on Calcutta-Assam and Ambala-Simla route was taken up and going on in full swing in the above sector. The work on the Jullundur-Srinagar line with a narrow band microwave system covering a distance of 300 miles was to be completed by the end of 1965.

A narrow band microwave system connecting Ambala, Simla and Chandigarh taken up during the year was to be completed before the end of 1965.

The Calcutta-Kharagpur wide band microwave system planned to extend upto Bombay is to be taken up in the Fourth Plan.

## WIRELESS

*Radio Telephone Service :*— A radio telephone link between Calcutta and Kathmandu was opened in Oct. 1964 and the one that was existing between Patna-Kathmandu has been closed down.

A single channel VHF link was opened between Malda and Dhulian in West Bengal for providing a direct out-let later, between Calcutta and Malda. An additional VHF radio telephone link was provided betwen Jorhat and North Lakhimpur.

New wireless stations were opened at Amini and Daporijo in NEFA for working Radio Telephone Service with Shillong and Jorhat and at Passishat for radio telephone service.

*Wireless Telegraph :*— The following wireless circuits were provided during the year under review :—

(1) Kargil-Srinagar-Leh ; (2) Four additional wireless stations were provided for National Coal Development Corporation and two for National Mineral Development Corporation.

*Workshops :*—Stores and equipment worth Rs. 330·81 lakhs were produced by the P. & T. Workshops during 1964-65. The target for 1964-65 was Rs. 495 lakhs.

Substantial progress was made towards development of new items and also in the exploration of substitutes for imported and costly raw materials.

## TELEGRAPH AND TRUNK CALL RATES

The rates for inland telegrams and trunk calls were revised, according to a decision taken by the Government. The new rates came into force with effect from May 1, 1963.

The new rates for express and ordinary inland non-press telegrams respectively in brackets are as follows :—For the first ten words (Rs. 2·00 ; Re. 1·00) ; For each additional word after the first ten words (Re. 0·20 ; Re. 0·10).

The above rates are applicable to telegrams destined for Nepal also.

For greeting express and ordinary telegrams respectively, the new rates are as follows: For the first eight words (six for the name of the addressee and the address, one for the greeting and one for the name of the sender) Rs. 1·50, Rs. 0·75 ; For each additional word (over six in the address and over one in the name of the sender) Re. 0·20, Re. 0·10.

The registration fee for abbreviated addresses has been fixed at Rs. 50·00 for a period not exceeding 12 months.

**Trunk Call Rates :** The rates admissible in respect of urgent calls, during the concessional tariff period, will be 75 per cent instead of the existing 50 per cent of the full rate normal tariff. No such reduction in charges will be admissible in the case of higher priority calls, namely 'most immediate', 'operations immediate', 'immediate' and 'important".

## POSTAL RATES

The postal rates for different types of postal articles were revised with effect from May 1963.

The concessional rate of postage for local delivery post cards has been abolished. Post cards will now cost 6 P.*

Postage on inland book, pattern and sample packets is 10 P. for a weight not exceeding 50 grams. For every additional 50 grams or fraction thereof, the charge is 5 P.

It may be noted, however, that there will be no change in the existing rates of postage on (1) Book packets containing only printed books, and (2) book packets containing only periodicals, which are registered with the Press Registrar of India.

**Registration Fee :** In addition to ordinary postage on any postal article, inland or foreign, the registration fee is 55 P. instead of the existing 50 P. The acknowledgement fee for a registered article is 10 P.

**Posting Certificate :** The fee for a certificate of posting for every three articles or for any less number is 5 P.

**Late Fee :** The late fee chargeable for an unregistered letter, letter-card, post card or packet is 10 P., for each registered article the fee is 15 P. The late fee for a foreign postal article is also 15 P.

Certain other rates and fees, such as for insurance, V.P.P., post boxes, post bags etc., have also been revised.

* Denomination 15 P.

**Foreign Mail :** The revised rates of postage for foreign mail came into force from June 30, 1963.

The new rates are applicable to mail intended for all parts of the world served by the foreign post with the exception of Ceylon, Nepal and Pakistan, to which inland rates of postage continue to apply.

According to the new rates, the postage for letters weighing not more than 20 grams is 40 P., and for every additional 20 grams or fraction thereof 25 P. Post cards cost 25 P. for single and 50 P. for reply-paid. Printed papers including newspapers and books are charged at 15 P. upto 50 grams and 10 P. for every additional 50 grams or fraction thereof.

The postage for registered newspapers is 8 P. upto 50 grams weight and 4 P. for every additional 50 grams or fraction thereof. Business papers (legal and commercial documents) are charged 15 P. upto 50 grams and 10 P. for every additional 50 grams or fraction thereof. The minimum charge per packet is 40 P.

For sample packets, the postage is 15 P. upto 50 grams and 10 P. for every additional 50 grams or fraction thereof. Insured packets are charged 26 P. upto 50 grams and 26 P. for every additional 50 grams or fraction thereof. The minimum charge per box is Rs. 1·28.

In the case of bulk bags, the postage is 85 P. per kilogram if the bag contains registered newspapers only. For any other kind of printed matter in the bulk bag, the rate is Rs. 2·05 per kilogram.

The fee chargeable in respect of inward foreign postal articles on which customs duty is leviable is revised with effect from Jan. 1, 1964. The new rates will be 50 P. for letters, packets or insured boxes and Re. 1 for bulk bags of printed matter, when it weighs more than 500 grams. For parcels the rate will be Re. 1.

# SOCIAL WELFARE IN INDIA

THE period under British rule (1800-1947) witnessed a destruction of the old social structure in India. In the new structure that emerged a number of reforms and institutions were introduced by bodies like the Bramho Samaj (associated with the name of Raja Ram Mohan Roy), the Prarthana Samaj, the Deccan Education Society and the All-India Social Reform Association (Justice M. G. Ranade), the Ramkrishna Mission (Swami Vivekananda), the Servants of India Society (G. K. Gokhale) and the Arya Samaj (Dayanand Saraswati). The Arya Samaj and the Ramkrishna Mission sponsored social reforms, established orphanages, widows' homes, free dispensaries and relief centres in periods of emergency. The Servants of India Society is especially notable for its ramifications in the fields of labour, tribal welfare, youth welfare and emergency and relief work. An impetus to women's welfare was given by D. K. Karve's Women's University and G. K. Devadhar's Seva Sadan in Poona.

During this period pioneering work in many neglected fields of service, *e.g.* foundling homes, leper asylums and institutions for the maimed and the handicapped, was undertaken by Christian missionaries in the country.

By 1920 Mahatma Gandhi's contribution began to gain recognition throughout the country. He provided for a number of constructive social welfare programmes through organisations like the Harijan Sewak Sangh, All-India Village Industries Association, Charkha Sangh, the Hindustani Nai Talimi Sangh, Goseva Sangh, and the Kasturba Gandhi National Memorial Trust, etc. His constructive programme also included dignity of manual labour and labour welfare, prohibition of alcohol, drugs and gambling, Tribal welfare and leprosy relief.

The late '30s saw the formation of the first popular Ministries in eleven provinces in India.

During the same period professional social work began to be recognised with the establishment of the Dorabji Tata Graduate School of Social Work in 1936, later Tata Institute of Social Sciences.

At present there are about twenty Schools of Social Work in India, and recently they have formed an Association of Schools of Social Work. The alumni from the schools of social work have now formed a professional association namely the Indian Association of the Alumni of Schools of Social Work.

The new profession generally covers the following fields of social work: Community Welfare Services; Family, Child and Youth Welfare Service; Public Welfare Administration; Social Security Services; Services for the Maladjusted and Handicapped Groups; Social Defence and Correctional Administration; Services for Emergency Relief and Rehabilitation; Social Legislation and Social Action; Social Research; Training in Social Work; Tribal Welfare and Rural Welfare.

The establishment of the Indian Conference of Social Work at a meeting of over 450 social workers assembled in Bombay in November 1947 marks a significant development in the field of social work in India. The Conference undertakes and promotes the study of social problems and endeavours to foster co-operation, collaboration and co-ordination amongst social service agencies in India and abroad. It has held sessions in Bombay (1947), Madras (1948), Delhi (1949), Jamshedpur (1950), Calcutta (1951), Hyderabad (1953), Lucknow (1954), Bangalore (1955), Jaipur (1956) and its Decennial Anniversary Session in Madras (1957).

Later it was decided to hold biennial sessions. The 13th session of the Indian Conference of Social Work was held at Varanasi in 1964, the theme of which was "Changing Trends in Social Welfare. Besides holding conferences, it also organises national seminars. The fourth national seminar on "Public Cooperation for Social Welfare with special reference to Third Five Year Plan" was held in Chandigarh in 1960. In 1964 seminars were held on "The Role of Volunteer in Social Work" in Bombay and Madras in cooperation with the Cleveland International Programme for Youth Leaders and Social Workers, Inc., U.S.A.

The I.C.S.W. held its third national seminar, the subject being urban community development, in December 1959 at Hyderabad. A seminar was also held at Bhopal on "Welfare of Tribes and Denotified Communities.

In 1952, it enabled the International Conference of Social Work to hold its Sixth Session at Madras—the first International Conference on Asian soil.

Research in social welfare is becoming an important activity in the field of social work. Funds for the same are available from the Research Programmes Committee of the Planning Commission, the Dept. of Social Security and the University Grants Commission, as well as other foreign bodies such as the U.S.A.I.D. The Indian Conference of Social Work is carrying out two research projects with the financial assistance of the U.S.A.I.D., which have been approved by the Government of India.

## SOCIAL LEGISLATION

Social legislation on an all-India scale dates back to 1843 when the first law abolishing slavery was passed. The earlier laws sought to reform the evil social practices existing at the time, practices such as *Sati* and infanticide. Later, social legislation began to assume a more positive and constructive role. Laws for better working conditions in factories, laws providing maternity benefits, for the abolition of traffic in women and children, and laws for the protection and care of destitute and delinquent children have all received attention in the first half of this century.

Part IV of the Constitution lays down the "Directive Principles of State Policy", as follows :—

"The State shall strive to promote the welfare of the people by securing and protecting as effectively as it may, a social order in which justice, social, economic, and political, shall inform all the institutions of the national life."

According to the present Constitution, social legislation can be formulated and implemented both by the Central and State Governments. Most social subjects are on the concurrent list, *i.e.* they can be legislated upon by the Central or State Governments. These subjects include : marriage and divorce, social security and social insurance, economic and social planning, welfare of labour, charities and charitable institutions, vagrancy and mental deficiency.

Prison Reform Bills and Borstal Institutions are subjects in the State list. An informative volume entitled "Social Legislation", which contains detailed information regarding the laws pertaining to women, children, handicapped groups and social defence was published in 1956 by the Planning Commission of the Government of India.

A Department of Social Security has been set up in June 1964 under the Union Ministry of Law and Social Security. The new Department is in charge of tribal welfare, welfare of backward classes, social security measures, chiefly relating to industrial labour as well as the implementation of old age pension schemes. It is also in charge of welfare of the handicapped, the weaker section of the Society and social defence.

The States of Assam, Andhra Pradesh, Maharashtra, Gujarat, Madhya Pradesh, Punjab, Rajasthan, Uttar Pradesh and West Bengal have Departments of Social Welfare, whereas Madras possesses a Women's Welfare Department.

A scheme of family and child welfare is being organised in 2,500 blocks in close cooperation with the Community Development Department and the Central Social Welfare Board. It is proposed to set up 50 pilot projects and training centres during 1965-66.

The expenditure allocated to Social Services in the 1st Five-Year Plan period was 532 crores of rupees out of a total outlay of 2,356 crores, which works out to 23 per cent, whereas in the Second Five-Year Plan, out of a total outlay of 4,800 crores of rupees 808 crores were earmarked for Social Services, including Housing, Rehabilitation, etc. in the revised allocations.

To the above amount we could also add the provision of 90 crores in the First Plan period, and 200 crores in the Second Plan period for community development, both of which work out to four per cent of the total provision respectively.

PLAN PROVISION BY MAJOR HEADS OF DEVELOPMENT

| | | Second Plan | Third Plan |
|---|---|---|---|
| | | Total Provision (Rs. crores) | Total Provision (Rs. crores) |
| (a) | Education (general and technical education and cultural programmes) | 277* | 560 |
| (b) | Health (including water supply, sanitation and family planning) .. .. | 225 | 342 |
| (c) | Labour and Labour Welfare, Welfare of Backward Classes and Social Welfare | 125 | 212† |
| (d) | Housing .. | 84 | 142** |
| (e) | Rehabilitation .. | 86*** | 40 |
| | Total .. .. | 797 | 1,296 |

* Includes Rs. 2 crores transferred from the Ministry of Rehabilitation to the Ministry of Education.

** Excludes Rs. 60 crores provided by the L.I.C.

*** Excludes Rs. 4·5 crores for the payment of loans by the Rehabilitation Finance Administration.

† Includes Rs. 3 crores for child welfare under 'Education'.

The Social Defence (Care) Schemes in the Third Five Year Plan involves an outlay of Rs. 3·58 crores. It is aimed at prevention of juvenile delinquency, enforcement of suppression of Immoral Traffic in Women and Girls Act, prevention and treatment of beggary and vagrancy, welfare services in prisons and probation.

## SOME ALL-INDIA ACTS

The Special Marriage Act, 1954; The Hindu Marriage Act, 1955; The Hindu Succession Act, 1956; The Hindu Adoption and Maintenance Act, 1956; The Hindu Minority and Guardianship Act, 1956; The Mines Maternity Benefit Act, 1941; The Apprentices Act, 1850; The Children Pledging of Labour Act, 1933; The Employment of Children Act, 1938; The Reformatory Schools Act, 1897; The Lepers Act, 1898; The Indian Lunacy Act, 1912; The Untouchability Offences Act, 1955; Suppression of Immoral Traffic in Women and Girls Act, 1956; The Women's and Children's Institutions Licensing Act, 1956; The Orphanages and other Charitable Institutions Supervision and Control Act, 1960; The Probation of Offenders Act, 1958; The Union Territories Children's Act, 1960.

### Traffic in Women

The Suppression of Immoral Traffic in Women and Girls Act 1956 was implemented in most States in May 1958. It applies to the whole of India, and from the date of the coming into force of this Act, all other State Acts relating to the suppression of immoral traffic in women and girls or to the prevention of prostitution stand repealed.

Some institutions concerned with this aspect of the problem are:

*Andhra Pradesh:* Association for Moral and Social Hygiene known as Nari Sudhar Society with 4 Dist. Branches. Four After-Care Homes and Four After-care Shelters.

*Maharashtra:* Maharashtra State Women's Council Rescue Home; Bombay Vigilance Association Shelter, League of Mercy Shelter; Salvation Army Industrial Institute for Women; Shraddhanand Anath Mahilashram; and St. Catherine's Home (all in Bombay City) and Association for Moral and Social Hygiene (with 13 District Branches).

Other districts of Maharashtra: Wasudeo Babaji Nowrangay Orphanage (Pandharpur); Anath Mahilashram (Kolhapur); St. Crispin's Home; Mahila Sevagram; Hindu Anath Mahilashram; Ramabai Mukti Mission (Poona Dist.).

*Madras:* The Stree Sadan Rescue and Training Home; Government Vigilance Home; Good Shephard Home; Meenakshi Sadanam (Madurai); Association for Moral and Social Hygiene with 5 Dist. Branches. Five Vigilance Rescue Shelters; one Protective Home; Abhaya Niliyam run by the Madras Vigilance Association.

*Bengal:* The Fendal Home and All Bengal Women's Union Home. One Home and two Dist. Shelters for Women and Girls.

*Delhi:* Nari Niketan; Association for Moral and Social Hygiene. Aftercare Home for Women.

*Bihar:* Bharatiya Bidhwashram, Anathalaya; Shilpashraya, Nari Kalyan Mandir; Association for Moral and Social Hygiene with 11 State Branches and 18 Sub Branches.

*Mysore:* Abhaya Ashram, Good Shephard Home; Association for Moral and Social Hygiene. Three State Homes, two Vigilance Shelters, and five Reception Homes.

*U.P.:* Ashoka Ashram (Dehra Dun); Five Protective Homes, two Aftercare Homes and two Reception Shelters. Association for Moral and Social Hygiene with 7 Dist. Branches.

*Gujarat:* Shri Seth Mansukhlal Chaganlal Hindu Widhawa Ashram; Vikas Griha (Ahmedabad); Vikas Griha (Junagadh); Association for Moral and Social Hygiene with 8 Dist. Branches. Four Reception Homes, one State Home; Jyoti Sangh.

*Kerala:* Eight Rescue Shelters, one Rescue Home; one Aftercare Home for Adolescents (Females). Association for Moral and Social Hygiene with 7 Dist. Branches.

*Orissa:* Association for Moral and Social Hygiene (Cuttack) with 4 Dist. Branches. One Aftercare Home and 4 Dist. Shelters.

*Punjab:* Two Aftercare Homes, Two Aftercare Dist. Shelters. Four Protective Homes. Association for Moral and Social Hygiene with 18 Dist. Branches.

*Rajasthan:* Association for Moral and Social Hygiene (two homes and eight reception centres).

*Madhya Pradesh:* One Rescue Home, one State Aftercare Home, two Reception Centres, 8 Dist. Shelters. Association for Moral and Social Hygiene with two Dist. Branches.

*Assam:* One Rescue Home, Two Aftercare Homes, 3 Aftercare Shelters and one Aftercare Centre.

*Himachal Pradesh:* Two State Homes, one Protective Home.

*Goa:* Association for Moral and Social Hygiene.

From the time the Act was enforced on May 1, 1958 to March 1960 the Central Social Welfare Board set up 68 protective homes in the country.

There were no brothels in Manipur. The Laccadive, Minicoy and Amindivi Islands were also free from traffic in women and children.

Most State Governments have already framed rules and appointed special police officers for enforcing the provisions of the Act.

The Central Social Welfare Board appointed an Advisory Committee under the chairmanship of Mrs. Dhanvanti Rama Rau to study the problem of social and moral hygiene in the country.

Another Committee, with Mrs. Indira Gandhi as Chairman, appointed to lay down procedures for implementing the recommendations of the above Committee recommended the following pattern for setting up different types of Homes and Shelters in each State (their recommendations have been accepted):

At the State level:

(*i*) One home for rescued women needing a fairly long period of adjustment prior to rehabilitation.

(*ii*) Two homes for the aftercare of persons discharged from correctional institutions.

(*iii*) Two short term rehabilitation homes for those discharged from non-correctional institutions.

(*iv*) Strength of each Home not to exceed 100.

At the District level:

(*i*) One shelter temporarily housing persons needing aftercare (maximum period 3 months).

(*ii*) One Reception Centre for temporary stay of women rescued from moral danger.

To meet the expenses of setting up Homes and District Units throughout the country, a total provision of Rs. 1,055 crores was made in the Second Five Year Plan.

The Association for Moral and Social Hygiene in India, which was established in the year 1928, is a Branch of the International Abolitionist Federation, Geneva, which was founded by Mrs. Josephine Butler in 1865 to coordinate on an International level, the efforts made in the different parts of the country to fight prostitution. Keshab Chandra Sen, a well known social reformer, was the pioneer in this task. The Association has got fourteen State Branches with a number of Dist. Branches. It works through its State and Dist. Branches and various Sub-Committees, most important of them being the Legal, Rescue, Rehabilitation, Education, Health, Publicity, Research, Finance and Programme Committees. It holds Annual Conferences, Training Camps and Seminars both at the All India and State levels. A large number of voluntary agencies working for the eradication of prostitution and immoral traffic are affiliated to the Association. It also receives very good cooperation from the police and other Governmental agencies.

The Association receives financial assistance from the Public Cooperation Division of the Planning Commission for the maintenance of the Central Office and Central Orientation Camps. Assistance is also rendered by the Central Social Welfare Board. The Ministry of Health gives a grant to run V. D. Clinics.

The Association runs a Student Counselling Centre in the University of Delhi. Centres for Family Counselling and Marriage Guidance are established in the other parts of the country. It also conducts periodical research.

The Association has its Headquarters at 6-Bhagwan Dass Road, New Delhi. (For names of office-bearers, see under Delhi).

The Maharashtra Branch of the Association conducted "A Study of Prostitutes in Bombay" with reference to their family background and the report has been published under the same title based on the case histories of 350 common prostitutes. This study also gives a detailed analysis of the causes of prostitution showing that 30·50 per cent of it is due to causes of high emotional significance, 14·40 per cent due to economic causes, 28·39 per cent due to social causes, 6·78 per cent due to biological causes and 19·93 per cent due to physical causes.

The National Council for Women in India has its Standing Committee on Moral and Social Hygiene, in Poona.

### Children

Children's Acts in relation to delinquency are in force in the States of Andhra Pradesh, Gujarat, Maharashtra, Madhya Pradesh, Madras, Mysore, Punjab, Kerala, U.P., West Bengal and all Union Territories.

The Borstal Schools Acts, which are slightly different in scope, are in operation in the States of Andhra, Gujarat, Maharashtra, Madras, Mysore, Punjab, U.P., West Bengal and Kerala.

The Reformatory Schools Act of 1897 has also been enforced in all the major States and some Union Territories. But where Children's Acts are in force, the Reformatory Schools Acts are not enforced. In States where Children's Acts exist but are not enforced, the Reformatory Schools Act applies.

The problem of juvenile delinquency is mainly the concern of State Governments.

The Central Bureau of Correctional Services was established in August 1961 with the aim of developing and co-ordinating a uniform policy to standardise the collection of statistics on a national basis. It exchanges information with foreign governments and the United Nations Agencies. It promotes research, training and studies and surveys in the field of prevention and crime. The Central Government have sponsored a care programme under which assistance is given to the States. Under this programme, 40 remand homes, 17 certified schools, 5 borstal schools, 15 boys' clubs and probation hostels have been established. In addition to these, there are private institutions, as well as those existing prior to the operation of the above programme. Given below are details regarding various States :

In Andhra Pradesh there are 7 certified schools, 3 juvenile courts, and a Juvenile Aid Police Bureau of the Police Department; in Assam there is one beggars' home, in Bihar there are 7 remand homes, 2 probation hostels, 1 borstal school; in Gujarat there are 8 remand homes, 8 observation homes, 7 certified schools, 17 fit person basis institutions. There is one remand home, one certified school, one probation hostel in Delhi; one certified school one probation hostel in Himachal Pradesh. 9 remand homes, 1 borstal school, 5 boys' clubs exist in Kerala; two remand homes, 2 certified schools, 3 probation hostels in Madhya Pradesh. In Madras one remand home, 20 State certified schools, a Juvenile Aid Police Court. In Maharashtra there are 33 certified schools, 89 fit person institutions, 24 remand homes and 21 juvenile courts. There is also a juvenile aid police unit and a certified school for mentally deficient children. In Mysore there are 18 remand homes and juvenile courts, 7 certified schools, one probation hostel. In Orissa one remand home; one certified school in Rajasthan and one certified school in Tripura.

Under the Children's Act, more children come under its purview as a result of destitution than delinquency. The following approximate figures give the number of destitutes and delinquents in a few States* :

| State | Year | Destitute | Delinquent |
|---|---|---|---|
| Gujarat .. | 1963 | 510 | 2,109 |
| Maharashtra | 1961–62 | 4,691 | 2,843 |
| Madras .. | 1963 | 130 | 4,412 |
| Mysore .. | 1962 | 1,489 | 399 |

### Beggars

The Criminal Procedure Code treats vagrants and vagabonds alike and provides penalties under Sections 55 (*i*)(*b*) and 109(*b*).

Beggars may be proceeded against under Section 133 as those committing public nuisance.

Beggary within railway premises was prohibited by law as from February 15, 1941.

Special Acts have been passed by most of the States to prohibit begging in public places. In others, the municipal and police Acts provide measures against begging.

To deal effectively with persons who kidnap children for the purpose of exploiting them for begging, the Indian Penal Code (Amendment) Act, 1959, was enacted. The Act makes kidnapping or obtaining custody of a minor and the maiming of minors for the purpose of begging specific offences and provides deterrent punishment, which may extend to life imprisonment where children are maimed.

There are institutions in the States for the custody, care and assistance of beggars in their rehabilitation.

Some 26 Beggar Homes have come into existence during the Second Five Year Plan and these provide for about 25,000 beggars. 33 more homes are expected to be established before the end of the Third Plan.

## SOCIAL SERVICE AGENCIES

The groups of voluntary social work in India largely fall under the following heads : Administrators ; Professional social workers ; Missionaries ; The Gandhian social workers ; and voluntary social workers belonging to the various private agencies.

Of these the religious believe in the traditional form of charity, the Missionaries in institutionalised social work, the Gandhian in the 14-point constructive programme.

The group of professionally trained social workers is small though most compact. This group consists of alumni and teachers of the following Post-graduate schools of social work in India :

The Tata Institute of Social Sciences, Sion, Trombay Road, Chembur, Bombay 71 ; Delhi School of Social Work, 3, University Road, Delhi 6 ; the Faculty of Social Work of the M. S. Univerisity of Baroda, Camp Road, Baroda ; Shri Kashi Vidyapeeth, Banaras, Chavin, Banaras 2 ; Madras School of Social Work, 1, Jarretts Gardens (upper flat), 23-24, Casa Major Road, Egmore, Madras 8 ; The All India Institute of Social Welfare and Business Management, College Square West, Calcutta 7. The J. K. Institute of Sociology and Human Relations, Lucknow University, Lucknow also imparts training in social work, while the Patna University has a department to train social workers for industrial welfare work. The other institutions are : Institute of Social Service, Nirmala Niketan, New Marine Lines Bombay 1 ; P. S. G. School of Social Work, Peelamedu, Coimbatore ; Bombay Labour Institute, (Government of Maharashtra), Dadabhai Chamarbaugwala Road, Parel, Bombay 12; National Institute of Social Sciences, Bangalore ; Udaipur School of Social Work, Udaipur ; Xavier Labour Relations Institute, Jamshedpur ; Department of Economics and Sociology, Andhra University, Waltair ; Institute of Social Sciences, Agra University, Agra ; University School of Social Sciences, Gujarat University, Ahmedabad ; Department of Sociology, Labour and Social Welfare, Bihar University, Bhagalpur ; Vikram University Dept. of Social Work, Indore, M.P. ; Loyola College, Madras ; Institute of Social Work, Bendore, Mangalore ; Stella Maris College, Mylapore, Madras 2 ; Xavier Institute of Social Service, St. Xavier's College, Ranchi.

An association of schools of social work has been formed which is setting up criteria for accredited schools of social work. Over and above the professional schools of Social Work, there are various other training centres run by voluntary bodies for training welfare workers. Training schemes for training workers for particular programmes are also being undertaken by the Govt. in cooperation with voluntary welfare agencies.

Voluntary Social Service Agencies operating on an All-India basis are mentioned below :—

### Child Welfare

Balkan-ji-Bari (Juhu Road, Santa Cruz (West), Bombay 54, AS) ; Society for the Protection of Children in India (2-B, Camac Street, Calcutta) ; Indian Council for Child Welfare, Room 14-15, Block 'A', 'B' Barracks, Queensway, New Delhi ; Indian Council for Child Education (Sumanas, 39, Edward Elliots Road, Madras 4).

### Youth Welfare

Y.M.C.A. (5, Russel Street, Calcutta 16) ; Y.W.C.A. (Parliament Road, New Delhi) ; Bharat Scouts and Guides Association (Regal Building, Parliament Street, New Delhi); Bharat Sevak Samaj (27-A, Theatre Communication Buildings, Connaught Place, New Delhi) ; Y.M.C.A., New Delhi ; Youth Welfare Association (193-E, Devnagar, New Delhi) ; Poor Welfare Association (29/24, Shakti Nagar, Delhi 6) ; 'Gyan Prakash Yuvak Sangh' (653, Chuna Kankar, Mathura, U.P.) ; Youth Hostels Association (2, East Park Road, New Delhi 5) ; Social Service League (Indraprastha College, Alipur Road, Delhi) ; All India Boys Scouts Association (7, Jungpura—B—Mathura Road, New Delhi 14).

### Women's and Family Welfare

All India Women's Conference (C/o Family Planning Association of India, Metropolitan House, Dadabhoy Naoroji Road, Bombay 1) ; Family Planning Association of India (Metropolitan House, Dadabhoy Naoroji Road, Bombay 1) ; National Council of Women in India (Town Hall, Bombay 1) ; Kasturba Gandhi National Memorial Trust (Kasturba Gram, P.O. Indore, Madhya Pradesh).

### Health

Turberculosis Association of India (20, Red Cross Road, New Delhi 2) ; Indian Red Cross Society (20, Red Cross Road, New Delhi 2) ; All India Cancer Prevention Society (Tata Memorial Hospital, Parel, Bombay 12) ; Hind Kusht Niwaran Sangh (Red Cross Road, New Delhi) ; Akhil Bharat Shririk Sikshan Maha-Mandal (Tilak Road, Nagpur, Maharashtra).

Indian Medical Association, Hanging Bridge, Daryaganj, Delhi 7.

### Rehabilitation of the Handicapped

Convention of the Teachers of the Deaf in India (50, Bondel Road, Ballygunj, Calcutta) ; All India Lighthouse for the Blind (89, Elliot Road, Calcutta) ; National Association for the Blind (Jehangir Wadia Building, Mahatma Gandhi Road, Bombay 1) ; All India Blind Relief Society (11-F, Lajpatnagar, New Delhi) ; The Fellowship of the Physically Handicapped, Hornby Vellard, Haji Ali Park, Bombay-34 ; Society for the Education of the Crippled (Child and Adult) (Chunilal Mehta Hut, Mahatma Gandhi Road, Bombay 1) ; The Indian Council for Mental Hygiene (Cumbatta Chambers, Eros Building, 42, Queen's Road, Bombay).

### Rural Welfare

Sarva Sewa Sangh (K33–4 Golghar, Varanasi, U.P.) ; India Village Service (I.V.S. House, Marhera, Dist. Etah, U.P.).

### General Social Welfare

Servants of India Society (Poona 4) ; Ramkrishna Mission (Belur, Dist. Howrah) ; Gandhi Memorial Fund (5, Mansingh Road, New Delhi) ; Salvation Army (Moreland Road, Bombay 8) ; Friends' Service Unit (1, Upperwood Street, Calcutta 16) ; All India Seva Samiti (Seva Samiti Building, Allahabad) ; Indian Co-operative Union Ltd. (Janpath, New Delhi) ; Bharat Sevak Samaj (27A, Theatre Communication Building, Connaught Place, New Delhi).

### Rural Women's Welfare

Kasturba Gandhi National Memorial Trust (Kasturbagram, Indore, Madhya Pradesh) ; Bharatiya Grameen Mahila Sangh (9/104 Jamnabar Hutments, Block II, Mansingh Road, New Delhi-11).

### Relief and Rehabilitation

United Council of Relief and Welfare (Rashtrapati Bhavan, New Delhi).

### Social Education

Indian Adult Education Association (17-B, Indraprastha Marg, New Delhi) ; Jamia Milia (Okhla, Delhi) ; Literacy House (Lucknow) ; All India Mass Education Society (Gonda).

### Welfare of Under-Privileged Groups

Harijan Sewak Sangh (Kingsway, Delhi); Bhartiya Adimjati Sevak Sangh (Kingsway, Delhi 9).

* Delinquents & destitutes respectively in other States with years in brackets : Andhra Pradesh 308 ; 1,065 (1963) ; Kerala 169 ; 70 (1963); Uttar Pradesh 735 ; 1 (1963) ; West Bengal 1,383 ; — (1963).

**Social Defence**

All India Crime Prevention Society (Behari Niwas, Kanpur, U.P.); Association for Moral and Social Hygiene in India (Room No. 211, 'P' Block, Raisina Road, New Delhi).

**Co-ordination**

The national organization for the co-ordination of all welfare services is the Indian Conference of Social Work located at 42, Queen's Barracks, Foreshore Road, Bombay 1.

There is also a South-East Asia and Western Pacific Regional Office of the International Conference of Social Work which has been established in conjunction with the Indian Conference of Social Work in Bombay.

**International Welfare Agencies in India**

The following are some of the International agencies and organisations working in the country: International Conference of Social Work (Regional Office for South-East Asia and Western Pacific, 42, Queen's Barracks, Foreshore Road, Bombay 1); Asia Foundation (Post Box 149, New Delhi); Ford Foundation (32, Ferozshah Road, New Delhi); World Health Organisation (S.E.A. Office, Patiala House, Hardinge Avenue, New Delhi); Rockefeller Foundation (20/39, Diplomatic Enclave, Kautilya Marg, New Delhi); International Labour Organisation, Indian Branch (Mandi House, New Delhi); International Union for Child Welfare (Consultant for Far East Asia, Rooms Nos. 14 & 15, Block A, Barracks B, Queensway, New Delhi): United Nations International Children's Emergency Fund (UNICEF House, 11, Jor Bagh, Delhi); United Nations Educational, Scientific and Cultural Organisation (Old Mill Road, New Delhi); Food and Agricultural Organisation, UNO (21, Curzon Road, New Delhi); Cleveland International Programme for Youth Leaders and Social Workers Inc. (12, Hailey Road, New Delhi).

**Bhoodan Movement***

Special mention must be made of the Bhoodan Movement initiated by Acharya Vinoba Bhave, one of the ablest disciples of Gandhiji. He is effecting a silent but nevertheless remarkable social revolution within the country by the voluntary gift of land (Bhoodan), wealth (Sampattidan), labour (Shramdan) and life (Jeevandan).

## CENTRAL SOCIAL WELFARE BOARD

The Central Social Welfare Board was set up in August 1953. Its functions as defined in the resolution of Government setting up the Board, are to survey the needs and requirements of social welfare organisations, evaluate their programmes and objectives, coordinate the assistance given by various Central Ministries and State Departments; promote the development of voluntary organisations in the areas where no such organisations exist, and render financial assistance to deserving agencies. The Chairman of the Board is Smt. Achamma J. Matthai.

At the State level, there are 24 State Social Welfare Advisory Boards. These State Boards advise and assist the Central Board in the formulation of its programme to voluntary agencies. The Chairman of State Boards are experienced social workers.

### PROGRAMMES

GENERAL - GRANTS - IN - AID PROGRAMME: From its inception upto the end of Dec. 1964, the Board had sanctioned nearly 24,400 grants amounting to about Rs. six crores under its general-grants-in-aid programme. These grants cover services for children, women and old persons.

WELFARE EXTENSION PROJECTS (Rural): At present 274 such projects with 2,340 centres are functioning. In addition 683 Mahila Mandals and local voluntary organisations are running 1,638 centres in these areas.

WELFARE EXTENSION PROJECTS (Urban): The activities undertaken in these projects provide community welfare centres, creches, balwadis, anti-natal and post-natal advisory services, welfare health centres, hobby clubs, vocational guidance, and other services. By the end of Dec. 1964, 65 such projects were functioning in different States for which the Board had provided assistance of Rs. 34·47 lakhs.

SOCIO-ECONOMIC PROGRAMME: Under this scheme, grants are given to voluntary institutions for setting up production units of small industries, units ancillary to large industries, handloom training-cum-production units, handicraft procurement units, training units and production units, coir spinning and weaving units, and silk spinning and reeling units. The Board has so far sanctioned 81 units, out of which 42 have started functioning and are providing work and wage to over 1,200 women and handicapped persons.

CONDENSED COURSES OF EDUCATION FOR ADULT WOMEN: Under this programme adult women are prepared for middle school or matriculation examinations in condensed courses of two years duration. Upto the end of Dec. 1964, the Board sanctioned 722 courses in different parts of the country.

HOLIDAY HOMES: This scheme enables children of low income groups to be taken to holiday camps at hill stations or other summer or sea resorts, outside their home towns, during vacation, free of cost. Nearly 620 camps benefitting over 31,000 children have been organised with assistance totalling Rs. 20·36 lakhs from the Board.

NIGHT SHELTERS: Twenty-six shelters were running at the end of Dec. 1964 and they have been given assistance amounting to Rs. 5·26 lakhs. The implementation of this programme has been entrusted to the Bharat Sevak Samaj, with grants from the Board, according to a schematic budget.

BORDER AREAS PROGRAMME: The Chinese Aggression of 1962, highlighted the need for welfare services in areas bordering China, Tibet and Pakistan. As a first step towards organising welfare services, a State Social Welfare Advisory Board was formed in NEFA. Ten multipurpose centres providing maternity and child welfare services, balwadis, craft classes, social education for women etc. had been sanctioned in 1964 in NEFA, three centres in Ladakh, three centres in Lahaul and five centres in Kannaur (H.P.). These were continued and, in addition, three Welfare Extension Projects in the districts of Chamoli, Uttar Kashi and Uttar Khand in Uttar Pradesh and 20 centres in Kutch and Banaskanta districts of Gujarat were started during 1964-65.

SPECIAL CHILD WELFARE PROGRAMMES: Demonstration projects of integrated child welfare services for meeting the total needs of the children in the age group 0-16 have been set up during the Third Plan. Over 300 balwadis have been set up in 11 projects. The other special child welfare schemes which the Board is developing during the Third Plan include production of pictorial literature for children of the pre-school age; standardisation of educational and recreational equipment and material for pre-schools, starting of integrated pre-school projects in urban areas, organisation of foster care services and training of child welfare workers.

EVALUATION OF PROGRAMMES: The main purpose of the scheme is to obtain up-to-date information about the changing needs in the field of social welfare, to evaluate the effectiveness or otherwise of social welfare programmes being developed in the country and through action-research and pilot projects to initiate new programmes.

PUBLICITY: The Board brings out two monthly journals "Social Welfare" in English and "Samaj Kalyan" in Hindi. Some of the State Boards also bring out bulletins in regional languages. Documentaries, through the Films Division of the Government of India, are also produced by the Board.

ENCYCLOPAEDIA OF SOCIAL WORK IN INDIA: The manuscript of "Encyclopaedia of Social Work in India" a project taken up by the Board at the instance and with the assistance of Planning Commission was expected to go to the press in 1965.

* See main article "Bhoodan" for statistical information.

# ARECANUT INDUSTRY

ARECANUT is one of the most important commercial crops of India. It has an important place in the religious, social and cultural life of our people irrespective of caste, creed or social status. Chewing of arecanut with betel leaves and lime (Thambulam, Pan Supari) has become a habit with some people and a luxury of many in the country.

India ranks first in the world both in the acreage and production of arecanut.

The chief arecanut growing States in the country are Kerala, Mysore and Assam. These States accounted for nearly 95 per cent of the area under cultivation and 93 per cent of the total production of the crop during 1963-64. The other arecanut growing States are Maharashtra, West Bengal and Madras. It is also grown in small areas in Andhra Pradesh, Orissa and other States.

The overall average per capita consumption of betelnut in India is estimated at 0·33 kg. Among the producing States the highest per capita consumption is in Assam with 2·8 kg., In Kerala it is 0·67 kg. and in Mysore 0·66 kg. Among the cities, Delhi and Nagpur are two of the most important consuming markets.

Betelnut (processed arecanut) varieties are numerous in India and can be broadly classified into unboiled, boiled and coloured varieties.

It is estimated that during 1963-64 the country had 119,644 hectares under arecanut cultivation with a production of 99,011 tonnes of cured nuts. Statewise details of area and production during 1963-64 are given below

| State | Area Hectares | Production (Metric tons) |
|---|---|---|
| Kerala .. .. | 56,740 | 46,230 |
| Mysore .. .. | 32,427 | 29,500 |
| Assam .. .. | 24,435 | 16,595 |
| West Bengal .. | 2,198 | 2,460 |
| Maharashtra .. | 2,045 | 2,886 |
| Madras .. .. | 1,609 | 1,240 |
| Andhra Pradesh .. | 139 | 150 |
| Orissa .. .. | 51 | .. |
| Total .. | 119,644 | 99,011 |

The internal production continued to be insufficient to meet the requirements and imports had to be continued. Small quantities of arecanut are also being exported from India for the use of Indian settlers abroad.

IMPORTS OF ARECANUT

| Year | Quantity in thousands of quintals | Value in lakhs of Rupees |
|---|---|---|
| 1958–59 .. | 183·63 | 83·57 |
| 1959–60 .. | 141·75 | 71·86 |
| 1960–61 .. | 111·70 | 64·63 |
| 1961–62 .. | 100·41 | 45·32 |
| 1962–63 .. | 89·78 | 34·61 |
| 1963–64 .. | 28·10 | 13·87 |

EXPORT OF ARECANUT

| Year | Quantity in quintals | Value in Rupees |
|---|---|---|
| 1958–59 .. | 2,005 | 13,39,615 |
| 1959–60 .. | 2,078 | 12,68,615 |
| 1960–61 .. | 1,513 | 9,73,010 |
| 1961–62 .. | 1,229 | 8,60,811 |
| 1962–63 .. | 1,099 | 8,62,405 |
| 1963–64 .. | 957 | 7,24,755 |

(The quantity available for consumption for the year 1963–64 was 10·17 lakh quintals of arecanut.)

**Development:** The Planning Commission in consultation with the State Governments fixed a production target of 105,569 tonnes of arecanut to be achieved by the end of the Third Five Year Plan as against 96,031 metric tonnes at the end of 1960-61. For this purpose various developmental schemes have been included in the State Plans of Kerala, Mysore, Assam, West Bengal, Madras, Maharashtra, Orissa, Andhra Pradesh, Andamans and Tripura with financial assistance from the Government of India. The schemes provide for assistance to the growers in the form of loan for digging wells or erecting pumps sets for irrigating the gardens and for purchase of fertilizers for manuring the gardens and subsidy for sprayers and fungicides for protecting the crop against pests and diseases.

During the Fourth Five Year Plan, it is proposed to raise the production to 110,351 metric tonnes. Unlike during the Third Five Year Plan the programme for the Fourth Plan will be restricted to the major arecanut growing States of Kerala, Mysore and Assam. No increase in area under arecanut is proposed during the Fourth Plan.

**Agricultural Research:** To step up production of arecanut and thereby making the country self-sufficient, the Indian Central Arecanut Committee has established a Central Arecanut Research Station at Vittal, South Kanara, Mysore State, and a series of Regional Research Stations in Kerala, Mysore, Assam and West Bengal. The Regional Arecanut Research Station functioning at Thirthahalli in Mysore State is sponsored by the Committee and the State Government.

Apart from distribution of quality seedlings, the Central and Regional Research Stations undertake fundamental and applied research in Botany, Physiology, Agronomy, pests and diseases of the crop. Researches into the causes and remedial measures of serious diseases like *Mahali* (fruit-rot), *Hidimundigae* disease (which makes the palm barren or imparts constriction at the crown), *Anabe roga*, root, bud and stem rot, and yellow leaf diseases are also undertaken.

**Technological Research:** To find ways and means as to how best arecanut and its by-products could be utilised for industrial and other purposes, researches have been undertaken by the various institutes and Universities in the country. The Committee's Arecanut Technology Unit at the Central Food Technological Research Institute, Mysore, has evolved a new technique by which the fresh ripe fruits can be preserved with standard preservatives for a sufficiently long time. The preserved nuts retain the original colour and the kernel is also seen to retain its freshness. A boiler-cum-drier for drying arecanuts has also been devised.

**Nurseries:** To meet the demand of quality seedlings, a net-work of nurseries (Grant-in-aid nurseries, State nurseries, nurseries attached to Research Stations and certified nurseries has been established in the States of Kerala, Mysore, Assam, West Bengal, Orissa, Madras, Maharashtra, Gujarat, Tripura and Andamans. To demonstrate improved methods of its cultivation to the growers, demonstration plots have also been laid out in suitable centres.

**Marketing:** The Indian Central Arecanut Committee has been bestowing its attention on the development of marketing of arecanuts with special emphasis on co-operative marketing, by encouraging organisation and development of co-operative marketing societies for arecanut growers in all the important arecanut growing states. The Committee gives financial assistance to meet the cost of management of the societies in collaboration with the concerned State Governments. There are twenty-nine arecanut co-operative marketing societies located in the States of Kerala, Mysore, Madras, Maharashtra, West Bengal and Assam, of which eleven societies are receiving financial assistance from this Committee. The Mysore State occupies a predominant position in the co-operative marketing of arecanuts. The co-operative societies in Mysore handled about 40 per cent of the marketable surplus during 1963-64. To co-ordinate the activities of the primary arecanut marketing co-operative societies, a co-operative marketing federation has been organised in Mysore State with its area of operation extended to cover also the neighbouring States of Kerala, Madras and Maharashtra, so as to confer the benefits of inter-State trade to the primary arecanut marketing societies of these States. With a view to preventing adulteration of arecanuts, the Indian Central Arecanut Committee has sponsored a scheme for analysis of arecanuts for prescribing quality grade standards which is being worked at the Central Food Technological Research Institute, Mysore. Another scheme for grading of arecanuts on an experimental basis in selected grading centres through the arecanut co-operative marketing societies, is in operation in the States of Mysore and Madras with financial assistance from the Committee and the concerned State Governments.

The total quantity of arecanuts sold by the co-operative marketing societies during 1963-64 was 1,06,728 quintals valued at Rs. 6·02 crores, which formed about 12½ per cent of the total marketable surplus in the country, against 92,666 quintals valued at Rs. 4·83 crores sold during 1962-63. The total membership and share capital of these societies rose from 26,748 and Rs. 14·94 lakhs during 1962-63 to 28,181 and Rs. 17·22 lakhs respectively during 1963-64.

**Regulated Markets:** With a view to regulating the market practices and preventing exploitation of primary producers, regulated markets have been established in the important assembling centres in Mysore and Kerala States under the Agricultural Produce Markets Act. The regulated markets also collect and disseminate market intelligence for the benefit of growers and traders.

**Publicity:** The Committee continues to publish a quarterly Arecanut Journal in English, Malayalam and Kannada, which contains articles of original researches, techniques for scientific cultivation of arecanut, the control of arecanut pests and diseases, market prices of important trade varieties in forwarding, distributing and consuming markets and other matters of general importance to the farmers. Besides the above, leaflets and posters on different aspects of arecanut cultivation are also released by the committee for the benefit of the arecanut growers, traders and others connected with the industry.

# COFFEE INDUSTRY

COFFEE cultivation is mainly confined to the hilly tracts of south India, from one thousand to six thousand feet above the mean sea level, and is centred in the Malnad area of Mysore, Madras and Kerala. In the lower elevations, which have a higher rainfall, the more delicate but better quality Arabica coffee has given place to the harder but coarser Robusta coffee.

Investments on coffee estates in India have been estimated at 1,500 million rupees. The daily labour employed is about 2,80,000. Ancillary industries like curing and transport employ about 20,000.

The coffee industry's contribution to agricultural income is estimated at 190 million rupees out of a total of 67,780 million rupees or 0·3 per cent.

There are only two types of coffee grown on commercial scale in India, the one most extensively cultivated being Coffee Arabica and the best in quality, with Robusta coming next in importance. About 50 species and sub-species of coffee are being grown in the Coffee Board's research stations. Many of the coffee estates are interplanted with orange, cardamom and pepper. There are about 47,000 coffee estate owners.

The area and production from 1957-58, of the two varieties of coffee are as under:

AREA IN THOUSAND ACRES

| Year | Arabica | Robusta | Total |
|---|---|---|---|
| 1957-58 .. | 164 | 104 | 268 |
| 1958-59 .. | 167 | 105 | 272 |
| 1959-60 .. | 174 | 121 | 295 |
| 1961-62 .. | 179 | 129 | 308 |
| 1962-63 .. | 180 | 132 | 312 |
| 1963-64 .. | 186 | 134 | 320 |

PRODUCTION IN M. TONNES

| Year | Arabica | Robusta | Total |
|---|---|---|---|
| 1957-58 .. | 29,775 | 14,715 | 44,490 |
| 1958-59 .. | 25,580 | 21,335 | 46,915 |
| 1959-60 .. | 32,300 | 17,490 | 49,790 |
| 1960-61 (*E*) | 39,445 | 28,575 | 68,020 |
| 1961-62 (*E*) | 29,300 | 16,750 | 46,050 |
| 1962-63 (*E*) | 34,000 | 22,200 | 56,200 |
| 1963-64 (*E*) | 39,100 | 30,100 | 69,200 |

(*E*) Estimates.

The 1964-65 crop is estimated to be around 58,000 tonnes.

The receipts of the 1964-65 coffee crop into the pool up to 15th March 1965 amounted to 38,828 tonnes, comprising 27,608 tonnes plantation, 6,462 tonnes arabica cherry and 4,758

tonnes robusta. The receipts of the 1963-64 crop up to 15th March 1965 amounted to 68,922 tonnes made up of 28,400 tonnes plantation, 10,470 tonnes arabica cherry and 30,052 tonnes robusta.

Increase in production has been followed by a rise in exports and internal consumption.

The following table gives the trend of exports :

| Year | Exports in Metric Tons* |
|---|---|
| 1957-58 .. .. .. .. | 14,281 |
| 1958-59 .. .. .. .. | 16,400 |
| 1959-60 .. .. .. .. | 18,180 |
| 1960-61 .. .. .. .. | 32,271 |
| 1961-62 .. .. .. .. | 19,829 |
| 1962-63 .. .. .. .. | 22,411 |
| 1963-64 .. .. .. .. | 33,005 |

* Out of the season's crop.

There is no export duty on coffee at the moment.

The annual average prices realised in the pool sales for each type of coffee from the year 1957 (in Rs. per 50 kg. inclusive of Central Excise Duty).

| Year | Plantation 'A' | Arabica cherry Flats/ Arabica cherry AB | Arabica cherry Flats/ Robusta cherry AB |
|---|---|---|---|
| | Rs. nP. | Rs. nP. | Rs. nP. |
| 1957 | 219·18 | 183·03 | 159·55 |
| 1958 | 214·86 | 182·79 | 157·21 |
| 1959 | 236·02 | 186·96 | 155·64 |
| 1960 | 222·46 | 180·72 | 157·54 |
| 1961 | 229·45 | 189·27 | 152·94 |
| 1962 | 247·85 | 200·61 | 153·42 |
| 1963 | 247·19 | 210·73 | 176·78 |
| 1964 | 268·48 | 225·32 | 205·33 |

The possibilities of further expansion of the coffee cultivation in Andhra, Assam and West Bengal States and in the Andamans are being explored at present. Some coffee plantations have already been started in Andhra and the Andamans.

Loans totalling Rs. 50,78,754 were sanctioned to 694 applicants as on 15th March 1965.

AVERAGE INDEX NUMBERS OF WHOLESALE PRICES OF COFFEE
(Base 1952-53 : 100).

| Year | Index |
|---|---|
| 1955 .. .. .. .. | 80·3 |
| 1956 .. .. .. .. | 81·0 |
| 1957 .. .. .. .. | 86·6 |
| 1958 .. .. .. .. | 85·7 |
| 1959 .. .. .. .. | 88·7 |
| 1960 .. .. .. .. | 87·1 |
| 1961 .. .. .. .. | 87·6 |
| 1962 .. .. .. .. | 90·7 |

### COFFEE BOARD

To stimulate internal consumption and to regulate exports a statutory body, now known as the Coffee Board, was set up under the Coffee Market Expansion Board. In December 1952 a Bill was introduced in Parliament to amend the Act of 1942 for the purpose of ensuring better co-ordination between the Board and the Central Government and of providing adequate representation of consumer interests on the Board.

In May 1961, the Government of India introduced another Bill in the Lok Sabha seeking to amend certain provisions of the Coffee Act. One of the principal features of the Bill is replacement of election of Large Growers' representatives by appointment of members by the Central Government. This Bill has been passed by the Parliament.

### Wage Board

The Union Government has accepted the recommendations of the Central Wage Board for increased rates of wages in the Coffee Plantation Industry in so far as the field and workers maistries are concerned and has requested planters to implement them as early as possible. According to a Government resolution published in the gazette on January 21, 1965 the Board's recommendations are to take effect from July 1, 1964 and remain in force for a period of five years. The Board has not yet submitted its final report to the Government as it has still to finalise the new wage structure for the staff employed in the coffee plantation industry.

# COIR INDUSTRY

COIR is the trade name given to the fibre obtained from the husk of the coconut fruit. This golden coloured fibre is also known in Europe as "Cocos Fibre".

India and Ceylon have a virtual monopoly in the production of this by-product of the coconut industry.

India produces about 4,466 million coconuts a year. The area under coconut cultivation is over 7·31 lakh hectares.

In India the coir industry is practically confined to the coastal strip of Kerala State. It accounts for 5·05 lakh hectares of the coconut growing areas out of a total of 7·31 lakh hectares under coconut cultivation in India. The distribution of the area under cultivation and production of coconuts for 1961-62 (latest available) is as follows :—

| States. | Area in hectares. | Production of nuts in thousands. |
|---|---|---|
| Kerala .. .. | 5,04,837 | 32,47,000 |
| Madras .. .. | 54,809 | 4,42,780 |
| Mysore .. .. | 98,729 | 3,95,014 |
| Andhra Pradesh .. | 33,873 | 1,79,310 |
| Maharashtra .. | 7,911* | 25,668* |
| Gujarat .. .. | 5,261 | 27,300 |
| Orissa .. .. | 4,491 | 61,581 |
| West Bengal .. | 6,678* | 22,205* |
| Assam .. .. | 3,148 | 10,232 |
| Andaman and Nicobar Islands .. | 7,487 | 33,273 |
| Laccadive & Amindivi Islands .. | 2,372* | 8,751* |
| Pondicherry .. | 1,279 | 12,538 |
| | 7,30,875 | 44,65,652 |

Source : Indian Central Coconut Committee, Ernakulam.

The coir industry is organised partly on cottage basis and partly in factories. The production of coir fibre, yarn and ropes is essentially a cottage industry, while coir mats, mattings, rugs, carpets, mourzouks, etc. are manufactured in factories.

It is estimated that in the spinning sector the industry provides employment to about five lakhs of people. The spinning sector is spread along the entire coastal region of Kerala State. In the manufacturing sector about 25,000 people are engaged. The manufacturing sector is mainly concentrated in and around Alleppey and Shertallai. The Kerala Government have fixed minimum wages under the Minimum Wages Act in respect of the spinnng sector of the industry.

Quality fibre used for the manufacture of mats, mattings, carpets, rugs, mourzouks, etc. is extracted from soaked retted husk. The bulk of the output consists of fibre extracted from retted husk. The yarn spun by hand is soft and even in twist, while that spun on wheels is of hard twist and not so even as hand spun. Wheel spinning is gradually displacing hand spinning. The spinning is mostly done by women, boys and girls.

Coir yarn has certain well-known trade descriptions. They are : (1) Angengo—Superior and Ordinary ; (2) Mangadan ; (3) Alapat—Real and Imitation (Ashtamudy and Carruva) (4) Vycome or Weaving ; (5) Beach ; (6) Roping ; (7) Quilandy ; (8) Beypore ; and (9) Unsoaked—fine unsoaked and unsoaked.

About 1,52,400 metric tonnes of coir fibre and 1,42,240 metric tonnes of coir yarn are estimated to be produced annually.

The yarn produced in the spinning districts is marketed chiefly in Alleppey where there are a large number of factories for the manufacture of mats, mattings, rugs, carpets, mourzouks, etc. and also exporters of yarn.

On an average, 25,500 metric tons of coir yarn are utilised in the manufacture of coir floor coverings such as mats and mattings ; 55,640 metric tons are exported as coir yarn ; and about 61,100 metric tons are consumed in India itself for various purposes including manufacture of ropes and cordages.

According to the latest information available there were 148 coir factories in Kerala State registered under the Factories Act as on 31st December 1964. These include coir yarn baling and rehanking factories also.

On an average exports of coir and coir products earn about Rs. 12 crores of foreign exchange every year.

The coir industry in India is subject to violent fluctuations in prices and exports, causing often hardship to a large section of the population. This induced the Government of India to set up a Coir Board by special legislation called the Coir Industry Act, 1953.

The Act also provides for the control of the industry by the Union Government for the levy of a customs duty on export of coir fibre, coir yarn and coir products.

At present, the duty levied on coir fibre, coir yarn is at the rate of 98 P. per quintal. The annual revenue on this account comes to more than Rs. 7 lakhs.

The Coir Board was established on July 7, 1954. Its chief function is the improvement of markets at home and abroad, thereby establishing a balance between internal consumption and exports so as to give the industry the required economic stability. The Board discharges its functions in accordance with the rules framed by the Central Government. The Board was reconstituted in 1963-64.

* In the absence of figures for 1961-62, the previous year's figures are repeated.

In view of the importance of the coir industry in its export and the internal consumption aspects the Government of India has allotted a sum of Rs. 313·41 lakhs for the development of the coir industry during the 3rd Five Year Plan, Rs. 75·00 lakhs for Central Schemes to be executed by the Board direct, Rs. 234·40 lakhs for State Schemes and Rs. 4·01 lakhs for the Union Territories' Schemes.

The Third Five Year Plan Schemes of the Coir Board envisage the establishment of Research Institutes, sending out foreign delegations for market survey and study of the uses of yarn in importing countries, opening of show-rooms and sales-depots and propaganda.

A Central Coir Research Institute has been established at Kalavoor, Alleppey District. A mechanised factory for the manufacture of coir mattings on power looms is being set up by the Coir Board at Kalavoor shortly. A Regional Coir Research Station has started functioning at Uluberia, West Bengal.

The Central Scheme consists of two parts, viz. continuation schemes and new schemes.

Continuation schemes include scientific research on chemical, biological and other basic properties of coir fibre and coir yarn, applied research on the various methods of extraction of fibre, studies on motorised spinning machine, work on utilisation of coconut pith and coir waste, studies in the dyeing of coir fibre and yarn, working of the Coir Research Station in West Bengal, statistical and economic research, maintenance of show-rooms, etc.

New schemes include installation of rope making machines in the Central Coir Research Institute, plant for the manufacture of mattings on powerlooms, establishment of design centre and dye house, etc.

Preshipment inspection in regard to the export of coir and coir goods has not yet been made compulsory. However, a system of voluntary preshipment inspection of coir mats has been introduced from 22nd May 1963.

The Cooperative organisation plays a very important role in the development of the coir industry. This sector is being looked after by the State Governments concerned. At the end of the Second Plan, there were 446 coir cooperative societies in all the State together, of which 369 societies were in Kerala State. At the end of the Third Plan it is envisaged that about 700 cooperatives will be organised all over India.

STATEMENT SHOWING THE EXPORT OF COIR AND COIR GOODS FROM THE INDIAN PORTS DURING THE YEARS 1959-60 to 1963-64 (April-March)

| Year (April-March) | Coir fibre | | Coir yarn | | Coir Products (excluding rope) | | Coir cordage and ropes | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Q. | V. | Q. | V. | Q. | V. | Q. | V. | Q. | V. |
| 1959–'60 .. | 10,788 | 910 | 5,48,267 | 53,808 | 1,90,512 | 31,200 | 28,146 | 2,680 | 7,77,713 | 88,598 |
| 1960–'61 .. | 12,707 | 1,197 | 5,45,914 | 59,175 | 1,74,293 | 29,399 | 27,272 | 2,705 | 7,60,186 | 92,476 |
| 1961–'62 .. | 14,950 | 1,855 | 5,61,619 | 77,661 | 1,60,109 | 31,222 | 24,087 | 2,790 | 7,60,765 | 1,13,528 |
| 1962–'63 .. | 12,582 | 1,617 | 5,76,536 | 83,670 | 1,68,248 | 33,458 | 25,319 | 3,196 | 7,82,685 | 1,21,941 |
| 1963–'64 .. | 8,907 | 1,108 | 5,56,390 | 77,865 | 1,91,997 | 38,416 | 19,945 | 2,621 | 7,77,239 | 1,20,010 |

*Note :* Q. = Quantity in quintals.

V. = Value in Rupees 000's.

Coir products include coir mats and matting and coir carpets & floor rugs.

*Source :* 1. Director-General of Commercial Intelligence & Statistics, Calcutta. 2. Daily weekly lists of exports issued by the Collectors of Customs.

# JUTE INDUSTRY

As one of the principal earners of foreign exchange, the jute industry plays a vital role in India's economy. Out of the aggregate value of all goods and commodities exported during 1963, the share of jute manufactures was 21·8 per cent. The value of exports of jute yarn and manufactures during 1964 was Rs. 176 crores and Rs. 156·96 crores in 1963. The jute industry also provides direct employment to over 2½ lakhs of workers. The annual value of output during 1962 was about Rs. 220 crores. The Indian jute industry's production of over 13,51,400 tonnes in 1964 was higher than in any single year since the industry's existence. In 1963 nine lakh tons of jute goods were exported. The output of jute goods in the first quarter of 1965 was 3,28,700 tonnes. The total exports during 1964 were of the order of 10·9 lakh tonnes.

There are 59 jute mills with a loomage of 35,435 under Indian managing agency houses and 37 mills with 33,518 looms under non-Indian managing agency houses. It is proposed to complete the modernisation by the end of the Third Plan.

The Corporation has so far granted loans amounting to Rs. 4·6 crores to 22 jute mills for modernising their machinery. Of this, a sum of Rs. 2·64 crores had been drawn by 15 mills by November 1959. The Corporation has also introduced a scheme to provide short-term loans to jute mills to facilitate the purchase of indigenous machinery. Loans up to Rs. 5 lakhs will be granted under this scheme.

The industry was working at maximum production throughout 1962 although at various stages there was a theoretical scaling.

Details of the production trends of raw jute in the Indian Union :—

| Year | Lakh acres | 000 bales |
|---|---|---|
| Average | | |
| 1953–54 .. .. | 11·96 | 3,129 |
| 1954–55 .. .. | 12·43 | 2,928 |
| 1955–56 .. .. | 17·39 | 4,197 |
| 1956–57 .. .. | 19·08 | 4,288 |
| 1957–58 .. .. | 17·42 | 4,052 |
| 1958–59 .. .. | 18·11 | 5,158 |
| 1959–60 .. .. | 16·85 | 4,605 |
| 1960–61 .. .. | 15·12 | 3,982 |
| 1961–62 .. .. | 22·80 | 6,347 |
| 1962–63 .. .. | 21·03 | 5,406 |
| 1963–64 .. .. | 21·30 | 5,910 |

*N.B.*—The jute season is from July to June.

The all-India yield per acre was 1,110 lbs. in 1963-64, as against 1,028 lbs. in 1962-63.

Supply of jute and mesta during 1963-64 was about 110 lakh bales according to trade estimates.

Production of jute and mesta in India in 1963-64 was 77,15,000 bales according to official forecasts.

Supply and distribution of jute and mesta during the seasons 1962-63 and 1963-64 :

| | 1962-63 (lakh bales) | 1963-64 (lakh bales) |
|---|---|---|
| *Supply :* | | |
| Opening stocks with | | |
| Mills .. .. | 21·00 | 22·50 |
| J.B.S.A. .. .. | 1·00 | 6·25 |
| Other stockists .. | 4·00 | 3·32 |
| TOTAL .. | 26·00 | 32·07 |
| Crop : Total .. | 80·00 | 77·00 |
| Import from Pakistan | 2·72 | 1·42 |
| Total supply .. | 108·72 | 110·49 |
| *Distribution :* | | |
| Mill consumption | 74·00 | 77·80 |
| Exports .. | 1·15 | 1·13 |
| Domestic consumption .. | 1·50 | 2·00 |
| Total Distribution | 76·65 | 80·93 |

The following table gives the trend of I.J.M.A. mill consumption of raw jute :—

| Year ended June | Lakh bales |
|---|---|
| 1955-56 | 64·28 |
| 1956-57 | 60·72 |
| 1957-58 | 61·34 |
| 1958-59 | 60·14 |
| 1959-60 | 62·91 |
| 1960-61 | 57·82 |
| 1961-62 | 60·24 |
| 1962-63 | 69·55 |
| 1963-64 | 72·04 |

### JUTE MILLS

In 1964, there were 79 jute mills in India with a total loomage of 74,294. This is about 58 per cent of the total loomage capacity of the world.

Of the 79 mills, 68 were in W. Bengal, four in Andhra, three in Bihar, three in U.P. and one in M.P. The mills in W. Bengal are concentrated in Calcutta. The number of companies managing the mills was 79. There is a 2·6 per cent increase in jute acreage in West Bengal during 1963-64 from the 1962-63 acreage of 10,74,000. The output in 1963-64 was 32,70,000 bales.

The estimated all-India production during 1964 was about 13,51,400 tons. The total estimated value of goods produced during 1962 was about Rs. 220 crores.

According to the annual survey of Industries in 1961, 95 mills had a fixed capital of Rs. 38·76 crores and a working capital of Rs. 32·83 crores. In the same year, 2,25,317 persons were employed in 95 mills. The gross value of output was Rs. 182·52 crores and the gross value of input was Rs. 148 crores.

The progress of the industry during the past few years is summed up in the following table :—

(in thousand tons).

| Year (July–June) | Production* | | | | Exports from India | Stocks* |
|---|---|---|---|---|---|---|
| | Hessian | Sacking | Others | Total | | |
| 1955–56 .. .. .. .. .. .. .. .. .. | 403 | 623 | 69 | 1,095 | 860 | 127 |
| 1956–57 .. .. .. .. .. .. .. .. .. | 428 | 527 | 70 | 1,025 | 864 | 116 |
| 1957–58 .. .. .. .. .. .. .. .. .. | 392 | 596 | 68 | 1,056 | 805 | 134 |
| 1958–59 .. .. .. .. .. .. .. .. .. | 446 | 510 | 85 | 1,041 | 829 | 95 |
| 1959–60 .. .. .. .. .. .. .. .. .. | 449 | 531 | 94 | 1,074 | 865 | 82 |
| 1960–61 .. .. .. .. .. .. .. .. .. | 366 | 524 | 116 | 1,006 | 764 | 76 |
| 1961-62 .. .. .. .. .. .. .. .. .. | 408 | 500 | 144 | 1,052 | 798 | 79 |
| 1962–63 .. .. .. .. .. .. .. .. .. | 507 | 523 | 169 | 1,199 | 880 | 95 |
| 1963-64 .. .. .. .. .. .. .. .. .. | 525 | 488 | 217 | 1,230 | 952 (Provisional) | 124 |

### INDEX NUMBER OF WHOLESALE PRICES

(Base 1952-53 = 100)

| Period | Raw Jute | Manufactured Jute |
|---|---|---|
| 1956.. | 122 | 98 |
| 1957.. | 136 | 98 |
| 1958.. | 121 | 88 |
| 1959.. | 118 | 87 |
| 1960.. | 179 | 115 |
| 1961.. | 208 | 134 |
| 1962.. | 146 | 114 |
| 1963.. | 148 | 100 |
| January 1964.. | 150 | 100 |
| February ,, .. | 150 | 100 |
| March ,, .. | 151 | 99 |
| April ,, .. | 151 | 99 |
| May ,, .. | 149 | 99 |
| June ,, .. | 146 | 98 |
| July ,, .. | 148 | 100 |
| August ,, .. | 177 | 111 |

*Source :* Jute Situation—Issued by the Directorate of Economics and Statistics, Ministry of Food and Agriculture, Govt. of India.

There is no Government control on production or distribution of jute goods. The Working Time Agreement, in the light of which there was some control exercised by the Indian Jute Mills Association, was annulled on February 1, 1964.

The Government of India have set up a Central Committee for Jute Development which replaces the Central Supervisory Body for Jute.

**Mills have lately been paying greater attention to the need for diversification of their products. Some of the specialities which are manufactured now are cotton bagging (a loose fabric meant for packing of cotton in U.S.A.), wide hessian used as carpet backing in U.S.A., jute tarpaulins, paper-lined hessian, jute carpets and jute webbing.**

**Fourth Five Year Plan:** The Union Government have decided to fix the Fourth Plan target at ten million bales (eight million bales for jute and two million bales for mesta) against the Third Plan's 7·5 million bales (6·2 million bales for jute and 1·3 million bales for mesta).

The additional production of nearly two million bales is sought to be achieved partly through an addition of 200,000 acres by double cropping in canal and tube-well irrigated areas, but mainly through an increase in the unit yield from the present 2·8 bales to 3·3 bales by the intensification of development measures selected jute growing areas.

Jute is grown in India in 73 districts, but instead of diffusing efforts and investments over all the jute growing areas, the objective in the Fourth Plan will be to concentrate attention on only 14 districts, each of which has a fairly high spread of jute cultivation and all of which together account for over 80 per cent of the country's total production. The 14 districts are 24 Parganas, Hooghly, Nadia, Jalpaiguri, Cooch Behar, Murshidabad, Malda and West Dinajpur in West Bengal, Purnea and Saharsa in Bihar, Goalpara, Nowgong and Kamrup in Assam and Tripura.

* Represents I.J.M.A. mills and two non-members.

# LAC INDUSTRY

LAC is a resin which finds extensive application in industries. It is a resinous protective secretion of an insect which lives by sucking the sap of certain trees and shrubs called lac hosts.

There are four crops of sticklac, named after the Hindu months in which the collection of each crop commences. These are 'Baisakhi' and 'Katki' from one strain of the insect (Rangeeni) and 'Jethwi' and 'Aghani' from another strain (Kusumi). The first processed product, after the crushing and washing of sticklac is known as 'seedlac'. From this shellac is manufactured either by melting it (seedlac) manually in cloth bags held near a fire place called 'bhattas' or by the mechanised process of extraction with suitable solvents.

### PRODUCTION

India is the chief source of supply of sticklac and till 1950 accounted for nearly 85 per cent of the world production. But since then production in Thailand has rapidly increased and now accounts for about 30 per cent of the world production. The average production of sticklac in different States based on the annual production during the years 1953–63 is as follows :—

| State | Average Crop (in tonnes*) |
|---|---|
| Bihar .. .. .. .. | 18,690 |
| Madhya Pradesh .. .. .. | 12,716 |
| West Bengal .. .. .. | 5,492 |
| Maharashtra .. .. .. | 1,855 |
| Uttar Pradesh .. .. .. | 937 |
| Orissa .. .. .. .. | 672 |
| Assam .. .. .. .. | 273 |
| Gujarat .. .. .. .. | 292 |
| Other States .. .. .. | 566 |
| Total .. | 41,493 |

The actual production in 1963–64 was 28,720 tonnes as against 41,672 tonnes in 1962–63.

The average annual production of shellac including buttonlac is 15,500 tonnes and that of seedlac 11,000 tonnes.

### MARKETING

There are no regulated markets for trading in sticklac. The manufacture of shellac is a cottage industry and the number of shellac factories varies from season to season. According to the latest information there are about 210 factories in the country; only one of these located in Calcutta is fully mechanised.

Yield from sticklac varies from year to year and locality to locality.

Roughly the yield of seedlac and shellac is 65 per cent and 55 per cent of sticklac respectively.

The cost of manufacturing one maund of shellac from seedlac is about Rs. 16 and of converting sticklac into seedlac is Rs. 3. In 1939 these were roughly Rs. 3-8 and As. 8 respectively.

### PRICES

The falling tendency in prices observed during 1957-58 continued and by April 1958 prices of T.N. Shellac touched the lowest level of Rs. 57 in post-war years. This necessarily caused concern to Government and the trade alike.

* One tonne = 1,000 Kg. = 26·79 maunds.

The general objectives of the Government of India in regard to lac industry therefore were: (*i*) that the country should earn the maximum foreign exchange possible by export of the commodity without impairing the competitive strength of the commodity against the only competitor Thailand and (*ii*) to create conditions so that the cultivator or primary producer gets the maximum possible price on the basis of the export prices. This policy has continued throughout.

**Minimum Export Prices:** In regard to the first when the export prices of the commodity started dwindling rapidly since 1956-57, the Government of India encouraged in 1958 the formation of the Indian Lac Exporters' Association and assisted that Association to operate a system of minimum export prices. This measure ensured a dependable *rate* of foreign exchange earning although the actual value earned still depended upon the quantities exported. Since, however, the demand for Indian lac, as judged from the exports during the past few years, has dropped by about 20 per cent, the earnings have also naturally dropped proportionately.

The minimum export prices were also revised twice downwards once in 1961 and again in 1963 by about 10 per cent on each occasion as a stimulant for export.

**Regulation of Prices:** In order to reduce the gap between the internal price and the minimum export price and thus mop up the excessive profit of the middlemen, an export duty of Rs. 160 per tonne on seedlac or shellac and Rs. 125 per tonne on other lacs was levied from October 1961. This, however, was abolished from January 1964 as it was considered, the situation did not warrant its continuance.

**Buffer Stocks:** In regard to the prices received by the cultivators, these had not been, in recent years, in any way related to the minimum export prices. There was an ever widening gap between the two. For this reason, the Government had to introduce other price stabilization measures. The State Trading Corporation was authorized to set up a Seedlac Buffer Stock. The Indian Lac Exporters' Association also had earlier set up a limited buffer stock at Calcutta. The State Trading Corporation operated in a comparatively bigger way, purchasing seedlac in most of the major lac refining centres. Despite this, the cultivators' condition remained unchanged.

In regard to the buffer stock price, the State Trading Corporation started purchasing seedlac in different centres at different rates based on minimum export price at Calcutta. The price differential for the various centres was worked on the basis of the cost of handling and transport from the respective centres to Calcutta. This was later revised and a single price for the whole country at a reduced level was introduced in 1963. The prices have now been revised upwards from March 1964 by about 5 to 10 per cent because of the general rise in the market prices. Nevertheless no lac is being offered to the State Trading Corporation's buffer stock at the moment.

The State Trading Corporation on the other hand have liquidated their buffer stocks periodically on the basis of 25 per cent of the export requirements of individual shippers on production of relevant export orders.

**Non-Price Measures:** (*a*) The main aim is to increase the off-take of Indian lac by consuming countries. Towards this end, publicity campaigns in the largest consuming country, namely, United States, were partly financed by the Indian Lac Exporters' Association. The Indian Lac Exporters' Association also sponsors research in overseas laboratories for developing new and improved uses of lac.

The Government of India is providing increasing funds for intensifying research at the Indian Lac Research Institute.

(*b*) An official delegation jointly sponsored by the Indian Lac Exporters' Association and the Shellac Export Promotion Council visited Thailand, the only other country producing lac, to arrive at a suitable price and trade policy for mutual advantage.

**Cumulative Effect:** The prices for raw lac received by cultivators declined continuously during the last four years and reached perhaps the lowest levels in the post-war period towards the end of 1963. The result has been that the major portion of Katki crops of 1963 was not harvested and there was no incentive to initiate further cultivation with the result that all the four lac crops of the year failed and were lowest on record. This shortfall in production resulted in pushing up the prices substantially. With prices remaining at reasonably steady levels during 1964, infection was done on a larger scale and crops during 1965, favoured by good climatic conditions are expected to fare better.

## EXPORTS

About 90 per cent of the total quantity of processed goods is exported.

The U.S. is the best customer followed by the U.K. and Germany. Since 1953 the U.S.S.R. and China have also been buying sizable quantities.

Exports of all kinds of lac to foreign countries have averaged seven lakh maunds in the past five years; but there has been a drop in foreign exchange earnings to the tune of over Rs. 3 crores due to lower prices of lac during 1958 and 1959. The average value of exports which stood at Rs. 10 crores till 1956-57 has now declined to about Rs. 5 crores.

The table below gives exports of lac to important countries during 1962-63 and 1963-64.

(The figures are in quintals†)

| | 1962-63 | 1963-64 |
|---|---|---|
| SHELLAC AND BUTTONLAC | | |
| U.K. .. .. | 21,776 | 18,876 |
| U.S.A. .. .. | 21,118 | 19,539 |
| China .. .. | 3,210 | — |
| U.S.S.R. .. .. | 20,473 | 30,583 |
| W. Germany .. | 4,321 | 4,142 |
| Brazil .. .. | 8,547 | 11,191 |
| Australia .. .. | 4,124 | 4,408 |
| France .. .. | 4,095 | 3,738 |
| Other countries .. | 47,053 | 52,106 |
| Total quantity .. | 1,34,717 | 1,44,583 |
| Total value in rupees | 3,46,78,419 | 3,62,25,116 |
| SEEDLAC | | |
| U.S.A. .. .. | 41,464 | 30,445 |
| West Germany .. | 12,207 | 12,736 |
| U.K. .. .. | 4,374 | 6,414 |
| Other countries .. | 8,667 | 5,735 |
| Total quantity .. | 66,712 | 55,330 |
| Total value in rupees | 1,26,77,751 | 94,45,209 |
| OTHER KINDS OF LAC | | |
| Total quantity .. | 6,793 | 6,651 |
| Total value in rupees | 6,03,964 | 5,53,766 |
| Total of all kinds of lac: | | |
| Quantity .. .. | 2,08,222 | 2,06,564 |
| Value in rupees .. | 4,79,60,134 | 4,62,24,091 |

† One quintal = 100 Kg. = 2·679 maunds.

Lac has made significant contributions to the development of art and industry.

Shellac is consumed chiefly by five industries.

The gramophone industry consumes about 11 to 13 thousand tons.

The varnishes and paint industry absorbs something like 4 to 6 thousand tons.

The total demand from the electrical industry is estimated at 3,000 tons as against 6,000 tons in pre-war years.

Nearly 3,000 tons are used in the hat industry as a stiffening material.

The manufacture of sealing wax requires about 1,500 tons.

For the promotion of the improvement of methods of cultivation and manufacture of lac in India the Indian Lac Association for Research was formed by traders in Calcutta in 1921 and the Government found the funds by levying a cess on all exports of lac other than refuse lac at annas four per maund and for refuse lac annas two per maund. This association set up the Indian Lac Research Institute at Namkum (Ranchi).

At the suggestion of the Royal Commission of Agriculture in 1927 this association was succeeded by the Indian Lac Cess Committee which was established under the Lac Cess Act of 1930 "for the improvement and development of the cultivation, manufacture and marketing of Indian lac" under the control of the Central Ministry of Food and Agriculture. By this Act the cess was raised to annas seven and annas five respectively. With effect from April 1948 this cess was doubled. In order to associate the members of Parliament with the Committee and also to provide adequate representation to all the lac growing States the Indian Lac Cess Act has recently been amended.

An Export Promotion Council for shellac has also been formed under the Central Ministry of Commerce to promote exports of shellac.

At the suggestion of the Bihar Shellac Enquiry Committee and the Indian Lac Cess Committee the Government of India banned future trading in shellac and seedlac.

## RESEARCH AND DEVELOPMENT

Nucleus Broodlac Farms which had been set up continued to supply broodlac which, along with that purchased was used for supply to various State Governments and other agencies for extension of lac cultivation. In pursuance of the decision of the working group on the Fourth Five Year Plan, emphasis is being shifted to extend cultivation of lac of the improved variety, namely, of the Kusumi and Meghania varieties.

Service trials of the shellac *etch primer* in the railways and road transports have been completed and reports of satisfactory performance received from the Chief Mechanical Engineer, S.E. Rly and Works Manager, Maharashtra State Road Transport Corporation, Poona. The commercial manufacturers are continuing its production and supply on a large scale.

In the meanwhile a heat and water proof French polish has been developed by combining shellac and synthetic resins. A water composition of baking type has also been developed which holds particular promise for use in tin plate lacquers.

As a price support policy, a Processing Unit has been set up at the Indian Lac Research Institute to process sticklac into seedlac purchased by the co-operative organizations for sale to the State Trading Corporation.

# SUGAR INDUSTRY

THE growth of the Indian Sugar Industry is attributable to the Tariff protection given to it by the Government in 1932. The industry showed itself markedly responsive to economic stimuli and in between the period 1931-32 to 1936-37 over 100 new mills were established bringing the total number of factories in operation to 137. In 1936-37 the mills produced over 11 lakh tonnes. Only a small quantity of sugar was imported, about 24,000 tonnes compared with as much as 9,40,000 tonnes earlier (1929). India was virtually self-sufficient in sugar and has remained so ever since. By virtue of its rapid development, the sugar industry is today ranked as the second largest industry in the country next only to textiles. It provides employment to 2,00,000 skilled and unskilled workers and about 3,600 university educated men, and caters to the sugar needs of the vast populace about 439·2 million. The total earnings of workers and benefits are about Rs. 24 crores. Besides, the industry supports another 20 million cultivators and their families who derive about Rs. 140 crores as payment for cane. The industry's contribution to the national exchequer in levies was about Rs. 66 crores in 1963-64.

The increase in sugar production during the First and Second Five Year Plans, 1951-52 to 1960-61, was very remarkable. The initial target of 15 lakh tonnes fixed for the First Five Year Plan was achieved in the very first year of the Plan and even the revised target of 18 lakh tonnes was exceeded in 1955-56 being 18·62 lakh tonnes. The success achieved during the Second Plan was even more marked. Against a production target of 22·5 lakh tonnes the output achieved in 1960-61 *i.e.* the last year of the Plan was the all time record of 30·28 lakh tonnes. In consideration of this achievement of the industry the Third Plan target initially fixed at 30 lakh tonnes was revised to 35 lakh tonnes.

Thus at the beginning of the Third Five Year Plan, the above-mentioned record output instead of leading to complacency created unprecedented storage and financial problems for the mills because the off-take for internal consumption stagnated around 21·26 lakh tons resulting in the carry forward stocks of 11·50 lakh tonnes. The Government conscious of its responsibilities imposed a general 10 per cent cut on production by factories in 1961-62, and alongside took steps to stimulate internal consumption by doing away with the stifling controls on movement and price of released sugar. The Government were successful in bridging the wide gap between supply and demand to some extent. As a corollary to Government's policy, while production was pegged down to 27·30 lakh tonnes, off-take for internal consumption showed an encouraging upward trend. Within the course of one year consumption rose by about 4·5 lakh tonnes, *i.e.* from about 21·26 lakh tonnes in 1960-61 to 25·84. lakh tonnes in 1961-62.

The overall reduction in the carry forward stocks was only marginal in so far as about 10 lakh tonnes were brought forward in the 1962-63 season. However, the consumption and export trends revealed the shape of things to come. It became apparent that the Industry could safely look forward to a total off-take (internal consumption plus exports) of about 31 lakh tonnes. There was therefore the urgent need to increase production and in realisation of this need the Government lifted the 10 per cent cut imposed on production by factories. The Industry was therefore once again free to crush to its capacity.

However, belying all expectations sugar production instead of registering an increase in 1962-63 recorded a precipitous fall and amounted to only 21·60 lakh tonnes. This shortfall has been brought about by unforeseen and uncontrollable circumstances like large-scale floods in some areas and droughts in others which severely damaged the cane crop. The crop failure in the 1962-63 season brought in its wake large-scale diversion of available cane to alternative user namely gur and khandsari. Consequently factories were starved of cane supplies, with obvious results. This decline was notwithstanding the fact that the total number of factories working in 1962-63 was 185 against 179 in 1961-62.

As early as March 1963 the trends revealed that production would fall since 124 mills out of a total of 185 had stopped crushing operations. The industry apprehending that prices might rise due to the shortfall in output as also due to the flux in the national economy created by the Chinese aggression, came forward with voluntary measures to ensure equitable distribution of available sugar supplies amongst consumers. Voluntary ceilings were imposed on the ex-factory prices. The Indian Sugar Mills Association, a representative body of sugar mills in India had also devised a scheme for distribution of sugar through fair price shops. Or in other words there was the need to impose some sort of regulations in so far as against supply of about 31·8 lakh tonnes available, the off-take for internal consumption & exports was placed at 32·0 lakh tonnes. The Government instead of allowing the voluntary regulation scheme of the industry to work, imposed controls on sugar. Exercising the powers conferred by the Defence of India Rules the Government promulgated the Sugar (Control) Order 1963 on the 17th of April, 1963.

The season 1963-64 started with a carry over stock of only 1·50 lakh tonnes. The controls imposed during the 1962-63 season were continued during the season. Realising the need to increase production, the Government announced rebate in excise duty, for the earlier part of the season, so as to enable them to start crushing earlier than usual. The Government fixed a sugar production target of 33 lakh tonnes for the season. However, the production amounted to only 25·26 lakh tonnes. The internal consumption was pegged down to about 22·98 lakh tonnes through a mechanism of restricted releases. In fact, the Government had to cut the State's quota by about five per cent, so as to bring down the total internal consumption. The following figures give the production and consumption trends from 1954-55 to 1963-64 (Figures in lakh tonnes for production and consumption respectively within brackets): 1954-55 (16·06; 17·50); 1955-56 (18·92; 19·71); 1956-57 (20·57; 20·14); 1957-58 (20·09; 20·74); 1958-59 (19·49; 21·13); 1959-60 (24·60; 20·52;); 1960-61 (30·28; 21·26); 1961-62 (27·30; 25·84); 1962-63 (21·60; 26·50); 1963-64 (25·62; 22·98).

Under the sugar (Control) Order 1963, the ex-factory prices were notified for the different regions and sub-regions. The ex-factory prices initially fixed for 1963-64 season were revised in the latter part of the season during May 1964. For the new season 1964-65, the ex-factory prices were announced in November, 1964. The ex-factory prices of 1963-64 season, as announced on 22nd May 1964 and those fixed for 1964-65 season in November 1964 are given below :—

| *Region* | Price per quintal as announced in May 1964 | New ex-factory price per quintal as announced in November 1964 |
|---|---|---|
| | Rs. | Rs. |
| East U.P. | 120·25 | 118·75 |
| West U.P. | | |
| Part A. | 131·00 | 129·25 |
| Part B. | 123·00 | 121·25 |
| Part C. | 120·50 | 118·75 |
| Part D. | 113·25 | 116·00 |
| North Bihar | 120·00 | 118·75 |
| South Bihar | 134·00 | 129·25 |
| Andhra Pradesh | 118·00 | 118·75 |
| Punjab | 132·50 | 129·25 |
| West Bengal | 119·00 | 118·75 |
| Assam | 127·00 | 126·00 |
| Orissa | 114·00 | 123·00 |
| Rajasthan | 138·00 | 129·25 |
| Madhya Pradeah | 124·00 | 123·00 |
| Maharashtra | 116·00 | 116·00 |
| Gujarat | 116·00 | 118·75 |
| Madras | | |
| Part A | 116·00 | 123·00 |
| Part B | 119·50 | |
| Mysore | 116·00 | 116·00 |
| Kerala | 116·00 | 123·00 |
| Pondicherry | 116·00 | 123·00 |

## 1964-65 SEASON

There was a marginal increase of carryover stocks in the 1964-65 season, the quantity being about 1·57 lakh tonnes, against about 1·50 lakh tonnes in the preceding season. This carry over stock was insufficient for all intents and purposes and there was the urgent need to maximise production. Internal consumption, restricted as it is, by the statutory controls in force, can be estimated at about 25 lakh tonnes. Commitments made for export total to about 2·50 lakh tonnes. India has succeeded in becoming a member of the Commonwealth Sugar Agreement and has obtained a negotiated price quota of 25,000 long tons, the price being £46-11-6 per long ton. Other commitments made included export of 50,000 tonnes to U.K., 50,000 tonnes to Canada, 1,00,164 short tons to U.S.A. and 20,000 tonnes to Malaya. The offtake for both internal consumption and export can therefore be placed at about 27·50 lakh tonnes. Providing for a carryover of about 4 lakh tonnes, the requirements total to about 31·50 lakh tonnes. Production in the 1964-65 season has therefore to be stepped up to about 30 lakh tonnes. In order to maximise sugar production, the Government of India have announced 50% rebate in basic excise duty for excess production achieved by the mills during the period October-November 1964 as compared to their production achieved during the corresponding period in 1962, so as to enable them to start crushing early, when the recovery of sugar is usually low. Further, for the excess production achieved by the mills during the period January to June 1965, as compared to their production during the corresponding period in 1964 excise duty rebate at varying rates have been granted. The mills are granted 20 per cent rebate in the basic excise on the first 10

per cent of such excess production, 40 per cent rebate on the next 100 per cent of such excess production and 50 per cent rebate on the balance of such excess production.

The cane crop during the season 1964-65 was good and adequate cane supplies were generally forthcoming to the mills, excepting in western Uttar Pradesh, where the problem of cane diversion to power crushers was acutely felt during the season. Due to the high price of gur and khandsari, the cane growers were fascinated to supply cane to these alternate users of cane, as a result of which the sugar factories in the region were starved of cane. In some of the factory areas in western Uttar Pradesh, the cane growers, demanding higher prices for their produce, refused to supply cane to the sugar mills and went on strike. In fact some of the sugar factories would have to close down for the season very much earlier than usual. The cane price for the season for All India was fixed at Rs. 2 per maund linked to a recovery of 10·4 per cent with a provision for an increase in its prices by 1·5 paise per every 0·1 per cent increase in recovery.

In spite of heavy diversion of cane to gur and khandsari in Western Uttar Pradesh, the sugar production in 1964-65 season reached a record level. As on July 1965, production stood at 31·35 lakh tonnes.

The total production of sugar during the first six months of the 1964-55 season was 29,65,000 tonnes against 24,48,000 tonnes during the corresponding period last season, according to the Indian Sugar Mills' Association.

Total despatches during the first six months in 1964-65 were 12,89,000 tonnes (including 1,45,000 tonnes despatched for exports) against 12,97,000 tonnes (including 1,38,000 tonnes despatched for exports) in the same period last season.

The total closing stock with factories on April 30 was 18,32,000 tonnes against 13,06,000 tonnes on the same date last season.

### Cane Production

The principal raw material is sugarcane. The total cane crushed in 1963-64 was about 25·63 million tonnes for a production of about 25·62 lakh tonnes of sugar. Approximately, 30 per cent of cane is consumed by sugar factories. Balance goes to production of gur and khandsari and for chewing and other purposes.

The following table gives the area under cane and the sugarcane production for the last few years :

| | Acre under sugarcane (000 acres) | Total output of sugarcane (000 tonnes) |
|---|---|---|
| 1958-59 .. .. | 4,836 | 72,050 |
| 1959-60 .. .. | 5,220 | 76,404 |
| 1960-61 .. .. | 5,789 | 1,04,122 |
| 1961-62 .. .. | 5,988 | 98,276 |
| 1962-63 .. .. | 5,635 | 92,978 |
| 1963-64 .. .. | 5,471 | 1,00,001 |

The first estimate of acreage for 1964-65 is 55.92,000.

### Sugarcane Price

From 1962-63 season the cane price has been linked with recovery of sugar obtained therefrom, replacing the irrigational and outmoded method of paying cane price by weight irrespective of its sugar content. This system of linking the cane price was continued in 1963-64 season and was adopted in the 1964-65 season also.

The ultimate objective of this scheme is to pay cane price to indidvidual growers on the basis of the quality of their cane but because of the large number of growers supplying cane to any individual factory as also due to certain other inherent practical difficulties, this objective could be achieved only in a phased manner. Cane price presently paid on collective basis will be extended to village and group levels, the ultimate objective being to extend it to individual growers. In fact some factories in the South successfully paid cane price to individual growers on the basis of the quality of cane supplied by them.

### Sugar Exports

A welcome feature in the export front was the production of raw sugar for exports. Having exported 1·47 lakh tonnes in 1957, 83,058 tonnes during 1958-60, 2·68 lakh tonnes in 1961 and 3·73 lakh tonnes in 1962, earning in the process Rs. 11·89 crores in 1957, Rs. 4·06 crores in 1958-60, Rs. 13 crores in 1961 and Rs. 18 crores in 1962 and finding that market for white sugar was shrinking for the first time in the history of the sugar industry, raw sugar was produced. The maiden attempt proved very successful and 2·63 lakh tonnes of raw sugar was produced in 1962-63. In the next season 1963-64, the total raw sugar produced amounted to 2·42 lakh tonnes. The State-wise break-up of raw sugar production in 1963-64 in metric tons is as follows:

Andhra Pradesh 42,640; Bihar 1,102; Uttar Pradesh 91,513 and Maharashtra 1,06,881.

In 1963 and 1964 India exported 4·78 lakh tonnes and 2·32 lakh tonnes of sugar respectively. The respective foreign exchange earnings were Rs. 32·25 crores and Rs. 19·07 crores.

### Fourth Plan

The Development Council for Sugar Industry has recommended for a production target of 45 lakh tonnes (40 lakh tonnes for internal consumption and 5 lakh tonnes for exports) by the end of the Fourth Five Year Plan. For this purpose, on the one hand, additional capacity will have to be licensed and on the other, adequate cane supplies would have to be ensured to the sugar mills.

The licensed capacity of the sugar industry has risen from 16·4 lakh tonnes per annum at the beginning of the First Plan to 33·6 lakh tonnes per annum in 1962-63. As against this, the effective capacity at the end of the 1964-65 season is estimated around 32 lakh tonnes. Recently the Government have issued letters of intents to about 62 factories, for expansion of their capacities by 3·77 lakh tonnes per annum, out of the 108 applications pending with the Government. The Screening Committee appointed by the Government are considering the remaining applications for expansion of existing units and another 121 applications for setting up new factories.

Another Committee appointed to make on the spot enquiries regarding uneconomic units, under the chairmanship of Shri S. N. Gundu Rao is expected to submit its report shortly to the Government.

The Development Council for sugar industry and also the productivity team which visited a number of foreign countries to study the productivity in sugar factories in those countries, have recommended that the optimum crushing capacity of a sugar mill should be 2,000 tonnes of cane per day. As against this, the average capacity of the sugar mills in India is only about 1,150 tonnes. Hence, in order to bring them to optimum level, these mills should be allowed to expand freely upto 2,000 tonnes of cane per day, depending upon the cane potential of the area. If this policy is adhered to, the entire additional capacity required to fill the gap between the existing capacity and the capacity required to attain the Fourth Plan target can be more than met through substantial expansion. The cost of bringing into operation the additional capacity in the existing units by expansion is only about 50 per cent, as compared to the cost of bringing into existence the additional capacity by way of erecting new units. Further, the time required to bring into operation such additional capacity will also be very much less.

Expansion of existing units is also in the interest of cane growers. The intensive cane development schemes initiated in the State of Uttar Pradesh a couple of years ago, on the recommendations of the High Power Committee, has started yielding results. The cane yield per acre in the intensive development blocks has increased to 473 maunds from 425 maunds. Almost all the sugar factories have joined the scheme of intensive cane development, under which the expenses are to be borne by the Central Government, State Government, the sugar factories and the cane growers in the ratio of ¼ : ¼ : ¼ : ¼. The development scheme, initially started to cover 4,000 acres, is gradually extented to more and more acres. A number of sugar factories and cane growers have expressed their willingness to bring a second block of another 4,000 acres under the intensive development scheme. Similar schemes are also envisaged in the States of Bihar and the Punjab. In order to crush the increasing quantities of cane that will be available in their respective areas, the factories concerned should have additional capacity, as otherwise the cane growers will be confronted with the acute problem of marketing their produce.

Today our sugar finds its way to the four corners of the world. Country-wise break up of exports for some years is given below :—

| Destination | 1962 | 1963 |
|---|---|---|
| Malaya .. .. | 48,510 | 65,071 |
| Singapore .. .. | 8,256 | 11,393 |
| Burma .. .. | .. | .. |
| Ceylon .. .. | .. | 13,000 |
| Vietnam .. .. | .. | 24,764 |
| Cambodia .. .. | .. | .. |
| China (Mainland) | .. | .. |
| Aden .. .. | 6,082 | 4,097 |
| Iraq .. .. | 4,401 | .. |
| Sudan .. .. | .. | .. |
| Saudi Arabia .. | .. | .. |
| Qatar .. .. | 950 | 100 |
| Yemen .. .. | .. | .. |
| Oman .. .. | 1,601 | 683 |
| Bahrain .. .. | 200 | .. |
| Somaliland .. | 3,950 | .. |
| East Africa (excluding Zanzibar) .. | 350 | .. |
| Iran .. .. | .. | 100 |
| Lebanon .. .. | .. | 240 |
| Bali .. .. .. | .. | 20 |
| Zanzibar .. .. | 1,473 | .. |
| Nyasaland .. .. | .. | .. |
| Seychelles .. .. | 299 | .. |
| U. K. .. .. | .. | 30,139 |
| U. S. A. .. .. | 127,576 | 105,209 |
| Canada .. .. | 130,967 | 83,185 |
| Hongkong .. .. | 12,732 | 5,836 |
| Mozambique .. | 150 | .. |
| Pakistan .. .. | 15,998 | 4,677 |
| Okhinow .. .. | 500 | .. |
| Netherlands .. | 4,297 | 10,450 |
| Tunisia .. .. | 16 | .. |
| Morocco .. .. | 16 | .. |
| Europe .. .. | .. | 4,826 |
| Japan .. .. | .. | 93,855 |
| Syria .. .. | .. | 20,977 |
| Maldive .. .. | .. | 340 |
| | 373,374 | 478,232 |

### SUGAR MACHINERY

Two consortia of manufacturers, the first consisting of Messrs. Walchandnagar Industries, TEXMACO and Indian Sugar and General Engineering Corporation, and the second consisting of K.C.P. Ltd., Binny & Co., and New India Development Corporation, have been formed to manufacture complete plants in India.

The Third Plan has envisaged a target of 14 complete plants valuing Rs. 10 crores. 85 per cent of the plants will have indigeneous content.

The production of sugar machinery in the country has been gradually increasing and the value of such machinery was as follows : 1955 : Rs. 19 lakhs, 1956 : Rs 32 lakhs, 1957 : Rs. 162 lakhs, 1958 : Rs. 200 lakhs, 1959 : Rs. 320 lakhs, 1960 : Rs. 350 lakhs (est.).

By the time the existing manufacturers are expected to achieve full production, the industry will be in a position to supply every year 12 complete sugar plants of the capacity of 1,000 to 1,250 tonnes and the equivalent of about nine complete plants by way of expansion and replacement requirements of the sugar industry. This will meet the needs of the country except in regard to turbo-alternators and mill engines.

## CO-OPERATIVE SECTOR

The position of production of sugar of the co-operative sugar factories is compared in the following table with the total production and the production of the private sector :

(From November 1 to April 15) (in lakh metric tons)

| | 1964-65 | 1963-64 | Increase | |
|---|---|---|---|---|
| | | | Quantity | Per cent |
| Co-operative Sector .. .. | 6·78 | 5·46 | 1·32 | 24·01 |
| Private Sector .. .. .. | 21·45 | 18·82 | 2·63 | 14·00 |
| TOTAL .. | 28·25 | 24·28 | 3·95 | 16·02 |

The following table shows the position of Co-operative Sugar Factories as on 31st Dec. 1964:

(Rs. in lakhs)

| Factory | No. of Members | Total Amount of share capital | State Govt. contribution to share capital | I.F.C. loan sanctioned |
|---|---|---|---|---|
| *Andhra Pradesh (Total) :* .. .. | 40,314 | 265·93 | 125·00 | 435·00 |
| 1. Amdalavalasa .. .. .. | 6,067 | 51·52 | 25·00 | 90·00 |
| 2. Anakapalle .. .. .. | 4,488 | 11·00 | .. | .. |
| 3. Chittoor .. .. .. | 6,074 | 46·22 | 25·00 | 75·00 |
| 4. Chodavaram .. .. .. | 6,560 | 44·55 | 25·00 | 90·00 |
| 5. Etikoppaka .. .. .. | 2,458 | 15·00 | .. | .. |
| 6. Nizamabad .. .. .. | 4,904 | 37·42 | 25·00 | 90·00 |
| 7. Palakol .. .. .. | 3,930 | 39·80 | 25·00 | 90·00 |
| 8. Thandava .. .. .. | 2,144 | 14·34 | .. | .. |
| 9. Bheemasinghi .. .. | 3,689 | 6·08 | .. | .. |
| *Assam (Total) :* | 7,494 | 46·28 | 29·00 | 60·00 |
| 10. Assam .. .. .. .. | 7,494 | 46·28 | 29·00 | 60·00 |
| *Bihar (Total) :* | 4,102 | 25·47 | 15·00 | .. |
| 11. Purnea .. .. .. .. | 4,102 | 25·47 | 15·00 | .. |
| *Gujarat (Total) :* .. .. .. | 7,048 | 144·58 | 55·00 | 142·50 |
| 12. Bardoli .. .. .. .. | 2,348 | 49·38 | 20·00 | 47·50 |
| 13. Kodinar .. .. | 2,583 | 64·67 | 20·00 | 60·00 |
| 14. Gandevi .. .. .. | 2,117 | 30·53 | 15·00 | 35·00 |
| *Kerala (Total) :* .. .. .. .. | 4,717 | 79·20 | 50·00 | 180·00 |
| 15. Chittur .. .. .. | 1,668 | 38·58 | 25·00 | 90·00 |
| 16. Mannam .. .. .. | 3,049 | 40·62 | 25·00 | 90·00 |
| *Madras (Total) :* .. .. .. .. | 18,424 | 289·53 | 127·50 | 443·00 |
| 17. Amravathi .. .. .. | 2,368 | 44·12 | 20·00 | 55·00 |
| 18. Kallakurichi .. .. .. | 4,445 | 46·16 | 22·50 | 90·00 |
| 19. Madurantakam .. .. | 2,702 | 56·11 | 20·00 | 63·00 |
| 20. National .. .. .. | 3,191 | 41·58 | 20·00 | 90·00 |
| 21. North Arcot .. .. .. | 3,362 | 50·00 | 20·00 | 55·00 |
| 22. Salem .. .. .. .. | 2,355 | 51·50 | 25·00 | 90·00 |
| *Maharashtra (Total) :* | 48,109 | 846·03 | 220·00 | 1,458·50 |
| 23. Ashok .. .. .. .. | 1,561 | 47·46 | 10·00 | 52·50 |
| 24. Bhogawati .. .. .. | 2,586 | 40·19 | 10·00 | 65·00 |
| 25. Sansar (Chhatrapati) .. .. | 2,184 | 39·53 | 10·00 | 99·00 |
| 26. Dudhganga .. .. .. | 2,763 | 36·45 | 15·00 | 90·00 |
| 27. Ganesh .. .. .. .. | 2,507 | 47·88 | 10·00 | 67·50 |
| 28. Kopargaon .. .. .. | 1,107 | 39·86 | .. | 40·00 |
| 29. Girna .. .. .. .. | 1,495 | 36·29 | 10·00 | 65·00 |
| 30. Krishna .. .. .. | 3,966 | 58·60 | 20·00 | 95·00 |
| 31. Kumbhi Kesari .. .. | 3,288 | 44·78 | 15·00 | 90·00 |
| 32. Malegaon .. .. .. | 1,898 | 36·68 | 10·00 | 67·50 |
| 33. Niphad .. .. .. .. | 2,547 | 33·51 | 15·00 | 90·00 |
| 34. Panchaganga .. .. .. | 2,711 | 38·35 | 10·00 | 65·00 |
| 35. Pravaranagar .. .. .. | 2,495 | 42·55 | .. | 56·00 |
| 36. Rahuri .. .. .. .. | 2,383 | 54·88 | 10·00 | 43·00 |
| 37. Sangli .. .. .. .. | 3,399 | 45·25 | 10·00 | 65·00 |
| 38. Shriram (Phaltan) .. .. | 2,350 | 53·23 | 10·00 | 72·50 |
| 39. Someshwar .. .. .. | 1,912 | 35·47 | 15·00 | 90·00 |
| 40. Takli (Sanjivani) .. .. | 2,895 | 43·43 | 15·00 | 90·00 |
| 41. Warna .. .. .. .. | 2,527 | 39·90 | 10·00 | 65·00 |
| 42. Yashwant .. .. .. | 1,535 | 31·74 | 15·00 | 90·00 |
| *Mysore (Total) :* | 18,053 | 137·46 | 67·50 | 275·00 |
| 43. Bellary .. .. .. .. | 6,482 | 38·04 | 16·50 | 60·00 |
| 44. Sankeshwar .. .. .. | 2,889 | 45·14 | 25·00 | 75·00 |
| 45. Pandavapura .. .. .. | 7,051 | 34.15 | 15·00 | 50·00 |
| 46. Gouribidanur .. .. .. | 1,631 | 20·13 | 11·00 | 90·00 |
| *Orissa (Total) :* | 2,617 | 35·68 | 25·00 | 85·00 |
| 47. Aska .. .. .. | 2,317 | 35·68 | 25·00 | 85·00 |
| *Punjab (Total) :* | 76,017 | 291·80 | 115·00 | 331·00 |
| 48. Batala .. .. .. .. | 14,196 | 46·68 | 25·00 | 90·00 |
| 49. Doaba .. .. .. .. | 6,535 | 21·59 | 5·00 | .. |
| 50. Panipat .. .. .. .. | 14,011 | 50·97 | 20·00 | 51·00 |
| 51. Haryana (Rohtak) .. .. | 12,052 | 62·50 | 20·00 | 55·00 |
| 52. Janta (Bhogpur) .. .. | 16,587 | 61·17 | 20·00 | 45·00 |
| 53. Morinda .. .. .. | 12,636 | 48·89 | 25·00 | 90·00 |
| *Uttar Pradesh (Total) :* | 12,607 | 204·03 | 84·99 | 290·00 |
| 54. Baghpat .. .. .. | 4,676 | 41·87 | 19·99 | 60·00 |
| 55. Bazpur .. .. .. .. | 3,303 | 76·13 | 20·00 | 75·00 |
| 56. Sarsawa .. .. .. .. | 3,344 | 37·10 | 20·00 | 65·00 |
| 57. Kisan (Majhola) .. .. | 1,234 | 48·93 | 25·00 | 90·00 |
| Grand Total .. .. .. .. | 2,39,501 | 2,385·99 | 913·99 | 3,699·50 |

The total quantity of sugar produced by co-operative sugar factories during 1963-64 was 6·00 lakh metric tons. Total cane crushed during the 1963-64 season was 51·21 lakh metric tons.

The co-operative sugar factories in the country produced 7·45* lakh metric tonnes of sugar till June 30, 1965, as against 5·70† lakh metric tonnes produced by them during the corresponding period last year.

Out of the 57 co-operative sugar factories licensed so far, 50 factories started their crushing operations during 1964-65, as against 48 factories in 1963-64.

The co-operative sugar factories are manufacturing raw sugar this season also. Nearly 1·34 lakh metric tons of raw sugar has been manufactured upto 31st March 1965 as against 1·07 lakh metric tons last year upto the same date.

It would be seen that the production of co-operative sugar factories this year upto 15th April 1965 shows an increase of about 24·1 per cent over that of last year for the same period, while the corresponding increase in the private sector is about 14·00 per cent and for the industry as a whole is 16·2 per cent.

In a co-operative unit the shareholders are the sugarcane growers whose production of cane is expected to be marketed by the cooperative after processing it into sugar. The only exceptions to this rule are the shares issued to co-operative societies within the area of operation of a sugar co-operative, and the shares issued to the State Government in question. The State Government's share capital contribution is in the nature of an initial assistance to make up the funds required for setting up the plant and particularly to enable the co-operative to borrow long-term loans for the same purpose from institutions like the Industrial Finance Corporation of India. The participation of the co-operative societies in the area of operation is in the nature of a sympathetic gesture. The shares issued to the State Government are redeemable over a period of time. Thus, essentially, the shareholders of a sugar co-operative are the producers of cane themselves.

To a private sector factory, sugarcane is a raw material which it has to purchase. In a sugar co-operative there is no purchase of sugarcane from members. The co-operative processes the cane of members. What is left over from the total realisations from its production after meeting all the costs, is the amount available for distribution among the growers. From the same amount, other items such as contributions to reserves, dividend on share capital and bonus to staff have to be accommodated.

During the 1963-64 season 48 cooperative sugar-factories were in production. They crushed about 54·12 lakh metric tons of sugarcane. Nearly 90 per cent of the total crush was supplied by the members and only about 10 per cent of sugarcane was drawn from non-members. The value of cane crushed amounted to Rs. 34·34 crores.

The co-operatives are run by boards of directors. The day to day affairs are conducted by a Managing Director General Manager/ Business Manager who is a full-time employee either directly employed or an officer of the Government on deputation and who carries on the business of the society in accordance with the society's bye-laws which lay down the matters in which the Managing Director is competent to act under his own powers and the matters in which he has to take the prior sanction of the board of directors or the executive committee or the other subcommittees, as the case may be.

A National Federation of Cooperative Sugar Factories was set up in December 1960 with a view to coordinating and facilitating the working of cooperative sugar factories, State and Zonal Federations and assisting in the promotion of organisation of new cooperative sugar

* Excluding 0·23 lakh metric tonnes produced prior to Nov. 1, 1964. † Excluding 0·24 lakh metric tonnes produced prior to Nov. 1, 1963.

factories. In pursuance of its objects, the federation provides (1) technical advice and other assistance in the selection, purchase, installation and maintenance of plant, machinery and other equipment, (*ii*) advises and assists in the selection of technical personnel, (*iii*) suggests measures for increasing the operational efficiency of co-operative sugar factories, (*iv*) assists in standardising the accounting and costing methods and practices, securing necessary financial accommodation from the State and Central Government Industrial Finance Corporation, State Bank of India, State and Central Cooperative Banks, etc. The Federation advises on (*i*) Sale of sugar produced by cooperative sugar factories, (*ii*) purchase of chemicals, gunnies, spare parts, fertilisers, fuel, iron and steel and other requirements, (*iii*) sale or utilisation of bye-products of cooperative sugar factories. The federation also supplies information relating to market position and sugar industry. It also arranges for holding periodical seminars and regional conferences of the cooperative sugar factories.

Total sugarcane crushed and sugar produced respectively in metric tons during the 1963-64 season in the States: *Andhra Pradesh :* Amadalavalsa 1,59,867·8 ; 14202·80 ; Anakapallee 71,520·38 ; 6,895·1 ; Chittoor 1,26,007·38; 13,306·0 ; Chodavaram 1,17,959·07 ; 10,589·1 ; Etikoppaka 1,27,114·5 ; 11,652·2 ; Palakol 18,530·43 ; 1,466·6 ; Tuni 41,320·48 ; 3,522·85 ; *Assam :* Barubamungaon 47,732·66 ; 4,361·2 ; *Gujarat :* Bardoli 1,42,087·4 ; 15,163·7 ; Gandevi 32,794·86 ; 3,177·2 ; Kodinar 2,07,882·16 ; 23,422·6 ; *Kerala :* Mannam 3,313·85 ; 151·4 ; *Madras :* Amaravathi 17,848·14 ; 1,277·6 ; Ambur 1,32,310·84 ; 13,119·5 ; Madurantakam 1,05,535·66 ; 9,410·9 ; Salem 20,421·13 ; 1,412·4 ; *Mysore :* Kampli 1,52,005·95 ; 15,546·6 ; Pandavapura 1,04,680·01; 12,664·9; Sankeshwar 1,27,570·68 ; 16,181·8; *Maharashtra:* Ashoknagar 1,89,028·0 ; 22,963·0 ; Bhogawati 1,69,173·41 ; 19,499·8 ; Dudhganga 1,11,829·97 ; 13,437·0 ; Ganeshnagar 1,54,522·09 ; 18,644·0 ; Girna 96,923·76 ; 11,761·0; Karad 1,76,861·26 ; 23,606·9 ; Kumbhi-Kasari 56,253·06 ; 6,258·8 ; Kopargaon 1,73,667·3 ; 20,645·8 ; Malegaon 1,72,503·43 ; 21,622·9 ; Niphad 3,441·31 ; 223·01 ; Panchganga 1,94,196·63 ; 23,470·2 ; Pravaranagar 1,97,129·66 ; 23,406·0 ; Rahuri 1,82,207·01 ; 22,129·1 ; Sangli 1,60,996·86 ; 20,033·1 ; Sanjivani 72,381·91 ; 8,659·0 ; Sansar 1,18,344·36 ; 13,924·0 ; Shriram (Phaltan) 1,61,732·91 ; 19,591·8 ; Someshwar 78,635·40 ; 9,862·4 ; Warananagar 1,61,516·75 ; 21,643·6 ; Yeshwant 1,51,682·95 ; 17,597·5 ; *Orissa :* Aska 28,503·79 ; 2,111·9 ; *Punjab :* Bhogpur 68,177·04 ; 5,596·8 ; Batala 25.641·83 ; 1,983·8 ; Morinda 40,970·12 ; 3,554·6 ; Panipat 1,33,791·45 ; 11,385·7 ; Rohtak 1,23,341·04 ; 10,662·4 ; *Uttar Pradesh :* Bagpat 1,51,638·73 ; 12,839·5 ; Bazpur 1,97,857·54 ; 18,881·6 ; Sarsawa 1,02,977·64 ; 9,174·2 ; *All India Total :* 54,11,830·64 ; 5,92,670·15.

Besides processing of sugarcane, the cooperative sugar factories have all along been exploring the possibilities of reducing the cost of manufacture of sugar. In this, the idea of utilising effectively the bye-products of the industry *i.e.* Bagasse, Molasses and Press Mud etc. has been mooted out. A group of cooperative sugar factories have joined together forming a society for establishing paper plant for utilising Begassee. Three such societies have been formed and has already been issued for establishing a newsprint Plant in Sangli, Maharashtra State. Factories have combined together for establishing distilleries for utilising Molasses.

# TOBACCO INDUSTRY

INDIA is the third major producer of tobacco in the world, the other two being U.S.A. and China. Tobacco is also an important item in India's export trade.

The area under tobacco in 1963-64 was 396,600 hectares and the production was 336·3 million kilograms. There has been a decline of nearly 29·5 million lb. in the 1964 tobacco crop compared to the 1963 crop.

The more important tobacco growing States in India are Andhra Pradesh, Mysore, Madras, W. Bengal, U.P., Bihar, Gujarat and Maharashtra. Andhra Pradesh produced 152·4 mln. kgs. of tobacco, Gujarat 70·1 mln. kgs., Madras 27·4 mln. kgs. and Mysore 22·3 mln. kgs.

The tobacco plants are mainly of two varieties —*nicotiana rustica* and *nicotiana tabacum*. The first has a higher nicotine content than the second. By far the largest area is under *nicotiana tabacum* which is grown all over the country. Specific varieties in *nicotiana tabacum* species have been developed for cigarette, cigar and cheroot, bidi, hookah, chewing and snuff tobacco. The varieties developed in *nicotiana rustica* species are used for hookah, chewing and snuff only.

There are six main tobacco producing areas in India—the Guntur area in Andhra Pradesh, the Charotar area in Gujarat, the Nipani area in Mysore and Maharashtra, the southern Madras area, north Bihar and Bengal area and Uttar Pradesh and Punjab area.

The Guntur area comprises the districts of Guntur, Krishna, East and West Godavari, and the adjoining portions of Telangana. The variety grown is *nicotiana tabacum*.

The Charotar area in Gujarat covers Anand, Borsad, Petlad and Nadiad talukas of the Kaira District. Here also the chief variety is *nicotiana tabacum*.

The Nipani area is made up chiefly of the District of Belgaum in Mysore State and certain areas in Satara and Sangli and Kolhapur districts in Maharashtra State. Here both the species are grown though *nicotiana tabacum* predominates.

In Madras State the chief tobacco growing districts are Coimbatore and Madurai.

The north Bihar area covers the districts of Purnea, Muzzafarpur and Darbhanga, and the north Bengal area the districts of Cooch Behar, Jalpaiguri, Malda, Berhampore and Dinajpur. Here both the species are grown.

The Uttar Pradesh area comprises the districts of Farukhabad, Etah and Sitapur and the Punjab area comprises the districts of Jullundur and Ferozepore. Both the species are grown in these areas.

The development of tobacco cultivation, marketing and research is looked after by the Indian Central Tobacco Committee with headquarters in Madras. The Committee has a Tobacco Research Institute at Rajahmundry (Andhra Pradesh), a Cigar and Cheroot Tobacco Research Station at Vedasandur (via) Dindigul (Madras), a Hookah and Chewing Tobacco Research Station at Pusa (Bihar), a Wrapper and Hookah Tobacco Research Station at Dinhata (West Bengal) and a Cigarette Tobacco Research Sub-station at Guntur (Andhra Pradesh).

Another station for cigarette tobacco was started in February 1957 at Hunsur in Mysore State where soil and climate are different from those of the Guntur area where production of flue cured Virginia cigarette tobacco is mainly concentrated.

The Institute and the Research Stations have made some valuable recommendations on improvement in quality based on the research conducted and these have been freely and widely distributed in the form of leaflets in regional languages among tobacco cultivators for adoption. The tobacco growers, traders, etc. are kept informed of tobacco production, processing, marketing, trade notes, etc. through other publications of the Committee, viz. *Indian Tobacco* and *Tobacco Bulletin* in English, *Pogaku* in Telugu, *Tambaku* in Hindi and *Tamaku* in Gujarati.

The research activities undertaken under the Second Five Year Plan have been intensified and extended to the Third Plan. The Committee undertook detailed studies of the soil and climatic conditions of different areas in the different tobacco growing States in order to explore the possibilities of producing exportable types of tobacco in new areas with a view to stepping up their production for meeting the increased export demands. Exploratory trials conducted during the years 1962-63 and 1963-64 have indicated the Hosur area of Madras State and Thasara and Jabugam areas in Gujarat State to be suitable for growing f.c.v. tobacco.

There are 13 cigarette manufacturers.

Export of tobacco is allowed freely without any restrictions. There is no export duty on tobacco meant for export, but an agricultural produce cess of half per cent *ad valorem* is collected on all tobacco exported outside India. The excise duty collected on tobacco is refunded if the tobacco is exported to foreign countries.

Tobacco brings to the cultivators an annual income of Rs. 53 crores and contributed about Rs. 86·8 crores during 1963-64 by way of excise duty to the national exchequer. It earns a foreign exchange of Rs. 22·5 crores also.

### PRODUCTION OF TOBACCO (IN INDIA)

(Thousand Kilograms).

| State | 1961-62 | 1962-63 | 1963-64 |
|---|---|---|---|
| Andhra Pradesh .. | 131,070 | 150,576 | 152,407 |
| Gujarat .. | 84,332 | 96,525 | 70,107 |
| Madras .. | 29,465 | 28,449 | 27,483 |
| Mysore .. | 23,369 | 23,369 | 22,353 |
| Uttar Pradesh | 12,193 | 13,209 | 10,162 |
| West Bengal .. | 13,209 | 11,177 | 11,176 |
| Maharashtra | 15,241 | 10,161 | 10,161 |
| Bihar .. | 14,225 | 10,160 | 11,177 |
| Other States & Union Territories .. | 25,401 | 22,353 | 21,336 |
| Total India | 348,505 | 365,778 | 336,312 |

*Source :*—Directorate of Economics and Statistics, Ministry of Food and Agriculture, New Delhi.

### IMPORTS AND EXPORTS OF RAW TOBACCO (BY SEA AND AIR)

| | 1961-62 | | 1962-63 | | 1963-64 | |
|---|---|---|---|---|---|---|
| | Quantity in '000 Kg. | Value in '000 Rs. | Quantity in '000 Kg. | Value in '000 Rs. | Quantity in '000 Kg. | Value in '000 Rs. |
| Imports .. .. .. | 1,083 | 1,07,20 | 1,177 | 1,18,23 | 951 | 82,64 |
| Exports .. .. .. | 44,421 | 14,03,62 | 60,240 | 17,99,48 | 63,874 | 21,09,12 |

During the calendar year 1964, exports of raw tobacco were of the order of 71,740,679 kg. valued at Rs. 22,37,99,467, out of which Fluecured Virginia tobacco accounts for nearly 85 per cent in quantity and 90 per cent in value.

**EXPORTS OF RAW TOBACCO BY COUNTRY OF DESTINATION (BY SEA AND AIR)**

| Countries | 1961-62 | | 1962-63 | | 1963-64 | |
|---|---|---|---|---|---|---|
| | Quantity in '000 Kg. | Value in '000 Rs. | Quantity in '000 Kg. | Value in '000 Rs. | Quantity in '000 Kg. | Value in '000 Rs. |
| United Kingdom | 17,384 | 9,84,75 | 16,793 | 9,62,47 | 16,552 | 9,74,90 |
| U.S.S.R. | 5,821 | 1,09,77 | 17,003 | 3,31,77 | 19,192 | 4,86,35 |
| Aden | 3,839 | 51,22 | 2,957 | 35,15 | 3,741 | 49,63 |
| Netherlands | 1,839 | 25,55 | 1,694 | 29,48 | 1,775 | 35,11 |
| Belgium | 2,151 | 32,89 | 1,710 | 34,13 | 1,981 | 46,01 |
| Fr. West Africa | 1,770 | 10,31 | 715 | 4,83 | 555 | 5,32 |
| Egypt | 81 | 32 | 188 | 7,98 | — | — |
| Irish Republic | 21 | 36 | 18 | 43 | 35 | 1,73 |
| Hong Kong | 323 | 4,17 | 810 | 13,90 | 769 | 12,98 |

*Source:* Department of Commercial Intelligence & Statistics, Calcutta.

**PRODUCTION OF CIGARETTES**
(in crore pieces)

| 1961 | 1962 | 1963 |
|---|---|---|
| 4,647 | 4,095 | 4,074 |

*Source:* *Journal of Industry & Trade*, Ministry of Commerce.

# MINES AND MINERALS

By courtesy of Mineral Economics Division (Intelligence Section), Indian Bureau of Mines, Government of India.

THE development programmes for Industries and Minerals envisaged under the Third Plan will entail about Rs. 2,993 crores of investment, out of which new investments under mineral development (public and private sectors) will amount to Rs. 538 crores.

*Third Plan targets:* Coal 98·6 million tonnes and iron ore 30·48 million tonnes. The likely achievements are 89·88 million tonnes of coal and 25·40 million tonnes of iron ore.

India produced minerals worth Rs. 2,056 million during 1964, according to the Indian Bureau of Mines.

Coal was the leading commodity valued at Rs. 1,546 million which constitutes about 75 per cent of the all-India value of mineral production during 1964. Production of iron ore during 1964 was 14·88 million metric tons. The value of metallic minerals produced during the year was Rs. 267 million or 13 per cent of the total value of mineral production. The ferrous group of minerals contributed 9 per cent and the non-ferrous group 4 per cent.

Non-metallic minerals accounted for Rs. 243 million or 12 per cent of the value of mineral production during 1964.

The quantity index of mineral production (Base 1960=100) stood at 119·5 during 1964. This shows a decrease of 3·7 points in relation to the index of 123·2 during 1963.

Coal and non-metallic group of minerals were responsible for the fall in the index. Index for coal and non-metallic group of minerals declined by 5·6 and 5·1 points respectively.

State-wise analysis (excluding Goa):

Bihar continued to be the leading State and produced minerals valued at Rs. 792 million which was about 38·5 per cent of the total value of mineral production in India during 1964.

West Bengal and Madhya Pradesh followed with their shares at 22·2 per cent and 11·8 per cent respectively.

Next in the order of value were Andhra Pradesh (5·9 per cent), Orissa (5·6 per cent), Mysore (3·9 per cent), Maharashtra and Madras (3·2 per cent), Gujarat (2·7 per cent) and Rajasthan (1·5 per cent).

After coal, next in order of value were iron ore Rs. 109 million, limestone Rs. 93 million, salt Rs. 86 million, manganese ore Rs. 65 million, copper ore Rs. 24 million, gold Rs. 52 million and mica Rs. 21 million.

There are at present 26 collieries and one coke plant owned and managed by the Govt. of India. The production of coal in the public sector was 12·75 million tonnes in 1963 as against 10·96 million tonnes in the previous year. During Dec. 1964, 833 collieries were working with an average daily employment of 4,11,843 workers.

The mineral wealth of India, as at present known, though by no means inexhaustible, comprises an adequate range of useful products necessary for industrial development.

The reserves are ample in respect of minerals essential for basic industries—coal and iron—but the country is deficient in a fairly long list of vital minerals like ores of copper, tin, lead, zinc, nickel, cobalt and in sulphur and petroleum. Adequate reserves of an alternative source (pyrite deposits) of sulphur have been proved at Amjor, Bihar.

Coal, iron ore, manganese ore, ilmenite, kyanite and mica are produced in quantities of real importance to industry and other sections of economy.

Of these mica, manganese ore, kyanite and ilmenite are wholly or largely exported.

The position with regard to aluminium ore, refractories, abrasives, limestone, etc., may be considered as fairly adequate while in respect of titanium and thorium ores and of mica, the country has considerable reserves.

The value of mineral production during the first quarter ending March, 1965 was Rs. 56 crores compared to Rs. 53·3 crores in the corresponding period last year.

The total foreign exchange spent on the imports of metals and alloys into India increased from Rs. 919 million in January-August, 1963 to Rs. 1,065 million in January-August, 1964 due to the increase in the imports of both ferrous and non-ferrous metals.

India earned Rs. 701 million in foreign exchange during the first eleven months of 1964 through ores and mineral exports. This includes export from Goa also.

## POLICY

As part of the national policy to ensure efficient working of known mineral deposits, the Mines and Minerals (Regulation and Development) Act, 1948 was passed which is now superseded by the Mines and Minerals (Regulations and Development) Act, 1957, which came into force from June 1, 1958 and which deals exclusively with minerals other than petroleum and natural gas. The Act of 1948 deals only with petroleum and natural gas.

Under the 1957 Act, two rules have been framed namely the Minerals Conservation and Development Rules, 1958 (Section 18 of the Act) and the Mineral Concessions Rules, 1960 (Section 13 of the Act), which came into force from June 1, 1958 and November 26, 1960 respectively. These two rules repealed the entire rules framed under the 1948 Act namely the Minerals Conservation and Development Rules, 1955 and Mineral Concession Rules, 1949.

Provisions have also been made in the Mineral Concession Rules for training facilities for students of mining engineering and geology.

The Mining Leases (Modification of Terms) Rules, 1956, formed under Section 7 of the 1948 Act has been further amended in exercise of the power conferred by Sub-section (2) of Section 10 of the Mines and Minerals (R & D) Act, 1957.

In exercise of the powers conferred by Section 18 of the Mines and Minerals (Regulation and Development) Act, 1957 and in supersession of the Minerals Conservation and Development Rules, 1955, the Central Government made the Mineral Conservation and Development Rules, 1958, under which submissions of quarterly returns have been discontinued and mine owners are now required to submit monthly and annual returns.

In Oct. 1957 the Government of India decided that private parties were in future not to be granted mining leases without the approval of the Central Govt. for minerals listed in Schedule A of the Industrial Policy Resolution of 1956, which is normally reserved for the public sector.

The minerals included in the Schedule 'A' of the Resolution are coal and lignite, mineral oils, iron ore, manganese ore, chrome ore, gypsum, sulphur, gold, diamond, copper, lead, zinc, tin, molybdenum and wolfram.

Government of India has also framed rules for atomic energy minerals and other minerals used for the production or use of atomic energy or for research. This Act is known as The Atomic Energy Act, 1948.

The Metalliferrous Mines Regulation of 1926 has been repealed by the new regulation the Metalliferrous Mines Regulation, 1961 which came into force from March 11, 1961. The new regulation provides for better safety in mines and shall be made applicable to every mine of whatever description other than a coal or an oil mine.

The Government departments concerned are the National Mineral Development Corporation Ltd., which is responsible for the exploitation of minerals other than coal in the public sector, the Geological Survey of India conducts geological survey, the Indian Bureau of Mines which advises Government on policy, undertakes detailed proving works, research and inspection of mines and collects statistical data, and the Department of Atomic Energy which conducts research and sees to the development of atomic minerals and substances. There is a separate Govt. of India undertaking known as the National Coal Development Corporation for exploiting coal deposits under the public sector.

The Oil and Natural Gas Commission undertakes exploratory operations for oil throughout the country. Oil India Ltd. a joint company with Govt. of India and Assam Oil Company Ltd. was formed on 31st May 1961 to work, exploit and prove in the areas Nahorkatiya, Moran and Hoogrijan previously held by Assam Oil Co. and supply oil to the two refineries located at Nunmati in Assam and Barauni in Bihar.

The Indian Oil Corporation Ltd., a Govt. of India undertaking has been formed for the marketing and distribution of oil.

The Central Government have declared the following substances and all their respective components as prescribed substances under the Atomic Energy Act, 1948 :—Uranium minerals, thorium minerals, beryllium minerals, vanadium minerals, lithium minerals, radium, zirconium, graphite, deuterium, plutonium, neptunium and minerals containing the above metals and accessories, ingredients, such as uraniferous allanite, triplite, columbite and tantalite.

The Coal Board under the Ministry of Mines and Fuel looks after the development of collieries in the public sector and the distribution of coal to various consumers.

For the import and export of important minerals like iron ore, manganese, etc., there is now a Minerals and Metals Trading Corporation of India Ltd.

## PRODUCTION, EXPORTS, IMPORTS

The total value of the mineral production in India in 1964 was Rs. 2,056 million as against Rs. 2,119 million in 1963. These values of mineral production are excluding the value of petroleum and minerals specified as prescribed substances under the Atomic Energy Act, 1948.

The total exports of minerals from India including Goa during 1964 fetched foreign exchange worth Rs. 775 million as compared with Rs. 602 million in 1963.

The exports of metals in 1964 were valued at Rs. 170 million as against Rs. 86 million in 1963.

The value of the imports of minerals during 1964 was Rs. 165 million as against Rs. 158 million during 1963.

The increase in the value of imports was mainly due to the larger imports of apatite, rock-phosphate and industrial diamonds.

The total value of metals and alloys imported during 1964 was Rs. 1,618 million as against Rs. 1,407 million in 1963.

The total value of import (minerals, metals and alloys) in 1964 amounted to Rs. 1,783 million as against Rs. 1,566 million in 1963.

### Department of Mines

The Department of Mines was formed in 1902 to administer the Mines Act, to hold enquiries into mine accidents and into cases of explosions, inundations, fires, collapses, breakdowns etc. in mines of all types.

The Department publishes a monthly Coal Bulletin, an annual Indian Coal Statistics and an Annual Report about the working of all mines in India.

### Employment

The actual break-up of the persons employed in mines is given below :—

| | 1962 | 1963 |
|---|---|---|
| Coal .. .. .. | 432,909 | 433,437 |
| Manganese Ore .. .. | 30,141 | 36,467 |
| Iron Ore .. .. | 60,124 | 44,457 |
| Mica .. .. .. | 26,092 | 28,248 |
| Gold .. .. .. | 16,397 | 15,439 |
| Others .. .. .. | 118,563 | 123,974 |
| Total employment in mines .. .. .. | 684,226 | 682,022 |

This is exclusive of people employed in connected industries, of which figure is estimated around two lakhs.

## COAL

The most important coal fields are Raniganj in West Bengal and Jharia and Bokaro in Bihar. The West Bengal and Bihar fields contribute major share of the total output. The best coking coal comes from Giridih, Jharia and Raniganj. Other States in which coal is found are Madhya Pradesh, Orissa, Andhra Pradesh, Madras, Maharashtra, Assam, Rajasthan and Kashmir.

During 1963 there were 806 coal mines working in India of which 26 were in the public sector, the remaining being in the private sector.

Indian coal falls mainly into two classes namely, high grade steam and low grade steam.

The Metallurgical Coal Conservation Committee placed the reserves of coking coal at 329.6 million tons in respect of selected grade, 395.7 million tons of grade I quality and 49.1 million tons of grade II quality. With stowing, washing and blending the Committee thought that a reserve of 2,000 million tons of good quality coking coal could be obtained. The Geological Survey of India has estimated the total reserve of coal in India as 31,888 million tonnes down to 300 metres depth.

The following table gives the details of output :—

| Year | Production (million metric tons) |
|---|---|
| 1960 .. .. .. | 52·59 |
| 1961 .. .. .. | 56·07 |
| 1962 .. .. .. | 61·37 |
| 1963 .. .. .. | 65·96 |
| 1964 .. .. .. | 69·44 |

Value of production of coal during 1964 was Rs. 151 crores.

The coal production is expected to reach about 90 million tonnes by the end of the Third Plan, as against the original plan target of 98·6 million tonnes.

The original Third Plan target of production of 37·10 million tonnes by public sector has been revised to 28·14 million tonnes, as a result of mid-plan appraisal.

Under the Mines and Minerals (Regulation & Development) Act, 1958, the period of lease to coal mines has been extended to 30 years with the option of one renewal for the same period.

Large-scale mechanisation in the industry is being taken up.

To achieve the Third Plan target, technical collaboration from U.K., Poland, West Germany, France, U.S.S.R. and U.S.A. has been sought by the National Coal Development Corporation for opening up new mines, establishment of washeries and workshops. One 15 cu. yard dragline has been installed in Kurasia Colliery (M.P.) and another 39 cu. yard dragline supposed to be the biggest in the world will be used to open up a new strip of mine at Bishrampur, M.P. Besides, the National Coal Development Corporation have added big shovels, dumpers, drills and heavy earthmoving machineries.

The existing State collieries except Singareni collieries are administered by the National Coal Development Corporation Ltd. located in Ranchi.

Production from the Singareni group of collieries during 1963 was 33,51,990 tonnes, as against 31,18,658 tonnes in the previous year.

The control of coal, exercised under the colliery control order regarding distribution, price, etc., and the general control over private industry has been entrusted to a separate authority, the Coal Controller.

Despatches to some of the principal industries in 1963 in wagons: Railways 7,82,618; steel works 4,83,840; public utility (power) 2,72,802 and cement 1,25,494.

There are already four washeries in the private sector—Jamadoba, West Bokaro and Lodna collieries which supply washed coal to the Tata Iron and Steel Company and the Indian Iron and Steel Company. Associated Cement Company has a washery at Nowrazabad. Public sector washery at Kargali, belonging to the National Coal Development Corporation, supply washed coal to the Rourkela and Bhilai steel plants. The other three washeries viz. Dugda, Bhojoidih in Bihar and Patherdih in W. Bengal, having 600, 500 and 360 tonnes rated capacity per hour respectively, are also functioning. Dugda has already gone into production. Besides, two new washeries each at Kathara and Karanpura and a washery in Central Jharia will be established to meet the requirements of the country.

The present production of these washeries is not adequate to meet their expanded needs. It is tentatively estimated that during the Third Plan an additional washing capacity of 12·9 mln. tonnes in terms of raw coal is required by the steel industry.

The deep shaft coal mining project at Monidih in Jharia region is fast taking shape promising production in early Fourth Plan.

The Monidih block has a reserve of 211·8 million tonnes of which 134·5 million tonnes have been found to be minable.

The average ash content of raw coal in the different coal seams, including dirt bands, ranges from 14·9 per cent to 31·6 per cent.

Because of the paucity of coal deposits in south India, high priority has been given to the development of the multi-purpose 'South Arcot Lignite Project' at Neyveli. This plant is planned to increase the mine output to 5·5 million tonnes per annum. During 1963, 9,87,174 tonnes of lignite was mined in Neyveli.

*Note :* The export figures of iron ore in 1963 includes from Goa also.

## IRON ORE

On account of the high ash of Indian metallurgical coke, it is usual in estimating the Indian iron ore reserves to accept only ores with an iron content of 60 per cent and above. Ores below this iron content are used only in very small quantities in Indian blast furnaces.

With the merger of Goa in the Indian Union rich iron ore deposits very near the coast have been added to India's iron ore resources.

India possesses about one-fourth of the total world reserves of iron ore and is the biggest single country possessing such a large quantity of iron ore deposits as 21,000 million tons, though her output constitutes only 2·5 per cent of the total world production, compared to U.S.A. 14·1 per cent and U.S.S.R. 2·6 per cent.

The production of iron ore in 1964 was 14·88 mln. metric tons, about 0·8 per cent lower than 14·99 mln. tons in 1963. The production during Jan. to May 1965 was 1,869,000 tonnes.

During 1963 despatches of iron ore for consumption in the iron and steel plants totalled 11·66 mln. metric tons against 10·4 mln. metric tons in 1962.

The quantity of iron exported in 1963 was 9·38 mln. tons valued at Rs. 360·5 million as compared with 3·39 million tons valued at Rs. 178·2 million in 1962.

The whole export of the iron ore has been canalised through the State Trading Corporation (now Minerals and Metals Trading Corporation) from 1st July, 1957.

The foreign exchange earned through the export of iron ore during 1962 and 1963 was Rs. 178·2 million and Rs. 360·5 million respectively.

The principal buyers of the Indian iron ore are Japan, Czechoslovakia, West Germany, Rumania Italy, Yugoslavia, Poland, Belgium and Hungary in the order of importance.

Japan continued to be the largest importer and received a total of 61,16,042 tonnes of ore during 1963 compared to 45,41,714 tonnes during 1962.

An agreement was signed between India and Japan—March 8, 1960—whereby four million tons of iron ore will be supplied every year from Bailadila iron ore project in the Bastar District of M.P. from 1966 onwards. The agreement will be valid for fifteen years.

### DISTRIBUTION

The region-wise reserves proved and indicated in the country are shown below in million tons:

HAEMATITE ORES (in million tons)

*Bihar and Orissa :* Singhbhum 1,047 ; Keonjhar 988 ; Bonai 648 ; Mayurbhanj 60 ; total 2,743. *Madhya Pradesh :* Dhalli-Rajhara 114 ; Bailadila 610 ; Rowghat 740 ; Jabalpur 100 ; total 1,564. *Maharashtra :* Ratnagiri 5 ; Goa 15 ; Chanda 22 ; total 42. *Andhra :* 41 ; *Kashmir :* 5 ; *Mysore :* 904 ; *Rajasthan :* 5 ; *Punjab :* 2 ; *U.P.:* 10.

*Total (Haematite ores)* .. 5,316 million tons.

The total possible reserves of hæmatite ores are 17,630 million tons.

MAGNETITE ORES (in million tons)

The reserves proved and indicated in million tons are : *Madras :* Salem-Tiruchirapalli 305 ; *Mysore :* 215 ; *Bihar and Orissa :* 5 ; *Himachal Pradesh :* 60 ; *Andhra :* 20.

*Total (Magnetite ores)*.. 605 million tons.

The total possible reserves of magnetite ores are 1,610 million tons.

LIMONITIC AND SPATHIC ORES (in million tons)

The reserves proved and indicated of limonitic and spathic ores are : *Bengal :* 500 million tons; and the possible reserves 2,000 million tons.

A coal bearing region 13 sq. miles in Bankura Dist. (W. Bengal) has been discovered with reserves of 11 million tons.

The grand total of all ores proved and indicated is 6,421 million tons and the possible reserves 21,140 million tons.

Large deposits of high grade ores are limited to a few areas of which the following fields require special mention :—

(i) *Bihar and Orissa :* In what is known as the Singhbhum Iron Belt, consisting of the Singhbhum District, in which the Tata Iron & Steel Company's Steel Works are situated, and the neighbouring areas, there exist some of the richest iron ore deposits in the world. The iron content of the ore considered usable varies from 60 per cent to 65 per cent.

The Durgapur steel plant meets all its requirement from the iron ores occurring in the neighbouring regions. The Bonai ore range which is the extension of the main iron ore range will feed the Rourkela steel plant. The Indian Bureau of Mines has worked in this area for proving iron ore deposits for the Rourkela steel plant. Reserves of 173 mln. tons have been proved in Kiriburu area by I.B.M.

Two mines namely Barsua and Kiriburu have been developed, the former for meeting the iron ore requirements of Rourkela steel plant and the latter for export of nearly 2 million tons per annum to Japan. Another area adjacent to Kiriburu, known as Sasangda Block has been proved by the Indian Bureau of Mines, where reserves of 133 mln. tonnes have been estimated. The block will supply iron ore to the proposed Bokaro steel plant.

(ii) *Mysore :* There are big deposits of haematite and quartz—magnetite ore in Mysore but the latter are of low-grade and would require concentration before using them. The ores used in the Mysore Iron & Steel Ltd., Bhadravati are from the Bababudan Hills and can be compared to Singhbhum ores containing about 60 per cent iron.

Limonite deposits are also known to exist but they have not been properly explored owing to transport difficulties.

(iii) *Madras :* Very large deposits, mainly magnetite, occur in Salem. They have been estimated at 305 million tons. They will, however, require concentration before use, and there may be considerable losses in the process.

(iv) *Madhya Pradesh :* Large deposits of haematite are found in the Bastar, Durg and Jabalpur districts of this State. Dhalli Rajhara, Rowghat and Bailadila ranges in the Durg and Bastar districts are the major deposits in Madhya Pradesh. These three ranges are the main sources of iron ore for the Bhilai steel plant. Bailadila iron ore deposits of Bastar district are being proved by the I.B.M. for supply of iron ore to the tune of four to six million tonnes annually to Japan beginning from 1966. Bailadila iron ore range consists of 14 rich iron ore deposits.

The exploratory work for blocking the iron ore deposits at Jharandalli in Rajhara Pahar, from where the Bhilai steel plant draws its supplies was done by the Indian Bureau of Mines. In addition to iron ore, the Indian Bureau of Mines has also done operations in respect of limestone at Bhanpuri, dolomite at Batapara and manganese ore at Balaghat area, in Madhya Pradesh for the requirements of the Bhilai steel plant.

The Indian Bureau of Mines, at present are carrying out detailed exploration for flux grade limestone in Niwar, Akaltara and Bankuivan in M.P.

The only source of high-phosphorus ore is in Bengal. It is poor in iron content being 35 per cent to 45 per cent and the more easily available ore in this locality has been exploited.

The deposits in the Ceded Districts in Andhra Pradesh are estimated to be not less than 300 million tons.

During 1963, Orissa, Bihar, Mysore and Madhya Pradesh accounted for 40%, 23%, 17%, and 16%, while Andhra Pradesh, Maharashtra, Rajasthan and Punjab jointly accounted for the remaining 6% of the all India output.

### Production

The following is the trend of production:

| Year | Qty. in '000 metric tonnes. | Value Rs. '000. |
|---|---|---|
| 1960 .. .. | 10,683 | 90,285 |
| 1961 .. .. | 12,309 | 89,211 |
| 1962 .. .. | 13,509 | 1,02,129 |
| 1963 .. .. | 14,995 | 1,13,789 |
| 1964 ... .. | 14,880 | 1,09,434 |

The production of iron ore in Goa during 1963 and 1964 was 5·51 and 5·66 million tonnes respectively.

The export trade of iron ore during 1960 to 1964 is indicated below :

| Year | Qty.in '000 metric tons. | Value in Rs. '000. |
|---|---|---|
| 1960 .. .. | 3,428 | 1,72,863 |
| 1961 .. .. | 3,466 | 1,79,379 |
| 1962 .. .. | 3,390 | 1,78,233 |
| 1963* .. .. | 9,379 | 3,60,510 |
| 1964* .. .. | 10,482 | 3,71,574 |

The present yearly production of iron ore is more than ten million tons and the target for the Third Five-Year Plan is 30 million tons. Of these, 20 mln. tons are expected to be consumed in the country, and the rest would be available for export.

## MANGANESE ORE

India is rich in manganese ore. Extensive deposits occur in Madhya Pradesh, Orissa, Andhra Pradesh, Maharashtra, Mysore, Bihar, and Rajasthan.

The total reserves of manganese ore in the country according to the latest estimate, are now placed at over 180 million tons of which 45 million tons are of high grade. It is estimated that the deposits in the main belt of Nagpur and Bhandara in Maharashtra and Balaghat and Chhindwara in Madhya Pradesh alone contain reserves of the order of 80 million tons upto a depth of 500 ft. A major part of the output is exported at present.

The following is the trend of output and exports in '000 metric tons (including Goa) :

| Year | Production | Exports |
|---|---|---|
| 1960 .. .. | 1,199 | 1,318 |
| 1961 .. .. | 1,230 | 1,123 |
| 1962 .. .. | 1,225 | 903 |
| 963 .. .. | 1,100 | 946 |
| 1964 .. .. | 1,262 | 1,598 |

The production of manganese ore in 1964 in Goa was 97,000 tonnes of which 63,000 tonnes were of ferruginous grade.

The export of manganese ore has been decontrolled from Oct. 1962. The export of manganese dioxide peroxide has also been decontrolled since April 23, 1964.

To conserve high grade ore Government is encouraging the setting up of beneficiation plant to improve low grade manganese ore and promote export. A heavy media separation plant for beneficiating low grade ore was set up by the then Central Province Manganese Ore Co. Ltd. at Dongri Buzurg in Bhandara District in 1964.

* 1963 and 1964 figures include export from Goa also.

There is only one ferro-manganese plant under public sector at Bhadravati in Mysore.

In the private sector six ferro-manganese plants located respectively at Joda and Rayagada in Orissa, Garividi in Andhra, Dandeli in Mysore and Tumsar and Kanhan in Maharashtra have gone into production.

The Government is also encouraging the setting up of new units for the manufacture of ferro-manganese for which a production target of 2,03,200 tonnes by 1965-66 has been proposed.

Out of this, 1,01,600 tonnes will be required for internal consumption and the rest will be available for export by the end of the Third Plan.

The former Central Provinces Manganese Ore Co. Ltd. (Sterling Co.) has been reformed into a rupee company called the Manganese Ore India Ltd. on 15th July 1962. The Central Govt., the Govt. of Maharashtra, the Govt. of M.P. and the C.P.M.O. represent their interests in the new company. The C.P.M.O. will have 49 per cent of the equity capital and the three governments will share the remaining equity capital.

## MICA

Mica has been treated as a strategic mineral and India accounts for a big slice of the world trade in it.

The principal mica deposits are concentrated in Bihar, Rajasthan and Andhra Pradesh.

During 1963 Bihar, Rajasthan and Andhra Pradesh accounted for 45%, 28% and 27% of the total mica production in India. Most of the production from Rajasthan is sent to Bihar to be split and marketed.

The mica belt in the Nellore district in Andhra is about 96·56 kilometers long and 24·14 to 32·18 kilometers wide. The greater portion of the Andhra output is of "green" variety.

The export of mica on consignment basis has been banned since Feb. 1964. The export of mica scrap and waste is allowed subject to floor price of Rs. 200 per metric ton.

The statistics of mica production were not reliable till 1955. It was only after the promulgation of the Mineral Conservation and Development Rules that the Bureau of Mines was able to get correct figures.

The production and export figures of Mica are given below :—

| Year | Production (metric tons) | Export (metric tons) |
|---|---|---|
| 1960 .. .. | 29,226 | 29,840 |
| 1961 .. .. | 28,347 | 26,493 |
| 1962 .. .. | 28,481 | 31,188 |
| 1963 .. .. | 25,322 | 34,075 |
| 1964 .. .. | 21,698 | 29,891 |
| 1964-65 .. .. | | 31·8† |

## CHROMITE

Chromite is an important strategic mineral of which India has moderate supplies.

The chief deposits are in the Singhbhum district of Bihar, Mysore and Hassan districts of Mysore State, Ratnagiri and Bhandara districts of Maharashtra, the Krishna district of Andhra Pradesh, the Salem district of Madras, and Cuttack and Keonjhar districts of Orissa.

The estimated reserves of some deposits of chromite ore are as follows (tons):

Bihar 20,500; Maharashtra 551,000; Madras 220,000; Mysore: over 1,000,000; Orissa: 2,755,300; total 4,781,930.

The following table gives details regarding production and export of chromite ore :—

'000 metric tons

| Year | Output | Exports |
|---|---|---|
| 1960 .. .. | 106 | 41 |
| 1961 .. .. | 48 | 41 |
| 1962 .. .. | 66 | 16 |
| 1963 .. | 65 | 10 |
| 1964 .. .. | 33 | 31 |

The export policy for chromite in 1963 was same as in 1962 which is as follows :

Chrome ore fulfilling all the following specifications was allowed on merits, $Cr_2O_3$ content is not less than 38%, F E O content is not more than 22%, $S_1O_3$ content is not more than 10%, $Al_2O_3$ plus $Cr_2O_3$ content together is not more than 54% and in physical condition, the ore is not friable. The other chrome ores and concentrates of all grades, except mentioned above were licensed freely.

## MAGNESITE

Large deposits of magnesite used in the manufacture of magnesium salts, metallic magnesium and refractory bricks are known to occur in Salem (Madras), Hassan, Coorg and Mysore (Mysore), Almora (U.P.), Dungarpur (Rajasthan) and Singhbhum (Bihar).

Of these, the chief producing centres are Salem, and Mysore districts.

Large deposits of magnesite have been discovered near Almora in U.P. The Indian Bureau of Mines has conducted exploratory work on magnesite deposits at Almora. Reserves of more than 12 million tons of magnesite have been estimated by the department. The Department of Geology and Mining of U.P. has estimated 12·19 million tonnes and 2·54 million tonnes of magnesite in Pungar and Lahore villages respectively.

Major part of the output is used in the manufacture of refractory bricks for steel works and a considerable quantity is exported.

The output and export of magnesite from 1960 to 1964 are given below :—

| Year | Output (Metric tons) | Exports (Metric tons) |
|---|---|---|
| 1960 .. .. | 156,331 | 27,620 |
| 1961 .. .. | 209,744 | 31,932 |
| 1962 .. .. | 2,12,888 | 32,062 |
| 1963 .. | 2,34,566 | 33,349 |
| 1964 .. .. | 2,07,732 | 36,151 |

## GYPSUM

Gypsum deposits are known to exist in several parts of India. The better known gypsum bearing regions are in Rajasthan (Jodhpur, Bikaner, Nagaur and Jaisalmer) and in Madras (Tiruchirapalli and Coimbatore districts).

The total reserves are estimated at 998·45 million tonnes. Rajasthan accounts for more than 90 per cent of the Indian reserves.

Smaller deposits also occur in Tehri-Garhwal, Himachal Pradesh, parts of western India and Jammu and Kashmir and is worked at present except in Himachal Pradesh.

The annual production from Indian deposits from 1960 to 1964 is given below :—

| Year | Output ('000 Metric Tons) |
|---|---|
| 1960 .. .. .. | 997 |
| 1961 .. .. .. | 866 |
| 1962 .. .. .. | 1,122 |
| 1963 .. .. .. | 1,190 |
| 1964 .. .. .. | 880 |

The entire output is consumed in the country for the manufacture of fertilisers, cement and plaster of Paris. The cement industry consumes 0·04 to 0·05 tonne of gypsum per tonne of cement produced. The consumption of the Sindri fertiliser factory in 1963 was about 670,000 tonnes of gypsum.

Recently the Sindri Unit of Fertilisers Corporation Ltd. has carried out assessments of gypsum deposits in Rajasthan. According to them about 120 million tons of gypsum of all grades upto 30 ft. are available in Rajasthan, out of which it is indicated 25 million tons are of fertiliser grade containing 85 per cent or above $CaSO_4.2H_2O$.

## LEAD-ZINC ORE

In India 1,53,122 metric tons of lead-zinc ores were produced during 1963 as against 1,59,113 metric tons during 1962.

The recovery of lead and zinc concentrates was 5,920 metric tons and 10,627 metric tons respectively during 1963 as compared to 6,384 and 9,837 metric tons in the year 1962.

The entire production was reported from the Zawar mines in Udaipur district of Rajasthan State.

The production of refined lead during 1964 was 3,624 metric tons as against 3,537 metric tons in 1963.

Zinc will be smelted in India for the first time after the zinc smelter at present being erected at Debari near Udaipur of a capacity of 18,288 tonnes of zinc per annum goes into production shortly (July 1965). The lead smelter at Tundoo in Bihar will also be expanded to produce 10,160 tonnes of lead annually from its present annual capacity of 6,096 tonnes. Sulphur, also for the first time, will be recovered in the form of super-phosphate fertiliser (76,200 to 81,280 tonnes per annum) along with cadmium (71 to 76 tonnes per year). About 11,220 Kg silver per annum will be recovered.

## SULPHUR

Native sulphur in deposits of large size is unknown in India though some occurrences have come to light in the hill ranges in northern India.

There are occurrences in Puga in Kashmir but they are situated in a difficult terrain.

The mineral pyrites is another source of sulphur. It is found in Amjor (Bihar), Ingaldhal, Kaiga, Karwar (Mysore), Taradevi (Simla), Lashtial (Kashmir) and Polur (Madras) of which Amjor and Ingaldhal deposits are of economic importance.

The Indian Bureau of Mines have estimated 391 million metric tons of pyrites in area covering 48 sq. miles at Amjor assaying 40 per cent sulphur. The Pyrites and Chemical Development Company Ltd., has been set up under the aegis of NIDC to exploit pyrites for production of sulphuric acid and other related products.

It is reported that Orkla process is not suitable to extract sulphur from Amjor pyrites. Efforts are being made at present by Outokumpu process for extraction of elemental sulphur from Amjor pyrites. The P.C. D.C. has initiated action on setting up a sulphuric acid plant at Sindri with a capacity of 400 tonnes per day based on Amjor pyrites.

As there is no production of sulphur in India, the country's requirements are met from imports, for which the recent figures are given below :—

| Year | Quantity (tonnes) |
|---|---|
| 1960 .. .. .. | 178,904 |
| 1961 .. .. .. | 191,433 |
| 1962 .. .. .. | 248,031 |
| 1963 .. .. .. | 261,018 |
| 1964 .. .. .. | 241,161 |

Pyrites to the tune of 2·03 million tons assaying 20 to 30 per cent sulphur have been estimated to be available at Ingaldhal, Mysore State.

Substantial quantities of pyrites are associated with the gold deposits of Wynad in the Nilgiris District of Madras.

Copper pyrites deposits are also a source of sulphur. Some of the Indian coal *e.g.* Assam coal and Rewa coal are high in sulphur.

## COPPER

India has only a small supply of copper. The country produces on an average 9,000 tonnes of fire refined copper per year, which is mostly utilised in the manufacture of brass for utensils and coins. The country's entire requirement of electrolytic copper is imported.

The production of refined copper was 9,475 metric tons in 1964 and 9,582 metric tons in 1963.

The entire production of copper ore was from Bihar and during 1964 the production was 472,963 tonnes as against 474,345 tonnes in 1963.

† Figures in million kg.

*Note :* Major part of magnesite exported is of calcined variety.

The recent figures of import of the copper metal are given below :—

| Year | Quantity (Tonnes) | Value in Rs. '000 |
|---|---|---|
| 1960 .. .. | 63,339 | 2,16,893 |
| 1961 .. .. | 62,316 | 195,753 |
| 1962 .. .. | 71,790 | 238,028 |
| 1963 .. .. | 74,008 | 253,867 |
| 1964 .. .. | 67,471 | 241,342 |

The only area for copper ore in India is being worked by the Indian Copper Corporation at Ghatsila, Bihar, whose smelting plant is six miles away from this place. The Indian Copper Coporation Ltd., are setting up electrolytic copper refinery at Moubhandar with 8,500 tonnes annual capacity. The refinery was scheduled to commence production by the end of 1965.

There are other areas in the country where the ore might be worked. The more important of these are the Singhbhum copper belt of Bihar, Sikkim, Jalpaiguri and Darjeeling districts (W. Bengal), Khetri, Daribo (Rajasthan) and Tehri Garhwal (U.P.). Exploration work by the Bureau of Mines has been completed in Dariba and work is still in progress in khetri.

Reserves of 36·27 million metric tons of one per cent copper have been proved in the Madhan-Kudhan section of Khetri area. Exploratory operations have been extended to Kolihan section in the Khetri area and Bhagani. The Government of India is contemplating to set up a 21,000 tonnes electrolytic copper plant on the basis of results so far achieved by the Bureau of Mines.

Based on the project report submitted in 1962 by consultants of N.M.D.C., the Government of India decided to establish a mine and a plant to produce 21,336 tonnes with a capital cost of Rs. 244·4 million with a foreign exchange component of Rs. 90 million.

India's per capita consumption in 1960–61 was 0·4 lb. It is expected to be raised to 0·8 lb. by the end of the Third Plan. Total consumption by the end of the Third Plan is estimated at 172,700 tons.

## SALT

Before 1947, undivided India consumed about 2·24 million metric tons of salt annually out of which about 1·68 million metric tons were produced in the country and the rest imported from abroad. After Independence the reorganised Salt Department launched an extensive production drive with spectacular results. While in 1947 the production of salt was about 1·93 million metric tons, it rose to 2·78 million metric tons in 1951, thus making the country self-sufficient in salt after a long period of 125 years. In addition to our usual exports to Nepal, substantial exports (2·5 lakh metric tons) to Japan were started from 1952. Export to Japan is being handled by the State Trading Corporation. Action has been taken to enforce quality control on salt meant for export by sea and its preshipment inspection to ensure that only high quality salt is exported.

The salt-producing areas are:

Maharashtra, Gujarat, Kerala, Madras, Andhra, Orissa and West Bengal for salt from sea-brine ;

Rajasthan for salt from inland lake brine as well as subterranean brine ;

Kharaghoda, Kuda, etc. in the Little Rann of Kutch all in Gujarat for manufacture from subterranean brine ;

Mandi, for rock salt, in Himachal Pradesh.

The first Five-Year Plan envisaged a production of 837 lakh maunds (3·1 million metric tons) in 1955-56. This target was surpassed in 1953 when 861 lakh maunds (3·2 million metric tons) of salt were produced.

The production during the years 1962, 1963 and 1964 was 38·9, 45·4 and 46·5 lakh metric tons respectively.

The Second Plan target was 37 lakh tonnes and for 3rd Plan 54·6 lakh m. tonnes.

The statistics of production of salt are given below (in lakh metric tons):

| Year | Quantity | Year | Quantity |
|---|---|---|---|
| 1951 | 27·8 | 1958 | 41·9 |
| 1952 | 28·7 | 1959 | 31·8 |
| 1953 | 32·1 | 1960 | 34·3 |
| 1954 | 27·6 | 1961 | 34·8 |
| 1955 | 30·3 | 1962 | 38·9 |
| 1956 | 33·2 | 1963 | 45·4 |
| 1957 | 36·7 | 1964 | 46·5 |

The average number of labourers employed per day in the salt industry in 1964 was 36,204 as against 33,695 in 1963.

There are both licensed and unlicensed manufacturers. The latter are engaged in work on areas of 10 acres and less.

The statistics of exports from the year 1959 to 1964 are as follows (in lakh metric tons):

| | | | |
|---|---|---|---|
| 1959 | 3·45 | 1962 | 1·65 |
| 1960 | 4·49 | 1963 | 2·68 |
| 1961 | 1·58 | 1964 | 3·58 |

Salt is subject to the levy of a cess under the Salt Cess Act of 1953. To encourage the small-scale part of this industry Government exempts manufacture in areas upto 10 acres from the payment of cess. All manufacturers with holdings over 10 acres to 100 acres were required to pay a cess at half the rate of those with larger holdings. In order to promote co-operative societies, they are exempt from the payment of cess. The present rates of cess as revised from 29th of August 1961 are fourteen and seven paise per 40 kilograms for larger and smaller holdings respectively.

A Central Advisory Board and six Regional Advisory Boards for salt were reconstituted by the Govt. of India in April, 1963 to advise the Government on proper utilisation of the proceeds of cess and the development of the salt industry.

The Salt Commissioner in consultation with the Railway Board prepares every year a programme of distribution to every State based on per capita consumption. The supply from the source to the consuming areas is regulated under the zonal scheme for the distribution of salt.

The Salt Department is under the Ministry of Industry and Supply. The head of the Department is designated Salt Commissioner with headquarters at Jaipur. He is assisted by three Regional Officers, one each at Bombay, Madras and Calcutta.

A company entitled Hindustan Salt Ltd. set up by the Government of India is working the erstwhile Government salt works at Kharaghoda in Gujarat and Mandi in Himachal Pradesh. The Sambhar Lake salt sources have since been taken over by Messrs. Sambhar Salts Limited set up with effect from Oct. 1, 1964. The erstwhile Central Govt. Salt Works at Pachbadra and Didwana in Rajasthan are being worked by the Govt. of Rajasthan.

The standard of edible salt which was raised from 94 per cent to 95 per cent sodium chloride content with effect from 1st January, 1957 will be raised further to 96 per cent from the beginning of manufacturing season in 1966.

The annual capacity of the Iodisation Plant of two lines installed at Sambhar is about 36,000 tonnes on 2 shift basis and 52,000 tonnes on 3 shift basis. Two more lines are expected to be added by the end of 1965. The present plant is already serving partly the goitre affected population of Punjab, H.P., U.P. and Bihar.

An Iodisation Plant of one line capacity has been installed at the Salkia Salt Golahs, Howrah. This plant will process nearly 20,000 tonnes of iodised salt per year. Three more lines are proposed to be added by the end of 1965.

It is proposed to install an Iodisation Plant of four lines capacity at Kharaghoda by the end of 1965.

The target for salt production and capacity towards the end of the Third Plan (1965-66) have been fixed at 54·6 and 62·5 lakh tonnes respectively. This increase has been necessitated due to the anticipated rise in demand for industrial salt by the salt based Alkali & Heavy Chemical Industries planned to be developed on a large scale during this period. The present annual consumption level of 7 lakh tonnes of industrial salt is expected to increase to 15·00 lakh tonnes by the end of the Third Plan.

The target for all production during the Fourth Plan has been tentatively fixed at 80 lakh tonnes, the target for installed capacity being 100 lakh tonnes.

The Govt. of Rajasthan have installed a plant for the recovery of Sodium Sulphate from subsoil brine available at Didwana. Its present capacity is to produce 20 tonnes of Sodium Sulphate and 60 tonnes of salt per day.

Gypsum is being collected in appreciable quantities in many maritime salt works on the West Coast.

The following quantities of important by-products were recovered during 1963 and 1964.

(Figures in Tonnes)

| Year | Gypsum | Magnesium Sulphate | Magnesium Chloride | Sodium Sulphate |
|---|---|---|---|---|
| 1963 .. .. | 35,062 | 40 | 7,955 | 1,312 |
| 1964 .. .. | 35,102 | 28 | 6,717 | 1,299 |

## DIAMOND

The National Mineral Development Corporation has prepared two project reports for the exploitation of diamond deposits of Ramkheria and Majhgawan areas in Panna district of Madhya Pradesh.

A provision of Rs. 15 million has been made towards the project work and target production of 90,000 carats per year by the end of the Third Plan period.

The project reports of mining at Ramkheria and Majhgawan are being reappraised.

At Panna 2,260 carats of diamond valued at Rs. 12,18,000 were produced in 1964 whereas in the year 1963 the production was 1,432 carats valued at Rs. 5,18,000.

## RARE METALS*

What is believed to be probably the world's biggest deposits of radioactive minerals was located "somewhere in North-East India"

* For more upto-date information see under "Research".

by the Indian Atomic Energy Department early in 1957.

Investigations carried out showed that the deposit had over 3·3 million tons of ore containing 300,000 tons of thorium of concentration of about 10 per cent and 10,000 tons of uranium of concentration of 0·3 to 0·4 per cent.

The deposits also contain about 80 million tons of ilmenite. The production of ilmenite during the half year ending June 1959 was 143,000 metric tons according to the Indian Bureau of Mines. Ilmenite is recovered from the beach sands of Kerala State contributing nearly 93 per cent of the total production and the Manavalakuruchi area in Madras State. It is mainly exported to U.S.A. and U.K.

The deposit is, therefore, considered more important than the famous beach deposits of Kerala, hitherto regarded as one of the world's richest deposits.

India's total reserves of uranium are reckoned at 30,000 tons and of thorium at 500,000 tons.

Uranium mines are being developed in Bihar and Rajasthan. It is hoped enough would be found to feed the first power station which would need 100 to 150 tons of fuel a year.

## IMPORT OF METALS AND ALLOYS INTO INDIA†

(Value in Rs. '000)

| Metals | Unit of Quantity | 1963 | | 1964 | |
|---|---|---|---|---|---|
| | | Quantity | Value Rs. '000 | Quantity | Value Rs. '000 |
| FERROUS METALS/ALLOYS | | | | | |
| Ferro-alloys | Tonnes | 2,373 | 3,819 | 2,471 | 5,994 |
| Pig-iron and Sponge Iron | ,, | 691 | 453 | 68,461 | 22,713 |
| Iron and Steel materials | ,, | 9,40,585 | 8,56,785 | 10,54,369 | 10,09,010 |
| *Total value of ferrous metals* | | | 8,61,057 | | 10,37,717 |
| NON-FERROUS METALS/ALLOYS | | | | | |
| Aluminium | ,, | 25,828 | 67,021 | 22,751 | 68,485 |
| Antimony | ,, | 17 | 51 | 60 | 282 |
| Brass and Bronze | ,, | 2,593 | 14,700 | 2,528 | 15,048 |
| Copper | ,, | 74,008 | 2,53,867 | 67,471 | 2,41,342 |
| Lead | ,, | 36,009 | 30,173 | 34,322 | 40,693 |
| Nickel | ,, | 1,859 | 15,476 | 2,467 | 18,884 |
| Platinum | Kilograms | 191 | 1,836 | 362 | 3,789 |
| Silver | ,, | 1,723 | 347 | 1,435 | 350 |
| Tin | Tonnes | 4,650 | 54,760 | 5,124 | 76,290 |
| Zinc | ,, | 85,936 | 94,749 | 67,179 | 1,00,432 |
| Miscellaneous Non-Ferrous Metals | — | — | 13,383 | — | 14,753 |
| *Total value of non-ferrous metals* | | | 5,46,363 | | 5,80,348 |
| TOTAL VALUE OF ALL METALS | | | 14,07,420 | | 16,18,065 |

*Source:* Monthly statistics of the Foreign Trade of India published by the Director-General, Commercial Intelligence and Statistics.

## EXPORTS OF METALS AND ALLOYS FROM INDIA††

(Value in Rs. '000)

| Metal/Alloy | Unit of quantity | 1963 | | 1964 | |
|---|---|---|---|---|---|
| | | Quantity | Value | Quantity | Value |
| 1 | 2 | 3 | 4 | 5 | 6 |
| *Ferrous Metals* | | | | | |
| Ferro-silicon | Tonnes | — | — | 616 | 426 |
| Ferro-alloys (Ferro-manganese) | ,, | 4,189 | 3,193 | 91,210 | 65,524 |
| Pig iron and sponge iron | ,, | 332 | 91 | — | — |
| Iron and steel materials | ,, | 4,09,249 | 61,637 | 4,69,589 | 84,575 |
| Total value of ferrous metals | ,, | | 64,921 | | 1,50,525 |
| *Non-ferrous metals(a)* | | | | | |
| Aluminium(b) | ,, | 6,518 | 17,270 | 3,103 | 9,680 |
| Brass and bronze | ,, | 421 | 1,810 | 1,149 | 3,354 |
| Copper | ,, | 336 | 1,267 | 776 | 2,723 |
| Lead | ,, | 9 | 10 | 275 | 295 |
| Nickel | ,, | 3 | 17 | 1 | 14 |
| Tin | ,, | 3 | 6 | 35 | 97 |
| Zinc | ,, | 880 | 482 | 3,656 | 1,761 |
| Misc. non-ferrous metals | ,, | | 709 | | 1,672 |
| Total value of non-ferrous metals | | | 21,571 | | 19,596 |
| TOTAL VALUE OF ALL METALS | | | 86,492 | | 1,70,121 |

† Includes import into Goa. †† Includes export from Goa.

(a) Mostly comprising manufactures and scrap. (b) Mostly aluminium ingots for fabrication.

## QUANTITY AND VALUE OF MINERALS PRODUCED IN INDIA, 1963 AND 1964*

(Excluding Goa)

| Minerals | Unit of Quantity | 1963 | | 1964 | |
|---|---|---|---|---|---|
| | | Quantity | Value (Rs. '000) | Quantity | Value (Rs. '000) |
| Coal (*a*) | '000 tonnes | 65,956 | 15,52,209 | 62,440 | 15,09,501 |
| Lignite (*a*) | Tonnes | 999 | 22,763 | 1,569 | 36,428 |
| *Total coal & Lignite* | ,, | | 15,74,972 | | 15,45,929 |
| METALLIC MINERALS. | | | | | |
| *Ferrous* | | | | | |
| Chromite | Tonnes | 65,042 | 4,195 | 33,424 | 2,045 |
| Iron Ore | '000 tonnes | 14,995 | 1,13,789 | 14,881 | 1,09,434 |
| Manganese Ore | ,, | 1,101 | 58,072 | 1,263 | 65,042 |
| Wolfram | Kilograms | 3,630 | 9 | 7,570 | 34 |
| *Total Ferrous* | | | 1,76,065 | | 1,76,555 |
| *Non-ferrous* | | | | | |
| Bauxite | '000 Tonnes | 569 | 5,753 | 591 | 5,825 |
| Copper ore | '000 tonnes | 474 | 22,769 | 473 | 24,121 |
| Diaspore | Tonnes | 160 | 19 | 647 | 79 |
| Gold | Kilograms | 4,305 | 48,292 | 4,603 | 51,920 |
| Ilmenite | '000 tonnes | 26 | 1,414 | 11 | 314 |
| Lead (Concentrates) | Tonnes | 5,920 | 2,013 | 6,148 | 2,090 |
| Rutile | ,, | 1,871 | 1,842 | 1,871 | 1,842 |
| Silver (*b*) | Kilograms | 3,991 | 912 | 4,734 | 1,193 |
| Zinc (Concentrates) | Tonnes | 10,627 | 2,864 | 10,744 | 2,896 |
| *Total Non-ferrous* | | | 85,878 | | 90,280 |
| *Total metallic minerals* | | | 2,61,943 | | 2,66,835 |
| NON-METALLIC MINERALS. | | | | | |
| Apatite | Tonnes | 13,127 | 406 | 4,049 | 159 |
| Asbestos | ,, | 2,756 | 190 | 2,967 | 223 |
| Ball Clay | ,, | 3.302 | 37 | 9,343 | 103 |
| Barytes | ,, | 37,877 | 687 | 46,225 | 921 |
| Calcite | ,, | 13,942 | 125 | 12,862 | 123 |
| China Clay (*b*) | '000 tonnes | 290 | — | 303 | — |
| China Clay (*a*) | ,, | 213 | 4.778 | 210 | 4.971 |
| Corundum | Tonnes | 658 | 326 | 540 | 303 |
| Diamonds | Carats | 1,432 | 518 | 2,260 | 1,218 |
| Dolomite | '000 Tonnes | 1,085 | 12,710 | 507 | 6,596 |
| Emerald (*c*) crude | '000 carats | 386 | — | 53 | — |
| Emeralds (dressed) | '000 carats | 192 | 73 | — | — |
| Feldspar | Tonnes | 21,236 | 239 | 20,098 | 212 |
| Fire Clay | '000 tonnes | 374 | 2,955 | 360 | 2,897 |
| Fluorspar | Tonnes | 708 | 159 | 389 | 96 |
| Garnet (excluding gem variety) | Tonnes | 401 | 17 | 283 | 20 |
| Garnet (gem variety) | Kgs. | 3.408 | 19 | 2.554 | 10 |
| Gypsum | '000 tonnes | 1,191 | 7,291 | 880 | 6,744 |
| Kyanite | Tonnes | 32,026 | 6,288 | 34,091 | 6,283 |
| Limestone | '000 tonnes | 17,238 | 93,127 | 16,919 | 92,958 |
| Magnesite | Tonnes | 235 | 4,144 | 208 | 4,094 |
| Mica (Crude) | ,, | 25,322 | 24,838 | 21,698 | 21,027 |
| Ochre | ,, | 26,408 | 612 | 28,056 | 725 |
| Quartz & Silica | ,, | 234 | 2,541 | 226 | 1,695 |
| Salt (*d*) | '000 tonnes | 4,544 | 1,19,823 | 4,647 | 86,023 |
| Sillimanite | Tonnes | 11,493 | 511 | 12,362 | 675 |
| Steatite | '000 Tonnes | 121 | 3,914 | 135 | 3,862 |
| Vermiculite | Tonnes | 677 | 24 | 423 | 16 |
| *Total value non-metallic minerals* (*c*) | | | 2,87,233 | | 2,43,146 |
| Total value | | | 21,24,148 | | 20,55,910 |

* Excludes the value of petroleum, minor minerals and minerals prescribed under Atomic Energy Act, 1948.

(*a*) Coal and lignite figures are inclusive of those for Jammu & Kashmir.

(*b*) Value of metal given in the absence of value of ore.

(*c*) Value of crude emerald is not available as emeralds are auctioned in processed form only.

(*d*) Includes the production of rock salt.

2-8-66

## FOREIGN EXCHANGE EARNED BY EXPORT DURING 1962 AND 1963

| Country | | U.S.A. | Japan | U.K. | France | Czecho-slovakia | Pakis-tan | West Germany | Italy | Nether-lands | Belgium | Hungary | Poland | Yugo-slavia | Others |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Value (Rs. Million) | 1962 | 49 | 221 | 44 | 9 | 56 | 31 | 49 | 41 | 7 | 6 | 3 | 18 | 13 | 57 |
| | 1963 | 33 | 282 | 32 | 6 | 51 | 25 | 36 | 19 | 8 | 8 | 5 | 17 | 19 | 61 |

Total exchange earned during 1962 : Rs. 604 million and during 1963 : Rs. 602 million.

## EXPORTS OF ORES AND MINERALS FROM INDIA

| Ore/Minerals | Unit of Quantity | 1963 | | 1964 | |
|---|---|---|---|---|---|
| | | Quantity | Value (Rs. '000) | Quantity | Value (Rs. '000) |
| Abrasives | Tonnes | — | — | 4 | 9 |
| Aluminium Ore | ,, | 1,35,170 | 4,758 | 94,423 | 3,086 |
| Asbestos (raw) | ,, | 5 | 19 | 3 | 11 |
| Asbestos (others) | ,, | 1 | 4 | 5 | 16 |
| Barytes (Calcined) | ,, | — | — | 15 | 4 |
| Barytes (not calcined) | ,, | 9,193 | 817 | 7,960 | 519 |
| Bentonite | ,, | 22 | 3 | 67 | 7 |
| Bort | ,, | — | — | — | — |
| Chromite | ,, | 10,334 | 1,381 | 31,066 | 3,754 |
| Chalk (Crude) | ,, | 34 | 9 | 45 | 12 |
| *Clays:* | | | | | |
| Ball Clay | ,, | — | — | — | — |
| Earth Clay | ,, | 10 | 2 | 3 | — |
| Fire Clay | ,, | 238 | 27 | 280 | 40 |
| China Clay | ,, | 181 | 40 | 548 | 131 |
| Coal | '000 tonnes | 874 | 22,412 | 1,245 | 39,223 |
| Briquettes of coal, Coke & Lignite | Tonnes | — | — | — | — |
| Coke | ,, | — | — | 9,024 | 860 |
| Diamond (natural) | — | — | 15 | — | 18,010(*b*) |
| Diamond (Industrial crude) | ,, | — | — | N.A. | 5 |
| Diatomaceous earth | Tonnes | — | — | — | — |
| Emeralds | — | N.A. | 3 | — | — |
| Feldspar (crude) | Tonnes | 1,369 | 77 | 5,276 | 357 |
| Feldspar (natural gem variety) | — | N.A. | 117 | N.A. | 19 |
| Fuller's earth | Tonnes | — | — | — | — |
| Graphite (plumbago) | ,, | 19 | 25 | 12 | 10 |
| Gravel (including crushed stone) | ,, | 19,133 | 539 | 43,634 | 1,335 |
| Gypsum | ,, | — | — | 5 | — |
| Ilmenite | ,, | 76,456 | 4,827 | 26,521 | 1,090 |
| Titanium minerals (other than ilmenite) | — | — | — | — | — |
| Iron ore* | '000 tonnes | 29,379 | 3,60,510 | 10,482 | 3,71,574 |
| Kyanite | Tonnes | 28,332 | 7,186 | 28,818 | 6,806 |
| Lime | ,, | 6 | 4 | 160 | 152 |
| Limestone (excluding building limestone) | ,, | 1,09,328 | 1,079 | 1,12,840 | 1,123 |
| Manganese ore (1st grade) | ,, | 1,94,805 | 26,916 | 3,71,918 | 49,318 |
| Manganese ore (2nd grade) | ,, | 4,38,388 | 40,591 | 6,81,279 | 65,045 |
| Manganese ore (ferruginous) | ,, | 2,99,712 | 13,318 | 5,15,720 | 21,018 |
| Manganese ore (Peroxide) | ,, | 8,001 | 1,725 | 1,841 | 490 |
| Manganese ore (others) | ,, | 4,925 | 550 | 27,327 | 2,007 |
| Total manganese ore* | ,, | 9,45,831 | 83,100 | 15,98,085 | 1,37,878 |
| Magnesite (calcined) | Tonnes | 31,511 | 6,324 | 35,789 | 7,209 |
| Magnesite (not calcined) | ,, | 1,838 | 335 | 362 | 69 |
| Total magnesite | ,, | 33,349 | 6,659 | 36,151 | 7,278 |
| Magnesium ore and concentrates | ,, | — | — | — | — |
| Marble | ,, | 30 | 12 | 176 | 85 |
| Mica (blocks) | ,, | 1,805 | 35,058 | 1,934 | 33,948 |
| Mica (splittings) | ,, | 7,074 | 42,699 | 8,790 | 54,243 |
| Mica (condenser films) | ,, | 106 | 7,563 | 90 | 6,616 |
| Mica (others) | ,, | 25,090 | 3,232 | 19,077 | 3,484 |
| Total Mica | ,, | 34,075 | 88,552 | 29,891 | 98,291 |
| Monazite | Tonnes | — | — | 483 | 690 |
| Ochre (yellow) | ,, | 39 | 7 | 395 | 67 |
| Precious and semi-precious stones (*a*) | — | N.A. | 1,387 | N.A. | 63,321(*b*) |
| Red Oxide of Persian Gulf | Tonnes | 515 | 95 | 593 | 61 |
| Sand (including ground quartz) | ,, | 266 | 17 | 306 | 23 |
| Salt | ,, | 2,20,611 | 4,231 | 2,27,340 | 5,187 |
| Saltpetre (*c*) | ,, | 15 | 23 | 4 | 6 |
| Sillimanite | ,, | 5,464 | 1,832 | 8,772 | 3,776 |
| Steatite (blocks and powder) | ,, | 14,240 | 2,950 | 11,960 | 2,443 |
| Building stone (*d*) | ,, | 5,246 | 40 | 2,124 | 902 |
| Tungsten ore | ,, | — | — | — | — |
| Zinc ore & concentrates | ,, | 11,680 | 2,934 | 9,598 | 4,768 |
| Others | — | — | 6,334 | — | 2,529 |
| Total value | | | 6,02,034 | | 7,75,462 |

* Including exports from Goa.

(*a*) Excluding pearls and synthetic stones.

(*b*) Including exports of precious stones and diamond natural by post parcel from April, 1964 onwards.

(*c*) Pertains to sodium and potassium nitrates.

(*d*) The quantity exported during 1964 was mostly of worked building stone.

## IMPORT OF ORES AND MINERALS INTO INDIA*

| Mineral | Unit of Quantity | 1963 | | 1964 | |
|---|---|---|---|---|---|
| | | Quantity | Value (Rs. '000) | Quantity | Value (Rs. '000) |
| Abrasives (sized grain powder of all materials) | Tonnes | 2,935 | 4,195 | 2,855 | 4,478 |
| Aluminium ores | ,, | 23 | 31 | — | — |
| Antimony ore | ,, | 1,920 | 2,779 | 1,344 | 2,592 |
| Apatite (rock phosphates) | ,, | 2,97,683 | 24,163 | 4,49,407 | 38,750 |
| Other mineral phosphates | ,, | 4 | 5 | — | — |
| Asbestos (raw) | ,, | 36,958 | 38,155 | 35,710 | 36,885 |
| Asbestos (others) | ,, | 2 | 2 | 77 | 51 |
| Total Asbestos | ,, | 36,960 | 38,157 | 35,787 | 36,936 |
| Asphalt† (natural) | ,, | 520 | 311 | 536 | 329 |
| Barytes (calcined) | ,, | — | — | — | — |
| Barytes (not calcined) | ,, | 3 | 1 | 3 | 2 |
| Total Barytes | ,, | 3 | 1 | 3 | 2 |
| Bentonite | ,, | 162 | 70 | 919 | 321 |
| Borax | ,, | 6,091 | 4,353 | 8,822 | 4,781 |
| Bort | — | N.A. | 11 | N.A. | 32 |
| Chalk (crude) | Tonnes | 1,763 | 392 | 1,880 | 357 |
| Chromite | ,, | — | — | — | — |
| *Clays* Ball clay | ,, | 5,079 | 958 | 5,086 | 998 |
| China clay | ,, | 6,180 | 1,457 | 5,781 | 1,247 |
| Fire clay | ,, | 101 | 71 | 19 | 27 |
| Earth clay | ,, | 73 | 44 | 167 | 104 |
| Coal | ,, | 2,762 | 1,014 | 1,813 | 821 |
| Coke | ,, | 102 | 27 | 429 | 138 |
| Briquettes (of coke, coal and lignite) | ,, | — | — | — | — |
| Copper ore & concentrates | ,, | — | — | — | — |
| Cryolite | ,, | 2,746 | 3,749 | 1,916 | 2,058 |
| Diatomaceous Earth | ,, | 4,152 | 937 | 1,536 | 1,180 |
| Diamonds (industrial crude) | — | N.A. | 1,424 | N.A. | 2,550 |
| Diamonds (natural) | — | N.A. | 882 | N.A. | 227 |
| Emeralds | — | N.A. | 7,849 | N.A. | 6,229 |
| Feldspar (crude) | Tonnes | — | — | — | — |
| Feldspar (natural) | — | — | — | — | — |
| Flints | Tonnes | 190 | 48 | 304 | 82 |
| Fuller's Earth | ,, | 282 | 175 | 368 | 241 |
| Fluorspar | ,, | 8,690 | 1,687 | 2,144 | 558 |
| Gravel (including crushed stone) | ,, | 39 | 14 | 24 | 9 |
| Graphite (plumbago) | ,, | 1,084 | 908 | 2,016 | 1,241 |
| Gypsum | ,, | 46,339 | 1,602 | 84,533 | 2,907 |
| Iron ore | ,, | 134 | 41 | 77 | 27 |
| Lead ore and concentrates | ,, | 11 | 25 | — | 1 |
| Lime | ,, | — | — | — | — |
| Limestone (excluding building stone) | ,, | 19 | 9 | 12 | 5 |
| Magnesite (calcined) | ,, | — | — | — | — |
| Magnesite (not calcined) | ,, | — | — | — | — |
| Manganese ore (first grade) | ,, | 7,010 | 3,113 | 7,838 | 3,703 |
| Manganese ore (ferruginous) | ,, | 2,286 | 1,245 | — | — |
| Manganese peroxide ore | ,, | 15 | 33 | — | — |
| Manganese ore (others) | ,, | 9 | 7 | — | — |
| Total Manganese ore | ,, | 9,320 | 4,398 | 7,838 | 3,703 |
| Marble (unworked) | ,, | 18 | 11 | 12 | 23 |
| Marble (worked) | ,, | — | — | — | — |
| Total Marble | ,, | 18 | 11 | 12 | 23 |
| Mica (blocks) | ,, | — | — | — | — |
| Mica (splittings) | ,, | — | — | — | — |
| Mica condenser films* | ,, | 2 | 5 | — | — |
| Mica (others) | ,, | — | — | — | — |
| Total Mica | ,, | 2 | 5 | — | — |
| Monazite | ,, | — | — | — | — |
| Orpinent | ,, | 2 | 3 | 1 | 2 |
| Umber & Sienna | ,, | 4 | 2 | 12 | 6 |
| Precious and semi-precious stones (*a*) | — | N.A. | 1,128 | N.A. | 878 |
| Potash Salts | Tonnes | — | — | — | — |
| Pumice stone | ,, | 6 | 3 | 12 | 10 |
| Realgar | ,, | — | — | — | — |
| Red Oxide (Persian Gulf) | ,, | 1,576 | 966 | 1,083 | 948 |
| Rutile | ,, | — | — | 341 | 170 |
| Sand (including quartz) | ,, | 26 | 10 | 61 | 31 |
| Salt | ,, | 3 | 5 | 2,251 | 94 |
| Sillimanite | ,, | 10 | 29 | 1 | 1 |
| Silver ore | ,, | — | — | — | — |
| Steatite (block and powder) | ,, | 24 | 25 | 9 | 17 |
| Stone | ,, | — | — | — | — |
| Sodium Nitrate | ,, | 17,944 | 4,418 | 7,664 | 1,946 |
| Sodium Nitrite | ,, | 2,003 | 915 | 1339 | 693 |
| Sulphur | ,, | 2,61,018 | 49,008 | 2,41,161 | 45,228 |
| Tin ore and concentrates | ,, | — | — | — | — |
| Tripoli earths | ,, | 234 | 131 | 45 | 26 |
| Tungsten ore | ,, | 36 | 177 | 230 | 887 |
| Others | ,, | — | 727 | — | 1,224 |
| Total Value | | | 1,58,350 | | 1,29,216 |

* Includes imports into Goa. † Excluding asphalt (others) eg. manufactures. (*a*) Excluding pearls and synthetic stones.

# A TOURIST'S GUIDE*

*For all information and assistance, visitors are advised to contact the Government of India tourist offices in India. The representatives of the Tourist Department are stationed on duty at the airport and in the case of Bombay a representative of the Tourist Office always meets all important passenger liners.*

In the second half of the article we give a list of places which have come into prominence through post-independence development activity —mostly connected with the Five Year Plans.

THE following hints meant for foreign tourists may be useful :

1. Every foreign tourist entering India should be in possession of a valid passport issued by his Government.

He should also obtain before leaving his country a tourist visa from the Indian representative abroad (or the British representative in countries where there are no Indian representatives). Commonwealth citizens (except those of Pakistan and Ceylon) are exempt from the visa requirement, provided their passports are valid for travel to India. Persons of non-Indian origin domiciled in South Africa are, however, required to obtain visas for India.

Transit visas are not required for through air/ship passengers in direct transit by the same flight or by the next regularly scheduled flight irrespective of whether the flight is of the same or a different Airline, provided the period does not exceed 72 hours and they leave from the same place. One can however leave the airport or ship by obtaining a landing permit for 72 hours on depositing his passport.

The normal period of stay cannot be stated. It depends upon the stay period granted by the visa issuing authority.

Normal period of stay on transit visa is 15 days.

No hard and fast rule can be laid down as regards the extension of visas. It will depend on the merits of each case. However, genuine tourists can stay for a maximum period of six months.

For short visits not exceeding 2 weeks to Pakistan, Nepal, Bhutan, Ceylon and Burma tourists may obtain return visas from the Deputy Commissioner of Police, Special Branch II, C.I.D., Head Police Office, Annexe-2, Crawford Market, Bombay or from State Governments. For visits exceeding 2 weeks, they may apply for 'no objection' to return to India endorsements to the Deputy Commissioner of Police, Special Branch II, C.I.D., Bombay or State Government. However in such cases they will have to obtain visas from the Indian authorities abroad before entering India.

2. No registration is required for foreigners staying in India for 30 days or less provided they have come on visas for less than 3 months. If they land in India with visas for more than 3 months' stay, then they must report for registration within 7 days to the Registration Officer of their destination and present the "B" Form (temporary registration certificate) issued to them at the place of entry.

Those coming on visas for less than 3 months' stay must get themselves registered with the Police within 30 days of their arrival provided their stay exceeds 30 days irrespective of the place where they land. However, on request being made, registration can be done even before the expiry of 30 days. Commonwealth citizens are exempt from registration formalities.

Return visa or double/triple entry visa holders would be required to get themselves registered after 30 days of their actual stay in India and not after 30 days of their first entry into India.

*Departures :* Tourists, if they are registered, are exempted from reporting their movements and also from taking departure endorsements from the Registration Officer with whom they are registered.

It should be brought to the notice of tourists to surrender their registration papers at the time of their departure, as it is found that tourists or others who get themselves registered before the expiry of 30 days and leave India also before completion of 30 days, carry registration papers with them.

*For holders of Entry Visas :* Visitors holding registration certificates have to obtain before departure exit endorsements from the Registration Offices of the District in which they are initially registered.

3. The Government of India have placed no health restrictions on persons entering India by sea or air, except in regard to yellow fever.

However, all persons are advised, in their own interest, to be protected against small-pox and cholera according to international requirements.

Citizens of the U.K., Australia, Canada, New Zealand, Federation of Rhodesia and Nyasaland, Singapore, Malaya, Ghana and Ireland (Eire), excluding missionaries, and nationals of Nepal, wishing to proceed to India from a place other than Nepal, are required to possess valid passports without visas.

Nepalese and Bhutanese when proceeding from their respective countries by the inland route, require no passport or visa. Inhabitants of the border districts of Tibet Region of China require passports and visas.

Nationals of Commonwealth countries (except Pakistan and Ceylon) and of the Republic of Ireland wishing to proceed to India for missionary work require special endorsements.

Nationals of all other countries require valid passports with visas. No visa is required for visitors in direct transit by air or sea within 72 hours from the same port.

Individuals without nationality or of undetermined nationality (Stateless persons, IRO refugees, persons receiving legal and political protection, holders of Nansen passports, etc.) should have valid identity documents or sworn affidavits with visas.

Diplomats when travelling as tourists receive the same facilities as their countrymen.

Collective passports and family passports issued by other Governments are recognised by the Government of India. However, if any person other than parents is an adult *e.g.* if he has attained the age of 16, a separate visa is necessary in addition to the one for the rest.

Tourist visas are generally valid for a single journey only, but visitors who wish to proceed on short trips to other countries and return to India within the period of validity of the Indian visa, should apply for double or triple entry visas or entry-cum-transit/transit-cum-entry visas. If a visitor coming on short term visas wishes to extend his stay in India, he can, after arrival in India, apply for further extension of stay.

Foreigners who come on visits not exceeding three months for recreational or sightseeing purposes or for attending meetings convened by the Government of India or international bodies should, in their own interest, apply for tourist visas and not entry visas. Holders of tourist visas are entitled to the grant of Tourist Introduction Cards and All-India liquor permits, reservation of accommodation in Government-owned Rest Houses and Retiring Rooms at railway stations, etc.

Foreigners who wish to break journey in India for short periods while in transit, should apply for transit visas which are issued for a maximum period of 15 days and entitle the holder to travel from the port of entry to the port of departure by a prescribed route which is not necessarily the shortest one.

Visitors holding tourist visas are advised to obtain from the visa issuing authority a printed Tourist Introduction Card. In case a bona fide tourist has not already obtained a Tourist Introduction Card from the visa issuing authority, he can obtain one from one of the Government of India Tourist Offices in India or overseas.

This card introduces the tourist to various Governmental authorities in India and will enable him to receive all possible assistance from them in matters concerning immigration, customs, clearance, air and rail reservations, liquor permits and reservation of accommodation in rest houses, dak bungalows and retiring rooms in railway stations.

4. All baggage is subject to customs examination. Articles of high value *e.g.* radios, cameras, binoculars, type-writers, transistors, etc. are exempted from duty provided they are entered in the re-export declaration form and re-exported within 6 months.

Certain personal effects are allowed to enter free. Also alcoholic liquor up to one quart of spirits or wine, provided the tourist can procure a permit on arrival by producing his Tourist Introduction Card. Liquor permits are issued to tourists at the Santa Cruz Airport, Bombay and at Ballard Pier, on application, immediately on landing. Failing this, the permit may be obtained from the Foreign Liquor Permit Office, Old Customs House, Mint Road, Fort or from the excise official at the following hotels : Taj Mahal, Greens, Ambassador, Grand, West End, Ritz, Airlines, Nataraj, Shalimar and Sun-n-Sand.

5. Tourists are allowed to bring into India foreign currency notes or coins subject to declaration :

There is no limit on the amount of Travellers' Cheques. Import and export of Indian currency are banned.

The official rates of exchange are as follows : £1 equal to Rs. 13·33 ; U.S. $1 equal to Rs. 4·75. The actual buying and selling rates, however, differ slightly from these rates.

Foreign currency can be exchanged at any authorized dealer or money changer.

6. If the tourist expects any baggage to follow or his baggage has already arrived, he should obtain a "LANDING CERTIFICATE" from the Customs official on arrival, failing which all his un-accompanied baggage would be liable to import duty.

*Additional concessions for tourists :*

*Liquor Permits :*—Bona fide tourists having tourist visas/Tourist Introduction Cards can obtain All-India liquor permits valid for three months from Indian Missions abroad or from the Tourist Offices of the Government of India at Delhi, Bombay, Madras and Calcutta if they have not already an All-India Liquor Permit from Indian Missions abroad. The Government of India Tourist Office at Bombay is at 123, Queen's Road, Churchgate, Bombay-1.

*Sporting Fire-arms :*—Not more than three sporting fire-arms brought in by a tourist are allowed free of duty. These must, however, be re-exported within a period of six months.

*Cartridges :*—100 cartridges are allowed duty-free under the normal rules. Each tourist is allowed to bring in 300 cartridges, on payment of customs duty, but without an Import Trade Control Licence.

* NOTE : When the population of a town is not given it may be generally assumed that it is less than 20,000.

*Film :*—Besides the 25 rolls of film for still cameras and 8 reels of substandard movie films which are allowed duty-free under the normal rules, each tourist can import 25 rolls of film for still cameras and 12 reels of movie film on payment of duty but without an Import Licence.

On production of a certificate from an authorised officer of the Tourist Department of the Government of India, foreign tourists are allowed a concession of 15 per cent on the basic air-conditioned first class fares and 'Travel As You Like' ticket on the Indian Railways, available for 30 days in an air-conditioned class of accommodation and in first class where air-conditioned accommodation was not available at a lump sum rate of Rs. 560.

## TRAVEL AGENCIES

*List of Travel Agencies Approved by the Government of India with their telegraphic addresses within inverted comas :*

**Ahmedabad :** Lee & Muirhead (India) Pvt. Ltd., Kothari Mansion, Relief Road, Ahmedabad. (Branch): "LEMUIR".

**Bangalore :** Bharat Travel Service (P) Ltd., D-9, 5th Main Road, Gandhinagar, Bangalore-9. (Branch): "EXCURSION"; Ram Mohan & Co., Chamber of Commerce Building, Kempe Gowda Road, Bangalore-9. (Branch): "GACANPAC"; Thos. Cook & Son Ltd., 200, Mahatma Gandhi Road, Bangalore. (Branch): "COUPON"; Trade-Wings (P) Ltd., 15, St. Mark's Road, Bangalore. (Branch): "TRAVEL".

**Bombay :** American Express Co., Inc., Oriental Building, 364, Dr. Dadabhai Naoroji Road, P.B. No. 507, Bombay-1. (Head Qrts.): "AMEXCO"; Asiatic Travel Service, Post Box No. 1568, 12, Murzban Road, Fort, Bombay-16. (Head Qrts.): "AIRASIA"; Balmer Lawrie & Co. Ltd., 5, Graham Road, Ballard Estate, Bombay-1. (Branch): "BALMER"; Cox & Kings (Agents) Ltd., Lloyds Bank Building, Dadabhai Naoroji Road, P.B. No. 398, Bombay-1. (Head Qrts.): "COXSHIP"; Everett Travel Service, 221, Dadabhai Naoroji Road, Post Box No. 523, Bombay-1. (Branch): "TRAVERETT"; Hind Musafir Agency (P) Ltd., Khorshed Building, Sir P. M. Road, Bombay-1. (Head Qrts.): "PRAVASI"; Indtravels (Travel Division of Airfreight (P) Ltd., Neville House, Nicol Road, Ballard Estate, Bombay. (Head Qrts.): "AIRFREIGHT"; Jeena & Company, Post Box No. 849, 10, Veer Nariman Road, Fort, Bombay-1. "JUSTITIA"; Lee & Muirhead (India) Pvt. Ltd., 12, Rampart Row, Fort, Bombay-1. (Head Qrts.): "LEMUIR"; Mercury Travels (India) Pvt. Ltd., 70, Forbes Street, Fort, Bombay-1. (Branch): "MERCTRAVEL"; N. Jamnadas & Co., Travel Agents, 16, Bank Street, Fort, Bombay. (Head Qrts.): "ENJAYTOURS"; Orient Express Co. (Private) Ltd., Petit Building, 359, Dadabhai Naoroji Road, Bombay-1. (Branch): "OREXPRESCO"; Thos. Cook & Son (Continental & Overseas) Ltd., P.B. No. 46, Cooks Building, Dadabhai Naoroji Road, Bombay-1. (Head Qrts.): "COUPON"; Trade Wings (Private) Ltd., 30/32, Rampart Row, Fort, Bombay-1. (Head Qrts.): "TRAVEL"; Travel Corporation (India) Pvt. Ltd., Queen's Hotel, Apollo Bunder, Bombay-1. (Head Qrts.): "TURING"; Vensimal Bassarmal & Bros., 521, Kalbadevi Road, P.B. No. 2112, Bombay-2. (Head Qrts.): "VENSIMAL"; Freight Carriers (P) Ltd., 43, Tamarind Lane, Fort, Bombay-1 (BR). (Head Qrts.): "QUICKFREIT"; Sita World Travel India Private Ltd., Airlines Hotel, Bombay-1.

**Calcutta :** American Express Co., Inc., P.B. No. 2311, 21, Old Court House Street, Calcutta. (Branch): "AMEXCO"; Balmer Lawrie & Co. Ltd., 21, Netaji Subhash Road, P.B. No. 4, Calcutta-1. (Head Qrts.): "BALMER"; Everett Travel Service, 1, Old Court House Street, Calcutta-1. (Head Qrts.): "TRAVERETT"; Indian Air Travels Ltd., 28, Chittaranjan Avenue, Calcutta. (Head Qrts.): "SKYMASTER"; Jeena & Company, 25, Netaji Subhash Road, Calcutta-1. (Branch): "TRAVELJENA"; Mercury Travels (India) Pvt. Ltd., Oberoi Grand Hotel, Calcutta. (Head Qrts.): "MERCTRAVEL"; N. Jamnadas & Co., 61, Lyons Range, Calcutta-1. (Branch): "ENJAYTOURS"; National Travel Agency, 3, Wellesley Place (Dalhousie Square), Calcutta-1. (Head Qrts.): "SENOSEN"; Orient Express Co. (P) Ltd., Norton Building, 1 & 2, Old Court House Corner, Calcutta. (Branch): "OREXPRESCO"; Sita World Travel (India) Private Ltd., 24-B, Theatre Road, Calcutta. (Branch): "SITATRAVEL"; Trade Wings (Calcutta) Pvt. Ltd., 15, Old Court House Street, Calcutta-1. (Head Qrts.): "TRAVELLING"; Travel Corporation (India) Pvt. Ltd., Great Eastern Hotel, Calcutta. (Branch): "TRAVELAIDS"; Vensimal Bassarmal & Bros., 9, Pagiya Patty, Burra Bazar, Calcutta. (Branch): "VENSIMAL"; Speedways International, 3, Chowringhee Square, Calcutta-13. (Head Qrts.): "SKYINT".

**Cochin :** Harrison & Crossfields Ltd., Post Box No. 4, Cochin-1 (Head Qrts.): "CROSFIELD".

**Dehra Dun :** A. S. Chugh & Co., 6, Astley Hall, Dehra Dun (U.P.). (Head Qrts.): "CHUGH".

**Delhi :** American Express Co., Inc., Hamilton House, A-Block, Connaught Place, New Delhi-1. (Branch): "AMEXCO"; Ambassador Travels Private Ltd., 60, Regal Building, New Delhi-1. (Head Qrts.): "AMBTRAVEL"; Asiatic Travel Service, 1/90, Connaught Place, New Delhi-1. (Branch): "AIRASIA"; Cox & Kings (Agents) Ltd., Indra Palace, Connaught Circus, P.B. No. 134, New Delhi-1. (Branch): "COXSHIP"; Everett Travel Service, Prem House, C-Block, Connaught Place, New Delhi-1. (Branch): "TRAVERETT"; Hind Musafir Agency (P) Ltd., 2, Scindia House, Janpath, New Delhi-1. (Branch): "PRAVASI"; Iyer & Son (P) Ltd., United India Life Building, F-Block, Connaught Place, New Delhi-1. (Head Qrts.): "IYRANSON"; Jeena & Co., 'Jeena House', 50, Hanuman Road, Connaught Place, New Delhi-1. (Branch): "TRAVELJENA"; Mercury Travels (India) Pvt. Ltd., Hotel Imperial, Janpath, New Delhi. (Branch): "MERCTRAVEL"; N. Jamnadas & Co., Hotel Metro, Janpath, New Delhi. (Branch): "ENJAYTOURS"; Orient Express Co. (P) Ltd., 70, Janpath, New Delhi. (Head Qrts.): "OREXPRESCO"; Saha & Rai Travels Ltd., A-4/7, Connaught Place, Central Ring, New Delhi-1. (Head Qrts.): "TWAGENT"; Sita World Travels (India) Pvt. Ltd., Hotel Imperial, Janpath, New Delhi. (Head Qrts.): "SITATRAVEL"; Trade Wings (P) Ltd., 60, Janpath, New Delhi. (Branch): "TRAVIT"; Travel Corporation (India) Pvt. Ltd., C-35, Connaught Place, New Delhi-1. (Branch): "TRAVELAIDS".

**Hyderabad :** Canara Bank Ltd., Abid Road, Hyderabad. (Head Qrts.): "AMBIDBANK"; Princely Travel India, No. 4 & 5, Green Gates, Secretariat Road, Saifabad, Hyderabad-22 (A.P.). (Head Qrts.): "PROMOTERS"; Trade Wings (P) Ltd., Post Box 475, Abid Road, Hyderabad. (Branch): "TRAVEL".

**Madras :** Asian Travel (India) Pvt. Ltd., 1, Patullos Road, Mount Road, Madras-2 (Head Qrts.): "WORLTRAVEL"; Bharat Travel Service (P) Ltd., 310/311, Linghi Chetty Street, P.B. No. 210, Madras-1 (Head Qrts.): "EXCURSION"; M. H. Taxis, Connemara Hotel, Madras-2 (Head Qrts.): "TAXICABS"; Mercury Travels (India) Pvt. Ltd., Hotel Ashoka, Pantheon Road, Egmore, Madras-8 (Branch): "MERCTRAVEL"; Ram Mohan & Co. Pvt. Ltd., 362, Netaji Subhash Road, P.B. No. 1723, Madras (Head Qrts.): "GACANPAC"; Thos. Cook & Son (Continental & Overseas), 4/5, First Line Beach, Madras-1 (Branch): "COUPON"; Trade-Wings (P) Ltd., Purushottam Buildings, 193, Mount Road, Madras (Branch): "TRAVELAGES"; Orient Express Co. Private Ltd., 35, Mount Road, Madras (Branch): "OREXPRESCO".

**Poona :** Trade Wings (P) Ltd., 321, Mahatma Gandhi Road, Poona (Branch): "TRADEWINGS".

**Srinagar :** Mercury Travel (India) Pvt. Ltd., Oberoi Palace Hotel, Srinagar (Branch): "MERCTRAVEL"; Travel Corporation (India) Pvt. Ltd., Kaul Building, Hotel Road, Srinagar (Branch): "TRAVELAIDS".

**Trivandrum :** Kerala Travels, Mascot Hotel, Trivandrum-1 (Head Qrts.): "WELCOME".

## SHIKAR OUTFITTERS

The following is a list of recognised shikar outfitters: Indian Shikar & Tours (P) Ltd., Jumna Bhawan, 3/14A, Asaf Ali Road, New Delhi; Allwyn Cooper (P) Ltd., Wardha Road, Nagpur; Asaf Ali of Porla, Porla, Distt. Chanda, Maharashtra; Jungleways, Prop. : Lt.-Col. S. A. H. Granville, Pachmarhi, M.P.; Tiger Camps (P) Ltd., Dumri, P.O. Sardarnagar, Distt. Gorakhpur, U.P.; Tiger Shikars, Dr. Franklyn Woods, 49, Danning Road, Jabalpur, M.P.; Big & Small Game Hunting, Prop. : Thakur Dharamchandra, Kesaragarh Castle, Jaipur, Rajasthan; Safaris India, Prop. : P. M. Dinshaw, 102, Simrole Road, Mhow; Shikarees, Prop. : Nawabzada M. F. Khan, Bashirbagh Palace, Hyderabad; P. C. Dhir Birbar, Prop. : Shikar India, Talcher, Dhenkanal, Orissa; Hunters & Hunters, 212, Olympus Apartments, Altamount Road, Bombay-26; Rao Naidu Shikars, Tara Villa, Bezonbagh, Nagpur 4; Rajput Hunters, Kishangarh, Rajasthan; Tiger Sports, Bhadri House, 5, Shahnajal Road, Lucknow; A. Imam, "The Grove", P.O. Hazaribagh, Bihar; Kumaon & Hunters Pvt. Ltd., Tajpur Estate Farms, P.O. Afzalgarh, Dist. Bijnor, U.P.

## TOURIST OFFICES

The following is a list of Government of India tourist offices in India and abroad :

Director, Govt. of India Tourist Office, 123, Queen's Road, Bombay-1.

Director, Govt. of India Tourist Office, 88, Janpath, New Delhi.

Director, Govt. of India Tourist Office, 13, Old Court House Street, Calcutta.

Director, Govt. of India Tourist Office, 35, Mount Road, Madras.

Manager, Govt. of India Tourist Office, Krishna Vilas, Station Road, Aurangabad.

Manager, Govt. of India Tourist Office, The Mall, Agra.

Manager, Govt. of India Tourist Office, 15-B, The Mall, Banaras.

Manager, Govt. of India Tourist Office, Willingdon Island, Cochin-3.

Manager, Govt. of India Tourist Office, Rajasthan State Hotel, Jaipur.

Director, Govt. of India Tourist Office, 19 East 49th Street, New York 17, N.Y.

Director, Govt. of India Tourist Office, 685, Market Street, San Francisco 5, California.

Director, Govt. of India Tourist Office, Indisches Verkehrsburo, Baseler Stress, 46, Baseler Houchhous, Frankfurt/Main, W. Germany.

Director, Govt. of India Tourist Office, Leonard House, 46, Elizabeth Street, Melbourne (Australia).

Director, Govt. of India Tourist Office, 8, Boulevard, Madeleine, Paris-9.

Information Assistant, Govt. of India Tourist Office, Railway Station, Jalgaon.

Director, Govt. of India Tourist Office, 177-79, King Street (West), at University, Toronto, Canada.

Govt. of India Tourist Office, No. 1, Ginza, 7 Chome, Chuo-Ku, Tokyo (Japan).

Govt. of India Tourist Office, Palmer House, Room Nos. 684-685, Chicago (U.S.A.).

*Note :* Most of the State Governments have Tourist Offices at the important centres.

## TOURIST CENTRES

**Mount Abu** (hill station): Pop. 8,076 (1961) in Rajasthan, about 4,000 feet above sea-level. There are two seasons in the year, the first from the middle of March to the beginning of June, and the second from the middle of September to the end of October. *Places worth a visit:* 1. the Dilwara Jain temples (11th-13th century, A.D.) containing the finest marble carvings in India, 2. Achalgarh temples (15th-16th century, A.D.) and Mandakini Kund, 3. Ruins of an ancient town called Chandravati, 4. Nakki Talao (lake), 5. Arbuda Devi, a shrine cut in rock, 6. Guru Shikhar (5,646 ft.), highest point in Abu, 7. Sunset point, 8. Palanpur point, 9. Gaumukh Temple and Agni Kund, 10. the Municipal Park. Mount Abu is electrified and has waterworks with public utility taps. Permission is required to use the dak bungalows and Inspection Houses. Mount Abu is reached by railway and road. The nearest railway station is Abu Road on the metre-gauge section of the Western Railway from Ahmedabad to Delhi. From the station Abu Road is about 17½ miles by road, and there is regular motor service between the town and the station.

**Agra:** Pop. 5,08,680 (1961), a city in U.P., stands on the banks of the Jamuna. It was the capital of the Moghul Empire. *Places worth a visit:* 1. the Taj Mahal, regarded by many as the most beautiful building in the world. 2. the Fort, 3. the Juma Masjid, 4. Moti Masjid, 5. the tomb of Itmad-ud-Daula, 6. Akbar's tomb at Sikandra about five miles from Agra, 7. Dayal Bagh, 8. Twenty-three miles from Agra is the deserted city of Fatehpur Sikri founded by Akbar.

**Ahmedabad:** in Gujarat is the second largest textile centre in India. It contains numerous monuments of the fifteenth and sixteenth centuries. Pop. 11,49,918 (1961).

It is also a seat of Jaina art and culture. Founded in ancient times as Karnavati on the banks of the Sabarmati, it took a new look and a new name—City of Ahmed in the early 15th century. Many remains of buildings and architecture bear testimony to the synthesis of Indo-Islamic culture. Places worth visiting are: 1. Jumma Musjid (1423); 2. Shah Alum's Mausoleum (1475); 3. Rani Sipri's Mosque (1540); 4. Mosque of Sidi Sayyad (1572) for traceried windows with palm and parasite design; 5. Shaking Minarets; 6. Shahi Baug where Gurudeo Tagore stayed during his youth and which supplied him with material for his *Hungry Stones* (story); 7. Teen Darwaza (three Gates); 8. Mahatma Gandhi's Sabarmati Ashram; 9. Kankaria Tank; 10. Gujarat University & Gujarat Vidyapitha; 11. ATIRA, Textile Research Institute.

**Aiholi:** near Bagalkot in Mysore State contains about fifty temples important in the development of Hindu architecture and sculpture.

Badami, on which there is a separate note, is near Aiholi.

**Ajanta Caves:** are 66 miles north of Aurangabad in Maharashtra. The rock-cut caves are 29 in number (5 chaityas or shrines and 24 viharas or monasteries, all Buddhist) and present a record of a unique combination of painting, sculpture and architecture of a period extending over nine centuries from about the 2nd Century B.C. to about 7th Century A.D. The caves can be reached from Aurangabad where there is a good hotel conducted by the Central Railway.

**Ajmer:** city of considerable antiquity in Rajasthan, Hindu and Muslim religious centre, contains Western Railway workshop. Pop. 2,31,240 (1961). *Places worth a visit:* 1. the Durgah of Khwaja Sahib (tomb of Muslim saint), 2. the Magazine (Akbar's old palace now museum), 3. Ana Sagar Lake (the marble pavilions round the lake were built by Shah Jehan), 4. Adhai-din-ka-jhopra (Hut of two and a half days), 5. Taragarh (Fortress built by Akbar), 6. Mayo College, 7. Pushkar, a most sacred lake in India, is about seven miles away.

**Allahabad:** (also called Prayag); city in U.P. situated at the confluence of the Ganga and the Jamuna. It has an old fort and an Asoka pillar. Sixty-five miles from Allahabad is Kosambi, where the ruins of an ancient capital are being excavated. Pop. 4,11,955 (1961).

The confluence of the Ganga and Jamuna at Prayag is the holiest bathing place for Hindus in India. Every 12 years, Kumbha Mela (religious fair) is held attracting over 40 lakhs of pilgrims during the four weeks; a smaller fair occurs every six years—Adha Kumbhi. For the devout Hindu, Allahabad along with Banaras, and Gaya are the places he must visit, at least once during his lifetime.

The old Mughal Fort contains an underground temple where well carved images are seen and the pilgrims worship at a small tree taking it to be the Eternal Banyan Tree (Akshaya Vata.)

Allahabad has a large University and many educational institutions. It is the home town of the Nehrus, and their gift to the nation, Swaraj Bhavan which was their home is visited by many people throughout the year.

**Almora:** headquarters of the district of the same name, in U.P. 83 miles from Kathgodam Railway Station, it is the main town in Kumaon Hills (q.v.). Perched at an elevation of 5,600 ft., it is about two miles in length, like a saddle, and is said to have been founded four hundred years ago by Raja Kalyan Chand. Of all the hill stations in the area, Almora is the one which has the most attractive features: moderate rain-fall, temperate climate, the temperature seldom rising above 88°F., even during the summer days, and comparative freedom from fog. Within easy distance of Almora are many Himalayan peaks—Seehee Debi, Bandnee Debi and Binsar being the chief ones. Binsar Hill also known as Jhandi Dhar is only 13 miles from Almora and the bridle path leading to it, passes through enchanting jungle scenery. With its thick vegetation, dense Alpine forests, hundreds of unnamed wild flowers and many varieties of ferns, Jhandi Dhar is of peerless beauty.

Pindari Glacier can be reached from Almora at a distance of 75 miles, in eight stages, attaining an altitude of 13 to 14,000 ft. The most suitable time for this trip is either May-June or September-October.

Two other places in the Kumaon Hills are: Ranikhet and Naini Tal.

Cultural Institutions in Almora: Mayavati Ashram of the Ramakrishna Math; Shri Anand Mayee Ashram and Udaya Shankar's Dancing Institute. Pop. 16,004 (1961).

(See also 'Kumaon Hills', 'Naini Tal' and 'Ranikhet'.)

**Alwar, Bikaner, Jodhpur, Kotah:** famous for Rajput historical monuments.

**Amritsar:** city in the Punjab, sacred to the Sikhs. Pop. 3,76,295 (1961). Amritsar is the very centre of the Sikh religion and has a big trade in grain and textiles. *Places worth a visit:* 1. the Golden Temple, 2. Baba Atal Tower, 3. Akal Takht, 4. Ram Bagh Gardens, 5. Fort Govind Garh, and 6. Jalianwalla Bagh Memorial.

**Aurangabad:** in Maharashtra is noteworthy because of its proximity to Ellora and Ajanta caves and Daulatabad fort. *Places worth a visit are:* 1. Bibi-ka-Muqbara—the tomb of Aurangzeb's wife which is a replica of the famous Taj, 2. Panchakki (old water-mill), 3. The shrine of Shah Musafir lies nearby, 4. Eight Buddhist caves near the town. Pop. 87,579 (1961).

Daulatabad, on which there is a separate note, is near Aurangabad.

**Badami:** in Mysore State, is famous for sculptured caves of the 6th century and for a group of Hindu temples. Fifteen miles from Badami is Pattadakal with another group of early Hindu temples (7th or 8th century), examples of pure Dravidian architecture.

Aiholi, on which there is a separate note is near Badami.

**Bangalore:** Largest city in Mysore and a health resort, is about 3,000 feet above sea-level. It is well laid-out and up-to-date with every urban facility. *Places worth a visit:* 1. Cubbon Park, 2. Lal Bagh, 3. Band-stand, 4. Race Course, 5. Maharaja's Palace, 6. Tippu's Palace, 7. Venkataramanaswamy Temple, 8. Vidhan Soudha (new Secretariat). Pop. 9,05,134 (1961).

Lately a large number of industries have been established both by Government and private interests:

Bharat Electronics, Hindustan Aeronautics, Hindustan Machine Tools, Indian Telephone Industries.

The Indian Institute of Science is a leading teaching and research body in India.

From Bangalore trips can be made to other places of interest—Belur, Halebid, Bhadravati (for the iron works) and Kolar Gold Fields.

**Baroda:** Capital of the former Baroda State, now part of Gujarat State, is about 250 miles to the north of Bombay, pop. 2,95,144 (1961). *Places worth a visit:* 1. Laxmi Vilas Palace (the residence of the Maharaja, one of the most beautiful palaces in India), 2. Old Nazar Bagh Palace, 3. Museum and Public Park, 4. Jubilee Garden, 5. L. F. Battery, 6. Kirti Mandir, 7. Baroda University, and 8. Kala Bhavan (Technical School).

**Belur:** in Mysore State, noted for its elaborately sculptured temples of the Hoysala period.

Halebid, on which there is a separate note, is near Belur.

**Banaras*:** town in U.P. on the banks of the Ganges, very sacred to the Hindus and Buddhist alike. It is in fact the religious capital of Hindu India and contains about 1,500 comparatively large temples besides countless minor shrines. It is also reputed to be the oldest city in the country. Pop. 4,71,258 (1961). *Places worth a visit:* 1. Vishwanath Temple, 2. Bharat Mata Temple, 3. Manmandir, with Jaisingh's Observatory, 4. Aurangzeb's Mosque, 5. Gyan Wapi, 6. Nandeswar Kothi, 7. Ramnagar Fort, 8. Banaras Hindu University, and 9. Sarnath, a great Buddhist centre with many architectural remains, is about six miles from Banaras. The Buddha preached his first sermon here.

There are also about 30 dharmasalas for Hindu pilgrims. Banaras is on the branch line from Moghul Sarai to Saharanpur.

**Bharatpur:** town in Rajasthan is famous for its historic fort. Pop. 49,776 (1961).

**Bhubaneshwar:** Orissa's new capital; city of temples once said to number 7 000. Pop. 38,211. *Places worth a visit:* 1. Lingaraj Temple, 2. Mukteshwar Temple, 3. Parasurameswar Temple, 4. Raj Rani Temple. Nearby are the Jain and Buddhist rock-cut caves of Khandagiri and Udayagiri and Asoka's Rock Edict at Dhauli. Bhubaneshwar is on the main S. E. R. line between Waltair and Howrah, about 20 miles from Cuttack and 38 miles from Puri.

**Bijapur:** town in Mysore State, capital of the old Adilshahi Sultans of Bijapur is rich with the remains of palaces, mosques and tombs. *Places worth a visit:* 1. Jami Masjid (the greatest mosque in South India), 2. Gol Gumbaz (the tomb of Mahammad Adil Shah and the second largest dome in the world), also called the Whispering Gallery, 3. Mehtar Mahal, 4. Ashar Mahal, 5. Gagan Mahal, 6. Chini Mahal, 7. Mecca Masjid, 8. Tas-Bavry (water-tank), 9. Malik-I-Maidan (Great Gun), 10. Landi-Kasab Gun, 11. Haidar Burj (tower), 12. Ibrahim Roza (the tomb and mosque of Ibrahim II), 13. Jala Mandir (reservoir), 14. Chand Bavri (old tank), 15. Granary, 16. Jod Gombaz (double tombs), 17. Bara Kaman Masjid, and 18. Begum Tank. Bijapur is a railway station on the Gadag-Sholapur section of the Southern Railway. There are a dharmasala and a travellers' bungalow about one and a half miles from the station. Pop. 78,854 (1961).

* The official name is Varanasi.

**Bombay:** second city and port in India called the Gateway to India. Pop.*: 4,152,056. Area (Greater Bombay) 174 sq. miles. It is the principal centre of the textile industry, and the second biggest financial centre. The foreign trade of Bombay is about 46 per cent of the total trade of India. The city returns 30 per cent of the country's total income-tax, and 20 per cent of the corporation tax. It is an important communications centre, served by several air-lines and two big railways of both of which it is a terminus. May and October are the hottest months, but from November to March it is pleasant. *Places worth a visit:* 1. the Gateway of India, 2. Apollo Bunder, 3. Prince of Wales Museum, 4. the Town Hall, and Central Library, 5. Rajabai Tower and University Building, 6. Victoria Terminus of the Central Railway, 7. the General Post Office, 8. Crawford Market, 9. Brabourne Stadium, 10. Chowpatty sands, 11. Malabar Hill, Hanging Gardens and Kamala Nehru Park, 12. Central Station, Terminus of the Western Railway, 13. Race Course, 14. Bhandarwada Reservoir and Gardens, 15. Victoria Gardens and Albert Museum. Places near Bombay worth a visit: 1. Juhu (sea-side resort), 2. Versova (sea-side resort), 3. Vihar Lake (from which the city gets part of its water-supply), 4. Kanheri Caves (rock-cut caves of Buddhist origin), 5. Jogeshwari Caves, 6. Vajreshwari (temple and hot springs of medicinal property), 7. Mandapeshwar (cave temple), 8. Nirmal (temple and lake), 9. Ambarnath (temple), 10. Pawai Lake and the Technical Institute, 11. Pali (hot springs and small game shooting), 12. Elephanta Caves, 13. Vaitarna (water supply scheme), 14. Aarey Milk Colony, 15. The oil refineries at Trombay, 16. The Atomic Energy Establishment at Trombay. The chief means of conveyance in Bombay are buses, electric railway, taxis and gharis.

**Brindavan:** See under Mathura.

**Budh Gaya:** near Gaya, in Bihar, a Buddhist centre of pilgrimage. It contains the famous mediaeval Buddhist temple near the Bodhi Tree under which Gautam did penance and attained Enlightenment. Pop. 6,299 (1961). See also Gaya.

**Bundi:** in Rajasthan is well-known for its buildings. Jungles nearby provide plenty of tiger shooting. Pop. 26,478 (1961).

**Calcutta:** until March, 1912, the headquarters of the Indian Government, and now, as then, the commercial capital of India. It is the terminus of three great railways, and the port of an immense river traffic. Though it lies 84 miles from the Bay of Bengal on the River Hooghly, it has a larger foreign trade than any other Indian port, and its enterprising Port Trust has the largest revenue among Indian port authorities. It is the centre of five great industries—jute, tea, hides and skins, coal and lac. Its exports include besides these, rice and linseed. Population of (1961), West Bengal is 34.93 millions and of Calcutta City (Corporation) 2,927,289. *Places worth a visit:* 1. Victoria Memorial (contains a picture-gallery and museum), 2. the Indian Museum, 3. the Zoological Gardens, 4. the Jain Temple, 5. the Kalighat Temple, 6. Belvedere House (where the British Viceroys stayed when on visit to Calcutta), now the National Library, 7. Raj Bhavan (residence of the Governor of West Bengal), 8. Marble Palace (containing art treasures property of the Mullik family), 9. Fort William, 10. the Eden Gardens, 11. the Town Hall, 12. Haig Market, 13. Dalhousie Square, 14. the Race Course, 15. Dhakuria Lake, 16. the Hindu bathing ghats, 17. Dakshineshwar Temple. Places near about Calcutta which are worth a visit are: 1. Bally (holy place), 2 Belur (home of the Ramakrishna Mission), 3. the Botanical Gardens (contains the biggest banyan tree in existence), 4. Diamond Harbour (fort and customs house), 5. Dum Dum (airport of Calcutta).

**Cape Comorin:** also called Kanya Kumari in Madras State, is the southern-most tip of India.

It is the place where the Arabian Sea and the Bay of Bengal meet the Indian Ocean. Tourists go to have a view of sun-rise and sun-set.

It is easily reached from Trivandrum by public transport buses or private conveyance.

The spot is sacred to the Hindus and a place of pilgrimage as the reputed abode of Kanya Kumari the virgin goddess to whom the temple there is dedicated.

**Chandigarh†:** capital of Punjab is the youngest of Indian Capital cities. It was planned by the French architect Le Corbusier. Some of its public buildings are unique and therefore attract a lot of attention from students of town-planning. Chandigarh is situated near Kalka railway station of the Northern Railway.

**Conjeevaram (Kanchipuram):** the city of temples, the Banaras of the South, is about 45 miles to the south-west of Madras. It is one of the seven holy cities of India and the only one in the South. The place is divided into three parts, Shiva Conjeevaram, Vishnu Conjeevaram and Pillayar Paliyam, a testimony to the part played by all the main Hindu religious sects in the history of the city. There are over a thousand temples in all. *Places worth a visit:* 1. Kailasnath Temple (over 1,000 years old), 2. Vaikunth Perumal Temple (over 1,000 years old), 3. Ekambareswar Temple (400 years old), 4. Vedaraja Perumal Temple. Pop. 92,714 (1961).

Conjeevaram is on the Renigunta-Chingleput section of the Southern Railway and is easily accessible from Madras *via* Chingleput.

**Cooch-Behar:** in West Bengal, is known for the facilities and opportunities which it offers to shikaris in search of big game hunting. Pop. 41,922 (1961).

**Coonoor:** hill station on the Nilgiri Hills in Madras State, is about 6,000 feet above sea-level. The climate is mild and genial neither too hot in the summer nor too cold in the winter. The mean day temperature is 64 degrees. The north-east monsoon breaks in October and lasts about two months. The town has good water-supply and natural drainage facilities and is reputed to be one of the cleanest towns in South India. *Places worth a visit:* 1. Sim's Park (contains collection of plants), 2. Low's Waterfall, 3. Tiger Rock (hill fort). There are innumerable places for excursion and picnic purposes, *e.g.* the Droog, the Dolfin Nose, the Lamb's Rock, Laz Falls, Lady Canning Seat, the Ralliah Dam and Catherine Falls. The chief means of conveyance are cars which can be hired.

Coonoor lies on the narrow-gauge Mettupalayam-Ootacamund line of the Southern Railway. It is also connected by road with Ootacamund, and Kotagiri, another hill station. Pop. 30,690 (1961).

**Darjeeling:** hill station in West Bengal, lies on the lower slopes of the Himalayas about 370 miles to the north of Calcutta. It is 7,110 feet above sea-level. The maximum temperature in the summer is about 70 degrees and the minimum in the winter is about 35. The town commands picturesque views including that of Mount Kanchenjunga and on a clear day of Mount Everest. Various sports are available during the season such as fishing, shooting and horse-riding. Darjeeling has also a first-class sanatorium known as Eden Sanatorium. *Places worth a visit:* 1. Government House, 2. Town Hall, 3. Museum, 4. Observatory Hill (from where a magnificent view of Kanchenjunga can be obtained), 5. the Mall, 6. Natural History Botanical Gardens, 7. Birch Hill Park, 8. Senchal Lakes, 9. Ghoom Monastery, 10. Tiger Hill (from where the sunrise over Everest is generally viewed on clear October mornings).

Darjeeling is the terminus of the meter-gauge Darjeeling-Himalayan section of the N.E. Railway and is about 27 hours' journey from Calcutta. From Siliguri where the visitor has to change, Darjeeling can also be reached by car. Pop. 40,651 (1961).

**Daulatabad:** in Maharashtra near Aurangabad, contains the famous rock-hewn 12th century fortress at one time so prosperous that it led Muhammed Tuglak to shift his capital to it from Delhi (1308). Close by is the tomb of the Moghul Emperor Aurangzeb.

**Delhi (New):** the capital of India and the seat of the Union Government. It was planned in accordance with modern ideas by the architects Sir Edwin Lutyens and Sir Herbert Baker and was formally opened in 1931. New Delhi houses the President's House (now called Rashtrapati Bhavan), the Parliament, and the Secretariat. All the buildings in New Delhi are white except the ones mentioned above. These latter are built of red sandstone. Pop. 2,61,545 (1961).

**Delhi (Old):** also called Shahjahanabad, the ancient capital of India stands on the Jamuna and is enclosed by a stone wall with seven gates. It has a history going back to 3,000 years and within an area of 50 square miles eight Delhis rose and fell. The seven predecessors of present-day Delhi are Kutub, Siri, Tuglakabad, Jahanabad, Firozabad, Purana Quila and Shahjahanabad. No city in India contains as many historical remains as Old Delhi. One can trace here the growth and decay of almost every dynasty which held sway over the ancient land of Hindustan. There are a number of factories, jewellery, gold and silver embroidery and ivory carvings works for which Delhi is well-known. Pop. 9,14,790 (1951). Delhi is a great distributing centre for cotton, wool and silk. Industries include hardware, utensils and stoneware. Delhi is also a large market for grain. Lately tourist traffic has grown into a regular new trade. *Places worth a visit:* Red Fort, Jama Masjid, Rajghat (Mahatma Gandhi's Samadhi), Ashoka Pillars, Feroze Shah Kotla, Purana Quila, Humayun's Tomb, Isa Khan's Tomb, Lodi Park and Lodi Tombs, Safdar Jang's Tomb, Kutab Minar, Tughlaqabad, India Gate or War Memorial Arch, Shanti Ghat (Jawaharlal Nehru's Samadhi), Rashtrapati Bhavan, Parliament House, National Museum, Shri Lakshmi Narayan Temple, Jantar Mantar or the Observatory.

Delhi is directly connected by rail and air with Bombay, Calcutta and Madras. The Central and Western Railways connect it with Bombay, the Northern and Eastern Railways with Calcutta, and the Southern and Central Railways together with Madras.

Delhi also lies on the direct East-West trans-world air routes linking India with all the major cities of the world.

**Elephanta Caves:** on an island of the same name, about 6 miles from Bombay harbour, are mainly dedicated to Shiva and the sculpture shows that God in His many forms. These belong to the 7-8th century and though there have been mutilations of the figures, the caves are well preserved considering they are very old. The main cave, almost 125 ft × 125 ft, is the only impressive structure, and the rest of the island is used more as a picnic spot by holiday makers. There is a launch service as well as a ferry steamer. An official of the Archaeological Department is available on the spot.

The main figure of three-heads, Mahesh Murti, is considered among the world's most impressive sculptures, for its size, beauty and execution.

**Ellora Caves:** are situated about 15 miles to the north-west of Aurangabad in Maharashtra. The caves which are excavated in the face of a hill are 34 in number and run north to south for a distance of a mile and a quarter. The hill has the shape of a crescent the southern, the centre, and the northern being occupied respectively by Buddhist, Hindu and Jain temples. There are 12 Buddhist caves, 17 Hindu caves and 5 Jain caves. The Hindu caves are more lavishly decorated than others and Kailash temple which is the most impressive is also the biggest cave temple in India. It stands in a court averaging 154 feet wide, 276 feet long with a scrap 107 feet high at the back. Among other notable caves are caves X, XII, XIV, XV, XXIX, XXXIII, XXXIV. It is believed that the Ellora Caves are about a thousand years old. They are reached from Aurangabad by bus or car. Thrishneshwar temple near the caves is an important place.

* Greater Bombay. † Population 89,321 (1961).

**Ernakulam :** in Kerala State, is famous for its backwaters. Pop. 1,17,253 (1961).

**Fatehpur Sikri :** City founded by Akbar in 1569 but abandoned soon after, is situated 23 miles from Agra. Akbar wished to make it his capital but it had to be abandoned because of lack of water. Here Akbar's son Salim (Emperor Jehangir) was born. The place contains a number of palaces, shrines, mosques built of marble and red sandstone. *The more notable among the monuments are :* 1. Buland Darwaja, the Gateway of Victory, built to commemorate the conquest of Khandesh. It is 176 feet high and is the highest gateway in India. It forms the southern gateway to the most imposing structure in Fatehpur Sikri. 2. the Jami Masjid, said to be a copy of the mosque at Mecca or Medina, 3. Panch Mahal, 4. Diwan-i-Khas (Hall of Private Audience), 5. Mariam's House, 6. Palace of Jodh Bai, 7. House of Birbal, 8. Elephant Tower and 9. Khas Mahal. Fatehpur Sikri has a railway station, and the city can be easily reached by car.

**Gaya* :** big town in Bihar, on the Phalgu river, sacred to Hindus and Buddhists alike. The Vishnupada, a temple, built over the foot-print of Vishnu is the centre of the pilgrimage and the Akshaya Vata, the Eternal Banyan tree, is an object of veneration. See also Budha Gaya.

**Gersoppa Falls : See Jog Falls.**

**Golconda :** 5 miles from Hyderabad is an ancient spectacular fort (Andhra).

**Gopalpur-on-Sea :** in Orissa is a sea-side resort for a quiet holiday.

**Gulmarg :** an ideal hill station in Kashmir, about twenty-nine miles from Srinagar, is a little less than 9,000 feet above sea-level. The place boasts of all modern facilities and is particularly noted as a winter playground affording scope for skiing, ski-ing, tobogganing, and golf. Round about are ideal places for walks, rides and excursions.

**Gwalior :** in Madhya Pradesh, best known for its fort (which is reputed to be the most interesting and remarkable example of a Hindu palace of an early age) lies about 200 miles to the south of Delhi. *Places worth visiting :* 1. Gwalior fort includes Man Singh's Palace and a number of temples and shrines), 2. Tansen's Tomb, 3. Rani (of Jhansi) Laxmi Bai's Chhatri, 4. the Chhatris of other Mahratta rulers, 5. Tomb of Mahomed Ghaus, 6. Jami Masjid, 7. State Museum, 8. King George Park and Zoo, 9. Motimahal Palace. Seventy-two miles from Gwalior is Shivpuri or Sipri famous for its lake and scenery. Survaya which is twelve miles again from Shivpuri contains the remains of a fortress of the early mediaeval period. Gwalior is on the main Central Railway line between Bombay and Delhi. Pop.† 3,00,587 (1961).

**Halebid :** in Mysore State is well known for its elaborately sculptured temples of the Hoysala period.

Belur, on which there is a separate note, is near Halebid.

**Hampi :** in Mysore State, is the ruined capital of the Vijayanagar Empire. It is 8 miles from the Hospet Railway Station on the Southern Railway. The ruins are about 600 years old and are described as "virtually a vast open air museum of Hindu monuments in the Dravidian style of architecture".

**Hardwar :** in U.P. on the Inner Himalayas, on the Ganga banks is a great Hindu pilgrim centre. It is situated at the foot of the Siwalik hills on the right bank of the Ganga where the river enters the plains. The object of attraction is the bathing ghat called Hari Ki Payri (step of Hari). Every twelfth year the Kumbh Mela is held, which has a special sanctity. Devout pilgrims proceed from here further up to Rishikesh, and to Badrinath. Pop. 58,513 (1961).

**Hyderabad-Secunderabad :** the twin city linked together by the Hussain-Sagar (lake), is the capital of Andhra Pradesh and is centrally situated for all-India communications. It is a railway junction as well as an important air-port, and stands on the banks of the river Musi. Hyderabad was known as Bhaga Nagar when it was founded 400 years ago. It has many attractions. 1. Char Minar (four Minarets) dominates the City with 80 ft. high-minarets, built in 1591 ; 2. Osmania University with its impressive building and Ajanta Pavilion ; 3. Town Hall ; 4. State Museum and Art Gallery ; 5. Salarjung Museum —one of the richest and most varied collections in Asia ; 6. Health Museum and Public gardens. Golconda Fort forms one of the suburbs of Hyderabad. Many new industries are coming up in the city. Pop. 12,51,119 (1961).

**Imphal :** north-east frontier town and capital of Manipur. It is celebrated for its Manipuri dance and handloom products. Pop. 67,717 (1961).

**Jabalpur :** in Madhya Pradesh ; fourteen miles from Jabalpur are Marble Rocks and Dhunva Dhar (water-falls) on the Narmada. Pop.: 3,67,014 (1961).

**Jaipur :** capital of Rajasthan State, is a well laid-out modern city. It is famous all over India for the beauty of its art and the skill of its artisans. Jaipur pottery, brass ware, sculpture, ivory and sandal-wood work and jewellery have enjoyed a great reputation from ancient times. Pop. 4,06,444 (1961). *Places worth a visit :* 1. Maharaja's Palace, 2. Jai Singh's Observatory, 3. Amber (ancient capital), 4. Hawa Mahal, 5. Palace Armoury, 6. Cenotaphs of the Queens, 7. Galta (place of pilgrimage) and Ghat, 8. School of Arts, 9. Public Library, 10. Transport Gardens, 11. Museum.

Jaipur is on the metre-gauge line of the Western Railway between Ahmedabad and Delhi

**Jamshedpur :** in Bihar, famous as India's 'steel town'. Pop. 3,28,044 (1961).

It had its beginnings 60 years ago when the Tata Iron & Steel Co. built their plant. Today besides the two-million ton steel plant there are many subsidiary units. Tata Locomotive Engineering Co. Ltd. manufactures metre gauge locomotives and boilers and Mercedes-Benz trucks and buses. The National Metallurgical Laboratory is also situated here. The town is well-laid out with modern amenities and welfare schemes.

**Jog Falls :** also known as Gersoppa Falls in Mysore State, are one of the highest waterfalls in the world. The river Sharavati takes a big leap down a steep rock from a height of 830 feet. The breadth of the stream here is 230 feet and in four separate cascades known as the Raja, Roarer, Rocket and La Dame Blanche, it takes a magnificent leap. The best time to see them is early December.

**Junagadh :** in Gujarat, is situated below the celebrated Girnar Hill and is one of the most ancient cities in India. The temples on the hill are noted for their architecture and delicate painting. On the way to Girnar is a rock with an Asoka edict. Pop. 74,298 (1961).

**In Junagadh is the famous Gir Forest—the only place in Asia where lions are found.**

**Kangra Valley :** famous for its picturesque landscapes and historic temples, lies in the Punjab. Semi-urban hill stations are Kangra and Dharamsala. *Places worth a visit in Dharamsala are* : 1. Bhagsunath Water Springs, 2. State Quarries, 3. Himalayan Snow View. The usual means of conveyance are cars and buses. There is also a dak bungalow at Dharamsala where visitors can stay. To get to the Kangra Valley a visitor has to change at Pathankot into the narrow-gauge railway which runs to Nagrota. Dharamsala can also be reached from Pathankot by car.

**Kanheri : near Bombay, is famous for its** Buddhist caves dating back to the 1st century A. D. It is about twenty miles from Bombay.

**Kashmir :** unsurpassed for the beauty of its mountains, lakes and valleys is a part of the State of Jammu and Kashmir, situated in the far north of India. Its capital Srinagar on the Jhelum is 5,000 ft. above sea-level and famous for its shawls and carpets and the exquisite beauty of its wood-work, rich embroidery and papier mache articles. Its fruits and vegetables are equally well-known. Well-furnished, luxurious house-boats moored along the winding Jehelum or in the Dal Lake provide all necessary comforts amidst gorgeous natural surroundings. The normal recreations include boating rides on the lakes and canals, mountain-climbing, big and small game hunting, golf, fishing and swimming. Gulmarg, Sonamarg and Pahalgam are favourite holiday resorts in the mountains and can be reached by motorable road. The way to Srinagar is via Pathankot, which is a railway terminus. From Pathankot one goes to Srinagar by road passing Jammu on the way. There is a regular air service from Delhi to Srinagar. *Places worth a visit :* 1. The Mogul Gardens, like *a.* Shalimar, *b.* Chashmashahi, *c.* Acchabal, *d.* Nishat. 2. The lakes like *a.* Dal Lake, *b.* Wular Lake, *c.* Anchar Lake, *d.* Mansabal Lake and so on. 3. Places of historical and religious interest like *a.* Martand temple, *b.* Pandrenthan temple, *c.* Bhumiyar caves, *d.* Avanti Pura, *e.* Pari Mahal and *f.* Sankaracharya Hill.

**Khajuraho :** in Chhattarpur in Madhya Pradesh, is famous for its group of highly ornate mediaeval Hindu temples. From the nearest railway station Harpalpur on the Jhansi-Manikpur line, it is about 90 miles by motorable road. It has dak bungalows and circuit house people.

**Kodaikanal :** famous hill station on the Palni Hills in Madras State. It is about 7,000 feet above sea-level and has a temperate climate. The average annual rainfall is 65 inches, the major part of the rain falling in September, November and December. The months of April, May and June constitute the 'season'. The town enjoys excellent water-supply and is also well-equipped with all the ordinary amenities of life. The place affords plenty of scope for such recreations as walking, hiking, boating, fishing, hill climbing and golf. Going on an excursion or picnic is yet another way of diverting oneself. For the more adventurous there is big game hunting. Kodaikanal is the delight of the gardener and flowers are in bloom all the year round. *Places worth a visit :* 1. the lake skirted by a three-mile road, 2. the water falls like *a.* Fairy Falls, *b.* Silver Cascades, *c.* Bear Shola Falls, *d.* Glen Falls, *e.* Pamber Falls ; 3. There are view points like *a.* Coaker's Walk, *b.* Pillar Rocks, *c.* Prospect Point, *d.* Vembadi Shola Peak, *e.* Dolphin's Nose ; 4. the Solar Observatory.

There are a number of boarding houses, and fully furnished flats can also be rented. Kodaikanal is reached from Kodaikanal Road railway junction on the Southern Railway via Tiruchirapalli. Kodaikanal town is 50 miles from the railway station and the journey can be done by car, taxi or bus on a very good motoring road. Pop. 12,860 (1961).

**Kolar Gold Fields :** in Mysore State. At present three mines are worked ; the Mysore (Oorgum), the Champion Reef and the Nundydroog Mines which are near one another. The entire mining and residential area is known as KGF (Kolar Gold Fields) and is a modern and self-contained unit with water supply, electricity and hospital facilities. The city comprises an area of over 30 sq. miles, and houses nearly 150,000 people. It is about 90 miles by road from Bangalore. The mines have reached a depth of about 12,000 ft. Pop. 2,46,511 (1961).

The gold fields are nationalized and worked by the Central Government.

**Konarak or Konark :** in Orissa, is a huge Temple of the Sun (also called the Black Pagoda). It is remarked by many as an example of ancient Indian architecture and sculpture and of engineering skill. A part of the temple is preserved but in the ruined state is huge figures and sculptures and life-sized pictures of horses and elephants and the friezes carved wheels at the basement. The Image of Aruna, the charioteer of the sun on a monolith on the road of the Puri Temple was removed from Konarak by the Marathas. Konarak is about 50 miles from Puri, an easy drive from Bhubaneshwar. The road is open from November to May.

* Population 1,51,105 (1961). † Including Meerut Cantt. ‡ Including Cantt. and Khamaria.

**Kotagiri :** A hill station on the Nilgiris higher than Coonoor, but lower than Ootacamund, is smaller and quieter than either. It is about 6,000 feet above sea-level and has a mean day temperature of 62°F. The town has electricity, a number of shops and boarding houses, a town board hospital and golf course. Kotagiri is reached from Coonoor or Ootacamund by car or bus. The roads are excellent and there is a regular bus service. Between Kotagiri and Ootacamund the road goes over Dodda-betta the highest peak (8,760 ft.) in the Nilgiri Hills (Madras State). Pop. 15,509 (1961).

**Kulu Valley :** well-known for the variety of its scenery, fruit orchards and places of historical interest is situated in the Punjab north of Simla. It is ideal for hiking and trout fishing. The important part of the valley from the tourist's point of view is the road which runs from Pathankot or Nagrota the rail-heads into the valley. A few miles beyond Pathankot the road passes through the rich cultivation of the Kangra Valley and the extensive tea gardens surrounding Palampur and Baijnath. The traveller has a view of the majestic snow-capped mountains of the Dhaula Dhar range standing out in bold relief against the sky-line. He also comes across the ancient temples of Baijnath. Beyond Aut after Mandi the valley opens out and the final stretch through the lovely Kulu Valley mainly along the left bank of the river Beas offers an entirely different type of scenic effect. The Kulu Valley is also called the 'Valley of the Gods' as in addition to several important deities like Raghunathji at Sultanpur and Jamlu of Malana every village has its own parmeshwar God. The best season is from March to May and September to November. The summer is never uncomfortably hot. The main centres of the Kulu Valley are : 1. Kulu or Sultanpur, the principal town, about 4,000 feet above sea-level. It is the main shopping centre and has a dak bungalow, and a number of rest-houses. 2. Ranson, 8 miles from Sultanpur and 4,700 feet above sea-level. The available sports are golf tennis and swimming. Mayflower and the Sharma are two hotels. 3. Katrain, is in the widest part of the Valley, 12 miles from Sultanpur and 4,800 feet above sea-level. 4. Naggar, summer headquarters, is 5,800 feet above sea-level. There is a departmental rest-house and a serai. 5. Manali, the head of the valley and terminus of the motor road, is 23 miles from Sultanpur and is situated amid typical Alpine scenery. Accommodation for visitors is available at Sunshine Orchards, Departmental rest houses and Mission Hospital. Except Manali, the road to which may be occasionally closed owing to snowfall the rest of the valley is open throughout the year. Pathankot is the rail-head for Kulu. From Pathankot Kulu is reached by bus or car or from Pathankot to Nagrota by metre-gauge railway and from there by bus to Kulu.

**Kumaon Hills :** in U.P. form part of the Himalayas and are known as the sportsman's paradise. Three important summer resorts are Almora, Nainital and Ranikhet. Most mountaineering parties establish their base at Ranikhet for ascent to the Pindari Glacier.

Tiger shooting is available in the Terai and Bhabhar Forests in the Kumaon region.

(See also 'Almora', 'Nainital', 'Ranikhet').

**Lansdowne :** in U.P. in Garhwal about half way between Mussoorie and Nainital. Pop. 6,381 (1961).

**Lonavla-Khandala :** in Maharashtra, lies in the heart of the Western Ghats. Hill forts associated with Maratha rule are in the vicinity. The Karla, Bhedsa and Bhaja caves, 10 miles from Lonavla, are an added attraction (see also under Poona District).

**Lucknow :** the city of gardens is the capital of U.P. It is full of places of historical interest and of architectural beauty and is generally regarded as the cultural capital of North India. It is well-known for its pottery, copper and brass-ware, wood and ivory carvings and gold and silver embroidery on cloth, and rich perfumes. Legend connects the founding of the city with Laxmana, the brother of Rama, the mythical hero of the Ramayana, and is sometimes called Laxmanpur. Pop. 595,440 (1961). *Places worth a visit :* 1. Great Imambara, 2. Small Imambara, 3. Tombs of Wajid Ali Shah and his Begum, 4. Kaiser Bagh Palace, 5. Chattar Manzil, 6. Dilkhusha Palace, 7. Moti Mahal, 8. Machi Bhavan Palace, 9. Jumma Masjid, 10. Charbagh, 11. Alambagh, 12. Sikander Bagh, 13. Musa Bagh, 14. Wingfield Park, 15. Residency, 16. Havelock's Tomb, 17. Clock Tower, 18 Museum, 19. Observatory, 20. Iron Bridge. Lucknow is a big junction on the Northern Railway.

**Madras :** the third largest city in the sub-continent and the capital of Madras State. It is the place where the English first settled to trade. Pop. 17,29,141 (1961 census). *Places worth a visit :* 1. Fort St. George (contains the oldest Protestant church in the country where Clive was married), 2. High Court, 3. Light House, from the top of which one can get a panoramic view of the city, 4. Marina. The Marina is one of the most beautiful promenades in the world ; sea-bathing is possible at certain points, 5. The Museum, 6. Connemara Library, 7. the Zoo, 8. the Observatory, 9. Moore Market, 10. Parthasarathy Temple, 11. Mylapore Tank and Kapaleshwar Temple, 12. St. George's Cathedral. 13. St. Thomas Mount, 14. Race Course, 15. The Integral Coach Factory at Perambur, where passenger coaches are made, 16. Adyar, where the headquarters of the Theosophical Society are located. There are two places round about Madras which are also worth a visit: 1. the ruins of the Gingee Fort famous in the days of the Vijayanagar Empire are about 95 miles from Madras and can be reached by rail and road. 2. the seven Pagodas of Mahabalipuram are 35 miles by road from Madras and can also be reached by road from Chingleput Railway Junction. Kalakshetra is a well-known institution for music, dance and drama at Adyar.

**Madurai :** the second biggest city in Madras State, is a great religious centre, containing as it does a number of famous temples. In the old days it was the capital of the Pandya kingdom and has always been a seat of Tamil literature and Hindu temple art. The silk-weaving and textile industries of Madurai are also noteworthy. *Places worth a visit :* 1. The Great Temples, actually made up of two temples one of Meenakshi and the other of Shiva. 2. Tirumala Nayak's Palace. 3. Gandhi Museum and Gandhigram. Pop. 4,24,810 (1961).

**Mahabaleshwar :** a hill station in Maharashtra, the season being April, May and October. It is 4,500 feet above sea-level and is noted for its bracing climate. It is also well-known for its fruit and vegetables, orchids and lilies which bloom in April and May. The chief recreations are hiking and driving in a car. Among the sports which are available are tennis, golf and polo. *Places worth a visit :* 1. The two Government Houses old and new. 2. Rose Garden and 3. The two temples of the river Krishna and Mahabaleshwar. Then there are a number of points from which magnificent views can be obtained, like Arthur Seat Point, Baghdad Point, Castle Rock, Carnac Point, Connaught Point, Falkland Point, Elphinstone Point, Margney and Lardwick Point and Bombay Point. Then there are the waterfalls like Chinaman's Waterfall, Dhobi Waterfall, Lingmala Waterfall and a lake called Venna Lake. The forts of historical interest, all connected with the name of the Maratha leader Shivaji are, Kamalgarh, Makrandgarh, Pandavgarh, Pratapgarh and Rairgarh. Near Pratapgarh are the Bhavani Temple and the tomb of Afzulkhan. All these places are accessible by road from Mahabaleshwar. Holiday camps have been started by the Maharashtra Government.

**Mahabaleshwar can be reached from Poona by road.**

**Murud :** Maharashtra's first sea-side holiday camp, set up by the State Dept. of Tourism, can be reached by sea in four hours from Bombay. By road it is 150 miles away.

**Mandu :** in Madhya Pradesh is one of the greatest mediaeval city sites in India with extensive remains including fortifications and palaces. Seventy-eight miles west of Mandu by road *vis* Dhar are Bagh caves adorned with fine old frescoes.

**Matheran :** the nearest hill station to Bombay is 2,650 feet above sea-level, and is famous for the magnificent views which it yields. The town looks on to the sea, and the coastal plain rises imperceptibly until it reaches the steep ascent of the Ghats. In a walk round the eighteen-mile circumference of the hill the visitor can reach no fewer than thirty-three points of which the following deserve mention : 1. Garbut Point, 2. Panorama Point, 3 Porcupine Point, 4. Louisa Point, 5. Chowk Point, 6. Alexandra Point, 7. Belvedere Point, 8. Echo Point. 9. Monkey Point. At every one of these points the visitor will find comfortable seats, shady trees and fine views. Among other places which are worth a visit are : 1. Charlotte Lake, 2. Paymaster Park, 3. Band-stand. 4. Castle Hill Tower, 5. Race Course. The chief recreations are walking and riding. Rickshaws, munchils and horses are the chief means of conveyance.

**Matheran is reached from Neral Station on the main railway line between Bombay and Poona. From Neral there is a light railway to Matheran which is about one-and-a-half-hour's journey. Alternatively one can do the journey by rickshaw or pony by previous engagement at Matheran.**

**Mathura-Brindavan :** in U.P. is an important place of pilgrimage for Hindus, because of its associations with Shri Krishna. Near the railway station is an archaeological museum which houses unique relics of Kushan art. Six miles from Mathura is Brindavan.

Brindavan is a holy place of Hindus. It is sacred because of its association with the birth and early life of Shri Krishna. *Places worth a visit :* 1. Govind Dev Temple, 2. Gopinath Temple, 3. Ranganath Mandir.

There are travellers' bungalows. Brindavan is accessible by railway or road from Mathura. Pop. 125,258 (1961).

**Mussoorie:** A hill station in U.P. lies 18 miles to the north of Dehra Dun. It is 6,590 feet above sea-level. The town has excellent water-supply, electric lighting system, hospitals, nursing homes and some of the best schools in India both for boys and girls. There are also plenty of sports and amusements. And like every Himalayan hill station one can obtain magnificent views of mountain tops and green river valleys. Hiking and going on excursion or picnic are among the main recreations. *Places worth a visit:* 1. The falls like *a.* Bhatta Falls, *b.* Kamptee Falls, *c.* Hearsay Falls, *d.* Mossy Falls, 2. Wimper's Tank, 3. Bandstand. Mussoorie is reached from Dehra Dun by car or bus and is about two hours' journey. Pop. 9,849 (1961).

**Mysore (State) :** commemorates the destruction of Mahishasur, the demon by Chamundi who is the tutelary goddess of the royal family of Mysore. Mysore is a picturesque land of forest and mountain presenting the most diversified and beautiful scenery. In the southern forests are found wild elephants for the capture of which khedda operations are undertaken from time to time. Tigers, leopards, bears and bisons are also numerous. *Places worth a visit in Mysore State :* 1. The Chenna Kesava Temple at Belur, 24 miles from Hassan. 2. Sivasamudram Falls on the Cavery River, 3. Hoysaleswara Temple at Halebid, 4. Gersoppa Falls also called the Jog Falls on the Sharavati River, the most famous beauty spot in Mysore. The falls are higher than Niagara, 5. Kolar Gold Fields, the biggest in India worked by electric power, 6. Nandidurg, a hill station near Bangalore, and the summer residence of Tippu Sultan, 7. Srirangapatnam of historical and religious interest as the capital of Tippu and as the city of many temples, 8. Shravanabelgola, the great Jain religious centre with the huge monolith Gomateshwara and of course the city of Bangalore and the town of Mysore.

**Mysore (City) :** second city in the State, is built in accordance with modern standards, and contains a number of beautiful public buildings. It attracts great crowds twice a year when the city wears a gala appearance. These two occasions are the Maharaja's birthday and the Dasarrah. *Places worth a visit :* 1. The palaces like the Maharaja's Palace, Jaganmohan Palace and so on, 2. Chamundi Hill, with the Bull and the Temple, 3. Zoological Gardens, 4. Silk Factory, 5. Sandalwood Factory, 6. Krishnarajasagar Dam and the Brindavan Gardens, among the most beautiful in the world, about 12 miles from Mysore. Mysore is one of the terminii of the Southern Railway. Pop. 2,53,865 (1961).

**Naini Tal:** hill station is about 6,350 feet above sea-level. Among the principal recreations are hiking, boating and yachting on the lake around which the town stands, and fishing and riding. One can also enjoy the Himalayan mountain scenery. *Places worth a visit :* 1. Cheena Peak, 2. Land's End, 3. Lariya Kanta Peak, 4. Sher-ka-Danda Peak, 5. Tiffin Top or Dorothy Seat, 6. Camel's Peak or Deopatta Peak. Naini Tal is 22 miles from Kathgodam railway station which is connected with Bareilly and Mathura. From Kathgodam one goes by bus or car to Naini Tal which is 22 miles away.

(See also 'Kumaon Hills' and 'Almora' and 'Ranikhet'). Pop. 14,995 (1961).

**Nalanda :** in Bihar, approachable from Patna by rail or motor, contains a group of ruined Buddhist temples and monasteries and a small local museum. It was the seat of an ancient Buddhist university.

**Nasik :** in Maharashtra and 117 miles from Bombay on the N.E. line of the Central Railway, is a place of pilgrimage for Hindus and is famous for Buddhist rock-cut temples of the first century B.C. and later. Pop. 1,31,103 (1961).

The golf links at near-by Deolali are an added attraction

**Ootacamund :** hill station in Madras State stands 7,500 feet above sea-level on the Nilgiris. It is sometimes called 'the queen of the hill stations.' One of the main features which distinguishes it from other hill stations is the number and length of motorable roads which go winding in and out of spacious parks or long stretches of turf studded with ornamental trees. The mean temperature for the year is 57°F ; during the winter the thermometer touches freezing point. Ootacamund is called the sportsman's paradise : plenty of fishing and big game shooting being available. There is also golf and tennis and during the season races and tournaments are held. *Places worth a visit :* 1. Botanical Gardens, 2. Race Course, 3. Assembly Room, 4. Dodda Betta, the highest peak in the Nilgiris, 5. Pykara Hydro-Electric Dam which is about 18 miles from Ootacamund. Ootacamund is the terminus of the Nilgiri mountain railway and 6. Kundah Hydro-electric Scheme which includes many lakes, dams and power houses. Pop. 50,140 (1961).

**Pachmarhi :** hill station, was summer capital of Madhya Pradesh, lies on the Mahadeo hills of the Satpura Range and is about 3,500 feet above sea-level. There are about 20 golf links in the town and plenty of game is also available in the Pipariya forest. *Places worth a visit :* 1. Bee Dam, 2. Mahadeo Caves, 3. Dhupgarh, highest point in the Satpuras, 4. Dorothy Deep Falls, 5. Duchess Falls, 6. Lansdowne Hill, 7. Nilphur springs, 8. Waters Meet, 9. Big Falls, 10. Pansy Pool, 11. Twipram Pool, 12. Saunder's Pool, 13. Pandava Caves. Pachmarhi is reached from Pipariya Station on the main Central Railway line from Bombay to Jabalpur. From Pipariya, Pachmarhi is 32 miles.

There are facilities for swimming, trekking and riding. Pop. 653 (1961).

**Padmanabhapuram :** in Kerala, is the ancient capital of the former Travancore State. *Places worth a visit :* Palace.

**Pahalgam* :** in Kashmir in the lap of the Lidder Valley is situated 60 miles from Srinagar and is famous for its camping sites, and as a base for the Amarnath Cave and Kolahoi glacier.

**Palitana :** in Saurashtra, is famous for its holy hill Shatrunjaya (see separate note) and its Jain temples. Pop. 24,581 (1961).

**Pandharpur :** town in Sholapur District in Maharashtra. It stands on the Bhima river and is one of the most frequented places of pilgrimage in Maharashtra. The centre of devotion is the temple dedicated to Vithoba, an incarnation of Vishnu. Fairs are held annually in honour of the God. Pop. 45,421 (1961).

**Patna :** capital of Bihar, stands on the site of the ancient city of Pataliputra. Pop. 3.63,700 (1961).

**Poona :** in Maharashtra and 120 miles from Bombay, has many historical buildings and one of the best race courses in India. *Places worth a visit are :* Shanwar Wada, the National Chemical Laboratory, the Defence Academy and the Central Water and Power Research Station at Khadakvasla. Pop. 7,21,896† (1961).

Other show-places near Poona are : Sinhagad and Purandar. The factory which manufactures antibiotics at Pimpri is worth a visit. See also Poona District.

**Porbandar :** in Gujarat, is the birthplace of Mahatma Gandhi and an attractive summer resort. Pop. 75,081 (1961).

**Prabhas Patan :** in Gujarat, is the site of the famous Somnath Temple, which was destroyed and rebuilt several times. Its last construction was begun in 1951.

**Puri :** (*Jagannath Puri*) *:* famous for the Jagannath Temple, is a coastal town in Orissa. The car festival when an image of Jagannath is taken in procession in a huge chariot drawn by ardent devotees (the proverbial Juggernaut) is an event of India-wide importance. The temple has a monolith pillar brought from Konarak Temple, in front and a 24-feet high stone wall all round. There are four entrances. The presiding deities are Krishna, Balaram and their sister Subhadra. Besides the Jagannath Temple other places worth a visit are the monastic establishments (maths). Fifty miles from Puri is Konarak, the Sun Temple. Pop. 60,815 (1961).

**Rameshwaram : This holy town in Madras State is built on an island in the Palk Straits. It contains one of India's most venerated temples, perhaps the finest example of South Indian architecture. It is in the form of a quadrangular enclosure 650 ft. by 1,000 ft. The temple is renowned for its vast pillared corridors nearly 4,000 ft. long.** Pop. 6,801 (1961).

It is near the tip of the Indian peninsula.

**Ranchi :** hill station and summer resort of Bihar, noted for its picturesque scenery and fine roads. Pop.‡ 1,40,253 (1961).

It is the site of heavy machine building plants.

**Ranikhet : is a hill station in U.P. on the Kumaon Hills. Most mountaineering parties establish their bases at Ranikhet.**

(See also 'Kumaon Hills', 'Almora' and 'Naini Tal').

**Sanchi :** small village near Bhopal in Madhya Pradesh, famous for the Budhhist stupa which is the largest and the best preserved in India. The stupa is built with sand stone and is about 103 feet in diameter and 42 feet high. The sculpture is remarkable in that there is no anthropomorphic figure of Buddha. The most striking features of the stupa are the four gates which are profusely carved with scenes from the Jataka stories. Sanchi is on the main Central Rly. near Bhopal. The museum maintained by the Archaeological department is worth a visit. There are a Travellers' Bungalow and Tourist Centre.

**Santiniketan :** in West Bengal, is the home of the famous Visva Bharati, the international university founded by Tagore. *Places worth a visit are :* Rabindra Bhavan (the poet's residence) where his personal belongings, manuscripts, etc. are on display and the poet's mud hut where he wrote many of his famous books. The place is 91 miles from Calcutta on the Eastern Railway and 2 miles from Bolpur Station.

**Sasaram :** in Bihar is known for the magnificent tomb of Sher Shah, Emperor of Delhi. Pop. 37,782 (1961).

**Seringapatam :** or Srirangapattana in Mysore State, 9 miles by road from Mysore city was the ancient capital of Tippu Sultan. It is situated on an island on the Kaveri. It has the Sultan's fort, mosque and palaces. There are also many old temples. Pop. 11,423 (1961).

**Sevagram :** near Wardha in Maharashtra is the village where Mahatma Gandhi founded his ashram. It has been the home of many Gandhian institutions.

**Shatrunjaya Hills.**—Shatrunjaya, near Palitana in Saurashtra, is also known to the Jains as Siddhagiri or Siddhachala or the Hill of the Perfected Ones. It is the most sacred place (*tirtha*) of Shvetambara Jains. There are a great number of temples in groups on *tonks* or summits. The most important one is the *tonk* of Adishvara Bhagavan. The ancient image, consecrated by the prophet's son, Ratubal, has been replaced. This is perhaps the most holy site within the most sacred precincts of the Shatrunjaya Hills. At this place a large number of saints are said to have attained *Nirvana*. A number of inscriptions have been found here, which have been utilised towards writing the history of Western India and the history of the different schools of Jainism.

**Shillong :** is the capital of the Assam Government. Thirty-six miles from here is Cherrapunji, the wettest place in the world. Pop. 72,438 (1961).

**Shivpuri :** also known as Sipri is in Madhya Pradesh, 72 miles from Gwalior. It is an interesting tourist resort with good hunting and boating possibilities. Pop. 28,681 (1961).

**Simla :** the former summer capital of the Government of India and the Government of the Punjab, it is situated on a spur of the Himalayas at a height of 7,200 feet. Among the recreations of the place are hiking, riding and shooting. The roads are excellent. *Places worth a visit :* 1. President's House, 2. Race Course, 3. Jakko Hill, 4. Observatory Hill, 5. Prospect Hill, and 6. Mashobra-Mahasu, seven miles away. There is a very good road into the interior and hikers to Narkanda, Kotgarh, Rampur and Bushahr can lodge in rest-houses that line the road. There is also a bus service on this road and holiday-makers who leave in the morning can be back in Simla by evening. The trek route to Kulu commences at Narkanda. Simla is also well provided with a number of excellent schools and hotels.

Simla is now the capital of Himachal Pradesh.

Simla is reached from Delhi via Kalka on the Delhi-Ambala line. From Kalka there is a narrow gauge railway upto Simla. At Kalka motor cars are available. Buses also run between Kalka and Simla. All through the scenery is superb, with mountain peaks or luxuriant foliage. Pop. 42,597 (1961).

**Somnath :** see under Prabhas Patan.

**Sravanabelgola :** in Mysore State, is noted for its Jain temples and the colossal statue of Gomatesvara which is 65 ft. high, the tallest monolithic in the world. It was erected in 983 A.D.

**Srirangam :** an island on the cauvery, two miles north of Tiruchirapalli (Trichinopoly), contains one of the largest temples in South India. The temple is consecrated to Ranganath (Vishnu) and contains a hall of 1,000 columns. Changes were made from the 9th to the 16th centuries and inscriptions of Chola, Pandya, Hoysasala and Vijayanagar kings are all found on it. The north gopuram is 152 feet high. Pop. 41,949 (1961).

**Tanjore :** in the delta of the Cauvery river in Madras State is noted for its temples and palaces. It was the capital of the Cholas under whom it grew in name and fame as a great

* Pop. 1,920 (1961).

† Including Poona Cantt. & Kirkee Cantt.

‡ Including Dorenda.

centre of art and culture. It remained so under the Maratha rulers who followed. *Places worth a visit :* 1. the temple of Brihadishvara built by Raja-Raja the great, 2. Naik's Court, 3. Maratha Court (the two together are often called the Palace in Tanjore).

Saraswati Mahal has a unique collection of manuscripts, Sanskrit, Marathi, Tamil, Telugu and Kannada. There are also paintings and books printed in English.

There are also good dak bungalows. Tanjore is reached from Madras by the Southern Railway. Pop. 1,11.099 (1961).

**Tiruchirapalli (Trichinopoly) :** the third largest city in Madras State is situated on the Cauvery. It is a very ancient city and was the strategic capital of the Chola and Naik kings. It is now a great educational centre. *Places worth a visit :* 1. the Rock temple 2. the two huge masses of granite known as the Golden Rock and Fakir Rock, 3. the Jambukeshwar Temple, two miles north of Trichinopoly dedicated to Appulinga or Siva. Pop. 2,49,862 (1961). See also Srirangam.

**Travancore :** (now constituent part of Kerala State) : the most beautiful and fertile region in all southern India, has many charms to offer the traveller within its domains. It has scenery ranging from a countryside of lakes, creeks and canals, to low hills, undulating land, rice fields and forests of cocoanut and areca palms, with a heavy undergrowth of pepper vines and tapioca.

It has also a wonderful highland zone with mountains touching heights of from 5,000 feet to over 8,000 feet, and hills covered with the densest of virgin forest, the home of great herds of wild elephants and bison, tiger, bear, black panther and wild boar, and where lies the lovely Periyar Lake over which one may cruise in comfort and see wild life in its natural habitat.

**Trivandrum :** the capital of Kerala, is accessible by well-kept roads and railway, and is also now connected by air with Bombay, Madras and Colombo.

*Places worth a visit :* 1. the Palaces, 2. Museum, 3. Picture Gallery, 4. Zoo, 5. Aquarium and 6. Padmanabha Temple.

North of Trivandrum is the ancient town of Quilon and to the north of this again, a pleasant trip by boat along delightful backwaters or by car along a good motor road, is the busy seaport of Alleppey.

About seven miles south of Trivandrum is Kovalam, a pleasant seaside resort with good facilities for bathing.

On the way to Cape Comorin from Trivandrum is Shuchindra Temple which should also be seen. Pop. 239,815 (1961).

**Udaipur :** in Rajasthan, is a city of lakes with island palaces. Seventy miles from Udaipur is Chittorgarh, the abandoned capital of Mewar, famous for its Tower of Victory. Pop. 1,11,139 (1961).

**Ujjain :** on the Sipra in Madhya Pradesh, is one of the seven cities sacred to the Hindus. Also known as Avanti. The Oriental Museum has many valuable manuscripts and pieces of sculpture. Is supposed to be the seat of King Vikrama. Mahakaleshwar temple is an attraction of pilgrimage. Pop. 1,44,161 (1961).

## NEW INDIA

The new India has its own show places, where much of the country's industrial life is centred. Most of them are connected with the Five Year Plan programme and are in the main a post-independence development. Some of these we give in the notes on the older towns above. Some other typical centres we give below :

**Anand :** town half way between Baroda and Ahmedabad, where the headquarters of the cooperative society producing milk, butter, cheese and baby food are located—Amul. The co-operative dairy, without keeping any cattle of its own is an up-to-date and modern unit with 40,000 farmers spread over an area of 1,300 square miles around it as members.

**Bailadia :** in Madhya Pradesh, is a rich iron ore deposit mine (public sector), capable of producing four million tons of ore (Fe. 60 per cent and more) per year. It is being developed with Japanese help for exporting ore to Japan. (App. cost Rs. 16 crores).

**Barauni :** Oil refinery in Bihar for processing crude oil into gasoline, turbine fuel, kerosene, diesel oil, furnace oil etc., being developed with USSR assistance. Full capacity in three stages, first two stages being complete already (capacity 2 million tonnes, App. cost Rs. 39 crores.) Also a Thermal Power Station.

**Batanagar :** an industrial town near Calcutta. The Bata Shoe Factory is located here.

**Bhadravati :** in Mysore State. The Mysore Government's iron and steel plant is located here. (See under 'Government Industrial Undertakings'.)

**Bhakra-Nangal :** twin-towns, which have grown recently round the huge Rs. 170 crore hydro-electric and irrigation project the biggest in the country, in which the waters of the Sutlej are controlled by dams, and diverted for irrigation and the generation of electric power. (See under 'Irrigation' for a longer note). A modern fertilizer factory was built and commissioned on Feb. 22, 1961 at Naya Nangal.

**Bhilai :** in Drug district of M.P., 176 miles from Nagpur on the Howrah line is the site of an integrated iron and steel plant, set up in the public sector with Russian help. (See 'Government Industrial Undertakings'.)

**Bokaro :** in Bihar, site of the Bokaro Steel (public sector) plant, (distinct from Bokaro thermal power station of the D.V.C.) being built with Soviet help. Bokaro Steel Ltd., as a new Co., was established in 1964.

**Burnpur and Kulti :** twin towns in which the Indian Iron and Steel Co. Ltd. has its works. Situated near Asansol on the border of West Bengal and Bihar, on the Grand Trunk Road, these works present an impressive view to the railway passengers by day or by night.

**Cambay :** a city of antiquity and an old international port in Gujarat. Today it has acquired importance again as the place—at Lunej—where oil and natural gas have been discovered. Drilling with foreign (Russian) technical help is in progress. (See article on 'Petroleum').

**Chandigarh :** Capital of Punjab was planned and built by Mons. Corbusier.

**Chandrapura :** Thermal power station of the D.V.C. (near Gomoh) 320 Km West of Calcutta, within easy reach of Dugda Coal Washery. Bokaro Steel Plant would be within 6–7 Km across the Damodar river. Three units of 125 MV, each to be set up, two already functioning.

**Chittaranjan :** near Asansol, on the border of Bihar and W. Bengal. The industrial colony came into being with the establishment of the broad gauge locomotive and boiler factory. (See also under 'Government Industrial Undertakings'.)

**Dalmianagar :** is situated on the west bank of the river Sone, 350 miles by rail from Calcutta. The Rohtas Industries Limited and Ashoka Cement Limited, manufacturers of cement paper, sugar, vanaspati, asbestos, cement sheets, etc., are located here providing employment direct and indirect to 60,000 persons.

**Durgapur :** in West Bengal, 100 miles from Calcutta, near Asansol is the site of an integrated iron and steel plant in the public sector, set up with British help. The Durgapur Coke Ovens plant run by the Government of West Bengal, the Durgapur Barrage, the canal system and thermal power house (of the D.V.C.) are also located in the vicinity. An optical glass unit is to be started nearby. Coal Mining Machinery Plant of Heavy Engineering Corpn. Ltd. ; a Technical Institution and Alloy Steel Plant are fast coming up.

**Dhuvaran :** In Gujarat, a thermal power station, using gas from Cambay region, with four turbo-alternators with 62·5 MW capacity each (App. cost Rs. 25 crores).

**Dugda :** Coal Washery (Hindusthan Steel Ltd.,) near Chandrapura Thermal power station (Bihar), capacity 1·8 million tonnes of washed coal, being expanded to 3·6 million tonnes.

**D. V. C. :** The Damodar Valley Corporation, looks after the big Rs. 182 crore multi-purpose project on the Damodar River in Bihar-Bengal. Tilaiya, Konar, Maithon and Panchet Hill are the sites of the four dams ; with hydel generating stations attached except at Konar and thermal stations at Bokaro, Chandrapura and Durgapur. There is an extensive canal system for irrigation attached to the storage lakes. (See also under 'Irrigation'.)

The D.V.C. area, roughly from Hazaribagh to Durgapur in east Bihar, contains the highest concentration of high-grade mineral wealth in the country—coal, iron ore, copper and mica. A host of industries have sprung up or are under construction : Sindri, Hindustan Cables, Chittaranjan, Durgapur Steel Plant, Coke Ovens project, the heavy machine building group of industries, the Kargali and Dugda coal washeries.

**Gandhigram :** about 25 miles from Madurai (South India) is a new colony formed to put Gandhian principles into actual practice in day-to-day life. The guiding principles are service and love. The accent is on hand-made products and the uplift of villages. Intensive training is imparted in many institutions here. A pilot health survey project covering over 70 villages in the neighbourhood has been undertaken with American aid.

**Gandhigram (Visakhapatnam) :** near Waltair in Andhra, is one of the major ports and the site of a ship-building yard. It can build four vessels per annum upto 15,000 tons each. (See under 'Government Industrial Undertakings'.) Also, the Caltex Oil Refinery.

**Gomia :** In Hazaribagh district, site of a high explosive factory, in private sector.

**Harike :** In Punjab, site of a barrage across the Sutlej, for two canal systems (*i*) Rajasthan Feeder (134 miles) and (*ii*) Rajasthan Canal, (291 miles). App. cost Rs. 66 crores.

**Hirakud :** the site of the Rs. 30-crore multi-purpose project across the River Mahanadi in Orissa to provide irrigation facilities and electric power. Power is being supplied to industries round about and to the Rourkela Iron and Steel Plant. (See also under 'Irrigation'.)

**Jetsar :** Near Suratgarh, in Rajasthan, site of another mechanised farm about 30,000 acres.

**Jwalamukhi :** in the Kangra Hills where gas has been discovered. Drilling is in progress with foreign (Rumanian) technical help. (See article on 'Petroleum'.)

**Kiriburu :** Iron ore mines, in the Bonai range of Keonjhar and Singhbhum districts (Orissa & Bihar), being developed with USA's ADF and Japanese help for exporting two million tonnes of ore annually.

**Kirloskarvadi :** In Sangli District, Maharashtra, is an industrial colony established over 50 years ago, where agricultural implements and a variety of engineering goods have been manufactured.

**K. G. F. :** The Kolar Gold Fields are a group of mining colonies in Mysore State managed by the Union Government.

**Korba:** in Madhya Pradesh is the site of a new coal mine and a thermal station for the M.P. Grid, from which the Bhilai Steel Project gets most of its power supply. Coal from Korba will also be used in Bhilai.

**Kosi :** The Rs. 45-crore multi-purpose project in Bihar for flood protection, irrigation and electric power. The barrage on the river is about 30 miles below Chatra in Nepal. (See under 'Irrigation'.)

**Koynanagar :** in Satara district, Maharashtra, is approachable by road (30 miles) from Karad station on the Southern Railway. Here the turbulent waters of the Koyna are controlled and diverted through an underground tunnel (project cost, first stage, Rs. 40 crores) on the other side of the hill for generating electricity in an underground power house. The whole area on the dam side with the staff colony, schools, hospitals and shopping centres, is known as Koynanagar.

**Mallapuram (Tungabhadra) :** in Bellary District in Mysore State is the site of the Rs. 60-crore Tungabhadra Dam, one of the greatest multi-purpose projects in the country. (See under 'Irrigation'.)

**Modinagar :** in Meerut District, near Delhi, is an industrial colony where vanaspati, textiles, sugar and many other articles are manufactured.

**Motipur :** one of a large number of villages in the U.P. terai in the districts of Bijnor, Pilibhit, Naini Tal and Rampur. These villages form the largest concentration of mechanized farms in the country, the best known of which is the State Government's Terai State Farm.

**Nagarjunasagar :** See under VIJAYAPURI.

**Naya Nangal :** see Bhakra Nangal.

**Nepanagar :** in M.P. on the Central Railway is the site of the only newsprint factory in India. (See also 'Government Industrial Undertakings'.)

**Neyveli :** in South Arcot District, in Madras State, about 150 miles from Madras, the site of lignite mines and centre of industrial development. The project produces electric power, fertilizer, raw lignite briquettes. (See under 'Government Industrial Undertakings'.)

**Pathratu :** In Hazaribagh district, a thermal power station, with 400 MV capacity, for industries round about Ranchi. (App. cost Rs. 40 crores.)

**Perambur :** a suburb of Madras where an integral railway coach factory is situated. (See under 'Government Industrial Undertakings'.)

**Pimpri :** near Poona, is the place where the Hindustan Antibiotics factory is located. It manufactures penicillin. (See also under 'Government Industrial Undertakings'.)

**Pipri :** in Mirzapur District in U.P. is the site of the Rs. 46-crore Rihand dam across the Rihand, whose waters are used for the generation of power. One of the biggest aluminium plants in the country is being built here. (See under 'Irrigation'.)

**Ramchandrapuram :** Near Hyderabad in Andhra Pradesh is the township for the Heavy Power Equipment Plant (under Bharat Heavy Electricals) being built with Czech help for manufacturing steam turbines and turbo-alternators. (App. cost Rs. 33 crores.)

**Ranipur :** Another unit of Bharat Heavy Electricals, near Hardwar (U.P.) developed with Soviet help for manufacturing steam turbines and generators.) (App. cost Rs. 68 crores).

**Renukoot :** In Mirzapur district (U.P.) township of the Hindusthan Aluminium Plant near Rihand dam.

**Rourkela:** in Orissa State, about 250 miles from Calcutta on the main line to Nagpur, is the site of an Iron and Steel Plant in the public sector set up with German help. In addition, a special fertilizer plant is also being erected here.

(See under 'Government Industrial Undertakings'.)

**Rupnarayanpur :** near Chittaranjan, is a small township for telephone cable manufacturing concern—the Hindusthan Cables Ltd. (See under 'Government Industrial Undertakings').

**Sindri :** the site of the big fertilizer plant in Bihar. (See under 'Government Industrial Undertakings'.)

**Suratgarh :** in Rajasthan is the largest single mechanised agricultural farm (30,000 acres) utilising complete set of machinery and equipment presented by U.S.S.R. It is administered by the Ministry of Food and Agriculture

**Tiruverumbur :** Near Trichy (Tiruchirapalli) high pressure boiler manufacturing Plant and township, under Bharat Heavy Electricals, developed with Czech help. (App. cost Rs. 25 crores)

**Vijayapuri (East & West) :** on either side of the Nagarjunasagar dam across the River Krishna in Andhra Pradesh (project cost Rs. 93 crores). 90 miles from Hyderabad are two new towns. Although planned mainly for irrigation, there will be a small hydel generating station. The canal system on the right and left banks is extensive and ingeniously constructed. (See under 'Irrigation'.)

On the site of Vijayapuri once stood the capital of the Ikshvaku Kings. The great Buddhist sage and philosopher Nagarjunacharya lived and taught here. It was a great centre of learning and the University was known as Nagarjunkonda. Extensive excavations have brought to light important pieces of sculpture, housed in a big museum nearby.

**Walchandnagar :** in Poona district, Maharashtra, can be reached either from Poona or from Bhigvan (Central Railway) railway station. It is an industrial colony, with extensive cane cultivation on mechanised scale, sugar and alcohol production, huge workshop for manufacturing sugar making machinery, plastic buttons and dairy products.

## HOTELS

Here is a list of Western style hotels and rest houses.

AGRA CANTT.
LAURIE'S HOTEL : Mahatma Gandhi Road.
CLARKS SHIRAZ ; IMPERIAL ; GRAND.

AHMEDABAD
CAMA HOTEL : Khanpur Road.
RITZ HOTEL : Lal Darwaza.

ALLAHABAD
BARNETT'S HOTEL : 14, Canning Road ; ROYAL HOTEL : 24, South Road, Civil Lines.

ALWAR
CIRCUIT HOUSE : SILISERH TOURISTS HOME.

ALWAYE
TOURIST BUNGALOW.

AMBALA CANTT.
CECIL HOTEL : 127, Staff Road ; PARRY'S HOTEL : 126, Staff Road.

AMRITSAR
No. 10, GUEST HOUSE : 10, Cantonment ; RITZ HOTEL : 45, The Mall ; HOTEL AIRLINES : Cooper Road.

AURANGABAD
AURANGABAD HOTEL : Aurangabad.

BANGALORE
TOURIST HOTEL : Race Course Road ; HOTEL BROADWAY : 12, Kempegowda Road ; LOBO'S HOTEL : Cubbon Road, Bangalore 1 ; MADRAS WOODLANDS HOTEL : 5, Sampangi Tank Road, Bangalore 1 ; SHILTON HOTEL : St. Mark's Road, Bangalore 1 ; WEST END HOTEL : High Grounds.

BELGAUM
HOTEL GREEN : 164, Camp.

BHOPAL
IMPERIAL SABRE ; PAGODA HOTEL.

BHUBANESHWAR
TOURIST BUNGALOW ; STATE GUEST HOUSE ; CIRCUIT HOUSE.

BIKANER
CIRCUIT HOUSE : Bikaner.

BODHGAYA
TOURIST BUNGALOW : Bodhgaya.

BOMBAY
AIR LINES HOTEL : Churchgate Reclamation ; AMBASSADOR HOTEL Churchgate Extension ; GRAND HOTEL : Ballard Estate ; GREEN'S HOTEL : Apollo Pier ; SEA GREEN HOTEL : Marine Drive ; TAJ MAHAL HOTEL : Apollo Pier ; RITZ HOTEL : Churchgate Reclamation, Fort ; SHALIMAR, Cumballa Hill ; SUN-N-SAND, Juhu ; WEST END HOTEL : 45, Marine Lines ; HOTEL WALDORF : 16, Arthur Bunder Road ; MIRABELLE HOTEL : 33A, Marine Lines ; HOTEL NATARAJ : Marine Drive ; HOTEL PARKWAY : 926, Ranade Road.

BUNDI
CIRCUIT HOUSE.

CALCUTTA
GREAT EASTERN HOTEL : 1-3, Old Court House Street ; HOTEL MINERVA : 11, Ganesh Chandra Avenue, Calcutta 13 ; OBEROI GRAND HOTEL : 15, Chowringhee, Calcutta 13 ; RUSSELL HOTEL : 12-B, Russell Street, Calcutta 16 ; SPENCES HOTEL : 4, Wellesley Place ; LYTTON HOTEL : 14, Sudder Street ; MAJESTIC HOTEL : 46, Maeter Street.

CALICUT
ALAKAPURI GUEST HOUSE : Calicut 2 ; BEACH HOTEL : Beach Road.
TOURIST BUNGALOW.

CANNANORE
TOURIST BUNGALOW.

CAPE COMORIN
CAPE HOUSE ; KERALA HOUSE TOURIST BUNGALOW.

CHANDIGARH
OBEROI MOUNT VIEW : Sector 10.

CHHATARPUR
CIRCUIT HOUSE, (M.P.).

COCHIN
MALABAR HOTEL : Willingdon Island, Cochin 3 ; SEA LORD HOTEL : Ernakulam ; GRAND HOTEL : Ernakulam ; INTERNATIONAL TOURIST HOME : Mahatma Gandhi Road ; TOURIST BUNGALOW : Bolghatty, Ernakulam.

COONOOR (Nilgiri Hills).
HAMPTON HOTEL ; RITZ HOTEL.

DARJEELING
BELLEVUE HOTEL ; OBEROI MOUNT EVEREST : Gandhi Road ; WINDAMERE HOTEL : Observatory Hill ; CENTRAL HOTEL : Robertson Road.

DEHRA DUN
HOTEL WHITE HOUSE : 15-A, Lytton Road.

DELHI
AIRLINES HOTEL : Opp. New Delhi Railway Station : ASHOKA HOTELS : Diplomatic Enclave, New Delhi ; CLARIDGE'S HOTEL : 12, Aurangzeb Road, New Delhi ; FLORA HOTEL : Dayanand Road, Daryaganj, New Delhi ; HOTEL AMBASSADOR : Sujan Singh Park, New Delhi ; HOTEL BROADWAY : Asaf Ali Road, New Delhi HOTEL IMPERIAL : Janpath, New Delhi ; HOTEL JANPATH : Janpath, New Delhi ; HOTEL MARINA : Connaught Circus, New Delhi ; NIRULA'S HOTEL : L-Block, Connaught Circus, New Delh ; OBEROI MAIDENS ; 7, Alipur Road, Delh 6 ; OBEROI SWISS : 2, Alipur Road, Delhi 6

DEOLALI
RUGBY HOTEL : 83, Rest Camp Road.

FARIDABAD (DELHI)
HOLIDAY INN.

GOPALPUR-ON-SEA
OBEROI PALM BEACH HOTEL : Gopalpur-on-Sea, Dist. Ganjam, Orissa.

GULMARG (Kashmir).
GOLF VIEW HOTEL ; NEDOU'S HOTEL.

GWALIOR
CIRCUIT HOUSE.

HYDERABAD
RITZ HOTEL : Hill Fort Palace ; ROCK CASTLE HOTEL : Jubilee Hills.

INDORE
INDORE HOTEL : G. P. O. Indore ; LANTERN HOTEL : North Tukoganj.

JABALPUR
JACKSON'S HOTEL : Civil Lines.

JAIPUR
JAI MAHAL PALACE HOTEL : Civil Lines ; KAISER-I-HIND : Near Railway Station ; KHETRI HOUSE ; RAJASTHAN STATE HOTEL ; RAMBAG PALACE.

KALIMPONG
HIMALAYAN HOTEL.

KANPUR
BERKELEY HOUSE : Civil Lines.

KHANDALA
KHANDALA HOTEL.

KHAJURAHO
CIRCUIT HOUSE, (M. P.) ; TOURIST BUNGALOW.

KODAIKANAL
CARLTON HOTEL : Lake Road; HOLIDAY HOME : Golf Links Road.

KONARAK
TOURIST BUNGALOW.

KOTAH
CIRCUIT HOUSE.

KOTTAYAM
HOTEL AMBASSADOR : K. K. Road ; TOURIST BUNGALOW.

KUSHINAGAR
TOURIST BUNGALOW.

LUCKNOW
CAPOORS HOTEL : 52, The Mall; CARLTON HOTEL, LTD., Shahnajaf Road.

MADRAS
AIRLINES HOTELS : 177-179, Mount Road; CONNEMARA HOTEL : Mount Road ; HOTEL DASAPRAKASH : 50, Poonamallee High Road; HOTEL OCEANIC : 29, San Thome High Road; WOODLANDS HOTEL : 1/23, Edward Elliots Road, Mylapore ; ASHOKA HOTEL ; SAVOY HOTEL : 39, Mount Road.

MAHABALESHWAR
FREDERICK HOTEL ; RACE VIEW HOTEL.

MANALI (Kulu-Punjab)
SUNSHINE ORCHARDS GUEST HOUSE ; TOURIST BUNGALOW.

MANDU
TOURIST BUNGALOW ; ARCHAEOLOGICAL REST HOUSE.

MATHERAN
LORD'S CENTRAL HOTEL.

MOUNT ABU
MOUNT HOTEL : Dilwara Road; PALACE HOTEL.

MUNNAR
TOURIST BUNGALOW.

MUSSOORIE
HAKMAN'S GRAND HOTEL ; SAVOY HOTEL; HOTEL ROAN OKE ; LIBRARY CLUB HOTEL.

MYSORE
HOTEL KRISHNARAJASAGAR ; HOTEL METROPOLE : Viceroy Road ; HOTEL RITZ : Bangalore-Nilgiri Road.

NAGPUR
CIRCUIT HOUSE.

NAINI TAL
GRAND HOTEL : The Mall ; HOTEL METROPOLE ROYAL HOTEL : The Mall ; WALDORF HOTEL; BELVEDERE HOTEL ; SWISS HOTEL.

OOTACAMUND
HOTEL CECIL ; SAVOY HOTEL.

PACHMARHI
HOTEL BLOCK (PACHMARHI HOTEL); NEW PACHMARHI HOTEL.

PAHALGAM (Kashmir).
PINE VIEW HOTEL.

PANJIM (GOA)
HOTEL MANDOVI

PATNA
PALACE HOTEL : Gandhi Maidan ; HOTEL REPUBLIC ; Lawly's Building, Exhibition Road.

PEERMADE (Kerala).
HOTEL INTERNATIONAL ; TOURIST BUNGALOW.

POONA
NAPIER HOTEL : 10, Moledina Road ; POONA HOTEL ; WELLESLEY HOTEL : 12-A, Connaught Road.

PURI
SOUTH EASTERN RAILWAY HOTEL, TOURIST BUNGALOW.

QUILON
TOURIST BUNGALOW.

RANCHI
SOUTH EASTERN RAILWAY HOTEL.

SANCHI
TOURIST BUNGALOW.

SECUNDERABAD
PERCY'S HOTEL : Sardar Patel Road.

SHILLONG
PINEWOOD HOTEL.

SIMLA
OBEROI CECIL : The Mall.
OBEROI CLARKE'S : The Mall.

SRINAGAR
NEDOU'S HOTEL ; OBEROI PALACE HOTEL.

THEKADY (Kerala)
ARANYA NIVAS, THEKADY ; TOURIST BUNGALOW : Edapalayam.

TRICHUR
TOURIST BUNGALOW.

TRIVANDRUM
MASCOT HOTEL ; HOTEL MAGNET.

UDAIPUR
ANAND BHAWAN, CIRCUIT HOUSE ; LAXMI VILAS PALACE HOTEL ; LAKE PALACE HOTEL.

VARANASI (BANARAS).
CLARK'S HOTEL : The Mall ; HOTEL DE PARIS : 5, The Mall.

## TOURIST TRAFFIC

There was an average increase of 11·3 per cent over the 1963 figures in the arrival of foreign tourists to India during 1964.

The number of tourists was 156,673.

This excludes 293,530 Pakistanis who visited the country on short visits.

Of the total number, 68·9 per cent came from the Americas, Europe and Australia and belonged to the high-spending category of tourists. From neighbouring regions of Africa, West Asia and East Asia came 48,695 tourists.

Of the tourists, 62·3 per cent (97,587) were males and 33·8 per cent (52,927) females.

More than 40 per cent of the tourists were in the age group of 30 to 50 and 27·8 per cent were above 50. Children formed more than eight per cent.

On an average, 428 tourists arrived every day.

The foreign exchange earned during 1964 was Rs. 26 crores.

### DEVELOPMENT OF TOURISM— THIRD PLAN

The Third Plan for development of tourism includes an allocation of Rs. 8 crores—Rs. 3·5 crores in the Central Sector and Rs. 4·5 crores in the State Sector. Out of the Rs. 3·50 crores in the Central Sector, Rs. 2·92 crores are earmarked for provision of facilities for foreign tourists and the remaining Rs. 0·58 crores for grant of subsidies to the State Governments for provision of facilities for home tourists. The Rs. 4·5 crores in the State Sector are for provision of facilities by the State Governments for home tourists.

The setting up of one or more undertakings in the public sector to handle activities of a commercial character connected with the promotion of tourism, which was one of the recommendations of the Jha Committee, has been accepted by the Government of India (March 1964).

The report of the Committee contained over a hundred recommendations for ensuring better facilities for tourists by way of hotels, transportation, publicity material, entertainment, speedy confirmation of air reservations, opening more tourist offices overseas and a policy of concentration of resources to develop selected tourist centres on an integrated basis.

The Government of India has set up two corporations in the public sector for promoting tourism and providing facilities for tourist traffic in the country. For more details about the corporations see article on "All India Corporations".

**Fourth Plan :** A sum of Rs. 25 crores has been tentatively allocated for the development of tourism in the Fourth Plan. Of this Rs. 5 crores have been set apart for the recently set up India Tourism Hotel Corporation and the India Tourism Corporation. It is proposed to concentrate on area development which is now a recognised feature of tourism planning in countries like Spain, Italy, Greece and Yugoslavia.

### INDIA'S REGIONAL BALANCE OF PAYMENTS ON CURRENT ACCOUNT

**Item : Travel** (Crores of Rupees).

| Region | 1961–62 (Final) | | | 1962–63 (Revised) | | | 1963-64 (Preliminary) | | | April-Sept. 1964 (Preliminary) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Credits | Debits | Net | Credits | Debits | Net | Credits | Debits | Net | Credits | Debits | Net |
| 1. Sterling Area | 7·7 | 4·3 | + 3·4 | 6·0 | 3·7 | + 2·3 | 0·5 | 3·2 | − 2·7 | 0·2 | 1·8 | − 1·6 |
| 2. Dollar Area | 4·1 | 2·3 | + 1·8 | 3·5 | 2·9 | + 0·6 | 1·5 | 2·6 | − 1·1 | 0·7 | 1·7 | − 1·0 |
| 3. O.E.C.D. Countries* | 1·9 | 2·0 | − 0·1 | 1·4 | 1·8 | − 0·4 | 0·1 | 1·9 | − 1·8 | — | 1·0 | − 1·0 |
| 4. Rest of Non-Sterling Area | 1·3 | 2·8 | − 1·5 | 1·1 | 3·4 | − 2·3 | 0·1 | 2·8 | − 2·7 | — | 1·6 | − 1·6 |
| TOTAL | 15·0 | 11·4 | + 3·6 | 12·0 | 11·8 | + 0·2 | 2·2 | 10·5 | − 8·3 | 0·9 | 6·1 | − 5·2 |

*Note :* Data for receipts for the quarter January–March 1963 and thereafter are incomplete.

* Hitherto known as O.E.E.C. Countries.

# U. N. AID TO INDIA

INDIA participates in the development programmes of the United Nations family both as a contributor and recipient of aid. UN aid is provided to Governments on request, under programmes of technical co-operation which fall into three main categories:

(1) The Expanded Programme of Technical Assistance (EPTA);

(2) The UN Special Fund;

(3) Assistance under the regular programmes of activities of the UN and the individual specialized agencies.

India has received aid under each of these categories. EPTA and Special Fund programmes are financed by voluntary contributions from member governments. In 1964, India contributed $850,000 to EPTA and $2,150,000 to the Special Fund. The regular programmes are financed by the regular budgets of each agency to which all member governments contribute under assessments fixed by the assemblies of these bodies.

## THE EXPANDED PROGRAMME

The Expanded Programme of Technical Assistance (EPTA) combines the assistance activities of the UN itself and nine participating agencies: International Atomic Energy Agency (IAEA), International Labour Organization (ILO), Food and Agriculture Organization (FAO), United Nations Educational, Scientific and Cultural Organization (UNESCO), International Civil Aviation Organization (ICAO), World Health Organization (WHO), International Telecommunication Union (ITU), World Meteorological Organization (WMO), and Universal Postal Union (UPU).

Aid furnished to India in 1964 under the Expanded Programme was to a total value of $2,909,008. It covered the provision of 151 international experts in various fields, 109 fellowships for Indian nationals to study and train abroad, and more than $1 million worth of equipment.

Illustrating the two-way nature of the UN technical co-operation programme is the fact that, also in 1964, Indian nationals numbering 166 served as EPTA experts in other countries, and India was host to 118 UN fellowship holders from outside.

Assistance projects under EPTA are being carried out in India in the following fields:

**United Nations (Technical Assistance Operations)**

Fertiliser manufacture; D.D.T. and penicillin manufacture; raw materials substitution to save foreign exchange; training in water resources development; petroleum geology; port development and lighthouse engineering; statistics, town planning and techno-economic surveys.

**IAEA (International Atomic Energy Agency)**

Training programme in prospecting, mining and processing of nuclear raw materials.

**ILO (International Labour Organization)**

Labour conditions; social security; employment information and safety in mines; productivity and management.

**FAO (Food and Agriculture Organization)**

Dairy production, dairy engineering, dairy plant management, dairy technology, dairy economics and dairy training; poulty development; pork technology; manufacture of egg powder and egg pulp; improved animal husbandry methods, animal climatology, animal vaccine production and disease control, grassland management, hides and skins; fish harbour development, fish processing, power fishing, mechanization and design of fishing craft, reservoir fishing; physical oceanography; river pollution; land use and water management, forestry development, plywood research; improvement of plant protection measures, mushroom cultivation, plant nematodes, pesticide analysis and residue limits in food; nutrition; establishment of a catering college and home economics education programme; crop insurance; horticulture.

**UNESCO (United Nations Educational, Scientific and Cultural Organization)**

Development of advanced centres of university studies in physics, botany, chemistry and geophysics, and post-graduate studies in engineering. Assistance to the Indian Institute of Technology, Bombay (in thermo-dynamics, liquid fuel technology, physical metallurgy, wood and cellulose chemistry, machine building, etc.); assistance to Madras University (Chemical engineering, fluid mechanics, etc.). Other fields of UNESCO assistance include: Scientific documentation, research on desert problems, development of science teaching and apparatus, and assistance to the Education Commission's survey of educational objectives.

**ICAO (International Civil Aviation Organization)**

Pilot training; radar control; air traffic control and airport costing.

**WHO (World Health Organization)**

Control of communicable diseases, particularly malaria, tuberculosis, smallpox, trachoma and leprosy; education and training of public health personnel, planning and strengthening of health services, especially in rural areas; maternal and child health; environmental sanitation and water supply.

**ITU (International Telecommunication Union)**

Inter-city dialling, and V.M.F./V.H.F. techniques.

**WMO (World Meteorological Organization)**

Training programme in Meteorology.

## THE SPECIAL FUND

In 1964, the UN Special Fund was assisting 27 development projects in India involving an overall expenditure of some $99 million over a period of five years. Of this amount, the Government of India was to provide $73 million and the Special Fund $26 million. The 27 projects receiving Special Fund assistance were: Industrial Instructor Training Institute, Calcutta, Regional Labour Institutes at Calcutta, Madras and Kanpur, Central Mechanical Engineering Research Institute, Durgapur, Central Public Health Engineering Research Institute, Nagpur, Power Engineering Research Organization, Bhopal and Bangalore, Fisheries Training Institute, Bombay, Central Mining Research Station, Dhanbad, Survey of Potential Hydropower Sites, Survey of Water Supply Resources of Greater Calcutta, Central Scientific Instruments Organization, New Delhi, Cavitation Research Centre, Poona, National Aeronautical Laboratory, Bangalore, Vocational Training Scheme for Industrial Trades including a Central Instructors Training Institute in Kanpur, Central Instructor Training Institute, Madras, Institute for Petroleum Exploration, Dehra Dun, National Institute for Training in Industrial Engineering, Bombay, Central Instructor Training Institute, Hyderabad, Central Sheep and Wool Institute, Rajasthan, Central Instructor Training Institute, Ludhiana, Institute of Tropical Meteorology, Poona and International Meteorological Centre, Bombay, Pre-Investment Study of Forest Resources, Teacher Training for Engineering Colleges, Warangal, Assistance to Six Regional Engineering Colleges, Assistance to the Survey of India for Pre-Investment Surveying and Mapping, Establishment of Four Logging Training Centres, Centre for Research and Training on the use of Satellite Communications, Ahmedabad, Refining and Petrochemical Division, Indian Institute of Petroleum, Dehra Dun.

## AID UNDER REGULAR PROGRAMMES

**United Nations:**

Under its Regular Programme of Technical Assistance (financed under the regular United Nations budget) the United Nations has given India advisory services and help on the social and economic aspects of housing, transport economics, evaluation of community development and the rehabilitation of the handicapped.

### ILO

The ILO has two projects in its regular programme of technical assistance. The first of these is for vocational training of the blind and the second concerns the utilization of rural man power much of which is currently under-employed.

### FAO

FAO has carried out regular programmes of technical assistance in the field of agricultural production, marketing and conservation, including plant and animal disease control, agricultural research and nutrition. The FAO and UNICEF are taking part in the development of India's $25 million applied Nutrition Programme and also in the $82 million milk conservation programme. UNICEF is contributing $17 million toward these schemes, a large part of which consists of funds from FAO's Freedom From Hunger Campaign.

FAO also organizes seminars, exchanges information and advises and helps in spheres such as land reform and agricultural legislation.

### UNESCO

UNESCO gives assistance to educational and research centres such as the Regional Centre for Educational Planners in New Delhi, Indian Ocean Biological Centre, and the UNESCO Research Centre on Social and Economic Development in Southern Asia. The East-West and the Reading Materials projects are designed to promote better understanding between nations through the exchange and provision of fellowships and literature. In addition, UNESCO organizes seminars, symposia and short training courses on subjects such as soil biology, adult education and literacy, arid zone, oceanography, hydraulic engineering and geology.

### WHO

The World Health Organization has an extensive programme of assistance under its regular budget. This includes: communicable disease control (malaria, tuberculosis, small-pox, trachoma, leprosy etc.); education and training of public health personnel; maternal and child health services; strengthening of rural health services as part of community development; environmental sanitation; community water supply, assistance to the Indian Council of Medical Research; medical rehabilitation; industrial and occupational health; health education.

### UNICEF

Basic health including community development; disease control; school and pre-school feeding; nutrition education, milk conservation; pediatrics training; relief and emergency supplies. The total value of approved UNICEF assistance from May 1949 to June 1964 was $42,800,700.

**The World Food Programme**

Projects for increase in milk production in Anand, Gujarat State; intensive egg and poultry production and marketing schemes in Uttar Pradesh; construction and renovation of bunds and tanks in Uttar Pradesh.

Value of total approved WFP assistance upto June 1964: $1,514,200.

**International Bank for Reconstruction and Development**

The total value of loans provided to India by the World Bank was $876·11 million at the end of June 1964, consisting of 13 loans to the railways, five for power projects, five to ICICI for promoting industry, four to steel mills, two for coal mining and one each for agriculture and multi-purpose projects.

**International Development Association**

A loan of $432 million was provided to India by IDA between 1961 and June 1964 for 13 development projects. During 1963 and up to July 1964 the following eight projects received sanction:

Purna Project; Koyna Project; Port of Bombay; Indian Posts and Telegraphs Department; Indian Railways; Kothaguden Project; Industrial Imports and Telecommunications in India.

**International Finance Corporation**

Assistance was rendered by the IFC to the following nine projects up to the end of June 1964 for operational investments and standby and underwriting commitments by IFC:

Republic Forge Company Ltd.; KSB Pumps Ltd.; Kirloskar Oil Engines Ltd.; Assam Sillimanite Ltd.; Precision Bearing of India Ltd.; Port Glester Industries; Mahindra Ugine Steel Co. Ltd.; Lakshmi Machine Works Ltd.

Operational investments in all these totalled $11,524,000.

**India's Support for UN Aid Programmes**

With contributions to Global Operating Costs:

| | (Figures given in US Dollars) |
|---|---|
| Pledges made to: | |
| Expanded Programme (1964) .. | 850,000 |
| Special Fund (1964) .. .. | 2,150,000 |
| World Food Programme (1963-65) | 500,000 |
| Subscriptions to World Bank and its affiliates: | |
| World Bank (IBRD) .. .. | 800,000 |
| International Development Association (IDA) .. .. | 40,350,000 |
| International Finance Corporation (IFC) .. .. .. | 4,431,000 |

*Note:* The major part of contributions is in Rupees.

# COLOMBO PLAN

(See also under Foreign Aid)

COLOMBO Plan Bureau, P.O. Box No. 596, Colombo.

*Director:* J. L. Allen (Australia); *Information Officer:* F. D. Douglas (Pakistan); *Adviser on Inter-Regional Training:* B. R. Rao (India); *Assistant Information Officer:* L. P. Goonetilleke (Ceylon).

Plan period: 1951-71.

The Colombo Plan (for Co-operative Economic Development in South and South-East Asia) was conceived at a meeting of the Foreign Ministers of the Commonwealth held in Colombo in January 1950.

Over the years, the membership of the Colombo Plan has grown to 22; 16 countries within South and South-East Asia and six countries outside it.

The 16 countries within the area are Afghanistan, Bhutan, Burma, Cambodia, Ceylon, India, Indonesia, South Korea, Laos, Malaysia, Maldive Islands, Nepal, Pakistan, the Phillippines, Thailand and Viet-Nam.

The six countries outside the area are Australia, Britain, Canada, Japan, New Zealand and the United States.

Nearly one-fourth of mankind lives in the area covered by the activities of the Plan. The total population of the countries of the area is estimated to have increased from 624 million in 1950 to nearly 820 million in 1963.

*The Colombo Plan* is an international programme which is bi-lateral in operation even though it is multi-lateral in approach. It is bilateral in operation even though it is multi-lateral in approach because negotiations for assistance are made, not through any international agency, but direct between the donor and the receiving country. This procedure allows complete flexibility of action without interference from a third party and in actual practice it has resulted in considerable smoothness in operation.

The multi-lateral approach of the Colombo Plan is ensured through the deliberations of the Colombo Plan Consultative Committee and the Colombo Plan Council for Technical Cooperation in South and South-East Asia, which constitute the Colombo Plan Organization.

The Consultative Committee which is the highest deliberative body of the Colombo Plan and which meets once a year in one of the member countries takes note of the progress of the Plan and the role which external assistance plays in the development of the area and makes recommendations on the problems that arise in the implementation of development programmes. The Colombo Plan Council, located at Colombo, supervises the operation of the Colombo Plan Technical Co-operation Scheme and the dissemination of information on the Colombo Plan. The Executive arm of the Council in carrying out these purposes is the Colombo Plan Bureau, situated in Colombo.

Assistance has been given primarily in three forms—financial assistance and equipment for development projects; food and other commodity assistance as contribution towards economic stability and growth; and technical assistance to increase the number and range of skills and strengthen the economic and social institutions. The major part of the assistance under the Colombo Plan has come from member countries from outside the area. Internally, in the area, mutual assistance has progressively increased in recent years.

## EXTERNAL ASSISTANCE

The total of aid provided by donor countries under the Colombo Plan since its inception has been almost $14,864 million, including technical assistance, loans and grants, provision of agricultural commodities and supply of equipment. The value of such aid contributed in 1963–64 was about $2,165 million.

By far the greater part of the assistance under Colombo Plan comes from the six member countries outside the area — Australia, Britain, Canada, Japan, New Zealand and the United States. Brief details of some of the major items of capital aid and technical assistance given by these countries upto 1963–64 as recorded in the Thirteenth Annual Report of the Colombo Plan Consultative Committee are as follows:—

**AUSTRALIA:** During the year 1963–64, Australia's expenditure on capital aid and technical assistance under the Colombo Plan amounted to £A 4,982,280 bringing the total Australian contribution since the beginning of the Colombo Plan to £A 53,425,067. The arrival of another 573 Colombo Plan students in Australia during 1963–64 brought the total number of Australian training awards to 5,197.

In 1963–64, 576 awards were granted under the correspondence scholarship scheme, inaugurated by Australia in 1955, which brought the total number of awards to 3,799. The cost of the training programme to 30 June, 1964, was £A 8,399,000, including about £A 1,159,000 last year.

On 30 June, 1964, 61 Australian experts were in the field, bringing the total of Australian experts and advisers since the beginning of the Colombo Plan to 831.

Australian expenditure on technical equipment during the year was £A 697,497 which brought the total since the inception of the Colombo Plan to £A 3,091,497 and the number of projects implemented, or in the process of being met, to some 361 in 14 countries.

Expenditure of £A 2,686,000 on capital aid during 1963–64 brought Australia's contribution in this field to £A 38,477,000 spread over 135 projects in 14 countries. In addition to the above, Australia has contributed aid to the Colombo Plan area through the Indus Basin Development Fund (£A 3,000,000), Commonwealth Co-operation in Education and the Australian International Award Scheme. Australia has also given technical assistance to the Mekong Committee to the extent of £235,000.

**BRITAIN:** During the year 1963–64, the British Government spent £47·22 million on capital aid and technical assistance for development in South and South-East Asia, bringing the total of such expenditure since the beginning of the Colombo Plan in 1951 to £294·4 million. Additional commitments of the Government at 30 June, 1964, amounted to £150 million, including Britain's £12 million contribution to the Indus Basin Development Fund, which will be paid over the period up to 1971–72.

During the year ended 30 June, 1964, the British Government spent £44·97 million on capital aid, bringing the total of such expenditure since 1951 to £281·98 million. Additional capital aid commitments at 30 June, 1964 amounted to £148 million. British companies and private investors continued to be active within the Colombo Plan area. The total of British private investment in the area in 1963 is estimated to have been £33 million.

During the year ended 30 June, 1964, the British Government expenditure on technical assistance totalled £1·881 million, bringing the total of such expenditure since 1951 to £12·388 million. Commitments at 30 June 1964 totalled £2·77 million; on 30 June 1964, there were 713 Asian students in Britain undergoing training, bringing the number who have received instruction in Britain under the Colombo Plan since 1951 to 5,659; during the year ended 30 June, 1964, 86 experts were provided compared with 59 in the previous year, bringing the total provided since 1951 to 617. Equipment for

training and research was provided during 1964 to the value of £285,396 bringing the amount spent since 1951 to a total of £3,057,755.

Out of the total of £130,000 of aid promised by Britain for the Mekong project, £69,000 had been spent by the end of June, 1963. During 1963–64 the British Government spent £·97 million from the grant of £20·8 million which it has agreed to subscribe to the Indus Basin Development Fund over the period from 1960 to 1972.

In addition, Britain has provided education assistance to the region through the Commonwealth Scholarship and Fellowship Plan and the Commonwealth Teacher Training Bursary Scheme. An important contribution to Britain's technical co-operation in South and South-East Asia is made by the British Council, a non-Government agency, which does educational work, the cost of which is not included in the figures of aid expenditure given above.

**CANADA :** To the end of the fiscal year 1963–64 Canada has made available a total of $464·7 million for capital and technical assistance to member countries of the Colombo Plan, all in the form of grants, requiring no repayment of principal or interest. The amount made available during 1964 was $41·5 million.

Of the $464·7 million, approximately 48 per cent has been allocated for capital assistance, mainly in the form of construction projects (chiefly power stations, transmission lines, ground and aerial surveys, roads, bridges and harbours). Non-project items such as locomotives, transport vehicles and industrial and agricultural equipment as well as surveys and feasibility studies requiring little or no equipment are likewise included under capital assistance.

Commodity assistance accounted for about the same proportion of Colombo Plan allocation as capital assistance—*i.e.* about 48 per cent. Canadian commodity assistance has been concentrated in the larger countries of the area, mainly India and Pakistan.

Although technical assistance accounts for only slightly under 4 per cent of Canadian Colombo Plan aid, it is a very important aspect of the Canadian programme. Canadian technical assistance expenditure to 31 March 1964 was $17·2 million. A total of 2,547 trainees have been brought to Canada from Colombo Plan countries to the end of the last fiscal year and a total of 301 advisers and teachers have been sent to the region.

In addition to its Colombo Plan contribution as such, Canada has provided since 1951, to certain member countries loans and grants totalling $115 million for purchase of wheat and flour. Since 1961–62 Canada has also pledged under World Bank consortium arrangements, special long-term credits for use by India and Pakistan. To the end of 1963–64 long-term credits totalling $37·5 million had been pledged for India and $22·5 million for Pakistan. Canada has also financed studies in Canada for students from Commonwealth countries under the Commonwealth Scholarship Plan. An aerial survey of the Lower Mekong river, costing $1·3 million was completed in 1962–63.

**JAPAN :** Since her participation in the Colombo Plan in 1954, Japan's contributions to the Colombo Plan countries have steadily increased year by year. During the period between fiscal years 1954–55 and 1964 inclusive, budgetary appropriations for technical assistance to the Colombo Plan region have totalled 3,835 million yen.

During this period Japan sent 704 experts (including 92 for technical co-operation centres) to Colombo Plan countries and received 1,525 trainees for training in Japan. In addition, 1,397 participants from Colombo Plan countries came to Japan under the Japan-United States Third Country Training Programme. On June 30, 1964, the actual disbursements since 1956 under Japan's economic assistance to Colombo Plan countries amounted to 81,445 million yen and the outstanding balance of commitments to 126,060 million yen, including grants under the Agreements for Economic and Technical Co-operation with Cambodia and Laos and loans and lines of credit supplied to India, Indonesia, Pakistan, the Philippines and Viet-Nam under inter-governmental agreements.

During the period from 1 July 1963 to 30 June 1964, Japan provided the services of 109 experts. Japan's total expenditure on the Mekong River Development project amounted to 360 million yen.

Expenditure on experts and trainees during 1963–64 amounted to 721 million yen. In addition, Japan contributed assistance to the region through the Japanese Government scholarship programme (85 million yen for 1964), private technical co-operation by semi-governmental agencies and through private organisations mainly in the form of training awards.

**Private Investment :** The outstanding balance of Japanese private investment in the area as of 30 June 1964, amounted to 30,810 million yen, while payments made under reparations agreements for development in the Colombo Plan area amounted to 173,465 million yen, in Burma, Philippines, Indonesia and Viet Nam.

**NEW ZEALAND :** New Zealand has made available, up to 31 March 1964, a total amount of £13,146,142 for capital and technical assistance under the Colombo Plan. A further £1,000,000 has been appropriated for 1964-65.

During the year ended 30 June 1964, New Zealand's expenditure on capital aid and technical assistance amounted to £1,044,015 which brought the total expenditure on Colombo Plan activity since 1951 to £10,957,025.

The expenditure of £334,617 during 1963–64 brought the total of New Zealand's contribution in the form of capital equipment and cash grants to £7,511,434. This amount includes New Zealand's contribution to the Mekong River Survey and to the Indus Basin Development Fund. Most of New Zealand's capital aid has taken the form of direct transfers of overseas funds.

New Zealand's technical assistance expenditure during the year amounted to £709,398 bringing the total expenditure since 1951 to £3,445,591.

The arrival in New Zealand during 1963–64 of another 200 students brought the total number of New Zealand training awards to 1,488. At the end of June 1964 there were 460 Colombo Plan fellows and students studying in New Zealand.

During 1963–64, 16 New Zealand experts were assigned to countries of the region, bringing the total number of experts since the inception of the Plan to 220.

New Zealand's expenditure on aspects of the Mekong River Survey to 30 June 1963 amounted to £61,400. A further contribution of £50,000 was transferred during 1963–64, bringing New Zealand's total to the Indus Basin Development Fund to £350,000 to date.

**UNITED STATES:** United States Government obligations and commitments for economic and technical assistance to members of the Colombo Plan totalled $2 billion in 1964. Under the Foreign Assistance Programme, $955 million were provided through the Agency for International Development in the form of loans, grants and technical assistance. Under the Agricultural Trade Development and Assistance Act, $934·5 million equivalent was provided in local currency derived from the sale of agricultural commodities and additional assistance provided for emergencies and voluntary relief agencies. The Export-Import Bank provided $76·4 million in long-term credits. Since July 1, 1951, the United States Government has provided approximately $13·5 billion to member countries to assist in their economic development.

As of 30 June 1964, 1,385 Peace Corps members were sent to Colombo Plan countries and an additional 331 volunteers were in training.

A total of 3,137 persons from Colombo Plan countries were trained under U.S. Government auspices during 1964. Of these 2,164 came to the U.S. and 973 were sent to other countries for training. The third-country training programme is a co-operative training programme in which other countries share in the training and its costs for U.S. sponsored participants.

The U.S. investment guarantee programme is designed to stimulate the flow of private capital to these areas. During fiscal year 1964, new dollar investments in the Colombo Plan region totalling $1·4 million were guaranteed against inconvertibility, expropriation and war damage. This represents a large increase over prior years.

**The International Bank For Reconstruction And Development**

Up to 30 June 1964 the International Bank for Reconstruction and Development made available over U.S. $1,702 million to member countries in the area of which about U.S. $124 million was provided in 1963–64.

The International Development Association which came into existence in September 1960 as an affiliate of the I.B.R.D., starting operations a few months later, had committed U.S. $482 million by the end of June 1964 (compared with U.S. $346·5 million at the end of June 1963). The International Finance Corporation has invested U.S. $23 million in enterprises in the area.

Since its inception in 1959 the United Nations Special Fund has approved an expenditure of U.S. $92·3 million on projects within the Colombo Plan region.

The United Nations and its specialised agencies had provided under the Expanded Programme for 1963 $10·5 million for countries in the Colombo Plan area.

## TECHNICAL CO-OPERATION*

Technical co-operation—the provision of mutual assistance in expert manpower, equipment and training opportunities—remains an important and necessary element in the economic development in the area.

The total expenditure on technical assistance under the Colombo Plan in 1963–64 amounted to £36·4 million, which represents an increase of about 37 per cent over the average expenditure for the last five years. This brings the cumulative total expenditure for the 14 years of the life of the Colombo Plan to £181 million.

During the year 1963–64, expenditure on the provision of experts amounted to £14 million. This enabled a total of 948 experts to be provided, mainly in education (technical and general), engineering, food, agriculture and forestry and transport and communications. The cumulative total number of experts provided for the 14 year period now stands at 5,981.

Over half the 948 experts provided this year have been from the United States (562). India (106) is the second largest supplier of experts with Britain (86) coming next.

The largest recipient of experts is India (157) which is closely followed by Viet Nam (137), Nepal (123) and Pakistan (120). The majority of experts to Nepal have been provided by India and they have been assigned to capital aid projects such as the Trisuli Hydel Project as well as in technical assistance fields as surveyors, road engineers, construction engineers, university lecturers etc. The majority of experts to Pakistan and Viet Nam have been provided by the United States.

Expenditure on equipment amounted in 1963–64 to £16·1 million compared with £21·1 million in the previous year, bringing the cumulative total to over £70 million. A good part of the equipment was provided for training and research institutions in the region.

New training places provided under the Colombo Plan during the year numbered 4,551 compared with 4,433 in 1962-63. The largest number of awards were in the field of General Education—1,314. Technical education awards

* See table on Expenditure on Technical Co-operation on next page.

**Expenditure on Technical Co-operation**
(£ Sterling)

The following table gives the expenditure by supplying and receiving country, 1 July 1950 to 30 June 1964.

| Receiving Country \ Supplying Country | Australia | Britain* | Burma | Canada | Ceylon | India | Japan | Malaysia | New Zealand | Pakistan | Philippines | United States | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Afghanistan | 702 | 1,217 | — | — | — | 120 | 33,856 | — | — | — | — | — | 35,895 |
| Australia | — | — | — | — | — | 2,170 | — | — | — | 1,216 | — | — | 3,391 |
| Bhutan | — | — | — | — | — | — | 2,169 | — | — | — | — | — | 2,169 |
| Brunei | 22,912 | 514 | — | 5,148 | — | 915 | — | 3,867 | 1,824 | — | — | — | 35,180 |
| Burma | 686,106 | 903,313 | — | 434,659 | 4,410 | 17,405 | 65,322 | 2,445 | 163,742 | 5,488 | — | 666,785 | 2,949,680 |
| Cambodia | 184,686 | 144,178 | — | 184,300 | — | 18,177 | 163,428 | — | 332 | 1,004 | — | 6,055,141 | 6,741,246 |
| Ceylon | 574,425 | 1,396,794 | — | 663,702 | — | 100,898 | 249,564 | 5,440 | 276,641 | 2,116 | — | 2,587,095 | 5,856,684 |
| India | 896,580 | 3,440,305 | — | 1,211,527 | — | — | 273,505 | 51 | 157,411 | — | — | 19,859,604 | 25,839,043 |
| Indonesia | 2,030,115 | 517,600 | — | 686,972 | 323 | 25,886 | 247,293 | 3,144 | 688,473 | 12,031 | — | 33,374,480 | 37,586,917 |
| Japan | — | — | — | — | — | 4,108 | — | — | — | 1,083 | — | — | 5,190 |
| Korea | 29,025 | 18,090 | — | — | — | 4,453 | 1,283 | 528 | 1,222 | 2,087 | — | 4,895,972 | 4,952,660 |
| Laos | 170,751 | 217,008 | — | 101,087 | — | 333 | 20,591 | 276 | 2,138 | 209 | — | 5,418,696 | 5,949,089 |
| Malaysia | 2,881,602 | 788,077 | 2,132 | 1,198,879 | 2,083 | 92,574 | 189,036 | 23,645 | 1,234,098 | 11,032 | — | — | 6,303,848 |
| Maldives | — | — | — | — | — | 1,376 | — | — | — | — | — | — | 1,376 |
| Nepal | 76,101 | 186,146 | 605 | 5,737 | 945 | 957,390 | 10,159 | 869 | 30,007 | 633 | — | 5,690,149 | 6,974,400 |
| Pakistan | 902,001 | 3,340,525 | 246 | 1,073,202 | 493 | 7,722 | 304,745 | 6,304 | 121,648 | — | — | 15,029,019 | 20,785,905 |
| Philippines | 590,250 | 430,636 | 761 | 136,230 | 1,650 | 58,414 | 111,270 | 2,351 | 42,907 | 4,089 | — | 9,703,883 | 11,137,447 |
| Thailand | 857,815 | 571,172 | 1,027 | 185,001 | 581 | 48,504 | 390,401 | 6,004 | 163,318 | 1,107 | — | 13,237,563 | 15,403,888 |
| United States | — | — | — | — | — | — | — | 591 | — | — | — | — | 591 |
| Viet-Nam | 769,949 | 186,782 | 114 | 466,720 | 187 | 16,762 | 70,238 | 22 | 218,377 | 1,107 | — | 20,651,811 | 28,676,569 |
| Entire Area | 1,235,115 | 190,018 | 2,450 | 1,168 | 122,956 | — | 20,000 | 1,815 | 370,070 | 7,502 | 9,559 | — | 1,966,653 |
| Total .. .. | 11,917,225 | 12,332,380 | 7,335 | 6,354,932 | 133,628 | 1,322,213 | 2,160,986 | 57,541 | 3,480,468 | 51,391 | 9,559 | 143,429,703 | 181,257,361 |

* Figures do not include aid given by Britain under the Colonial Development and Welfare Acts and for Educational Co-operation in the Commonwealth.

continued to increase from 341 in 1962-63 to 357 in 1963-64. Other major fields of training include Administration (721), Food, Agriculture and Forestry (533) and Medical and Health (464). At any one time during the past year some 6,000 men and women from South and South-East Asia were undergoing training in various parts of the world under Colombo Plan technical co-operation arrangements, some of them in countries within that area.

The United States has provided 2,164 *i.e.* 48 per cent of the training places and ranks as the major donor. Australia (573) and Britain (454) have exchanged last year's position as second and third largest donors respectively, while Canada (404) retains fourth position followed by Japan (372) and India (284).

Indonesia (750) was the major recipient of training awards; she is followed closely this year by India (693) which occupied first position last year. Thailand (556) is the third largest recipient of training awards. Afghanistan which joined the Plan in November 1963 appears as a recipient for the first time; six training places have been provided by Australia, 5 by Britain, one by Japan and some by the United States. A significant feature is that an increasing proportion of training awards are being taken up by the newer members of the Plan.

## MUTUAL AID

From the inception of the Colombo Plan in 1950 to June 1964, the countries of the region have taken in 3,058 trainees from neighbouring countries, representing 9 per cent of the total number of training places (33,046) provided during the same period.

In the context of intra-regional training, India occupies a key position. New institutions are being established in accordance with the provisions made in the Third Five-Year Plan and in addition, the capacity of the existing institutions is being increased, wherever possible. During 1963–64, admission capacity to technical institutions in India increased to 21,040 for the first degree courses and 39,712 for technician courses.

India ranks as the major donor of training places within the region, having provided 2,440 over half being to Nepal and 901 to other countries of the region. The other countries have provided 618 training places; Malaysia (295) and Pakistan (164) are second and third largest donors respectively. Other participants in providing intra-regional training are Ceylon (77), Philippines (29), Burma (25), Indonesia (18) and Thailand (10).

During the year 1963–64, 367 training places have been provided within the region as compared with 383 provided last year. The drop is accounted for partly by the merger of the four Malaysian territories. India, the major donor, has provided 284 places during the year which falls short of the peak figure of 369 reached in 1962–63. Pakistan reached a peak in 1956–57 with 29 places but thereafter there has been a gradual falling off in the number provided and in 1962–63 only six places had been provided. This year the position was restored with 27 trainees from the region. Indonesia and Burma started off with 10 places each in 1956–57 and 1957–58 respectively but the numbers have declined considerably in later years. Thailand provided 10 places during the period 1956–58. Since 1962 she has made available a sum of one million baht each year to meet the expenses of trainees from other member countries. It should therefore be expected that Thailand will be able to have a more active role as a donor country in the future. Singapore and the Federation of Malaya started off in 1956-57 with the relatively high figures of 34 and 27 places respectively. For the ensuing years the contributions of these two countries have been insignificant, until in 1961–62 there was a sudden rise to 38 and 24 places respectively. It is encouraging to note that this trend had been maintained in

1962–63 and 81 places have been provided by Singapore and 33 by the Federation of Malaya. In the last year the figure for Malaysia is 45. The apparent reductions are largely due to the elimination of count of inter-Malaysian trainees.

Increasing attention has been paid in recent years to the training within the region of "middle level" technicians. A Working Party was set up by the Council for Technical Co-operation in South and South-East Asia in April 1963 to consider proposals which the Australian Government and others had put forward for the expansion of technician training in the region. The Working Party recognized the importance of establishing and expanding training facilities for technicians in South and South-East Asia, noted the desire on the part of the governments of the region to establish adequate regional facilities, and welcomed the readiness of other governments, subject to the availability of finance, to contribute towards the expansion and improvement of technician training facilities within the region. Since then an Adviser on Intra-Regional Training has been appointed, to strengthen the efforts of the Colombo Plan Bureau to assist the governments of the region to make fuller use of regional training facilities. At the same time, each government of the region has appointed as a matter of urgency an Intra-Regional Training Liaison Officer, since the effectiveness of the Working Party's proposals rests on the closest possible co-operation between local liaison officers and the Adviser on Intra-Regional Training.

## ECONOMIC DEVELOPMENT

As in earlier years there were wide disparities over the past year in the rate of growth of real gross national product among the developing countries in the Colombo Plan area. In India the volume of national output expanded by nearly 4½ per cent and in Pakistan the rise was about 7 per cent. Thailand recorded an increase of 8 per cent, Korea some 6 per cent and Philippines almost 5 per cent. Some other countries, however, fared much less well. As a consequence of rapid population increase the per capita gain in real national income was only about half that in total national income. Technical co-operation between countries in the Colombo Plan area and those outside has in the last year shown a slight drop in the expenditure involved though the number of new training places and new extra assignments have actually increased. Moreover, last year's represents an increase of about 36 per cent on the average expenditure of the last five years. Training facilities within the region continue to be strengthened. Measures for training technicians, particularly at the middle level continued to be taken by all countries in the Colombo Plan area.

Most of the countries have maintained food production at last year's level. Increase in food production continues to be behind increase in population. Diversification in agricultural production through introduction of new crops, particularly cash crops has continued. New opportunities arose for the expansion of exports of primary products and with a few expansions such as tea, rubber, jute and cotton, commodity prices rose giving primary producers increased export earnings. The industrial sector in marked contrast to agriculture has shown considerable dynamism and continued to grow at a rate of about 8 per cent per annum. The development of infrastructure and the vigorous policies of the Governments contributed to the success in developing industries. In many countries the share of industries in national output has increased by as much as 15 per cent. Big increases in the output of coal, natural gas, iron ores and electricity were recorded. The shortage in some cases of raw materials and the almost universal shortage of spare parts was a brake on industrial expansion.

Governmental expenditure on development plans though large in absolute amounts remains low per capita.

**Government Expenditure for Development, 1963-64***

| | Total | Per Capita |
|---|---|---|
| | U.S. $ millions | U.S. $ |
| Afghanistan .. .. | 140 | 9·4 |
| Bhutan .. .. | 6 | 8·6 |
| Burma .. .. .. | 139 | 5·8 |
| Ceylon .. .. | 135 | 12·8 |
| India .. .. .. | 3,666 | 8·2 |
| Indonesia .. .. | n.a.† | n.a.† |
| Korea .. .. .. | 182 | 6·7 |
| Laos .. .. .. | 6 | 3·4 |
| Malaysia .. .. | 240 | 23·0 |
| Nepal .. .. .. | 19 | 2·0 |
| Pakistan .. .. | 678 | 6·9 |
| Philippines .. .. | 460 | 15·2 |
| Thailand .. .. | 252 | 8·8 |
| Viet-Nam .. .. | 83 | 5·4 |

*N.B.* The figures above are only broadly comparable since the classification of Government spending on development varies between countries.

* *i.e.*, fiscal year, which varies between countries. However, figures for Ceylon are a projection of 1964–65 ; those for Afghanistan are the average of 1962–67 Plan outlays ; those for Korea, Malaysia and Viet-Nam are for the calendar year 1963.

† Figure in dollars not available : development spending in 1963–64 totalled rupiahs 66·7 billion.

*Source :* Country Chapters.

The 1960-61 censuses carried out by some of the Colombo Plan countries showed that population was increasing at more than 2·5 per cent per annum in several countries. Widespread improvements in health services have resulted in a decline in death rates while the birth rates continued to remain high. Family Planning Programmes have been undertaken in some countries.

## INTERNAL FINANCIAL STABILITY

During 1963 there was a substantial increase in development expenditures in many countries of the region ; other expenditures also rose, particularly on account of increased defence spending. Despite the efforts made by some of the countries to mobilise resources, there was resort to deficit financing, which in turn led to an increase in money supply and in the domestic price level. While there was relatively little increase in money supply in Thailand, in Burma the efforts of deficit financing were countered by other policies which restrained the rise in the price level. Prices rose only slightly in Pakistan. In India, supply shortages occurred following adverse weather conditions and despite efforts to curtail non-essential Government expenditures, prices rose considerably during most of 1963 and the first half of 1964. In Ceylon, unexpected increases in import prices, particularly of essential foodstuffs, were responsible for pushing up the price level. The price rise in the Philippines can partly be ascribed to shortages of foodstuffs and also to an increase in budget expenditure, despite government efforts to restrain it.

In both Laos and Indonesia prices increased considerably, due mainly to heavy military expenditures. In Laos the inflationary impact of the budget deficit undermined the stability of the currency and convertibility of the kip was suspended. Latterly the kip was devalued to a third of its old value of 80 to U.S. $ 1. A Foreign Exchange Operations Fund to which C—Plan donors are contributors serves to stabilise the free market rate for the kip. Indonesia imposed particularly severe import restrictions to protect its foreign exchange reserves.

## EXTERNAL TRADE AND RESERVES

The value of exports from the area rose by 10 per cent between 1962 and 1963. This compared with a fall in value of about 5 per cent between 1960 and 1961. All countries in the area for which figures are available, with the exception of Burma, Ceylon and Laos, increased their export earnings in 1963–64. Exports of most countries for which information is available have risen sharply in early 1964. After a fall in 1963 the prices of most of the major export commodities important to the region rose in the latter half of the year. Jute and rubber prices, however, fell throughout 1963. So far in 1964, jute prices have continued to fall, tin has recovered, and the price of sugar has again fallen. Export promotion policies have assisted in the rise of exports in some countries, while the recent rise in prices of some important export commodities has also helped some countries to increase their export receipts.

Imports into the area as a whole were 4 per cent higher in value in 1963 than in 1962. However, in 1963, imports were lower than in 1962 in Ceylon and Indonesia.

In 1963, exports of the countries of the region grew faster than their imports, and their combined trade deficits decreased by about 27 per cent.

Foreign exchange reserves have gone up to $105 million reversing the trend of the last few years. Some exceptions are Afghanistan, Cambodia, Ceylon, Pakistan and Viet-Nam.

## AID FROM INDIA

During 1963–64 India provided 284 training places to the following countries : Australia (1), Burma (6), Cambodia (2), Ceylon (29), Indonesia (2), Korea (8), Laos (1), Malaysia (24), Nepal (149), Philippines (21), Thailand (38) and Viet-Nam (3). Since the inception of the Colombo Plan 2,589 training places have been provided by India as follows : Australia (3), Burma (67), Ceylon (258), Cambodia (2), Indonesia (61), Japan (10), Laos (12), Malaysia (113), Nepal (1,673), New Zealand (2), Pakistan (39), Philippines (147), Thailand (150) and Viet-Nam (27). Training facilities were provided in general education ; civil, mechanical and electrical engineering ; statistics ; forestry ; fisheries ; community development and co-operation; social services ; water resources development ; agriculture ; medicine and allied subjects ; sanitation sericulture ; economic planning ; power and fuel development ; transport and communications ; parliamentary affairs ; insurance ; banking, chartered accountancy ; budgetary procedures ; taxation ; atomic energy and handloom production and tourism. The cost of these services has been over Rs. 16 million.

India also provided training facilities for trainees from Colombo Plan countries in the fields of accounting and auditing of public co-operations, agriculture, meteorology, demography, community development and statistics, under the United Nations Technical Assistance Programme, and for 51 trainees from Colombo Plan countries in the fields of jeep maintenance, literacy education, irrigation practices, community development, agricultural planning and malaria eradication, under the United States Third Country Programme.

India has so far provided 64 experts, including 4 during the year, to Burma (2), Ceylon (40), Cambodia (8), Malaysia (9), Maldive Islands (1) and Viet-Nam (1).

These experts covered various fields such as irrigation, sericulture, iron and steel (works and training), organisation of urban milk supply, railways, electrical engineering, taxation, broadcasting, organization and methods, banking and insurance, timber research, small savings, sugar technology, tractor engineering, forestry, road research, leather technology, use and maintenance of HT2 aircraft, cultivation of potatoes and cashewnuts, statistics, doll-making and small scale industries, agriculture, transport and aeronautical ground engineering. The cost of the 4 experts sent during the year is Rs. 60,000.

**Mekong River Project**

India's assistance for the Tonle Sap Sector of the Mekong River Project was stepped up. An Indian team went to Cambodia to prepare designs and cost estimates. A silt and concrete laboratory has been set up in Cambodia. Also investigational work is going on in Poona on proposed barrages on the Mekong system.

**Assistance to Nepal**

During 1963-64 the financial and technical aid given by India was around Rs. 37 million. About 200 Indian experts and technical personnel were working with their Nepalese counterparts in several fields like road, airport and building construction, irrigation, agriculture, education, and health. In the Chatra Canal Project under the Colombo Plan, excavation works totalling 990 million cubic feet are completed. With the ending of the tripartite agreement for road construction, work on the Kathmandu-Trisuli Road, was continued under bilateral agreement. Work on the Tripureshwar-Thankot Road linking the capital with Tribhuvan Rajpath has been completed; considerable progress has been made on the Kathmandu-Daksinkali Road. Considerable progress was also made in the construction of airports, including ancillary buildings at Pokhara, Bhairawa, Janakpur and Simra and also in the completion of preliminaries at Biratnagar.

In the field of irrigation and water supply, progress was marked by the commencement of the laying of pipes required for the Rs. 8 million Kathmandu water supply scheme.

Work on the Trisuli Hydel Project continued to make progress, as also excavation, concreting and masonry work on the barrage, power channel, aqueducts, balancing reservoir, intake structure and power house. All the generating equipment etc. have been received. The dam, power channel and earth-work for power house foundations for Pokhra Hydel Scheme have been completed and necessary equipment and material received at Bhairawa for air-lifting to site.

In the fields of horticulture valuable research and field experiments were carried out at the research stations and trial orchards and the results were made available to progressive farmers.

Six more veterinary-cum-cattle breeding centres were established during the year. The construction of the Biological Products Laboratory is nearing completion and equipment etc. are being procured. The Rinderpest Eradication campaign has been restarted and another six million cattle were vaccinated. The programme of training Stock Supervisors was completed and the last batch of stockmen was receiving training at the end of the year.

The first phase of the Industrial Estate at Patan was inaugurated and different industries were functioning in the various workshops. The construction of the second phase has been taken up. The main building of the institute for the training of rangers and foresters together with a hostel building is being constructed and all the necessary ancillary buildings have been completed for shifting the institute at Hathauda.

The construction of the Science Block building at the new campus of the Tribhuvan University is nearing completion and work on their buildings has begun. The Science extension for the Trichandra College has been completed and equipped. Preliminary work on provision of buildings for the second phase of the Tribhuvan Adarsh Vidyalaya has been started. Under the National Archives Scheme, the construction of the Stack portion of the buildings and preparation of catalogues, micro-filming of selected manuscripts etc. continued with the help of the Indian Experts.

Indian assistance was also continued in other fields such as Archaeology, running of engineering schools, construction of nurses' quarters and kitchen block for the Maternity Home Child Welfare Centre and for the geological surveys and mineral investigations and topographical survey in Nepal.

## AID TO INDIA

**AUSTRALIA:** Australian capital aid valued at £ A 492,000 was provided to India during 1963–64 and included diesel locomotives and 2,000 units of rolling stock for the Railways; Radio and electrical equipment and heavy earthmoving equipment and commodity aid earmarked for the Tungabhadra Dam Project. This brought the total value of capital aid provided by Australia to £A 13,208,800. Australia has continued her programme of paper supplies for school texts and equipment for the Bombay Milk Scheme.

Since the inception of the Plan, 604 training awards have been provided for India. 59 Australian experts and advisers have visited India, 3 in 1963–64. Technical equipment provided by Australia included a cobalt 60 beam source, workshop equipment for the Government Precision Instruments Factory, Lucknow, equipment for the Central Road Research Institute and equipment for the Arid Zone Research Institute at Jodhpur.

**CANADA:** To the end of the fiscal year 1963-64 Canada has allocated $ 238,956,000 million for capital assistance to India.

A summary of the Canadian 1963–64 capital and commodity assistance programme is as follows:

| | | $ |
|---|---|---|
| Umtru Power Project .. .. | | 650,000 |
| Idikki Power Project .. .. | | 3,000,000 |
| Gamma Cell Units .. .. .. | | 60,000 |
| Cobalt Therapy Units .. .. | | 200,000 |
| Power Transmission Equipment .. | | 2,800,000 |
| *Commodities:* | $ | |
| Wheat .. .. | 1,500,000 | |
| Copper .. .. | 3,000,000 | |
| Aluminium .. | 3,000,000 | |
| Zinc .. .. | 2,150,000 | |
| Asbestos .. .. | 2,000,000 | |
| Nickel .. .. | 500,000 | 12,150,000 |
| | | $18,860,000 |

Under Canadian technical assistance arrangements, 712 Indian students have received training in Canada and 38 Canadian advisers or teachers have served in India.

In 1963–64 Canada has pledged Rs. 130 million for the Rajasthan Atomic Power Station. Canadian allocations for the Indus Basin Fund now stand at $13·1 million.

**JAPAN:** Forty-two Indian trainees went to Japan for training. Of these 7 were in agriculture, engineering (24), power and fuel (2), medical and health (1), transport and communications (4) and administration (3). Japan provided six experts: agriculture (5) and transport and communications (1). At the tenth Consortium Meeting in May 1964, Japan expressed her readiness to extend additional credits of 21,600 million yen during the Fourth year of the Five Year Plan, bringing the total commitments by Japan to 82,800 million yen.

**NEW ZEALAND:** The total capital aid contribution by new Zealand to India since 1951 stands at £2,738,949 the highest to any one country. Of this £2,581,932 has taken the form of capital assistance, roughly half for the All-India Institute of Medical Sciences and half for dairy development in various parts of the country. In the latter field grants totalling £170,000 were approved in 1963–1964 for projects at Bombay and Dehra Dun, and negotiations are under way for further substantial assistance. Another adviser in dairying was assigned to India during the year, bringing the total sent since 1951 to 18, and eight new training awards were granted making a total of 98. Most of the training provided has been in the field of agriculture, and the experts have been mainly in this field and that of health. New Zealand's expenditure on technical assistance to India since 1951 amounts to £157,411.

**UNITED KINGDOM:** United Kingdom loan aid to India's Second Five-Year Plan (1956-61) amounted to £ 80·5 million. The aid which has been pledged so far to the Third Five-Year Plan (1961-66) amounts to £ 155 million, against which loan agreements totalling £ 125 million had been agreed up to 30 June 1964. New agreements concluded between 1 July 1963—30 June 1964 amounted to £ 26·5 million. Disbursements of United Kingdom aid in this period amounted to £ 29·9 million. 107 new training places were provided including engineering (25), medical and health (13) and transport and communications (38).

New appointments of experts included 8 in technical education subjects, and 3 in medical and health (a team visit to several centres in India to demonstrate a special application of neuro-surgery). A Plant Pathologist was provided for six months to study a potato virus disease at Ootacamund in Madras State. During the year British equipment was supplied to the Indian Institute of Technology, Delhi, in continuation of a programme of assistance under which eight professors have been provided for the Institute by the United Kingdom Government since 1960, and seven more are to be provided over the next two to three years, as well as other experts. Up to June 1964, nearly £140,000 worth of equipment was supplied by the United Kingdom Government, and a further £77,000 worth was provided by British Industry. This is part of the programme under which £650,000 worth of equipment is altogether being provided for the Institute by the Government and British industry over a period of years. Other United Kingdom Government gifts of equipment included £2,500 worth to the Tractor Testing and Training Station, Budni, and £5,700 worth to the Indian School of Mines, Dhanbad, in continuation of earlier aid.

During 1963–64 the United Kingdom Government paid £967,000 into the Indus Basin Development Fund, bringing up to £8·734 million the sums disbursed by 30th June 1964, from the original United Kingdom grant contribution of £20·86 million for the Indus Basin Development Plan. The United Kingdom Government has agreed, subject to Parliamentary approval to commit a further sum of £13·9 million under the Supplemental Agreement signed in April 1964.

**UNITED STATES:** United States assistance to India continued in 1964 with the following categories of aid: (1) development grants for technical assistance ($ 6·9 million); (2) development loans for commodity and capital goods imports ($ 337·2 million); (3) agricultural commodities under PL 480 ($ 501·1 million) and (4) Export-Import Bank loans ($ 57·2 million).

During fiscal year 1963, 200 resident American technicians were in India to work on joint projects or project support. Training programmes were planned for 379 participants. "Training of trainers" projects have been increasingly emphasized. Prominent among the projects are those contributing to the founding of new educational training institutions.

Development loans are extended by the United States to India to finance the purchase and importation of capital goods, commodities, and related services, for development projects and programmes. Credits have been extended mainly for public power development, railroad improvement and expansion, steel imports, fertilizer, and for capital goods imports required by the private and public sectors for industrial expansion. The Export-Import credits assist in the implementation of India's Third Five Year Plan and will find factories to produce fertilisers, cellulose and plastics.

The $ 501·1 million in United States agricultural commodities supplied to India under sales agreements and grants have constituted a major factor in India's ability to feed and clothe her people and to carry out her economic development programme. The $ 24·5 million donated under Title III consisted of milk, cornmeal and other commodities distributed by CARE, UNICEF and three other voluntary agencies.

The Peace Corps has been active in India since December 1961. As of 30 June 1964, 153 volunteers were active in agriculture, health, nursing and teaching activities.

### WORLD BANK, I.D.A. AND I.F.C.

Thirty-one of the 80 loans made by the I.B.R.D. (World Bank) have been to India, whose total borrowings of $ 847 million make it easily the Bank's largest single customer.

I.D.A. extended a credit of $90 million to enable companies in three major industries — commercial vehicles, industrial machinery and construction equipment — to import components and materials on a larger scale than has been possible up to now, and thus to make fuller use of existing capacity and to produce more capital goods.

I.D.A. extended two other credits — one of $33 million for the development of telecommunications and another of $62 million to help finance the railway development programme.

I.F.C. undertook the following commitments: to invest $1·2 million in loan and share capital to help complete the financing of an $8·4 million programme to enlarge and diversify the electric cable production of a company in Calcutta, to provide loan and share capital amounting to $3·4 million to a new company which will build and operate a cotton textile machinery plant.

A study of the problems of coal transport has been completed at a cost to the Bank of some $855,000. Field work on a study looking toward a new crossing on the Hooghly River was completed. The Bank has allocated $116,000 to cover part of the cost.

The Bank continued to station a Resident Representative in New Delhi.

# DEFENCE SERVICES

*Chief of the Army Staff*, General J. N. Chaudhuri.

*Chief of the Naval Staff*, Vice-Admiral B. S. Soman.

*Chief of the Air Staff*, Air Marshal Arjan Singh, D.F.C.

THE supreme command of all the Armed Forces of the Indian Republic is vested in the President. Since the attainment of Independence, the Ministry of Defence has become the central agency for formulating and obtaining policy decisions of the Government of India on defence matters and for transmitting them to, and seeing to their implementation by the three Defence Services Headquarters.

The partition of India in 1947 was an important landmark in the history of the Armed Forces of India. They were divided between the two countries on a communal-cum-optional basis, which worked out to an approximate proportion of one-third to Pakistan and two-thirds to the Union of India. British forces, including the Royal Air Force, were completely withdrawn from India early in 1948.

In order to deal with the emergency created by the full-fledged Chinese aggression in October-November 1962, a National Defence Council has been set up with the Prime Minister as Chairman. The Council was reconstituted on Jan. 2, 1965 with 28 members. The Prime Minister is the Chairman. This Council advises the Central Government in such matters as directly or indirectly affect the defence of the country.

The functions of the Council are to (*i*) take stock of the situation and arrangements for national defence, from time to time, and advise Government on matters relating to defence, (*ii*) assist in building up and suitably guiding the national will to fight the aggressor, (*iii*) suggest to the Central Citizens' Committee such measures as may be considered necessary for the utilisation of public participation in national defence, and (*iv*) advise Government generally on such other matters as may be helpful in prosecuting the fight against the aggressor.

The Council has formed a Military Affairs Committee with the Defence Minister as Chairman and the Service Chiefs of Staff, Lt.-Gen. Sant Singh, Lt.-Gen. S. P. P. Thorat, Dr. D. S. Kothari and the Defence Secretary as members.

The total defence outlay on revenue and capital account for 1965-66 is estimated at Rs. 879 crores as against the revised estimates of Rs. 835 crores during 1964-65.

The following is the break-up of the net Defence Services expenditure (in crores of rupees) since 1958-59:

| Year | Effective | | | Non-Effective | Defence Capital Outlay | Total |
|---|---|---|---|---|---|---|
| | Army | Navy | Air Force | | | |
| 1958-59 (Actuals) .. | 146 | 16 | 75 | 14 | 28 | 279 |
| 1959-60 (Actuals) .. | 143 | 14 | 59 | 15 | 36 | 267 |
| 1960-61 (Actuals) .. | 164 | 17 | 52 | 15 | 33 | 281 |
| 1961-62 (Actuals) .. | 198 | 20 | 53 | 19 | 23 | 313 |
| 1962-63 (Actuals) | 314 | 19 | 74 | 18 | 49 | 474 |
| 1963-64 (Actuals) | 532 | 21 | 134 | 17 | 112 | 816 |
| 1964-65 (Revised Estimates) .. .. | 549 | 22 | 126 | 20 | 118 | 835 |
| 1965-66 (Budget Estimates) .. | 551 | 24 | 153 | 21 | 130 | 879 |

(See also under Public Finance).

### DEFENCE ORGANISATION

Since August 15, 1947, each Service has been placed under a separate and independent head, their present designations being Chief of the Army Staff, Chief of the Naval Staff and Chief of the Air Staff.

With the appointment of three Service Chiefs independent of each other, the task of co-ordination of the activities of the three Services has devolved on the Defence Ministry. In order to ensure expeditious handling of work, a network of committees has been established at different levels.

At the top is the Defence Committee of the Cabinet which is, for all practical purposes, the Government so far as the Services are concerned. All important policy questions relating to defence are decided by this Committee, which is presided over by the Prime Minister.

The Defence Minister is responsible to Parliament for all matters relating to the Defence Services, including appropriation and allotment of funds, correlation of all civil and ministerial activities for purposes of defence and control and direction of research policy.

There are a number of inter-Services organisations, directly administered by the Defence Ministry, dealing with matters of common concern to the three Services. Some of them are the Production Organisation, the Research and Development Organisation, Border Roads Development Board, the National Cadet Corps, the National Defence College, the Defence Services Staff College, the National Defence Academy, the School of Foreign Languages, the Directorate-General of Armed Forces Medical Services, the Resettlement Directorate, the Indian Soldiers', Sailors' and Airmen's Board, the Combined Inter-Services Historical Section, the Directorate of Military Lands and Cantonments, the Joint Cipher Bureau and the Armed Forces Information Office.

Among the major steps which the Government of India took after the Chinese attack was to set up in November 1962 a separate Department of Defence Production in the Defence Ministry to direct, co-ordinate and strengthen the production base for building a sound defence system.

In view of large-scale expansion in defence science activity in the country, a Research and Development Council was constituted in the middle of 1962, with the Defence Minister as Chairman, to formulate defence science programmes. It, however, does not work in isolation, and is closely associated with civilian organisations engaged in the effective application of scientific knowledge. Apart from the Defence Minister, the other members of the Council are the Minister of Defence Production (Vice-Chairman), the Defence Secretary, the Secretary for Defence Production, the Scientific Adviser to the Defence Minister, the Director-General of C.S.I.R., the Chiefs of Staff of the Army, Navy and Air Force, the Director-General of Armed Forces Medical Services, the Financial Adviser (Defence), the Chief Controller of Research and Development and the Director-General of Inspection. The Council has under it the Defence Research and Development Organisation, headed by the Scientific Adviser, who is assisted by the Chief Controller and the Chief Scientist.

The Defence Minister's Production Committee forms part of the higher defence control evolving a co-ordinated policy in regard to the manufacture of military stores and equipment. It has under it the Defence Production Organisation for the overall production effort for meeting the requirements of the Services by the maximum utilisation of the existing capacity and creating additional capacity in the Ordnance Factories. The Directorate-General of Inspection is responsible for the inspection of all stores for which orders are placed with the Ordnance Factories, other defence and public undertakings and private trade.

### RESEARCH & DEVELOPMENT

The Research and Development Organisation was brought into being in January 1958 by the amalgamation of the Technical Development Establishments of the three Services and the Defence Science Organisation to ensure that scientific research played an effective role in production. This re-organisation was intended to

bring to the three Services the backing of the country's scientific activity and to secure the maximum utilisation of the available researches.

The R. and D. Organisation, which is closely associated with the Production Organisation, includes technical establishments dealing with weapons, ammunition, military explosives, metallurgy, electronics and optical instruments. Whereas research is carried on in the laboratories, development work is concentrated at the various technical establishments scattered all over the country.

As a supporting organisation of the Armed Forces, the R. and D. Organisation has to (*a*) render scientific advice to Service Headquarters, (*b*) carry out applied research to solve the problems of the Services, (*c*) design and develop weapons and equipment based on the operational requirements defined by the Services, (*d*) evaluate and carry out technical trials of new weapons and equipment or those developed in the country, and (*e*) render technical guidance to civil trade for the development of new equipment. It today undertakes basic, applied and operational research and development of products and processes related to fabrication of instruments, weapons, ammunition, engineering stores and tele-communication equipment.

It was in order to meet the urgent need of training technical staff officers for the Armed Forces that the Government established the Institute of Armament Studies some years ago as a constituent of the Defence Science Organisation. Apart from training Service officers, the Institute provides facilities for a comprehensive scientific study and research in the performance of weapons and equipment.

There are at present about 30 establishments, major and minor, under the R. and D. Organisation, catering to the needs of the Armed Forces. Among the new research units are the Institute of Nuclear Medicine, the Institute of Physiology, the Food Research Laboratory, the Solid State Physics Laboratory, the Electronics Research Laboratory and the Institute of Work Study.

With a view to early realising the aim of self-sufficiency in defence material, the tempo of research and development is being progressively stepped up. A chain of laboratories is being established to cover new fields of activity and to evaluate the stringent conditions in different terrains of the country's frontiers. As simulation of these conditions cannot be carried out fully in the existing laboratories, field research stations have been set up.

A Psychological Research Directorate of the Science Organisation was formed in 1949 under a Chief Psychologist, the main function of which is to conduct research in the assessment of human personality so that the right type of officers may be selected for the Armed Forces.

During 1964-65 the R.D. Organization was engaged in the development of a mountain-gun and anti-tank mine, and completed projects for the development of gun and mortar sights and the telescopes for the Sniper.

There are two major electronic Development Establishments in the country dealing with communication equipment, tele-communication line equipment and radars. A beginning has been made on a third establishment for the development of missiles.

A Defence Science Service has been instituted to include all civilian scientists engaged in research, development, inspection or teaching in any of the three Services or in the Ministry of Defence.

As, with the growing tempo of defence research and production, technical activity has considerably increased in the Armed Forces in recent years, the Defence Ministry have, in collaboration with the Ministry of Scientific Research and Cultural Affairs,* evolved a scheme of technical education. Theoretical training for the engineering profession to those already receiving practical training, consisting of lectures and tutorial classes, is now being given at defence installations in practically all parts of the country to prepare students for the Associate Membership examinations of the Institution of Engineers (India), the Institution of Tele-Communication Engineers and the Aeronautical Society of India, a pass in which is regarded as equivalent to an engineering degree. There are more than 4,800 students at present receiving this instructional training.

The Defence Production Board has been set up to examine and recommend to Government plans for defence production, production of new items and stock-piling of raw materials.

## ORDNANCE FACTORIES

The Production Organisation, which has under it 24 odd Ordnance Factories, is so designed as to achieve self-sufficiency in respect of stores required by the three Services and has made continuous efforts to establish production of items hitherto imported. The organisation represents one of the biggest State-owned integrated enterprises.

The Ordnance Factories have, since independence, been considerably enlarged and modernised to raise indigenous manufacture in an effort to make the country self-sufficient in vital supplies. At the time of the Chinese invasion towards the end of 1962, there were 20 Ordnance Factories in existence and four others at various stages of being established. Of the latter, the Ordnance Cable Factory for the manufacture of field cables for the Army started functioning in September 1963 and the second—the New Explosives Factory—in December 1964. The other two—the Jobbing Factory and the Heavy Vehicles (Tank) Factory—are also in an advanced stage of construction. In order to meet the accelerated demand of the Services, following the emergency, six more Ordnance Factories have been sanctioned to step up the manufacture of small arms and ammunition. One of them, the Small Arms Ammunition Factory, went into production in Oct. 1964, with U.S. aid, much ahead of schedule.

Efforts have continuously been made to harness the resources of the civil industry for the production of armament components, fabrication of clothing and manufacture of general engineering stores. Rigid adherence to high standards of precision and quality is insisted on and ensured through a system of strict control and inspection.

Apart from substantially augmenting the manufacture of established armaments and equipment, the Ordnance Factories took up the production of several new items during 1963–64. Significant amongst these are a 7·62 m.m. semi-automatic Ishapore rifle and its ammunition, a new heavy mortar with a longer range and its ammunition, new types of tank ammunition, new anti-tank ammunition, an anti-aircraft gun and its ammunition, improved carbines to replace sten-guns, and modified light machine-guns and bolt-action rifles to take the new rimless 7·62 ammunition.

Concerted efforts are also being made to develop, design and produce other types of weapons. A light mountain gun, with a higher range, has been successfully developed and its production started. A new plant has been set up at the Cordite Factory for the manufacture of semi-solvent propellants for rockets and commissioned, and so also a plant at another ordnance factory for a new type of ammunition for the Air Force.

To ease the transport problems of the Army, about 4,300 three-ton Shaktiman trucks, with an indigenous content of about 61 per cent had been manufactured in the Ordnance Factories by the end of March 1964. In addition, 5,200 one-ton Nissan carriers and 2,100 Nissan jeeps, with an indigenous content of 35 and 28 per cent respectively, rolled out of the assembly lines.

The production of conventional arms, snow and ski equipment, winter and cotton clothing, supply-dropping parachutes, line-gear and saddlery items has also been greatly stepped up.

Over the years, the value of production in the Ordnance Factories has jumped from about Rs. 5 crores in 1947–48 to Rs. 19·65 crores in 1958–59, Rs. 25·37 crores in 1959–60, Rs. 33·35 crores in 1960–61, Rs. 41·88 crores in 1961–62, Rs. 64 crores in 1962-63 and Rs. 111·34 crores in 1963-64. During 1964-65 it was expected to be more than that in 1963-64.

## HINDUSTAN AERONAUTICS LIMITED

(*See under article "Government Industrial Undertakings"*).

## A.M.D. AND A.I.L.

The Aircraft Manufacturing Depot, set up at Kanpur in 1960 under the Air Force for the manufacture of the Avro-748—a medium twin-engined, turbo-prop, pressurised and air-conditioned transport aircraft, capable of short take-offs and landings, with ability to operate from unprepared surfaces—was in 1963 made a departmental undertaking under the direct control of the Department of Defence Production. It has been decided to convert it into a limited company in the public sector.

The A.M.D. has so far produced three Avro-748s, Series I, and two Avro-748, Series II, in collaboration with the Hawker-Siddeley Aviation, Ltd., of the U.K. It has already handed over two aircraft of Series I to the Air Force, while the first of Series II has been taken over by the Indian Airlines Corporation for trials. Facilities were recently established at the Depot for the manufacture of 130 single and 170 two-seater Rohini gliders for the Air Wing of the National Cadet Corps. Forty such gliders have already been completed.

The Aeronautics (India), Ltd., was registered in Delhi in August 1963 to undertake the manufacture, under a licence agreement with the Government of the U.S.S.R., of a modified, single-engined MiG-21 supersonic fighter aircraft, complete in all respects.

With the help of Soviet specialists, Indian engineers have prepared project reports in respect of the three units for the manufacture of air-frames, aero-engines and electronic and allied equipment. While these are being studied, work is, meanwhile, going ahead for setting up these factories at Nasik (Maharashtra), Koraput (Orissa) and Hyderabad (Andhra Pradesh).

To streamline aircraft manufacturing industry in the country, all the existing units have been brought under the unified control of the Aeronautics (India) Ltd. The (AMD), Kanpur merged with the Aeronautics (India) Ltd. in June 1964 and the Hindustan Aircraft Ltd. in Oct. 1964 when it was redesignated as the Hindustan Aeronautics Limited.

## BHARAT ELECTRONICS LTD.

The Bharat Electronics Ltd. was registered at Bangalore in 1954 as a company in the public sector. The factory went into production in January 1956, marking an advance on the road to self-sufficiey in the wide range of wireless and electronic equipment mostly required by the Armed Forces. (For more details see under article on "Government Industrial Undertakings.")

## SHIP-BUILDING AND REPAIRS

The Production Organisation has also under it the Mazagon Dock, Ltd., Bombay,† and the Garden Reach Workshop, Ltd., Calcutta.† The Mazagon Docks were acquired from the Peninsular and Oriental Co. and the British India Steam Navigation Co. and the Garden Reach Workshops from the British India Steam Navigation Co. and the River Steam Navigation Co. respectively. While these shipyards continue to carry out refits and repairs of commercial ships, they also do so for naval ships. Their acquisition has greatly facilitated naval ship-building.

A programme, costing about Rs. 3·5 crores, has been approved for expanding the existing facilities at the Mazagon Docks, including the construction of a new building slipway. They have also been entrusted with the building of frigates for the Navy. This is the first step towards the building of modern warships for which they are suitably equipped.

* Now merged with the Ministry of Education.

† See under "Govt. Industrial Undertaking" for more details.

A small repair yard in Goa has been handed over to the Mazagon Docks for re-activation and its permanent acquisition is under consideration.

## NATIONAL CADET CORPS

The National Cadet Corps came into being in 1948. The aim of the Corps is (1) to develop character, comradeship, ideal of service and capacity for leadership in young men and women, (2) to stimulate interest among youth in the defence of the country, and (3) to build up a reserve of manpower to enable the Armed Forces to expand rapidly in a national emergency. The organisation is, thus, mainly of an educational and nation-building character. Officers and cadets have no liability for active military service.

A certain percentage of the total intake of candidates for commissioned ranks in the Army, Navy and Air Force, on the basis of direct entry to the Armed Forces training institutions, has been reserved for N.C.C. cadets of the three Services.

The N.C.C. consists of three divisions: (1) Junior, (2) Senior and (3) Girls'.

The strength of the Corps as on December 31, 1964, was as follows :—

| Senior Division | | | | | | Junior Division | | | | | | Girls' Division | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Army Wing | | Naval Wing | | Air Wing | | Army Wing | | Naval Wing | | Air Wing | | Senior Wing | | Junior Wing | |
| Officers | Cadets | Officers | Cadets | Officers | Cadets | Officers | Cadets | Officers | Cadets | Officers | Cadets | Officers | Cadets | Officers | Cadets |
| 5,611 | 9,45,600 | 204 | 10,200 | 108 | 10,800 | 4,019 | 2,00,950 | 434 | 21,700 | 513 | 25,650 | 487 | 79,400 | 711 | 35,550 |

**Grand Total—Senior Division—9,72,523, Junior Division—2,53,266, Girls' Division—1,16,098.**

The strength of the Corps a year earlier was : Senior Division 1,45,889, Junior Division 2,45,004 and Girls' Division 48,705.

The Senior Division provides Service training to young students and recruitment to it is from amongst students of universities and colleges. It is composed of three wings, *viz.* Army, Navy and Air. Recruitment to the Junior Division is from amongst students of secondary schools. It is also composed of Army, Navy and Air Wings.

The object of the Girls' Division is to develop all-round personality among girls. This Division has two wings. Senior and Junior, units of the Senior Wing being raised in colleges and universities and those of the Junior Wing in schools.

In order to better fit cadets of the N.C.C. for the officer ranks of the Armed Forces and to increase the cadet intake into the Services, Government decided in 1959 to raise Officer Training Units (O.T.U.) in the Corps all over the country. The overall strength of these training units has been fixed, for the present, at 750, the period of training being spread over three years. Eighty of the vacancies at the Indian Military Academy, Dehra Dun, have been allotted for these cadets for pre-commission training of Army officers.

Soon after the declaration of the present emergency, it was decided to make participation in N.C.C. activities compulsory for all able-bodied boys in universities and colleges. This scheme was introduced from the academic session beginning from July 1963 by making N.C.C. training a compulsory subject in the university curriculum.

The N.C.C. Rifles which were raised in response to the demand in the country for more and more military training for students were merged with the Senior Division, N.C.C., in 1964 and a uniform course of military training of three years was introduced for all able-bodied male college students.

The N.C.C. Organisation is headed by a Director-General in the rank of a Maj.-Gen. who has his office in New Delhi. There are 16 Directors in various States in the rank of Brigadier or Colonel. The units in each Directorate are organised into groups of seven each under the command of a Lt.-Col. The expenditure on the N.C.C. is shared between the Centre and the State Governments.

To cope with the demand for military training for boys and girls reading in schools who could not be admitted into the N.C.C., an Auxiliary Cadet Corps was started in 1953. It laid emphasis on physical education, recreation, discipline and character building. Following the report of a Committee appointed by Government under the chairmanship of Dr. H. N. Kunzru which recommended that there should be one integrated programme in the field of physical education in schools, it was decided to discontinue the Auxiliary Cadet Corps from April 1, 1965 and replace it by the National Fitness Corps Scheme. It was later decided to continue A.C.C. for one more year in such schools where the new National Fitness Corps Scheme was not being immediately introduced.

The Director-General of N.C.C. is Maj.-Gen. Virendra Singh.

## TRAINING INSTITUTIONS

The important training institutions common to the three Services are given below:

**National Defence College:** The National Defence College was started in 1960 in New Delhi for the training of senior officers of the three Services on the pattern of the Imperial Defence College in the U.K. Its main purpose is to enable students to study the military, scientific, industrial, social, economic and political factors involved in war as also the higher direction and strategy of warfare. Concurrently with this study, it offers a unique opportunity to senior Service officers and highly-placed civil servants of getting together and exchanging ideas so as to give them both a clearer and better understanding of each other's problems in peace and in war. The training lasts about a year and officers selected for attending the course are ordinarily of the rank of Brigadier in the Army and equivalent ranks and status in the Navy, the Air Force and the civil services, including scientists. Only those in the age-group of 38–45 years who are considered to be potential leaders in their professions are selected for the course.

*Commandant*, Vice-Admiral A. K. Chatterji.

**Defence Services Staff College:** The Defence Services Staff College is located in Wellington in the Nilgiri Hills in South India. One hundred officers drawn from all the three Services, including six officers from the U.S.A. and Commonwealth countries are trained every year. The aim of the course is to prepare officers to hold second-grade or equivalent staff appointments or higher staff or command appointments.

*Commandant*, Maj.-Gen. D. Som Dutt.

**National Defence Academy:** The National Defence Academy at Khadakvasla, near Poona, started functioning in its present location in January 1955. Previously, it had been set up at Dehra Dun in January 1949 as an experimental measure, with a Joint Services Wing and a Military Wing. On its move to Khadakvasla, the J.S.W. came to be known as N.D.A. At this Academy, Army, Navy and Air Force cadets receive three years' combined basic training. The first two years are devoted to common preliminary training and the third to specialised training in the respective Services. Thereafter, Army cadets join the Indian Military Academy at Dehra Dun for a further one-year course, while Naval and Air Force cadets proceed to their respective Service establishments for advanced training.

*Commandant*, Maj.-Gen. Rambir Bakshi.

**Rashtriya Indian Military College:** Run on the lines of public schools, the Rashtriya Indian Military College, located in Dehra Dun, brings up future officers of the three Services by imparting preliminary pre-cadet training to such pupils as desire subsequently to choose a military career. It thus serves as a feeder to the National Defence Academy, which provides combined basic training to cadets of all the three Services. Called until recently as Sainik School and previously as Prince of Wales Royal Indian Military College, it was started in 1962 with the primary object of catching would-be officers of the Armed Forces at an impressionable age to be able easily to mould their character. By a carefully-framed compulsory system of P.T., drill, parades and games, students are groomed to attain certain physical standards to fit them for a Service career. Special attention is paid to fostering in them discipline, self-reliance and an aptitude for soldiering. Social training forms an important extra-curricular activity.

*Principal*, S. P. Sharma.

**School of Foreign Languages:** Located in New Delhi, the School of Foreign Languages was started in 1949 to meet the growing demand for qualified linguists. It also conducts examinations in various Indian languages for service personnel.

*Director*, P. N. Banerjea.

**Armed Forces Medical College:** The Armed Forces Medical College is an inter-services post-graduate institution designed to meet the requirements of the integrated medical services of the Army, Navy and Air Force, and is located in Poona. The College has departments of medicine, surgery, pathology, hygiene, radiology, blood transfusion and dentistry. It also now holds an M.B.B.S. course and is affiliated to Poona University.

*Commandant*, Maj.-Gen. P. N. Ramjhan.

**King George's Schools:** Located at Ranghtan, Ajmer, Chail, Bangalore and Lucknow, King George's Schools provide public school education for the children of serving personnel.

**Sainik Schools:** There are at present 14 Sainik Schools located in the States of Andhra Pradesh, Assam, Bihar, Gujarat, Kerala, Madhya Pradesh, Madras, Maharashtra, Mysore, Orissa, Punjab, Rajasthan and West Bengal, imparting middle and secondary school public education with a military bias.

## ARMED FORCES MEDICAL SERVICES

The Directorate-General of Armed Forces Medical Services was created in 1949 with a view to integrating the medical services of the Armed Forces.

An officer of the rank of Lieut.-General is the head of this inter-Services organization, who maintains close contact with the three Directors of Medical Services (Army, Navy and Air Force). He is responsible to the Ministry for the over-all medical policy relating to the Armed Forces. The entire organisation relating to medical equipment and stores is directly under him. The Directorate has under it the Armed Forces Medical College and the Artificial Limb Centre.

The Artificial Limb Centre was set up by the Central Government at Poona soon after World War II. In 1948, with the arrival of new equipment and machinery from the U.K., it was firmly established and now claims to be the fourth largest institution of its kind in the world.

The Centre, which functions under the control of the Director-General of Armed Forces Medical Services, also produces various types of orthopaedic boots and shoes, belts, trusses and spinal braces.

### RESETTLEMENT DIRECTORATE

The Directorate-General of Resettlement in the Defence Ministry deals with matters relating to the rehabilitation of ex-Servicemen in civil life.

In collaboration with other Ministries of the Central Government, the State Governments, the Post-War Reconstruction Fund Trust Committees and other organisations, the Defence Ministry has formulated schemes for resettling ex-Servicemen in Government and private service, land colonies, vocational and technical trades and motor transport services.

In the matter of employment, the Government have accorded preference to ex-Servicemen in filling up appointments in police, excise, watch and ward and other departments for which military training is a qualification.

Through the efforts of the Defence Services Liaison Organization, set-up in May 1956, 661 retired Armed Forces officers were selected for appointment in civil posts under the Central or State Governments and 87 in the private sector up to the end of March 1965.

### SOLDIERS', SAILORS' AND AIRMEN'S BOARD

The Indian Soldiers', Sailors' and Airmen's Board is the most important official institution connected with the welfare of serving personnel of the Armed Forces and ex-Servicemen and their families.

The Board has its seat at New Delhi and co-ordinates the activities of State boards which exist in each State. Under the control of these State boards, there exists throughout the country a network of district boards, reinforced in some cases by tehsil or taluka committees and other kindred bodies. These boards are established in all districts from which recruits have been obtained in sufficient numbers. The President of the District Board is the Collector or the Deputy Commissioner.

The Indian Soldiers', Sailors' and Airmen's Board Fund is now used primarily for payment of special pensions to blinded ex-Servicemen and to meet the expenditure on miscellaneous items, such as bank charges and audit fees in connection with the administration of the fund.

The other Central funds which are not under the control of the Indian Soldiers', Sailors' and Airmen's Board are :

Armed Forces Benevolent Fund, Flag Day Fund, Armed Forces Reconstruction Fund, Army Central Welfare Fund, Navy Benevolent Association Fund, Navy Amenities Fund, Air Force Benevolent Association Fund, Air Force Central Welfare Fund, Indian Gorkha Ex-Servicemen's Welfare Fund and St. Dunstan's India Fund.

A sum of Rs. 17,18,268 was collected on the 1963 Flag Day.

### HISTORICAL SECTION

The Combined Inter-Services Historical Section (India and Pakistan) has been engaged in an ambitious scheme of writing a comprehensive history of World War II, with particular reference to the operations in which the Armed Forces of undivided India took part. The scheme envisages a series of 24 volumes.

Apart from the C.I.S. Historical Section, which is a joint venture of India and Pakistan, there is a small unit called the Historical Section (India), which is a permanent organisation. It carries out research and acts as a custodian of the records of the Defence Ministry and the three Services. Its functions include the writing of historical accounts of recent operations and the giving of information and advice on military history to the Service.

### GALLANTRY AWARDS

Three new gallantry awards were instituted by the President after Independence for gallantry in combat with the enemy. They are designated the Param Vir Chakra, the Maha Vir Chakra and the Vir Chakra. They came into force with effect from August 15, 1947.

The Param Vir Chakra is awarded for most conspicuous bravery, or some daring or pre-eminent act of valour or self-sacrifice whether on land, at sea or in the air. It ranks first among all awards.

The Maha Vir Chakra is awarded for conspicuous acts of gallantry whether on land, at sea or in the air.

The Vir Chakra is awarded for acts of gallantry whether on land, at sea or in the air.

A fourth gallantry decoration, named the Ashoka Chakra, in three grades, *viz.* Class I, Class II and Class III, was instituted for acts of gallantry other than in the face of the enemy. This also came into force with effect from August 15, 1947.

Class I of the Chakra is awarded for most conspicuous bravery, or some daring or pre-eminent act of valour or self-sacrifice. Class II of the Chakra is awarded for conspicuous gallantry and Class III for gallantry.

If a recipient of any of these Chakras again performs such an act of bravery as would have made him or her eligible to receive the same decoration, such further act of bravery is recognised by the award of a Bar attached to the riband by which the Chakra is suspended, and for every such additional act of bravery, an additional Bar is added, and any such Bar or Bars is/are also awarded posthumously. For every Bar awarded a replica in miniature of the Chakra concerned, and in the case of the Param Vir Chakra of the "Indra's Vajra", is added to the riband when worn alone.

Every recipient of any of these decorations who is junior in rank to a 2nd Lieutenant in the Army, a Sub-Lieutenant in the Navy, or a Pilot Officer in the Air Force, is entitled, from the date of the act by which the decoration has been gained, to a special pension, and each additional Bar conferred carries with it an additional pension for life.

A system of Mention-in-Despatches was also instituted. A 'lotus leaf' emblem is worn by the awardees on the ribbon of the campaign/war medal concerned.

The rates of monetary allowance admissible are as follows :—

(*a*) (*i*) Param Vir Chakra.—Rs. 50 p.m. (Rs. 70 p.m. in the case of J.C.Os. who have previously been given an award of the second order of gallantry, such as the I.O.M.).

(*ii*) Each Bar to PVC.—Rs. 20 p.m.

(*b*) (*i*) Maha Vir Chakra.—Rs. 30 p.m. (Rs. 50 p.m. in the case of J.C.Os. who have been previously given a gallantry award of the third order, such as the M.C.).

(*ii*) Each Bar to M.V.C.—Rs. 10 p.m.

(*c*) (*i*) Vir Chakra.—Rs. 20 p.m.

(*ii*) Each Bar to Vr.C.—Rs. 8 p.m.

The recipients of the Param Vir Chakra are Maj.Som Nath Sharma, Maj. Dhan Singh Thapa, Maj. Shaitan Singh, Capt. R. R. Rane, Capt. G. S. Salaria, Sub. Joginder Singh, Company Hav.-Maj. Piru Singh, Naik Jadunath Singh and L/Nk. Karam Singh, while those of the Ashoka Chakra, Class I, are Lt.-Col. J. R. Chitnis, Flight-Lieut. Subhas Biswas, Capt. D. K. Jatar, Capt. Man Bahadur Rai, Capt. E. J. Tucker, Lieut. P. M. Raman, Sub-Major Kharka Bahadur Limbu, Hav. Bachitar Singh, Hav. Joginder Singh, Naik Nar Bahadur Thapa, L/Nk Sundar Singh, Tej Singh, Lajjaram and Purshottam.

### NEW SERVICE MEDALS

Six new awards for the Armed Forces—Vishisht Seva (Distinguished Service) Medal, Sainya Seva (Services) Medal, Videsh Seva (Overseas) Medal, Sena (Army) Medal, Nao Sena (Navy) Medal and Vayu Sena (Air Force) Medal—were instituted by Government on the occasion of 1960 Republic Day.

The Vishisht Seva Medal is awarded to personnel of all the three Services in Classes I, II and III in recognition of distinguished service of the "most exceptional", an "exceptional" and a "high" order respectively, Sainya Seva Medal to all Service personnel in recognition of non-operational duties under conditions of hardship and severe climate, and the Videsh Seva Medal to all ranks of the Armed Forces for duties outside India. The Army, Navy and Air Force medals are awarded in recognition of such individual acts of exceptional devotion to duty or courage as have special significance for the Service concerned.

The recipients of Vishisht Seva Medal, Class I, so far are Lt.-Gen. B. M. Kaul, Lt.-Gen. Daulet Singh, Lt.-Gen. Bikram Singh, Lt.-Gen. P. S. Gyani, Lt.-Gen. T. B. Henderson-Brooks, Maj.-Gen. M. S. Pathania, Maj.-Gen. K. N. Dubey, Maj.-Gen. R. S. Garewal, Maj.-Gen. K. P. Candeth, Maj.-Gen. Dewan Prem Chand, Rear-Admiral D. Shankar, Air Vice-Marshal Harjinder Singh, Air Vice-Marshal Kunwar Jaswant Singh, Air Vice-Marshal E. W. Pinto, Air Vice-Marshal M. M. Engineer, Brig. Kalyan Singh, Brig. K. A. S. Raja, Brig. R. S. Noronha, Brig. S. N. Antia, Brig. S. B. Raza and Brig. B. N. Upadhyay.

## INDIAN ARMY

*Army HQ*. The Head of the organisation located in New Delhi, he is the Chief of the Army Staff. He is assisted by the Vice-Chief of the Army Staff and four other Principal Staff Officers (the Deputy Chief of the Army Staff, the Adjutant General, the Quartermaster General, the Master General of the Ordnance) and two Heads of Branches (the Military Secretary and the Engineer-in-Chief). The functions of the Branches are indicated below :—

(*i*) The General Staff Branch—(*i*) organisation and employment of the Army, Military operations, intelligence, training combat-development, military survey including maintenance and supply of maps and plans and engineer staff matters which are dealt with by VCOAS and (*ii*) staff duties, selection and scale of weapons and equipment, co-ordination of policy regarding equipment including provisioning, Armoured Corps, Artillery, Signals, Infantry, Territorial Army and Defence Security Corps which are dealt with by DCOAS.

(*ii*) The Adjutant General's Branch deals with manpower, recruitment, leave, pay and allowances and pensions and other conditions of service, and discipline. It also deals with welfare and health of personnel and military law.

(*iii*) The Quartermaster General's Branch deals with movement of personnel, Stores and equipment; provision, storage, inspection and issue of fuel, food-stuffs and forage; military farms, remount and veterinary services, Army Postal, pioneer and canteen services, works policy; fire fighting services and technical examination of MES works bills.

(*iv*) The Master General of the Ordnance Branch deals with all aspects of procurement policy, provision, storage, recovery, repair, maintenance and issue of all stores and equipment of Ordnance Supply including M.T. vehicles, weapons and ammunition, signal equipment, general stores and clothing as well as supply of common-user items to the Navy and the Air Force.

(*v*) The Military Secretary's Branch deals with the issue of commissions in the Army, postings, transfers, promotions, releases, retirement, resignation, invalidment and transfer to the Reserve of all non-medical officers of the Army; maintenance of confidential reports and personal records of all non-medical officers of the Army; providing the secretariat for Selection Boards which recommend officers for promotion to the rank of Lt.-Colonel and above; recommendations for grant of honours and awards to Army officers and Honorary Commissions in the Army to civilians.

(*vi*) The Engineer-in-Chief's Branch deals with all matters relating to Engineering units and Engineer stores; administration of personnel of the Corps of Engineers and the MES; design, construction and maintenace of all accommodation and works for the Defence Services.

Under the Army H.Q., the Indian Army is organised into four Commands—Eastern, Western, Southern and Central, each being under a General Officer Commanding-in-Chief of the rank of Lieutenant-General. The Commands are divided into Areas, each under the command of a G.O.C. of the rank of Major-General. The Areas, in their turn, are sub-divided into Sub-Areas each under the command of a Brigadier.

## EXPANSION PROGRAMME

The Chinese aggression brought out several shortcomings and underlined the need of strengthening the Army in many ways. It involved expansion of the Army, calling for quick adjustment in the policy of recruitment and the mode and method of selection. The training programmes had to be modified both in respect of their content and duration and the Army, as a whole, given an orientation. This involved the training of troops in mountain warfare and at high altitudes.

It also became necessary to achieve qualitative improvements in weapons and other military equipment. The weapons of World War II had to be replaced by weapons of improved fire-power and new light and semi-automatic weapons developed and produced.

Certain organisational changes had also to be carried out at all levels to make the Army more mobile and effective. This included the setting up of a Directorate of Combat Development in the General Staff Branch to formulate tactical concepts. The Weapons and Equipment Directorate under the Master-General of the Ordnance was taken over as a direct responsibility of the General Staff Branch, while the Directorate of Military Intelligence was strengthened. A Recruiting Directorate was established in the Adjutant-General's Branch. A new organisation was also formed under the Master-General of the Ordnance for the procurement of equipment and stores from foreign countries.

Soon after the beginning of the emergency, six new divisions were sanctioned, and of these four are being raised as mountain divisions and the remaining two as standard infantry divisions. One of the existing infantry divisions is being reorganised as a mountain division, thus bringing the number of mountain divisions to five. Two scout battalions are also being raised, one for the Punjab-Himachal Pradesh and the other for Uttar Pradesh borders with Tibet. These battalions, drawn from the hill tribes of these areas, will perform a role similar to that assigned to the Assam Rifles in N.E.F.A.

The Army consists of a number of arms and services. They are Infantry, Armoured Corps, Regiment of Artillery, Corps of Engineers, Corps of Signals, Army Service Corps, Army Ordnance Corps, Army Medical Corps, Army Dental Corps, Corps of Electrical and Mechanical Engineers, Army Education Corps, Remounts, Veterinary and Farms Corps, Corps of Military Police and Defence Security Corps.

## TERRITORIAL ARMY

As no country can afford to maintain a large standing fighting force in peace-time without straining its resources in men and material, a Territorial Army was formed in India in 1949 to serve as a second line of defence.

The Territorial Army Act, 1948, was passed by Parliament in September 1948 and the T. A. started functioning in October 1949 when recruitment was thrown open.

The Territorial Army consists of various arms and services, *i.e.*, the Regiment of Artillery, including anti-aircraft and coastal defence units, the Corps of Engineers, including port and railway units, the Corps of Signals, including P. and T. units, Infantry, the Medical Corps and the Corps of Electrical and Mechanical Engineers. The units raised are of two types, *i.e.* provincial units recruited from rural areas which undergo annual training of two to three months' duration at a stretch, and urban units recruited from large towns where Territorial Army units have been raised. They undergo training on the weekly drill system, *i.e.* in the evenings, Sundays and holidays with a short camp of not less than four consecutive days.

All able-bodied persons, from unskilled labourers to highly qualified technicians, provided they are citizens of India, are eligible for recruitment. The age-limits are 18 and 35 years, relaxable in the case of ex-Service (Army, Navy and Air Force) personnel and civilians possessing technical qualifications. Government servants and employees of private concerns are also eligible to join the Territorial Army.

The role of the Territorial Army is to

(*i*) relieve the Regular Army of static duties and support civil power if required,

(*ii*) provide coastal defence and anti-aircraft units,

(*iii*) provide units for the Regular Army if and when required.

When embodied, called out or under training, Territorial Army personnel receive the same pay and allowances as are admissible to the corresponding ranks of the Regular Army. It is obligatory for every civilian employer to reinstate a member of the Territorial Army in his civilian post on termination of his military training.

In order to provide an incentive to Territorial Army personnel for hard and meritorious work, 2½ per cent of the actual vacancies available at the Indian Military Academy are reserved for such personnel. On successful completion of the course at the Academy, they are granted regular commissions in the Army.

No officer or enrolled person is required to perform military service beyond the limits of India, save under a general or special order of the Central Government.

The Territorial Army is an auxiliary force to the regular Army and is the second line of Defence. This force consists of citizens who follow their normal avocations and receive military training in their spare time, and undergo active military service when embodied. The present authorised strength of the Territorial Army is 51,083. The actual strength is 42,005. The decrease in the strength during the year is mainly due to the disbandment of a number of Territorial Army units.

When Territorial Army units are embodied, the personnel of the units are assigned duties as in the regular Army. Before the commencement of the emergency, 16 units had been embodied. 84 additional units were embodied thereafter out of a total number of 140. 83 units are at present embodied.

During the year, the Territorial Army recruitment zones were reorganized and the whole country was divided into four zones instead of five which were previously in existence. During 1964, 82 persons have been granted Officers' Commissions and 92 persons Junior Officers' Commissions in the Territorial Army.

Territorial Army officers have been made eligible for promotion to the acting rank of Brigadier, against a specific vacancy, on completion of 20 years of service.

Civil Government servants embodied for service in the Territorial Army are allowed to retain their civil family accommodation for two months from the date of their joining military duty if they are posted to a non-concessional area, or until their transfer to a peace station if they are required to serve in a concessional area.

It has been agreed by the Director of Employment Exchanges, Ministry of Labour, that Territorial Army personnel embodied for service during the present Emergency would be treated as "Discharged Government Employees" and accorded "Priority III" by Employment Exchanges for the purpose of civil employment provided they are employed on a whole-time basis against regular establishment for a period of six months or more.

The role, concept and strength of the Territorial Army are kept under constant review on the basis of the experience gained during the past 15 years, to make it a more effective force.

## LOK SAHAYAK SENA

The Lok Sahayak Sena, which was formed on the 1st of May 1955, has now been disbanded.

## TRAINING INSTITUTIONS

Recruitment for the permanent cadre of commissioned ranks in the Army is done through the National Defence Academy, Khadakvasla, and the Indian Military Academy, Dehra Dun. After completion of their three-year course at the N.D.A., Army cadets have to spend another one year at the Military Academy before being commissioned. Direct admission to the Academy at higher age-levels also continues, though the number of cadets so taken is limited.

The Military Academy at present conducts courses for ex-N.D.A., direct-entry, T.A. and N.C.C. cadets, serving personnel, and technical graduates. Regular and direct-entry cadets commissioned in the technical branches are sent on specialised post-commission courses. The technical graduates' course was specially introduced in January 1948 as a temporary measure to give military training to qualified technicians and engineers for the Corps of Engineers, the Corps of Signals and the Corps of Electrical and Mechanical Engineers to cope with the increased requirements of technicians for the Army.

Two Officers' Training Schools were set up, one at Poona and the other at Madras, to train emergency commission candidates for the Army. The period of training is six months, after which candidates proceed to the Indian Military Academy or other specialised training establishments. The O.T.S. at Poona was closed down from 31st July 1964.

The Armoured Corps Centre and School at Ahmednagar trains recruits as well as regimental instructors. The School of Artillery at Deolali provides training in the field, anti-tank, anti-aircraft and coastal artillery branches. The Army Ordnance School at Jabalpur imparts specialised training to all officers and ORs in identification, handling and storage of various types of items, including ammunition and explosives.

The Infantry School at Mhow is the home of infantry doctrines and a centre for developing infantry weapons. The School also conducts courses for senior officers and junior commanders of all corps in the Army. The Army Service Corps has two schools, one at Meerut and the other at Bangalore, giving training in organisation and administration, animal transport, mechanical transport and supplies. The Army Medical Corps has its training centres at Lucknow and Hyderabad.

The College of Military Engineering at Kirkee, near Poona, trains officers of the Corps of Engineers, the Corps of Signals and the Corps of Electrical and Mechanical Engineers to the degree standard in civil, tele-communication and electrical and mechanical engineering respectively.

The Madras, Bombay and Bengal Engineer Groups at Bangalore, Poona and Roorkee provide basic technical and specialised Corps training to officers and ORs of the Corps of Engineers as also civilian officers of the Military Engineering Service.

The Corps of Electrical and Mechanical Engineers has its training centres at Secunderabad and Bhopal, while the School of Signals, which gives technical training in tele-communication engineering to personnel of the Corps of Signals, is situated at Mhow. The Army Signals School, which trains officers and ORs of all arms as instructors in regimental signals, is located at Jabalpur.

The other training institutions in the Army are the Remounts, Veterinary and Farms Centre and School at Meerut, the Education Corps School and the Military School of Music at Pachmarhi, and the Intelligence Corps School and the Physical Training School at Poona.

The various ranks in the Army from the top downwards are: General, Lieutenant-General, Major-General, Brigadier, Colonel, Lieutenant-Colonel, Major, Captain, Lieutenant, Second Lieutenant, Subedar-Major/Risaldar-Major, Subedar/Risaldar, Jemadar/Dafadar, Havildar, Naik, Lance-Naik and Sepoy/Sowar.

## INDIAN NAVY

The Indian Navy is controlled both administratively and operationally from Naval HQ in New Delhi through a chain of commands. Under the Chief of the Naval Staff are various authorities, ashore and afloat, who are directly responsible to him for the day-to-day administration of the Service.

At the Naval HQ, the Chief of the Naval Staff is assisted in his task by four Principal Staff Officers, namely the Deputy Chief of the Naval Staff, the Chief of Personnel, the Chief of Material and the Chief of the Naval Aviation.

The Deputy Chief is responsible for naval operations, policy and tactics, planning, intelligence, civil engineering and communications, as also overall co-ordination of staff. The Chief of Personnel looks after recruitment, service conditions, education and training, medical services, welfare and discipline of personnel, supply and victualling. The Chief of Material is concerned with fleet maintenance, weapons and equipment, marine engineering, naval construction, electrical engineering, armament supply and inspection and naval stores. The Chief of Naval Aviation deals with all questions relating to development of the naval air service.

The Naval HQ exercises control over the Navy through the following four commands:

1. Flag Officer Commanding, Indian Fleet.
2. Flag Officer, Bombay.
3. Commodore-in-Charge, Cochin.
4. Commodore, East Coast, Vishakapatnam.

Today, the Indian Fleet consists of I.N.S. VIKRANT (Flagship of the Navy), an aircraft-carrier, I.N.S. MYSORE, a Colony-class cruiser, I.N.S. DELHI, a Leander-class cruiser, two Destroyer Squadrons (I.N.S. RANJIT, RAJPUT, RANA, GODAVARI, GOMATI and GANGA) and a number of Frigate Squadrons, including some of the latest types of anti-submarine and anti-aircraft frigates. These new types of frigates, specially constructed for the Navy in the U.K., are I.N.S. BRAHMAPUTRA, BEAS, BETWA, KHUKRI, KIRPAN, KUTHAR, TALWAR, and TRISHUL. The former frigates are I.N.S. CAUVERY, KISTNA, AND TIR, which are now being used for cadets' training. The three Minesweeping Squadrons are formed by I.N.S. KONKAN, KARWAR, KAKINADA, CANNANORE, CUDDALORE, BASSEIN and BIMLIPATAM.

In addition, the Fleet has some survey ships, a tanker and some auxiliary craft. The survey unit of the Navy, which now comprises I.N.S. INVESTIGATOR, JUMNA, SUTLEJ and DARSHAK, carries out the necessary survey of India's coast and approaches to harbours. I.N.S. DARSHAK of 2,750 tons displacement is the first naval ship built in India.

With a beginning having already been made to build certain smaller types of naval craft in India, plans are now afoot to construct major warships, like destroyers and frigates, in the country's shipyards. The naval craft which have already been completed include the seaward defence boats—I.N.S. AJAY, ABHAY and AKSHAY, and more are now under construction. A mooring vessel I.N.S. DHRUVAK has already been launched at the Hindustan Shipyard Ltd., Visakhapatnam.

The Naval Dockyard, which came into being in 1750, has constructed some of the finest ships for the Royal Navy. A 1,000-ton frigate built at the Dockyard in 1870, which was originally named 'Trincomalee', is still being used by the Nautical Committee of the U.K.

The Dockyard is now equipped with a foundry, boiler, engine and ship-fitting shops, electronic and radar workshops, blacksmith, plater, joiner and carpentry shops, sail-making lofts, machine-shops, and gun-mounting and torpedo workshops. Its main function is to carry out all types of major refits of ships of the Navy and the associated harbour craft services. To meet the demands of the growing Service, this Dockyard is being rapidly expanded.

A newly-constructed cruiser-graving dock at this Dockyard, which can also accommodate the Navy's aircraft-carrier, was commissioned for service in January 1962.

A Resident Naval Officers' Organisation has been set up at Port Blair with the necessary transport and communication facilities. Appropriately named I.N.S. JARAWA, after an ancient tribe of the Andaman and Nicobar Islands, the new establishment was commissioned on February 15, 1964. A naval garrison, with facilities for moving to the various islands on patrol, has also been stationed in the Andamans and Nicobars.

It is proposed to develop a naval base and dockyard at Visakhapatnam for which an area of about 550 acres of land is being acquired from the Port authorities. It has also been decided to develop Mormugao as a naval base; it was formally commissioned in March 1964 as I.N.S. GOMANTAK. The base includes the Naval Air Station at Dabolim, where facilities for the operation of jet aircraft are being developed.

### NAVAL AVIATION

The Naval Air Arm, which is one of the youngest branches of the Navy, came into being in 1948 for training aircrew, followed soon after by the setting up of a Naval Air Station at Cochin. Later, the formation of a Fleet Requirements Unit was approved, aircraft, equipment and spares acquired and officers and ratings deputed for training courses abroad. The civil airfield at Cochin was acquired for the Navy in 1953 to be converted into the first Naval Air Station. Soon after, the first batch of Sealand aircraft were purchased from the U.K. and later the station was named I.N.S. GARUDA. Early in 1955, a number of Firefly target-towing aircraft were obtained from the U.K. for providing gunnery-training facilities for the Fleet. The strength of the Fleet Requirements Unit was further augmented when HT-2 aircraft were acquired from the H.A.L. to give instructional training to aircrew and other personnel. A jet flight has been added to the Fleet Air Arm with a number of Vampire jet aircraft, and forms a separate Naval Aviation Establishment, named I.N.S. HANSA.

The first aircraft-carrier, I.N.S. VIKRANT, acquired by the Indian Navy was commissioned at Belfast on March 4, 1961, in the United Kingdom. Formerly known as H.M.S. HERCULES, this light fleet aircraft-carrier, which has a displacement of 20,000 tons (full load), was acquired for the Navy in 1957. The carrier has a complement, including her flying personnel, of over 1,300 officers and sailors. The carrier arrived in India in November 1961 and a number of Sea-Hawks and Breguet-Alize aircraft have since been acquired for it. A Naval Air Training School has been set up at Cochin to train ratings in the maintenance and repair of aircraft. At the same time, the Government are considering setting up a School for Naval Airmen for training non-technical personnel.

To meet the meteorological needs of the Fleet Requirements Unit, a Naval Weather Service Organisation, manned by trained instructor officers, was established at I.N.S. GARUDA towards the end of 1952. Since then, more and more instructor officers have been trained to take over meteorological duties, both ashore and aboard ships. This organisation now also conducts courses of instruction in meteorology for naval ratings.

### TRAINING ESTABLISHMENTS

The training of other naval personnel is carried out in the shore establishments of I.N.S. VENDURUTHY, Cochin, I.N.S. CIRCARS, Visakhapatnam, I.N.S. ANGRE, Bombay, I.N.S. KUNJALI, Bombay, I.N.S. SHIVAJI, Lonavla, I.N.S. VALSURA, Jamnagar, and I.N.S. HAMLA, Bombay. I.N.H.S. ASVINI at Bombay, I.N.H.S. SANJIVANI at Cochin and I.N.H.S. KALYANI at Vishakapatnam are the three naval hospitals.

The various ranks in the Navy from the top downwards are: Admiral, Vice-Admiral, Rear-Admiral, Commodore, Captain, Commander, Lieut.-Commander, Lieutenant, Sub-Lieutenant, Midshipman, Chief Petty Officer, Petty Officer, Leading Rate, Able Rate and Ordinary Rate.

## INDIAN AIR FORCE

The Air HQ is divided into three main branches—Air Branch, which deals with operations, training, policy and plans, signals, reserves and intelligence, Administration Branch and Maintenance Branch. Each is under a Branch P.S.O. who, in turn, has several Directorates under him.

There were previously two Operational Commands of the Air Force with headquarters at Palam and Calcutta. In order to ensure better control and supervision of air defence, a third Operational Command was set up with headquarters at Shillong in June 1963. The three commands, with headquarters at Palam, Calcutta and Shillong, are now respectively known as Western, Central and Eastern Air Commands. The Maintenance Command has moved from Kanpur to Nagpur, while the Training Command remains located at Bangalore.

The Operational Commands control all flying units—fighter, bomber, reconnaissance and air-transport squadrons. The Training Command has under its control training schools and colleges for both officers and airmen for technical and non-technical ground training and for aircrew flying training. The Maintenance Command controls all technical and equipment units in the Air Force. All the five Commands are headed by Air Officers Commanding-in-Chief in the rank of Air Vice-Marshal.

A build-up of the Air Force is being planned in keeping with its role to give support to ground forces and provide protection to vital establishments. The U.S. Government has agreed to provide sets of powerful static radar installations and connected communication equipment, and it is hoped that they will be ready for use in a few months. Meanwhile, some mobile radar sets have been given to provide limited training to Air Force personnel. The U.K. Government has provided electronic and communication equipment and the Canadian Government has supplied a number of transport aircraft. The U.S.S.R. Government has supplied several aircraft and helicopters and other air defence equipment and given training facilities for Air Force personnel.

The fleet of transport aircraft was substantially increased during 1963-64. A number of heavy

transport AN-12 planes were purchased from the U.S.S.R. under deferred payment terms. Sixteen Caribou medium transport planes were contracted for purchase from Canada under a loan given by the Canadian Government, and some of them have already arrived in India. In addition, Canada gave a gift of eight Dakota aircraft. The U.S.A. supplied, under its military assistance programme, 24 Fairchild-Packet aircraft in addition to two Caribous supplied earlier. The U.S.S.R. supplied some Mi-4 helicopters under deferred payment terms. A contract was signed for the purchase of some Alouette helicopters from France.

The different types of aircraft used by the Air Force are :

*Training :* HT-2, Harvard, Vampire and Dakota.

*Fighter :* Vampire, Toofani (Ouragon), Mystere, Hunter, Gnat and MIG-21.

*Transport :* Dakota, Devon, Fairchild-Packet, Otter, Viscount-Ilyushin, 14, Caribou, AN-12, Super Constellations and M1-4, Bell and Alouette-2 Helicopters.

*Bomber :* Canberra.

*Reconnaissance* : Liberator and Canberra.

## TRAINING ESTABLISHMENTS

During the past few years, this youngest Defence Service, which celebrated its silver jubilee on April 1, 1958, has attained a large measure of self-sufficiency in the field of training in flying and technical and non-technical duties. Only a very small number of officers are now sent abroad for specialised courses not available in this country.

The Air Force Flying College at Jodhpur is the nursery of pilots, navigators and air-signallers. Advance flying training to aircrew is provided at Hyderabad, a Jet Training Wing and a Transport Training Wing having been set up at Hakimpet and Begumpet respectively as part of the Air Force Station. On successful completion of their one-year training at Jodhpur, pupil aircrew have to undergo a year's training at Hakimpet or Begumpet before being awarded their wings and commissioned.

The Air Force Administrative College at Coimbatore trains officers of the ground duty branches. The Air Force Technical College at Jalahalli, near Bangalore, imparts training to engineering officers and technical airmen of certain advanced signals trades. The No. 1 Ground Training School at Jalahalli trains non-technical airmen. The No. 2 Ground Training School at Tambaram (Madras) trains technical tradesmen (airmen). The No. 3 Ground Training School at Jalahalli is intended for airmen trainees of higher signals trades.

A School of Land/Air Warfare has been set up at Secunderabad to train Army and Air Force officers in the doctrine and planning of joint operations by air and ground forces, namely close air support, air transport support and air defence. The School has been organised into three wings corresponding to these distinct categories. Likewise, instructional staff of the institution is drawn from the two Services.

The School of Aviation Medicine, set up in Bangalore in 1957, runs courses for the training of medical officers and airmen in the science of aviation medicine. It contemplates subsequently undertaking research in this somewhat new, though extremely fascinating, field and has already established itself as an essential link in the training and research organisation of the Air Force. Aviation medicine seeks to help in the selection of aircrew and in investigating and solving problems associated with military aviation in general and high-speed, high-altitude jet and space flight in particular.

The I.A.F. Paratroopers' Training School at Agra, started in 1949, continues to train paratroopers for the Army, personnel for the I.A.F. Para-Medical Flights and instructors for the School itself.

## EMERGENCY MEASURES

Since the emergency, a scheme for the induction and initial training of pilots at an accelerated pace at Air Force training establishments has been taken up. An Initial Training Wing was started at the Air Force Administrative College, and two new institutions were opened, one for training cadets in the flying of jet planes and the other for training in the flying of transport planes. In addition, five flying clubs are helping in the training programme by imparting elementary stage flying training.

A joint training exercise, known as 'Exercise Shiksha', with the Air Forces of U.S.A., the U.K., and Australia was held in November 1963. About 4,000 Indian officers and airmen participated in it along with about 750 personnel of the U.S.A., U.K. and Australian Air Forces. Apart from giving an opportunity for assimilation of the use of modern radar equipment under operational conditions, the exercise enabled Indian squadrons to practise alongside fighter aircraft of the three countries, and Indian personnel thus gained valuable experience in the latest techniques of air defence.

Now armed with the latest jet trans-sonic aircraft, the Air Force has made rapid headway in the sphere of technical development. It can today boast of an organisation not merely performing maintenance tasks but also participating in research and production activity. It comprises a network of repair units backed by a chain of equipment and storage depots.

Earliest and foremost of these units is the Base Repair Depot. Since its establishment, soon after Independence, as a nucleus of the Air Force repair organisation, it has grown in scope and size. It has sent back into service aircraft after reconditioning and reclaimed, with the assistance of the H.A.L., virtually "dead" Liberators and restored them to operational fitness. Today, the various functions of the B.R.D. are periodical overhaul of planes in use, repair of damaged aircraft, overhaul of aero-engines and rectification of defects in engines.

## AUXILIARY AIR FORCE

In pursuance of the Reserve and Auxiliary Air Forces Act of 1952, seven Auxiliary Air Force Squadrons have so far been raised at Delhi, Bombay, Calcutta, Allahabad, Madras, Bhubaneshwar and Chandigarh. Similar auxiliary squadrons will be formed in other principal cities of India.

The A.A.F. is intended to assist the Regular Air Force in aerial defence and to provide air support to the Regular Army and the T.A. in an emergency. It provides part-time Air Force training to citizens and does not interfere with their normal vocational pursuits in civil life.

The various ranks in the Air Force from the top downwards are : Air Chief Marshal, Air Marshal, Air Vice-Marshal, Air Commodore, Group Captain, Wing Commander, Squadron Leader, Flight Lieutenant, Flying Officer, Pilot Officer, Master Warrant Officer, Warrant Officer, Flight Sergeant, Sergeant, Corporal, Leading Aircraftsman, Aircraftsman Class I and Aircraftsman Class II.

# INDIANS OVERSEAS

THE number of Indians overseas is given below:

| Name of country | Indian Citizens/ Persons of Indian origin | Year of estimate |
|---|---|---|
| *Commonwealth* | | |
| Aden | 18,000 | 1964 |
| Australia | 260 | 1962 |
| Basutoland | 900 | 1963 |
| British Guiana | 2,89,790 | 1963 |
| Brunei | 2,000 | 1960 |
| Canada | 8,954 | 1964 |
| Ceylon* | 9,75,000 | 1963 |
| Dominica | 8 | 1964 |
| Fiji (Suva) | 1,568 | 1962 |
| Gibraltar | 1,258 | 1962 |
| Ghana | 1,200 | 1964 |
| Grenada | 10,000 | 1964 |
| Hongkong | 3,000 | 1964 |
| Jamaica | 30,000 | 1964 |
| Kenya | 1,76,000 | 1963 |
| Malaysia* | 7,00,000 | 1964 |
| Mauritius | 4,77,000 | 1964 |
| New Zealand | 4,000 | 1963 |
| Nigeria | 1,254 | 1964 |
| Nyasaland | 9,630 | 1962 |
| *Commonwealth—Contd.* | | |
| Pakistan (Dacca) | 148 | 1964 |
| Rhodesia (Northern) | 7,110 | 1962 |
| Rhodesia (Southern) | 7,416 | 1964 |
| Sierra Leone | 300 | 1964 |
| St. Lucia | 2,000 | 1964 |
| St Vincent | 2,000 | 1964 |
| Tanzania | 70,000 | 1963 |
| Trinidad and Tobago | 3,01,946 | 1963 |
| Uganda | 63,130 | 1962 |
| United Kingdom | 1,65,000 | 1964 |
| Zanzibar | 19,500 | 1963 |
| *Foreign* | | |
| Abu Dubai | 1,519 | 1963 |
| Afghanistan | 12,361 | 1964 |
| Algiers | 148 | 1964 |
| Argentine | 189 | 1964 |
| Austria | 120 | 1964 |
| Bahrain | 5,000 | 1963 |
| Basra | 250 | 1964 |

* Including Singapore.

| Name of country | Indian Citizens/ Persons of Indian origin | Year of estimate |
|---|---|---|
| *Foreign—Contd.* | | |
| Belgium | 221 | 1964 |
| Berlin (East) | 30 | 1963 |
| Berlin (West) | 490 | 1964 |
| Brazil | 50 | 1964 |
| Burma | 3,00,000 | 1964 |
| Cambodia | 105 | 1962 |
| Cambodia (Phnom Penh) | 200 | 1963 |
| Canary Islands | 539 | 1963 |
| Cemoros | 150 | 1963 |
| Chile | 41 | 1964 |
| China | 118 | 1964 |
| Colombia | 9 | 1964 |
| Congo | 920 | 1964 |
| Costa Rica | 15 | 1962 |
| Cuba | 6 | 1963 |
| Czechoslovakia | 300 | 1963 |
| Dakar (Senegal) | 100 | 1964 |
| Denmark | 86 | 1964 |
| Dominican Republic | 2 | 1964 |
| Ecuador | 1 | 1964 |
| El Salvador | 2 | 1964 |
| Ethiopia | 2,225 | 1964 |
| Fernando Poo | 20 | 1964 |
| Finland | 18 | 1964 |
| France | 410 | 1964 |
| Germany (East) | 95 | 1964 |
| Germany (West) | 538 | 1964 |
| Guatemala | 2 | 1965 |
| Holland | 124 | 1964 |
| Honduras | 20 | 1964 |
| Hungary | 35 | 1964 |
| Indonesia | 20,148 | 1964 |
| Iran | 1,030 | 1964 |
| Iraq | 15,626 | 1964 |
| Ireland | 48 | 1964 |
| Italy | 387 | 1964 |
| Ivory Coast | 20 | 1964 |
| Japan | 950 | 1964 |
| Jordan | 20 | 1963 |

| Name of country | Indian Citizens/ Persons of Indian origin | Year of estimate |
|---|---|---|
| *Foreign—Contd.* | | |
| Kuwait | 15,000 | 1963 |
| Lebanon | 243 | 1964 |
| Libya | 100 | 1964 |
| Magadascar | 18,000 | 1964 |
| Mexico | 214 | 1963 |
| Morocco | 500 | 1964 |
| Muscat | 800 | 1965 |
| Nepal | 1,680 | 1964 |
| Nicaragua | 2 | 1964 |
| Norway | 12 | 1964 |
| Panama | 825 | 1964 |
| Peru | 2 | 1964 |
| Philippines | 1,637 | 1964 |
| Poland | 73 | 1964 |
| Qatar (Persian Gulf) | 1,400 | 1963 |
| Reunion Islands | 400 | 1963 |
| Rumania | Not available | — |
| Saudi Arabia | 3,000 | 1963 |
| Sharjah Dubai (Persian Gulf) | 2,500 | 1963 |
| South Africa | 5,00,000 | 1963 |
| Spain | 1,503 | 1964 |
| Spanish Morocco | 100 | 1963 |
| Sudan | 3,557 | 1964 |
| Surinam | 1,05,000 | 1962 |
| Sweden | 161 | 1964 |
| Switzerland | 419 | 1964 |
| Syria | 67 | 1964 |
| Thailand | 14,125 | 1964 |
| Tunis | 50 | 1963 |
| Turkey | 58 | 1964 |
| U.A.R. | 413 | 1964 |
| United States of America | 29,939 | 1964 |
| U.S.S.R. | 638 | 1964 |
| Venezuela | 12 | 1964 |
| Vientiane | 590 | 1964 |
| Viet Nam (South) | 2,684 | 1964 |
| Viet Nam (North) | 6 | 1964 |
| Yugoslavia | 90 | 1964 |

## EMIGRATION

The following table shows the emigration figures for 1963 and 1964.

| Country | Emigration | |
|---|---|---|
| | 1963 | 1964 |
| Africa | 327 | 268 |
| Burma | — | 2 |
| Ceylon | 20 | 19 |
| Malaysia | 61 | 13 |
| Others | 1,901 | 2,471 |
| Total | 2,309 | 2,773 |

## EMIGRATION LAWS

"Emigration" means the departure, by sea or by air, out of India, of Citizens of India, under an agreement to work for hire in any country beyond the limits of India, or if assisted to depart otherwise than by a relative with the intention of working for hire or engaging in agriculture.

Such emigration is governed by the Emigration Act, 1922 (7 of 1922) and the Rules made thereunder, as amended from time to time.

Emigration for the purpose of 'unskilled work' is prohibited, while emigration for the purpose of 'skilled work' is permissible on compliance with the prescribed formalities.

The functions under the Act are discharged by the Central Government through the Controller-General of Emigration and Additional Secretary to the Government of India in the Ministry of External Affairs, New Delhi, with the assistance of the Protectors of Emigrants at the Ports and airports from which emigration is lawful.

Following are the ports and airports from which emigration is at present lawful. Each port and airport has a Protector of Emigrants.

1. Bombay port and airport (Public Relations Officer (Emi.), Regional Passport and Emigration Office, 148, Mahatma Gandhi Road, Bombay 1).
2. Okha (Port Officer).
3. Porbander (Port Officer).
4. Bedi (Port Officer).
5. Madras port and airport (Public Relations Officer (Emi.), Regional Passport and Emigration Office, 42, Naliamuthu Chetty Street, George Town, Madras).
6. Nagapattinam Port (Protector of Emigrants).
7. Tuticorin and Dhanushkhodi under one Protector of Emigrants with headquarters at Mandapam Camp.
8. Calcutta port and airport (Superintendent (Emi.), Regional Passport and Emigration Office, 4, Brabourne Road, Calcutta).
9. Delhi airport (Public Relations Officer (Emi.), Regional Passport and Emigration Office, 1/2-E-7, Curzon Road, Barracks, New Delhi).

Below we give notes on overseas Indians in some countries.

Generally speaking fresh Indian immigration is either banned or is not permitted as a matter of policy into South Africa, Northern and Southern Rhodesia, Nyasaland, Australia, New Zealand, Burma, Ceylon, most European and South American countries. There are some countries that admit Indians on a quota basis: Canada, U.S.A., the Philippines, Thailand and Indonesia.

## AUSTRALIA

An Indian already domiciled in Australia has full citizenship rights, including the right to bring into the country a spouse and minor unmarried children if they are not already there. Indian businessmen and *bona fide* tourists and sportsmen may visit Australia and stay for periods not exceeding 12 months, and Indian students are permitted to undertake educational courses in Australia.

There is also provision whereby Indian business firms carrying on substantial trade with Australia may station a full-time representative there, and Indian independent overseas traders may in certain circumstances set themselves up in overseas trading enterprises of their own in Australia. Additionally, Indians may be admitted to assist their countrymen in their overseas trading activities from Australia.

Fuller information on the various categories of persons eligible to enter Australia may be obtained from one of the Australian representatives in India.

The majority of persons of Indian origin settled in Australia are engaged in retail trade or agricultural operations.

Indians domiciled in Australia do not suffer from any disability and have all citizenship rights.

## CONGO REPUBLIC

Very little statistical data are available about Indians here due to the unsettled conditions.

## BRITISH GUIANA

British Guiana has an area of about 83,000 sq. miles, and a population of 590,140 of which more than half are people of Indian descent. Georgetown is the capital. As a result of a new constitution, British Guiana attained internal self-government in 1961.

The bulk of the Indian settlers are sugar workers, cane farmers or rice growers and in recent years some have made good progress in professions and in business.

Entry is through a permit against a deposit of S.W.I. 2,000 issued for limited periods. Temporary visitors and tourists with the exception of the citizens of U.S.A., are required to be in possession of a valid passport and visas.

For remittance of money prior approval of the Government is necessary.

## BURMA

Burma was a province of India till 1937 April when it was given a separate constitution. In 1931 the Indian population was reported to be over one million, but consequent upon the Japanese occupation of Burma in 1942, about 4 lakhs of Indians left Burma for India. After the liberation of Burma many did not return to that country in view of the changed conditions in Burma and some have also been leaving Burma for India gradually ever since the latter attained her independence in 1947. The present population of Indians in Burma is estimated to be about 5 lakhs.

Indians in Burma are mainly agricultural, dock and casual labourers and petty traders. Some Indians were also formerly engaged in wholesale import business as also some were big landowners. Ever since the "Land Nationalisation Scheme" introduced in Burma, however, the big Indian landowner class has been eliminated and those in the wholesale import business have also been adversely affected since 1960 with the Burmanisation of the Agency business by the Government of the Union of Burma in that year. Since 1st October 1962 no foreign national is permitted to import licensed or OGL goods even through a Burmese commission agent.

With the introduction of the Burmanisation policy, no foreigner is now allowed to buy any property nor can any property be transferred to any foreigner. Non-nationals in Government service are also being gradually replaced by nationals. The policy of Burmanisation and socialisation is being carried out by the Revolstionary Government at a fast pace. From 1st January, 1964, all foreign doctors practising in Burma were deregistered. The majority of doctors affected are Indians. All Banking business, import-export, wholesale and considerable part of retail trading and other business have been nationalised throwing a large number of Indians out of employment. Consequently, large numbers of Indians of all classes, are returning to India. During 1964, about 60,000 Indians returned from Burma to India, most of them on chartered vessels. Those Indians who leave are not allowed to repatriate their assets.

Under the Union of Burma Citizenship Act of 1955, an alien can become a Burmese citizen by naturalisation after fulfilling certain requirements of a minimum stay in that country. All adult foreigners in Burma require to take out a Foreigner's Registration Certificate for which a fee of K. 50 per annum is charged and, in addition, all such foreigners who are not entitled to the right of permanent stay in the country also need stay permits for which they have to pay K. 100 per annum.

## CANADA

The Government of India and the Government of Canada have entered into a modified Agreement regarding the immigration of Indians into Canada in partial modification of the Agreement of 1951 under which the Government of Canada had agreed to admit annually 150 Indian citizens into Canada. The modified Agreement came into effect on the 1st of January, 1957.

Under the modified Agreement, the Canadian Government have agreed to increase the annual quota of immigrants from India from 150 to 300. Of these 300 immigrants, 150 will be "ordinary quota" immigrants and 150 will be "preference quota" immigrants. Relatives of Indians who have permanently settled in Canada or who have acquired Canadian citizenship will be admissible into Canada as "preference quota" immigrants while other applicants will be admissible under the "ordinary quota". It may be noted that "close relatives" of all those who have become Canadian citizens will be admitted into Canada as non-quota immigrants.

A "relative" means the husband, wife, son, daughter, brother, sister (or the husband, wife or unmarried child under twenty-one years of age of any such son, daughter, brother or sister), father, mother, grandparent, unmarried orphan nephew or niece under twenty-one years of age, fiance or fiancee.

A "close relative" means the husband, wife, unmarried child under twenty-one years of age, father over sixty-five years of age, or mother over sixty years of age.

Applications from prospective immigrants to Canada from India should be addressed to The Canadian Immigration Attache, Office of the High Commissioner for Canada, 13, Golf Links, New Delhi 3.

Indian residents of Canada are largely comprised of labourers employed in lumbering and trucking. There are a few lumber mill owners, and some are working as clerks in various establishments. A good number can also be termed professionals, technicians and highly skilled workers. The majority of Indians are in British Columbia. A good many today go on to industrial centres like Montreal and Toronto. The Indian community is called the "East Indian Community".

Any person admitted to Canada as an immigrant might become a citizen of Canada after five years' continuous residence there. There is no legislation in Canada, federal or provincial which discriminates against any group of citizens on grounds of national origin, race, language or religion.

There are no disabilities on Indians in the matter of owning property, engaging in trade or profession, entering Government service or residence in any locality. In 1952, one Indian was elected to a Municipal Council.

Indians can remit to India any amount earned in Canada.

Figures of Indians arriving in Canada; 1957 : 324 ; 1958 : 451 ; 1959 : 716 ; 1960 : 673 : 1961 : 744 ; 1962 : 725 ; 1963 : 846 ; 1964 : 1,295.

## CEYLON

Out of a total of about 9 lakh persons of Indian origin in Ceylon, about 8 lakhs (labourers, subordinate staff, etc.) are in the tea, rubber and coconut estates. The balance is made up of merchants, shop assistants, land proprietors, and professional men such as doctors, accountants, lawyers and their families.

There is no restriction on Indians acquiring property in Ceylon, but non-Ceylonese are not allotted Crown Land. Trade in certain commodities and with certain countries like Japan and Germany is exclusively reserved for Ceylonese enterprise. Certain rights like fishing rights and the ownership of industries like public transport (omnibuses) are restricted to Ceylonese. Government service is restricted to Ceylonese except that foreigners are appointed on a contract basis when no qualified or suitable Ceylonese is available. Consequently Indians who have not acquired Ceylon citizenship have severe handicaps. Indians are also denied certain privileges such as National Insurance and unemployment relief.

The rights of Indians to citizenship are governed by two Acts enacted in 1948 after a discussion between the Indian and Ceylonese Prime Ministers. These Acts are the Ceylon Citizenship Act and the Indian and Pakistani Residents (Citizenship) Act, which provide that the Indian residents in Ceylon would be entitled to obtain the citizenship of Ceylon by registration subject to the following conditions : (*a*) an applicant must be resident in Ceylon when the laws came into force and must have been residing in Ceylon since January 1, 1936 if a bachelor and since January 1, 1939 if a married man, (*b*) he must have adequate means of livelihood, (*c*) he should be in a position to comply with the laws and customs of Ceylon, and (*d*) the application for registration was filed and submitted to the Controller of Registration before August 5, 1951.

An Agreement was entered into in January 1954 between the Government of India and the Government of Ceylon regarding the citizenship rights of persons of Indian origin in Ceylon. Under this Agreement the Government of Ceylon agreed to expedite the registration of citizens under the Indian and Pakistani (Citizenship) Act and to make every endeavour to complete the disposal of pending applications within two years.

The total number of applicants for Ceylon citizenship is estimated to be about 900,000.

Out of these, about 1,34,000 persons have till the end of Jan. 1965, been registered as Ceylon citizens. The applications of the rest have either been rejected or withdrawn.

At the end of 1954 the Government of Ceylon started implementing its policy of Ceylonization in the course of which a large number of persons holding Temporary Residence Permits of all nationalities had their periods of stay curtailed. In the result some Indians were faced with the prospect of leaving the country.

With effect from Sept., 1960, non-nationals have been subjected to taxes for residence and business registration. All non-nationals holding visas for residence in Ceylon for periods exceeding 3 months are required to pay a tax of Rs. 400.

In April, 1955, the Government of Ceylon amended the Immigrants and Emigrants Act of 1948. One of the amendments brought about was that in the case of a person who is alleged to have committed the offence of illegal entry into Ceylon, the onus of establishing the contrary, in any prosecution launched in the case, would devolve on the accused. Yet another amendment rendered the employment of persons resident in Ceylon illegally, a punitive offence on the part of the employers of such persons. A further amendment to the Immigrants and Emigrants Act, 1948, has recently been passed by the Ceylon Parliament giving wide powers to the armed forces to arrest persons on suspicion of being illicit immigrants and providing for more severe punishment for employing, transporting and harbouring them.

About 1,20,000 Indian nationals had left Ceylon either voluntarily or because of non-renewal of their visas upto the end of March, 1965 as a result of Ceylonisation programme of the Government of Ceylon.

The Prime Ministers of India and Ceylon met at Delhi in Oct. 1964 and reached an agreement regarding the future of the "stateless" persons of Indian origin resident in Ceylon, estimated at 9,75,000. According to the agreement, 3,00,000 persons will be granted Ceylonese citizenship. 5,25,000 persons will be granted Indian citizenship and repatriated to India. The future of the remaining 1,50,000 persons has been left to be determined at a subsequent meeting between the two Prime Ministers. The process of the grant of Ceylonese and Indian citizenships and repatriation of the Indian citizens is to be completed over a period of 15 years ending Oct. 30, 1979.

Officials of the two countries met once in Dec. 1964 to set up a joint committee and formulate procedures for the implementation of the agreement. Details of the procedure etc. are under consideration (June 1965).

About the Ceylonization of business firms, all firms (including Indian firms) are permitted to retain personnel, who are considered essential, technically qualified etc., and that in non-essential categories of employment, Ceylonization should take place. This scheme of Ceylonization envisages departmental action to promote the appointment of Ceylonese nationals to executive posts in the private sector. The number of such persons who have or who are likely to secure executive posts in Indian establishments however is very small. The present scheme of Ceylonisation is to be revised shortly (June 1965).

A non-national leaving Ceylon can repatriate Rs. 1·5 lakhs in the case of those other than Indians and Rs. 75,000 for Indians. The exchange tax on remittance would be doubled from 10 per cent to 20 per cent and the only exemption from such tax is retirement funds.

## EAST AFRICA

Though immigration is not disallowed the scope is now greatly limited.

The former Colonies and Protectorates which had comprised British East Africa are now all independent countries — Kenya, Uganda, Tanganyika and Zanzibar.

In April 1964, Tanganyika and Zanzibar joined in a political union and are now known as Tanzania.

Asians in East Africa number approximately 4,46,000 and mostly concentrated in urban centres of Kenya, Uganda and Tanzania.

The Kenya highlands are now open to non-European farmers on a free seller-buyer basis and under the Land Settlement Scheme, non-Europeans, specially Africans, have rapidly settled in the area. Finance for this large undertaking of land settlement is coming mainly from the U.K.

The well-to-do Asian is, on the whole, inclined to imitate the European pattern of living and behaviour. The ostentatious style of living of some of the richer Asians excites African jealousy. The Asian skilled workers in Kenya earn much higher wages than their counterparts in India. Due to the policy of Africanisation adopted by the Governments of East African countries, non-Africans in Government Departments are being prematurely retired from service. Similarly, in petty trade in the smaller towns, the Africans are coming into the field and threatening to replace the Asians completely, but the Asian trader on the whole continues to strive to retain his place in the economic pattern of these countries.

## ETHIOPIA

Emigration to Ethiopia is neither restricted nor entirely free. Each case is judged on its merits, and there is no quota.

Foreigners who wish to start new industries or go into farming are given special encouragement.

There are no constitutional, legal or any other disabilities specifically on Indian residents. Some Indians own landed property and have been living in Ethiopia for half a century, and are whole-heartedly accepted by the people.

Under the Civil Code of the Empire of Ethiopia, which came into effect from Sept. 11, 1960, some restrictions have been placed on the ownership of immovable property by foreigners.

No foreigner may own immovable property situated in Ethiopia except in accordance with an Imperial Order. Any foreigner who is found to own immovable property in good faith but does not hold such immovable property in accordance with an Imperial Order shall be required by the competent authority to dispose of such property to an Ethiopian within six months. Failure to dispose of such property will result in the property being seized and sold by the competent authority. The foreigner will get only 80 per cent of the sale proceeds, 20 per cent being deducted as penalty and expenses of sale. Ten per cent only will be deducted if the foreigner acquired the property by succession.

Remittances from Ethiopia to India by Indians are restricted and regulated by rules according to which anybody who is for more than six years in Ethiopia can remit only family expenses for near relatives on the basis of affidavits from India.

There is no restriction for grant of foreign exchange for importing goods.

There are nearly 3,500 Indian residents in Ethiopia. Most of them are business men from the Gujarat and Saurashtra regions of India. Almost all of them are well-to-do and are engaged in trade specially in the import of textiles. Besides, there are about 300 Indian teachers. However, due to India losing her textile market in Ethiopia due to local manufacturers etc., Indian traders have taken to imports of diversified items and also exports of coffee etc. Besides, there are over 400 Indian teachers who have been recruited by the Ethiopian Government to further the cause of education. Some Indians are engaged also as Advisers to various Ministries for example, Municipality, Commerce, Social Welfare, Community Development, Agriculture, Customs. There are also a few Indians working as International Civil Servants in the Economic Commission for Africa whose headquarters are at Addis Ababa.

The Indo-Ethiopian Textiles S. A. started with 13,000 spindles and 300 automatic looms in 1960. Now this mill is having 35,000 spindles and 750 automatic looms and an up-to-date plant for the dyeing and finishing machineries.

Thus, within a short period of three years' time, the company trebled its production capacity and it is the biggest textile unit of Ethiopia. Its present production capacity is : Yarn—14·5 million lbs. per year ; cloth—31·4 million yards per year ; blankets—2,10,000 pieces per year.

About 4,000 people are employed in the factory.

Messrs. Birla Brothers, Calcutta have taken over the management of Baar Dar Textile Mills.

Local Indian residents in Ethiopia had been generously contributing from time to time for charitable purposes. In 1955 they constructed a hospital named as Gandhi Memorial Hospital and was presented to the Emperor.

There is a team of two Indian Army officers headed by a Brigadier who function as Advisers to the Imperial Bodyguard and are on deputation.

## FIJI

Immigration into Fiji is limited by the provisions of a special ordinance for Control of Immigration which came into force from June 15, 1962.

In general, permits to land and reside permanently in Fiji will be granted only to the following :—(*a*) farmers and planters if they have already acquired a property in the Colony of not less than 100 acres, three-quarters of which are productive land ; (*b*) professional men and women with recognised qualifications who intend to practise their profession in the colony (no permit to a teacher will be issued unless his entry is recommended by the Director of Education) ; (*c*) ministers of religion ; (*d*) persons entering the colony under contracts of employment with local firms or undertakings, who have commercial or technical skills for which there is need in the colony and which are unobtainable locally ; (*e*) persons who satisfy the Principal Immigration Officer that they have an assured income, that they will not become a charge on public funds.

Permits to enter and reside in the colony for a period not exceeding six months will be issued to the following :—

(*a*) Persons who are employed outside the colony by local firms or undertakings and who are transferred to the Colony ; (*b*) persons entering the colony for or under medical treatment ; (*c*) skilled tradesmen, miners and persons entering the Colony under short-term contracts of employment with public statutory corporations or public local authorities or with local agricultural or commercial undertakings, including trading banks, if there is a reasonable demand for the services of the persons concerned and this demand cannot be met satisfactorily locally, or the applicant is indispensable to the person or body employing him.

Absence from Fiji for a period or periods amounting in all to more than 18 months forfeits residential status of persons who have resided in the colony for a period exceeding not less than seven years.

The people of Indian descent numbered about 2,05,060 out of a total population of 4,13,872, according to the published census figures of 1961.

The immigration of indentured labourers from India started in 1879. Between this year and 1916, when sponsored immigration virtually ceased, some 40,000 to 50,000 Indians were introduced into the Colony, only a small proportion of whom returned to India at the expiration of their contract period. In 1911, there were 43,000 Indians, in 1936 85,000, in 1956 there were 169,403 ; and by the end of 1958 there were 184,090. In 1945, people of Indian origin outnumbered the native Fijians for the first time and their numerical superiority is maintained and is becoming more marked each year.

About the turn of the century, Indians began to assume the role of independent farmers, which completely altered their position in the Colony, and paved the way for further economic progress. Indians today represent by far the greatest proportion of cane farmers while some cultivate cane on freehold properties, or on lands leased from Fijian landlords. Many are tenant farmers of the Colonial Sugar Refining Company under an arrangement whereby the Company makes its lands available to selected tenants for the cultivation of sugarcane.

Although in competition with a more recent arrival—the Chinese—Indians now practically monopolize the Colony's retail trade while the tailoring and footwear businesses are almost entirely in the hands of Bombay craftsmen. The land transport trade—the ownership of public buses and taxis—is another field which Indians dominate.

As more and more Indian students return from overseas each year after obtaining higher academic or professional qualifications, more and more enter the professional ranks including civil service, law, medicine and dentistry.

The Indian community does not suffer from any political or legal disabilities. However, the only major economic disability which affects them is the existing land laws which make it almost impossible for an Indian to acquire land.

When the chiefs of Fiji ceded the Territory to Britain, a condition of the cession was that the land rights of the Fijians should be protected. But as the Indian population grows its demand for land also increases.

New constitutional changes were announced towards the end of 1961. They provide for a greatly enlarged franchise which give the vote to almost every literate adult in the colony who is over 21 years of age. The franchise is on a racial basis—Europeans, Fijians and Indians. (Indians in Fiji have franchise both in respect of legislature and the local bodies.)

Following the order enacted by the Privy Council making changes in the Constitution of Fiji. Fijian Legislative Council was dissolved on 1st March, 1963 and a General Election was held in 1963.

The salient features of the new Constitution are : (*a*) Provision for the Offices of the Governor and the Speaker ; (*b*) Setting up of an Executive Council ; and (*c*) A Legislative Council.

The Legislative Council is to consist of not more than 19 official members and 18 unofficial members — Europeans 6, Fijians 6 and Indians 6. Of the unofficial members, 4 Europeans, 4 Fijians and 4 Indians are to be directly elected on separate racial rolls and 2 Europeans and 2 Indians to be nominated by the Governor. Two Fijians are chosen by the Council of Chiefs voting by secret ballot.

The Executive Council under the order, consist of three ex-officio members, the Colonial Secretary, the Attorney-General, and the Financial Secretary and members to be appointed by the Governor.

There are no restrictions on the remittance of money from Fiji to the countries in the sterling area (except Canada). Money may not be sent outside the sterling area without a permit from the Controller of Foreign Exchange.

## INDONESIA

Migration of foreigners into Indonesia is banned.

Under the law, there are no constitutional, legal or any other disabilities from which Indian residents, as such, suffer. They are not discriminated against and are treated on par with other foreign residents.

Remittance facilities which were previously available to foreigners are now restricted. The Foreign Exchange Control Organisation of Indonesia, faced with extreme difficulties, is exceedingly strict about granting exchange facilities even for those who desire to close their concerns here and repatriate themselves and their capital to their native lands.

The economic condition of Indians here is fairly good. They mostly deal in textiles and sports goods, although a fair number of Indians in parts of Sumatra live off the land and run small dairies etc.

### MALAYSIA*

The Federation of MALAYSIA came into existence on Sept. 16. 1963. This new nation was formed by the merger of independent MALAYA with its neighbour SINGAPORE and with two former British Colonies of SARAWAK and NORTH BORNEO (now renamed SABAH). The estimated total population of Indians and Pakistanis was 9,55,000 in 1961.

The labouring and non-labouring classes of Indians may be roughly estimated at 70 per cent and 30 per cent respectively of the entire Indian population, the former employed in rubber and tin estates and the latter either employed in the clerical ranks of the various Govt. departments, mercantile firms and banks, rubber estates and oil palm plantations etc., or employed in business, trade and other professions like law and medicine.

The Indian trading community is composed of Chettiars, Gujaratis (both Hindus and Muslims), Sindhis, South Indian Muslims (both from Tamil Nad and Malabar) and a few Sikhs.

Indians do not suffer from any special disabilities. They are eligible for citizenship of the Federation of Malaysia if they fulfil the prescribed conditions.

### MAURITIUS

Mauritius is a British Colony. It is an Island in the Indian Ocean approximately 720 sq. miles in area situated about 500 miles off the centre of the East Coast of Madagascar and is practically in the tropic of the Capricorn.

People of Indian origin in Mauritius form about 67 per cent of the total population of 7,27,381 as on Oct. 31, 1964. This population is mainly composed of descendants of "Indentured" labourers from Bihar, Madras, U.P., but there is a sprinkling of traders from Gujarat and Maharashtra. These people have been settled here for generation and are now known as "Indo-Mauritians". Between 35 to 40 per cent of the agricultural land in Mauritius is owned by these Indo-Mauritians. A large number of them are farm labourers in sugar plantation. The rest are engaged in commerce and trade or professions or Government service.

Indo-Mauritians are coming into their own and on the whole their economic and social conditions compare favourably with people of Indian origin in other Colonies.

Immigration of foreigners for the purpose of settling down is not normally allowed. Only in exceptional circumstances when there is a dearth of skilled hands in a particular trade or profession, foreigners are allowed to enter and stay here for a specified period. For this, they have to obtain an offer of employment from a Mauritian employer and Entry Permit from the Government of Mauritius. In such cases, wherever necessary, immigrant should be able to deposit Rs. 1,000 on entry into the Colony. There is, however, no restriction for tourists or visitors or businessmen coming to Mauritius for *bona fide* purposes for a period of six months or so.

### NEW ZEALAND

Entry into New Zealand is controlled under a permit system, exemption being provided, broadly speaking, only for New Zealand citizens and persons of United Kingdom descent. There is no quota system.

The applications from Indians for permanent entry have been approved at the rate of approximately 100 applications per annum over the past few years. Most of those approved have been submitted on behalf of wives and minor children of Indians already resident in New Zealand.

There are some 2,600 Indians at present resident in New Zealand, mainly Gujaratis and Punjabis. The size of the community is, however, steadily increasing. At the moment 13 per cent are under five years of age and 27 per cent under 16 years of age. The greater part of the Indian community is concentrated in the main urban centres, where for the most part they are engaged in small businesses such as grocery stores, importing houses or restaurants. Others, however, are employed in industry and in clerical work and the professions.

There is no differentiation between Indians and other residents of New Zealand and their economic condition would not therefore vary from the economic condition of other residents engaged in similar trades or occupations.

Indians enjoy the right to vote in Parliamentary and Municipal elections and do not suffer from any political, legal or other disability.

Remittances made by all New Zealand residents (including Indians) from New Zealand are subject to exchange control. The maximum amount permitted varies according to the purpose of the remittance and the currency area concerned. The maximum amount normally approved for remittance to India for maintenance purposes in any one year is £240.

### PHILIPPINES

The suspension of Indian immigration into the Philippines was lifted on October 15, 1962. Henceforth, subject to compliance with prescribed requirements, Indian nationals may be admitted to the Philippines as immigrants under an annual quota not exceeding 50 for each calendar year.

In January 1962 foreign exchange control regulations were abrogated and there is now complete decontrol on foreign exchange transactions.

In 1961, in cooperation with other countries in the area, it was declared by Presidential Order that issuance of tourist visas for the Philippines should be greatly facilitated.

Indian nationals as well as other nationals may pass through the Philippines in transit even without a visa and will be permitted to stay for three (3) days or seventy-two (72) hours provided, however, that the traveller has a confirmed ticket for continuous passage to the country of destination.

Indian applicants for temporary visitors' visas, except government officials and seamen, must execute an affidavit affirming whether or not they have close relatives in the Philippines. Close relatives means mother, father, sister or brother. A copy of the affidavit is to be attached to each copy of the application.

### PORTUGUESE EAST AFRICA

In Portuguese East Africa there is no colour bar as such.

Immediately after the liberation of Goa, Daman and Diu in December 1961, the Portuguese Govt. adopted a hostile attitude towards persons of Indian origin, particularly towards Indian nationals resident in Portuguese territories. Early in 1962, about 2,200 Indian nationals resident in Mozambique were summarily interned, their properly sealed and their bank accounts frozen. In accordance with an Agreement reached between the Governments of India and Portugal, these Indian nationals were released on 13th May 1962. They were however required to quit the Portuguese territory at short notice. 98 per cent of the Indian nationals returned to India in 1963. They were allowed to bring with them a limited amount of cash and personal effects. Their moveable and immoveable property has been liquidated by an Official Commission appointed for the purpose. The Agreement reached between the Govts. of India and Portugal provided for the repatriation of sale proceeds of all assets of Indian nationals. The Portuguese authorities have not only adopted arbitrary methods to liquidate the assets of Indian nationals but have also made the repatriation of these assets dependent upon the availability of foreign exchange over a period of three years failing which these assets are to lapse to the State. The Govt. of India have protested to the Portuguese Government against these flagrant violations of the Agreement between the two Governments.

### RHODESIA AND NYASALAND

The Federation of Rhodesia and Nyasaland consisting of the territories of Southern Rhodesia, Northern Rhodesia and Nyasaland, founded in September, 1963, was dissolved on the mid-night of 31st December, 1963. The three territories namely, Southern Rhodesia, Northern Rhodesia and Nyasaland became separate Units from the mid-night of 31st December, 1963.

After the elections, African Governments came into power both in Nyasaland and Northern Rhodesia. As was announced earlier, Nyasaland became independent on the sixth of July 1964, and this country is now known as Malawi. Northern Rhodesia became independent on Oct. 24, 1964 under the name of Zambia.

Southern Rhodesia has an elected Parliament. The new Southern Rhodesia constitution came into effect from 1st November, 1962. The Queen of England is represented in Southern Rhodesia by the Governor there. The Southern Rhodesia Government is also demanding complete independence, but the majority community largely unrepresented in the Parliament is against the granting of independence to the minority government. The latter is pressing for one man, one vote, as a criterion, for election to the parliament.

The colour bar in Northern Rhodesia and Nyasaland has been completely eliminated. In Southern Rhodesia it still exists.

The population of Indians has not been shown separately in any of these countries. The Asian population in Southern Rhodesia is 7,100, in Northern Rhodesia it is 7,900 and in Nyasaland it is 10,700. The majority of the Asian population say (90 per cent) are of Indian origin. Most of them are engaged in trade and commerce except in Nyasaland where 150 to 200 persons are employed in the Railways there. There is no Indian labour as such in these countries. People of Indian origin are generally well off financially.

At present all these countries follow the immigration policy of the former Federation and immigration is selective and the people mostly needed are professional hands like the skilled workers, doctors, nurses and teachers. The Ministers of religion and wives and minor children of the persons already settled here are admitted. There is, however, no place for the immigrant who is classed as a labourer.

Remittance of capital out of these countries at present is subject to compliance with the provisions of the Foreign Exchange Regulations brought into force early in 1961.

### SAUDI ARABIA

The Immigration Law in Saudi Arabia to regulate the entry of nationals of other countries is very strict and the Saudi Government grants Saudi nationality to the foreigners with great difficulty and only in exceptional cases.

No foreigner is permitted to have any business or trade of his own except under the Foreign Investment Regulation in which he is permitted to hold a minority share, subject to other conditions. Every foreigner is required to have a Residence Permit. There are restrictions and for doing any work, a work permit is necessary.

* Singapore came out from the Federation in Aug. 1965.

There is no restriction on remittances sent from here to any part of the world, except Israel, and the foreign exchange position of this country is very stable.

Over 3,000 Indians reside in Saudi Arabia out of which about 500 alone are employed with the Arabian American oil company on contract basis in different capacities.

There is a systematic move to replace the foreigners, including Indians, whose contracts expire, by Saudi nationals.

## SOUTH AFRICA

Persons of Indian origin in South Africa numbering about half a million are mostly labourers, traders, small farmers, factory workers, and a small number of professionals. Ninety per cent of them were born in South Africa.

Racial discrimination against Indians exists in South Africa in every walk of life and in the worst possible form. Persons of Indian origin are practically excluded from parliamentary and provincial franchise as well as from public services except in menial and subordinate posts.

"Apartheid" or racial segregation is the declared policy of the South African Government. In accordance with this policy Indians are subject to a number of restrictions as regards immigration, inter-provincial travel and migration, residence, trade, industry, professional and other occupations. Racial segregation is also enforced in schools, post offices, railways, public transport, hotels, churches, social and religious gatherings and public utility undertakings.

The South African Government has abandoned its earlier policy of repatriation on which it had hitherto pinned its faith as a solution to the Indian "problem".They have now created a Ministry of Indian Affairs. All matters pertaining to Indians are being dealt with by this Ministry. The Minister of Indian Affairs, Mr. W. A. Maree, also announced his Government's plan for the future development of persons of Indian origin which was to be implemented as follows: (*a*) creation of temporary local consultative committees, (*b*) local committees to elect consultative committees; the formation of an (Indian) Advisory Council. The council (according to the Minister) would gradually be given powers to make decisions on matters which affected the Indian community. The Indians, like the Coloureds, would also have their own municipalities and town councils as their residential areas were demarcated and developed in terms of group-areas legislation.

The Group Areas Act which was originally enacted in 1950 has been amended several times since then. The chief sufferers under the Act continued to be the Indian property owners in Natal, Transvaal and the Cape Province. Already, some of them have had to vacate their homes and many more have been given notice to look for residence in their own group areas —many of them are old established communities having their traditional homes in these areas for several generations.

Three "Tribal" University Colleges for Africans (Fort Hare, Turfloop and Ngeya), one for the Coloured people (Western Cape) and one for the Indians (Salisbury Island) were established early in 1961.

Indians have been declared prohibited immigrants since 1913, but the right of entry into the Union of wives and children of Indians domiciled in South Africa was provided for in the Reciprocity Resolution passed at the Imperial Conference of 1918 and later in the Cape Town Agreement of 1927. Under an Act passed in 1953, the South African Government banned the entry into South Africa of the wives and children of persons of Indian origin domiciled in South Africa. But certain specified categories of wives and children of persons of Indian origin were allowed to enter South Africa till 10th February 1956.

Practically all Indians domiciled in South Africa are South African citizens by law, but they are denied some of the most important rights of citizenship.

Indians have no franchise rights in the Provinces of Natal, Transvaal and the Orange Free State. In the Cape Province they enjoy limited franchise rights as for Cape Coloureds.

Indians are not eligible to a place in the Executive Council or Legislature, whether provincial or central.

There is no special limit to remittances by Indians to India.

The Government of India has been foremost in opposing in the United Nations, from its inception, the policies of racial discrimination of South Africa. Numerous resolutions have since been passed by the United Nations condemning their policies and urging South Africa to change them. The Government of South Africa have, however, not only refused to comply with the provisions of those resolutions, but have also persistently violated the principles and provisions of the Charter of the United Nations and the Declaration of Human Rights.

As the Government of South Africa continued to ignore repeated United Nations resolutions, the General Assembly urged the Member States to impose diplomatic and economic sanctions against South Africa, during its 17th Session in 1962 (Resolution No. 1761 (XVII) of 6th November 1962). The Government of India, who withdrew their High Commissioner from South Africa in 1946, have fully implemented this Resolution by breaking diplomatic relation, closing their ports to South African vessels, banning trade with South Africa, refusing landing and passage facilities to South African aircraft etc., etc.

South Africa has persistently refused to accept the numerous resolutions passed by the U.N. urging it to give up its policies of racial discrimination. As a result of pressure exerted by the Commonwealth of Nations, the Government of South Africa withdraw therefrom on May 31, 1961, rather than give up apartheid.

## SUDAN

There are about 3,000 Indians in the Sudan. The Indian Community is mostly in trade of textiles, tea, jute goods, essential oils, gum arabic and dura. Almost all these traders come from Gujarat State and continue maintaining their ties with the motherland.

There are about seventy Indians working under the Government of Sudan on contract basis — a few of them are experts from the United Nations.

The Indian community in the Sudan on the whole is well off. Their relations with the people and the Government are quite good.

Further immigration into Sudan for business or private employment is not allowed. Remittances are governed by exchange control regulations.

## SURINAM

Surinam is an autonomous part of the kingdom of the Netherlands which was formerly known as Dutch Guiana.

There are 93,000 Indians in a total population of 302,000. They form the second largest group.

The Indian community has made rapid economic progress, especially during the last 25-30 years. In medium-size enterprises they already have a strong economic position. Indians are mainly engaged in agriculture, business and trade. The majority of Indians are sugar estate workers or cane farmers.

Hindi is widely spoken and understood.

Migration into Surinam is controlled. Entry permits are issued to technically trained personnel in the interest of national economy. A deposit of Rs. 1,250 as "Show Money" has to be made by every immigrant. There is no quota system and applications are considered on an *ad hoc* basis.

There are no constitutional, legal or any other disabilities on Indian immigrants.

## TANZANIA

There are some 90,000 Indians living in Tanzania including about 5,000 Goans and about 35,000 Muslims. They are mostly engaged in wholesale and retail trade, manufacturing industries, Public Services etc. After independence, however, scope for further employment in Government services has decreased due to Africanisation policy of the Government. Similarly due to encouragement of co-operative societies, marketing boards etc. further participation in wholesale and retail trade is also restricted. The Indians are keeping intimate contacts with India in educational, cultural and economic fields and with restricted opportunities at present for employment in Public Service and economic fields are returning to India in increasing numbers with a view to permanent settlement. As entry to educational institutions is not easily avilable for non-citizens, Indians have to send their children to India for further education. As, however, Government encourages establishment of manufacturing industries, there are sufficient opportunities for foreign capital and technical know-how to take increased share in this sphere. The existence of a foreign investors guarantees bill is a particularly welcome measure to attract foreign investors in this field. East Africa including Tanzania is by and large a free competitive market and there is no exchange control operating at present. If the proposed East African Federation comes about bringing close political union between the three East African territories, there is good scope for Indians to start small scale and medium industries in a growing economy.

The position of Indians in Zanzibar is not very happy. Nationalisation of houses, farms, factories, export and import trade, restriction in sending savings out of the country, denial of educational facilities and various other restrictive practices have made the life of Indians very difficult and many have already left the islands for India during the past year.

## THAILAND

The annual quota is 200 and the selection is made by the Government's Immigration Division in Bangkok.

No discrimination against the Indian population prevails in Thailand.

Remittances out of the country are controlled by the Bank of Thailand's rules and regulations.

## UGANDA

At the time of 1959 Census, there were 63,130 persons of Indian origin, 5,973 Pakistanis and 2,830 Goans.In mid-1962, the total number of Asians in Uganda was 79,900. The persons of Indian origin are predominantly Hindu, but there is also a substantial and influential religious minority of Muslims; Sikhs and Parsees are also to be found. The majority of Indian settlers come from the Gujarat and Saurashtra. Gujarati is the language spoken by them, even by the Muslims. There are some settlers from the Punjab and Maharashtra also.

Apart from the Indian settlers who are mainly in business, there are Indians who are employed as teachers, doctors, nurses, engineers, etc., with the Uganda Government on contract or permanent terms.

The Indian community in Uganda on the whole is fairly well-off.

Entry into Uganda is strictly regulated through entry passes and further immigration is not allowed.

Temporary employment passes for a limited period are issued for skilled personnel to be brought from Indian for employment in the concerns owned by the people of Indian origin.

Besides yearly scholarships awarded to Uganda students, the Government of India have also extended facilities in training of Ugandan Community Development Officers as well as other technical personnel in India at the expense of the Government of India.

### U.S.A.

The U.S.A. has fixed a quota of 100.

There are certain categories of aliens who are excludable under Section 212 of the Immigration and Nationality Act. These exclusions apply to both immigrants and non-immigrants, though there are exceptions and certain discretionary powers are vested in the Attorney-General and the Secretary of State.

The following classes broadly among others are excluded : feeble-minded, insane, mentally defective, drug addicts, chronic alcoholics, those with dangerous contagious diseases like leprosy, or convicted for crimes involving moral turpitude, polygamists, anarchists, those who advocate or teach or are broadly associated with communism or those who attempt to overthrow by violence the government of U.S.A.

There are a variety of requirements which must be met before an immigration visa can be issued. The first is the registration of the intending immigrant on the quota waiting list at a diplomatic or consular office of the United States. These offices are located in New Delhi, Bombay, Calcutta and Madras within India.

Within each quota there are four preference categories which may be stated briefly as follows : First Preference—Immigrants possessing special skills or training and their spouses and children. Second Preference—Parents and unmarried sons and daughters (over 21 years of age) of American citizens. Third Preference—Spouses and children of aliens admitted to the United States for permanent residence. Fourth Preference—Brothers, sisters, and married sons and daughters of American citizens.

Parenthetically, it may be stated that the spouses and children (who are both unmarried and under age 21) of American citizens are admitted on a non-quota basis. For the above preference categories, as well as for non-quota immigrants, petitions must be filed with and be approved by, the Attorney General of the United States.

In the annual allocation of a quota, the law requires that 50 per cent be allocated to the first preference, 30 per cent to second preference and 20 per cent be allocated to third preference. If any quota numbers are unused in the preference categories, they are used to satisfy shortages in first, second or third preference. It is only after all demands for first, second and third preference have been filled that numbers are available for fourth preference and non-preference categories. Of these remaining numbers, 50 per cent are allocated to fourth preference and 50 per cent to non-preference. It must be emphasized that under the Indian quota, the demands for first, second, and third preference have been so high that no numbers have been allocated to fourth preference and non-preference for several years. At present, there are waiting lists also for first and third preference on the Indian quota.

An immigrant, regardless of race, colour or creed, admitted into the United States as a permanent resident alien is eligible for American citizenship, if he fulfils the residence and other requirements laid down in the Immigration and Nationality Act of 1952, as amended.

There are no restrictions on the remittance of American funds abroad.

### THE WEST INDIES

TRINIDAD AND TOBAGO : Trinidad and Tobago attained independence within the Commonwealth on 31st August, 1962. Its capital is Port of Spain. The number of persons of Indian origin is the largest in Trinidad and Tobago. The total area of Trinidad and Tobago is 1,980 sq. miles and the population is 827,927 of which people of Indian descent number about 3,01,946.

The bulk of the people of Indian descent work on agriculture farms, industrial estates and in business houses. They play an important role in the economy of the country. The majority of the departmental stores, petrol stations and taxi stands are owned by people of Indian descent.

Entry into the country is through permits, issued initially for limited periods against cash deposits.

No visa is required for the Commonwealth citizens.

JAMAICA : Jamaica attained independence within the Commonwealth on 6th August, 1962. Its capital is Kingston. The total area of Jamaica is 4,411 sq. miles and the population is 1,685,178 out of which Indians number over 30,000 who are mainly agriculturists.

A bulk of the people of Indian descent are agriculturists.

Entry into the country is through work permits which are issued very sparingly.

BARBADOS : Its capital is Bridgetown. The total area is 166 sq. miles and its population is 232,100. There are a few Indians numbering about 400, majority of whom own dry goods stores.

There are no restrictions for remittances to soft currency areas. Immigration is controlled through a system of work permits.

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# BHOODAN

The position of the Bhoodan Yagna Movement upto 31st March 1965 is shown in the table below.

Since Gramdan (the whole cultivable land in the village to be donated to the Gram Sabha) proved to be an advanced stage of Bhoodan, the Akhil Bharat Sarva Seva Sangh, by its resolution, gave a call to the country to concentrate on Gramdan. At the same time new items of Sarvodaya Patra and Shanti Sena have been added to consolidate the Gramdan Movement. Due to the above programmes the work of distribution of land was slackened.

The headquarters of the movement are at Akhil Bharat Sarva Seva Sangh, Rajghat, Kashi, Varanasi (U.P.).

| STATE | Land collection (in acres) | Land distribution (in acres) | No. of Gramdans | No. of Shanti Kendra | No. of Shanti Sainiks |
|---|---|---|---|---|---|
| Assam .. .. .. .. .. | 11,935 | 265 | 957 | 88 | 249 |
| Andhra .. .. .. .. .. | 2,41,952 | 1,03,308 | 595 | 2 | 170 |
| Bihar .. .. .. .. .. | 21,32,787 | 2,84,784 | 348 | 393 | 3,527 |
| Bengal .. .. .. .. .. | 12,918 | 3,856 | 354 | 16 | 230 |
| Delhi .. .. .. .. .. | 300 | 180 | 1 | 1 | 202 |
| Gujarat .. .. .. .. .. | 1,03,242 | 52,080 | 200 | 8 | 92 |
| Himachal Pradesh .. .. .. | 5,240 | 2,531 | 4 | 1 | 7 |
| Jammu and Kashmir .. .. .. | 211 | 5 | — | — | — |
| Kerala .. .. .. .. .. | 26,293 | 5,774 | 403 | — | 37 |
| Maharashtra .. .. .. .. .. | 1,50,802 | 1,07,111 | 915 | 34 | 1,321 |
| Mysore .. .. .. .. .. | 20,086 | 3,181 | 58 | 8 | 136 |
| Madhya Pradesh .. .. .. | 4,05,402 | 1,46,545 | 184 | 25 | 265 |
| Punjab .. .. .. .. .. | 14,739 | 3,601 | 6 | 9 | 214 |
| Rajasthan .. .. .. .. .. | 4,29,428 | 92,734 | 378 | 56 | 422 |
| Tamilnad .. .. .. .. .. | 80,433 | 21,519 | 325 | 44 | 59 |
| Utkal .. .. .. .. .. | 1,66,708 | 89,630 | 2,469 | 40 | 215 |
| Uttar Pradesh .. .. .. .. | 4,34,351 | 1,84,274 | 123 | 113 | 1,782 |
| TOTAL .. .. .. .. | 42,36,827 | 11,01,378 | 7,320 | 844 | 8,928 |

# SOME ALL INDIA CORPORATIONS

## AGRICULTURAL REFINANCE CORPORATION

Amar Building, P.B. No. 363, Bombay-1.

The Agricultural Refinance Corporation, a Statutory body established by an Act of Parliament, started functioning from 1st July 1963.

**Authorised Capital :**—Rs. 25 crores divided into 25 000 shares of Rs. 10,000 each.

**Subscribed Capital :**—Rs. 5 crores consisting of 5,000 shares of Rs. 10,000 each. The 5,000 shares were subscribed in the following manner: Reserve Bank 2,955, Central land mortgage banks and State Co-operative banks 1,355 and Scheduled banks, L.I.C., Insurance and investment companies 690.

The shares of the Corporation have been guaranteed by the Central Government both in regard to repayment of the principal and payment of a minimum annual dividend which has been fixed at 4½ per cent. for the first issue. They are treated as trustee securities and also as approved securities for the purpose of the Insurance Act, 1938 and the Banking Companies' Act, 1949. The Government of India has provided an interest-free loan of Rs. 5 crores, the repayment of which will commence after 15 years from the date of the loan. Thus the total resources immediately available for investment in long and medium-term projects are of the order of Rs. 10 crores.

**Objects :**—The Agricultural Refinance Corporation is primarily a refinancing agency and its object is to help augmentation of the resources available for provision of medium-term and long-term finance for agriculture. The Corporation is expected to provide financial accommodation of a medium-term or long-term nature to the various special schemes which cannot be financed by the existing credit agencies either on account of the volume of funds involved or the terms and conditions of repayment or because the projects are such as cannot be brought within the normal rules of business under which the land mortgage banks are functioning.

**Institutions Eligible for Financial Assistance :**—Such of those State co-operative banks, Co-operative Central land mortgage banks and scheduled banks as are shareholders of the Corporation have been made eligible for financial assistance from the Corporation. In exceptional cases, *i.e.*, where a loan for financing any particular activity is considered necessary or desirable but cannot for one reason or another be granted through an institution eligible for being refinanced by the Corporation, co-operative societies (other than State co-operative banks and central land mortgage banks) may be financed direct even though they are not shareholders of the Corporation, provided such societies are approved by the Reserve Bank for the purpose.

**Security :**—The refinance facilities from the Corporation will be available to an eligible institution only if the concerned Government guarantees the repayment of principal and payment of interest on the loans.

A decision was taken by the 'Board' in July 1964 that in cases where the State Government guarantee cannot be obtained, security in the form of sub-mortgage, sub-hypothecation, subpledge, etc. of land, plant, machinery, etc. mortgaged, hypothecated or pledged in favour of the scheduled banks by the planters should be accepted for refinance to be provided by the Corporation to such scheduled banks having good reputation and sound financial position.

**Schemes to be drawn up :**—Every State is expected to come forward with carefully prepared schemes of agricultural development, plantations, dairy farming, etc. The schemes should be businesslike, commercially paying and economic in content, but should not be departmental schemes taken up by the Governments in the normal course of their activity.

**Loans Sanctioned :**—The Corporation has so far sanctioned 5 schemes of reclamation and development of land in the states of Andhra Pradesh, Madras and Maharashtra covering a total of 5·97 lakh acres and involving a total financial outlay of Rs. 2,260 lakhs. Besides these, one scheme for development of coconut plantation in 2,000 acres in Orissa State involving a financial outlay of Rs. 32 lakhs and another for development of orchards in 1,000 acres in Madhya Pradesh involving a financial outlay of Rs. 10 lakhs have also been sanctioned. The Corporation has also under consideration some other schemes for agricultural development received from various States.

**Board of Directors :**—M. R. Bhide, Deputy Governor, Reserve Bank of India (*Chairman*); P. D. Kasbekar, S. Chakravarti, R. K. Seshadri, Prof. D. R. Gadgil, B. K. Dutt, Udaibhansinhji and V. Sivaraman (*Managing Director*); Dr. M. V. Hate (*Secretary*): T. S. K. Chari (*Deputy Secretary*).

## CEMENT CORPORATION OF INDIA LTD.

(A Govt. of India Undertaking)
Udyog Bhawan,
New Delhi.

The Cement Corporation of India was registered under the Indian Companies Act in 1965 as a wholly owned Government of India Undertaking under the Ministry of Industry & Supply.

The Corporation has set up a Limestone Investigation Division which has started detailed investigations and proving of cement grade limestone at several sites. As soon as these investigations are completed the Corporation will be in a position to determine the location of its factories.

The Corporation is charged with the responsibility of installing additional capacity of producing 5 million tonnes of cement annually as soon as possible and at the latest by the end of the Fourth Plan in 1970–71.

The Corporation will also undertake surveying, prospecting and proving of cement grade limestone deposits in the country and all other ancillary and supporting activities connected with the growth and expansion of the cement industry. The data collected by the Corporation will be available for the use of the private entrepreneurs as well as the State Governments.

The Corporation is exploring the possibility of placing orders for the manufacture of its cement plants with the indigenous cement machinery manufacturing industries. There are also plans for two large sized plants with annual capacity of one million tonnes each to be imported from abroad by utilising the foreign aid made available by friendly countries.

The Board of Directors include three non-officials and six officials nominated by the Government of India.

*Chairman* :—Dr. B. V. Keskar; *Managing Director* :—H. V. Narayana Rao; *Financial Advisor & Director* :—Shiv Naubh Singh.

## CENTRAL ROAD TRANSPORT CORPORATION LIMITED

11, Rabindra Sarani,
Calcutta 1.

The Corporation was incorporated on 6th March, 1964 with an authorised capital of Rs. 2 crores divided into 2 lakhs equity shares of Rs. 100 each. All the shares are to be held by the President of India or his nominees. The State Governments have also been invited for participation.

The main function of this Corporation is to supplement the transport capacity by road on inter-state routes in India, specially the eastern sector of the country. The Corporation has a fleet of about 100 Leyland Comet trucks which was expected to rise to 150 by March, 1965. The trucks of the Corporation are at present plying on Calcutta-North Bengal-Assam and Calcutta-Delhi routes. The activities are expected to be extended to Delhi-Bombay, Calcutta-Bombay and Delhi-Kashmir inter-state routes shortly. The Corporation also books traffic between Calcutta and Assam through river-cum-road routes, i.e., through river steamer companies upto Gauhati and beyond Gauhati by road.

The gross mileage operated by the trucks of the Corporation from 6th March to 31st December, 1964 was over 15½ lakhs.

*Board of Directors:*—P. C. Mathew (*Chairman*); A. S. Bhatnagar, R. S. Krishnan, V. P. Ahuja, A. K. Mazumdar (*Managing Director*).

## CENTRAL WAREHOUSING CORPORATION

(A Govt. of India Undertaking)

G-10, New Delhi South Extension Part II,
New Delhi 16.

The Central Warehousing Corporation which was initially constituted by the Government of India on 2nd March, 1957, started functioning only in July of that year. The Corporation was reconstituted with effect from 18th March, 1963, under New Act—the Warehousing Corporation Act, 1962.

The main aims and objects of the warehousing scheme are :—

(*i*) To help storage of agricultural produce and other commodities as are declared to be "Notified Commodities" by the Central Government under Entry 33 of the concurrent list of the Seventh Schedule of the constitution by notification in the Government Gazette, on modern scientific lines so as to avoid loss due to dampness, pests, etc. and

(*ii*) To assist the depositor to secure cheap credit, avoid distress selling and sell his produce as and when the market is favourable to him.

The notified commodities referred to in para (*i*) will include essential Civil Supplies such as cement, steel, textiles, leather and rubber goods, coir and coir goods etc.

**Functions :**—The functions of the Corporation as provided in the new Act are :—(*a*) acquire and build godowns and warehouses at such suitable places in India as it thinks fit ; (*b*) run warehouses for the storage of agricultural produce, seeds, manures, fertilizers, agricultural implements and notified commodities offered by individuals, co-operative societies and other institutions ; (*c*) arrange facilities for the transport of agricultural produce, seeds, manures, fertilizers, agricultural implements and notified commodities to and from warehouses ; (*d*) subscribe to the share capital of a State Warehousing Corporation ; (*e*) act as agent of the Government for the purposes of the purchase, sale, storage and distribution of agricultural produce, seeds, manures. fertilisers, agricultural implements and notified commodities ; and (*f*) carry out such other functions as may be prescribed.

**Share Capital :**—The authorised capital of the C.W.C. is Rs. 20 crores divided into two hundred thousand shares of the face value of one thousand rupees each. Of this authorised capital, half was issued in the first instance in June, 1957, of which 59,522 shares have been subscribed for upto end of March, 1964. 90 per cent of the share capital issued at any time is subscribed for by the Government and the remaining 10 per cent is subscribed for by the following institutions :—(*a*) the State Bank ; (*b*) other schedule banks ; (*c*) co-operative societies ; (*d*) insurance companies, investment trusts and other financial institutions ; (*e*) recognised associations and companies dealing in agricultural produce or any notified commodity.

**Warehousing Facility :**—The Corporation had, by end of March 1964, 85 warehouses

(including two warehouses started mainly for the storage of jute purchased by S.T.C. under the "Price Support Scheme" of the Government of India) in hired accommodation with a total storage capacity of 1·78 lakh tons. The stocks at the end of March 1964 stood at 0·94 lakh tons and the percentage of occupancy of warehouses was 53. About 110 types of commodities were handled at these warehouses.

Side by side along with the opening of warehouses in hired accommodation, construction works were also taken up. By end of March 1964, the total built up capacity owned by the Corporation was 66,700 tons.

**Credit Facility** :—The various scheduled banks make advances against the pledge of warehouse receipts issued at the warehouses. These advances are made up to 60 per cent of the value of the goods and bear interest at about ½ to 1 per cent less than the usual lending rate.

The total outstanding advances against the pledge of warehouse receipts issued by the Central & State warehouses was over Rs. 11 crores as at the end of March, 1964. The advances had gone up to about Rs. 14 crores during the year.

**General** :—The C.W.C. conducts training courses for warehousemen and Technical Assistants in which intensive training (both theoretical and practical) is given on the various aspects of warehousing business and other connected matters. By end of March 1965, 827 candidates were trained by the C.W.C.

The Corporation has undertaken construction of godowns for special commodities like sugar, jaggery, fertilizers, coffee etc. which cannot be stored in ordinary godowns.

**State Corporations** :—The State Governments have with the approval of the Central Warehousing Corporation established a Warehousing Corporation in each State. The C.W.C. subscribes 50 per cent of the share capital of each S.W.C.

The 14 S. W. C. had, by the end of March 1964, set up 429 warehouses, 93 sub-warehouses and a cold storage with a total storage capacity of 4,68,823 tons.

*Mg. Director :* C. S. Ramachandran.

## DEPOSIT INSURANCE CORPORATION

113, Clive Road, Masjid Bunder,
P. Bag No. 5127, Bombay 9.

The Deposit Insurance Corporation was established on the 1st of January 1962 by an Act of Parliament.

The Corporation has been set up with the object of giving a measure of protection to depositors, in particular small depositors, from the risk of loss of their deposits in the event of a bank's inability to meet its liability.

Every functioning commercial bank covered by the Banking Corporation Act, 1949 is registered as an insured bank with the Corporation and all its depositors (except Central and State Governments, Foreign Governments and Banking Companies) get the protection afforded by the Corporation. The Corporation provides insurance to the extent of Rs. 1,500 in respect of each depositor. The limit is in respect of the total amount held by a depositor in all his deposit accounts in the same right and capacity with an insurer bank at its offices in India.

The Corporation's liability in respect of insured deposits arises in the event of liquidation, reconstruction or amalgamation of a bank. When a bank goes into liquidation, the Corporation arranges to pay to every depositor directly or through the liquidator the amount due to him under the insurance scheme. If a bank is reconstructed or amalgamated with another bank and the scheme of reconstruction or amalgamation does not entitle the depositor to get credit for the amount of his deposit on the date on which the scheme comes into force, the Corporation arranges to pay to each depositor of the reconstructed bank or the amalgamated bank such amount in respect of his deposit which together with the credit afforded as above would enable the depositor to get the amount due to him under the insurance scheme.

The insured banks are required to pay to the Corporation a premium on their deposits at the rate of 5 paise for every one hundred rupees per annum. The amount of premium received from banks from time to time is held in the Deposit Insurance Fund which is exclusively utilised for payment of the claims of the depositors.

The Corporation has a capital of Rs. one crore which is held by the Reserve Bank of India.

*Board of Directors :* P. C. Bhattacharyya (*Chairman*); *Directors :* C. S. Divekar; R. K. Seshadri (officer of the Central Government); S. N. Desai and G. S. Diwan (both nominated by the Central Government in consultation with the Reserve Bank); *Manager :* Mangesh S. Nadkarni.

## EXPORT CREDIT & GUARANTEE CORPORATION LTD.

(A Government of India Concern.)
4, Rampart Row, Bombay 1.

The Exports Risks Insurance Corporation which started functioning in October, 1957, was transformed into the Export Credit and Guarantee Corporation Ltd. (E.C.G.C.) with effect from January 15, 1964. The main object of the Corporation is to facilitate the growth of India's Export trade by providing insurance cover to Indian exporters and furnishing various kinds of guarantees to banks with a view to assisting Indian exports to get credit facilities necessary for expanding their export trade.

The authorised capital of the Corporation is Rs. 5 crores of which Rs. 2 crores are to be paid up.

During the year 1964, the Corporation issued 1,142 policies as against 725 in 1963. The value of risks covered by the Corporation during the year amounted to Rs. 34·50 crores. Exporters were able to obtain pre-shipment advances from the banks to the extent of Rs. 17·68 crores with the help of the Packing Credit Guarantee.

By the assignment of policies the policy holders obtained post-shipment finance amounting to Rs. 4·21 crores; and the post-shipment guarantees helped exporters to raise Rs. 0·11 crores at the post-shipment level.

The Corporation paid claims of the value of Rs. 1·75 lakhs during the year 1964 as against Rs. 6·51 lakhs during the previous year. The premium income in 1964 amounted to Rs. 8·93 lakhs against Rs. 6·47 lakhs in 1963.

*Chairman :* B. R. Patel, I.C.S.; *Mg. Director :* C. M. Ghorpade; *Secy. :* Baldev Mehta.

## THE FILM FINANCE CORPORATION LTD.

"White House", 91, Walkeshwar Road,
Bombay 6.

The Corporation was established in 1960 mainly with the object of providing finance for the production of good quality films in the country.

The authorised capital of the Corporation is Rs. one crore. The issued and paid up capital is Rs. 50 lakhs. This is wholly subscribed by the Central Government.

To supplement this capital an amount of Rs. 25 lakhs has been received by the Corporation by way of loan from the Government. In addition to this, Rs. 40 lakhs have been provided in the Central Budget for 1965–66 by way of loans to the Corporation.

The net profit of the Corporation which amounted to Rs. 0·27 lakhs in 1961-62, and Rs. 1·65 lakhs in 1962-63 rose to Rs. 2·58 lakhs in 1963-64.

The Corporation has built up reserves totalling Rs. 1·73 lakhs.

The total loans sanctioned upto March 31, 1965 amounted to Rs. 1,21,64,485 of which a sum of Rs. 80,77,474 has been disbursed. The loans and advances outstanding on that date aggregated to Rs. 54,94,655.

The number of applications received and sanctioned in 1964–65 were 10 and 8 respectively. The total amount involved was Rs. 32,38,500 and Rs. 22,19,000 respectively. Nine applications which were accepted involving a sum of Rs. 20,61,500 were withdrawn/cancelled in 1964–65. The number of applications received and sanctioned from inception till 31st March 1965 is 124 including 67 for Hindi films and 41 respectively.

Eighty applications for a sum of Rs. 2,45,11,910 lakhs were rejected in full or part and three applications involving a sum of Rs. 10,91,000 lakhs were under consideration.

Fifteen pictures have been released upto March 1965. Loans disbursed to them amount to Rs. 38,47,326. Out of these 15 producers, five have paid back the loans with interest amounting to Rs. 17,04,000. Of the remaining, the amount recovered so far amounts to Rs. 25,52,753. Out of the 15 pictures, 6 have won different awards in India and abroad.

*Hon. Chairman :* M. D. Bhat.
*General Manager :* V. C. Desai.

## THE FOOD CORPORATION OF INDIA

1/144, Mount Road, Madras 6.

The Food Corporation of India was established under an Act of Parliament, the Food Corporations Act, 1964 (37 of 1964), with effect from 1st January 1965.

The head office of the Corporation is at Madras. Four Regional offices of the Corporation have been set up one each at Hyderabad in Andhra Pradesh State, Bangalore in Mysore State, Thanjavur in Madras State and Trivandrum in Kerala State. District offices are also being set up in about 30 important centres in these States.

The capital of the Corporation will not exceed Rupees one hundred crores. The equity capital provided by the Central Government to the Corporation for the last quarter of 1964–65 is Rs. 4 crores. The loan capital provided to the Corporation for the same period is Rs. 11 crores.

The board of directors of the Corporation consists of (*a*) Chairman, (*b*) three directors representing Ministries of the Central Government dealing with (*i*) Food, (*ii*) Finance and (*iii*) Co-operation, (*c*) the Managing Director of the Central Warehousing Corporation (ex-officio); (*d*) a Managing Director and (*e*) six other directors.

T. A. Pai (*Chairman*); B. N. Adarkar, Additional Secretary, Ministry of Finance.; N. P. Chatterji, Joint Seeretary, Ministry of Community Development and Co-operation; Prof. D. R. Gadgil; Dr. (Mrs.) Kamla Chowdhry; Krishan Chand, Additional Secretary, Ministry of Food & Agriculture.

C. Narasimham (*Managing Director*); C. S. Ramachandran, Managing Director, Central Warehousing Corporation (*Ex-officio Director*); Satwant Singh; B. K. Shah; P. L. Tandon; T. A. Verghese.

The main functions of the Corporation as provided in the Act are to undertake the purchase, storage, movement, transport, distribution and sale of foodgrains and other foodstuffs.

With effect from the 1st April, 1965, the Food Corporation of India has taken over post-procurement operations in respect of paddy and rice procured in the Southern States of Madras, Andhra Pradesh and Mysore on account of the Central Government. It has also embarked upon direct purchase operations in the Mysore State.

It has also taken over the distribution of wheat products in the States of Andhra Pradesh, Madras, Mysore and Kerala with effect from 1st April 1965.

The Food Corporation of India may lend or advance money to any person engaged in the production of foodgrains upon the security of foodgrains or such other security as may be prescribed, for any purpose connected with such production.

## THE HANDICRAFTS & HANDLOOMS EXPORTS CORPORATION OF INDIA LIMITED

Lok Kalyan Bhavan,
11A, Rouse Avenue Lane, New Delhi 1.

The Indian Handicrafts Development Corporation set up in 1958 was formed into a subsidiary of the State Trading Corporation of India Limited and its name changed to "The Handicrafts and Handlooms Exports Corporation of India Ltd." in June 1962. Later in the year the Handloom Export Organisation was merged with the Handicrafts and Handlooms Exports Corporation of India Ltd. bringing in 'Handlooms' also within the scope of its operations.

Some of the important activities of the Corporation being: (*i*) Participation in exhibitions, Trade Fairs in foreign countries; (*ii*) Import and distribution of essential raw materials to artisans, manufacturers/exporters; (*iii*) Provision of credit facilities to the exporters on easy terms for execution of export orders; (*iv*) Publicity and market surveys in foreign countries; (*v*) Distribution of samples abroad; (*vi*) Establishment of selling agencies; (*vii*) Organising production for execution of export orders within stipulated delivery periods; (*viii*) Development of new designs suitable for export markets, etc. The Corporation also undertakes direct exports of handicrafts and handloom goods, with the main object of introducing new items and exploring new markets.

The authorised share capital of the Corporation is Rs. 1 crore, divided into 100,000 equity shares of Rs. 100 each. The subscribed capital as on the 31st March, 1965, was Rs. 40,00,000 which has been entirely subscribed to by the State Trading Corporation of India Limited.

*Board of Directors:* B. P. Patel, I.C.S. (*Chairman*); Pupul Jayakar, K. P. U. Menon, I.A.S., Kitty Shiva Rao, L. C. Jain, M. L. Kala, I.A.A.S., S. P. S. Sondhi, I.A.A.S. (*Secretary*).

## INDIAN MOTION PICTURES EXPORT CORPORATION LTD.

(Registered Office)

Harchandrai House, 1st Floor, 81, Queen's Road, Bombay 1.

The Corporation was registered as a Public Limited Company under the Companies Act, 1956, on 19th September 1963, with an authorised share capital of Rs. 10 lakhs divided into 10,000 shares of Rs. 100 each (later raised to Rs. 25 lakhs). It is proposed to issue the entire capital. The State Trading Corporation of India Ltd. has agreed to subscribe one-third of the capital of the Corporation.

The Corporation is primarily intended as a trading body. However, in addition to its trading activities it also performs the functions of the Export Promotion Organisation in the interest of increasing the export of Indian films to the traditional markets and exploration of new markets for Indian films. Furthermore, the Corporation has been empowered to execute agreements with foreign organisations for the import or export of films.

*Board of Directors:* A. S. Naik, I.C.S. (*Chairman*); C. M. Ghorpade (*Managing Director*); J. B. Roongta; Maganlal N. Savani; B. R. Chopra; Bimal Roy; Ajit Bose; S. S. Vasan; A. L. Srinivasan; R. K. Ram; S. M. Patankar; H. N. Agarwal; Dilip Kumar; Raj Kapoor; *Secretary:* G. G. Bhatt.

## INDIA TOURISM CORPORATION

Marshal House, Hanuman Road,
New Delhi.

*Board of Directors:* Naval H. Tata (*Chairman*); Smt. Rajen Nehru; Smt. Ushi Khan; Kushwant Singh; Jagdish Kodesia; Chanchal Sarkar; S. S. Yasist; V. Shankar; A. K. Ghosh, Secretary, Ministry of Education (Science); S. Hamid, Joint Secretary, Ministry of Commerce; S. N. Chib, Director-General of Tourism; and a representative of the Ministry of Finance.

The Corporation has an authorised capital of Rs. 50 lakhs and will be able to obtain a loan of Rs. 50 lakhs from the Government. It will produce and distribute tourist publicity material, including films, and set up shops in Bombay, Delhi, Calcutta, Madras and certain other cities where imported articles such as whisky, photographic goods, cosmetics, cigarettes, etc. would be sold to tourists against payment in foreign exchange. It will also establish duty free shops at ports of entry and departure and provide entertainment and road transport facilities for tourists.

A subsidiary of this Corporation is the Indian Tourism Transport Undertaking.

## INDIA TOURISM HOTEL CORPORATION

63, Sunder Nagar,
New Delhi.

The corporation has an authorised capital of Rs. 4 crores and will build new hotels at selected tourist centres all over the country.

*Board of Directors:* V. Shankar, Secretary, Ministry of Civil Aviation (*Chairman*); Gajraj Singh (*Managing Director*); M. H. Samuel; M. A. Chidambaram; Mrs. Raksha Saran; C. P. Gupta, Joint Secretary, Ministry of Works; S. N. Chib, Director-General of Tourism; a representative of the Ministry of Finance.

## THE INDUSTRIAL CREDIT & INVESTMENT CORPORATION OF INDIA LTD.

163, Backbay Reclamation, Bombay 1.

**The Corporation was established in 1955 with the object of assisting industrial enterprises in the private sector by providing finance in the form of long or medium-term loans or equity participations, sponsoring and underwriting new issues of shares and securities, guaranteeing loans from other private investment sources, furnishing managerial, technical and administrative advice to Indian industry.**

**The authorised capital of the Corporation is Rs. 25 crores and paid-up capital Rs. 5 crores in five lakhs Ordinary Shares of Rs. 100** each. Of this, Rs. 3·5 crores are taken up in India; Rs. 2 crores by Indian banks, insurance companies, various Directors of ICICI and their friends and associates, and Rs. 1·5 crores which was oversubscribed by the U.K. and American subscribers — Rs. 1 crore and Rs. 0·50 crore respectively.

**The Government of India have advanced to** the Corporation a loan of Rs. 7·5 crores and two Government loans aggregating Rs. 20 crores from P.L. 480 funds. In addition to the 5 foreign exchange loans from the World Bank totalling U.S. $90 million, the Corporation is negotiating the 6th line of credit of U.S. $50 million making the total world bank lending U.S. $140 million. The Agency for International Development advanced in 1960 a loan of U.S. $5 million. Four lines of credit aggregating DM40 million have been obtained from Kreditanstalt Fur Wiederanban of West Germany.

The Tenth Annual Report for the year ending December 31, 1964, disclosed that the Corporation sanctioned financial assistance to 88 companies for a total of Rs. 2,266 lakhs (gross): Rupee assistance in the form of loans, underwriting of and direct subscriptions to Ordinary and Preference Shares and Debentures amounting to Rs. 1,134 lakhs to 38 companies and foreign currency loans for the equivalent of Rs. 1,132 lakhs to 61 companies. Ten underwriting operations were completed for a total amount of Rs. 182 lakhs.

The accounts for the year ended December 31, 1964, disclosed a net profit of Rs. 69,09,761, which together with the amount of Rs. 3,58,347 brought forward from the previous year making a total of Rs. 72,97,647. Out of this sum Rs. 17,50,000 have been appropriated to special Reserve and Rs. 14,00,000 to General Reserve, declaring a dividend of 7½ per cent subject to tax absorbing Rs. 37,50,000 and leaving a balance of Rs. 3,97,647 to be carried forward to the next year.

*Directors:* G. L. Mehta (*Chairman*), Dr. Sir Arcot Ramaswami Mudaliar, Kasturbhai Lalbhai, Dharamsey Mulraj Khatau, W. G. Pullen, K. K. Birla, D. P. Goenka, N. A. Palkivala, B. K. Datta, L. J. Mulkern, D. C. B. Pilkington, S. Ranganathan (Government Director), J. Russell (Alternate Director for W. G. Pullen), C. B. Thomas (Alternate Director for L. J. Mulkern).

*General Manager:* H. T. Parekh.

## INDUSTRIAL DEVELOPMENT BANK OF INDIA

Post Box No. 1241,
Reserve Bank Building, Bombay 1.

The Industrial Development Bank of India (IDBI) was set up in July 1964, under a special statute, viz. Industrial Development Bank of India Act, 1964. It is both an apex institution, co-ordinating the operations of banks and other financial institutions providing term finance to industry, and an agency providing direct financial assistance by filling in the gaps that exist after taking into account the assistance available from other institutions. It has been conceived as a financing as also a developmental agency to locate and fill gaps in the industrial structure. A wholly owned subsidiary of the Reserve Bank of India, the Industrial Development Bank of India has been endowed with adequate resources potential and operational flexibility.

*Authorised Capital:* Rs. 50 crores (this may be raised to Rs. 100 crores by the Reserve Bank of India with the prior approval of Central Government).

*Issued Capital:* Rs. 10 crores.

This is supplemented by an interest free loan of Rs. 10 crores from the Central Government repayable in 15 equal annual instalments after a period of fifteen years from the date of the loan. Apart from this initial loan, the Central Government may also grant further loans on the usual terms and conditions. These can be further augmented through sale of its bonds and debentures with or without Government guarantee and acceptance of deposits from the public for periods of not less than 12 months on terms and conditions approved by the Reserve Bank of India. The IDBI may also have recourse to loans from the Reserve Bank of India. Normal banking accommodation for periods upto 90 days will be available to it against trustee securities. It will also be entitled to advances for periods of upto five years on the security of bonafide commercial bills or promissory notes bearing two good signatures. It is also entitled to borrow on long term from a fund, established under section 46(6) of the Reserve Bank of India Act, called the National Industrial Credit (Long-term Operations) Fund. Apart from these, the Development Bank may also acquire resources by borrowing from other sources with Government approval, including amounts in foreign currency from institutions in foreign countries.

The operations of IDBI can broadly be divided into two groups: (*i*) direct assistance to industrial concerns in the form of loans, subscribing to or underwriting of issues of shares and bonds and guaranteeing of loans and deferred payments either on its own or in participation with other institutions, and (*ii*) assistance to specified financial institutions by subscribing to their shares and bonds and refinancing of loans granted by them to industrial concerns. The financial institutions eligible for such assistance comprise commercial banks, state co-operative banks, the Industrial Finance Corporation of India, State Financial Corporations including the Madras Industrial Investment Corporation Ltd. and any other financial institution which may be notified by the Central Government.

During the nine months' period from July 1 1964 to March 31, 1965 the IDBI sanctioned 18 applications for underwriting of shares involving commitments of Rs. 3·08 crores, comprising Rs. 2·29 crores of equity and Rs. 0·79 crore of preference shares. Out of the above commitments, ordinary shares of Rs. 30·75 lakhs and preference shares of Rs. 5·42 lakhs had devolved on the

IDBI, of which Rs. 14·88 lakhs and Rs. 2·09 lakhs, respectively, were actually disbursed by the end of March 1965. Loans sanctioned during the period aggregated Rs. 46·25 lakhs in respect of two industrial concerns and a guarantee of Rs. 1 crore was agreed to be provided to one concern. No loan was actually disbursed nor the guarantee sanctioned executed during the period ended March 30, 1965. Effective March 5, 1965 the lending rate of IDBI is 8 per cent with a penalty charge of ½ per cent for defaults.

The IDBI took over the business of the Refinance Corporation for Industry Ltd. on September 1, 1964. The IDBI now operates all the three schemes of RCI *viz.* (*i*) refinancing of industrial loans, (*ii*) refinancing of export credit and (*iii*) the Government of India's scheme for the guarantee of advances made by specified financial institutions to colliery units in the private sector.

As regards the assistance provided under the refinancing scheme, a sum of Rs. 22·7 crores was sanctioned during the period between 1st April 1964 and 31st March 1965 to all eligible institutions in respect of 125 applications. The total disbursements of refinance during the year was Rs. 21·2 crores. Since the inception of RCI in June 1958 upto the end of March 1965, 694 applications for refinance for Rs. 106·1 crores were received, of which 491 applications for Rs. 77·6 crores were sanctioned. Disbursements amounted to Rs. 54·2 crores, of which a sum of Rs. 45·2 crores was outstanding as on 31st March 1965. The lending rate of IDBI for refinance was raised from 5½ per cent to 6½ per cent with effect from 5th March 1965.

Under the provision of sub-section 1 (*b*) of section 9 of IDBI Act, 1964, IDBI introduced a scheme on the 1st of April, 1965 under which bills/promissory notes drawn in favour of the machinery manufacturers may be discounted with banks and other financial institutions approved by the IDBI. The approved institutions include 59 commercial banks, the Industrial Credit and Investment Corporation of India Ltd. and the Madras Industrial Investment Corporation Ltd. These institutions in turn can avail of rediscounting facilities from the Development Bank at a rate to be fixed from time to time, the present rediscounting rate being 6½ per cent per annum. The scheme covers deferred payment arrangements for a minimum period of six months and of maximum period of five years.

*Chairman :* P. C. Bhattacharyya ; *Vice-Chairman :* Dr. B. K. Madan ; *General Manager :* K. C. Mittra ; *Economic Adviser and Deputy General Manager :* S. L. N. Simha ; *Deputy General Manager :* P. K. Dasgupta ; *Legal Adviser :* B. N. Mehta.

## THE INDUSTRIAL FINANCE CORPORATION OF INDIA†

(*Head Office :* Reserve Bank Building, 6, Parliament Street, New Delhi ; *Bombay Office :* Liberty Buildings, 8, Marine Lines ; *Calcutta Office :* 23, Rajinderanath Mukherjee Road ; *Madras Office :* Keshav Bagh, 88, Whites Road, Royapettah).

*Authorised Capital :* Rs. 10 crores ; *Issued and Paid-up Capital :* Rs. 8.34 crores.

*Board of Directors :* A. Baksi (*Chairman*), C. H. Bhabha, Charat Ram, R. M. Deshmukh, Bar-at-law, Dhiren Mitra, B. K. Dutt, M. V. Mathur, V. G. Pendharkar, P. S. Rajagopal Naidu, S. Ranganathan, I.C.S., S. D. Srinivasan, S. R. Vasavada, M. R. Yardi, I.C.S. ; D. R. Madhok (*General Manager*) ; C. A. Subrahmanyam (*Secretary*) ; S. T. Karnik (*Comptroller*).

Profit and Loss account for the year ended 30th June, 1964 : Interest Discount, Commission etc. Rs. 507·28 lakhs ; Total expenses : Rs. 280·22 lakhs ; Provision for taxation : Rs. 101·62 lakhs ; Net Profit : Rs. 125·44 lakhs.

The Industrial Finance Corporation was established in 1948 under the Industrial Finance Corporation Act of 1948 (XV of 1948), with the object of supplying Indian industries with medium and long term capital. The Corporation is authorised to carry on and transact the following kinds of business, *viz.*, (a) Guaranteeing: (*i*) Loans raised by industrial concerns which are repayable within a period not exceeding twenty-five years, and are floated in the public market, (*ii*) Loans raised by industrial concerns from scheduled banks or State Cooperative Banks ; (b) Guaranteeing deferred payments due from any industrial concern. (*i*) In connection with its import of capital goods from outside India, or (*ii*) In connection with its purchase of capital goods within India ; (c) Guaranteeing, loans raised from, or credit arrangements made with, any bank or financial institution in any country outside India by Industrial concerns in foreign currency ; (d) Underwriting the issue of stock, shares, bonds or debentures by industrial concerns ; (e) Acting as agent for the Central Government or with its approval, for the International Bank for Reconstruction and Development in the transaction of any business with an industrial concern in respect of loans and advances granted or debentures subscribed, by either of them ; (f) Subscribing to the stock or shares of any industrial concern ; (g) Granting loans or advances to, or subscribing to debentures of, industrial concerns, repayable within a period not exceeding twenty-five years from the date on which they are granted or subscribed to as the case may be.

Total assistance sanctioned, by the I.F.C. upto 30th June, 1964 is Rs. 196·78 crores in respect of 599 applications out of which assistance to the extent of Rs. 124·45 crores had been disbursed. Amount sanctioned (gross) in 1963-64 was Rs. 38·27 crores.

The rate of interest charged is 7½ per cent per annum, with a rebate of ½ per cent per annum for punctual payment of instalments of principal and interest. The rate of interest charged during the year on the foreign currency loans (sanctioned out of dollar credit), was 8½ per cent per annum less a rebate of ½ per cent per annum for punctual payment of instalments of principal and interest (net 7¾ per cent per annum) plus an extra ¼ per cent per annum to provide for incidental expenses. The rate of interest on the foreign currency loans (sanctioned out of the credits in French Francs and Deutsche Marks) has been fixed at 8½ per cent per annum less a rebate of ½ per cent per annum for punctual payment of instalments of principal and interest i.e. net 8 per cent per annum.

During 1963-64, 123 applications aggregating an amount of Rs. 38·27 crores were sanctioned. In all 188 applications for financial assistance for an aggregate amount of Rs. 5,884·77 lakhs were received during the year ended the 30th June, 1964.

At the close of the year, 109 applications for Rs. 3,976·75 lakhs were under examination. The pending applications include applications for U.S. Dollars, West German (D.M.) and Francs (France) Sub-loans. During 1963-64, assistance disbursed was Rs. 21·88 crores. During the previous year a sum of Rs. 22·43 crores was disbursed. The gross income of the Corporation in 1963-64 was Rs. 507·28 lakhs as against Rs. 394·72 lakhs in the previous year. The gross profit subject to the provisions of taxation was Rs. 227·06 lakhs as against Rs. 167·62 lakhs for the previous year. The net profit during 1963-64 amounted to Rs. 125·44 lakhs.

## THE MINERALS & METALS TRADING CORPORATION OF INDIA LTD.

**Express Bldg., 9/10, Mathura Road, New Delhi-1.**

**Incorporated : 26-9-1963.**

**Authorised capital : Rs. 5 crores of 5,00,000 equity shares of Rs. 100 each. Subscribed capital Rs. 2 crores of 2,00,000 equity shares of Rs. 100 each.**

**The President of India holds all the shares excepting three shares, which are held one each by the Secretary, Joint Secretary (Ministry of Commerce) and the Chairman of the Corporation.**

**The new Corporation has taken over from the State Trading Corporation with effect from 1st October 1963, its existing trade pertaining to the minerals and metals together with all the assets and liabilities in relation to the work and trade pertaining to the above items. The Minerals and Metals Trading Corporation undertakes export of minerals and ores. It also arranges drawing up of long-term export plans by coordinating the work with the various authorities concerned so that export targets are realised by synchronised development of mining, transport, port capacity and port handling arrangements. The Corporation has also been entrusted with the job of importing non-ferrous metals and steel, such as copper, lead, zinc, tin, nickel etc. mainly to meet the requirements of small industrial units. Imported 65,117 tonnes in 1963-64. Supplied 48·49 lakh tonnes of ore to steel mills in the public sector till end of May 1964.**

*Board of Directors : Chairman :* Govind Narain, N. S. Pandey, S. K. Mukerjee, V. R. Antani, K. P. U. Menon, R. N. Vasudeva ; *Secretary :* Virendra ; *Divisional Managers :* Virendra (*Administration & Economic Divisions*) ; A. S. Sharma (*Metals*) ; T. V. Rama Rao (*Iron Ore*) ; R. Bhandari (*Manganese and other ores and Barter and Links*) ; *Financial Adviser :* A. N. Kaul ; *Regional Managers :* R. J. T. D'Mello (Calcutta) ; A. P. Sharma (Madras) ; G. K. Warrier (Bombay) ; B. C. Banerjee (Vizag.) ; C. R. Das (Goa) ; *Bankers :* The State Bank of India.

## NATIONAL BUILDINGS CONSTRUCTION CORPORATION LIMITED

**44, Ring Road, Lajpat Nagar III, Post Box No. 3044, New Delhi-14.**

**The National Buildings Construction Corporation Ltd., was set up in November, 1960, as a Government Company under the Companies Act 1956, under the aegis of the Ministry of W.H.&R.* with the principal objectives of reducing the cost of construction and improving the quality of work in the building industry. The Corporation primarily undertakes construction works of the Central and State Governments as well as of public sector undertakings through open competitive tenders. It also undertakes Government works through negotiations when private contractors either do not tender or quote unreasonably high rates.**

**The authorised capital of the Corporation is Rs. 2 crores divided into 20,000 equity shares of Rs. 1,000 each. The paid-up capital on April 1, 1965, was Rs. 117·00 lakhs which was entirely subscribed by the Central Government. The shares of the Corporation are not open for subscription by the general public.**

**Works have been taken up at various stations such as Delhi, Bailadilla, Bangalore, Madras, Pondicherry, Tiruchirapalli, Bombay, Calcutta, Durgapur, Ranchi, Imphal, Namrup, Changlong (NEFA) and Bhopal on behalf of the Central and State Governments and Government undertakings and autonomous organisations such as the C.P.W.D., P.W.D. of the Govts. of Mysore and M.P., Indian Institute of Technology, Madras and Delhi, Heavy Electricals (I) Ltd., Bhopal, etc.**

**The Corporation has three chief Regional Managers at Bangalore, Delhi, Calcutta. Regional Managers are located at Delhi, Bhopal and Durgapur. A Planning Cell with a Planning Engineer at the Head has also been set up at the headquarters office to prepare tenders for the works.**

## NATIONAL COAL DEVELOPMENT CORPORATION LTD.

**Darbhanga House, Ranchi.**

**The National Coal Development Corporation was registered under the Indian Companies Act in September 1956, with an authorised capital of Rs. 50,00,00,000, divided into 5,00,000 equity shares of Rs. 1,000 each. The total investment in the N.C.D.C. stands at over Rs. 110 crores as on June 30, 1965. It is a Government of India undertaking under the Ministry of Steel and Mines.**

* Now split into the Ministry of Works and Housing and Ministry of Rehabilitation.

† See Late Particulars for more upto date figures.

The Corporation was brought into existence in pursuance of the Second Five Year Plan objective of expanding the public sector of the Coal Industry. Eleven former Railway Collieries with a total production rate of 2·9 million tons a year were handed over to the Corporation. It produced 8·96 million tons of coal and earned a profit of Rs. 19·54 lakhs during 1963-64.

During the Second Plan period the Corporation had developed 10 new collieries. During the Third Five Year Plan, the N.C.D.C. took up development of several new collieries, mostly in Madhya Pradesh, Maharashtra and Orissa and as a result of its operations N.C.D.C. now owns about 20 revenue collieries and 38 new projects. The most important of N.C.D.C. activities has been the opening of deep shaft mines for producing coking coal in the Central Jharia coalfields (Dhanbad, Bihar) with Polish collaboration. The N.C.D.C. expect to produce about 14 million tonnes of coking coal by the end of the Fourth Plan.

The N.C.D.C. is at present operating one coal washery at Kargali, which is under expansion and constructing two others at Kathara and Gidi in Hazaribagh district. Arrangements are complete for starting the work on the construction of the fourth coal washery at Sawang, also in Hazaribagh (Bihar). The biggest of N.C.D.C.'s coal washeries on completion will be that of Kathara being erected with Russian collaboration. It will have a capacity of washing 3 million tonnes of coal annually and will cost Rs. 8 crores. It is expected to be completed by the end of the Third Plan.

The N.C.D.C. has set up a net-work of large mechanised mines in Madhya Pradesh, Maharashtra and Orissa, which has been a great contributing factor to the industrial development of many backward areas in these regions. N.C.D.C. is one of the largest employers in the country with about 68,000 workers and staff on its pay roll.

The Board of Directors include both government officials and non-officials nominated by the Government of India.

*Chairman :* S. Lall ; *Managing Director :* S. T. Raja ; *Financial Controller :* Rajkumar ; *Deputy General Manager (Technical) :* S. C. Dey.

## NATIONAL CO-OPERATIVE DEVELOPMENT CORPORATION

C56, South Extn. II, New Delhi-16.

The N.C.D. Corporation which was set up by the Central Government under the National Co-operative Development Corporation Act, 1962, started functioning from 14th March 1963.

The Corporation consists of 20 members with Mr. S. K. Dey, Minister of Community Development and Co-operation and B. S. Moorthy, Deputy Minister in charge of Co-operation, Ministry of C.D. & C., as Chairman and Vice-Chairman respectively.

The Corporation is a composite organisation representing non-official co-operative opinion as well as a cross-section of institutions interested in the development of the co-operative movement. The Ministry of Community Development and Co-operation, Planning Commission, Ministry of Finance and certain other Ministries closely connected with the co-operative movement as well as the Central Social Welfare Board are represented on the Corporation. Representation has also been given to the Central Warehousing Corporation so that a link between co-operative marketing and warehousing could be maintained. The new Corporation is to play an important role in planning, promoting and assisting programmes for production, processing, marketing, storage, export and import of agricultural produce and notified commodities through co-operative societies. The Corporation will have Functional Committees to study various problems in greater depth and detail so that greater emphasis on co-operative development in various sectors, particularly credit, marketing and processing, rural supplies and storage and consumers co-operatives could be given. In addition to non-official co-operators, Members of Parliament, etc. are also appointed to these Committees. The Corporation will promote and assist national and inter-State co-operative federations and is also expected to take a positive interest in promoting co-operation in allied fields like milk production, marketing and processing of fish and animal husbandry products.

The Corporation receives funds from the Government of India both as loans and grants. The loans are being utilised for disbursing loans to State Governments, while the grants are being utilised for giving grants to State Governments as well as for meeting the administrative expenses of the Corporation. The Corporation is being subsidised by the Government of India to the extent of interest payable on such loans given by the Government of India to enable it to build up the corpus of a fund.

The programme for the year 1964-65 provided for giving assistance to State Governments for annual plans of 1964-65 for various schemes of co-operative development. Assistance was also provided for centrally sponsored scheme for distribution of consumer articles in rural areas through selected marketing and service societies. Similarly, provision was made for the centrally sponsored scheme formulated by the Govt. of India in 1962-63 for organisation of wholesale and primary consumers' stores in cities and towns of over 50,000 population. During the year 1965-66, the outlay on State plan schemes of co-operative development coming within the purview of the Corporation would be Rs. 12·04 crores, of which the Corporation's share would be Rs. 7·72 crores.

*Chairman :* S. K. Dey, Minister of Community Development and Co-operation, Govt. of India ; *Dy. Chairman :* B. S. Moorthy, Dy. Minister in Charge of Co-operation, Govt. of India.

## THE NATIONAL INDUSTRIAL DEVELOPMENT CORPORATION LTD.

P.O. Box No. 458, Udyog Bhavan, Maulana Azad Road, New Delhi.

In Oct. 1954, the Government of India set up the National Industrial Development Corporation Ltd., as a private company registered under the Indian Companies Act, to act as the agency of the Government for promotion and development of industries in the country. Its main functions are (*a*) the investigation and initial processing of a number of vital projects considered necessary for filling up gap in the industrial structure of the country, (*b*) provision of consultancy and engineering services mainly to public sector projects and (*c*) the grant of special loans to certain selected industries for the purpose of modernisation, rehabilitation, etc.

The Corporation has an authorised capital of Rs. one crore of which Rs. 10 lakhs have been issued and subscribed by the Government. The Board of Directors of the Corporation include both officials and non-officials and is nominated by the Government.

The Corporation has already formulated a number of important industrial projects which have been entrusted by the Government to separate Government companies for further implementation.

The Corporation is acting as the agency of the Government of India for the grant of loans to jute and cotton textile industries for modernisation and rehabilitation and to machine tool units for expansion also. Loans sanctioned to these industries upto the end of March, 1965 amount to Rs. 28·02 crores, out of which Rs. 10·44 crores have so far been disbursed.

*Chairman*, F. C. Badhwar ; *Managing Director*, K. B. Rao ; *Secretary*, H. D. Bahl.

## NATIONAL MINERAL DEVELOPMENT CORPORATION LIMITED

61, Ring Road, Lajpat Nagar III, New Delhi-14.

*Administrative Ministry :* Ministry of Steel & Mines.

A Government of India Undertaking, started in November, 1958.

Authorised Capital : Rs. 15,00,00,000, divided into 1,50,000 equity shares of Rs. 1,000 each.

Paid-up Capital : Rs. 8,56,03,000. All shares are held by or in the name of the President.

The main business of the Corporation is to exploit minerals in the public sector, excluding coal, lignite, oil and natural gas, and for this purpose, the Corporation may purchase, take on lease or otherwise acquire mines for prospecting and developing, and work them for producing minerals.

The following projects have so far been assigned to the Corporation:

(*i*) Kiriburu Iron Ore Project, Kiriburu (Orissa) ; (*ii*) Diamond Mining Project, Panna (Madhya Pradesh) ; (*iii*) Copper Project, Khetri (Rajasthan) ; (*iv*) Iron Ore Project, Bailadila (Madhya Pradesh).

The Kiriburu Iron Ore Project has been completed. The other projects are in various stages of planning and construction.

*Chairman :* S. N. Bilgrami ; *Secretary :* J. Padmanabha Iyer.

*Board of Directors :* Govind Narain, R. N. Vasudeva, N. S. Pandey, P. C. Kapoor, G. Ramanathan and Dr. B. R. Nijhawan.

## NATIONAL PROJECTS CONSTRUCTION CORPORATION LTD.

E9, Defence Colony, New Delhi 3.

The Corporation, an enterprise in the public sector, sponsored by the Union Ministry of Irrigation & Power, was set up in 1957 with an authorised capital of Rs. 2 crores. Its paid-up capital at present amounting to Rs. 150 lakhs was subscribed by the Government of India and the State Governments of Madhya Pradesh, Bihar, Rajasthan, Kerala, Gujarat, Jammu & Kashmir, Punjab, Assam, Uttar Pradesh, West Bengal and Mysore. Central Government has subscribed Rs. 50 lakhs whereas the State Governments (except Mysore and Kerala which have subscribed Rs. 5 lakhs each) have subscribed Rs. 10 lakhs each to the Corporation.

The main object of floating this Corporation is to provide the Central and State Governments with an organisation capable of undertaking the execution of River Valley Projects and allied Civil Engineering works requiring high technical skill, mechanical execution, precision and strict adherence to specifications and quality standards.

The progress of various works undertaken by National Projects Construction Corporation in different States and in Nepal is as under :—

*Bihar :* Construction of Badua Dam costing about Rs. 112 lakhs and the Kosi Barrage and Head Regulator costing about Rs. 6 crores and Darbhanga Air Field of the value of Rs. 146 lakhs has already been completed. Two major works in progress are construction of Chandan Dam costing Rs. 330 lakhs and Gandak Barrage costing Rs. 679 lakhs.

*Jammu & Kashmir :* Excavation of out-fall channel and side channel of the Jhelum river below Baramulla costing about Rs. 300 lakhs is in progress. The construction work of two tunnels of a total length of about 8,300 feet for the Chenani Hydro Electric Project costing Rs. 125 lakhs has also been allotted to the Corporation.

*Madhya Pradesh :* On Chambal Project, the Corporation completed works costing Rs. 162·15 lakhs. The construction of Kunwari Aqueduct and earthwork on Chambal Canals costing Rs. 153 lakhs are nearing completion.

The construction of Hasdeo Barrage costing about Rs. 3·5 crores is in progress. An earthern dam across Suthna Nallah costing Rs. 56 lakhs and the work of Amarkantak Thermal Power Station costing about Rs. 22 lakhs have been completed.

*Nepal :* The work of the Trisuli Hydro-electric Project costing about Rs. 220 lakhs is progressing. In addition to this, the Corporation undertook and completed in a very short period

a permanent steel bridge across the River Tadi situated about 40 miles North-West of Kathmandu.

*West Bengal :* The work of construction of Panagarh Air Field costing about Rs. 97 lakhs has been completed in all respects.

The construction of Farakka Barrage costing about Rs. 15 crores and the work of upstream lock costing about Rs. 2 crores are in progress.

The construction of civil works relating to installation of Unit No. III of 1,25,000 kW. in the existing Thermal Power Station at Durgapur costing Rs. 111 lakhs is progressing.

*Gujarat :* The civil works costing about Rs. 164 lakhs of the Gujarat Refinery Project near Baroda is nearing completion. In addition the corporation has undertaken the work of the Administrative Block of the Refinery costing Rs. 12 lakhs.

*Delhi :* The Corporation has already completed the work of construction of Wazirabad Barrage costing about Rs. 50 lakhs ; the work of constructing the Najafgarh Drain Regulator has been completed by the target date at a cost of Rs. 10 lakhs in April 1964.

The construction work of a Regulator near the Wazirabad Barrage pumping Station for the supply of drinking water to the Delhi Town costing Rs. 15 lakhs is going on according to schedule.

During the emergency the corporation took up the execution of Emergency Defence Works costing about Rs. 243 lakhs.

During the financial year 1963-64, the Corporation executed works of the value of Rs. 510·47 lakhs as against Rs. 240·62 lakhs in 1962-63.

*Chairman & Managing Director :* S. S. Kumar ; *General Manager & Chief Engineer :* J. S. Jain ; *Financial Adviser & Chief Accounts Officer :* G. V. Chittal.

## THE NATIONAL RESEARCH DEVELOPMENT CORPORATION OF INDIA*

Mandi House, Lytton Road, New Delhi 1.

The Corporation was incorporated on 31st December 1953 with an authorised capital of Rs. one crore divided into 10,000 shares of Rs. 1,000 each. The paid up capital is Rs. 25 lakhs. All the shares are held by the President of India and/or his nominees.

The main function of the Corporation is to stimulate development and commercial exploitation of patents and inventions arising from national research effort and where feasible, in the public interest, of patented inventions from individuals also. For this purpose, it forms a connecting link between research and industry.

Since its inception, the Corporation has successfully negotiated licences for some 143 patents and processes and out of these about 64 have already gone into production. Amongst these, mention may be made particularly of carboxy methyl cellulose, infant food, synthetic pine oil, mica insulating bricks, and ceramic capacitors. The value of production based on processes licensed by the Corporation and in production during 1962-63 was Rs. 1.62 crores and in the year 1963-64 the production was expected to go up to nearly 2 crores. The processes licensed by NRDC are all foreign exchange saver and potential foreign exchange earner.

Besides licensing of patents and processes, the Corporation's major activity is development of scientific research by arranging pilot plant trials and instituting developmental projects. Till now, the Corporation has instituted some 20 projects at a cost of about Rs. 80 lakhs. The latest ones taken in hand are (*i*) separation of oils and edible proteins from groundnuts, (*ii*) experimental unit for the production of aromatic chemicals and costus root oil and (*iii*) semi-commercial plant for the production of Hykol 'X' activated carbon.

*Board of Directors :* Dr. S. Hussain Zaheer, Director-General, Scientific & Industrial Research (*Chairman*) ; Dr. A. N. Kapur (*Executive Director*) ; Dr. B. R. Nijhawan, Director, National Metallurgical Laboratory, Jamshedpur ; Dr. Y. Nayudamna, Director, Central Leather Research Institute, Madras ; Dr. A. Seetharamiah, Industrial Adviser to the Government of India ; Prof. M. S. Thacker, Member, Planning Commission ; M. G. Raja Ram, Joint Secretary to the Government of India, Ministry of Education ; A. M. M. Murugappa Chettiar, Dr. D. Banerjee, Charat Ram, Arvind N. Mafatlal (*Industrialists*) ; R. P. Padhi, Joint Secetary to the Government of India, Ministry of Finance (*Financial Adviser*).

## NATIONAL SEEDS CORPORATION LIMITED

E-19, South Extension, Part II,
Ring Road, New Delhi-16.

Incorporated as a Limited Company under the Companies Act, 1956 on March 19, 1963 with an authorised capital of Rs. 5,00,00,000 divided into 50,000 equity shares of Rs. 1,000 each. It is a Government of India Undertaking under the Ministry of Food & Agriculture (Department of Agriculture).

The Corporation aims at organising a healthy "seed" industry in the country. For this purpose it concentrates on production of Foundation Seed of promising varieties evolved by research and aims to introduce the quality concept of "certified seed" in the country. The Corporation at present produces foundation seed stocks of hybrid maize, sorghum (Jowar), bajra, jute, berseem and other fodder crops, and some of the vegetables. It also produces certified seeds of some of these crops.

The Corporation has established two Foundation Seed Units—one at Hempur (Nainital-Tarai, U.P.) and the other at Nandikotkur (Kurnool, A.P.). The Corporation encourages progressive farmers in the production of certified seeds of various crops.

The Corporation has introduced the concept of seed processing and testing as part of its certified seed programmes. It has imported necessary equipment for the same under foreign aid programmes. This equipment is provided on lease to private farmers and others who contract with the Corporation for production of certified seeds.

*Chairman :* Dr. M. S. Randhawa ; *General Manager :* Dr. Y. R. Mehta ; *Secretary and Chief Administrative Officer :* J. Veeraraghavan ; *Publicity Officer :* O. S. Rakesh.

## THE NATIONAL SMALL INDUSTRIES CORPORATION LTD.

4, Rouse Avenue, New Delhi 1.

A Government of India concern, started in February 1955, the main objects being to assist, counsel, finance and promote the interest of small industries in the country.

*Authorised capital :* Rs. 50 lakhs.

*Paid-up :* Rs. 50 lakhs divided into 50,000 shares of Rs. 100 each. All shares are held by the President of India and his nominees.

The Government Purchase Division of the Corporation maintains liaison with D.G.S. & D. in order to assist small scale industries in procuring government contracts.

Till June 1965, 15,040 contracts valued at Rs. 85·36 crores had been secured by the Small Scale Units through the assistance of the Corporation and 14,117 units capable of securing government contracts had been enlisted. From April 1961 to Feb. 1965, contracts valued at Rs. 648 lakhs had been placed by Railways on small scale units.

Upto December 1964, the Corporation had received about 15,531 applications from all areas in the country involving 68,835 machines valued at Rs. 7,274 lakhs. Out of these 11,464 applications involving 47,250 machines valued at Rs. 4,319 lakhs were accepted. Orders had been placed for 18,570 machines valued at Rs. 2,001·85 lakhs and deliveries had been effected in respect of 13,408 machines valued at Rs. 2,030·10 lakhs.

The Corporation has taken up an agency from Messrs. Bharat Electronics Ltd., Bangalore to sell the radio valves manufactured by them to small scale assemblers of radios in India. Orders to the tune of Rs. 11·02 lakhs had been executed upto Dec. 1964.

In addition to the marketing of machine tools produced at the Prototype Production and Training Centres, the Corporation has undertaken to market the machine tools produced at the Central Government production centres at Ettumanur and Tiruvalla. So far orders to the tune of Rs. 23·38 lakhs have been booked.

The Corporation constructed two model industrial estates, one at Okhla and the other at Naini.

The Prototype Production and Training Centres have been set up at Okhla, Howrah and Rajkot in collaboration with the Government of Federal Republic of West Germany, Governments of Japan and U.S.A. respectively. The main function of the Centres is to develop prototypes of machines for the purpose of passing them on to the small industrial units for production on mass scale and to train artisans drawn from the small scale industries. The Centre at Okhla is at present engaged in the prototyping work in respect of three machines, namely, Weiler Lathe, Tool and Cutter Grinder and Milling Machine, the manufacturing rights in respect of which have been presented to the Government of India by the Government of Federal Republic of West Germany. The Centre at Howrah is also engaged in the prototyping work of two machines, namely 80 C.T. Die Casting and 45 m.m. P.V.C. Extruder. The number of trainees at the above Centres is as follows :—Centre at Okhla 352 ; Centre at Rajkot 96 ; Centre at Howrah 125.

*Board of Directors :* C. R. Sundaram (*Chairman*) ; Baldev Singh, A. R. Bhat, R. Ganesan, T. Ghose, P. D. Malgavkar, Dr. S. T. Merani, K. L. Nanjappa, R. Mahadevan, R. L. Tuli.

## REHABILITATION INDUSTRIES CORPORATION LIMITED

(A Govt. of India Undertaking).

25, Free School Street, Calcutta 16.

The Corporation was incorporated in April 1959 with an authorised capital of Rs. 5 crores. All the shares are held by the President of India and/or his nominees.

The principal object of the Corporation is to create employment opportunities through industries for the large number of unemployed and partially employed displaced persons from East Pakistan.

To begin with, the Corporation had confined itself to (*i*) granted loan to Industries and (*ii*) establishment of Industrial Estates. From 1962 it started setting up of industries on its own and organising co-operative societies.

In the last 30 months (May, 1965) the Corporation has organised 25 Industrial Units in different parts of India and created about 5,000 employment for the displaced persons through its own Industrial Units, assisted Industries and Industrial Estates.

The major Industries run by the Corporation are (1) Structural Fabrication Unit (Sukumar Engineering Works) Bon-Hooghly, (2) Railway Sleeper Factory, Jagdalpur, Madhya Pradesh, (3) Iron Foundry, Durgapur, (4) Bucket & Sheet-metal Factory, Gayeshpur, (5) Preparatory & Finishing Plant Factory, Bon-Hooghly, (6) Weaving Factories at Habra, Gayeshpur, Taherpur and Khoshbashmohalla, (7) Fruit Canning Factory, Agartala (Tripura), (8) Wood Works, Rupnarayanpur, (for manufacturing of flanges), (9) Leather Works, Bon-Hooghly Industrial Estate (for manufacturing of shoes of all kinds), (10) Tent & Tarpaulin Works, Behala Industrial Estate, (11) Silk Factory, Malda.

The Corporation is also setting up a Spinning Mill of 25,000 spindles in Dandakaranya area.

* See Late Particulars for more upto date figures.

*Board of Directors :* K. V. Venkatachalam ; K. K. Roy ; V. Ramakrishna ; D. J. Madan ; Anil De ; P. V. Gopalan ; S. T. Merani ; S. N. Banerjee ; P. H. Trivedi, B. K. Dube ; A. L. Nair ; S. C. Roy.

*Managing Director :* M. C. Mukharji, I.A.S.

### THE STATE TRADING CORPORATION OF INDIA LTD.

Express Bldg., 9 & 10, Mathura Road, P.B. No. 79, New Delhi 1.

Incorporated on 18th May, 1956.

The authorised capital is Rs. five crores of 5,00,000 equity shares of Rs. 100 each.

The subscribed capital is Rs. two crores of two lakh equity shares of Rs. 100 each.

The President of India holds all the shares excepting three held by the officers of the Government of India in their official capacity.

The central aim of the Corporation is to broaden and enlarge the scope of Indian exports and to arrange for essential imports on an economical basis.

In order to develop and maintain export markets for commodities which are difficult to sell due to high internal procurement prices in comparison with world prices, the Corporation often takes a long range view and undertake exports even if there is a loss or a risk of loss. It has launched a scheme known as 'Export Aid for Small Industries' which provides comprehensive market service to small and medium industries. It has already helped 20 manufacturers to export 27 different products to 27 different countries.

The Corporation has significantly contributed to the development of India's trade abroad particularly with the East European countries, and has created new markets abroad for more than 35 different commodities. Its total trade in 1964–65 was about Rs. 96·86 crores. The Corporation participates in international fairs and exhibitions and has trade centres-cum-depots and offices abroad.

*Board of Directors :* B. P. Patel (*Chairman*), K. P. U. Menon, I. J. Naidu, N. S. Pandey, G. S. Sial, D. N. Banerjee, V. R. Antani.

*Secretary :* P. N. Agarwala ; *Financial Adviser :* M. L. Kala.

*Regional Managers :* R. L. Mehra (Calcutta) ; B. C. Malhotra (Madras).

*Bankers :* The State Bank of India.

### UNIT TRUST OF INDIA

Amar Building, Sir P. M. Road, Bombay-1.

The Unit Trust of India was established with effect from Feb. 1, 1964 under the Unit Trust of India Act, 1963. The basic objective in establishing the Unit Trust of India is to afford the small investor a means of acquiring a share in the widening prosperity based on steady industrial growth of the country which combines the advantages of a minimum risk and a reasonable return.

A Unit Trust pools the savings of the community and invests them in securities of various types. To pool the savings, the Trust sells 'units'. All units rank equal for the distribution of income, no matter when they were acquired. The Trust offers one other important and unique advantage : it is always ready both to sell and buy its units at prices published by it. A Unit holder is thus assured of the liquidity of his investment.

It has an initial capital of Rs. 5 crores contributed as follows : the Reserve Bank of India Rs. 2·5 crores, the L.I.C. Rs. 75 lakhs, the State Bank and its subsidiary banks Rs. 75 lakhs and scheduled banks and other specified financial institutions Rs. 1 crore.

The general direction and management of the affairs and business of the Trust is vested in a Board of Trustees, consisting of a Chairman appointed by the Reserve Bank, four other Trustees, also nominated by the Reserve Bank, one Trustee nominated by the L.I.C., and one Trustee nominated by the State Bank, two Trustees elected by the institutions contributing to the initial capital of the Trust. In addition, one Executive Trustee is appointed by the Reserve Bank. There is an Executive Committee consisting of the Chairman of the Board, the Executive Trustee and two other Trustees nominated in this behalf by the Reserve Bank.

The investment policy of the Trust pays attention to security of capital as well as to a reasonable return, including capital appreciation on investments. In the regulations framed for functioning of the Unit Trust of India, guide lines have been provided in this connection. Firstly, except in the case of certain debentures, investment by the Trust in securities of any one company should not exceed 5 per cent of the value of the total investible funds of the Trust or 10 per cent of the value of the securities issued and outstanding of such company, whichever is lower. Secondly, not more than 5 per cent of the investible funds should be invested in the initial issues of securities of new industrial undertakings.

Under the Unit Trust of India Act, 1963, the Trust has formulated the Unit Scheme 1964 under which units are being offered for sale to the public, from July 1, 1964.

Some salient features : Units are sold through the network of over 4,000 offices of the State Bank of India and its subsidiary banks as well as the commercial banks which have contributed to the initial capital of the Trust.

Upto March 1, 1965 nearly 1,33,000 applications for units have been received, the sum subscribed to being about Rs. 19 crores.

The Trust is exempt from payment of income-tax, super-tax and other taxes on income.

Income from the Unit Trust by individual unit holders upto Rs. 1,000 is free from income tax. Further, income from Unit Trust received by individuals and Hindu undivided families like interest on Government securities, will be treated as earned income for purposes of surcharge on income tax.

Units can be sold back to the Unit Trust of India any time from November 16, 1964 onwards. The sale and repurchase prices of units are determined in accordance with the provisions laid down in the Unit Scheme and are announced daily.

Transfer of units to third parties will be possible after June 30, 1965. A unit holder can always transfer units in favour of a bank for purposes of borrowing.

*Board of Trustees :* R. S. Bhatt (*Chairman*) ; V. G. Pendharkar, N. M. Wagle, B. Mitter, P. Brahmayya, S. D. Srinivasan, R. N. Chettur ; H. T. Parekh, R. L. Tuli, R. C. Sachdeva (*Executive Trustee*).

# INSURANCE

## LIFE INSURANCE

THE Life Insurance Corporation of India did a new total business of about Rs. 701 crores sum assured under 14,35,776 policies during the 12 months ended 31st March, 1965. Of this, foreign business was Rs. 10·97 crores sum assured under 8,636 policies. During the previous period of 12 months ended 31st March 1964, the total business secured was about Rs. 703 crores under 16,46,291 policies, of which foreign business was Rs. 10·21 crores under 8,532 policies.

The total new business completed by the Life Insurance Corporation of India during the first four months of the financial year 1965-66 amounted to Rs. 140·65 crores. The business done in the corresponding period last year was Rs. 132·3 crores. The number of policies assured stood at 2,97,037 as against 2,85,112 for the first four months of last year.

The Life Insurance Corporation of India was established in September 1956 under a special Act, The Life Insurance Corporation Act, 1956, the Central Government contributing the whole of its capital of Rs. 5 crores. It has the monopoly of conducting life insurance business in India and abroad. It took over all the then existing life insurance business of Indian life offices and Provident Societies and also the Indian business of foreign life offices.

It is managed by an autonomous body consisting of 15 Directors, nominated by the Central Government functioning under the guidance and advice of the Finance Ministry of the Central Government within the scope and limits set down in the Act. This board of 15 members consists of 11 non-officials and 4 Government officials one of whom is designated Chairman of the Corporation, working as the chief whole-time officer.

The board has delegated certain of its functions to an Executive Committee of 5 members selected from among themselves, to facilitate speedy and effective execution of its duties. In addition to this, there is an Investment Committee consisting of 7 members which is a consultative body on all questions concerning the investment of the funds of the Corporation.

The Corporation has a network of offices all over the country to procure new business and for servicing the existing business. There are 5 Zonal Offices, one each in Bombay, Madras, Kanpur, Calcutta and Delhi. There are 36 Divisional Offices, and 711 Branch, Sub-offices and Development Centres *i.e.*, 752 offices in all as against 532 in 1961 and 249 offices as on 1st September 1956 the date on which the Corporation was established. The Central Office of the Corporation is in Bombay. The Corporation is now having its offices in 283 districts out of 316 districts of various States in India and in 6 out of nine Union Territories in India, including one in Goa.

The Corporation also transacts business in the following foreign countries with 2 Divisional Offices and 12 Branch Offices : Aden, Fiji, Hong Kong, Malaysia, Kenya, Mauritius, Tanzania, Uganda and the United Kingdom.

### 1963-64 REPORT

At the end of the 12 months accounting period ended 31st March, 1964, the total business in the books of the Corporation including bonuses, stood at Rs. 3,571 crores under 103·28 lakh policies. Of this, Rs. 3,458 crores under 101·19 lakh policies represented life insurance business in India.

The following table gives the life assurance business in force at the end of each of the last seven accounting periods :—

| Business in force as at | In India | | Outside India | | Total | |
|---|---|---|---|---|---|---|
| | No. of policies (lakhs) | Sum assured and bonuses (Rs. crores) | No. of policies (lakhs) | Sum assured and bonuses (Rs. crores) | No. of policies (lakhs) | Sum assured and bonuses (Rs. crores) |
| 31-12-1957.. | 54·17 | 1,375 | 2·69 | 99 | 56·86 | 1,474 |
| 31-12-1958.. | 59·74 | 1,584 | 2·60 | 98 | 62·34 | 1,682 |
| 31-12-1959.. | 66·73 | 1,855 | 2·56 | 103 | 69·29 | 1,958 |
| 31-12-1960.. | 74·56 | 2,176 | 2·57 | 109 | 77·13 | 2,285 |
| 31-12-1961.. | 83·36 | 2,623 | 2·41 | 114 | 85·77 | 2,737 |
| 31-3-1963 .. | 92·61 | 3,054 | 2·26 | 114 | 94·87 | 3,168 |
| 31-3-1964 .. | 101·19 | 3,458 | 2·09 | 113 | 103·28 | 3,571 |

**These figures show that India has a per capita insurance of Rs. 73—an increase of about Rs. 48 in eleven years.**

During the accounting period the Corporation completed a new business of Rs. 702·76 crores sum assured under 16,46,291 policies. Business completed in the previous accounting period amounted to Rs. 745·96 crores under 17,67,544 policies.

About 35·7 per cent of the total number of policies in India assuring about 30·2 per cent of the total new sums assured in India, were issued in rural areas as defined in the 1961 Census. About 44 per cent of the policies or 23·8 per cent of the new sums assured in India were issued under the non-medical schemes. In addition to the total new business stated above, the Corporation issued 588 Deferred Annuities and 109 Immediate Annuities with a total annual payment of Rs. 10·33 lakhs and Rs. 1·83 lakhs respectively.

**New Business :**

| Year | In India | | Outside India | |
|---|---|---|---|---|
| | No. of policies | Sum Assured Crores of Rs. | No. of policies | Sum Assured Crores of Rs. |
| 1959.. .. | 11,43,387 | 419·70 | 7,912 | 9·47 |
| 1960.. .. | 12,49,821 | 487·84 | 7,736 | 9·70 |
| 1961.. .. | 14,61,608 | 598·79 | 8,056 | 10·03 |
| 1-1-1962 to 31-3-1963 | 17,58,046 | 734·72 | 9,298 | 11·24 |
| 1-4-1963 to 31-3-1964 | 16,37,759 | 692·55 | 8,532 | 10·21 |

**A marked variation is noticeable in the size of the average policy sold in the different Zones by the Corporation. The figures are given below (Rs.):**

**Northern Zone (Delhi): 4,963; Central Zone (Kanpur): 4,289; Western Zone (Bombay): 4,547; Eastern Zone (Calcutta): 3,984; Southern Zone (Madras): 3,811; In India: 4,229; Foreign: 11,967; All business: 4,269 as against 4,220 in the period 1-1-1962 to 31-3-1963.**

## ACCOUNTS

**The Life Fund stood at Rs. 808·36 crores on 31st March, 1964, registering an increase of about Rs. 88·80 crores over the adjusted life fund of Rs. 719·56 crores as on 31st March 1963. During this period, the Corporation's income from all sources totalled about Rs. 179 crores, made up of Rs. 146 crores from premiums (excluding consideration for annuities amounting to about Rs. 41 lakhs) and about Rs. 32 crores from returns on its invested funds and from miscellaneous sources.**

**The interest income of Rs. 31 crores represents earnings of 4·07% on the mean life fund after deducting income-tax. The rate of interest from 1958 is given below:**

1958 : 3·52; 1959 : 4·08; 1960 : 3·55; 1961 : 4·58; in 15 months of 1962-63 : 4·08; 1963-64 : 4·07. The reason for this fall in the net rate of interest is that tax refunds in respect of the previous accounting period had not been received in the year under review. The gross rate of interest earned on the mean life fund during the year was 5·11 per cent per annum as against 4·76 per cent per annum for the previous period of 15 months.

**On the outgo side Rs. 50 crores represented claims and other benefits to the policy-holders, Rs. 40 crores expenses of management, and the balance of nearly Rs. 88 crores addition to the Life Fund. On the claims side, nearly Rs. 11 crores represented claims by death and nearly Rs. 34 crores by maturity, annuities, surrender and bonuses in cash etc., accounting for the balance.**

Over-all expenses ratio : 1958 : 29·2; 1959 : 28·7; 1960 : 28·4; 1961 : 28·0; 1962-63 : 29·3; 1963-64 : 27·5%.

**The renewal expense ratio in terms of Rule 25(*b*) of Insurance Rules 1939 was 12·46% as against 14·13% for the 15 months period ended 31st March 1963.**

## INVESTMENTS

**The total investments pertaining to life business as at 31st March 1964 amounted to Rs. 763·45 crores of which Rs. 17·05 crores were out of India. The break-up of Indian investments is as follows:**

| | | |
|---|---|---|
| Indian and State Government and other approved securities | .. .. .. | Rs. 493·50 crores |
| Debentures and shares of Joint stock companies in India | .. .. .. | „ 143·48 „ |
| Loans to Housing Schemes —State Governments and Cooperative Finance | .. .. | „ 56·96 „ |
| Mortgages of Properties | .. .. | „ 9·65 „ |
| House Property | .. .. | „ 29·15 „ |
| Due from State Governments for controlled business taken over | .. .. | „ 4·98 „ |
| Other Loans etc. | .. .. | „ 7·93 „ |
| Share in Initial Capital of Unit Trust of India | .. | „ 0·75 „ |
| | | Rs. 746·40 crores |

**On 31st March 1964, the Corporation held stock exchange securities aggregating nearly Rs. 653 crores, of which about Rs. 637 crores were in India and the balance outside India.**

**A broad classification of investments in India shows that 76·5% was invested in the public sector, and 19·2% in the private sector and 4·3% in the co-operative sector. Besides the loans issued by the Central and State Governments, investments in the public sector include loans, bonds, shares or debentures of municipalities, Improvement Trusts, Port Trusts, Land Mortgage Banks, State Financial Corporations and Statutory Corporations. Investments in the private sector take the form of debentures, preference shares and ordinary shares of industrial and commercial undertakings.**

**Debentures, preference and ordinary shares of joint stock companies held by the Corporation may be classified as under according to the character of the industries (Rs. lakhs):**

Aluminium : 394·13; Banks : 572·44; Cement : 637·49; Coal : 346·22; Cotton Textiles : 1,461·88; Dyes, Chemicals and Pharmaceuticals : 366·44; Electricity: 1,169·96; Electrical Goods : 608·48; Engineering : 2,050·95; Food, Drinks and Tobacco : 140·37; Insurance : 233·06; Investment Trusts : 265·33; Iron and Steel : 1,073·94; Jute : 459·47; Managing Agents : 174·76; Matches : 74·86; Mining : 67·93; Mineral Oil: 1,480·75; Paper and Board : 557·95; Plantations : 242·20; Railways : 65·94; Rubber Products : 260·58; Shipping and Transport : 76·03; Sugar and Breweries : 604·49; Textiles (Other than Cotton): 351·57; Vegetable Oils : 88·99; Cooperative Housing Societies : 23·54; Miscellaneous : 549·26. Total : Rs. 4,348·31 lakhs.

### Underwriting New Capital Issues

During the accounting year ended 31st March, 1964, the L.I.C. underwrote 70 new issues to the extent of Rs. 13,00·07 lakhs, comprising Debentures of Rs. 9,24·37 lakhs, Preference Shares Rs. 1,61·50 lakhs and Ordinary Shares Rs. 2,14·20 lakhs. Of these, 38 issues were placed in the market during the period, in addition to 15 issues placed in the previous year with allotments of Rs. 12,85·08 lakhs against Rs. 13,21·57 lakhs underwritten and Rs. 13,09·66 lakhs applied for.

## PERSONNEL

**On its formation, the Corporation took over about 21,000 employees, of whom 16,000 were in the clerical and supervisory cadre and 5,000 subordinate staff. On 31st March, 1964, there were 49,625 employees of whom 2,751 were officers, 8,585 Development Officers, 31,624 supervisory and clerical staff and 6,665 subordinate staff. The total monthly salary bill in March, 1964 was Rs. 143·74 lakhs.**

**Out of over 1·74 lakh agents on the books on 31st March 1964, about 1·43 lakhs were active.**

The average production per active agent during the accounting period was Rs. 48,359 as against Rs. 47,900 during the previous 15 months.

**Permanent training centres are maintained at the headquarters of the five Zones to train development personnel on the professional aspect of sales and servicing. Other training centres at selected Divisional Headquarters are also in operation including an Officer's training centre at Nagpur.**

## VALUATION & BONUS

**The first biennial valuation was made as at 31st December 1957 and completed in 1959, when Rs. 27·56 crores were reserved for allotting bonuses to participating policy-holders. The second biennial valuation was made as at 31st December 1959 and out of the surplus, Rs. 24·48 crores were available for distribution to the policy-holders.**

**The third biennial valuation was made as at 31st December 1961. The total surplus allocated to the participating policies amounted to Rs. 32·73 crores. The allocation to the Central**

Government as its share of the surplus was Rs. 1·72 crores as compared to the allocation of Rs. 1·45 crores at the first valuation and Rs. 1·28 crores at the second valuation.

The fourth valuation was made as at 31st March, 1963 covering a period of 15 months only. The surplus allocated to the participating policies amounted to Rs. 25·03 crores and the allocation to the Central Government as its share of the surplus was Rs. 1·32 crores. In respect of the policies issued by the L.I.C. itself, the rate of reversionary bonus allotted was Rs. 17·50 per thousand sum assured per annum for whole life policies and Rs. 14·00 for endowment assurance policies. The corresponding rates of bonus at the previous three valuations were Rs. 16·00 per thousand sum assured per annum and Rs. 12·80 per thousand sum assured per annum respectively. The policies issued by the erstwhile insurers were allotted bonuses at different rates as per the scheme of differential bonuses approved by the Government.

## GENERAL INSURANCE

As at 31st December 1964 there were 137 (as against 142 in 1963) companies registered under the Insurance Act, 1938 to transact one or more classes of general insurance business of which 72 were Indian and 65 non-Indian. Four Indian and one non-Indian insurer ceased to operate in 1964. The number of Indian insurers excludes the Life Insurance Corporation of India (which is registered for Life and Miscellaneous insurance business) but includes its three (since amalgamated into one on 1st January 1961) subsidiaries which conduct general insurance business. It also includes 11 insurers registered for Country Craft (marine) insurance business only with 6 non-tariff offices and three doing only reinsurance business, one of which is a subsidiary of the L.I.C.

Of the 65 non-Indian offices, 41 have their head-offices in the U.K.

Since nationalisation of life insurance, 31 Indian and 37 non-Indian companies had closed down their general insurance business.

Early in 1964, the Life Insurance Corporation of India, which was so far conducting life insurance business in India on a monopoly basis and Capital Redemption insurance business, registered itself for conducting general insurance business also as a non-Tariffer. From 1st April, 1964 it started writing, Fire, Marine and Miscellaneous insurance and reinsurance business. During the year ended 31st March, 1965, it secured business bringing a total gross premium income of Rs. 43 lakhs, the shares of Fire, Marine and Miscellaneous Departments being 37%, 20% and 43% respectively.

The total income and outgo in respect of the general insurance business of Indian insurers during 1963 is analysed below:

| Particulars | Rs. lakhs |
|---|---|
| *Income* | |
| Premiums *less* reinsurances: | |
| In India .. | 30,01 |
| Outside India .. | 16,79 |
| Net interest, dividends and rents | 98 |
| Other income .. .. .. | 7 |
| Total .. .. .. | 47,85 |
| *Outgo* | |
| Claims *less* reinsurances .. .. | 25,17 |
| Net commission .. .. | 6,73 |
| Expenses of management .. | 10,28 |
| Miscellaneous outgo .. .. | 33 |
| Total .. .. .. | 42,51 |
| Profits transferred to Profit and Loss Account .. .. | 3,13 |
| Actual increase in Reserves for unexpired risks and Additional Reserves .. .. .. | 2,21 |
| Excess of Income over Outgo .. | 5,34 |

The percentage of the net premium income spent by way of claims, expenses, etc., during the year 1963 is shown in the following table:

| Ratio to Net Premium Income of | Fire | | Marine | | Miscellaneous | |
|---|---|---|---|---|---|---|
| | Indian Insurers | Non-Indian Insurers | Indian Insurers | Non-Indian Insurers | Indian Insurers | Non-Indian Insurers |
| Net Claims .. .. .. .. .. .. .. .. .. | 44·5 | 26·8 | 67·2 | 50·1 | 55·9 | 43·8 |
| Expenses of Management including commission .. .. .. .. | 41·4 | 45·7 | 26·2 | 34·7 | 36·2 | 42·7 |
| Increase in Reserves* .. .. .. .. .. .. .. .. | 0·6 | 3·5 | 3·2 | 5·7 | 3·7 | 4·6 |
| Miscellaneous outgo .. .. .. .. .. .. .. .. | —1·5 | 1·9 | —1·4 | 1·3 | —1·6 | —0·5 |
| Balance .. .. .. .. .. .. .. .. .. | 15·0 | 22·1 | 4·8 | 8·2 | 5·8 | 9·4 |
| TOTAL .. .. .. .. .. .. .. .. .. | 100·0 | 100·00 | 100·0 | 100·0 | 100·0 | 100·0 |

* Increase in Reserve is obtained by taking 40 per cent in the case of Fire and Miscellaneous and 50 per cent in the case of Marine insurance business of the increase in Net premium income during the year 1963 over that of the preceding year.

The following tables present a comparative study of the insurance business in India and outside India of Indian insurers and of the business in India of non-Indian insurers.

(Premiums in lakhs of rupees)

| Year | Fire Premiums | | Marine Premiums | | Miscellaneous Premiums | | Total | |
|---|---|---|---|---|---|---|---|---|
| | Gross | Net | Gross | Net | Gross | Net | Gross | Net |
| I. INDIAN INSURERS | | | *Business in India* | | | | | |
| 1961 .. .. .. .. .. .. .. .. | 10,75 | 7,49 | 6,50 | 3,89 | 14,55 | 12,12 | 31,80 | 23,50 |
| 1962 .. .. .. .. .. .. .. .. | 11,70 | 8,51 | 7,16 | 4,52 | 16,18 | 13,51 | 35,04 | 26,54 |
| 1963 .. .. .. .. .. .. .. .. | 12,46 | 9,26 | 8,03 | 5,38 | 17,76 | 15,36 | 38,25 | 30,00 |
| | | | *Business outside India* | | | | | • |
| 1961 .. .. .. .. .. .. .. .. | 2,53 | 7,72 | 2,15 | 2,64 | 5,00 | 5,61 | 9,68 | 15,97 |
| 1962 .. .. .. .. .. .. .. .. | 2,52 | 8,14 | 2,12 | 3,11 | 5,55 | 6,22 | 10,19 | 17,47 |
| 1963 .. .. .. .. .. .. .. .. | 2,08 | 7,66 | 1,89 | 2,78 | 6,10 | 6,36 | 10,07 | 16,80 |
| II. NON-INDIAN INSURERS | | | *Business in India* | | | | | |
| 1961 .. .. .. .. .. .. .. .. | 5,63 | 3,51 | 2,93 | 2,05 | 3,49 | 2,88 | 12,05 | 8,44 |
| 1962 .. .. .. .. .. .. .. .. | 5,79 | 3,74 | 3,18 | 2,15 | 3,83 | 3,17 | 12,80 | 9,06 |
| 1963 .. .. .. .. .. .. .. .. | 6,36 | 4,10 | 3,53 | 2,43 | 4,43 | 3,58 | 14,32 | 10,11 |

## ASSETS

**The total assets of the general insurance business of Indian insurers amounted to Rs. 90,22 lakhs on 31st December 1963 (as against Rs. 82,03 lakhs on 31st Dec. 1962 and were invested as shown below.**

**The total assets in India in respect of the general insurance business of the non-Indian insurers amounted to Rs. 15,56 lakhs on 31st December 1963 as against Rs. 13,63 lakhs on 31st December 1962 and were invested as shown below. The figures are in lakhs of Rupees.**

| | Indian insurers | | Non-Indian | |
|---|---|---|---|---|
| | 1963 | 1962 | 1963 | 1962 |
| Central Govt. Securities .. .. | 5,85 | 6,36 | 2,02 | 2,08 |
| State Govt. Securities .. .. | 2,08 | 2,39 | 5 | 5 |
| Br. & Foreign Govt. Securities .. | 1,83 | 2,00 | — | — |
| Municipal, Port & Improvement Trust Securities .. .. .. .. | 26 | 28 | 34 | 35 |
| Debentures of Indian Companies .. | 5,63 | 4,76 | 83 | 77 |
| Preference Shares of Indian Companies .. .. .. .. | 5,22 | 4,59 | 49 | 35 |
| Ordinary Shares of Indian Companies | 22,43 | 20,27 | 1,93 | 1,90 |
| Land & House Property .. .. | 2,35 | 2,22 | 68 | 31 |
| Deposit, Cash & Stamps .. .. | 16,24 | 16,26 | 5,81 | 5,22 |
| Loans on mortgage of Property .. | 1,15 | 84 | 9 | 9 |
| Loans on Stocks & Shares .. .. | 30 | 11 | — | — |
| Other Loans .. .. .. .. | 17 | 8 | 20 | 17 |
| Agents' Balances, Outstanding premiums, Amounts due from other insurers and Accrued & outstanding interest .. .. .. .. | 20,61 | 17,13 | 1,66 | 1,28 |
| Miscellaneous .. .. .. .. | 6,10 | 4,74 | 1,46 | 1,06 |
| Total .. .. .. .. | 90,22 | 82,03 | 15,56 | 13,63 |

The following table gives the index numbers of general insurance business in India and the general index numbers of industrial production (base year 1956) for the years 1957 to 1963. Comparison of these figures will indicate the potentiality for progress of general insurance business in India and the actual progress made by this business.

| | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 |
|---|---|---|---|---|---|---|---|
| Index no. of general insurance business in India .. | 100·9 | 105·4 | 113·6 | 129·0 | 144·3 | 155·5 | 175·1 |
| General Index no. of industrial production .. .. | 104·1 | 108·1 | 116·9 | 129·8 | 139·3 | 149·8 | 163·3 |

## REINSURANCE

To minimise the drain on account of reinsurance transactions abroad, the Insurance Act, 1938 was amended, early in 1961, by inserting Part IVA Reinsurance, Sections 101A and 101B. Section 101A provides that every insurance company operating in India must reinsure a certain percentage of its business (not exceeding 30%) with Indian reinsurance companies approved in this behalf by the Central Government.

**By various notifications, the Central Government announced the names of the two approved Indian reinsurance companies and the various percentages of the sum assured on each policy to be reinsured by every insurer with each of the two Indian reinsurers. The two approved reinsurers are: India Reinsurance Corporation Ltd., and Indian Guarantee & General Insurance Co. Ltd., both having their registered offices in Bombay.**

The drain on account of reinsurance transactions abroad in respect of the Indian business of non-Indian insurers and total business of the Indian insurers during the years 1961, 1962 and 1963 has been estimated at Rs. 327 lakhs, Rs. 206 lakhs and Rs. 175 lakhs respectively, as follows:—

(in lakhs of rupees)

| | Year | Fire | Marine | Miscellaneous | Total |
|---|---|---|---|---|---|
| 1. Profit in respect of gross direct business in India of all insurers .. .. | 1961 | 380 | 62 | 332 | 774 |
| | 1962 | 560 | 48 | 272 | 880 |
| | 1963 | 455 | 101 | 330 | 886 |
| 2. Profit in respect of total net business of Indian insurers .. .. .. | 1961 | 185 | —47 | 65 | 203 |
| | 1962 | 270 | 2 | 118 | 390 |
| | 1963 | 253 | 39 | 125 | 417 |
| 3. Profit in respect of net business in India of Non-Indian insurers .. .. | 1961 | 94 | 13 | 26 | 133 |
| | 1962 | 107 | 24 | 35 | 166 |
| | 1963 | 90 | 20 | 34 | 144 |
| 4. Profit in respect of gross direct business outside India of Indian insurers .. | 1961 | —2 | —53 | —56 | —111 |
| | 1962 | —5 | —18 | —95 | —118 |
| | 1963 | 13 | —20 | —143 | —150 |
| 5. Drain on account of reinsurers abroad—[(1) + (4) — (2) — (3)] .. .. | 1961 | 99 | 43 | 185 | 327 |
| | 1962 | 178 | 4 | 24 | 206 |
| | 1963 | 125 | 22 | 28 | 175 |

*Note:* Unexpired risk reserves have been taken at 40% of the premium income for Fire and Miscellaneous and 50% of the premium income for Marine insurance business.

To reduce this exchange drain, insurers in the Indian market have taken a number of steps, like increasing their net retentions, obtaining higher commission and profit commission terms and increased reciprocity. Unfortunately, the foreign markets with which Indian insurers had built up a large relationship have been showing bad results over the past number of years.

In April, 1965, the Reserve Bank of India added a new provision to their Exchange Control Regulations, namely "Insurance Companies may enter into reinsurance arrangements with insurers outside India, provided the required reinsurance facilities are not available in India", with a view to eliminating to the extent possible the foreign exchange drain arising as a result of reinsurances placed abroad.

# BROADCASTING

EXPANSION of medium-wave coverage by All India Radio has been achieved in a considerable measure during the year 1964. Efforts are now being made to obtain two extremely powerful transmitters for medium-wave broadcasts to South-East Asian regions, on rupee payment.

Another feature of medium-wave expansion is the introduction of (*a*) stations for relaying the Vividh Bharati programme exclusively and (*b*) auxiliary stations for extensive coverage. There are now 23 Vividh Bharati stations.

Auxiliary centres were opened at Jaypore (Orissa), Gwalior, Jabalpur making a total of 11. The strength of All India Radio by the beginning of 1965 was: 33 principal radio stations; 14 auxiliary centres; 23 Vividh Bharati stations; and total *transmitters*, 103.

*Advisory Committee:* There is an Advisory Committee of 28 members to advise the Ministry of Information and Broadcasting, with the Minister as the Chairman. The members are nominated for two years normally; but their term may be extended. They meet once a year and tender their advice on music, composition of programmes and other matters performed by the Ministry. The first meeting of the combined Central Programme Advisory Committee was held on July 16, 1965.

## BUDGET

For 1964-65, the revised estimates of expenditure on revenue account were Rs. 583·36 lakhs and those on capital account Rs. 212·58 lakhs making a total of nearly Rs. 596 lakhs.

The income from receiver licence fees forms about 70 per cent of the total recurring expenditure on broadcasting.

## INTERNATIONAL CONFERENCES

India was represented by the Director-General, All India Radio in the second International Conference for Broadcasting Organisations on Sound and Television and School Broadcasts held in Tokyo in April 1964. The Director-General and the Chief Engineer, A.I.R., represented India at the first General Assembly of the Asian Broadcasting Union held in Sydney in November 1964.

## TELEVISION

Confined mainly to the area round about the capital, Delhi, the new more powerful transmitter (5 kW in place of 500 Watts) has expanded the radial coverage. So far, 423 sets have been provided in 233 schools out of 366 higher secondary schools, some of which have formed into teleclubs as viewers. There are at present 180 Tele-clubs with an active membership of 3,600 and an average of 18,000 to 20,000 viewers for each programme. Out of the 180 Tele-Clubs, 122 are at present located in school premises. About 50,000 students derive the benefit of these programmes. A sum of Rs. 40 lakhs has been provided for the establishment of a regular television centre at Bombay during the III Plan. There is no progress in this direction so far mainly because of foreign exchange difficulties.

The daily service of Delhi Television Centre was inaugurated on Aug. 15, 1965 by President Dr. S. Radhakrishnan. The studio has been equipped with the assistance of W. Germany.

Delhi's TV service of AIR will be extended to two hours daily (from an hour four times a week) and similar service will soon be introduced at Bombay, Madras and Calcutta. Technical equipment and expert know-how are available from West Germany and other Central European countries. The UNESCO is sponsoring Educational TV Service in Delhi and elsewhere. The new TV services will be available to audiences within 80–100 km. radius. There is a special Committee for advising the Ministry on technical matters about TV expansion.

Total budget provision for the Television Centre for 1964–65 is a little over Rs. 11 lakhs.

The licence fee for a domestic television set is Rs. 30 per annum. This covers sound-cum-vision sets. The commercial licence fee is Rs. 120 per annum, and for a school set Rs. 10 per annum. These licences were issued only in the Delhi Postal Circle.

## OFFICES

All-India Radio has now a multi-storied building Akashvani Bhavan next to Broadcasting House where many offices of All-India Radio are housed.

The head of AIR is the Director-General, All-India Radio, whose office is located in Broadcasting House, Parliament Street, New Delhi.

Other officers at headquarters are: Director of News Services, Director of External Services, Chief Engineer, Deputy Directors-General, Deputy Chief Engineer, Director of Programmes, Director of Programme Planning, Director of Listener Research, Deputy Director of Administration and Assistant Directors of Administration.

AIR stations transmit for about five to ten hours a day.

This is generally split up into three transmissions, morning, afternoon and evening. There is an additional transmission for schools.

Programmes are planned by Station Directors with the assistance of the Programme Executives and Programme Assistants. Details are worked out well in advance of their scheduled dates and are published in the journals of All-India Radio.

**Research and Maintenance Departments.**—These two departments are located in New Delhi with regional offices in Bombay.

The Research Department deals with all technical problems, concerning reception and transmission. Special studies are undertaken on ionospheric data and forecasting transmission conditions, field strengths of short and medium wave stations, atmospheric noise levels prevalent in various parts of India, studio and recording characteristics.

The Department also maintains a field station at Todapur near Delhi where the frequencies of All-India Radio Stations are constantly checked.

The Maintenance Department handles problems which arise in the upkeep and day-to-day operation of the engineering equipment used by All-India Radio in addition to maintaining of Central Stores Depot.

There is a Staff Training School in Delhi, where on an average 180 persons from the staff of All-India Radio, programmes and administrative sides, are trained every year. From 1958, the training facility has been extended to the engineering and technical staff with the opening of a similar training school for them.

**Programme Publicity:** All India Radio has only 8 journals (in 8 languages) for its regular internal publicity programmes. *Akashvani*, the English journal is a weekly, while the rest are fortnightlies in Assamese, Bengali, Gujarati, Hindi, Tamil, Telugu and Urdu.

*Akashvani* (English), *Awaz* (Urdu), *Sarang* (Hindi), *Betar Jagat* (Bengali), *Vani* (Telugu), *Vanoli* (Tamil), *Nabhovani* (Gujarati) and *Radio Goa* (English) are for home services.

For the External Services, *India Calling*, with two versions, the Eastern and the Western, is supplemented by Arabic, Burmese, Chinese and Persian editions.

**Monitoring.**—Monitoring Service housed on a high point in Simla keeps track of about a hundred broadcasts a day in 11 different languages, from 30 different stations, extending to a total of nearly 50 hours. Important items of news from abroad are flashed to Delhi, to the News Division for inclusion in the news bulletins and a check is maintained on what other countries say about India and Indian problems.

**Listener Research.**—The primary purpose of Listener Research is to determine the listening habits and programme preferences of radio listeners by ascertaining from time to time their reactions to items broadcast.

**Advisory Committees, established at the** Broadcasting Stations in consultation with the State Governments, keep the respective Station Directors, All-India Radio, in touch with local public opinion in programme construction and advise them on such matters.

There is also an Advisory Committee with members from Parliament to advise the Minister for Broadcasting.

## PROGRAMMES

**Women's Programmes.**—Programmes for women in English (from important regional centres) and in Indian languages from all stations are broadcast at least twice a week. In the rural programmes too, there is a day devoted to rural women folk. Live messages from defence personnel in forward areas are broadcast in women's programme for wider circulation. Talks, dialogues, stories and songs form the composition of the programme and the topics generally are of feminine interest: child care, family planning, health hints. Group listenings are encouraged. By the end of 1964, there were about 1,500 Women's Listening Groups in India.

**Children's Programmes.**—Wherever possible the children are divided into two or three age groups. The programme is conducted or compered by an elderly character known to the children. Another elderly person usually a woman is used to assist the compere.

**These are generally broadcast twice a week.**

Fables, stories from classics and musical items, form the content of the programmes, and listeners are encouraged to participate.

In the rural broadcasts there is a children's day once a week. The formation of listening clubs has been encouraged and there are now about 2,100 such clubs.

**School Broadcasts.**—The school broadcasts are meant to supplement the regular curriculum of the school.

There are Educational Committees to advise the Station Director on the composition of the programme for the academic term, and these are announced in pamphlets for each term.

A Committee at the centre advises on policy.

Occasionally students from a particular class are taken to the radio station to give a performance.

The idea is that students should listen to the broadcasts while at school in the company of their teachers. Programmes for schools are broadcast from 23 stations during school terms in the regional languages. There were over 26,054 licensed radio sets as on 31-12-1963 in schools which have been registered as listening schools with AIR.

**Rural Broadcasts.**—While the provision of programmes is the Central responsibility, the supply of listening sets to the rural population is the responsibility of State Governments.

Supplementary or spare time occupations are suggested, and information is given on items like improved seed, new implements, sowing, crop and cattle pests and their remedies, and market rates of current agricultural produce.

Weather bulletins during the monsoon are a regular feature of the composite programme.

Programmes are broadcast from all stations (except Port Blair) in 11 Indian languages and about 48 dialects. Duration per day exceeds 30 hours.

**Farm Forums :**—Groups of farmers at each of the community development projects have been formed to listen to rural programmes and discuss later amongst themselves what they have listened about. The gist of these discussions is considered by the programme authorities and suitable answers given to points raised by the listening farmers. All the States have Farm Forums now in their development blocks and/or community projects.

The UNESCO experiment of organising Farm Forums among rural radio listeners was successful in Maharashtra where it was tried first. With a view to expanding the field of this project, FAO organised a Seminar in Delhi on Forum Broadcast in January 1964. It was envisaged that during the 3rd Plan, 25,000 Farm Forums would be organised in all the States together. There are now about 9,000 Forums in the country.

The Union Government has put into operation a scheme for popularising community listening by subsidising State Governments for the purchase of receiving sets. The aim is to provide each village with a population of 1,000 or above, with at least one set.

The subsidy is 50 per cent of the cost of sets and its immediate acceptance is reflected in the rapid rise in the number of community receiving sets.

As part of the scheme, Government has standardised the community receiver set with the help of the radio industry and the Indian Standards Institution. It has been possible to produce such sets for Rs. 120 each and with larger bulk orders the price may go down still further.

## BROADCAST RECEIVER LICENCES AS ON DECEMBER 31, 1964

(by Postal Circles)

| Postal Circle | Domestic Receiver Sets | Community | School |
|---|---|---|---|
| Andhra .. | 2,43,132 | 8,404 | 2,335 |
| Assam .. | 56,925 | 1,819 | 331 |
| Bihar .. | 1,63,699 | 791 | 4,044 |
| Bombay .. | 5,93,749 | 10,662 | 1,437 |
| Central .. | 2,70,086 | 3,668 | 1,316 |
| Delhi .. | 2,46,545 | 29 | 143 |
| Gujarat .. | 3,28,761 | 3,234 | 1,730 |
| Kerala .. | 1,03,854 | 2,693 | 1,153 |
| Madras .. | 4,21,193 | 13,436 | 2,630 |
| Mysore .. | 2,28,180 | 4,689 | 846 |
| Orissa .. | 50,588 | 2,631 | 1,323 |
| Punjab .. | 3,21,476 | 5,595 | 2,182 |
| Rajasthan .. | 1,27,834 | 2,727 | 1,904 |
| U.P. .. | 3,58,491 | 11,982 | 3,688 |
| W. Bengal .. | 5,73,193 | 1,863 | 1,753 |
| Total .. | 40,87,506* | 74,023* | 26,820* |

*These figures are inflated to the extent of renewals for 1965 which were possible since the beginning of Nov. 1964.

Assam Circle comprises Assam, Manipur, Tripura, Nagaland and N.E.F.A.

Central Circle comprises Madhya Pradesh.

Punjab Circle comprises Punjab, Himachal Pradesh, and Jammu & Kashmir.

The number of radio licences of all types at the end of 1963 was 37,36,688. The number now (end of 1964) is estimated to have crossed the four million mark. There were also 600 television receivers in operation in Delhi at the end of November 1964.

The total number of radio sets supplied to the various States and Union Territories numbered 82,442 at the end of 1963 and 3,427 more radio sets were expected to be supplied by the end of 1963–64. Including the radio receivers supplied under the other subsidy schemes, there are now nearly 1,60,000 community listening centres all over the country.

The Union Government distributed nearly 9,400 community listening sets for the different States and the Union Territories. The larger recipients were :—Andhra Pradesh 1,672 ; Maharashtra 1,617 ; Uttar Pradesh 1,510 ; Orissa 580 ; Madhya Pradesh 565 ; Mysore 550 ; Punjab 505 ; Bihar 500 ; Gujarat 430 ; Kerala 420 ; and others, 1,040 making a total of 9,389 sets.

**Wire Broadcasting :** Started in May 1958, to enable low-income groups in Delhi to listen to the A.I.R. broadcasts, the Wire Broadcasting Service covers the Lodi Colony, Kasturba Nagar, Aliganj, Karbala and Thyagaraja Nagar localities of Delhi. The total programme coverage is about 280 hours per month in three daily transmissions. There are at present 1,636 subscribers.

## TRIBAL LANGUAGES & DIALECTS

All India Radio now broadcasts programmes regularly in 82 tribal languages, from Gauhati, Shillong, Kurseong, Kohima, Imphal, Simla, Cuttack, Calcutta, Indore, Ranchi, Hyderabad and Vijayawada. For rural programmes, 11 languages and 48 dialects are used. For news services, 29 Indian and foreign languages are used.

**Anniversary Programmes.**—Anniversaries of national leaders and of great musicians are now celebrated on a national scale.

**National Programmes.**—The Saturday National Programmes of music lasting 90 minutes have been quite popular. It is generally so planned that Northern and Southern (Karnatic) music alternate every Saturday. Arrangements are being made to have this item originate at other places. At present most of the Saturday concerts originate from Delhi and all stations relay them.

**Talks.**—Important topics of a national character are dealt with by an accepted authority in a nation-wide broadcast on Sundays and Wednesdays at 8·30 p.m. Since its inception in 1953, this programme has featured 527 talks and discussions.

**Plays, Operas.**—On alternate Thursdays, a national programme of plays or operas is arranged in such a way that all stations have the same item, in their respective languages, prepared from one single script. The literature of one region is thus made available to all the other parts of the country at the same time. Up to 31-12-1964, 104 such plays have been included in this series.

**Development Projects, Factories.**—In order to make the country plan-minded, a feature on some of the bigger national projects is arranged once a month, and it is put out on the air simultaneously from all the stations, the script with actual effects having been supplied from Delhi.

**Gandhi Prayers & Memories.**—Mahatma Gandhi had his own way of saying prayers and those prayers are broadcast from all stations on Friday mornings. Also the reminiscences of men and women who had known him, immediately after the prayers.

**Prasar Geet & Sugam Sangit.**—In order to provide all stations with standardised light and popular music, All-India Radio organised its own units in different regions for the production of songs. A processing plant capable of producing many discs for its own use in the first instance and for selling them to outside agencies on the lines of the BBC's Transcription Service, has been set up.

**Orchestral Music.**—All-India Radio also established an Orchestral Unit (Vadya-Vrinda) with two wings—one for the North Indian and the other for Karnatic music—for composing orchestral music, using mainly Indian instruments, though the violin, the double-bass and the clarionet were included among Indian instruments. So far over 110 compositions have been finalised and recorded for use when required.

**Transcription Service.**—The object of the transcription service is to keep A.I.R. stations supplied with the pick of the programme items suitable for each target area. During 1963–64, 7,844 recordings were supplied comprising 5,099 items of music including about 800 patriotic songs in all languages, 1,176 talks and 1,569 plays and features.

Taped-copies of important programme items have been prepared for record, altogether totalling 10,000 hours.

**Voice Recordings.**—AIR already has a unique collection of Mahatma Gandhi's prayer-speeches—(100 hrs.). It possesses 3,000 recordings of Pandit Nehru's speeches comprising nearly 800 hours in terms of duration. Some of his Red-Fort speeches are being released commercially on LP records.

Vedic recordings of about 20 hours have been preserved for broadcasting as and when needed.

Recordings of maestros, living and past, both in Karnatak and North Indian style, vocal and instrumental, have been acquired for preservation.

### Nehru Programmes

Nation's grief was expressed by a variety of tributes paid to his memory during the period of mourning—27th May to 8th June 1965. Tributes (4,313), features (923), scriptural reading and special compositions (777), News-reels (529), life-sketches, special bulletins, commentaries (396), Eye-witness reports, commentaries etc. (306), making a grand total of 7,144 items, covering all the languages and all the stations of All India Radio.

**Vividh Bharati.**—This all-entertainment programme, broadcast on short-wave 100 kW transmitters, from Madras and Bombay simultaneously, was introduced in October 1957. The programme is also broadcast on medium wave from 21 centres on special transmitters provided :—Bangalore, Bombay, Calcutta, Cuttack, Delhi, Hyderabad, Indore, Jaipur, Kanpur, Lucknow, Madras, Nagpur, Patna, Rajkot, Trichy, Vijayawada, Bhopal, Dharwar, Poona, Srinagar and Chandigarh.

The popular "Manoranjan" programme is also relayed by Goa while Gauhati presents a taped copy of this programme.

The duration of this recorded variety programme, mostly of music extends to 11¼ hours on week days and 12¼ hours on Sundays and principal festival days. A number of new features were introduced in the service with effect from Oct. 1963 to provide listeners all over the country with a larger and richer fare. The entire time is divided into 5 or 6 transmissions. For nearly 75 mts. a day, a special transmission is devoted to Karnatic music. Another half hour daily is allotted to "Request" programme for our Forces on the fronts.

Request programme for others is put on twice daily, for nearly 90 mts. together. Listeners' letters are answered every day and regional and folk music invariably finds place in the variety provided. Vividh Bharati receives on an average about three lakhs of letters from listeners per year.

Special items for South Indian listeners are broadcast daily for two hours in the afternoon from Madras.

A unique feature of this programme in which all the stations of All-India Radio contribute by sending choice items from their artistes on tapes, was the building up of an elaborate library of tapes, light and classical music, both vocal and instrumental, folk-songs, devotional music, skits, dialogues.

recitations of modern poetry, songs of regional groups in many languages.

Some of the news bulletins and commentaries (in Hindi) are being included in the Vividh Bharati; but that is perhaps a temporary arrangement to meet the emergency.

**Urdu Majlis:**—Half an hour's programme daily has been introduced for Urdu speaking audiences. The item originates in Delhi and is relayed by stations interested in it. Allahabad/Lucknow, Jammu/Srinagar, Jullundur, Hyderabad and Patna are other stations which have a regular Urdu programme in their schedules.

**Competitions.**—In its ceaseless effort to find new talent, All-India Radio holds many competitions every year. They are for music, light and classical, vocal and instrumental, northern and southern (Karnatak) styles. The first round of these is held Station-wise and the All-India round takes place in Delhi.

*Radio Sangeet Sammelan* has indeed become a regular annual feature of All-India Radio. It consists of a series of concerts before invited audiences arranged in Delhi, Bombay and Madras, and the programme is relayed by all stations.

A side-light of the Sammelan is the music competition meant to discover latent talent among younger artistes. Musicians vocal and instrumental between the ages 16 and 21 are invited to participate. The preliminary screening takes place at the respective stations within whose jurisdiction they come, and the final tests are held for Northern music at Delhi and for Karnatic music at Madras.

**Programme Libraries.**—At the headquarters of All-India Radio, New Delhi three important libraries have been built: (*i*) Recordings on tape and disc; (*ii*) Scripts of important programmes from all stations; and (*iii*) Tape recordings of entertainment programme items contributed by all stations of AIR.

## NEWS SERVICES DIVISION

During the national emergency, there was a greater demand for news, for accurate and reliable news. During 1964–65 the News Services Division broadcast a total of 132 bulletins in 29 Indian and foreign languages round the clock.

Two special news bulletins in English and other languages were added, one in the early morning and the other late at night before closing down. Besides the actual news, there were many topical talks and comments that were put out regularly to boost up the morale of the public. Two overseas correspondents will soon be appointed for covering news from (*i*) Africa and East Asia and (*ii*) West Asia. More news bulletins are to be introduced.

*Extended Programmes:* Bombay, Calcutta, Delhi and Madras stations of AIR were expected to have from 15th Sept. 1965 an extended (non-stop) broadcasting service for nearly 16 to 18 hours daily.

In addition to the bulletins originating from Delhi, regional news are now broadcast in 16 languages from all State capitals, Kohima being the latest addition.

The languages used in the Home Services are:

Assamese, Bengali, English, Gujarati, Hindi, Kanarese, Kashmiri, Malayalam, Marathi, Oriya, Punjabi, Sanskrit, Tamil, Telugu, Urdu, Konkani and about 20 other dialects.

All the news bulletins are prepared in the News Service Division and broadcast from the transmitters at Delhi set apart for news.

Each regional station relays the bulletins suitable for its listening areas.

## SIMPLE HINDI

A Committee of 11 members of Parliament was appointed to suggest ways and means of simplification of All India Radio's Hindi expression, particularly in its news-bulletins. Its Report has been received and another committee with Mr. Sri Prakasa as the Chairman has been entrusted with the task of implementing the decision. An expert Hindi Adviser has also been appointed to help the committee.

A similar committee to suggest the standardisation of Urdu expression has been appointed.

**Patriotic Songs:** In addition to the existing stock of national songs, All India Radio broadcast over one thousand new patriotic songs, composed by well-known poets in all the languages of the country and rendered by popular artistes. They were broadcast with good effect during the emergency.

**Dictionaries of Music & Folk-music:** Technical and descriptive terms of both the Karnatak and North Indian music will be explained in a compilation undertaken by All India Radio; the names and characteristics of the *Ragas* of both the varieties will also be provided. In the other dictionary, all forms of folk-music will be described in detail for a complete study of the subject. Tapes which will carry records of the folk-music, will serve as specimens.

**Radio News Reels:** Twice a week, radio news reels of 10 mts. duration, prepared by the News Service Division are broadcast from Delhi for an all-India consumption, and once a week in Hindi. On special occasions, such as receptions to visiting dignitaries, or of our leaders visiting other countries, extra "editions" of the radio news reels are broadcast. English, Hindi and other languages are used for these "newspapers of the air."

**Regional News.**—Centralised news from Delhi does not meet the requirements of the listeners adequately. In an effort to broadcast only news of All-India importance from Delhi, items of local interest are dropped. The State legislatures and other local institutions require to be covered for news. All capitals of States, now devote ten minutes a day for covering regional news in languages other than English. The timings however are late in the afternoon.

A few minutes are set apart at each station for local announcements. This period accommodates news of purely local interest.

**External Services.**—That the External Services serve a useful purpose can be seen from the fact that nearly 10,000 copies of *India Calling* (English) are distributed among listeners. Other Monthlies are: *Idhaat-ul-Hind* (Arabic); *Sada-i-Hind* (Persian); *Ponghubung* (Indonesian); *Lay Daiga Athan* (Burmese); *Yintudze Sheng* (Chinese); *Gya-Gar-Gi-Dra-Tan* (Tibetan); *D-Hind Awaz* (Pushtu).

For 22 hours and 30 minutes every day, the External Services of All India Radio broadcast programmes in 17 different languages for many parts of the world. The languages used are: Arabic, Burmese, Cantonese, English, French, Indonesian, Kuoyu, Nepali, Persian, Portuguese, Pushtu, Swahili and Tibetan. Among the Indian languages are: Hindi, Tamil, Gujarati and Konkani. Broadcasts in Sinhalese, Malay and Thai will be introduced shortly.

These broadcasts serve two purposes: they help Indians staying in different parts of the world to keep in touch with India; and to others, they help appreciate our art, culture, thought and general way of living. On the political front, the Indian viewpoint is best represented without any room for mis-interpretation.

Five more high power transmitters for external services are to be set up during the 3rd Plan.

In relation to time these broadcasts are composed of 25 per cent news, 33 Indian music, 3 Western music, 12 talks-discussions, 3 drama, 3 programme publicity, 21 Koran and other religious items.

## AIR STATIONS

Medium-Wave Stations as on June 15, 1965.

| | Wavelengths in m. | Frequencies in kc/s. per second |
|---|---|---|
| Ahmedabad-Baroda .. | 352·9 | 850 |
| Ajmer .. .. .. | 500·0 | 600 |
| Allahabad–A .. .. | 315·8 | 950 |
| Allahabad–B* .. .. | 211·3 | 1,420 |
| Bangalore–A .. .. | 491·8 | 610 |
| Bangalore–B* .. .. | 365·9 | 820 |
| Bhadravathi .. .. | 375·0 | 800 |
| Bhopal–A .. .. .. | 197·4 | 1,520 |
| Bhoapal–B* .. .. | 250·0 | 1,200 |
| Bikaner .. .. .. | 225·6 | 1,330 |
| Bombay–A .. .. | 288·5 | 1,040 |
| Bombay–§B .. .. | 545·5 | 550 |
| Bombay–C* .. .. | 243·9 | 1,230 |
| Calcutta–§A .. .. | 447·8 | 670 |
| Calcutta–§B .. .. | 300·0 | 1,000 |
| Calcutta–C* .. .. | 194·8 | 1,540 |
| Calicut–A .. .. | 441·2 | 680 |
| Calicut–B* .. .. | 275·2 | 1,090 |
| Chandigarh* .. .. | 245·9 | 1,220 |
| Cuddappah .. .. | 265·5 | 1,130 |
| Cuttack–A .. .. | 310·9 | 965 |
| Cuttack–B* .. .. | 222·2 | 1,350 |
| Delhi–§A .. .. .. | 370·4 | 810 |
| Delhi–B .. .. .. | 280·4 | 1,070 |
| Delhi–C* .. .. .. | 219·0 | 1,370 |
| Delhi–D .. .. .. | 191·0 | 1,570 |
| Dharwar–A .. .. | 220·6 | 1,360 |
| Dharwar–B* .. .. | 258·6 | 1,160 |
| Gauhati–§A .. .. | 411·0 | 730 |
| Gauhati–§B .. .. | .. | .. |
| Goa .. .. .. | 340·9 | 880 |
| Gwalior .. .. .. | 215·8 | 1,390 |
| Hyderabad–A .. .. | 405·4 | 740 |
| Hyderabad–§B .. .. | .. | .. |
| Hyderabad–C* .. .. | 245·9 | 1,220 |
| Imphal .. .. | 215·8 | 1,390 |
| Indore–A .. .. | 461·5 | 650 |
| Indore–B* .. .. | 188·7 | 1,590 |
| Jabalpur .. .. .. | 254·2 | 1,180 |
| Jaipur–A .. .. .. | 202·7 | 1,480 |
| Jaipur–B* .. .. | 232·6 | 1,290 |
| Jammu .. .. .. | 303·0 | 990 |
| Jeypore .. .. .. | 205·5 | 1,460 |
| Jullunder .. .. | 422·5 | 710 |
| Kanpur* .. .. .. | 208·3 | 1,440 |
| Kohima .. .. .. | 201·3 | 1,490 |
| Kurseong§ .. .. | .. | .. |
| Lucknow–A .. .. | 394·7 | 760 |
| Lucknow–§B .. .. | .. | .. |
| Lucknow–C* .. .. | 227·3 | 1,320 |
| Madras–§A .. .. | 416·7 | 720 |
| Madras–*B .. .. | 211·3 | 1,420 |
| Madras–C* .. .. | 193·5 | 1,550 |
| Nagpur–A .. .. | 508·5 | 590 |
| Nagpur–B* .. .. | 454·5 | 660 |
| Patna–A .. .. .. | 483·9 | 620 |
| Patna–B* .. .. | 200·0 | 1,500 |
| Poona–A .. .. .. | 384·6 | 780 |
| Poona–B* .. .. | 309·3 | 970 |
| Port Blair .. .. | 208·3 | 1,440 |
| Raipur .. .. .. | 306·12 | 980 |
| Rajkot–A .. .. | 329·7 | 910 |
| Rajkot–B* .. .. | 211·3 | 1,420 |
| Ranchi .. .. | 535·71 | 560 |
| Sambalpur .. .. | 348·8 | 860 |
| Sangli .. .. .. | 240·0 | 1,250 |
| Siliguri .. .. | 192·8 | 1,560 |
| Simla§ .. .. .. | .. | .. |
| Srinagar–A .. .. | 267·9 | 1,120 |
| Srinagar–§B .. .. | .. | .. |
| Srinagar–C* .. .. | 201·3 | 1,490 |
| Tiruchi–A .. .. | 319·1 | 940 |
| Tiruchi–B* .. .. | 202·7 | 1,480 |
| Tirunelveli .. .. | 250·0 | 1,200 |
| Trichur .. .. .. | 517·2 | 580 |
| Trivandrum .. .. | 454·5 | 660 |
| Varanasi .. .. .. | 241·9 | 1,240 |
| Vijayawada–A .. .. | 357·1 | 840 |
| Vijayawada–B* .. .. | 200·0 | 1,500 |
| Visakhapatnam .. .. | 322·6 | 930 |

Medium wave length remains unchanged throughout the year; its coverage after sun-set gets considerably extended.

* These are Vividh Bharati Relaying stations. § Transmission on short wave (also); the Changing wavelengths according to part of the day and season may be ascertained from Programme journals.

### HAMS—AMATUER BROADCASTERS

For a wider penetration of broadcasting technique, HAMS or amatuer broadcasters, with a small transmitter, are useful to pave the road for and help build an unofficial second line of technical experts. Hams are good wireless operators in times of emergency and they, by their continuous experimenting, help disclosing some of the unknown secrets of electronic engineering. For one reason or the other, the HAM movement has not been encouraged in India adequately. By 1962, there were just 300 Hams in India. About 100 were added to the number during 1963 and there are only 400 Hams. Even with this small number, the Hams are well organised. They have 9 clubs at Ahmedabad, Bangalore, Bombay, Calcutta, Delhi and Madras. Three periodicals are devoted to Ham Activity, the *Ham Bulletin*, the *Siran* and *63 de Mars*. The noteworthy feature is that the ladies of Bangalore have been enamoured of Ham activity and have formed themselves into a Ladies' Group.

### BROADCAST LICENCES & PRODUCTION OF RECEIVING SETS

Broadcast receiver licences are issued at all head and sub-post offices at a fee of fifteen rupees per year, and cover the use of receiving sets throughout India.

Broadcast Receiver Licences are issued to Municipalities or other public bodies for the reproduction of broadcast programmes in public places by the Postmaster-General of the State.

A licence issued for this purpose covers the use of one wireless receiver only.

A separate Broadcast Receiver Licence is, however, necessary in the case of clubs, institutions, messes, etc., for reproducing broadcast programmes at dances, concerts, bazaars, etc., to which the public are admitted.

Production of receiving sets in India has been a tricky business and collection of relevant statistics more difficult than ever. In the first place the organised sector and the small-scale sector form two distinct groups and there is some discrepancy in the State Govt.'s statistics and those of the Union Govt. Figures by the financial as well as by calendar years are published, without any reference to the production of cottage or small-scale industries. The transistor age has added further complications: what is a complete radio receiving set? The definition is not yet final and production reports have to be classified into many types of radio sets. The figures therefore must be viewed subject to such considerations.

### LICENCES & PRODUCTION OF SETS 1955-64

Domestic receiver licences as on 31st December and Total Yearly production of receiving sets (organised sector only)* Units.

1955: 9,47,353; 2,01,204; 1956: 10,75,909; 1,50,600; 1957: 12,30,814; 1,90,692; 1958: 14,27,421; 1,98,108; 1959: 17,18,182; 2,13,864; 1960: 19,79,820; 2,68,320; 1961: 24,20,681; 3,26,340; 1962: 28,69,739; 3,43,284; 1963: 35,35,942; 4,19,460; 1964: 42,13,934 (provisional).

* This sector consists of 20 registered factories.

### BHARAT ELECTRONICS LTD.

In the manufacture of electronic equipment Bharat Electronics Ltd., Bangalore, plays the most important role in India, being the only unit in the public sector under the Defence Ministry. Established in 1954, BEL started production on a small scale in 1956. (See under "Government Industrial Undertakings" for more details).

# HOUSING

WORKING on the basis of the data collected in the 1961 Census and further population projections and taking into account possible new constructions and depreciation of existing houses, it has been estimated that the total shortage of urban housing in the country, by the beginning of the Fourth Plan, would be of the order of 11·4 million dwelling units. In addition, nearly 62·7 million houses in the rural areas are either kacha or substandard and require to be rebuilt.

The Third Plan roughly envisages an investment of about Rs. 1,550 crores in housing—Rs. 1,125 crores in the private sector and Rs. 425 crores in the public sector. The latter figure includes Government funds to the extent of Rs. 122 crores and L.I.C. funds to the extent of Rs. 60 crores earmarked in the Third Plan for the various social housing schemes administered by the Union Ministry of Works, and Housing, namely subsidised industrial housing, low and middle income group housing, slum clearance, rental housing for State Government employees, plantation labour housing, land acquisition and development and village housing schemes. The remaining investment in the public sector is intended for additional housing programmes, such as housing provided by the Central and State Governments, public undertakings and local bodies, mainly for their own employees, housing for the labour employed in coal and mica mines, and housing for the backward classes, etc. As against this, the outlay for housing in the Fourth Plan is likely to be of the order of Rs. 2,460 crores, including a possible investment of about Rs. 1,450 crores in the private sector, about Rs. 530 crores expected to be provided from Government and institutional sources for the various social housing schemes of the Ministry of Works and Housing and Rs. 480 crores for the housing programme of Central Ministries for their employees.

The details of progress, under individual Housing Schemes administered by the Ministry of Works and Housing, are indicated below.

### SUBSIDISED INDUSTRIAL HOUSING SCHEME

The Subsidised Industrial Housing Scheme, which was introduced in September 1952, contemplates grant of financial assistance by the Government of India to the State Governments and through them to other approved agencies, such as Statutory Housing Boards, Local Bodies, Industrial Employers and registered Co-operative Societies of industrial workers, for construction of houses for industrial workers, covered by Section 2(1) of the Factories Act, 1948, and mine workers (other than those engaged in coal and mica mines) falling within the meaning of Section 2(*h*) of the Mines Act, 1952. The benefits of financial assistance under the Scheme are available to workers, whose income does not exceed Rs. 350 per mensem. The Scheme is administered through the respective State Governments, within whose territorial jurisdiction the construction is contemplated.

Under the Scheme, the Government of India provides the entire cost of houses to be constructed for industrial workers by the State Governments, Statutory Housing Boards and Municipal Bodies (50 per cent as outright subsidy and the remaining 50 per cent by way of loan) subject to the maximum of the prescribed ceiling costs for various types of houses. Assistance is also given to employers and co-operative societies of industrial workers by offering them an outright subsidy at 25 per cent of the estimated cost of houses (subject to prescribed ceiling costs) to be constructed by them in addition to loans at 50 per cent of the total cost of construction in the case of employers and at 65 per cent of the cost in the case of co-operatives of industrial workers.

The following four types of accommodation can be provided under the Scheme, depending upon various factors, such as the rent-paying capacity of the workers, the cost and availability of land and local considerations etc.:—(*a*) Open developed plots; (*b*) Skeletal houses; (*c*) Pucca houses; (*d*) Hostel and dormitory buildings.

The ceiling costs and rents prescribed under the scheme for various types of dwelling units have been increased by about 15 per cent with effect from April 1, 1964. The ceiling costs and the subsidised rents per month respectively are as follows: (1) For places outside Bombay and Calcutta and their industrial areas: Rs. 1,600 to Rs. 1,700; Rs. 5·50 to Rs. 26·50. (2) For places in Bombay and Calcutta and their industrial areas: Rs. 2,400 to Rs. 9,200; Rs. 9·50 to Rs. 41·00.

The ceiling costs and the rents indicated above can, however, be increased, in view of certain specified special considerations.

Since the introduction of the Scheme in Sept. 1952, upto the end of March 1965, a total sum of Rs. 60·96 crores has been sanctioned for the construction of 1,72,578 houses, out of which 1,44,632 houses (1,15,238 in the States' sector, 25,043 in the employers' sector and 4,351 in the co-operative sector) had been completed till then. A sum of Rs. 51·81 crores has been released to the different construction agencies.

The State-wise break-up of houses sanctioned and built is given in the table below:

| State | Houses sanctioned | Houses built |
|---|---|---|
| Andhra Pradesh .. | 5,213 | 4,943 |
| Assam .. .. | 417 | 303 |
| Bihar .. .. .. | 13,652 | 12,155 |
| Gujarat .. .. | 25,595 | 18,671 |
| Jammu & Kashmir .. | — | — |
| Kerala .. .. | 790 | 790 |
| Madhya Pradesh .. | 11,577 | 9,024 |
| Madras .. .. | 6,986 | 5,629 |
| Maharashtra .. .. | 35,887 | 29,944 |
| Mysore .. .. | 10,777 | 9,503 |
| Orissa .. .. .. | 3,441 | 2,368 |
| Punjab .. .. | 5,768 | 4,752 |
| Rajasthan .. .. | 4,012 | 3,615 |
| Uttar Pradesh .. | 31,878 | 28,632 |
| West Bengal .. .. | 13,414 | 11,436 |
| *Total* .. .. | 1,69,411 | 1,41,765 |
| Delhi .. .. .. | 3,167 | 2,867 |
| *Grand Total* .. | 1,72,578 | 1,44,632 |

State Governments can utilise funds upto 10 per cent of their total allocation under the scheme as loans for the construction of schools, dispensaries, welfare centres, shops, etc. in industrial housing colonies in order to provide basic amenities in these colonies.

### PLANTATION LABOUR HOUSING SCHEME

Since the beginning of the Scheme in April 1956, the States have so far sanctioned projects for the construction of 1,644 houses at a cost of Rs. 36·78 lakhs out of which 921 houses have been completed. The Scheme has not made satisfactory progress mainly due to the inability of the planters to furnish the security required for the loans. A working group on Plantation Labour Housing set up by the Ministry of Labour and Employment have *inter alia* examined this

question and have recommended the grant of 25 per cent of the cost of each house built under the scheme as capital subsidy for planters. The recommendation has been accepted by the Government of India.

## LOW INCOME GROUP HOUSING SCHEME*

This Scheme, which was introduced in November, 1954, envisages the grant of long-term loans for construction of new houses for persons having an annual income not exceeding Rs. 6,000. The loan to individuals and others generally bears an interest of about 5¾ per cent per annum (plus about ¼ per cent administrative charges of State Governments) and is repayable in a period not exceeding 30 years. The following categories of persons or institutions can obtain loan assistance under the Scheme :—

(*i*) Individuals with annual income not exceeding Rs. 6,000 and co-operative societies of such individuals, for building their own houses.

(*ii*) Public Institutions run on a no-profit-no-loss basis and non-governmental but recognized health institutions, hospitals, educational trusts and educational institutions (including universities) and charitable institutions, for the construction of houses, which should be sold or let out to such of their member employees as are eligible for benefits of the Schemes.

(*iii*) Local bodies and State Governments and their designated agencies, for the construction of houses which should be sold or let out to eligible persons

Short-term loans, repayable in a period not exceeding ten years, are also advanced under the Scheme by the Central Government to the State Governments, for acquisition and development of land and for the subsequent sale of the developed sites to eligible persons on a no-profit-no-loss basis.

The State Governments have been authorised to utilise amounts not exceeding one-third of the allocations under the Scheme for the construction of houses for the economically weaker sections of the community. The Central Government will give a capital subsidy of 25 per cent of the cost of the houses. These houses will be given on rent to persons with an annual income not exceeding Rs. 3,000 in Bombay, Calcutta and Delhi, Rs. 2,400 in other capital towns of States and Rs. 2,100 elsewhere.

Since the introduction of the Scheme in November, 1954, upto 31st March, 1965, a sum of Rs. 60·30 crores had been advanced as loan to the various States (including Rs. 4·84 crores advanced to third parties in the Union Territories). Another sum of about Rs. 5·6 crores has been provided in the budget for 1965-66 for State Governments and Union Territories. Out of a total of 1,29,023 houses sanctioned upto the end of March 1965, construction work was completed on about 92,985 houses.

## SLUM CLEARANCE IMPROVEMENT SCHEME

The Scheme, which was introduced in May 1956, contemplates provision of four types of accommodation viz., open developed plot, skeletal houses, pucca houses and hostel and dormitory — depending upon various factors such as the rent-paying capacity of the slum families involved, the cost and availability of land and other local considerations. Wherever it is possible to improve the living conditions in a slum area by providing amenities and total clearance of the areas is considered inadvisable, the scheme envisages improvement work being taken up in the area. Besides these, it is also permissible to undertake pilot projects for construction of night shelters to provide sleeping accommodation, on payment of nominal charge, to pavement dwellers or other houseless persons in the cities. With a view to popularising this programme, it has been suggested that the responsibility for the management of the night shelters should be entrusted to social service organizations such as the Bharat Sevak Samaj, who may also be invited to bear a portion of the cost of construction of these shelters, by raising public contributions, etc.

Since the inception of the Scheme in May, 1956, upto March 31, 1965, Central assistance totalling Rs. 22·23 crores was given to all the State Governments and in the Union Territories of Delhi and Tripura.

In all, upto March 31, 1965, projects for the construction of 89,825 dwelling units costing Rs. 33·29 crores have been sanctioned. Out of these, 48,613 dwelling units have already been completed. A sum of Rs. 5·93 crores has been provided for the implementation of the scheme in the budget estimates for 1965-66.

## JHUGGI & JHOPRI REMOVAL SCHEME

The Scheme aims at providing alternative accommodation on rental basis to unauthorised squatters on Government and public lands in Delhi, numbering about 50,000 families, whose occupation dates from before July 31, 1960. The programme aims at providing 5,000 tenements, 20,000 plots of 80 sq. yds. and 25 000 camping plots of 25 sq. yds., the total cost of which will be about Rs. 10 crores. The entire expenditure on this Scheme is met by the Central Government and a sum of Rs. 5·50 crores has been disbursed to the Delhi Municipal Corporation, which is implementing this Scheme. Till 31st March 1965, since the inception of the Scheme in January 1960, projects have been formulated for the laying of 38,247 plots (27,246 of 25 sq. yds. and 11,001 of 80 sq. yds.) and construction of 5,000 tenements at a total cost of Rs. 7·68 crores. Out of these, 19,450 plots (15,647 of 25 sq. yds. and 3,803 of 80 sq. yds.) have already been laid. The work of construction of 3,800 tenements has also been taken in hand. About 16,000 families have so far been allotted plots.

## VILLAGE HOUSING PROJECTS SCHEME

The Village Housing Projects Scheme which was introduced in October, 1957, envisages the establishment of housing projects in about 5,000 selected villages all over the country. Financial assistance is given in the form of loans not exceeding Rs. 2,000 or 66⅔ per cent of the cost of construction of the house, whichever is less. It has been decided to increase these limits to Rs. 3,000 and 80 per cent of the cost of the house respectively with effect from August 1965. Loan assistance is also granted to villagers for improving their existing houses. The Scheme is based on the principle of aided self help, and necessary technical guidance to beneficiaries is given by the Rural Housing Cells set up in the States.

As against the Second Plan provision of Rs. 5 crores, the total assistance availed of by the State Governments amounted to Rs. 3·8 crores, representing a performance of 75·5 per cent. The Third Plan provision for the scheme is Rs. 12·7 crores, including Rs. 5 crores earmarked for providing house sites to landless agricultural workers. A sum of Rs. 1·51 crores had been utilised by the States during the first two years of the Third Plan.

According to the reports received so far (July 1965), all the 5,000 villages allotted to States and Union Territories for development had been selected, survey had been conducted in about 3,500 villages and layout plans drawn up for 3,000 villages. About 49,630 houses have been sanctioned for construction, out of which about 24,055 houses have been completed.

Formerly, funds were given to the States mostly by way of loans, but now nearly fifty per cent of the financial assistance to them will be given as grants for the purpose of providing house sites to landless agricultural workers and laying of streets and drains in the selected villages. In addition, the amount of subsidy given to the State Governments for the Rural Housing Cells has been enhanced to enable them to employ additional staff to provide technical guidance to persons building houses under the Scheme. These decisions are expected to remove some of the causes holding up the progress of the Scheme. The question of taking up these new programmes, *viz.*, provision of house sites to landless agricultural workers and streets and drains in the selected villages is reported to be under various stages of consideration of the State Governments.

The Government of India have also set up six regional Research-cum-Training Centres, for undertaking work relating to research, training and extension, in rural housing and village planning. The Ford Foundation have agreed to provide financial assistance to these Centres, to the extent of about Rs. 9·6 lakhs during the Third Plan period for construction of Research-cum-Demonstration Houses in rural areas.

## L.I.C. FUNDS FOR HOUSING

From the financial year 1958-59, for the first time, L.I.C. funds were harnessed in a systematic manner for financing the Middle Income Group Housing Scheme and the Rental Housing Scheme for State Government Employees. From 1962-63, L.I.C. funds are also being availed of by States for Land Acquisition and Development Scheme, and for meeting expenditure over and above their Plan provision, on three Plan schemes, namely Low Income Group Housing Scheme, Plantation Labour Housing Scheme and Village Housing Projects Scheme.

During the period from 1958-59 to 1964-65, L.I.C. funds to the extent of Rs. 62·15 crores have been made available to State Governments through the Union Ministry of Works and Housing. Out of this amount, about Rs. 15 crores were allocated and drawn by the various States during 1964–65.

## MIDDLE INCOME GROUP HOUSING SCHEME

Under the Middle Income Group Housing Scheme, introduced in February, 1959, the Life Insurance Corporation advances loans to the State Governments to the extent authorized by the Central Government at 5¾ per cent interest, repayable in 25 annual equated instalments. The State Governments, in turn, advance loans to individuals within the income range of Rs. 6.001-15,000 per annum, or their co-operatives, for the construction of houses for their bonafide residential purposes, recovering the amounts over the same period (or any shorter periods as the individuals may desire), with an additional interest of about ¼ per cent to cover normal administrative charges.

The amount of loan to be granted for the construction of a house is not to exceed 80 per cent of the estimated cost of the house, including cost of developed land, subject to a maximum loan of Rs. 20,000 per house. The Scheme has been amended to permit advance (out of the approved house building loan) to an applicant for the purpose of completing the purchase of a developed plot of land, where he has already paid 50 per cent of the cost from his own resources, provided that the amount already paid by the applicant towards the cost of the plot is not less than 25 per cent of the approved loan amount.

The loans are advanced in stages. Before advancing loans to individual applicants, the State Governments have to scrutinise and approve the layout, designs, specifications etc. and have also to ensure that the necessary essential services in accordance with the normal standards applicable to the area are available. The floor area of house constructed under this scheme should not be, ordinarily, less than 400 sq. ft. and the cost (exclusive of the cost of developed land) should not exceed Rs. 30,000. One-half of the allocation under the scheme can be utilised by the State Government for construction of houses for allotment on rent. The loans advanced by the L.I.C. under the scheme, to the various State Governments during the Second Plan period, amounted to Rs. 10·18 crores. The total funds released during the first four years of the Third Plan amount to Rs. 15 01 crores, including a sum of about Rs. 4·33 crores released during 1964-65. According to the reports received so far (July 1965), the various State Governments have sanctioned about 14,513 houses for construction, out of which 8,442 houses have been completed.

* The Union Ministry of Works and Housing has raised the maximum amount of loan admissible under the low income group housing scheme to Rs. 10,000.

### RENTAL HOUSING SCHEME

Another Scheme called the Rental Housing Scheme for State Government Employees, financed by the Life Insurance Corporation, was also introduced in February, 1959. The Scheme envisages the grant of loan assistance to State Governments for the construction of houses for allotment to their employees on a rental basis.

During the Second Plan period the L.I.C. advanced under the Scheme a sum of Rs. 6·96 crores to nine States, viz. Andhra, Bihar, Kerala, M.P., Madras, Mysore, Orissa, Rajasthan and West Bengal. The scheme is in operation in all the States except Jammu & Kashmir, Nagaland and Uttar Pradesh. The total amount of funds made available to State Governments for the Scheme during the first four years of the Third Five Year Plan is Rs. 7·93 crores, while an amount of about Rs. 2·90 crores was advanced during 1964-65. According to the reports received so far (July 1965), the State Governments have sanctioned projects for construction of 14,590 houses, out of which 10,120 houses have already been completed.

### HOUSE BUILDING ADVANCES TO CENTRAL GOVERNMENT EMPLOYEES

House building advances are made to Central Government employees for the construction of houses, enlargement of existing accommodation and for the purchase of ready-built houses from Government, semi-Government or autonomous institutions like the improvement trusts. The maximum amount of advance admissible is 36 months' pay of the Government employee subject to a maximum of Rs. 25,000 in the case of construction or purchase of ready-built houses, and a maximum of Rs. 10,000 in the case of enlargement of existing accommodation. Low-paid employees can, however, be granted advance up to Rs. 4,800 irrespective of their pay.

From April 1956, when the Scheme was revived, applications for advances involving the grant of loan to the extent of Rs. 5·37 crores have been approved up to July 31, 1965.

### LAND ACQUISITION AND DEVELOPMENT SCHEME

High land prices and general scarcity of developed plots have been responsible, in a large measure, for the slow progress in housing and slum clearance. A Land Acquisition and Development Scheme was therefore formulated and introduced in October, 1959, to assist the State Governments to arrange bulk acquisition and development of land in large and growing towns and to make available to public, developed plots at reasonable rates. The Scheme would also help in the stabilisation of land prices, rationalisation of urban development and promotion of self-sufficient composite colonies, giving due consideration to factors like provision of essential services, shopping centres, schools, and transport and other community facilities.

During the Second Plan period, the State Governments availed of Central assistance to the extent of Rs. 2·2 crores. For 1961–62, loans amounting to Rs. 3·5 crores had been released to the State Governments. From the year 1962-63 onwards, the scheme is being financed from the funds provided by the L.I.C. and a sum of Rs. 11·10 crores was drawn by the States, during the period 1962-63 to 1964-65. From 1959 the State Governments are reported to have sanctioned projects for acquiring and developing 22,153 acres at a cost of Rs. 40·59 crores, out of which 11,251 acres have been actually acquired and 6,940 acres developed.

### THIRD AND FOURTH FIVE YEAR PLANS

In the five years of the Third Plan, between 1961 and 1966, it is expected that something like Rs. 1,565 crores will have been spent on building houses — Rs. 460 crores by the Government and the rest by individuals.

During the Fourth Plan period (1966-1971), the investment in house-building is expected to be Rs. 2,460 crores — more than a tenth of the total outlay on the Plan. Something like 57 lakh houses will be built from this money (of which Rs. 1,010 crores will come from public funds).

### HOUSES FOR POLICEMEN

The Centre has advanced so far nearly Rs. 18 crores to the States for building houses for the policemen.

In 1963-64 budget also, Rs. 3 crores had been set apart for this purpose.

The scheme was introduced in 1956 to help the States in providing better housing facilities to their police personnel.

The police housing loans advanced to State Governments are repayable in 20 equal instalments, and the interest charged is 4½ per cent per annum.

# ADMINISTRATION OF JUSTICE

THE Indian Union though a dual polity has no dual judiciary at all. The Supreme Court and the High Courts form one single integrated judiciary having jurisdiction and providing remedies in all cases arising under the constitutional law, the civil law or the criminal law. This is done in order to eliminate all diversities in remedial procedure.

The writs are now issued by the Supreme Court of India and the various High Courts in the territory of India. All laws which existed before independence continue to operate in India as before subject to adaptation and modification made therein. Article 372 of the Constitution provides *inter alia* that, subject to the other provisions of the Constitution all laws in force in the territory of India immediately before the commencement of the Constitution shall continue in force therein until altered, repealed or amended by a competent Legislature or other competent authority.

Article 13 of the Constitution provides that all laws in force in the territory of India immediately before the commencement of the Constitution, in so far as they are inconsistent with the provisions of the Constitution relating to Fundamental Rights (Part III) shall to the extent of such inconsistency be void.

The State is also debarred from making any law which takes away or abridges the Fundamental Rights conferred by this Part, and any law made in contravention shall be void to the extent of such contravention (Art. 13 (2)).

Article 14 ensures to all persons equality before the law by providing that the State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India.

The continuity of the existing laws and legal procedure is further ensured by Article 375 under which all courts of civil, criminal and revenue jurisdiction and all authorities and officers continue to exercise their respective functions subject to the provisions of the Constitution.

The indigenous law of India is personal and divisible with reference to the two great classes of the population, Hindu and Muslim. Both systems claim divine origin and are inextricably interwoven with religion, and each exists in combination with a law based on custom. The rules of the Shastras and the Koran have, however, been in some cases altered and relaxed. Instances can be found in the Bengal Sati Regulation Act of 1829, the Indian Slavery Act, 1843, the Caste Disabilities Removal Act of 1850, the Hindu Widows' Remarriage Act, 1856, and some other Acts and Codes like those which remove the civil disabilities of Harijans.

During recent years indeed there had been a determined demand on the part of social reformers, and various women's organisations in India for an amendment of the Hindu Law so as to bring it into line with progressive social opinion, in consonance with the spirit of the times.

The Draft Hindu Code that was before the provisional Parliament aimed at abolishing the archaic principles of the ancient system of law, the removal of sex and caste disabilities, and generally simplifying, secularising, and modernising the law governing all Hindus, including Lingayats, Buddhists, Jains and Sikhs. But the Code lapsed on account of the dissolution of the provisional Parliament. The special Marriage Act was passed in 1954.

The Government of India however introduced piecemeal legislation regarding reforms in Hindu Law.

The following Acts have already been passed : The Hindu Marriage Act 1955, The Hindu Succession Act 1956, The Hindu Minority and Guardianship Act 1956, The Hindu Adoptions and Maintenance Act 1956. The new Hindu code is thus part of the statute book.

In the meanwhile, an opposite tendency has been observable among the Muslims, who by recent legislation have sought to revert to the law of the Shariat, discountenancing the application of Hindu Law and custom to the sections of the Muslim community who as converts from Hinduism had retained Hindu Law in matters of inheritance and succession.

Apart from this, the entire legal system which has hitherto prevailed in the country is in course of time bound to undergo a profound transformation by reason of the withdrawal of British rule and the partition of India. A Law Commission has been appointed by the Government of India for this purpose, and it has already submitted to the Government interim reports on certain laws. It has also submitted its report on the administration of justice and legal education.

A summary of this was given in the 1959-60 *Directory*.

A demand has been made for the simplification of the procedure and law for the administration of justice.

Accordingly a bill for amending the code of Criminal Procedure was passed. The amendment gives the accused certain new rights. He can now take an oath and give evidence if he so desires.

The Indian Penal Code has from time to time been amended. The rules of Civil Procedure have been embodied in the Code of Civil Procedure. The Code of Civil Procedure was remodelled in 1908 and the Code of Criminal Procedure in 1898. These Codes as amended from time to time are now in force. The Law Commission has also submitted its report on the amendments to the Civil Procedure Code.

## SUPREME COURT

Art. 124 of the Constitution provides for the establishment of a Supreme Court of India consisting of a Chief Justice of India and seven other judges. There is provision in law for the appointment in all of 13 other judges. At present there are 11 judges including the Chief Justice (see Act 17 of 1960). Every judge of the Supreme Court shall be appointed by the President and shall hold office until he attains the age of sixty-five years. In the course of appointment of a Judge the Chief Justice shall always be consulted. Only a citizen of India who has been for at least 5 years a judge of a High Court, or for 10 years an advocate of a High Court, or a person, who in the opinion of the President, is a distinguished jurist, is qualified to be appointed judge of the Supreme Court.

A judge of the Supreme Court is not liable to be removed from his office except by an order of the President passed after an address by each House of Parliament, supported by a majority of the total membership of that House, and by a majority of not less than two-thirds of the members of that House present and voting, has been presented to the President in the same session for such removal, on the ground of proved misbehaviour or incapacity. No person who has held office as a judge of the Supreme Court shall plead or act in any court or before any authority within the territory of India.

The Supreme Court is a court of record with all the powers of such a court including the power to punish for contempt. The seat of the Court is to be in Delhi or such other place as the Chief Justice with the approval of the President may from time to time appoint.

The Supreme Court has exclusive original jurisdiction in any dispute (*a*) between the Government of India and one or more States; (*b*) between Government of India and one or more States on the one side and one or more other States, on the other; (*c*) between two or more States, if and in so far as the dispute involves any question (whether of law or fact) on which the existence or extent of a legal right depends (Article 131).

The appellate jurisdiction of the Supreme Court extends over all appeals from any judgment, decree or final order of a High Court, in civil, criminal or other proceedings, if the High Court certifies that the case involves a substantial question of law as to the interpretation of the Constitution. If the High Court refuses such a certificate the Supreme Court may grant special leave to appeal in a proper case (Art. 136). An appeal shall also lie to the Supreme Court from a High Court in civil matters, when the amount or value of the subject matter in dispute is not less than Rs. 20,000 or the High Court certifies the case to be a fit one for appeal to the Supreme Court (Art. 133).

In criminal matters under Art. 134 an appeal lies to the Supreme Court from any judgment, final order or sentence of a High Court, if the High Court has (*a*) on appeal reversed an order of acquittal of an accused person and sentenced him to death; or (*b*) has withdrawn for trial before itself any case from a subordinate court and has in such trial convicted the accused person and sentenced him to death; or (*c*) the High Court has certified that the case is a fit one for appeal.

For purposes of appeals to the Supreme Court, the Judicial Commissioners' Courts are to be considered as High Courts.

Under Art. 136 discretion is given to the Supreme Court to grant special leave to appeal from any judgment, decree, sentence or order, in any matter passed by any Court or Tribunal in the territory of India.

The Supreme Court has also power to review its own judgement (Art 137).

The jurisdiction and powers of the Federal Court under the existing law are also exercisable by the Supreme Court (Art. 135) including the advisory power to give its opinion on questions of law or fact referred to it by the President (Art. 143).

The law declared by the Supreme Court shall be binding on all courts in the territory of India excepting the Supreme Court itself.

The dual system in the Supreme Court was abolished with effect from January 26, 1955.

Parliament has the power to legislate on the constitution, organisation, jurisdiction and powers of the Supreme Court.

Article 32 of the Constitution guarantees the right to move the Supreme Court by appropriate proceedings for the enforcement of Fundamental Rights; and for the enforcement of such rights the Supreme Court has power to issue directions or orders or writs, including writs in the nature of Habeas Corpus, mandamus, prohibition, *quo warranto* and *Certiorari* whichever may be appropriate.

Power is given to Parliament to enlarge the jurisdiction of the Supreme Court by appropriate legislation (Art. 138).

The royal prerogative to grant pardons, reprieves, respites or remissions of punishments now resides in the President (Art. 72).

Under Art. 348, all proceedings in the Supreme Court and in every High Court in India and the authoritative text of all Bills and Acts of Parliament and the State Legislatures and of all Ordinances promulgated by the President or Governors and of all orders, rules and regulations issued under the Constitution or any law shall be in the English language. If this language is to be replaced by any other language, Parliament must legislate to that effect. Parliament has passed the Official Languages Act (No. 19 of 1963). Though the Act enables the Governor of a State to authorise the use of Hindi or the official language of the State in the High Court, it does not include any provision, with respect to the language in the Supreme Court.

All authorities, civil and criminal in the territory of India, have to act in aid of the Supreme Court (Art. 144). The independence of the judges of the Supreme Court, is secured by charging their salaries on the Consolidated Fund of India, and by prohibiting any discussion in the legislature on the conduct of the judges in their official capacity.

*Some important judgments of the Supreme Court of India during* 1963-64:

I. *Mohan Chowdhurry* v. *The Chief Commissioner, Union Territory of Tripura*, A.I.R. 1964 S.C. 173.

This case laid down the following two principles. (1) When the President of India by an order under Article 359(i) suspended the right of any person to move any court for the enforcement of the rights guaranteed by Articles 21 and 22 during the period of emergency, a person cannot move the Supreme Court under Article 32 for the enforcement of his rights. (2) The President's order does not suspend the Supreme Court power under Act 32, but only the right of a person to move the court.

II. *Express Newspapers* v. *Somayajulu*, A.I.R. 1964 S.C. 279.

In this case the Court laid down that on a construction of S. 2 (b) of the Working Journalists (Conditions of Service) and Miscellaneous Provisions Act (No. 45 of 1955), it would not be possible to hold that a part-time employee who satisfies the test prescribed by S. 2 (b) can be excluded from its purview merely because his employment is part-time.

III. *Makhan Singh* v. *State of Punjab*, A.I.R. 1964 S.C. 381.

In this case, the court laid down the following principles:

(1) The suspension of Article 19 during the period of emergency, removes the fetters on the powers of the Legislature and the Executive. Hence, if the Legislature and/or the Executive commits acts which violate the rights under Article 16, their validity is not open to challenge either during the period of emergency or even after that, by virtue of Art. 358.

(2) The Presidential order under Art. 359 cannot widen the authority of the legislature or the executive; it merely suspends the right to move the Supreme Court. However, as soon as the order ceases to be operative, the infringement of the rights made either by legislative enactments or by executive action can perhaps be challenged in a court of law if the rights infringed were in operation during the pendency of the Presidential order. The validity or Indemnity Act, if passed, may also be carefully scrutinised.

(3) Proceedings taken under S. 491(*i*) (*b*) of the Criminal Procedure Code also fall under Article 359 (*i*). Hence, the prohibition contained in 359 and the Presidential order apply as much to proceedings under S. 491(*i*) (*b*) as to those under Article 226 (*i*) and Article 32 (*i*).

(4) Though an order of detention under the Defence of India Act and the Rules cannot be challenged on the ground that the Article and the Rules contravene the fundamental rights under Art. 147, 21 and 22, the detention, can be challenged on grounds of infringement of the rights conferred by Part III of the Constitution other than those specified in the Presidential order.

(5) A detenue can move the court for a writ on the ground that his detention has been ordered malafide or there has been excessive delegation.

IV. *The Andhra Pradesh State Road Transport Corporation* v. *Income-tax-Officer*, A.I.R. 1964 S.C. 1486.

In this case the Court laid down that the income derived from its trading activity by the Andhra Pradesh Road Transport Corporation is not the income of the State of Andhra Pradesh within the meaning of Article 289 (*i*) of the Constitution. Hence, it is not exempt from Union taxation.

V. *Amarchand* v. *Union of India*, A.I.R. 1964 S.C. 1658.

In this case the question of claim of privileges of documents was decided by the Court. The Supreme Court laid down that though under sections 123 and 162 of the Evidence Act, the court cannot hold an enquiry into the possible injury to public interest which may result from the disclosure of the document in question, the Court is competent to hold a preliminary inquiry and determine the validity of the objection to its production. This would necessarily involve an enquiry into the question as to whether the document relates to the affairs of the State.

VI. *Chitralekha* v. *State of Mysore*, A.I.R. 1964 S.C. 1828.

In this case, the court laid down that the State Government has power to prescribe a machinery and also the criteria for admission of qualified students to Medical and Engineering Colleges run by the Government and with the consent of the management of the Government aided colleges, to the said college also.

## HIGH COURTS

Every High Court is a court of record and has all powers of such court including the power to commit for contempt of itself.

Every judge of a High Court is appointed by the President after consultation with the Chief Justice of India, the Governor of the State and the Chief Justice of the particular High Court; and he holds office until he attains the age of sixty-two years.

A person is not qualified to be appointed a judge of a High Court unless he is a citizen of India and has either held judicial office or practised as an advocate for 10 years in any of the States.

A High Court judge is not liable to be removed from his office except in the manner provided in Art. 124 (4) for the removal of a judge of the Supreme Court of India.

No person who after the commencement of the constitution has held office as a permanent judge of a High Court could plead or act in any court or before any authority in the territory

of India except the Supreme Court or other High Courts.

There is provision in the Constitution for the appointment of additional or acting judges.

Power is given to the President in consultation with the Chief Justice of India to transfer a judge from one High Court to any other High Court in India. (Art. 222.)

Article 225 preserves the jurisdiction and powers of the High Courts as they existed immediately before the commencement of the Constitution. Restrictions on the exercise of the original jurisdiction in revenue matters are removed.

Art. 226 gives to every High Court in India power throughout its jurisdiction to issue to any person or authority including Government directions, orders, writs, including writs in the nature of Habeas Corpus, mandamus, prohibition, *quo warranto* and *Certiorari* for the enforcement of Fundamental Rights and for any other purpose. (Art. 226.)

The High Courts have powers of superintendence over all subordinate Courts and tribunals within their respective jurisdiction.

Legislation affecting constitution and organisation of the High Courts can be passed by Parliament alone.

The Law Commission appointed by the Government of India has rejected the suggestion that the powers of the High Courts under Art. 226–227 should be curtailed.

The Commission has also recommended to the Government of India that a High Court should not have Benches. It has also expressed the view that the establishment of tribunals will be necessary in view of the ideal of a Welfare State.

Some of the other recommendations of the Commission are :

(1) Article 217 of the Constitution should be amended to provide that a Judge of a High Court should be appointed only on the recommendation of the Chief Justice of that State and with the concurrence of the Chief Justice of India.

(2) The Senior Puisne Judge should not be automatically appointed as the Chief Justice unless he possesses the qualification they have referred to.

(3) The retiring age of High Court Judges should be raised to sixty-five, in the case of appointments to be made hereafter.

(4) The pension of the Chief Justice of a State High Court should be fixed at Rs. 2,000 per month and that of a Puisne Judge at Rs. 1,750 per month for 12 years of service.

(5) High Court Judges should not be permitted to practise in any court after retirement.

(6) The Constitution should be amended to bar a Judge of a High Court from accepting any employment other than as a Judge of the Supreme Court after retirement either under the Union or under the State.

(7) The jurisdiction of the city civil courts in Madras and Bombay should be reduced to Rs. 10,000.

On an average more than 14,000 cases are filed in the High Courts of India every month.

Figures collected for the first seven months of 1959 show that the cases filed in the 14 High Courts totalled 1,02,593. The highest number filed was in the Allahabad High Court while the lowest was in Jammu and Kashmir.

The break-up was: Allahabad—16,673; Andhra Pradesh—12,463; Assam—763; Bombay —13,623; Calcutta—7,959; Kerala—7,908; Madhya Pradesh—4,545; Madras—12,642; Mysore—3,517; Orissa—1,236; Patna—4,355; Punjab—11,841; Rajasthan—4,523; and Jammu and Kashmir—545.

The Central Government has made separate judicial arrangements in the Union Territories, Delhi, Goa, Daman and Diu, Himachal Pradesh, Manipur, Tripura, Andaman and Nicobar Islands and Laccadive, Minicoy and Amindivi Islands.

Under Article 241 of the Constitution, Parliament can by law constitute a High Court or a Union Territory or declare any court in any such territory to be a High Court for all or any purposes of the Constitution. Judicial Commissioner's Court in Goa, Daman and Diu is declared High Court for certain purposes.

## LOWER COURTS

The Code of Criminal Procedure provides for the constitution of inferior criminal courts styled as courts of session and courts of magistrates.

Every State, outside the towns of Madras, Bombay and Calcutta, is divided into sessions divisions consisting of one or more districts, and every sessions division has a court of session and a sessions judge, with assistants if need be. These stationary sessions courts are like the English Assizes, and are competent to try all accused persons duly committed, and to inflict any punishment authorised by law, but sentences of death are subject to confirmation by the highest court of criminal appeal in the State.

The Govt. of Bihar had decided to abolish the system of trial by jury in the year 1961. The Government of Maharashtra have abolished the system. The question of abolishing the system in Mysore and West Bengal is under the consideration of the State Govts. The system does not exist in Andhra Pradesh, Assam, Gujarat, Kerala, M.P., Madras, Orissa, Punjab, Rajasthan and U.P.

Magistrates' courts are of three classes with descending powers. Provision is made and largely utilised in the towns, for the appointment of honorary magistrates. In the towns of Madras, Bombay and Calcutta, Presidency Magistrates deal with magisterial cases and benches of Justices of the Peace or Honorary Magistrates dispose of the less important cases.

Article 50 of the Constitution lays down that the States shall take steps to separate the judiciary from the executive in the public service of the States.

Separation of judiciary from the executive is in force in Andhra Pradesh, Gujarat, Kerala, Madras, Maharashtra, Mysore, West Bengal, the Madhya Bharat, Vindhya Pradesh and Bhopal regions of Madhya Pradesh, the PEPSU region and five districts of Punjab and in 47 districts of U.P.

In Bihar the separation is introduced in all districts except five. The districts in which the separation is introduced are Patna, Gaya, Shahabad, Muzaffarpur, Darbhanga, Saran, Champaran, Bhagalpur, Monghyr, Saharsa, Hazaribagh and Purnea.

The Governments of Assam and Rajasthan had set up committees to consider the question. The reports of the committees are being considered

The constitution and jurisdiction of the inferior civil courts vary. Broadly speaking one district and sessions judge is appointed for each district. As District Judge he presides in its principal civil court. His functions as Sessions Judge have already been described.

For these posts members of the Indian Civil Service were mainly selected in the past though some appointments were made from the Provincial Service. Now members of the Bar are recruited. In the majority of cases members of the subordinate judiciary are promoted to the posts of District judges.

Next come the Subordinate Judges and Munsiffs, the extent of whose original jurisdiction varies in different parts of the country.

There are in addition a number of Courts of Small Causes, with jurisdiction to try money suits up to Rs. 500. In the towns of Madras, Bombay and Calcutta where the High Courts have original jurisdiction, Small Causes Courts dispose of money suits up to Rs. 3,000.

In Bombay and Madras there are also City Civil Courts. The City Civil Court in Bombay has a pecuniary jurisdiction of upto Rs. 25,000.

As Insolvency Courts the High Courts of Calcutta, Bombay and Madras have jurisdiction in the Presidency towns. In the mofussil similar powers are conferred on the District Courts by the Provincial Insolvency Act of 1920.

There are Coroners only for the Presidency Towns of Calcutta and Bombay. Elsewhere their duties are discharged by the ordinary staff of magistrates and police officers unaided by jurors.

## SPECIAL COURTS

Labour Courts and Industrial Courts now exist in most States.

A Labour Court consists of a single judge.

These Courts decide upon disputes regarding (*a*) propriety or legality of an order passed by an employer, (*b*) the application and interpretation of standing orders, (*c*) they also decide disputes referred to them by Government for arbitration. Legality or otherwise of strikes or lock-outs or closure, etc. is also decided by them.

An appeal against the judgment of the Labour Courts lies to the Industrial Court. This court has also original jurisdiction regarding matters referred to it by the Government or by representative Unions. It decides upon questions of law referred to it by Wage Boards and references regarding interpretation of the Act and the Rules. It has power of superintendence over Labour Courts.

The Industrial Disputes Act was passed by the Central Legislature in 1947 for the investigation and settlement of industrial disputes.

Industrial Tribunals were established under this Act. If the conciliation bodies set up under this Act fail to bring about a settlement, the matter is referred to the Industrial Tribunals.

Neither party to a dispute is entitled to be represented by a legal practitioner except with the consent of the other party and by leave of the Tribunal.

Industrial Tribunals are not permanent Courts. Whenever a matter is referred to the Government regarding an industrial dispute the Government appoints one or more persons as Industrial Tribunal to adjudicate upon the dispute.

The Industrial Disputes (Amendment and Miscellaneous Provisions) Act No. 36 of 1956 makes provision for the constitution of the following courts and tribunals:

1. Labour Courts to be constituted by the appropriate Government. A court is to consist of one judge only.

2. Industrial Tribunals. A Tribunal is to consist of one judge only. A person is not qualified to be a member of a Tribunal unless he has been judge of a High Court. The Tribunals will be constituted by the appropriate Government.

3. National Tribunals. These Tribunals will be constituted by the Central Government. Here also a tribunal is to consist of one judge only.

This Act came into force on 1st Sept., 1956.

The Industrial Disputes (Amendment) Act 41 of 1956 and the Dock Workers (Regulation of Employment) Act, 1948, are two other Acts with respect to labour cases.

Administration of labour laws is a divided responsibility. The Central Government has the following organisations for the administration of labour laws. (1) The Office of the Chief Labour Commissioner, New Delhi. (2) The Office of the Coal Mines Welfare Commissioner, Dhanbad. (3) The Office of the Coal Mines Provident Fund Commissioner, Dhanbad. (4) The Office of the Welfare Commissioner, Mica Mines Labour Welfare Fund, Dhanbad and Nellore. (5) The Office of the Chief Inspector of Mines, Dhanbad. (6) The Office of the Chief Adviser of Factories, New Delhi. (7) The Office of the Director-General, Employees' State Insurance Corporation, New Delhi. (8) The Office of the

Controller of Emigrant Labour, Shillong. (9) The Office of the Director, Labour Bureau, Simla. (10) The Office of the Central Provident Fund Commissioner, New Delhi.

The State Governments also have their own organisations for the administration and enforcement of labour laws.

Juvenile offenders are tried by the Juvenile Courts. In places where there are no juvenile courts the offenders are tried either by the High Court or the Court of Session or a salaried Presidency Magistrate or a salaried Magistrate of the First Class.

Legal practitioners are not entitled to appear in any case or proceeding before a Juvenile Court. However the Court may grant permission in exceptional cases.

Probation officers are appointed by the State Government for helping the Court in the discharge of its functions. The powers and duties of such officers are laid down in the rules. Their main duty is to investigate the history of the juvenile offender and other help to the Court. An appeal against the judgment of a Juvenile Court lies to the Chief Presidency Magistrate in Greater Bombay, and in other places to the Court of Session. If a case is decided by a Presidency Magistrate or a Court of Session the appeal lies to the High Court.

Panchayat Courts (called Nyaya Panchayat) are in existence in many States. The members of the Panchayat Court are elected by the Village Panchayat. Sections 9-11 of the Act lay down rules about the suits that may be tried and the suits that may not be tried by the Court. A Nyaya Panchayat cannot alter or revise its decision. An appeal against a decision of the Nyaya Panchayat lies to the District Judge.

Under the Defence of India Act (No. 51 of 1962) provision is made for the establishment of Special Tribunals (section 13) for trying offences under any rule made under section 3.

## LEGAL OFFICIALS

The Government of India have their own law colleague in the Law Minister of the Union Cabinet. All Government measures are drafted in his Ministry after their substance is decided upon by the administrative departments concerned.

Outside the Cabinet the principal law officers of the Government of India are the Attorney-General, Solicitor-General and Additional Solicitor-General appointed by the President. At Bombay and Calcutta the Government of India have their own law officers.

Each of the State Governments has its own Advocate-General.

Article 76 of the Constitution of India says that for the post of Attorney-General the President shall appoint a person qualified to be appointed a Judge of the Supreme Court. It shall be the duty of the Attorney-General to advise the Government of India on such legal matters and to perform such other duties of a legal character as may be referred or assigned to him by the President, and to discharge the functions conferred upon him by the Constitution.

In the performance of his duties the Attorney-General shall have right of audience in all Courts in the territory of India. The Attorney-General has a right to take part in the proceedings of Parliament and address it.

Under Article 165 the Governor of each State is authorised to appoint a person qualified to be appointed a Judge of a High Court to be Advocate-General for the State.

The Advocate-General is appointed by the Governor. He has to give advice to the Government of the State upon such legal matters and to perform such other duties of a legal character as may be referred to or assigned to him. He holds office during the pleasure of the Governor. He appears in the Court on behalf of the Government. He is also authorised to take part in the proceedings of the State legislature, if his advice is sought.

In addition to the Advocate-General there is also a Government Pleader in many States. He usually belongs to the Appellate Side of the High Court while the Advocate-General belongs to the Original Side where the High Court has both Original and Appellate Sides. The Government Pleader is assisted by an Assistant Government Pleader and they look after criminal work.

The State Governments have their own law officers, in addition to the Advocate-General and the Government Pleader. The law officer is designated Remembrancer of Legal Affairs. He also works as Secretary to the Legal Department. He is never a practising lawyer, but a Government servant. Usually one of the District Judges is appointed Remembrancer of Legal Affairs.

The Legal Remembrancer drafts Government Bills and gives advice to Government Departments on all legal matters.

Sheriffs are attached to the High Courts of Bombay, Calcutta and Madras.

They are entrusted with the work of preparing jury lists, serving summons and other legal processes. The Sheriff in Bombay is the ex-officio Chairman of the Maharashtra State Permanent Famine Relief Committee. He can also convene public meetings on behalf of the citizens.

The detailed work of the office is entrusted to the Deputy Sheriff who is an officer of the High Court.

There are Official Assignees in three States—Maharashtra, W. Bengal and Madras. The appointment is made by the Chief Justice of the High Court concerned.

The duties of the Official Assignee are two-fold, *viz.* realisation and distribution of the insolvent's estate, and the control of the property of the insolvent and his conduct generally.

A party aggrieved by the decision of the Official Assignee may appeal to the Insolvency Judge of the High Court.

In addition to the Official Assignee, a Deputy Official Assignee may also be appointed. Another officer of the court is the Insolvency Registrar who may be vested with the powers mentioned in section 6 of the Presidency Towns Insolvency Act.

There are two classes of legal practitioners, practising in the Supreme Court. They are Senior Advocates, and other Advocates (popularly known as Junior Advocates).

All Advocates of the Supreme Court are entitled to practise in High Courts. An Advocate of the Supreme Court can appear on the original side of the High Court even without an Attorney. In Bombay and Calcutta an Advocate can appear on the original side only when instructed by an Attorney. An Advocate of a High Court is entitled to practise in the High Court concerned and in all the courts subordinate to it. An Attorney-at-Law if enrolled as an Advocate can also practise in the High Court, except on the original side. He, however, can plead in insolvency and chamber matters.

Pleaders are entitled to practise in the District for which they hold sanads.

In addition to these classes, there are Mukhtars in the States of Assam, Bihar, Orissa, Uttar Pradesh, West Bengal and Rajasthan. In Assam there is one more class of legal practitioners known as Revenue Agents.

The dual system was abolished in the Supreme Court on 26th Jan. 1955.

The Parliament passed the Advocates Act (No. 25 of 1961). This Act provides for amendment and consolidation of the law relating to legal practitioners and provides for the constitution of Bar Councils and an All-India Bar. There shall be a Bar Council for each State and a Bar Council of India. The Bar Council of India will maintain a common roll of advocates, will lay down standards of professional conduct, will promote legal education and lay down standards of such education in consultation with the Universities in India, will recognize Universities whose degree in law shall be a qualification for enrolment as an advocate. There could be two classes of advocates, senior and the junior advocates. An advocate shall be entitled to practise in all courts including the Supreme Court, before any tribunal or person legally authorised to take evidence, etc.

Formerly official Law Reports were published only in five series—Bombay, Allahabad, Calcutta, Madras and Nagpur. Nagpur series is discontinued from 1956 and the following are added. Andhra (1955), Assam (1949), Cuttack (1949), Kerala (1957), Madhya Pradesh (1957), Mysore (1951), Patna (1922) and Rajasthan (1951).

These reports contain cases decided by the High Courts and the Supreme Court of India.

In addition to these series a "Supreme Court Reporter" is also published. It contains important decisions of the Supreme Court of India.

Besides these official reports there are a number of private agencies that also bring out reports of the decisions of the Supreme Court and the High Courts. The Law Commission has recommended that it is neither feasible nor desirable to restrict the publications of reports or to confer the monopoly of citation on one set of reports. Reports are also published of important cases determined by Labour Courts, Industrial Courts and Labour Appellate Tribunals.

## HINDU LAW REFORM

A short note on Hindu Law reform is in order as it concerns the welfare of the women of this country.

As a result of increasing consciousness on the part of Indian women of their social and political status, there has in recent years been a move to revise and codify the somewhat vague and contradictory law governing the Hindu home, especially as it affects marriage, divorce, succession to property, etc.

In 1937 the Indian Legislature enacted the Hindu Women's Rights to Property Act. This Act, for the first time, gave to Hindu widows a right to claim a share in the husband's property and demand partition.

Four years later the Government of India set up a Committee to overhaul and codify the Hindu Law. This Committee, which was known as the Rau Committee, drafted two bills dealing with Hindu intestate succession and Hindu marriage.

When the measures came up for consideration by the two Houses of the Central Legislature, a joint committee of the Houses recommended the revival of the Rau Committee with a view to the codification of the entire Hindu Law. Consequently the Rau Committee was revived early in 1944. During 1944–45, the Committee made a tour of the country and elicited public opinion on the proposals embodied in the two measures and on the codification of the Hindu Law as a whole. They gathered evidence from leading lawyers and representative organisations of various shades of Hindu opinion on a draft Hindu Code prepared by them.

During the last few years, the Central and the Provincial Legislatures passed various Acts, which aimed at improving the condition of Hindu women.

The Hindu Marriage Disabilities Removal Act of 1946, legalised marriages between Hindus belonging to the same Gotra or Pravara.

The Hindu Married Women's Right to Separate Residence and Maintenance Act of 1946 enabled

a married Hindu woman to claim from her husband separate residence and maintenance on certain grounds.

The Hindu Marriage Validating Act, 1949 removed the caste-barriers from the sphere of marriages and validated even the Pratiloma marriages.

The Child Marriage Restraint (Amendment) Act of 1949 raises the marriage age of girls from 14 to 15 years.

In the State of Bombay,* monogamy was made a rule by the Prevention of Hindu Bigamous Marriage Act of 1946, and dissolution of marriages by divorce was allowed under certain conditions by the Bombay Hindu Divorce Act of 1947.

In the State of Madras, there was an Act preventing bigamous marriages and providing for divorce. The Act was called the Madras Hindu (Bigamy Prevention and Divorce) Act.

The Madras Legislature passed the Madras Devadasis (Prevention of Dedication) Act in 1947. This Act puts an end to the unhealthy practice of dedicating Hindu women as 'devadasis' to Hindu deities.

Bombay Hindu Women's Right to Property Act (Extension to Agricultural Land) extended the application of the Hindu Women's Right to Property Act, 1938 to agricultural land also. A similar law was passed in Madras.

Though the Hindu Code Bill was dropped, the Government of India have passed several Acts affecting Hindu Law.

The Special Marriage Act of 1954 repeals the Special Marriage Act of 1872. Though the Act of 1954 is not a part of Hindu Code, it affects Hindus in so far as it provides for civil marriages both for Hindus and non-Hindus.

The Hindu Marriage Act of 1955 came into force on 18th May, 1955. The Act has repealed the following laws :—

1. The Hindu Marriage Disabilities Removal Act of 1946 ; 2. The Hindu Marriage Validity Act of 1949 ; 3. The Hindu Divorce Act of 1947 (Bombay Act) ; 4. The Prevention of Hindu Bigamous Marriage Act of 1946 ; 5. The Madras Hindu (Bigamy Prevention and Divorce) Act ; 6. The Saurashtra Prevention of Hindu Bigamous Marriage Act ; 7. The Saurashtra Hindu Divorce Act.

Under the Hindu Marriage Act 25 of 1955, monogamy has become a rule in Hindu Society. Divorce is allowed on certain grounds. Inter-caste marriages and Sagotra marriages are valid.

The Hindu Minority and Guardianship Act (32 of 1956) seeks to regularise the law regarding guardianship.

The Hindu Succession Act 29 of 1956 aims at simplifying the Hindu Law of succession. It does away with the distinction between the Mitakshara and Dayabhaga law of succession. However, special provision is made for regulating succession to the property of intestates governed by Marumakkattayam, Aliyasantana or Nambudri laws of inheritance. The Act creates two classes of heirs. Preferential heirs are included in Class I. The Act confers a right to a share on a daughter, a provision unknown to the previous Hindu Law.

The Hindu Succession Act has also made the following changes, which are revolutionary. in the old Hindu Law :

All property held by a Hindu woman is now her absolute property and there are no restrictions on her rights.

The heirs of a deceased Hindu are entitled to get a share even in the undivided interest in the Mitakshara coparcenary property. A Hindu can make a will even of his undivided interest in the coparcenary property.

The Hindu Adoptions and Maintenance Act 79 of 1956 was passed in December 1956. Under the Act the adoption of a son or a daughter is permitted. The consent of the wife is necessary for adoption, which is now purely secular in character.

### SOCIAL REFORMS

Besides these laws, Parliament has passed two important Acts relating to social reform. The Suppression of Immoral Traffic in Women and Girls' Act (No. 104 of 1956) was passed in December 1956. This Act provides in pursuance of the International Convention signed at New York on 9th May 1950 for the suppression of immoral traffic in women and girls. The Women's and Children's Institutions Licensing Act (No. 105 of 1956) was passed in December 1956. This Act provides for the licensing of such institutions and of matters relating to them.

Yet another Act, in social reform is the Probation of Offenders Act (20 of 1958).

The Bombay* Legislature has passed an Act for the registration of marriages. The Dowry Prohibition Act (No. 28 of 1961) was passed in 1961. The Act provides for penalty and imprisonment upto six months for giving and taking dowry.

Another Bill called "The Orphanages and Charitable Homes (Supervision and Control) Bill, is also introduced in Parliament.

The Children Act (No. 60 of 1960) provides for the care, protection, maintenance, welfare, training, education and rehabilitation of neglected or delinquent children and for the trial of delinquent children in the Union Territories.

* Bilingual.

## LAW COMMISSION REPORT

A Law Commission to revise the Statute Law of the country and suggest ways and means of improving the system of judicial administration was appointed on Aug. 5, 1955 with Mr. M. C. Setalvad as Chairman. The names of the other members are given in the 1961-62 Directory.

The Commission was to function in two sections. The first section consisting of the Chairman and the first three members was to deal mainly with the question of the reform of judicial administration. The second was to consist of the other seven members and was to deal with the revision of statute law. The two sections would however work in close co-operation under the direction of the Chairman.

While the section dealing with the revision of statute law submitted periodical reports, the one dealing with judicial administration submitted its full report sometime in the second half of 1958. It was laid on the table in Parliament on 25th Feb. 1959.

In Dec. 1958 the Law Commission was reconstituted for a period of three years with Mr. T. L. Venkatarama Iyer as Chairman to enable it to continue the work of statute revision. Names of other members are given in 1961-62 Directory.

In Dec. 1961, the Commission was again reconstituted with Mr. Justice J. L. Kapur as Chairman. The Law Commission has till now (Jan. 1965) submitted to the Government altogether 27 reports.

In Dec. 1964 the Commission was again reconstituted with the following members : Mr. Justice J. L. Kapur (*Chairman*) ; Mr. S. K. Hiranandani, Mr. S. P. Sen-Verma, Mr. K. G. Datar (*Whole-time members*) ; Principal T. K. Tope, Mr. Rama Prasad Mukherjee (*Part-time members*).

A summary of the report of the Law Commission on judicial administration is given in the 1959-60 edition of the Directory.

# LAWS OF 1963

THE Indian Parliament placed on the Statute book altogether 56 Acts during the year 1963. The date mentioned against the Act indicates the date on which the corresponding Bill received the assent of the President

In addition to 56 Acts, the Parliament also passed two Constitution Amendment Acts during the year 1963.

1. The Hindi Sahitya Sammelan (Amendment) Act No. 1 of 1963 : 25th January 1963.
2. The Representation of the People (Amendment) Act No. 2 of 1963 : 25th January 1963.
3. The Indian Tariff (Amendment) Act No. 3 of 1963 : 25th January 1963.
4. The Delhi Rent Control (Amendment) Act No. 4 of 1963 : 8th March 1963.
5. The Appropriation (Railways) Act No. 5 of 1963 : 18th March 1963.
6. The Appropriation (Railways) No. 2, Act No. 6 of 1963 : 23rd March 1963.
7. The Appropriation Act No. 7 of 1963 : 23rd March 1963.
8. The Central Sales Tax (Amendment) Act No. 8 of 1963 : 23rd March 1963.
9. The Appropriation (Vote on account) Act No. 9 of 1963 : 23rd March 1963.
10. The Agricultural Refinance Corporation Act No. 10 of 1963 : 24th March 1963.
11. The Marine Insurance Act No. 11 of 1963 : 18th April 1963.
12. The Appropriation (No. 2) Act No. 12 of 1963 : 27th April 1963.
13. The Finance Act No. 13 of 1963 : 28th April 1963.
14. The Super Profits Tax Act No. 14 of 1963 : 4th May 1963.
15. The Bengal Finance (Sales Tax) (Delhi Amendment) Act No. 15 of 1963 : 4th May 1963.
16. The Appropriation (Railways) No. 3 Act No. 16 of 1963 : 10th May 1963.
17. The Appropriation (Railways) No. 4 Act No. 17 of 1963 : 10th May 1963.
18. The Appropriation (No. 3) Act No. 18 of 1963 : 10th May 1963.
19. The Official Languages Act No. 19 of 1963 : 10th May 1963.

The object of the Act is to provide for the continued use of English language after

26th January 1965, in addition to Hindi for official purposes of the Union and for transaction of business in Parliament etc.

20. The Government of Union Territories Act No. 20 of 1963 : 10th May 1963.

The Act establishes legislatures and Councils of Ministers in the Union Territories of Himachal Pradesh, Manipur, Tripura, Goa, Daman and Diu and Pondicherry.

21. The Compulsory Deposit Scheme Act No. 21 of 1963 : 22nd May 1963.

This Act provides for compulsory deposits with a view to augmenting the resources of the nation for national development. The Act empowers the Government to prepare a scheme for that purpose.

22. The Export (Quality Control and Inspection) Act No. 22 of 1963 : 24th August 1963.

23. The Indian Emigration (Amendment) Act No. 23 of 1963 : 24th August 1963.

24. The Iron Ore Mines Labour Welfare Cess (Amendment) Act No. 24 of 1963 : 24th August 1963.

25. The Appropriation (No. 4) Act No. 25 of 1963 : 31st August 1963.

26. The Code of Civil Procedure (Amendment) Act No. 26 of 1963 : 4th September 1963.

27. The All-India Services (Amendment) Act No. 27 of 1963 : 6th September 1963.

28. The Employees Provident Funds (Amendment) Act No. 28 of 1963 : 7th September 1963.

29. The Institutes of Technology (Amendment) Act No. 29 of 1963 : 12th September 1963.

30. The Customs and Central Excises (Amendment) Act No. 30 of 1963 : 12th September 1963.

31. The Appropriation (Railways) No. 5 Act No. 31 of 1963 : 12th September 1963.

32. The Special Marriage (Amendment) Act No. 32 of 1963 : 22nd September 1963.

33. The Indian Sale of Goods (Amendment) Act No. 33 of 1963 : 22nd September 1963.

34. The Warehousing Corporations (Amendment) Act No. 34 of 1963 : 22nd September 1963.

35. The Dramatic Performances (Delhi Repeal) Act No. 35 of 1963 : 26th September 1963.

36. The Limitation Act No. 36 of 1963 : 5th October 1963.

This Act repeals the Indian Limitation Act 1908 and makes new provision for the law of limitation.

37. The Personal Injuries (Compensation Insurance) Act No. 37 of 1963 : 8th October 1963.

This Act provides for imposing on employers a liability to pay compensation to workmen sustaining personal injuries and for the insurance of employers against such liability.

38. The Major Port Trusts Act No. 38 of 1963 : 16th October 1963.

39. The Industrial Employment (Standing orders) Amendment Act No. 39 of 1963 : 22nd December 1963.

40. The Public Premises (Eviction of unauthorised occupants) Amendment Act No. 40 of 1963 : 2nd December 1963.

41. The Textiles Committee Act No. 41 of 1963 : 3rd December 1963.

This Act provides for the establishment of a Committee for ensuring the quality of textiles and textile machinery and for matters connected therewith.

42. The Drugs and Magic Remedies (Objectionable Advertisements) Amendment Act No. 42 of 1963 : 7th December 1963.

43. The Income-Tax (Amendment) Act No. 43 of 1963 : 9th December 1963.

44. The Appropriation (No. 5) Act No. 44 of 1963 : 11th December 1963.

45. The Administrators-General Act No. 45 of 1963 : 11th December 1963.

46. The Appropriation (Railways) No. 6 Act No. 46 of 1963 : 12th December 1963.

47. The Specific Relief Act No. 47 of 1963 : 13th December 1963.

This Act implements the recommendations of the Law Commission in its Ninth Report. It repeals the Specific Relief Act 1877.

48. The Requisitioning and Acquisition of Immovable Property (Amendment) Act No. 48 of 1963 : 14th December 1963.

49. The East Punjab Ayurvedic and Unani Practitioners (Delhi Amendment) Act No. 49 of 1963 : 14th December 1963.

50. The Indian Tariff (Second Amendment) Act No. 50 of 1963 : 20th December 1963.

51. The Preventive Detention (Continuance) Act No. 51 of 1963 : 30th December 1963.

This Act extends the life of the Preventive Detention Act to 31st December 1966.

52. The Unit Trusts Act, No. 52 of 1963 : 30th December 1963.

This Act provides for the establishment of a corporation with a view to encouraging saving and investment and participation in the income, profits and gains accruing to the corporation from the acquisition, holding etc.

53. The Companies (Amendment) Act No. 53 of 1963 : 30th December 1963.

54. The Central Boards of Revenue Act No. 54 of 1963 : 30th December 1963.

This Act provides for the constitution of a separate Board of Revenue for certain purposes.

55. The Banking Laws (Miscellaneous Provisions) Act No. 55 of 1963 : 30th December 1963.

56. The Delhi Development (Amendment) Act No. 56 of 1963 : 30th December 1963.

### Constitution Amendment Acts

The Constitution (Fifteenth Amendment) Act 1963 : 5th October 1963.

This Amendment raises the retirement age of judges of the High Court from sixty to sixty-two. It also provides for the appointment of retired judges at sittings of High Court. It empowers the High Courts to issue writs under Act 226 to persons who may be outside the State to which the High Court belongs, if the cause of action arose within its jurisdiction. It also amends Act 311 of the Constitution.

The Constitution (Sixteenth Amendment) Act 1963 : 5th October 1963.

This Amendment amends clauses (2), (3) and (4) of Article 19 in order to empower the State to make any law imposing reasonable restrictions on the exercise of the rights conferred by subclauses (a), (b) and (c) of that article, in the interests of sovereignty and integrity of the country. It also amends Articles 84, 173 and the forms of oath in the Third Schedule.

# CONSTITUTION OF INDIA

THE present constitution of India was drawn up by a Constituent Assembly which first met on 9th December 1946. A draft constitution was published in February 1948. The constitution with amendments in the original draft was finally adopted on 26th November, 1949. It came into effect on 26th January 1950.

There were sixteen amendments to the constitution upto the end of Jan. 1964. One more bill for amending the constitution is before Parliament.

A whole Schedule, the Ninth Schedule, was added by an amendment in 1951. This Schedule is sought to be considerably amended by the proposed 17th amendment.

A major amendment was concerned with the re-formation of the constituent units of the Union. The States as re-formed came into existence on 1st Nov., 1956.

A smaller change came on May 1, 1960 when one of the States Bombay was divided into two States, Maharashtra and Gujarat.

## STATES

India, that is, Bharat is a sovereign democratic republic.

It is variously called the Republic of India, the Union of India, The Indian Union.

The Union is made up of 16 States and 9 Union Territories.

The States with their capitals given in brackets are :

Andhra Pradesh (Hyderabad); Assam (Shillong); Bihar (Patna); Maharashtra (Bombay); Gujarat (Ahmedabad)*; Kerala (Trivandrum); Madhya Pradesh (Bhopal); Madras (Madras); Mysore (Bangalore); Orissa (Bhubaneshwar); Punjab (Chandigarh); Rajasthan (Jaipur); Uttar Pradesh (Lucknow); West Bengal (Calcutta); Nagaland (Kohima).

Jammu and Kashmir (Srinagar).

The 9 Union Territories with their capitals in brackets are :

Delhi (Delhi); Himachal Pradesh (Simla); Manipur (Imphal); Tripura (Agartala); Laccadive, Minicoy and Amindivi Islands (Kozhikode, provisional headquarters); Andaman and Nicobar Islands (Port Blair); Dadra and Nagar Haveli (Silvassa); Pondicherry (Pondicherry); Goa, Diu & Daman (Panjim).

The States are administered by State Governments, the Union Territories by the Central Government. The Union Territories of Himachal Pradesh, Manipur, Tripura, Goa, Daman and Diu and Pondicherry have a legislature and a Council of Ministers, under an Act of Parliament. (Act 20 of 1963).

In addition to the States and Territories mentioned above there is one administrative unit—the North-East Frontier Agency, called NEFA for short.

The NEFA is administered by the Governor of Assam as agent of the Central Government.

## FEDERATION

The constitution of India is quasi-federal in nature.

The distribution of power between the Centre and the local administrations follows the accepted principle that subjects which for convenience and efficiency ought to be administered on an all-India basis are vested in the Union Government, while others (of the nation-building sort) which can be conveniently administered on a local basis are vested in the State Governments.

Thus, defence, foreign affairs, transport and communications, currency and coinage, banking, customs and export duties, and the administration of justice at the higher level are all Central

* Temporary capital.

subjects, while State powers include those over police, public health, education, agriculture, forests and so on.

There is a third group of subjects that fall betwixt and between such as trade and industry, economic and social planning, social security and insurance, labour welfare, price control, electricity, newspapers and books and vital statistics. On these subjects both the Centre and the State can freely legislate, it being understood that whenever there is conflict between Union and State legislation the Union laws will ordinarily prevail.

Three detailed lists of subjects are drawn up, the Union List, the State List and the Concurrent List, and the residuary power rests with the Union. That is to say, if at any time, a subject which does not figure in any of the three lists, comes up for consideration the power of dealing with it lies with the Union Government.

The three lists are given in the Seventh Schedule.

It may be added that the Union List has 97 entries, the State List 65 and the Concurrent List 47.

All elections are directed and controlled by an Election Commission. Elections to the Lok Sabha and the Legislative Assemblies of the States are on the basis of adult suffrage. Seats are reserved in the Lok Sabha for the Scheduled Castes and the Scheduled Tribes.

There is a Public Service Commission for the Union and also for the States. Two or more States may agree to have only one Commission for the group. Actually, every State has a Public Service Commission at present while the Union Public Service Commission operates for the Union Territories as well. Appointment of members of the Commission are made by the President or the Governor as the case may be. The Commissions conduct examinations for appointments to the services of the Union or the States. The Union Commission submits an annual report to the President.

Provision is made for removing differences between the various States by empowering the President to establish an Inter-State Council. Such a Council, however is not established as yet.

## FUNDAMENTAL RIGHTS

In the Indian Union the rights of Indian citizenship are given to 1. One who is born in India, 2. Either of whose parents was born in India, and 3. Who has been a resident of India for five years. Provision is also made for persons who are affected by the partition of the sub-continent.

Details were filled in by the Citizenship Act of 1955 which also provides for the termination and deprivation of citizenship under certain conditions. The Act also empowers Government to extend the rights of citizenship to any country in the Commonwealth and the Republic of Ireland on a reciprocal basis.

Certain fundamental rights are guaranteed to every citizen for the first time. All citizens are equal before the law and no discrimination is made on grounds of religion, sex, caste, etc. All citizens have equal opportunities.

Freedom of speech and expression is guaranteed, and the right to hold meetings (without arms), to form unions and associations, to move freely in India and to reside in any part, to acquire property and to practise any profession are also assured under the Constitution.

Life and personal liberty are protected under the law, and there will not be punishment for the same offence more than once. Preventive detention is also forbidden except in certain cases.

Children under the age of 14 will not be allowed to be employed in factories and forced labour like *begar* is prohibited.

India is a secular State and as such there is freedom of conscience. Citizens are allowed to profess, practise and propagate any religion; and the State will not ordinarily interfere in religious questions. The minorities are assured of cultural and educational rights.

The State can acquire compulsorily property for public purposes, but compensation may be paid to the owner of the property concerned although questions relating to the quantum of compensation are not justiciable. But property may also be acquired without compensation in certain cases.

All titles, except military or academic, are also abolished, though honours for meritorious service may be conferred.

Untouchability is abolished.

These fundamental rights can be enforced by the Supreme Court and by High Courts which have the authority to issue prerogative writs such as *habeas corpus*, *certiorari*, *prohibition*, etc.

In respect of the Defence Forces, however, Parliament has power to legislate on these fundamental rights.

It must also be pointed out that some of these fundamental rights can be suspended in case of emergency, and the remedies available for their enforcement may also be suspended by an order of the President. Accordingly as a result of the proclamation of emergency in October 1962, fundamental rights guaranteed by Article 19 are suspended and the President has also issued an order declaring that enforcement of rights under articles 14, 21 and 22 will remain suspended.

There are also certain Directive Principles in accordance with which the State has to direct its policy. These principles are of a recommendatory character and cannot be enforced in a court of law. However the State is expected to look upon them as a kind of touch-stone for its policy and action.

These principles include organization of village panchayats, provision for just and humane conditions of work, equal pay for equal work, unemployment benefit, assistance in old age and sickness, maternity relief, a uniform civil code for the citizens, provision for compulsory and free education of children and separation of judiciary from executive.

Other principles are the organization of agriculture and animal husbandry on modern and scientific lines, prohibition of intoxicating drinks and drugs, protection of national monuments, promotion of international peace and security and settlement of international disputes by arbitration.

There are special provisions to safeguard the interests of two groups—The Anglo-Indians and the Scheduled Castes and Tribes.

The Scheduled Castes and Tribes have special representation in the legislatures of the country upto 1970 (see separate articles on the Scheduled Castes and Tribes) In certain tribal areas there are autonomous administrative bodies.

As for Anglo-Indians, the President may nominate not more than two members of the Anglo-Indian community to the Lok Sabha if he thinks that the community is not adequately represented. Similar power is given to the Governor of a State. The Governor can nominate one member to the Legislative Assembly. In West Bengal, however, he can nominate not more than two.

The claims of the Scheduled Castes and the Scheduled Tribes are to be considered in making appointments to services, and for two years after the commencement of the Constitution the Anglo-Indians were to have the same proportion in the services as they had immediately before 15th August 1947. This reservation is to be progressively reduced by 10 per cent every two years in such a way that it is to cease completely ten years after the commencement of the Constitution.

Originally all reservation including reservation of seats for Scheduled and Tribal classes were to cease ten years after the commencement of the Constitution.

In 1960 the constitution was amended—it was the eighth amendment to the constitution—to extend the period of reservation of seats in the legislatures for another ten years from 1960.

A special officer for the Scheduled Castes and the Scheduled Tribes has been appointed.

## UNION EXECUTIVE

The executive head of the Indian Union is the President. He is elected by the elected members of the Houses of Parliament and the Legislative Assemblies of all the States. His term of office is five years, and he is eligible for re-election. Only a person who is a citizen of India and has completed the age of thirty-five years is qualified to contest the election.

He is the Supreme Commander of the Armed Forces.

He has the power to grant pardons or remission of punishment.

The President is entitled to the use of an official residence without payment of rent, and a salary of Rs. 10,000 per month and allowances. Provision has also been made by an Act of Parliament for a pension of Rs. 15,000 per annum.

The President has the power of summoning, proroguing and dissolving Parliament. At the commencement of each session he addresses both Houses of Parliament assembled together. He has the right of sending messages to Parliament and sending back a Bill presented to him for his assent. This power however can be used by him only once.

The President has legislative powers under certain circumstances. When neither of the Houses of Parliament is in session and the President is satisfied that circumstances exist which make immediate action necessary he may promulgate an ordinance.

Such ordinance must be put before both the Houses of Parliament and will cease to operate at the expiration of six weeks from the re-assembly of Parliament.

The President can also declare emergency if he is satisfied that the security of India or any part thereof is threatened either by war or internal disturbances when the legislature is in session. Such a proclamation would give additional powers to the Union executive and the Legislature.

Accordingly the President issued the proclamation of emergency in October 1962 as a result of the Chinese aggression.

The judges of the Supreme Court and the High Courts, the Attorney-General of India and the Comptroller and Auditor-General of India are all appointed by the President. The heads of States, *i.e.*, Governors are also appointed by the President.

The President has the power of appointing ambassadors abroad and receiving diplomatic representatives of foreign States.

The President places a number of annual reports before Parliament: the Annual Financial Statement, the report of the Auditor-General of India relating to the accounts of the Government of India, the annual report of the Union Public Services Commission and the report of the Special Officer for Minorities.

All executive action of the Government of India is taken in the name of the President and it is the duty of the Prime Minister to communicate to the President all decisions of the Council of Ministers.

Provision is made for the impeachment of the President, by Parliament, for violation of the Constitution. If such a resolution is passed by a majority of not less than two-thirds of the total membership, such a resolution has the effect of removing the President from office.

In the exercise of his functions, the President has the aid and advice of a Council of Ministers, with the Prime Minister at the head of it. The President appoints the Prime Minister and other Ministers are appointed on the advice of the Prime Minister.

The Council of Ministers is collectively responsible to the Lok Sabha (the Lower House). Every Minister must be a member of either House of Parliament, and he is required to take an oath of office and secrecy.

The salaries and allowances of Ministers are determined by Parliament.

There is a Vice-President of India, who is ex-officio Chairman of the Rajya Sabha (the Upper House). The Vice-President acts as President during a casual vacancy in the office of the President. He is elected by the members of both Houses of Parliament and his term of office is five years.

## UNION PARLIAMENT

The Parliament consists of the President and two Houses known as, as already mentioned, the Lok Sabha and the Rajya Sabha. It must meet at least twice a year. The maximum strength of the two Houses is fixed at 250 (12 nominated) for the Rajya Sabha and 525 for the Lok Sabha (not more than 500 from the States and 25 from the Territories).

In May 1964 the Rajya Sabha had a total strength of 238. Of these members 12 were nominated by the President.

In May 1964, the Lok Sabha had a total strength of 510. Of these 13 members were nominated. The fourth General Election to the Lok Sabha will be held in February 1967.

A new delimitation order was issued in March 1963. The allocation of seats for the next General Election would be as follows :—

| Name of the State | Total No. of Seats | Scheduled Castes | Scheduled Tribes |
|---|---|---|---|
| Andhra Pradesh .. .. .. .. .. | 43 | 6 | 2 |
| Assam .. .. .. .. .. .. | 12 | 1 | 2 |
| Bihar .. .. .. .. .. .. | 53 | 7 | 5 |
| Gujarat .. .. .. .. .. .. | 22 | 2 | 3 |
| Kerala .. .. .. .. .. .. | 18 | 2 | Nil |
| Madhya Pradesh .. .. .. .. .. | 36 | 5 | 8 |
| Madras .. .. .. .. .. .. | 41 | 7 | Nil |
| Maharashtra .. .. .. .. .. | 44 | 3 | 3 |
| Mysore .. .. .. .. .. .. | 26 | 4 | Nil |
| Orissa .. .. .. .. .. .. | 20 | 3 | 5 |
| Punjab .. .. .. .. .. .. | 22 | 5 | Nil |
| Rajasthan .. .. .. .. .. .. | 22 | 4 | 3 |
| Uttar Pradesh .. .. .. .. .. | 86 | 18 | Nil |
| West Bengal .. .. .. .. .. | 36 | 8 | 2 |
| Jammu & Kashmir .. .. .. .. | 6 | — | — |
| Union Territories .. .. .. .. .. | 21 | — | — |
| Nominated .. .. .. .. .. | 2 | — | — |
| Total .. | 510 | 75 | 33 |

A Delimitation Commission has been appointed to recommend the allotment of seats in the various Houses of Legislature and the House of the People.

The Rajya Sabha is elected by the elected members of the Legislative Assemblies of the States and of the Union Territories of Himachal Pradesh, Manipur, Tripura and Pondicherry, while the Lok Sabha is elected directly by the voters in the country.

The electoral college for the Territory of Delhi consists of persons who were members of the Delhi Legislative Assembly immediately before 1st November 1956.

The elections to the Lok Sabha are based on adult suffrage and joint electorates. There is no reservation of seats for any group except Scheduled Castes and Scheduled Tribes.

The representatives of Jammu and Kashmir in the Lok Sabha are appointed by the President on the recommendation of the legislature of the State.

The Rajya Sabha is a permanent body with one-third of its members retiring every second year. The Vice-President of the Union is also the Chairman of the Rajya Sabha. The Rajya Sabha has also a Deputy Chairman.

The Lok Sabha has a duration of five years ordinarily. There is a Speaker and a Deputy Speaker of the House both of whom are elected by its members.

All these posts carry a salary and allowances.

Under certain circumstances, the members can be disqualified and their seats declared vacant.

All legislation requires the consent of both Houses of Parliament, and every question is decided by a simple majority of those present and voting except on amendments to the constitution.

Money Bills can be introduced only in the Lok Sabha. The Rajya Sabha can only return a bill with its recommendations to the Lok Sabha within a period of fourteen days of its receipt. Bills passed by Parliament are submitted to the President for his assent. Only on such assent being given does the Bill become law.

A Bill normally goes through the following stages. It is first published. After introduction there is a general debate. Third, there is a clause-by-clause discussion. Then it is voted upon. A specially important measure may go before a select committee or a joint select committee. A Money Bill has a slightly different passage. After it has been passed in the Lok Sabha it is sent to the Rajya Sabha which has to return it within fourteen days with its recommendations which may be accepted or rejected.

The quorum is fixed at one-tenth of the membership of the House.

The language used in Parliament is either Hindi or English.

### Distribution of Seats

The distribution of seats in the Rajya Sabha is as follows :

Andhra Pradesh 18 ; Assam 7 ; Bihar 22 ; Gujarat 11 ; Kerala 9 ; Madhya Pradesh 16 ; Madras 18 ; Maharashtra 19 ; Mysore 12 ; Orissa 10 ; Punjab 11 ; Rajasthan 10 ; Uttar Pradesh 34 ; West Bengal 16 ; Jammu and Kashmir 4 ; Delhi 3 ; Himachal Pradesh 2 ; Manipur 1 ; Pondicherry 1 ; Tripura 1 ; Nagaland 1 ; Total 226.

The President has nominated 12 members. Thus the total of elected and nominated members is 238.

The allocation of seats in the Lok Sabha is as follows :

Andhra Pradesh 43 ; Assam 12 ; Bihar 53 ; Gujarat 22 ; Kerala 18 ; Madhya Pradesh 36 ; Madras 41 ; Maharashtra 44 ; Mysore 26 ; Orissa 20 ; Punjab 22 ; Rajasthan 22 ; Uttar Pradesh 86 ; West Bengal 36 ; Jammu and Kashmir 6 ; Delhi 5 ; Himachal Pradesh 4 ; Manipur 2 ; Tripura 2 ; Andaman and Nicobar Islands 1 ; Laccadive, Minicoy and Amindivi Islands 1 ; Nagaland 1 ; North-East Frontier Tract 1 ; Dadra & Nagar Haveli 1 ; Goa 2 ; Pondicherry 1 ; two Anglo-Indians are nominated.

As mentioned above the six members from Jammu and Kashmir are also nominated by the President on the recommendation of the State legislature.

Parliament's control over the administration is also exercised through a series of committees. The Committees can summon witnesses or require documents to be produced. There is a Committee on Privileges which sees to breaches of Parliamentary privilege, a Business Advisory Committee which helps the Ministry of Parliamentary Affairs in drawing up the programme for a session.

Two very important Committees are the Public Accounts Committee and the Estimates Committee. They are elected by the House of the People and Ministers are barred from membership. The Public Accounts Committee ensures that money is spent for the purpose for which Parliament has voted it, and critici es cases of waste, or extravagance. The Estimates Committee examines possibilities of economy and reform in financial administration and the manner in which estimates may be presented to Parliament.

The programme of work for any session is worked out by the Ministry of Parliamentary Affairs.

## SUPREME COURT

The Supreme Court of India consists of a Chief Justice of India and not more than thirteen other Judges. The appointments are made by the President. The salary of the Chief Justice is Rs. 5,000 per month and of the other Judges Rs. 4,000 per month.

The Judges could hold office till the age of 65.

For purposes of constitutional law the Supreme Court has exclusive original jurisdiction in any dispute (*a*) between the Government of India and one or more States, (*b*) between the Government of India and one or more States on one side and one or more other States on the other, (*c*) between two or more States only in so far as the dispute involves any question on which the existence of a legal right depends.

The Supreme Court has also jurisdiction both appellate and original in matters which involve a substantial question of law as to the interpretation of the constitution.

An Attorney-General for legal advice and a Comptroller and Auditor-General of India for audit and accounts are appointed by the President. The Attorney-General has the right to appear in all courts in India.

(See also under 'Administration of Justice'.)

## STATE GOVERNMENT

The 16 States have Governors at their heads, the Union Territories Andaman & Nicobar Islands, Delhi, Manipur and Tripura have Chief Commissioners, Himachal Pradesh, Goa and Pondicherry have Lieutenant-Governors, Laccadive and Dadra have Administrators.

### Zonal Councils

The States and Union Territories are grouped into geographical zones, and for each zone there is a Zonal Council, which is an advisory body.

These came into existence as part of the scheme relating to the reorganization of States embodied in the States Reorganization Act of 1956.

There are five zones : Northern zone (Punjab, Rajasthan, Kashmir, Delhi and Himachal Pradesh) ; Central zone (Uttar Pradesh and Madhya Pradesh) ; Eastern zone (Bihar, West Bengal, Orissa, Assam, Manipur and Tripura) ; Western zone (Gujarat, Maharashtra and Mysore) ; Southern zone (Andhra Pradesh, Madras, and Kerala and also Mysore as a permanent invitee).

Each Zonal Council consists of a Union Minister to be nominated by the President, the Chief Minister of each of the States in the Zone and two other Ministers of each State. The two Ministers are to be nominated by the Governor

of the State. If there is no Council of Ministers in a State the three members from that State will be nominated by the President. In the case of a Union Territory there will be only two members and they will be nominated by the President.

The Union Minister is to preside over the meetings.

The first Union Minister nominated by the President was late Govind Ballabh Pant, the Home Minister.

The Council will normally meet by rotation in the States included in the Zone.

The idea in constituting Zonal Councils is to develop the habit of cooperative working and to arrest the growth of particularist trends like regionalism and linguism.

It would also help in encouraging co-operation among the States in the execution of major development projects.

The Councils may discuss matters of common interest—and more especially problems arising out of the reorganization of States such as border disputes, linguistic minorities, inter-State transport and also economic or social planning—and advise the Central or State Governments on the action to be taken in such matters.

All questions at meetings will be decided by a majority of the members present.

The proceedings of every meeting of a Zonal Council have to be forwarded to the Central Government and the States Governments concerned.

Wherever there is a problem in which States of more than one Zone have a common interest it will be discussed at a joint meeting.

The joint meeting will be held at such time and place as the Chairman may decide. The rules of procedure at these meetings will be framed by the Central Government.

The office of each Zonal Council has been located as follows :

North Zone—New Delhi, Central Zone—Allahabad, Eastern Zone—Calcutta, Southern Zone—Madras, Western Zone—Bombay.

The administrative expenses of the office, except the salary and allowances of the Secretary will be borne by the Central Government.

### States

The Governor of a State is appointed by the President. Executive power is vested in the Governor who is appointed for a term of five years, ordinarily. Only a citizen of India and one who has completed 35 years of age, is eligible for such an appointment.

The Governor, like the President, has power to grant pardon, etc. He will have a Council of Ministers to aid and advise him. The Governor also appoints an Advocate-General for the State.

### Legislature

Ten States, Andhra Pradesh, Bihar, Kashmir, Madhya Pradesh, Madras, Maharashtra, Mysore, Punjab, Uttar Pradesh, West Bengal have two Houses of Legislature ; the others, only one. The two Houses are called the Legislative Assembly (sometimes Vidhan Sabha) and the Legislative Council (sometimes Vidhan Parishad). The former has a duration of five years, while the latter is a permanent body with one-third of the members retiring every second year.

The minimum strength of an Assembly is 60 and the maximum 500.

The minimum strength of a Council is 40, and the maximum one-third of the State Assembly.

An Assembly is elected directly on a basis of adult franchise with reservation of seats for the Scheduled Castes and Tribes. The composition of a Council is more complicated. About a third are elected by the Assembly, another third by local authorities (municipalities, district boards), about a twelfth by registered teachers in schools not lower than the secondary school standard, and about a twelfth by registered graduates of not less than three years' standing. And the rest are nominated by the Governor from among persons who have distinguished themselves in art, science, literature, co-operation and social service.

The Legislature must meet at least twice a year. While the Assembly consists of members who are directly elected from territorial constituencies, the Council consists of members nominated by the Governor, elected by the Assembly and of representatives of local bodies and special interests.

The legislature can frame its own rules of procedure but it is more or less the same as in Parliament. The quorum for a meeting is one-tenth of the membership or ten whichever is higher.

In case of disagreement, if the Bill is passed a second time after three months of its reference to the Council it automatically becomes law after one month of its passage in the lower house.

The State legislature too has its Committees like Parliament.

The number of seats (including nominated members) in the Legislative Assembly and the Legislative Council is as follows (the first figure shows the number of seats in the Assembly, and the second in the Council):

As on June 1, 1964 : Andhra Pradesh : 301 ; 90 ; Assam : 105 ; — ; Bihar : 319 ; 96 ; Gujarat ; 154 ; — ; Kashmir : 100 ; 36 ; Kerala : 127 : — ; Madhya Pradesh : 289 ; 90 ; Madras : 207 ; 63 ; Maharashtra : 265 ; 78 ; Mysore : 209 ; 63 ; Nagaland: 46;—; Orissa: 140; — : Punjab : 154 ; 51 ; Rajasthan : 176 ; — ; Uttar Pradesh : 430 ; 108 ; West Bengal : 256 ; 75.

The total number of seats in the Vidhan Sabha of Himachal Pradesh is 43, Legislative Assembly of Manipur 30 and of Tripura 30. The number of seats in the Pondicherry Legislative Assembly is 30. Goa Legislative Assembly 30.

About the Kashmir Assembly it may be mentioned that 25 seats are now vacant waiting to be filled in by members from that part of Kashmir now under occupation by Pakistan troops.

The effective strength of the Assembly is 75.

The right of summoning, proroguing and dissolving the legislature is vested in the Governor, who addresses the legislature at the commencement of each session.

Like the Parliament there is a Speaker, a Deputy Speaker, a Chairman and a Deputy Chairman for the Legislative Assembly and the Legislative Council respectively. These officers of the legislatures are entitled to salary and allowances.

The language in the legislature can be either Hindi or English or any other language allowed by the Speaker.

The State Legislatures cannot discuss the conduct of any judge of the Supreme Court or of a High Court in the discharge of his duties.

As the Governor is a part of the legislature, he has certain legislative powers. He can promulgate ordinances during the recess of the legislature ; such ordinances must be placed before the legislature and cease to operate at the expiration of six weeks from the re-assembly of the legislature.

The salary of the Governor is Rs. 5,500 per monthand he is also entitled to certain allowances.

If the government of a State cannot be carried on in accordance with the provisions of the Constitution, and the Governor makes a report to that effect to the President, the President may by proclamation assume to himself all or any of the functions of the Government of the State. He may also declare that the powers of the State legislatures shall be exercised by Parliament, and suspend any provision of the constitution relating to the State.

However, he cannot assume to himself, or suspend any of the provisions of the Constitution relating to High Courts.

### UNION TERRITORIES

In accordance with the provisions of the Territorial Councils Act of 1956 three Union Territories namely, Himachal Pradesh, Manipur and Tripura had Territorial Councils. The Act is now repealed by Act 20 of 1963.

The Fourteenth Amendment Act inserts a new section (239A in the constitution) and empowers Parliament to create for any of the Union Territories of Himachal Pradesh, Manipur, Tripura, Goa, Daman and Diu and Pondicherry a body to function as a legislature and/or a Council of Ministers. Accordingly a bill was introduced in the Parliament for that purpose (Bill No. 5 of 1963). It is now on the statute book in the term of an Act (No. 20 of 1963.) The main provisions of the Act are as follows :

Five Union Territories *viz.* Himachal Pradesh, Manipur, Tripura, Goa, Daman and Diu and Pondicherry have legislative Assemblies. The total number of seats in these Assemblies will be 30 except in H. P. and Pondicherry where it would be 43 and 39 respectively. The Assembly will be directly elected. The Central Government may nominate not more than three persons to the Assembly. These Assemblies may pass a law on any matter in the State list or the concurrent list. There are restrictions on the powers of the Assembly with respect to certain matters. For certain legislative proposals, sanction of the Administrator is required. Special provisions are laid down in regard to financial Bills. Every Bill passed by legislative Assembly shall be reserved by the Administrator for the consideration of the President.

Each Union Territory shall have a Council of Ministers to aid and advise the Administrator. In case of difference of opinion between the Administrator and the Council of Ministers, the Administrator will refer the matter to the President of India, whose decision shall be final. The Administrators of Himachal Pradesh, Manipur and Tripura have special responsibility for the security of the border. In these matters they shall act in their discretion. The Chief Minister and other Ministers shall be appointed by the President. The Administrator and the Council of Ministers shall be under the general control of the President.

There are special provisions for Hill Areas of Manipur (Section 52).

The Act also provides for appointment of a Judicial Commissioner.

Provision is also made for introduction of President's rule in case of failure of constitutional machinery in the Union Territory.

For the Union Territory of Delhi there is established an Advisory Committee which will be associated with the Minister of Home Affairs who is responsible for the administration of Union Territories. This Committee consists of all members of Parliament representing Delhi, the Chief Commissioner of Delhi, the Vice-Chancellor of the University of Delhi, the Mayor of the Delhi Municipal Corporation and the Senior Vice-President of the New Delhi Municipal Committee.

As regards Andaman and Nicobar Islands (Union Territory), the President makes rules and regulations for the peace and good government of the State, and appoints a Chief Commissioner for administration. The President has the power of making regulations which have the effect of amending or repealing an Act of Parliament.

NEFA is administered by the Governor of Assam, who acts as the agent of the Union Government.

It may be mentioned here that the tribal areas of Assam have a special status. The Governor of Assam administers them on behalf of the President and can set up councils for districts and regions. These councils have powers of

legislation about disposition of land, inheritance of property, matrimonial and other customs. They can set up and administer courts, schools, dispensaries and markets. They can collect certain specified taxes.

These areas are often referred to as the autonomous districts of Assam.

Dadra and Nagar Haveli has an elected Administrative-cum-Legislative Council.

There is a High Court for each State and a Judicial Commissioners' Court each for the Union Territories of Himachal Pradesh, Manipur, Tripura and Goa, Daman and Diu.

The salary of a Chief Justice of a State is Rs. 4,000, and of a High Court Judge Rs. 3,500.

The highest court for Delhi is the District Court. Appeals from here go to the Punjab High Court, a circuit bench of which sits in Delhi. There is a proposal to have a separate High Court for Delhi. For Andamans, the highest court is the Chief Commissioner's Court. Appeals go to the Calcutta High Court.

## FINANCE

The financial relations between the Union and the States are as follows:—There is a Consolidated Fund of India and a Consolidated Fund of each State, and all money received is credited to the public account of India or the public account of the State as the case may be. Provision is also made for the establishment of a 'Contingency Fund of India' and a 'Contingency Fund of the State.'

Certain duties and taxes are levied and collected by the Government of India, such as duties in respect of succession to property, terminal taxes, taxes on railway fares and freights, etc. But the net proceeds are assigned to the States, in accordance with such principles of distribution as formulated by Parliament. Certain other taxes, like income-tax are levied and collected by the Government of India, but are distributed between the Union and the States.

These matters are fixed in accordance with the recommendations of a Finance Commission appointed for the purpose.

No moneys can be appropriated out of the Consolidated Fund of India or of a State except in accordance with an Appropriation Act by the appropriate legislature.

The property of the Union is exempt from the taxes imposed by a State, and the property and income of States are exempt from Union taxation.

Provision is made for the appointment of a Finance Commission.

The privy purse sums of the Rulers are a charge on the Consolidated Fund of India, and these sums are to be exempt from taxes on income.

## OFFICIAL LANGUAGE

Hindi in the Devanagari script is the official language of the Union and the form of numerals is the international form of the Indian numerals. The English language, however, will continue to be the official language for a period of not more than fifteen years from the commencement of the Constitution.

The Parliament passed in May 1963 the Official Languages Bill (Act No. 19 of 1963) providing for the continuance of English after 1965 for an indefinite period. An official bill purporting to amend the Act was introduced in Parliament in 1965. The object is to continue the use of English as an official language along with Hindi even after Jan. 1965.

The official language of the Union, *i.e.*, English will be used for communication between the Union and a State or between one State and another. However, if two States agree, Hindi may be used instead of English between them.

All proceedings in the Supreme Court and High Courts, the texts of Bills and Acts passed by the legislatures and ordinances promulgated by the appropriate authorities are to be in the English language, until Parliament by law provides otherwise.

But Hindi could be used as an additional language after 1965.

By previous consent of the President proceedings in a High Court may be conducted in Hindi or any recognised State language but judgments, decrees or orders passed by the court must be in English.

It is the duty of the Union Government to promote and spread the Hindi language. The vocabulary for the development of the language is to be drawn primarily from Sanskrit.

The States have been given the liberty of adopting any one or more languages used in their territory or Hindi as the official language of the State.

The following languages are recognised by the Constitution: (1) Assamese, (2) Bengali, (3) Gujarati, (4) Hindi, (5) Kannada, (6) Kashmiri, (7) Malayalam, (8) Marathi, (9) Oriya, (10) Punjabi, (11) Sanskrit, (12) Tamil, (13) Telugu, (14) Urdu.

A Commission was appointed in accordance with the provisions of the Constitution to make recommendations to the President as regards the progressive use of the Hindi language for official purposes of the Union, and other allied matters.

After the Commission reported, Parliament decided that while Hindi would become the official language in 1965 as laid down in the Constitution English would continue to be used side by side with Hindi though in a progressively diminishing degree until it is completely replaced. No date is fixed for the change-over. The Supreme Court and the High Courts could use Hindi in addition to English after 1965.

The President of India issued an order on official language on April 27, 1960. (No. 2-8-60-OL.)

## EMERGENCY PROVISIONS

If the President is satisfied that a grave emergency exists, and the security of India or any part thereof is threatened either by war or internal disturbance, he may make a declaration to that effect. Such proclamation must be approved by both the Houses of Parliament, before the expiration of two months, otherwise it ceases to operate at the end of that period. As a result of this proclamation Parliament will be authorised to legislate on items included in the State list and the President, to issue directions to the Governor. The President of India made a Proclamation of Emergency in October 1962 after the Chinese aggression.

The President may proclaim a failure of constitutional machinery in a State if he learns that the Government of the State cannot be carried on according to the provisions of the constitution. If this is done, President's rule will be introduced in the State.

This, however, would not be applicable to the functions of the High Courts. Somewhat similar provision is also made for financial emergency.

## AMENDMENT OF THE CONSTITUTION

For purposes of amendment the items are divided into three classes with a different procedure for each class.

For amendment of the provision with respect to the Supreme Court and the High Courts, the distribution of legislative powers between the Centre and the States, the representation of the States in Parliament, etc., the amendment must be passed by both the Houses of Parliament by a majority of the total membership of the House and by a majority of two-thirds of the members present and voting, and must further be ratified by the legislatures of not less than one-half of the States.

In other cases no reference to the State legislatures is necessary. Parliament by itself can amend the Constitution in the manner mentioned above. In some cases amendments can be effected even by a bare majority such as is required for the passing of any ordinary law.

There were seventeen amendments to the Constitution from the coming into force of the constitution on 26th January 1950 to the end of January 1964.

The Constitution (First Amendment) Act, 1951 aimed among other things at enabling the State to make special provision for the advancement of socially and educationally backward classes. It also gave the State broader powers to restrict freedom of speech and writing in the interests of friendly relations with foreign States, public order, decency, morality and in relation to defamation or incitement to an offence.

Two new articles were added after Art. 31 to save the laws relating to the acquisition of estates and the validation of certain land reforms Acts and Regulations passed by certain States. These Acts were specified in an extra Schedule added to the list, the Ninth Schedule.

The Articles affected by the First Amendment were 15, 19, 85, 87, 174, 176, 341, 342, 372 and 375. It added two new Articles 31A and 31B and a new Schedule, the Ninth Schedule.

The object of the Constitution (Second Amendment) Act, 1952 was to make adjustments in the representation in the Lok Sabha consequent on the completion of the 1951 census. The Article affected was Article 81.

The Constitution (Third Amendment) Act, 1954 changed entry No. 33 in the Concurrent List in the Seventh Schedule by adding foodstuffs, cattle fodder, raw cotton and jute whose production and supply could be controlled by the Centre if necessary.

The Constitution (Fourth Amendment) Act, 1955 enables the State to acquire private property compulsorily for a public purpose and bars any reference about the quantum of compensation fixed by the legislature to a court of law. Also, the temporary taking over of private property in the public interest or to secure better management is excluded from the compensation clause. Laws providing for State monopolies are also saved from invalidation. Seven new entries were made to the Ninth Schedule.

The Articles affected were 31, 31A, 31(2) and 305.

The Constitution (Fifth Amendment) Act, 1955 merely fixed a time for State legislatures to give their opinion on Central laws affecting the area, boundary etc. of the State concerned. The Article affected was 3.

The Constitution (Sixth Amendment) Act, 1956 added a new entry in the Union List in the Seventh Schedule, thus giving the Centre authority to legislate on the taxes, on the sale and purchase of goods in the course of inter-State transactions.

The Constitution (Seventh Amendment) Act, 1956 dealt with a whole host of problems thrown up by the reorganisation of the States, such as the alteration of State boundaries, the creation of new States, the classification of certain areas as Union Territory, the allocation of seats in the Rajya Sabha, the provision of a bicameral legislature for certain States. Other points the Amendment dealt with are the original jurisdiction of the Supreme Court, the High Courts and safeguards for linguistic minorities.

Some articles affected were 1, 80, 81, 82, 131, 168, 216, 217, 220, 222, 224 and the First Schedule, and the Fourth Schedule. Four new Articles 290A, 350A and 350B and 372A were added.

The Constitution (Eighth Amendment) Act, 1959 is concerned with the representation of Scheduled Castes and Tribes and Anglo-Indians in Parliament and State legislatures. Article 334 of the Constitution lays down that the reservation of seats in these bodies should cease ten years after the commencement of the Constitution, that is, in 1960. The Amendment proposes that the reservation of seats for the

**Scheduled Castes and Tribes and the representation of Anglo-Indians by nomination should continue for a further period of ten years—till 1970.**

Article 333 is also amended so that the number of members so nominated to a State legislature may be fixed—not more than two in West Bengal and not more than one elsewhere.

The Constitution (Ninth Amendment) Act, 1960, gives effect to the transfer of territories between India and Pakistan under the Nehru-Noon Agreement of 1958.

The Constitution (Tenth Amendment) Act amends the First Schedule to the Constitution of India for integration of the territory of Dadra and Nagar Haveli with the Union of India.

The Constitution (Eleventh Amendment) Act provides for a slightly new procedure for the election of the President and Vice-President.

The Constitution (Twelfth Amendment) Act incorporates Goa, Daman and Diu in India and designates it as Union Territory.

The Constitution (Thirteenth Amendment) Act introduces a new Art. 371A regarding the administration of the State of Nagaland.

The Constitution (Fourteenth Amendment) Act incorporates Pondicherry as a Union Territory.

The Constitution (Fifteenth Amendment) Act among other things raises the retirement age of judges from 60 to 62 and also amends the clause on disciplinary action against Government servants.

The Constitution (sixteenth Amendment) Act. This Act amends Art. 19 with a view to conferring on the Government adequate powers for maintaining the integrity and sovereignty of the Union. Arts. 84 and 173 are also amended.

The Constitution (Seventeenth Amendment) Act amends Art. 31A by inserting an additional proviso after the existing proviso and the ninth schedule. Forty-four new Acts are added to the ninth schedule.

# STATE CORPORATIONS

## ANDHRA PRADESH INDUSTRIAL DEVELOPMENT CORPORATION LIMITED

(A State Government Undertaking).

B-1-174, Fatch Maidan Road, Hyderabad-4.

The Andhra Pradesh Industrial Development Corporation Limited was set up by the Government of Andhra Pradesh under the Companies Act 1956 on 16th Dec. 1960. The principal functions of the Corporation are :—(*a*) Providing finances in the form of long or medium term loans; (*b*) Guaranteeing loans from other financing institutions ; (*c*) Underwriting of new issues of shares and securities ; (*d*) Participation in the Share Capital of new industrial projects with or without controlling interest ; (*e*) Promoting industries directly ; (*f*) Acting as a holding company for specific projects.

The authorised capital is Rs.3 crores divided into 30.000 equity shares of Rs.1,000 each. The State Govt. have subscribed a sum of Rs. 134 lakhs towards the share capital of the Corporation upto 31st March 1965.

*Financial assistance* :—Since its inception upto 31st March 1965 the Corporation received 46 applications for financial assistance aggregating Rs. 1.366·66 lakhs. Assistance to 29 companies was sanctioned so far (March 1965) for a total sum of Rs. 803·00 lakhs as under :—

| | | |
|---|---|---|
| Underwriting of shares | .. | Rs. 323·00 lakhs |
| Investment in shares | .. | Rs. 21·00 ,, |
| Guarantee for deferred payments | .. | Rs. 459·00 ,, |
| TOTAL | .. | Rs. 803·00 ,, |

*Direct promotion of industries* :—Another object of the Corporation is its direct promotion of selected industrial projects in collaboration with private enterprise whenever necessary. The Corporation has obtained Licences Letters of Intent in respect of (1) Ball, Roller, Tapered and Journal Bearings, (2) Integrated Glass, (3) High Tension and Low Tension Insulators, (4) Pig Iron, (5) Electric Motors, (6) Power Cables.

The Corporation has promoted the following Companies : (1) Messrs. Associated Glass Industries ; (2) Messrs. Indo-Nippon Precision Bearings Ltd ; (3) Messrs. Electro Porcelain Ltd.

*Directors* :—A. V. Bhanoji Row (*Chairman*) ; V. K. Rao, I.C.S. (*Dy. Chairman*); M. A. Abbasi, I.A.S.; B. Pratap Reddy, I.A.S.; S. Ramachar; Raja J. Rameswar Rao, M.P. ; D. C. Kothari ; Dr. N. Bhanu Prasad ; Dr. G. S. Sidhu and G. V. Ramakrishan, I.A.S. (*Managing Director*).

## THE ANDHRA PRADESH MINING CORPORATION LTD.

Fatch Maidan Road, Hyderabad-4.

The Andhra Pradesh Mining Corporation Limited came into existence on 24th February 1961 as a wholly-owned undertaking of the Government of Andhra Pradesh, registered under the Companies Act.

*Objects* : Prospecting and exploitation of some of the important minerals in the State. Setting up of mineral based industries with the collaboration of private sector wherever desirable and possible.

*Authorised capital* : Rs. 50 lakhs.

*Board of Directors* : V. K. Rao, I.C.S. (*Chairman*) ; M. A. Abbasi I.A.S. ; B. Pratapa Reddy, I.A.S. ; V. Rangasayi ; S. N. Sen ; M. S. Krishnan ; Prof. K. V. Subrahmanyam ; Prof. C. S. Pichamuthu ; T. Bhaskara Rao, I.C.S. (Retd.), G. V. Ramakrishna, I.A.S. (*Managing Director*).

## ANDHRA PRADESH STATE FINANCIAL CORPORATION

Chapel Road, Hyderabad-1.

The A. P. Financial Corporation came into being on Nov. 1, 1956 as a result of the amalgamation of the former Financial Corporations for the States of Andhra and Hyderabad.

*Object* : Financial assistance to medium, small scale industries, hotel industry (Tourist hotels only) established within the State.

*Authorised Capital* : Rs. 4 crores.

Distribution of shares : 1,50,000 shares of Rs. 100 each are distributed as follows : (*a*) State Government 70,000 ; (*b*) Reserve Bank of India 20,000 ; (*c*) Scheduled Banks, Co-operative Banks, Insurance Companies, Investment Trusts and other financial institutions 50,970 ; (*d*) Others 9,030.

Following are figures for the year ending March 31, 1965.

| | | |
|---|---|---|
| No. of applications received | .. | 41 |
| No. of applications sanctioned | .. | 25 |
| Amount of loans sanctioned | | Rs. 1,19,80,100. |
| Rate of interest | | 8½% per annum with a rebate of ½% for prompt payment of instalments with interest. |
| Net Profit | .. | Rs. 12,46,909. |

The amount of guaranteed dividend payable for the year 1964–65 at 3½% on the share capital amounted to Rs. 5,65,000, after providing for taxation and reserves, was only Rs. 5,66,780.

*Board of Directors* : B. Venkatratnam (*Chairman*) ; V. K. Rao ; M. A. Abbasi, I.A.S. ; E. B. V. Raghavaiah ; S. N. Pal ; M. Sudarsanam ; S. M. Ramakrishna Rao ; Pannalal Pittie ; O. Swaminatha Reddy, B.com. (Hons.), A.C.A. (*Managing Director*).

## THE ASSAM FINANCIAL CORPORATION

('Glenerquart,' Shillong)

(Position as on March 31, 1965)

The Corporation came into being on 14th August 1954. Its jurisdiction has been extended to the States of Tripura and Manipur.

AIMS AND OBJECTS : To contribute to the industrialisation of the States of Assam, Tripura and Manipur by providing credit, medium and long term to industrial concerns.

AUTHORIZED CAPITAL : Rs. two crores divided into two lakh shares. Issued and subscribed : one lakh shares.

The one lakh shares distributed as below : Government of Assam 27,560 ; Government of Tripura 13,780 ; Government of Manipur 10.335 ; Reserve Bank of India 20,000 ; Scheduled Banks, Insurance Companies, Co-operative Banks and other financial institutions 16.200 ; Life Insurance Corporation of India 9.550 ; Parties other than those referred to above 2,575 ; Total number of loan applications received 518 ; Total number of applications accepted for loan: 263 ; Total amount of loan sanctioned : Rs. 5,95,24,000 ; Total amount of loan advanced : Rs. 4,79,41,124 ; Rate of interest charged : Eight per cent with a rebate of ½ per cent for prompt payment.

Income Rs. 24.26,503 ; Expenditure Rs. 13,88,248 ; Profit Rs. 10,38,255.

## ASSAM GOVT. CONSTRUCTION CORPORATION LTD.

Shillong (Assam)

Assam Government Construction Corporation is a State Govt. Organisation, registered as a limited Company on 24th March 1964 under Indian Companies Act, 1956. The object of the Corporation is to construct, execute, carry out, improve, work, develop, administer, manage or control in Assam and elsewhere works and conveniences, of all kinds and to do other business.

The Corporation has almost completed construction of 3 major bridges on National Highway in Assam and has started construction of some [illegible].

*Chairman* : B. P. Chaliha, Chief Minister, Assam.

*Managing Director* : M. Das.

## BIHAR STATE FINANCIAL CORPORATION

Fraser Road, Patna

The Corporation came into being on 2nd November 1954.

AUTHORISED CAPITAL : Rs. 2 crores.

ISSUED AND PAID-UP CAPITAL : Rs. 1 crores. Subscribed by : State Government Rs. 40 lakhs ; Reserve Bank of India Rs. 15 lakhs ;

Scheduled Banks, Insurance Companies and other Financial Institutions Rs. 35·02 lakhs and others Rs. 9·98 lakhs.

Following are figures for the year ending March 31, 1965: Applications pending from previous year: 32; amount involved Rs. 1,38,59,245; applications received during the year: 35; amount involved Rs. 1,66,60,163; applications sanctioned 9; amount involved Rs. 39,27,000; applications rejected 7; amount involved Rs. 37,92,500; applications lapsed 9; amount involved Rs. 49,74,370; loans disbursed 20,09,772; instalments repaid Rs. 23,07,426; net profit Rs. 8,17,451.

The rate of interest from Jan. 19, 1965 as revised is 2½% over bank rate with a minimum of 7½% per annum in the case of small scale industries, and 3% over bank rate with a minimum of 8% per annum in the case of others.

*Board of Directors:* Gorakhnath Sinha (*Chairman*); H. Prasad; R. Nath; R. S. Sahu; M. M. Ghosh; R. B. Mathur; A. C. Bhat; T. M. Mishra; S. S. Kanodia; R. N. Singh (*Managing Director*).

## BIHAR STATE INDUSTRIAL DEVELOPMENT CORPORATION LTD.

Hasan Manzil,
Fraser Road,
Patna.

The Company was registered by the Government of Bihar on 5th November, 1960, with the object of setting up, owning and operating on behalf of the Government industrial undertakings in the medium and large-scale industries sectors. This is a private limited Company with an authorised capital of Rs. 5 crores. The issued, subscribed and paid-up share capital upto March 31, 1964 is Rs. 126·95 lakhs. The entire contribution has come from the State Government. The Company has at present two factories under operation:—

(*i*) Bihar State Superphosphate Factory at Sindri, which produces superphosphate and sulphuric acid; and

(*ii*) High Tension Insulator Factory at Ranchi, which produces high tension and low tension electric insulators.

The company has obtained licences for (1) manufacture of power distributors and transformers, industrial motors and starters and switchgear, (2) setting up a malleable castings unit and (3) doubling of the existing High Tension Insulator Factory at Ranchi. Necessary action in respect of these schemes is being taken.

Besides setting up its own factories, the Company also assists the private sector in setting up new industrial undertakings by extending financial assistance in the form of loan, contribution to the share capital and underwriting of shares.

*Chairman*:—Rajandhari Sinha, M.L.C.
*Vice-Chairman*:—P. K. J. Menon, I.A.S.
*Managing Director*:—U. N. Rai, I.A.S.
*Secretary*:—P. K. Sharma.

## THE BIHAR STATE SMALL INDUSTRIES CORPORATION LTD., (A GOVERNMENT OF BIHAR UNDERTAKING)

Firdaus Building, Exhibition Road, Patna.
(Incorporated on 24th October 1961.)

*Authorised Share Capital:* Rs. 1,25,00,000 divided into Rs. 1,25,000 equity shares of Rs. 100 each. The subscribed capital is Rs. 26,30,000 only. The Governor of Bihar holds all the shares excepting three held by the Officers of the State Government in their official capacity.

The Corporation is engaged in regular manufacturing of small industries products like bicycles, auto-batteries, locks, agricultural implements, wooden furniture, cottage industries and handicrafts products and their marketing.

*Board of Directors:* D. N. Yadava (*Chairman*), P. K. J. Menon (*Vice-Chairman*), Jageshwar Mandal, Bindeshwari Dubey, Kartik Oraon, Syed Nazir Haider, R. T. Sinha, H. Prasad, Professor Gorakh Nath Sinha, W. S. C. Hayward, B. N. Mohanka, S. Prasad (*Managing Director*), J. S. Das (*Secretary*).

## GUJARAT INDUSTRIAL DEVELOPMENT CORPORATION

1, Mill Officers Colony, Opp. Mill Owners Assoc. Bldg., Ashram Rd., Navrangpura, Ahmedabad 9.

The Corporation was established in August 1962, as per Gujarat Industrial Development Act, 1962.

The main functions of the Corporation are (1) generally to promote and assist in the rapid and orderly establishment, growth and development of industries, (2) to establish and manage industrial estates at places selected by the State Government, (3) develop industrial areas selected by the State Govrnment, and (4) develop land on its own account or for the State Government, for the purpose of facilitating the location of industries thereon.

*Areas, etc.:* The Corporation has decided to start development of industrial townships at Odhav and Vatwa near Ahmedabad, Vitthal Udyognagar near Vallabh Vidyanagar, Nandesari near Baroda, and also industrial townships at Umbergaon, Udhna near Surat, Saij-Sertha, Porbandar and Bhavnagar. The Corporation has ten members on its Board.

The State Govt. has made provision of Rs. 30 lakhs (Rs. 15 lakhs for acquisition and Rs. 15 lakhs for development of lands) for 1965-66.

*Chairman*, Chinubhai Chimanbhai Sheth; *Vice-Chairman*, Babubhai Jasbhai Patel; *Member-Secretary and Chief Executive Officer*: M. A. Malek.

## GUJARAT MINERAL DEVELOPMENT CORPORATION LIMITED

"Shiva-Prasad", Opp. Sardar Patel Stadium, Navrangpura, Ahmedabad-9.

*Aims and Objects:* Mining and development of minerals in the State of Gujarat with a view to contributing to the development of mineral-based industries.

*Authorised Capital:* Rs. 50,00,000.

*Distribution of Shares:* All the fully paid 17,000 shares of Rs. 100 each are owned by the Government of Gujarat.

The Corporation has, at present, commenced mining of the following two minerals —

(*i*) Glass-sand at village Vavdi in Chotila Taluka of Surendranagar District, with a capacity of 30 tons a day under manual labour with a provision of expansion upto 200 tons per day when the complete Crushing and Screening Plant to be imported from France is installed, with a view to supplying silica-sand in standardised mesh sizes to glass, silicate, abrasive and ceramic industries, refractories, potteries and foundries of the State.

(*ii*) Fluorspar at Ambadungar in Chhotaudepur Taluka of Baroda District. This is one of the rare minerals of the world. The Corporation is raising the Fluorspar Beneficiation Project in the vicinity of that area, with a capacity of beneficiating the raw fluorspar into acid, metallurgical and ceramic grade to the extent of 200 tons per day. This project would contribute to the growth and development of chemical industries and industries like Atomic Energy, Metallurgical, ceramic, refrigeration, etc., of the State and of the country. Above all, it would greatly help to the development of defence industry of the country. The beneficiated fluorspar is at present entirely imported from abroad.

Besides, the Corporation is considering to undertake mining of bauxite and to raise Alumina Project in the State of Gujarat.

*The Board of Directors:* Babubhai Jashbhai Patel (*Chairman*); Premjibhai Bhavanji Thakkar; Jaswantlal Saubhagyachand Shah; F. N. Rana, I.A.S.; K. T. Satarawala, I.A.S.; Dr. B. R. Nijhawan; Prof. K. V. Subrahmanyam; Dr. G. G. K. Sastri; C. K. Shah (*General Manager and Secretary*).

## GUJARAT SMALL INDUSTRIES CORPORATION

Ambica Nivas, Ashram Road, Navarangpura, Ahmedabad 9.

The State-sponsored Gujarat Small Industries Corporation has made a net profit of Rs. 1·50 lakhs in 1964. The turnover during the year was Rs. 1·27 crores.

The Corporation has also done well in terms of service to small industries.

The disposable profit was placed at Rs. 75,000 in 1964.

*Chairman:* Chinubhai Manibhai; *Managing Director:* J. M. Mehta.

## THE GUJARAT STATE FINANCIAL CORPORATION

Opp. Relief Cinema, Relief Road, P.O. Box 262, Ahmedabad.

Established May 1960.

*Object:* Financial assistance to small and medium industries and underwriting of shares of industrial Units in Gujarat.

*Authorised Capital:* Rs. Two crores.

Distribution of Shares: Two lakhs fully paid up shares of Rs. 100 each.

Issued, subscribed and paid-up Capital: Rs. one crore, as under:—

(*a*) Government of Gujarat: 36,000 shares; (*b*) Reserve Bank of India: 20,000 shares; (*c*) Scheduled Banks, Cooperative Banks, Insurance Companies and other financial institutions like financial trusts, etc.: 40,000 shares; Others: 4,000 shares.

Bonds*: 2). 4¾ per cent Gujarat State Financial Corporation Bonds 1976 and redeemable at par on 15th March 1976 of Rs. 65·68 lakhs.

Following are figures for the year ending 31st March 1965: No. of applications received 322; No. of applications sanctioned 190; Amount of loans sanctioned: (net) Rs. 2,79,16,700; Loans disbursed Rs. 2,15,85,350; Shares agreed to be underwritten 48,50,000.

Preference Issues underwritten by the end of March 1965 stand at Rs. 43,50,000.

The Corporation is also working as agents of State Government for granting loans under State Aid to industries for amount exceeding Rs. 10,000 but not exceeding Rs. 25,000 at a rate of interest of 4 per cent per annum payable half yearly and on a margin of 25 per cent to be retained in favour of Government on the net value of fixed assets.

Following are the figures up to 31st March, 1965, regarding agency arrangement: Number of applications received 308; Number of applications sanctioned 114; Amount of loans sanctioned (net) Rs. 21,34,700; Amount disbursed Rs. 19,15,100.

*Board of Directors:* Navnitlal Sakarlal Shodhan (*Chairman*); K. P. Shah; G. G. Thakker; S. M. Ghosh, I.A.S.; K. Vasudeva Rao; V. V. Joshi; Vadilal Lallubhai Mehta; R. T. Kopawala; Pravinchandra V. Gandhi; N. H. Shah (*Managing Director*); I. R. Joshi (*Secretary*).

## JAMMU & KASHMIR STATE FINANCIAL CORPORATION

P.W.D. Buildings, Residency Road, Srinagar.

The Corporation was established on 2nd December 1959.

*Aims and objects:* To stimulate the establishment of small and medium scale industries and the expansion and modernisation of existing industries by providing financial assistance on medium and long term basis. Loans are also granted to hotel and transport industries.

* 1) 4¾ per cent Bombay State Financial Coporation Bonds 1967: Rs. 39,29,000.

*Authorised capital :* Rs. 50 lakhs divided into 50,000 shares of Rs. 100 each.

| | Rs. |
|---|---|
| Government of Jammu & Kashmir | 28,79,500 |
| Reserve Bank of India .. .. | 10,00,000 |
| Scheduled Banks, Insurance Companies, Co-operative Banks, and other financial institutions.. | 10,00,000 |
| Parties other than those referred to above .. .. .. | 1,20,500 |
| Total .. .. .. | 50,00,000 |

Business transacted up to 31st March 1965 :— Total number of loan applications received 129 ; Total number of loans sanctioned 61 ; Total amount of loans sanctioned Rs. 42,95,260 ; Total amount of loans advanced Rs. 26,26,600 ; Total number of loan applications cancelled after sanction 13 ; Total amount of loans cancelled after sanction Rs. 6,18,650 ; Net Profit Rs. 1,51,499 ; Rate of interest charged : 8½%, subject to a rebate of ¼% for prompt payment of principal and interest. In the case of advances to transport operators interest is charged at 10% per annum.

*Board of Directors :* E. N. Mangat Rai, I.C.S. (*Chairman*) ; R. C. Raina, I.A.S. ; Dwarka Nath Gupta ; D. P. Galwankar ; D. R. Madhok ; K. N. Kaul ; B. N. Pestonjee ; Gulam Qadir Masala ; G. R. Mattoo ; D. Maitra (*Managing Director*).

## KERALA FINANCIAL CORPORATION

**K.F.C. Buildings, Vellayambalam, Trivandrum-1.**

The Kerala Financial Corporation was established under the State Financial Corporations Act, 1951, on 1st Dec. 1953, with an authorised capital of Rs. 2 crores divided into 200,000 shares of Rs. 100 each and an issued, subscribed and paid-up capital of Rs. 1 crore divided into 100,000 shares of Rs. 100 each. The Corporation was started with the object of making available long term credit to industrial concerns in Kerala State in need of financial assistance and thereby quickening the pace of industrialisation of the State.

The shares of the Corporation were distributed among the various classes of shareholders as follows as on 31st March, 1964 :—State Government : 60,415 Shares ; Reserve Bank of India : 15,250 Shares ; Scheduled Banks, Co-operative Banks, Insurance Companies including L. I. C., Investment Trusts, and other financial institutions : 22,290 Shares ; Parties other than those referred to above : 2,045 Shares.

Some figures for 1963-64 :

Net profit Rs. 5,08,198 ; Provision for reserve Rs. 47,626 ; Provision for taxation Rs. 2,65,160 ; Balance available for guaranteed dividend Rs. 1,82,707 ; to Statutory Reserve Fund Rs. 12,705 ; No. of loan applications received 25 ; Amount involved Rs. 25·26 lakhs.

Amount sanctioned Rs. 42·36 lakhs ; amount disbursed including amount sanctioned during previous years Rs. 45·96 lakhs.

The rate of interest on loans out of its own funds is 8¼ per cent per annum with effect from 1 April 1965 subject to the ¼ per cent rebate for prompt payments. The present effective lending rate of the Corporation is 8 per cent.

The Corporation had issued 4½% ten year Bonds for Rs. 55.00,000 redeemable in March 1968. The Corporation issued in Jan. 1962 a second series of 4¾ per cent 12-Year Bonds for Rs. 55,00,000·00 redeemable in 1974.

K. P. Elankath (*Chairman*), C. Thomas, N. Chandrabhanu, Kayiath Damodaran, U. M. Banerjee, S. N. Pai, Joseph Chakola, J. Matthan, Ravi Karunakaran, *Managing Director :* A. Prabhakaran ; *Secretary :* C. Nilakanta Menon.

## KERALA STATE INDUSTRIAL DEVELOPMENT CORPORATION LTD.

Vellayambalam, Trivandrum 1.

The Kerala State Industrial Development Corporation Limited was registered on 21st July 1961 as a private limited company under the Companies Act 1956.

The Corporation has an authorised capital of Rs. 5 crores divided into 50,000 equity shares of Rs. 1,000 each. Shares worth Rs. 2·35 crores (two crores thirty-five lakhs) have been issued and subscribed. The paid-up capital is Rs. 2,06,75,000. The entire share capital has been subscribed by the State Government.

Joint Stock Companies registered in India and Co-operative Societies which are engaged or have for their objects the establishment and operation of industries and have a share capital of not less than Rs. 5 lakhs are eligible to receive assistance from the Corporation.

The assistance will be given to large-scale and medium sized industries. It will normally entertain applications for loans from industrial concerns only if the amount involved exceeds Rs. 10 lakhs in the case of Private Limited Companies and Rs. 20 lakhs in the case of Public Limited Companies.

Assistance will be granted for the establishment of new industries, expansion or modernisation of existing industries, diversification of the lines of production, purchase of plant and machinery and installation thereof, purchase of land for factory sites and factory buildings, construction, including extension of factory buildings, working capital for existing undertakings etc.

The assistance will be granted in the form of :—

(*a*) Direct participation in the equity or preference capital or debentures.

(*b*) Underwriting of equity or preference capital or debentures.

(*c*) Granting of medium and long term loans, and

(*d*) furnishing of guarantees.

The Corporation will charge interest at the Reserve Bank of India's lending rate plus 2½ per cent, less ½ per cent rebate for prompt payment of the loan subject to an absolute minimum of 7 per cent. For furnishing guarantees the Corporation will charge a commission of 1¾ per cent less ¼ per cent rebate for prompt payment.

*Board of Directors :* K. R. K. Menon (*Chairman*) ; M. K. K. Nayar, I.A.S. ; N. Sundareswaran ; Joseph Chakola ; B. V. D. Menon ; N. Chandrabhanu, I.A.S. ; A. K. Kaderkutty ; V. Venkitanarayanan, I.A.S. ; U. Chandu Nair ; C. Thomas, I.A.S. ; M. Abdussalam, I.A.S. (*Managing Director*) ; M. R. C. Warrier, B.Sc., B.E. (Mech.), A.M.I.E. (India) (*Development Commissioner*); A. S. Unny (*Secretary*); K. P. Ramachandran Nair (*Legal Adviser*).

## KERALA STATE SMALL INDUSTRIES CORPORATION LIMITED

Kawdiar Road, Trivandrum-3.

Capital : Rs. 27 lakhs.

Some of the main activities of the Corporation are :

Stocking and distributing important raw material such as S. S. Copper ; Construction and management of Industrial Estates ; Managing Service-Workshop, *Viz.* Engineering Service Workshop, Wood Workshop and Ceramic Service Centre ; Running various production centres, manufacturing, Theodiliks, precision instruments, Water Proof cloth goods, Tiles, Bricks, Straw Boards etc. ; Running of Sales Emporium at Ernakulam for display and sale of products of Small Scale Industrial Units in the State; Supply of machinery on hire purchase basis and participation in share capital structure of Limited Company.

*Chairman :* Dr. Venkitanarayanan, M.A., PH.D.

*Managing Director :* Tampi Thomas.

*Secretary :* K. Pushpangadan.

## MADHYA PRADESH FINANCIAL CORPORATION

(Shiv Vilas Palace, Indore City).

Started functioning on 1st July 1955.

The object of the Corporation is to assist and further the industrialisation of the State by providing institutional credit, medium and long term, to industrial concerns in Madhya Pradesh.

The rate of interest will be 8½ per cent per annum with half-yearly rests, subject to a rabate of ¼ per cent allowed on timely payments of interest and repayment of instalment of principal.

The period of loan is decided on the merits of each case, but does not ordinarily exceed 10 to 12 years though the maximum period upto which loans can be granted has been fixed at 20 years. The principal amount of loan is determined according to the circumstances of each case. Loans for working capital are repayable in five years.

The assets offered in mortgage to the Corporation are to be insured by the borrowing concern upto their full value with insurance companies approved by the Corporation.

The authorized share capital of the Corporation is Rs. 2 crores divided into two lakh fully paid shares of the face value of Rs. 100 each, out of which one lakh fully paid shares of the value of Rupees one crore are issued in the first instance. A dividend of 3½ per cent per annum on the share capital of the Corporation has been guaranteed by the Government. The Corporation, to augment its working funds has issued bonds of Rs. 1 crore carrying interest at 5 per cent in 1965.

The Corpororation has reduced the minimum limit of the loan from Rs. 20,000 to Rs. 10,000 with a view to encouraging small scale industries. The Corporation has also reduced the margin of security from 50 per cent to 40 per cent and upto 25 per cent in the case of small scale industries. The Corporation has started sanctioning loans to Hotels and Transport Industries.

Since inception the Corporation received 518 completed loan applications till 31st March 1965. The Corporation sanctioned advances to 256 industrial concerns for Rs. 6,81,54,700 and rejected 72 cases for Rs. 1,02,09,000. 133 applications for Rs. 2,79,91,500 were withdrawn by the applicants. 57 applications for Rs. 1,22,46,000 were under consideration as on 31st March 1965.

*Board of Directors :*

D. P. Mandelia (*Chairman*) ; K. C. Tiwari ; S. B. Lal, I.A.S. ; K. Vasudeva Rao ; S. T. Karnik ; G. S. Srivastava ; S. N. Bhandari ; K. C. Bhalla ; Vacant 1 ; K. L. Agrawal (*Managing Director*).

## THE MADHYA PRADESH STATE INDUSTRIES CORPORATION LTD.

Industrial Estate, Pologround, Indore City 3.

A State Government undertaking, incorporated in April, 1961.

Authorised and issued capital : Rs. 1,50,00,000 divided into 15,000 shares of Rs. 1,000 each.

All the shares are held by the Government of M.P.

*Object :* To take over from the Government of Madhya Pradesh existing medium industries and to undertake development of new industries.

The Government of Madhya Pradesh have transferred the following industries to the Corporation : Cotton Spinning Mill, Sanawad (cost Rs. 65 lakhs); Cotton Seed Solvent Extraction Plant, Ujjain (cost Rs. 55 lakhs); Ratlam Alcohol Plant, Ratlam (cost Rs. 35 lakhs); Gwalior Potteries, Gwalior ; Gwalior Engineering Works, Gwalior ; Gwalior Leather and Tent Factory & Tannery, Gwalior.

*Board of Directors :* S. N. Mehta, I.C.S. (*Chairman*) ; S. B. Lal, I.A.S. ; R. C. Roy, I.A.S. ; Narsingdas Malpani ; C. S. Bharaktiya ; P. G. Agrawal (*Managing Director*).

## THE M. P. STATE MINING CORPORATION LTD.

Old Royal Hotel Premises, South Civil Lines, Jabalpur.

The Corporation is a Government of Madhya Pradesh undertaking, incorporated in January 1962, with authorised capital of Rs. 50,00,000 divided into 50,000 equity shares of Rs. 100 each.

*Main objects :* To search for major and minor minerals and to undertake mining and to trade in minerals. The Corporation has so far undertaken development of six important minerals in different areas of the State for mining of dolomite, lime stone, bauxite, glass sand, fire clay and others.

*Chairman :* S. N. Mehta.

*Managing Director :* B. P. Tiwari.

## THE MADRAS INDUSTRIAL INVESTMENT CORPORATION LIMITED

23, Nungambakkam High Road, Madras 34.

**When it started functioning: September 1, 1949.**

**The Main objects: Financing of industries in the State of Madras with long term and medium term loans and participating in equity and preferential shares of companies and underwriting of capital issues, guaranteeing of loans etc.**

**Authorised Capital: Rs. 2,00,00,000.**

**Size of shares and how distributed: 20,000 equity shares of Rs. 1,000 each.**

Number and amount of applications for loans received upto 31-12-1964 : 490 ; Rs. 39,33,83,650.

Number and amount of applications sanctioned for loan upto 31-12-1964 : 265 ; Rs. 22,31,32,100.

Number of applications and total amount of cash guarantee and joint loans advanced upto 31-12-1964 : 216 ; Rs. 14,59,39,607.

Number of applications for loan with amount outstanding (as on 31-12-1964): Rs. 192; Rs. 10,71,38,893.

Interest rate charged 2½ per cent over the Industrial Development Bank of India's rate, with a minimum of 9½ per cent, with a rebate of ½ per cent for prompt repayment, the effective rate being 9 per cent.

Total expenses for the half year ended 31st Dec. 1964 : Rs. 36,40,606.

Total income for the half year ended 31st Dec. 1964 : Rs. 38,24,487.

Excess of receipts over expenditure for the half-year ended 31st December 1964 : Rs. 1,83,881.

*Board of Directors :* A. M. M. Murugappa Chettiar (*Chairman*) : T. N. Lakshminarayanan, I.A.S. ; (*Ex-Officio Director and Acting Chairman*), G. Ramachandran, I.A.S. ; R. Venkataswami Naidu ; S. Rajaratnam ; M. Ct. Muthiah ; D. C. Kothari ; T. S. Narayanaswami ; V. V. Ramaswamy ; L. Alagusundaram ; P. A. C. R. Ramasubramania Raja ; D. V. Narasimhan, M.A., C.A.I.I.B. (*Secretary*).

## THE MADRAS STATE WAREHOUSING CORPORATION

9/10, Moore Street, Madras-1.

The Madras State Warehousing Corporation, established under the public sector, commenced functioning from 2-5-1958. The State Government and the Central Warehousing Corporation are the only two share holders having their share capital on a 50 : 50 basis.

The authorised share capital of the Corporation is Rs. 2 crores made up of 2,00,000 shares of the face value of Rs. 100 each. The paid up share capital as on 31-3-65 is Rs. 47,00,000.

The main functions are : (*a*) to acquire and build warehouses within the State ; (*b*) to run warehouses in the State for storage of agricultural produce, seeds, manures, fertilisers and notified commodities and (*c*) to act as agent of the Central Warehousing Corporation or of the Government for the purposes of the purchase, sale, storage and distribution of agricultural produce, seeds etc.

The general superintendence and management of the affairs of the Corporation is vested in a Board of Directors of whom five will be nominated by the State Government, five by the Central Warehousing Corporation and the eleventh Director being the Managing Director appointed by the State Government in the prescribed manner.

The Corporation provides 50,116 tonnes capacity for storage facilities in 25 of its warehouses of which nine are owned and constructed warehouses. The target for the 3rd Plan is to construct 22 warehouses with a total capacity of 44,300 tonnes. The construction of the warehouse at Tuticorin has been completed with a storage capacity of 2,350 tonnes in March 1965.

## MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

(A Government of Maharashtra Undertaking)

Novelty Chambers, Grant Road, Bombay 7.

The Maharashtra Industrial Development Corporation is a statutory Corporation set up on 1st August 1962 by the Government of Maharashtra under the Maharashtra Industrial Development Act, 1961. The functions of the Corporation are :—

to promote and assist in the rapid and orderly establishment, growth and development of industries;

to establish and manage industrial estates ; to develop industrial areas selected by the State Government ; and

to assist, financially, industries by loans to move their factories to industrial estates or areas.

The Corporation has so far undertaken development of 20 different areas and estates, including three functional estates, spread all over the State of Maharashtra. The Corporation has also undertaken major water supply schemes amounting to about Rs. six crores.

The Maharashtra Industrial Development Corporation has set up a separate division called the Maharashtra Investment Centre, which has its office on the 5th floor, Orient House, Mangalore Street, Ballard Estate, Bombay 1. The centre operates exclusively as a semi-official and non-profit making organisation, offering individual attention to specific industrial projects. Its objects are :—to promote wider knowledge and understanding of industrial investment opportunities in Maharashtra ; to guide Indian and foreign industrialists in industrial matters, to enable them to execute their projects speedily ; to offer to investors Project Advisory Services : to survey industrial investment opportunities and carry out studies with respect to industries of importance to Maharashtra.

*Chairman :* V. P. Naik, Chief Minister (Maharashtra State).

*Members :* B. G. Ghadhe, Madan Gopal Agrawal, N. S. Patil (Chairman, Maharashtra Housing Board), B. V. Deshmukh (Technical Member, Maharashtra State Electricity Board), M. V. Rajwade, I.A.S. (Secretary, Industries and Labour Department), S. Sankaran — Financial Adviser (Spl. Secretary to Govt. Central Administration Deptt.).

*Member Secretary and Chief Executive Officer :* P. C. Nayak, I.A.S.

## MAHARASHTRA SMALL SCALE INDUSTRIES DEVELOPMENT CORPORATION LTD.

(A Govt. of India Undertaking)

Bombay Life Building, 5th Floor, 45, Veer Nariman Road, Fort, Bombay 1.

The Maharashtra Small Scale Industries Development Corporation Ltd., was registered on 19th Oct. 1962 under the Companies Act of 1956, with its registered office in Bombay.

The objects of the Corporation are :—*i*) Procurement of basic raw materials (which are in short supply) and arranging for their equitable distribution amongst the small scale industries units in the State ; *ii*) supply of machinery and equipment (particularly of indigenous origin) to the small scale industries on easy instalment basis ; *iii*) Helping the small scale industries in marketing their products of standard specifications.

The Newly started Export Promotion Wing of this Corporation renders over-all assistance to the small scale manufacturers in the field of foreign trade.

*Chairman :* G. B. Newalkar.

*Managing Director* : V. V. Apte.

*Secretary* : C. V. Deshpande.

## THE MAHARASHTRA STATE FARMING CORPORATION LTD.

Sachivalaya Annexe, Bombay-32.

A Government of Maharashtra Undertaking, started in March 1963.

*Authorised Capital :* Rs. 2 Crores.

*Paid-up Capital :* Rs. 1 Crore. All shares are held by the Government of Maharashtra.

The Corporation has been formed for the cultivation and management of the surplus lands of the Joint Stock Sugar Companies in Maharashtra vesting in the Government under the provisions of the Maharashtra Agricultural Lands (Ceiling on Holdings) Act, 1961. Up till now (Aug. 1965), the Corporation has been entrusted with the management of surplus lands of the following 8 Sugar factories :—(1) Walchandnagar Industries Ltd., Walchandnagar ; (2) Ravalgaon Sugar Farm Ltd., Ravalgaon ; (3) Phaltan Sugar Works Ltd., Sakharwadi (Phaltan); (4) Shree Changdeo Sugar Mills Ltd., Changdeonagar (Puntamba); (5) Belwandi Sugar Farm Private Ltd., Belwandi ; (6) Kolhapur Sugar Mills Ltd., Kolhapur ; (7) Maharashtra Sugar Mills Ltd., Tilaknagar and (8) Belapur Sugar Co. Ltd., Harigaon.

The total area of the land at present in the possession of the Corporation is 63,100 acres out of which crushable sugar-cane area is about 16,500 acres. The entire quantity of sugar-cane grown by the Corporation at each of the above estates is to be supplied to the sugar factory concerned at prices fixed by the Government of India.

The Corporation has its head-office at Sachivalaya Annexe, Bombay-32 and its operational head-quarters at 840, Budhwar Peth, Poona-2.

*Board of Directors :* V. P. Naik, Chief Minister ; R. A. Patil, Revenue Minister ; D. R. Pradhan, Chief Secretary; P. N. Damry, Secretary, Finance Department ; Dr. M. B. Ghatge, Director of Agriculture ; S. M. Joshi ; Datta Deshmukh ; V. B. Patil ; Tushar Pawar ; V. A. Kore ; S. D. Kale ; H. B. Girme.

*Managing Directors :* S. P. Mohite (*Administration*) ; R. A. Zubairy (*Plantation*).

## MAHARASHTRA STATE FINANCIAL CORPORATION

United India Building, Sir Pherozeshah Mehta Road, Bombay 1.

*Branch Offices :* National Indian Building, Mount Road Extension, Nagpur ; Mohan Talkies, Sarafa, Aurangabad ; Renuka Nivas, Station Road, Miraj ; Ghanekar Building, Rua Jose Falcao, Panjim, Goa.

The Bombay State Financial Corporation, established on 30th Nov. 1953, was reconstituted under Section 70 of the Bombay Reorganisation Act 1960 and named the Maharashtra State Financial Corporation as from the 14th of August, 1962.

The main object of the Corporation is to provide financial assistance to medium and small scale industrial concerns in the Maharashtra State for purchase of land, plant and machinery and other assets, for renovation and expansion of existing units, and for the development of new ones.

Under an arrangement with the Government of Maharashtra, the Corporation considers applications from Small Scale Units, under Agency-cum-Guarantee arrangement for loans from Rs. 10,000 to Rs. 75,000, and in exceptional cases, upto Rs. 1 lakh. These loans are guaranteed by the State Government.

The Corporation also considers applications under its own rules for loans above Rs.1,00,000 to Rs. 10,00,000 from all types of managements. and upto Rs. 20,00,000 from Public Limited Companies and Registered Cooperative Societies.

The amount of loan is advanced generally to the extent of 50 per cent of the net value of the fixed assets, consisting of land, building, plant and machinery.

Industrial concerns engaged or to be engaged in the manufacture, preservation or processing of goods or in mining or in Hotel industry or in the transport of passengers or goods by road or water or in the generation or distribution of electricity or any other form of power or in the Development of Industrial Estates are eligible for financial assistance from the Corporation.

The authorised and paid up capital of the Corporation is Rs. I crore, divided into 1,0C,000 shares of Rs. 100 each.

The shares of the Corporation are guaranteed by the State Government as to the repayment of the Principal. Payment of annual dividend at the minimum rate of 3½ per cent per annum is also guaranteed by the State Government.

Rate of interest for loan advances :—9 per cent per annum. In the case of loans under Agency-cum-Guarantee Agreement, the rate or interest varies from 6½ to 9 per cent according to the amount sanctioned and the region of location of the concern.

A rebate of ½ per cent will be granted if payments on account of principal and interest are made punctually.

The period of loan is decided on merit, but will not generally exceed ten years.

The Corporation accepts fixed deposits for one to five years at rates of interest from 5½ to 6½ per cent per annum. The deposits are guaranteed by the State Government as to repayment of principal and payment of interest.

During 1964-65, the Corporation under its own rules received 188 applications and the total loan applied for was Rs. 7,35,83,429. The Corporation sanctioned loans aggregating Rs. 3,36,16,500 to 116 concerns.

Under Agency-cum-Guarantee Arrangement, the Corporation received, for consideration during the year 1964-65, 267 applications for Rs. 1,50,45,600. The Corporation sanctioned loans aggregating Rs. 72,52,900 to 149 concerns.

The total loans disbursed by the Corporation upto 31st March, 1965 aggregated Rs. 10,66,21,419.

*Board of Directors :* B. D. Garware (*Chairman*), Pravinchandra V. Gandhi, H. Nanjundiah, C. C. Chokshi, R. M. Deshmukh, M. L. Apte, V. D. Chowgule, A. R. Thanawalla, V. P. Pandit, P. S. Mokashi (*Managing Director*).

## MAHARASHTRA STATE WAREHOUSING CORPORATION

18, Bombay Road, Poona-3.

The Maharashtra State Warehousing Corporation has an authorised share capital of Rs. 2 crores divided into two lakh shares of Rs. 100 each. The share capital is to be subscribed by the Central Warehousing Corporation, New Delhi & the Maharashtra State Government in equal proportions. The present paid up share capital of the Corporation is Rs 60 lakhs.

The Corporation has established warehouses at 53 centres spread all over the Maharashtra State. The maximum custom during the year 1963-64 was 6,20,055 bags of agricultural produce. The Corporation is authorised under the Warehousing Corporations Act of 1962 to store other notified commodities also in its warehouses. Against warehouse receipts issued by the Corporation, the depositors can secure advances by pledging the same with the scheduled banks, the State Bank of India and Dist. Central Cooperative Banks.

Upto the end of the financial year 1963-64, the Corporation's working had resulted in a loss of Rs. 2,93,408.

*Chairman :* M. V. Deo, I.A.S.

*Mg. Director :* M. Fariduddin.

## THE MYSORE SMALL INDUSTRIES CORPORATION LIMITED

Administrative Office Building, Industrial Estate, Rajaji Nagar, Bangalore 10.

The Mysore Small Industries Corporation is a wholly State Government owned service organisation set up to assist, finance and generally to promote the interests of the small scale industrialists in the State.

The Corporation activities are as under :

The construction, management and administration of industrial estates and industrial developments in the areas in the State ; Operating raw material depots at industrial estates where controlled raw materials required by small scale industrialists are stocked for sale ; Hire purchase of machinery for small scale industrialists Organising exhibitions and display of the products of the small scale industries and also of components required by major industries.

*Managing Director :* B. Subba Rao, I.A.S.

## MYSORE STATE FINANCIAL CORPORATION

First Main Road, Gandhinagar, Bangalore 9.

The Mysore State Financial Corporation was established in 1959 under State Financial Corporation Act, 1951 with an authorised capital of Rs. two crores, divided into two lakhs fully paid-up shares of the face value of Rs. one hundred each and paid-up share capital of Rs. one crore.

The repayment of capital and the payment of dividend on the shares of Corporation at the minimum rate of 4 per cent have been guaranteed by the Government of Mysore.

During 1964-65, 44 fresh applications and 9 applications for additional loans or in all 53 applications for financial assistance of Rs. 93,20,500 were received as against 40 fresh applications and 12 applications for additional loan or in all 52 applications for a total assistance of Rs. 1,11.21,000 during the previous year. 91 applications for financial assistance of Rs. 1,89,23,500 including the pending applications of previous year were dealt with during the year of which 49 cases were disposed off by sanctioning loans to the extent of Rs. 1,11,25,500 which took the total sanctions to Rs. 3,12.71,500.

The Corporation had made a profit of Rs. 7,33,230, a rise of 17 per cent over the last year's profit which had stood at Rs. 6,27,156. As regards expenditure on establishment, its percentage to the gross earnings remained at 11 as during the previous year.

*Board of Directors :* S. S. Melligeri, B.Com. (*Chairman*); M. Veeraraj Urs, I.A.S., Secretary to Government. Finance Department, Bangalore, T. Shamanna, I.A.S., Director of Industries and Commerce, Mysore, C. K. Bhaskaran, Manager, Reserve Bank of India, Bangalore, C. A. Subrahmanyam, Secretary, Industrial Finance Corporation of India, New Delhi, A. Damodar Pai, R. Anantharaman, S. M. Ramakrishna Rao, M. V. Veerappa, C. M. Kempanna, B.Sc. (Hons.) (*Managing Director*).

## MYSORE STATE HANDICRAFTS DEVELOPMENT CORPORATION LTD.

26-45, Mahatma Gandhi Road, Bangalore-1.

The Mysore State Handicrafts Development Corporation was incorporated on 17th March 1964 under the Companies Act, 1956 as a Ltd. Co. It is a Private Joint Stock Company owned entirely by Government. The subscribed capital is Rs. 5,00,000.

The Corporation has a Board consisting of 9 Official and Non-Official Directors.

The following ten emporia are under the control of this Corporation.

Mysore State Arts and Crafts Emporium :— Bangalore, Belgaum, Bijapur, Davangere, Delhi, Gulbarga, Hubli, Karwar, Mangalore, Mysore.

The Corporation aims at organising and developing all the emporia and provide increased marketing facilities for the artisans engaged in the manufacture of handicraft goods.

The Corporation also proposes to start some production centres.

*Chairman* Smt. Kamala Reddy.

*Vice Chairman :* Smt. Vimala Rangachar.

*Mg. Director :* A. Ali Khan.

## MYSORE STATE INDUSTRIAL INVESTMENT AND DEVELOPMENT CORPORATION LTD.

Post Office Road, Bangalore.

Mysore State Industrial Investment and Development Corporation Limited was incorporated under the Companies Act, 1956 as a Government Company and has come into being with affect from 15th June, 1964.

*Authorised Capital :* Rs. 5 Crores ; *Proposed first issue of Share Capital :* Rs. 1 Crore ; *Government's decision to subscribe in the Share Capital :* Rs. 20 lakhs in the year 1964-65.

*Aims and Objectives of the Corporation :* The main objectives of this Corporation, among others, are to promote, improve, establish and execute industries and industrial projects ; to aid, make advances, assist and finance industrial undertakings and underwrite the stock, shares etc.

## ORISSA CONSTRUCTION CORPORATION LTD.

(A Govt. of Orissa Undertaking)

Bhubaneswar.

This Corporation was set up on 22nd May, 1962, with an authorised capital of Rs. one crore and the entire issued share capital has been fully subscribed by the State Government.

Though it is a departmental agency, it functions independently of departmental rules and regulations. Thus, it combines the advantages of departmental construction with the flexibility of working associated with the execution of works by private construction agencies.

While the Board of Directors is in over-all charge of the Corporation, its day-to-day administration is under the control of the Director-in-Charge who is assisted by technical and non-technical staff.

The Corporation has a big plan for expansion. It has already invested large amounts on machinery and equipments needed for major construction works.

*Chairman :* Kartar Singh, I.A.S. ; *Director-in-Charge :* A. R. Rao ; *Secretary :* P. K. Paul.

## ORISSA INDUSTRIAL DEVELOPMENT CORPORATION

Bhubaneswar.

(*See Late Particulars*).

## ORISSA STATE FINANCIAL CORPORATION

Kil'a Maidan, Cuttack 1.

The Orissa State Financial Corporation was established by the Orissa State Government under the State Financial Corporations Act, 1951 and commenced functioning from 14th March 1957 with the object of providing medium and long-term credit to small-scale and medium sized industrial concerns in the State of Orissa, primarily for the purpose of purchase, renovation or expansion of plant and machinery and other fixed assets.

The Authorised Capital of the Corporation is Rs. 2 crores divided into 2 lakh fully paid shares of Rs. 100 each. The shares of the Corporation are guaranteed by the Government of Orissa as to the repayment of principal, Payment of annual dividends at the rate of 3½ per cent per annum on Rs. 50 lakhs issued at the inception of the Corporation and 4 per cent per annum on Rs. 50 lakhs issued during 1962-63 are also guaranteed by the State Government. The shares are classed as Trustee Securities under the Indian Trusts Act, 1882 and approved Securities for the purpose of the Insurance Act, 1938 and the Banking Companies Act, 1949.

The Corporation has earned a net profit of Rs. 6·20 lakhs in the year 1964-65, against Rs. 6·04 lakhs during the previous year.
Particulars as on 31st March 1965 :
Number of applications received : 371.
Number of applications sanctioned : 186.
Amount of loans sanctioned : Rs. 2,53,60,300.
Amount actually disbursed : Rs. 1,65,90, 818.
Amount from shares underwritten : Rs. 13,81,800
Amount recovered : Rs. 18,33,540.

Rate of Interest : 7½ per cent per annum with a rebate of ½ per cent for prompt payment of instalments and interest.

*Chairman :* H. K. Ghosh, I.A.S., Secretary to Government of Orissa, Finance Department ; *Managing Director :* R. N. Sahoo, F.C.A.

## THE PUNJAB EXPORT CORPORATION LIMITED

15-E, Sector 9-D, Post Box 20, Chandigarh, Punjab.

The Corporation was incorporated under the Companies Act, 1956 in June, 1963. It is a Punjab Government undertaking.

The authorised share capital of the Corporation is Rs. 50 lakhs, divided into 50,000 equity shares of Rs. 100 each. Eighty per cent of the share capital has been subscribed to by the Government of Punjab ; the remaining 20 per cent is to be subscribed by the private enterprise. The administrative control of the Corporation is vested in a Board of Directors consisting mainly of experienced business men.

The Corporation has been set up to serve as a channel for the outflow of goods from Punjab's medium and small-scale industries to the export markets. It organises and effects exports from India of all such goods and commodities as are manufactured and produced in Punjab and coordinates the activities of exporters with various export promotion councils. It arranges supply of scarce raw materials required for the manufacture of goods meant for export, as also finance to enable the manufacturers to process firm orders for export. In addition, the Corporation renders institutional service and guidance to manufacturers/exporters in Punjab.

The promotional efforts of the Corporation include assistance to industrialists in sponsoring them for study teams/delegations, organising participation of Punjab industry in exhibitions and trade fairs, developing new lines of export and help in solving problems of exporters by coordination with various agencies.

*Vice-Chairman :* Ravindra Nath.

*Mg. Director :* L. R. Mago.

## PUNJAB FINANCIAL CORPORATION

Head Office : 72/73, Sector 17-B, Bank Square, Chandigarh.

Sub-Office : Room No. 70, Delhi Secretariat. Delhi.

Established 1st Feb., 1953. The repayment of principal and payment of dividend on its share capital at 3 per cent per annum is guaranteed by the State Government. The Corporation is intended primarily to supply the requirements of medium and small industries in the State of Punjab and the Union Territories of Delhi and Himachal Pradesh.

Total funds available : Rs. 3·67 crores ; Total loans advanced upto March 31, 1965 ; Rs. 7,15,88,050 ; Amount repaid upto 31st March 1965 : Rs. 1,96,64,700 ; Total amount of loans sanctioned upto March 31, 1965 : Rs. 12,39,56,000.

The State Government have appointed the Corporation as their Agent for routing a part of their annual assistance for State Aid to Industries. Under the revised arrangement the Corporation is to advance loans to Small Scale Industries ranging above Rs. 50,000 and upto Rs. 1·00 lakh. Upto the year ended 31st March 1965, the State Government placed at the disposal of the Corporation a sum of Rs. 59·50 lakhs. Total amounts of loans sanctioned upto March 31, 1965 : Rs. 68,46,000 ; Total amount of loans disbursed upto March 31, 1965 : Rs. 48,51,600.

Income (April 1, 1964 to March 31, 1965) : Rs. 39,56,733 ; Expenses : Rs. 24,20,980 ; Profit : Rs. 15,35,753.

*Chairman, Board of Directors*, Kuldip Singh Narag, I.A.S. ; *Managing Director*, S. R. Varma ; *Secretary*, M. S. Rana.

## THE PUNJAB STATE SMALL INDUSTRIES CORPORATION LTD.

44-E, Sector 9-A, Chandigarh.

The Punjab State Small Industries Corporation was set up by the Punjab Government with a paid-up capital of Rs. 20 lakhs during 1962-63. Its objects are to aid, counsel assist, finance, protect and promote the interest of small industries in the state.

In brief the main functions of the Corporation comprise procurement, storage and distribution of essential raw materials *viz.* ferrous and non-ferrous metals, coal, molasses yarn, dyes, chemicals etc.

The Corporation declared a dividend of 9·5 per cent during the 2nd year of its functioning. The financial results for 1963-64 are summed up as under :—

Paid-up capital Rs. 20,00,000 ; Turnover Rs. 1,84,22,883 ; Gross profit Rs. 8,69,706 ; Total expenses Rs. 2,23.308 ; Profits (subject to income tax) Rs. 6,46,308.

*Chairman :* R. S. Talwar, I.A.S.

*Mg. Director :* J. P. Gupta.

## RAJASTHAN FINANCIAL CORPORATION

Surya Nivas, C-18, Bhagwandas Road, Post Box No. 63, Jaipur.

The Corporation has an authorised capital of Rs. 2 crores, divided into two lakh shares of Rs. 100 each. Only one lakh shares were issued and fully paid-up. The position of shares held by various classes of shareholders as on 31st March 1965 was as follows : State Government 36,200, Reserve Bank of India 20,000, Scheduled Banks, Insurance Companies and other financial institutions 39,250, and parties other than the above 4,550. The object of the Corporation is to provide financial assistance to medium and small-scale concerns in the State.

The Corporation sanctioned loans amounting to Rs. 4,13,87,000 to 151 industrial concerns by the end of March 1965, out of which loans aggregating Rs. 68,07,629 had been cancelled. Against the effective sanctioned loans for Rs. 3,45,79,370, a sum of Rs. 2,73,24,574 was disbursed by the Corporation till the end of March 1965.

Under the Rajasthan State-Aid to Industries (Loans) Rules, 1963, the Corporation sanctioned loans amounting to Rs. 8,02,400 to 50 industrial concerns by the end of March, 1965, out of which loans aggregating Rs. 99,950 had been cancelled. Against the effective sanctioned loans for Rs. 7,02,450 a sum of Rs. 6,27,950 was disbursed by the Corporation till the end of March 1965.

During 1964-65 the Corporation made a net profit of Rs. 6,71,856 as compared to Rs. 5,57,622 made during 1963-64, subject to taxation.

*Chairman, Board of Directors :* Ram Nath A. Poddar, J.P.

*Managing Director :* G. S. Purohit.

*Directors :* A. K. Roy, S. T. Karnik, O.P. Gupta, L. N. Birla, C. L. Thareja, Kamal Nayan Bajaj, J. M. Lalwani and P. V. Shrikanta Rao.

## U. P. FINANCIAL CORPORATION

7/154, Swarupnagar K

The Corporation was established on Nov. 1, 1954. It has an authorised capital of Rs. 8 crores, which is divided into 3 lakh fully paid-up shares of Rs. 100 each. The paid-up capital of the Corporation as on date is Rs. 1 crore divided into 1 lakh shares of Rs. 100 each fully paid-up. These shares have been distributed in this way : 55,360 State Government ; 15.000 Reserve Bank ; 27,096 Scheduled Banks, Co-operative Banks, Insurance Companies, Investment Trusts and other Financial Institutions ; 2,544 others.

The object is to provide finance to small and medium scale industries.

The Corporation received during the year 1964-65 (upto March 31, 1965) 65 applications as against Corporation Funds and 129 applications forwarded by the Director of Industries as against Government Funds placed at the disposal of the Corporation.

Out of the above applications received, 33 applications amounting to Rs. 1,34,44,000 were sanctioned against Corporation and 54 applications amounting to Rs. 34,32,000 were sanctioned against Government Funds.

Profit for 1964-65 : Rs. 7,95,088·90 p.

Bharat Bhushan (*Managing Director*) ; B. L. Manchanda (*Secretary*).

## U.P. SMALL INDUSTRIES CORPORATION LIMITED

7/62, Tilak Nagar, Kanpur.

The U.P. Small Industries Corporation Ltd. was registered under the Indian Companies Act, 1956 on June 13, 1958. It was formed to assist the development of small industries in the State. Its present share capital is Rs. 47,50,000 which is entirely subscribed by the State Government. The Board of Directors consists entirely of officers of U.P. and Central Governments.

Activities : (1) It has so far enlisted 806 units and helped them in securing contracts to the extent of about Rs. 33,00,000.

2. Distributes scarce raw material to small scale units through its regional depots located at Kanpur, Agra, Naini (Allahabad), Varanasi and Meerut. The Corporation is functioning as registered stockists of iron & steel. The figures of purchases and sales respectively from the inception of the scheme till 31st December 1964 are Rs. 3,13,63,834 and Rs. 3,01,39,342.

3. Supply of machinery on hire purchase to S.S.I. units has been started from January 1965.

4. Participates in share capital of new units in selected industrially backward areas.

The Corporation has under examination a proposal to take over the commercial schemes at present being run by the Directorate of Industries, Uttar Pradesh.

*Chairman :* H. C. Saxena, I.A.S.
*Managing Director :* S. C. Goil, I.A.S.
*Secretary :* J. P. Srivastava.

## U. P. STATE INDUSTRIAL CORPORATION LIMITED

Building of the Directorate of Industries, 117/420, G. T. Road, Post Box No. 413, Kanpur.

U.P. State Industrial Corporation was established in March 1961, as a private limited company with an authorised capital of Rs. 5 crores. The issued and paid-up capital of the Corporation stands at Rs. 100 lakhs and has been contributed entirely by the U.P. Government. A further sum of Rs. 65 lakhs was to be contributed towards the share capital by the U.P. Government during 1965-66.

The Corporation has been set up under the Third Five Year Plan of Uttar Pradesh with the principal object of assisting the process of rapid and extensive industrialisation of the State. The Corporation is an autonomous body functioning under the Company law and is at present engaged in the following activities :—

(1) Acquisition and development of land in Ghaziabad, Hardwar, Bareilly, Kanpur, Lucknow, Gorakhpur, Varanasi and Mirzapur for offering to industrialists on lease ;

(2) Underwriting of equity and preference capital of new industrial companies and participation in share capital in special cases;

(3) Exploitation of limestone deposits in Mirzapur district and of magnesite deposits in Almora district for the indigenous steel industry.

(4) Preparation of techno-economic feasibility reports on selected industrial projects for use by industrialists.

Loan funds are provided by the State Govt. to the Corporation for developing industrial areas. Noticeable progress has been made in the acquisition and development of land.

For underwriting the issue of share capital, the Corporation charges underwriting commission at a rate of 2½ per cent of the nominal value of the shares underwritten and brokerage of 1 per cent of the nominal value of the shares subscribed in terms of the underwriting agreement. The general policy of the Corporation is to favour the underwriting of preference shares at 9·5 per cent cumulative dividend and to underwrite equity capital also in meritorius cases. Upto the end of March 1965 the Corporation has granted underwriting to 18 units for a total of Rs. 156·48 lakhs equity and Rs. 107 lakhs preference.

An industrial licence for the manufacture of 36,000 tons of dead burnt magnesite per year has recently been granted to the Corporation by the Govt. of India. Global tenders have already been invited and steps are being taken for the erection of the plant at an early date.

*Board of Directors:* B. B. Lal (*Chairman*); Sir Padampet Singhania; B. P. Bajoria; S. S. Kanoria; V. M. Bhide; H. C. Saxena; R. Chandra; P. N. Kapoor; K. N. Srivastava; A. B. Malik; P. N. Agrawal (*Managing Director*).

## WEST BENGAL FINANCIAL CORPORATION

**P-11, Mission Row Extension (5th Floor), Calcutta-1.**

The Corporation was established as from 1st March 1954. The object of the Corporation is to provide financial assistance, chiefly by way of long and medium term loans, to industrial concerns in the State.

Authorised Capital Rs. 2 crores divided into 2,00,000 fully paid-up shares of Rs. 100 each, of which 1,00,000 fully paid-up shares of the total value of Rs. 1 crore were issued in the first instance and are held by the following classes of shareholders:

The shares are guaranteed by the State Govt. as to the repayment of principal and the payment of annual dividend at the minimum rate of 3 per cent per annum.

The Corporation issued the following bonds guaranteed by the State Govt. as to the repayment of principal and the payment of interest.

(*i*) 4½ per cent ten-year bonds 1968, Rs. 50 lakhs.

(*ii*) 4½ per cent twelve-year bonds 1972 Rs. 50 lakhs.

(*iii*) 4½ per cent twelve-year boands 1974 Rs. 50 lakhs.

(*iv*) 4½ per cent ten-year bonds 1972 Rs. 50 lakhs.

(*v*) 5 per cent bond redeemable in 1976, Rs. 1,04,26,000.

(*vi*) 5 per cent bonds (1966) Rs. 67,00,000.

| | | Shares | Rs. |
|---|---|---|---|
| *a*) | State Govt. | 31,770 | 31,77,000 |
| *b*) | Reserve Bank .. | 20,000 | 20,00,000 |
| *c*) | Scheduled banks, insurance companies, investment trusts, co-operative banks or other financial institutions .. | 45,000 | 45,00,000 |
| *d*) | Other parties .. | 3,230 | 3,23,000 |
| | | 1,00,000 | 1,00,00,000 |

Gross income (1964-65): Rs. 32,39,551.
Expenditure: Rs. 20,61,000.
Net Profit: Rs. 11,78,551.

### BOARD OF DIRECTORS

*Chairman*, G. Basu.

*Managing Director*, M. R. Roy.

*Directors*, Dr. S. B. Dutt; S. Dutt Mazumdar; K. N. Mookherjee; K. K. Birla; Byomkesh Majumdar; Parag Chaliha; D. N. Bhattacharjee.

*Secretary*, B. K. Roy.

## WEST BENGAL SMALL INDUSTRIES CORPORATION LTD.

(A Govt. of West Bengal Undertaking)

**45, Ganesh Chandra Avenue, (2nd Floor), Calcutta-13.**

The Corporation has been set up as a West Bengal Government Undertaking with a view to looking to the various problems facing the cottage and small scale industries of the State.

Activities: Procurement and supply of scarce raw materials to the cottage and small scale industrial units of this State; arrangements for the sale of finished products mostly consumer goods through various sales emporia run by the Corporation in the following places: *a*) Siliguri, *b*) Jalpaiguri, *c*) Purulia, *d*) Malda, *e*) Suri, *f*) Cooch Behar, *g*) Agra, *h*) Midnapore.

Supply of indigenous machines to cottage and small scale industrial units of the State on hire purchase basis. Export of the products of the cottage and small scale industrial units of this State including handicrafts.

Two other sales emporia are likely to start functioning shortly, one at New Delhi and the other at Rourkela.

The Corporation has started a separate "export cell" the main function of which is to explore the export potentialities of the handicrafts and other cottage and small scale industry products of this State.

*Board of Directors*:—J. C. Talukdar, I.A.S. (*Chairman*); S. P. Saha; K. K. Roy; P. K. Nag, Dr. B. P. Ghosh; K. K. Ray, I.A.S.; S. S. Verma, I.A.S.; N. K. Biswas, I.A.S.; C. C. Chakraborty, I.A.S. (*Mg. Director*).

# IMPORT AND EXPORT TRADE

## FOREIGN TRADE OF INDIA

(Rs. in crores)

| | 1960-61 | 1961-62 | 1962-63 | 1963-64 | 1964-65 |
|---|---|---|---|---|---|
| Exports .. .. .. .. | 642·3 | 660·3 | 685·5 | 789·3 | 835·2 |
| Imports .. .. .. .. | 1,121·6 | 1,090·1 | 1,131·5 | 1,222·9 | 1,263·3 |
| Overall Balance of Trade .. .. | − 479·3 | − 429·8 | − 446·0 | − 433·6 | − 428·1 |
| *Exports* | | | | | |
| 1. Cashew kernel .. .. .. | 18·9 | 18·2 | 19·4 | 21·4 | 29·0 |
| 2. Spices .. .. .. .. | 16·6 | 17·5 | 13·8 | 16·0 | 16·8 |
| 3. Sugar .. .. .. .. | 3·3 | 15·3 | 17·9 | 27·1 | 19·2 |
| 4. Tea .. .. .. .. | 122·6 | 121·4 | 128·8 | 123·4 | 127·0 |
| 5. Tobacco .. .. .. .. | 14·6 | 14·1 | 18·0 | 22·5 | 25·8 |
| 6. Coffee .. .. .. .. | 7·2 | 9·0 | 7·6 | 8·3 | 13·3 |
| 7. Oil cakes .. .. .. | 14·3 | 17·3 | 31·8 | 35·4 | 38·5 |
| 8. Vegetable oils .. .. .. | 8·5 | 5·8 | 13·1 | 19·9 | 7·1 |
| 9. Hides & skins (undressed) .. | 9·5 | 8·2 | 10·7 | 10·1 | 9·1 |
| 10. Raw cotton and waste .. | 11·6 | 20·3 | 17·0 | 16·8 | 14·2 |
| 11. Iron ore .. .. .. .. | 17·0 | 17·4 | 19·8 | 36·4 | 38·8 |
| 12. Manganese ore .. .. .. | 14·1 | 10·4 | 7·9 | 8·3 | 13·4 |
| 13. Leather .. .. .. .. | 25·0 | 25·4 | 22·6 | 26·2 | 27·2 |
| 14. Cotton fabrics .. .. .. | 57·6 | 48·3 | 46·2 | 54·3 | 58·6 |
| 15. Synthetic fabrics .. .. | 3·9 | 7·4 | 8·3 | 10·4 | 6·6 |
| 16. Jute manufactures .. .. | 131·7 | 140·5 | 152·1 | 153·5 | 179·6 |
| *Imports* | | | | | |
| 1. Food beverages and tobacco .. | 214·9 | 148·8 | 181·1 | 215·5 | 285·2 |
| 2. Electrical Machinery and Equipment .. .. .. | 57·2 | 65·9 | 64·8 | 84·8 | 88·8 |
| 3. Mineral oils .. .. .. | 69·5 | 95·9 | 88·0 | 104·4 | 68·6 |
| 4. Cotton raw and waste .. | 81·7 | 62·7 | 56·9 | 48·8 | 58·1 |
| 5. Chemicals .. .. .. | 85·7 | 89·8 | 100·5 | 95·9 | 90·7 |
| 6. Metals, iron and steel .. .. | 122·5 | 107·8 | 89·0 | 93·1 | 107·4 |
| 7. Non-ferrous metals .. .. | 47·3 | 49·5 | 55·1 | 55·6 | 58·3 |
| 8. Art silk yarn and thread .. | 13·6 | 12·8 | 12·9 | 10·5 | 10·0 |
| 9. Machinery (other than electrical) .. .. .. .. | 203·4 | 237·0 | 250·6 | 281·1 | 316·3 |
| 10. Transport equipment .. .. | 72·4 | 64·6 | 72·1 | 71·1 | 67·6 |

### General Indices of Exports and Imports (1958 = 100)

| | 1962–63 | 1963–64 | 1964–65 |
|---|---|---|---|
| Quantity Index: | | | |
| Exports .. .. | 112 | 126 | 135 |
| Imports .. .. | 131 | 135 | 146 |
| Price Index: | | | |
| Exports .. .. | 106 | 105 | 107 |
| Imports .. .. | 94 | 97 | 99 |

## BALANCE OF PAYMENTS

India's balance of payments position in 1963-64 has been described in the Currency and Finance Report (1964-65) of the Reserve Bank as follows:

In the absence of information covering the entire financial year, the detailed discussion on balance of payments that follows is confined to the trends during the calendar year 1964. During the year 1964, the reserves *declined* by Rs. 52·1 crores, as compared to an *increase* of Rs. 45·6 crores during the preceding year. If borrowings from and repayments to the IMF were excluded, the reserves would show a fall of Rs. 28·3 crores, as against an accretion of Rs. 33·7 crores during the preceding year, *i.e.* an adverse swing of Rs. 62 crores as between the two years. On a quarterly basis, the balance of payments transactions during the first quarter (*i.e.* January–March, 1964) resulted in a modest net accretion to the reserves, while in each of the remaining three quarters, there was a draft on them.

The overall balance of payments picture shows a significant bulge in the current account deficit, from Rs. 297·9 crores in 1963 to Rs. 433·2

crores in 1964, which was due exclusively to a widening of the gap on the merchandise account, from Rs. 395 crores to Rs. 570·3 crores, there being larger receipts under official transfer payments and other invisibles (net). Payment for aggregate imports particularly those on Government account, went up by Rs. 219·0 crores to Rs. 1,387·9 crores; nearly half of this increase was financed by foreign aid available under various external assistance programmes. Performance on the export front was noticeably better, the value of exports rising by Rs. 43·7 crores; but the pace of growth in exports slowed down considerably compared to 1963. The outflow on account of unidentified transactions, representing, by and large, the lag between actual receipts of foreign exchange and the value of goods exported was almost twice that in 1963. As against these, the net inflow of capital was substantially larger (by Rs. 74·4 crores), thus considerably reducing the pressure on the reserves.

The balance of payments for the calendar years 1963, 1964 and the four quarters of 1964 are shown in the table below:

(Preliminary) (Crores of Rupees)

| | Jan.-March 1964 | April-June 1964 | July-Sept. 1964 | Oct.-Dec. 1964 | Jan.-Dec. 1964 | Jan.-Dec. 1963 |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| A. Current Account | | | | | | |
| Imports, c.i.f. | | | | | | |
| (*a*) Private .. .. | 116·2 | 158·1 | 153·5 | 144·2 | 622·0 | 600·7 |
| (*b*) Government .. | 170·2 | 200·4 | 176·6 | 218·7 | 765·9 | 568·2 |
| Total Imports (*a* + *b*) .. | 336·4 | 358·5 | 330·1 | 362·9 | 1387·9 | 1168·9 |
| Exports, f.o.b. .. .. | 205·8 | 203·1 | 202·9 | 205·8 | 817·6 | 773·9 |
| Trade Balance .. .. | −130·6 | −155·4 | −127·2 | −157·1 | −570·3 | −395·0 |
| Official Transfer Payments* .. .. | + 23·3 | + 48·4 | + 51·8 | − 5·5 | +118·0 | + 78·4 |
| Other Invisibles (net) .. | + 0·4 | + 22·2 | − 2·0 | − 1·5 | + 19·1 | + 18·7 |
| Current Account (net) .. | −106·9 | − 84·8 | − 77·4 | −164·1 | −433·2 | −297·9 |
| B. Errors and Omissions .. | + 2·1 | − 29·3 | − 18·0 | − 32·2 | − 77·4 | − 40·6 |
| C. Capital Account | | | | | | |
| Private Capital (net) | | | | | | |
| (*a*) Long-term .. | − 6·4 | + 1·9 | + 3·9 | + 6·6 | + 6·0 | − 4·9 |
| (*b*) Short-term .. | + 0·9 | − 0·7 | − 1·3 | − 0·7 | − 1·8 | − 1·0 |
| Banking Capital (net) .. | + 11·2 | − 8·5 | − 7·9 | + 5·1 | − 0·1 | + 2·9 |
| Official Capital (net) | | | | | | |
| (*a*) Loans .. .. | +125·8 | +186·9 | +132·0 | +104·0 | +548·7 | +433·3 |
| (*b*) IMF drawings .. | − 11·9 | − 11·9 | .. | .. | − 23·8 | − 11·9 |
| (*c*) Amortisation .. | − 20·7 | − 3·5 | − 13·2 | − 13·7 | − 51·1 | − 54·8 |
| (*d*) Miscellaneous .. | + 22·6 | − 77·4 | − 46·2 | + 81·6 | − 19·4 | + 20·5 |
| D. Movement in Reserves | | | | | | |
| (A + B + C) .. .. (Increase +, Decrease −) | + 16·7 | − 27·3 | − 28·1 | − 13·4 | − 52·1 | + 45·6 |

* Official Transfer Payments comprise unilateral transactions hitherto classified as official donations and in addition figures since April-June, 1964, include receipts and payment of pensions on Government account and contributions to international organisations which were previously classified under 'other invisibles' (net),

SOURCE: R. B. I. Report on Currency and Finance.

## DEVELOPMENTS IN TRADE POLICY

According to the Report on Currency and Finance (1964-65) the main accent of India's trade policy continued to be on maximisation of export earnings and keeping down imports to a minimum consistent with the country's requirements for development and expansion. Thus, in the context of continuing concern over the foreign exchange situation, action was taken to impose additional restrictions on imports, including a ten per cent. regulatory import duty, and to further rationalise the import policy so as to provide closer co-ordination between imports and exports. On the exports side, the various promotional measures adopted during the past several years were strengthened and supplemented by several new schemes designed to create larger export awareness among the exporters and to offer an edge of competitiveness to Indian products in the international markets. At the same time, elaborate institutional arrangements were also made to study the problems and prospects of individual export commodities and to undertake market research so as to facilitate adoption of suitable measures which would not only enhance export earnings in the short period but would also place the export trade on an enduring basis.

On the export front, a major step during the year was the setting of up a free trade zone at the Kandla port, the first of its kind in India. The main object of creating this zone was to make merchandise exports more competitive in world markets by effecting reductions in overhead costs through eliminating the elements of customs and excise duties and to stimulate the growth of processing industries for exports in that zone. Also, action was taken during the year to extend larger fiscal concessions to exporters in order to mitigate the adverse impact of the various tax measures on the export trade and thus to reduce the prices of Indian goods in the markets abroad. In addition to the scheme of rebates granted in respect of income-tax on profits earned on exports, which has been in operation since 1962-63, a new scheme of granting tax credit certificates to exporters was announced in the budget proposals for 1965-66. According to this scheme, tax credit certificates are to be issued to exporters upto a maximum of 15 per cent. of the value of export proceeds realised in India in respect of goods exported after February 28, 1965. The exact quantum of assistance, which will vary from commodity to commodity, will be determined by an Advisory Board which has since been constituted (On the basis of the recommendations of the Board, the Government announced on July 17, 1965 a list of export items on which tax credit certificates should be granted together with the rates applicable in each case). Among other fiscal incentives provided to exporters during the year, mention may be made of the abolition of the export duty of Rs. 25·00 per bale on Bengal Deshi cotton with effect from August 31, 1964. The policy of granting drawbacks of customs and central excise duty paid on imported materials used in export commodities was continued.

An improvement in the competitive position of Indian exports was also sought to be achieved by providing cheaper and larger export credit to the exporters. With this end in view, the Export Credit and Guarantee Corporation (a state-owned institution) introduced during the year two new schemes, *viz.* (*i*) the post-shipment export credit guarantee scheme and (*ii*) the export finance credit guarantee scheme. Under the first scheme, the preshipment export credit guarantee offered by the Corporation was extended to the post-shipment stage to cover any loss sustained by a bank or a financing institution due to the protracted default or insolvency of the exporter during the period from the stage of shipment to the actual payment received in India. The Corporation's indemnity in this regard would be upto 66⅔ per cent. of the loss incurred. Under the export finance credit guarantee scheme, banks would be enabled to offer to the exporters, on a selective basis, in respect of commodities whose export prices are lower than domestic prices, discounting facilities upto 125 per cent. of the value of exports according to shipping documents; and the bank advance in excess of the value upto 25 per cent. of the f.o.b. value of the export bills will be guaranteed by the E.C.G.C.; its indemnity will be upto 75 per cent. of the loss incurred in the event of the loanee's insolvency or protracted default.

The Government also approved during the year with some modifications a scheme for the establishment of an Export-Import Stabilisation Funds as recommended by the Mudaliar Committee. The administration of the scheme is entrusted to the E.C.G.C. In pursuance of the provisions of the scheme, all banks authorised to deal in foreign exchange would be permitted to participate and raise lines of credit in foreign exchange through their correspondents, branches or principals abroad. The credit will be made available on a revolving basis to manufacturers/exporters in respect of all items covered by the various export promotion schemes for importing raw materials, components and spares for manufacturing goods meant for export. The foreign exchange credit thus made available would be repaid out of the proceeds received from the exports of goods produced with the raw materials and components imported under this arrangement.

The activities of the E.C.G.C. recorded a further all-round expansion during the year. The total number of policies issued in 1964-65 rose to 988 from 684 in 1963-64; similarly, the number of packing credit guarantees issued was higher at 246 as against 155 in the preceding year. The value of risks covered by the Corporation during the year also showed a substantial rise of 32·7 per cent. over the year, from Rs. 28·82 crores to Rs. 38·25 crores.

In the sphere of institutional and organisational arrangements, the year witnessed a number of important developments. A new feature in this direction was the enlistment of the active co-operation of the States in the export drive. As a result, some of the States like Maharashtra, Punjab, U.P., West Bengal, Mysore, Andhra Pradesh and Gujarat undertook to establish their own export promotion organisations. The need to have an apex body of export organisation to secure an effective co-ordination among exporting agencies of the country was also recognised and a Federation of Indian Export Organisations (FIEO) with its headquarters in New Delhi was formed. The Federation will concern itself largely with the co-ordination of export promotion activities of the different agencies and undertake common services and functions.

A new Export Promotion Council for wool and woollen goods was set up during the year (October, 1964) thus bringing the total number of these Councils to seventeen. With a view to reviewing the working of these Councils, some of which have now been functioning for several years, and the progress made by them in developing exports of particular group of commodities for which the respective Councils were formed, an *ad hoc* committee was appointed in September, 1964. This committee would also examine, *inter alia*, the question of bringing about proper coordination in the working of the various Councils so that an integrated and systematic effort might be made in the drive for export promotion of the various commodities.

In order to discourage unhealthy trade practices in metal scrap exports and help in the negotiations of long-term trade contracts on favourable terms, a Corporation called the Metal Scrap Trade Corporation was set up in September, 1964. All exports and imports of ferrous and non-ferrous scrap would be channelled through this Corporation which would also undertake processing of ferrous scrap for domestic use as well as export. A co-operative enterprise of the silk and rayon industry and trade known as Rayex (India) Private Ltd., was also established in March, 1965, by the Silk and Rayon Textiles Export Promotion Council to supplement the existing export efforts of the Council.

During the year, the State Trading Corporation (S.T.C.) and the Minerals and Metals Trading Corporation (M.M.T.C.) registered significant progress. The total value of the trade handled by the STC increased from Rs. 66·8 crores in 1963 to around Rs. 75 crores in 1964, comprising Rs. 41 crores of direct and Rs. 34 crores of indirect trade. The Corporation also entered into a number of link/parallel deals to augment exports and to import commodities essential for industrial and economic development of the country. Besides, the Corporation continued its buffer stock operations, which were confined to three items viz., raw jute, seed, lac and lemon grass oil.

During the year total exports of iron ore effected by the M.M.T.C., which was set up in September, 1963, were higher at 5·31 million metric tons valued at Rs. 22·87 crores compared to 4·18 million metric tons valued at Rs. 19·86 crores in 1963-64 (including exports effected by the S.T.C. prior to the formation of the M.M.T.C.). Exports of manganese ore by the M.M.T.C. also increased significantly from 6·4 lakh metric tons (Rs. 4·95 crores) in 1963-64 to 13·5 lakh metric tons (Rs. 11·46 crores) in 1964-65, mainly with the help of link and barter arrangements. It may be mentioned here that in view of the adverse trends in world markets, the Corporation directly undertook exports of manganese ore from January, 1965, and link/barter or compensation deals for exports involving manganese ore are no longer left to private parties. Imports mostly of non-ferrous metals and certain steel items effected by the M.M.T.C. amounted to approximately Rs. 20·4 crores during 1964-65.

During the year, the Board of Trade held discussions on several aspects of export promotion including the need to ensure continuity and stability in export promotion schemes and policies. In this connection, the Board appointed a 'standing sub-committee on Export Promotion Scheme' for reviewing the working and progress of these schemes. The Export-Import Advisory Council also held meetings during the year to assess the progress of the development in the field of exports and to ascertain the difficulties experienced by the export trade. A number of committees was appointed by the Government to examine problems of various commodities and to recommend suitable measures to improve their exports. Thus, in January, 1965, a separate committee was appointed to identify export commodities where the existing shipping freight rates formed an obstacle to their export and to recommend suitable measures in each case so that the commodities might be exported at competitive prices. Similarly with a view to improving the export performance of traditional export products like cotton and jute textiles, tea, tobacco and iron and manganese ores, special committees were appointed.

The Quality Control and Preshipment Inspection measures, which form an integral part of India's export promotion measures, were vigorously pursued during the year ; exports of mica were subjected to compulsory preshipment inspection while exports of jute goods, tussar fabrics and some varieties of fish and fish products were brought under compulsory quality certification and preshipment inspection. So far about 58 per cent. of India's exports have been covered by the Quality Control and Preshipment Inspection Schemes and it is programmed to cover around 80 per cent. of the total exports by the end of 1965.

The work of the Directorate of Commercial Publicity and of the Indian Council of Trade Fairs and Exhibition was also expanded during the year. A large number of pamphlets, brochures and folders on various subjects relating to Indian export policy and products were issued during the year, some of which were distributed at the New York's World Fair, the first session of which was concluded on October 18, 1964. The Directorate also brought out a number of reports of the committees set up by the Government and the Indian delegations sent abroad.

The Indian Council of Trade Fairs and Exhibitions, which was established in January, 1964 expanded its activities during the year and it has been decided to transfer the management and control of the existing showrooms and trade centres abroad to this Council so that they could be managed and run more on commercial lines with the help of experts and people of experience in actual trade, whose services could be obtained by the Council from established industry and trade. During the year, the Council participated in the Bangkok Industrial Trade Fair while it is expected to arrange about 11 exhibitions and open more showrooms in 1965-66. The Indian Institute of Foreign Trade, which started functioning in April 1964, also undertook a number of programmes in the fields of training commodity and market studies, etc.

Exports of items in short supply like vegetable oils, oilseeds, etc. were brought under control whereas export of commodities like H.P.S. groundnut kernel was banned during the year. In some cases, the export quotas of particular items like raw goat skins were also curtailed to make available larger supply of raw materials to increase the domestic production of finished goods. On the other hand, the ban imposed earlier on exports of certain items (*e.g.* textile cloth of olive green shade, woollen and carpet yarn produced for indigenous wool) was lifted in view of an improvement in the domestic supply position of these commodities. In the sphere of price stabilisation, the year witnessed the fixing of minimum and/or maximum f.o.b. export prices of mica, cardamom and lac.

The Import Policy for 1964-65 announced on March 31, 1964 was basically restrictive, reflecting the difficult foreign exchange situation caused by the stresses and strains of development combined with defence mobilisation. No material changes in the policy were made except for a slight liberalisation of the quotas for the small-scale sector and some of the defence-oriented industries. However, in the expectation of an increase in non-project aid a slightly increased provision was made for maintenance imports required by actual users in order to facilitate fuller utilisation of installed capacities. The scope of annual licensing for actual users was widened so as to cover almost all of their requirements of raw materials, components and spares except raw jute, cashew nuts, raw wool, raw cotton and jute and cotton textile machinery, subject, of course, to the usual half-yearly review. Besides, 14 new items were added to the list of items permissible to actual users. The level of imports permitted to established importers was more or less the same as last year. While the quotas of some 12 items were reduced taking advantage of increased internal production, the quotas for 17 items including, among others, drugs and medicines, steel belt lacings etc. were increased. The policy in respect of established importers continued unaltered in the second half of the year also without any cut but, in respect of actual users, certain cuts were announced in December, 1964, at the time of the announcement of the policy for the second half, due to the unexpected deterioration in the foreign exchange situation. Assurance, however, was given that the cuts would be effected in such a way as not to affect production adversely. In order to reinforce the physical restriction by the imposition of fiscal restraints also, the Finance Minister announced on February 17, 1965 his decision to levy a regulatory import duty of 10 per cent. *ad valorem* on all imports except food grains, fertilisers, pesticides, books, and accessories for family planning (Subsequent additions to the list of items exempted from the regulatory import duty of 10 per cent. *ad valorem* are raw jute, exposed cinematographic films and soyabean oil). The measure, besides bringing in additional revenue was expected to reduce profit margins and bring about greater import substitution. The Finance Minister also announced his intention to have all commitments for Government imports against free foreign exchange resources examined to see if any economy was possible in this regard.

The provisions of the import policy for 1964-65 were made applicable to Goa, Daman and Diu also. Earlier in September, 1963 the scope of the Import-Export Control Act had been extended to cover these territories.

Details of the general import policy as well as important announcements in regard to selected individual items are set out.

Among other developments in the field of import control policy, the more important related to the Government's decisions on the Swaminathan Committee Report and Mathur Committee Report. The Swaminathan Committee which had been appointed to examine the possibilities of simplifying industrial licensing procedures made certain recommendations in respect of import policy also. The Committee submitted its report in March, 1964 and the Government announced in June, 1964 its decisions on the report. The Committee recommended that, as far as possible, import licences for raw materials and components should be issued within three months of the commencement of the licensing period. If this was not feasible, *ad hoc* licences equivalent to 50 per cent. of the value of licences issued during the corresponding half of the previous year should be issued for use pending final announcement of the policy. While issuing licences for raw materials the limitations should be normally value-wise and not in terms of quantity so that it would give the option to the licensee to import any of the permitted items in the proportions desired. The Committee also recommended a speedy issue of import licences for spare parts received short or in damaged conditions and which were being replaced free of cost. The Government accepted the recommendations of the Committee in principle but preferred simpler alternatives in respect of some of them. For example, in regard to the licensing of raw materials, when it was not feasible to expedite the issue of licences, the Government proposed to issue in the first instance, for items subject to annual licensing, licences equivalent to the previous year's level, laying down, as usual, the proportions permissible for each of the half-years. In the case of items subject to half-yearly licensing, licences equal to the value of licences in the corresponding half of the previous year would be issued. The value of the licences will be suitably adjusted, if necessary, when the final policy was announced.

The Mathur Committee, which was appointed by the Government to examine possibilities of simplification of the import and export control procedures, submitted the first part of its report on March 8, 1965. The Government announced its decision on the report on March 31, 1965, accepting most of the recommendations of the Committee. One of the important recommendations of the Committee was that all licences

should, subject to certain conditions, be issued on an annual basis without any need for a formal mid-year endorsement.

### TARIFF COMMISSION

In 1964-65, the Tariff Commission completed (an inquiry is treated as complete only after the Government's decision on the report has been published). six tariff inquiries related to an examination of the need for the continuance of existing protection. The working of six of the industries, in respect of which the protection granted was due to expire at the end of December, 1964 namely (*i*) Titanium dioxide, (*ii*) calcium carbide, (*iii*) Soda ash, (*iv*) Caustic soda, (*v*) Aluminium and (*vi*) Dyestuffs, was examined during the year. The Commission recommended the continuance of protection to all the six industries at the existing rates except in the case of titanium dioxide in whose case a reduction in the rate of protection was suggested. In the case of the dyestuffs industry, a few more items besides the existing ones were recommended for protection.

The Government accepted the recommendations of the Commission in regard to the continuance of protection to only two of these industries, namely, aluminium industry and dyestuffs industry. However, since the rates suggested by the Commission for some of the newer items of dyestuffs were considered rather high, the Government refixed them in such a way that the protective standard duty did not exceed 75 per cent. *ad valorem* for any of them. As regards the remaining four industries viz. titanium dioxide, soda ash, caustic soda and calcium carbide industries, the Government could not agree with the Commission's recommendation for the continuance of protection of these, since it felt that these industries had made satisfactory progress and there was no fear of unhealthy competition from imports.

In addition to the six tariff inquiries, the Commission completed, during the year, the price inquiry in respect of electrical lamps and fluorescent tubes. The Commission suggested price schedules for (*i*) general lighting service lamps and train lamps, (*ii*) fluorescent tubes, (*iii*) high pressure mercury vapour lamps and (*iv*) miniature lamps. Of these, the prices of high pressure mercury vapour lamps and automobile lamps were only to serve as indicators. Since the Commission felt that the benefit of large scale production should be passed on to the consumer it recommended that the retail prices should be stamped on lamps also and the present practice of stamping prices on lamp cartons should be followed by all producers uniformly. The Commission also suggested that the producers should ensure, through arrangements with distributors and agents, the imposition of controls on margins in order to keep the retail price in line with the wholesale prices. The Government accepted the recommendations with certain modifications in the suggested price schedules. The Government also accepted the recommendations in respect of stamping of retail prices on lamp cartons.

## TRADE AGREEMENTS

During the year, a fresh trade agreement was concluded with the Republic of Korea, while the existing agreements with Greece, Iraq, Jordan and Italy were renewed. Further, annual trade plans under the existing agreements were finalised and revised schedules drawn up with Afghanistan, Bulgaria, Ceylon, Czechoslovakia, East Germany, Hungary, Poland, Rumania, the U.A.R., and the U.S.S.R. A feature of these annual trade plans as well as of the revised trade schedules was that although traditional items predominate in the list of exports from India, more of manufactured items, particularly light engineering goods, were also included. The Agreement with Morocco expired in August, 1964. As at the end of March, 1965, 30 trade and payments agreements were in force with different countries. (These are with (1) Afghanistan, (2) Austria, (3) Bulgaria, (4) Burma, (5) Ceylon, (6) Chile, (7) Czechoslovakia, (8) East Germany (German Democratic Republic), (9) France, (10) Greece, (11) Hungary, (12) Indonesia, (13) Iran, (14) Iraq, (15) Italy, (16) Japan, (17) Jordan, (18) South Korea, (19) Nepal, (20) Pakistan, (21) Poland, (22) Rumania, (23) Sweden, (24) Switzerland, (25) Tunisia, (26) U.A.R., (27) U.S.S.R., (28) Viet Nam North, (29) West Germany (Federal Republic of Germany), and (30) Yugoslavia. Negotiations for a trade agreement with Brazil have been completed and the agreement is expected to be signed shortly and a trade agreement with Argentina is under negotiation.)

In terms of the trade agreement of 1963 the Governments of India and Pakistan signed two protocols in July 1964 and one in January, 1965, specifying the commodities to be exchanged between the two countries within a maximum upper limit.

The United Nations Conference on Trade and Development, a reference to which was made in the last year's Report, was held in Geneva from March 23 to June 6, 1964. India played an important role in the deliberations of the Conference and in the formulation of the main recommendations which cover all aspects of trade, finance and economic developments of the developing countries. The Conference urged special treatment by the developed countries for imports, both of primary commodities and processed, semi-processed and manufactured items from the developing countries so as to enable the latter to expand and diversify their exports. On the basis of the recommendations of the Conference, the Secretary General of the United Nations appointed two committees : (*i*) the Committee of 24 Governmental experts to draw up a convention on the access to the seas by land-locked countries, and (*ii*) a special Committee on conciliation procedures to prepare proposals for procedures within the continuing machinery. Further, in pursuance of the recommendations of the Conference, a United Nations Conference on Trade and Development (UNCTAD) and its subsidiary, the Board of Trade and Development, have since been established as permanent organs of the General Assembly by a resolution adopted by the XIX Session of the General Assembly. The Conference is to be convened at an interval of three years. Its main functions include promotion of international trade with a view to accelerating economic development, particularly the trade between countries at different stages of development, formulations of principles and policies on International trade and related problems of economic development. It would also review the activities of other institutions within the United Nations System in the field of International Trade and Development. The Board shall carry out the functions that fall within the competence of the Conference (UNCTAD) when the latter is not in session, and shall, in particular, keep under review and take appropriate action within its competence for the implementation of the recommendations and decisions of the Conference. It may also initiate studies and reports in the field of trade and related problems of development. India served on the two committees appointed by the Secretary General and is also represented both in the UNCTAD and in the Board of Trade and Development.

During the year under review the General Agreement on Tariffs and Trade underwent an important change through the incorporation of a new chapter on Trade and Development of the less developed countries, to meet a longstanding demand from India and other developing countries. In a special session of the GATT held in November 1964, the draft of the new chapter on Trade and Development was finalised and was finally approved in another special session held on February 8, 1965 when 28 member countries including India signed the protocol accepting this chapter. According to the chapter, which will come into force when it is accepted by two-thirds of the Contracting Parties, the developed countries would undertake 'to the fullest extent possible', to encourage the growth of exports of less developed countries without demanding reciprocal concessions for exports of the developed countries.

### FOREIGN TRADE BY COUNTRIES & ECONOMIC REGIONS

| Countries | April 1964 to March 1965 | |
|---|---|---|
| | Exports | Imports |
| AFRICA | (Rupees) | (Rupees) |
| Algeria .. .. .. | 48,48,250 | 42,785 |
| Angola .. .. .. .. | 68,598 | .. |
| Basutoland .. .. .. | 268 | .. |
| Bechuanaland .. .. | 611 | .. |
| Burundi .. .. .. | 1,22,234 | .. |
| Cameroons .. .. .. | 16,98,653 | .. |
| Canary Islands .. .. | 44,00,147 | .. |
| Cape Verde Islands .. .. | 3,406 | .. |
| Central African Republic .. | 634 | .. |
| Chad Republic .. .. | 25 | .. |
| Comoro Islands .. .. | 50,193 | .. |
| Congo .. .. .. | 5,96,249 | 2,06,18,105 |
| Congo Republic .. .. | 11,15,976 | 10,993 |
| Dahomey Republic .. .. | 1,189 | .. |

### FOREIGN TRADE BY COUNTRIES & ECONOMIC REGIONS—*Contd.*

| Countries | April 1964 to March 1965 | |
|---|---|---|
| | Exports | Imports |
| AFRICA—*Contd.* | (Rupees) | (Rupees) |
| Ethiopia (incl. Eritrea) .. | 1,44,03,219 | 7,490 |
| Gabon Republic .. .. | .. | .. |
| Gambia .. .. .. | 15,49,093 | .. |
| Ghana .. .. .. | 28,83,143 | 51,67,424 |
| Guinea Republic .. .. | 1,44,021 | .. |
| Ivory Coast Republic .. | 21,12,032 | .. |
| Kenya .. .. .. | 5,41,24,921 | 7,43,36,058 |
| Liberia .. .. .. | 5,60,773 | .. |
| Libya .. .. .. .. | 60,52,565 | 4,209 |
| Malagasy Republic .. .. | 12,65,593 | 2,59,773 |
| Malawi .. .. .. | 48,26,063 | 15,53,694 |
| Mali Republic .. .. | .. | .. |
| Mauritania .. .. .. | .. | .. |
| Mauritius and Dependencies | 1,13,54,700 | 5,99,633 |

## FOREIGN TRADE BY COUNTRIES & ECONOMIC REGIONS—*Contd.*

| Countries | April 1964 to March 1965 | |
|---|---|---|
| | Exports | Imports |
| | (Rupees) | (Rupees) |
| Morocco | 27,60,529 | 87,30,625 |
| Mozambique | 1,37,77,259 | 10,79,03,176 |
| Niger Republic | .. | .. |
| Nigeria | 5,35,28,699 | 98,43,828 |
| Other Spanish Africa (Alboran, Alhucemas, Chafarinas, Ifri, Penon de velex, Peregil) | 4,334 | .. |
| Portuguese Guinea | 160 | .. |
| Reunion | 5,899 | 250 |
| Rhodesia | 2,01,15,885 | 1,16,07,008 |
| Rwanda | 1,23,597 | .. |
| Sao Thome et Principe | 11,302 | .. |
| Senegal Republic | 19,33,872 | .. |
| Seychelles | 11,95,201 | 68,24,387 |
| Sierra Leone | 75,28,532 | .. |
| Somalia | 47,55,350 | 91,567 |
| South Africa (1) | 1,88,379 | 7,265 |
| South West Africa | 7,020 | .. |
| Spanish Sahara (Reo de Ore, Saquia el Hamra) | .. | .. |
| St. Helena and Ascension | 39 | .. |
| Sudan | 6,52,33,544 | 9,00,86,402 |
| Swaziland | 9,485 | .. |
| Tanzania | 2,64,31,505 | 6,72,78,141 |
| Tangier | 1,04,820 | .. |
| Togoland | 11,29,366 | .. |
| Tunisia | 40,14,447 | 1,61,69,308 |
| Uganda | 81,65,695 | 2,19,63,836 |
| United Arab Republic | 16,38,64,343 | 17,35,30,148 |
| Upper Volta Republic | 91 | .. |
| West Africa (Spanish) | 12,84,486 | .. |
| Zambia | 28,12,918 | 3,25,36,179 |
| Zanzibar & Pemba | 19,51,608 | 84,29,536 |
| TOTAL (African Countries) | 49,30,90,920 | 65,75,03,820 |
| NORTH AMERICA | | |
| Canada (incl. New Foundland and Coast of Labrador) | 17,85,00,909 | 21,56,84,811 |
| United States of America | 150,64,04,409 | 436,13,78,645 |
| Total (North America) | 168,49,05,318 | 462,65,63,456 |
| LATIN AMERICA | | |
| Argentina (incl. the Atlantic) Coast of Patagonia) | 7,72,08,758 | 15,49,686 |
| Bolivia | 9,81,397 | 35,89,206 |
| Brazil | 9,77,783 | 16,22,660 |
| Chile (incl. Pacific Coast of Patagonia) | 1,15,65,004 | 16,43,539 |
| Colombia | 4,07,512 | 1,34,495 |
| Costa Rica | 12,24,452 | .. |
| Cuba | 1,71,94,597 | .. |
| Dominican Republic | 44,69,220 | 3,533 |
| Ecuador | 19,21,409 | .. |
| Guatemala | 456 | .. |
| Haiti | 9,21,085 | .. |
| Honduras, British | 17,86,604 | .. |
| Mexico | 25,54,075 | 43,87,636 |
| Nicaragua | 44,48,350 | .. |
| Panama Canal Zone | 5,55,225 | 95,321 |
| Panama Republic | 11,20,372 | 88,767 |
| Paraguay | 9,45,143 | 4,43,384 |
| Peru | 1,35,66,881 | 3,31,31,529 |
| Salvador | 3,97,397 | .. |
| Uruguay | 1,10,01,731 | 1,44,866 |
| Venezuela | 4,57,700 | 33,265 |
| TOTAL (Latin American countries) | 15,37,15,151 | 4,68,67,887 |
| OTHER AMERICAN COUNTRIES | | |
| American Samoa (incl. Swains Islands) | .. | .. |
| Bahamas | 2,72,421 | .. |
| Barbados | 7,39,749 | .. |
| Bermuda | 59,267 | .. |
| French West Indies (Guadeloupe and Martinique) | 47,723 | .. |
| Guiana, British | 32,73,389 | 56 |
| Guiana, French | 16,102 | .. |
| Honduras | 4,09,801 | .. |
| Jamaica and Dependencies | 19,99,637 | 77,979 |
| Leeward Islands | 83,912 | .. |
| Netherlands Antilles | 2,45,640 | 6,20,141 |
| Puerto Rico | 26,38,958 | .. |
| St. Pierre et. Miquelon | .. | .. |
| Surinam | 7,80,501 | .. |
| Trinidad and Tobago | 39,41,818 | 20,261 |
| Virgin Islands of the United States | 1,11,606 | .. |
| Windward Islands | 23,97,582 | 85 |
| TOTAL (Other American Countries) | 1,70,21,106 | 7,18,522 |
| ECAFE COUNTRIES (incl. China) | | |
| Afghanistan | 5,84,06,353 | 5,56,08,195 |
| Australia | 20,64,72,181 | 24,48,64,732 |
| Burma | 7,58,66,925 | 8,75,78,258 |
| Cambodia | 2,04,73,819 | 80,87,634 |
| Ceylon | 14,47,11,720 | 5,65,01,090 |
| China (incl. Manchuria but excl. Hongkong and Macao) | 6,042 | 2,84,591 |
| Democratic Republic of Viet Nam | 70 | 58 |
| Formosa | 12,92,231 | 10,70,173 |
| Hongkong | 5,75,94,223 | 43,30,054 |
| Indonesia | 1,93,97,705 | 2,66,44,264 |
| Iran | 4,95,48,451 | 28,80,58,920 |
| Japan | 62,17,78,699 | 77,32,96,585 |
| Korea (North) | 953 | .. |
| Korea (South) | 5,32,898 | 67,176 |
| Laos | 22,72,202 | .. |
| Malaysia | 5,37,99,878 | 14,25,75,627 |
| Nepal | 16,55,97,529 | 7,21,40,282 |
| New Zealand | 5,63,54,112 | 87,62,733 |
| Pakistan, (East) | 6,35,71,811 | 11,00,42,986 |
| Pakistan, (West) | 3,42,15,821 | 4,74,40,995 |
| Philippines | 88,79,035 | 48,10,938 |
| South Viet Nam | 4,09,90,472 | 14,19,357 |
| Thailand | 3,05,49,139 | 2,81,07,672 |
| TOTAL ECAFE Countries) | 181,23,12,269 | 196,16,92,322 |
| OTHER ASIAN AND OCEANIAN COUNTRIES AND ANTARCTIC & ARCTIC REGIONS. | | |
| Aden (incl. Protectorate) | 6,06,92,012 | 1,98,86,960 |
| Antarctic Region | .. | .. |
| Arctic Region | 30 | .. |
| Bahrein Islands | 2,11,10,985 | 2,44,73,101 |
| Cook Islands | 57,016 | .. |
| Cyprus | 52,97,932 | 18,653 |
| Falkland Islands | 229 | .. |
| Fiji Islands | 1,01,30,212 | 69,595 |
| Fisheries | .. | .. |
| French Oceania (incl. *inter alia* Tahiti) | 88,715 | .. |
| Gilbert & Ellice Islands | 14,124 | .. |
| Guam | 29,448 | .. |
| Iraq | 3,57,62,615 | 3,00,76,517 |
| Israel | 11,11,777 | 44,70,084 |
| Jordan | 85,54,567 | 90,23,749 |
| Kuwait | 3,94,79,842 | 20,82,525 |
| Lebanon | 78,38,775 | 13,97,743 |
| Macao | 2,141 | .. |
| Maldives | 6,16,124 | 4,92,987 |
| Mongolian People's Republic | .. | .. |
| Muscat & Oman | 49,90,525 | 35,29,753 |
| Nauru | 88 | .. |
| New Caledonia (French) | 36,241 | .. |
| New Guinea | 13,05,276 | .. |
| New Hebrides | 22,555 | .. |
| Niue Island (N.Z.) | 3,222 | .. |
| Norfolk Island | 9,483 | .. |

(1) Trade limited to certain commodities as permitted by the Govt. of India.

## FOREIGN TRADE BY COUNTRIES & ECONOMIC REGIONS—*Contd.*

| Countries | April 1964 to March 1965 | |
|---|---|---|
| | Exports | Imports |
| | (Rupees) | (Rupees) |
| Other Pacific Islands | 2,64,607 | .. |
| Portuguese Timor | 3 | .. |
| Qatar & Trucial Oman | 2,92,80,206 | 7,44,865 |
| Saudi Arabia | 3,30,67,003 | 13,45,91,633 |
| Solomon Islands (British) | 1,32,906 | .. |
| Syria | 1,01,76,170 | 21,90,463 |
| Territory of Papua | 65,743 | .. |
| Tibet | .. | .. |
| Tokelau Islands | 83 | .. |
| Tonga | 1,20,817 | .. |
| Western Samoa (N.Z.) | 1,60,787 | .. |
| Yemen | 2,71,288 | 4,17,994 |
| TOTAL (other Asian Oceanian Countries and Antarctic & Arctic Regions) | 27,06,93,547 | 23,29,66,622 |
| EAST EUROPEAN COUNTRIES | .. | .. |
| Bulgaria | 3,06,56,359 | 2,41,11,295 |
| Czechoslovakia | 16,19,70,288 | 19,83,76,574 |
| German Democratic Republic | 12,98,92,263 | 8,91,68,203 |
| Hungary | 8,84,44,445 | 6,89,93,494 |
| Poland | 11,22,02,661 | 15,09,15,574 |
| Rumania | 3,15,62,571 | 1,76,69,025 |
| Union of Soviet Socialist Republic | 82,37,89,685 | 77,98,49,559 |
| Yugoslavia | 11,13,11,632 | 10,94,73,520 |
| TOTAL (East European Countries) | 148,32,29,904 | 143,85,57,249 |
| EUROPEAN COMMON MARKET COUNTRIES | | |
| Belgium | 8,18,41,384 | 8,68,73,308 |
| France | 11,91,32,397 | 16,69,66,399 |
| Federal Republic of Germany | 17,73,52,071 | 1,08,69,48,256 |
| Italy | 10,13,99,586 | 21,70,40,879 |
| Luxembourg | 498 | 36,247 |
| Netherlands | 9,22,65,333 | 13,57,77,979 |
| TOTAL (E.C.M. Countries) | 57,19,91,269 | 169,36,43,068 |
| EUROPEAN FREE TRADE AREA COUNTRIES | | |
| Austria | 28,74,024 | 3,61,41,859 |
| Denmark | 2,19,42,912 | 2,39,55,135 |
| Norway | 1,21,12,771 | 1,71,69,448 |
| Portugal (incl. Azores and Madeira) | 14,70,145 | 19,87,385 |
| Sweden | 1,63,05,069 | 11,17,57,473 |
| Switzerland | 4,40,27,563 | 11,65,47,194 |
| United Kingdom | 169,35,61,438 | 162,11,49,861 |
| TOTAL (E. F. T. Area Countries) | 179,22,93,928 | 192,88,08,355 |
| OTHER EUROPEAN COUNTRIES | | |
| Albania | 6,337 | .. |
| Andorra | .. | .. |
| Channel Islands | 8,372 | .. |
| Faeroe Islands | 21,827 | .. |
| Finland | 33,61,599 | 2,57,47,479 |
| Gibraltar | 10,03,382 | 163 |
| Greece (incl. Crete and Dodecanese) | 98,89,678 | 1,76,782 |
| Greenland | 10,268 | .. |
| Iceland | 9,30,933 | .. |
| Irish Republic | 3,43,17,035 | 2,566 |
| Liechtenstein | 8,726 | .. |
| Malta & Gozo | 22,67,107 | 36 |
| Spain | 1,13,96,032 | 75,43,022 |
| Spitzbergen | .. | .. |
| Turkey | 1,29,11,590 | 4,02,194 |
| TOTAL (Other European Countries) | 7,61,32,886 | 3,38,72,192 |
| GRAND TOTAL | 83554,86,292 | 12,63,30,90,930 |

## SUMMARY OF INDIA'S FOREIGN TRADE

| Sections, Divisions and Groups | April 1964 to March 1965 | |
|---|---|---|
| | Exports | Imports |
| FOOD | (Rupees) | (Rupees) |
| *Live animals chiefly for food :* | | |
| Live animals chiefly for food | 15,60,387 | 67,114 |
| TOTAL | 15,60,387 | 67,114 |
| *Meat and meat preparations :* | | |
| Meat, fresh, chilled or frozen | 19,78,473 | 3,067 |
| Meat, dried, salted, smoked or cooked, not canned | 43,720 | 1,013 |
| Meat canned and meat preparations, canned and not canned | 95,634 | 68,157 |
| TOTAL | 21,17,827 | 72,237 |
| *Dairy products, eggs and honey :* | | |
| Milk and cream, fresh | .. | .. |
| Milk and cream, evaporated, condensed or dried | 1,005 | 6,66,88,414 |
| Butter | 1,07,966 | 3,54,95,661 |
| Cheese and curd | 104 | 2,80,850 |
| Eggs | 565 | 2,072 |
| Natural honey | .. | 400 |
| Dairy products, n.e.s. | 67,601 | 7,10,053 |
| TOTAL | 1,77,241 | 10,31,77,450 |
| *Fish and fish preparations :* | | |
| Fish, fresh or simply preserved | 6,14,21,363 | 3,34,98,976 |
| Fish and fish preparations, canned or not | 67,56,083 | 1,08,576 |
| TOTAL | 6,81,77,446 | 3,36,07,537 |
| *Cereals and cereal preparations :* | | |
| Wheat and spelt (including meslin), unmilled | 29,000 | 175,53,46,060 |
| Rice | 25,92,162 | 26,11,93,364 |
| Barley, unmilled | 870 | 11,564 |
| Maize (corn), unmilled | 44,445 | 2,63,75,625 |
| Cereals, unmilled, other than wheat, rice, barley and maize | 47,124 | 4,14,412 |
| Meal and flour of wheat and spelt (including meslin) | 6,17,053 | 27,86,309 |
| Cereals, milled, except wheat flour | .. | 3,33,07,115 |
| Cereal preparations including preparations from flour and fecula of fruits and vegetables | 22,22,917 | 79,622 |
| TOTAL | 55,53,571 | 207,95,14,074 |
| *Fruits and vegetables :* | | |
| Fruits and nuts, fresh (not including oil nuts) | 31,22,72,471 | 19,52,96,284 |
| Dried fruits, including artificially dehydrated | 25,10,715 | 6,00,17,809 |
| Fruits preserved and fruit preparations | 37,27,715 | 24,877 |
| Vegetables, fresh and dry, root and tubers, not including artificially dehydrated | 4,34,96,926 | 32,73,369 |
| Vegetables preserved and vegetable preparations | 65,10,109 | 3,04,079 |
| TOTAL | 36,85,17,936 | 25,89,16,418 |
| *Sugar and sugar preparations :* | | |
| Sugar | 19,19,97,200 | 4,883 |
| Sugar confectionery and other sugar preparations | 3,91,674 | 9,914 |
| TOTAL | 19,23,88,874 | 13,997 |
| *Coffee, tea, cocoa, spices and manufactures thereof :* | | |
| Coffee | 13,34,96,992 | 3,553 |
| Cocoa | 5,63,294 | 21,41,272 |
| Chocolate and chocolate preparations | 4,44,719 | 3,282 |
| Tea and mate | 126,96,16,576 | .. |
| Spices | 16,79,40,686 | 42,72,269 |
| TOTAL | 157,20,62,267 | 64,29,382 |

## SUMMARY OF INDIA'S FOREIGN TRADE—*Contd.*

| Sections, Divisions and Groups | April 1964 to March 1965 | |
|---|---|---|
| | Exports | Imports |
| | (Rupees) | (Rupees) |
| *Feeding stuff for animals (not including unmilled cereals):* | | |
| Feeding stuff for animals (not including unmilled cereals) .. | 39,33,59,826 | 14,91,981 |
| TOTAL .. .. | 39,33,59,826 | 14,91,981 |
| *Miscellaneous food preparations:* | | |
| Margarine and shortenings .. | .. | .. |
| Food preparations, n.e.s. .. | 22,59,915 | 15,09,723 |
| TOTAL .. .. | 22,59,915 | 15,09,723 |
| TOTAL OF FOOD .. .. | 260,61,75,290 | 248,47,93,913 |
| BEVERAGES AND TOBACCO: | | |
| *Beverages:—* | | |
| Non-alcoholic beverages .. | 6,55,809 | 16,467 |
| Alcoholic beverages .. .. | 35,854 | 36,17,269 |
| TOTAL .. .. | 6,91,663 | 36,33,736 |
| *Tobacco and tobacco manufactures:* | | |
| Tobacco unmanufactured .. | 24,24,91,547 | 39,34,836 |
| Tobacco manufactured .. | 1,59,05,610 | 96,521 |
| TOTAL .. .. | 25,83,97,157 | 40,31,357 |
| TOTAL OF BEVERAGES AND TOBACCO .. .. | 25,90,88,820 | 76,65,093 |
| CRUDE MATERIALS, INEDIBLE, EXCEPT FUELS: | | |
| *Hides, skins and fur skins, undressed:—* | | |
| Hides and skins (except fur skins), undressed .. .. | 9,07,25,415 | 3,12,20,636 |
| Fur skins, undressed .. .. | 6,41,093 | 1,35,485 |
| TOTAL .. .. | 9,13,66,508 | 3,13,56,121 |
| *Oilseeds, oilnuts and oil kernels:* | | |
| Oilseeds, oilnuts and oil kernels | 1,73,39,222 | 7,04,29,045 |
| TOTAL .. .. | 1,73,39,222 | 7,04,29,045 |
| *Crude rubber including synthetic and reclaimed:* | | |
| Crude rubber including synthetic and reclaimed .. .. | 25,486 | 5,42,88,797 |
| TOTAL .. .. | 25,486 | 5,42,88,797 |
| *Wood, lumber and cork:* | | |
| Fuelwood and charcoal .. | 4,458 | 96,485 |
| Wood in the round or roughly squared .. .. .. | 2,21,20,135 | 1,24,87,999 |
| Wood shaped or simply worked | 8,42,119 | 30,81,897 |
| Cork, raw and waste .. .. | .. | 26,70,309 |
| TOTAL .. .. | 2,29,66,712 | 1,83,36,682 |
| *Pulp and waste paper:* | | |
| Pulp and waste paper .. .. | 64,709 | 7,97,43,135 |
| TOTAL .. .. | 64,709 | 7,97,43,135 |
| *Textile Fibres (not manufactured into yarn, thread or fabrics) and waste* | | |
| Silk .. .. .. .. | 84,07,728 | 47,47,222 |
| Wool and other animal hair.. | 8,84,25,801 | 9,64,47,861 |
| Cotton .. .. .. .. | 14,23,42,862 | 58,07,60,975 |

## SUMMARY OF INDIA'S FOREIGN TRADE—*Contd.*

| Sections, Divisions and Groups | April 1964 to March 1965 | |
|---|---|---|
| | Exports | Imports |
| | (Rupees) | (Rupees) |
| Jute, including jute cuttings and waste .. .. .. | 3,57,04,796 | 7,37,18,232 |
| Vegetable fibres, except cotton and jute .. .. .. | 2,80,04,889 | 1,41,21,960 |
| Synthetic fibres .. .. | 14,59,183 | 2,66,27,826 |
| Waste materials from textile fabrics, including rags .. | 94,82,142 | .. |
| TOTAL .. .. | 31,10,61,761 | 79,64,24,096 |
| *Crude fertilizers and crude minerals, excluding coal, petroleum and precious stones:* | | |
| Fertilizers, crude .. .. | 5,54,770 | 3,89,99,817 |
| Crude minerals, excluding coal, petroleum, fertilizer materials and precious stones.. .. | 13,16,87,759 | 11,79,87,157 |
| TOTAL .. .. | 13,22,42,529 | 15,69,86,974 |
| *Metalliferous ores and metal scrap:* | | |
| Iron ore and concentrates .. | 38,75,87,405 | 46,632 |
| Irons and steel scrap .. .. | 5,99,53,617 | 3,63,464 |
| Ores of non-ferrous base metals and concentrates .. .. | 14,87,02,813 | 72,66,345 |
| Non-ferrous metal scrap .. | 18,60,057 | 1,27,19,549 |
| Silver and Platinum Ores .. | .. | .. |
| TOTAL .. .. | 59,81,03,892 | 2,03,98,990 |
| *Animal and vegetable crude materials, inedible, n.e.s.* | | |
| Crude animal materials, inedible, n.e.s. .. .. .. | 6,15,01,551 | 22,85,976 |
| Crude vegetable materials, inedible, n.e.s. .. .. | 16,07,42,573 | 2,04,58,804 |
| TOTAL .. .. | 22,22,44,124 | 2,27,44,780 |
| TOTAL OF CRUDE MATERIALS, ETC. .. .. | 1,31,78,41,047 | 125,07,08,620 |
| MINERAL FUELS, LUBRICANTS AND RELATED MATERIALS | | |
| *Mineral fuels, lubricants and related materials:* | | |
| Coal, coke and briquettes .. | 4,52,67,237 | 9,26,052 |
| Petroleum, crude and partly refined .. .. .. | .. | 27,22,67,577 |
| Petroleum products .. .. | 8,16,57,219 | 41,33,02,331 |
| Gas, natural and manufactured | .. | 1,35,158 |
| Electric Energy .. .. | .. | .. |
| TOTAL .. .. | 12,69,24,456 | 68,66,31,118 |
| TOTAL OF FUELS, ETC. .. | 12,69,24,456 | 68,66,31,118 |
| ANIMAL AND VEGETABLE OILS AND FATS | | |
| *Animal and vegetable oils (not essential oils), fats, greases and derivatives:* | | |
| Animal oils and fats .. .. | 3,26,697 | 68,23,079 |
| Vegetable oils .. .. | 7,10,68,856 | 4,79,63,630 |
| Oils and fats processed and waxes of animal or vegetable origin .. .. .. .. | 28,41,435 | 14,24,727 |
| TOTAL .. .. | 7,42,36,988 | 5,62,11,436 |
| TOTAL OF ANIMAL AND VEGETABLE OILS AND FATS .. .. .. | 9,84,02,530 | 5,62,11,436 |
| CHEMICALS | | |
| *Chemical elements and compounds:* | | |
| Inorganic chemicals .. .. | 93,00,019 | 13,95,65,907 |
| Organic chemicals .. .. | 94,21,916 | 20,80,22,784 |
| TOTAL .. .. | 1,87,21,935 | 34,75,88,691 |

**SUMMARY OF INDIA'S FOREIGN TRADE—*Contd.***

| Sections, Divisions and Groups | April 1964 to March 1965 | |
|---|---|---|
| | Exports | Imports |
| | (Rupees) | (Rupees) |
| *Mineral tar and crude chemicals from coal, petroleum and natural gas :* | | |
| Mineral tar and crude chemicals from coal, petroleum and natural gas .. .. .. | 8,61,117 | 4,06,366 |
| TOTAL .. .. | 8,61,117 | 4,06,366 |
| *Dyeing, tanning and colouring materials :* | | |
| Coal-tar dyestuffs and natural indigo .. .. .. .. | 17,71,765 | 5,23,27,481 |
| Dyeing and tanning extracts, and synthetic tanning materials .. .. .. .. | 11,68,389 | 2,74,46,105 |
| Pigments, paints, varnishes and related materials .. .. | 36,30,145 | 1,28,40,857 |
| TOTAL .. .. | 65,70,299 | 9,26,14,443 |
| *Medical and pharmaceutical products :* | | |
| Medical and pharmaceutical products .. .. .. | 2,11,00,491 | 8,27,28,981 |
| TOTAL .. .. | 2,11,00,491 | 8,27,28,981 |
| *Essential oils and perfume materials, toilets, polishing and cleansing preparations :* | | |
| Essential oils, perfumes and flavour materials .. .. | 3,28,48,870 | 95,29,595 |
| Perfumery, Cosmetics, soaps and cleansing and polishing preparations .. .. | 72,90,094 | 8,55,340 |
| TOTAL .. .. | 4,01,38,964 | 1,03,84,935 |
| *Fertilizers manufactured :* | | |
| Fertilizers manufactured .. | 26,791 | 25,38,27,538 |
| TOTAL .. .. | 26,791 | 25,38,27,538 |
| *Explosives and miscellaneous chemical materials and products :* | | |
| Explosives .. .. .. | 1,03,821 | 1,39,92,941 |
| Miscellaneous chemical materials and products .. .. | 1,08,79,106 | 10,59,42,909 |
| TOTAL .. .. | 1,09,82,927 | 11,99,35,850 |
| TOTAL OF CHEMICALS .. | 9,84,02,530 | 90,74,86,804 |
| MANUFACTURED GOODS CLASSIFIED CHIEFLY BY MATERIAL | | |
| *Leather, leather manufactures, n.e.s. and dressed furs :* | | |
| Leather .. .. .. .. | 27,23,93,913 | 5,45,928 |
| Manufactures of leather and artificial or reconstituted leather, n.e.s. .. .. | 18,98,158 | 1,85,973 |
| Furs, dressed or dressed and dyed | 2,939 | .. |
| TOTAL .. .. | 27,42,95,010 | 7,31,901 |
| *Rubber manufactures, n.e.s. :* | | |
| Rubber fabricated materials | 11,44,213 | 22,39,040 |
| Rubber manufactured articles, n.e.s. .. .. .. .. | 1,55,69,906 | 1,16,75,024 |
| TOTAL .. .. | 1,67,14,119 | 1,39,14,064 |
| *Wood and cork manufactures (excluding furniture) :* | | |
| Veneers, plywood, boards, artificial or reconstituted wood and other wood, worked n.e.s. .. .. .. .. | 20,96,949 | 32,36,572 |
| Wood manufactures, n.e.s. .. | 5,63,045 | 11,41,151 |
| Cork manufactures .. .. | 1,45,364 | 6,37,281 |
| TOTAL .. .. | 28,01,358 | 50,15,004 |

**SUMMARY OF INDIA'S FOREIGN TRADE—*Contd.***

| Sections, Divisions and Groups | April 1964 to March 1965 | |
|---|---|---|
| | Exports | Imports |
| | (Rupees) | (Rupees) |
| *Paper, paper-board and manufactures thereof :* | | |
| Paper and paper-board .. | 72,56,364 | 12,85,12,422 |
| Articles made of pulp, of paper and paper-board .. .. | 24,68,074 | 24,39,071 |
| TOTAL .. .. | 97,24,438 | 13,09,51,493 |
| *Textile yarn fabrics, made-up articles and related products :* | | |
| Textile yarn and thread .. | 14,39,60,089 | 12,77,91,080 |
| Cotton fabrics of standard type (not including narrow and special fabrics) .. .. | 58,58,15,472 | 1,99,353 |
| Textile fabric of standard type (not including narrow and special fabrics) other than cotton fabrics .. .. .. | 119,28,98,178 | 39,71,563 |
| Tulle, lace, embroidery, ribbons, trimmings and other small wares .. .. .. .. | 1,16,15,691 | 1,04,005 |
| Special textile fabrics and related products .. .. | 1,60,01,574 | 1,67,88,611 |
| Made-up articles wholly or chiefly of textile materials n.e.s. (other than clothing and foot-wear) .. .. | 79,60,64,162 | 1,07,56,551 |
| Floor coverings and tapestries .. | 10,26,19,360 | .. |
| TOTAL .. .. | 284,89,74,526 | 15,96,11,163 |
| *Non-metallic minerals manufactures, n.e.s. :* | | |
| Lime, cement and fabricated building materials, except glass and clay materials .. | 63,19,582 | 12,50,040 |
| Clay construction materials and refractory construction materials .. .. .. | 14,18,787 | 2,45,40,615 |
| Mineral manufactures, n.e.s. not including clay and glass .. | 59,42,330 | 3,04,12,754 |
| Glass .. .. .. .. | 25,27,328 | 63,59,619 |
| Glassware .. .. .. .. | 38,46,915 | 59,36,813 |
| Pottery .. .. .. .. | 71,536 | 2,35,323 |
| TOTAL .. .. | 2,01,26,478 | 6,87,35,164 |
| *Silver, platinum, gems and jewellery* | | |
| Silver and platinum group metals .. .. .. | .. | 32,53,922 |
| Precious and semi-precious stones and pearls, unworked and worked .. .. .. | 12,97,06,222 | 1,63,78,329 |
| Jewellery and goldsmiths' and silversmiths' wares .. | 1,82,03,103 | 3,15,845 |
| TOTAL .. .. | 14,79,09,325 | 2,02,48,096 |
| *Base Metals :* | | |
| Iron and steel .. .. .. | 11,17,49,195 | 107,35,43,002 |
| Copper .. .. .. .. | 50,46,692 | 24,41,10,175 |
| Nickel .. .. .. .. | 15,389 | 1,53,73,887 |
| Aluminium .. .. .. | 25,18,322 | 7,24,01,607 |
| Lead .. .. .. .. | 2,19,223 | 4,61,87,946 |
| Zinc .. .. .. .. | 4,19,525 | 11,28,99,510 |
| Tin .. .. .. .. | 22,089 | 7,90,42,765 |
| Miscellaneous non-ferrous base metals employed in metallurgy .. .. .. | 5,47,226 | 1,29,76,957 |
| TOTAL .. .. | 12,05,37,661 | 165,65,35,849 |

## SUMMARY OF INDIA'S FOREIGN TRADE—*Contd.*

| Sections, Divisions and Groups | April 1964 to March 1965 | |
|---|---|---|
| | Exports | Imports |
| | (Rupees) | (Rupees) |
| *Manufactures of metals :* | | |
| Ordnance .. .. .. | 1,64,292 | 90,041 |
| Manufactures of metals, n.e.s. | 4,23,14,307 | 16,22,75,933 |
| TOTAL .. .. | 4,24,78,599 | 16,23,65,974 |
| TOTAL OF MANUFACTURED GOODS, ETC. .. .. .. | 348,35,61,514 | 221,81,08,708 |
| MACHINERY AND TRANSPORT EQUIPMENT | | |
| *Machinery other than electric :* | | |
| Power generating (except electric) machinery .. .. | 1,35,15,207 | 43,78,24,815 |
| Agricultural machinery and implements .. .. .. | 2,58,889 | 2,00,93,682 |
| Tractors other than steam .. | 43,334 | 7,13,39,179 |
| Office machinery .. .. | 39,71,511 | 4,11,10,394 |
| Metal working machinery .. | 12,80,206 | 59,33,87,203 |
| Mining construction and other industrial machinery .. | 2,21,08,341 | 199,94,49,466 |
| TOTAL .. .. | 4,11,75,488 | 316,32,04,769 |
| *Electric machinery apparatus and appliances :* | | |
| Electric machinery apparatus and appliances .. .. | 2,43,62,340 | 88,76,84,593 |
| TOTAL .. .. | 2,43,62,340 | 88,76,84,593 |
| *Transport equipment :* | | |
| Railway vehicles .. .. | 7,74,045 | 22.15.30,836 |
| Road motor vehicles .. .. | 1,15,56,203 | 33,09,61,586 |
| Road vehicles other than motor vehicles .. .. .. | 81,51,984 | 46,31,641 |
| Aircraft .. .. .. .. | 11,67,345 | 8,52.94,216 |
| Ships and Boats .. .. | 37,332 | 3,35,92,060 |
| TOTAL .. .. | 2,16,86,909 | 67,59,10,239 |
| TOTAL OF MACHINERY AND TRANSPORT ETC. .. | 8,72,24,737 | 472,67,99,571 |
| MISCELLANEOUS MANUFACTURED ARTICLES | | |
| *Prefabricated buildings, sanitary, plumbing, heating and lighting fixtures and fittings :* | | |
| Prefabricated buildings and their assembled panels and parts of all materials .. .. | .. | .. |
| Sanitary, plumbing, heating and lighting fixtures and fittings .. | 32,92,020 | 28,72,124 |
| TOTAL .. .. | 32,92,020 | 28,72,124 |
| *Furniture and fixtures :* | | |
| Furniture and fixtures .. | 21,02,093 | 11,86,750 |
| TOTAL .. .. | 21,02,093 | 11,86,750 |
| *Travel goods, hand-bags and similar articles :* | | |
| Travel goods, handbags and similar articles .. .. .. | 41,01,531 | 1,25,877 |
| TOTAL .. .. | 41,01,531 | 1,25,877 |

## SUMMARY OF INDIA'S FOREIGN TRADE—*Contd.*

| Sections, Divisions and Groups | April 1964 to March 1965 | |
|---|---|---|
| | Exports | Imports |
| | (Rupees) | (Rupees) |
| *Clothing :* | | |
| Clothing except fur clothing .. | 4,17,12,097 | 2,36,575 |
| Fur clothing not including hats, caps or gloves .. .. | .. | .. |
| TOTAL .. .. | 4,17,12,097 | 2,36,575 |
| *Footwear :* | | |
| Footwear .. .. .. .. | 4,26,89,113 | 5,683 |
| TOTAL .. .. | 4,26,89,113 | 5,683 |
| *Professional, scientific and controlling instruments, photographic and optical goods, watches and clocks :* | | |
| Scientific, medical, optical measuring and controlling instruments and apparatus .. | 17,06,462 | 9,70,15,530 |
| Photographic and cinematographic supplies .. .. | 26,123 | 4,20,63,053 |
| Exposed cinematographic films whether developed or not .. | 2,01,90,215 | 33,31,947 |
| Watches and clocks .. .. | 15,114 | 50,10,619 |
| TOTAL .. .. | 2,19,37,914 | 14,74,21,149 |
| *Miscellaneous manufactured articles, n.e.s. :* | | |
| Musical instruments, phonographs and phonograph records .. .. .. | 22.91,314 | 16.93,630 |
| Printed matter .. .. | 1,11,73,976 | 4.07.15.060 |
| Manufactured articles, n.e.s. .. | 5,44,99,384 | 2.67,24,249 |
| TOTAL .. .. | 6,79,64,674 | 6,91,32,939 |
| TOTAL OF MISCELLANEOUS MANUFACTURED ARTICLES .. .. .. .. | 18,37,99,442 | 22,09,81,097 |
| MISCELLANEOUS TRANSACTIONS AND COMMODITIES, N.E.S. | | |
| *Postal Packages :* | | |
| Postal packages, not classified according to kind .. .. | 2,79,18,325 | 2,69,28,341 |
| TOTAL .. .. | 2,79,18,325 | 2,69,28,341 |
| *Live animals not for food :* | | |
| Live animals not for food .. | 45,34,396 | 8,57,614 |
| TOTAL .. .. | 45,34,396 | 8,57,614 |
| *Returned goods and special transactions :* | | |
| Returned goods and special transactions .. .. | 1,04,39,211 | 3,40,21,178 |
| TOTAL .. .. | 1,04,39,211 | 3,40,21,178 |
| TOTAL OF MISCELLANEOUS TRANSACTIONS & COMMODITIES, N.E.S. .. .. | 4,28,91,932 | 6,18,07,133 |
| GRAND TOTAL .. .. | 835,24,23,018 | 1263,30,99,300 |

# THE CO-OPERATIVE MOVEMENT (1962-63)

DURING 1962-63, the number of all types of co-operative societies rose by 4,333 to 3,46,174 from the previous year. Nearly half of the total number of societies was accounted for by the four States of Uttar Pradesh, Punjab, Maharashtra and Bihar. Agricultural Credit Societies numbering 2,11,132 constituted the largest single group among all societies forming about 61 per cent of the total. Among non-credit societies, weavers' and other industrial societies numbering 12,732 and 22,278 respectively, continued to be the most important groups. The other important types of societies were sugarcane supply societies (9,011), other processing societies (8,467), consumers stores (8,507), housing societies (8,909), milk supply societies (5,098), farming societies (4,512) and marketing societies (3,295).

The membership of all primary societies which stood at 415·69 lakhs as on June 30, 1963 showed an increase of 37·34 lakhs or about 10 per cent over the position as on June 30, 1962. Assuming that an average family consists of five members, it may be estimated that by the end of 1962-63 roughly 20·78 crores or 45·4 per cent of the total population was covered by the co-operatives. The owned funds and working capital of all societies increased from Rs. 368·79 crores and Rs. 1,534·78 crores as on June 30, 1962 to Rs. 429·03 crores and Rs. 1,769·04 crores respectively as on June 30, 1963. The loans advanced by all primary societies during 1962-63 were Rs. 495·39 crores, representing an increase of Rs. 45·97 crores over the loans advanced during the previous year.

## STATE CO-OPERATIVE BANKS

The number of state co-operative banks remained steady at 21 as in 1961-62. The number of central societies and primary societies which were members of the apex banks showed a decline during 1962-63 from 883 to 838 and from 22,091 to 15,155 respectively, while the membership of individuals and others increased from 7,493 to 7,611. The paid-up share capital of the state co-operative banks at Rs. 23·18 crores as on June 30, 1963 showed an increase of Rs. 1·92 crores over the year. Of this increase Rs. 0·94 crore was accounted for by contribution by Government. The total working capital increased from Rs. 256·09 crores as on June 30, 1962 to Rs. 281·51 crores as on June 30, 1963, the increase in reserves, deposits and other borrowings being Rs. 1·17 crores, Rs. 15·87 crores and Rs. 6·45 crores respectively.

Position as on 30th June 1963 :

(Crores of rupees)

| Item | Amount |
|---|---|
| 1. Working capital | 281·51 |
| 2. Owned funds | 31·95 |
| 3. Deposits | 97·31 |
| 4. Borrowings from | |
| (i) Government | 10·08 |
| (ii) Reserve Bank | 138·87 |
| (iii) Other Sources | 3·30 |

The utilisation of resources of the apex banks as on June 30, 1964 revaeled that Rs. 27·45 crores (including call deposits of Rs. 13·91 crores) were in the form of cash and balances with banks, Rs. 50·23 crores represented investments (Rs. 30·84 crores in Government and Trustee Securities, Rs. 11·33 crores in fixed deposits, Rs. 8·06 crores in other investments, chiefly shares in other co-operative institutions) while outstanding loans accounted for Rs. 214·09 crores.

## CENTRAL CO-OPERATIVE BANKS

The number of central co-operative banks showed a further decline from 387 on June 30, 1962 to 386 on June 30, 1963. The reduction in number was accounted for by West Bengal (3) and Rajasthan (1) and was offset by an increase of two banks in Uttar Pradesh and one in Madras. The membership of the central co-operative banks stood at 3,99,299 consisting of 1,904 central societies, 2,52,963 primary societies and 1,44,432 individuals and others. The number of individual members showed a reduction of 3,327 when compared to that on June 30, 1962. The working capital of the central banks showed an increase from Rs. 352·65 crores as on June 30, 1962 to Rs. 400·12 crores as on June 30, 1963, representing an increase of 13·5 per cent.

Working Capital of Central Co-operative Banks as on June 30, 1963 :

(Crores of rupees)

| Item | Amount |
|---|---|
| 1. Working capital | 400·12 |
| 2. Owned funds | 72·28 |
| 3. Deposits | 145·64 |
| 4. Borrowings | 182·20 |

The total loans advanced by central co-operative banks during 1962-63 amounted to Rs. 440·56 crores as against Rs. 384·40 crores during 1961-62, the former comprising short and medium-term loans of Rs. 416·32 crores and Rs. 25·35 crores respectively. Among individual States, advances by central co-operative banks in Maharashtra were the highest at Rs. 116·54 crores, the advances by central banks in other states being Gujarat Rs. 76·08 crores, Madras Rs. 68·45 crores, Uttar Pradesh Rs. 41·81 crores, Andhra Pradesh Rs. 35·46 crores, Mysore Rs. 27·22 crores, Madhya Pradesh Rs. 23·62 crores and Punjab Rs. 16·29 crores.

The outstanding loans of central co-operative banks as on June 30, 1963 amounted to Rs. 292·13 crores of which Rs. 288·69 crores were due from societies and Rs. 3·44 crores from individuals and others. The total over dues amounted to Rs. 52·89 crores, constituting 18·1 per cent of the outstandings; the corresponding figures at the end of 1961-62 were Rs. 40·74 crores and 15·7 per cent respectively.

## AGRICULTURAL CREDIT SOCIETIES

The primary agricultural credit societies numbered 2,11,132 as on June 30, 1963 as against 2,15,081 at the end of June 30, 1962. Of these 65 per cent and 35 per cent were of the limited liability and unlimited liability type respectively. The number of dormant societies at the end of 1962-63 was 39,129 and constituted 18·5 per cent of the total number of societies as against 18·9 per cent an year ago.

The membership of agricultural credit societies was 217·34 lakhs at the end of 1962-63 as against 195·72 lakhs at the beginning of the year, representing a rise of 11·0 per cent. The rise in membership during the previous year was 14·9 per cent.

Of the total membership, 104·53 lakhs or 48 per cent borrowed during the year as against 51 per cent during 1961-62.

The working capital of primary agricultural credit societies as on June 30, 1963 amounted to Rs. 370·03 crores representing an increase of Rs. 44·70 crores over the previous year, the percentage of increase being 12·1 as against 18·8 during 1961-62. The paid-up share capital of these societies amounted to Rs. 79·51 crores, of which Rs. 8·01 crores were contributed by the State Governments in 13,476 societies. The total deposits of these societies were meagre at Rs. 20·33 crores forming 5·5 per cent of their working capital. Their total borrowings amounted to Rs. 248·10 crores of which as much as Rs. 236·43 crores were from central co-operative banks. Borrowings other than deposits formed about 67·05 per cent of the working capital. Owned funds constituted the balance of 27·45 per cent. On the assets side, the cash on hand and balances with banks amounted to Rs. 21·19 crores and investments to Rs. 49·95 crores, while loans and advances stood at Rs. 302·78 crores comprising short-term loans of Rs. 254·30 crores and medium-term loans of Rs. 48·48 crores.

Of the total number of societies, only 1,64,429 societies issued loans amounting to Rs. 257·37 crores of which Rs. 232·18 crores were short-term and Rs. 25·20 crores medium-term.

Their total recoveries during the year amounted to Rs. 210·95 crores while the overdues were of the order of Rs. 77·18 crores forming 25·5 per cent of the outstandings. The overdues showed an increase of Rs. 14·25 crores during the year and the proportion of overdues to outstanding also increased by one per cent.

The all-India averages of membership, share capital, deposits, working capital and loans advanced per member for agricultural credit societies are given in the following table :

(Amounts in Rs.)

| Item | 1962-63 |
|---|---|
| 1. Membership per society | 103 |
| 2. Working capital per society | 17,526 |
| 3. Share capital : | |
| (a) per society | 3,766 |
| (b) per member | 37 |
| 4. Deposits : | |
| (a) per society | 963 |
| (b) per member | 9 |
| 5. Loans advanced per borrowing member | 246 |

During 1962-63, 4,519 societies marketed agricultural produce of the value of Rs. 11·52 crores as against 4,185 societies which had marketed agricultural produce of the value of Rs. 10·15 crores in 1961-62. There were a few agricultural credit societies in Orissa, Delhi, Gujarat and Maharashtra which undertook processing also. In regard to distribution of requisites, the number of societies engaged in this work increased from 64,814 during 1961-62 to 75,769 during 1962-63 while the value of goods distributed by them increased from Rs. 39·13 crores to Rs. 51·25 crores. The value of seeds and fertilizers distributed showed a substantial increase from Rs. 5·87 crores and Rs. 19·23 crores to Rs. 6·03 crores and Rs. 25·52 crores respectively. The value of consumer articles distributed increased from Rs. 9·94 crores to Rs. 14·07 crores.

In terms of individual States Uttar Pradesh had the largest number of agricultural credit societies at 49,617, while Maharashtra came next with 19,794 societies; the number of such societies in Punjab, Bihar and Madhya Pradesh was 19,389, 18,943 and 17,950 respectively. The membership of these societies in Uttar Pradesh and Madras was 41·29 lakhs and 36·60 lakhs respectively. The average membership per society was the highest in Kerala at 452; it was 321 and 234 in Madras and Jammu and Kashmir respectively. The average amount of loans advanced per borrowing member during 1962-63 was Rs. 246.

The value of produce marketed by agricultural credit societies during 1962-63 in Gujarat, Maharashtra and Assam amounted to Rs. 3·85

crores, Rs. 2·73 crores and Rs. 1·30 crores respectively. The value of goods distributed amounted to Rs. 12·67 crores in Maharashtra, Rs. 9·62 crores in Gujarat and Rs. 9·13 crores in Uttar Pradesh, constituting 60 per cent of the value in all the States put together.

## LARGE-SIZED SOCIETIES

The number of large-sized societies recorded a further reduction from 7,822 as on June 30, 1962 to 7,719 as on June 30, 1963. The fall in number was mainly in Maharashtra from 1,262 to 1,232 ,Orissa from 580 to 556, Andhra Pradesh from 587 to 572, Gujarat from 1,013 to 1,003 and West Bengal from 500 to 491.

A table showing the comparative operations of large-sized and small-sized societies per society and per member during 1962-63, is given below.

(Amounts in rupees)

| Item | Large-sized Societies | Small-sized Societies |
|---|---|---|
| 1. Membership per society .. .. | 519 | 87 |
| 2. Working capital per society .. .. | 1,27,507 | 13,353 |
| 3. Share capital : | | |
| (*a*) per society .. | 29,801 | 2,778 |
| (*b*) per member.. | 57 | 32 |
| 4. Deposits : | | |
| (*a*) per society .. | 7,287 | 723 |
| (*b*) per member.. | 14 | 8 |
| 5. Loans advanced per borrowing member | 292 | 234 |

## GRAIN BANKS

The number of grain banks showed a fall from 9,190 as on June 30, 1962 to 9,083 as on June 30, 1963, the reduction being accounted for by Madhya Pradesh, Maharashtra and Mysore ; there was an increase in their number in Orissa and West Bengal. Their overall operations showed an increase. Their working capital which stood at Rs. 6·08 crores as on June 30, 1962 reached Rs. 7·00 crores as on June 30, 1963. The loans advanced by them during 1962-63 amounted to Rs. 3·08 crores as against Rs. 2·54 crores in the previous year. The loans advanced by Orissa during 1962-63 amounted to Rs. 2·52 crores. The 2,318 grain banks in the State had 6·41 lakh members, being even more than those of agricultural credit societies in the State viz. 5·53 lakhs. The overdues of all grain banks in the country and in Orissa as on June 30, 1963 were Rs. 2·43 crores and Rs. 1·43 crores forming 46 per cent and 37 per cent of the amount outstanding, respectively.

## NON-AGRICULTURAL CREDIT SOCIETIES

The non-agricultural credit societies consisting of urban banks and employees' credit societies which cater to the credit requirements of small traders, government servants, other salaried employees and other urban and semi-urban residents including artisans numbered 12,850 as on June 30, 1963 as against 12,477 at the end of the previous year. Their membership also showed an increase from 49·69 lakhs to 55·03 lakhs. The working capital of these institutions was of the order of Rs. 185·32 crores showing an increase of about Rs. 20·40 crores over the previous year. Their deposits at Rs. 115·39 crores, compared favourably with those of all the State and central co-operative banks in the country, which amounted to Rs. 97·31 crores and Rs. 145·64 crores respectively on the same date. The deposits of non-agricultural credit societies in Maharashtra, West Bengal, Gujarat and Madras amounted to Rs. 34·09 crores, Rs. 30·39 crores, Rs. 12·48 crores and Rs. 11·23 crores respectively. The loans advanced by these societies during 1962-63 amounted to Rs. 166·21 crores showing an increase of over Rs. 4·58 crores over the previous year.

## LAND MORTGAGE BANKS

**Central Land Mortgage Banks :** The number of central land mortgage banks increased from 17 to 19 over the year 1962-63. The Ajmer Central Land Mortgage Bank in Rajasthan was dormant. The membership of all central land mortgage banks as on June 30, 1963 consisted of 553 primary land mortgage banks, 177 other co-operative institutions and 3,71,901 individuals as against 500, 182 and 2,98,701 respectively at the end of 1961-62. Their share capital showed an increase from Rs. 5·73 crores to Rs. 7·81 crores. Their total borrowings as on June 30, 1963 amounted to Rs. 75·17 crores of which Rs. 68·19 crores were in the form of debentures as compared to Rs. 53·20 crores and Rs. 47·74 crores respectively as on June 30, 1962. Their working capital increased from Rs. 61·70 crores to Rs. 85·85 crores over the year 1962-63. Their cash and bank balances and total investments on June 30, 1963 amounted to Rs. 1·35 crores and Rs. 17·83 crores respectively, while the long-term loans outstanding to them stood at Rs. 67·89 crores. Their overdues on June 30, 1963 were Rs. 1·75 crores. These banks floated debentures of the value of Rs. 21·76 crores during 1962-63 of which Rs. 21·08 crores were actually subscribed to. Of the 19 central land mortgage banks in the country, 11 issued ordinary debentures worth Rs. 18·85 crores and eight issued rural debentures worth Rs. 2·23 crores during the year. The loans advanced by them during 1962-63 amounted to Rs. 24·62 crores against Rs. 14·75 crores during the previous year. During 1962-63 an amount of Rs. 13·36 crores was advanced for land improvement, Rs. 6·78 crores for purchase of machinery and Rs. 3·49 crores for redemption of debt.

**Primary Land Mortgage Banks :** The primary land mortgage banks increased in number from 536 as on June 30, 1962 to 571 as on June 30, 1963 (including the land mortgage banking sections of 15 central co-operative banks). Mysore, Andhra Pradesh and Madras accounted for 65 per cent of the total number of primary banks. The membership of the primary land mortgage banks showed an increase from 8·52 lakhs to 10·51 lakhs, while their working capital increased from Rs. 38·31 crores to Rs. 55·02 crores. The loans outstanding to these banks as on June 30, 1963 were Rs. 51·36 crores as against Rs. 35·28 crores in the previous year.

## AGRICULTURAL MARKETING AND PROCESSING SOCIETIES

**National and State Marketing Societies :** Besides the National Agricultural Marketing Federation with headquarters at Delhi, there were 21 state marketing societies consisting 19 general purpose marketing societies, one society for arecanut in Mysore and one for fruits and vegetables in Delhi. The state societies had 4,370 societies and 925 individuals and others as their members. Their working capital as on June 30, 1963 amounted to Rs. 14·27 crores consisting of Rs. 3·44 crores of owned funds, Rs. 0·35 crore of deposits and Rs. 10·48 crores of borrowings. The total value of agricultural produce sold by them both as owners and as agents was Rs. 9·38 crores as compared to Rs. 12·38 crores in 1961-62. These institutions also sold agricultural requisites of the value of Rs. 21·25 crores of which as much as Rs. 19·79 crores represented fertilizers.

**Central Societies :** These societies which were functioning at the district or regional level numbered 152 as on June 30, 1963. Of these four dealt in cotton, four in fruits and vegetables and 144 were of the general purpose type. Many of these societies, particularly in Madras, also functioned as wholesalers for the primary co-operative stores. Their sales of agricultural produce amounted to Rs. 6·48 crores, while the agricultural requisites were valued at Rs. 21·32 crores. The value of consumers' articles sold by them amounted to Rs. 4·7 crores only as against Rs. 8·40 crores in 1961-62.

**Primary Marketing Societies :** The total number of primary marketing societies in the country as on June 30, 1963 was 3,121 comprising 96 societies dealing in cotton, 214 in fruits and vegetables, 21 in arecanut, 14 in tobacco, 61 in coconut, 126 in other specialised commodities and 2,589 general purpose marketing societies. Their total membership was 16.17 lakhs. Their working capital as on June 30, 1963 was Rs. 35·40 crores consisting of Rs. 9·71 crores of share capital, Rs. 5·53 crores of reserve and other funds, Rs. 3·47 crores of deposits and Rs. 16·69 crores of borrowings. The total value of their purchases was Rs. 52·73 crores while their total sales amounted to Rs. 111·71 crores of which as much as Rs. 70·55 crores were agents. Agricultural produce accounted for Rs. 70·55 crores & agri. requisites Rs. 26·86 crores. Of the former, oilseeds (Rs. 5·94 crores), paddy (Rs. 12·84 crores), wheat (Rs. 6·17 crores), cotton (Rs. 4·21 crores) and other food grains (Rs. 10·13 crores) were prominent. During the year 1962-63 the marketing societies advanced loans to the tune of Rs. 2·99 crores to societies and Rs. 22·91 crores to individuals and others. Of the total, 1,641 marketing societies earned a profit of Rs. 1·16 crores and 1,049 societies incurred loss of Rs. 0·43 crore, while 431 societies worked without profit or loss. The marketing societies owned 2,417 godowns with an estimated capacity of 65·56 lakh quintals and two lakh cubic feet. They also hired 3,946 godowns.

**Sugarcane Supply Societies :** The number of sugarcane supply societies at the end of 1962-63 was 9,011 including one state society, 69 central societies and 8,941 primary societies. The state society was in Uttar Pradesh and all the central societies and 8,743 primary societies were in Bihar. The primary societies had a membership of 2,183 societies and 25·90 lakh individuals. The working capital of the state, central and primary societies stood at Rs. 0·46 crore, Rs. 0·94 crore and Rs. 11·33 crores respectively. The value of sugarcane marketed by the central and primary societies was Rs. 3·01 crores and Rs. 38·35 crores respectively. Of the latter amount, Rs. 33·38 crores represented sales by societies in Uttar Pradesh. The primary sugarcane supply societies also distributed agricultural requisites of the value of Rs. 4·73 crores both as agents and owners.

**Co-operative Sugar Factories :** The number of sugar co-operatives which stood at 66 at the end of 1962-63 was one less than the number at the end of the previous year. They had 10,803 societies, 1,98,561 growers and 16,955 others including individuals and institutions other than co-operative societies and Government as their members during 1962-63 as against 10,809, 1,78,236 and 11,771 respectively during the previous year. Their paid-up share capital was Rs. 21·51 crores, of which Governments' contribution was Rs. 8·57 crores as against Rs. 19·47 crores and Rs. 7·82 crores respectively in the previous year. Their borrowings at the end of 1962-63 were of the order of Rs. 42·47 crores, of which Rs. 11·26 crores were from co-operative banks, Rs. 3·30 crores from the State Bank of India, Rs. 20·67 crores from the Industrial Finance Corporation and Rs. 0·86 crore from Government. Their total working capital amounted to Rs. 77·10 crores as against Rs. 78·37 crores in the previous year. Among their assets, fixed assets were of the order of Rs. 57·13 crores and stocks of sugar were valued at Rs. 16·68 crores. The value of sugar produced by them was Rs. 47·80 crores during 1962-63 as against Rs. 44·93 crores in the previous year, while their sales of sugar during 1962-63 amounted to Rs. 64·98 crores as against Rs. 43·95 crores in 1961-62. Among the states, Maharashtra had the largest number of sugar co-operatives viz. 20 of which 17 were in production. The value of sugar produced by them was Rs. 29·82

crores, forming more than half of the total production by co-operative sugar factories in the country. While in Maharashtra 14 factories recovered loans to the tune of Rs. 4·55 crores advanced by 654 primary credit societies, in Gujarat one factory recovered loans to the extent of Rs. 0·11 crore advanced by 46 societies.

**Other Agricultural Processing Societies:** Other processing societies were mostly cotton ginning and pressing societies, oil crushing units and paddy husking societies. In the case of cotton ginning and pressing societies, all the 134 societies were primary societies. These societies had 4,455 societies and 66,346 individuals as members. They had a total working capital of Rs. 4·90 crores. Of these, 92 societies operated 93 ginning factories and gained 19·03 lakh quintals of cotton. 46 societies having 50 pressing units pressed 4·19 lakh bales during 1962-63. The quantity of cotton ginned and baled during 1961-62 was 19·16 lakh quintals and 4·49 lakh bales respectively. These societies sold cotton of the value of Rs. 11·08 crores, while their total sales of agricultural requisites amounted to Rs. 0·54 crore. They advanced Rs. 4·02 crores as loans and recovered Rs. 4·03 crores, in addition to recovering Rs. 0·08 crore of loans advanced by 32 agricultural credit societies. Of the total sales of Rs. 11·08 crores, sales valued at Rs. 10·46 crores were effected by the societies in Gujarat. Other agricultural processing societies are mainly grouped under five heads, (a) Paddy husking other than rice mills, (b) Rice mills, (c) Oil crushing, (d) Fruits and vegetables and (e) Others.

## OTHER NON-CREDIT SOCIETIES

**Agricultural Non-Credit Societies:** The number of joint farming societies was 3,101 as on June 30, 1963 as against 2,381 on June 30, 1962, while their total membership increased from 56,435 to 67,351. The number of members working full-time in field operations increased from 21,015 to 31,143, while those engaged in part-time field operations increased from 10,093 to 12,376. The area commanded by these societies was 4·37 lakh acres of which 3·25 lakh acres were under cultivation as compared to 3·65 lakh acres and 2·73 lakh acres respectively in 1961-62. The value of production showed an increase from Rs. 1·10 crores to Rs. 1·37 crores, while their sales also increased from Rs. 1·35 crores to Rs. 1·60 crores.

Over the year 1962-63, the collective farming societies increased in number from 1,196 to 1,411 while their membership rose from 40,904 to 46,488. The area commanded and brought under cultivation by them also increased from 1·97 lakh and 1·12 lakh acres to 2·46 lakh acres and 1·55 lakh acres respectively. The value of their production increased from Rs. 0·47 crore to Rs. 0·60 crore while their sales rose from Rs. 0·42 crore to Rs. 0·63 crore.

The number of irrigation societies showed a slight decrease from 1,469 to 1,466 while the area commanded by them increased from 2·73 lakh acres to 2·94 lakh acres. The area actually irrigated by them also slightly increased from 1·52 lakh acres to 1·53 lakh acres. The societies had Rs. 179·05 lakhs worth of irrigation works at the end of the year 1962-63.

The fisheries societies showed an all-round progress over the previous year. They numbered 2,729 as on June 30, 1963 with 2·79 lakh members as against 2,538 societies and 2·68 lakh members in 1961-62. They advanced loans to the extent of Rs. 63·91 lakhs. The value of their catch was Rs. 120·87 lakhs while their sales were of the order of Rs. 236·42 lakhs.

## INDUSTRIAL SOCIETIES

**Handloom Weavers' Co-operative Societies:** There were 20 apex weavers' societies, 114 central societies and 12,598 primary weavers' societies as on June 30, 1963. The apex societies had 6,910 societies and 1,571 individuals as members; the central societies had 3,509 societies and 4,343 individuals as members and the primary societies had 65 societies and 13·07 lakh individuals as members. The total working capital of the apex societies was Rs. 8·65 crores consisting of Rs. 1·18 crores of share capital Rs. 0·33 crore and Rs. 0·59 crore of reserve and other funds respectively and Rs. 6·55 crores of borrowings (of which Rs. 3·72 crores were from Government and Rs. 1·67 crores were from central financing agencies). The value of cloth purchased by them amounted to Rs. 7·43 crores while their sales were of the order of Rs. 11·69 crores.

The central weavers' societies had Rs. 1·53 crores of working capital of which as much as Rs. 0·94 crore were in the form of borrowings (Rs. 0·28 crore from Government and Rs. 0·40 crore from central financing agencies). The cloth produced by them was valued at Rs. 0·68 crore while their sales amounted to Rs. 1·89 crores.

The primary weavers' societies had Rs. 26·34 crores as working capital consisting of Rs. 4·99 crores of share capital, Rs. 3·61 crores and Rs. 3·17 crores of reserve and other funds respectively, and Rs. 14·57 crores of borrowings. Of the total borrowings, Rs. 5·69 crores were from Government and Rs. 5.68 crores were from the central financing agencies and Rs. 3·20 crores from others. The primary weavers' societies produced during 1962-63, cloth worth Rs. 45·80 crores and sold cloth valued at Rs. 48·67 crores. They had 1,580 sales depots, 60 pattern making factories and 623 dyehouses. The total number of looms under these societies was 12·96 lakhs, of which 7·65 lakhs were active.

**Other Industrial Societies:** There were 18 state, 96 central and 22,164 primary industrial societies as on June 30, 1963. The membership of the primary societies consisted of 2,401 societies and 10·98 lakh individuals. The working capital of the state, central and primary societies stood at Rs. 0·69 crore, Rs. 1·37 crores and Rs. 21·09 crores respectively. The value of production by the societies at the three levels was Rs. 0·02 crore, Rs. 0·29 crore and Rs. 13·54 crores respectively; their sales amounted to Rs. 1·61 crores, Rs. 2·31 crores and Rs. 14·61 crores respectively.

**Spinning Mills:** The total number of co-operative spinning mills as on June 30, 1963 was 30 with 7,378 societies and 10,609 individuals as members. These societies had a total working capital of Rs. 9·57 crores and the number of spindles under their fold was 2·73 lakhs. The value of yarn sold by them during 1962-63 amounted to Rs. 3·47 crores. Their fixed assets were of the order of Rs. 6·25 crores of which Rs. 4·06 crores represented the value of plant and machinery.

**Consumers' Stores:** The number of wholesale consumers' stores showed a rise from 32 to 100 during the year under review. The primary stores also showed an increase from 7,266 to 8,407. The primary stores had a net-work of 1,075 branches and had 16·06 lakh members. As on June 30, 1963, their paid-up share capital was Rs. 3·22 crores and reserve and other funds Rs. 3·60 crores; their borrowings amounted to Rs. 3·65 crores and the total working capital Rs. 10·47 crores. Their purchases and sales during the year 1962-63 amounted to Rs. 36·14 crores and Rs. 38·21 crores, respectively.

**Housing Societies:** There were six state and 8,903 primary housing societies at the end of 1962-63 with 2,664 and 5,23,026 members respectively. The working capital of state societies amounted to Rs. 14·14 crores of which borrowings accounted for Rs. 12·22 crores. The total working capital of primary societies amounted to Rs. 77·98 crores of which Rs. 60·34 crores were in the form of borrowings. The amount of loans outstanding to them was Rs. 24·09 crores, while the value of land and buildings owned by them was Rs. 54·94 crores. The number of independent houses and tenements constructed by these societies during 1962-63 was 9,382 and 9,108 valued at Rs. 8·24 crores and Rs. 5·16 crores respectively, while the number and value of houses constructed by members were 12,167 and Rs. 9·91 crores respectively.

## STATE PARTNERSHIP

The total State Govt. contribution as at the end of 1962-63 was Rs. 55·88 crores as against Rs. 47·50 crores at the end of the previous year. Of the total, Rs. 35·46 crores were contributed to credit institutions and Rs. 20·42 crores to non-credit institutions. Table No. 7 shows the participation by Government in the share capital of various types of societies.

## CO-OPERATIVE UNIONS AND INSTITUTES

At the end of 1962-63, there were one national union, 19 state unions and 200 divisional, district and sub-divisional unions and institutes. The state and central unions had 50,373 and 42,545 societies affiliated to them respectively. The state unions imparted training during the year to 10,574 members of staff of co-operative institutions, 71,634 honorary office-bearers and 6,15,465 members, while the central unions trained 4,962, 19,656 and 1,74,486 persons of the above categories respectively. The state unions had 864 teaching and propaganda staff while the central unions had 271 of such staff. The state unions and central unions received Rs. 96·34 lakhs and Rs. 5·54 lakhs as Government grants respectively.

## GENERAL INSURANCE SOCIETIES

The number of these societies continued to be six while their membership increased to 10,195. Their income by way of premia (less reinsurance paid) amounted to Rs. 73·99 lakhs as against Rs. 46·95 lakhs in 1961-62. They paid claims of the value of Rs. 19·11 lakhs during 1962-63 as against Rs. 13·22 lakhs in 1961-62.

## SOCIETIES UNDER LIQUIDATION

The number of societies under liquidation a the beginning of the year was 22,034 of which 15,731 were pending for two years and more, 5,223 societies were brought under liquidation during the year while liquidation proceedings were finalised in respect of 2,524 societies leaving 24,733 societies under liquidation at the end of the year. The assets realised and the liabilities paid off during the year were Rs. 68·51 lakhs and Rs. 80·27 lakhs respectively. The total liabilities and assets of societies under liquidation at the end of the year were Rs. 11·43 crores and Rs. 9·51 crores respectively.

## PROFIT AND LOSS OF CO-OPERATIVES

See Table 2 for details.

## FIVE YEAR PLANS

For development of co-operation in the country, the estimated expenditure during the Second Plan period was Rs. 34 crores as against Rs. 7·11 crores during the First Plan period.

The Third Plan provides Rs. 80 crores for the development of co-operation and contains specific programmes for co-operative credit and supplies, marketing and processing, consumer co-operatives and industrial and other co-operatives.

In the next five years, the number of primary agricultural credit societies is expected to increase to 2,30,000 and membership to 37 million, covering about 60 per cent of the agricultural population.

The total amount of short and medium term credit is expected to be of the order of Rs. 530 crores and that of long term, Rs. 150 crores by 1965-66.

The share capital of primary co-operative societies is expected to increase from Rs. 42 crores in 1959-60 to Rs. 85 crores in 1965-66. In addition, the deposits of primary co-operatives are expected to rise from Rs. 12 crores to about Rs. 42 crores and the deposits in the Apex banks, from Rs. 60 crores to Rs. 142 crores by 1965-66.

## TABLE 1. FIGURES AT A GLANCE (1962-63)

Amount in lakhs of rupees

| Type of society | Number | Membership (in thousands) | Working capital | Loans advanced | Value of goods | |
|---|---|---|---|---|---|---|
| | | | | | Received or produced | Sold |
| I. ALL SOCIETIES | 3,46,174 | 4,27,95 | 17,69,04 | 4,95,39[1] | 3,43,36 | 5,67,75 |
| II. Credit Societies | | | | | | |
| (A) SHORT-TERM[2] | | | | | | |
| 1. State Co-operative Banks | 21 | 24 | 2,81,51 | 2,94,82 | — | — |
| 2. Central Co-operative Banks | 386 | 3,99 | 4,00,12 | 4,40,56 | — | — |
| 3. Primary Credit Societies | | | | | | |
| (a) Agricultural | 2,11,132 | 2,17,35 | 3,70,03 | 2,57,37 | 55,12 | 62,77 |
| (b) Grain Banks | 9,083 | 12,83 | 7,00 | 3,08 | — | — |
| (c) Non-agricultural | 12,850 | 55,03 | 1,85,32 | 1,66,21 | 4,20 | 4,50 |
| (B) LONG-TERM | | | | | | |
| 1. Central Land Mortgage Banks | 19 | 3,73 | 85,85 | 24,62 | — | — |
| 2. Primary Land Mortgage Banks | 571 | 10,51 | 55,02 | 19,19 | — | — |
| III. Non-credit Societies | 1,12,112 | 1,24,27 | 3,84,19 | 61,36 | 2,84,04 | 5,00,48 |

[1] Data relate to Primary Societies. [2] Including medium-term loans.

## TABLE 2. NET RESULTS OF THE OPERATIONS OF CO-OPERATIVE SOCIETIES

Amount in lakhs of rupees

| Type of Society | 1961-62 | | | | 1962-63 | | | |
|---|---|---|---|---|---|---|---|---|
| | Profit | | Loss | | Profit | | Loss | |
| | No. of societies | Amount | No. of societies | Amount | No. of societies | Amount | No. of societies | Amount |
| State Co-operative Banks | 21 | 2,04 | — | — | 21 | 2,18 | — | — |
| Central Co-operative Banks | 350 | 4,17 | 21 | 3,88 | 367 | 4,65 | 12 | 3 |
| Primary Agricultural Credit Societies— | | | | | | | | |
| (i) Large sized | 5,534 | 1,38 | 1,940 | 32 | 5,622 | 1,63 | 1,883 | 37 |
| (ii) Small sized | 1,41,158 | 4,51 | 44,750 | 1,20 | 1,38,044 | 5,11 | 47,057 | 1,49 |
| (iii) Grain Banks | 5,408 | 41 | 1,171 | 17 | 4,552 | 40 | 1,069 | 11 |
| Central Land Mortgage Banks | 16 | 43 | — | — | 18 | 53 | — | — |
| Primary Land Mortgage Banks | 324 | 20 | 195 | 10 | 3,21 | 26 | 224 | 11 |
| Primary Non-agricultural Credit Societies | 7,951 | 3,07 | 2,497 | 18 | 8,350 | 3 81 | 2,459 | 19 |
| Non-credit Societies | 40,907 | 10,08 | 33,047 | 5,51 | 43,608 | 27,48 | 36,570 | 16,30 |
| TOTAL | 2,01,669 | 26,29 | 83,621 | 11,36 | 2,00,903 | 46,05 | 89,274 | 18,60 |

## TABLE 3. CENTRAL CO-OPERATIVE BANKS AND AGRICULTURAL CREDIT SOCIETIES—1950-51 AND 1962-63

(Average per Bank or Society).

Amount in thousands of rupees.

| Item | Central co-operative banks | | Agricultural credit societies | | Item | Central co-operative banks | | Agricultural credit societies | |
|---|---|---|---|---|---|---|---|---|---|
| | 1950-51 | 1962-63 | 1950-51 | 1962-63 | | 1950-51 | 1962-63 | 1950-51 | 1962-63 |
| 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 |
| 1. Number | 5,05 | 3,86 | 1,15,462 | 2,11,132 | 6. Borrowings | 1,93 | 47.20 | 1 | 12 |
| 2. Membership | | | | | 7. Working Capital | 11.16 | 1,03.66 | 4 | 18 |
| (i) Individuals | 2,11 | 3,74 | 45 | 103 | 8. Advances | 16.40 | 1,14.13 | 2 | 12 |
| (ii) Banks and societies | 2,13 | 6,60 | — | — | 9. Outstandings | 6.76 | 75.68 | 3 | 14 |
| 3. Share capital paid up | 80 | 14.27 | 1 | 4 | 10. Overdues | 59 | 13.70 | 1 | 4 |
| 4. Reserve and other funds | 95 | 4.45 | 1 | 1 | 11. *Overdues as % to outstandings* | 8·7 | 18·1 | 33·0 | 25·5 |
| 5. Deposits | 7,48 | 37,73 | 2 | 1 | | | | | |

## TABLE 4. NUMBER AND WORKING CAPITAL, END OF 1962-63—BY STATE

Amount in thousands of rupees

| States/Union Territories | No. of societies | WORKING CAPITAL[1] | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Total | Share capital paid-up | Reserve and other funds | Loans from | | | |
| | | | | | Central financing agencies | Reserve Bank | Government | Other sources |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Andhra Pradesh | 28,430 | 1,60,64,48 | 23,91,43 | 11,32,71 | 60,35,42 | 17,94,82 | 8,26,47 | 9,51,23 |
| Assam | 9,296 | 17,43,08 | 2,64,93 | 80,22 | 4,22,23 | .. | 1,77,41 | 1,46,38 |
| Bihar | 32,185 | 33,82,80 | 6,16,12 | 2,68,55 | 5,83,39 | 72,28 | 5,64,48 | 2,55,15 |
| Gujarat | 15,233 | 2,04,86,47 | 33,43,57 | 15,48,51 | 43,88,37 | 11,98,62 | 6,65,12 | 26,57,45 |
| Jammu and Kashmir | 1,495 | 6,16,24 | 84,70 | 24,15 | 1,99,32 | 23,33 | 66,67 | 1,52,39 |
| Kerala | 7,763 | 41,31,28 | 8,22,69 | 2,92,60 | 12,09,91 | 3,19,03 | 3,01,19 | 2,38,55 |
| Madhya Pradesh | 23,795 | 1,02,81,87 | 13,22,47 | 5,88,52 | 40,25,72 | 11,24,63 | 10,14,99 | 3,00,38 |
| Madras | 20,696 | 2,30,89,65 | 31,22,62 | 17,99,82 | 83,70,79 | 27,90,38 | 8,89,52 | 10,32,62 |
| Maharashtra | 34,863 | 3,99,95,10 | 76,03,43 | 27,70,97 | 1,12,66,84 | 22,26,37 | 8,35,49 | 33,26,03 |
| Mysore | 15,882 | 1,27,11,50 | 22,73,64 | 10,68,00 | 39,36,94 | 9,33,14 | 7,07,36 | 7,49,10 |
| Orissa | 11,909 | 39,24,24 | 6,00,22 | 2,06,87 | 11,40,59 | 2,81,23 | 4,13,64 | 3,70,64 |
| Punjab | 35,291 | 88,16,53 | 18,92,65 | 4,93,52 | 26,97,14 | 7,73,29 | 2,80,06 | 7,00,75 |
| Rajasthan | 18,886 | 33,75,14 | 7,98,40 | 1,01,51 | 12,14,25 | 4,17,85 | 1,92,19 | 1,63,09 |
| Uttar Pradesh | 67,012 | 1,85,30,84 | 35,12,29 | 14,98,03 | 59,19,09 | 15,83,73 | 13,11,00 | 10,54,60 |
| West Bengal | 18,500 | 75,26,48 | 11,37,39 | 7,49,67 | 10,90,56 | 3,16,16 | 3,39,97 | 1,96,91 |
| Andaman & Nicobar Islands | 107 | 24,83 | 6,73 | 11,80 | .. | .. | 1,92 | 1,72 |
| Delhi | 2,069 | 15,93,27 | 2,20,25 | 61,60 | 1,02,86 | .. | 36,52 | 7,68,51 |
| Goa, Daman & Diu | 62 | 7,15 | 6,30 | 5 | .. | .. | 45 | 34 |
| Himachal Pradesh | 1,057 | 2,19,23 | 47,64 | 22,08 | 33,01 | .. | 11,42 | 2,08 |
| Laccadive, Minicoy & Amindivi Islands | 9 | 14,01 | 1,78 | 1 | .. | .. | 1,88 | 10,34 |
| Manipur | 887 | 74,75 | 26,83 | 1,49 | 14,52 | 2,00 | 12,15 | 2,21 |
| Pondicherry | 155 | 1,58,43 | 30,51 | 9,95 | 46,60 | 29,75 | 20,39 | 76 |
| Tripura | 592 | 1,36,74 | 33,95 | 11,75 | 15,96 | .. | 41,40 | 6,21 |
| Total 1962-63 | 3,46,174 | 17,69,04,11 | 3,01,60,54 | 1,27,42,38 | 5,27,13,51 | 1,38,86,61 | 87,11,69 | 1,30,87,47 |
| Total 1961-62 | 3,41,841 | 15,34,78,25 | 2,59,68,78 | 1,09,09,79 | 4,76,78,09 | 1,31,71,59 | 69,05,82 | 1,07,40,32 |

| States/Union Territories | WORKING CAPITAL—*Contd.* | | | | | Population in millions[2] | Average working capital (in rupees) per head of population |
|---|---|---|---|---|---|---|---|
| | Deposits from | | | Deposits held by Marketing Societies | Debentures of land mortgage banks | | |
| | Central societies | Primary societies | Individuals and other sources | | | | |
| | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Andhra Pradesh | 2,01,86 | 4,00,05 | 8,95,78 | 22,77 | 14,11,94 | 37·21 | 43·17 |
| Assam | 13,77 | 81,62 | 5,50,55 | 5,97 | .. | 12·53 | 13·91 |
| Bihar | 2,05 | 3,33,91 | 6,82,46 | 4,41 | .. | 48·43 | 6·98 |
| Gujarat | 7,46,57 | 11,73,70 | 29,41,52 | 1,19,12 | 17,03,92 | 21·80 | 93·97 |
| Jammu and Kashmir | 6,35 | 23,85 | 32,39 | 3,09 | .. | 3·64 | 16·93 |
| Kerala | 1,00,26 | 2,46,43 | 5,02,00 | 1,90 | 96,72 | 17·84 | 23·16 |
| Madhya Pradesh | 2,93,90 | 4,43,90 | 10,70,35 | 14,98 | 82,03 | 34·04 | 30·21 |
| Madras | 3,69,44 | 12,43,71 | 22,25,37 | 17,07 | 12,28,31 | 84·57 | 66·79 |
| Maharashtra | 9,53 | 33,40,29 | 71,98,60 | 52,37 | 13,65,15 | 41·54 | 96·28 |
| Mysore | 3,73,15 | 6,51,14 | 13,61,77 | 50,21 | 6,07,05 | 24·68 | 51·51 |
| Orissa | 9,74 | 3,44,40 | 4,40,15 | 20,31 | 96,45 | 18·30 | 21·44 |
| Punjab | 1,62,75 | 1,96,97 | 14,63,47 | 33,73 | 1,22,20 | 21·42 | 41·16 |
| Rajasthan | 46,99 | 1,43,46 | 2,56,66 | 14,74 | 26,00 | 21·28 | 15·86 |
| Uttar Pradesh | 13,16,91 | 3,53,39 | 17,95,47 | 1,51,33 | 35,00 | 76·41 | 24·25 |
| West Bengal | 87,69 | 2,15,56 | 33,45,73 | 2,84 | 44,00 | 36·83 | 20·44 |
| Andaman & Nicobar Islands | .. | 14 | 24 | 2,28 | .. | 0·06 | 41·38 |
| Delhi | 4,57 | 78,72 | 3,13,19 | 7,05 | .. | 2·70 | 59·01 |
| Goa, Daman & Diu | .. | .. | 1 | .. | .. | 0·63 | 1·13 |
| Himachal Pradesh | 1,81 | 13,74 | 87,06 | 39 | .. | 1·35 | 16·24 |
| Laccadive, Minicoy & Amindivi Islands | .. | .. | .. | .. | .. | .. | .. |
| Manipur | 35 | 7,27 | 6,92 | 1,01 | .. | 0·84 | 8·90 |
| Pondicherry | .. | 8,01 | 12,45 | 1 | .. | 0·37 | 42·82 |
| Tripura | 2,32 | 16,06 | 7,76 | 1,33 | .. | 1·25 | 10·94 |
| Total 1962-63 | 37,50,01 | 93,16,32 | 2,51,89,90 | 5,26,91 | 68,18,77 | 457·72 | 38·65 |
| Total 1961-62 | 38,06,11 | 67,36,82 | 2,23,87,27 | 3,99,28 | 47,74,38 | 451·18 | 34·02 |

[1] Excluding figures relating to General Insurance Societies.

[2] Mid-year estimate of population for 1963 furnished by the Registrar General of Census Operations, except in the cases of Union Territories.

## TABLE 5. NUMBER AND MEMBERSHIP, 1962-63—BY TYPE

| States Union Territories | CREDIT SOCIETIES | | | | | | NON-CREDIT SOCIETIES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | STATE AND CENTRAL | | PRIMARY | | | | | | | | | |
| | State and central banks and banking unions | Central and multi-purpose banks | Agricultural | Non-agricultural | Urban banks | Land mortgage banks | Marketing societies | Supply and purchase societies | Milk supply societies | Farming societies | Irrigation societies | Other agricultural societies |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | | | | | | Number | | | | | | |
| Andhra Pradesh | 27 | 1 | 15,284 | 598 | 2,480 | 152 | 209 | 9 | 589 | 84 | 51 | 1,023 |
| Assam .. | 10 | 1 | 1,225 | 368 | — | 10 | 101 | — | 23 | 209 | — | 46 |
| Bihar .. .. | 36 | 1 | 10,943 | 202 | 12 | — | 209 | 5,812 | 104 | 144 | 7 | 47 |
| Gujarat .. | 25 | 1 | 7,920 | 923 | 4 | 5 | 316 | — | 437 | 228 | 178 | 279 |
| Jammu & Kashmir .. | 5 | 1 | 1,146 | 87 | — | — | 45 | — | 5 | 15 | — | — |
| Kerala .. | 8 | 1 | 2,420 | 506 | — | 14 | 74 | — | 161 | 189 | 37 | 167 |
| Madhya Pradesh | 55 | 1 | 17,997 | 559 | 131 | 45 | 230 | — | 39 | 209 | 84 | 408 |
| Madras .. .. | 17 | 1 | 11,419 | 1,067 | 4 | 99 | 143 | 7 | 1,509 | 66 | 20 | 202 |
| Maharashtra .. | 27 | 1 | 19,794 | 1,535 | 1,043 | 27 | 346 | 4 | 804 | 756 | 174 | 471 |
| Mysore .. .. | 24 | 1 | 9,966 | 1,106 | 694 | 146 | 289 | 4 | 215 | 194 | 93 | 329 |
| Orissa .. .. | 18 | 1 | 6,408 | 197 | 2,108 | 14 | 64 | 18 | 3 | 75 | 86 | 26 |
| Punjab .. .. | 35 | 1 | 19,896 | 2,220 | — | 14 | 193 | 23 | 393 | 1,091 | 209 | 2,102 |
| Rajasthan .. | 29 | 2 | 11,947 | 380 | 7 | 49 | 143 | — | 65 | 497 | 93 | 792 |
| Uttar Pradesh .. | 59 | 1 | 44,617 | 1,068 | — | 6 | 286 | 126 | 594 | 720 | 447 | 3,402 |
| West Bengal .. | 27 | 1 | 12,066 | 729 | 288 | 12 | 276 | 4 | 114 | 189 | 206 | 766 |
| Andaman & Nicobar Islands .. | — | — | 21 | 2 | — | — | 20 | — | — | 16 | — | — |
| Delhi .. .. | 1 | — | 349 | 545 | — | — | 80 | — | 12 | 14 | 5 | 14 |
| Goa, Daman & Diu .. .. | — | — | 40 | 1 | — | — | — | — | — | — | — | — |
| Himachal Pradesh .. | 1 | 1 | 533 | 64 | — | — | 25 | — | 6 | 6 | 4 | 18 |
| Laccadive, Minicoy & Amindivi Islands .. | — | — | — | — | — | — | 9 | — | — | — | — | — |
| Manipur .. | 1 | — | 201 | 51 | — | — | 5 | — | — | 20 | — | — |
| Pondicherry .. | 1 | 1 | 80 | 10 | — | — | 4 | 1 | 2 | 2 | — | 27 |
| Tripura .. .. | 1 | 1 | 361 | 8 | — | — | 24 | — | 3 | 2 | — | — |
| Total 1962-63 .. | 407 | 19 | 2,11,196 | 12,850 | 6,864 | 571 | 3,095 | 6,011 | 5,098 | 4,819 | 1,468 | 10,022 |
| Total 1961-62 .. | 408 | 17 | 2,14,681 | 12,477 | 6,140 | 536 | 3,150 | 6,184 | 4,044 | 3,977 | 1,469 | 11,422 |
| | | | | | | Membership | | | | | | |
| Andhra Pradesh | 20,079 | 192 | 16,90,000 | 2,75,000 | 1,16,449 | 2,84,949 | 2,02,240 | 19,862 | 32,871 | 4,686 | 7,450 | 1,14,121 |
| Assam .. | 7,447 | 1,469 | 1,06,000 | 30,000 | — | 2,686 | 20,194 | — | 995 | 5,044 | — | 8,048 |
| Bihar .. .. | 93,287 | 7,302 | 11,13,000 | 3,60,000 | 30,871 | — | 4,140 | 4,44,079 | 2,812 | 3,444 | 196 | 7,946 |
| Gujarat .. | 90,256 | 2,16,796 | 9,37,000 | 4,86,000 | 449 | 29,784 | 1,09,199 | — | 73,613 | 6,432 | 5,429 | 12,579 |
| Jammu & Kashmir .. | 2,449 | 3,262 | 2,73,000 | 9,000 | — | — | 11,539 | — | 936 | 445 | — | — |
| Kerala .. .. | 2,978 | 1,602 | 14,65,000 | 2,65,000 | — | 52,511 | 41,000 | — | 20,540 | 6,579 | 3,207 | 57,000 |
| Madhya Pradesh | 57,449 | 49 | 11,12,000 | 3,12,000 | 5,797 | 36,213 | 64,000 | — | 1,062 | 5,870 | 249 | 36,000 |
| Madras .. .. | 18,224 | 941 | 14,40,000 | 11,00,000 | 961 | 2,00,000 | 2,00,000 | 8,000 | 1,04,000 | 1,004 | 2,000 | 46,000 |
| Maharashtra .. | 61,172 | 7,469 | 21,44,000 | 11,33,000 | 1,94,813 | 2,00,000 | 1,60,000 | 8,000 | 30,000 | 11,000 | 2,000 | 44,774 |
| Mysore .. .. | 36,000 | 144 | 14,00,000 | 3,40,000 | 64,267 | 1,44,122 | 1,30,000 | 400 | 14,182 | 4,000 | 2,000 | 30,000 |
| Orissa .. .. | 10,994 | 28,794 | 6,00,000 | 40,000 | 2,41,000 | 20,000 | 22,000 | 1,000 | 100 | 2,000 | 2,000 | 10,000 |
| Punjab .. .. | 36,274 | 14 | 16,00,000 | 1,40,000 | — | 17,681 | 44,179 | 44,000 | 7,000 | 14,000 | 3,000 | 6,000 |
| Rajasthan .. | 17,447 | 49 | 8,00,000 | 47,000 | 467 | 10,000 | 60,000 | — | 1,197 | 1,000 | 100 | 14,424 |
| Uttar Pradesh . | 60,807 | 7,587 | 41,00,000 | 8,00,000 | — | 700 | 5,00,000 | 90,000 | 29,179 | 11,000 | 2,000 | 2,70,000 |
| West Bengal .. | 15,971 | 21 | 6,00,000 | 7,00,000 | 29,041 | 7,041 | 47,000 | 400 | 7,000 | 6,000 | 2,000 | 50,000 |
| Andaman & Nicobar Islands | — | — | 600 | 100 | — | — | 600 | — | — | 400 | — | — |
| Delhi .. .. | 1,022 | — | 24,000 | 94,000 | — | — | 2,113 | — | 412 | 700 | 800 | 475 |
| Goa, Daman & Diu .. | — | — | 2,000 | 12 | — | — | — | — | — | — | — | — |
| Himachal Pradesh .. | 1,198 | 393 | 79,000 | 4,000 | — | — | 1,049 | — | 176 | 78 | 295 | 417 |
| Laccadive, Minicoy & Amindivi Islands .. | — | — | — | — | — | — | 2,700 | — | — | — | — | — |
| Manipur .. .. | 605 | — | 20,000 | 2,000 | — | — | 1,130 | — | — | — | — | — |
| Pondicherry .. | 159 | 251 | 10,000 | 11,000 | — | — | 645 | 1,000 | 2,915 | 200 | — | 812 |
| Tripura .. .. | 401 | 572 | 30,000 | 1,000 | — | — | 6,659 | — | 43 | 575 | — | — |
| Total 1962-63 .. | 4,39,003 | 3,73,661 | 2,17,34,600 | 59,09,112 | 12,81,870 | 10,51,165 | 17,17,585 | 5,08,535 | 3,71,543 | 1,34,000 | 37,959 | 7,54,496 |
| Total 1961-62 .. | 4,29,064 | 2,99,548 | 1,94,72,000 | 49,69,000 | 10,30,199 | 8,52,293 | 17,41,200 | 25,41,179 | 3,91,064 | 97,000 | 36,011 | 8,23,294 |

[1] Including National Marketing Federation.

TABLE 5. NUMBER AND MEMBERSHIP, 1962-63—BY TYPE—*Contd.*

| State/Union Territories | NON-CREDIT SOCIETIES—*Contd.* | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sugar factories | Cotton ginning and pressing societies | Other processing societies | Weavers' societies | Spinning mills | Other Industrial societies | Consumers stores | Housing societies | Fisheries societies | Other non-agricultural societies | Insurance societies | Supervising unions | State and District unions and institutes |
| | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| | | | | | | Number | | | | | | | |
| Andhra Pradesh | 10 | .. | 2,033 | 999 | 4 | 1,297 | 590 | 452 | 448 | 512 | 1 | 125 | 5 |
| Assam | 1 | 2 | 402 | 1,533 | .. | 305 | 686 | .. | 225 | 32 | .. | .. | 16 |
| Bihar | 1 | .. | 543 | 1,063 | 1 | 1,400 | 295 | 40 | 179 | 122 | 1 | 2 | 1 |
| Gujarat | | 76 | 221 | 245 | 2 | 970 | 560 | 2,100 | 76 | 490 | .. | 192 | 17 |
| Jammu & Kashmir | .. | .. | 10 | 75 | .. | 50 | 20 | 4 | 1 | 9 | .. | .. | 1 |
| Kerala | 2 | 1 | 1 | 420 | 1 | 2,249 | 190 | 65 | 225 | 861 | .. | 56 | 4 |
| Madhya Pradesh | .. | 1 | 528 | 375 | .. | 1,666 | 584 | 315 | 105 | 445 | .. | .. | 40 |
| Madras | 6 | .. | 1,696 | 1,129 | 6 | 556 | 1,157 | 740 | 360 | 243 | 1 | 136 | 8 |
| Maharashtra | 20 | 41 | 523 | 750 | 5 | 1,863 | 1,205 | 2,684 | 220 | 1,114 | 1 | 306 | 32 |
| Mysore | 8 | 3 | 66 | 735 | 5 | 1,156 | 554 | 507 | 93 | 207 | .. | 141 | 21 |
| Orissa | 1 | .. | 417 | 548 | 1 | 497 | 336 | 492 | 110 | 292 | 2 | 1 | 1 |
| Punjab | 8 | 5 | 21 | 955 | 2 | 4,090 | 311 | 310 | 8 | 3,451 | .. | 26 | 18 |
| Rajasthan | 1 | 5 | 446 | 1,004 | .. | 1,925 | 446 | 195 | 6 | 923 | .. | 88 | 27 |
| Uttar Pradesh | 3 | .. | 1,138 | 1,640 | 1 | 2,928 | 631 | 571 | 71 | 2,837 | .. | .. | 1 |
| West Bengal | 2 | .. | 323 | 995 | 1 | 755 | 609 | 141 | 447 | 261 | .. | .. | 23 |
| Andaman & Nicobar Islands | .. | .. | 2 | 1 | .. | 3 | 19 | 1 | 1 | 10 | .. | .. | .. |
| Delhi | .. | .. | .. | 88 | .. | 286 | 212 | 283 | 3 | 170 | .. | 3 | 2 |
| Goa, Daman & Diu | .. | .. | 1 | .. | .. | 8 | 6 | 1 | 5 | .. | .. | .. | .. |
| Himachal Pradesh | .. | .. | 3 | 10 | .. | 50 | 17 | 1 | .. | 17 | .. | .. | 1 |
| L. M. & Amindivi Islands | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Manipur | .. | .. | 84 | 103 | 1 | 143 | 50 | 1 | 30 | 117 | .. | 10 | 1 |
| Pondicherry | .. | .. | 2 | 12 | .. | 14 | 9 | 3 | 10 | 4 | .. | 1 | .. |
| Tripura | .. | .. | 7 | 57 | .. | 67 | 20 | 3 | 6 | 14 | .. | 2 | 1 |
| Total 1962-63 | 66 | 134 | 8,467 | 12,732 | 30 | 22,278 | 8,507 | 8,909 | 2,729 | 12,131 | 6 | 1,089 | 220 |
| Total 1961-62 | 67 | 131 | 5,613 | 12,361 | 25 | 22,464 | 7,298 | 7,883 | 2,538 | 10,295 | 6 | 1,086 | 218 |
| | | | | | | Membership | | | | | | | |
| Andhra Pradesh | 31,801 | .. | 1,23,817 | 2,64,448 | 1,009 | 55,918 | 1,34,868 | 37,478 | 44,773 | 60,720 | 236 | 5,140 | 11,370 |
| Assam | 7,055 | 213 | 12,365 | 34,901 | .. | 7,647 | 1,15,435 | .. | 7,853 | 1,833 | .. | .. | 1,373 |
| Bihar | 3,311 | .. | 10,866 | 1,43,194 | 640 | 42,580 | 28,405 | 5,191 | 13,525 | 15,641 | 2,784 | 91 | 35,165 |
| Gujarat | 6,569 | 46,773 | 9,041 | 24,266 | 2,066 | 45,837 | 1,07,144 | 72,140 | 10,909 | 71,994 | .. | 8,453 | 5,591 |
| Jammu & Kashmir | .. | .. | 395 | 3,365 | .. | 2,556 | 9,371 | 236 | 406 | 1,843 | .. | .. | 424 |
| Kerala | 2,806 | 144 | 260 | 52,902 | 3,078 | 2,73,644 | 42,236 | 4,079 | 47,284 | 2,27,928 | .. | 4,039 | 137 |
| Madhya Pradesh | .. | 609 | 11,411 | 36,906 | .. | 35,938 | 53,085 | 16,565 | 4,515 | 27,289 | .. | .. | 11,930 |
| Madras | 15,678 | .. | 1,91,328 | 2,33,757 | 3,889 | 31,593 | 3,44,913 | 69,476 | 45,067 | 26,448 | 6,459 | 11,010 | 1,288 |
| Maharashtra | 40,467 | 19,787 | 40,120 | 86,786 | 3,882 | 81,269 | 2,71,422 | 1,20,541 | 36,732 | 1,03,840 | 418 | 21,863 | 12,199 |
| Mysore | 21,023 | 1,595 | 7,255 | 1,23,902 | 2,249 | 2,93,455 | 1,45,592 | 67,185 | 19,265 | 24,445 | .. | 3,296 | 1,387 |
| Orissa | 2,605 | .. | 15,772 | 61,128 | 311 | 19,218 | 38,532 | 18,527 | 13,740 | 22,330 | 298 | 17 | 937 |
| Punjab | 75,283 | 1,080 | 4,899 | 16,757 | 222 | 69,524 | 39,101 | 13,506 | 128 | 1,69,561 | .. | 2,501 | 5,993 |
| Rajasthan | 1,639 | 600 | 8,347 | 31,794 | .. | 36,607 | 61,492 | 11,444 | 134 | 30,265 | .. | 3,181 | 7,658 |
| Uttar Pradesh | 15,401 | .. | 34,567 | 1,22,613 | 417 | 72,517 | 1,58,014 | 22,739 | 3,684 | 49,495 | .. | .. | 86 |
| West Bengal | 2,681 | .. | 12,435 | 72,405 | 19 | 32,637 | 91,450 | 20,280 | 24,195 | 14,272 | .. | .. | 2,118 |
| Andaman and Nicobar Islands | .. | .. | 20 | 10 | .. | 33 | 4,616 | 17 | 67 | 433 | .. | .. | .. |
| Delhi | .. | .. | .. | 12,006 | .. | 8,284 | 46,585 | 45,316 | 98 | 7,910 | .. | 66 | 321 |
| Goa, Daman & Diu | .. | .. | 39 | .. | .. | 423 | 422 | 39 | 818 | .. | .. | .. | .. |
| Himachal Pradesh | .. | .. | 48 | 294 | .. | 1,396 | 2,374 | 19 | .. | 1,009 | .. | .. | 236 |
| L. M. & Amindivi Islands | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Manipur | .. | .. | 2,636 | 7,135 | 205 | 3,378 | 2,305 | 20 | 2,930 | 5,491 | .. | 213 | 18 |
| Pondicherry | .. | .. | 45 | 1,928 | .. | 612 | 2,258 | 796 | 1,420 | 695 | .. | 23 | |
| Tripura | .. | .. | 223 | 2,844 | .. | 1,889 | 1,718 | 96 | 1,157 | 525 | .. | 67 | 106 |
| Total 1962-63 | 2,26,319 | 70,801 | 4,85,889 | 13,23,341 | 17,987 | 11,16,955 | 17,01,338 | 5,25,690 | 2,78,709 | 8,63,967 | 10,195 | 59,960 | 98,332 |
| Total 1961-62 | 2,00,816 | 72,053 | 2,57,063 | 12,37,041 | 11,689 | 11,37,430 | 13,99,976 | 4,56,652 | 2,67,854 | 7,11,485 | 9,636 | 57,409 | 93,546 |

## TABLE 6: PRIMARY CO-OPERATIVE SOCIETIES—LOAN TRANSACTIONS DURING 1962-63—By State

Amount in thousands of rupees.

| States/Union Teritories | No. of societies | No. of members (in thousands) | Loans Advanced | Loans Repaid | Loans outstanding | Of which overdue | Amount advanced per member by Agrl. credit societies (in Rs.) |
|---|---|---|---|---|---|---|---|
| Andhra Pradesh | 28,223 | 35,58 | 41,07,00 | 27,05,50 | 59,10,23 | 8,00,90 | 151 |
| Assam | 9,249 | 5,60 | 1,29,06 | 1,13,27 | 2,61,99 | 1,42,99 | 11 |
| Bihar | 32,068 | 20,00 | 8,90,83 | 7,50,59 | 10,45,23 | 2,18,38 | 28 |
| Gujarat | 14,941 | 20,01 | 55,31,32 | 47,64,30 | 50,16,54 | 8,82,62 | 295 |
| Jammu & Kashmir | 1,482 | 3,06 | 1,39,78 | 1,27,90 | 1,80,69 | 53,95 | 35 |
| Kerala | 7,671 | 20,88 | 11,44,75 | 8,88,20 | 12,64,61 | 2,16,32 | 77 |
| Madhya Pradesh | 23,686 | 16,58 | 23,99,01 | 17,72,55 | 32,64,70 | 8,85,06 | 161 |
| Madras | 20,481 | 64,47 | 69,33,52 | 52,94,06 | 74,27,60 | 5,00,41 | 95 |
| Maharashtra | 34,389 | 49,50 | 1,14,43,17 | 93,82,89 | 1,21,56,59 | 22,31,10 | 212 |
| Mysore | 15,666 | 28,70 | 33,42,73 | 30,59,09 | 38,62,89 | 12,19,25 | 85 |
| Orissa | 11,881 | 14,76 | 8,05,27 | 5,74,27 | 12,21,21 | 2,82,62 | 57 |
| Punjab | 35,156 | 23,07 | 18,07,31 | 15,09,30 | 26,02,75 | 6,60,23 | 104 |
| Rajasthan | 18,716 | 11,20 | 7,09,79 | 7,06,47 | 8,81,15 | 3,25,87 | 62 |
| Uttar Pradesh | 66,768 | 78,44 | 59,56,68 | 49,76,00 | 53,85,81 | 7,75,75 | 105 |
| West Bengal | 18,416 | 18,87 | 37,33,60 | 30,21,49 | 44,65,92 | 2,59,08 | 79 |
| A. & N. Islands | 107 | 7 | 50 | 19 | 1,44 | 75 | 47 |
| Delhi | 2,053 | 2,30 | 3,59,95 | 2,93,73 | 4,04,27 | 19,71 | 201 |
| Goa, Daman & Diu | 72 | 5 | .. | .. | .. | .. | .. |
| Himachal Pradesh | 1,138 | 90 | 19,87 | 12,43 | 35,76 | 14,15 | 19 |
| L., M. & Amindivi Islands | 9 | 4 | 26 | 23 | .. | .. | .. |
| Manipur | 767 | 55 | 12,69 | 8,09 | 15,58 | 12,18 | 45 |
| Pondicherry | 152 | 33 | 66,42 | 51,24 | 67,65 | 3,18 | 280 |
| Tripura | 585 | 73 | 5,15 | 8,32 | 19,35 | 14,24 | 8 |
| Total 1962-63 | 3,43,676 | 4,15,69 | 4,95,38,66 | 4,00,20,11 | 5,54,91,96 | 95,18,74 | 116 |
| Total 1961-62 | 3,26,593 | 3,78,35 | 4,49,41,94 | 3,80,54,20 | 4,61,08,17 | 78,75,94 | .. |

*Note :* Amount advanced per member by non-agricultural credit societies and non-credit societies respectively during 1962-63 in Rs. Andhra Pradesh 207 ; 22 ; Assam 199 ; 16 ; Bihar 470 ; 11 ; Gujarat 380 ; 168 ; Jammu & Kashmir 76 ; 140 ; Kerala 94 ; 91 ; Madhya Pradesh 193 55 ; Madras 224 ; 42 ; Maharashtra 403 ; 52 ; Mysore 368 ; 75 ; Orissa 179 ; 16 ; Punjab 94 ; 11 ; Rajasthan 192 ; 47 ; Uttar Pradesh 101 ; 38 ; West Bengal 410 ; 9 ; A. & N. Islands — ; — ; Delhi 330 ; 2 ; Goa, Daman & Diu — ; — ; Himachal Pradesh 121 ; 2 ; L., M. & Amindivi Islands— ; —; Manipur 33 ; 2 ; Pondicherry 166 ; 168 ; Tripura 9 ; 4 ; Total for 1962-63 : 302 ; 41. A. N. : Andaman & Nicobar. L., M. : Laccadive, Minicoy.

## TABLE 7: GOVERNMENT CONTRIBUTION

### GOVERNMENT CONTRIBUTION TOWARDS THE SHARE CAPITAL OF CO-OPERATIVE SOCIETIES (BY STATE AND TYPE OF SOCIETY)

Amount in thousands of rupees.

| States/Union Teritories | Grand Total | CREDIT SOCIETIES | | | | | NON-CREDIT SOCIETIES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | State Co-op. Banks | Central Co-op. Banks | Agrl. Credit Societies | Central Land Mort-gage Banks | Total | Sugar Factories | Marketing Societies[1] | | | Others[1] |
| | | | | | | | | | State | Central | Primary | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Andhra Pradesh | 5,85.21 | 3,42,63 | 68,00 | 1,53,00 | 55,63 | 66,00 | 2,42,58 | 1,20,00 | 2,50 | 17,08 | 45.29 | 57.71 |
| Assam | 1,15.82 | 56.66 | 22.00 | 10.00 | 15,66 | 9,00 | 59,16 | 27,00 | 8,00 | 22 | 22,37 | 1,57 |
| Bihar | 2,12,39 | 1,33,48 | 41,00 | 45,50 | 32,98 | 14,00 | 78,91 | 10.00 | 10,00 | .. | 43.75 | 15.16 |
| Gujarat | 5,80,86 | 4,28,26 | 86,48 | 1,91,22 | 1,00,56 | 50,00 | 1,52,60 | 55,00 | 7,00 | 2,68 | 22,77 | 65,15 |
| Jammu & Kashmir | 31,34 | 24,00 | 8,00 | 5,00 | 8,00 | 3,00 | 7,34 | .. | 2,00 | 1,00 | 4.14 | 20 |
| Kerala | 1,95.19 | 1,18.22 | 23.00 | 38,50 | 25.93 | 30,79 | 76,97 | 50,00 | 3.03 | 40 | 7,05 | 16.49 |
| Madhya Pradesh | 3,57.82 | 2,76,69 | 74,60 | 1,11,21 | 75 88 | 15.00 | 81,13 | .. | 10,43 | .. | 62.07 | 8,63 |
| Madras | 5.82.65 | 3,47.29 | 1,01.00 | 1,37.10 | 69.18 | 40,01 | 2,35,36 | 1,20.00 | 3.00 | 6,03 | 25.39 | 80.94 |
| Maharashtra | 10,91.35 | 6,58.51 | 1,77,92 | 3,21,75 | 1,18,84 | 40,00 | 4,32,84 | 2,30,00 | 8,00 | 23,07 | 42,48 | 1,29,29 |
| Mysore | 5,00.00 | 2,94.40 | 70,00 | 1,14,17 | 75,23 | 35,00 | 2,05,60 | 50,00 | 4,18 | 35 | 66.17 | 84.90 |
| Orissa | 1,57.59 | 79.16 | 13,00 | 21.66 | 33.25 | 11,25 | 78,43 | 20,00 | 1,00 | .. | 27.37 | 30,06 |
| Punjab | 3,53.50 | 2,04,42 | 56,33 | 84.56 | 38,53 | 25,00 | 1,49,08 | 1,15,00 | 3,00 | 23 | 23.55 | 7,30 |
| Rajasthan | 1,62.01 | 1,31 55 | 40.00 | 40.49 | 36,06 | 15,00 | 30,46 | .. | 4,00 | .. | 23.75 | 2.71 |
| Uttar Pradesh | 5,36 14 | 3,57.02 | 45.00 | 2,01,70 | 92,32 | 18,00 | 1,79,12 | 60,00 | 20.00 | 1,60 | 60.39 | 37,13 |
| West Bengal | 74.05 | 52,37 | 15,00 | 22,00 | 10,37 | 5,00 | 21,68 | .. | 2,50 | .. | 12.19 | 6,99 |
| Andaman & Nicobar Islands | 58 | 39 | .. | .. | 39 | .. | 19 | .. | .. | .. | 19 | .. |
| Delhi | 4,59 | 4,16 | 1,50 | .. | 2,66 | .. | 43 | .. | .. | .. | 35 | 8 |
| Goa, Daman & Diu | 1,50 | .. | .. | .. | .. | .. | 1,50 | .. | .. | .. | .. | 1,50 |
| Himachal Pradesh | 16,54 | 14,45 | 8,00 | .. | 3.45 | 3,00 | 2.09 | .. | 80 | 71 | 96 | 12 |
| L., M. & Amindivi Islands | 85 | .. | .. | .. | .. | .. | 85 | .. | .. | .. | 85 | .. |
| Manipur | 9.29 | 7,18 | 5,00 | .. | 2,18 | .. | 2.11 | .. | 1,73 | .. | 15 | 23 |
| Pondicherry | 7.53 | 7,29 | 3,10 | .. | 1,06 | 3,13 | 24 | .. | .. | .. | 20 | 4 |
| Tripura | 11,02 | 7,97 | 4,00 | .. | 2,97 | 1,00 | 3,05 | .. | 80 | .. | 2,25 | .. |
| Total 1962-63 | 55,87,82[2] | 35,46,10 | 8,62,03 | 14.97.86 | 8,01,13 | 3,84,18 | 20,41,72 | 8,57,00 | 91.47 | 53.37 | 4 93.68 | 5,46.20 |
| Total 1961-62 | 47.49.64[2] | 30,26.50 | 7,69.04 | 12,93.28 | 6,81.16 | 2.83.04 | 17,23,14 | 7,82,00 | 83.69 | 38.45 | 4,15.59 | 4,03,61 |

[1]Includes figures for farming, fisheries, sugarcane supply, cotton, other processing, weavers, other industrial and spinning mills societies.
Excluding Rs. 4,5.000 contributed to non agricultural credit societies. L., M. Laccadive & Minicoy.
[2]Excluding Rs. 5,73 (000) contributed to non-agricultural credit societies.

## TABLE 8: FARMING SOCIETIES—NUMBER, MEMBERSHIP, ASSETS & LIABILITIES, END OF JUNE 1963

Amount in thousands of rupees

| States Union Territories | NO. OF SOCIETIES | | | No. of societies undertaking ancillary industries | COVERAGE IN ACRES | | Total liabilities | Working capital (Total of Cols. 18 to 21) | PAID-UP CAPITAL | | Reserve and other funds |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Joint farming | Collective farming | | Commanded | Under cultivation Total | | | Govt. or central financing agencies | Individuals and others | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Andhra Pradesh | 84 | 30 | 54 | 12 | 19,314 | 15,621 | 17,04 | 9,31 | 47 | 1,73 | 4,04 |
| Assam | 213 | 15 | 198 | .. | 14,694 | 7,979 | 13,83 | 10,86 | 7 | 2,70 | 10 |
| Bihar | 153 | 153 | .. | 5 | 28,805 | 17,623 | 13,17 | 7,86 | 20 | 2,52 | 43 |
| Gujarat | 228 | 42 | 186 | 8 | 46,505 | 24,869 | 50,24 | 44,26 | 3,00 | 7,60 | 7,08 |
| Jammu & Kashmir | 13 | 10 | 3 | .. | 4,281 | 1,309 | 1,74 | 59 | 20 | 13 | .. |
| Kerala | 129 | 121 | 8 | 3 | 5,377 | 3,868 | 15,98 | 11,67 | 75 | 3,41 | 21 |
| Madhya Pradesh | 239 | 126 | 113 | 20 | 44,848 | 27,484 | 69,51 | 12,31 | 4 | 68 | 60 |
| Madras | 55 | 54 | 1 | .. | 3,783 | 2,324 | 16,71 | 48,37 | 1,73 | 8,75 | 1,99 |
| Maharashtra | 710 | 251 | 459 | 9 | 1,20,237 | 74,785 | 1,16,97 | 95,49 | 8,30 | 13,88 | 6,04 |
| Mysore | 194 | 145 | 49 | 2 | 27,752 | 20,772 | 24,98 | 20,62 | 1,23 | 2,93 | 1,09 |
| Orissa | 78 | 75 | 3 | 2 | 6,572 | 3,178 | 14,34 | 9,60 | 42 | 59 | 42 |
| Punjab | 1,091 | 1,068 | 23 | 30 | 1,39,655 | 1,14,724 | 1,92,65 | 1,62,63 | 99 | 53,13 | 2,94 |
| Rajasthan | 407 | 228 | 179 | .. | 94,092 | 74,597 | 55,07 | 38,67 | 1,00 | 13,51 | 68 |
| Uttar Pradesh | 720 | 672 | 48 | 180 | 1,10,828 | 82,094 | 1,58,34 | 1,19,31 | 3,30 | 29,10 | 8,27 |
| West Bengal | 139 | 68 | 71 | 6 | 8,665 | 5,109 | 22,68 | 20,46 | 4 | 9,48 | 3,47 |
| Andaman & Nicobar Islands | 18 | 18 | .. | .. | 1,674 | 1,101 | 3,18 | 2,72 | .. | 64 | 83 |
| Delhi | 11 | 11 | .. | .. | 1,593 | 1,593 | 3,79 | 3,36 | 8 | 45 | 10 |
| Himachal Pradesh | 6 | 6 | .. | .. | 257 | 242 | 95 | 87 | 12 | 7 | .. |
| Manipur | 20 | 7 | 13 | .. | 1,335 | 981 | 2,46 | 2,21 | 16 | 1,01 | 2 |
| Pondicherry | 2 | 1 | 1 | .. | 109 | .. | 14 | 14 | 4 | 2 | .. |
| Tripura | 2 | .. | 2 | .. | 2,076 | 210 | 58 | 34 | .. | 3 | 8 |
| Total 1962-63 | 4,512 | 3,101 | 1,411 | 277 | 6,82,452 | 4,80,463 | 7,94,35 | 6,21,65 | 22,14 | 1,52,36 | 38,39 |
| Total 1961-62 | 3,577 | 2,381 | 1,196 | 216 | 5,61,313 | 3,85,010 | 16,39,58 | 5,06,71 | 14,50 | 1,34,69 | 32,26 |

| States/Union Territories | BORROWINGS | | | | All other liabilities | Total assets | FIXED ASSETS | | | | | LOANS | | | All other assets | Difference between assets & liabilities (+ or —) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Government | Central financing agencies | Others | | | Total | Land and buildings | Land improvement or reclamation | Machinery and implements | Others | Loans outstanding | Of which overdue | Bad and doubtful debts | | |
| | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| Andhra Pradesh | 3,07 | 1,38 | 93 | 76 | 7,73 | 16,27 | 6,84 | 3,65 | 1,10 | 1,42 | 67 | 1,33 | 39 | 5 | 8,10 | — 77 |
| Assam | 7,99 | 75 | 6,24 | 1,00 | 2,95 | 11,48 | 6,81 | 5,55 | 12 | 80 | 34 | 1,36 | 23 | .. | 3,31 | — 2,35 |
| Bihar | 4,71 | 1,03 | 1,66 | 2,02 | 5,31 | 16,99 | 10,03 | 6,73 | 65 | 2,00 | 65 | 1,16 | 31 | .. | 5,80 | + 3,82 |
| Gujarat | 26,58 | 10,14 | 6,99 | 9,45 | 5,98 | 46,95 | 27,54 | 11,75 | 5,74 | 6,51 | 3,54 | 3,05 | 1,02 | 4 | 16,36 | — 3,29 |
| Jammu & Kashmir | 26 | .. | 26 | .. | 1,15 | 1,65 | 52 | 12 | .. | 28 | 12 | 4 | .. | .. | 1,09 | — 9 |
| Kerala | 7,30 | 4,50 | 2,41 | 39 | 4,30 | 14,07 | 3,56 | 1,08 | 1,39 | 89 | 20 | 1,49 | 76 | .. | 9,02 | — 1,91 |
| Madhya Pradesh | 35,90 | 24,15 | 6,57 | 5,19 | 21,15 | 67,01 | 28,61 | 18,15 | 73 | 8,34 | 1,39 | 10,46 | 6,30 | 1,30 | 27,93 | — 2,50 |
| Madras | 10,99 | 7,98 | 2,66 | 35 | 4,40 | 15,20 | 4,26 | 1,42 | 1,11 | 1,16 | 57 | 1,09 | 8 | .. | 9,85 | — 1,51 |
| Maharashtra | 67,27 | 39,64 | 18,79 | 8,84 | 21,48 | 1,08,58 | 43,46 | 9,46 | 10,71 | 15,59 | 7,70 | 7,19 | 1,35 | 1 | 57,53 | — 8,39 |
| Mysore | 15,37 | 10,91 | 1,35 | 3,11 | 4,36 | 24,00 | 11,30 | 3,19 | 2,41 | 3,06 | 2,64 | 1,37 | 71 | 7 | 11,33 | — 98 |
| Orissa | 8,71 | 6,44 | 1,05 | 68 | 4,74 | 13.52 | 3,87 | 2,17 | 1,04 | 47 | 19 | 68 | 46 | .. | 8,97 | — 82 |
| Punjab | 1,05,57 | 15,90 | 31,76 | 57,91 | 30,02 | 1,48,69 | 82,45 | 27,55 | 3,32 | 49,82 | 1,76 | 1,98 | 87 | .. | 64,26 | — 43,96 |
| Rajashthan | 23,48 | 5,02 | 8,65 | 9,81 | 16,40 | 54,51 | 31,11 | 16,54 | 2,06 | 10,61 | 1,90 | 3,71 | 2,22 | .. | 19,69 | — 56 |
| Uttar Pradesh | 78,64 | 25,16 | 15,30 | 38,18 | 39,03 | 1,69,54 | 16,25 | 6,36 | .. | 9,89 | .. | 5,83 | 1,12 | .. | 1,47,46 | + 11,20 |
| West Bengal | 7,47 | 2,79 | 1,96 | 2,71 | 2,23 | 21,26 | 14,38 | 11,38 | 65 | 1,64 | 69 | 1,01 | 35 | .. | 5,89 | — 1,41 |
| Andaman & Nicobar Islands | 1,25 | 1,23 | .. | 2 | 46 | 3,37 | 1,62 | 56 | .. | 1 | 1,05 | 26 | 6 | 1 | 1,49 | + 19 |
| Delhi | 2,73 | 33 | 24 | 2,16 | 43 | 3,62 | 2,36 | 68 | .. | 1,68 | .. | .. | .. | .. | 1,26 | — 17 |
| Himachal Pradesh | 68 | 46 | 19 | 3 | 9 | 94 | 30 | 29 | .. | .. | 1 | 2 | .. | .. | 63 | — 1 |
| Manipur | 1,02 | 94 | 4 | 4 | 25 | 2,52 | 1,73 | 1,01 | 23 | 23 | 26 | 23 | 6 | .. | 56 | + 6 |
| Pondicherry | 8 | 8 | .. | .. | .. | 12 | 2 | .. | 2 | .. | .. | .. | .. | .. | 10 | — 2 |
| Tripura | 23 | 4 | 19 | .. | 24 | 43 | 6 | 1 | 1 | 3 | 1 | 9 | 9 | .. | 28 | — 15 |
| Total 1962-63 | 4,08,76 | 1,58,87 | 1,07,24 | 1,42,65 | 1,72,70 | 7,40,72 | 2,97,08 | 1,27,65 | 31,29 | 1,14,43 | 23,69 | 42,35 | 16,38 | 1,48 | 4,61,21 | — 52,62 |
| Total 1961-62 | 3,25,26 | 1,07,30 | 83,60 | 1,34,35 | 1,32,89 | 5,86,81 | 2,46,10 | 1,00,73 | 18,55 | 1,03,05 | 23,74 | 38,48 | 14,27 | 1,71 | 3,02,54 | — 52,76 |

# GOVERNMENT INDUSTRIAL UNDERTAKINGS

**IN the following pages we give short notes on Government industrial undertakings.**

The return on a total investment of Rs. 1,573·59 crores in 52 Government companies in 1963-64 was Rs. 26·27 crores (1·67 per cent of the investment).

During 1963-64, the paid-up capital of the 52 Government companies increased to Rs. 912·88 crores from Rs. 743·28 crores and the loans taken from the Government to Rs. 628·40 crores from Rs. 526·77 crores.

A committee on the Public Undertakings, which include 10 members of the Lok Sabha and five of the Rajya Sabha has been constituted and started functioning from May 1, 1964.

The functions of the Committee is to examine reports and accounts of public undertakings, which are established by the Central Acts or the Government companies. It will examine, in the context of autonomy and efficiency of the Undertakings, whether their affairs are being managed in accordance with sound business principles and prudent commercial practices.

## ASHOKA HOTEL

50-B, Chanakyapuri, New Delhi.

*Telegram and Cables:* "Ashoka Hotel". *Telephone:* 70311 (40 lines).

The largest luxury hotel in India. It is fully airconditioned and has private swimming pool, refrigerator, telephone and bath for every room.

When started: October 30, 1956. Total cost: Rs. 2·78 crores. Expenditure as on March 31, 1964: Rs. 82·30 lakhs. Income as on March 31, 1964; Rs. 118·31 lakhs. Net profit Rs. 36·01 lakhs; No. of rooms 349; No. of beds 450. The highest and lowest charge per day: Rs. 250 to Rs. 50. Total no. of persons who stayed from April 1963 to March 1964: 1,47,166.

The average daily occupancy during 1963-64 has been 402 persons as against 369 during 1962-63. The Hotel's loan liability has been reduced to Rs. 27 lakhs at end of March 1964 as against Rs. 32 lakhs at end of March 1963.

*Board of Directors:* S. Ratnam (*Chairman*); C. P. Gupta; S. N. Chib; D. J. Maden; H. H. Maharani Yasho Rajya Lakshmi of Jammu and Kashmir; K. L. Hathi; M. R. Dhawan; Yuvaraj Maharajkumar Shri Shatrushalyasinhji of Nawanagar. *Manager:* George Verghese.

## ATOMIC REACTORS

(Trombay, Bombay 71)

APSARA, the first reactor in Asia outside the USSR, attained criticality on August 4, 1956. It is a pool type reactor and was designed, engineered and built entirely by the engineers and scientists except for the enriched uranium fuel elements, which were provided by the United Kingdom Atomic Energy Authority under an agreement. It operates at a maximum power level of 1 MW.

The reactor has been designed to provide experimental facilities for various investigations and has proved itself to be invaluable for training personnel in reactor technology and fundamental research in neutron physics, engineering and biology.

The reactor has been used for the production of isotopes, irradiation of biological samples and testing of various types of reactor and health physics instruments as well as for fundamental research.

The first fuel charge was removed from the reactor in Dec. 1964, since it had attained its maximum burn-up. Complete maintenance of the various reactor components and repairs to the reactor pool were carried out in the first quarter of 1965 before loading the reactor with the second charge of enriched uranium fuel elements.

Several improvements have been incorporated in the cooling and control systems. A polishing circuit has been added to increase the purity of the pool water while the visual clarity of the water is ensured by special microfilters. Ion chambers of the most recent type fabricated at Trombay have been installed for reactor control.

Apsara completed 8½ years of operation in December 1964, with a record in power output of 2·23 million kilowatt hours during 1964. The total power output since date of first criticality is 10·09 million kilowatt hours.

THE CANADA-INDIA REACTOR (C.I.R.) is India's second reactor, built as a joint Indo-Canadian project under the Colombo Plan. Work on this project was taken up in February 1956 and the reactor attained criticality on July 10, 1960. The total cost of the project is approximately Rs. 10 crores, being shared in roughly equal proportions by the two countries.

CIR is a natural uranium-filled, heavy water moderated and light water cooled high flux research reactor with a thermal power of 40MW. The reactor is used for basic research in physics, chemistry, metallurgy and reactor technology, for the production of large quantities of high activity radioisotopes, and for the training of personnel for future reactor programmes.

CIR at its full power of 40 MW is one of the most powerful radioisotope producers in the world.

ZERLINA is India's third reactor. It is a zero energy reactor for lattice investigations and new assemblies. The reactor reached criticality on Jan. 14, 1961. It has been designed and built by Indian scientists and engineers of the Trombay establishment. It is designed to operate at a maximum power level of 100 watts, and is primarily meant for carrying out studies relating to new fuel configuration. It also provides flexibility for changing system components and experimental facilities.

Trombay scientists and engineers have also designed, built and commissioned a number of complex production plants. Some of them are as given below:

*Fuel Element Fabrication Facility:* This Facility, the first of its kind in Asia outside USSR and one of the half-a-dozen in the world, was designed and built entirely by Indian engineers and metallurgists. It went into operation in June 1959. The entire charge of fuel elements used for CIR and for Zerlina was fabricated here. The present capacity of this plant is about 30 to 40 tonnes of fuel elements per year.

*Graphite Shop:* A medium sized machine shop with special purpose machines for machining of nuclear purity graphite has been functioning at Trombay. This shop has undertaken during the course of the last few years the machining of over 300 tons of graphite required for the three reactors *viz.* the Apsara, the CIR and the Zerlina besides numerous other works such as graphite moulds, crucibles and other components required by the various Divisions of the Trombay Establishment for their research and development work.

*Central Workshop:* A manufacturing facility for the production of specialized equipment and apparatus required for the country's nuclear research and development programme is being set up at Trombay at an estimated cost of Rs. 2·3 crores. The routine work load on these shops is expected to be over Rs. 50 lakhs a year, excluding major projects and large scale fabrication of prototype equipment and experimental set-ups likely to be referred to these shops. This, over a period of years, will not only save large amounts of foreign exchange but also expedite development work in a fairly big way.

*Radiochemistry Laboratory:* This laboratory was commissioned in 1957 to train chemists in the handling of highly radioactive substances. It is equipped with the most modern facilities for handling plutonium and other highly radioactive elements. Here, the chemistry of actinide elements is studied. Research on various aspects of the fission of heavy elements is being carried out using radiochemical techniques. Fission product isotopes are being supplied to various customers. A large number of scientists from the establishment as well as outside institutions including from outside India have been trained in radiochemical techniques.

*Isotope Laboratory:* This Laboratory which was set up at its present site at Trombay in 1960, is responsible for the production and processing of radioisotopes like iodine-131, phosphorus-32, chromium-51, iron-59 etc. The laboratory has also facilities for the production of radiopharmaceuticals required for diagnostic purposes in nuclear medicine, and for the production of organic compounds labelled with carbon-14 and tritium. Facilities have been provided for the fabrication of multicurie sealed radiation sources of cobalt-60 and irridium-192 required for industrial use and also for development work connected with the applications of radioisotopes to industrial problems such as gamma radiography, siltation studies, etc.

*Electronic Instruments:* The Electronics Group of the Trombay Establishment has so far designed, developed and fabricated more than 75 different types of instruments such as portable G.M. counters, scalers, amplifiers, ratemeters oscilloscopes, analogue computers, and industrial instruments like thickness gauges, strain gauge pH meters, and so on. Diverse types of instruments for radiation health monitoring, survey and protection are also being fabricated for use in the Trombay Establishment, in other institutions using radiation sources and in the Tarapur Atomic Power Station.

*Plutonium Plant:* The irradiated fuel contains a small amount of plutonium, a valuable nuclear material along with a large quantity of radioactive fission products. Investigations have been conducted on the separation of plutonium from the irradiated fuel. A plant has been built at Trombay for treating primarily the natural uranium fuel rods irradiated in the Canada India Reactor for recovering plutonium from them. The plant was commissioned for trial operation in April 1964 and highly irradiated fuel was fed to the plant in August 1964. The plant was formally inaugurated by the Prime Minister on January 22, 1965.

An auxiliary plant has been built that will reduce considerable quantity of the radioactive waste resulting from the plutonium Plant to a small bulk so that it can be stored in underground tanks.

All parts of the Plutonium Plant complex are in continuous operation at present.

*Uranium Ore Mill:* A uranium mill with a capacity to treat 1,000 tonnes of uranium ore per day is being set up in Jadugoda area in Bihar. The process to be employed has been developed in the Atomic Energy Establishment laboratories at Trombay. The mill, estimated to cost Rs. 7 crores, is expected to go into operation in 1965.

*Uranium Metal Plant:* This plant, designed and built entirely by the Establishment's personnel, was commissioned in January 1959. It has an annual capacity of about 30 tonnes of nuclear grade Uranium. A process for the production of ceramic grade uranium dioxide has been successfully developed on the basis of which design of a 200 tonnes uranium oxide plant has been completed.

*Heavy Water Reconcentration Plant:* The plant designed entirely by Indian engineers for the reconcentration of down-graded heavy water had been completed and has been operating continuously since early part of 1962.

A small-scale electrolyser assembly for reconcentration of down-graded heavy water has

also been developed and designed by Indian engineers and has been taken into operation.

A pilot plant for producing enriched Boron-10 used in neutron counters has been designed, fabricated and installed at Trombay. The plant has been operating continuously since the middle of 1964.

*Heavy Water Plant :* The first Heavy Water Plant in Asia designed to produce 15 tonnes of heavy water annually in conjunction with the Fertilizer Corporation of India's Nangal Unit went into operation and has started producing nuclear grade heavy water since Dec. 1962. This plant has been operating continuously without any break.

**Industrial Operations**

With the object of exploiting fully the indigenous raw materials for the speedy and successful implementation of its programme, the Commission has already set up a number of plants, while others are in the process of being set up. They are :

*Rare Earth Plant :* This plant which was set up in 1952 at Alwaye is now owned by the Government of India. Its capacity for processing 1,800 tons of monazite has been increased to 3,000 tons annually. It produces rare earths (chiefly cerium) compounds and a cake containing thorium and uranium. Trisodium phosphate, a detergent, obtained as a by-product, has a good market. The rare earths compounds (mixed rare earths chloride, carbonate and hydroxide) are sold in the world market. Small amounts of naphthenate, fluoride and oxide of cerium are also produced.

A plant, for the manufacture of Cerium Fluoride, has been designed and erected by the Company at Alwaye. The plant is now on trial runs and is likely to be in regular production by June 1965.

This plant would be able to meet the country's entire requirement of rare earths fluoride for the manufacture of arc carbons.

*Thorium Plant :* This plant, built entirely by Indian scientists and engineers for processing the thorium concentrates from the Rare-Earths Plant at Alwaye, went into production at Trombay in September 1955. Its capacity was increased six fold in 1958. The plant is one of the largest in the world for the production of thorium nitrate. Besides supplying virtually the entire requirements of the gas mantle industry in India, it also supplies markets in Europe and America, helping India to save foreign exchange to the tune of Rs. 219 lakhs (upto 31st March 1964). It also produces nuclear grade thorium oxide which is being used by Canada-India Reactor for the production of uranium-233.

*Minerals Division, Quilon :* Recently, the Company has taken over the assets of Travancore Minerals Ltd., Quilon, which has gone into liquidation on 27th January 1965. The company has taken over the operation of the mineral sands industry which was being run by Travancore Minerals Ltd.

## BHARAT EARTH MOVERS LTD.

**Hindustan Aircraft Post, Bangalore-17.**

Bharat Earth Movers Limited was registered as a company in the public sector, under the Ministry of Defence, Department of Defence Production on May 11, 1964 with an authorised capital of Rs. 7·5 crores.

The company has been formed in technical collaboration with Messrs. Le Tournean-Westinghouse Company of U.S.A. for the indigenous manufacture of various types of heavy earth moving equipment for India's border roads, river valleys, irrigation and mining projects.

The erstwhile railcoach division of Hindustan Aeronautics Limited which has a strength of 3,600 employees, has been merged with this company on Jan. 1, 1965 as a distinct division. The railcoach division turns out its installed capacity of 25 broad gauge integral rail coaches per month.

In its Earth Movers Division, the company will manufacture heavy motorised scrapers, rear dumps, rubber tyred tractors, crawler tractor drawn scrapers, haulpaks, motor graders and cranes.

The company has the sole distribution rights in India, Nepal and Bhutan, of the complete range of Earth Moving Equipment manufactured by Messrs. Le Tournean Westinghouse Company, U.S.A.

*Board of Directors : Chairman :* M. M. Philip, I.C.S. (Retired) ; *Members :* S. Jayasanker, M. K. Hariharan, R. B. Vaghaiwalla, I.C.S., P. Sahai, A. R. Venkataraman, Maj.-Gen. R. A. Loomba, K. Balachandran, I.C.S., Brig. P. R. Kumar, (*Managing Director*).

## BHARAT ELECTRONICS LTD.

(Jalahalli P.O., Bangalore 13)

Under the Ministry of Defence)

Bharat Electronics Limited was registered as a company with an authorised capital of Rs. 10 crores in April 1954 with the object of making the country self-sufficient in electronic equipment including Radar. The paid-up capital is Rs. 5·2125 crores. Actual production started in 1956 in a small way with two items in the production line—a General Purpose Communication Receiver and a Medium Power Transmitter. Since then production has been progressively diversified and expanded and the total number of electronic equipment including Measuring and Test instruments produced or under production is now of the order of about seventy.

Various types of HF and VHF equipment are now in the production line of the factory. These include :

*A. F. Equipment :* Preamplifiers ; General Purpose Amplifiers ; 10 Watts and 40 watts Monitoring Amplifiers ; Equalised and output Regulated Line Amplifiers ; Engineer's Consoles ; Console and Portable Tape Recorders ; Tape Playback Decks ; Belhaler.

*H. F. Equipment :* Communication Receivers for A.M., S.S.B., I.S.B., F.S.K., etc. ; Diversity Receiving equipment ; H.F. Transmitters, Receivers and Transreceivers for mobile and static use ; Low Power S.S.B. Transmitters/Receivers ; 80 watts, 500 watts and 2·5 k.w. Navigational Beacon Transmitters ; 400 watts H. F. Transmitters ; 1·kw, 10 kw and 20 kw M. W. Broadcast Transmitters ; 1 kw and 5 kw S.S.B. Communication Transmitters ; 2 kw and 20 kw I.S.B. Communication Transmitters ; Direction Finding Receivers/Radio Compass.

*V. H. F. Equipment :* 400 Milliwatt and 750 Milliwatt F. M. Manpack Transreceivers ; 20 watts (Mobile) and 50 watts (Static) F. M. Transreceivers ; Single, Twin and Ten channel V.H.F. Airborne A.M. Transreceivers ; V.H.F., A.M. Transmitters/Receivers for air to ground communication V.H.F., A.M., Tone Signalling equipment ; V.H.F., F.M., Multichannel Equipment of different types ; Balloon-borne Transmitters " BELWIN " for Meterological use.

*Measuring Instruments and other Equipment :* Vacuum Tube Voltmeters ; A. F. Oscillators ; Audio and R. F. Output Power Meters ; Cathode Ray Oscilloscopes ; Harmonic Generators ; Ultrasonic Flaw Detectors ; Faraday Cages ; Clinical Audiometers for the medical profession ; RADARS.

*Components :* Piezo Electric Crystals ; Radio Receiving Valves ; Mica and Ceramic Capacitors ; Germanium Diodes ; Transistors.

During 1964-65 about 10 million components including Valves, Transistors, Crystals, Semiconductors etc., were manufactured.

The total foreign exchange saved by the Company is nearly Rs. 11·85 crores upto 1964-65. The present strength of the employees is 4,825. The production rose from Rs. 302·74 lakhs in 1963-64 to Rs. 707·97 in 1964-65.

*Chairman, Board of Directors :* Dr. S. Bhagavantam (Scientific Adviser, Ministry of Defence).

*Board of Management :* B. V. Baliga (Managing Director) ; A. Rangaswami (Controller of Finance) ; C. B. Cariapa (Deputy General Manager) ; C. R. Subramanian (Dy. General Manager, Components).

## BHARAT HEAVY ELECTRICALS LTD.

(A Govt. of India Undertaking)

*Regd. Office :* 5, Parliament Street, New Delhi-1.

Authorised capital : Rs. 40 crores. The company has under it the following four units :— (1) Ranipur Unit, Hardwar (U.P.) ; (2) Ramachandrapuram Unit, Hyderabad ; (3) Tiruverumbur Unit, Tiruchirapalli (Madras) ; (4) Switchgear Unit, Hyderabad.

The Tiruverumbur Unit of the company has started production and was inaugurated on May 1, 1965.

The Ranipur Unit is designed to produce 1·5 million kW of steam turbines and turbo-alternators, 1·2 million kW of hydro turbines and generators and 0·5 million kW of medium and large sized AC and DC motors. The total annual production at the ultimate capacity of the plant will be of the order of about Rs. 40 crores. The factory is proposed to be commissioned in stages starting towards the latter part of 1965.

The Ramachandrapuram Unit is designed to manufacture steam turbines, turbo-alternators and certain power station auxiliaries like condensate pumps, feed water pumps and circulating water pumps. The output capacity planned is about 800 MW, comprising mainly of unit sizes of 55 MW and 100 MW. The full output from this plant is expected in 1972-73, but it is proposed to commission this factory also in stages, starting from about the last quarter of 1965.

Tiruverumbur Unit will manufacture high pressure boilers complete with mills, high pressure fittings and valves. The output in the first stage of development will be sufficient to match a power generating capacity of 7,50,000 kW. It is proposed to further enlarge the scope of this Plant in the Fourth Plan period upto a production equivalent of 2,000 MW of generating capacity.

The Switch Gear Unit is designed to manufacture air blast circuit breakers in collaboration with a Swedish firm.

*Board of Directors :* K. B. Mathur (*Chairman*) ; K. M. Chinnappa, K. L. Ghei, O. N. Misra, B. D. Sanwal, M. Aswath, P. P. Khanna (*Secretary*).

## BOKARO STEEL LTD.

C/o Hindustan Steel Ltd.,

P.O. Hinoo, Ranchi.

The Union Government is setting up another steel plant in the public sector at Bokaro.

A public sector company known as Bokaro Steel Ltd. for setting up the Bokaro steel plant was registered at New Delhi on January 29, 1964. This company will have a share capital of Rs. 100 crores.

An agreement was signed on 25th January, 1965 between the Government of India and the Government of the USSR for co-operation in the construction of an integrated iron and steel works at Bokaro.

The agreement provides for the construction of a modern steel works at Bokaro with a capacity of 1·5 to 2 million tonnes with provision for expansion to 4 million tonnes. This will be the fourth steelworks in the public sector.

The Government of the U.S.S.R. are extending a credit upto 190 million roubles (Rs. 100·5 crores) for the purpose of meeting the foreign exchange cost of the plant. It bears an interest of 2·5 per cent and is repayable in twelve years.

The agreement envisages that Bokaro, as Bhilai, will be Indian built, with such assistance of Soviet specialists as the Indian organisations may require for the construction, erection and commissioning of the plant. It also envisages that the Soviet organisations will assist in

the training of Indian specialists and workers both in the USSR and in India.

The Soviet organisations are to prepare within nine (1965) months a detailed project report for the construction of Bokaro. The detailed Project Report will be for a 4 million tonnes plant.

Bokaro will produce hot and cold rolled strip and sheet and galvanised sheet. These are products in which there is acute shortage today. The mill complex consists of a 1,250 mm Slabbing mill, capable of rolling ingots over 30 tonnes and 2,000 mm wide Continuous Hot and Cold Rolling Mills. Steel is to be made by the basic oxygen converter process. Iron is to be made in 2,000 cu.m. furnaces which will be among the largest in Asia. It is also envisaged that the plant will incorporate the latest technological developments in steel production and a large scale use of automation.

According to the agreement, the Soviet orgaisations are to supply such equipment as are not available in India, during the period 1966 to 1969. The commissioning of the plant early in 1970 will contribute in a significant manner towards meeting the capacity target of 16·5 million tonnes set for the steel industry in the Fourth Plan period for the development of the Indian economy.

*Board of Directors :*—N. N. Wanchoo (*Chairman*); K. M. George (*Mg. Director*); K. L. Ghei; N. M. Wagle; K. Sreenivasan; Dr. A. K. Bose; T. P. Singh; G. D. Khandelwal.

## CHITTARANJAN LOCOMOTIVE WORKS

(Chittaranjan, Burdwan Dt., West Bengal)

Branch Office : Hindustan Buildings, 4, Chittaranjan Avenue, Calcutta 13)

*General Manager :* D. V. Reddy.

**The works are under the Ministry of Railways.**

Construction started in March 1948 and was completed on September 30, 1952. Production started on January 26, 1950. The first locomotive rolled out on November 1, 1950. The total estimated cost is Rs. 14·93 crores. The present capital cost at charge is Rs. 20 crores.

The total number of workshop staff (under Factory Act), 5,234; apprentices, 500. The total strength of the organization 11,120 (corrected upto Dec. 1964).

**The production schedule has been as follows:**

Rs. lakhs.

| Year | No. of locomotives | Cost per locomotive |
|---|---|---|
| 1950-51.. .. .. | 7 | 7·13 |
| 1951-52.. .. .. | 17 | 7·47 |
| 1952-53.. .. .. | 33 | 7·94 |
| 1953-54.. .. .. | 64 | 6·05 |
| 1954-55.. .. .. | 98 | 5·33 |
| 1955-56.. .. .. | 129 | 4·05 |
| 1956-57.. .. .. | 156 | 4·07 |
| 1957-58.. .. .. | 164 | 4·09 |
| 1958-59.. .. .. | 165 | 4·09 |
| 1959-60.. .. .. | 173 | 4·10 |
| 1960-61.. .. .. | 173 | 4·06 |
| 1961-62.. .. .. | 176 | 4·13 |
| 1962-63.. .. .. | 183 | 4·31 |
| 1963-64.. .. .. | 176 | 4·30 |

At present the value of imported contents in respect of W. G. locomotive is only 1·9 per cent.

A steel foundry with an estimated cost of Rs. 6·31 crores and annual capacity of 10,000 tonnes of finished castings per year started production towards the end of Nov. 1963.

With a view to conserving foreign exchange, a Galvanizing Plant at a cost of Rs. 14·57 lakhs was set up at Chittaranjan for galvanising the steel masts of the Railway Electrification Project.

Plans are under way for the manufacture of the traction equipment such as traction motors, rectifiers and axle boxes required for the electric locomotives and also for the manufacture of broad gauge diesel shunters and narrow gauge diesel locomotives.

## ENGINEERS INDIA PRIVATE LIMITED

C/o., Ministry of Petroleum & Chemicals, New Delhi.

The Government of India and the Bechtel International Corporation of San Franscisco, U.S.A. have jointly formed an engineering company known as Engineers India (Private) Limited.

The company will provide technical and other services in the development of petroleum, petrochemical and other industrial programmes in India.

The company will employ engineers from India and the U.S.A.

## THE FERTILIZERS AND CHEMICALS, TRAVANCORE LTD.

P.O. Udyogamandal, Alwaye, Kerala State.

The Fertilisers and Chemicals, Travancore Ltd. popularly known as FACT, started production in 1947. It was the first unit to manufacture ammonium sulphate on a commercially large scale in India. In addition to ammonium sulphate, the Company has a variety of other products like ammonium phosphate, superphosphate, ammonium chloride, sulphuric acid, anhydrous ammonia and liquid sulphur dioxide At present FACT has an annual production capacity of 100,000 tons of ammonium sulphate, 8,000 tons of ammonium chloride, 35,000 tons of ammonium phosphate, 44,000 tons of superphosphate, 100,000 tons of sulphuric acid and 3,500 tons of liquid sulphur dioxide.

The first and second stages of expansion programme involving respectively Rs. 30 million and Rs. 20 million have been completed. The second stage expansion which was completed in 1962, inaugurated the new oil gasification complex, the like of which was introduced for the first time in India. The Company is at present engaged in putting through a third stage expansion programme involving an investment of Rs. 120 million which aims at more than doubling the production capacity. This programme includes the installation of another oil gasification plant and a Tonnage Oxygen plant to enable the production of an additional 140 tonnes of ammonia per day. In addition, a 450-ton sulphuric acid plant, a 300-ton ammonium phosphate plant, a 100-ton phosphoric acid plant, a 50-ton ammonium chloride plant and a 300-ton ammonium sulphate plant based on the utilisation of by-product gypsum, are also being installed. The end-product pattern on completion of the third stage expansion which is expected to be completed by 1965, will be as follows :—

Ammonium sulphate 200,000 tons; Ammonium phosphate 135.000 tons; Ammonium chloride 25,000 tons; Superphosphate 44,.000 tons; Sulphuric Acid 250.000 tons; Fertiliser Mixtures (NPK) 350,000 tons.

To meet the fertiliser requirements of Kerala, Madras and other States in South India, FACT has organised a well-knit distribution system. In Kerala alone the Company has more than 2.000 selling points. For encouraging the use of balanced fertilisers, FACT is doing intensive field publicity and extension work. Today it manufactures over 20 grades of NPK mixtures to suit the needs of different types of soils as well as the numerous varieties of crops.

Lately, the Company has been taking a leading role in the manufacture of plant and equipment required for the chemical, petrochemical, petroleum refining and fertiliser industries, and in this connection it has already entered into negotiations with Messrs. Davy-Ashmore Ltd., UK for the construction of a highly specialised fabrication shop capable of manufacturing medium pressure vessels, heat exchangers and stainless steel equipment.

The Company has also built up a competent design and engineering organisation which will be expanded further to take up the work entrusted by the Government of India for the planning, designing and construction of three complete fertiliser factories in South India during the Fourth Five Year Plan period.

*Managing Director :* M. K. K. Nayar.

## FERTILIZER CORPORATION OF INDIA LTD.

F-43, South Extension Area, Part I, Ring Road, New Delhi-3.

(Under the Ministry of Petroleum and Chemicals)

The Fertilizer Corporation of India was formed on January 1, 1961, integrating the fertilizer units in the public sector and bringing them under a unified control. This was done in order to secure co-ordination in policy and ensure efficient and economic expansion and working of fertilizer factories in the public sector.

The constituent units of the Corporation now are the two operating fertiliser factories at Sindri in Bihar, Nangal in Punjab and four projects under implementation at Trombay in Maharashtra, Namrup (Assam), Gorakhpur (U.P.) and Durgapur, (West Bengal). Korba in M.P. is likely to be taken up shortly (May 1965).

The Corporation has an authorized capital of Rs. 75 crores and issued and subscribed capital of Rs. 48,05,14,000.

With the completion of all the aforesaid projects, the Fertilizer Corporation in another three years will have developed an overall production capacity of 6,37,000 tonnes of nitrogen and 1,53,500 tonnes of Phosphate per year.

The Third Five-Year Plan has set a target of one million tons of nitrogen and 4 lakh tons of phosphate to be achieved at the end of the Plan period. These targets are proposed to be raised to two million tons of nitrogen, one million tons of phosphate and 0·35 million tons of potash by the end of the Fourth Plan.

The Corporation's operating factories have so far produced over 55½ lakh tonnes of various types of nitrogenous fertilizers valued at over Rs. 166 crores. These fertilizers have gone to different parts of the country to make a very substantial contribution towards increasing agricultural production.

The Rourkela Fertilizer Factory, which was managed by the Corporation on behalf of Messrs. Hindustan Steel Ltd., has been handed back to them with effect from May 1, 1964.

### Sindri Unit

Sindri, the first largest fertilizer factory in India, was originally planned to produce 355,000 tons of Ammonium Sulphate per year and it went into production in 1951. Since then, Sindri's nitrogen capacity has been augmented to the extent of 121,920 tons of Double Salt (Ammonium Sulphate-Nitrate) and 23,470 tons of Urea annually. The expansion plants were brought to production in 1959.

Sindri thus produces three types of nitrogenous fertilizers, Ammonium Sulphate, Ammonium Sulphate-Nitrate and Urea. Ammonium Sulphate has 21 per cent of nitrogen while Ammonium Sulphate-Nitrate has 26 per cent and Urea 46 per cent of nitrogen.

*Plants :* The main group of plants for the production of ammonium sulphate are the Coke Oven Plant, the Gas Plant, the Ammonia Synthesis Plant and the Sulphate Plant.

The Coke Oven Plant has been designed to produce 600 tons of coke per day and various by-products of industrial importance.

The Gas Plant produces a gas mixture for ammonia synthesis after necessary purification and is capable of producing 33 mil. c.ft. of raw gas per day.

The Ammonia Synthesis Plant, is designed to produce 270 tons of ammonia per day.

In the Sulphate Plant, finely ground gypsum is mixed with the solution of ammonium carbonate and the resultant chemical reaction

produces ammonium sulphate which is crystallised and separated. The fertilizer is then either sent for storage in the silo or to the bagging plant.

The factory has also a power plant with a capacity of 80,000 Kw. to provide it with electricity and process steam.

The requirements of main raw materials for the production of 974 tons a day of fertilizer are 1,600 tons of gypsum and 600 tons of coke per day.

The Expansion Plants to produce two new types of fertilizer, utilising the coke oven gas, consist mainly of a Gas Reformation Plant, Double Salt Plant and Urea Plant.

The Double Salt Plant has two sections, the Nitric Acid Plant, producing 225 metric tons of 53 per cent nitric acid and the Double Salt Section, producing ammonium sulphate nitrate.

The Urea Plant operates on the 'once-through' process. Liquid ammonia and pure carbondioxide are compressed separately and then after further processing the fertilizer is produced.

The total cost on the original plants and the expansion plants has been about Rs. 45 crores.

Sindri produced 39,81,333 tonnes of ammonium sulphate, 2,71,194 tonnes of double salt and 83,811 tonnes of urea till the end of March, 1965. This has saved the country about Rs. 132 crores in foreign exchange.

### Nangal Unit

The second largest fertilizer factory in the public sector was built at Nangal and was successfully commissioned on February 22, 1961.

The factory has been designed to produce annually 3,88,000 tons of calcium ammonium nitrate, a nitrogenous fertilizer containing 20·5 per cent nitrogen. It has been located close to the world's highest dam, because the main raw materials for the production of fertilizer are electric power drawn from the Bhakra Hydro-electric Station and water from the Sutlej river. The full requirement of electric power for the factory is of the order of 1,64,000 kW and 80 million gallons of water per day.

The Nangal factory has cost over Rs. 31 crores.

A brief description of the plants is given below :—

*Electrolysis Plant :* In this plant, 25,000 cubic metres of hydrogen are generated every hour by the eletrolysis of water. There are in all 60 electrolysers, each containing 108 cells. The 60 electrolysers consume 1,32,000 kW of power. In addition to hydrogen, the plant also produces oxygen, a part of which is later utilised in the nitric acid plant for the oxidation of ammonia.

*Ammonia Plant :* This plant is the heart of the entire scheme of production of fertilizer. For it is here that nitrogen drawn from liquefied air is mixed with hydrogen into a processable substance-ammonia. The rated output of the plant is 300 tons of ammonia a day in three streams.

*Nitric Acid Plant :* The next process is the production of nitric acid, the daily production capacity being 560 tons of 100 per cent nitric acid or over 1,200 tons of 53 per cent nitric acid which is the dilution actually used in the process.

*Fertilizer Plant :* The active ingredient of the finished fertilizer is ammonium nitrate—the reaction product of ammonia and nitric acid. The reaction is carried out in a neutraliser, and the resulting solution of ammonium nitrate is concentrated to 94 per cent under vacuum. The chemistry of the reaction is simple but the process being inherently hazardous, accurate control of temperature concentration and flow conditions has to be maintained throughout this section of the plant.

In a separate section of the plant, limestone is crushed and ground to a fine powder. Powdered chalk is then mixed with ammonium slurry in a granulator. The granules of calcium ammonium nitrate are then successively passed through screens, driers and coolers and finally through a coating drum where the fertilizer is coated with a fine layer of powdered soap-stone.

The purpose of dilution with chalk is to reduce the nitrogen content to a safe lower limit of 20·5 per cent and thus render it absolutely safe for handling by the farmer.

The finished product is either sent straight to the bagging plant or sent to a silo for temporary storage. The bagging plant fills 1,000 bags (50 kgs. each) every hour. It has been designed to fill two days' fertilizer production every day.

To supply power and water requirements, two separate plants have been installed.

The water supply and treatment plant is designed to handle 80 million gallons per day of water drawn from the Sutlej.

*Heavy Water Plant:* The fertilizer production has been tied up with the production of heavy water as well, according to the latest and best available process and in the best economical way.

The designed capacity of the Heavy Water Plant is 14,000 kg. of heavy water annually. The plant went into production on August 9, 1962.

Till the end of March, 1965 the Nangal Fertilizer Factory produced 12,42,183 tonnes of calcium ammonium nitrate. This has saved the country about Rs. 34 crores in foreign exchange.

### New Projects

The Corporation's new projects are in different stages of progress.

### Trombay
(Maharashtra)

The Trombay Fertilizer Project, which is estimated to cost approximately Rs. 33·5 crores, is designed to produce 90,000 tonnes of nitrogen and 45,000 tonnes of phosphate ($P_2O_5$) per year in the form of urea and nitrophosphate, a complex fertilizer, containing two major plant nutrients — nitrogen and phosphate (12·9 : 12·9) — will be the Corporation's third unit to be commissioned. The project is in its final phases of construction and trial runs of various sections of the factory are scheduled to start in the near future (May, 1965).

*Menthonal Plant :* The scope of the Trombay Project has been enlarged by the decision to set up, at the instance of the Government of India, a 100-tonne per day Menthonal Plant estimated to cost over Rs. 4 crores to meet the country's defence and industrial requirements. The Plant was expected to be commissioned by Oct., 1965.

### Namrup
(Assam)

The Namrup Project, which is estimated to cost Rs. 18 crores approximately, is designed to produce 45,000 tonnes of nitrogen per year in the form of 1,00,000 tonnes of ammonium sulphate and 55,000 tonnes of urea. The Plant is expected to go into production early in 1967.

### Gorakhpur
(U. P.)

The Gorakhpur Plant is designed to produce 80,000 tonnes of nitrogen per year exclusively in the form of 1,73,920 tonnes of urea and is estimated to cost a little over Rs. 26 crores. The factory is expected to go into production in 1967.

The final project report of Korba with details estimated for an anticipated total capital outlay of approximately Rs. 31 crores has already been submitted to the Government and is now under consideration (May 1965). The Plant is designed to produce 1,00,000 tonnes of nitrogen per year exclusively in the form of 2,17,800 tonnes of urea.

*Welfare :* The Corporation has established fully developed townships at Sindri, Nangal and Trombay having respectively 5,900, 2,200 and 1,750 units of accommodation at a cost of approximately Rs. 7·50 crores.

The Corporation's total expenditure in 1963-64 on account of welfare measures for its employees in its operating units at Sindri and Nangal amounted to nearly Rs. 39 lakhs.

BOARD OF DIRECTORS

*Chairman & Managing Director:* Satish Chandra, I.C.S. ; *Directors :* Dr. S. Husain Zaheer ; K. L. Ghei ; I. J. Naidu ; H. N. Sethna ; R. L. Mehta ; Lalbhai Patel ; Syed B. Rahman ; Uma Dutt Shastri ; T. Bullaiah ; J. N. Bhardwaj; M. K. K. Nayar ; M. Ramakrishnayya.

## GARDEN REACH WORKSHOPS LTD.

43/44, Garden Reach, Calcutta 24.

(*See under Late Particulars*).

## HEAVY ELECTRICALS INDIA LTD.

( A Government of India Undertaking )

( Post Box No. 46, Bhopal )

(Under the Ministry of Industry)

The Company has an authorised capital of Rs. 50 crores. Its issued and paid-up capital including amount awaiting allotment is Rs. 48 crores.

The production of switchgear started in 1958 followed by that of transformers and capacitors. Subsequently, the manufacture of traction motors and associated electrical equipment was taken up. The factory has also commenced the manufacture of industrial motors.

The factory was originally planned for an annual output of Rs. 12·5 crores to be achieved by 1968. Subsequently, it was decided to raise the production capacity of the factory to about Rs. 40 crores in the optimum level. The total strength of employees at optimum level is expected to be nearly 20,000.

**Ancillary Services :** The factory has its own blue water gas plant, boiler plant, power house, oxygen and acetylene plants and electroplating shop. One of the unique features of construction is the provision of a one-and-a half mile long, 7 ft. × 6 ft. wide concrete service tunnel which runs below each block to supply electricity, gas, water etc.

An industrial estate has come up in the vicinity of the factory on an area of 132 acres. The estate will accommodate ancillary industries for the manufacture of components required for heavy electrical equipment and thus reduce imports. Six such industries have already been set up. These industries will provide a regular flow of material and components to suit the factory's production requirements.

**Production Programme :** The factory has turned out equipment of the sale value of Rs. 9·78 crores during the period from July 1, 1960 to March 31, 1964. During 1964-65 the sale value was over Rs. 6·15 crores.

**Township :** The Heavy Electricals township is spread over an area of 10 sq. miles with 85 miles of roads already laid. Nearly 8,000 quarters have been constructed in the township. The township is equipped with all modern amenities such as hospitals, dispensaries, shopping centres, community centre, play grounds, clubs, post offices, schools and auditoriums. The township has a population of about 35,000.

**Board of Directors :** *Chairman and Managing Director :* K. C. Lall. *Directors :* K. M. Chinnappa, R. L. Mehta, K. L. Ghei, K. P. S. Nair, O. N. Misra, P. S. Bapna, V. P. Appadurai and S. Swayambu. *Secretary :* R. C. Gupta.

## HEAVY ENGINEERING CORPORATION LTD.

Old Secretariat Bldg., P.O. Hinoo, Ranchi.

(Under the Ministry of Industry)

Heavy Engineering Corporation Limited, a fully owned Government of India Undertaking, was incorporated in Bihar on 31st Dec., 1958 with Headquarters at Ranchi for developing the manufacture of heavy capital equipment in India. The Corporation is now engaged in establishing the following projects :—

1. Heavy Machine Building Plant at Ranchi in collaboration with U.S.S.R. ; 2. Foundry

Forge Project at Ranchi in collaboration with Czechoslovakia; 3. Heavy Machine Tools Project at Ranchi in collaboration with Czechoslovakia.

At full capacity, the projects will provide employment to a total of approximately 19,000 staff, engineers and workers.

**Heavy Machine Building Project:** The plant is being set up at Ranchi in collaboration with the U.S.S.R. The project is being implemented for production capacity of 80,000 tons of machinery items every year. Adequate provision has also been made for further expansion of the capacity to 1,65,000 tons of finished machinery items. The plant is intended to produce primarily machinery and equipment for the iron and steel industry. It will also possess adequate facilities and capacity to meet the requirements of machinery and equipment for other major industries like mineral oil (Oil Drilling Rigs), coal mining, chemical, fertiliser, cement etc. as well as for the manufacture of general engineering items like heavy cranes, excavators, crushing and grinding equipment. The plant will have on its roll over 4,500 workers and staff at the 80,000-ton stage.

**Foundry Forge Project:** The Foundry Forge Plant with a capital outlay of Rs. 100 crores is being set up at Ranchi in collaboration with Czechoslovakia and is expected to have the following production per year from its main production shops: Grey iron Foundry (shaped castings) 33,345 tonnes; Steel Foundry (shaped castings) 40,182 tonnes; Non-Ferrous Foundry (castings) 700 tonnes; Forgings 50,000 tonnes; Grey Iron, Steel and Forged Rolls 21,310 tonnes.

The plant will have in addition, its own well-equipped pattern shop, fettling shop, battery of gas producers, Acetylene and Oxygen plants besides the power and gas services. The plant will also be equipped with a 6,000-ton press which will be the biggest so far (1965) in India.

This plant is mainly meant to supply all types of grey iron and steel castings and forgings—ranging from a few kilograms to as heavy as 100-ton piece weight—to meet the requirements of Heavy Machine Building and Heavy Machine Tools Plants. Provision has also been made for some surplus capacity to meet the demand of heavy castings and forgings from various other industries both in the private and public sectors. A fully equipped central laboratory is also being set up for quality control of its products. The Plant is expected to go into full production by 1968 when it will employ about 8,000 persons.

**Heavy Machine Tools Project:** In November, 1960 the Government of India entrusted the Corporation with the responsibility of setting up a Heavy Machine Tools Plant, in collaboration with Czechoslovakia. The plant will have an annual production capacity of 10,000 tons of certain diverse items of Heavy Machine Tools. Machine tools of these types of large size and capacities will be produced for the first time in Inia. Adequate provision has been made for increasing the capacity of the plant to 20,000 tons per year or to any other intermediary stage, if considered necessary. When in full production, the plant is expected to manufacture approximately 278 complete machine tools. The average weight of each machine will be 25/30 tons while the maximum weight of an individual machine is expected to be approximately 180 tons, the maximum weight of a single component being 50 tons.

The plant is expected to go into trial production of heavy radial drills, heavy centre and roll-turning lathes and planing machines by 1966. At full production, it will provide employment to more than 2,000 staff and workers. A site measuring 130 acres to the north of the Heavy Machine Building Plant has been selected for this unit.

**Training Programme:** To ensure a regular flow of technical personnel and skilled and semi-skilled workers for such huge and complex plants, a comprehensive programme of training has been worked out. Over 650 Indian engineers and technicians in USSR and Czechoslovakia have received training from 6–18 months. A large number of Indian engineers is now undergoing training in the factories and design operation of these two countries, while many have also returned after training. Exports from the USSR and Czechoslovakia, experienced in design and technology, are also being drawn to assist the staff for training of engineers and technicians. At Ranchi, the Corporation has set up a Central Training Institute, complete with workshop facilities, Foundry, Forge Shop to provide specialized training to skilled workmen.

In order to develop healthy trade union practices, the management have also trained a large number of workers in leadership. This course has been organised by the Ministry of Labour, Government of India. The trained workers are now training other workers in healthy practices of trade unionism.

**Township:** To provide residential accommodation to its employees the Heavy Engineering Corporation is building a modern township at Ranchi, about 5,600 acres in area, named Jagannathnagar. It is estimated that up to 16,000 quarters will be constructed.

**Welfare Activities:** For the benefit of the employees of the Corporation, the Contractors' staff and workers, the Corporation runs a Plant Hospital with 130 beds at Ranchi. The Hospital is equipped with a modern X'Ray Plant, Electrocardiograph, Air-conditioned Operation Theatre, Maternity Centre, Dental, Eye, Nose, Throat and Physio-theraphy Departments, a Pathological Laboratory and Out Patient Department with dispensing facilities at various centres. To attend to emergency cases, a Casualty Department is run round the clock. First Aid Posts have been set up in each plant. Mobile dispensaries have been introduced to render medical facilities to those who are staying far away in the township and labour colonies. Family Planning Units have also been set up under qualified Health Officers and Medico-social workers. The Industrial Health Department including Public Health looks after the sanitary and hygienic measures. Besides handling accident cases as well as usual seasonal and other diseases, adequate sanitary and prophylactic measures are taken regularly against epidemics of cholera, typhoid, small pox, dyphtheria, etc.

At Ranchi the Corporation runs one Higher Secondary School, four Middle Schools (Hindi Medium), one Middle School (English Medium), one Upper Primary School and a Lower Primary School, besides one Montessory School. At present (April 1965), nearly 2,000 students are attending the various schools. Training in crafts, such as sewing and toy-making is imparted to the wives of the employees.

*Chairman:* T. R. Gupta.

## HEAVY VEHICLES FACTORY

Avadi, Madras.

The Rs. 16 crore Heavy Vehicles Factory, a giant defence project, is located on a 1,400 acre site at Avadi near Madras. The foundation stone of the factory was laid on 29th Dec. 1962 by the Defence Minister.

The factory, established with the technical guidance of a British firm, is being geared up to manufacture tracked vehicles and other major heavy engineering equipment required for military as well as civilian purposes.

The construction work is in an advanced stage of completion and nearly a thousand quarters for staff and workmen are in various stages of construction.

Production in the Tool Room of this factory has already commenced.

## HINDUSTAN AERONAUTICS LTD.

(Bangalore Division)

(Hindustan Aircraft P.O., Bangalore 17, Mysore)

Tel. & Cable address: Aircraft, Bangalore.

Hindustan Aeronautics Ltd., was formed on Oct. 1, 1964, implementing the decision of the Government of India to amalgamate Hindustan Aircraft Ltd., and the Aircraft Manufacturing Depot, Kanpur. The new Corporation will also take over the MIG Manufacturing Projects at Koraput, Nasik and Hyderabad. From this date, Hindustan Aircraft Ltd., became the Bangalore Division of Hindustan Aeronautics Ltd. The Railcoach Division forming part of HAL was separated from Jan., 1965 and merged with Bharat Earth Movers Ltd., recently (1965) set up under the Ministry of Defence.

The first air-craft was assembled and flown and production of Hawk-P-36 and Harlow PC-5 commenced by HAL in 1941. Almost at the same time the first 10 seater Indian Glider was locally designed, built and test flown.

**Prentice Trainer:** In 1947, HAL was entrusted with the manufacture of Percival Prentice Trainer aircraft for the Indian Air Force. The first HAL manufactured Percival Prentice Trainer flew in April, 1948.

**Ht-2:** In 1947-48, "All-Metal Basic Trainer Aircraft" the HT-2, was designed and developed by HAL.

**Vampire:** In March 1950, the Government of India entered into a licence agreement with the De Havilland & Co. of U.K. for the manufacture of Vampire Jet Aircraft in HAL.

**Gnat:** The Government of India entered into an agreement in Sept. 1956 with Follance Aircraft Ltd., U.K., for the manufacture of the Gnat, under Licence, at HAL. Of the various progressive stages of manufacture, HAL is now in the final stage of manufacturing the aircraft from raw materials.

The Government approved in 1956 the appointment of a team of German engineers to assist HAL in the design and development of a supersonic fighter aircraft known as the HF-24. The first proto-type of the HF-24 MK.I aircraft powered by two Orpheus 703 engines made its successful flight in June 1961 and the second prototype in Oct. 1962.

**Pushpak:** HAL undertook and completed the development of an ultra-light air-craft, the Pushpak, in the middle of 1958. This is an ultra-light two seater aircraft suitable for flying clubs.

**Krishak:** This is a light four seater aircraft. The first prototype made its successful first flight in Nov. 1959 and the second in Nov. 1960.

**Basic Jet Trainer:** The aircraft is powered by a Viper 11, turbo-jet engine. It is a single engined aircraft, fully aerobatic, with two side by side seats for basic pilot training.

The Government of India have entrusted to HAL, the manufacture of "Alouette" helicopters, under licence from Sud-Aviation of France.

**Artouste:** The Government of India have entrusted to HAL, the manufacture of the Artouste turbo-jet engine under licence from Turbomecca of France. Necessary pre-planning work connected with its manufacture has been taken on hand.

**HJE-2500:** The HJE-2500 is a turbo-jet engine designed and developed by HAL for the Basic Jet Trainer aircraft. The first prototype of the HAL designed engine was expected to be ready for test bed running soon (April 1965).

**Other Development Work:** Other development work includes the design of a Pneumatic Starter for the starting of turbo-jet engines of 5,000,10,000 lbs. thrust range and installation of the Orpheus 701 engines as an auxiliary jet pack for the Fairchild Packet aircraft for high altitude flying.

**Training:** The company gives short-term training in different trades to personnel of the Indian Air Force, Indian Navy, the IAC., etc.

**Staff Strength:** The personnel strength of the company increased from 21,199 in 1963 to 23,443 in 1964.

*Board of Directors:* S. S. Khera, I.C.S. (*Chairman*); Air Marshal Arjan Singh, D.F.C.; Dr. S. Bhagavantam; Prof. S. Dhawan; M. K. Harfharan; H. C. Sarin, I.C.S.; Air Vice Marshal Ranjan Dutt (*Managing Director*); P. M. Reddy (*General Manager*).

## HINDUSTAN ANTIBIOTICS LIMITED

(Pimpri, Poona-18)

(Under the Ministry of Petroleum and Chemicals)

Hindustan Antibiotics Limited is situated on a 200-acre land at Pimpri 9 miles from Poona. Share Capital: Rs. 4 crores, the shares being held solely by the President of India or his nominees. The factory went into production in August 1955. The factory came into being as a result of the tripartite agreement between the Government of India, the World Health Organisation and the UNICEF. The initial capacity of the plant of 9 Million Mega Units, has been increased to 50 M.M.U. in 1962-63 as a result of technical developments. The Government of India has approved further expansion of the penicillin plant at a cost of Rs. 25 lakhs, which will raise its capacity to 84 M.M.U.

The sterile finished bulk penicillin in Million Mega Units produced in the factory over the past 5 years are 39·72, 40·24, 45·53, 50·17, 60·00 (estimated for 1963-64). The Streptomycin Plant of the company with a rated capacity of 40 tons per annum was established with the technical collaboration of Messrs. Merck & Company Inc. U.S.A. This plant is now producing Dihydrostreptomycin Sulphate and Streptomycin Sulphate. Expansion of the plant to double the production before the end of the financial year 1963-64, was in progress (Jan. 1964). The capital cost of the plant which is now Rs. 2·15 crores will be Rs. 2·75 crores after completion of the expansion.

A plant for production of 1·5 tons of broad spectrum antibiotics of the Tetracyclines group at a cost of Rs. 10 lakhs is now fully engaged on production of Chlorotetracycline.

Another important development is the discovery of antifungal antibiotics like Hamycin, and Dermostatin by the company's research laboratories. Hamycin is already in the market. A project for its manufacture on a larger scale costing Rs. 30 lakhs has been approved for implementation.

All these expansion activities including streptomycin project have been financed from the company's earnings.

When all these schemes materialise, the company will be producing antibiotics worth Rs. six crores a year.

The company has a complement of 1,960 employees, more than 60 per cent of whom are housed in the company's residential colony having all modern amenities.

A Research Laboratory well equipped for research on antibiotics together with a pilot plant has been established as an important adjunct to the factory costing over Rs. 20 lakhs.

A production bonus of Rs. 3·5 lakhs was distributed to the staff and workers in respect of the working year 1962-63.

To meet the country's requirements of Penicillin, Streptomycin and other antibiotics the Government of India is also establishing another antibiotics factory in the public sector at Rishikesh with U.S.S.R. aid, having an annual capacity of 300 tons. When this project goes on stream the country would not only be self-sufficient in antibiotics but will have exportable surplus.

*Mg. Director*, C. A. Subramanyam.

## HINDUSTAN CABLES LTD.

P.O. Hindustan Cables, Burdwam Dist.

(*See Late Particulars*).

## HINDUSTAN HOUSING FACTORY LIMITED

(Jangpura, New Delhi 14)

The Hindustan Housing Factory Ltd. was taken over completely by the Government of India with effect from 15th August 1955. It is now under the control of the Ministry of Works and Housing.

The present Directors of the company are :—

*Chairman*, Ujjal Singh ; *Directors*, C. P. Gupta ; B. R. Seth ; J. Durai Raj ; N. G. Dewan, I.S.E. ; D. J. Madan.

*Managing Director*, J. Durai Raj ; *Secretary*, G. S. Ahuja.

The authorised share capital of the company is Rs. 75·00 lakhs of which paid-up capital is Rs. 48·99 lakhs. The Government have advanced to the company interest bearing loan aggregating Rs. 48·75 lakhs for its working capital.

Production during 1963-64 was worth Rs. 1·51 crores and the net profit for the same period was Rs. 5,10,561.

Main products of the Hindustan Housing Factory are as under :—

Prefabricated components for multistoreyed buildings ; Prestressed concrete transmission line poles ; Prestressed concrete street light poles ; P.C.C. Beams for industrial sheds with sheeted roofs ; P.C. assembled trusses for industrial sheds ; P.C. Beams for composite constructions ; Roofing and flooring components with prestressed concrete beams ; Precast R.C.C. cladding panels ; Precast prestressed units for fencing posts ; R.C.C. door and window frames ; Hollow blocks for roofing ; Hollow blocks for walling ; Overhead concrete tanks for residential use , Large panels for large panel house construction ; Precast concrete flooring slabs ; Prestressed concrete railway sleepers ; R.C.C. railway sleepers ; Precast vibrated pipes for drains ; Precast vibrated Porous Pipes ; Reinforced foam concrete panels ; Foam concrete blocks for cold storage and air-conditioned buildings ; Foam concrete blocks for multistoreyed buildings ; Machine-made doors and window frames and shutters ; Flush doors ; Seasoning and chemical treatment of timber.

The management has introduced monthly graded scales of pay for all the employees in the factory. They get city compensatory allowance in addition to the usual dearness allowance. The rates of D.A. are revised from time to time.

## HINDUSTAN INSECTICIDES LIMITED

Regd. Office : New Delhi-3.

Factories : Udyogmandal, Alwaye (Kerala) Industrial Area, New Delhi 15.

The company was incorporated in March 1954 to manage the affairs of the first Government owned DDT Factory at Delhi, with an authorised capital of Rs. one crore. Later the Government of India decided to put up the second factory at Alwaye, under the management of the same company. Both the factories are managed by Government through the company with a Board of Directors under the Ministry of Petroleum and Chemicals.

### Delhi Factory

This factory is situated in the industrial suburb of New Delhi and was set up with the assistance of United Nations agencies of UNICEF and W.H.O. (UNTAA). The UNICEF agreed to supply the plant and machinery at a cost of $250,000 and the W.H.O. (UNTAA) technical assistance to the extent of $100,000. The Government of India agreed to provide land, buildings, services, auxiliaries and the installation of plant and equipment at an estimated cost of Rs. 35,00,000

The construction of the factory was started in 1953. The factory went into production in March 1955. The capacity of the plant was 700 tons Technical DDT per annum.

For doubling the plant's capacity an agreement was reached by the Govt. of India with the UNICEF for an additional gift of equipment worth $275,000.

Expansion started in 1956 was completed in 1958 thus giving the Delhi plant a capacity of producing 1,400 tons of Technical DDT per annum. The factory now produces DDT to its full capacity.

*Production :* Since the commencement of operations in March 1955 production has been steadily stepped up. From 10·6 tons production in April 1955 the D.D.T. factory reached the record figure of 147 66 M. tons in March 1965. Production during the following years was—

(*In M. Tons.*)

| | Technical D.D.T. | Formulated D.D.T. |
|---|---|---|
| 1961–62 .. .. | 1,502·55 | 2,109·88 |
| 1962–63 .. .. | 1,394·60 | 2,702·00 |
| 1963–64 .. .. | 1,444·51 | 2,800·00 |

The factory earned a net profit of Rs. 25·84 lakhs during 1963-64 as against Rs. 22·31 lakhs during 1962–63.

### Alwaye Factory

The firm of Messrs. Singmaster & Breyer Inc., New York, was awarded the contracts for both Technical DDT plant and the Formulated DDT plant on a turn-key basis in the years 1956 and 1957 respectively.

Trial production began in February 1958. The plant is now in regular production.

Within five months the factory crossed the rated capacity by producing 125·16 M. tons in October 1958. Production during the past years was as under :—

(*In M. Tons.*)

| | Technical D.D.T. | Formulated D.D.T. |
|---|---|---|
| 1959–60 .. .. | 1,109·00 | 2,252·50 |
| 1960–61 .. .. | 1,371·22 | 1,959·41 |
| 1961–62 .. .. | 1,223·60 | 1,518·93 |
| 1962–63 .. .. | 1,219·00 | 1,716·88 |
| 1963–64 .. .. | 1,166·48 | 1,486·30 |

The factory earned a net profit of Rs. 21·11 lakhs during 1962-63 and Rs. 10 lakhs during 1963-64.

The entire output of the Delhi factory and the bulk production of the Alwaye Factory are earmarked for the Health Ministry (Malaria Eradication Programme).

The Company employs approximately 578 persons at both the factories and was awarded a certificate of Honour by the President of India for satisfactory performance for second year in succession during the year 1962.

Training facilities have been provided in both the factories. Other amenities like canteen, dispensary, housing etc. exist in the factories.

*Chairman:* Maj-Genl. M. S. Himmat Sinhji.

*Managing Director :* B. B. Mathur.

## HINDUSTAN MACHINE TOOLS LIMITED

(Jalahalli P.O., Bangalore 13.)

This is a limited company under the Ministry of Industry, registered in Mysore on February 7, 1953 and located in Jalahalli, Bangalore.

The authorised share capital of the company is Rs. 12 crores.

Commencing its production with one type of machine *viz.* High Precision Lathe (H.22) in 1956, the factory has been able to progressively diversify the production and turn out a wide range of machine tools like Milling Machines, Radial Drilling Machines, General Purpose Lathes, Turret Lathes, Grinding Machines, Special Purpose Machines and all-Electric Heavy Duty Programme Controlled Milling Machines. Further technical collaboration agreements have been signed for the manufacture of Gear Shapers, Single Spindle Automatic Lathes and Gear Hobbing Machines.

The Company employs 9,500 skilled and semi-skilled workers.

Since starting its commercial production in 1956, till the end of March 1965, the factory turned out 9,812 machines valued at Rs. 41·2 crores. During 1964-65, production came to 2,170 machines valued at Rs. 11·2 crores. The Bangalore factories accounted for a total production of 2,070 machines as against 1,983 machines during 1963-64. A new addition to HMT's production line was the Special Purpose Machines.

Sixty all-Electric Milling Machines were turned out by the factory's plant at Pinjore in the Punjab. Production of these machines has been introduced for the first time in India.

The fourth plant at Kalamassery in Kerala, which commenced its token production in October, 1964, accounted for an output of forty lathes.

During 1964-65, HMT had orders for supply of 2,469 machines against which it could despatch 2,258 machines. During 1963-64, it despatched 1,982 machines against order for 2,270 machines.

The HMT declared a net profit of Rs. 3 crores during 1963-64, representing a return of 37·5 per cent over its share capital of about Rs. 8 crores. Profits during 1962-63 came to Rs. 2·15 crores, representing a return of 33 per cent over the company's share capital. The HMT further declared a dividend of 10 per cent for the fourth consecutive year.

HMT has its own training centre where training is offered in the following trades : (1) Highly skilled operators, fitters, turners, millers, grinders, and (2) Reconditioning of machine tools and preventive maintenance.

#### Future Plans

The demand figures for the Fourth Plan have been worked out tentatively and according to these estimates machine tool requirements towards the end of the Fourth Plan *i.e.* by 1970-71, are placed at Rs. 100 crores per annum. To meet at least 50 per cent of this demand and be able to export some portion of its production, HMT has again offered to the Government to establish five more factories during the Fourth Plan period at the rate of one factory per year and the capital expenditure for all these additional Units is planned to be met entirely by the Company from its own internal resources. The Government have provisionally approved this offer and the pre-planning work on the sixth Unit has just been entrusted to the HMT's Project Department.

#### Industrial Estate

The scheme of establishing ancillary units in the neighbourhood of HMT was initiated by the Hindustan Machine Tools in 1957. Out of 50 units planned, 30 units have already been commissioned. The total cost of the Estate is approximately Rs. 17·0 lakhs, the capital investment in these first 30 units being approximately Rs. 48·0 lakhs. While the annual turn over of these units is around Rs. 70·0 lakhs, 20 more units are likely to be commissioned soon and are expected to go into production during 1965-66.

With the establishment of further factories by the Hindustan Machine Tools at Pinjore in the Punjab, Kalamassery in Kerala and Hyderabad in Andhra Pradesh, setting up of an Industrial Estate in each place with a chain of 50 ancillary units has also been planned.

#### Watch Project

Construction of the Watch Factory on the site adjoining the Machine Tool Factories in Jalahalli near Bangalore commenced during 1961, and was completed in October 1962 in collaboration with Messrs. Citizen Watch Co., Japan. After erection of the plant and machinery, manufacture of watches with 54 per cent indigenous content commenced during April 1963.

The HMT Watch Factory turned out 1,95,048 watches during 1964-65 valued at Rs. 1·80 crores as against 1,21,600 during 1963-64. The factory, which manufactures three types of gent's' watches, *viz.* Citizen, Janata and Janata Luminous, and one type of ladies', *viz.* Sujata, catered to a bulk order of about 35,000 luminous black dial watches for the personnel of the fighting forces. The present rate of production is running at 800 watches per day with 60 per cent indigenous content.

The HMT Watch Factory has now a network of 13 Sales-cum-Service Centres all over the country. Besides, watches are being sold and after-sales service arranged at its factories in Bangalore, Pinjore in the Punjab, Kalamassery in Kerala and Hyderabad in Andhra Pradesh.

The Company has been contributing 8¼ per cent of the total emoluments of its employees towards Provident Fund.

Under the subsidised housing scheme, about 30 per cent of the employees have been provided with houses on the HMT townships.

The average earnings of the HMT employee, which stood at Rs. 116 during 1956-57, have more than doubled during the last seven years and his average earnings today are Rs. 235 per month.

Employees also enjoy many other benefits like free uniforms, free watches, subsidised meals and subsidised transport.

*Chairman :* M. M. Philip, I.C.S. (Retd.).

*Managing Director :* S. M. Patil.

*Directors :* G. Ramanujam ; N. M. Wagle ; Dr. B. D. Kalelkar ; S. K. Majumdar ; O. N. Misra ; N. M. Patnaik ; V. K. Rao.

### HINDUSTAN ORGANIC CHEMICALS LTD.

Harchandrai House, 81, Queen's Road, Bombay 2 BR.

This is a Government of India Undertaking, under the administrative control of the Ministry of Petroleum and Chemicals.

The Company was incorporated in Dec. 1960 in technical collaboration with a consortium of four West German firms for manufacture of about 40 organic chemicals and intermediates required for the Dye stuff, Drugs and Plastic Industries.

But early in 1965 the programme was revised to enable the Company to work on its own and a product-programme has been selected for development in two phases so that the project becomes economically viable. The revised scheme would require an investment of Rs. 31·00 crores for the first stage to be completed by mid 1968 and of further Rs. 19 crores for the 2nd phase, to be taken up subsequently.

The Company has done considerable work on its factory site which is near Panvel, about 56 miles from Bombay. The new production programme includes besides a large number of organic derivatives of Benzene, Toluene and Naphthalene, several inorganics such as Caustic Soda, Chlorine, Sulphuric and Nitric acids, Ammonia etc. The athorised capital of the Company is Rs. 12 crores.

*Managing Director :* Dr. G. S. Kasbekar.

### HINDUSTAN PHOTO FILMS MFG. CO. LTD

P.B. No. 27, Ootacamund.

The raw film factory, located on the outskirts of the hill station of Ootacamund in South India, is a public sector project for the manufacture of a large variety of photographic sensitised materials.

The Government of India have secured the collaboration of the French Firm, Messrs. Bauchet & Co. The Collaboration agreement covers the supply of machinery and equipment as well as the training of Indian technical personnel and assistance in the erection of plant and machinery, etc.

When the factory goes into full production, it is expected to turn out annually 5·80 million sq. m of photographic film and photographic paper, the sale value of which would be nearly Rs. 9·25 crores per year. As an adjunct to this project, a Silver Sludge Recovery, Silver Refining and Silver Nitrate Plant, as also a plant for the manufacture of organic chemicals, which constitute important raw materials for the project, are also being set up.

The total cost of the Project excluding the Township is estimated at Rs. 9·35 crores. The cost of the Township, which is being put up in the neighbourhood of the factory is estimated at Rs. 1·69 crores. The Project will be manned and operated by Indian personnel, many of whom have already received training in France in the factory of the collaborators.

*Managing Director :* N. D. J. Rao.

### HINDUSTAN SALTS LTD.

Badnor House, HI-68, Bhagwan Das Road, 'C' Scheme, Jaipur.

(Under the Ministry of Industry)

The Hindustan Salts Limited was registered on 12th April 1958 at Jaipur. The salt sources at Sambhar Lake and Didwana in Rajasthan and Kharaghoda in Gujarat States were transferred to the Company on 1st January 1959, when the Company actually started functioning. The Didwana Salt Source was subsequently handed over to the Govt. of Rajasthan in 1960 and the Mandi Salt Mines were transferred to the company by the Govt. of India on May 1, 1963.

The authorised capital of the Company is Rs. two crores divided into 20,000 equity shares of Rs. 1,000 each. The total subscribed and paid up capital is Rs. 1,78,81,000 divided into 17,881 shares of Rs. 1,000 each and are held by the Government of India.

During the fiscal year ending September 30, 1964, the Company produced 3,94,000 M. tonnes of Common Salt ; 51·80 M. tonnes of Table Salt ; 107·80 M. tonnes of Dairy Salt ; 1·00 M. tonnes of Sodium Chloride (BP & USP) ; 233·00 M. tonnes of Sodium Sulphate Anhydrous and 93·00 M. tonnes of Burkeite.

The Company has provided employment to about 1,000 men.

A separate subsidiary company—Sambhar Salts Limited—was registered on 30th September 1964 for the working of the Sambhar Salt Works.

The affairs of the Company are under the control of a Board of Directors appointed by the President of India. *Chairman*, M. S. Himatsinhji, I.R.A.S. ; *Managing Director*, D. R. Sundaram, I.A.S. ; *Secretary*, B. B. Mookerjee.

### HINDUSTAN SHIPYARD LIMITED

(Visakapatnam 5, Andhra Pradesh)

This is located at Vishakapatnam in Andhra Pradesh. It was originally designed by the firm of Sir Alexander Gibb and Partners.

The original design envisaged the provision of eight berths but the shipyard now has four building berths to build ships ranging from 320 to 550 ft. in length, and from about 5,000 tons and from about 5,000 tons to about 15,000 tons deadweight capacity.

A fifth berth suitable for building small craft has also been constructed.

It has a fitting-out wharf 1,310 ft. long.

There are about 5,000 techniciana. workers and staff.

The yard has been managed by Hindustan Shipyard Limited since the 1st of March 1952, a company in which the Government of India have a controlling interest. At present the entire capital of Hindustan Shipyard Ltd. is owned by the Government of India.

The authorised capital of Rs. 10 crores is divided into 100,000 ordinary shares. Issued and paid-up capital is Rs. 5,83,33,000.

The value of work done at the Shipyard during 1957-58, 1958-59, 1959-60, 1960-61, 1961-62, 1962-63 and 1963-64 was Rs. 3·43 crores, Rs. 3·45 crores, Rs. 4·01 crores, Rs. 4·66 crores, Rs. 4·61, Rs. 4·98 and Rs. 4·75 crores respectively.

During 1959-60 the value of production was Rs. 401·48 lakhs. The profit during 1959-60 was Rs. 68,873 and in 1960-61 the profit was Rs. 63,783. It was Rs. 24,000 during 1961-62 and Rs. 36·732 during 1962-63 and Rs. 64,000 during 1963-64.

Orders to build nine more ships are under execution.

"Darshak" the first ship built in India for the Indian Navy was launched at Vishakapatnam on Nov. 2, 1959. This is a survey ship of 2,750 tons displacement, constructed in the Hindustan

shipyard. She was commissioned on Dec 25 1964.

A provision of Rs 2 44 crores had been made for further development of the shipyard in the Third Five Year Plan and an amount of about Rs 74 lakhs has already been sanctioned.

A full-fledged training school has been started in which recruits get intensive training for 4½ years in batches of 100 each.

It is now decided that the second shipyard would be located in Cochin.

The following table gives details of the ships built at the shipyard :

| | Name of ship | Date of laying keel | Date of launching | Date of completion and sailing | To whom sold |
|---|---|---|---|---|---|
| 1. | "Jala Usha" (8,000 DWT) .. | 22- 6-46 | 14- 3-48 | 15-10-48 | Scindia S. N. Co. Ltd. |
| 2. | "Jala Prabha" ,, .. | 22- 8-46 | 20-11-48 | 31- 3-49 | ,, |
| 3. | "Kutubtari" (245 DWT) .. .. | 23- 5-47 | 18-12-48 | 19- 5-49 | ,, |
| 4. | "Jalaprakash" (8,000 DWT) .. | 27- 5-48 | 8- 8-49 | 14-12-49 | ,, |
| 5. | "Jayashikha" ,, .. | 7- 1-49 | 6-12-49 | 31- 3-50 | ,, |
| 6. | "Jalapadma" ,, .. | 26- 1-50 | 14- 9-50 | 14- 1-51 | ,, |
| 7. | "Jalapalika" ,, .. | 26- 1-50 | 27-12-50 | 29 -3-51 | ,, |
| 8. | "Bharatputra" ,, .. | 28- 9-50 | 26- 3-51 | 28- 6-51 | Bharat Line Ltd. |
| 9. | "Jagruti" ,, .. | 9- 5-51 | 15-12-51 | 4- 6-52 | Great Eastern Shipping. |
| 10. | "Jalapratap" ,, .. | 9- 5-51 | 27- 2-52 | 31- 7-52 | Scindia S.N. Co. Ltd. |
| 11. | "Jalapushpa" ,, .. | 26-12-51 | 9- 7-52 | 30- 9-52 | ,, |
| 12. | "Bharatratna" ,, .. | 22- 7-52 | 26- 8-53 | 21- 6-54 | Bharat Line Ltd. |
| 13. | "Janapurna" ,, .. | 22- 7-52 | 9-11-53 | 12- 8-54 | Scindia S. N. Co. Ltd. |
| 14. | "Jalashwa" (7,000 DWT) .. | 1- 8-53 | 16- 8-54 | 14- 6-55 | ,, |
| 15. | "Jalavijaya" ,, .. | 30-9-53 | 26- 3-55 | 17-12-55 | ,, |
| 16. | "Jalavihang" ,, .. | 16-12-53 | 2-11-55 | 16- 5-56 | ,, |
| 17. | "State of Kutch (8,000 DWT) .. | 2- 9-54 | 29- 3-56 | 1-11-56 | Shipping Corporation of India. |
| 18. | "Adjar" (Kort Nozzle Tug) 242 DWT) .. .. | 27- 9-54 | 31-12-55 | 5- 9-57 | Madras Port Trust. |
| 19. | "Andamans" (4,000 DWT) .. | 10- 8-55 | 25- 7-56 | 4-12-57 | Govt. of India, Home Ministry. |
| 20. | "State of Orissa" (8,000 DWT) .. | 8-12-55 | 16- 2-57 | 31-12-57 | Shipping Corporation of India. |
| 21. | "Vikyat" (M.L.) .. .. .. | 19-10-53 | 18- 8-54 | 18- 3-58 | Madras Central Excise. |
| 22. | "Jalavikram" (7,000 DWT) .. | 16- 4-56 | 29- 7-57 | 26 -3 58 | Scindia S. N. Co. Ltd. |
| 23. | "Jalatarang" ,, .. | 4- 8-56 | 22-11-57 | 4- 7-58 | ,, |
| 24. | "Rajkumar" (6,000 DWT) .. | 31 -8-57 | 5- 7-58 | 10- 6-59 | Great Eastern Shipping Corporation Ltd. |
| 25. | "Indian Industry" ,, .. | 7-12-57 | 11-12-58 | 27-10-59 | India Steamship Co. |
| 26. | "Jhelum" (500 DWT) .. | 27- 1-56 | 16 -7-58 | 16-11-59 | Indian Navy. |
| 27. | "Jayashree" (5,000 DWT) .. | 22- 8-57 | 22- 4-59 | 27- 1-60 | New Dholera Steamship Co. Ltd. |
| 28. | "State of Uttar Pradesh" (9,500 DWT) .. | 3-10-58 | 31-12-59 | 5- 1-61 | Shipping Corpn. of India. |
| 29. | "R.S.V. Haldia" (360 DWT) .. | 16-11-56 | 11- 6-60 | 25- 3-61 | Calcutta Port Commr. |
| 30. | "State of Rajasthan" (9,500 DWT) | 22- 1-59 | 29- 4-60 | 18- 5-61 | Shipping Corpn. of India. |
| 31. | "Vishwa Nidhi" (9,500 DWT) .. | 11- 5-59 | 6- 9-60 | 2-10-61 | ,, |
| 32. | "State of Punjab" (12,300 DWT) .. | 2-12-59 | 16-4-61 | 6-4-62 | ,, |
| 33. | "Vishwashanti" (12,300 DWT) .. | 29-1-60 | 25-9-61 | 14-9-62 | ,, |
| 34. | "Vishwa Prem" (12,300 DWT) .. | 27-5-60 | 20-12-61 | 7-1-63 | ,, |
| 35. | "Vishwa Maya" (12,300 DWT) .. | 22-9-60 | 6- 4-62 | 21-4-63 | ,, |
| 36. | "Vishwa Mangal" (12,300 DWT) .. | 5-5-61 | 17- 8-62 | 7-9-63 | ,, |
| 37. | "Jalakala" .. .. .. .. | 12-10-61 | 29- 3-63 | 12-11-64 | Scindia S. N. Co. Ltd. |
| 38. | "I.N.S. Darshak" .. .. .. | 14-10-57 | 2-11-59 | 28-12-64 | Indian Navy. |
| 39. | "State of Madhya Pradesh" .. | 8- 1-62 | 15-10-63 | 4- 5-65 | Shipping Corporation of India. |

The company is managed by a Board of Directors, as already mentioned, under the Ministry of Transport. *Chairman*, Dr. Nagendra Singh, I.C.S. ; *Managing Director*, H. C. Raut; *Members*, Michael John ; Rear Admiral S. N. Kohli ; Dr. M. V. Krishnarao ; I. P. Chatterjee ; Jehangir P. Patel ; Mohan Wahi ; Rear Admiral T. B. Bose ; R. M. Dave ; Rear Admiral Daya Shankar ; F. V. Badami.

## HINDUSTAN STEEL LIMITED

P.O. Hirapur, Rourkela.

(See under Late Publications.)

## THE HINDUSTAN TELEPRINTERS LTD.

Guindy, Madras-32.

(Ministry of Communications)

This is a limited company under the Department of Communications registered in Madras on 14th December, 1960 and is located in Guindy, Madras.

The authorised capital of the company is Rs. 3 crores.

The Company has been set up for the manufacture of teleprinters and ancillary equipment. For this purpose an agreement has been entered into by the Government of India with Messrs. Ing. C. Olivetti & C., S.p.A., of Italy, one of the leading manufacturers of teleprinters in the world. Initially it is proposed to assemble and manufacture the tape and page models of teleprinters, printing reperforator attachment, transmitter attachment and independent automatic tape transmitter. The production target of 1,000 machines per year has been reached. The company has plans to expand its capacity for producing 8,500 machines by 1970-71.

The company suffered a loss of Rs. 3·79 lakhs during 1963-64.

*Managing Director* : C. A. Cornelius.

## HOTEL JANPATH

Janpath, New Delhi-1.

Till March 31, 1964, Hotel Janpath was being managed departmentally by the Ministry of Works and Housing. In order to provide more efficient service the Government decided to set up a company in the public sector for the purpose. Janpath Hotels Ltd., was accordingly registered and the new company took over the management of the Hotel with effect from April 1, 1964.

The Hotel has 222 rooms, a large dining hall, a lounge each on the ground floor and on the first floor and provides facilities of a conference room and a small shopping arcade.

It has a bed capacity for 280 persons. The occupancy in winter months is generally above 90 per cent and in summer season nearly 70 per cent.

## INDIA GOVERNMENT SILVER REFINERY

(Ministry of Finance, Dept. of Economic Affairs)

47, Strand Road, Calcutta 7.

This refinery has been installed for the extraction of silver and copper from the Q.A coins minted during the World War II. Nickel Sulphate and Nickel Silver (an alloy of Cu, Ni, and Zn) are obtained as by-products.

The process of recovery of nickel sulphate and nickel silver has been developed in the departmental laboratory.

This Silver Refinery has been engaged for the design, layout etc., of a Silver Refinery now under construction by the Hindusthan Photo Films Ltd., at Ootacamond.

The capital outlay on the Silver Refinery is about Rs. 1·44 crores.

The total number of persons employed is 481. Some of the departments of the Refinery work in three shifts round the clock.

*General Manager*, V. J. Joshi.

## INDIA TOURISM TRANSPORT UNDERTAKING LTD.

Thapar House, Janpath, New Delhi.

India Tourism Transport Undertaking has been registered with an authorised capital of Rs. 19 lakhs. This Undertaking would run tourist taxis in cities of Delhi, Bombay, Calcutta, Madras and Agra and will operate tourist coaches in Delhi and from Delhi to neighbouring cities such as Agra, Jaipur.

## THE INDIAN DRUGS AND PHARMACEUTICALS LTD.

National Insurance Buildings,

5, Parliament Street, New Delhi.

(Under the Ministry of Petroleum and Chemicals)

The Indian Drugs and Pharmceuticals Ltd. was incorporated in April, 1961 for the establishment and management of Drugs and Surgical Instruments Plants in the public sector with the Soviet collaboration.

The Government of the U.S.S.R. has agreed to make available to the Government of India credit of about Rs. 9·5 crores to cover the cost of designing work to be executed by the Soviet side, the cost of equipment and machinery to be imported from the Soviet Union, the expenses connected with the deputation of Soviet specialists for erection and commissioning of the plants and expenses to be incurred on the training of Indian specialists in the Soviet Union.

The authorised capital of the company is Rs. 20 crores. When in full production, the following three plants are expected to provide employment to over 6,000 workers of skilled and semi-skilled categories.

The location and a brief description of the production programme of each project is given below :—

1. *Antibiotics Project at Rishikesh (Uttar Pradesh)*: Estimated to cost Rs. 22 crores. An annual production of 300 tonnes of antibiotics as penicillin, streptomycin, dihydrostreptomycin, nistatin, tetracycline, chlorotetracycline and oxytetracycline is planned for this project.

2. *Synthetic Drugs Project at Hyderabad*: Estimated to cost Rs. 20 crores. The proposed annual production programme includes 850 tonnes of synthetic drugs such as sulphadimidine, sulphaguanidine, sulphanilamide, phenacetin, vitamin B, frolic acid etc., and 4,560 tons of intermediate chemicals required for the production of finished drugs.

3. *Surgical Instruments Plant at Madras*: The total annual output of Surgical instruments would be about 2.5 million pieces of instruments. Estimated to cost Rs. 5 crores.

These plants are at various stages of implementation.

*Chairman & Managing Director :* R. R. Bahl.

## INDIAN OIL CORPORATION LIMITED

*Regd. Office :* Clarke Road, Bombay-34.

The Indian Oil Corporation came into existence on Sept. 1, 1964 when it took over the entire business of the erstwhile Indian Refineries Ltd. The Company now comprises three divisions *viz.* Marketing Division, Refineries Division and the Pipelines Division. The Pipelines Division of the Corporation came into existence with effect from March 11, 1965 ; prior to this it was a part of the Refineries Division.

Indian Oil Corporation, Refineries Division, Link House, Mathura Road, New Delhi came into existence on Sept. 1, 1964, when it took over the entire business of the erstwhile Indian Refineries Ltd. which was incorporated on Aug. 22, 1958 in New Delhi. The Company is responsible for the construction and management of the three Government owned Refineries at Gauhati in Assam, Barauni in Bihar and Koyali in Gujarat.

Indian Oil Corporation, Pipelines Division, Link House, Mathura Road, New Delhi, is responsible for the construction of Gauhati—Siligur Pipelines and Haldia-Barauni-Kanpur Pipelines.

*Chairman :* P. A. Gopalakrishnan, I.C.S.

## INDIAN RARE EARTHS LIMITED

Udyogamandal P.O.
(Alwaye, Kerala)

This factory is now entirely owned by the Government of India.

The subscribed capital is Rs. one crore.

The factory started production in July 1952. The Plant now processes 3,000 tons of Monazite per annum. The main products are Cerium Compounds, *viz.*, Mixed Rare Earths Chloride, Mixed Rare Earths Carbonate and Crude Cerium Hydroxide. Cerium Oxide, Rare Earths Floride and Cerium Naphthenate are also manufactured in small quantities. Trisodium Phosphate is obtained as a by-product.

The Cerium Compounds are exported for use in the manufacture of Misch Metal, Nodular Cast Iron Alloys for Jet Engines, Pyrophoric alloys, Enamelling of Cast Iron and Steel, Polishing of Optical Glass, Tinting of Optical Glass, Lenses for aerial photography cameras, Tanning of leather, Carbon for arc lamps, etc.

The Trisodium Phosphate has multiple uses and is being used in textile, paper and other mills and industries for dyeing, bleaching, softening of industrial water, in boilers and for general cleaning purposes in mills, factories, hospitals, homes, etc.

The Company also operates the Thorium Plant of the Government of India at Bombay where Thorium Compounds are manufactured from raw material obtained at the Alwaye Plant.

Thorium Compounds are sold by the Company on behalf of the Department of Atomic Energy, Government of India.

The Company made a profit of Rs. 16,89,235 in 1963-64 as against a profit of Rs. 11,15,953 during the previous year.

The Company earned foreign exchange worth Rs. 52 lakhs during the year by the sale of rare earths chloride abroad.

*Managing Director*, G. Rajagopal Menon.

*Manager, Alwaye Establishment*, K. V. N. Nayar. *Chief Accounts Officer*, N. D. Hansotia. *Works Manager*, C. M. Mani.

*Regd. Office :* Army & Navy Bldg., 148, Mahatma Gandhi Road, Bombay 1.

## INDIAN TELEPHONE INDUSTRIES LIMITED

(Under the Ministry of Communications)

(Dooravani Nagar, Bangalore 16, Mysore State)
Railway Station : Krishnarajapuram
(Southern Railway)

*Tel. Address :* "Phonindustry."
*Telephone :* 75111 (7 lines).

*Regional Offices, Sales & Service :* "Advent", Foreshore Road, Bombay 1 ; 22 Chittaranjan Avenue, United India Life Assurance Bldgs., Calcutta 13 ; 12-B, Netaji Subbash Marg, Daryaganj, Delhi 6 ; Flat No. 4-A, Agurchand Mansions, No. 35, Mount Road, Madras 2.

Established in 1948 at Bangalore as a Departmental Concern. Subsequently, converted into a Private Limited concern in 1950.

*Directors :* S. Lall (*Chairman*) ; L. C. Jain ; S. K. Kanjilal ; C. P. Vasudevan ; Brig. B. J. Shahaney ; R. L. Kirloskar ; Kulwani Rai ; D. P. Mandelia ; Eugune Van Dyek ; T. Shamanna, I.A.S., S. D. Nargolwala, I.C.S., U. Shankar (*Managing Director*), N. V. Shenoi (*General Manger*), P. K. Verghese (*Joint General Manager*), A. A. Krishnan, I.A. & A.S. (*Financial & Accounting Manager*), B. S. Kulkarni (*Works Manager*), S. Sankara Raman (*Transmission Works Manager*), H. J. Mirchandani (*Chief Engineer, Research*), D. V. M'Rao (*Secretary*).

CAPITAL : Authorised : Rs. 5,00,00,000. Issued, Subscribed & Paid-up : Rs. 4,43,00,000. (Government of India holding 80·98 per cent of the shares, Government of Mysore holding 7·05 per cent, Automatic Telephone & Electric Co. of England 3·91 per cent and the balance of 8·06 per cent by the International Standard Electric Corporation of U.S.A.).

The factory manufactures all kinds of telecommunication equipment including the following :

*All types of Telephones :* Auto, CB, Magneto, Portable Switching Telephones for Internal & External Systems etc., Ampliphones, Loud Speaking Telephones, Secrecy Telephones ; 10 Way Intercommunication System, Duophones ; Main Automatic Exchanges (Strowger type) ; Private Automatic Exchanges, Small Automatic Exchanges, Rural Automatic Exchanges (ranging from 10 lines to 600 lines) ; Private Automatic Branch Exchanges : 6 lines and above.

*Transmission Equipment :* 12 Channel Open Wire Carrier Systems ; 12 Channel Cable Carrier Systems ; 8 Channel Carrier Telephone Systems ; 8 Channel Carrier Repeaters ; Stackable 3 Channel Carrier System ; Repeater Attenuators ; D. B. Meters ; V. F. Repeaters ; Jack Panels ; Channel Terminating Bays ; Watching Transformers—Indoor and Outdoor patterns ; Speech plus DX, 3DX and 4DX ; By Pass Filters ; 900 Cycles Oscillator ; 4th Channel Equipment ; Inband Signalling Units ; Channel Displacer and Restorer ; Loading Coils ; Attenuators ; Frequency Modulated VFT Equipment 3 Channel to 24 Channel ; Special Apparatus Bays for VFT ; VF Amplifiers ; 6 Seconds Pulse Generators ; Repeating Coils ; Terminal equipments for Railway Control ; Way Station equipment for Railway Control ; Trainwire and Block Ball equipment for Railway Control ; Block Filters for Railway Control ; Speech Conversion Sets for Railway Control ; 4W/2W Junction equipments ; 2W/1W Junction equipments ; 2W/4W Junction equipments ; A.C. Telegraph equipment ; V.F. equipment for Railway Control ; Filters of various types ; Signalling Regenerative Repeaters ; and 1620 Cycles Oscillators.

*Miscellaneous :* Switchboards for blind operators ; Master Clocks ; Process Timers ; Fan condensers ; Flasher Units for Automobiles ; Supervisory Remote Control for AC/DC Traction ; and Miniature Receivers for hearing aids.

During 1964-65, sales of the company exceeded Rs. 10 crores.

### Production (1964-65).

The factory has produced during 1964-65 amongst others, 1,55,304 Telephones, and 1,34,610 Exchange Lines, which include main automatic exchanges, small automatic exchanges, private automatic branch exchanges, etc. On the transmission side, equipment worth Rs. 233 lakhs were produced during 1964-65.

ITI has put on its production line a new telephone instrument named 'Priyadarshini' smaller in size, lighter in weight, more elegant, with a knob at the botton to control the volume.

Apart from the tele-communication equipment, the factory is equipped for producing all types of light turned parts, die-castings, paper insulated condensers, silver mica capacitors. The surplus capacity for the production of such items is being devoted to meet the requirements of other industries both in the public and private sectors. The manufacture of road signalling equipment has also been taken up by the factory since 1958.

An Agreement has been entered into with Messrs. International Standard Electric Corporation of New York, U.S.A. and Bell Telephone Manufacturing Company of Antwerp, Belgium, for undertaking the manufacture of Crossbar type (Pentaconta) of Switching Equipment in Indian Telephone Industries at Bangalore. About 5,000 lines of Crossbar type of equipment have been scheduled to be supplied by the middle of 1965-66.

It has been estimated that the company's production has enabled the country to save over Rs. 2·5 crores of foreign exchange yearly and it is hoped that this figure will go up in the years to come.

The company is also paying considerable attention for the export trade for marketing its products in foreign countries thereby contributing its share in earning the vital foreign exchange needed by the country. Equipment worth Rs. 7·5 lakhs were supplied to Ceylon, Nepal, Kuwait, Malaysia, Sudan, Burma, Iraq, Somali Republic, Pakistan, Saigon, Belgium and Bhutan during 1964-65.

A suggestion scheme was introduced in the I.T.I. for encouraging initiative and new ideas among workers. As many as 89 valuable suggestions were accepted and a sum of Rs. 1,495 was granted as rewards to the employees.

## INSTRUMENTATION LTD.

(Ministry of Industry & Supply)
Annexe, Circuit House
Kota (Rajasthan)

Instrumentation Limited is a private company, registered in Jaipur (Rajasthan) on March 21, 1964 with its headquarters at Kota. The authorised capital of the company is Rs. 7 crores divided into 70,000 equity shares of Rs. 1,000 each. The company is responsible for the establishment of Precision Instruments Plant at Kota and Mechanical Instruments Plant at Palghat. The Kota plant will manufacture electro-magnetic and electronic instruments whereas the Palghat plant is being designed for

the production of mechanical, hydraulic and pneumatic instruments. The production programme of the two plants are designed to be complementary so as to supply complete systems of indicating, recording and controlling devices for industries. Both these plants are being put up with the technical and financial assistance extended by the Soviet Union.

The projects are in a preliminary stage of implementation. The construction work at the Kota plant site has commenced. The annual output of this plant will be about Rs. 11·5 crores when it achieves full production. The Palghat plant is expected to produce about Rs. 8 crores worth of instruments annually.

*Board of Directors :* S. S. Kumar (*Chairman*); S. S. Jagota, M. K. Mehta, Dr. P. S. Gill, M. M. Mehta, C. Balasubramaniam, A. R. Ravi Varma (*General Manager*).

## INTEGRAL COACH FACTORY

Perambur, Madras.

(Under the Ministry of Railways)

The Integral Coach Factory at Perambur, a suburb of Madras, is one of the largest Coach Building Units in the world.

Construction started in the latter half of 1952 and took about three years to be completed. The construction of the factory was done in collaboration with Messrs. Swiss Car and Elevator Manufacturing Corporation Ltd., Schlieren, Zurich, Switzerland. The first coach was turned out on October 2, 1955.

The thousandth coach rolled out on January 22, 1960.

The type of coaches manufactured in the factory, known as integral coaches is of a modern light weight design incorporating anti-telescopic properties in the event of an accident.

The factory was to turn out 350 coach shells per year by 1960. However as the following table will show, the target was achieved very much earlier and production has been increasing constantly.

| Period | Outturn |
|---|---|
| April 1956–March 1957 .. .. | 88 |
| April 1957–March 1958 .. .. | 222 |
| April 1958–March 1959 .. .. | 381 |
| April 1959–March 1960 .. .. | 447 |
| April 1960–March 1961 .. .. | 583 |
| April 1961–March 1962 .. .. | 598 |
| April 1962–March 1963 .. .. | 600 |
| April 1963–March 1964 .. .. | 605 |
| April 1964–March 1965 .. .. | 632 |

Upto end of March 1965, 4,168 shells have been manufactured out of which 2,318 have been furnished in the factory itself.

The factory was producing only third class coaches and has now begun to manufacture third-class-cum-luggage and brake-vans, third class sleeper coaches, first class coaches, electrical multiple units, trailers first class for metre-gauge and motor coaches. A prototype twin diesel railcar was also manufactured and handed over to Southern Railway.

*Furnishing :* The original intention was that the Integral Coach Factory would produce only shells and the railway workshops shall furnish them. Later on, it was decided to furnish the coaches there itself. A separate furnishing unit, costing Rs. 3·69 crores was inaugurated on Oct. 2, 1962. The unit is now furnishing all the shells that are being turned out from the Shell Division.

*Cost of the Coach :* With increased outturn and improvement in the skill and technical know-how of the staff, the cost of production of coaches has been systematically reduced. The latest cost of production of a third class shell is only about Rs. 70,000 as against Rs. 1,86,000 in 1955. This cost is very much lower than its ex-works price at Switzerland of Rs. 107,000. Out of Rs. 1,10,000 worth of material required for a third class furnished coach, about Rs. 25,000 worth, mainly steel, is imported. Formerly materials worth Rs. 40,000 were being imported.

*Amenities :* A Colony of about 1,000 quarters has been provided to accommodate the essential staff with modern amenities such as Elementary and High Schools, Children's Park, a Recreation Club, a Co-operative Store, Post Office, Shopping Centre, Dispensary and an open air theatre for the cultural recreational activities of employees. The main hospital is about 1½ miles from the colony. All Railway staff and their families are given free medical aid.

There is a Welfare Organisation to look after the welfare of the employees, a staff council for suggesting improvements in working conditions and production methods. Staff members who give valuable suggestions are awarded. Every encouragement is given to the staff for participating in sports and games. The factory is very prominent in sporting activities of the south, particularly in foot-ball, hockey and volley ball.

The total number of employees on the rolls is 9,997 (March, 1965).

*General Manager :* I. Hydari; *Financial Adviser and Chief Accounts Officer :* D. Sandilya; *Chief Mechanical Engineer :* R. D. Nadirshaw; *Dy. Chief Mechanical Engineer (Shell) :* K. C. Bansal; *Dy. Chief Mechanical Engineer (Fur.)* P. V. Ramamurthy; *Dy. Chief Mechanical Engineer (Designs) :* U. A. Kamath; *Dy. Controller of Stores :* Sudershan Lall; *Dy. Chief Electrical Engineer :* S. Sarath; *Secretary to General Manager :* R. Narasimhan.

## KOLAR GOLD MINING UNDERTAKINGS

Kolar Gold Fields, Mysore State

Established : 1880. Formerly a British company, the mines were nationalised by the Government of Mysore in 1956. They were taken over by the Government of India on 1st Dec. 1962. It is under the administrative control of the Department of Economic Affairs, Ministry of Finance, Government of India. The mines working at present are : Mysore/Champion Reef Amalgamated Mine and Nundydroog Mine.

Capital Investment (fixed) : Rs. 301·49 lakhs.

No. of workmen : about 14,000.

The gold production during 1964-65 was 38,46,104 grammes. As from 1-12-1962, being the date of take over by the Central Government, the gold is valued at IMF rate of Rs. 53·58 per 10 grammes. On this basis, the value of gold produced (45,99,432 grammes) for the 16 months period Dec. 1962 to March 1964 was Rs. 247·97 lakhs.

The Undertakings' development schemes during the Third Plan period will involve Rs. 150 lakhs.

*Management :* The management of the Undertakings is vested in the Board of Management constituted by the Government of India of which the Joint Secretary, Ministry of Finance, Dept. of Economic Affairs, Govt. of India, is the Chairman.

*Managing Director :* M. H. Parthasarathy, I.A.S.

*Secretary,* K. S. Nair.

*Consulting Engineers :* John Taylor & Sons.

## MACHINE-TOOL PROTOTYPE FACTORY, AMBERNATH

(Under the Ministry of Defence)

The Machine-tool Prototype Factory at Ambernath near Bombay was set up in 1953 by the Ministry of Defence, Government of India, under the Director-General, Ordnance Factories. It was a pioneer project to design and develop ordnance weapons as well as machine tools.

Since its inception the factory has established production of several types of precision machine tools of its own design, and supplied these to various Government establishments and industry. The planning for bulk production of truck and tractor components for Shaktiman was undertaken in 1958. This is now the main production activity of the factory.

To overcome the shortage of skilled artisans necessary for the production of armaments, a Training School has been attached to M.P.F. since its inception. The school helps to meet the requirements of other ordnance factories also.

## MAZAGON DOCK LIMITED

Mazagon, Bombay 10.

(Under the Ministry of Defence)

On 14th May 1960, one of the biggest British Marine and Industrial ventures in this country became a National Undertaking when Mazagon Dock Ltd. was acquired by the Central Government. Situated at Bombay in the State of Maharashtra, the Mazagon Dock is Western India's leading Ship-Repairing and Ship-Building concern. Its history can be traced to 18th century when the first dry dock was completed at Mazagon.

Mazagon Dock is fully equipped to carry out all types of major repairs to Passenger Ships, Tankers and Cargo Ships and maintains a round the clock, 7 days-a-week repair service. During the year 1964-65 Mazagon Dock repaired a total of 540 ships. The number of vessels under foreign flag handled during the year was approximately 316. The yard is now being modernized and expanded at an estimated cost of Rs. four crores.

Mazagon Dock Limited has three dry docks—Ritchie, Mogul and Mazagon.

| Name of Dock | Extreme Length | Length on Keel Blocks | Breadth at Altars | Depth of water at S.M.H.W. |
|---|---|---|---|---|
| RITCHIE .. .. .. | 495′ | 466′ | 62′-7″ | 16′ |
| MOGUL .. .. .. .. | 424′ | 406′-9″ | 58′ | 14′ |
| MAZAGON .. .. .. | 152′ | 126′-3″ | 34′ | 7′ |

Mazagon Dock Limited employs about 1,000 workers. The Supervisory Staffs number about 115.

Besides repairs, Mazagon Dock also builds ships. It has four building berths—two open and two covered. During 1964-65, Mazagon Dock delivered one sullage barge, three steam tugs, one police launch, one cargo-cum-passenger vessel, one motor launch and 660 Assault Boats for the army.

Mazagon Dock has plans to convert the Kasara Basin in its North Yard into an impounded wet basin to provide alongside berths for ships. These berths can be used for repairing ships, as also for fitting out new ones.

Although repairing and building of ships are the major activities of Mazagon Dock, it also undertakes steel fabrication work, ferrous and non-ferrous foundry work, steel forgings, electrical and automobile work, all types of timber construction and general engineering work. These are done with exactitude under fully qualified supervisors.

The Mazagon Dock has been the first organization to build Burshane gas tanks of ten ton capacity. The Company also manufactures, both horizontal and vertical MAZDOCK Crude Oil Cold Starting Engines with horse power ranging between six and twenty.

The Company runs an Apprentice School and has a scholarship scheme under which children of employees getting a monthly salary below Rs. 400 are given monetary aid to help them attend colleges. The Company subsidizes the Workers' Cooperative Canteen too.

Mazagon Dock made a profit of Rs. 14·46 lakhs for the year 1963-64, after charging depreciation of Rs. 3·88 lakhs, Rs. 6·73 lakhs bonus to employees, Rs. 1·37 lakhs for gratuities and Rs. ten lakhs for taxation. The total turnover of the Company during this year was Rs. 438·31 lakhs. The company earned foreign exchange of Rs. 88 lakhs by repairing foreign ships. The increase in ship-building activity has helped save valuable foreign exchange for the nation.

In April 1962, Mazagon Dock was entrusted with the reponsibility of reactivating and working the shipyard known as Estaleiros Navais de Goa at Vasco da Gama (Goa). The Company continues to employ all workers of the old yard. It has completed incomplete civil engineering works, procured plant and machinery to provide working capital and has equipped the yard to carry out repairs to ore-carrying barges and other similar craft.

*Managing Director:* Rear-Admiral S. M. Nanda.

## NAHAN FOUNDRY LTD.

(Nahan, Sirmur District, Himachal Pradesh).

This was started in 1875 and has been continuously expanded.

The authorised capital is Rs. one crore and the paid-up capital Rs. 40 lakhs. The number of persons employed is about 600 at Nahan and about 150 in the agencies.

Production consists of improved type of cane crushers, bullock as well as power driven, centrifugal pumps; improved types of ploughs; cornsheller machines; harrows; and other miscellaneous items. The Foundry undertakes quality casting work for P & T. DG S & D, Public Health and Railways. Manufacture of electric Motors from ½ H.P. to 20 H.P. of ISI certification mark has been taken up.

Casting during 1963-64 was 2,803 tonnes. During the year 293 electric motors of various sizes were also manufactured.

It is managed as a private limited company (which took over on Jan. 1, 1953) with the President and his nominees holding all the shares. The affairs are looked after by a Board of Directors appointed by the President of India and is under the administrative control of the Ministry of Industry. It is a pioneer industry in northern India for the manufacture of cane crushers and "Sultan" is a speciality all over India.

*General Manager*, S. K. Caroli; *Managers:* P. K. Somanadhan and V. S. Aggarwal.

## NATIONAL INSTRUMENTS LTD.

(1/1, Raja Subodh Mullick Road, Jadavpur, Calcutta 32).

Total investment Rs. 1·44 crores. Value of production and repair for 1964-65 Rs. 98·31 lakhs. Number of persons employed 1,273.

Sales and miscellaneous income rose from Rs. 79·99 lakhs in 1962-63 to Rs. 101·57 lakhs in 1964-65. The expected profit of the company for 1964-65 was about Rs. 15 lakhs, after charging depreciation but before income tax.

This is a Government of India Undertaking under the Ministry of Industry and Supply manufacturing and repairing scientific, surveying, [illegible] and medical diagnostic instruments and appliances.

The principal products of the Undertaking are surveying instruments such as Theodolites and Levels of sorts, Prismatic Compasses etc., drawing office equipments such as Drafting Machines, Pantagraphs etc., measuring instruments such as Profile Projectors, Pressure and Vacuum Gauges, Thermometers, Hydrometers and a host of other items. Productions of Clinical Thermometer, Microscope and Optic Theodolite have been established in collaboration with some Japanese and Hungarian firms respectively.

The Ophthalmic Glass Project now under construction at Durgapur is expected to be completed by 1967. When in full production, this unit will produce 300 tons of Ophthalmic Glass and 10 million Ophthalmic lenses per annum.

Besides its own training scheme, the Company has provided training facilities to the various categories of trainees under the Central as well as State Government Training Schemes and the training scheme under the Apprenticeship Act.

The development programme of this company is fashioned to serve as a nucleus in future for the manufacture of scientific and precision instruments, which are at present imported.

The following instruments are under development: Sphygmomanometer; Ophthalmoscope; Thickness measuring gauge of various range; Pressure gauges of various range and type; Microscopes of various models and magnification.

*Managing Director*, N. Majumder, B.Sc. (Cal.), M.Sc. (Tech.) (Manch.), A.M.C.T. (Manch.).

*Dy. General Manager:* K. S. Rajagopalan.

## NEYVELI LIGNITE CORPORATION LTD.

(Ministry of Mines & Fuel, Government of India)
Neyveli 1.

This is a Rs. 141 crore project.

Preliminary investigations of the extensive lignite deposits which occur at Neyveli in the South Arcot District of Madras were undertaken first by the Geological Survey of India and then by the Madras Government. The administrative control of the project was taken over by the Central Govt. with effect from 1965.

These preliminary investigations, including large-scale pumping tests, having proved the feasibility of economic mining and utilisation of the Neyveli lignite, the Government accepted, in principle, the execution of the Integrated Lignite Project and sanctioned the mining part of the Project. The cost of the mining scheme is estimated at about Rs. 30 crores, including its share of the cost of the Township and the common services.

The Integrated Project now envisages the mining of 5·5 million tonnes of lignite per annum to be utilised for:

(*a*) production of 4,00,000 kW of power in a thermal power station using lignite as fuel;

(*b*) production of 1,52,000 tonnes of urea with a nitrogen content of 70,000 tonnes per annum; and

(*c*) manufacture of 7,10,000 tonnes of raw lignite briquettes per annum to be processed in a low temperature carbonising plant to yield 380,000 tonnes of carbonised briquettes per annum for use as domestic and industrial fuel, 1,29,000 tonnes of char fines, 37,000 tonnes of tar, 20,100 tonnes of middle oil, 5,900 tonnes of kerosene, 300 tonnes of light oil, 1,340 tonnes of carbolic acid, 1,400 tonnes of polyvalent phenols, 580 tonnes of ortho cresol, 1,340 tonnes of M.P. cresol and 585 tonnes of xylenols; and

(*d*) production of 6,000 tonnes of washed white clay.

### Mining Scheme

A detailed mine plan for the development and production phases of the mine submitted by the technical consultants was sanctioned by the Govt. The scheme was inaugurated by the late Prime Minister Mr. Nehru on May 20, 1957. Messrs. Powell Duffryn Technical Services Ltd. were appointed as consultants for the Mining Scheme in 1957 for a period of 3½ years.

All the conventional equipment and the specialised mining machinery were received at the site of the project and commissioned. In the initial stages the annual production was estimated at 3·5 million tonnes. The ultimate target is 6.3. million tonnes per year.

The total quantity of overburden removed till the end of March, 1965 was 32·5 million cubic metres. During 1964-65, the quantity of lignite raised was 1·6 million tonnes.

### Thermal Power Station Scheme

The Central Water and Power Commission drew up the Project Report for the 250 MW. Thermal Power Station, the most important constituent scheme in the Integrated Lignite Project. This Scheme is one of the schemes financed from the credit offered by the U.S.S.R. in respect of which an agreement was signed in Delhi in 1957. The estimated cost of the scheme is Rs. 29 crores. The power station now has five units of 50,000 kW each under the first stage of development. The first unit of the Thermal Power Station went on stream in May 1962. The fifth and the last unit under the first stage was commissioned in April 1964.

The Power Station is to be expanded from 2,50,000 kW to 4,00,000 kW by adding in the first phase of expansion a 50,000 kW unit and a 1,00,000 kW unit, to the existing station. The second phase of expansion envisages addition of two more units of 1,00,000 kW each. The ultimate installed capacity of this power station will thus be 6,00,000 kW.

Upto the end of March, 1965 this power station has generated 2,722 million kW hours of power of which 2,156 million kW hours have been pumped into the Madras State Electricity Grid.

### Fertilizer Scheme

With the collaboration of Messrs. Pintsch Bamag and Messrs. Linde of West Germany and Messrs. Ansaldo of Italy, the Fertilizer Scheme is attaining the stage of fruition. The total capital cost of the scheme has been estimated at Rs. 36 crores inclusive of its share of the cost of the Township and the common services. It is expected to start full production by Feb. 1966.

The Urea plant at Neyveli will be the biggest of its kind in the world and the first to gasify lignite to produce urea—a chemical fertiliser with 46 per cent nitrogen content.

### Briquetting and Carbonising

Tests conducted on bulk samples of Neyveli lignite in West German laboratories have established that the lignite is of a high quality, capable of yielding satisfactory briquettes, both raw and carbonised on a commercial scale. Further tests on a pilot plant scale were conducted at Neyveli with the help of pilot plant equipment, received under the T.C.M. aid, for determining the optimum conditions under which the lignite should be briquetted and carbonised. Based on the results of the tests, a Project Report was prepared. The briquetting and carbonisation scheme costing Rs. 28 crores including its share of the cost of the township and common services was sanctioned in March 1961 and contracts for the supply and erection of the plant were given to a consortium of West German firms Buckan Wolf, Lurgi and Siemens. This plant was expected to go into full production in Dec. 1965.

Production of carbonised briquettes at high temperature with as little volatile matter as possible for use in the reduction of low grade iron ores in Salem has been successfully proved by large scale tests on Neyveli lignite in East Germany.

*Clay Washing Scheme:* China clay of very good quality occurs immediately above the lignite seam. A Clay Washing Plant with an annual capacity of 6,000 tonnes has been established at

a cost of Rs. 14·00 lakhs. The plant was commissioned for commercial production in 1961.

A new township consisting of 31 blocks with all modern amenities, is almost complete to accommodate offices, factories, staff and workers of the different units of the Integrated Project. By the end of May, 1965, over 9,000 quarters had been completed. Further work is in progress.

Besides this, there are also about 1,400 quarters in the temporary colony.

One full time senior labour welfare officer and three full time labour welfare officers have been appointed to look after the interests of the workers. There is also an Amenities Officer to look after the amenities of the residents. A Public Relations Dept. is also functioning.

The Corporation has opened two high schools, 4 integrated schools, 8 elementary schools and 2 kindergarten schools for the benefit of the children of its employees. There is a dispensary and maternity centre in the Township besides a project hospital in the temporary colony. A 158 bedded hospital with all modern equipment has been opened.

A library and clubs for men and women are functioning in the Township besides an auditorium, a cinema theatre and a dairy farm.

The ownership, management and administration of the Neyveli lignite project has been entrusted to a Government of India-owned private limited company, Neyveli Lignite Corporation Ltd., which started functioning on 6th December 1956 and has its registered office at Neyveli 1, South Arcot District.

*Chairman*. K. N. Subbaraman.

## OPTICAL GLASS

Central Glass and Ceramic Research Institute, Calcutta 32.

Being the key material of a wide range of observation instruments employed in modern defence, the processes for the manufacture of optical glass are closely preserved secrets of about half a dozen countries of the world. Towards the middle of 1956, when no satisfactory basis for technical collaboration with foreign manufacturing firms could be worked out by the Government, the Planning Commission assigned the task of producing optical glass to the Central Glass and Ceramic Research Institute, P.O. Jadavpur University, Calcutta 32.

It went into production in Aug. 1960 and the major types of optical glass required in the country have already been produced and are on regular sale to consumers. The Ministry of Defence, who are the principal consumers, have undertaken inspection of optical glass produced and one of their units is located in the premises of the plant.

The country has been relieved of its dependence on imports for a vitally strategic material and it has been achieved without the association of any foreign manufacturing firm.

## PYRITES AND CHEMICALS DEVELOPMENT CO., LTD.

Established on March 22, 1960. Registered Office : N-5, South Extension, Part I, Ring Road, New Delhi-3. Branch Offices : Amjhore, P.O. Banjari, Dist. Shahabad, Bihar ; K D Flats, Sindri, Dhanbad Dist.

Authorised Capital : Rs. 5 crores.

*Objects :* Raising, assembling and transporting of pyrites ore in such areas in India and elsewhere as the company may from time to time determine for sale or use and the manufacture of sulphur, sulphuric acid or other products requiring such ores.

*Activities :* (I) Exploitation and Mining Programme of pyrites ore.

### Reserves

The Amjhore pyrites occurs as a sedimentary bed within the Bigaigarh Shales of Vindhyan Formations. The deposit is a bed of almost pure massive iron pyrites. The thickness of the bed is barely 0·76 metre. The sulphur content in the raw ore is 33 per cent to 42 per cent. Detailed geological study and intensive exploitations were undertaken to ascertain the extent and quality of iron pyrites in Shahabad District, Bihar. Exploratory drilling was done for more than 15,000 feet and to supplement the results of drilling operations, exploratory pits and development headings were driven. The total reserves and grade of ore (proved and probable) in about 48 square miles of pyrites bearing ground area, are estimated to be 384 million tonnes.

### Mining Programme

Nowhere in India a thin bed like the one at Amjhore has ever been mined. A mining programme for an annual production of 2·4 lakh tons of pryites from Amjohre mines has been planned and action initiated to procure necessary machinery and equipment. The company expects to commence developing operations in 1965.

For beneficiation of pyrites, results of research work are very encouraging. There appears to be no serious difficulty in up-grading the ore to improve the sulphur content to 46 per cent or over.

### Sulphuric Acid

The company plans to set up a 400 tons per day capacity pyrites based sulphuric acid plant at Sindri to meet the requirements of Sindri Fertilizer Plant, Bihar State Superphosphate Factory and other potential consumers in that area.

### Sulphur

Efforts are being made to locate a suitable process for the extraction of elemental sulphur from Amjohre pyrites in consultation with various firms of repute in the world. A programme of research and development work with Amjhore pyrites has also been undertaken in India to evolve a process for the production of sulphur.

*Directors :* N. N. Kashyap (*Chairman*), S. Sahay (*Managing Director*), S. Samaddar, R. S. Gupta, S. N. Sahgal, R. T. Sinha, Bazle Karim, K. B. Rao, V. G. Gopal, Dr. G. P. Kane, Dr. K. S. Chari and Dr. M. D. Parekh.

## SURGICAL INSTRUMENTS FACTORY

Nundambakkam (Madras)

Establishment of a surgical instrument factory at Nundambakkam through the National Industrial Development Corporation with the Soviet collaboration has been taken up by the Government of India.

This is expected to produce 2·5 million pieces of surgical instruments of about 150 varieties annually.

## RAJASTHAN ATOMIC POWER PROJECT

Work on first unit (200 MW) of R.A.P.P. has commenced, and the construction of temporary facilities like offices, workshop, stores, power supply, temporary colony etc. has been completed. Orders for major equipment and contract for main civil works have been awarded and excavation is in progress.

The Planning Commission have approved expansion of the station by installation of a similar second unit.

The first unit of the station is expected to be in commercial operation by 1969.

## TARAPUR ATOMIC POWER STATION

The work on India's first atomic power station at Tarapur on the west coast of India, is now in full swing and the 380 MWE station is expected to be on full power operation by the end of 1967. The cost of power from this station will be cheaper than that of thermal power in this region. The station will consist of two reactors of the boiling water type, and is being built by the General Electric Company of the U.S.A. under a turn-key contract .

OTHER STATIONS : The Planning Commission has approved the proposal to build a third atomic power station of 4,00,000 kilowatts at Kalpakkam in Madras State. The proposal is now under the consideration of the Government (June 1965).

## WASHERIES

It has been estimated that by the end of the Third Five Year Plan the requirement of coal by the steel plants as charged to the coke ovens will be of the order of 11·32 million tonnes. Out of this, about 6·50 million tonnes will be required in terms of washed coal and the balance of 4·82 million tonnes will be met partly in the shape of superior grades of Jharia raw coals and partly by the blendable coals.

The washed coal requirement of 6·50 million tonnes is equivalent to about 9·90 million tonnes of raw coal. All this coal will be washed in the existing as well as the projected washeries.

The existing washeries are : Jamadoba and West Bokaro belonging to the Tatas with a capacity to wash 1·4 million tonnes and 0·43 million tonne of raw coal respectively ; the Lodna washery which supplies to the Indian Iron and Steel Co. has an input capacity of 0·40 million tonnes, the Durgapur washery which is an integral part of the Durgapur steel plant, with a capacity of 1·5 million tonnes of raw coal and the Kargali Washery of the National Coal Development Corporation which can handle about 2 million tonnes of raw coal at present.

In addition, HSL has set up 3 washeries at Dugda, Bhojudiah and Patherdih. (for details see under Hindustan Steel Ltd.).

During the Third Plan period the National Coal Development Corporation will set up washeries at Kathara, Gidih (Karanpura) and Sawang, with an input capacity of 3, 2·84, and 0·75 million tonnes of raw coal per annum respectively and expand the capacity of the existing Kargali washery to 2·72 million tonnes.

# STATE-OWNED OR STATE-AIDED

## ANDHRA PRADESH

### THE ANDHRA PAPER MILLS

(Rajahmundry).

The capital investment is Rs. 29 lakhs and production capacity is 10 tons a day. It is now under the management of a joint stock company from July 1964 managed by a Board of Directors. A scheme to increase the present production capacity of the Mills from 10 to 60 tons of paper is under way. The production of the mills is now confined mostly to unbleached, kraft papers and it is proposed to produce white writing/printing papers and wrapping paper, after implementation of the expansion scheme. An agreement has also been entered into with Messrs. Empacel, Paris for the supply of plant and machineries under the French Credit on deferred payment terms. Foreign machinery worth Rs. two crores had been received.

### ANDHRA PRADESH MINING CORPORATION

It was set up in 1962 as a wholly State-owned undertaking for systematic prospecting of various minerals in A.P. .Is engaged in the exploitation of iron-ores in the Krishna and Kurnool districts and Barytes in Khammam apart from high grade limestone in Kurnool district. It has also schemes for exploiting other minerals also.

A pilot mining project for asbestos and china clay, quartz mining and lime calcination projects are also proposed to be implemented by the Corporation. In collaboration with the private sector, the Corporation proposes to establish a

cement factory near Bonakaller and a company has been formed for the purpose.

### GOVERNMENT CERAMIC FACTORY
(Gudur, Nellore Dist.).

The Government Ceramic Factory, Gudur, has been producing sanitaryware and crockeryware only, till 1959. A scheme for expansion of the Government Ceramic Factory, Gudur was included in the Second Five Year Plan at a total cost of Rs. 12·60 lakhs, which was implemented by 1959. The production in the Government Ceramic Factory, Gudur has been doubled after its implementation. Production of high and low tension electrical insulators has also been commenced as an additional line of production to meet the requirements of the Government Electricity Department and the public from 1960.

The production of the factory was 5·43 lakh kilograms in 1963-64. During the Fourth Plan, it is proposed to expand the existing plant with foreign collaboration by 500 tonnes per annum.

### HYDERABAD TANNERIES LTD.
(Hyderabad).

Andhra Pradesh is India's largest single producer of hides, producing about 2 mil. cow hides, 1·3 mil. buffalo hides, 2·3 mil. sheep-skins and 1·5 mil. goat-skins, accounting for ⅛ of India's production. An Advisory Leather Board has been constituted for the development of leather industry.

While the value of raw hide is about Rs. 5 crores, the value of finished leather is of the order of Rs. 8·7 crores. The State Government has ordered registration of two Apex societies for development of leather in Hyderabad and Vijayawada.

A sum of Rs. 21·02 lakhs has been provided for development of leather industries during 1965-66.

### NIZAM SUGAR FACTORY

The Nizam Sugar Factory, a Govt. company with a paid-up capital of Rs. 146 lakhs, is the largest single sugar producing unit in the country. Its production was 59,900 tons in 1964. The factory's crushing capacity is 4,200 tons of sugarcane per day.

### PRAGA TOOLS CORPORATION
(Hyderabad).

The authorised capital is Rs. 1·35 crores. The State Govt. holds nearly 35 per cent of the Share Capital of the Company. The Union Government have a major share in the company and have also granted a long-term loan of Rs. 20 lakhs bearing interest at six per cent per annum. These funds are utilised to finance the company's expansion programme which was progressing, and production of C.V.A. drill chucks and tools cutter grinders was expected to commence shortly (May 1965). The company made a profit of Rs. ten lakhs during 1963-64.

It produces machine tools and accessories, precision tools, automobile parts, diesel parts, railway duplicates and accessories.

*Managing Director*, A. M. Kelkar.

### SINGARENI COLLIERIES

Coal is mined in the State by the Singareni Collieries Co. Ltd. from the coal fields at Kothagudium, Yellandu and Tandur. The company has a paid-up share capital of Rs. 400 lakhs subscribed by the Govt. of India and the State Govt. in the ratio of 40 : 60 respectively. On the average the company employs over 21,000 labourers. The collieries propose to raise their production of coal from 30 lakh tonnes at the end of the Second Plan to 61 lakh tonnes at the end of the Third Plan. The Company requires Rs. 25·83 crores for its expansion programme during 1961-66. The company made a profit of Rs 50·90 lakhs during 1963-64.

An agreement was signed with a Rumanian Company for an 18-megawatt thermal plant costing Rs. 1·18 crores to be commissioned by 1965-66.

### SYNTHETIC DRUGS PROJECT
Sanatnagar.

*(See under Indian Drugs and Pharmaceuticals Ltd.).*

Civil works on the Rs. 20-crore project are well under way on the 700-acre site.

## ASSAM

### ASEB METER WORKS
Short Round Road, Shillong.

A Rs. 60 lakh factory, an Assam State Electricity Board enterprise, for the manufacture of single phase house service meters and poly-phase meters, went into production in Jan. 1962.

The factory assembled 30,004 single phase meters in 1963-64. It is expected that the factory will start independent manufacture of meters by the end of 1965 with the target of 1,20,000 single phase and 18,000 poly-phase meters annually.

It has an employment potentiality of 400 persons. Besides meeting the entire requirements of the State, it will be able to supply considerable number of meters to other parts of the country.

### ASSAM GAS COMPANY LTD.
Shillong (Assam).

Authorised capital: Rs. 2 crores; paid-up capital: Rs. 51,88,900.

*Aims and objects :* Utilization of natural gas from the oil fields of Messrs. Oil India Limited at Naharkatiya and Moran in the district of Lakhimpur, as feed stock for petrochemical industries and as industrial and domestic fuels.

*Present activity :* Construction of a 14" diameter pipeline was completed to supply 18 million cubic feet of gas per day to the Thermal Power Station of Assam State Electricity Board at Namrup for generation of 69 MW of electric power and 8 million cubic feet of gas per day to the fertilizer factory of the Fertilizer Corporation of India for the manufacture of 1,00,000 tons of ammonium sulphate and 55,000 tons of urea.

*Future programme :* Setting up Petrochemical Industries and construction of a gas pipeline net work in the Lakhimpur district for distribution of gas to tea gardens, industrial units and for domestic use. if feasible.

### GOVERNMENT SHELLAC FACTORY
(Chaparmukh, Nowgong).

The factory was started in 1954 as a welfare measure for the Mikir tribesmen growing lac. The capital outlay is Rs. 2·5 lakhs. It handles 2,000 maunds of raw lac a year and provides work for 30 labourers with five on the establishment side. The target is 8,000 maunds a year.

## BIHAR

### BIHAR STATE INSULATOR FACTORY
(Near Ranchi).

The construction of High Tension Insulator Factory at Ranchi at a cost of Rs. 1·35 crores has been completed. This factory has been set up with Czechoslovak Technical collaboration. The factory designs and lay-out are among the most modern in the world. The factory has started production and is manufacturing transmission line insulators upto 132 kV and Bushings and Post insulators upto 32 kV, besides L.T. Pin, Shackle, Guy and Telephone insulators. When in full production it will save foreign exchange to the extent of Rs. 35 lakhs annually as high tension insulators are being mostly imported at present.

It is planned to double this factory and also undertake manufacture of quality malleable hardwares for the insulators by the end of the Third Plan. The factory will eventually provide employment to nearly 800 people when the extension stage is completed. A number of quarters for the employees of this factory have also been constructed with well laid out master-plan providing for open areas, play grounds, parks and shopping centres, so that the employees can enjoy all modern amenities.

### BIHAR STATE SUPERPHOSPHATE FACTORY
P.O. Sindri Institute, Dist. Dhanbad (Bihar).

The factory went into production in April 1958.

Present capacity of production: Single superphosphate — 18,000 tons per annum.

Installed capacity of plants: (*i*) 240 tons superphosphate per day; (*ii*) 25 tons of 100 per cent sulphuric acid per day. Total investment: Rs. 65 lakhs. No. of workers employed: About 180.

The unit has been transferred to the Bihar State Industrial Corporation Ltd. from 1961.

The Government of India have sanctioned a scheme of putting a 400-ton per day sulphuric acid plant from pyrites, near this factory. This acid plant will be under a new company called Pyrites and Chemicals Development Co., Ltd. Hundred tons sulphuric acid per day will be supplied to this factory by the above campany with the result that by the middle of 1966, this factory will be producing 72,000 tons of superphosphate per year, which will meet the requirement of Bihar State.

At present the factory produces between 20,000 and 25.000 tons of superphosphate a year by buying acid from outside.

*Works Manager*, M. S. Lakhmana, B.Sc., B.Sc. (Tech.).

## GUJARAT

### THE BHAVNAGAR PUBLIC DAIRY LTD.
Bhavnagar (Gujarat).

This State Government Undertaking was commissioned in 1957. It draws supplies of milk from producers co-operative societies within 30 miles radius. Apart from bottled milk, the dairy also manufactures practically all major by-products including ice-cream, on a small scale.

It handles about 5,000 litres of milk per day processed through a 220 gallons per hour pasteurising plant. 99 per cent of the share capital is invested by the State Government.

*Manager :* H. C. Mehta.

## JAMMU & KASHMIR

### COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH
### DRUG RESEARCH LABORATORIES, RAJ BAGH, SRINAGAR.

The laboratory was started in 1956. Total investment is Rs. 6·30 lakhs and the number of persons employed is 74. The present production and the sales effected are valued at Rs. seven lakhs and Rs. eight lakhs respectively.

*Manager :* O. N. Channa.

### DRUG RESEARCH LABORATORIES
(Factories & Farms)
(CSIR)
(Jammu, Srinagar).

Belladonna concentrated extracts, Belladonna consumer goods, Belladonna plaster etc. Pyrethrum extract and cedarwood oil.

### GOVERNMENT SILK WEAVING FACTORY
(Raj Bagh, Srinagar).

It is the largest powerloom factory for the production of pure silk fabrics in India. The factory was started in 1938-39 with 33 looms and 1,872 spindles. It is now equipped with 124 looms and an up-to-date Throwing Plant of 6,000 spindles equipped for dyeing and printing by blocks.

Total investment: Rs. 34·27 lakhs. The factory provides employment on an average for 600 workers per day. No raw silk is produced in the factory. It produces only fabrics on an average 3·75 lakh metres per year.

### GOVERNMENT WOOLLEN MILLS
(Srinagar, Kashmir).

The mill was started in 1934-35 and purchased by the Govt. from a private firm in 1950. The total investment is Rs. 38·50 lakhs. The number of persons employed is 600. The average monthly production on the basis of 1962-63 working is — cloth 2,31,000 yards and yarn 4,54,000 lbs.

## KERALA

### COCHIN REFINERIES LTD.
(*Regd. Office:* Ravi Vihar, Kalathiparambil Road, Ernakulam-6, Kerala).

Incorporated as a public limited company on Sept. 6, 1963.

*Capital:* Authorised Rs. 15 crores; Paid-up Rs. 7 crores.

The company has been established under an agreement entered into by the Government of India with Messrs. Philips Petroleum Company of the State of Delaware, U.S.A. and Messrs. Duncan Brothers & Co. Ltd., Calcutta with the main object of constructing a complete modern petroleum refinery near Cochin in South India, with a design capacity to refine initially 50,000 barrels of crude oil each stream day and with an excess built in capacity upto 70,000 barrels a day.

The company has entered into a refinery construction contract with Messrs. Phillips Petroleum International Corporation, Panama and a technical service agreement with Messrs. Phillips Petroleum Company of Delaware, U.S.A. The refinery is expected to go on stream by Jan. 1966.

*Board of Directors:* N. N. Kashyap (*Chairman*); John W. Loy (*Managing Director*); Stanley Learned (Alternate — N. B. Vakil); S. S. Shiralkar; S. K. Guha; N. M. Patnaik; R. P. Goenka; K. P. K. Menon; Smt. A. K. Nafeesath Beevi.

### GOVERNMENT OIL FACTORY
(Kozhikode).

The Government Oil Factory was established in 1940 with a view to meeting the growing demands of the Defence Forces in India for Vitamin 'A & D' products. Regular production was started in 1943. The factory now produces various vitamin products such as Seagold blended shark liver oil, Adamin liquid high potency Vitamin Oil, adamin capsules, Stayfit liquid, Stayfit capsules and Veterinary Vitamin oil such as Univax and Trivax, etc. using up-to-date equipment and testing apparatus.

The capital investment as on 31st March 1965 was Rs. 4·2 lakhs and annual turnover Rs. 10·5 lakhs.

Net profit in 1964-65 amounted to Rs. 1·25 lakhs.

### KERALA GOVERNMENT CERAMICS
Kundara, Quilon.

Established in 1957 by the Kerala State Government as a State Owned industry for the production of superior porcelain crockery and electrical porcelain goods such as L.T. Insulators of all types with an electrical double tunnel kiln and other modern machinery. The latest type electric double tunnel kiln has been installed in the factory. The factory is situated near Kundara Railway Station.

Capital investment as on 31st March 1965 was Rs. 50 lakhs. Annual turnover is about Rs. 18 lakhs. Number of labourers 500.

### THE KERALA PREMO PIPE FACTORY LIMITED
Chavara (P.O.), Quilon District.

*Registered Office:* Kaudiar, Trivandrum 3.

This factory is a Kerala Government undertaking registered as a Joint Stock Concern on 12-9-1961. The capital outlay is Rs. 50 lakhs. In this factory prestressed high and low pressure concrete pipes and R.C.C. spun pipes are manufactured for water supply, drainage and irrigation. This factory is the only one of its kind in India. High pressure pipes can be designed and manufactured for any test pressure. The production capacity of the factory at present is 20 nos. prestressed concrete pipes and 300 nos. R.C.C. spun pipes per day.

The factory employs about 250 persons both skilled and unskilled and the office staff consists of 25 persons.

Another section for the manufacture of mosaic tiles and prestressed transmission poles is under consideration.

*Managing Director:* K. R. Warrier.

### KERALA SOAPS & OILS LTD.
(Hydrogenation Factory Division)
Calicut-5.

The work on the Factory was started in 1949 and completed in 1953 and incurred an expenditure of Rs. 18 lakhs. The factory is equipped with the most modern machinery. The production capacity of the plant is 10 tons of vanaspathi and 5 tons of refined oil per day. Regular production of refined oil and vanaspathi started in March 1958. This is the only hydrogenation factory in India in the public sector.

Nearly 60 persons are employed in this factory. The factory manufactures and markets Sudha Vanaspathi, Vimala Refined Oil and Hardened oil. This is owned by the Government of Kerala.

The Government has amalgamated this Factory with the Kerala Soap Institute and the Government Shark Liver Oil Factory under the "Kerala Soaps & Oils Ltd."

### KERALA SOAPS AND OILS LTD.
(Soap Institute Division)
Calicut-11.

Regular operation in this institute began in the year 1923. The institute manufactures several varieties of toilet soaps including the Kerala Sandalwood, Willingdon, Vep, Rose soaps etc. as also Wash-well and other varieties of bar soaps. The work of training of students in soap making is also undertaken.

The capital investment alone comes to about Rs. 16,00,000.

The capacity of the factory is about 450 tons per annum. But it is now being increased to 700 tons. The Works Manager is in immediate charge of the Institute. The General Manager, Kerala Soaps & Oils Ltd., Calicut-5 has an overall control. Agents have been appointed in almost all parts of India.

Turnover in 1964-65 was Rs. 17,00,000.

This Institute is a Division of the Joint Stock Company namely Kerala Soaps & Oils Ltd., Calicut-5 formed since Feb. 24, 1964.

*General Manager:* U. S. Kini.

### PALLATHRA BRICKS & TILES LTD.
P.O. Thirunallore, Shertallay.

Authorised Capital: Rs. 1,00,00,000; Issued Capital Rs. 11,00.000; Date of commencement November 15, 1958.

The first factory of the company has been completed and it was commissioned on May 11, 1963.

The object of the Company is to produce and distribute sand lime bricks, a new architectural brick of high strength and finish. The designed capacity of the factory is 44,000 bricks per working day of 16 hours.

The total employment potential is 200 workmen.

Provision for six more units to be started in the following centres *viz.* Kozhikode, Cannanore, Trichur, Punnapra near Alleppey, Quilon, Kottayam (with laterite powder) in Kerala involving a total cost of Rs. 98 lakhs is proposed to be made in the very near future.

### SRI KERALA VARMA AYURVEDIC CO-OPERATIVE PHARMACY & STORES LTD. NO. 4318.
Trichur.

The pharmacy and stores started functioning from March 1, 1959 on co-operative basis. They are the sole agents for the distribution of ayurvedic medicines to all the Government hospitals and dispensaries under the Department of Indigenous Medicine, Kerala State. Costly raw materials are obtained direct from Assam, Kashmir, Nepal and other places of origin. The medicines are being supplied to the departmental institutions as well as to the public through the sales depots of this concern at Trivandrum, Quilon, Alleppey, Kottayam, Ernakulam, Trichur, Palghat, Kozhikode and Cannanore.

The pharmacy now manufactures Kashaya choornams on a very large scale for the use of the Departmental institutions.

### TRACO CABLE COMPANY
Irimpanam, Ernakulam.

The Traco Cable Company Limited, Ernakulam, was incorporated in February, 1960 as a public limited company at Ernakulam. One of the main objects of the company is to carry on business as manufacturers and dealers in all kinds of wires and cables.

The company became a Government company under Section 617 of the Companies Act, with the Government of Kerala holding more than 75 per cent shares.

The Authorised Capital is Rs. 1,00,00,000 divided into 2,50,000 preference shares of Rs. 10 each and 7,50,000 equity shares of Rs. 10 each. A sum of Rs. 40,00,000 in equity shares has already been subscribed and paid up.

The company is managed by a Board of Directors.

The company has secured technical collaboration of Kelsey Engineering Ltd., North Vancouver, Canada.

The collaborators besides furnishing the company with the complete engineering design would also supply complete technical assistance and the latest know-how at all stages of manufacture.

The factory is located at Irimpanam, Ernakulam District, about 10 miles from the Cochin Port. The company has purchased 45 acres of land for the establishment of the factory. It has the advantage of having both road and backwater communication facilities.

The present licensed capacity is 36 million core yards. It proposes to manufacture both copper and aluminium wires and cables using new insulating materials and adopting the latest techniques.

The company is manufacturing P.V.C. insulated P.V.C. or rubber sheathed steel wire armoured and P.V.C. sheathed cables upto 50 sq. mm. in addition to ordinary P.V.C. cables both singled and multicore.

By installing the high productivity U.S. machines, the company expects to produce cables of high quality at most competitive international prices. The company hopes to export a major portion of its products.

### TRAVANCORE PLYWOOD INDUSTRIES
Punalur.

This is a factory started as a Public Company with Government support. Finally in 1947, Government bought all the shares of the company and became sole proprietor. The capital investment in buildings and machinery, etc. upto 1961 was about Rs. 10 lakhs. The factory now mainly produces commercial and tea chest plywood panels. The installed capacity of the machinery for the production of plywood is 3 million s.ft. of 4 m.m. plywood in single shift per year. It is also licensed to produce half a million sq. ft. of commercial plywood per annum. Besides, 50,000 sets of battens are also being

produced annually. The soft wood logs required for the manufacture of plywood are being delivered to the factory by the Forest Department. The plywood panels now produced in the factory find ready sales.

Annual turnover is about Rs. 12 lakhs and the capital investment as on 31st March 1964 was Rs. 15 lakhs. Net profit during 1963–64 amounted to Rs. 1 75 lakhs. The factory employs 120 daily rated workers and about 46 staff members and officers.

The concern is expected to be converted into a joint stock company in the immediate future.

*Gen. Manager*, T. J. Abraham.

### TRIVANDRUM RUBBER WORKS

(Chackai, Trivandrum 7).

(A Kerala State Undertaking).

Trivandrum Rubber Works Ltd. is a Kerala Government owned Company under which the former Travancore Rubber Works, Kerala Government Cycle Rim Factory and Kerala Cycles are now working as units. The Company is in the nature of a private Limited Company and the whole shares of the Company are held by the Government of Kerala. The Company has come into being with an authorised capital of Rs. 75 lakhs on 24-2-1964. At present there are 410 employees working in the three units of the Company.

The main products of the company are Rubber goods such as Cycle Tyres and Cycle Tubes, Hoses of all kinds, Latex goods, foams cushions etc., Cycle Rims and Cycles under the name Kerala Cycles. The Company is now exporting Cycle Rims to East African and other African countries.

Under the Third Five Year Plan a scheme for the modernisation and expansion of the Rubber Works is under implementation.

### TRIVANDRUM SPINNING MILLS LTD.

Balaramapuram.

A spinning mill, claimed to be the first in the public sector in India, was declared open on March 15, 1962, about ten miles from Trivandrum.

This mill which was started as a public sector undertaking was taken over by a Government Company formed for this purpose.

The mill has an installed capacity of 18,000 spindles and an expansion programme by installing another 7,000 spindles, is in progress.

### TRIVANDRUM TITANIUM PRODUCTS LTD.

Kochu Veli, Trivandrum-7 (Kerala)

A public limited company in which the Government of Kerala holds majority interest.

The factory is the only unit in India producing Titanium Dioxide pigments, an important intermediate for paint and many other consumer products. Started regular production in 1951 with a production capacity of 5 tonnes, but the production has since been stepped up to 18 M. tons per day.

Total capital investment: About Rs. two crores; annual turnover Rs. 180 lakhs; employment potential: over 600 persons. Schemes for further expansion are under active consideration (March 1965).

*Managing Director:* K. B. Warrier, I.A.S.

## MADHYA PRADESH

### MADHYA PRADESH LAGHU UDYOG NIGAM LIMITED

60, Baxi-Bagh, Post Box No. 86, Indore

*Gram:* 'LAGHUDYOG'.

Registered on 28th December 1961 with the main object of promoting the interest of the small-scale industries and helping their speedy development in the State. Started functioning from 1st February 1962 with an authorised capital of Rs. 20 lakhs and paid-up capital of Rs. 3 lakhs which has subsequently been fully paid up.

The Nigam has taken up the following activities:—(1) Procurement of raw-materials. It has started raw material depots at all the Divisional Headquarters of the State; (2) Marketing of goods produced by the small-scale industries; (3) Arranging supply of machines on hire-purchase in rural project area; (4) Construction of industrial estates and rural work sheds; and (5) It runs seven small industries on a commercial basis.

*Board of Directors:*

S. B. Lal, I.A.S. (*Chairman*): R. N. Gandhi, K. N. Dube, T M. Harkhawat, N. M. Bordia (*Managing Director*).

### THE NATIONAL NEWSPRINT AND PAPER MILLS LIMITED

(Nepanagar, Nimar Dist., Madhya Pradesh).

The mills are situated on the main Bombay-Itarsi-Delhi line about 27 miles from Khandwa and 17 miles from Burhanpur.

The Company is a limited concern with a share capital of Rs. five crores. Of the shares 51 per cent are held by the Union Government and 34 per cent by the Madhya Pradesh Government. The balance shares are held by shareholders from the public numbering about 17,000.

Newsprint started production from cent per cent indigenous raw materials from 29th December 1955. The rated capacity of the plants is 30,000 tons yearly which was attained in Dec. 1962. The production during 1963-64 was 30,078 tonnes as against 26,515 tonnes in 1962-63. The total revenue from sales during 1963-64 was Rs. 318·08 lakhs. The Project has cost about six crores of rupees. The company made a net profit of Rs. 50·90 lakhs during 1963-64.

There are 1,351 workers working on monthly salary. When the expansion programmes are completed at a cost of Rs. eight crores, production would be raised to 75,000 tons a year.

There are ten members on the Board of Directors including the Chairman and the Managing Director.

*Chairman, Board of Directors*, Sir A. Ramaswami Mudaliar.

*Managing Director*, P. S. Kothari. *Deputy General Manager and Secretary*, P. L. Singhania.

## MADRAS

### WOOL PROCESSING CENTRE

Vinnamangalam, Minnur Post (Madras).

The Wool Processing Centre, a joint venture of the Governments of Madras and Mysore is processing tannery wool/hairs, bristles to meet the requirements of drugget, carpet and felt manufacturers of India and abroad. The production capacity is 750 tonnes per year.

The unit has been functioning since 1960 and is controlled by the Director of Industries & Commerce, Madras.

*Officer-in-charge:* T. V. Veeraswamy, B.Sc. (Text).

## MAHARASHTRA

### MANGANESE ORE (INDIA) LTD.

3, Mount Road-Extension, Nagpur.

Manganese Ore (India) Limited was formed by an agreement dated June 1962 between the President of India and the Central Provinces Manganese Ore Company Limited, a company incorporated in U.K. Manganese mines in Nagpur, Bhandara and Balaghat districts except Dongri Buzurg which were previously being worked by the Central Provinces Manganese Ore Co. Ltd. were transferred to Manganese Ore (India) Ltd. and the company started its operation from July 1, 1962.

Authorised capital: Rs. six crores (March 1964); subscribed capital: Rs. 2,15,45,100 (March 1964). The Government of India together with the State Governments of Maharashtra and Madhya Pradesh hold 51 per cent of the issued capital and 49 per cent of the shares have been allotted to the Central Provinces Manganese Ore Co. Ltd.

The total number of workers employed by the Company at different mines is 15,947.

The output and sales of manganese ore during 1963-64 were 2,27,783 tons and 1,47,374 tons respectively.

*Managing Director:* R. W. A. Hansel.

## MYSORE

### THE GOVERNMENT CENTRAL INDUSTRIAL WORKSHOP

(Mysore Road, Bangalore 26).

Established : 1897.

Capital invested as on March 31, 1965: Rs. 46·18 lakhs.

No. of persons employed : 350.

Annual outturn : Rs. 22·18 lakhs.

The workshop was shifted to its new premises at Mysore Road on June 27, 1959. The expansion scheme including the construction of buildings and purchase of machinery has been implemented at a cost of Rs. 22 lakhs. The workshop is engaged in general engineering works such as manufacture of trusses, pistons, ferrous and non-ferrous castings, structurals, line materials and construction machinery including concrete mixers, wheel barrows, hand carts, tar boilers etc. In addition, prosposals are under way for progressively manufacturing road rollers.

Proposals are afoot to increase the annual outturn to Rs. 30 lakhs.

### GOVERNMENT ELECTRIC FACTORY

(Mysore Road, Bangalore).

Established : 1939.

Capital invested : 80 lakhs.

No. of persons employed : 960.

Annual outturn : Rs. 60 lakhs.

*Main products:* Transformers in sizes upto 1,000 kv A and voltages upto 33 KV to an aggregate of 100,000 KV A per annum.

### NEW GOVT. ELECTRIC FACTORY

Byappanahally, Bangalore.

Investment — 530 lakhs.

Employment potential—3,500.

*Main products :—*

(*i*) Manufacture of transformers in sizes upto 20,000 KV A and voltages upto 132 KV to an aggregate of 600,000 KV A per annum per single shift.

(*ii*) *Motors:* From fractional H.P. motors upto 1,500 H.P. for voltage rating upto 6·6 KV. The aggregate output will be 4,00,000 H.P. per annum, per single shift.

(*iii*) *Switchgear:* Motor starters, switches, circuit breakers upto 11 KV, switchboards, distribution boards, H.R.C. fuses etc., of the value of about Rs. 85,00,000 per annum per single shift.

It has been decided to convert the project into a company with the name of NGEF Limited with an authorised share capital of Rs. 5 crores and issued capital of Rs. 4 crores. To begin with the Mysore Government will pay upto 80 per cent of the issued capital. The balance of investment already made by the Government will be treated as loan. AEG of West Germany and the International Finance Corporation, Washington, will participate in the share capital.

### GOVERNMENT PORCELAIN FACTORY

(Science Institute, Bangalore).

Established : 1932

No. of persons employed: 1,200.

Annual outturn : Rs. 120 lakhs.

In view of the heavy demands on the capacity of the factory, its capacity of 2,500 tons per annum licensed in 1956 has been expanded to 3,600 tons in 1963 and steps are in progress to expand it to 5,000 tons. The factory is working in

collaboration with Messrs. NGK Insulators Ltd., of Japan who are the biggest producers of the best porcelain in the world. The production of the GPF is produced and tested by the same rigorous methods and guaranteed for the same performance as NGK Insulators of the corresponding categories. The present range of products is upto 132 KV according to the collaboration agreement of 1954. A fresh agreement is under negotiation to expand the range of products upto 220 KV which is expected to meet all the requirements of the country till the end of the fourth plan period, with rare exceptions of short lengths of 380 or 400 KV lines for which imported insulators would be more economical than setting up expensive machinery on a permanent basis at such an early stage.

## GOVERNMENT SANDALWOOD OIL FACTORIES

(Mysore South & Shimoga Town).

Established : Mysore 1917 and Shimoga 1944.

Capital : Rs. 60,70,000 (1963-64).

Number of persons employed : 330/

1963-64 outturn : 81,521 Kgs. of sandalwood oil valued at Rs. 1,21,35,517.

The expansion of the Shimoga Factory is over.

The scheme to equip the Sandalwood Oil Factory at Mysore with two new boilers is being implemented.

## GOVERNMENT SOAP FACTORY

Post Box No. 1031, Bangalore-12.
Established : 1918.

Capital invested : Rs. 57 lakhs.

No. of persons employed : 290.

Annual outturn : Rs. 1·25 crores.

The factory produces 2,000 tons of soap per annum. It also produces high class toilet soaps, household and laundry soaps, industrial soaps, toilet articles etc and C.P. Glycerine. Mysore Sandal Soap is their popular toilet soap.

## THE HUTTI GOLD MINES CO. LTD.

Hutti P.O. (*Via* Raichur-Deccan).

A company was floated in 1947, until when the operations were wholly financed by the then Government of Hyderabad. Production was commenced in 1948 and has steadily increased since that date. Current production is at the rate of 10,000 tons of ore treated with a recovery of 77,000 grammes of gold per month.

In 1955 plans were drawn up for an exploratory development programme, to be followed by an expansion programme, under the II and III Five Year Plans, for the production and treatment of 1,000 tons a day, which will put the mines on a profitable large scale basis. Production at the expanded rate is scheduled to commence early in 1967, when 3,10,000 tons of ore will be treated per annum for a recovery of about 1,930 kg. of gold.

## MAHABOOB SHAHI GULBARGA MILLS CO. LTD.

Gulbarga (Mysore State).

The mill was registered in July 1883 and was re-registered in Aug. 1888. The authorised share capital at present is Rs. 1·25 crores and subscribed capital is Rs. 71·2 lakhs. The mill became a Government company in 1962, as a result of the Government acquiring 51 per cent of the share capital.

The company employs a labour force of about 3,000. Its installed capacity is 35,140 spindles and 606 looms with dyeing, bleaching and finishing sections. The mill produces coarse and medium cloth.

*Managing Director :* C. S. Seshadri, I.A.S.;
*Secretary :* B. Lakshmana Rao.

## THE MYSORE CHROME TANNING CO. LTD.

Mysore Road, Bangalore-26.

The Mysore chrome Tanning Co. Ltd., Bangalore, originally known as the Mysore Tannery, is a pioneer chrome tanning company in South India. More than 52 per cent of the company's share capital is held by the Government of Mysore.

The company manufactures all kinds of chrome upper leathers, B.T. sole leathers, besides manufacturing leather goods such as ammunition boots for police and defence departments, air travel bags, document cases, suit cases, ladies hand bags, industrial leathers, washers for hydro-electric, turbines, safety belts and straps for hot line workers etc.

*Managing Director :* D. R. Gunduraj, B.A., B.Com., LL.B.

*Secretary :* S. Krishnappa, B.Com., B.L.

## THE MYSORE IRON AND STEEL LIMITED

(Bhadravathi, Shimoga Dist., Mysore State).

This Mysore State Government Project for the establishment of the Iron Industry was worked out during the years 1914-18 and this basic industrial enterprise started operations in January 1923. The Mysore Government has constituted this Works into a Corporation on the lines of a Private Limited Company, with effect from 1st April 1962.

The Company produces pig iron, cast iron pipes, plate sleepers, general foundry castings, merchant steel sections, steel castings, portland cement, slag cement, ferro-silicon, ferro-manganese and acetic acid. The turnover amounts to over Rs. seven crores per annum. The total sales during the year 1964-65 amounted to Rs. 10·30 crores.

The present annual output of several products is (in tonnes) ; Pig Iron 85,000 ; Mild Steel Sections 30,000; Balling hoops and thin rods 11,000 ; Cast Iron Pipes 26,500 ; Ferro-Silicon 20,000 ; Cast Iron Plate Sleepers 15,000 ; Cast Iron Castings 5,000 ; Steel Castings 2,000 ; Acetic Acid 270.

The Company has a well equipped Structural Shop for fabrication of steel structures, the annual capacity being 2,500 tonnes.

*Expansion Schemes :* Expansion of the existing Steel Plant by installing L.D. Steel converters and additional Rolling Mills to step up the production of Mild Steel to one lakh tons per annum is under implementation. The Government of India have approved the scheme for conversion of the Common Steel Expansion into an Alloy and Special steel Plant with a capacity of 77,000 tons of finished Special Steels at a cost of Rs. 10·71 crores in collaboration with Messrs. Bohler & Company of Austria in respect of know-how, patent rights etc. It is expected to reach an annual capacity of 80,000 tons to 2,00,000 tons by installing additional electric furnaces.

Total No. of employees : 9,772.

*Chairman :* K. Mallappa, B A., B.L., Minister for Industries and Commerce, Government of Mysore. *Vice-Chairman and Managing Director :* M. D. Shivananjappa, I.A.S. *General Manager :* T. Krishnappa, M.Sc., M.Met. *General Manager (P & D) :* B. Sheshadri Sharma, B.E. *Secretary :* K. Marulappa, M.A.

## MYSORE GOVERNMENT SILK WEAVING FACTORY

(Mysore).

Established : 1932.

Capital invested : Rs. 25·69 lakhs, as at the end of March 1964.

Number of persons employed : 258.

Annual outturn : Rs. 22 lakhs.

This factory is engaged in the manufacture of high grade 100 per cent re-reeled pure silk fabrics such as Crepe-de-chine, Georgettes, Satins, Sarees, Kerchieves, ties and other ladies wear.

New varieties such as Tom-tom, Fireplay, Navrang, Champion, Rainbow, Taffetta fabrics Scarves and Raw Silk fabrics etc., are also manufactured.

The factory has an expansion scheme costing Rs. 8·00 lakhs during the III Five Year Plan. For modernising the factory, import licence is under the consideration of Government of India (March 1965).

## MYSORE IMPLEMENTS FACTORY

(Hassan).

Established : 1939.

Capital invested : Rs. 30 lakhs.

No. of persons employed : 270.

Annual outturn : Rs. 30 lakhs.

The factory has been mechanised for mass production of agricultural estate and horticultural implements and tools like mumties, pick axes, sledge hammers, shovels, crowbars, sheet metalware, light structurals, etc. to meet the increasing demand from several Govt. departments and private consumers. A network of agencies are functioning throughout the country.

*General Manager :* S. K. Kempaiah.

## RADIO & ELECTRICALS MFG. CO. LTD.

Mysore Road, Bangalore-18.

The company was incorporated in 1946 with the name "Mysore Airmec Ltd." with a capital of Rs. 25 lakhs. The name of Radio & Electricals Mfg. Co. Ltd. (popularly known as Remco) was adopted in 1949. The present authorised capital is Rs. one crore and subscribed capital is Rs. 50,78,242. Sixty per cent of the paid-up capital is held by the Government of Mysore and the remaining forty per cent by the public.

The company's business operations began with the sale of imported radio receivers and was followed by manufacturing activities for the production of radio receivers, electronic components, plastic insulated wires and cables, electricity meters and water meters. Among the components produced in Remco are (1) all metal parts (2) mains transformers (3) audio transformers (4) I. F. transformers (5) coils (6) wave change switches (7) paper capacities and (8) electrolytic capacitors. The production of band switches in technical collaboration with Messrs. A. B. Metal Products Ltd., U.K. commenced in May 1958. The principal electronic equipment manufactured in Remco are (1) domestic radio receivers (2) community receivers and (3) inter-communication sets. Besides these, a large variety of test equipment utilising electronic circuits have also been designed and built by Remco mostly for its own use. The production of transistorised radio receivers has been started recently (April 1965).

The manufacture of Polyvinyl chloride covered wires and cables for use in low tension circuits was commenced in 1948. The production of single phase electricity meters was commenced in 1952 in technical collaboration with Messrs. Tokyo Shibaura Electric Co. Ltd., Japan. The production of electricity meters has registered a rapid rise from 200 meters per day in 1952 to 1,000 meters per day at present. There are over 1·87 million of Remco meters in service in various parts of the country. The company has been sanctioned a capacity of 2,00,000 single-phase electricity meters and 48,000 polyphase electricity meters per annum. The company is also producing polyphase electricity meters.

Remco commenced manufacture of multi-jet inferential type water meters in technical collaboration with Messrs. Aquametro Water Meter Works Ltd., Switzerland in 1956.

## TUNGABHADRA STEEL PRODUCTS LTD.

Tungabhadra Dam P.O. (Bellary Dist., Mysore).

This company was founded on April 1, 1960 with an authorised capital of Rs. 2 crores and a subscribed capital of Rs. 50 lakhs divided into 5,000 equity shares of Rs. 1,000 each. The entire subscribed capital is contributed in equal shares by the Governments of Andhra Pradesh and Mysore.

*Production :* Steel structures including gates, hoists and transmission towers 4,000 tons per annum ; penstocks 3,000 tons ; grey iron castings 500 tons ; cranes worth Rs. 18 to 24 lakhs per annum.

A galvanising plant with a capacity of 3,000 tons per annum is under installation and will be commissioned shortly (April 1965). The company has its own design branch, grey iron foundry, rubber seal section, X-ray and photographic section.

It has entered into a collaboration agreement with Messrs. Est. Neyrpic, Grenoble, France for the designing and fabrication of hydraulic gates. It has plans for securing the collaboration of some other foreign firms and expanding its lines of production.

The Board of Directors of the company comprises eight members, four of whom are nominated by the Govt. of Mysore and four by Andhra Pradesh.

*Chairman :* A. Krishnaswamy ; *Managing Director :* I. P. Mallappa ; *General Manager :* N. A. Sirsi : *Secretary :* G. K. Channaraj Urs.

## ORISSA

### CUTTACK IRON & STEEL PRODUCTS LTD.

Industrial Estate, Cuttack-3 (Orissa)

The company is a pilot project of the Government of Orissa. The share holders of the company comprise the Governor of Orissa (holding major shares) and a private entrepreneur.

The company manufactures fabricated steel goods. It undertakes all types of fabrication work. Its products can be divided into three categories : (1) Heavy Goods (trusses, transmission towers etc.), (2) Semi-Heavy Goods (window grill, W.I. gate, collapsible gate, garage gate electric cross-arms, wheel barrow, scraper etc.) (3) Light Goods (novelty goods like table tray, flower stand, garden chair and other types of furniture and office equipment like file tray, file rack etc.).

*Managing Director :* A. K. Bhuyan.

### ORISSA BOARD MILLS LTD.

P.O. Jagatpur (Dist. Cuttack, Orissa).

(Regd. Office : Meria Bazar, Cuttack-1).

This is a pilot project company of the Government of Orissa. The mills are equipped with cylinder-mould machine and a jet ventilated dryer imported from West Germany. It produces monolithic quality straw boards and mill boards from 16 oz. to 48 oz.

*Managing Director :* S. Raut Roy.

### ROURKELA FABRICATIONS LTD.

Industrial Area, Rourkela-4.

Authorised capital : Rs. 5 lakhs. The factory was established in 1959 for the manufacture of quality steel window, angle roof trusses, purlins, all steel screw gear shutters, falling shutters and for any type of structurals heavy, medium and light.

Turn-over for 1964-65 : Rs. 9·5 lakhs.

*Managing Director :* Babubhai Patel; *Secretary-Residential Engineer :* A. N. Patel, B.E., A.M.I.E.

## UTTAR PRADESH

### GOVERNMENT CEMENT FACTORY

Churk, Mirzapur, U.P.

The Government Cement Factory was established at Churk in Mirzapur District at an initial cost of Rs. 4·68 crores. The factory went into production in September 1954. Its installed capacity is 700 tons per day.

The expansion of the project at an expenditure of Rs. 2·98 crores has been completed and the expanded plant went into production from January 1963. The rated capacity of the expanded plant is now 1,400 tonnes per day as against the initial capacity of 700 tonnes per day. Production during 1964-65 was 4,10,793 tonnes of cement.

In the factory, 1,783 persons are working and 1,685 persons are working in the quarries of the factory.

### GOVERNMENT PRECISION INSTRUMENTS FACTORY

Lucknow, P. Box 153, U.P.

The factory was established in 1950 at Lucknow for the manufacture of water meters, microscopes and other precision instruments. Now the factory is in the final phase of its expansion. Its present production includes watermeters of 15 mm, 10 mm and 25 mm sizes, microscopes-research and scholar-microscopes bullet comparison and pressure gauges of 4" and 6" dial size with minimum pressure gauge of 0–100 lbs/in², 0–200 lbs/in² and 0 600 lbs/in² respectively.

The Research-cum-design centre established in the premises of G.P.I.F. for carrying out research and experimentation in the manufacture of precision and scientific instruments has already started functioning.

The work for the establishment of a separate factory for the manufacture of optical instruments which was proposed to be established in the Third Plan is in progress.

### THE INDIAN TURPENTINE & ROSIN CO. LTD.

P.O. Clutterbuckganj, Bareilly (U.P.)

Authorised capital : Rs. 12,00,000 ; subscribed capital : Rs. 9,00,000.

The Government have handed over their Turpentine and Rosin Factory in Clutterbuckganj in U.P. to this company. From crude resin, the company manufactures turpentine and rosin. The gum of pine trees, the main raw material, is being obtained from the Kumaon and Tehri forests of U.P.

*General Manager :* Kuber Nath, I.A.F.C.

## WEST BENGAL

### THE KALYANI SPINNING MILLS LTD.

P.O. Kalyani, Dist. Nadia (West Bengal).

Authorised capital : Rs. 250 lakhs ; paid-up capital : Rs. 140 lakhs. The Government of West Bengal has originally advanced a sum of Rs. 70 39 lakhs to the mill out of which a sum of Rs. 32·65 lakhs has been repaid.

The mill has an installed capacity of 50,160 spindles.

The annual production capacity of the mill is approximately 24 lakh lbs. of yarn.

The present employment potential of the mill is 1,212.

During the Third Plan, the mill has undertaken the establishment of its second unit at Habra with an installed capacity of 25,000 spindles and expansion of its existing unit at Kalyani by another 25,000 spindles for hosiery yarn.

During 1963-64, the mill has earned a net profit of Rs. 26,94,959.

*Chairman :* K. N. Mookerjee ; *Managing Director :* R. R. Chatterjee.

# PORTS

ALLOTMENT under First Five-Year Plan : major ports : Rs. 25·70 crores ; minor : Rs. 2·41 crores. Allotment under the Second Plan : major ports : Rs. 37·6 crores ; minor ports : Rs. 5·00 crores. Third Plan allotment for major and minor ports : Rs. 75 crores and Rs. 6·5 crores respectively.

There are seven major ports in India, 22 intermediate ports and 143 working minor ports. It is proposed to develop Mangalore and Tuticorin as major ports during the Third Plan.

Technically a major port is one which is capable of taking in ocean-going steamers with a registered tonnage of 4,000 or more and berth them along wharves.

The seven major ports are:

Bombay, Calcutta, Cochin, Kandla, Madras, Mormugao and Visakhapatnam.

The intermediate ports and the minor ports are distributed as follows State-wise :

MYSORE : There are two intermediate ports Karwar and Mangalore) and 19 minor ports.

MADRAS : There are three intermediate ports (Cuddalore, Nagapattinam and Tuticorin) and seven minor ports.

MAHARASHTRA : There are two intermediate ports (Ratnagiri and Redi) and 47 minor ports.

GUJARAT : There are 10 intermediate ports (Okha, Porbander, Bhavnagar, Navlakhi, Bedi, Veraval, Broach, Mandvi, Sikka and Surat) and 40 minor ports.

Kerala : There are two intermediate ports (Alleppey and Kozhikode) and nine minor ports.

ORISSA : There are one intermediate port (Paradip) and one minor port. (For details see article on Orissa State).

ANDHRA PRADESH : There are two intermediate ports (Masulipatam and Kakinada) and five minor ports.

PONDICHERRY : There is one minor port of Pondicherry only.

ANDAMAN & NICOBAR ISLANDS : There are 15 minor ports.

All the seven major ports are administered by Port Trusts which are statutory bodies.

The intermediate and minor ports are administered by State Governments.

**The National Harbour Board :** The Board which was set up in 1950 to advise the Central Government on matters of general policy relating to port management and development including their effects on industry, commerce, shipping, railways etc. so as to ensure integrated consideration of all important port matters, has been meeting once in every year. The last meeting was held in Oct., 1964 at Mormugao, Goa.

### FIVE-YEAR PLANS

The capacity achieved at the end of the Second Plan was about 38 million tons as detailed below (in million tons) :

Calcutta 12·16 ; Bombay 14·50 ; Madras 3·20 ; Cochin 3·25 ; Visakhapatnam 3·50 ; Kandla 1·60.

The overall cost of the physical programme relating to major ports included in the Third Five Year Plan is about Rs. 175 crores including

Rs. 30 crores for the development of a satellite dock system to Calcutta at Haldia, Rs. 14 crores for the development of Tuticorin into a major port and Rs. 15 crores for the development of Mangalore into a major port. But the financial ceiling for expenditure to be incurred during the Third Five Year Plan is Rs. 75 crores.

The capacity of the major ports is expected to be about 60 million tons by the end of Third Plan which includes the capacity of Paradeep Port which will be ready by the middle of 1966.

This does not take into account the additional capacity that will be generated by the establishment of a satellite port at Haldia and the development of Tuticorin and Mangalore as major ports.

FOREIGN EXCHANGE FOR MAJOR PORTS: The total foreign exchange requirement for the development of major ports during the Third Five Year Plan is about Rs. 65 crores.

An amount of Rs. 33·48 crores, has been obtained in the shape of foreign aid from World Bank loans (Rs. 2,230 lakhs), International Development Association credit (Rs. 714 lakhs), West German credit (Rs. 4 lakhs), yen credit (Rs. 22 lakhs), U.K. credit (Rs. 14 lakhs), Yugoslav credit (Rs. 40 lakhs) and Dutch commercial credit (Rs. 90 lakhs).

It is proposed to negotiate with the World Bank for a loan of about Rs. 14 crores to cover the foreign exchange requirements of the Haldia dock system. As regards the balance also, as far as possible, credit sources available from time to time will be made use of.

**Major Ports:** The expenditure incurred during the Second Plan period was about Rs. 45 crores. The anticipated expenditure during the Third Plan is about Rs. 91 crores. Important projects for modernization and augmentation of facilities at major ports so far completed: (*i*) Development of two berths in the King George's Dock, Calcutta Port into Cargo berths, one berth into an oil berth and another into a mechanical ore berth; The river training works at Fulta Point; (*ii*) A marine oil terminal at Butcher Island, Bombay Port; (*iii*) A new passenger station, a new marshalling yard, a new ore berth and a new coal berth with facilities for mechanical handling at the Madras Port. A new Administrative Office building for the Madras Port Trust has also been constructed and occupied in June 1960. The reconstructed South Quay II has been put into commission; the new Suction Dredger "Cauvery" has been received and put into commission. Twelve diesel locomotives ordered from Canada under the Colombo Plan have been received; (*iv*) One coal berth at Cochin; (*v*) Acquisition of several items of plant, equipment and floating craft at the various ports especially dredgers for Calcutta Port; (*vi*) Diversion of the Railway Line (Budge Budge section) at Calcutta Port; (*vii*) Reconstruction of eleven out of the twelve transit sheds at Prince's & Victoria Docks at Bombay Port.

The schemes relating to major ports are making satisfactory progress.

(*i*) *Calcutta Port:* The work relating to the development of "B" Berth, K. G. Dock into a general Cargo Berth and conversion of "C" Berth into an Oil Berth has been completed. All the twelve berths in Dock No. 1, Kidderpore Docks, have been reconditioned. Two floating cranes, one of 30-ton and the other of 60-ton, have been acquired. A new bucket dredger "Ajoy" and a new suction dredger "Churni" have been commissioned. The reconditioning of the existing dredger "Gunga" has been completed. The building of a new tea warehouse has been completed. Orders have been placed for a new dredger to replace 'Balari' which will be used for estuarian dredging. Two new pilot vessels, one grab dredger and two additional copper barges have been ordered.

Considerable progress has been made in the detailed planning of the various facilities to be provided at the new docks at Haldia. Land acquisition is in progress. The tenders for all the major items have been prepared. An application has been made to the World Bank for a loan to cover the foreign exchange requirements of Haldia Dock System estimated at Rs. 14 crores.

(*ii*) *Bombay Port:* Contract has been awarded for the execution of dock expansion scheme estimated to cost Rs. 13 crores. A major portion of the dredging of the entrance channel to the Bombay Harbour has been completed.

CRUISER-DOCK: The newly-built Cruiser Graving Dock at the Naval Dockyard, Bombay, was inaugurated on January 9, 1962.

One of the most modern docks of its type and size in the East, this dry-dock is the first major project of the Naval Dockyard Expansion Scheme to be brought into use. With a length of about 700 feet, a width of 100 feet and a depth of 50½ feet below the ground level, it will be capable of dry-docking the Navy's cruisers and other large ships. With its small extension it can also accommodate the new aircraft-carrier acquired by the Navy. Every type of modern facilities required by ships undergoing repair in the dock is provided for here.

This cruiser-dock forms only a portion of the Expansion Scheme of the Naval Dockyard.

The cruiser-dock, now ready for service, is equipped with the latest machinery to supply electric power, compressed air and fresh and salt water to the ships undergoing repair therein.

The Pir Pau oil jetty in Bombay is being modernised at a cost of Rs. 23 lakhs to help the movement of products from the Trombay oil refineries to storage installation at Sewri. The scheme is part of the Rs. 10 crore project to develop the oil terminal at Butcher Island.

The major item in the improvement programme relates to flushing and boosting facilities at the jetty. The flushing pumps to be installed have been so designed as to serve also as boosters to replace the existing steam and diesel mechanism.

(*iii*) *Madras Port:* The six-berth wet dock known as "Jawahar Dock" has been commissioned. A scheme for the installation of a new plant for mechanical handling of iron ore costing about Rs. 2·50 crores is under active consideration.

(*iv*) *Visakhapatnam Port:* The programme for Vishakapatnam port provides for the completion of four additional berths — two berths for export of ore and two for general cargo, a lighterage wharf and the installation of an iron ore handling plant at the ore berths. The scheme estimated to cost Rs. 7 crores is in progress. The facilities were expected to be completed by Oct. 1965.

(*v*) *Cochin Port:* The construction of the four berths in the Ernakulam channel has been completed. All the berths have been put into commission. The construction of a new oil jetty is in progress.

(*vi*) *Kandla Port:* The fifth cargo berth has been completed. The work relating to the sixth berth has been postponed for the present. A new dredger has been acquired.

(*vii*) *Mangalore and Tuticorin Ports:* Work relating to the development of these ports into major port is making satisfactory progress. Detailed designs are being chalked out. Meanwhile, preliminaries such as land acquisition, approach roads, staff quarters, etc. have been taken in hand.

(*viii*) *Haldia Port:* The preliminaries relating to the setting up of a satellite port at Haldia have been completed. Land acquisition costing about Rs. 2 crores, has been sanctioned. The final project report is being drawn up. The construction of a new oil jetty has been sanctioned and contract has been awarded. It is expected to be completed by June, 1967.

(*ix*) *Mormugao Port:* A comprehensive project for expansion of facilities at Mormugao Port to handle iron-ore in bulk is under active consideration. Meanwhile, a dredger has been acquired.

(*x*) *Paradeep Port:* The work relating to Paradeep Port has been taken over by the Central Government from the Orissa State with effect from June 1, 1965. The work of this port is expected to be completed by the end of this year. This is an all-weather, deep-sea port built at a cost of Rs. 20 crores. The harbour can accommodate 60,000-ton ships.

**Minor Ports:** For the development of non-major ports there was a provision of Rs. 5 crores in the Second Five Year Plan.

The capacity achieved by the minor ports at the end of the Second Plan was of the order of six million tons. It is expected that at the end of the Third Plan, the minor ports will be able to handle traffic of about 9 million tons.

A provision of Rs. 6·5 crores against the physical programme of Rs. 11·09 crores has been made for the development of minor ports in the Third Plan.

## LIGHTHOUSES

Lighthouses are divided into general and local according to the utility of a particular lighthouse to navigation. The superintendence and management of general lighthouses is vested in the Union Government while the local lighthouses are managed by local lighthouse authorities such as State Governments, Port Trusts, etc.

A statutory body—the Central Advisory Committee for Lighthouses has been appointed under the Indian Lighthouses Act, to advise the Union Government on matters connected with the erection, additions, alterations, improvements, etc. of lighthouses. The composition of the committee is as follows: Minister for Transport (*Chairman*); *Members:* Nautical Adviser to the Govt. of India (*ex-officio*); Chief Hydrographer to the Govt. of India (*ex-officio*); Financial Adviser, Ministry of Transport (*ex-officio*); Dy. Secretary in charge of Department of Lighthouses and Lightships, Ministry of Transport (*ex-officio*); H. M. Desai, Manager, Scindia Steam Navigation Co. Ltd., Bombay; D. Hogg of Messrs. Macneill and Barry Ltd., New Delhi; T. M. Goculdas, C/o Messrs. Scindia Steam Navigation Co. Ltd., Bombay; J. C. Anand, Operations Manager, Jayanti Shipping Co. Ltd., Bombay; Govind H. Seth, Managing Director, Shipping Corporation of India, Bombay; D. M. Parekh, Bombay; K. Agathiappan, South Arcot Dt., Madras; P. R. Ramakrishnan, Member, Lok Sabha, New Delhi; Sudhir Ghosh, Member, Rajya Sabha, New Delhi; Director-General of Lighthouses and Lightships (*ex-officio*).

There are 269 lighthouses, 7 lightvessels, 156 lightbuoys, 236 unlighted buoys, 233 beacons, 7 fog signals, 5 M. F. radio beacons, 2 harbour radars, 1 Decca navigator chain, 299 land marks and 716 other marks, making a total of 1,931 aids to navigation strewn over the coastline of approximately 4,340 miles including Andaman, Nicobar, Laccadive and Minicoy Islands.

**Third Five Year Plan:** The Third Five-Year Plan envisages the improvement of aids to navigation at an estimated cost of Rs. 600 lakhs. A summary of the programme under the Third Five-Year Plan is given below† :—Construction of lighthouses, towers, ancillary buildings, 150; Purchase and installation of optical equipment, apparatus and machinery, 30; Establishment of M.F. and V.H.F. Radio Station, 6; Installation of sound signals, 2; Purchase and installation of electric power generator equipment and machinery, 25; Purchase and establishment of lightships, 5; Purchase of ships, tender lifeboats, motor launches, etc., 20; Purchase and establishment of buoys and other floating aids, 100.

During the Second Plan 76 new lights and other aids to navigation including radio beacons, V.H.F. R/T sets, lighted and unlighted buoys, had already been established. In addition, 3 motor boats and a small lighthouse tender have been acquired.

**Programme for the year 1965-66:** (*i*) Establishment of new aids to navigation at: Minicoy Island, Tapti, Savai Bet, Lushington Shoals, Gopalpur, Short Island, Chandrabagha, Landfall Island, Car Nicobar Islands, Sir Hugh Rose Island, Androth Island, Diu Head, False Devi

† Figures in Rs. lakhs.

Point, Mangalore, Pudimadaka, Trivandrum, Narsapur, Cape Comorin, Fog Signal at Okha, Fog Signal at Khanderi, Parson Point (Great Nicobar), Perseverance Point (Andamans) and Manner's Strait (Andamans).

(*ii*) Improvement of Lighthouses at: Nagapatnam, Vengurla Point and Piram Island.

(*iii*) Provision of Lightvessels for Lushington Shoals and Perigee Rocks.

(*iv*) Provision of Buoys at: Pamban Pass (unlighted), Sikka Port (lightbuoys), Gurur Shoal (lightbuoys), Goos and Siri Reefs (lighted), Lushington Shoal (lightbuoy) and Wreck Marking Buoys.

(*v*) (*a*) Purchase of two motor launches for Andaman and Nicobar group of Islands; (*b*) Purchase of motor launches for Piram and Khanderi Islands Lighthouses and sailing craft for Navinal.

(*vi*) Purchase of VHF sets for Saugor Island, False Point, Khanderi Island and Diu Head Lighthouses.

**Progress of work during 1964-65:** Capital and development works which were started in the previous year have been progressing satisfactorily. The following major works have been completed:—

(1) New lighthouse towers at Savai Bet, Veraval and Tapti; (2) Foundations for the lighthouse tower at Sir Hugh Rose Island; (3) Fog Signal Baffle at Veraval; (4) Installation of Radio Beacons at Saugor Island (West Bengal) and Vengurla Rocks (Maharashtra); (5) Installation of new optical equipment as Jakhau and Ratnagiri; (6) Exhibition of new lights at Chhachi and Jakhau (Gujarat), Rajapur Bay and Rajapuri Point (Maharashtra); (7) Commissioning into service of a new Radar at Saugor Island (West Bengal); (8) Installation of electronic equipment for the Decca Chain on the east coast of India; (9) Commissioning of Decca Navigator chain on the West Coast of India.

**Other Important Works in Progress:** Construction of lighthouses at Piram Island, Diu Head (Gujarat); Vengurla Point (Maharashtra); Chandrabagha and Gopalpur (Orissa); Dariapur, Cape Comorin, Nagapatnam (Madras); Narsapur (Andhra); Car Nicobar, Landfall and Sir Hugh Rose (A. and N. group of Islands); Androth Island (L.M.A. Island); Installation of new optical and fog signal equipment at Mithivirdhi and Veraval (Gujarat).

**Navigational aids in the Minor Ports of Mysore State:** At the instance of the Mysore State Government, the Central Lighthouse Department has undertaken the work of providing additional navigational aids at the ports of Karwar, Bhatkal, Malpe, Honovar, Belikeri and Coondapur at an estimated cost of Rs. 40 lakhs. The work is in progress (May 1965).

**Lighthouse Workshops:** The Lighthouse Workshops at Bombay, Madras, Calcutta and Jamnagar continued to attend to the defects and repair works at the various lighthouses. Besides carrying out the usual maintenance work, the workshop at Madras is engaged in the manufacture of flashers and lanterns required for the night navigation in Sikka and Visakhapatnam Ports. At present lanterns and flashers required for the provision of navigational aids in Brahmaputra River and Sunderbans Region are being manufactured in the workshop at Madras.

With the special types of equipment being introduced to provide better navigation facilities to the mariners, the lighthouse personnel are required to have a good knowledge of the modern and complicated equipment. A departmental training centre has, therefore, been established at Calcutta where intensive course of studies and practical training in the operation of the navigational aids are imparted to the lighthouse personnel.

An up-to-date optical laboratory has been set up at Calcutta, for conducting research and experiments. A new equipment invented by this Department has made it possible to produce 4,00,000 candelas with an occulting character.

The revenues of the Department of Lighthouses and Lightships are derived by levy of light-dues on steamships and sailing vessels. The present rates of light-dues are 50 P. per ton on steamships and 6 P. per ton on sailing vessel.

*General:* The navigational aids provided by this Department have been functioning very efficiently. The landfall lights established so far (May 1965) vary in beam candlepower between 1,00,000 to 1,00,00,000 candelas.

## MAJOR PORTS

| Ports | Receipts for 1963-64 | Expenditure for 1963-64 | No. of passengers embarked | No. of passengers disembarked | Imports in tonnes, 1963-64 | Exports in tonnes, 1963-64 | Weight of cargo in tonnes, handled in 1963-64 |
|---|---|---|---|---|---|---|---|
| | Rs. | Rs. | | | | | |
| Bombay .. .. .. | 15,98,15,892 | 14,67,58,638 | 4,45,729 | 4,32,179 | 1,18,85,000 | 54,64,000 | 1,73,49,000 |
| Calcutta .. .. | 17,71,82,734 | 17,19,09,368 | 9,007 | 4,414 | 60,28,090 | 49,10,346 | 1,09,38,436 |
| Cochin .. .. | 1,74,82,383 | 1,62,30,307 | 1,446 | 1,892 | 20,34,311 | 4,21,715 | 24,56,026 |
| Kandla .. .. | 1,18,47,446 | 1,21,80,647 | 1,82,041† | — | 23,12,074‡ | — | 23,12,074 |
| Madras .. .. .. | 4,36,63,138* | 3,07,40,740* | 18,423* | 25,688* | 30,23,294* | 14,03,287* | 44,26,581* |
| Mormugao@ .. .. | 1,25,74,000 | 64,27,000 | N.A. | N.A. | 1,12,077 | 52,69,592 | 53,81,669 |
| Visakhapatnam .. | 2,16,95,833 | 1,92,54,272 | Nil | Nil | 18,49,080 | 16,71,746 | 35,20,826 |

† Includes number of passengers disembarked. ‡ Includes exports also. * Figures for 1964-65. @ Figures are for 1962-63.

**Bombay:** The Port of Bombay has three wet docks—Prince's Dock, Victoria Dock and Alexandra Dock, and two dry docks, Merewether Dock and Hughes Dock. Trans-oceanic passenger traffic is mostly dealt with at the Ballard Pier. Coastal and Harbour Passenger traffic is dealt with at the Ferry Wharf. There are along the harbour front a number of bunders or open wharves and basins where the traffic carried by sailing vessels is handled.

The more important depots are the Grain Depot, the Cotton Depot and the Manganese Ore Depot. There is now a Marine Oil Terminal at Butcher Island within the Bombay Harbour for the speedy discharge and loading of oil.

The Port maintains its own railway system.

The dock expansion scheme of the Bombay Port Trust provides for four new deep berths in the Alexandra dock basin and three medium-deep berths among the harbour wall.

The east arm of the Alexandra dock basin will be extended by about 1,180 feet to provide for the four new deep-water berths therein.

The reclamation will provide an additional dock area of 37,100 square yards and new transit sheds will result in an increase of 1,73,000 square feet of storage space.

Five modern transit sheds will be constructed in the Alexandra dock, two at the extended berths and three along the harbour wall.

The scheme, estimated to cost Rs. 13·25 crores, is expected to be completed in about four years time and will result in an addition of 1·5 to 2 million tonnes to the existing dock capacity.

The Bombay Port Trust has also undertaken another scheme to extend the Ballard Pier southwards by 750 feet to provide a second passenger berth at the mole station, equipped with modern passenger terminal buildings.

The Port Trust is administered by a Chairman appointed by the Government and a Board of 24 Trustees.

*Chairman:* L. M. Nadkarni, I.C.S.

*General Manager:* P. R. Subramanian.

*Secretary:* S. D. Chittar.

**Calcutta:** There are two docks Kidderpore Docks and King George's Docks. There are five dry docks two in King George's Docks and three in Kidderpore Docks.

There are nine jetties with a total length of 4,735 feet of which only five namely Nos. 2, 3, 7, 8 and 9 are available for ocean-going steamers.

Anchorages are available at Saugor Roads, Haldia, Kalpi, Diamond Harbour, Royapur, Ulubaria, Buj Buj and Garden Reach of which Royapur, Ulubaria, Buj Buj and Garden Reach are available only for deep laden vessels outward bound or in emergency. The other anchorages are used by ships on passage to and from the Port.

There are petroleum wharves at Budge Budge about 14 miles below the entrances to the docks.

There are two tea warehouses, a grain and seeds depot at Kantapukur, two sheds at Jhinjerapul, A and B sheds at Kidderpore, the Fairlie, Clive, Canning and Strand Warehouses situated close to the Calcutta jetties.

Kidderpore Dock No. 2 has six coaling berths and there is one at Garden Reach Jetty.

The port can handle a sea-borne traffic of nearly 11 millions a year without congestion or delay.

The chief exports from Calcutta are coal, tea, sugar, gunnies, bone and bone-meal, bunker oil, iron and steel manufactures, lac, scrap, ores and mica. The principal imports are salt, food-grains and flour, sulphur, tinplate, machinery, petroleum, iron and steel, metals other than iron and steel, lubricating oil, cement, soda, timber, fertilisers, bricks, chemicals, oils, railway material.

Facilities exist for lightening food ships and topping up outward bound ships by using barges at Haldia Anchorage which is about 56½ miles downstream, during the fair weather season—November to February.

Communication between the various points in the Docks and jetties is maintained by the Commissioner's Railway.

The Port is administered by a Port Commission with jurisdiction under the Calcutta Port Act from Budge Budge to Konnagar.

*Chairman:* B. B. Ghosh.

*Dy. Chairman:* S. K. Ghosh.

*Secretary:* T. R. Raghupati.

**Cochin:** The Port of Cochin is open for deep water traffic in the worst monsoons and provides a splendid anchorage at all times of the year. Any ship drawing upto 30 ft. draft can enter the port even in the roughest weather.

The Cochin Harbour Railway is connected with the Broad Gauge and Metre Gauge systems of the Southern Railway. Inside the Harbour there are 12 stream berths, 2 coal berths, 8 wharf berths, 1 Boat Train Pier Jetty with facilities for discharging and loading bunker oil and two tanker berths. One of the twelve stream berths is a swinging berth capable of accommodating vessels upto 650 ft. overall in length and 28 ft. draft. The tanker berths in the Ernakulam Channel provide facilities to discharge oil direct to the shore installations. The two deep water wharves can accommodate at a time each four vessels of 450 ft. in length.

The number of vessels excluding sailing vessels, which entered the port during 1963-64 was 1,356 with a tonnage of 46·50 lakhs against 1,330 vessels with a tonnage of 44·80 lakh the previous year. Sailing vessels, which visited the port, numbered 113 with a tonnage of 13,000 against 131 with a tounage of about 16,000 the previous year.

The principal imports are foodgrains, mineral oils, coal, cashewnuts, hardware, chemicals and manure. The principal exports are coir and coir products, tea, rubber, cashew kernels, coconuts, spices and ores.

*Chairman :* K. P. K. Menon, I.A.S.

**Kandla :** The major port of Kandla now has the following main facilities :—

A Cargo Jetty with (*a*) 2,700 ft. of quayage and designed depth of 32 ft. of water alongside at L.W.O.S.T. to accommodate four large size ships or five liberty type ocean-going vessels ; (*b*) Three single storeyed transit sheds, each 450 ft. long and 140 ft. wide, having a floor area of 62,000 sq. ft. each and with a total storage capacity of about 15,000 tons of cargo ; (*c*) Broad Wharves served with three dual gauge (BG & MG) railway lines and roads ; (*d*) 21 electric quay cranes, the most modern type, of 3 tons, 6 tons and 10 tons capacities with 80 ft. each ; (*e*) Spacious open stacking grounds served with railway and road sidings ; (*f*) Four double storeyed Warehouses, each with a floor area of 1,16,678 sq. ft. and storage capacity of 15,000 tons, with overbridge connections to the roofs of the transit sheds, and provided with modern cargo lifts, chutes and loading platforms ; (*g*) 'Grinnel' automatic sprinkler and fire alarm system has been provided in one warehouse as a measure for protection against fire, for the storage of cotton cargo in the warehouse ; (*h*) The construction of an additional 1,125 ft. of quay, designed for a depth of 32 ft. of water at L.W.O.S.T. has been completed except for the work of dredging alongside. This additional quay will be put into operation after the requisite dredging alongside has been done.

Three circular steel tanks of a total capacity of 650 tons for the storage of vegetable oils.

Fumigation arrangements for cotton to handle 1,000 bales per day.

Six Mooring Buoy berths consisting of 3 general cargo, one salt, one explosive and (one deep draft, mooring for vessels upto 36 ft. draft) for vessels to load or discharge cargo in stream by lighters.

An oil berth capable of taking oil tankers upto 16,000 tons dead weight, with two pipe lines of 16" and 12" diameters and a Booster Pumping Station connected with the oil installations situated 7 miles away.

A tidal basin 500′ × 300′ for lighters and sailing vessels provided with two transit sheds having 30,000 sq. ft. total floor area, stacking platforms, 4 quay cranes—two of three tonnes and one each of six and ten tonnes and a gantry crane of 60 tons capacity for handling heavy lifts. The Bunder is well served with railway tracks and roads.

A fishing jetty for fishing crafts and trawlers with a crane is ready.

DK-168 type Vac-u-vators for discharge of food-grains in bulk.

A floating dry dock capable of taking vessels upto 200 ft. length and 30 ft. wide for carrying out repairs.

The port is equipped with the latest version of a harbour radar having a range of 20 miles with V. H. F. radio telephones and a coastal wireless station with 400 miles range.

This port has purchased a new steam driven, twin screw stern well and side suction, pipe trailing cutter, suction, hopper 'Dredger' from Messrs. I. H. C. Holland for the maintenance dredging in the Harbour and approaches.

One fire float in addition to the shore fire fighting facilities has been added to the fleet of vessels maintained by the Kandla Port.

Two most modern passenger jetties for ferry services.

Separate sheds for dangerous and inflammable goods are provided at 700 ft. away from the warehouses.

A large stacking area covering 15¼ acres for stacking the iron ore and served by Railway sidings.

The port is connected to its hinterland at present by means of metre gauge, *via* Deesa-Palanpur and broad gauge rail link to Ahmedabad is under construction.

The construction of the National Highway connecting Kandla to Ahmedabad is in progress.

The establishment of a Free Trade Zone at Kandla has been approved by the Government of India and the opening ceremony was performed in March, 1965.

The structure of port charges presents a very favourable picture.

For statistical details on revenue, etc., see table on Major Ports.

The chief imports are mineral oil, foodgrains, maize, chemicals, fertilizers and machinery whereas the principal items of export are iron ore, zinc concentrate, iron scrap, salt, ethyl alcohol, cotton, bones and bone meals.

The Port has handled 2·3 million tonnes of cargo during 1964–65. It is expected to handle 3 million tonnes of cargo per annum when fifth berth and third pipeline are commissioned and broad gauge line is ready.

346 ships and tankers have called during 1964–65.

*Chairman :* N. C. Patel.

*Secretary :* Dr. R. P. Bhargava.

**Madras :** There is accommodation for 21 vessels inside the harbour, 3 at Moorings and 18 at Quays besides the Petrol Berth at which dangerous petroleum is discharged. The depth at moorings and quay berths ranges from 7·9 metres to 9·6 metres.

The chief imports are coal, foodgrains, mineral oils, metals, timber, textiles, machinery, hardware, paper including old newspapers, dyeing and tanning substances, chemical manures, asphalt, chemicals, cotton, etc.

Ores, piecegoods, hides and skins (raw and tanned), onions, raw tobacco, twist and yarn, mica, etc. form the principal exports.

Three oil tanks have been erected for storage of vegetable oil in bulk and three other tanks for the storage of molasses in bulk have als been installed by private shipping companies a t their cost.

The affairs of the Port are administered by a Board of Trustees.

*Chairman :* T. K. Palaniappan, I.A.S.

*Secretary :* T. K. Parameswaran Nambiar, B.A.

**Vishakapatnam :** Ships drawing upto 33 ft. and having a length of up to 635 ft. can enter the harbour at all times of the year.

The harbour now provides the following facilities :

The inner harbour consists of a turning basin, four quay berths of a total length of 2,300 feet long and equipped with portal electric cranes, transit sheds, and railway lines, both behind and on the quay-side of the transit sheds and three concrete jetty and wharf berths for coal and oil. Besides, there are six mooring berths which are served by a fleet of lighters owned and operated by the port authorities and shallow water channels with timber jetties for lightering work. The quay berths No. 1 and 2 are specially equipped and reserved for the expeditious handling of manganese and iron ore, ferro-manganese and pig iron : on an average, approximately 3,000 tons are loaded in a day.

A 1,200 ft. long quay berth, capable of accommodating two oil tankers simultaneously has been constructed to provide the necessary Port and Harbour facilities for the Caltex Oil Refinery at Vishakapatnam which is in full operation.

A Dry Dock 450 ft. long and 60·5 ft. wide with a depth of 18¼ ft. below low water has been in use at the Port for the docking of vessels.

The Port has floating cranes capable of dealing with heavy lifts up to 60-ton capacity.

A port trust has been constituted for the port in pursuance of the Major Port Trusts Act, 1963. The Port Trust is administered by a Chairman appointed by the Government of India.

*Chairman.*—C. R. Reddy. *Secretary.*—T. S. Narasimhan.

## EAST COAST PORTS

| Ports | Receipts for 1964-65 Rs. | Expenditure for 1964-65 Rs. | No. of passengers embarked and disembarked 1964-65 | Imports in tons 1964-65 | Exports in tons 1964-65 | Weight of Cargo in tons handled in 1964-65 | Officer-in-charge of Port |
|---|---|---|---|---|---|---|---|
| Bheemunipatnam .. | 142 | 4,511 | Nil | Nil | Nill | Nil | U. Veerraju, Conservator-in-Charge. |
| Cuddalore .. | 7,09,696 | 2,60,606 | Nil | 2,12,180 | 3,33,315 | 5,45,495 | Capt. G. M. Chiklikar, Port Officer. |
| Dhanushkodi .. | — | — | — | — | — | — | — |
| Kakinada .. | 9,10,998 | 31,19,033* | 4 | 51,121† | 4,05,065† | 4,56,186 | Capt. Satyanandan, Port Officer. |
| Masulipatam .. | 1,58,623·07 | 2,70,623·95 | Nil | Nil | 15,174·6† | 77,293·35† | K. P. M. Kunhi, Asstt. Port Officer. |
| Nagapattinam | 4,37,527 | 7,29,314 | 23,175 | 60,712 | 11,099 | 71,811 | Capt. A. Sivaraman. |
| Tuticorin‡ .. | 22,29,340 | 18,11,399 | 27 | 5,05,934 | 5,45,930 | 10,51,864 | L. G. Hardas, Port Officer & Secretary. |

† M. Tons. ‡ It is now a Port Trust. * Includes cost of three Russian Dredgers and Tugs for Rs. 19,50,000.

## MAHARASHTRA STATE PORTS

(Under Ports Organisation)

| Ports | Receipt for 1964-65 Rs. | Expenditure for 1964-65 Rs. | No. of passengers embarked and disembarked 1964-65 | Imports in tons 1964-65 | Exports in tons 1964-65 | Weight of cargo in tons handled in 1964-65 | Officers-in-charge of Port |
|---|---|---|---|---|---|---|---|
| Vengurla Group .. | — | — | 1,31,308 | 20,852 | 3,61,062 | 3,81,914 | Capt. D. K. Tamhare, Port Officer, Redi. |
| Vijaydurg Group .. | — | — | 1,35,942 | 25,510 | 12,454 | 37,964 | Y. D. Gole, Asst. Port Officer, Vijaydurg. |
| Ratnagiri Group .. | — | — | 3,84,135 | 76,737 | 6,610 | 83,347 | Capt. N. N. Banerjee, Port Officer, Ratnagiri. |
| Rajpuri Group .. | — | — | 64,031 | 6,384 | 8,083 | 14,467 | B. T. Kubal, Asst. Port Officer, Murud. |
| Bandra Group .. | — | — | 11,01,326 | 93,698 | 1,88,911 | 2,82,609 | Capt. M. I. Ghole, Asst. Port Officer, Bandra. |
| Total .. .. | 10,65,087·26 | 19,11,491·94 | 18,16,742 | 2,23,181 | 5,77,120 | 8,00,301 | |

*Chief Ports Officer, Maharashtra State, Headquarters, Bombay 1:* **Capt. V. V. Javadekar.**

## GUJARAT PORTS

Director of Ports (Gujarat State): B. C. Mehta.

| Ports | Ports and Pilotage Revenue Receipts 1963-64 Rs. | Revenue expenditure 1963-64 Rs. | No. of passengers embarked and disembarked 1963-64 | Imports in metric tons 1963-64 | Exports in metric tons 1963-64 | Weight of cargo in metric tons handled in 1963-64 | Officer-in-charge of Ports |
|---|---|---|---|---|---|---|---|
| Mandvi Group of Ports.. | 5,68,943 | 4,28,999*<br>8,06,651† | 47,410½ (Service with Pakistan) | 19,157 | 1,40,954 | 1,60,111 | N. B. Patel |
| Navlakhi.. .. .. | 15,07,848 | 3,31,061*<br>14,966† | 1,90,889 (Ferry service) | 85,361 | 66,180 | 1,51,541 | J. P. Pandya |
| Bedi Group of Ports (Excl. Navlakhi) .. | 36,20,096 | 27,24,051*<br>9,21,849† | 1,523 (Service with Africa) | 95,409 | 7,09,185 | 8,04,588 | C. P. Adalja |
| Okha Group of Ports .. | 34,73,449 | 17,19,394*<br>13,67,916† | 9,736½ | 3,91,819 | 3,47,118 | 7,38,937 | Captain E. Gopalan |
| Porbandar Group of Ports | 10,49,800 | 10,23,201*<br>14,49,654† | 2,417 (Service with Africa) | 28,883 | 1,42,467 | 1,71,350 | D. V. Bara |
| Veraval Group of Ports | 15,04,401 | 13,57,191*<br>11,41,247† | 9,457½ | 67,984 | 2,02,178 | 2,70,162 | P. B. Vora |
| Mahuva Group of Ports | 2,70,669 | 78,858*<br>1,42,769† | 4,980½ | 34,256 | 1,09,772 | 1,44,028 | V. P. Trivedi |
| Bhavnagar Group of Ports | 31,82,822 | 5,93,974†<br>41,73,417* | .. | 4,18,035 | 2,09,305 | 6,27,340 | Capt. N. Sundrasen |
| Broach Group of Ports | 77,420 | 12,25,498†<br>1,28,630* | .. | 50,150 | 26,175 | 76,325 | V. D. Patel |

* Revenue Expenditure. † Capital expenditure.

## WEST COAST PORTS

| Ports | Receipts for 1964-65 Rs. | Expenditure for 1964-65 Rs. | No. of passengers embarked and disembarked 1964-65 | Imports in metric tons 1964-65 | Exports in metric tons 1964-65 | Weight of Cargo in metric tons handled in 1964-65 | Officer-in-charge of Port |
|---|---|---|---|---|---|---|---|
| Alleppey | 2,01,638 | 1,71,597 | Nil | 47,686 | 25,825 | 73,511 | Senior Port Conservator |
| Koilthottam | — | 7,247 | Nil | — | — | — | Port Conservator. |
| Quilon .. | 86,972 | 10,997 | Nil | 65,974 | 4,852 | 70,826 | Port Conservator. |
| Trivandrum . | 24,295 | 26,536 | Nil | 25,734 | 571 | 26,305 | Port Conservator. |
| Calicut .. | 3,90,550 | 2,42,997 | 2,485 | 1,39,192 | 1,63,077 | 3,02,269 | Port Officer. |
| Mangalore*.. | 11,80,363 | 19,67,063 | 17,139 | 73,866 | 5,54,333 | 6,28,199 | Chairman. |
| Tellicherry .. | 27,649 | 18,721 | Nil | 8,522 | 9,929 | 18,451 | Port Conservator. |

* It is a Port Trust.

# FISHERIES

INDIA produces about 0·89 million tons of marine fish out of a total fish production of 1·3 million tons, which is only a quarter of the country's requirements, estimated at about 4 million tons annually.

The average catch is about 2,500 lbs. per man per year.

The annual per capita availability of fish in India is estimated to be 3·4 lbs. as against 16 lbs. in Ceylon, 70 lbs. in Burma and 90 lbs. in Japan.

The fishing industry in India offers employment to about a million persons and contributes annually over Rs. 60 crores towards the national income. About 27,000 tons of fish products, consisting mostly of dry, dry-salted and wet-salted fish, are annually exported to neighbouring countries. The Third Plan target is to export Rs. 18 crores worth of fishery products per annum by 1966.

About 73,400 fishing craft are estimated to be employed.

As a result of the Third Five Year Plan programme for which a provision of Rs. 290 million is made an increase of 0·4 million tonnes in production of fish and doubling of exports is expected.

Fish production in India during 1963 and 1964 had been high. Sea fish landings were about 6·5 and 8·6 lakh tonnes respectively. Marketable surplus of inland catches, including estuarine tracts, was about 3·9 lakh tons. These together with subsistence fishing in inland water and small ponds have placed the total fish yield in India well over 11 lakh tons.

Experiments in mechanisation of fishing are being conducted since 1948 with the help and assistance received from Norway, U.S.A. and F.A.O.

Some of the steps taken by Government to improve fish production are mechanisation of fishing craft, training centres for fishermen, cold storage facilities, formation of deep-sea fishing stations and research at the four main central stations, *viz.*, Central Inland Fisheries Station, Calcutta, Central Marine Fisheries Research Station, Mandapam, Deep-sea Fishing Station, Bombay and the Central Fisheries Technological Research Station, Cochin.

Today more than 2,400 mechanised boats are operating on Indian coastline. In Bombay the local types of boats are being mechanised. New designs have been evolved for boats in Madras, Kerala and Andhra States. Experiment in improved types of fishing with small power craft are also in progress.

Cold storage facilities exist in Bombay, Mangalore, Calicut, Cochin, Quilon, Trivandrum, Madras and Calcutta. Additional plants are being installed in many other places. Some of these plants have been provided under T.C.M. and Norwegian aid programmes.

The Central Board of Fisheries approved of the fisheries development and research programmes of the Central and State Governments for the Third Five-Year Plan and laid stress on the promotion of export trade in fish and fish products. An Expert Committee for higher fisheries training programme was also set up. The Committee recommended the establishment of a Central Institute of Fisheries Education for training District Fisheries Development Officers and operatives and lower grade administrative staff. The institute will be initially housed in the Institute of Science, Bombay. An *ad hoc* Fisheries Enquiry Committee examined the present status of mechanised fishing with a view to recommending suitable measures for meeting the requirements of the fishing industry.

The Central Board of Fisheries has recommended the formation of an Indian Fisheries Corporation in the public sector to sponsor large-scale integrated projects, primarily with a view to stepping up export trade in fish and fishery products.

## PRODUCTION

Production is shown in the table below. About two-thirds of the catch are marine-fishes.

'000 tonnes

| Year | Marine | Inland | Total |
|---|---|---|---|
| 1957 .. .. | 875 | 358 | 1,233 |
| 1958 .. .. | 755 | 309 | 1,064 |
| 1959 .. .. | 584 | 239 | 823 |
| 1960 .. .. | 878 | 282 | 1,160 |
| 1961 .. .. | 684 | 277 | 961 |
| 1962 .. .. | 644 | 330 | 974 |
| 1963 .. .. | 655 | 390 | 1,046 |
| 1964 .. .. | 860 | 455 | 1,315 |

The following is a list of the names of fishes showing within brackets their production in metric tons in 1963 and 1964 respectively :

Elasmobranchs (42,977 ; 34,863) ; Eels (8,685, 2,255) ; Cat Fish (17,567 ; 22,730) ; Chirocentrus (7,645 ; 7,565) ; Oil Sardine (63,647 ; 2,74,409) ; Other Sardine (27,173 ; 40,318) ; Hilsa Ilisha (2,754 ; 3,441) ; Other Hilsa (5,312 ; 6,519) ; Anchoveilla (28,672 ; 25,199) ; Thrissocles (5,704 ; 6,619) ; Other Clupeids (14,485 ; 16,752) ; Harpodon Nepereus (91,870 ; 81,342) ; Saurus (660 ; 1,545) ; Hemihamphus and Belone (3,443 ; 1,527) ; Flying Fish (962 ; 920) ; Perches (8,597 ; 12,559) ; Red Mullets (2,395 ; 5,027) ; Polynemids (4,389 ; 2,155) ; Sciaenids (22,570 ; 25,198) ; Ribbon Fish (16,452 ; 25,897) ; Caranx (17,513 ; 26,930) ; Chorinemus (3,195 ; 2,448) ; Coryphaena & Elacate (195 ; 345) ; Trachinotus (14 ; 115) ; Leiognathus (17,748 ; 28,301) ; Gazza (85 ; 35) ; Lactarius ; (8,654 ; 6,508) ; Pomfrets (17,256 ; 19,583) ; Mackerel (76,980 ; 23,975) ; Seer Fish (9,116 ; 11,165) ; Sphyraena (1,258 ; 1,663) ; Mugil (1,505 ; 2,916) ; Bregmaceros (5,407 ; 3,721) ; Soles (8,381 ; 6,146) ; Penaccid Prawns (41,071 ; 63,441) ; Non-penaccid prawns (40,522 ; 31,506) ; Other Crustaceans (2,061 ; 4,565) ; Cephalopods (260 ; 463) ; Miscellaneous (23,408 ; 24,445) ; Total Marine (6,55,484 ; 8,60,336) ; Total Inland (3,90,425 ; 4,55,273) ; Grand Total (10,45,909 ; 13,15,609).

The total landing of marine fish by State is shown below (where available) :

*(In metric tons)*

| | 1963 | 1964 |
|---|---|---|
| Bengal & Orissa .. | 11,176 | 10,642 |
| Andhra .. .. | 64,193 | 71,727 |
| Madras (including Pondicherry) .. | 1,09,602 | 1,31,309 |
| Kerala .. .. | 2,03,242 | 3,17,974 |
| Mysore .. .. | 39,176 | 1,04,218 |
| Maharashtra .. .. | 1,24,587 | 1,30,603 |
| Gujarat .. .. | 1,02,040 | 92,882 |
| Goa .. .. .. | — | 643 |
| Andaman (South) .. | 159 | 148 |
| Minicoy & Laccadive Islands .. .. | 589 | 190 |
| Trawlers .. .. | — | — |
| Total .. | 6,55,484 | 8,60,336 |

## LANDINGS 1963

Landings in Madras, Maharashtra and Mysore showed slight decreases. Other maritime States and Andaman & Nicobar Islands showed improvement in catch. The catches of 1964 however showed slight fall from 1963 in Bengal, Orissa, Gujarat and in the two group of Islands, but the overall catches were higher by over two lakh tons. For more details see under separate state headings in this article.

*Landings by varieties :* Oil sardine fishery in 1963 was poor in Kerala and Mysore while it failed in South Maharashtra compared to the exceptionally good fishery in 1962, the short fall in total landings amounting to about 11,700 tons ; the landings of 1964 were however phenomenal being more than thrice of 1962. Considerable increase was noticed in the landings of other sardines and Anchoviella in Kerala and Madras, though the landings of the latter had a slight fall in 1964. Mackerel fishery was successful in 1963 compared to 1962, in Kerala, Mysore, South Maharashtra, though it fell steeply in 1964 to less than a third of 1963. There was significant increase in carnax landings in Kerala & Madras which augmented the total catches in 1963, which was further improved by over 9,000 tons in 1964. There was all-round decline in the landings of trennis (tuna) in 1962 ; but it registered enhanced yield in the following years, and in 1963 by better catches in Kerala, Madras and Minicoy Islands. Prawn (penaccid) catches though less in 1963 (due to decline in catches in Kerala, Mysore & Maharashtra) rose by about 20,000 tons in 1964. On the other hand other prawns (nai penaccid) landings were better in 1963 due to better fishery in Maharashtra and Gujarat than in the precious year, though it fell sharply to less than those of 1962 in 1964. Landings of sciaenids fell in 1963 (due to decrease in catches in all maritime states except Bengal, Orissa and Kerala) though it slightly recovered in 1964. Pomfrets fishery declined considerably in 1963 in spite of the better fishery in Gujarat, even though it made a slight improvement in 1964.

About 44 per cent of the landings of 1963 were made during the last quarter of the year. In Orissa, Bengal, Andhra and Madras the bulk of the landings were made in the last quarter of the year.

The value of fish exported during 1964 (Jan.-Nov.) was Rs. 6·14 crores against Rs. 5·45 crores in the corresponding period in 1963. In the fishing trade, during 1962-63, 10,862 met. tons of fish and fish preparations valued at Rs. 40·8 million were exported and 31,528 met. tons valued at Rs. 61·6 million were imported.

## RESEARCH

Research in Fisheries is carried out primarily under the aegis of the main central stations given below.

*Central Inland Fisheries Research Institute, Barrackpore :* Studies on inland fisheries resources and fish culture were intensified. Work in connection with the establishment of well-designed and sufficiently large fish farms for conducting experiments in fresh and brackish-water fish culture, was initiated. A number of spawning grounds of Hilsa and other commercially important fishes of the Ganga, Hooghly and Narbada rivers were demarcated. Intensive fish tagging experiments conducted during the year yielded valuable information about the migration of fishes. The problem of providing fish passes in dams and barrages was given special attention. Field work on induced breeding of major carps was continued.

*Central Marine Fisheries Research Institute, Mandapam, Madras State :* Further progress was made in the investigations on the commercially important marine fishes and detailed statistics of marine fish landings were collected and analysed. The racial composition of mackerel stocks and the age determination of the oil sardine received special attention. Studies on the catches and size composition indicated that the variations in the strength of year classes may cause fluctuations in the oil sardine fisheries. Studies to estimate the primary production in the seas were carried out at Calicut, Tuticorin and Mandapam. The programme of marine biological and oceanographical studies on the West Coast, launched in co-operation with the Indo-Norwegian Project, made further progress. A new Research Unit was opened for the Andaman and Nicobar Islands at Port Blair.

*Central Fisheries Technological Research Station, Kerala State :* The Processing Wing of the Central Fisheries Technological Research Station concentrated its studies on the development of new and improved methods of fish processing and fixation of suitable standards for preserved

fishery products. The Quality Control Section of the Station rendered advice to the industry on the improvement of the quality of export products. The operation of the pilot plant with the experimental tunnel dryer has made available valuable data for the design and construction of commercial dryers. The Craft and Gear Wing of the Station completed the design studies on fishing vessels required for the Government of India fleet for the Third Plan. A training course in boat building was conducted during the year. The installation of pilot fish meal plant at Bombay was completed and it has now started demonstration work.

*Off-shore Fishing :* The work of the deep sea fishing stations with its 23 boats was orientated in connection with other Central Fishery Research Institute for effective exploration and exploitation of the fishing potential in the off-shore waters. The station also provided facilities for imparting training to other fishing agencies including private. The exploratory fishing vessels operated from Veraval, Bombay, Mangalore, Cochin, Tuticorin and Vishakapatnam and landed 727 tons of fish valued at Rs. 2½ lakhs during the nine months of 1964. The quick freezing plant, cold storage and ice factory, run by the Deep Sea Fishing Station, Bombay was transferred to the Govt. of Maharashtra.

The Guiarat Government is setting up a marine biological research station at Okha at a cost of about Rs. 3·5 millions to deal with the problem of fishery biology, oceanography and marine biology with the help of UNESCO and other foreign institutions.

The Central and State Governments took progressive measures for developing fish industry and increasing fish production. The schemes formulated by the maritime States for the development of marine fisheries, lay emphasis on the mechanisation of fishing craft. There are over 2,750 mechanised boats at present in the country against 1,500 at the end of the Second Plan period. An FAO naval architect continued his work for evolving new designs of fishing boats. The Government of India's fleet of fishing vessels continued their operations along the Indian coast and a number of private parties have also taken to power fishing and have introduced mechanised fishing on a large scale, especially on the Kerala coast. Construction of fishing harbours is under way in Madras and Gujarat, while lay-out plans for harbours in Maharashtra, Mysore, Kerala, Andhra Pradesh and Orissa have been completed. Considerable importance is also being attached to the development of inland fisheries resources in the various States. The fish culture programme progressed satisfactorily all over the country and the production of quality fish and fish seed registered a marked increase. Measures have been taken to popularise the exotic common carp, which breeds rapidly in confined waters.

*Marketing :* For the improvement of fish marketing, six refrigerated railway vans are running—two at Palasa (Orissa)-Calcutta route, two in Calicut-Madras and two in Vijayawada-Howrah. Three more such vans are under construction. These vans have highlighted the need for more such vans not only on these routes but on others as well. Arrangements are, therefore, being made for the construction of six more refrigerated vans.

Through the efforts of the Gujarat Fishermen's Central Co-operative Association, which is transporting fish from Gujarat to Delhi and selling it in the city, marketing of marine fish in Delhi has developed. Steps have also been taken to promote the export of fish and fishery products and to improve their quality. A special Export Promotion Scheme started functioning during the year. Further, a tin-plate subsidy scheme for the fish canning industry was also introduced with effect from 1st Sept., 1961. Loans were advanced to Fisheries Co-operatives in Gujarat and Maharashtra States for fishery development schemes.

A Central Fisheries Corporation has been set up with headquarters at Calcutta. This has been registered as a Govt. company with an authorised capital of Rs. 5 crores. It will initially engage in marketing fish in Calcutta City, subsequently extending its activities to the whole country.

*Training :* The first two-year course for training district fishery officers in all aspects of fisheries, both marine and inland, was started during the year at the Central Institute of Fisheries Education at Bombay. The ten-month course of training at the Central Inland Fisheries Station has been revised and expanded and 25 trainees were undergoing training during 1964-65.

For training fishermen there are centres at Satpati near Bombay, Veraval in Saurashtra, Cochin in Kerala and Tuticorin in Madras. New training centres are being opened at Mangalore in Mysore State and at Kakinada in Andhra Pradesh. At these centres batches of 20 candidates are admitted for 6 months training.

The Central Deep Sea Fishing Station at Bombay gives training in modern fishing methods.

The Central Institute of Fishery Education, Bombay turned out two batches of trainees. The third and fourth batch of trainees 25 and 27 respectively are under training. The operative Training Institute, Cochin is training 28 master fisherman and 17 engine drivers. The Marine Products Training Centre, Mangalore (started with Japanese collaboration) provides training in canning, freezing, microbiology etc. A batch of 29 was trained and another 27 are undergoing training there.

Local fishermen numbering 140 were trained in mechanised fishing and Indian instructors and fishermen continued to receive training in powered fishing on board the I.N.P. Fishing Fleet at Cochin. 36 candidates including two from S. E. Asian countries completed their inland fisheries training course conducted at the Calcutta station.

*Foreign Aid :* The FAO, TCM and the Indo-Norwegian Project continued to render assistance in the overall development of the fisheries programme and in the implementation of specific projects of both the Central and State Governments. The administration of the Project hitherto vested with the Kerala Government has been handed over to the Government of India since April 1963 and the headquarters shifted from Neendakara to Ernakulam.

The activities of the project has been extended to Mandapam in Madras. The research vessel R/V Varuna conducted 21 research cruises during 1964 while the nine fishing vessels of the project landed 598 tons of fish valued at Rs. 82,000.

The F.A.O., T.C.M. and Indo-Norwegian Foundation continued to give valuable technical assistance. One harbour specialist continued work in connection with the development of fishing harbours in the States of Maharashtra, Kerala, Madras and Mysore under the Expanded Technical Assistance Programme of F.A.O. Two fisheries engineers worked on the Madras, Malabar, Kanara and Kathiawar coasts, on the introduction of new types of fishing gear, use of mechanised aids and the training of fishermen in their use. Services of 4 master fishermen were also obtained from Japan. Under the Indo-Norwegian Project, 90 boats of improved types were built and a new 25 ft. boat was designed. A fish marketing expert was engaged in formulating fish marketing schemes in co-operation with the States on a national basis.

The construction of the fishing harbours at Veraval, Kakinada, Nagapattinam and Vishakapatanam is nearing completion. Construction of such harbours at Porbunder, Umbergaon, Karwar and Bhatkal is in progress. Two F. A. O. experts, a harbour specialist and harbour economist are drawing up schemes for pre-investment survey. An Indian engineer has been trained under FAO assistance.

## THIRD PLAN

The main objective of Fishery programme in the Third Plan is increased production so that adequate animal protein diet becomes available to the population and also sufficient fish for export trade. The fishermen's condition is also to be improved. An amount of Rs. 29 crores has been allotted for the purpose.

The Third Plan includes proposals for the development of more than 50,000 acres of water area, merely as demonstration fish farm.

Another 1,500 acres of estuarine water together with 1,500 to 2,000 acres of marshy and fallow lands, which are to be reclaimed, are to be used for pisciculture.

During the Third Plan it was proposed to introduce 4,000 new mechanised fishing boats. Out of this, 1,200 have been so far mechanised and during 1964-65 it was proposed to bring under mechanisation about 1,600 more fishing boats. There are 2,750 mechanised boats at present.

*Research :* New investigations on oceanic fisheries, oceanographic studies, high altitude fisheries, fresh water prawns, backwater fisheries etc. will be taken up in Marine, Inland and Deep Sea C.R.S. Experimental and exploratory fishing also will be undertaken. Research on fishing requisites and crafts, and processing, preservation and utilisation of fish will be intensified in the Central Institute of Fishery Technology, Cochin. The investigations of State Fishery Departments on local problems will be intensified.

All India Fisheries Research Institute has been reconstituted to make it more broad-based than hitherto. The Central Institute for Inland and Marine (Barrackpore and Mandapam separately) are actively engaged in research for increasing fish production. New vessels of fish (like grass carp and silvercarp) have been successfully cultured in the country and made to breed by hormone treatment.

*Education :* The total requirement of personnel to run different development projects is about 2,100, out of which the district fisheries officers and other technical officers will number about 300 and 500 respectively. Training for officers of the level of District Fisheries Officers is provided at the Central Institute of Fisheries Education in Bombay. The requirements of the Technical Officers will be met by the expanded activities provided at the Central Inland Fisheries Station, Barrackpore, and the Inland Fisheries Sub-station, Kaushalya Ganga, Bhubaneswar in Orissa, and in the off-shore fishing stations. An Institute for training operatives in fisheries at various levels has been established at Cochin. Universities will be provided adequate facilities to train research and technological personnel for research institutions.

**Inland Fisheries :**

*Demonstration :* Demonstration programme for using 50,000 acres of inland waters, 1,500 acres of estuarine areas and 2,000 acres of marshy lands in different States is also included.

During 1961-63 five demonstration farms have been established and a scheme for intensive fish production in 600 Development Blocks in the country has been drawn up.

*Stocking :* 1,200 million fry and finger-lings including those in river valley projects.

*Reclamation and Conservation :* Reclamation of fisheries by cleaning trees, boulders and other obstructions for establishment of nurseries and conserving fish to full maturity.

*Agencies :* In the organisation level, panchayat and other local bodies will take increasing interest in the development of fish ponds and other inland waters.

*Marine Fisheries :*

Expanded exploratory fishing programme by the establishment of additional units at Veraval, Mangalore, Paradip and Port Blair.

Operate 35 large vessels and provide landing facilities for fishing at 16 ports. Survey and other preliminary arrangements made at about 9 ports during the first two years of the Third Plan. Construction of fishing harbour at Veraval

(Gujarat) initiated in Second Plan is completed. The construction of fishing jetties at Mangalore, Kakinada, Nagapattinam and Vishakapatnam is nearing completion.

Against the proposal for 12 additional fishing vessels, orders have been placed only for one and proposed to obtain three more during 1963-64.

72 ice and cold storage plants are to be set up in different States to facilitate movement of fish to canning centres. Out of this only six have been set up during the first two years of the Third Plan. Freezing and canning units are to be established in coastal districts of Western India, especially in Gujarat, Mysore and Kerala. About 20 new refrigerated rail wagons are to be introduced on the main routes. Arrangements have been completed only for three.

As a result of 3rd Five Year Plan, the production of fish is expected to increase from 1·4 million tons to 18 million tons and export of fish may go up from about 60 million rupees to double of it. Rs. 290 million have been allotted for fishery development in the 3rd Five Year Plan.

*Co-operatives :* At present there are 2,100 fishery co-operatives with a total membership of about 0·22 million mainly in Andhra, Gujarat, Kerala, Madras and Maharashtra, though some exist also in Assam, Bihar, Mysore and Orissa. Revitalising of the existing co-operatives and their further development and linking up with marketing and processing co-operatives, through detailed working programmes, so as to save fishermen from exploitation of middlemen and from indebtedness and to increase production, are some of the main objectives.

The Plan provides Rs. 10 million as loan assistance to Fishery Co-operatives. Loans amounting to Rs. 4·3 million have already been issued to co-operatives in several states.

*Fishery Extension :* The eight fishery extension units conducted various short term training courses for 1,956 personnel from C. D. Blocks. The units conducted also surveys for location of fish seed collection centres and assisted States in the construction of fish farms. Improved methods of inland fish farming were demonstrated and fish farmers were assisted in tackling specific problems. By improved breeding technique 131 lakh sperms were produced at these centres and one of them evolved also an improved method for transporting live fish. The extension units carried out audio-visual education at important State centres.

## ANDHRA PRADESH

Andhra Pradesh has a coast-line of about 600 miles. The continental shelf extends to 20 miles on an average with a fishable area of 12,000 sq. miles. There are 350 fishing villages in seven marine districts of A.P. with 1,80,000 fi-hermen having 20,000 boats and 61,000 fishing gear.

The fish production of the State is estimated at 1,58,000 metric tons of marine fish and 84,500 metric tons of inland fish annually. Fisheries contributed more than Rs. 13·2 crores during 1961-62 to the State income.

The training of 25 fishermen of the 22nd batch was commenced from August 1964 in the Fisheries Training Institute. The Institute has now been upgraded and a post-graduate diploma course in Fisheries was expected to be started from the academic year 1965-66 with a strength of 20 students.

So far (April 1965) 254 mechanised boats have been constructed. Of these, 91 mechanised boats have been distributed to fishermen. For 1965-66, an amount of Rs. 8·34 lakhs has been provided in the Budget for the construction of mechanised boats.

*Marketing :* Fish is being exported to Orissa and West Bengal. By the export of fish to West Bengal, there is substantial saving in foreign exchange expenditure due to import of fish from Pakistan.

*Fisheries Extension :* To intensify the development of fisheries in Block areas and also to increase the revenue of the Panchayat Samities and Panchayats of the State, a scheme has been started in 30 selected Blocks placing Rs. 15,000 at the disposal of each of the Blocks. The three pilot project blocks sanctioned in 1959 have been converted into extension blocks with effect from Nov. 1, 1963.

*Deep Water Netting :* During 1963-64, nine deep water netting units were in operation in various reservoirs in the State and the total catches upto Jan. 1964 were 0·70 lakh kg. of fish.

*Cooperatives :* There are 472 fishermen cooperative societies with a membership of 49,643 and a share capital of Rs. 5,43,237 including six Marketing and 2 Apex Central Societies.

*Transport :* 14 vans and two carrier boats are run by the Department in order to transport fish from catch landing centres to markets in the various parts of the State. Till the end of Jan. 1964, 3,345 tons of fish had been transported by 23,588 fishermen, realising an amount of Rs. 0·33 lakhs towards hire charges.

*Third Plan :* Fisheries secured Rs. 106 lakhs out of the total Plan investment of the State. In view of the development shown under fisheries during the first and second years of the Plan, the ceiling was increased to Rs. 1·31 crores and the number of schemes also increased to 33. The total expenditure for the first three years of the Plan will be Rs. 70·57 lakhs and the balance available for the remaining two years of the Third Plan.

## GUJARAT

Gujarat has a coast line of over 1,000 miles extending from Lakhpat in the north to Umbergaon in the south. It has a total fishable area of 25,000 sq. miles including the Gulf of Kutch and Gulf of Cambay.

There are 51 important fishing ports and about 174 other small roadsteads and fishing hamlets. No. of fishermen 1·5 lakhs; no. of active fishermen 30,000 ; no. of fishing vessels used in estuarine, coastal and offshore fishing : about 4,100 ranging from 1 to 15 tons. Total capital invested in fishing boats, engines, fishing gear and other accessories by fishermen and their co-operative societies amounts to Rs. 2·5 crores.

Total landings in 1964–65: 85,000 lakh metric tonnes worth Rs. 2·63 crores. Local consumption in the State: 10.000 tons. Balance is exported to Bombay, Delhi, Calcutta, Ceylon, Burma, Mauritius and Singapore. Value of fish exported to foreign countries : Rs. 10 lakhs.

More important landings of the State on the basis of value : Bombay ducks Rs. 1·08 crores; Pomfret Rs. 60 lakhs ; Indian Salmon and Jew fishes Rs. 13 lakhs; Prawns and shrimps Rs. 13 lakhs ; Perches and Hilsa Rs. 16 lakhs ; Shell fishes including pearls, chanks, cuttle bones, window pane oysters (Rs. 1·5 lakhs every year) and other marine sea shells Rs. 53 lakhs. Other miscellaneous fishes include sharks and rays, mullets, cat fish, coilia, etc. accounting for Rs. 30 lakhs. The State also produces about Rs. 3·5 lakhs worth of fish isinglass for export to England and Rs. 3 lakhs worth of fish fertilizer and 1 lakh lbs. of shark liver.

Important fishing ports: Bifurcated Surat District : Umbergaon. Dawan, Bilimora, Navsari, Borsi. Umarsadi. Kolak. Bulsar, Bhadeli-Jagalala, Kosumba, Surat ; Broach District : Broach, Bhadbhut, Kavi, Sarod ; Amreli District : Madhvad, Kotda Velan ; Junagadh Dist. : Veraval, Porbunder, Mangrol, Navibunder, Chorwad, Jaleshwar, Hirakot, Sutrapada, Dhamlej, Navabunder, Rajpara ; Bhavnagar Dist. : Jaffrabad. Bhavnagar, Ghogha ; Jamnagar Dist. : Okha, Bedi, Salaya, Sikka, Jodiya ; Rajkot Dist. : Naviakhi, Maliya ; Kutch Dist. : Cherovari, Lakhpat, Jakhau, Modhwa, Kandla, Kharirohar, Tuna, Rampara, Luni, Sekhdia, Mundra.

Inland pisciculture is confined to the districts of Baroda, Kaira, Panchmahals, Mehsana, Sabarkantha, Banaskantha, Broach, Surat and Dangs. There are 2,300 fishermen engaged in inland fisheries. Twelve lakhs of fish seed of major carps were collected from rivers like the Narmada, the Tapti etc. and supplied to the pisciculturists during 1963-64. Two fish farms and five fish nurseries have been established.

Per capita production of food : 2·8 metric tonnes a year. Per capita earning Rs. 875 a year.

No. of ice factories 83 ; ice production 1,021 tonnes a day ; no. of cold storages available 11 ; no. of mechanised boats : 995 ( June, 1964 ). Quantity of nylon supplied (1963-64) : 82,000 lbs. Two Fisheries Staff Training Centres at Ahmedabad train 68 candidates per year ; service stations 2 ; fisheries schools : one each at Baroda, Bhadbhut, Umarsadi and Kolak ; Cultural centres 15 ; shark liver oil extraction centres 4 ; fish meal plant : one at Jaffrabad ; Govt. of India institutions in the State : Marine Fish Research Sub-stations at Kandla and Veraval ; Survey Centre at Veraval ; Offshore Fishing sub-station at Veraval ; Central Institute of Fisheries Technology at Veraval.

### Third Plan Achievement

A fish meal plant provided in the Second Plan, is now ready at Jaffrabad. Veraval fishing harbour development at a cost of Rs. 50 lakhs was taken up and is nearing completion while a Rs. 7 lakh plan for development of Kutch fishing harbour has been completed. A canning plant is being operated by a cooperative association for canning Shrimps and other fishes. Canned Shrimps are exported to foreign countries.

The Gujarat Fisheries Central Co-operative Association Ltd., formed in the Second Plan, has constructed one cold storage, procured one freezing plant, constructed one fish godown, one boat building yard and one nylon twisting-cum-net making factory at Ahmedabad. Annual production : 1,00,000 lbs. of twine and 25.000 lbs. of netting. Total cost of the plant : Rs. 9 lakhs.

The State has 83 co-operative societies with about 13,200 members.

The Third Plan envisages an expenditure of Rs. 1·6 crores (Rs. 40 lakhs in South Gujarat area, Rs. 68 lakhs in Saurashtra and Kutch area and Rs. 21 lakhs Statewise). The fish production will be augmented by another 40.000 tons every year by 1965-66 valued at Rs. 1·6 crores.

A research wing has been opened in the Directorate to conduct research on the offshore fisheries. Three research vessels have started operating from 1961–62. A Marine Biological Research Station at Okha at a total cost of Rs. 14·39 lakhs has been sanctioned and the construction started early in 1964. A Technological Research Unit has been established at Jaffrabad for the improvement of processing Bombay Ducks.

## KERALA STATE

Kerala State, the smallest maritime State in India with 590 kms. of sea coast, contributes to a little over 30 per cent of the total seafish landed in India. Oil Sardine (Sardinella longiceps) and the Indian mackerel (Rastrelliger canagurta), the two most important shoaling fishes of the west coast contribute to the major fishery of the coast, the third important constituent being prawns. The fishing equipment consist of nearly 13,000 big and small non-mechanised canoes, over 8,000 catamarans besides nearly 1,000 mechanised boats using over 50,000 fishing gears of different types and sizes, thousands of hooks and lines, besides many mechanised boats.

The estimated landing of all fish in the State is about 3,65,382·7 m. tonnes of which 5,882·7 m tonnes are contributed by inland water fishes the rest being sea fishes. This quantity is valued at about Rs. 6,65,97,300 of which Rs. 37,96,400 is from inland fisheries. About 70 per cent of the people are estimated to be fish eaters. At the most only 55 per cent of the total production is consumed as fresh fish, 26 per cent as dried and

the rest is converted as fish manure or fish meal. The important items of fishery exports are frozen, canned and dried fish. The total quantity of fishery products exported during 1964-65 was about 9,742·1 m. tonnes valued at Rs. 5,04,35,551. This includes nearly 2,417 m. tonnes of dried prawn and prawn powder exported to countries like Burma, Singapore and Hongkong and 6,143 m. tonnes of frozen prawns and lobster tails to U.S.A., France, Holland and other foreign countries.

The total quantity of frozen frog legs and canned fish products exported for the year 1964-65 was 1,090-4 m. tonnes valued at Rs. 77,88,137.

Along the coast there are 67 fish curing yards, some of which are provided with sanitary fish curing sheds, and salt is issued at a subsidised rate.

There are four Fishermen Training Centres at Cannanore, Ernakulam, Vizhinjom near Trivandrum and Beypore to train able bodied fishermen in the use of mechanised fishing crafts and modern fishing equipment. Mechanised boats, Nylon and Fishing hooks, etc. are distributed at concessional rates through the Fishermen Co-operative Societies. A new approach to the reorganization of the whole industry on co-operative lines has been introduced by which the producers in the industry are organised into primary producers' societies, and 15 to 20 such units of continguous area are combined into a marketing unit. All the marketing units are combined into one marketing federation. The scheme is being introduced in stages from the southern region to the north. As many as 241 Fishermen Primary Co-op. Societies have already been organised. Trained fishermen are given capital and equipment to start co-operative fishing with mechanised units through these Co-operative Societies. There are six Regional Marketing Societies at Kozhikode, Vypeen, Neendakara, Karunagappally, Anjengo and Vizhinjom at present. When sufficient number of Regional Marketing Organisations have been set up, a State Apex Federation will be formed to act as a liaison between the government on one hand and marketing and primary societies on the other.

The Indo-Norwegian Fisheries Project, engaged in the exploitation of the Fisheries resources of the sea off Kerala, shifted its Headquarters to Ernakulam from Neendakara near Quilon and the activities at Neendakara consisting of the Boat Building Yard, Ice Factory, Cold Storage and freezing plant etc. were taken over by State Fisheries Department. According to the third supplementary agreement between the Government of India, U.N.O. and the Government of Norway, the Government of India has taken over the control of the project and the activities of the Indo-Norwegian Project have been extended to Mysore and Madras States also. Cannanore is selected as the centre of operation in this State to be developed by the Indo-Norwegian Project and the implementation of the schemes have been started. The programme of activity at Cannanore consists of establishing a fishermen training centre, a boat building yard and a freezing plant and the construction of a fishing harbour at Mopla Bay.

There are 48 private companies engaged in the processing and export of fishery products in the State.

There are seven cold storage plants in the public sector working at Vizhinjom, Trivandrum, Neendakara, Kayamkulam, Mattancherry, Blangad and Calicut. In addition to four Government freezing plants, there are eleven private freezing plants also.

There are four fisheries research stations in the State engaged in the research of marine, estuarine and fresh water fisheries. In addition to this, there are two research stations sponsored by the I.C.A.R. to conduct research on lime shell and prawns. There is a Fisheries Technological Station at Calicut conducting research on fisheries by-products and other technological aspects. The Fisheries Technological Station at Calicut manufactures fish meal, fish manure and semi-dried prawns as well.

There are four brackish water fish farms, one fresh water fish farm, 14 rural fisheries demonstration centres and eight major reservoir fishery centres.

The administration of the Fishery schools has been transferred to the State Education Department with effect from April 1, 1965.

*Third Five Year Plan :* The financial outlay set apart for fisheries development in the State during the Third Plan is Rs. 4·5 crores.

## MADRAS

Madras State, with a coast line of 1,000 kilometres and with about 7·57 lakh acres of inland waters, is rich in fisheries resources. There are four marine biological stations at Ennore, Krusadai Island, Tuticorin and Cape Comorin ; two Technological Stations at Tuticorin and Cape Comorin and a Fresh-water Biological Hydrological station at Bhavanisagar.

There are 308 coastal fishing villages with a total fishing population of 2,70,160. These fisherfolk possess about 5,100 boats, 23,620 catamarans, and 3 lakhs of fishing nets. The estimated landings of marine fish in 1963-64 were about 1,53,605·7 m. tonnes valued at Rs. 1,629·96 lakhs. The catches comprised mostly of Sardine, Cat-fishes, Sharks, Skates, Rays, Mackerels, Silver bellies.

There are about 50,500 inland fisherfolk possessing about 20.400 tackles. The estimated landings of inland fish from the various inland waters in 1963-64 were about 93,278 m. tonnes valued at Rs. 466 lakhs and consisting of Carps and Tilapia.

With a view to stepping up production of fry and fingerlings and to meet the growing demand of fish seed for stocking induced breeding of common carp (Bangkok strain) has been taken under a special scheme. These induced spawning centres have begun to function at Bhavanisagar, Amaravati, Mettur, Sathanur, Thanjavur, Poondi, Manimuthar and Vaigai Dam. The spawn produced in these centres are reared in departmental fish nurseries and distributed to the panchayats.

Twenty fish curing yards are maintined by the Government wherein good quality salt is supplied to fishermen at subsidised rates for curing fish under the technical supervision of fisheries departmental staff. There are five ice plant-cum-cold storages at Tuticorin, Cuddalore, Bhavanisagar, Neelankarai and Mettur Dam and two cold storages at Ennore and Nagercoil with a total production capacity of 14 tons and 500 lbs. of ice per day and 37 tons storage facilities.

There are 177 inland and 221 marine fishermen co-operative societies with about 43,000 members on their rolls with a paid-up share capital of Rs. 4·55 lakhs. They issue small loans to the members during the off season ; and also inculcate the spirit of thrift and co-operation among the fisherfolk. Long term and medium term loans extending over a period of 10 years and 5 years respectively are issued to these societies by Government for enabling their members to redeem themselves of their prior debts and to undertake fish marketing themselves. Co-operative fish marketing unions are also functioning at Ennore, Pulicat, Neelankarai, Cuddalore, Nagapattinam and Tiruchendur.

Through exploratory fishing operations, the fisheries department has located rich deep sea fishing grounds off Pulicat, Ennore, Madras, Cuddalore, Nagapattinam, Pamban, Tuticorin and Cape Comorin and the fishery is being exploited by private fishermen of the State. About 300 mechanised boats have already been distributed to fishermen co-operatives and groups of fishermen together with nylon fishing nets. To further survey the fishing grounds, three inshore stations are functioning at Madras, Cuddalore and Rameswaram. These stations are provided with mechanised fishing vessels and modern types of gear.

The pearl and chank fisheries of the Gulf of Mannar are State monopolies, and yield a substantial revenue besides supporting a large population of divers. During 1963-64, 3,55,573 full sized, 71,600 formed and 28,698 undersized chanks were fished.

Schools have been opened for fisherchildren. Fisheries science plays a large part in their curriculum. The children are taught handicrafts like coir rope making, mat weaving, net making, etc. Books, pencils and stationery articles are given free to these children.

An aquarium is located at Madras and tropical fishes like Gold Fish, Black Mollies, Sword Tails, Guppies, Tetra, Blue Gourami, Jewelfish, Fire mouths and food fishes like Catla, Labeo, Gourami, Murrels, Chanos, Etroplus, Eels, etc. are kept. Most important fish farms are at Mettur, Poondi, Chetput, Vellore Fort, Bhavanisagar, Chingleput, Krishnagiri, Sathanur, Vaigai, Amaravati and Manimuthar. All the departmental and provincialised tanks in the State are intensively stocked with quick growing fishes every year. For rearing fish fry and fingerlings in Panchayats, fish nursery schemes have been started. So far (April 1965), 200 nurseries have been constructed in 144 Panchayat Unions which are selected for this scheme. The biological station at Ennore supplies biological specimens to various educational institutions throughout the country.

In addition to being an important source of food supply, rich in proteins and albuminoids, food fishes play an important part in the manufacture of several bye-products. They are fish-oil (body oil and liver oil), shagreen, isinglass, fish glue, fish meal (guano), fish fin soup, pearl essence, fish manure, etc. During 1963-64, 5,438 kgs. of fish manure, 4,500 kgs. of fish meal, 1,274 kgs. of sea weed compost manure, 339 kgs. of skate liver oil and 1,645 kgs. of shark liver oil were produced by the Fisheries Department of the State.

Under the Third Five-Year Plan, 16 schemes with a total outlay of Rs. 222 lakhs are being implemented.

Receipts of department for 1963-64: Rs. 18,45,524. Expenditure : Rs. 73,24,239.

The designation of the department is: Government Fisheries Department, Madras.

## MAHARASHTRA

Maharashtra State has a sea board of more than 750 km. extending from Reddi (District Ratnagiri) in the south to Zai (Dist. Thana) in the north. The Inland Fisheries extend to Bhandara District in the East, a crowflight distance of over 805 km. The total number of fishing villages along the coast is estimated at over 250.

*Marine Fisheries :* Important varieties of sea fish caught along the coastline : Saranga (White Pomfret) ; Halva (Black Pomfret) ; Ghol (Jew fish) ; Dara (Giant Threadfin) ; Ravas (Indian Salmon) ; Kuppa (Tuna) ; Surmai (Seer fish) ; Boi (Mullet) ; Bombil (Bombay duck) ; Bangda (Mackerel) ; Mushi (Sharks) ; Wam (Eels).

Estimated marine fish production during 1963-64 : about 1·5 lakh metric tons.

Price per metric ton of fish : Rs. 385. The total value of marine fish caught during 1963-64 : Rs. 5·7 crores.

The number and names of the more important fishing villages and of the fishing grounds :

*Greater Bombay :* Lower Colaba, Worli, Danda, Versova ; *Thana District :* Bassein, Arnala, Uttan, Edwan, Usarni, Satpati, Navapur, Utcheli, Nagaon, Dativare ; *Kolaba District :* Karanja, Versoli, Alibag, Theronda, Revdanda, Murud, Bharadkhol ; *Ratnagiri District :* Burondi, Dabhol, Jaigad, Ratnagiri, Vijaydurg, Jaitapur, Malvan, Deobag, Vengurla.

The total number of fishing vessels is 9,000 of which 1,605 are mechanised.

The estimated population of fishermen : About 2 lakhs.

*Trawler Fishing :* Two pairs of medium size trawlers have now completed survey of fishing grounds of approximately 6,441 sq. km. between Vengurla and Murud. The survey programme is continued.

The Government of India's Deep Sea Fishing Station operates trawlers in Bombay waters. The vessels landed 1,255 tonnes of fish during 1963-64.

*Transport facilities :* A fish transport truck is being operated by the department for transport of fish from landing sites to marketing centres.

Upto the end of March, 1965, loans amounting to Rs. 5·65 lakhs and subsidies amounting to Rs. 1·55 lakhs were disbursed to 20 co-operative societies of fishermen for purchase of 22 transport trucks.

Nineteen carrier launches operated in the private sector, transported 1,988 tonnes of fish from Ratnagiri and Kannara districts to Bombay.

**The facilities available for curing, storage and refrigeration, co-operative marketing are :**

**Several ice factories in the city and also at important fishing centres along the coast.**

**Annually, some addition to the available cold storage space is being made by extension to the existing plants and establishment of new plants.**

**A seven-ton ice plant and 30-ton cold storage** were erected by the State Government at a cost of about Rs. 1,32,000 and handed over to the Satpati Fishermen's Sarvodaya Co-operative Society for operation. The Society has also been allotted by the Government, refrigeration equipment to increase the seven ton ice making capacity of its existing plant to ten ton and a four ton quick freezing plant and refrigeration equipment for a fish storage, ice storage and quick frozen fish storage received under the T. C. M Programme of the American Government. The quick freezing plant has started functioning. The work of installation of machinery is in progress. One eleven-ton plant with 30-ton cold storage received under the T.C.M. Programme has been allotted to the Versova Machhimar Vividha Karyakari Sahakari Society Ltd. The factory has been put into commission.

The State Government has taken over from the Government of India, for operation and expansion, the quick freezing plant, cold storage and ice factory at Sassoon Dock, with effect from May 1, 1965. The factory, at present, has a capacity of 12 tonnes of ice per day, store 40 tonnes of fish in the cold storage and freeze 6 tonnes of fish.

The establishment of ice factories and a cold storage plant at Ratnagiri and Alibag has been sanctioned. The factory will go into production soon (May 1965). Another plant will be established by the Government at Alibag (Kolaba Dist.) during the Third Five Year Plan period.

**The department has given two-thirds as loan and one-third as subsidy for establishing a 2-ton ice and 10-ton cold storage plant to Sindhudurg Macchimar Sahakari Society, Malvan. The factory has been put into commission.**

**A twine and net making plant received under T.C.M. Programme of the American Government has been allotted to Maharashtra Rajya Machhimar Sahakari Sanstha on loan basis. A loan of Rs. 4,58,000 has been given to the said Sanstha for erection of the said plant. The plant is in operation since Feb. 1964.**

*Marketing facilities :* Apart from the various retail fish and meat markets, the Bombay Municipal Corporation has provided a separate wholesale fish market known as Mahatma Gandhi Phule Market.

In the fish section space is provided for 250 retailers. Due to increased fish trade, the present wholesale market is found to be inadequate. The Corporation has, therefore, planned construction of a new wholesale fish market at Palton Road.

Marketing facilities have also been provided at Kankavli, and Malvan in Ratnagiri District. At other places, fish is sold in composite markets.

*Fish stalls :* In order to provide quality fresh fish to public, the department has established eight model fish stalls in the city.

A Fish & Chips stall has also been opened in the compound of Taraporevala Aquarium, Bombay to popularise unpopular varieties of fish like Dhoma, Sharks, Eels which are in less favour with gentry.

## GOVERNMENT HELP

**Loans of Rs. 103·72 lakhs and subsidies of Rs. 67·91 lakhs have been granted for mechanisation of fishing crafts till the year ending 1963-64. The number of mechanised fishing vessels has stepped up from 1,530 in 1962-63 to 1,605 during 1963-64.**

**Loans to the extent of Rs. 53·94 lakhs have been granted till the year 1963-64 to individual fishermen and Co-operative Societies of fishermen for purchase of boats, nets and other fishing accessories.**

Total financial assistance, so far (May 1965) made available to the fishing industry amounts to Rs. 178·82 lakhs as loans and Rs. 112·24 lakhs as subsidy.

The Government have sanctioned a scheme for the grant of subsidy to fishermen in Maharashtra State, for purchase of fishery requisites such as nylon hemp-twine, fish hooks, cotton twine and sail cloth. So far (May 1965) subsidies amounting to Rs. 18 lakhs have been granted by the Government since the inception of the scheme in 1959-60.

*Service stations :* One service station has been established at Satpati in Thana District to afford facilities to the fishermen owning mechanical vessels. One mobile service station has also been established at Ratnagiri to afford facilities to the fishermen and near about villages.

*Fishermen's Co-operative Societies :* There are about 246 fishermen's co-operative societies having 41,958 members with paid up capital of Rs. 9,59,000, engaged in the marketing of dry and fresh fish produced by the affiliated societies and member fishermen.

The main activities of these societies are : affording credit facilities to the members, supply of fishery requisites, running fair price shops for food grains, transport and processing of fish and fishing in rivers, tanks and sea.

**Government efforts in educating fishermen :—**

Seven fisheries schools have been established in **important fishing centres, imparting special training in net making, boat repairing, fish preserving, etc. Ratnagiri District 4, Thana District 1, Kolaba District 2.**

A fishery high school was established at Satpati.

Annual expenditure on these schools : About Rs. 1,31,500.

The Department of Fisheries has also a scheme to train fisher-youths in the operation of power vessels as mechanics and navigators. Under the scheme, facilities are made available to train 40 candidates annually in the technique of improved methods of fishing. The centres are situated at Versova, B.S.D. and at Ratnagiri. The duration of each course is six months, the scheme which was initially sanctioned for three years has been continued for the Second and Third Plans. Each candidate is paid a monthly stipend of Rs. 50 and food allowance of Rs. 10. Upto Dec. 1964, 302 candidates have been trained at Versova and 58 candidates at Ratnagiri training centre.

**Besides, the State Government have started a new three months' training course to train fisher-youths in handling and operation of marine engines. The trainees are paid a stipend of Rs. 40 per month each. Upto Sept. 1964, 241 candidates were trained under the three months' training course.**

**Public aquaria : The State Government maintains the Taraporevala Aquarium along the Marine Drive, Bombay. The exhibits include both fresh water and marine forms,** found along the coast of the State. Attached to the Aquarium is the Marine Biological Research Station where facilities are available to research students for M.Sc. and Ph.D. degrees. The institute is affiliated to the University of Bombay.

**A unit of technical staff consisting of a Senior Scientific Officer, Research Officer, Asst. Research Officer, Biologist and Biochemist, has been provided at the Marine Biological Research Station, Bombay, to intensify research.** Research is undertaken on different problems of aquatic biology with special reference to fisheries. Provision to run sea water and fresh water aeration and a research vessel with complete hydro-biological equipment make this station a complete institute for experimental research.

**A Marine Biological Research Station has** also been established at Ratnagiri. Construction work on providing an aquarium with facilities for circulation of sea water, fresh water and aeration has been taken in hand.

## FRESH WATER FISHERIES

Efforts are made to import quick growing varieties of baby fish in the State such as Catla (*Catla catla*), Rohu (*Labeo rohita*) and Mrigal (*Cirrhina mrigala*) from West Bengal, for their release in long seasonal perennial waters in the State in larger numbers every year. Large irrigation reservoirs also are being stocked with these varieties so that they may thrive and breed there in course of time. In 1964-65, as many as 98,00,000 number of carp fry, imported from West Bengal were stocked in different sheets of water.

To overcome difficulties regarding adequate supply of carp fry, experiments are being conducted to induce the major carps to spawn in confined waters. Progressive number of carp fry obtained every year by this method will gradually tend towards self-sufficiency in the matter of carp fry for piscicultural purposes in the State.

In the year 1964-65, 85,00,000 spawn were produced as a result of induced spawning experiments.

Collection of local baby fish for stocking is attempted at several places around Kolhapur, Bhandara, etc., and efforts are made in all directions to boost up these less developed fisheries.

The total production of fish from tanks and reservoirs stocked by the department with carp fry imported from West Bengal, and the rivers, was 1,10,28,000 kg. valued at Rs. 82,71,000 during 1963-64.

The fish market constructed by the Nagpur Municipal Corporation, with Government assistance is functioning satisfactorily.

## FISH PRODUCTS

A Fisheries Technological Laboratory has been established at Sassoon Dock, for conducting research on development of new fish products, improvement of tradional products and handling and processing of fish. The Laboratory also operates commercial schemes of manufacture and sale of shark liver oil products, fish meal and fish glue. For this a factory wing fully equipped with modern equipment such as a boiler, Titan shark liver oil extraction unit, centrifuges, filter presses, filling machines and homogenisers etc. is created. An up-to-date analytical laboratory handles testing of the commercial products of the technological laboratory. Analytical service is also extended to traders, exporters and producers of various fishery products. The laboratory is also authorised by the Government of India for testing samples under compulsory preshipment quality control scheme for the fish and fish products.

**In 1964-65 the commercial schemes recorded a sale of Rs. 18,36,366. The output of neat shark liver oil was 5,358 litres with an average**

vitamin 'A' content of 10,000 I.U./g. This was equivalent to 4,80,000 litres of dilute shark liver oil I.P. The output of fish meal was 536 metric tons.

Based on the research work carried out at the laboratory, a full fledged fruit canning plant was established at Malvan (Ratnagiri Dist.) in Oct., 1964. The initial production capacity is one lakh cans per year. Similarly, a small canning unit is established at the laboratory for pilot plant studies on the development of canned fish paste derived from ... popular varieties of fish.

### THIRD FIVE-YEAR PLAN

The Third Five Year Plan includes 26 different schemes with the total outlay to the extent of Rs. 178·32 lakhs (net). With the different projects in Third Five Year Plan, it is envisaged to increase fish production from marine fisheries to 2·1 lakh tons as against the fish production of 1·7 lakh tons at the end of Second Plan period. Additional production from fresh water fisheries is expected to rise to 12,000 tons by the end of Third Five-Year Plan.

*Fresh water fisheries* will receive further impetus in view of the larger inland fishery resources being now available in the regions of Vidarbha and Marathwada. A special unit for collection of fry has been proposed in the Plan.

*Marketing, preservation and transport* have also been assigned important place in the department's plan. In order to impress on the local bodies the need to maintain adequate facilities for fish marketing, a provision is made for grant of loans to such bodies for construction of well planned fish markets. The Government has approved a scheme for allotment of motor-trucks on loan-cum-subsidy basis to the Fishermen's Cooperative Societies in order to facilitate quick transport of fish from landing centre to marketing places.

The Government assistance has been granted to fishermen's societies for purchase of 21 transport trucks during the Third Plan period. An ice factory has been established at Ratnagiri to afford preservation facilities to the fishermen in the nearby villages. A fish cannery has been established at Malvan. Miscellaneous schemes as research both biological and technological are also making good progress.

In order to afford educational facilities to the fisher-children, High Schools and other training facilities have also similarly been provided in the Plan.

### FISH CURING YARDS

The Department continued to maintain 21 F. C. Ys in the Ratnagiri District. The work of effective improvement at the F.C.Ys were accomplished during the Second Plan at a cost of Rs. 80,000.

The transactions at the yards in Ratnagiri District during 1963-64 were as follows : Quantity of fish let in for curing—5,336 m. tons. Quantity of salt issued—1,459 m. tons. Quantity of cured fish removed—4,057 m. tons.

The total budget allotment for the department for the year 1963–64 was Rs. 82,99,130 and the total receipts were Rs. 24,89,000.

The designation of the department is: Office of the Director of Fisheries, Maharashtra State, Bombay.

## MYSORE

*Inland Fisheries :* There are about 30,000 minor tanks, 2,700 major tanks, 17 reservoirs and about 3,800 miles of rivers in the State.

Inland Fisheries development is extended to all over the State and more and more inland fishery resources are being exploited.

*Artificial Fish Breeding Centres :* Tungabhadra fish farm, Hessarghatta fish farm, Neerasagar fish farm, Vanivilas Sagar fish farm.

There are 20 fish farms in the State covering an area of 50 acres.

Induced breeding of quick growing varieties of food fishes by pituitary hormone injections has been taken up in different fish farms, so as to meet the increased fish seed requirements of the State. An Inland Fisheries Research Station has been started at Bangalore with field laboratories at important inland centres.

The estimated fish production at present from the inland resources is nearly 35,000 metric tons and the revenue in the form of direct realisation from exploitation of fisheries, through the sale of fishery rights, issue of licences, etc., is about Rs. 1,31,570.

Acreage of inland waters in the State is 10,20,000 (approximate). Inland fishermen population is estimated at 6,00,000.

*Marine Fisheries :* Mysore State has 200 miles of coast line on the Arabian Sea. All along this sea coast, there are many fishing villages, the most important of them being Karwar, Ankola, Kumta, Honnawar, Bhatkal, Majali, Bingi, Chendia, Gangolli, Malpe, Udiyawar, Bokapatnam and Mangalore.

More than 40 varieties of sea fishes are landed out of which the most important are Sardine, Mackerel, Seer and Sharks and Prawns. The total fish production on Mysore coast is over 20 per cent of India's marine fish production.

Thus, the marine fisheries confined to North and South Kanara can be regarded as one of the richest regions in India.

Value of fish exploited :—

Quantity of fish in metric tons and the approximate value :—North Kanara : 73,358 ; Rs. 2·81 crores ; South Kanara : 42,225 ; Rs. 2·21 crores.

There are about 20,000 fishermen actively engaged in fishing, about 6,500 boats and about 37,000 nets. The number dependent on the fishing industry is estimated at over 1,00,000.

Average catch per fisherman per annum on Mysore coast : 5·75 tons.

Capital value of the industry together for North and South Kanara districts is estimated at Rs. 2·5 crores.

No. of fish curing yards :—North Kanara: 15 ; South Kanara : 15.

The total Third Plan outlay is Rs. 130 lakhs.

The number of mechanised boats has been increased from 64 in 1961-62 to 191 in 1964-65. The number of fishermen trained has increased from 80 in 1961-62 to 140 in 1964-65. Steps were taken to provide increased facilities for preservation and processing. 30 fish curing yards on the coast continued to stock and supply salt suitable for fish curing.

The Government is considering as to how far supply of salt could be subsidised. The re-introduction of this subsidy is under the consideration of the Government (Aug. 1965).

During the Third Plan, the activities of the Indo-Norwegian Project were extended to Karwar. Under this project, work on providing harbour facilities, training of fishermen, boat construction and setting up of processing facilities have been taken up and the works are making good progress (Aug. 1965). At the Marine Products Processing Training Centre, Mangalore, training of technicians in fish (food) processing technology has been taken up. The first batch of 29 students completed their training during 1964-65 and the second batch is undergoing training (Aug. 1965).

The strength of the training centre at Mangalore was increased and a second training centre was opened at Karwar. Under the Special Development Programme, two more training centres are proposed at Gangolly and Honnavar.

*Co-operatives :* There were 105 co-operative societies during 1964-65 as against 70 at the end of the Second Plan. During 1964-65, a sum of Rs. 5·85 lakhs was given as loan to fishermen.

*Inland Fisheries :* During the Second Plan inland fisheries development was progressively extended to all the districts in the State. A plan for intensive production and distribution of fish seed has been put into operation.

The Government of India has approved five schemes under the Special Development Programme (Erash Programme) at a total cost of Rs. 62·38 lakhs.

## ORISSA

Kinds of sea-fish caught : Pomfrets, Mackerel, Ribbon fish, Silver bellies, Sardine, Sharks, Rays, White Baits, Bombay Ducks, Cat-fishes, Threadfins, Perches, Jew-fishes, Sur-fishes as well as Prawns. Kinds of estuarine fish caught : Sharks, Shads, Catfishes, Threadfins, Perches, Mullets, Jew-fishes, Prawns and Crabs.

Annual production of Shark Liver Oil : 1950-51 (3,000 lb.) ; 1951-52 (6,730 lb.) ; 1952-53 (7,658 lb.) ; 1953-54 (10,718 lb.) ; 1954-55 (6,587 lb.) ; 1955-56 (11,681 lb.) ; 1956-57 (5,123 lb.) ; 1957-58 (10,361·75 lb.) ; 1958-59 (15,041 lb.) ; 1959-60 (12,860 lb.) ; 1960-61 (5,068 lbs.) ; 1961-62 (3,322 lbs.) ; 1962-63 (6,459 lbs.).

Important marine fishing centres : Patisonapur, Marcondi, Gopalpur, Prayagi, Aryapalli, Arkhakuda, Puri Paradeep, Kirtania and Chandipur.

Important estuarine fishing centres : Sonapur and Surla (Bahuda estuary), Damodarpur and Gajpatinagar (Rusikulya estuary), Rambha, Kespur, Balugaon, Kuguri, Gangadharpur, Kaluparaghat, Bhusandpur and Satpara (Chilka Zone), Astarang (Devi estuary), Kujang and Kukitola (Mahanadi estuary), Chandanipal and Chandbali (Dhamra and Baitarani estuaries) and Kirtania (Subarnarekha estuary).

Important inland fishing centres : Ansupa lake, Russelkonda reservoir, Hirakud reservoir, Kausalyagang, Surada reservoir and Mandira dam reservoir.

Number of fish curing yards run by the fishermen's own co-operative stores : 6. Number of ice factories which cater to preservation of fish for transport to Calcutta and elsewhere : 8 including two departmental flake ice plants. Co-operative marketing has developed in the Chilka area. The annual volume of trade ranges between Rs. 25 and Rs. 40 lakhs.

The demand is approximately 100 times more than the supply.

The Orissa Fisheries Development Corporation Limited, is taking up deep-sea fishing from 1965-66. Commercially the State Government is continuing off shore fishing and pilot power fishing operations with small boats since the Second Plan Period on a semi-commercial basis. There are no fishermen's schools, but fishermen are being trained by State Fisheries in inland piscicultural activities in five demonstration fish farms. A Marine By-Products Factory under the Third Plan has been established at Majhidiha and has started production of can products, fish meal and frozen fish and all the different plants will be completed by Third Plan period.

There is a small experimental aquarium attached to the Fisheries Department in Cuttack and marine aquarium is being proposed for Puri.

A fresh water biological station has been established at Kausalyagang, District Puri. Field researches carried out at Kiakani (Puri), Kothpal (Mayurbhanj), Dighi (Balasore), Narasagar (Angul), Humari (Ganjam) and 20 other fish farms. Field research on marine fish farming is carried out at Khiragachamadeli.

Major experimental farms in the State : Cuttack fish farm ; Puri fish farm ; Chowdwar fish farm ; one model fish farm at Laxmisagar in Puri District. Sonepur ; Sambalpur ; Balasore, Bolangir and Bhavanipatna. Co-operative marketing has developed at Jeypore (Koraput), Kathpal (Mayurbhanj), Kanjia-Kiakani (Barang), Amearda (Mayurbhanj). One composite fish seed centre at Bomlei (Sambalpur) under T. & R. W. Scheme and another at Jeypore (Koraput)

under the Third Five Year Plan have been established for additional production of fry by induced breeding.

Research has been completed on the manufacture of agar and hydrolysed protein and production of biscuits and tablets from concentrated fish protein has started in laboratory scale. Applied research is being continued on breeding of carps, life history of mullets, reclamation technique for swamps, improved craft and gear, freezing of fish, canning of prawn, cultural practices in fish rearing, on the suitability of new types of fishing gears in coastal and estuarine waters, improvement of indigenous marine fishing gears with synthetic twines. Culture and biology of Mugil cephalus Linn in brackish water and culture of Gracilaria keeping quality of shark liver oil of different potencies are under varying period of storage. Research has been taken up on electrical fishing gear and induced breeding of estuarine fish.

Third Plan provision is Rs. 224 lakhs.

**Income from Fisheries Department ranges between Rs. 2·5 and 3 lakhs per annum which does not include rent for water areas.**

Budget allotment: 1965-66: Rs. 57,61,100; Special Development Programme (1965-66): Rs. 82·65 lakhs.

## WEST BENGAL

Kinds of sea fish caught: Pomfret, Bhetki, Mackerel, Prawn, Topsi, Hilsa, Chanda, Bhola, Bombay Duck, Ribbon, Shark, Rays, Rock Cod, Skate, Eel, Cat fish, Phasa, etc.

Total quantity of fish caught in 1964-65: 53,000 tonnes (based on international production only).

Total value of the sea fish caught in 1963-64: Rs. 8,40,000.

Price per Kg. of different kinds of fish in March 1964.

| Varieties | Maximum | Minimum | Average |
|---|---|---|---|
| | Rs. P. | Rs. P. | Rs. P. |
| Carps .. | 4·00 | 2·54 | 3·27 |
| Hilsa .. | 3·50 | 2·40 | 2·95 |
| Bhetki .. | 3·25 | 2·50 | 2·88 |
| Mullets .. | 3·25 | 2·50 | 2·88 |
| Butter .. | 2·74 | 1·50 | 2·12 |
| Lobster .. | 4·60† | 3·42† | 4·01† |
| Shrimps .. | 1·25 | 1·00 | 1·13 |
| Prawn .. | 3·00 | 0·67 | 1·84 |
| Live fish .. | 5·33 | 3·34 | 4·34 |
| Misc. .. | 2·00 | 0·67 | 1·34 |

† Figures for 1963.

Approximate strength of the fishing population: About one lakh (1961) plus two per cent increase per year.

Potential demand for fish in the local market: 5,92,000 metric tonnes (the State as a whole).

Gear used: Grill net, Drift net, Drag net, Fixed net, Herring trawl etc.

There are demonstration fish farms in private parties' tanks in each thana of the State.

Ancillary industries like liver oil, gelatin, glue, fish-meal, and their production: One scheme for production of shark liver oil, fish-meal, processed fish and utilisation of other fish by-products is operated at Contai coast.

Production of fish bye-products during 1964-65:

Shark Liver Oil 2,376 litres; Fish Meal 42,150 kg.; Fish Fertilizer 286 kg.; Fish Food Manure 5,025 kg.; Shark Flesh Dried 87 kg.; Poultry Food 1,500 kg.; Fish Biscuits 4 kg.; Dried Shark Fin 23½ kg.; Dried Shrimps 228 kg.; Dried Precooked Prawn 7 kg.; Fresh Fish 377 kg.; Dry Bombay Duck 205 kg.; Processed Bombay Duck 368 kg.

The above products include only productions from Government fish technological stations at Junput, Contai, Midnapore and Freserganj, 24 Parganas.

Extent to which production meets the demand: 20 per cent.

Approximate Revenue from fisheries during 1964-65: Rs. 17·16 crores.

Budget allotment for the Department for 1965-66: Rs. 1,08,40,000.

### RESEARCH

There is one Freshwater Fisheries Research Station at Kalyani. There is one Technological Research Station at Junpat for production and standardisation of various fish bye-products and fish curing yards both at Junpat and at Fragergunge. Brackish Water Experimental Fish Farm at Junput, Hill-Stream Fisheries Research Station at Kalimpong and a number of Fish Seed Farms in a number of districts.

The designation of the Fisheries Department: Directorate of Fisheries, West Bengal under the administrative control of Fisheries Department.

# RESEARCH

RESEARCH in pure science is carried out mainly in the universities, scientific surveys of the Government, and in some research institutes such as the Tata Institute of Fundamental Research. The Council of Scientific & Industrial Research (C.S.I.R.) and the Department of Atomic Energy provide facilities for fundamental or basic research in their laboratories and institutes, and also sponsor such research in universities and research institutions all over the country.

Research in applied science and for industrial development is done mainly under the auspices of the C.S.I.R., the Co-operative Industrial Research Associations, institutes functioning under various Ministries and the laboratories attached to a few industrial concerns.

The Shri Ram Institute for Industrial Research, Delhi, undertakes, on a 'non-profit' basis, researches on projects sponsored by industrial concerns, groups of companies, individuals and Government agencies.

Research in engineering subjects is undertaken in some of the C.S.I.R. laboratories and institutes, the Indian Institute of Science, Bangalore, Central and State Hydraulic Engineering Research Stations, higher technological institutions, like the Indian Institute of Technology, Kharagpur, and in a few engineering colleges, such as the College of Engineering and Technology, Jadavpur.

The Council of Scientific & Industrial Research, also sponsors engineering research in various institutions through its research committees.

Agricultural research is looked after by the Indian Council of Agricultural Research, New Delhi, The Indian Agricultural Research Institute, New Delhi, and the various Central Committees for agricultural commodities like the Indian Central Cotton Committee, Indian Central Jute Committee, etc. and the research institutes functioning under the Ministry of Food and Agriculture. (See article on Agriculture.)

The Indián Veterinary Research Institute, Izatnagar (U.P.) is concerned with veterinary diseases. The National Dairy Research Institute at Karnal in the Punjab works on dairy research.

Research in forestry and forest products is undertaken by the Forest Research Institute and Colleges at Dehra Dun.

Medical research is carried out under the auspices of the Indian Council of Medical Research. institutes functioning under the Ministry of Health, and the Council of Scientific and Industrial Research.

Research in the humanities—literature, language, the arts, etc.—is done at individual institutions scattered throughout the country.

Research in social problems such as social tensions, social welfare and labour welfare is conducted as part of their work at many universities.

About 275 research journals (English) are published in India. These cover a wide range of subjects, grouped as follows: General science, 31; Engineering, including civil, electrical, telecommunication and aeronautical, 31; Chemistry, including biochemistry, chemical technology, plastics, paint, oils and fats, soap, and food, 21; Agriculture, including forestry, 35; and Medical sciences, 64.

The Third Plan outlays for the development in Scientific and Technological Research under different categories are as follows (Rs. crores):-
Council of Scientific and Industrial Research (incl. field experiments) and Ministry of Scientific Research and Cultural Affairs 35·00; Department of Atomic Energy 35·00; Agricultural Research 26·40; Medical Research 3·50; Research under other Central Ministries (other than Defence). 30·89 Total 130·00.

The National Research Council of Canada has offered about 150 post-doctorate fellowships for 1964-65 for fundamental research in science and engineering.

### SCIENTIFIC SOCIETIES

The National Institute of Sciences of India, New Delhi, established in 1955, is the scientific Academy recognised by the Government of India. Besides this, there are two other general science Academies with national scope, viz. the Indian Academy of Sciences, Bangalore and the National Academy of Sciences, Allahabad.

The oldest learned society in India is the Asiatic Society of Bengal, founded in 1874.

From it originated the Indian Science Congress Association which held its first annual meeting in 1914.

The other Scientific bodies are:

Indian Association for the Cultivation of Science, Jadavpur, Calcutta-13; Aeronautical Society of India, Talkatora Road, New Delhi; Agricultural & Horticultural Society of India, Calcutta; Agri-Horticultural Society of Madras, St. George Cathedral Road, Madras; All India Astrological and Astronomical Society, Jyotish Samarat Bhavan, 50/2 Dharmtala Street, Calcutta; All India Veterinary Association, 23, First Street, Vidyodaya East, T'Nagar, Madras 17; Anatomical Society of India, 1, Park Street, Calcutta-16; Anthropological Society of Bombay, 136, Apollo Street, Bombay; Aquarist Society of India, 251. D. Naoroji Road, Bombay; Architectural Society of India, Bombay; Asiatic Society, 1, Park Street, Calcutta; Assam Science Society, Department of Physics, Gauhati University, Jalukbari, Assam; Association of Applied Physicists, Calcutta University, 92. Upper Circular Road, Calcutta; Association of Building Technicians, 1/11, Mukar Nallamuthu Street,

Madras 1; Association of Engineers, 24, Netaji Subhas Road, Calcutta 1; Association of Microbiologists of India, 1, Park Street, Calcutta-16; Association of Pediatricians of India, Back-Bay View, New Queen's Road, Bombay-4; Association of Physicians of India, 'Dreamlands', New Queen's Road, Bombay-4; Association of Principals of Technical Institutions (India), C/o Delhi Polytechnic, Delhi-6; Bangiya Bigyan Parishad, 294/2/1, Upper Circular Road, Calcutta-9; Bharata Ganita Parishad, Lucknow University, Lucknow; Bihar Academy of Agricultural Sciences, Sabour P.O., Bhagalpur, Bihar; Biological Society of Assam, Cotton College, Gauhati; Bombay Medical Council, Swadeshi Mills Estate, Tata Road, New Queen's Road, Bombay-4; Bombay Natural History Society, 114, Apollo Street, Bombay; Bombay Sanitary Association, Princess Street, Bombay; Bombay Society of Model Engineers. Noble Chambers, (Rooms 23 and 24), Parsi Bazar Street, Bombay; Bombay State Horticultural Development Association, College of Agriculture, Poona-5; Bombay Textile And Engineering Association, Opposite Railway Station, 343 Grant Road, Bombay 7; Botanical Society of Bengal, 93/1, Upper Circular Road. Calcutta-9; Calcutta Geographical Society, Calcutta; Calcutta Mathematical Society, 92, Upper Circular Road, Calcutta; Calcutta Statistical Association, Asutosh Building, Calcutta-12; Cardiological Society of India, 67, Dharmatala Street, Calcutta-13; Christian Science Society, Chowringhee Mansion, Block B, 30 Chowringhee Road, Calcutta-26; Concrete Association of India, C/o A.C.C., 121, Mama Parmanand Road, Bombay; Congress of Theoretical & Applied Mechanics, Kharagpur; Current Science Association, Hebbal P.O., Bangalore-6; Electrochemical Society, Indian Institute of Science, Bangalore-12; Engineering Association of India, India Exchange, Calcutta 1; Engineering Association of Northern India, G.T. Road, Batala, Dist. Gurdaspur, Punjab; Entomological Society of India, Indian Agricultural Research Institute, New Delhi; Essential Oil Association of India, C/o Harcourt Butler Technological Institute, Kanpur; Ethnographic and Folk Culture Society, Lucknow University, Lucknow; Eugenical Society, 89, Girgaon Road, Bombay; F.A.C.T. Technical Society, Udyogmandal P.O., Alwaye, Kerala; Fertilizer Association of India, 85, Sunder Nagar, New Delhi; Geographical Society of India, Senate House, Calcutta University, Calcutta; Geological Institute, 27, Chowringhee Road, Calcutta; Geological, Mining & Metallurgical Society of India, Presidency College, Calcutta 12; Gujarat Research Society, Samsodhan Sadan, South Avenue, Bombay 52; Helminthological Society of India, 1, Park Street, Calcutta-16; Horticultural Society of India, C/o Indian Agricultural Research Institute. New Delhi; Indian Association of Dermatologists and Venereologists, 1, Nagindas Mansions, Opera House T.T., Bombay 4; Indian Astronomical Association, 8, Anand Parbhat, New Delhi-5: Indian Botanical Society, Department of Botany, Banaras Hindu University, Banaras; Indian Botanical Society, C/o Institute of Science, Mayo Road, Bombay; Indian Botanical Society, University Botany Laboratory, Madras-5; Indian Botanical Society. Mysore Road, Bangalore City; Indian Cancer Society, Tata Memorial Hospital, Parel, Bombay-12; Indian Ceramic Society, Central Glass and Ceramic Research Institute, Jadavpur, Calcutta 32; Indian Chemical Society (Bombay Branch), St. Xavier's College, Bombay-1; Indian Chemical Society, 92 Upper Circular Road, Calcutta; Indian Council of Geographers, 1, Park Street, Calcutta-16; Indian Dairy Science Association, Hosur Road, Bangalore-1; Indian Ecological Society, 1, Park Street, Calcutta-16; Indian Institute of Architects, Prospect Chambers Annexe, D. Naoroji Road, Bombay 1; Indian Institute of Chemical Engineers, Jadavpur University, Calcutta 32; Indian Institute of Metals, 31, Chowringhee Road, Calcutta 16; Indian Institution of Chemical Engineers, C/o A.C. College of Technology, Saidapet P.O., Guindy, Madras; Indian Jute Mills Association, 17, Taratola Road, Calcutta; Indian Leather Technologists' Association, Mercantile Building, Lalbazar, Calcutta-1; Indian Mathematical Society, 2, Bhaskarapuram, Mylapore, Madras-4; Indian Medical Association, Shri Nivas, S. V. Patel Road, Bombay-4; Indian Medical Association, 23, Samavaya Mansions, Corporation Place, Calcutta-13; Indian Metallurgical Association, 20, Strand Road, Calcutta-1; Indian Meteorological Society, New Delhi; Indian National Society of Soil Mechanics & Foundation Engineering, New Delhi; Indian Pharmaceutical Association, Kalam Kutir, 3rd floor, 213-219, Frere Road, Fort, Bombay-1; Indian Pharmaceutical Congress Association, 14, Ganesh Chaudhury Avenue, Calcutta 13; Indian Physical Society, 210, Bow Bazar Street, Calcutta-32; Indian Physiological Society, Calcutta; Indian Phytopathological Society, Pusa Institute Buildings, New Delhi 12; Indian Psychiatric Society, Central Mental Hospital, Yervada, Poona; Indian Research Fund Association, Kurnool Indian Society for Agricultural Statistics, C/o I.C.A.R. (Statistical Wing), Library Avenue (Pusa), New Delhi 12; Indian Society of Agronomy, Indian Agricultural Research Institute, New Delhi 12; Indian Society of Engineers, 12, Netaji Subhas Road, Calcutta; Indian Society of Genetics & Plant Breeding, Indian Agricultural Research Institute, P.O. Pusa, New Delhi; Indian Society for Quality Control, Calcutta; Indian Society of Soil Science, Indian Agricultural Research Institute, New Delhi-12; Indian Society of Theoretical and Applied Mechanics, Indian Institute of Technology, Kharagpur; Institute of Consulting Engineers, 9 Hastings Street, Calcutta-1; Institute of Industrial Engineers (India), C/o Hindusthan Levers Ltd., Bombay; Institution of Chemists, Medical College, Calcutta; Institution of Engineers, 8, Gokhale Road, Calcutta 20; Institution of Engineers (India), Muthra Road, Delhi; Institution of Military Engineers, New Delhi; Institution of Surveyors, New Delhi; Institution of Telecommunication Engineers, Post Box No. 481, New Delhi; International Society of Plant Morphologists, University of Delhi, Delhi; Maharashtra Association for the Cultivation of Science, Servants of India Society Bldgs., Poona 4; Mechanical Engineers' Association, Janmabhoomi Chambers, 29, Fort Street, Bombay 1; Mining, Geological & Metallurgical Institute of India, 29, Chowringhee, Calcutta; Mysore Geologists' Association, Mysore Geological Department, Bangalore-1; Mysore Horticultural Society, Lal Baugh, Bangalore-2; National Society of India for Malaria and other Mosquito Borne Diseases, 22, Alipur Road, Delhi; Neurological Society of India, 534, Sandhurst Bridge, Bombay 7; Obstetrics & Gynaecology Society of North India, Benjamin Road, Ludhiana, Punjab; Oil Technologists' Association (India), H. B. Technological Institute, Kanpur; Palaeobotanical Society of India, 53, University Road, Lucknow; Pharmaceutical Society, Saugar University, Saugar; Physiological Society of India, 92, Acharya Prafulla Chandra Road, Calcutta; Psychoanalytical Society, Calcutta; Quality Control Association, C/o S.K.S.J. Tech. Institute, Bangalore 1; Radio and Electronics Society of India, Fateh Manzil, Opera House, Bombay 4; Rajasthan Academy of Sciences, Pilani, Rajasthan; Royal Agri-Horticultural Society of India, 1, Alipore Road, Calcutta; Society of Biological Chemists, Indian Institute of Science. Bangalore 12; Society for Corrosions and Coatings Technology, Calcutta; Society of Electronics Engineers, Electronics Research & Development Establishment, P O. Box No. 103, Bangalore 1; Society of Experimental Medical Science (India), P. 10, C.I.T Road, Calcutta 14; Society of Student Metallurgists, Bengal Engineering College, Sibpur, Howrah; Soil Conservation Society of India, Hazaribagh, Bihar; South Indian Horticultural Assocn., Lawley Road P.O., Coimbatore; Students' Literary & Scientific Society, Nowroji Seth Street, Thakurdwar, Bombay-2; Sugar Technologists' Association of India, Nawabganj, Kanpur; Textile Association, 'Santosh,' 72A, Shivaji Park, Bombay 28; Tropical Diet Research Society, 1/6, Fakir Chakrabarty Lane, Calcutta 6; Vijnan Parishad, Bank Road, Allahabad; Vijnana Prachara Nilayam, Kottapeta, East Godavari Dist., Andhra Pradesh; Zoological Society of India, C/o Zoological Survey of India, 34, Chittaranjan Avenue, Calcutta 12.

## COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH

Scientific research under State auspices in India is carried out mainly through the Council of Scientific & Industrial Research and the various National Laboratories or research institutes set up under its control and in the Universities and research institutes aided by the Council The Council grants fellowships to qualified persons who wish to pursue science as a career and disseminates scientific knowledge and information. It has also the responsibility of administering the "Pool for temporary placement of well-qualified Indian scientists and technologists returning from abroad." It maintains a National Register of Scientific & Technical Personnel in the country.

The proposed International Scientific Collaboration Bureau at C.S.I.R. headquarters will carry out regular assessment studies on scientific and technological developments in various developing countries. It will initiate and establish bilateral collaboration between C.S.I.R. and parallel scientific and technological organisations in other countries, especially in developing nations.

The Regional Foundry Station to be set up by the National Metallurgical Laboratory at Agra is the fifth of its kind in India. Three foundry stations set up by the Laboratory are already functioning one each at Batala in Punjab, Howrah and Madras.

## SCIENTIFIC RESEARCH

The policy of the Government of India with regard to science and scientific research was formulated in a resolution of March 4, 1958, and laid as a statement on the table of both Houses of Parliament on March 13, 1958.

The aims of this policy are: (*i*) to foster, promote, and sustain, by all appropriate means, the cultivation of science and scientific research in all its aspects—pure, applied, and educational; (*ii*) to ensure an adequate supply, within the country, of research scientists of the highest quality, and to recognise their work as an important component of the strength of the nation; (*iii*) to encourage and initiate, with all possible speed, programmes for the training of scientific and technical personnel, on a scale adequate to fulfil the country's need in science and education, agriculture and industry, and defence; (*iv*) to ensure that the creative talent of men and women is encouraged and finds full scope in scientific activity; (*v*) to encourage individual initiative for the acquisition and dissemination of knowledge, and for the discovery of new knowledge, in an atmosphere of academic freedom; and (*vi*) in general, to secure for the people of the country all the benefits that can accrue from the acquisition and application of scientific knowledge.

### National Research Development Corporation

(See under All India Corporations).

## NATIONAL LABORATORIES

There are 34 national laboratories functioning under the Council of Scientific and Industrial Research.

The names of the laboratories and institutes with their locations in italics, set up by CSIR at various centres in the country and the functions entrusted to them are as follows:

*National Physical Laboratory, New Delhi*:—Research in problems relating to Physics, both fundamental and applied. Maintenance of Standards Testing facilities are also available.

*National Chemical Laboratory, Poona*:—Fundamental and applied research covering the whole field of chemistry for which other specialised institutes have not been set up. The National Collection of Type Cultures is housed in the Laboratory.

*Central Fuel Research Institute, Jealgora (Bihar)*:—Fundamental and applied research on fuels — solid, liquid and gaseous. Physical

and Chemical surveys of Indian coals are conducted through seven coal survey stations under the Institute.

*Central Glass and Ceramic Research Institute, Jadavpur :*—Research on different aspects of glass and ceramics, pottery, porcelain, refractories and enamels ; development of processes for manufacture of glass and ceramic articles ; standardisation of raw materials used in the ceramic industry.

*Central Food Technological Research Institute, Mysore :*—Food processing and conservation of food, food engineering and all aspects of fruit technology. Regional Fruit and Vegetable Preservation Stations at Trichur, Nagpur, Bombay and Lucknow have been recently established.

*National Metallurgical Laboratory, Jamshedpur :*— Fundamental & applied metallurgical research.

*Central Drug Research Institute, Lucknow :*— All aspects of drug research including evaluation & standardisation of crude drugs, discovery of substitutes for pharmacopoical drugs and plants, pharmaceutical and synthetic chemicals, biochemistry and biophysics, infection, immunisation, pharmacology, chemotherapy & experimental medicine.

*Central Road Research Institute, New Delhi :*— Research on road materials, testing of road materials and road surfaces.

*Central Electro-Chemical Research Institute, Karaikudi (Madras) :* Research on different aspects of electro-chemistry, including electrometallurgy, electro-deposition and allied problems.

*Central Leather Research Institute, Madras :*— Fundamental and applied aspects of leather technology.

*Central Building Research Institute, Roorkee :*— Engineering and structural aspects of building and human comforts in relation to buildings.

*Central Electronics Engineering Research Institute, Pilani (Rajasthan) :*—Design and construction of electronic equipment and components and test equipment.

*National Botanic Gardens, Lucknow :*—Collection & large-scale cultivation of economic and medicinal plants of industrial importance.

*Central Salt & Marine Chemical Research Institute, Bhavnagar :* Investigation of production of pure salts, reduction in cost of production ; economic utilisation of by-products of salt manufactures, development of new methods and technique for the recovery, production & utilization of various marine & allied chemicals.

*Central Mining Research Station, Dhanbad :*— Research in methods of mining, safety in mines and mine machinery.

*Regional Research Institute, Hyderabad :*— Research in problems relating to the industries and raw materials of the region.

*Indian Institute for Biochemistry & Experimental Medicine, Calcutta :*— Research in various aspects of biochemistry as applied to medicine, Bacteriology, etc.

*Birla Industrial & Technological Museum, Calcutta :*— A museum to depict scientific and technological advancement.

*Regional Research Laboratory, Jammu-Tawi (Jammu & Kashmir) :*—Research in problems relating to the industries and raw materials of the region & research specially directed to medicinal plants of the Himalayas (Kashmir Region).

*Central Mechanical Engineering Research Institute, Durgapur (W. Bengal) :*—Research in Mechanical Engineering in all its aspects.

*Central Public Health Engineering Research Institute, Nagpur :*—Research in all aspects of public health engineering and co-ordination of work of all interested agencies in this field in the country. A number of Field Centres and Units at various places have also been established by the Instt.

*National Aeronautical Laboratory, Bangalore :* Scientific investigations of the problems of flight with a view to their practical application to the design, construction and operation of aircraft in India.

*Regional Research Laboratory, Jorhat :*—Research problems relating to more efficient utilisation and better conservation of important national resources of Assam and surrounding areas with a view to aiding the industrial development of the region.

*Regional Research Laboratory, Bhubaneswar :*— Identification and exploration of problems of the region, bringing projects of potential local application to the attention of local industries and providing assistance to associated local industries in the testing of their products and quality control.

*Central Indian Medicinal Plants Organisation, 4, Sapru Marg, Lucknow :*—Co-ordination of activities in the development of cultivation and utilisation of medicinal plants and to develop the vegetable drug resources of the country.

*Central Scientific Instruments Organisation, Chandigarh :*—Promotion and development of indigenous manufacture of scientific instruments for teaching, research and industry.

*Indian Institute of Petroleum, Dehra Dun :*— Research in petroleum refining and processing of natural gas, petro-chemicals, etc., and providing facilities for the training of personnel for oil and petroleum industries.

*National Geophysical Research Institute, Hyderabad :*—Gravitational, magnetic, electrical and seismic surveys for understanding the crustal structure of India and also study and improvement of methods and techniques of exploration.

*Visvesvaraya Industrial & Technological Museum, Bangalore :*—A museum to depict scientific & technological advancement.

*Indian Programme for International Indian Ocean Expedition, New Delhi :* Research programme with special emphasis on investigations on India's coastal waters, includes physical and chemical oceanography, marine biology and fisheries, meteorology and marine geophysics. An Indian Ocean Biological Centre has been set up at Ernakulam with UNESCO assistance and an International Meteorological Centre at Bombay with U.N. Special Fund assistance has been set up. The setting up of Mafatlal Scientific & Technological Museum at Bombay and a National Biological Laboratory has been approved by the C.S.I.R.

*Design and Engineering :*—The unit undertakes process design, complete industrial plant design and project engineering work for processes evolved at the national laboratories.

*Survey and Planning :* This unit carries out studies through surveys and otherwise, on the efforts and output in research by different research organisations in India, as well as the social and industrial impacts of research. The unit also serves as an operational research unit to evolve techniques and apply them in industry. The unit has carried out studies on Government expenditure on scientific research, trends in expenditure in national laboratories and development of scientific societies in India.

*Defence Co-ordination :* Soon after the national emergency was declared, the Council set up a Defence Co-ordination Unit to study defence requirements of strategic items, identify the problems and initiate research and development work on them and, if necessary, set up pilot-plant production for such items in the laboratories.

*Scientific and Technical Personnel :* The National Register Unit of the Council acts as a manpower research organisation and a clearing house of information regarding availability and utilisation of Indian scientific and technical personnel in India and abroad. The unit helps evolve scientific personnel policy, recruitment, assessment of use and wastage of manpower and manpower planning.

The Council operates a scientific pool scheme to provide employment assistance and temporary placement to highly qualified scientists and technologists, particularly those returning from abroad, until they secure suitable employment. As many as 1,139 candidates were selected to the pool in 1964, bringing the total number to 3,258 since the inception of the pool. The number of Pool Officers in position as on Jan. 1, 1965 was 562.

The collection and dissemination of information regarding not only research but also industrial matters in general and the publication of scientific memoirs and journals are among the functions of the Council.

The Publication and Information Directorate of the Council publishes journals, monographs, technical reports, literature surveys and a fortnightly CSIR news. Seven journals have been published by the Directorate.

A major publication of the Directorate is the Dictionary of Indian Raw Materials and Industrial Products published under the title *"Wealth of India"*. It is published in two series, one dealing with raw materials (plant, animal and mineral resources of India) and the other with industrial products.

A monthly science journal entitled *"Science Reporter"* is brought out from 1964. Intended to serve as an interpreter between the scientists and the intelligentsia, it carries news on scientific and technological developments in India and abroad.

*Documentation :* The Indian National Scientific Documentation Centre (INSDOC), New Delhi, established with technical assistance from UNESCO, provides a complete range of documentation services to individuals and institutions all over the country. On specific requests, it procures copies of scientific documents, compiles bibliographies, supplies technical information, makes micro films or photo copies of customers' documents and provides translations into English of articles published in various foreign languages.

*Sponsored Research :* Through a liberal system of grants-in-aid, scientists in other technical institutes, industrial laboratories and universities are enabled to pursue fundamental and applied research and develop their own special fields. There are, at present, more than 660 such schemes in progress at more than 100 centres. Apart from the practical results achieved, the schemes provide opportunities of training for young research workers and develop centres of independent research. Junior and senior fellowships tenable in the universities as well as in national laboratories are also being awarded to talented young persons, besides financial aid to retired scientists. The number of *ad-hoc* fellowships awarded in 1964 was 1,549.

*Co-operative Research Associations :* Co-operative research associations in different industrial fields are being assisted in their capital and recurring expenditure and by way of technical advice, preparation of plans and procurement of experts and materials. Ten such associations now functioning are catering to the textiles, rubber, silk, art silk and paint, plywood, wool, tea and cement industries. Similar associations are in the process of being formed for foundry, automobile, radio and electronic industries.

*Liaison & Extension Services :* Active Industrial Liaison & Information Units have been set up in most of the National Laboratories to make direct contact with the industry, trade associations and users of research to identify the problems of industry and formulate them into research projects for the laboratories.

The unit at the Headquarters, Research Co-ordination, Industrial Liaison and Extension Services Unit supplements the efforts of Laboratory in research utilisation by maintaining day to day contact with various government agencies responsible for research development and planning such as Planning Commission, Department of Technical Development, Ministry of Industry, etc. This unit also maintains a system of research intelligence so that information on research in all institutes, is available at hand in

*Note :* See under "Government Industrial Undertakings" for a note on "Tarapur Atomic Power Station"

the Central Office. The extension service provided by this unit includes dissemination of information on processes developed in the laboratories which might be of interest to rural and suburban development.

## NUCLEAR RESEARCH AND ATOMIC ENERGY

Pioneering work in this field was done by the Tata Institute of Fundamental Research, Bombay, established in 1945.

This Institute has since been recognised as the National Centre for advanced study and fundamental research in nuclear physics and mathematics and consists of a school of physics and a school of mathematics with a staff of 300.

The Institute is the largest centre for cosmic ray research in India and has made notable contributions to the theory of elementary particles. Its nuclear emulsion group for the study of elementary particles is probably the second largest in the world and has made outstanding contributions. The Institute also houses, as a national facility, an advanced and modern computer CDC 3600-160A. It also has a IMeV Cascade Generator.

During the years preceding the establishment of the Atomic Energy Commission, the Institute built up a group of scientists trained in nuclear physics. These scientists were readily available for some of the early projects of the Commission when it was set up in 1948.

Two other important institutions conducting research in nuclear physics are the Saha Institute of Nuclear Physics, Calcutta and the Physical Research Laboratory, Ahmedabad.

Considerable fundamental research in nuclear science and cosmic rays is also being conducted at various universities and research institutions all over India with financial assistance from the Department of Atomic Energy. During 1964-65 a sum of Rs. nine lakhs was sanctioned as assistance.

The development and control of atomic energy in India is regulated by the Atomic Energy Act (Act No. 33 of 1962) and the Department of Atomic Energy handles all business of the Government of India relating to atomic energy and functions of the Central Government under the Act.

The Atomic Energy Commission which assumed authority on June 23, 1958, is responsible for (*a*) formulating the policy of the Department of Atomic Energy, (*b*) preparing the budget of the Department for each financial year and getting it approved by the Government, and (*c*) implementing Government's policy in all matters concerning atomic energy.

The Commission's programme envisages that India should be able to produce all the basic materials required for the production of atomic energy, promote its use in agriculture, biology, industry, research and medicine, prepare a long-range plan for the generation of electric power and set up one or more power stations.

The scientific and technical work of the Department is carried out by the Atomic Minerals Division and the Atomic Energy Establishment at Trombay near Bombay.

Some of the more important functions of the Atomic Minerals Division are: (*a*) geological survey for and development of atomic minerals, (*b*) geographical survey, (*c*) geochemical survey, (*d*) mineral technology, (*e*) drilling, (*f*) mining, (*g*) stockpiling, (*h*) conservation of minerals and (*i*) technical assistance and training.

### Trombay Establishment

The Atomic Energy Establishment, Trombay, is India's principal centre for research and development in the field of atomic energy. Located about 15 miles from Bombay, and employing over 7,500 persons of whom 1,650 are professional staff, the Establishment is by far the largest scientific centre in the country.

The work of the Establishment is organised under six major groups, *viz.* Physics, Engineering, Electronics, Metallurgy, Biology and Administration. Each group is under the charge of a Director and comprises two or more divisions.

There are three reactors at the Establishment —Apsara, CIR and Zerlina (for details see under "Government Industrial Undertakings").

To ensure a steady supply of trained scientific and technical personnel, the Establishment started a training programme in 1957 under which 150 young graduates and engineers are recruited annually from the universities and given specialised training for a year to fit them for work in India's atomic energy programme.

After successful completion of training the trainees are absorbed in various divisions of the establishment

**APSARA Reactor:** Completed 8½ years of operation in Dec. 1964, with a record in power output of 2·23 million kilowatt hours during 1964. (See under "Government Industrial Undertakings.")

**CANADA-INDIA Reactor:** India's second research reactor is the Rs. 10 crore (£7·5 million) Canada-India Reactor, under the Colombo Plan. Work on this project was taken up in Feb. 1956 and the reactor attained criticality on July 10, 1960. (See under "Government Industrial Undertakings.")

**ZERLINA:** Zerlina, a zero energy reactor for lattice investigations and new assemblies, reached criticality on January 14, 1961.

For more details see the article "Government Industrial Undertakings."

For particulars on Thorium Plant, Uranium Metal Plant, Radio-chemistry Laboratory, Isotope Laboratory, Fuel Element Fabrication Facility, Heavy Water Plant, Heavy Water Reconcentration Plant, Plutonium Plant, Uranium ore Mill, Electronic Instruments, Graphite Shop and Central Workshop. See article "Atomic Reactors" in the "Government Industrial Undertakings."

**Research Facilities:** The research facilities available in the Trombay Establishment are such that advanced research, both fundamental and applied, in several scientific fields can be undertaken. Besides the reactors mentioned already, the following principal facilities exist: (1) A 5·5 MeV Van de Graaff accelerator at Trombay, (2) Mass spectrometers, (3) A 200 kV electron diffraction camera fabricated in the Establishment, (4) A slow chopper built in the Establishment, (5) A mechanical monochrometer built in the Establishment, (6) Crystal spectrometers and a double crystal spectrometer, (7) Spectrometers built in Establishment; Spectrometers including double beam and vacuum grating ones, (8) Plasma Torch built at Trombay, (9) Cloud chambers, (10) Magnetometers, (11) Various types of electronic instruments, (12) Various instruments used in chemical analysis such as fluorimeters, polarometers, spectrophotometers, colorimeters, etc.

**Production Facilities:** With the object of exploiting fully the indigenous raw materials for the speedy and successful implementation of its programme, the Commission has already set up a number of plants, while others are in the process of being set up. They are:

**Rare Earth Plant:** This plant which was set up in 1952 is now owned by the Government of India. Its capacity for processing 1,800 tons of monazite has been increased to 3,000 tons annually. It produces rare earths (chiefly cerium) compounds and a cake containing thorium and uranium. Trisodium phosphate, a detergent, obtained as a by-product, has a good market. The rare earths compounds (mixed rare earths chloride, carbonate and hydroxide) are sold in the world market. Small amounts of naphthenate, fluoride and oxide of cerium are also produced.

**Mineral Sand Industry:** A company called Travancore Minerals (Private) Ltd., was registered in October 1956 to exploit the rich mineral deposits of Kerala State, with the participation of the Government of India and Kerala Government on an equal basis and the company started its operation in May 1957. The Government Minerals Concern, Manavalakurichi, owned and managed by Madras Government, was merged with this company in January 1959 and the Madras Government was taken as a shareholder.

The main mineral exploited is ilmenite, which is mostly exported. Other minerals are rutile, monazite, zircon and sillimanite. A detailed and systematic survey and prospecting of the mineral deposits in the sea bed and the present mining areas is being arranged by the Atomic Minerals Division to assess the total available deposits.

## OTHER RESEARCH BODIES

There is a whole host of research organizations (besides the ones mentioned above) engaged in scientific research of one sort or another.

The Geological Survey of India in Calcutta maps out the mineral resources of the country. The Indian Bureau of Mines and the Mineral Information Bureau at Delhi help in the prospecting and working of minerals.

The Oil and Natural Gas Commission is responsible for the prospecting and exploitation of mineral oil resources.

A Central Institute of Petroleum is being set up at Dehra Dun.

Cartographic work is in progress under the National Atlas Organization in Calcutta.

The Survey of India with its headquarters at Dehra Dun is engaged in large-scale mapping of river basins and in the preparation of topographical maps.

The Botanical and Zoological Surveys both in Calcutta conduct systematic surveys of the animal and plant resources of the country.

The Meteorological Departments of the Government of India at Delhi and Poona are concerned with meteorological, climatological, hydrometeorological and snow surveys.

The Department of Anthropology in Calcutta is concerned with ethnographic surveys and a variety of other studies in anthropology.

The Indian Association for the Cultivation of Science in Calcutta is engaged in physical and chemical research, both in its theoretical and applied aspects.

Research in radio physics and electronics is in progress at the Indian Institute of Radio Physics and Electronics in Calcutta, while research in cosmic rays and theoretical physics is carried on at the Physics Research Laboratory in Ahmedabad.

The Bose Research Institute in Calcutta conducts research in physics, chemistry, zoology and plant breeding.

The Birbal Sahani Institute at Lucknow carries on research in plant fossils.

The Institute of Mathematical Sciences at Madras carries on research in mathematics, applied mathematics, theoretical physics.

## ENGINEERING RESEARCH

The Indian Standards Institution at New Delhi lays down specifications for materials, tools and products.

Among engineering institutions providing facilities for research the following may be mentioned:

All India Institute of Hygiene and Public Health, Calcutta: Sanitary engineering.

Central Building Research Institute, Roorkee (U.P.): Building engineering, prestressed concrete engineering, etc.

Central Electronics Engineering Research Institute, Pilani (Rajasthan): Electronics and telecommunication engineering.

Central Mechanical Engineering Research Institute, Durgapur (W. Bengal): Mechanical engineering.

Central Public Health Engineering Research Institute, Nagpur: Public Health and sanitary engineering.

Central Road Research Institute, New Delhi: Road engineering.

Concrete Research Laboratory, Chepauk, Madras : Structural engineering.

Indian Institute of Science, Bangalore : Aeronautical engineering, internal combustion engines, and power, hydraulic and electrical communication engineering.

National Aeronautical Laboratory, Bangalore : Aeronautical engineering.

Indian School of Mines and Applied Geology, Dhanbad : Mining engineering.

M. S. University, Baroda : Civil, mechanical and telecommunication engineering.

P.S.G. & Sons Charities College, Coimbatore : Civil, mechanical and electrical engineering.

Government College of Technology, Coimbatore : Heat engineering, hydraulic engineering, soil mechanics.

Indian Institute of Technology, Kharagpur : Mechanical engineering.

Madras Institute of Technology, Madras : Aeronautical and automobile engineering and soil mechanics.

University College of Science and Technology, University of Calcutta : Heat and illumination engineering.

A number of Ministries and Departments of the Government of India have development and research sections in engineering.

The Indian Agricultural Research Institute, New Delhi has a Division of Agricultural Engineering which is concerned with agricultural equipment.

The Ministry of Communications has a Research and Development Directorate which sees to the specifications, certification and manufacture of aircraft and aircraft material.

The Ministry has a Telecommunications Research Centre in Delhi.

The Technological Development Wing of the Ministry of Industries offers advice on engineering equipment in general and more especially on machine tools and internal combustion engines.

The Central Board of Irrigation and Power conducts eleven research stations the chief of which are in Poona, Amritsar and Poondi (Madras State). The one at Khadakvasla near Poona is the most important. It conducts research in hydraulic engineering, soil mechanics, concrete materials and navigation.

The All India Radio has a research unit of its own in New Delhi.

The Railway Board has centres in Lucknow, Lonavla and Chittaranjan to investigate problems connected with railways.

Research projects connected with roads, bridges, ports, harbours are taken up for investigation by the Roads Organization under the Ministry of Transport.

It may be added that two Power Engineering Research Organizations in Bangalore and Bhopal, are being set up with the assistance of the U.N. Special Project Fund with UNESCO acting as the executive agency.

## MEDICAL RESEARCH

Medical Research is conducted chiefly under the auspices of the Indian Council of Medical Research, New Delhi. The Council also grants research fellowships. There is a Scientific Advisory Board which deals with technical questions and publishes reports of research carried on under the auspices of the Council.

The Council spent over Rs. 52·50 lakhs on research in 1963-64. In 1964-65 the expenditure was expected to exceed Rs. 73 lakhs.

The more prominent research institutions in medicine are :

School of Tropical Medicine, Calcutta: Diseases peculiar to tropical climate.

All India Institute of Hygiene and Public Health, Calcutta: Preventive and social medicine.

Indian Cancer Research Centre, Bombay : Cancer

Vallabhbhai Patel Chest Institute, Delhi : Tuberculosis and diseases of chest.

Central Leprosy Teaching and Research Institute, Tirumani (Chingleput): Leprosy.

Haffkine Institute, Bombay : Plague, malaria, virus diseases, nutrition. It also manufactures vaccines and sera.

Central Research Institute, Kasauli: Microbiology, biochemistry, serology.

Pasteur Institute, Coonoor : Rabies, influenza, tropical eosinophilia, anti-venom serum, serological reactions.

King Institute of Preventive Medicine, Guindy, Madras: Vaccines, specially against smallpox and therapeutic sera.

Bengal Immunity Research Institute, Calcutta (Private): Prevention, control and cure of disease, and anti-malarial drugs.

Central Drug Research Laboratory, Calcutta: Biological and chemical assays of drugs. It also gives technical advice to drug manufacturing firms.

Drug Research Laboratory, Jammu : Research in medicinal plants. Has two farms. Promotes standardization of indigenous drugs.

Virus Research Centre, Poona : Virus-caused diseases.

Central Drug Research Institute, Lucknow : Work on drugs.

National Institute of Communicable Diseases, Delhi : Malaria.

Cholera Research Centre, Calcutta : To study various aspects of Cholera.

Nutrition Research Laboratories, Hyderabad : Nutrition and allied subjects.

Tuberculosis Chemotherapy Centre, Madras : Research on Tuberculosis.

The Indian Council of Medical Research initiates research in a large number of specific problems at medical colleges and hospitals in the country including the institutions mentioned above.

## RESEARCH IN HUMANITIES

Research in the humanities—literature, language, arts, etc.—is engaging the attention of individual institutions scattered throughout the country.

Anjuman-i-Islam Urdu Research Institute, D. Naoroji Road, Bombay1; Anthropological Society of Bombay, C/o K. R. Cama Oriental Research Institute, 136, Apollo Street, Bombay ; Bangiya Sahitya Parishad, 243-1, Upper Circular Road, Calcutta ; Bhandarkar Oriental Research Institute, Poona ; Bharatiya Itihasa Samshodhaka Mandal, Sadashiv Peth, Poona ; Bharatiya Vidya Bhawan, Chowpatty, Bombay ; B. J. Institute of Learning and Research, Bhadra, Ahmedabad ; B. M. Institute of Child Development, Pharmacy College, Navrangpura, Ahmedabad ; Bureau of Psychology, Allahabad ; D. A. Memorial Institute, C/o Bharatiya Itihasa Samshodhaka Mandal, Poona ; Deccan College of Post-Graduate and Research Institute, Poona ; Department of Anthropology, Indian Museum, 27, Chowringhee Road, Calcutta ; Department of Archaeology, Ministry of Education, New Delhi ; Department of Historical and Antiquarian Studies, Gauhati ; Dharmakosha Mandal (Vedic Research Institute), C/o Prajna Pathshala, Wai, District Satara ; Ganganath Jha Research Institute, Allahabad ; Gokhale Institute of Politics and Economics, Poona ; Gujarat Research Society, Bombay ; Hindi Vidya Pith, Deoghar, Bihar ; Indian Institute of Education, 11, Horniman Circle, Bombay ; Indian Institute of Philosophy, Amalner, Dt. Jalgaon, Maharashtra ; Kannada Research Institute, Dharwar ; Karnatak Research Society, Dharwar ; K. P. Jayaswal Research Institute, Patna ; K. R. Cama Oriental Institute, 136, Apollo Street, Bombay ; Kuppuswami Sashtri Research Institute, Mylapore, Madras ; Mandir Vidya Pith, Bhagalpur, Bihar ; Marathi Sanshodhan Mandal, Mumbai Marathi Granth-sangrahalaya, Thakurdwar, Bombay ; Mithila Institute of Post-Graduate Studies and Research in Sanskrit Learning, Darbhanga, Bihar ; Nalanda Pali Institute, P.O. Nalanda, Patna ; National Archives of India, Ministry of Education, New Delhi ; Oriental Research Institute, Mysore ; Rajasthan Vishva Vidya Peeth, Udaipur ; Rajwade Samshodhan Mandal, Dhulia, Maharashtra ; Scindia Research Institute, Ujjain ; Shri G. K. Institute of Rural Education, Gargoti, Kolhapur District ; Sheth Bholabhai Jeshingbhai Institute of Learning and Research, Bhadra, Ahmedabad ; Shri Farbes Gujarati Sabha, Bombay ; Tata Institute of Social Sciences, Chembur, Bombay ; The Asiatic Society, 1, Park Street, Calcutta ; Vachan Mantapa (Kannada Research Institute), Belgaum ; Venkateswara Research Institute, Tirupati ; Vaidika Samshodana Mandal, Tilak Memorial, Poona ; Vaishali Prakrit Institute, Muzaffarpur ; Vishveshwaranand Vedic Research Institute, Hoshiarpur, Punjab.

## ATOMIC MINERALS

The Atomic Minerals Division of the Department of Atomic Energy is charged with the tasks of conducting comprehensive geological surveys for the location of atomic minerals, development of mineral technology, drilling, mining, stock-piling and conservation of atomic minerals. The most important achievement of this Division has been the discovery of large uranium deposits in Bihar State and the location of thorium rich minerals on the Ranchi Plateau, also in Bihar.

More recent investigations in the Himalayas have led to the location of uranium deposits in the Kulu District (Punjab), Mahasu District (H.P.) and Chamoli District (U.P.) which are currently under investigation. India's total reserves of uranium are enough to sustain more than 90 million kilowatts of electricity generation.

Deposits of beryl and lithium ores have also been discovered.

The monazite deposits of the Indian seaboard are perhaps the largest in the world. Indian monazite contains 8 to 10 per cent $ThO_2$ and upto 0·3 per cent $U_3O_8$. Total reserves of monazite are estimated at around five million tons with $ThO_2$ content of 0·45 million tons and $U_3O_8$ content of 15,000 tons ; those of ilmenite are estimated at about 100 million tons inclusive of 65·32 million tons of measured reserves, the rest accounting for indicated and inferred reserves. Zircon reserves in Indian deposits are estimated at about 10 million tons of which 3·34 million tons are measured reserves and the rest are indicated and inferred reserves.

The Division also helps private parties, including universities and other institutions, interested in prospecting and mining atomic minerals by providing technical advice, lending G. M. counters, analysingsamples free of charge and by extending such other help as would promote and widen the field of exploration.

## SPACE RESEARCH

Thumba Equatorial Rocket Launching Station (TERLS) has been established near Trivandrum, Kerala, by the Indian National Committee for Space Research (INCOSPAR) of the Department of Atomic Energy. The rocket launching facility became operational on Nov. 21, 1963 when the first Nike-Apache Rocket carrying a Sodium Vapour Payload was fired.

With the co-operation of the United Nations and several other countries, India has launched successfully 27 experimental rockets in the past 18 months (May 1965). The launchings are intended to provide valuable data on the atmospheric conditions over the geomagnetic equatorial region.

India expressed at the U.N. in 1963 its interest in being the host State for an International Equatorial Sounding Rocket Launching Facility. In response to India's invitation, a scientific group visited Thumba on behalf of the U.N. in Jan. 1964 and had recommended U.N. sponsorship for the facility. The formal action by the General Assembly (U.N.) is awaited (June 1965).

There is a Space Communication Track Station at the Physical Research Laboratory, Ahmedabad.

# COTTAGE INDUSTRIES AND HANDICRAFTS

### Village and Small Industries

THIRD Plan : Rs. 264 crores.

According to the working definition adopted by the Government, small-scale industries include all industrial units with a capital investment not exceeding Rs. 5 lakhs irrespective of the number of persons employed. Financial assistance to small industries is given by the Government, State Financial Corporations and banking institutions including the State Bank of India. Recently, measures were taken to make this assistance more effective.

The data about employment are extremely meagre. It is, however, very roughly estimated that at least 24 million persons are gainfully employed in these industries classified as under :—

| Name of Industry | Persons employed in lakhs. |
|---|---|
| Textiles | 75 |
| Leather | 24 |
| Wood | 21 |
| Metals | 42 |
| Pottery, Ceramics, Tiles, Bricks, etc. | 20 |
| Vegetable Oils, Chemical Products, etc. | 10 |
| Food including Hand-pounding | 20 |
| Dress and Toilet | 11 |
| Miscellaneous including jewellery and toy making | 17 |
| TOTAL | 240 (Estimated) |

The main objectives of the development of small scale and village industries laid down in the Second Five Year Plan were (*i*) the avoidance as far as possible of further technological unemployment during the period of the Second Plan, (*ii*) provision of as large a measure of increased employment as possible through different village and small scale industries, and (*iii*) a pattern of development capable of laying the foundation of an essentially decentralised society and also for progressive economic development at a fairly rapid rate. Wherever a large-scale industry competes with a cottage industry, a common production programme should be evolved.

The programme may cover (*a*) reservation of spheres of production, (*b*) non-expansion of the capacity of a large-scale industry, (*c*) imposition of a cess on products of a large-scale industry, (*d*) arrangements for the supply of raw materials and (*e*) co-ordination for research, training, etc.

## PLAN ALLOCATIONS

The allocation for khadi and village industries during the First Plan amounted to Rs. 14·82 crores which worked out at 0·44 per cent of the total Plan provision. A sum of Rs. 84 crores (1·24 per cent of total Plan allocation) was allotted for khadi and village industries in the Second Plan. The allocation for khadi and village industries of Rs. 92·4 crores during the Third Plan works out at 0·78 per cent of the total allocation.

## THE KHADI AND VILLAGE INDUSTRIES COMMISSION

The Khadi and Village Industries Commission was created by an Act of Parliament (No. 61 of 1956) in 1956 for the development of khadi and village industries in the country. Established in April 1957 it took over the work of the All India Khadi and Village Industries Board, which had earlier been set up by the Government of India in 1953.

Members of the Commission: U. N. Dhebar (*Chairman*); K. Arunachalam (*Vice-Chairman*); Dhwaja Prasad Sahu; Dwarkanath V. Lele; Akshay Kumar Karan (*Member-Secretary*).

In matters relating to policy the Commission is advised by a statutory board called the Khadi and Village Industries Board. The Chairman, Vice-Chairman, Secretary and members of the Commission are *ex*-officio Chairman, Vice-Chairman, Secretary and members of the Board respectively.

## STATE KHADI AND VILLAGE INDUSTRIES BOARDS

Almost in every State a statutory State Khadi and Village Industries Board has been constituted by the State legislature concerned. The Khadi and Village Industries Commission places the funds at the disposal of the State Khadi and Village Industries Board which employ the same for the development of khadi and village industries in the State. A limited number of institutions are now directly financed by the Commission. In the States where there is no statutory board an advisory board constituted by the State Government concerned advises on the measures necessary for the implementation of the programme for khadi and village industries.

The functions of the Commission cover :

(*a*) planning and implementing the development programme for Khadi and Village Industries under its purview ; (*b*) arrangements for the supply of funds, raw-materials, technical guidance, improved implements and marketing facilities ; (*c*) organisation of co-operative societies and registered institutions ; (*d*) organisation of training ; and (*e*) promotion of technical research.

The following industries, as provided in the schedule of Industries included in the Act, come under the purview of the Commission : Khadi (traditional and Ambar), Processing of Cereals and Pulses, Village Oil, Village Leather, Cottage Match, Gur and Khandsari, Palm-Gur, Non-Edible Oils and Soap Manufacture, Handmade Paper, Bee-Keeping, Village Poultry, Fibre, Carpentry and Blacksmithy, manufacture and use of manure and Methane gas from cow-dung and other waste products, and lime manufacture.

The Khadi and Village Industries Commission provides financial assistance in the shape of grants and loans for the development of khadi and village industries.

The assistance is given in accordance with and at rates and on terms sanctioned by the Government of India in respect of each industry to the following:

(*a*) a State Government; (*b*) a board established under any law for the time being in force for the development of khadi and village industries; (*c*) a society registered under the Societies Registration Act, 1860 (21 of 1860) or under any other law for the time being in force in any State; (*d*) a cooperative society registered under the Cooperative Societies Act, 1912 (2 of 1912) or under any other law for the time being in force in any State ; (*e*) a gram or village *panchayat* established under any State law for the time being in force ; (*f*) an authority set up under any law for the time being in force relating to *bhoodan* or *gramdan* ; (*g*) a trust created for public purposes of a charitable or religious nature; (*h*) an individual or institution engaged in research in khadi and village industries, subject to the condition that a grant or subsdiy to an individual should not exceed Rs. 5,000 in any one case; and to an institution it should not exceed Rs. 50,000 in any one case. The ceiling of Rs. 5,000 for an individual and of Rs. 50,000 for an institution may, however, be exceeded with the prior approval of the Government; (*i*) any other individual, authority or body in accordance with the approved pattern and within the ceilings communicated by the Commission to the Government.

*Note* : 'Individual' means an artisan or any other worker undertaking activities falling under the purview of the Commission and for which grants and subsidies are given.

## INSTITUTIONAL PROGRESS

When the All India Khadi and Village Industries Board took up the work of organising the producers of khadi and village industries there were only 186 registered institutions and 2,250 cooperatives. Following the policy enunciated for the promotion of cooperatives for village industries the Commission actively assisted the growth of village industries cooperatives. By the end of 1963-64 there were 984 registered institutions and 17,575 cooperative societies for khadi and village industries.

### Production

The production of khadi (including silk, woollen and ambar rose from the value of Rs. 21·22 crores in 1962-63 to Rs. 22·34 crores in 1963-64.

The value of production of village industries articles in 1963-64 was Rs. 43·23 crores.

The following table shows the comparative details of production of khadi and village industries in 1962-63 and 1963-64.

| Industry | Unit or Value | 1962-63 | 1963-64 |
|---|---|---|---|
| Khadi | Value Rs. Crores | 21·22 | 22·34 |
| Processing of Cereals and Pulses | Lakh quintals | 10·21 | 7·02 |
| Village Oil | —do.— | 6·77 | 5·96 |
| Village Leather | Value Rs. lakhs | 144·16 | 226·51 |
| Cottage Match | Gross Boxes | 67,880 | 87,733 |
| Gur and Khandsari : | | | |
| Gur | Lakh quintals | 15·66 | 11·82 |
| Khandsari | —do.— | 0·54 | 0·06 |
| Palm Gur | —do.— | 6·04 | 8·43 |
| Non-edible oils and Soap | Lakh kilograms | 37·35 | 35·03 |
| Handmade Paper | Metric Tons | 1,511 | 1,612 |
| Beekeeping | Lakh kilograms | 5·62 | 7·14 |
| Village Pottery | Value Rs. Lakhs | 79·82 | 98·27 |
| Fibre | —do.— | 55·17 | 88·57 |
| Carpentry and Blacksmithy | —do.— | 2·97 | 5·33 |
| Lime | Lakh kilos | 3·21 | 5·48 |

### Sales

Sales of different khadi and village industries products increased from Rs. 51·56 crores in 1962-63 (Khadi Rs. 20·37 crores and village industries Rs. 31·19 crores) to Rs. 101·26 crores in 1963-64 (Khadi Rs. 22·58 crores and village industries Rs. 78·68 crores). The table below shows the rise in the value of sales in khadi and village industries between 1962-63 and 1963-64.

(Rs. lakhs)

| Industry | 1962-63 | 1963-64 |
|---|---|---|
| Khadi .. .. .. | 2,036·78 | 2,257·96 |
| Processing of Cereals and Pulses .. .. | 318·35 | 215·43 |
| Village Oil .. .. | 1,543·36 | 1,338·78 |
| Village Leather .. | 199·91 | 228·25 |
| Gur and Khandsari: | | |
| Gur .. .. | 783·00 | 945·60 |
| Khandsari .. | 54·00 | 6·00 |
| Non-edible oils and soap | 31·96 | 32·31 |
| Handmade Paper .. | 26·23 | 28·92 |
| Village Pottery .. | 68·59 | 95·46 |
| Fibre .. .. .. | 26·13 | 24·05 |
| Carpentry and Blacksmithy .. .. | 2·60 | 3·39 |
| Cottage Match .. | 2·94 | 4,899·70 |
| Palm Gur (Neera) .. | 39·43 | 21·34 |
| Beekeeping .. .. | 22·48 | 28·56 |

### Employment

By March 1964, work opportunities were created for about 16·25 lakh spinners, 1·50 lakh weavers and 81,000 other artisans under the khadi programme. Through the programmes for village industries, employment opportunities were provided for 6·62 lakh persons.

### Training

In all 5,80,632 persons were trained during the past eleven years under the aegis of the Khadi and Village Industries Commission. Of these 5,68,849 persons were trained in khadi and 11,783 persons in village industries. A further breakdown of the figures shows that 5,51,819 persons were trained under the ambar charkha scheme, while 17,030 persons were trained under the traditional charkha scheme. Since a decision was taken not to extend the ambar charkha programme further, pending the consolidation of gains made in earlier years, there has been some relaxation in that form of training.

### Research

Liberal grants have been made to promote research. The Commission's Central Research Institute for Village Industries at Wardha which is known as Jamnalal Bajaj Central Research Institute for Village Industries has been in the field for some time now. As a result of financial assistance by the Commission improved implements such as ambar belni, ambar charkha, dhunai modhia, improved ghanis and chakkis have been introduced opening out possibilities of raising the productivity and income of the persons employed.

### Traditional Khadi

The Commission disbursed Rs. 15·30 crores for the development of traditional khadi industry during 1963-64 as against Rs. 16·45 crores and Rs. 19·40 crores in 1961-62 and 1962-63 respectively.

*Production :* Production in 1962-63 was 337·15 lakh sq. mtrs. valued at Rs. 7·49 crores while in 1963-64 the figures were 364·10 lakh sq. mtrs. and Rs. 8·47 crores respectively.

## AMBAR CHARKHA PROGRAMME

During 1956-57, the Commission introduced the ambar charkha to produce better quality yarn. Since then the two schemes have been in operation side by side. Expenditure on the Ambar Charkha Programme, during the year 1963-64 was Rs. 149·90 lakhs of which Rs. 97·26 lakhs were grants and Rs. 52·64 lakhs were loans.

*Production :* During the year 1963-64 production of ambar cloth was 228·77 lakh sq. mtrs. against 265·51 lakh sq. mtrs. in 1962-63. The total production for the eight year period being 1,428·41 lakh sq. mtrs. as shown below :

| | | |
|---|---|---|
| 1956-57 .. .. | 15·60 | lakh sq. mtrs. |
| 1957-58 .. .. | 92·50 | ,, ,, ,, |
| 1958-59 .. .. | 199·52 | ,, ,, ,, |
| 1959-60 .. .. | 212·89 | ,, ,, ,, |
| 1960-61 .. .. | 194·43 | ,, ,, ,, |
| 1961-62 .. .. | 219·19 | ,, ,, ,, |
| 1962-63 .. .. | 265·51 | ,, ,, ,, |
| 1963-64 .. .. | 228·77 | ,, ,, ,, |
| Total .. .. | 1,428·41 | lakh sq. mtrs. |

The number of Ambar Vidyalayas for training instructors and carpenters was as follows: Andhra 7, Assam 1, Bihar 3, Bombay (Bilingual) 19, Delhi 3, Kerala 4, Madhya Pradesh 3, Madras 5, Mysore 6, Orissa 1, Punjab 9, Rajasthan 6, Uttar Pradesh 10, West Bengal 2, Total 79.

The number of instructors, carpenters, spinners and weavers trained during the year 1962-63 was 31,707 thus bringing their total for the seven year period (1956-63) to 5,42,808.

### Sales of Khadi

The retail sales of khadi increased from Rs. 20·37 crores in 1962-63 to Rs. 22·58 crores in 1963-64. Of the Rs. 22·58 crores, next to sales through Bhandars and Bhavans which accounted for the major share with Rs. 17·47 crores, sales to State Governments, artisans and Central Government departments were Rs. 2·03 crores, Rs. 1·70 crores and Rs. 1·09 crores respectively. Sales through agents were Rs. 0·29 crore. Except sales to Central Government departments and through agents, others have shown considerable improvement over that of the previous year.

### Employment in Khadi

During 1963-64 both the programmes together provided employment to 16·25 lakhs spinners (12·30 lakhs traditional and 3·95 lakhs ambar) 1·50 lakh weavers and 0·85 lakh other persons employed in ancillary activities. The corresponding figures for 1962-63 were 15·64 lakhs spinners (11·87 lakhs traditional and 3·95 lakhs ambar) 1·25 lakhs weavers and 0·85 lakh other persons.

## HANDLOOMS

The handloom industry has all along occupied an important position in the economic fabric of the country, securing continuous employment to the weaver and ensuring his moral and material prosperity. There are at present 3 million handlooms employing over 8 million people on the loom and the ancillary processes.

### Production

The main aim of the handloom development programme during the successive Plan periods was to bring about an expansion of handloom production through fuller employment of weavers and the introduction of improved techniques. The achievement at the end of the First Plan period was 4,500 million metres by the mills, 1,305 million metres by handlooms and 225 million metres by powerlooms totalling 6,030 million metres. The achievement at the end of the Second Plan was 4,622 million metres by mills and 2,333 million metres by handlooms and powerlooms. The requirements of cotton textiles in the Third Plan period have been estimated at 8,370 million metres, out of which 3,150 million metres have been allocated as the share of the decentralised sector—handlooms, powerlooms and Khadi. A target of 2,520 million metres has been fixed for this industry representing about 30 per cent of the total requirements. The estimated production of handloom and powerloom cloth works out to 2,369 million metres in 1961, 2,410 million metres in 1962, 2,874 million metres in 1963 and 2,778 million metres in 1964 (upto November).

### Handloom Co-operatives

The objective of developing the handloom industry mainly by co-operative endeavour has been repeated from Plan to Plan and may now be considered to be in the main plank in its development. The number of looms within the co-operative fold has increased from 6·82 lakhs in 1963 to over 13·64 lakhs now. On present indications, it may be expected that at the end of the Plan period, the total number of looms in the co-operative fold may roughly be around 14 lakhs or nearly 50 per cent of the known size of the industry. Similarly the number of societies has increased from 9,870 in 1957-58 to over 11,748 with 12·60 lakh weaver members at present. Under the Reserve Bank of India Scheme of Handloom Finance, the credit limits sanctioned have risen from Rs. 180·19 lakhs in 1957-58 to Rs. 561·03 lakhs in 1963-64 and Rs. 481·21 lakhs from April to December 1964—the credit limits have almost been trebled.

### Marketing

The All India Handloom Board has taken several steps for the marketing of handloom products. Assistance is given for the opening of sales depots by State and primary weavers' co-operative societies, for running mobile vans and push-carts, for opening of inter-State depots and for arranging retail sales in the interior places through a system of hawkers.

This has helped in the setting up of over 1,839 sales depots, 41 inter-State depots, 56 central depots and 39 mobile vans. Government have also provided a subsidy in the form of rebate at the rate of 5 paise in the rupee on retail sales and 3 paise in the rupee on wholesale sale of handloom cloth to mitigate to a certain extent the lag between the competitive capacity of the mill industry and the handloom industry.

Publicity and propaganda measures like holding of fashion shows, participation in exhibitions, release of press advertisements, bringing out brochures, pamphlets, folders, posters etc., setting up of show-rooms and kiosks at railway stations and airports, erection of hoardings, neon signs etc., screening of cinema slides, documentaries and observance of the Handloom Week have helped to focus public attention on the industry and to create handloom mindedness.

### Exports

Indian cotton handloom fabrics have considerable appeal in foreign markets because of their texture and artistic qualities. Exports were previously being made principally to countries where Indians had settled particularly in S. E. Asia like Burma, Ceylon, Singapore, Siam, Malaya and African States. In the past few years, however, Indian exports of handloom goods to these traditional markets have been affected adversely due to various reasons, such as the establishment of textile mills in some countries, the restrictions imposed by newly liberated countries to foster local industry and the competition from China, Japan and Hongkong. The Indian handloom industry has, therefore, to turn to new markets as well as to non-cotton handloom exports. An example of this development is the market built up in America for the 'Bleeding Madras' quality. In recent years, certain varieties such as furnishings, silk fabrics, tussar silk fabrics etc. have made a hit even in European markets. With a view to promoting exports further, various measures have been taken by Government: (*i*) The All India Handloom Fabrics Marketing Co-operative Society attends to exports in the traditional markets in the Far East, Near East, Ceylon & Africa. It maintains sales depots at some of the overseas centres. It has also appointed commercial travellers at important places to push up exports in the above markets. (*ii*) The Handicrafts and Handlooms Exports Corporation of India Ltd., is entrusted with the task of promoting exports to non-traditional markets

in Europe and America. (*iii*) A scheme of voluntary inspection and quality marking has been introduced in respect of handloom fabrics meant for export. This is compulsory in the case of 'Bleeding Madras'. (*iv*) Inclusion of specific quotas for handloom fabrics in bilateral trade agreements. (*v*) Evolution of suitable designs by the Weavers' Service Centres of the Handloom Board for fabrics meant for export. Exporters are taking full advantage of the designs produced. (*vi*) Participation in International Fairs by the H.H.E.C. to popularise handloom textiles. (*vii*) Setting up of an Export Promotion Council for handloom fabrics. The Council will start functioning shortly.

As a result of these measures, the exports of handloom fabrics (cotton fabrics of standard type) were of the order of Rs. 77·26 million during 1963 and Rs. 67·28 million in 1964 upto November. The value of handloom fabrics (Other varieties like Tussar, Silk, art silk etc.) exported amounted to Rs. 39·03 million during the period January/September 1964).

### Technical Improvements and Research

The handloom industry has made considerable strides in the direction of technical development. The effect of these improvements has been to increase production and reduce cost of production. It has also assisted in making the cloth more durable and attractive for the consumer. There has been improvement in the preparatory, weaving and post-weaving stages. Financial assistance is being given to weavers' co-operative societies for introduction of improved looms, jacquards, dobbies etc., and for setting up dye houses, finishing and calendering plants and pattern making factories. 487 dye houses have been set up in the various States and these enable the societies to get yarn dyed according to their requirements and at the same time to reduce the cost of dyeing. Six co-operative spinning mills have started working. Forty-three pattern making factories evolve new woven designs in different colour combinations and texture by the use of different kinds of yarn against the background of traditional production techniques.

The Handloom Board has set-up a net-work of Weavers' Service Centres at Bombay, Madras, Calcutta, New Delhi, Varanasi, Indore, Bangalore and a sub-unit at Kancheepuram, which are functioning as units where technical and marketing problems connected with the industry are examined, appropriate solutions found and these solutions communicated to the production units so as to enable them to put them into practical application. These centres have also a training course in the use of improved looms and advanced techniques of weaving, refresher courses in dyeing, finishing and pattern making. These centres have broken fresh ground in the field of designing for fabrics, in introducing improved weaving techniques and in quality dyeing and processing of handloom cloth. A number of designs and textural effects evolved by the centres have been successfully introduced on a commercial scale and have proved to be of great assistance to the industry both within the co-operative fold and outside. Particular mention may be made in this connection, of a number of textural effects with the use of different types of yarn such as wool/cotton, cotton/jute, cotton/matka, Tussar/matka, wool/matka, etc. on upholstery, furnishing and draping materials.

With a view to gearing up the technological efficiency of the handloom industry and to provide the necessary supervisory and skilled personnel needed for work connected with the development scheme for the industry all over the country, the Government of India have established two Institutes of Handloom Technology one at Varanasi and the other at Salem.

### Housing

Under the Housing Scheme for weavers, the construction of 7,806 houses had been sanctioned; of these 4,628 houses had been constructed and 1,892 houses were under various stages of construction.

## VILLAGE OIL

India is the second largest producer of oilseeds in the world and leads all other countries in respect of acreage under oilseeds.

Mills and ghanis are the two sectors in the oil industry in the country. According to one estimate included in the Report of the Oilseeds Crushing Industry Inquiry Committee (1956), the percentage of major oilseeds crushed in ghanis and those crushed in power mills is as follows :

| Seed | Ghanis (per cent) | Mills (per cent) |
|---|---|---|
| Groundnut .. .. | 20 | 80 |
| Sesamum .. .. | 83 | 17 |
| Rape and Mustard .. | 37 | 63 |
| Linseed .. .. .. | 30 | 70 |
| Castor-seed .. .. | * | 100 |

* (a small quantity is also crushed in ghanis)

According to an estimate of the oilseeds crushing Industry Inquiry Committee there are over 8,201 oil mills in the country. The number of ghanis in the country was 3,06,237 in 1956 according to the livestock census 1956.

The Village Oil Industry i.e. ghanis brought under its fold provided employment to 52,513 persons during the year 1962-63—31,958 full timers and 20,555 part timers, apart from employment provided by ghanis not brought under their fold.

During 1963-64, the expenditure incurred by the Commission for the development of the industry amounted to Rs. 150·97 lakhs thus bringing the total to Rs. 1,081·06 lakhs of which Rs. 282·05 lakhs constitute grants and Rs. 799·01 lakhs loans. Of this total expenditure Rs. 131·00 lakhs only were expended during the First Five Year Plan period while the balance of Rs. 532·49 lakhs was disbursed during the Second Plan period and the remaining during the 1st three years of the Third Plan.

There were 5,409 agencies operating various schemes under the Commission's purview of which 4,641 were co-operative organisations including 12 district co-operative federations and 3 apex bodies at the State level. With a view to distributing the improved ghanis and train telis 52 Ghani Manufacturing Workshops and 91 Model Ghani Centres were functioning during 1963-64 throughout the country. During the year the Commission was able to introduce 949 improved ghanis, thus bringing their total number to 20,807.

In the field of production there was considerable activity as the production of oil through the Registered Ghanis with the Commission, rose sharply. During 1962-63 the production of oil through the registered ghanis was 6·77 lakh qunitals valued at Rs. 1,628·53 lakhs and 10·58 lakh quintals of oil cake valued at Rs. 352·37 lakhs. During 1963-64, the production of oil through the registered ghanis was 5·96 lakh quintals valued at Rs. 1,454·83 lakhs and 9·05 lakh qunitals of oil cake valued at Rs. 335·79 lakhs. The industry proved employment to 27,567 full-timers and 16,985 part-timers during 1963-64.

Under the training programme the Commission trained 3,999 telis and 450 Mistris upto March 1964.

## PROCESSING OF CEREALS AND PULSES

In pursuance of the recommendations of the Rice Milling Committee, Government of India decided, in the year 1957, that licensing of all power driven rice mills should be introduced and a census of all such mills should be taken. They have further decided that no new mill should be allowed to be set up and no expansion of the existing capacity of the mills be permitted unless the State Government concerned is satisfied that it is necessary to do so for the purpose of ensuring adequate supplies and that, in such cases, the hand pounding industry is not affected. To ensure this, an Act was passed in May 1958 — The Rice Milling (Regulation) Act.

The Karve Committee recommended the imposition of an excise duty on the output of mills and the payment of a subsidy to hand-pounders to reduce the price differential between hand-processed and mill-processed rice. The production subsidy has been replaced by a management grant on a sliding scale for a period of five years.

During the year the Union Territories of Goa, Himachal Pradesh and Tripura were also covered by the scheme. The disbursement during the year was only Rs. 124·07 lakhs which is more than that of 1962-63, *i.e.* Rs. 113·74 lakhs. The total expenditure incurred by the end of 1963-64 was Rs. 693·46 lakhs of which Rs. 133·57 lakhs formed grants and Rs. 559·89 lakhs loans. Of the total expenditure only Rs. 21·01 lakhs were spent during the First Plan period.

Each year more and more areas are covered and organisations formed to implement the development programme. There were 2,043 co-operatives and 436 registered societies at the end of 1963-64 as against 1,826 co-operatives and 402 registered societies in 1962-63. To enable the artisans obtain higher production of better rice the Commission has introduced 1,085 chakkis, 70 dhenkis and 48 winnowing fans. Under the Atta Chakki scheme the Commission introduced 71,587 ball-bearings and 4,277 chakkis inclusive of bullock driven chakkis.

Under the production activity the achievement was 7·02 lakh quintals in 1963-64 compared with 10·22 lakh quintals in 1962-63. The industry provided employment to 53,557 people in 1963-64, out of whom 10,987 were full-timers and 42,570 were part-timers. During the year, the Central Training Centre at Nadiad trained 229 persons as compared to 272 in 1962-63.

## BEE-KEEPING INDUSTRY

With a view to organising and developing collection of honey on scientific lines the Commission distributes bee-hives on a subsidised basis, finances rearing and distribution of bee-colonies, collection and marketing of honey, organises co-operative societies and trains apiarists, fieldmen, farmers and others in the art of bee-keeping.

Rs. 23·88 lakhs were disbursed in 1963-64 thus bringing the total expenditure to Rs. 121·27 lakhs of which Rs. 105·56 lakhs formed grants, the remaining being loans. Of the total, Rs. 9.35 lakhs were spent in the First Plan period. During the year 1963-64, seven more Area Offices, 235 Sub-stations, were allotted. Therefore, at the end of the year, total allotment was 67 Area Offices, 1,328 Sub-stations and 85 Plantation apiaries. In addition to this, 38 Model Apiaries, 93 Commercial apiaries were allotted. 193 schools were also financed to introduce bee-keeping for the benefit of school-pupils. There were 96 institutions in the country responsible for the implementation of the programme.

Upto the end of 1963-64, 1,84,597 Bee-hives were distributed. Under the programme 7·14 lakh kgs. of honey was collected in 1963-64 as against 5·62 lakh kgs. collected in 1962-63 and the whole of it was marketed. During the year 1963-64, 57,198 farmers were benefited as against 53,877 only in the previous year. During the year 134 fieldmen were trained ; thus, over the period, 1,645 fieldmen and 56 apiarists received training.

## HAND-MADE PAPER INDUSTRY

The per capita consumption of paper has been rapidly increasing with the spread of literacy. The expansion of the mill-made paper industry is limited due to several factors, viz., non-availability of raw materials in large quantities at one place, difficulties of importing heavy intricate machinery, pulp and chemicals, transport difficulties etc. The hand-made paper

industry, as being developed by the Commission, aims at utilising easily available raw materials like fibres, old gunny bags, rags, straws, grasses, waste paper etc. The programme of development consists of assisting in the setting up of big, medium, small and school units.

During 1963-64 the Commission disbursed Rs. 20·30 lakhs for the development of handmade paper industry, thus bringing the total disbursement to Rs. 201·07 lakhs of which Rs. 85·07 lakhs were grants and the remaining Rs. 140·41 lakhs loans. The expenditure during the First Plan period amounted to Rs. 12·34 lakhs only while the operation of the programme during the eight-year period (1956-64) consumed Rs. 215·99 lakhs.

The financial disbursement to various types of units depends upon the capacity to produce paper. Upto the end of 1963-64, the Commission had allotted 12 big, 102 medium and 115 small units. In addition to this, 23 Home Units and 13 Jail units also have been allotted.

The production of paper rose from 1,511 metric tons in 1962-63 to 1,612 metric tons in 1963-64. The industry provided employment to 4,687 persons in 1963-64 as against 4,561 persons in the previous year. In 1963-64 194 persons were trained thus bringing the total number of persons trained so far to 1,347.

## NON-EDIBLE OILS AND SOAP

India possesses large quantities of a wide variety of non-edible oilseeds, *e.g.*, neem, karanja, maroti, dupa, castor, undi, etc. The oils extracted from these seeds are highly valued as industrial oils. These resources in vegetable are largely wasted through non-utilisation. The Commission, therefore, formulated a scheme to exploit these resources for the creation of wealth.

During the year the Commission financed the programme to the tune of Rs. 47·55 lakhs thus bringing the total expenditure to Rs. 419·25 lakhs of which Rs. 113·82 lakhs were grants and Rs. 305·43 lakhs loans. During the First Five Year Plan period Rs. 45.22 lakhs only were disbursed. As against this the development activities during the eight-year period (1956-64) consumed Rs. 98·43 lakhs as grants and Rs. 275·60 lakhs as loans.

The financial assistance extended to three types of non-edible and soap production units *i.e.* "A", "B", and "C" units, depend upon their production capacity. With a view to informing and educating school children in the method of production of soap on cottage basis the Commission introduced "D" units and attached them to schools.

Since 1958-59 the Commission has been emphasising the possibility of improving production of non-edible oils. To intensify efforts in this direction Oil Producing Units have been organised. At the end of 1963-64, the Commission had allotted 651 soap production units in addition to 160 school units.

The production of non-edible oil during the year 1963-64 was 2·78 lakh kgs. valued at Rs. 3·37 lakhs. The activity in the production of soap also registered a considerable expansion; the value of soap produced in 1963-64 was Rs. 57·88 lakhs as against Rs. 48·15 lakhs in 1962-63, the quantities being 35·03 lakh kgms. and 35·91 lakh kgms. respectively. The industry provided employment to 1,164 full-time workers and 1,07,429 part-time workers in 1963-64.

To ensure efficient working of the production units the Commission trained chemists and supervisors. In 1963-64 training was imparted to 112 artisans as against 119 in the previous year.

## PALM-GUR

In India, there are four varieties of sugar-yielding Palms—Date, Palmyra, Coconut and Sago. While the total number of tappable palms in the country, mostly Date and Palmyra, is estimated at over five crores, only about 60 lakh palms are being tapped for the manufacture of palm-gur.

The significance of the Palm-Gur Industry in India lies in the manufacture of gur and sugar from the sweet juice of palms, popularly known as *neera*, in providing seasonal employment on a large scale, and in its effects on subsidiary occupation as in the manufacture of products from palm leaf.

The Commission has established a Central Research-cum-Training Centre at Dahanu (Maharashtra). Research in the preservation of *neera*, better processing methods and improved implements is being carried on. A monthly journal "Tad-Gur Samachar" gives information about the industry and the results of research experiments.

For the development of the industry the Commission provided Rs. 126·40 lakhs during the year 1963-64, as against Rs. 90·94 lakhs during 1962-63. The expenditure of Rs. 126·40 lakhs in 1963-64 included loans of Rs. 93·02 lakhs given by the Commission for the formation of the cooperative societies. The total expenditure for the period ending with 1963-64, therefore, works out to Rs. 433·76 lakhs of which Rs. 208·76 lakhs formed grants and Rs. 225 lakhs loans. This includes Rs. 14·10 lakhs expended during the First Plan period.

The emphasis being on the organisation of cooperatives, their number has been showing steady progress from year to year. As against 3,307 cooperatives at the end of 1962-63 there were 3,326 in 1963-64, with a total membership of 3·59 lakhs. The cooperative societies of 11 States have formed their State level federations also.

During the year 1963-64, the Bharatiya Tad Gud Shilpa Bhavan trained 133 persons while in the States 1,224 persons received training. As against a production of 6·04 lakh quintals during 1962-63, the production in 1963-64 was 8·43 lakh quintals.

## GUR AND KHANDSARI

With a view to improving the quality of Gur, production of Khandsari and the efficiency of the farmers, the Commission has schemes to introduce improved equipment like crushers, centrifugals, pans, furnaces etc. The Commission also undertakes to train honorary workers and farmers in better methods of production with the help of improved equipment. The programme aims also at the organisation of co-operative societies to take up production and marketing of Gur and Khandsari and stocking and supplying of improved implements.

During 1963-64 the Commission financed the programme to the tune of Rs. 48·84 lakhs as against Rs. 41·47 lakhs in the previous year, bringing the total expenditure upto 1963-64 to Rs. 285·33 lakhs of which Rs. 121·49 lakhs were grants and Rs. 163·84 lakhs loans. Almost the whole of the expenditure on the industry was incurred during the eight-year period 1956-64 as during the First Plan period the expenditure was negligible *i.e.* Rs. 90,000 only as against Rs. 284·43 lakhs during the eight-year period.

At the end of 1963-64, there were 861 institutions implementing the schemes as against 745 only, the previous year. The Commission had distributed 19,901 cane crushers of which 504 were power-driven, the remaining being bullock driven, 810 centrifugals, 10,979 pans and had also introduced 14,502 other types of equipment during the period ending 1963-64. To train the farmers to undertake manufacture of Gur and Khandsari on improved lines, 564 honorary workers were trained during the year, thus bringing the total of such persons trained to 4,106.

The production of Gur during the year was 11·82 lakh quintals and the industry provided employment to 15,946 full-timers and 19,549 part-timers.

## VILLAGE LEATHER INDUSTRY

The processing of hides and skins and the manufacture of leather goods are traditional village industries.

The cottage sector of the leather industry is responsible for the bulk of its production in the country and employed as many as 6·5 lakh persons.

The object of the development programme of the Commission for the industry is the planned recovery and full utilisation of the various by-products of carcasses of dead animals so as to minimise waste and provide large-scale employment. There is a vast livestock population consisting of over 21·2 crores big animals and 9·52 crores sheep and goats.

The programme consists of the establishment of flaying centres, village model tanneries, glue manufacturing centres, and bone crushing units. Besides, small and big marketing depots are also aided to enable the leather workers market their products as well as to supply them with raw materials including hides and skins. With a view to training the artisans in improved methods of production, the Commission assists financially the organisation of production-cum-training centres for both tanners as well as flayers.

To assist the Commission there is an Advisory Committee consisting of representatives of the industry and trade.

During 1963-64, Rs. 50·49 lakhs were disbursed for the development of the industry thus bringing the total disbursement during the eight-year period (1956-64) to Rs. 363·75 lakhs of which Rs. 162·15 lakhs were grants and Rs. 201·60 lakhs loans. In addition to this, Rs. 31·79 lakh were disbursed during the First Plan period.

Upto the end of 1963-64 848 flaying centres, 828 village model tanneries, 392 bone-crushing units and 249 marketing depots were allotted. The Commission has also financed 16 training cum-production centres for imparting practical and theoretical training of which 12 are for tanning and 4 for flaying and carcass recovery. The village chamars have no proper tanning facilities. The Commission, therefore, finances the construction of new and repairs of old pits. Financial assistance for the construction of 1,820 new pits and repairing of 881 old pits was given during 1963-64 as against 1,575 new pits and 861 old pits during 1962-63.

During the year 69 and 109 personnel were trained in the art of tanning and flaying respectively. So far, the Commission has trained 809 personnel in the improved methods of tanning and 1,447 in flaying. The implementation of the development programme has resulted in considerable activity in production. As against the production of goods valued at Rs. 91·17 lakhs in 1961-62 and Rs. 144·16 lakhs in 1962-63, the production in 1963-64 was valued at Rs. 226·51 lakhs. During 1963-64 9,348 full-timers and 6,425 part-timers were employed in this industry.

## COTTAGE MATCH INDUSTRY

The match industry in India is classified into A, B, C and D classes according to the size and production capacity of the manufacturing units.

The programme of the Commission consists in the promotion of the 'D' class, licensed to produce a maximum of 25 gross boxes per day and capable of employing about 40 persons each.

The development programme aims at the utilisation of the bamboo resources of the country for the manufacture of matches and the elimination of the use of matchwood and timber which are becoming scarcer and also denude the country of its forest wealth to the detriment of the nation.

The programme also provides for training research and marketing schemes.

During the year 1963-64, the Commission wanted to concentrate mainly on consolidation work. It expended Rs. 4·67 lakhs during 1963-64 bringing the total expenditure for the development of this industry to Rs. 72·99 lakhs of which Rs. 19.82 lakhs were expended during the First Plan period.

As a result of the Commission's intensified effort to reorganise the scheme on modern lines, the production of cottage match boxes rose

from 67,880 gross boxes in 1962-63 to 87,733 gross boxes in 1963-64. During the year six persons were trained bringing the total to 1,038 over the period ending with 1963-64.

### VILLAGE POTTERY INDUSTRY

The Development programme for the industry is made up of schemes for the promotion of production of pottery goods of various types, marketing, research, central and regional training, organisation and promotion of co-operative societies, supply of improved equipment and improved furnaces.

The key note of the Commission's programme for the industry during the year was consolidation of the work started already. The disbursements for the year 1963-64 were Rs. 33·91 lakhs, thus bringing the total expenditure to Rs. 206·83 lakhs of which Rs. 72·72 lakhs formed grants and Rs. 33·34 lakhs loans. At the end of 1963-64 the Commission had financed 475 units.

The production activity for the pottery industry in 1963-64 registered a considerable rise, the value of goods produced being Rs. 98·27 lakhs as against Rs. 79·82 lakhs in 1962-63. Under the training programme the Central Institute at Khanpur trained 191 personnel during 1963-64, thus bringing the total number trained so far to 1,615.

### FIBRE INDUSTRY

With a view to utilizing various kinds of fibres like sisal, hemp, san-hemp, etc., which grow in abundance in villages, but remain mostly unprocessed, the Commission implements a development programme under which improved Charkhas are distributed, artisans are trained and model production centres are organised.

In 1963-64, Rs. 26·04 lakhs were disbursed thus bringing the total assistance under this scheme to Rs. 90·23 lakhs. At the end of 1963-64, 38 institutions throughout the country were operating 650 centres of various types out of which 109 were model centres, 475 training-cum-production, 143 hessian fibre spinning centres and 26 pilot centres. During 1963-64, 264 instructors and 7,972 artisans were trained.

### CARPENTRY AND BLACKSMITHY

The Commission has also been implementing development programme for the village carpentry and blacksmithy industry since 1957-58 and has disbursed so far Rs. 51·44 lakhs most of which was for the organization of training-cum-production centres.

### MANUFACTURE AND USE OF MANURE AND METHANE GAS FROM COW-DUNG AND OTHER WASTE PRODUCTS

This industry has been recently added to the list of industries which fall under the purview of the Commission. The programme of the industry is still in the formative stage and various problems and aspects of the industry are being studied with a view to evolving a co-ordinated plan. So far 43 gas plants have been working.

The Commission has established a special branch to advise the public in the matter of cow-dung gas-plants. The Commission has assisted 305 persons with blue prints and technical guidance for construction of gas plants. During the year 1963-64 the Commission disbursed 3 lakhs for building plants as against Rs. 2·14 lakhs in 1962-63.

### LIME MANUFACTURING INDUSTRY

This is another of the recent additions to the list of village industries falling under the purview of the Commission.

As against a disbursement of Rs. 2·61 lakhs in 1962-63, the Commission disbursed Rs. 6·36 lakhs in 1963-64 out of which Rs. 3·53 lakhs were grants and Rs. 5·44 lakhs were loans. The grant covered expenditure on training, production units and experiments, while the loans were towards share capital, working capital and for production units. The production of lime during the year amounted to Rs. 5·48 lakhs and the industry provided employment to 1,134 persons.

### INTEGRATED DEVELOPMENT PROGRAMME

The integrated development programme is the outcome of the naya morh or the oriented approach adopted by the Commission. It is implemented through organising the people in a block to survey the area, prepare an integrated plan for the development of the block for attaining regional self-sufficiency, primarily in khadi and village industries goods and incidentally also in other consumer goods.

By April 1964 within a period of three years since the introduction of this programme, the total number of ekais stood at 1,403. The number of village panchayats covered was 3,362 while the number of ekais in gramdan areas was 103 and in tribal areas 182. The number of districts covered by this programme was 179 and blocks covered 524 while the number of villages encompassed stood at 7,026 having a total population of 67·68 lakhs.

As against Rs. 10·79 lakhs disbursed in 1962-63, the disbursement in 1963-64 was Rs. 21·28 lakhs.

### PROGRAMME FOR HILL AND BORDER AREAS

The problem of developing the economy of the hill and border areas attained a degree of urgency following the Chinese aggression on the country. The main difficulties in the way of development of large-scale industries in these areas are their remoteness from the developed regions, their relative inaccessibility and the low educational and cultural level of the inhabitants. The introduction of khadi and village industries, on the other hand will immediately provide the people with gainful employment. Efforts are, therefore, being made by the Commission to introduce its programmes in these regions.

### PROGRAMME FOR WEAKER SECTIONS

Although the Commission's programmes would cover the weaker sections of the village community, it was found from experience that the people in the villages could not take full advantage of them because of their extreme poverty and social and economic backwardness. The Commission has, therefore, formulated a special programme for the welfare of the weaker sections of the community.

### WEAVING SUBSIDY SCHEME

The Khadi and Village Industries Commission introduced weaving subsidy scheme from 6th April 1964 under which the existing rebate on the sale price of khadi has been replaced by a system of providing facilities for free weaving of all handspun yarn.

The new scheme benefits the spinners who get khadi at the cost of cotton while the urban consumers continue to get khadi at the existing rate; the only difference is that the amount available as rebate on the present sale price will under the new scheme be deducted from the price at an earlier stage in the form of weaving subsidy.

### KHADI AND VILLAGE INDUSTRIES IN FOURTH PLAN

The work done so far for the development of khadi and village industries will be turned to good account in the Fourth Five Year Plan by launching a massive programme of development in order that a large number of persons who are presently unemployed and underemployed get absorbed. Part-time and full-time employment to over 51 lakh persons will as a result be created at the end of the Fourth Plan. Besides, the programme has the main object of ensuring an increase, through higher productivity, in the per capita income in the industries covered. Even in spinning on the traditional charkhas this is expected to be at least Rs. 100 per year, and in the case of the ambar charkha it would be Rs. 350, in some industries it may be as high as Rs. 1,000 and above.

#### Technical Improvement

The programmes for the development of various industries are based on certain assumptions of technical improvements effected in the tools and equipment. New equipment, tools and process have been developed and many others are in the process of experimentation. It is proposed to take advantage of all the available modern scientific knowledge and experience in improving progressively the productivity and income of artisans. A new and improved model of the ambar charkha is being devised which would enhance productivity and raise the level of income.

At the end of the Plan period, the total production of khadi is expected to be about 250 million yards valued at Rs. 50 crores. The total value of production under the various village industries is expected to rise to Rs. 240·78 crores.

The total employment generated by the end of the Fourth Plan is expected to amount to a little less than 52 lakh persons (part-time and full-time) as against about 24–25 lakhs expected to be employed by 1965-66. A substantial rise in the level of wages will also be achieved.

# HANDICRAFTS

(Also see articles on Cottage Industries and Small-Scale Industries).

About 12 lakh workers turn out over 150 crores of rupees worth handicrafts per year. Out of these goods worth about Rs. 30 crores are exported while the rest are absorbed in the home market.

The All-India Handicrafts Board* is the authority entrusted with the development of the handicrafts in India.

It was first constituted in November 1952. It was reconstituted in December 1954, in August 1957, in August 1960, in 1962 and again in 1965.

It studies the problems confronting the handicrafts industry and advises the government on the solution of these problems. The Board is also required to advise the government on grants and loans to be given to the state governments, private organisations and institutions for financing activities necessary for the development and improvement of handicrafts. It plans and formulates schemes for the development of handicrafts. The state governments are mainly responsible for the implementation of plans and schemes whereas the Board undertakes such developmental measures as are of national importance and of value to the over-all programme for development of handicrafts and common benefit to the States, *e.g.*, organisation of and participation in exhibitions and fairs of national importance, mobile exhibition covering several States, nation-wide publicity campaign, technological research and improvement, quality control, economic research and studies, design development on regional basis and specialised training. It also promotes the development of cooperatives and arranges credit. There is a Standing Committee of the Board for the expeditious examination of the schemes and programmes for development of handicrafts. It has set up 11 craft committees and specialised committees for marketing, cooperatives, quality control, design development, museum, exhibitions and a panel for economic research.

Most of the State Governments have undertaken schemes for quality marking of their handicrafts and also for conducting surveys of handicrafts in order to formulate specific programmes of development.

The estimated expenditure on the development of handicrafts during the Second Plan period was Rs. 4·8 crores. The Third Plan provides Rs. 6·1 crores on the schemes of States and Union Territories and Rs. 2·5 crores on the programmes of the Centre, bringing the total outlay on development of handicrafts to Rs. 8·6 crores.

Schemes to be undertaken during the next five years include market research, promotion of inter-state marketing, laying down standards and specifications, extension of training facilities in the management of emporia, salesmanship and display of improved techniques with particular emphasis on reducing cost of production.

Besides co-ordinated schemes for the expansion of exports in handicrafts, the Third Five Year Plan envisages orientation in production to meet the needs of customers in different income groups within the country and the promotion and development of rural crafts.

An Indian Handicrafts Development Corporation has been set up. This body organizes the production of handicrafts on a commercial basis specially to cater for orders from foreign markets. Surveys of foreign markets will be conducted and sales depots and selling agencies established.

The exports of handicrafts during the years 1961-62, 1962-63 and 1963-64 have been Rs. 19·35, Rs. 21·53 and Rs. 30·81 crores respectively against the target of Rs. 15·00, Rs. 16·00 and Rs. 25·50 crores. The Handicrafts Board has been running the Export Promotion Scheme for handicrafts which permits import by the exporters of certain specified raw-materials, machinery and tools against exports of different items of handicrafts.

In order to strengthen and coordinate the measures taken for promotion of handicrafts, the Board has set up Regional Exporters Associations at Delhi, Bombay, Madras and Calcutta and craft Associations for Zari and Carpets. The targets of exports for the years 1964-65 and 1965-66 have been fixed at Rs. 30·25 crores and Rs. 35·00 crores respectively.

The Corporation has set up four regional centres in India and two abroad. These centres are equipped with a complete range of representative samples of Indian handicrafts and provide a ready guide for intending buyers.

A sample room has already been set up at the head office of the Corporation at Delhi.

A list of the major handicrafts is given below:—

*Textiles :* Hand-printing and traditional dyeing of textiles, broacades, himroo, carpets and druggets, rugs, gabbas and namdas, embroidery (cotton silk, wool and zari) lace and lace work including nakki and gota making, shawls.

*Metalware :* Silver and gold ware, bidri filigree, brass and copper ware, bronze work.

*Ceramics :* Pottery and earthenware.

*Ivory :* Ivory carving.

*Papier-mache :* Papier-mache articles.

*Woodwork :* Wood-carving and inlay, lacquer work including nirmal work, decorative furniture.

*Stone-work :* Stone-carving including marble work and alabaster.

*Toys :* Dolls and toys other than mechanical toys.

*Leather :* Leather goods (artistic work).

*Horn :* Artistic articles.

*Bone :* Artistic articles.

*Cane :* Bamboo, etc. Articles made of cane, bamboo, willow, straw and grass including mats and pith crafts.

*Incense and perfumery :* Incense and perfumery of various types.

*Flax and Fibre :* Handicraft articles made of flax and fibre.

*Bangles & Beads:* Bangles and beads.

*Musical Instruments :* Musical instruments. The Sangita Vidyalaya in Madras gives training in music and the making of musical instruments.

*Conch-shell and semiprecious stones :* Articles made of conch-shell and semi-precious stones.

*Miscellaneous :* Miscellaneous traditional art objects such as Orissa, Mysore and Tanjore paintings, and handicraft products specially made for ceremonies, articles of worship and theatrical requisites such as costumes, masks, puppets, etc.

Steps taken to develop handicrafts include the establishment of design centres to revive traditional designs and create new ones and training centres to better techniques. Some of these are also production centres.

Mobile exhibitions are taken round the country and handicrafts weeks are held. There has been established handicrafts museum in New Delhi.

In the year 1963-64 the Govt. of India approved schemes to set up 58 centres for training in handicrafts. Grants totalling Rs. 7·52 lakhs were sanctioned for implementing 41 of these schemes.

Some of these centres are training-cum-production centres. A monthly stipend of Rs. 25 to Rs. 30 is provided. On completion of the training the trainees are encouraged to form cooperative societies with financial assistance from Government.

### Design Centres

The Board has four regional Design Development Centres at Delhi, Calcutta, Bangalore and Bombay to look after designing and development of the crafts in their region, survey requirements, provide training and maintain close collaboration with the State centres, marketing organisations, exporters etc. State design centres were established and are situated in Kashmir, U.P., Bihar, W. Bengal, Himachal Pradesh, Bhopal, Madras, Hyderabad, Orissa, Manipur, Tripura, Rajasthan, Punjab and Kerala.

976 designs were evolved in 1962-63 and 227 parties were assisted.

### Development of Co-operatives

The Board encourages formation of handicraft co-operatives and provides financial, technical and marketing facilities to them. Under financial assistance, the Board provides 75 per cent of the share capital and also 75 per cent of the working capital as loans at 2½ per cent interest payable in two years and ten years respectively. Besides, subsidy for supervisory staff for co-operatives is provided for four years on a sliding scale of 100, 75, 50 and 25 per cent basis.

The number of handicraft co-operatives increased from 1,000 in 1957-58 to nearly 2,000 in 1961-62. In addition 115 handicrafts emporia have also been set up to expand marketing activities.

In order to review and advise the Board on their programme for the development of handicraft co-operatives, the Board set up a Central Handicrafts Advisory Committee. State-level Co-operative Advisory Committees have also been set up in the States.

The Board has also started a training programme for the co-operative organisers for which trainees from Government Departments and co-operative organisations are selected for training. Up to April 1964, six such courses had been held and 119 persons trained.

Survey of associations of artisans, dealers and exporters has been completed by the Indian Co-operative Union on behalf of the Board. The recommendations on the survey have been circulated among the States for necessary action.

### Credit Facilities

One of the main functions of the Board is to see that adequate credit facilities are made available to the handicrafts industries and trade at different stages of its production, storage, distribution and sales.

Apart from the financing of emporia, handicrafts co-operatives and State schemes in different States by the Board, the Reserve Bank of India has agreed to cover handicraft industries under their guarantee scheme of small-scale industries against loans granted by commercial banks.

The State Bank of India also finances handicrafts under their Liberalised Loan Scheme. Loans are also given to handicrafts in different States from Block Loans Funds.

The new scheme for financing artisans, their co-operatives etc. through selected emporia against orders had been introduced through one emporia as an experimental measure during 1963-64 and thus credit has been linked with marketing.

A new scheme called Central Financing Agencies Scheme has been introduced in some States such as Maharashtra, Gujarat, Delhi, Madhya Pradesh, etc. Under this scheme co-operative banks sanction loans to handicrafts co-operatives at a concessional rate of 2½ per cent interest. The difference between their normal rate of interest and this concessional rate is being subsidised by the Central Government.

* Headquarters in New Delhi.

Apart from the foreign exchange banks and commercial banks, the Handicrafts and Handlooms Exports Corporation, a Government of India concern, sanctions loans to exporters against firms' orders.

**States Schemes—1962-63**

The Government of India has made a provision of Rs. 52·10 lakhs for central assistance to State Govts. for development of Handicrafts during 1962-63. Abstract showing important crafts covered through various categories is shown below (Statewise):—

*Andhra Pradesh :* Formation of co-operative societies for Kamdani & Zardozi work, Brassware & Bell metal work, studded Bangle making and Horn work were the important schemes proposed for implementation in 1961-62. Considerable amounts have been also disbursed for co-operative societies already set up for Himroo fabrics, Hyderabad; Bidri work, Hyderabad; Ivory & Horn, Secunderabad; Nirmal Toys & Arts, Nirmal; Asia Rumals; Musical Instruments, Jaggayyapet; Block printing & dyeing, Warangal; Salivahan decorative pottery, Hyderabad; and Veena making, Bobbili.

*Assam :* Cane & Bamboo production centres at Goalpara and Karimganj and decorative textile production centre at Garo Hills.

*Bihar :* Information is not available.

*Gujarat :* Quality marking of handicrafts products; State and Block rural craft museums; Training in screw-pine mat weaving at Deesa in Banaskantha District; Organisation of Handicrafts Co-operatives in different parts of the State; Establishment of Production-cum-common facility centre at Sankheda, papier-mache Articles at Rupayatam, Junagarh.

*Jammu & Kashmir :* Information is not available.

*Kerala :* Training & Production centres for coconut shell, papier-mache, screwpine and conch shell industries; Quality Control scheme; Development of Aranmula Metal Mirror, Kathakkali costumes and Kuftagari work.

*Maharashtra :* Information is not available.

*Madhya Pradesh :* Expansion of Delhi Museum; Establishment of common facility centre for papier-mache at Ujjain; Expansion of Rewa & Satna Emporia, and survey of Handicrafts.

*Madras :* Expansion of Mahabalipuram sculpture training centre; Upgrading of the School of Arts & Crafts; Training and production centre for clay toys at Kosarapet; Organisation of and assistance to co-operative societies for mat weavers, Shell Toy makers and cane workers.

*Mysore :* Rural crafts museums; quality marking schemes; Type study of Handicrafts; Export of Handicrafts and starting of common facility centres.

*Orissa :* Quality control of Handicrafts; Establishment of Handicrafts Emporium at Delhi and organisation of crafts co-operatives among the ex-trainees of the crafts schools.

*Punjab :* Training centres for (1) Carpet at Kandaghat and Amritsar; Drugget weaving at Panipat; (*ii*) Manufacturing artistic articles of copper, brass, brasswares & metal inlay work, Jagadhari and Phagwara; (*iii*) Lacquer work at Jullundur and Hoshiarpur; (*iv*) Horn making articles at Rohtak and Jullundur; Reorganisation of Cottage Industries Museum and Emporium, New Delhi; Central design and research centre at Chandigarh.

*Rajasthan :* Quality marking of (*i*) Prints at Jodhpur, Jaipur and Udaipur; (*ii*) Ivory articles at Jaipur and Jodhpur and (*iii*) Brassware at Jaipur. Design extension centres for (*i*) Cloth printing at Jodhpur, Barmer and Chittor, (*ii*) Druggets & Carpets at Jaipur; (*iii*) Lacquerware at Jaipur and Udaipur; (*iv*) Wooden Namdas at Tonk and (*v*) 20 development blocks.

*U.P. :* Organisation of 10 handicrafts co-operative societies; Ivory Inlay in wood and Tarakashi at Bareilly; Expansion of Central design centre at Lucknow; Manufacturing of papri wood articles at Tehri (Garhwal); Quality marking for (*i*) Zari Embroidery, Bareilly; (*ii*) Wood carving, Saharanpur; (*iii*) Marbleware of Agra and (*iv*) hand-print, Lucknow. Establishment of Credit Fund centres for Lacquerware, Amroha; wooden toys, Varanasi; Horn articles, Sambhal and Chikan Embroidery, Lucknow.

*W. Bengal :* Development of (*i*) Screen printing; (*ii*) Fancy leather goods; (*iii*) Toy making and artistic pottery; (*iv*) Non-ferrous metal industries (Training, production and servicing in Brass & Bell metal wares). Establishment of small crafts museums; supply of models and designs and technical assistance; and organisation and development of handicrafts co-operatives.

*Awards :* To bestow honour and encourage craftsmen, the Board has instituted National awards for Mastercraftsmen. In Jan. 1965, 14 persons received these awards from the President of India. These awards will carry a cash prize of Rs. 1,000 each, an inscribed brass plaque and a specially designed angavastram. These awards would be given every year during the "Republic Week" celebrations.

# FILM INDUSTRY*

The passing away of Prime Minister Nehru put to severe test the capacity of Films Division, in all its branches. The bunch of Nehru documentaries has been seen by a record number of audiences, all impressed and satisfied with what they saw, an experience rare to Films Division.

Other features of the year were greater use of State-made films for their respective regions and for an all-India showing, wider popularity of the documentaries at international film festivals and the holding of an International Film Festival in New Delhi.

**International Film Festival 1965 :** The Third International Film Festival of India was organised in New Delhi from 8th to 21st Jan. 1965, by the Ministry of Information & Broadcasting in co-operation with the Film Federation of India. Film Weeks were observed at suitable dates at Bombay, Calcutta and Madras to take advantage of the presence in India of leading cine-personalities and films of the world.

Although it was the first to be held in Asia, the Film Festival had been recognised by the International Film Producers' Association of Paris. The set of rules therefore were almost identical with those observed at the Cannes Festival. Special consideration was shown to the international character of the festival as could be seen from the following decisions: (*i*) Irrespective of films imported under bilateral agreements, an annual import of 30 feature films will be allowed under free quota system; (*ii*) Films that won awards at international major festivals, will be allowed to be imported.

In the festival in New Delhi, 30 nations besides the host (India) and the U.N., participated. Forty-four films (19 features and 25 short films) had entered the lists. In addition, 30 feature films and 12 short films of foreign origin were shown in the non-competitive section. Of the Indian productions, 13 feature films and 17 short films were exhibited. Films that were either for competition or for non-competitive exhibition, were exempt from the normal censorship regulations, although a high-powered previewing committee had seen them for suitability.

A special motive of a dancing peacock, our National Bird, was adopted on the design of the Awards of the Festival. Golden awards for the best feature and short films were given. There were prizes for best male and female actors. Special merit awards, two each for the feature and short films were also constituted.

A symposium every day was arranged for five days on—(*a*) Film as reflection of national life and culture; (*b*) Use of short film for education and publicity; (*c*) Indian films abroad and foreign films in India; (*d*) Acting for films and the star system; and (*e*) Children's films.

Twenty-seven delegates (11 from abroad and 16 from the host country) participated in the symposia. All the invitees were treated as State guests: 36 delegates (from 19 nations) and 32 dignitaries from the cine-world.

Selected films from the specially imported lot were shown at public theatres in the four principal capital cities and the collections (at normal rates) are expected to be Rs. 4 lakhs, although the total provision in the budget for the festival was Rs. 8 lakhs.

*Hindusthan Photo Films Manufacturing Co., Ltd., Ootacamund.* For the manufacture of cine, photographic and X-Ray films the Govt. of India established in Nov. 1960 this company in the public sector. (For more details, see under article "Government Industrial Undertakings").

Exclusive shows of documentaries and newsreels have now become a regular feature in some of the large cities where special theatres for the purpose are available. A nominal entrance fee (from 25 to 50 nP. per head) is charged and Bombay, Calcutta and Delhi, have been arranging these shows throughout the year now. Similar arrangements are likely to be extended to other towns and cities.

Here are some of the institutions in the film industry:

Indian Motion Picture Producers' Association, Indian Motion Picture Distributors' Association, Indian Documentary Producers' Association, Film Federation of India, all with headquarters in Bombay.

In the film industry, associations of workers have been formed:—

Film Journalists' Association, Cine-Costume and Make-up Artists' Association, Cine Musicians' Association, Character Artistes' Association, Western India Cinematographers' (Cameramen) Association, Cine Labs.' Association.

The Indian Motion Picture Producers' Association, Film Producers' Guild, Cine-Lab Association and others have formed a supreme Council of Film Producers. Steps are being taken to organise the industry and its various arms.

UNESCO has sponsored a study of Indian film heroes and the Institute of Social Sciences, Agra, has undertaken in co-operation with a group of International scientists, the study for which $20,000 have been sanctioned in the first instance.

Universities Film Council (with Mr. R. R. Diwakar as Chairman) has been established with the idea of making university students take intelligent interest in the films. It is proposed to have a society for each University which would arrange to show at least 16 films every year of outstanding and classical importance through the university societies.

* See also article "Awards & Prizes"

*The Film Institute*, has been set up at Poona for providing training in the technical aspects of film-making such as cinematography, sound engineering, editing, direction, art direction, make-up and costumes. The institute is located in the former Prabhat studios.

With 125 students under training under various courses, 62 have already won diplomas and they now occupy responsible posts in the industry.

The Institute has extensive grounds for outdoor shooting; a processing laboratory for its work and a well equipped studio. When not required for the use of the Institute, these facilities are made available to producers at nominal rent and this helps maintaining a close contact with the film industry. Under the Colombo Plan, two Nepali students were given facility for training in the Institute. More Afro-Asian countries are likely to take advantage of mastering the technique of using this important medium for mass communication.

The Institute has started construction of a boys' hostel and an adjoining building has been acquired for use as Girls' Hostel. There are three girls at present undergoing training.

(*See also under Poona District*).

The Department of Technical Education, Madras, has started a film institute in Madras for training technicians.

*Film Library :* Film classics are being collected together in what is to be the Film Library of India. At present 62 films have been so far secured, 10 each from U.K. and U.S.A., seven each from U.S.S.R. and France, 25 Indian and others. More films from other countries are being negotiated.

*National Film Archives :* Set up in February 1964, the National Film Archives are at present housed in the Film Institute, Poona, with 97 films acquired so far. Notable among the acquisitions is *Raja Harischandra*, the first Indian feature film by D. G. Phalke. Award winning films will be preserved in the Archives. An advisory body of 4 officials and 5 non-officials has been formed to guide the Government in the management of the Archives.

*Film Finance Corporation :* Established in the last week of March 1960, with the object of providing finance for the production of good quality films in the country. (*For more details see under article " All India Corporations "*).

*Children's Film Society :* This was started in 1955. Its object is to undertake, aid, sponsor films of special interest to children. It has its headquarters in Delhi and has branches in some States.

The Society produced 19 feature, 21 short and 184 language version films since its inception in 1955 up to March 31, 1965.

Production of the first colour puppet film in India entitled 'As you like it' is nearing completion (July 1965).

The rules of the Society were revised with effect from 30th May 1963. The revised rules provide for the constitution of a General Body, an Executive Council, a Production Committee and a Finance Committee.

The films for children are made in 35 mm also; nearly 2,100 shows claiming an audience of 836,000 were arranged during the year 1964. Those with 16 mm numbered 137 with an audience of 75,000. Some of the children's films produced recently were used for telecasting in Delhi and Nairobi while others were appreciated at the International Film Festival in Teheran.

Although a provision of Rs. 12 lakhs was made in the budget for 1964-65, the Society could not use the entire amount. It had received Rs. two lakhs as donations from other sources than Government. The revised estimate was therefore scaled down to Rs. 8·70 lakhs.

## FILMS DIVISION

With headquarters in Bombay, this branch of he Ministry of I & B, is the biggest producer of documentaries and news reels in South Asia. In addition to its own production, it buys some select films from State Governments and private producers so that a variety in its documentaries is maintained. Some of the State Governments have a film production unit of their own for news reels and documentaries to be shown within their own limits.

Films Division was responsible for producing 85 documentaries (165 reels) (including 16 documentaries—38 reels—obtained from outside producers) during 1964. Of these, some were for record purposes only while a few were for non-commercial release. When the President, Vice-President or the Prime Minister visits other countries or when dignitaries from outside visit India, films of their visits are made for record and presentation. Travelling vans show certain films to the rural population, not generally served by commercial cinema houses and there are some films for training purposes. State Governments too make some documentaries for their special audiences. If found suitable for an all-India coverage or even for limited exhibition in the region concerned, the Films Division obtains these for release.

Prime Minister Nehru's achievements, his "Last Journey" and functions connected with it, gave the Films Division an opportunity to compile more documentaries than one, for exhibiting the past glories of a dedicated life. These documentaries gave proof of the powerful hold of the film medium on people's mind.

Slowly, the Films Division is paying more and more attention to technical topics; naval aviation, Indian Ocean expedition, manufacture of optical glass, defence research and hockey are some of the out of the way subjects about which documentaries were produced during the year.

Every cinema is required under the terms of its licence to exhibit at each show not more than 2,000 feet of film approved by the authorities specified in the licence One newsreel or alternatively one documentary is released every week to all the cinema houses.

To non-profit making and charitable institutions such as schools, hospitals films are supplied free.

Films that are suitable for foreign exhibition are supplied to Indian missions abroad. A monthly overseas edition of newsreels is also sent out to certain places. They are also marketed abroad on a commercial basis. Besides, there are arrangements for televising them with certain foreign countries—England, Canada and Japan. The films also help to promote tourism as they are regularly exhibited through the Tourist Division of the Ministry of Transport.

*News Reels & Documentaries :* In the production of documentaries and news-reels, the Films Division naturally holds a leading position mainly because of the compulsory exhibition of these films all over the country.

Among the topics chosen for documentaries, Defence naturally dominates with 22 documentaries, 8 of them purchased from the Government of Maharashtra. Family Planning was a subject on which Films Division tried to focus the attention of the public. Fourteen documentaries provide an indication of the accent on production in various factories.

**Production by Films Division 1955-65**

| Year | Documentaries | | News Reels | Compilation News Reels | Total |
|---|---|---|---|---|---|
| | B & W | Color | | | |
| 1955–56 .. .. .. | 58 | 11 | 53 | 17 | 139 |
| 1956–57 .. .. .. | 56 | 8 | 52 | 16 | 132 |
| 1957–58 .. .. .. | 58 | 10 | 53 | 15 | 136 |
| 1958–59 .. .. .. | 83 | 14 | 52 | 16 | 165 |
| 1959–60 .. .. .. | 72 | 27 | 52 | 14 | 165 |
| 1960–61 .. .. .. | 77 | 23 | 53 | 12 | 165 |
| 1961–62 .. .. .. | 80 | 16 | 52 | 12 | 160 |
| 1962–63 .. .. .. | 101 | 11 | 52 | 12 | 176 |
| 1963–64 .. .. .. | 95 | 7 | 52 | 12 | 166 |
| 1964–65 .. .. .. | 84 | 12 | 62 | 8 | 166 |
| Total .. .. | 764 | 139 | 533 | 134 | 1,570 |

*Films for Record :* The Films Division also makes certain documentaries for record only when dignitaries visit this country or when our President goes abroad. During 1963, 14 films (24 reels) were made for record. Dr. Radhakrishnan's visit to U.S.S.R., Ireland, Madurai and Rameswaram have been preserved in movie form. Foreign dignitaries on a visit to this country have been filmed in 14 reels, including the Royal trips of kings of Jordan and Laos, and of Presidents of Iraq and Sudan.

There are quite a few educational films among those that are not put on the commercial circuit. Four films of rural sanitation running into 9 reels altogether are suited for rural audiences. Nutritional progress of Orissa, cross breeding for improved yield of milk and fire fighting in villages are films that will be better appreciated in the countryside. In their production, the Films Division has shown how the motion picture can be made to serve educational purposes for the benefit of the illiterate masses.

Films produced by others and by other State units continued to be purchased by the Films Division for commercial exhibition over its own circuit. With the decentralised civil administration, each district has come into prominence and the peculiarities, artistic, industrial and agricultural and otherwise, were sought to be explained by means of a documentary film. Among the 23 films obtained from the Govt. of Maharashtra, there were some films highlighting the regional special features.

Similarly, eight films from the Government of West Bengal, eight documentaries and ten news reels from the Govt. of Gujarat, two films from Andhra Pradesh Government and one each from the Govts. of Uttar Pradesh and Madras, were obtained for release in the respective spheres.

**Mobile Publicity Units :** Seventy-nine mobile units maintained by the Field Publicity contacted about 230 lakh people during the year. Their trips provide contacts with the population of regions where no other agency reaches them.

On an average, each unit remains moving for 18 days; visits as many places and organises 25 film shows and as many meetings after or before the show. In chalking out the programme of tours, care is taken to conduct the tour on important fair and festival days of the region to contact maximum audiences. Supporting effort is given to various "camps", rallies and *shibirs* where the select audiences are available in a more receptive mood.

The Films Section of the Gandhi Memorial Fund has delegated all its work to the Films Division, for better results and more efficient distribution.

A full length documentary film on the biography of Mahatma Gandhi is under compilation as the repository of the Fund contains copies and originals of many shots relating to Gandhiji's activities, collected from all over the world.

Shorter documentaries of individual aspects of Gandhiji's activites are also planned from the material available. The Fund had secured the services of a British expert; but ultimately it was decided to get the work done through the Films Division. The Ministry of Information & Broadcasting is already committed to the publication of the complete works of Mahatma Gandhi and work on the films would also logically belong to the same Ministry.

### Films for non-commercial release

*Non-Commercial Exhibition:* Documentaries and news-reels produced by the Films Division have a great demand outside the regular cinema houses for non-commercial exhibition. Mobile vans of commercial and industrial concerns, as part of their propaganda for their products, resort to showing of films to draw audiences. They seem to be quite successful in this effort. While they popularise their respective products, documentaries and news-reels get incidental publicity. More than 8,400 prints were sold during the year 1964 and over 15,300 prints were supplied free to State Governments, educational and Plan Publicity centres.

The revenue and expenditure are as follows:

| Year | '000 Rs. | |
|---|---|---|
| | Revenue | Expenditure |
| 1958–59 .. .. | 33,72 | 75,00 |
| 1959–60 .. .. | 49,98 | 91,00 |
| 1960–61 .. .. | 50,82 | 89.06 |
| 1961-62 .. .. | 62,90 | 97,47 |
| 1962-63 .. .. | 66,10 | 106,00 |
| 1963–64 .. .. | 71,03 | 101.38 |
| 1964-65 .. .. | 77,67 | 104,22 |

### News-reels

For obtaining a country-wide coverage, Films Division has stationed 15 cameramen in all the state capitals and for international coverage it has exchange arrangements with 22 news-reel producers from abroad. A wide distribution of Indian news items is thus secured on television also. State Governments who have their own "news-reel" units for their own distribution arrangement occasionally supply material to the Union news-reels.

Like documentaries, news-reels also are being dubbed in English and 12 Indian languages as from the beginning of 1960, for obtaining more intensive penetration.

For the compulsory showing of approved films, the Films Division levies rental on cinemas at the following rate:

(i) From cinemas where the gross weekly collections are less than Rs. 500 @ Rs. 2½ per film per week;

(ii) From cinemas where the weekly gross collections excluding entertainment tax are Rs. 500 or more, 1 per cent of the collections per film per week.

Regular shows of documentaries and news-reels are arranged at the small theatre auditorium of the Films Division, Janpath, New Delhi, and Tarabai Hall, Marine Drive, Bombay, at the nominal charge of 25 P. per head per show.

Similar shows are being introduced in other cities as well as they will help make audiences documentary-minded.

Films dealing with Plan activities, are supplied to State Governments, social education units, railways, exhibition directorate, information centres and so on.

News items of current interest including significant events from foreign countries continued to be included in the newsreels. The news stories were received from 26 foreign newsreel organisations as part of the arrangement for free exchange of newsreel material.

## AWARDS

(See article 'Awards and Prizes')

The President's Gold Medal carries with it a cash award of Rs. 25,000 (Rs. 20,000 for the producer and Rs. 5,000 for the director). The 2nd best feature film gets a cash prize of Rs. 12,500 (Rs. 10,000 for the producer and Rs. 2,500 for the director). For the All-India Certificate of Merit for documentary, there is a cash prize of Rs. 2,500 (Rs. 2,000 to the producer and Rs. 500 to the director).

It has been decided to award a cash prize of Rs. 20,000 to the best feature film on the theme of unity during 1964.

The cash awards are mostly in National Plan Savings Certificates and Treasury Savings Deposit Certificates.

There are regional committees in Madras, Bombay and Calcutta which make a preliminary selection in the matter of feature films. These committees consist of persons who are qualified to judge. The final selection is made by the Government. In the matter of documentaries, educational films and children's films the selection is made solely by the Government.

The Ministry of Health instituted two cash prizes of Rs. 25,000 each to be given to the best all-India feature films on family planning (one produced in 1963 and the other in 1964) No. film was considered suitable for the cash prize.

*Film Festivals in India & U.S.S.R.* Nine Indian feature films were screened during the Indian Film Festival held in Moscow and four other cities of the U.S.S.R. Similarly, Soviet films were shown in India in Delhi and other four cities during February-March 1964.

The Filmfare awards are given on the basis of a readers' poll. (For more details see article "Awards and Prizes".)

## CENTRAL BOARD OF FILM CENSORS

The Board of Film Censors is a statutory body set up under the Cinematograph Act, 1952, for sanctioning films for public exhibition. Films certified as suitable for unrestricted public exhibition are granted 'U' certificates and those certified as suitable for public exhibition restricted to adults (persons who are over 18 years of age) are given 'A' certificates.

Under Section 5A(3) of the Cinematograph Act, 1952, the certificates issued by the Board are valid for a period of 10 years from the date of issue. Provision, however, exists for the issue of fresh certificates in respect of such films after the expiry of the 10 year period. Thirty-six films, in respect of which certificates were issued more than 10 years ago, were recertified by the Board during the period. Recertification was not certified in the case of any feature film.

The Board at present consists of a Chairman and nine non-official members who work part-time in an honorary capacity. The headquarters of the Board are at Bombay. There are regional offices in Bombay, Calcutta and Madras. The Regional Officers are assisted by Advisory Panels appointed by the Government. The Panels consist of educationists, doctors, social workers, lawyers.

Every film is scrutinized by the Examining Committee, and a certificate is given or refused, or given with cuts or modifications. There is an appeal to a Revising Committee presided over by the Chairman. There is also a final appeal from the decision of the Board to the Government of India.

### The Central Board of Film Censors, Bombay

The Central Board of Film Censors has during the past 14 years, 1951-64, certified 12,378 Indian and 27,565 foreign films.

In 1964, the Board examined 4,915 films, out of which 77 were refused certification. Films certified (U) for universal exhibition were 2,957 (foreign) and 1,926 (Indian) and those carrying (A) for Adults only were 228 foreign and 11 Indian. Those that were refused certification were all foreign, 39 features, 32 trailers and six others. Two shorts and six trailers were not given certification.

The total metres cut by censors during 1964 was 23,545.

Fresh certificates were issued for 391 films in respect of which certificates had been issued more than 10 years ago. Of these six were granted 'A' certificates.

Broadly speaking, the Censors see that there is no encouragement to vice, crime or that there is no offence against decency or morality, or that they do not promote disrespect for law and order or to a foreign country or people.

## 16 MM. FILMS

The use of the 16 mm. film for propaganda and publicity is realised by Governments, municipalities, and trade and industry.

The National Institute of Audio-Visual Education, Indraprastha Estate, New Delhi, has been doing excellent work with 16 mm films on a variety of topics. The Institute's Library is the single largest collection of 16 mm films, mainly for information and education and they are available at reasonable cost to any one in the country.

The Community Development Projects and the National Extension Service Blocks seem to be using the films as a regular part of their work. Obviously there is a considerable number of projectors in use throughout the country.

Many industrial houses maintain a regular stock of films for non-commercial use.

There are in addition 16 mm. projectors and small theatres for films suitable for non-theatrical audiences maintained by the British Information Services, the British Council and the U.S. Information Services through their regional offices.

In the Defence Forces, 16 mm. films have been extensively used for training and entertainment. There are Inspectors of Visual Education under Directors of Education in the States who do valuable service by using 16 mm. projectors and film strips.

One of the biggest single 16 mm. libraries of films in States is maintained by the Inspector of Visual Education in Bombay who makes the films available regularly to schools under him.

Most of the diplomatic missions and embassies in the Capital and Consulates in Bombay, Madras and Calcutta maintain a film section and arrange shows of special films.

The U.K. and U.S.A. representatives and the British Council maintain a special library of educational and informative films. These are available for exhibition free of charge.

Many international friendship societies too have libraries of 16 mm films. Notable among these are the Indo-Soviet Cultural Society and the Indo-Czech Cultural Society.

In fact 16 mm films on a variety of subjects are available from many countries in the world.

## EXPORT, IMPORT

The Film industry earns about Rs. 140 lakhs annually through export of films outside India. Excluding those in Pakistan, there are about 2,500 theatres available for the showing of Indian films in about 60 foreign countries where Indians live in some concentration and where Indian films are welcomed.

The main export market at present is Pakistan; but Indian exporters there are put to considerable difficulty. Ceylon, Malaysia, Burma, Indonesia, Cambodia, Thailand, Viet Nam, Aden, Persian Gulf Ports, Iran, Lebanon, British East Africa, British West Africa, Ghana, Tangiers, South Africa, British West Indies, Fiji, Mauritius, Dutch Guiana, U.K. and Hongkong are the other chief markets for Indian films.

The Indian Motion Pictures Export Corporation Ltd. was set up in Bombay on Sept. 19, 1963, to promote export of Indian Films. For more details see article "All India Corporations". The export earnings from films were: 1959: Rs. 154 lakhs; 1960: Rs. 176 lakhs; 1961: Rs. 163 lakhs; 1962: Rs. 142 lakhs; 1963: Rs. 167 lakhs.

*Exhibition abroad:* Special news reel compilations are made every month for use in 36 Indian missions abroad and copies of documentaries are in demand for regular exhibition in 81 missions. Many television authorities show considerable interest in Indian films and the documentaries/news-reels are frequently used by them through the Indian missions in their respective countries.

Shows of films on exchange basis are held in Sudan, Lebanon, Canada and Malaysia.

Ocean-going liners also want some Indian films for their regular exhibition programme.

India participates in important international film festivals from time to time by entering films and sending delegations where necessary.

Festivals of Indian films are organised in foreign countries when practicable. Selected films are also screened at exhibitions and trade fairs organised or participated in by India abroad. A souvenir on the film industry has been prepared. It is being distributed through our missions and at international film festivals.

An uptodate Catalogue of the Films Division's documentaries is available.

Arrangements are being made for the supply of articles through the trade missions for publication in foreign journals dealing with different aspects of our film industry. There is an exchange of films which is made in accordance with trade and cultural agreements concluded with foreign countries.

Import licences have been given to the film industry for putting up machinery for subtitling of films. Licence is given to the exporters for the import or release of raw film for export prints under the Export Promotion Scheme. Exporters are allowed to import raw films equal to 2 per cent of the F.O.B. value of export of feature films.

Apart from traditional importers of Indian films like Ceylon and Singapore, other countries importing films from India now include U.K., U.S.S.R., France, U.S.A. and Canada.

Imports of exposed cinematograph films have been fairly heavy. Until 1936-37 imports remained below 10·8 million feet, touched the peak at 26 million feet in 1938-39 and dropped to 6·9 million feet in 1942-43 owing to wartime conditions. In the post-war period imports recovered to 16·2 million in 1945-46 and thereafter have fluctuated between 17 million feet and 12 million feet.

Under the import control regulations, import of foreign films is subject to a monetary ceiling and distributors are authorised to remit up to 70 per cent. of the gross revenue.

## CINEMATOGRAPH ACT

The regulations of films for exhibition and of the cinemas take place under the Indian Cinematograph Act. The power of certifying films was until the amendment of the Act in 1949 vested in the State Governments. Since production was concentrated in the three States of Bombay (Bilingual), Bengal and Madras and imports also mainly took place through the three ports in those States, the first examination of films for certification was done mainly by the Boards at Bombay, Calcutta and Madras. The Act as amended in 1949 made a distinction between films considered suitable for exhibition to adults only and those suitable for general exhibition.

A Bill was passed in 1952 to amend the Act with a view to removing certain defects noticed in the course of actual administration. Under the original Act responsibility for deciding whether a film is or is not suitable for public exhibition was entrusted to the Central Board of Film Censors; but powers are vested in the Central Government to declare that any film already certified as uncertified and notice has to be given to the person who has been granted certificate to show cause why the film should not be uncertified. This delay is sought to be avoided by the amendment. Provision is also made in the amended Act making it obligatory on persons delivering a certified film to a distributor or exhibitor to transmit information and documents relating to the certificate which would enable punishment of the exhibitor if he shows the film with portions cut out by the Board before certification. The difficulties encountered in proceedings against persons for interpolation and exhibition of unauthorised scenes in certified films are sought to be countered. Enhancement of the penalty has also been suggested.

The Censorship Rules as amended provide for a deposit of a 35 mm. or 16 mm. version of the certified film or its shooting script as a condition precedent to the issue of a certificate. Such a certificate is valid for ten years from the date of issue and old films once censored have to be recensored if the previous certificate has been in effect for five years or more.

## PRODUCTION OF FEATURE FILMS

| | 1961 | 1962 | 1963 | 1964 |
|---|---|---|---|---|
| Hindi | 98 | 96 | 93 | 113† |
| Bengali | 36 | 38 | 39 | 34 |
| Tamil .. | 49 | 62 | 56 | 44 |
| Telugu .. | 55 | 48 | 46 | 41 |
| Marathi | 15 | 24 | 16 | 18 |
| Kanarese | 12 | 16 | 22 | 18 |
| Malayalam .. | 11 | 15 | 13 | 19 |
| Others .. | 27 | 21 | 20* | 17‡ |
| Total.. | 303 | 320 | 305 | 304 |

* Including three in English. † Including Urdu, Bhojpuri, Avadhi, Magadhi, Rajasthani. ‡ Includes one in English.

*Note:*—The figures of production of feature films have a minor discrepancy. Officials take every film that is certified by the Censors as "produced", during the period. The Industry however considers films that are *released* as produced. There is an inevitable lag between the certified and released films.

## CINEMAS IN INDIA

India is one of the major film producing countries in the world, ranking second after Japan. It is estimated that there are about 260 producing concerns, 1,180 distributing agencies and 5,289 cinema houses. The capital investment in production, exhibition and processing is estimated at Rs. 84 crores. About one lakh people are employed in the industry, 15,000 in studios, 50,000 in cinemas, 5,000 in processing laboratories and the rest in production, distribution and allied branches.

The number of studios and floors in the industry's three production centres are: Bombay 30 studios with 69 floors, Calcutta 11 studios with 30 floors and Madras 27 studios with 72 floors.

## IMPORT OF FILMS

| | Raw Films | | Exposed Films | |
|---|---|---|---|---|
| | Length (lakh metres). | Value (Rs. in lakhs). | Length (lakh metres). | Value (Rs. in lakhs). |
| 1958 .. .. .. .. | 653 | 164 | 34 | 32 |
| 1959 .. .. .. .. | 650 | 277 | 41 | 39 |
| 1960 .. .. .. .. | 827 | 194 | 51 | 38 |
| 1961 .. .. .. .. | 537 | 166 | 52 | 45 |
| 1962 .. .. .. .. | 722 | 177 | 56 | 44 |
| 1963 .. .. .. .. | 807 | 204 | 28 | 27 |

## IMPORT OF EQUIPMENT

(Rs. in lakhs).

| | 1959 | 1960 | 1961 | 1962 | 1963 |
|---|---|---|---|---|---|
| Cinema projecting apparatus, etc. .. | 24·32 | 32·43 | 34·52 | 33·08 | 31·03 |
| Sound recording apparatus, etc. .. | 2·17 | 1·41 | 3·76 | 2·95 | 2·09 |

# SERICULTURE AND SILK

NEXT to *handloom* and *khadi*, sericulture is the biggest village industry extending part or full employment to about 2·8 million people and generating income to the tune of Rs. 90 million in a year. Sericulture provides raw materials for India's traditional handlooms which consume over 90 per cent of raw silk output. Exports of pure silk fabrics fetched Rs. 21 million in foreign exchange in 1964. The target of pure silk exports during the Fourth Plan has been fixed at Rs.20 crores. Silk cultivation to-day upholds not only a cherished tradition, but also plays a vital role in India's economic planning.

A provision of Rs. 15 crores for the development of sericulture industry has been proposed for the Fourth Plan. The industry was allocated Rs. 7·03 crores in the Third Plan and Rs. 5 crores in the Second Plan.

The target fixed for the Fourth Plan is 31 lakh kgm. of silk of all varieties against the estimated production of 21·53 lakh kgm. at the end of the Third Plan.

Silk production is a five-tier process—mulberry cultivation, silkworm seed production, cocoon-raising, raw silk reeling and silk weaving. While the first two stages are integrated with agriculture, the latter two come under the industry sector. Sericulture which covers stages upto raw silk production is thus an important agro-industry. In 1964 silk production was 19·43 lakh kgm. against 19·00 lakh kgm. in 1963.

The three fundamental requirements so necessary for commercial cultivation of silk are suitable climate and soil, abundant growth of mulberry and availability of semi-agricultural labour. These primary conditions have always existed in Asia which produces over 90 per cent of world raw silk output. The main silk producing countries are Japan, China, southern fringe of Russia, India, Korea and Italy. Among these countries India, contributing only four per cent of world raw silk output, is the fourth largest producer. The most remarkable fact about India is that she has a rich flora and silk fauna abounding in four kinds of silk moths—mulberry, tasar, eri and muga.

India cultivates both univoltine and polyvoltine kinds of mulberry silk. The main univoltine silk producing State is Jammu and Kashmir in north producing over 5 per cent of total output; the polyvoltine zones are in south — Mysore which alone contributes above 74 per cent; and in east, West Bengal which has polyvoltine culture raising 20 per cent of total silk production. The indigenous non-mulberry — tasar, eri and muga — is spread in Assam, Bihar, Madhya Pradesh, Orissa and West Bengal. The total Indian raw silk production is about 1·943 million kgms. against the estimated domestic requirement of 2·0 million kgms.

Of the four species of mulberry grown in India — *Morus alba*, *Morus indica*, *Morus serrata* and *Morus laevigata* — *Morus indica* is the one which is widely cultivated. Among the major sericultural regions, Mysore and West Bengal raise bush mulberry and Jammu and Kashmir and Punjab cultivate it as tree. At present over 85,000 hectares are under bush and there are 34,58,000 mulberry trees. This food plant is cultivated on a variety of soils ranging from sandy-loam to alluvial soils. But the best soil is known to be the sandy-loam. CSB and the State sericulture departments are working towards evolving high-yielding economic varieties of mulberry that could solve the present problems of high cost and poor quality of mulberry production.

India has at present many indigenous races of the silkmoth Bombyx mori L., but except one, *Barapolu* of West Bengal, all others are polyvoltines which can be reared throughout the year. The Indian races are hardy and give suitable crops in the hot, humid months of summer but their commercial potentialities are extremely limited. It is noteworthy that CSIR, Mysore (CSB) has evolved a superior high yielding polyvoltine S.W. race which is under study and observation.

India has a unique heritage of non-mulberry silk culture. In the valleys and hill tops in Madhya Pradesh, Orissa, Bihar and Assam, some 1,00,000 of India's most backward families uphold their time-honoured tradition by obtaining silk from nature. The most important of the wild worms is undoubtedly tasar, or tussah, Antheraea mylitta, which spins cocoons on the trees. In recent years tasar fabrics are in good demand in America and Europe. The eriworm, *Philosamia ricini*, feeding on castor leaf is reared indoors in Assam, Bihar and West Bengal. The golden yellow muga silk is the product of a caterpillar known as *Antheraea assama* and is exclusively confined to Assam. The muga silk yarn is widely used for embroidery purposes. The total output of non-mulberry silk is about 4·77 lakh kgm. valued at over Rs. 31 million. The CSB and the State Governments are striving to develop this heritage by improving their food plants, building the seed organisation, setting up co-operatives and providing marketing facilities.

About 58 per cent of total mulberry silk production is reeled on indigenous crude appliance called *Charka*. The quality of silk produced on *Charka* is poor particularly with regard to evenness, cleanness, cohesion and winding properties. The crude appliances are being gradually replaced by the improved ones, cottage basins, which produce better quality of silk compared to the yarn reeled by *Charka*. Production of cottage basin silk in India is of the order of 27 per cent of the total production. Over 13 per cent of raw silk is reeled by the modern system of reeling filatures which utilises steam for heating water and electric power for reeling at uniform speed. There are at present 8,078 charkas, 3,817 cottage basins and 1,678 filature basins in operation. The filatures are located in the two main silk producing States of Mysore and Jammu and Kashmir.

There are at present two spun silk mills—one Government spun mill at Channapatna in Mysore State and the other—Assam Spun Silk Mills at Jagi Road near Gauhati.

Silk is cultivated in 12 out of 15 States and in three of ten Union Territories. Mulberry is raised mainly in three States of Mysore, West Bengal and Jammu and Kashmir which jointly contribute about 98 per cent of the total mulberry silk production. The rest of the States having a small mulberry production are Andhra Pradesh, Assam, Bihar, Kerala, Madhya Pradesh, Madras, Punjab and Uttar Pradesh and the Union Territories of Himachanal Pradesh and Manipur. The non-mulberry culture is confined to the eight States of Andhra Pradesh, Assam, Bihar, Madhya Pradesh, Maharashtra, Orissa, Uttar Pradesh and West Bengal and the Union Territories of Manipur and Tripura. Among the non-mulberry kinds, tasar is extensively grown in the dense forests of Bihar, Madhya Pradesh, and Orissa and, on a limited scale, in Andhra Pradesh, Tripura, West Bengal and Maharashtra. Sericulture is practised mainly in Assam claiming over 90 per cent of eri silk production and, on a minor basis, in Bihar, Orissa and West Bengal. The *muga* is exclusively reared within Assam. In some of the States sericulture has been extended in the recent years. Even among the three non-producing States, Maharashtra and Rajasthan have very recently taken to silk cultivation on experimental basis. The only exception is Gujarat which though a traditional silk weaving State has no sericultnre.

## SILK INDUSTRY IN STATES

The extent and nature of silk industry in each State is briefly as follows:

### Andhra Pradesh

Andhra Pradesh has a small production of both mulberry and eri silk but has a substantial potential for wild tasar. Mulberry silk industry is spread over the districts of Anantpur, Chittoor, Karimnagar, Visakhapatnam and Warangal and ericulture in Mahbubnagar and Kurnool and tasar in the forests flanking the river Godavri.

Introduced in recent years, mulberry silk cultivation is growing. The bulk of cocoons is, however, exported to Mysore. For development of mulberry, the State has at present 2 graft nurseries, 10 sericultural farms, 2 chawki units, one grainage and 2 reeling units. A silk throwing factory with 2,426 spindles is located at Peddapuram. Ericulture in the State has good prospects. Although about 8 lakh acres are under castor cultivation, only a limited percentage is used for silkworm rearing, the bulk being used for oilseed purposes. There are 2 eri seed farms and one propaganda station. Tasar cultivation is traditional with tribals deriving their livelihood therefrom. There are 5 tasar seed stations. The State has production of tasar silk to the tune of 400 kgms.

### Assam

Assam is the biggest non-mulberry State having an extensive ericulture, exclusive muga-culture and a little of mulberry silk production. The main silk-cultivating districts are Goalpara, Kamrup and Nowgong (in the Assam Valley) having silk fauna producing eri, muga and *pat* (mulberry). Sibsagar is the main area for mulberry production. Since there are no large-scale industries in this border State, silk cultivation plays a vital role in its economy. It is estimated that over 8·5 lakh people, mostly backward belonging to *Jago* or *Katoni* caste and a few Mohammedan families, derive their livelihood from silk cultivation.

Mulberry is raised as 'bush' and 'middlings' and rearing is done from November to March.

Assam's indigenous race is *Sarupat*, a multivoltine worm producing yellow, white and greenish-white cocoons. Silk is reeled on Bengal *ghai* type charka, mostly by rearers' families. It is estimated that about 5,000 families are engaged in mulberry cocoon cultivation.

Eri is cultivated indoors by the Animistic tribes living on the outskirts of the Assam Valley and to some extent by the people residing in the valley. The heavy rainfall and moist climate are suitable for rearing eriworms at altitude of 5,000 ft. The ericulture is practised in about 12 districts of Assam. The main crops are raised from September to November and February to March.

Eri worms are fed mainly on castor leaves. The eri silkworm is polyvoltine and gives four to five crops a year. The process of rearing is the same as that of mulberry worms. The worms suffer from several diseases among which flacherie takes heavy toll. The bulk of eri cocoons is handspun by crude *taklis* and recently by improved N. R. Das machine. Eri silk is unreelable, coarse and uneven. The entire production is consumed within the State.

The golden yellow silk, *muga*, is produced exclusively in Assam Valley. Muga culture is spread in some six districts, the most important being North Lakhimpur and Sibsagar. The muga silkworm, indigenous to Assam, is reared on trees. The muga worm is fed on the leaves of food plants, particularly on 'Som' and 'Soalu'. Five crops are taken in a year corresponding to different seasons — *katia* (autumn crops), *jarula* (winter crop), *jethua* (summer crop), *aherua* (early monsoon crop) and *bhadia* (late monsoon crop). The bulk of the cocoons used for reeling comes from the autumn crop which is considered the most suitable.

Another type of muga silk is "mezankor" silk which is noted for its durability, lustre and creamish-white colour. This "mezankori" variety of silk is produced by *muga* worms fed on the leaves of "mezankori" plant which grows wild on the hills of Assam. There are 11 silk farms, one mulberry grafts nursery, four mulberry silk

reeling units, 10 muga farms, 12 eri grainages and 27 cocoon growers' and reelers' cooperatives and one experimental tasar seed station. Reeling units are at Aijal, Gaurisagar and Shillong and the eri and muga production centres at Domta, Kamrup, Rana and Saulkuchi. Three cocoon marketing centres have been set up. There is also a well-equipped sericultural training institute and a research institute at Titabar. For utilisation of silk waste, the State Government has recently inaugurated a 3,000-spindle Assam Spun Silk Mills at Jagi Road.

### Jammu & Kashmir

Kashmir is considered as a prolific source for univoltine silk in India. The State Government took over the industry in 1869 and since then it has been a State monopoly. The department of sericulture was organised in 1897 and in the following years modern filatures were built in Jammu and Srinagar. The industry is mainly practised in the districts of Anantnag, Baramulla, Doda, Jammu, Raiasi and Udhampur. The annual production of raw silk is estimated at about 98,000 kgm. or about 7 per cent of the total mulberry silk output. The industry provides employment to about 3,60,000 persons. The Kashmir Valley located at the altitude of about 5,000 feet, has the most suitable climate for univoltine silkworm rearing.

There are also 32 mulberry nurseries — 18 in Jammu and 14 in Kashmir, and 4 basic graft nurseries — 2 in Jammu and 2 in Kashmir. In recent years two basic seed cocoon farms have been set up. Besides, there are two hibernation centres at Srinagar and Batote. The CSB has also established a Central Silkworm Seed Station in Srinagar for evolving suitable race of silkworms.

The entire cocoon output is reeled by filatures. The factory at Srinagar has three units, of which two are fitted with Italian type reeling machinery imported in 1925 and 1927. The installed capacity of both these units is 192 basins each. The third unit is, however, fitted with usual button-type machinery consisting of 200 basins manufactured locally in 1939. In Jammu, out of 169 basins, only 48 basins are Italian type and the rest are locally made. There are no *cottage basins* or *charkas* in the State.

The State Government have recently reconstituted the small-scale and cottage industries as a commercial undertaking "J. & K. Industries Limited" which includes sericulture and is being looked after by a Manager. A sericultural training school has been recently started at Srinagar.

### Kerala

Sericulture was extended to this State by bringing about 16 hectares of land under mulberry at Ambalavayal in Wynad in 1962, a colony of ex-military personnel. About 20 hectares are under private mulberry plantations and the rest is owned by the Government. The total cocoon yield is about 500 kgm.

### Madhya Pradesh

Madhya Pradesh is the leading tasar producing State. The tasar silkworm rearing districts are mainly Bilaspur, Raigarh and Surguja. Mulberry silk industry, practised on limited scale, has been renewed in recent years in the districts of Dhar and Indore. The industry provides employment for about 42,000 rural people.

Three crops are taken in a year — first is winter crop raised between December and February, second spring crop in March and April and third rainy crop in July and August. The univoltine variety of tasar silkworm known as *modia* is reared in July-August while the bivoltine variety called 'Ampatia' in August-September and December-January.

Among tasar cocoons, *modia* and *daba* cocoons are rich in silk content. Tasar silk waste is hand spun by means of a simple contrivance called "dehera takli" and "charka". There are nine mulberry silk farms, one grainage, one graft nursery and a reeling unit—eight tasar seed farms, two tasar training centres, six tasar cocoon markets, a tasar research unit and one reeling and spinning unit. The Central Silk Board established a Central Tasar Seed Supply Station at Lakha in 1964.

### Madras

The sericulture industry in Madras is at present confined to the districts of Coimbatore, Nilgiris, Salem and Tirunelveli. The industry provides employment to about 6,000 people. Mulberry is raised as 'bush'. The area under mulberry was 1,373 hectares by 1964. There are 11 mulberry graft nurseries, one basic seed farm, four Government silk farms, one Government grainage, two chawki units, one reeling unit, 25 basins, four cocoon markets, one gut section at Coonoor and a Sericultural Cooperative Society at Talvadi. Madras State at present produces about 3,000 kgms. of raw silk.

### Maharashtra

In Maharashtra Bhandara and Chanda districts, have traditional tasar culture ; the State has also taken up eri cultivation on experimental basis. Under the Second Plan, two schemes—one relating to training-cum-production centre for eri at Nasik and second for tasar development in Vidarbha—were executed. Under the Third Plan programme a third scheme has been sanctioned.

### Mysore

Mysore is now the biggest polyvoltine mulberry silk producing State in India contributing over three-fourths of the total mulberry silk production. The industry is concentrated in the districts of Bangalore, Kolar, Mandya, Mysore and Tumkur and to a small extent in Belgaum and Coorg. About five per cent of the total population of the State derives livelihood from silk cultivation. Recently the State Sericultural Department spotted the presence of tasar silkworm in the forests of Sirsi (North Kanara District) and a scheme for development of tasar industry was approved in 1964-65.

Mulberry is raised as bush, both in rain-fed and irrigated zones. There are about 77,000 hectares under mulberry cultivation. The yield of leaf per acre from rainfed plantations is about 1,800 kgms. and from irrigated areas about 3,600 kgms. per year. Nearly 5 to 6 crops are taken from irrigated plantations and 4 to 5 from rain-fed ones. There are four graft nurseries producing over eight lakh grafts of improved strains.

At present there is a silk rearing station at B. R. hills for preservation of stock races and their amelioration. Besides, there are basic seed farms — three for foreign races and three for polyvoltine local races. For production of industrial seed, the State has 47 grainages and over 600 licensed seed preparers. Seventy chawki rearing centres including 4 for demonstration purposes have been set-up.

Raw silk reeling is done by traditional *charkas*, recently by improved *cottage basins* and also by modern filatures. Mysore produces about 5,76,000 kgm. of *charka* silk (and 38,000 kgm. of dupion silk), over 3,63,000 kgm. of cottage basin and 1,03,000 kgm. of filature silk. The State has at present over 3,100 active *charkas*, 3,074 cottage basins and 936 filature basins (active). The quality of filature silk is superior to *charka* and fetches a premium of Rs. 10 to 12 per lb. in the market. Under a programme, the existing *charkas*, which produce very poor quality silk, are being replaced by cottage basins.

The bulk of raw silk output is marketed through Kothi merchants or middlemen. The Government has, however, organised since 1957 the Silk Marketing Co-operative Society in Bangalore, which has recently set up a branch at Nanjangud. There are 80 government cocoon markets established under Mysore Silkworm Seed Act in addition to a voluntary cocoon market at Ramnagaram. The State established four sericultural cooperatives. For utilisation of silkwaste, the State has recently reopened the Mysore Spun Silk Mills, which originally existed till its closure in 1958 under name of "Channapatna Spun Silk Mills". Besides, the State has a sericultural training school at Channapatna and a silk conditioning house in Bangalore. The Central Sericultural Research Institute and the A.I.S.T.I., Mysore are the central projects functioning at Mysore.

### Orissa

Orissa is a non-mulberry State having both traditional tasar and eri silk industries. Tasar culture is spread in the northern district of Keonjhar and to some extent in Mayurbhanj. Ericulture is concentrated in Cuttack district and extended through Bolangir, Ganjam, Koraput, Phulbani and Puri districts. The annual production of tasar silk is about 14,500 kgm. and eri 400 kgm. About 23,000 rural people depend for their bread on these two pursuits. The State has no mulberry culture.

The State has now three seed supply stations, two eri seed stations, one reeling and spinning centre, one research unit and 16 tasar rearers' cooperative societies. The Central tasar depot established during the 2nd Plan at Baripada to facilitate marketing has been replaced by a State Tasar Cooperative Society Ltd. (Apex) in 1963. During the 3rd Plan the existing station will be strengthened and more rearers' cooperatives will be formed.

### Punjab

Punjab has a century-old sericulture industry, although silk weaving dates to antiquity. The importance of Punjab silk is that after Kashmir it is the biggest zone producing univoltine silk. The industry is practised mainly in districts of Amritsar, Gurdaspur, Hoshiarpur and Kangra and to some extent in Ferozepur, Jullundur and Karnal. It provides employment to about 1,500 families. The State produces about 4,500 kgm. of charka silk.

Mulberry is raised as tree growing as high as 12 metres, mainly cultivated for their fruits and timber. Mulberry nurseries and demonstration farms have been set up under the Plan schemes. There are about 104,000 mulberry trees and 68 hectares under bush mulberry.

The silkworm seed requirement is to a great extent met by two grainages at Dalhousie and Palampur. A foreign race seed station is functioning at Nagrota. Several chawki rearing centres have come up in recent years. The entire cocoon output is reeled on 'charkas'. A demonstrational training centre has been opened in Dinanagar. For cocoon marketing, a society has been recently formed in Pathankot district. Under the Third Plan, efforts are made towards extension of mulberry area, augmenting seed production and improvement in all sectors of silk industry. A small unit of filature is under establishment in Dinanagar.

### Rajasthan

Tasar culture is just being introduced in this State in Shahbad area and a number of tribals practise tasar cultivation as a cottage industry. The State Government intends to establish a demonstration centre for spinning and weaving in this area.

### Uttar Pradesh

Mass rearings were taken up in the villages during 1953. Mulberry silk industry is practised in 6 districts of Dehra Dun, Etawah, Garhwal, Gorakhpur, Nainital and Saharanpur. Ericulture is carried on in two districts of Rampur and Deoria and tasar culture is found in Mirzapur district.

Mulberry is cultivated both as 'bush' and 'tree'. From over 5,00,000 mulberry trees growing in the State only about 40,000 are utilised for silkworm rearing, the large number being used for obtaining timber for sport goods. The area under bush mulberry comprising Government farms and private gardens is about 207 hectares. There are 13 mulberry farms and 7 graft nurseries.

Both univoltine and polyvoltine silkworm races are reared. 35 chawki rearing centres and four demonstration silk farms have been set up. For production of disease-free seed, there are three grainages, and for production of basic seed cocoons, four farms. The cocoons are purchased by the State department at fixed rates and sold to the Doon Valley Sericultural Society. Recently 35 rearers' cooperatives and an apex society have been organised in the State. A cooperative silk filature of 30 basins has been established in 1963. The annual production of raw silk in the State is 1,200 kg.

### West Bengal

At present mulberry culture is practised in the districts of Bankura, Birbhum, Darjeeling, Malda and Murshidabad. The State has also a small production of eri and tasar silk. The annual production of mulberry silk in the State is 2,88,600 kgm.

Mulberry is cultivated as 'bush'. There are about 6,300 hectares under mulberry. There are eight mulberry nurseries, and grainages and 21 aided grainages. The State has also four mulberry graft nurseries three in Malda and one in Murshidabad district. Three tasar seed stations with their sub-stations and three eri seed stations are functioning in the State.

West Bengal has made significant progress in the introduction of hybrid technique. The State has already got four fixed hybrids called *Nismo*, *Nistid*, *Ichot* and *Itan*, which give better yield than indigenous races. There is a foreign race seed station at Kalimpong and a hill nursery for raising F1 seed of foreign races at Matigara. Two chawki rearing centres have also been set up.

Raw silk reeling is done on native *charka*. Efforts are made to introduce cottage basins. A 100-basin filature is also being set up at Malda. Marketing of cocoons is done through middlemen as in the case of Mysore State. The State Government has recently set up a voluntary cocoon market at Jalalpur. The State has established two training institutes — one for sericulture at Berhampore and other for reeling at Peddie (Malda). Besides, the Central Government's Central Sericultural Research Station is also located at Berhampore. The silk conditioning house is stationed at Calcutta.

### Bihar

Bihar is predominantly a tasar-producing State, contributing about 40 per cent of India's total tasar silk production. It is also the biggest eri silk-cultivating State after Assam. Bihar has also a small mulberry silk production. Tasar cultivation is carried on in the districts of Hazaribagh, Santhal Parganas and Singhbhum, as also on small-scale in Dhanbad, Palamau and Ranchi. Castor cultivation is found extensively in the areas bounded by Ganges in districts of Bhagalpur, Champaran, Dharbhanga, Gaya, Monghyr, Muzaffarpur, Patna, Purnea and Saran ; but the agriculturists utilise only a portion of castor leaves for rearing purposes. Mulberry culture is confined to one district of Purnea only. About 100,000 people, it is estimated, derive their livelihood from silk cultivation.

Tasar cultivation is almost exclusively practised by *Adivasis*, *Santhals*, *Pahadias* and other scheduled tribes. Bihar produces over 80,000 kgm. of tasar raw silk annually. For development of tasar silk industry, the State Government has set up in recent years 13 tasar seed supply stations, 25 sub-stations, 10 training centres, four marketing centres and 15 co-operatives. There is also a silk institute in Bhagalpur. Under the Third Plan more such centres will be set up.

Eri silkworm rearing is essentially practised as a subsidiary occupation. The eri silk production is about 12,000 kgms. Eri silk is spun by *takli*, spinning wheels and improved pedal spinning machines. There are at present six eri seed supply stations and 28 demonstration units. There is also a research centre at Ranchi. Mulberry cultivation in Purnea is practised on the lines of adjoining areas in West Bengal. The output is over 1,400 kgm. which is sold mainly in Bhagalpur. There is one silk farm-cum-grainage.

The State recently reorganised the sericulture section into three divisions with an Assistant Director in charge of each division with a view to supervising the implementation of developmental programme. The Central Silk Board has established a central tasar research station at Ranchi in 1964.

## UNION TERRITORIES

### Himachal Pradesh

Producing about 400 kgm. of raw silk, Himachal Pradesh is a potential univoltine zone. Mulberry silk cultivation is at present confined mainly to two districts, Mandi and Sirmoor. Out of about 100,000 mulberry trees growing in the territory, only about 15,500 are used for silkworm rearing. The territory has 12 mulberry farms, five nurseries and two reeling demonstration-cum-training centres. A number of development schemes have been initiated with the object of fully exploiting the existing potential for sericulture industry.

### Manipur

Situated in the neighbourhood of Assam, Manipur has both mulberry and eri silk cultivation and a potential for muga culture. Manipur produces about 345 kgm. of mulberry and over 400 kgm. of non-mulberry silk. The Territory has 3 silk farms, and demonstration centres for eri and muga.

### Tripura

Sericulture has been recently introduced. During the Second Plan, two demonstration centres one for eri rearing and the other for tasar-rearing have been set up. Some 50 families have taken up silk cultivation as source of their livelihood.

**Mulberry Raw Silk Production—1964**

(In Kg.)

| State | Filature | Charka | Cottage basin | Dupion | Total |
|---|---|---|---|---|---|
| Andhra Pradesh .. | .. | 1,025 | .. | .. | 1,025 |
| Assam .. .. .. | .. | .. | 13,800 | .. | 13,800 |
| Bihar .. .. .. | .. | 909 | .. | .. | 909 |
| Jammu | 13,241 | .. | .. | 301 | 13,542 |
| Kashmir | 62,402 | .. | .. | .. | 62,402 |
| Madhya Pradesh .. | .. | 290 | 333 | .. | 623 |
| Madras .. .. .. | .. | 382 | 1,641 | 35 | 2,058 |
| Mysore .. .. .. | 1,03,000 | 5,76,000 | 6,63,000 | 38,000 | 10,80,000 |
| Punjab .. .. .. | 326 | 1,279 | 85 | .. | 1,690 |
| U.P. .. .. .. | 476 | .. | 465 | 225 | 1,166 |
| W. Bengal .. .. | .. | 2,74,782 | 13,000 | 800 | 2,88,582 |
| Himachal Pradesh .. | 119 | 51 | .. | .. | 170 |
| Manipur .. .. | .. | 313 | 26 | 6 | 345 |
| Tripura .. .. | .. | .. | 1 | .. | 1 |
| Total .. .. .. | 1,79,564 | 8,55,031 | 3,92,351 | 39,367 | 14,66,313 |

**Non-Mulberry Raw Silk Production—1964**

(In kg.)

| State | Tasar | Eri | Muga | Total |
|---|---|---|---|---|
| Andhra Pradesh .. .. | 489 | 93 | .. | 587 |
| Assam .. .. .. .. | .. | 1,85,250 | 50,000 | 2,35,250 |
| Bihar .. .. .. .. | 79,546 | 12,159 | .. | 91,705 |
| Madhya Pradesh .. .. | 1,15,000 | .. | .. | 1,15,000 |
| Maharashtra .. .. .. | 1,047 | .. | .. | 1,047 |
| Orissa .. .. .. .. | 16,000 | .. | .. | 16,000 |
| Uttar Pradesh .. .. | 10 | 72 | .. | 82 |
| West Bengal .. .. .. | 11,565 | 5,480 | .. | 17,045 |
| Manipur .. .. .. | .. | 408 | .. | 408 |
| Tripura .. .. .. | .. | 3 | .. | 3 |
| Total (estimates) .. | 2,23,657 | 2,03,465 | 50,000 | 4,77,127 |

**Mulberry Silkwaste Production—1964**

(In Kg.)

| State | Filature | Charka | Cottage basin | Dupion | Total |
|---|---|---|---|---|---|
| Andhra Pradesh .. | .. | 627 | .. | .. | 627 |
| Assam .. .. .. | .. | .. | 6,000 | .. | 6,000 |
| Bihar .. .. .. | .. | 909 | .. | .. | 909 |
| Jammu | 8,856 | .. | .. | 837 | 9,693 |
| Kashmir | 42,111 | .. | .. | .. | 42,111 |
| Madhya Pradesh .. | .. | 270 | 191 | .. | 461 |
| Madras .. .. .. | .. | 60 | 700 | 5 | 765 |
| Mysore .. .. .. | 62,000 | 2,10,000 | 1,81,000 | 18,000 | 4,71,000 |
| Punjab .. .. .. | 153 | 538 | 60 | .. | 751 |
| Uttar Pradesh .. .. | 293 | .. | 278 | 82 | 653 |
| West Bengal .. .. | .. | 1,54,009 | 6,880 | 278 | 1,61,167 |
| Himachal Pradesh .. | 40 | 22 | .. | .. | 62 |
| Manipur .. .. | .. | 33 | 2 | 5 | 40 |
| TOTAL .. | 1,13,453 | 3,66,468 | 1,95,111 | 19,207 | 6,94,239 |

**Non-Mulberry Silkwaste Production—1964**

(In Kg.)

| State | Tasar | Eri | Muga | Total |
|---|---|---|---|---|
| Andhra Pradesh .. .. | 309 | 107 | .. | 416 |
| Assam .. .. .. .. | .. | 61,750 | 19,000 | 80,750 |
| Bihar .. .. .. .. | 55,000 | .. | .. | 55,000 |
| Madhya Pradesh .. .. | 60.000 | .. | .. | 60,000 |
| Maharashtra .. .. .. | 524 | .. | .. | 524 |
| Orissa .. .. .. .. | 5,500 | 547 | .. | 6,047 |
| Uttar Pradesh .. .. | 10 | 47 | .. | 57 |
| West Bengal .. .. .. | 26,196 | .. | .. | 26,196 |
| Manipur .. .. .. | .. | 16 | .. | 16 |
| TOTAL .. | 1,47,539 | 62,467 | 19,000 | 2,29,006 |

## CENTRAL SILK BOARD

An apex body consolidating and coordinating the sericulture industry in States, is the Central Silk Board, set up in 1949 by the Government of India. CSB is a 'body corporate' charged with functions 'to promote development of silk industry by such measures as it thinks fit.' The measures include rendering financial and technical assistance, 'undertaking, assisting or encouraging scientific, technological and economic research', 'devising means for improvement of all sectors', collection of statistics and to advise the Central Government on all matters relating to the raw silk industry, including import and export of raw silk.

CSB membership represents all interests of the silk industry. Chairman and Vice-Chairman are appointed by Central Government. The Board, constituted every three years, is composed at present of 35 members — three Government officials nominated by the Central Government, six elected by Parliament, five nominated by Mysore, one by Madras, two by West Bengal, one by Jammu and Kashmir and one each by Assam, Bihar, Gujarat, Madhya Pradesh, Andhra and Uttar Pradesh, three nominated by the Central Government representing producers of raw silk in remaining States and further eight to represent interest of spun silk, silk throwing, twisting, silk weaving, labour and experts in sericulture.

*Liaison Offices :* In order to co-ordinate the developmental activities of silk industries in the States, the Board has recently strengthened its liaison offices by providing technical officers at Bangalore, New Delhi, Calcutta. A new liaison office has also been set up at Srinagar in 1965.

**CSB's main activities are :**

1. *Providing Funds for Silk Schemes :* CSB extends financial assistance in the form of either grant-in-aid or loan for execution of silk schemes by the State Governments. The annual plans prepared by the State Governments are discussed with their representatives by the Standing Committee every year. During the First Plan about Rs. 5·7 million were approved by CSB as grant-in-aid. Under the Second Plan, sericulture assumed importance. CSB approved assistance to the tune of Rs. 40 million for a comprehensive development programme of sericulture in States. For the Third Plan Rs. 70 million have been earmarked for sericulture development.

2. *Providing Technical Know-How :* CSB gives assistance for scientific and technical work undertaken by State's sericulture departments and helps them to secure technical personnel and guidance. The Board has so far sponsored visits of four sericultural experts from Japan and deputed 20 Indian sericulture officials to Japan and two to China. CSB also appoints experts' committees to help States to overcome major problems. In recent years, three very important committees were constituted —(1) Central Research Coordination Committee composed of eminent scientists drawn from various Research Institutes to coordinate sericulture research ; (2) Fact Finding Committee to examine working of filatures and (3) Non-Mulberry Sub-Committee to suggest measures for development of non-mulberry sector.

*Service Stations :* CSB has established two service stations — All India Sericultural Training Institute at Mysore for training personnel deputed by the State Governments and Central Silkworm Seed Station at Srinagar for production of basic seed. Besides, it has also taken over from the Government of Madras, the Hill Rearing Station at Coonoor (Nilgiri District) to function as a sub-station for the Central Silkworm Seed Station at Srinagar. The Board is also setting up a pilot centre in Himachal Pradesh for demonstrating application of modern methods and appliances.

In 1964, the Central Tasar Silkworm Seed Station was set up at Lakha (Madhya Pradesh) to cater to the needs of tasar States in regard to basic seed of tasar silkworm.

*Sericultural Research :* CSB has decided to centralise and coordinate sericultural research on Japanese model. A committee composed of eminent scientists was constituted in 1961. As per its recommendations, CSB has taken over regional research stations. It contemplates to set up 3 research stations for mulberry silk industry and 2 for non-mulberry industry. The stations will be further supported by several sub-stations under the administrative control of States. Under the research project the CSB has already taken over the Central Sericulture Research Institute, Mysore from the Government of Mysore in 1961 and has got technical control over the Central Sericultural Research Station, Berhampur (W.B.) established by the Central Government in early fifties. Besides, the Board has also set up a research cell for univoltine area at Dehra Dun.

The Board has taken over the Central Tasar Research Station, Ranchi.

The Board also renders financial and technical assistance to the Sericulture Research Institute, set up by the Government of Assam at Titabar for tackling the problems of eri and muga silk industries.

*Distribution of Imported Silk :* CSB advises Government of India on import policy. Raw silk is imported through agency of the State Trading Corporation and is distributed by the Board to actual manufacturers and exporters of pure silk fabrics.

*Export Promotion :* With effect from 1st July 1964, the exporters of mulberry and tasar silk fabrics, ready-made garments and made-up articles of raw silk of these varieties are permitted to import raw silk themselves against their entitlements. Under the Export Promotion Scheme for mulberry silk fabrics and ready-made garments and made-up articles of natural silk other than tasar silk, the total import entitlements allowed are equal to 75 per cent of the f.o.b. value of the fabrics garments made-up articles, subject to the maximum f.o.b. value of Rs. 15 per square metre of silk fabrics. From this an amount not exceeding 20 per cent of the f.o.b. value can be utilised for the import of coal-tar dyes and chemicals as are permitted to be imported under the Red Book, Machinery, Machinery parts and equipment and spare parts and accessories as may be approved by the Textile Commissioner, embellishments, buttons, sewing thread, interlining, man-made fibres or synthetic yarn. The remaining portion of the entitlements can be utilised for the import of raw silk, silkwaste, noil yarn or nep noil yarn. The incentive for tasar exports are allowed to the extent of 10 per cent of the f.o.b. value. Against this amount the import of the items mentioned below are permitted, viz., (1) Raw Silk, (2) Man-made fibre or synthetic yarn, (3) Coal-tar dyes and chemicals as permitted under the Red Book, Machinery parts and equipment and spare parts and accessories as may be approved by the Textile Commissioner.

With effect from 2nd January 1965, the Central Silk Board introduced two new schemes viz., Quality Inspection of Tasar Silk Fabrics and Stamping of "Centrosilk" Certification Trade Mark for pure silk fabrics. The former is compulsory. The tasar fabrics to be exported from the year 1965 will have to conform to minimum specifications prescribed with a view to ensuring a sound foundation for export trade in tasar fabrics. The latter one is purely voluntary. The main object of the scheme is to counter the unhealthy tendency of passing cheap substitute as pure silk, with a view to creating confidence in overseas buyers. The response to this scheme has been quite encouraging.

The export of pure silk fabrics has been steadily increasing in the non-traditional markets of Europe and America. Each year pure silk fabrics worth approximately Rs. 21 million are exported to over 50 countries of the world. The exports include sarees, brocades, scarves and piece-goods. Pure silk worth Rs. 138·51 lakhs was exported during 1964 as against exports of Rs. 151·82 lakhs during 1963. The export of tasar fabrics has risen remarkably particularly to the United States—from Rs. 0·3 million in 1958 to a little over Rs. six million in 1964. In 1964, 6·41 lakh metres of tasar silk fabrics worth Rs. 84·45 lakhs were exported. The tasar fabrics are exported under the Indo-American trade agreement. In 1964, silk production was 19·43 lakh kg. as against 19 lakh kg. in 1963.

*Protection to Sericulture Industry :* The Government of India have accepted the recommendation of the Tariff Commission that protection to the sericulture industry should be continued for a further period of three years up to the 31st of December 1966 at the existing rate of protective duty.

# TEXTILE INDUSTRY

THE cotton textile industry, which is the largest single industry in the country has made rapid strides during its existence of a century. India holds the third place among the countries of the world in its capacity for yarn and cloth based on mechanical equipment and stands second on the basis of cotton consumption

In addition to providing means of livelihood for nearly 10 million handloom weavers, the mill industry provides direct employment to nearly 900,000 workers.

The total number of mills in the country in January 1965 was 517, the number of spindles installed 15·31 million, of looms 205,468. The average number of workers employed daily in all shifts was 846,833 and the consumption of raw cotton (in bales of 180 Kg. each) was 550,647.

The capital invested is estimated at Rs. 137 crores, and the annual value of the output amounts to Rs. 430 crores.

Cotton fabrics of about 4,653 million metres were produced by the mills in 1964 and 3,066 million metres by the decentralised sector comprising handlooms and power-looms.

## THIRD FIVE-YEAR PLAN

The requirements of cotton textiles at the end of the Third Plan have been calculated on the assumption that 8,450 million yards of cloth will be needed for domestic consumption and 850 million yards for export. The figure for domestic consumption provides for an increase of about 20 per cent over the estimated level of demand in 1960-61 ; in other words it allows for an annual increase of 2 per cent in population and 2 per cent in per capita consumption.

Out of the total target for cotton cloth of 9,300 million yards, 3,500 million yards have been allocated as the share of the decentralised sector (handloom, powerloom and khadi). The production target allocated to the mill sector is 5,800 million yards as against the current level of output and estimated effective capacity of about 5,000 million yards. To achieve the additional production of 800 million yards in the mill sector, it is envisaged that about 25,000 automatic looms will have to be installed during the Third Plan.

On the basis of a cloth production target of 9,300 million yards, and taking into account also the yarn required for purposes other than cloth weaving, *e.g.* hosiery and newar, the yarn production target has been fixed at 2,250 million lb. To reach this target of 2,250 million lb. of yarn it will be necessary to increase the active spindleage of the mills to about 16·5 million as compared to 12·7 million at the end of the Second Plan. The addition that may be secured through the activisation of idle spindles as a result of modernisation programmes will ultimately determine the number of spindles required to be installed through new units and expansions. Out of the additional capacity for spindles and looms envisaged for installation during the Third Plan, it is proposed that a substantial proportion of the additional loomage shall be export-oriented.

### Automatic Looms

In December 1961, the Government of India announced its decision to license 10,000 automatic looms in units of 500 looms each as part of the programme for expanding the cotton textile industry during the Third Five-Year Plan period. The matching spindlage for a weaving unit of 500 looms was 25,000 spindles and the licences would be granted only to those who had surplus spinning capacity in any existing mill or who could secure their quota from the new spindles allotted to the States

Licences will be issued subject to a condition that 75 per cent of the cloth produced should be compulsorily exported. Bonds will have to be executed and bank guarantees have to be given for the fulfilment of the condition. The mills having automatic looms are expected to export at least 30 per cent of cloth produced on these looms. If the export performance falls short of this requirement, the mills are required to pay automatic loom surcharge to a certain extent.

The spinning mills are now permitted to instal upto 300 looms without any export obligation, subject to the discretion of the Textile Commissioner.

The estimated cost of 4 million spindles and 25,000 automatic looms—the additional equipment that is proposed to be acquired during the five-year period of the Third Plan—is Rs. 120 crores.

The following table gives details about the distribution of mills in India as in January 1965.

| State | No. of Mills in existence | Spindles installed | Looms installed | Average No. of workers employed daily in all shifts | Consumption of raw cotton (In bales of 180 kg.) |
|---|---|---|---|---|---|
| Andhra Pradesh .. .. | 19 | 2,89,152 | 1,235 | 14,596 | 13,764 |
| Assam .. .. .. | 2 | 22,600 | — | 1,009 | 1,020 |
| Bihar .. .. .. | 4 | 47,432 | 809 | 2,039 | 918 |
| Gujarat .. .. .. | 104 | 31,86,595 | 59,183 | 1,85,818 | 1,00,307 |
| (*a*) Ahmedabad City .. | 67 | 23,06,229 | 44,578 | 1,66,199 | 70,534 |
| (*b*) Rest of Gujarat .. | 37 | 8,80,366 | 14,605 | 49,619 | 29,773 |
| Kerala .. .. .. | 18 | 2,80,000 | 1,040 | 9,975 | 7,650 |
| Madhya Pradesh .. .. | 18 | 5,40,791 | 12,005 | 43,438 | 28,689 |
| Madras .. .. .. | 154 | 35,28,940 | 8,642 | 1,12,229 | 91,357 |
| Maharashtra .. .. | 84 | 43,75,916 | 81,170 | 2,70,823 | 1,54,663 |
| (*a*) Bombay City .. .. | 57 | 33,82,552 | 63,047 | 2,12,858 | 1,23,401 |
| (*b*) Rest of Maharashtra .. | 27 | 993,364 | 18,123 | 57,965 | 31,262 |
| Mysore .. .. .. | 22 | 548,470 | 5,346 | 32,496 | 19,849 |
| Orissa .. .. .. | 4 | 93,000 | 866 | 6,531 | 4,296 |
| Punjab .. .. .. | 11 | 2,32,481 | 2,187 | 13,780 | 16,149 |
| Rajasthan .. .. .. | 13 | 2,50,594 | 2,525 | 14,078 | 15,947 |
| Uttar Pradesh .. .. | 25 | 8,88,837 | 13,589 | 63,801 | 45,131 |
| (*a*) Kanpur City .. .. | 11 | 5,35,872 | 10,983 | 45,421 | 27,486 |
| (*b*) Rest of U.P. .. .. | 14 | 3,52,965 | 2,606 | 18,380 | 17,645 |
| West Bengal .. .. | 31 | 7,58,974 | 10,199 | 48,030 | 29,321 |
| Delhi .. .. .. | 4 | 1,77,628 | 3,814 | 20,565 | 16,119 |
| Pondicherry .. .. | 4 | 89,064 | 2,258 | 7,625 | 5,467 |
| Total .. .. | 517 | 1,53,10,474 | 2,05,468 | 8,46,833 | 5,50,647 |

## PRODUCTION

The actual production of yarn and cloth by the mills sector is as follows :—

| Year | Yarn in 000 kg | Cloth in 000 metres | | | | | |
|---|---|---|---|---|---|---|---|
| | | Coarse | Medium B | Medium A | Fine | Superfine | Total |
| 1960.. .. | 7,87,959 | 6,44,254 | 15,89,706 | 18,97,106 | 2,09,421 | 2,75,719 | 46,16,206 |
| 1961.. .. | 8,62,294 | 7,90,162 | 15,27,564 | 19,86,345 | 1,79,325 | 2,18,046 | 47,01,442 |
| 1962.. .. | 8,59,563 | 7,60,778 | 14,03,866 | 19,46,346 | 1,96,660 | 2,52,604 | 45,60,254 |
| 1963.. .. | 8,92,574 | 8,09,750 | 13,20,991 | 18,07,914 | 2,04,257 | 2,79,945 | 44,22,857 |
| 1964.. .. | 9,64,819 | 8,68,474 | 14,75,272 | 18,07,974 | 1,95,035 | 3,06,754 | 46,53,509 |

The production of cotton yarn in million kilograms, cloth yarn in million metres, and Stock position — sold and unsold — in lakh bales from January to June 1965 are given in the following table :

| | Production | | Composite mills stock (lakh bales) | |
|---|---|---|---|---|
| | Million kilogram | Million metre | Sold | Unsold |
| January .. .. .. .. | 83 | 398 | 1·72 | 1·31 |
| February .. .. .. | 77 | 373 | 1·58 | 1·45 |
| March .. .. .. .. | 80 | 391 | 1·77 | 1·69 |
| April .. .. .. .. | 80 | 392 | 1·73 | 1·75 |
| May .. .. .. .. | 80 | 390 | 1·68 | 1·82 |
| June .. .. .. .. | 77 | 389 | 1·71 | 1·83 |

The total production of mill-made cloth in January-July 1965, touched 3,000 million yards showing an increase of 69 million yards over the output of 2,931 million yards in the first seven months of last year.

The total production of yarn in the first seven months of 1965 was 1,227 million pounds compared to 1,205 million pounds in the same period of 1964.

The total production of cotton cloth by all the sectors in India during 1964 was about 7,720 million metres. Of this the mill sector accounted for 4,654 million metres and the decentralised sector for 3,066 million metres.

The exports of cotton textiles produced by the mills in 1964 works out to 507 million metres fetching foreign exchange to the extent of 4,929 lakhs of rupees.

In the production of mill-made cloth, Maharashtra leads other States. Maharashtra accounted for about 1,634 million metres in 1964 out of a total output of 4,654 million metres.

The production figures for different States during the year 1964 are as follows : (Figures are in million metres):

Andhra Pradesh 32 ; Bihar 1 ; Gujarat 1,377 ; Kerala 20 ; Madhya Pradesh 393 ; Madras 146 ; Maharashtra 1,634 ; Mysore 88 ; Orissa 36 ; Punjab 75 ; Rajasthan 60 ; Uttar Pradesh 330 ; West Bengal 251 ; Delhi 162 ; Pondicherry 48 ; Total 4,654.

During 1964 the cotton consumption by mills was 62.37 lakh bales of 180 kg. each of which, Indian cotton accounted for 55·99 lakh bales and foreign cotton for 6.38 lakh bales.

The production of yarn during the year 1964 was 965 million kg.

Unsold stock of cloth with the mills at the end of 1964 was 224 million metres equivalent to about ten days production. The stock shows a rise from the level of 186 million metres at the end of 1963.

*Licensing :* As a part of the expansion programme of the cotton textile industry during the Third Plan Period, it has been decided to license the installation of 25,000 automatic looms. A start has been made with licensing 10,000 automatic looms in the first instance. Licences for these automatic looms were to be granted subject to the following terms and conditions :

(*i*) Licences were to be given in unit of 500 automatic looms each and only to those parties who have matching spinning capacity of 25,000 spindles.

(*ii*) The mills must accept an export obligation comprising 75 per cent of cloth.

(*iii*) The licensee shall be under an obligation to pay a penalty on shortfall in the export performance, which will be calculated at the rate of 10 P. per yard.

A press-note inviting applications was issued and applications received in response to it have been scrutinised. So far 15 allocations of 500 automatic looms each have been finalised for a total of 7.500 automatic looms in consultation with the State Governments. Allocation of the remaining automatic looms is under consideration.

*Third Shift Working :* The need for increased utilisation of the existing installed capacity as a means of ensuring greater production has been repeatedly impressed on the industry and it is somewhat gratifying that there has been a slow but steady increase in the number of spindles and looms worked in the second as well as in the third shifts. The daily average number of spindles worked in each of the 3 shifts during 1961 to 1964 are as shown in the table given below.

(In million)

| | 1st Shift | 2nd Shift | 3rd Shift |
|---|---|---|---|
| 1961 .. | 12·0 | 11·8 | 5·9 |
| 1962 .. | 12·4 | 12·2 | 8·0 |
| 1963 .. | 12·6 | 12·5 | 8·7 |
| 1964 .. | 13·2 | 13·2 | 10·1 |

So far as looms are concerned the shift-wise working is given in the table below :

Daily average number of looms worked in

| | 1st Shift | 2nd Shift | 3rd Shift |
|---|---|---|---|
| 1961 .. | 1,81,765 | 1,76,365 | 51,286 |
| 1962 .. | 1,80,429 | 1,75,021 | 51,906 |
| 1963 .. | 1,78,854 | 1,73,815 | 51,488 |
| 1964 .. | 1,85,108 | 1,80,885 | 61,859 |

A target of 78 lakh bales of cotton production under the 3rd Five Year Plan was recommended by the Cotton Forecast Sub-Committee of the Indian Central Cotton Committee.

## TEXTILE ENQUIRY COMMITTEE

The Report of the Committee was unanimous. It was signed on 15th July 1958 and submitted to the Government thereafter.

The composition of the Committee, the report as well as Government reaction are summarized in the 1959-60 edition of the Directory.

## N.I.D.C.'s WORKING GROUP FOR THE COTTON TEXTILE INDUSTRY

Several important proposals of the National Industrial Development Corporation's Working Group for the cotton textile industry, including the one calling for a "minimum level of modernisation of the industry," have been accepted by the Government, according to a resolution presented to Parliament on March 29, 1961.

The other proposals accepted by the Government include the establishment of five new units for the production of quality cloth for export; the setting up of a suitable machinery to help resolve problems of rationalisation and compulsory scrapping of units where "rehabilitation is not worth-while."

Headed by the then Textile Commissioner, Mr. D. S. Joshi, the Working Group, set up in August, 1959, by the N.I.D.C., comprised Mr. K. Thakersey, Mr. G. D. Somani, Mr. K. Sreenivasan, Mr. S. R. Vasavada, Mr. Ram Ratan Gupta, Mr. Trilokinath Sharma, Mr. N. Majumdar and Mr. K. R. Aravamuthan.

The cost of modernisation and rehabilitation in the textile industry in India is estimated to be about Rs. 180 crores according to the Working Group.

## CENTRAL WAGE BOARD

The first Central Wage Board for the cotton textile industry was set up in 1957 with Mr. Feroze Jeejeebhoy as Chairman.

The Government of India has appointed in August 1964, a second wage board for textile industry to consider further revision of the wage structure with headquarters in Hyderabad.

While making its recommendations, the Second Wage Board shall keep in view the following: (1) the recommendations of the First Wage Board ; (2) the principles of fair wages as set forth in report of the Committee on Fair Wages ; (3) the needs of the industry in a developing economy including the need for maintaining and promoting exports, (4) the various elements of labour costs (excepting bonus) apart from wages ; (5) the requirements of social justice ; (6) the need for adjusting wage differentials in such a manner as to provide incentive to workers for advancing their skill ; and (7) the desirability of extending the system of payment by results. In applying the system of payment by results, the Board shall keep in view the need for fixing a minimum (fall-back wage) and also to safeguard against over work and undue speed. The Board shall also consider the demands for the introduction of a gratuity scheme on an industry-wise basis.

The Board consists of : *Chairman :* K. Bhimasankaran ; *Members :* D. C. Kothari, Surottam P. Hatheesing (representing employers) ; G. Ramanujam, A. N. Buch (representing employees) ; Tulsidas Jadhav, M.P., and Prof. M. B. Desai (independent members).

The Government of India appointed a 30-member Committee in Aug. 1964 to ensure the quality of textiles and textile machinery produced in the country. The Committee, which is known as the Textiles Committee,* has been given wide statutory powers. Mr. R. G. Saraiya is the Chairman and the Textile Commissioner Vice-Chairman.

## COTTON

The statistical position of cotton in India during the season 1963-64 is summed up in the following table :—

(In lakh bales)

| | |
|---|---|
| Stocks carried over from the previous year .. .. | 15·88 |
| Actual production .. .. | 54·93 (Bales of 392 kg.) |
| Total import .. .. .. | 6·48 (180 kg.) |
| Total consumption :— | |
| Indian .. .. .. | 54·75 (180 kg.) |
| Foreign .. .. .. | 6·07 (180 kg.) |
| Total export .. .. | 2·75 (180 kg.) |

## HANDLOOM CLOTH

(*See under "Cottage Industries"*).

## AMBAR CHARKHA

(*See under "Cottage Industries"*).

## IMPORTS AND EXPORTS

The following table gives the sea-borne export trend of all cloth :—

| Year | Twist and Yarn | | Cloth | |
|---|---|---|---|---|
| | Million lbs. | Rs. in crores | Million yds. | Rs. in crores |
| 1958 (Jan. to Dec.) .. | 31·61 | 5·80 | 581·0 | 40·00 |
| 1959 ( Do. ) .. .. | 24·32 | 4·37 | 850·8 | 59·00 |
| 1960 ( Do. ) .. .. | 14·20 | 3·70 | 604·83 | 54·70 |
| 1961 ( Do. ) .. .. | 15·00 | 3·73 | 575·00 | 46·17 |
| 1962 ( Do. ) .. .. | 23·00 | 5·30 | 508·36 | 39·96 |
| 1963 ( Do. ) .. .. | 30·00 | 6·20 | 531·15 | 41·02 |
| 1964 ( Do. ) .. .. | 27·00 | 5·84 | 554·00 | 49·30 |

## EXPORT

There has been a continuous decline in our exports of cotton textiles. In fact, exports during 1962 were the lowest during the last ten years. The Cotton Textiles Consultative Board, at its meeting held on May 15, 1962 recommended that every mill should undertake to export 12½ per cent of its turnover of cloth and 3 per cent of the turnover of yarn with reference to the balance sheet of any year which ends on a date between June 30, 1961 and June 29, 1962. It also recommended that in order to ensure compliance, the Indian cotton and foreign cotton quotas of each mill should be reduced by 12½ per cent, such reduced quantity to be allocated to the mills only after their executing an appropriate export performance guarantee. This voluntary export obligation was accepted by the mill industry and the Indian Cotton Mills Federation has already taken steps towards implemenfting this decision. It is interesting to note that the export during 1963 aggregated 531 m. yards as against 551 m. yards in 1964 estimated.

Although all possible efforts are being made to boost our exports, we have to face many practical difficulties particularly as a result of the keen competition in the foreign markets from textile-producing countries like Japan and China. The import policies of foreign countries have also

* Upto the time of going to press (Nov. 1965) the Committee had not submitted its report.

become more and more restrictive. Until recently our exports have been mostly of coarse and medium varieties and the markets for these are somewhat limited. In spite of these discouraging factors, cotton textiles will continue to be one of our major foreign exchange earners and efforts to increase exports will continue to be made during the Third Plan period. As already indicated a decision has already been taken to license 25,000 automatic looms during the 3rd Five-Year Plan each allotment being for 500 looms with a definite export obligation. The intention is to equip these mills with the latest machinery and thus enable them to cater primarily for the export market.

### Export Promotion

*Export :* With a view to promoting the export of cotton textiles from India and in order to enable the mills, exporters, etc. to offer their goods at more competitive prices in the international markets, the exports incentive scheme for cotton textiles was introduced in October 1958.

The cotton textiles export incentive scheme envisages the offering of incentives by way of utilisation of certain portion of the export earnings of the manufacturing mills, exporters, printers, processors who export cloth and yarn etc., for the import of chemicals, dyes, wool tops, textile machinery and cotton. The import entitlement for dyes and chemicals is granted to all the categories *i.e.* manufacturers, exporters, processors, but import licences for machinery and cotton are granted only to the mills. The entitlements of cotton which are granted to exporters against export of readymade garments, hosiery fabrics and non-fabrics items, are to be surrendered to the Textile Commissioner on terms and conditions decided upon by him. Against the export of cloth, the incentives would vary according to the price per sq. metre of cloth exported.

Exports of cotton textiles to Afghanistan and other rupee payment countries are also covered by the cotton textiles export incentive scheme. It may be noted in this connection that imports under incentive licences may only be made from countries having special arrangement for payment in rupees. An exception to this is allowed in case of import of raw cotton and textile machinery which will be permitted either from rupee payment countries or from any other available source. Cotton textile exports which were worth Rs. 40 crores in 1962 increased to Rs. 48 crores in 1964.

*Cotton Textiles Export Promotion Council :* The Cotton Textiles Export Promotion Council is an autonomous body incorporated under the Companies Act. The Council is a non-profit making organisation and was set up in 1954 for the promotion of exports of mill-made cotton yarn and piece-goods, cotton manufactures and all hosiery and ready-made garments.

## EXCISE DUTIES

The existing rates of Excise Duty and other levies on mill-made cloth and yarn are as follows :

| Category | Excise Duty | Handloom Cess | Addl. Excise Duty | Yarn Compounded Duty | Total |
|---|---|---|---|---|---|
| | (Rates in P. per square metre) | | | | |
| Coarse | 1·0 | 1·9 | 3·6 | 2·2 | 8·7 |
| Lower Medium | 3·0 | 1·9 | 4·8 | 4·4 | 14·1 |
| Higher Medium | 5·0 | 1·9 | 4·8 | 5·5 | 17·2 |
| Fine | 16·0 | 1·9 | 9·6 | 7·2 | 34·7 |
| Superfine | 22·0 | 1·9 | 15·5 | 8·4 | 47·8 |
| Cotton Fabrics not otherwise specified | 44·5 | 1·9 | 15·5 | — | 63·2 |
| | (Rates in P. per kilogram) | | | | |
| Coarse Fents | 11.0 | — | 4·4 | 16·5 | 31·9 |
| Medium Fents | 11·0 | — | 4·4 | 33·0 | 48·4 |
| Fine Fents | 66·1 | — | 22·0 | 54·0 | 142·1 |
| Superfine Fents | 66.1 | — | 22·0 | 72·0 | 160·1 |

Processing Surcharges to be added to the above in appropriate cases.

| | |
|---|---|
| Bleached, Dyed or Printed | 5 P. to 10 P. per sq. metre |
| Mercerised or/and water proofed | 10 P. to 20 P. per sq. metre |
| Shrink-proofed or/and organdie processed or processed in any other manner | 20 P. to 30 P. per sq. metre |

In addition, there are additional excise duties levied as under : *Dhoties Additional Excise Duty (Penal Excise Duty):* The duty is leviable on the quantity of dhoties issued out of any mill or group of mills during any quarter, which is in excess of the permissible quota of that quarter. The rates of duty are as under :—

| | | |
|---|---|---|
| (*a*) Quantity which exceeds the permissible quota by less than | 12½% | at 14 P. per linear metre |
| (*b*) Quantity which exceeds the permissible quota by less than | 12½% & upto 25% | at 21 P. per linear metre |
| (*c*) Quantity which exceeds the permissible quota by less than | 25% & upto 50% | at 27 P. per linear metre |
| (*d*) Quantity which exceeds the permissible quota by less than | 50% | at 55 P. per linear metre |

## FIVE-YEAR PLANS

The following table summarises the programme of development of the whole industry as approved by the Planning Commission for the Five-Year Plans :—

| | Unit | 1952-53 | 1955-56 | 1960-61 | 1965-66 |
|---|---|---|---|---|---|
| *Rated Capacity of Mill industry* | | | | | |
| Spindles | No. | 11,175,283 | 12,051,299 | 13,621,209 | 17,621,209** |
| Yarn | m. lb. | 1,704·2 | 1,840 | 2,080 | 2,250 |
| Looms | No. | 195,849 | 202,901 | 2,20,901†† | 245,901* |
| Cloth | m. yd. | 4,778·7 | 4,950 | 5,444 | 5,800 |
| *Actual Output—* | | | | | |
| Yarn | m. lb. | 1,510 | 1,680 | 1,650 | — |
| Mill Cloth | m. yd. | 4,600 | 5,094 | 5,444 | — |
| Handloom Cloth | ,, | 1,300 | 1,753 | 3,000 to 3,500 | — |
| *Exports—* | | | | | |
| Yarn | m. lb. | — | — | — | — |
| Cloth | m. yd. | 1,000 | 873 | 1,000 | 850 |
| *Cotton Needed—* | m. bales | 4.5 | 4.9 | 6·1 | 7·0† |

* 25,000 automatic looms have been sanctioned for the Third Plan period.
† For cotton mills' consumption alone.
†† Including 18,000 automatic looms.
** While four million additional spindles have been sanctioned for the Third Plan, licences for three million spindles have been given for immediate release. The question of the balance of one million spindles was expected to be considered in the third year of the Plan.

# SHIPPING COMPANIES AND AIRWAYS

## SHIPPING COMPANIES

### AMERICAN EXPORT ISBRANDTSEN LINES INC. NEW YORK

*Agents :*—Lionel Edwards Ltd., 41, Nicol Road, B. Estate, Bombay ; Peirce Leslie & Co., Ltd., Beach Road, Alleppey ; Peirce Leslie & Co., Ltd., Ballard Road, Cochin ; Peirce Leslie (C) & Co., Ltd., Bunder Road, Mangalore ; Peirce Leslie & Co., Ltd., Kozhikode ; Peirce Leslie & Co., Ltd., Quilon ; The Bombay Co. (Private) Ltd., 169, Broadway, Madras ; Lionel Edwards Ltd., India Steamship House, 21, Old Court House Street, Calcutta ; Lionel Edwards Ltd., New Delhi ; Lionel Edwards Ltd., Visakhapatnam ; G. Lichtman, Director General, American Export Isbrandtsen Lines Inc., India Steamship House, 21, Old Court House Street, Calcutta.

India Service fortnightly sailings between New York and other U.S. North Atlantic Ports *via* Egypt, Lebanon and the Suez Canal and Ports in the Gulf of Suez, Red Sea, Gulf of Aden, Pakistan, India, Ceylon and Burma. Calls at other ports may be made. Also Round the world Service fortnightly New York to New York *via* Mediterranean, Pakistan, India, Singapore, Saigon, Hongkong, Japan, San Francisco and Los Angeles.

### ANCHOR LINE LTD.

*Anchor Line Building, 12-16, St. Vincent Place, Glasgow C. I. ; Royal Liver Building, Liverpool 3 ; 9, Haymarket, London, S.W. 1.*

*Offices*

| | | |
|---|---|---|
| BOMBAY | .. .. | Neville House, Graham Road, Ballard Estate. |
| KARACHI | .. .. | National and Grindlays Bank Building, McLeod Road. |

*Chief Agencies*

| | | |
|---|---|---|
| CALCUTTA | .. .. | Cruickshank & Co., Pvt. Ltd. |
| MADRAS | .. .. | Best & Co., Ltd. |
| COLOMBO | .. .. | Delmege, Forsyth & Co., Pvt. Ltd. |

### ATHEL LINE LTD.

*Agents :*—Anchor Line Limited, Ballard Estate, Bombay.

### CUNARD STEAMSHIP CO., LTD.

*Agents :*—Anchor Line Limited, Ballard Estate, Bombay.

### DONALDSON LINE LTD.

*Agents :*—Anchor Line Limited, Ballard Estate, Bombay.

### J. & J. DENHOLM LTD.

J. & J. Denholm (Management) Ltd.
J. & J. Denholm (Agency) Ltd.

*Agents :*—Anchor Line Limited, Ballard Estate, Bombay.

### LAMPORT & HOLT LINE LTD.

*Agents :*—Anchor Line Limited, Ballard Estate, Bombay.

### MOOR LINE LTD.

*Agents :*—Anchor Line Limited, Ballard Estate, Bombay.

### MUNGO CAMPBELL & CO., LTD.

*Agents :*—Anchor Line Limited, Ballard Estate, Bombay.

### WALTER RUNCIMAN & CO. LTD.

*Agents :*—Anchor Line Limited, Ballard Estate, Bombay.

### SUGAR LINE LTD.

*Agents :*—Anchor Line Limited, Ballard Estate, Bombay.

### AMERICAN PRESIDENT LINES LIMITED

601, *California Street, San Francisco, California, U.S.A.*

Fortnightly sailings from Cochin, Mangalore, Bombay, Karachi *via* the Mediterranean to United States.

*General Agents :—*

BOMBAY—Forbes, Forbes, Campbell & Co., Ltd., Home Street, Fort.
KARACHI—Cooper & Co., Ltd., Bunder Road.
CALCUTTA—McLeod & Co. Ltd., 3 Netaji Subhas Road.
MADRAS—South Indian Export Co. Ltd., Post Box No. 37, McLean Street.
COCHIN—Madura Co. Private Ltd., P.O. Box No. 6.
MANGALORE—Canara Shipping Corporation, P.O. Box 23.

### APEEJAY LINES

*Owners :* Surrendra Overseas Ltd., 135, Canning Street, Calcutta.

*Branches :*

*Bombay :*—Savoy Chambers, Wallace Street.
*New Delhi :*—Parliament Street.
*Madras :*—27, Sembudoss Street.

The Company owns nine ships Apj "Sushma", Apj "Akash", Apj "Anjli", Apj "Rita", Apj "Ambar", Apj "Aruna", Apj "Karuna", Apj "Rajiv" and Apj "Anil".

At present their vessels are on the tramp trade and coastal trade with emphasis on coastal traffic. Their future plans are to run regular lines between India-U.K./Continent and India-United States.

### CHOWGULE STEAMSHIPS LTD.

*Telegrams and Cables :* "MARATASHIP".
*Registered Office :* Mormugao Harbour (Goa)—*Telephone No.* 29.
*Bombay Office :* 'India House' opp. : G.P.O., Bombay-1. Telephone Nos. : 265301-04 ; Telex : BY 342.
*Managing Director :*—V. D. Chowgule.
*Directors :*—Y. D. Chowgule, P. D. Chowgule, S. D. Chowgule.
*Number of Vessels :*—7—(1 Bulk Carrier—35,100 DWT ; 3 Liberty Ships—each of about 10,500 DWT ; 3 Passenger-cum-cargo ships)
*Vessels under construction :* One Bulk Carrier of 35,500 DWT in Japan.
*Passenger-cum-cargo Service :* From Bombay to Goa.
*Cargo Service :* On Indian coast and overseas.

### ELLERMAN & BUCKNALL STEAMSHIP CO., LTD.

12/20, *Camomile Street, London, E.C.* 3.

*General Agents :—*

BOMBAY—Forbes, Forbes, Campbell & Co., Ltd., Home Street, Fort.
KARACHI—Forbes, Forbes, Campbell & Co., Ltd., P.O. Box No. 4659.
CALCUTTA—Gladstone Lyall & Co., Ltd., 4, Fairlie Place.
MADRAS—Best & Co. Private Ltd., Post Box No. 63.
COCHIN—Aspinwall & Co. Private Ltd., P.O. Box No. 2.
Trading Ports are Montreal, Halifax, St. John N.B., etc.

### BRITISH INDIA STEAM NAVIGATION CO., LTD.

For all information with regard to the Company's services, application should be made to Mackinnon, Mackenzie & Co. Private Ltd., Bombay 1.

*Agents in Madras :*—Binny & Co. Ltd., 7, Armenian St., Madras-1.

### BOMBAY STEAM NAVIGATION CO. (1953) LTD.

*Regd. Office : Scindia House, Dougall Road, Ballard Estate, Bombay.*

*Administrative Office :* —100, P. D'Mello Road, Bombay 9.
*Telephone No.* :—322021 (4 lines).
*Telegrams* :—'KONKANLINE', Bombay.
*London Agents :* Scindia Steamships (London) Ltd., Kempson House, Camomile Street, London, E.C. 3. *Telephone :* Avenue 1200 (9 lines).

*Passengers only :*

Bombay, Rewas, Dharamtar, Dabhol, Ratnagiri, Vengurla, Panjim.

### ELLERMAN'S CITY AND HALL LINES

From Glasgow and Liverpool to Calcutta and back to London. From Glasgow and Liverpool to Bombay, Kathiawar Ports, Karachi and Malabar Coast Ports and back to London, Liverpool and Glasgow.

*Agents*

| | | |
|---|---|---|
| BOMBAY | .. .. | Killick, Nixon & Co. Ltd. |
| KARACHI | .. .. | Forbes, Forbes, Campbell & Co. Ltd. |
| CALCUTTA | .. .. | Gladstone Lyall & Co., Ltd. |
| COLOMBO | .. .. | Aitken Spence & Co., Ltd. |
| MADRAS | .. .. | Best & Co. Private Ltd. |
| MORMUGAO | .. .. | Killick, Nixon & Co., Ltd. |

### HARRISON LINE

*Agents* :—Killick, Nixon & Co. Ltd., Home Street, Fort, Bombay.

### BROCKLEBANK LINE

*Agents :*—Edward Bates & Son's Agency, Killick, Nixon & Co. Ltd., Home Street, Fort, Bombay.

### L. SMIT & CO'S INTERNATIONALE SLEEPDIENST, ROTTERDAM

*Agents :*—Killick, Nixon & Co. Ltd., Home Street, Fort, Bombay 1; Killick Nixon & Co., Ltd., Mormugao.

### HINODE KISEN CO. LTD., TOKYO

*Agents :*—Killick, Nixon & Co. Ltd., Home Street, Fort, Bombay.

### EVERETT ORIENT LINE

*Calcutta Agents :*—Everett Steamship Corporation, G.P.O. Box 25, Calcutta.

*Telegraphic Address :*—EVORIENT, Calcutta.

*Telephones :*—227841/3 and 227854.

Bay of Bengal, Straits, Hongkong, Japan and *vice versa*.

### JOHNSON LINE

*Bombay Agents :*—Everett Steamship Corporation, Post Box 523, Bombay.

*Telegraphic Address :*—STARLINER, Bombay.

*Telephone :*—26-4081/3 (3 lines).

Japan, India, Pakistan, Persian Gulf and *vice versa*.

### AMERICAN MAIL LINE

1010, Washington Bldg., Seattle, Washington.

*Bombay Agents :*—Everett Steamship Corporation, P.O. Box 523, Bombay 1.

*Calcutta Agents :*—Everett Steamship Corporation, G.P.O. Box 25, Calcutta 1.

*Service :*—U.S.A. West Coast Ports to Indian East & West Coast Ports, *vice versa*.

### THE GREAT EASTERN SHIPPING CO. LTD.

*Registered Office :*—Mercantile Bank Building, 60, Mahatma Gandhi Road, Bombay 1.

*Telegrams :*—'GREATSHIP', *Telex :*—TLX-217; *Telephones :*—259226 (9 Lines).

*Branch Office :*—16/18, Strand Road, Calcutta.

*Delhi Office :*—A. H. Bhiwandiwalla & Co. (Bombay) Private Ltd., 100, Golf Link Area, New Delhi.

*Managing Agents :*—A. H. Bhiwandiwalla & Co. (Bombay) Private Ltd.

*Mg. Agent's Directors :*—Vasant J. Sheth, K. M. Sheth.

*Secretary :*—S. N. Sanklecha.

*Technical Manager :*—T. M. Sanghavi.

*Authorised Capital :*—Rs. 2,00,00,000. *Issued and Subscribed Capital :*—Rs. 1,20,00,000 in 12,00,000 Ordinary Shares of Rs. 10 each.

*Accounts Closed :*—As at 30th June.

*Operations :*—Owns and operates a fleet of 19 ships including India's first coastal Tanker. Operates liner services on the Indian Coast and from West Coast U.S.A., W. Coast Canada to Pakistan & India. Also Tramp Shipping all over the World.

*Agents :*—At all important ports in India, Pakistan, Ceylon, Burma and Overseas Ports.

### HARSHA TANKERS & SHIPPING AGENCY

4th Floor, "Mirabelle," 33A, New Marine Lines, Bombay 1.

Steamship Agents & Operators of Tankers & Bulk Carriers. Telephone No. 241936.

*Chief Executive :* Harsha J. Bhatt, M.A. (Econ., Uni. of B'bay), M.B.A. (Uni. of Penn, U.S.A.).

Represented at Kandla, Goa, Cochin, Tuticorin, Madras, Visakhapatnam & Calcutta. Cables :—"BINITANKER" at all ports.

General Agents in India for Liners.

### INDIA STEAMSHIP COMPANY, LTD.

*Head Office :*—India Steamship Co., Ltd., India Steamship House, 21, Old Court House Street, Calcutta 1.

*Branch Offices :*—(*a*) India Steamship Co., Ltd., Contractor Building, 41, Nicol Road, Bombay 1. (*b*) India Steamship Co., Ltd., Godavari Street, Visakhapatnam 1. (*c*) India Steamship Co., Ltd., 'Suryabagh', Commercial Road, Kakinada.

*Agents in India :*—(*a*) The Bombay Co. (Private) Ltd., Fort Cochin, Cochin; (*b*) Ananthakrishna & Co., 16, First Line Beach, Madras 1; (*c*) Bombay Co. P. Ltd., Beach Road, Tuticorin.

*Saurashtra Agents :*—J. M. Baxi & Co.

*Services to :*—(*a*) From Bombay to the U.K./Continent; (*b*) From Calcutta: (1) Calcutta/U.K./Continent; (2) Calcutta/South America; (*c*) Indo-Soviet Service, *i.e.*, from Calcutta and Bombay to Black Sea Ports

### JAVA BENGAL LINE

Branch Office of N. V. Stoomvaart Maatschappij "Nederland".

5 & 7, Netaji Subhas Road, Calcutta 1. P. O. Box 71. *Telephone:* 23-4442 (4 lines).

In all ports on East and West Coast except Calcutta: Volkart (Bombay) P. Ltd. represent their Lines.

The following lines are represented by them in India, with vessels calling at Indian ports :

*Nedlloyd Line :* Sailings between India, East Pakistan, Philippines and USA/Canadian West Coast ports.

*Nedlloyd Latin America & Caribbean Service :* Sailings from Calcutta and East Pakistan Ports to West Coast of South America and Caribbean Ports *via* Straits, Honkong and Japan.

*Nedlloyd Line/Gulf of Mexico Express :* Sailings from Calcutta and East Pakistan to ports in the Gulf of Mexico *via* Panama Canal.

*Nedlloyd Line/India Pakistan Express :* Sailings from U.S.A. East Coast to Indian East and West Coast ports *via* Suez Canal.

*Nedlloyd Line/Middle East Express :* Sailing from Great Lakes to Middle East, Karachi, Bombay and Calcutta.

*Holland-Bengal-Burma Line and Holland-Bombay-Karachi Line :* Sailings between Indian East and West Coast ports respectively *via* Red Sea and Port Said to North Continental ports accepting through cargo for Mediterranean and Scandinavian ports.

*K.P.M. Lines :*—Sailings from Calcutta to Rangoon, Penang, Port Swettenham, Singapore, Bangkok, Pnom Penh (Saigon, Hongkong optional) *vice versa*.

L. Smit & Co.'s International Tug Service, Ocean going tugs stationed all over the world.

### JAYANTI SHIPPING COMPANY LTD.

*Head Office :* 56, Jor Bagh, New Delhi 3.

*Other Offices at :* BOMBAY, MADRAS, CALCUTTA.

Agents Throughout the World.

Jayanti Shipping Company Limited, youngest member of India's Shipping Fraternity owns a Fleet of Cargo Vessels, Oil Tankers and Bulk Carriers.

#### JAYANTI FLEET

*Tankers (in DWT) :* Adi Jayanti 33,015, Vikram Jayanti 54,816.

*Cargo Ships (in DWT) :* Arya Jayanti 10,521, Budha Jayanti 10,790, Gargi Jayanti 10,521, Govind Jayanti 10,690, Nanak Jayanti 10,902, Parvati Jayanti 10,501, Ashoka Jayanti 10,030, Gandhi Jayanti 10,929 Krishna Jayanti 11,050, Laxmi Jayanti 10,050, Rama Jayanti 10,986.

*Bulk Carriers (in DWT) :* Bharata Jayanti 33,254, Gotama Jayanti 33,287, Akbar Jayanti 33,264, Chandragupta Jayanti 33,297, Shahjehan Jayanti 33,271, Kanishka Jayanti 33,338 Devaraya Jayanti 33,284, Samudragupta Jayanti 32,250.

*Combined Oil/Ore Carriers (in DWT) :* Bhaskar Jayanti 20,578, Lilavati Jayanti 20,584, Chanakya Jayanti 20,606.

*Total (approx. DWT) :* 5,50,000.

*Chairman :* Dr. J. Dharma Teja.

*Vice-Chairman :* M. Thirumala Rao, M.P.

*Managing Director :* G. Narayana.

### LLOYD TRIESTINO

*Bazargate Street, Fort, Bombay. Post Box No.* 1080.

*Telephone No.* 25-2388.

*Telegraphic Address :* "LLOYDIANO".

De Luxe Passenger Service from Bombay to Naples/Genoa & Venice/Trieste as well as to Djakarta, Singapore and Hong Kong.

Fast Cargo-cum-Passenger Service with monthly sailing from Cochin to Naples and Genoa.

Cargo Service from East and West Coasts of India to Mediterranean Ports.

Cargo Service by fast passenger Vessels from Bombay to Italy and also to the Far East.

### HANSA LINE

*Agents :*

Calcutta :—Hansa Line, Ilaco House, Ground Floor, 1-3, Brabourne Road, P. O. Box 2698. Phone : 22-7855. *Telegraphic Address :* "HANSASTEAM." *Telex*—243.

Bombay :—Shaw Wallace & Co., Ltd., 3, Wittet Road, Post Box 203, Bombay 1. *Telegraphic Address :* "HANSALACE". Phone : 26-4051-54. *Telex*—359.

Madras :—Shaw Wallace & Co., Ltd., 8-9, Thambu Chetty Street, P.O. Box 14, Madras 1. Phone : 29301. *Telegraphic Address :* "HANSALACE." *Telex*—232.

Fortnightly sailings from North Continental Ports to India, Pakistan, Ceylon and Burma.

Regular monthly sailing from Calcutta to Persian Gulf Ports.

### THE MALABAR STEAMSHIP COMPANY LTD.

Darabsha House, Ballard Road, Bombay 1.

*Managing Agents :* Shoorji Vallabhdass P. Ltd.

*Telephones :*—263625 and 263626.

*Branches :*—Calicut, Cochin, Alleppey and Calcutta.

From Bombay to Calicut-Cochin-Tuticorin and Colombo as per demand. From Bombay to Saurashtra Ports. From Calcutta to Rangoon. From Calcutta to Madras-Tuticorin-Cochin and also touch Colombo according to demand. From Indian Ports to Overseas.

### MAERSK LINE

*Agents :*—Volkart (India) Ltd., Shipping Dept., Graham Road, Ballard Estate, Bombay 1.

*Telegraphic Address :*—"MAERSKLINE". *Telephones :*—26-1531.

Japan/India/Pakistan/Persian Gulf and *vice versa*.

### MITSUI O. S. K. LINE

*Mitsui O.S.K. Lines Ltd.*

*Agents :*

BOMBAY :—Orient Ship Agency Private Ltd., Marshall's Bldg., Ballard Road, Bombay 1.

CALCUTTA :—F. W. Heilgers & Company (P) Ltd., Chartered Bank Building, Calcutta.

COCHIN :—Sorabji & Co. Pvt. Ltd., Ahura House, Jew Town, P.O. Box No. 42, Mattancherry, Cochin 2.

MADRAS, KAKINADA AND VISHAKAPATNAM :—International Clearing and Shipping Agency, 20-B, 2nd Line Beach, Madras.

TUTICORIN :—A. & F. Harvey Ltd., Tuticorin.

JAPAN/INDIA/PAKISTAN LINE

Regular monthly sailings serving: Japanese main ports—Hongkong—Singapore — Port Swettenham — Penang — Colombo — West and East Coast of India—Karachi, Kuwait—Iraq and Iran and *vice versa*.

JAPAN/BENGAL LINE

Regular sailings serving : Japanese main ports—Hongkong—Singapore—Port Swettenham — Penang — Ports at the Bay of Bengal and *vice versa*.

WESTBOUND ROUND-THE-WORLD SERVICE

Regular monthly sailings serving : Japanese main ports—Philippines—Singapore—Penang—Bombay—Port Sudan—Casablanca—Ports in U.S.A. (Atlantic Coast, Gulf). Also West African Ports with transhipment at Casablanca.

### THE MOGUL LINE LTD.

16, Bank Street, Bombay 1. Tel. Address : 'Mogul', Bombay.

Phone No. : 38022.

*Pilgrim Booking Office :*—Nos. 4 & 5, Mahomed Haji Saboo Siddick Musafirkhana, Carnac Road.

Regular Passenger-cum-Cargo service from Bombay to Aden and Red Sea ports. A special Pilgrim Service is arranged between Bombay and Jeddah during Haj season every year.

### NEW INDIA MARITIME AGENCIES PVT. LTD.

21, Sunkurama Chetty Street, Madras 1.

Steamer Agents and ships operators.

*Branches :* Bombay—Cochin—Calicut—Alleppey—Tuticorin—Kakinada—Visakhapatnam—Calcutta.

*General Agents :* United Yugoslav around the world Service (Eastbound) etc.

### NEDLLOYD & HOEGH LINES

*Agents :*—Volkart (India) Ltd., Shipping Department, Graham Road, Ballard Estate, Bombay 1.

*Telegraphic Address :*—"ENGADINE." *Telephones :* 26-1531, 262961.

From India to Ceylon, Malayan Union, Philippines and West Coast of U.S.A. and Canada, and *vice versa*.

### N. Y. K. LINE

*Nippon Yusen Kaisha, Tokyo.*

*Agents :*—Indian Maritime Enterprises Pvt. Ltd., Darabshaw House, Ballard Road, Bombay 1. *Telegram :*—"VENKAPON." *Telephones:* 264877 and 264177.

The Bombay Co. Private Ltd., P.O. Box 109, Broadway, Madras-1. *Phones :*—21191, 23799. *Telegrams :* "CABRONADA."

James Finlay & Co. Ltd., 2, Netaji Subhas Chandra Road, Calcutta. *Phones :*—224601, 224609. *Telegrams :*—"Yusen (C)."

(i) Japan/India/Pakistan/Persian Gulf. (ii) Japan/Calcutta.

### ORIENT MID EAST GREAT LAKES SERVICES

*Agents :*—Indian Maritime Enterprises Pvt. Ltd., Darabshaw House, Ballard Road, Bombay 1.

India/Montreal & Great Lakes Ports of Canada & U.S.A.

### ORIENT MID-EAST LINES, NEW YORK

*Agents :*—Indian Maritime Enterprises Pvt. Ltd., Darabshaw House, Ballard Road, Fort, Bombay.

U.S.A. & Canada—India.

### PAKISTAN SHIPPING LINE LTD.

*Agents :*—Indian Maritime Enterprises Pvt. Ltd., Darabshaw House, Ballard Road, Bombay 1.

India and Pakistan/U.K. Continent.

### POLISH OCEAN LINES

24, 10 *Lutego, Gdynia (Poland).*

India Line—India/Pakistan/Burma/Ceylon.

*Bombay Branch :*—The Polish Ocean Lines, Bharat Insurance Bldg., 15/A, Horniman Circle, Fort, Bombay 1.

*Telegraphic Address :*—" POLLINES ", Bombay.

*Telephone No. :* 255605–6.

*Agents :*—Khemka & Co. (Agencies) Private Ltd., 202/A, Veer Nariman Road, Churchgate Reclamation, Bombay 1.

*Telegraphic Address :*—"POLBOUND", Bombay.

*Telephone No. :* 242244/45.

International Clearing and Shipping Agency, 20/B, Second Line Beach, Madras. *Telegraphic Address :* "CLEARSHIP". *Phones :* 21281/3.

Khemka & Co. (Agencies) Pr. Ltd., 31/32, India Exchange Place Extn., Calcutta 1. *Telegraphic Address :* "WESTBOUND". *Phones :* 229691/2/3.

*Karachi Office :*—The Pak Ocean Shipping Co., Ltd., Qamar House, Bunder Road. *Telegraphic Address :* "TRIDENT". *Phone :* 33287.

### RATNAKAR SHIPPING COMPANY LTD.

16, Strand Road, Calcutta 1.

*Managing Agents :* Messrs. Birla Gwalior Pvt. Ltd., 15, India Exchange Place, Calcutta 1. *Telegrams & Cables :* "RATNALINE"; *Registered Office :* 16, Strand Road (Mezzanine Floor), Calcutta 1; *Telephone Nos. :* 22–8901, 8902 & 8903.

*Agents in India :* (*Controlling Agents—West Coast*)—Messrs. Shaw Wallace & Co. Ltd., Wallace House, 3, Wittet Road, Bombay 1. *Telephone :* 264051 ; *Telegrams :* "SHAWLACE." (*Controlling Agents—East Coast*)—Messrs. Shaw Wallace & Co., Ltd., 8/9, Thambu Chetty Street, Madras 1. *Telephone :* 29301 ; *Telegrams :* "SHAWSHIP."

*General Agents abroad :* Messrs. Harris & Dixon Ltd., 81, Gracechurch Street, London, E.C. 3 ; *Telephone :* Mansion House : 5631 ; *Cables :* "SRRACHART."

*No. of ships :* Four ; *Total G.RT. :* 28202.

*Services :* Overseas tramp cargo service and Indian Coastal cargo service.

### ROYAL INTEROCEAN LINES

*Interocean House, 191, Java Road, Hongkong.*

*Agents :*

Bombay : Forbes, Forbes, Campbell & Co., Ltd., Home Street, Fort.

Karachi : Forbes, Forbes, Campbell & Co. Ltd., P. O. Box No. 4659.

Alleppey : Darragh, Smail & Co. Ltd., Alleppey, P.O. Box No. 50.

Cochin : Darragh, Smail & Co. (India) Ltd., Willingdon Island, P.O. Box No. 22.

Monthly sailings from Bombay, Alleppey and Cochin *via* Colombo, Malaya and Indonesia to Australia.

### SCINDIA STEAM NAVIGATION CO., LTD.

*Scindia House, Dougall Road, Ballard Estate, Bombay.*

*Telephone No. :* 268161 (12 lines).

*Coastal Services :*—(*Telegrams :* "JALANATH"). *Cargo Services :* India, Pakistan, Burma, Ceylon.

*Cargo-cum-Passenger Services :* Bombay—Kutch—Karachi ; Bombay—Saurashtra ; Bombay—Mormugao—Mangalore Ports—Cochin.

*Passenger Service :* Bombay—Konkan Ports.

*Overseas Services :*—(*Telegrams :* "SAMUDRAPAR"). Regular services : (*a*) India-Pakistan/U.K. Continent ; (*b*) India/West Africa *Via* Casablanca ; (*c*) India/Levant Ports/U.S.S.R. (Black Sea Ports) ; (*d*) India/U.S.A. ; (*e*) India/Great Lakes/Eastern Canada ; (*f*) India/U.A.R.

## THE SHIPPING CORPORATION OF INDIA LTD.

*(A Government of India Undertaking.)*

*Telegrams and Cables* :—"SHIPINDIA".

*Registered Office* :—"Steelcrete House", 4th Floor, Dinshaw Wacha Road, Bombay 1. *Telephone Nos.*: 246271-2-3-4-5. *Telex*: BY 371.

*Branch Offices : Calcutta* :—Nilhat House, R. N. Mukherjee Road, Calcutta 1. *Telephone No.* : 230921 (9 lines). *Mombasa* :—Renmar House, Kilindini Road, Mombasa (B. East Africa). *Telephone No.* 6336.

*Chairman* :—R. L. Gupta, I.C.S. (Retd.). *Managing Director* :—Govind H. Seth.

*Number of Vessels* :—32 (including four tankers) : *Total G.R.T.* :—2·82 lakhs.

*Services : Passenger-cum-Cargo Services* :—From India to East Africa, Malaysia and Ceylon. Also Calcutta Madras to Andaman Islands.

*Cargo Services* :—From India to U.S.A. ; U.K.—Continent ; Poland ; U.S.S.R. ; U.A.R. ; Australia ; Japan. *Tanker services on Coastal and Overseas trades* :—Colliers on Indian Coast.

## SOUTH EAST ASIA SHIPPING COMPANY PVT. LTD.

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Darjeeling (Laden La Road).
Delhi (Malhotra Building, Janpath).
Gauhati (Pujabari, Panbazar; Airport Office).
Hyderabad (Bashir Bagh Road; Airport Office).
Imphal (Mahatma Gandhi Road; Airport Office).
Jaipur (2-B, New Colony; Airport Office).
Jammu (Tourist Reception Centre, Residency Road; Airport Office).
Jamnagar (Indra Mahal, Bhid-Bhanjan Road; Airport Office).
Jamshedpur (Narbheram & Co., Bishepur Road; Airport Office).
Jorhat (Nehru Park Road; Airport Office).
Kabul (Deh Afghan Shaha Md. Khanwad; Airport Office).
Kailashahar (Airport Office).
Kamalpur (South Manik Bhandar).
Kandla (Kanji Jadhavji & Co., Qr. No. DBZ/S-5, Gandhidham; Airport Office).
Karachi (Karachi House, McLeod Road: Airport Office, Drigh Road).
Khatmandu (6/42, Judha Sadak: Airport Office).
Keshod (Near Railway Station; Airport Office).
Khowai (Airport Office).
Kulu (Ambassador Travels (P.) Ltd.; Dholpur Madan; Airport Office).
Lahore (11, Dayal Singh Mansions, The Mall; Airport Office).
Lilabari (North Lakhimpur; Airport Office).
Lucknow (Carlton Hotel; Airport Office).
Madras (5 and 6, Mount Road; Airport Office).
Mangalore (Sri Rang Bhawan, K. S. Rao Road; Airport Office).
Nagpur (Assa House, Station Road; Airport Office).
Patna (The Hermitage, Frazer Road; Airport Office).
Phoolbagh, Airport.
Porbandar (Harish Mansion; Airport Office).
Port Blair (Secretariat; Airport Office).
Rajkot (Hir Mahal, Coronation Gardens; Airport Office).
Ranchi (Ranchi Automobiles, Main Road, Airport Office.
Rangoon (Randeria Building, 533, Merchant Street; Airport Office).
Rourkela (Hill View Hotel; Airport Office).
Silchar (Club Road; Airport Office).
Srinagar (Tourist Reception Centre; Airport Office).
Tezpur (Bhabani Kutir, Opp. Academy School; Airport Office).
Tiruchirapalli (Ashok Bhawan, Junction Road; Airport Office).
Trivandrum (Trivandum Air Centre, Main Road; Air Port Office).
Udaipur (Tourist Guide Service; Chetak Circle; Airport Office).
Vijayawada (Rao Sons, Bunder Road; Airport Office).
Vishakapatnam (20/128, Thompson Street; Airport Office).

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*Territory :*—India, District of Tiruchirapalli and Maharashtra State, Afghanistan, Nepal, India (excluding the cities of Bombay, Calcutta, Delhi and Madras). States of Jammu & Kashmir, Himachal Pradesh, Punjab, Rajasthan & Uttar Pradesh, India respectively.

The following Airlines are general sales agents of Indian Airlines.

*Airline :*—(1) Kuwait Airways; (2) Union of Burma Airways.

*Territory :*—Kuwait, Burma.

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*District Sales Office :* 35A, Chowringhee Road, Calcutta-16. *Tel.:* 237862, 7811, 4769, 8311. *Cable :* JALC.

*District Sales Office :* 32, Rampart Row, Fort, Bombay-1. *Tel.:* 254981, 256475. *Cable :* JAPANAIR.

The Company operates the following lines:

Tokyo — Honolulu — San Francisco *& vice versa.*
Tokyo — Honolulu — Los Angeles *& vice versa.*
Hongkong — Tokyo — Honolulu — San Francisco *& vice versa.*
Hongkong — Tokyo — Honolulu — Los Angeles *& vice versa.*
Tokyo—Osaka-Taipei—Hongkong *& vice versa.*
Tokyo—Okinawa—Taipei—Hongkong *& vice versa.*
Tokyo—Hongkong—Bangkok—Singapore—Djarkarta *& vice versa.*
Tokyo—Hongkong—Bangkok—Calcutta—Karachi—Cairo—Rome—Frankfurt—London *& vice versa.*
Tokyo—Hongkong—Bangkok—New Delhi—Karachi—Cairo—Rome—Paris—London *& vice versa.*
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Tokyo—Anchorage—Hamburg—London *& vice versa.*
Tokyo—Seoul *& vice versa.*
Tokyo—Osaka—Okinawa *& vice versa.*
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### K. L. M. ROYAL DUTCH AIRLINES

7, Chowringhee Road, Calcutta 13; Phone: 23-3962 (5 lines); Cables: Kalmaera-C.9-A, Connaught Place, New Delhi; Phones: 43128 (3 lines); Cables: Transaera. Taj Mahal Hotel, Strand Road, Bombay; Phones: 212391 & 213121; Cables: Kalmaera-PG.

1. CALCUTTA — KARACHI — DHAHRAN — CAIRO — ATHENS — ZURICH — AMSTERDAM (Westbound — Saturdays).
2. NEW DELHI — KARACHI — ABADAN — CAIRO — ATHENS — FRANKFURT — AMSTERDAM (Westbound — Tuesdays).
3. CALCUTTA — BANGKOK — MANILA — TOKYO (Eastbound — Mondays).
4. NEW DELHI—BANGKOK—MANILA—TOKYO (Eastbound—Fridays).

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1. NEW DELHI—KARACHI (VISCOUNT—204, 205).
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# IRRIGATION

THE net area under irrigation in India during 1959-60 was 58·7 million acres and the gross area 67·7 million acres. The net sown area during 1959-60 was 326·99 million acres. The percentage of net irrigated area to the net sown area in the entire country was 18. This is the second largest irrigated area in any country of the world, the largest being in China.

The total capacity of India's canals is over 220,000 cusecs, and the canals are over 67,500 miles in length.

The total amount of annual flow of water in the Indian Union is 1,356 million acre feet. Of this only 76 million acre feet or 5·6 per cent are at present being used for irrigation purposes.

Rainfall in the country is as already mentioned unequal and in many areas uncertain. The distribution is as follows:

| Range | (in million acres) | Percentage |
|---|---|---|
| Area between 0–30 inches .. .. | 237·6 | 29·6 |
| Area between 30–50 inches .. .. | 339·2 | 42·0 |
| Area between 50–75 inches .. .. | 143·9 | 17·8 |
| 75 inches and above .. | 85·6 | 10·6 |
| Total area .. .. | 806·3 | 100·0 |

The annual rainfall varies from 5" (in parts of Rajasthan) to over 100" in the west coast areas. Most of it, however occurs during the four months of June-September, when many rivers are often in spate. On the other hand, about 30 per cent of the area gets less than 30" rainfall a year, necessitating irrigation measures.

The country can be broadly divided according to the rainfall into two zones of certain and uncertain rainfall. Generally speaking, rainfall is certain in Assam, Bengal, Konkan and Malabar and in the Narbada Valley. It is uncertain in large areas of Andhra, Maharashtra, Gujarat, Madras, Mysore, Orissa, Punjab, Rajasthan and Uttar Pradesh.

The total water resources of Indian rivers in terms of annual flow is estimated at 1,356 million acre feet of water, distributed as follows:—

1. Rivers (excluding the Indus system) falling into the Arabian Sea, 251·5; 2. Rivers (excluding Ganga and Brahmaputra systems) falling into the Bay of Bengal, 334·0; 3. Indus basin in India, 64·4; 4. Ganga System, 397·1; 5. Brahmaputra System, 309·0.

The total run off is about 1·87 million cubic ft. throughout the year.

The utilisation is given below:— (mln. acre ft.)

| System | Estimated average flow | UTILISATION upto 1951 | Addl. in 1st FYP. | Addl. in 2nd FYP. |
|---|---|---|---|---|
| Indus .. .. .. .. .. | 168 | 8·0 | 11 | 1·2 |
| Ganges .. .. .. .. .. | 400 | 38·0 | 21·5 | 14·5 |
| Brahmaputra .. .. .. .. | 300 | 2·3 | .. | .. |
| Mahanadi .. .. .. .. .. | 84 | 3·1 | 10·5 | 0·2 |
| Godavari .. .. .. .. .. | 84 | 12·0 | 1·0 | 1·5 |
| Krishna .. .. .. .. .. | 50 | 9·0 | 15·6 | 2·6 |
| Cauvery .. .. .. .. .. | 12 | 8·0 | 1·3 | 0·6 |
| Narbada .. .. .. .. .. | 32 | 0·2 | .. | 10·1 |
| Tapti .. .. .. .. .. | 17 | 0·2 | 0·7 | 3·5 |

Out of the water resources of 1,356 million acre feet, about 450 million acre feet are utilisable. About 88 million acres (6·5 per cent of total and 19·5 per cent of usable) were utilised by 1951. In the First and Second Five-Year Plans 11 and 13 per cent of the total water respectively were to be used. By the end of the Second Plan, about 120 mil. acre ft. (about 27 per cent of usable flow or 8·9 per cent of total annual flow) was utilised. An additional 40 mil. acres flow, bringing the proportion to about 36 per cent of the usable flow are likely to be used in Third Plan.

The latest available figures show that the irrigated area in the country is 70·0 million acres.

The total investment in irrigation and power projects during the First Plan was of the order of Rs. 615 crores.

The revised allocation under the Second Plan for irrigation and power was Rs. 860 crores (Centre 72 and States 788) and for minor irrigation Rs. 96 crores (Centre 3 and States 93).

The estimated cost of the multi-purpose, large and medium projects included in the 1st and 2nd Plans was Rs. 1,330 crores.

By the end of 1961, 202 Plan projects (6 major, 196 medium) had been completed.

The major and medium irrigation projects taken up in the 1st and 2nd Plan periods on completion and on full development would irrigate about 38·51 million acres and at the end of the 3rd Plan it is expected that 45·5 million acres would be brought under irrigation.

During Third Plan additional irrigation potential of about 13·8 mil. acres will be created from continuing schemes and 2·4 mil. acres from new schemes, totalling 16·2 mil. acres. The total utilisation in Third Plan is, however, expected to be 12·8 mil. acres (gross). The cost of irrigation and flood control programme during Third Plan is Rs. 6,610 million including Rs. 4,360 million for irrigation projects carried over from Second Plan, Rs. 1,640 million for new projects, Rs. 610 million for flood control, drainage, waterlogs and erosion etc.

Additional food production expected through major and minor irrigation works was as follows:

(In million tons):

First Plan: 2·01 and 2·88 respectively.

Second Plan: 3 and 1·9 respectively.

The programme for irrigation in the Third Plan involves an estimated outlay of Rs. 5,993·4 million. The outlay on flood control, drainage, anti-waterlogging and sea erosion measures will be Rs. 613·2 million. Out of this by the end of 1963-64 about Rs. 2,910·0 million have been utilised for irrigation against the Plan provision, i.e. about 49 per cent of the outlay is likely to be utilised in the first 3 years of the Third Plan. In the case of flood control the outlay during the same period (of 3 years of the Third Plan) is estimated at Rs. 460 million, *i.e.* 74 per cent of the Plan outlay.

It was estimated that by the end of the Third Plan an irrigation potential of 29·47 million acres (gross) could be created. The expectation is only 23·16 million acres with an anticipated shortfall of 6·31 million acres including 1·11 million acres shortfall carried forward from the Second Plan.

Major and medium irrigation schemes undertaken since First Plan have created a potential of 12·81 million acres upto the end of March 1962. The corresponding utilisation upto March 1963 was 10·60 million acres *i.e.* about 80 per cent of the potential.

## UTILISATION OF IRRIGATION POTENTIAL

The area irrigated from all sources at the beginning of the First Five Year Plan (1950–51) was 51·5 million acres, of which about 22 million acres were irrigated by major and medium irrigation projects. From major and medium irrigation projects an additional area of about 9·15 million acres was brought under irrigation during the First and Second Plan periods. About 13 million acres more are expected to receive irrigation during the Third Plan period. The pace of development of irrigation as compared to the creation of irrigation potentials may be seen from the table below:

| To end of | Potentiality | Utilisation (Million acres) | Percentage utilisation |
|---|---|---|---|
| 1955–56 (1st Plan period) .. | 0·4 | 3·00 | 46·9 |
| 1960–61 (2nd Plan period) .. | 12·56 | 8·79 | 70·0 |
| 1961–62 (1st year of the IIIrd Plan) .. | 13·63 | 9·68 | 71·0 |
| 1962–63 (2nd year of the IIIrd Plan) .. | 15·28 | 11·07 | 72·4 |

(In million acres)

| | First Plan | Second Plan | Third Plan |
|---|---|---|---|
| Potentiality .. | 6·5 | 11·6 | 19·64 |
| Utilisation .. | 3·1 | 7·9 | 15·41 |

Net area irrigated by categories of projects and benefits from them are tabulated at the beginning of F. Y. Plans I, II & III below.

(In million acres)

| Plan period | Major & Medium Projects | Minor Irrigation | Total |
|---|---|---|---|
| 1950–51 .. .. | 22·0 | 29·5 | 51·5 |
| 1955–56 .. .. | 24·9 | 31·3 | 56·2 |
| 1960–61 .. .. | 31·0 | 39·0 | 70·0 |
| 1965–66 .. .. (Target) | 42·5 | 47·5 | 90·0 |

IRRIGATION POTENTIAL REMAINING UNUSED

(In million acres)

| End of | Potentiality | Utilised | Unused. |
|---|---|---|---|
| 1955-56 .. .. | 6·5 | 3·1 | 3·4 |
| 1960-61 .. .. | 12·1 | 8·6 | 3·5 |

## THE PROJECTS

The following projects continued from the First Plan period.

Bhakra-Nangal (Punjab and Rajasthan), Damodar Valley (West Bengal and Bihar) Hirakud (Orissa), Chambal (Rajasthan and Madhya Pradesh), Tungabhadra (Andhra and Mysore), Mayurakshi (West Bengal), Bhadra (Mysore), Kosi (Bihar), Nagarjunasagar (Andhra), Kakrapara (Gujarat).

The following are the new projects :

*Andhra*—Vamsadhara and Pochampad; *Bihar*—Gandak and Sone Barrage Project; *Gujarat*—Ukal, Narmada, Bhadar, Mahi, Broach; *Jammu and Kashmir* — Lidder Canal; *Kerala*—Bhoothathankethu, Ikhidi Hydro-Electric; *Madhya Pradesh*—Tawa, Chandakeshar, Barna or Kolar, Upper Keri; *Madras*—New Kattalai, Parambikulam, Aliyar; *Maharashtra*—Vir, Mula, Girna; *Mysore*—Ghatprabha II, Kabini, Laxman Thirtha Upperkrishna, Malaprabha; *Orissa*—Salandi, Hirakhud and Mahanadi Delta; *Punjab*—Beas, Gurgaon Canal; *Pondicherry (also Madras)*—Vidur; *Rajasthan*—Banas; *U.P.*—Sarda Sagar II, Ramganga, Matatila; *West Bengal*—Kangsabati.

# MINOR IRRIGATION

Minor irrigation works are works that can be conceived and handled to a large extent by the local people themselves, and individually cost Rs. 10 lakhs or less.

Works like wells, pumping sets, Persian wheels are executed entirely by individual cultivators. Many other works like tanks, anicuts, and channels benefiting groups of cultivators are also executed by the cultivators themselves on a cooperative basis. Financial assistance from Government, mostly in the form of loan, is given for both categories of these works. Subsidy, subject to a maximum of 25 per cent of the total cost, is also given to encourage construction particularly in backward and unproven areas.

Minor irrigation schemes which require some specialised technical knowledge in surveys and execution are handled by the Departments concerned of the States. State Governments levy irrigation rates or cess on the areas benefited.

Minor irrigation schemes include construction of open wells, tanks and minor drainage schemes; embankments which are important from the point of view of food production and checking intrusion of salt water in coastal areas; restoration of old tanks, stream diversion schemes; and installation of pumping appliances and improvement of water supply from wells and storage dams. There are also such works as construction of kuhls in hilly areas, filter points in coastal alluvium and installation of improved lift appliances, Persian wheels and pumping sets on wells. Tubewells also form part of minor irrigation works.

During the First Five-Year Plan 9·5 million acres were reported to have been brought under minor irrigation against a target of 11·2 millions.

The target for increased food production was 2·38 million tons.

During the First Plan period the Government of India spent Rs. 46·52 crores as loans and Rs. 8·25 crores as subsidy for minor irrigation, in addition to Rs. 19 crores for tubewells and Rs. 7·34 crores on minor irrigation in Community Development and N.E.S. blocks.

The Second Plan achievement was as follows :—

| Item | Newly constructed/ installed. | Repaired/ Renovated. |
|---|---|---|
| 1. Tanks .. .. | .. | .. |
| 2. Wells .. .. | 2,00,000 | 40,000 |
| 3. Tubewells .. | 300 | .. |
| 4. Other works .. | .. | .. |
| 5. Persian Wheels, Rahats etc. (installed) .. .. | 20,000 | .. |
| 6. Pumps on rivers and channels installed .. .. | 50,000 | .. |

The target for the 2nd Five Year Plan was 9 million acres. The additional foodgrain production envisaged was 1·9 million tons. The target for the Second Five Year Plan as a whole was expected to be exceeded. The target for the Third Five Year Plan is tentatively fixed at 14·78 million acres. The entire allocation of Rs. 137 crores would also be fully utilized.

The allocation for minor irrigation was Rs. 92 crores. The rest of the provision of Rs. 45 crores was under the Community Development Programme.

The target for increased food grains was 1·9 million tons.

According to estimates an additional area of 1·7 million acres was likely to receive irrigation benefits during 1961-62, while the programme for 1962–63 envisaged the creation of irrigation potential of over 2·1 million acres. To achieve the target of Third Plan three regional minor irrigation conferences (comprising Southern, Northern and Western regions) were held in Oct. 1961. The conference recommended among others (1) need for surveys, (2) unified agency to deal with technical aspects and applied research on technique of minor irrigation and water use, (3) maintenance of Community Works through Panchayats. (4) need for the savings under agricultural production sector to be diverted to this programme and additional finance to be provided and (5) fuller utilisation of the already available irrigation facilities and maintenance of the existing ones.

Minor irrigation is one of the large investment programmes in the Third Plan accounting for about Rs. 300 crores.

As compared with the outlay of Rs. 50 crores in 1963-64 an outlay of Rs. 65 crores had been provided for minor irrigation during 1964-65. Against the Third Plan target of 12·8 million acres (Second Plan target: 9·0 million acres) the area benefited through minor irrigation works during the three years of the Third Plan was about 6·4 million acres. The achievement during 1964-65 was expected to be about 3·3 million acres making a total of 9·7 million acres.

Actual expenditure on minor irrigation during the first four years of the Third Plan is estimated to be Rs. 184 crores, against the total of Rs. 244·76 crores under the grow more food, cooperative and community development sectors.

The physical achievement assessed was about 9·7 million acres under grow more food and community development combined. The target for 1965-66 is 3·8 million acres at an expenditure of Rs. 70 crores. The achievement expected during the Third Plan was construction of, 450,000 new wells, repair of 60,000 old wells, deepening of 100,000 wells, installation of 240,000 electric and 80,000 Diesel Pump sets and 65,000 Persian wheels, 415 artesan tubewells, 12,000 private tubewells, 2,762 State tubewells and 2,500 filter point tubewells.

The target set for the Fourth Plan is to benefit 17 million acres with a combined total outlay of Rs. 771 crores. The targets tentatively placed are : sinking of 800,000 new wells, boring of 300,000 wells, deepening of 200,000 wells, installation of 500,000 electric pump sets, 175,000 diesel pump sets, and 75,000 Persian wheels. Besides, construction of 400 artesian tubewells, 50,000 private tubewells and 5,000 State tubewells and 300 filter point tubewells was envisaged.

## TANKS AND WELLS

A descriptive note on the above is given in the 1959-60 edition of this book.

Tank irrigation is very important in Andhra, Madras, Orissa and Uttar Pradesh where over 3·1, 2·0, 1·2 and 1·0 million acres respectively, are irrigated by tanks. Bengal, Mysore, Bihar, Gujarat and Maharashtra have over half a million acres under tank irrigation.

**Wells :** Wells are mainly of two types, i.e. surface or sub-surface. Unlike tanks, they can be constructed irrespective of topographical and geological limitations, provided sub-soil water is in reach.

Well irrigation commands over 5·9 million acres in Uttar Pradesh and 2·3 million in Punjab, Rajasthan, Gujarat and Maharashtra. It is also of considerable importance in Madras (where over 1 million acres are irrigated by wells), Andhra, Madhya Pradesh and Bihar.

Pumping sets of high efficiency have come into common use for water lifting and also for draining. The number of irrigation pumps in use increased from 107,355 in 1951 (*i.e.*, oil powered 82,218, and Electrically driven 25,137) to 177,034 (oil powered 122,230 and Electrically driven 54,804) by 1956. It rose 3,90,000 (230,000 by oil engines and 1,60,000 by electric pumps by 1961.

To encourage maintenance, a levy on the entire irrigable area is imposed in Madhya Pradesh, Madras, and Mysore :—

| Type | Cost per acre in Rs. |
|---|---|
| *a*) Lift irrigation by Mote (Leather Bucket) .. .. .. .. | 60·0 |
| *b*) Pump irrigation .. .. | 20·0 |
| *c*) Tubewell (per acre inch) .. | 1·8 |

### Tubewells

The tubewell programme included in the Third Plan provides for the construction of about 2,400 tubewells. As against the target of drilling 739 tubewells in 1961-62, only about 482 tubewells were completed with pumping sets upto March 1962.

By the end of Second Five Year Plan, the exploratory tubewell organisation drilled 379 bore-holes in 15 different States to assess the ground water potential. The number of bore-holes expected to be drilled during Third Plan period is 300 of which 120 at least will be successful. In this programme the hitherto untouched Bhabar Zone which extends all along the foot-hills of Himalayas from Jammu and Kashmir to Assam will also be tackled.

During the period 1961-64 the exploratory tubewell organisation drilled 188 bores out of which 64 proved successful. In addition 237 productive tubewells were constructed during the same period. The programme had to be curtailed and reorientated in 1964-65 as the organisation had to assist the Rajasthan Govt. in the construction of 250 tubewells in scarcity areas as a measure of famine relief by providing irrigation facilities. Drilling has been completed in 54 sites in Rajasthan of which 39 were successful. The organisation also drilled 38 productive tubewells in Gujarat (scarcity areas) of which 31 were successful and 40 in Bihar of which 39 were successful upto Dec. 1964.

Irrigation with these tubewells has developed satisfactorily and in most cases 75 per cent of

the potential has been utilised by the third year of operation.

In Uttar Pradesh alone the total value of increased agricultural production was worth over 45 crores of rupees in the years 1954-55 to 1956-57.

A tubewell irrigates about 400 acres while a surface well barely 5 acres. The capital cost of a tubewell is from Rs. 150 to Rs. 200 per acre as against Rs. 300 per acre for a surface well.

It is also particularly well-suited to areas of small holdings where the construction of wells raises difficult problems of finance.

## FLOOD CONTROL AND SOIL CONSERVATION

During 1964, flood recurred in various parts of Assam, Bihar, Rajasthan, U.P. and West Bengal due to river spate and in some parts of Andhra, Delhi and Punjab due to heavy rains. It affected an area of 4·68 mill. hectares (11·7 million acres) and 28,500 villages. Crops were damaged over an area of 2 million hectares (5·00 mill. acres) causing a loss of about Rs. 410 million, 0·241 million houses were damaged or destroyed and it took a toll of 639 human life and 3,846 heads of cattle. The total damage is estimated at about Rs. 480 million.

During the first two Plans loans and grants amounting to Rs. 553·3 million were given to the State Governments for flood control schemes. Against the original Third Five Year Plan provision of Rs. 610 million the outlay on the programme is to go up to Rs. 810 million. About 7 million acres had benefited from flood control schemes undertaken in the first two Plans and an additional 4·5 million acres are expected to be benefited in the Third Plan.

*Organisations :* 15 State Flood Control Boards assisted by their Technical Advisory Committees at the State level and four River Committees (viz. Ganga, Brahmaputra, Central India and N.-W. River Committees) are functioning in the country, their work being coordinated by the Central Flood Control Board. The Committee on Scientific Flood Forecasting set up in Dec. 1963 under Dr. K. R. Ramanathan submitted its report in Jan. 1965. Its main recommendations are : (1) Actual Flood Forecasting and Warning Board should be set up with Delhi as headquarters under the Ministry of Irrigation and Power and Flood Forecasting Centres and sub-centres should be set up at different locations in the country under the direct guidance of the Board (2) Some of the hydrological and hydrometeorological observations at different key points in each river basin should be termed as base stations, and be organised and maintained by a Central authority. (3) Important rain and river gauge stations (where observation will be of special value for flood forecasting) should be equipped with telemetring equipment and suitable instruments should be developed and manufactured in the country for the purpose. (4) Use of radar in flood forecasting should be tried and a beginning should be made with installations of two, in two catchments for measuring total precipitation falling from rain clouds. (5) A systematic attempt should be made to assemble, scrutinise and publish all post gauge, discharge and rainfall data in addition to current data.

Floods of 1964 have brought out the necessity for making studies of the affected areas for evolving suitable remedial measures :— (*a*) A committee has been set up for formulation of comprehensive plans for controlling floods in coastal areas of Andhra Pradesh in the districts of Krishna, Godavari and Guntur which are subjected to floods annually causing heavy damage to crops. (*b*) A study group has been set up for assessing the problem of erosion by Bramhaputra river in Assam and formulating remedial measures. (*c*) Committee set up for assessment of drainage problem in Gurgaon District (Punjab), Bharatpur District (Rajasthan) and other districts of U.P. and to suggest comprehensive drainage schemes (*d*) Committee set up for assessment of flood control problem in North Bihar and formulate flood control measures. (*e*) Committee set up to draw comprehensive plan for flood protection in Delhi and surrounding areas.

Since 1954 when the flood control programme was inaugurated on a coordinated basis, over 6,880 k.m. (4,300 miles) of embankments and 7,840 k.m. (4,900 miles.) of drainage channels have been constructed in different States affording protection to about four million hectares (ten million acres) of land. 80 town protection schemes have been taken up against floods/erosion and 4,300 villages have been raised above flood level. From 1954 up to March 1961 Rs. 629 million have been spent. During the Third Plan Rs. 481 million have been spent up to March 1964. During 1964-65 the expenditure was about Rs. 200·5 million. The approximate area benefited by flood control schemes completed every year is about 0·324 to 0·405 million hectares (0·8 to one million acre) on an average. The additional area to be protected at the end of the First Year of the Fourth Five Year Plan will be about one million hectares (2·5 million acres).

*Soil Erosion :* Problem of beach erosion in Kerala is serious. The outlay on the coast line protective programme of the State Government during the Third Plan will be about Rs. 43 million. American experts are studying the problem and a scheme for collection of basic data for evolution of corrective measures is being implemented. For soil conservation works in the catchments of 14 Rivers Valley projects (Kosi, Damodar Valley, Mayurakshi, Kangsabath, Hirakud, Madkud, Thungabhadra, Kamala, Ghod, Dantiwada, Bhakhra Nangal and Bhru in Jammu & Kashmir) Rs. 110 million had been provided. Out of the total catchment area of about 280,000 sq. kilometres (108,000 sq. miles) about 75,000 sq. kilometres (28,800 sq. miles) are in Nepal. Out of the rest lying in India an area of about 1,305 sq. k.m. (503 sq. miles) was covered by soil conservation measures costing Rs. 48 million during the first three years of the Third Plan.

## RIVER VALLEY PROJECTS

The major river valley projects are as follows:—

(1) Bhakra-Nangal Project, (2) Hirakud Project, (3) Damodar Valley Project, (4) Tungabhadra Project, (5) Kosi Project, (6) Chambal Project, (7) Nagarjunasagar Project, (8) Koyna Project, (9) Rihand Project, (10) Bhadra Reservoir Project, (11) Kakrapara Project, (12) Machkund Project, and (13) Mayurakshi Project.

Below we give notes on some individual projects.

**Bhadra Project (Mysore) :**—This is one of the biggest irrigation and multi-purpose projects undertaken by the State. The scheme includes the construction of a reservoir on the river Bhadra at Lakkavalli (Shimoga District) with a storage capacity of 63.035 million c.ft. to irrigate 2,44,663 acres of land in the dry taluks of Shimoga, Chitaldrug and Bellary districts and to generate electric power to the extent of 40,400 kW at the dam site. It consists of the construction of a 194 ft. high masonry dam, 1,445 ft. long. The reservoir submerges 27.802 acres and 28 villages. Two channels take off from the reservoir on each bank and the right bank channel has to be taken in a tunnel, 14,000 ft. in length, across the Ubrani Range of hills before it enters Sulekere valley which commands vast fertile lands in the talukas of Harihar and Davangere. This is perhaps the longest irrigation tunnel in India. The left bank channel has been serviced to irrigate 20,000 acres and the right bank channel 39,000 acres. The Anvery Branch channel has been serviced to irrigate 14,000 acres and Malebennur Branch channel 15,000 acres.

The tunnel works are completed.

The cost of the project is estimated at about Rs. 35·73 crores including the cost of power plant of about Rs. 380 lakhs. All works are expected to be completed by the end of Third Five Year Plan period. The project when completed will fetch an income of Rs. 101·29 lakhs from water rate and sale of power.

*Power Project :* Construction of the two power houses, erection of turbines in the left Bank Station and two river bed units were completed in 1963.

The installed capacity of the power station is 33,200 kW, comprising two units of 12,000 kW each in the river bed station, one unit of 2,000 kW in the left bank station and one unit of 7,200 kW in the right bank station. There is provision for the installation of an additional unit of 7,200 kW in the right bank station.

Work on the power project has been completed. The power generated here is mainly fed to the Mysore Iron and Steel Works at Bhadravathi and also loads on the 66 kW transmission line between the Bhadra Generating Station and Mysore.

**Bhakra-Nangal Project (Punjab) :** The Bhakra Nangal Project in Punjab is the biggest multipurpose river valley project in Asia and has the following main components :—(1) 740 feet high straight gravity concrete Dam at Bhakra, eight miles from Nangal, with two Power Houses at its base, one on each bank of the River. (2) A diversion Dam at Nangal-65 miles North of Chandigarh. (?) Forty miles long Hydel Channel from Nangal to Rupar with two low head Power Houses—Ganguwal and Kotla. (4) A widespread net work of transmission lines with series of Grid Sub-stations. (5) 108 miles of Bhakra main Canal and 2,790 miles long canal branches and distributaries spread over in two States—Punjab and Rajasthan.

The whole Project has been completed except the Right Bank Power House on which work is in full swing. The project was dedicated to the Nation by the late Prime Minister Jawaharlal Nehru on 22nd October, 1963.

The project is expected to irrigate about 10 million acres and build up an ultimate power potential of 12,04,000 kW. The States that will benefit are the Punjab, Rajasthan, Himachal Pradesh, Jammu and Kashmir and Delhi.

The Project will irrigate six mil. acres of new land and will improve 3·5 mil. acres of land already under irrigation, out of which 49,41,580 acres fall in Punjab and 9,20,000 acres in Rajasthan.

The Project started yielding rich dividend even before its completion. Irrigation started in July, 1954-55 when 9·1 lakh acres in the Punjab were irrigated. In the year 1957-58, 1958-59, 1959-60, 1960-61, 1961-62, 1962-63 and 1963-64 an area of 14·86, 17·12, 18·18, 16·70, 19·61, 23·21 and 25·59 lakh acres respectively was irrigated, as a result of which economic condition of people improved as also a considerable amount of revenue accrued to the Governments of Punjab and Rajasthan.

The total expenditure incurred till the end of Dec. 1964 was Rs. 171·61 crores against the sanctioned estimate of Rs. 175 crores. The Bhakra reservoir was filled to an elevation of 1,661·61 ft. during 1964 giving a usable storage 48·72 lakh acre feet of water.

The Nangal Dam, the Hydel Channel and the Bhakra Canal have already been completed. The first phase in the construction of Bhakra Dam to the height of 414 ft., was completed in Aug. 1958. Now the Dam is complete and has attained its final height of 740 feet above the deepest foundation. The total concrete placed was 5·4 mil. c. yds.

Of the four power houses of this Project, the Ganguwal and Kotla Power Houses, on the Nangal Hydel Channel with two generators of 24,000 kW each were commissioned in 1955 and 1956 respectively. A third generator of 29,000 kW. was added in each Power House in 1961 raising the total output of each power house to 77,000 kW.

Of the two power houses at the base of the Bhakra Dam the left power house with 5 units each of 90,000 kW. had been fully commissioned on 10th December, 1961. The electric power is

being transmitted at 2,20,000 volts—the highest voltage transmission line put up in India for the first time.

The commitments from this plant are Nangal Fertilizers : 1,60,000 kW.; Delhi : 60,000 kW.; Rajasthan : 22,000 kW.; Kashmir : 4,500 kW.

Work on the construction of Right Bank Power House is in full swing and its first generator will be commissioned in the first quarter of 1966. This Plant will have five units each of 1,20,000 kW. The power house is estimated to cost Rs. 27 crores. The ultimate installed capacity of the project will be 600 MW.

The Electricity Wing of the Bhakra Dam is in the charge of the Punjab State Electricity Board which came into being on January 31, 1959.

The increase in foodgrains as a result of the irrigation from the project is expected to be 8,50,000 tons a year. Other additional yields that will accrue from the project are : Sugarcane 15,00.000 tons, Cotton 6,00,000 bales and pulses and oilseeds 36,000 tons.

The Punjab and Rajasthan States are sharing the capital and all benefits (Power and Irrigation) in the ratio of 84·78 and 15·22 respectively.

A comprehensive agreement between Punjab and Rajasthan regarding the Bhakra Nangal Project exists.

**Damodar Valley Project (Bihar and West Bengal).**—The Damodar Valley Project which is one of the most important multi-purpose schemes in this country and is to benefit the States of Bihar and West Bengal, has as its main features the construction of (*a*) multi-purpose storage dams with hydro-electricity plants, (*b*) an irrigation project with a network of irrigation canals and distributaries measuring 1,550 miles including an 85-mile long irrigation-navigation canal, (*c*) thermal power stations and the associated transmission lines.

The ultimate benefits that will accrue from this scheme include (*a*) effective flood control of the Damodar River, (*b*) irrigation of 9,73,000 acres including 2,20,000 acres of old irrigated area in the kharif season and more than 50,000 acres in the rabi season resulting in an additional yield of rice and rabi crop and jute valued at Rs. 15 crores a year, (*c*) the generation of 9,79,000 kW of electric power, which will promote the growth of industry, lead to the electrification of railways, etc., (*d*) cheap transport facilities through the navigation canal carrying an annual traffic through the canal of coal, paddy etc. to the extent of nearly 2 million tons, (*e*) efficient drainage of about 700 sq. miles of waterlogged area in the lower valley in W. Bengal, (*f*) prevention of soil erosion by afforestation, (*g*) land reclamation and improvement, (*h*) antimalarial measures and public health promotion works, and (*i*) development of fishery, tourism, etc.

About 6·75 lakh acres of land in West Bengal have already been brought under irrigation.

Of the electric power generated 875,000 kW will be thermal and 104,000 kW will be hydro-electric.

The Bokaro Thermal Power Station was commissioned in 1953 with an installed capacity of 150,000 kW and with the completion of the fourth unit in 1960-61, it has a capacity of 225,000 kW.

The Konar Dam in the district of Hazaribagh was formally opened by the Prime Minister of India on October 15, 1955.

The Maithon Dam was opened by the Prime Minister on September 27, 1957 and the power station with all the units is in commercial operation.

The Maithon Dam, 162 feet high above the river bed, has been built on the Barakar River above its confluence with the Damodar. It consists of a main earth dam, 2,111 ft. long across the bed of the river, with concrete dam 1,189 ft. long including the spillway of 612 ft. on the diversion channel and a long stretch of earthen dykes on both the banks. The overall length of the dam is 15,892 ft.

It has an underground power station on the left bank, the installed capacity of which is 60,000 kW. The volume of water in the reservoir at design flood stage (el. 504) is 12,00,000 acre ft. and the submergence area at design flood stage (el. 504) is 28,400 acres.

The Panchet Hill Dam was inaugurated on December 6, 1959.

The Panchet dam has been built on the river Damodar about 3 miles above its confluence with the Barakar river. It consists of a main rolled earth dam, 134 ft. high, 7,215 ft. long with a gravity type concrete dam 1,215 ft. long including spillway and a long stretch of dykes on both sides. The overall length of the dam is 22,156 ft. The volume of water in the reservoir at design flood stage (el. 449) is 13,65,000 acre ft. and the submergence area at design flood stage (el. 449) is 41,200 acres.

This dam together with the other three dams provide irrigation for 9,73,000 acres of kharif and 55,000 acres of rabi crops and supply water to the industries of the region.

The Panchet Hill Power Station was put into commercial operation on Sept. 14, 1959.

This power house has an initial installed capacity of 40,000 kW.

Maithon and Panchet are the two key dams on which flood control and irrigation in the lower Damodar Valley will mainly depend.

The Durgapur Barrage was completed and was opened by the Vice-President of India on August 9, 1955. Irrigation water was made available in 1957-58. During the kharif seasons of 1961-62, 1962-63 and 1963-64 water was supplied to irrigate an area of 6·52, 6·25 and 6·39 lakh acres respectively. During 1963-64 an irrigational potential of 770,000 acres was created.

The D.V.C. power system supplied through an expanding network of transmission lines reaching right upto Calcutta 2,083 million units in 1961-62, 2,622 million units in 1962-63 and 2,804 million units in 1963-64. The beneficiaries of the D.V.C.'s power system include such well-known bodies as the Tata Iron & Steel Works, Jamshedpur, Indian Iron & Steel Company, Burnpur, the Locomotive Works, Chittaranjan, the Hindustan Cables, Calcutta Electric Supply Corporation, the Eastern Railway, the copper mines at Ghatsila and the coal fields at Jharia and Raniganj. State Electricity Boards of Bihar and West Bengal also receive bulk supply from D.V.C.

Work on the transmission system is actively in progress and upto 1964, 880 miles of 132 kV and 123 miles of 33 kV lines (excluding 8 miles sold out to Bihar State Electricity Board in April 1960) with most of their associated substations, have been completed.

In addition to the unfinished schemes carried over from the First Five Year Plan, the following additional schemes had been taken up during the Second Plan period :

(1) Expansion of the Bokaro Thermal Power Station by the addition of a 75,000 kW generating set, thus raising the ultimate capacity of generation to 225,000 kW (completed); (2) the construction of a second Thermal Power Station at Oyaria near Durgapur with an installed capacity (3 units) of 2,75,000 kW in the district of Burdwan was taken up and the station with its 2 units (capacity of 1,50,000 kW) is now under commercial operation ; (3) the construction of a third Thermal Power Station at Chandrapura in the district of Hazaribagh (Bihar) with a capacity of 375,000 kW. The first unit (1,25,000 kW) has already been commissioned. The second unit was expected to be commissioned by May 1965. (4) the necessary strengthening of the transmission system ; and (5) considerable expansion of various development works such as soil conservation, fishery and tourism.

In addition to the unfinished works carried over from the Second Five Year Plan, the following additional important schemes have been taken up for execution during the Third Five Year Plan period : (1) Extension of the Durgapur Thermal Power Station by a 1,25,000 kW Unit (in progress), (2) Extension of the Chandrapura Thermal Power Station by a 1,25,000 kW Unit (in progress), (3) Miscellaneous extension of the existing grid sub-stations and distributing lines, (4) 25 KV A.C. single phase power supply to Railways for track electrification, (5) Dam to store water for industrial and domestic purposes, (6) Extension and improvements (Barrage and Irrigation) and water courses.

First Plan outlay : Rs. 65·48 crores (excluding interest and working expenditure and receipts).

The estimated cost of the project including, the new schemes taken up during the period of the Third Five Year Plan was about Rs. 210·61 crores. The aggregate expenditure on the various projects upto the end of March 1964 worked out to about Rs. 176·08 crores.

*Budget*

Second Plan outlay : Rs. 60·00 crores.

Proposed Third Plan outlay : Rs. 83·43 crores.

Budget Estimates (1963-64) : Rs. 17,79·43 lakhs ; (1964-65) : Rs. 19,67·42 lakhs ; (1965-66) : Rs. 19,08·56 lakhs (net).

The additional supplies that will be made over in the next three years from the extensions of the capacities will be more than 2,426 million Kwh. and the demand will fully consume the capacity of the power-stations under construction at Chandrapura and Durgapur.

Power is consumed mostly by major industrial concerns, but the D.V.C. also helped considerably in urban and rural electrification.

A large number of collieries and small and medium scale industries also receive DVC power through the Distributing Licences and State Electricity Boards.

Soil Conservation Scheme of DVC includes mainly afforestation, soil survey works, soil conservation engineering, soil conservation demonstration in cultivator's fields, etc. About 70,000 acres of afforestation work have been completed upto March, 1964 (of which 16,000 acres by D.V.C. and 54,000 acres by the Govt. of Bihar).

The annual gross revenue from power during 1960-61, 1961-62, 1962-63 and 1963-64 was Rs. 7·69 crores, Rs. 10·39 crores, Rs. 13·15 crores and Rs. 15·10 crores respectively.

The D.V.C. Act was amended by an Act of Parliament on 24th Dec. 1957 in order that the Corporation may be constituted of part time members if necessary.

**Hirakud Dam Project (Orissa).**—This project is the biggest multipurpose River Valley Project on river Mahanadi which is the biggest river in Orissa State and is situated near Sambalpur. The main functions of the Project are flood control, irrigation and power. The construction of the project was taken up in two stages. The foundation (1st batch of concrete) was laid by late Sri Jawaharlal Nehru, the then Prime Minister of India, on 13th April, 1948 and the first stage of the project was inauguarated by him on 13th January, 1957. In the 1st Stage the Hirajkud Dam, Hirakud Canal system and Burla Power House were completed. The 2nd Stage of the project was started in 1957 and was inaugurated by Dr. A. N. Khosla, Governor of Orissa on 14th Sept. 1963. The Chiplima Power House was completed in the 2nd Stage.

The Hirakud Reservoir started functioning for flood control in the year 1957 and its task is to moderate all peak floods in its delta to a safe limit of 9 lakhs cusecs. The flood moderation is actually being done since 1957 and in the year 1964 the desired target of control has actually been attained.

The total culturable commandable area under Hirakud Irrigation in Sambalpur and Bolangir Districts is 3·8 lakhs of acres and the total annual irrigation potential is 6·00 lakh acres. The irrigation water was let out for the first time during September, 1956 and since then the

irrigation is gradually developing. Besides Hirakud irrigation, the Hirakud Dam Project, is also providing regulated supply for perennial irrigation of about 9 lakhs of acres in Mahanadi Delta in the districts of Cuttack and Puri.

The power is developed in two stages at Burla Power House (at the foot of the dam) and at Chiplima Power House, 16 miles down stream of the Dam. The Burla Power House has got 6 power units of total installed capacity of 198 M.W. and Chiplima Power House has 3 power units of total installed capacity of 72 M.W., the total installed capacity being 270 M.W. The first Hydro-Power Unit was commissioned in December, 1956 and the last one in September, 1963. The power potential is 120 M.W. at 100 per cent load factor. The project provides power to many industries and the rural areas of Orissa. The main industries are Aluminium at Hirakud, steel at Rourkela, Ferro Manganese at Joda, Cement at Rajgangpur, Paper at Brajarajnagar and Chowdwar, Textile at Chowdwar and many other industries.

**Mahi Scheme:** The revised estimated cost of the project has been worked out to be Rs. 417 lakhs. The scheme when completed is likely to irrigate 76,000 acres of land, against which 14,100 acres of land is expected to be irrigated by the end of the Third Plan period.

**Tungabhadra Project (Andhra, Mysore).**—This Project was originally sanctioned by the Governments of Madras and Hyderabad which had territorial jurisdiction over this area at that time, primarily as famine relief measure. Work on the Project was commenced in 1945 by the Governments of these two States.

It is now being executed by the Tungabhadra Board and the Governments of Andhra Pradesh and Mysore.

The Government of Mysore is solely in charge of the execution of the Project on the northern side of the Tungabhadra River.

On the southern side the Tungabhadra Board constituted under the directive of the President of the Indian Union, is in charge of all common works relating to Mysore State and Andhra Pradesh, and the respective States are in charge of other works in which only the concerned States are interested.

*Head Works:* The Tungabhadra Dam across the river Tungabhadra at Mallapuram in Bellary District (Mysore) is 8,006 feet long and 162 feet high at the deepest foundation and 116 feet high on an average above the river bed. The reservoir extends in an area of 146 square miles and has a capacity of nearly 3·1 million acre feet at the full reservoir level of 1633.

*Canals:* There is only one canal on the northern side. It takes off from the irrigation-cum-power sluices and is 127 miles in length. This will irrigate about 5,80,000 acres of land in Raichur District of Mysore State. The major portion of the canal has been completed. Works in respect of the remaining portion are expected to be completed by the end of 1965-66.

There are two canals on the southern side of the river—the Low Level Canal and the High Level Canal. The former is 217 miles in length and has already been completed. This canal, taking off from the right flank known as Power Canal for the first 14 miles and Low Level Canal thereafter, accommodates 2,500 cusecs of water for irrigation, feeds the canal power house at Hampi and irrigates lands thereafter in Mysore State and Andhra Pradesh. The net irrigable area under the Low Level Canal is 92,345 acres in Mysore and 1,48,725 acres in Andhra Pradesh.

The Govt. of India have sanctioned the execution of the High Level Canal in two stages. The first stage costing Rs. 13 crores has been taken up for execution and the works are in progress. They are expected to be completed by the end of 1966-67. It takes off from the High Level sluices of the dam at the right flank and will carry 2,300 cusecs of water when Stage I is completed and 4,000 cusecs of water ultimately. The length of the main canal will be about 122 miles. When the first stage of the canal is completed, it will irrigate 1,19,115 acres of land in Andhra Pradesh and 68,250 acres of land in Mysore; when the second stage is completed, an additional area of 1,32,685 acres of land will be brought under irrigation in Andhra Pradesh and similarly an additional 68,500 acres of land in Mysore.

*Hydro-Electric Scheme:* When completed the Hydro-Electric Scheme on the southern side will consist of two Power Houses with four generators in each power house, each of 9,000 kW capacity making an aggregate of 72,000 kW. The first station is near the Dam and the second at the end of the Power Canal.

The first and the second generators at the Dam power house were commissioned in January 1957 and May 1957 respectively, and the first and second generators at the Hampi Power house were commissioned in February and March 1958 respectively. The third and fourth generators at the Dam Power House were commissioned in February and June 1964 respectively. The remaining two generators at the Hampi Power House were commissioned in April and June 1964 respectively. The total installed capacity of the Tungabhadra Hydro-Electric scheme is at present 72 MW from the two power stations situated on the southern side.

On the northern side of the Project, it is proposed to have one power house near the Dam with 4 units of 9,000 kW capacity each and three more power houses on the canal. All the power houses taken together will generate 1,00,500 kW of power. The construction of power house at the Dam has been completed. Two units of 9,000 kW each have been commissioned. The third unit will be commissioned shortly. At the end of the Third Plan 27,000 kW of power will be generated against 18,000 kW of power that is being generated at present (May 1965).

*Expenditure:* The expenditure on the northern side of the river is being borne solely by the Government of Mysore.

The expenditure on the southern side for the works executed by the Tungabhadra Board, is tentatively being shared between the Governments of Andhra Pradesh and Mysore respectively in the following ratio: *Headworks and Low Level Canal* 5 : 4; *High Level Canal* 65 : 35; *Hydro-Electric Scheme* 80 : 20.

The expenditure in respect of works executed exclusively by the Governments of Andhra Pradesh and Mysore are being met by them only.

The expenditure on the development of fisheries in the Tungabhadra Reservoir is shared between the Governments of Mysore and Andhra Pradesh in the ratio of 13 : 5.

The cost of the sanctioned scheme is Rs. 90·67 crores, irrigation being Rs. 66·75 crores and power Rs. 23·92 crores.

*Benefits*: About 4·5 lakh acres of land have been brought under irrigation so far. In the same way, 99,000 kW of power is, at present, being produced and supplied to the consumers (May 1965).

The estimated cost of the entire project (northern and southern sides) when completed in all respects, is about Rs. 108 crores which ultimately add a total of about Rs. 20 crores per annum to the national wealth in the shape of food and commercial crops. It will bring 12·1 lakh acres of land under irrigation and generate 172·5 MW of power.

The programme of intensive stocking of fishes has been taken up in the reservoir. Exploitation will be done shortly by which time it is expected that the reservoir will become productive. The maximum yield of fish will be about 1,000 tons per year. For effective marketing of fishes a 5-ton capacity ice plant and a 10-ton capacity cold storage are under erection.

**Kosi Project (Bihar).**—This scheme estimated to cost Rs. 44·76 crores (since revised to Rs. Rs. 54·50 crores) was prepared by the Central Water & Power Commission in November 1953. Total expenditure on the project (old scheme) upto the end of Feb. 1965 was Rs. 54·51 crores. The kosi canal systems on the eastern and western sides of the river have been designed to provide annual irrigation to an area of about 26 lakh acres in the districts of Saharsa, Purnea, Darbhanga and Monghyr of Bihar and Saptari of Nepal.

The Project consists of three different units as follows:—

(*a*) Unit I—Kosi Barrage and Headworks: This is estimated to cost Rs. 23·62 crores. The barrage is to be constructed about 30 miles below Chatra in Nepal where the river debauches into the plains from the gorge. It consists of a main spillway 3,770 ft. long, with earth dams about 18,500 ft. long on both the flanks connected to two afflux bunds 8 miles each on either bank of the river. The functions of the barrage are (*i*) to arrest coarse silt and flatten the gradient of the river above, (*ii*) to provide for irrigation of 26·35 lakh acres and (*iii*) to develop power that is possible with the available head. (The earthquake safety factor adopted in the design of the Barrage is 0·15 g horizontal and 0·10 g vertical.)

The diversion of the river Kosi through the Kosi Barrage was successfully completed by the end of March 1963.

(*b*) Unit II—Flood Banks and Protective Measures: The estimated cost of this is Rs. 9·80 crores involving construction of 75 miles of embankment on the western side below barrage and 63 miles on the eastern side. Besides, a flood bank of 12 miles above the east afflux bund in continuation is also provided. The purpose is to restrict the flood waters between the embankments, thus preventing the usual spill, and also to stop further westward translation of the river Kosi.

(*c*) Unit III—Eastern Kosi Canal System: The canal system at an estimated cost of Rs. 21·07 crores is proposed to have an annual irrigation of 14·05 lakh acres in the districts of Purnea and Saharsa.

The system consists of a main canal, four branch canals and a number of distributaries.

A hydro-power scheme with an installed capacity of 20,000 kW is under execution and is scheduled to be completed by 1966-67. According to the agreement on the project, 50 per cent of the power to be generated has been earmarked for Nepal. Work in the civil portion was started in the later part of the last working season (1964-65) when the foundation designs were finalised.

The work on the project is being implemented by the Government of Bihar. The Central Government will render necessary technical assistance.

The eastern and western embankments have been completed and 6·5 lakh acres have been rendered flood free. 48 per cent of the earthwork involved in the construction of the embankments was done through public co-operation agencies organised by the Bharat Sewak Samaj.

The construction of the Barrage has been completed in all respects. The Kosi river has been diverted through the Barrage.

Earthwork in Kosi canals has been completed to the tune of 93 per cent (March 1965). The work of rehabilitating 304 villages having a population of 114,000 lying in between the two Kosi embankments, is in progress. A sum of Rs. 2·13 crores has been allotted for the rehabilitation of people to be shifted from villages lying in between the two flood embankments.

Figures showing the economic development in the Kosi area: The net area sown per village in Supaul, in Nirmali and in the Kosi area as a whole increased from 619·26 acres, 940·14 acres and 798·09 acres in 1954-55 to 709·02, 946·67 and 840·90 acres respectively in 1955-56. Paddy output increased from Rs. 6,106·60, Rs. 51,024·09, Rs. 28,565·35 per village in Supaul, Nirmali and in the Kosi area as a whole to Rs. 10,171·28, Rs. 109,524·03 and Rs. 59,847·65 respectively in 1955-56.

(*d*) **Chatra Canal System:** As part of India's Aid to Nepal the Chatra Canal Project has been taken up. The canal will take off at 30 miles upstream of Kosi Barrage and will irrigate annually 2·12 lakh acres in the Morang and Saptari districts of Nepal. This scheme will cost about Rs. 6·50 crores. Earth work and construction of canal structures are in progress (May 1965). This scheme, when completed, would yield an additional produce of nine lakh maunds per year valued at Rs. 85 lakhs.

Schemes to extend irrigation facilities to an area of 3·97 lakh acres between the Kosi river and the original command of Eastern Canal system has been taken up at an estimated cost of Rs. 685·75 lakhs including the cost of village channels, sixty-five per cent of the work has been completed, so far.

Excavation of branch and sub-branch canals have been taken up in full swing and structures are in progress. In Western canal work has been started. This is estimated to cost Rs. 1,967 lakhs including the cost of village channels.

Schemes to extend the Eastern and Western Kosi embankments, a length of 16 miles and 2½ miles respectively, have been taken up.

The extension of western embankment has already been completed. 90 per cent of earth work in the extension of eastern embankment has been done, rendering another 37,000 acres flood-free.

The final solution of Kosi lies in the construction of dams in the hilly reach of the river. Investigations are in progress to locate a dam near Kothar across the Kosi in Nepal, about one mile from Chatra, being put up to control the river as also to generate 10 lakh kW of hydro-electric power.

**Rihand Dam and Power House (U.P.).—** (See Under Uttar Pradesh)

**Rajasthan Canal:**
**(For details see under Rajasthan State.)**

**Nagarjunasagar Project (Andhra Pradesh).—** The project is situated near Nandikonda village in Miryalguda Taluk of Nalgonda district. The Nagarjunasagar Control Board was constituted in Oct. 1955 to give concrete shape to the project. The foundation stone of the project was laid on Dec. 10, 1955 by the then Prime Minister.

The project comprises the construction of a gravity type masonry dam—the tallest and largest masonry dam in the world—two irrigation canals on either side of the river and a power house with 8 generating units each with 50,000 kW. installed capacity. The main dam, when completed, will be 404 ft. high (ultimate stage), 360 ft. wide at the base and about a mile long. It will be flanked on either side by compacted earth dams. Each flanking dam will also be about a mile long. A 28-ft. roadway will run on the top of the dam linking the flanks over the central spillway. Eight penstocks, 16 ft. in diameter will be installed in the dam.

*First phase:* The first phase (now in execution) of the project is expected to irrigate 21·50 lakh acres, partly for paddy and sugarcane and partly for cotton, groundnut, maize, jowar and other millets. The quantity of foodgrains production anticipated is eight lakh tons per annum under the first phase of the scheme and 12 lakh tons in the ultimate phase. 45 villages in all will get submerged by the water-spread of the Nagarjunasagar reservoir and about 4,033 families displaced.

The number of persons employed is 30,000. Labour Welfare Officers have been appointed to look after the needs of the labour and assist them in securing the labour law benefits.

*Nagarjunasagar Dam:* The dam, when completed, will impound the waters of the Krishna in a 110 sq. mile man-made lake, the biggest in India and the third largest in the world. The ultimate storage capacity of the reservoir is estimated at about 9·3 million acre feet of water, thus dwarfing the Bhakra reservoir of 7·4 million acre feet of capacity.

*Nagarjunasagar Right Canal:* Under the first phase of the project (now in execution) the right canal will run to a length of 127 miles. It will take off from the right flank of the dam. The right canals will irrigate about 11·20 lakh acres, benefiting large tracts of land in Guntur, Nellore and Kurnool. In the ultimate phase, the canal will extend to a length of 276 miles.

*Nagarjunasagar left canal:* Under the first phase of the project (now in execution) the Left Main Canal will run to a length of 111 miles. It will take off from a head sluice located in the foreshore of the reservoir about 8 miles away from the main river gorge. The canal will irrigate about 8·80 lakh acres. In the ultimate stage it will extend to a length of 140 miles in Nalgonda and Khammam districts serving the needs of Miryalguda and Huzurnagar taluks of Nalgonda district, Khammam taluk of Khammam district and Nandigama, Tiruvur, Nuzvid and Gannavaram taluks of Krishna district.

The cost of the project is estimated to be Rs. 139·53 crores. The project is making steady progress. 72 per cent of the masonry and concrete has already been laid while the excavation of main canals on either side has been completed to the extent of nearly 42 per cent. The excavation of branches and distributaries is also in good progress. Schemes for development of ayacut have also been taken up for early realization of irrigation benefits.

**Chambal Project:** (For details see under Rajasthan).

**Narmada Project.**—The project estimated to cost a little over Rs. 200 crores, when completed, will generate 1,100 MW power, provide irrigation facilities to 20 lakh acres of land and reclaim seven lakh acres of the arid area of Kutch. (*For more details see under Gujarat State*).

**Tawa Project:**—The Tawa River Multi-purpose Project is located in the Hoshangabad district. The project envisages construction of a composite dam 5,315 ft. long across the Tawa river, a tributary of Narmada River. Out of a length of 5,315 ft., 1,000·5 ft. will be of masonry and 4,314·5 ft. of earth dam. The dam will have two canal systems on the right and left banks of Tawa river stretching 33 miles and 90 miles respectively. The estimated cost of the project is Rs. 27·10 crores. The project after completion is designed to irrigate 7·5 lakh (6 lakhs acres on the left and 1·5 lakh acres on the right side) acres of land and generate 20,000 kW of power at 60 per cent load factor.

**Tikkerpara Dam** (See under Orissa State).

### GANDAK PROJECT

It is one of the major projects in which India and Nepal are collaborating as neighbours. Within India, it is an inter-State project in which Bihar and Uttar Pradesh are joining hands.

When completed, the project would annually irrigate 26·52 lakh acres of land in Saran, Champaran, Muzaffarpur and Darbhanga in Bihar State. Increase in yield of crops will be about 22 million maunds of which about twelve million maunds will be in food-crops and ten million maunds in cash crops. The value of the additional yield is estimated at about Rs. 210 million. In U.P. about 5·92 lakh acres of land will be irrigated annually. In Nepal, the project will provide irrigational facilities to an area of 1,43,900 acres and will yield additional agricultural produce valued at Rs. ten million.

The project has four main features:

1. A 2,437 feet long barrage with road bridge across the Gandak at Bhaisalol in Bihar. About half the length of the barrage will fall in Indian territory and the other half in Nepal.

2. Main western canal to irrigate 14·08 lakh acres of land in the Saran district of Bihar and about 8·31 lakh acres of land in the Gorakhpur and Deoria districts of U.P. A separate canal will also take off from the Western Bank to irrigate 40,400 acres of land in the Bhairwa district of western Nepal.

3. Main eastern canal to irrigate 17·54 lakh acres of land in the Champaran, Muzaffarpur and Darbhanga districts of Bihar and 1·04 lakh acres of land in Parsa, Bara and Ratuhat districts of Nepal.

4. One power house with an installed capacity of 15,000 kW at a suitable place on the main western canal in Nepal.

The Gandak Control Board has been set up to ensure efficient and economical execution of the project including all connected works in Bihar, U.P. and Nepal.

The project is estimated cost Rs. 52 crores of which the share of Bihar Government is estimated to be Rs. 36·56 crores and the balance that of the U.P. Government.

The expenditure incurred on the project up to the end of Dec. 1963 by the Govts. of Bihar and U.P. was about Rs. 6 crores and Rs. one crore respectively.

### NET AREA IRRIGATED BY SOURCES, 1962-63 @

The following table gives the figures in thousand acres:

| STATES AND TERRITORIES | CANALS | | | Tanks | Wells | Other sources | Total |
|---|---|---|---|---|---|---|---|
| | Govt. | Private | Total | | | | |
| Andhra Pradesh .. | 3,100 | 72 | 3,172 | 3,288 | 1072 | 331 | 7,863 |
| Assam * .. .. | 178 | 721 | 899 | – | – | 634 | 1,533 |
| Bengal (West) .. | 966 | 956 | 1,922 | 910 | 39 | 468 | 3,339 |
| Bihar .. .. .. | 1,391 | 85 | 1,476 | 714 | 766 | 1,948 | 4,904 |
| Gujrat .. .. .. | 228 | 32 | 260 | 45 | 1,459 | 90 | 1,854 |
| Jammu & Kashmir .. | 150 | 536 | 686 | – | 5 | 19 | 710 |
| Kerala .. .. | 366 | 14 | 380 | 122 | 5 | 324 | 831 |
| Madhya Pradesh .. | 1,140 | 5 | 1,145 | 429 | 846 | 103 | 2,523 |
| Madras .. .. | 2,282 | 3 | 2,285 | 2,322 | 1,468 | 109 | 6,184 |
| Maharashtra .. .. | 552 | 78 | 630 | 493 | 1,561 | 98 | 2,782 |
| Mysore .. .. | 651 | 14 | 665 | 916 | 384 | 60 | 2,325 |
| Orissa .. .. .. | 912 | 61 | 973 | 1,031 | 59 | 508 | 2,571 |
| Punjab .. .. | 5,347 | 123 | 5,469 | 17 | 2,527 | 60 | 8,073 |
| Rajasthan .. .. | 1,589 | – | 1,589 | 299 | 2,634 | 72 | 4,594 |
| Uttar Pradesh .. | 5,187 | 23 | 5,210 | 1,086 | 6,077 | 680 | 13,053 |
| Delhi .. .. .. | 35 | – | 35 | 13 | 41 | – | 89 |
| Himachal Pradesh .. | (*a*) | – | (*a*) | – | (*a*) | 99 | 99 |
| Manipur** .. .. | – | 168 | 168 | – | – | – | 168 |
| Tripura .. .. | – | – | – | 3 | – | 32 | 35 |
| Andaman & Nicobar Islands .. .. | – | – | – | – | – | – | – |
| Laccadive, Amindivi Islands .. . | – | – | – | – | – | – | – |
| TOTAL INDIA .. | 24,074 | 2,890 | 26,964 | 11,688 | 18,943 | 5,935 | 63,530 |

* Including NEFA. (*a*) Below 500 acres. @ Latest available.

# POPULATION

*Note:*—Unless otherwise stated the following article is based on the 1961 census which is the latest.

Preparations for the 1961 Census began in July 1958. There were six stages in the census operations beginning with the checking of the boundaries of States and Union Territories and their constituents and ending with the actual census count which ended at sunrise on March 1, 1961. The count started on the morning of February 10, 1961.

India constitutes only 2·4 per cent of land of world surface but accounts about 15 per cent of the world's population. India's population is larger than the combined population of Africa and South America.

The 1961 census covered the whole country except portions of Jammu & Kashmir currently under the occupation of Pakistan and China. The 1951 census did not cover Jammu and Kashmir, N.E.F.A. and Nagaland.

The census closed on the evening of March 5 and the first results began to flow in on 6th March.

About a million persons were employed as census agency—both enumeration and supervisory—in about 800,000 blocks.

The population of India has registered an unprecedented increase of 21·5 per cent from 359 million in 1951 to 439 million in 1961 according to the 1961 census figures.

The increase is in excess of the upper limit of all the recent projections and is eight million more than the projected population of 431 million in 1961 on which the Third Plan is based.

The number of cities with a population of more than a million has gone up from five to six or seven, the number and the order of precedence varying with the definition adopted.

## URBAN DENSITY

Greater Bombay ranks first with 4·15 million and Calcutta second with 2·93 million, Delhi (including New Delhi, Shahdara and the Cantonment) third with 2·34 million, Madras fourth with 1·73 million, Hyderabad fifth with 1·25 million, and Ahmedabad sixth with 1·15 million.

If, however, the population of Calcutta (including 34 contiguous urban townships in a compact area of 164 sq. miles) is aggregated, "Greater Calcutta" ranks first with 5·55 million inhabitants. Similarly, "Metropolitan Bangalore" has a population of 1·21 million.

The density of population for the country works out to 370 per square mile as against 312 in 1951.

The highest urban density is to be found in Calcutta city (75,038). This compares with 22,293 per square mile in Greater Bombay and 55,208 in Madras.

The City-Sadar-Paharganj area of Delhi, however, has a density of 143,185 persons per sq. mile and the Karolbagh-Patel Nagar area of Delhi a density of 74,195. According to the final census reports these two areas "can be counted in the forefront of the world's highest density areas."

The highest increase in urban population during the last ten years has been recorded in Assam (116·69 per cent). Orissa comes next with 87·02 per cent, followed by Bihar, 49·08 per cent. Madhya Pradesh showed an increase of 47·76 per cent while Kerala 42·44 per cent.

## SEX RATIO

The sex ratio—the number of females per 1,000 males—is now 941 as compared with 946 in 1951. There has been a steady decline in this ratio since 1901.

Another odd feature is that the sex ratio is above unity in distinct bands of territory, especially, along the coast. The State-wise sex ratio is also appreciably lower north of latitude 22 degrees.

Literacy has registered a small increase from 16·6 per cent in 1951 to 23·7 per cent in 1961.

The test for literacy is satisfied if a person can both read and write with understanding.

## LITERACY RATE

The literacy rate is highest in Delhi, Kerala, the Andamans, Gujarat, Madras and Maharashtra in that order and lowest in Kashmir, Himachal Pradesh, Rajasthan, Madhya Pradesh, Uttar Pradesh, and Bihar in that order.

Female literacy continues to be far below male literacy, but again, oddly enough, the coastal belt generally exhibits a higher rate of female literacy than other areas.

Of the enumerated population (of 439 million), 82·16 per cent is rural and 17·84 per cent urban. This compares with 82·62 per cent and 17·38 per cent in 1951.

## INCREASE IN RATE OF SURVIVAL

The answer to the high population increase over the last four decades is not far to seek. In 1881 the Census Actuary computed a birth rate of 50·5 for Bombay, 47·9 for Bengal and 50·8 for Central Provinces and effective death rates of 42·5, 39·9 and 42·8 for the general population. He estimated expectation of life at birth at 23·67 for males and 25·58 for females (24·63 for general). In 1891, the rates did not show any marked change, the overall figures for India being a birth rate of 48·8 and a death rate of 39·6, expectation of life at birth for males being 24·59 and for females 25·54. In 1911 the birth rate for combined provinces was still estimated at 51·3 and the death rate at 43·1, while the expectation of life at birth had decreased to 22·59 for males and 23·31 for females from 23·63 and 23·96 respectively in 1901. In 1921, as a result of minor epidemics culminating in the great influenza epidemic of 1918, the birth and death rates stood very close to each other at 49·2 and 48·6. These rates diminished to 46·4, 45·2 and 39·9 for births 36·3, 31·2 and 27·4 for deaths in 1931, 1941 and 1951 respectively. The expectation of life at birth in 1931 was estimated at 26·91 for males and 26·56 for females; for 1951 the corresponding figures were 32·45 and 31·66. While closer estimates of birth and death rates for the decade 1951-61, must await detailed age tabulations, there are reasons to assume that the birth rate will be around 18 or still lower, for there is little doubt that the rate of natural increase has been steadily acclerating from year to year. Although the current infant mortality rate is still quite high the expectation of life at birth in 1961 would be a little more than 45. In other words, over the last decade, the expectation of life must have increased by more than a year every year.

### GROWTH OF POPULATION FROM 1901-1961

| Years | Persons | Percentage (Approx.) |
|---|---|---|
| 1901 .. | 236,281,245 | .. |
| 1911 .. | 252,122,410 | + 5·73 |
| 1921 .. | 251,352,261 | — 0·31 |
| 1931 .. | 279,015,498 | + 11·01 |
| 1941 .. | 318,701,012 | + 14·22 |
| 1951 .. | 361,129,622 | + 13·31 |
| 1961 .. | 439,235,082 | + 21·50 |

+denotes increase ; — denotes decrease.

### POPULATION BY STATE (1911-1961)

| States/Union Territories | 1911 | 1921 | 1931 | 1941 | 1951 | 1961 |
|---|---|---|---|---|---|---|
| Andhra Pradesh .. .. .. | 21,447,412 | 21,420,448 | 24,203,573 | 27,289,340 | 31,115,259 | 35,983,447 |
| Assam .. .. .. .. | 4,333,826 | 5,157,789 | 6,165,612 | 7,403,396 | 8,880,732 | 11,872,772 |
| Bihar .. .. .. .. | 28,315,024 | 28,127,283 | 31,347,810 | 35,171,869 | 38,783,778 | 46,455,610 |
| Gujarat .. .. .. .. | 9,803,587 | 10,174,989 | 11,489,828 | 13,701,551 | 16,262,657 | 20,633,350 |
| Jammu & Kashmir .. .. | 2,292,535 | 2,424,359 | 2,670,208 | 2,946,728 | 3,253,852 | 3,560,976 |
| Kerala .. .. .. .. | 7,147,673 | 7,802,127 | 9,507,050 | 11,031,541 | 13,549,118 | 16,903,715 |
| Madhya Pradesh .. .. .. | 19,440,965 | 19,171,750 | 21,355,657 | 23,990,608 | 26,071,637 | 32,372,408 |
| Madras .. .. .. .. | 20,902,616 | 21,628,518 | 23,472,099 | 26,267,507 | 30,119,047 | 33,686,953 |
| Maharashtra .. .. .. .. | 21,474,523 | 20,849,666 | 23,959,300 | 26,832,758 | 32,002,564 | 39,553,718 |
| Mysore .. .. .. .. | 13,525,251 | 13,377,599 | 14,623,992 | 16,255,368 | 19,401,956 | 23,586,772 |
| Orissa .. .. .. .. | 11,378,875 | 11,158,586 | 12,491,056 | 13,767,988 | 14,645,946 | 17,548,846 |
| Punjab .. .. .. .. | 11,945,019 | 12,465,009 | 13,666,876 | 16,101,189 | 16,134,890 | 20,306,812 |
| Rajasthan .. .. .. .. | 10,983,509 | 10,292,648 | 11,747,974 | 13,863,859 | 15,970,774 | 20,155,602 |
| Uttar Pradesh .. .. .. | 48,152,273 | 46,669,865 | 49,776,754 | 56,531,848 | 63,215,742 | 73,746,401 |
| W. Bengal .. .. .. | 18,000,661 | 17,476,273 | 18,899,118 | 23,231,829 | 26,302,386 | 34,926,279 |
| Andaman & Nicobar Islands .. | 26,459 | 27,086 | 29,463 | 33,768 | 30,971 | 63,548 |
| Delhi .. .. .. .. | 413,851 | 488,452 | 636,246 | 917,939 | 1,744,072 | 2,658,612 |
| Himachal Pradesh .. .. | 876,562 | 890,046 | 954,276 | 1,057,711 | 1,109,466 | 1,351,144 |
| Laccadive, Minicoy and Amindivi Islands .. .. .. .. | 14,555 | 13,637 | 16,040 | 18,355 | 21,035 | 24,108 |
| Tripura .. .. .. .. | 346,222 | 384,016 | 445,606 | 512,069 | 577,635 | 780,037 |
| Manipur .. .. .. | 229,613 | 304,437 | 382,450 | 513,010 | 639,029 | 1,142,005 |
| Dadra and Nagar Haveli .. | 29,020 | 31,048 | 38,260 | 40,441 | 41,532 | 57,963 |
| Goa, Daman & Diu .. .. | 548,242 | 531,952 | 579,970 | 624,168 | 637,591 | 626,978 |
| N.E.F.A. .. .. .. .. | .. | .. | .. | .. | .. | 336,558 |
| Nagaland .. .. .. .. | 149,038 | 158,801 | 178,844 | 189,641 | 212,975 | 369,200 |
| Pondicherry .. .. .. | 257,179 | 244,156 | 258,628 | 285,011 | 317,253 | 369,079 |

## POPULATION, AREA, DENSITY, SEX RATIO BY STATE

| States/Union Territories | Area in Sq. miles | Population | | | Variation 1951-61 | Percentage increase 1951-61 | Females per 1,000 males 1961 | Females per 1,000 males 1951 | Population per Sq. mile 1961 | Population per Sq. mile 1951 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Persons | Males | Females | | | | | | |
| INDIA | 1,178,995 | 439,235,082† | 226,293,620 | 212,941,462 | 77,641,652 | 21·50 | 941 | 946 | 370 | 312 |
| *States* | | | | | | | | | | |
| Andhra Pradesh .. | 106,286 | 35,983,447 | 18,161,671 | 17,821,776 | 4,868,188 | 15·65 | 981 | 986 | 339 | 293 |
| Assam .. .. | 47,091 | 11,872,772 | 6 328,129 | 5,544,643 | 3,042,040 | 34·45 | 876 | 877 | 252 | 188 |
| Bihar .. .. | 67,196 | 46,455,610 | 23,301,449 | 23,154,161 | 7,671,832 | 19·18 | 994 | 990 | 691 | 577 |
| Gujarat .. .. | 72,245 | 20,633,350 | 10,633,902 | 9,999,448 | 4,370,693 | 26·88 | 940 | 952 | 286 | 225 |
| Jammu & Kashmir .. | .. | 3,560,976 | 1,896,633 | 1,664,343 | 307,124 | 9·44 | 878 | 873 | .. | .. |
| Kerala .. .. | 15,002 | 16,903,715 | 8,361,927 | 8 541,788 | 3,354,597 | 24·76 | 1,022 | 1,028 | 1,127 | 903 |
| Madhya Pradesh .. | 171,217 | 32,372,408 | 16,578,204 | 15,794,204 | 6,300,771 | 24·17 | 953 | 967 | 189 | 152 |
| Madras .. .. | 50,331 | 33,686,953 | 16,910,978 | 16,775,975 | 3,567,906 | 11·85 | 992 | 1,007 | 669 | 598 |
| Maharashtra .. .. | 118,717 | 39.553,718 | 20,428,882 | 19,124,836 | 7,551,154 | 23·60 | 936 | 941 | 333 | 270 |
| Mysore .. .. | 74,210 | 23.586.772 | 12,040,923 | 11,545,849 | 4,184,816 | 21·57 | 959 | 966 | 318 | 261 |
| Orissa .. .. | 60,164 | 17,548,846 | 8,770 586 | 8,778,260 | 2,902,900 | 19·82 | 1,001 | 1,022 | 292 | 243 |
| Punjab .. .. | 47,205 | 20,306,812 | 10,891,576 | 9,415,236 | 4,171,922 | 25·86 | 864 | 858 | 430 | 342 |
| Rajasthan .. .. | 132,152 | 20,155,602 | 10,564,082 | 9,591,520 | 4,184,828 | 26·20 | 908 | 921 | 153 | 121 |
| Uttar Pradesh .. | 113,654 | 73,746,401 | 38,634,201 | 35,112,200 | 10,530.659 | 16·66 | 909 | 910 | 649 | 556 |
| West Bengal .. .. | 33,829 | 34,926,279 | 18,599,144 | 16,327,135 | 8,623,893 | 32·79 | 878 | 865 | 1032 | 778 |
| *Union Territories and other areas* | | | | | | | | | | |
| Andaman & Nicobar Islands .. .. | 3,215 | 63,548 | 39,304 | 24,244 | 32,577 | 105·19 | 617 | 625 | 20 | 10 |
| Delhi .. .. | 573 | 2,658,612 | 1,489,378 | 1,169,234 | 914,540 | 52·44 | 785 | 768 | 4,640 | 3,044 |
| Himachal Pradesh .. | 10,885 | 1,351,144 | 702,697 | 648,447 | 241,678 | 21·78 | 923 | 915 | 124 | 102 |
| Laccadivne, Minocoy & Amindivi Islands .. | 11 | 24,108 | 11,935 | 12,173 | - 3,073 | 14·61 | 1,020 | 1,042 | 2,192 | 1,912 |
| Manipur .. .. | 8,628 | 780,037 | 387,058 | 392,979 | 202,402 | 35·04 | 1,015 | 1,036 | 90 | 67 |
| Tripura .. .. | 4,036 | 1,142,005 | 591,237 | 550,768 | 502,976 | 78·71 | 932 | 904 | 283 | 158 |
| Dadra & Nagar Haveli | 189 | 57,963 | 29,524 | 28,439 | 16,613 | 39·56 | 963 | 946 | 307 | 220 |
| Goa, Daman & Diu .. | 1,426 | 626,978 | 302,953 | 324,025 | — 10,613 | — 1·66 | 1,070 | 1,115 | 440 | 447 |
| NEFA .. .. | 31,438 | 336,558 | 177,680 | 158,878 | .. | .. | 894 | .. | 11 | .. |
| Nagaland .. .. | 6,366 | 369,200 | 191,027 | 178,173 | 28,975 | 14·07 | 933 | 999 | 58 | 48 |
| Pondicherry .. .. | 185 | 369,079 | 183,347 | 185,732 | 51,826 | 16·34 | 1,013 | 1,030 | 1,995 | 1,715 |

## STATE-WISE SCHEDULE CASTES AND SCHEDULE TRIBES (1961)*

| State/Territory | Schedule Castes (Rural & Urban) | | | Schedule Tribes (Rural & Urban) | | | Urban | |
|---|---|---|---|---|---|---|---|---|
| | Persons | Males | Females | Persons | Males | Females | Schedule Castes | Schedule Tribes |
| Andhra Pradesh .. .. | 4,973,616 | 2,512,325 | 2,461,291 | 1,324,368 | 670,368 | 654,000 | 552,088 | 57,081 |
| Assam .. .. .. .. | 732,756 | 389,271 | 343,485 | 2,068,364 | 1,057,076 | 1,011,288 | 60,670 | 68,033 |
| Bihar .. .. .. .. | 6,536,875 | 3,218,935 | 3,317,940 | 4,204,770 | 2,087,944 | 2,116,776 | 362,221 | 109,945 |
| Gujarat .. .. .. .. | 1,367,255 | 693,436 | 673,819 | 2,754,446 | 1,398,478 | 1,355,968 | 334,182 | 137,950 |
| Jammu & Kashmir .. .. | 268,530 | 134,765 | 133,765 | .. | .. | .. | 20,895 | .. |
| Kerala .. .. .. .. | 1,422,057 | 705,709 | 716,348 | 207,996 | 103,995 | 104,001 | 123,211 | 8,159 |
| Madhya Pradesh .. .. .. | 4,253,024 | 2,155,875 | 2,097,149 | 6,678,410 | 3,334,363 | 3,344,047 | 455,294 | 75,085 |
| Madras .. .. .. .. | 6,072,536 | 3.047,613 | 3,024,923 | 252,646 | 129,578 | 123,068 | 925,923 | 14,328 |
| Maharashtra .. .. .. | 2,226,914 | 1,135,101 | 1,091,723 | 2,397,159 | 1,211,605 | 1,185,554 | 485,453 | 89,910 |
| Mysore .. .. .. .. | 3,117,232 | 1,586,547 | 1,530,685 | 192,096 | 98,337 | 93,759 | 508,487 | 9,935 |
| Orissa .. .. .. .. | 2,763,858 | 1,371,410 | 1,392,448 | 4,223,757 | 2,094,753 | 2,129,004 | 126,026 | 87,551 |
| Punjab .. .. .. .. | 4,139,106 | 2,208,473 | 1,930,633 | 14,132 | 6,964 | 7,168 | 480,398 | .. |
| Rajasthan .. .. .. .. | 3,359,640 | 1,747,476 | 1,612,164 | 2,309,447 | 1,198,886 | 1,110,561 | 413,945 | 47,240 |
| Uttar Pradesh .. .. .. | 15,417,245 | 7,944,364 | 7,472 881 | .. | .. | .. | 1,079,775 | .. |
| West Bengal .. .. .. | 6,950,726 | 3,629,182 | 3,321,544 | 2,063,883 | 1,047,287 | 1,016,596 | 676,569 | 47,771 |
| Andaman and Nicobar Islands .. | .. | .. | .. | 14,122 | 7,318 | 6,804 | .. | .. |
| Delhi .. .. .. .. | 341,555 | 189,470 | 152,085 | .. | .. | .. | 272,243 | .. |
| Himachal Pradesh .. .. | 369,916 | 191,429 | 178,487 | 108,194 | 54,719 | 53,475 | 12,142 | 350 |
| L. M. & A. Islands .. .. | .. | .. | .. | 23,391 | 11,466 | 11,925 | .. | .. |
| Manipur .. .. .. .. | 13,376 | 6,886 | 6,490 | 249 049 | 123,162 | 125,887 | 158 | 4,146 |
| Tripura .. .. .. .. | 119,725 | 62,069 | 55,656 | 360,070 | 184,174 | 175,896 | 6,748 | 3,698 |
| Dadra & Nagar Haveli .. .. | 1,184 | 498 | 686 | 51,261 | 26,002 | 25,259 | .. | .. |
| NEFA .. .. .. .. | .. | .. | .. | 5,042 | 3,363 | 1,679 | .. | .. |
| Nagaland .. .. .. .. | 126 | 80 | 46 | 343,697 | 171,233 | 172,464 | 95 | 9,863 |
| Pondicherry .. .. .. | 56,861 | 28,804 | 28,057 | .. | .. | .. | 3,725 | .. |
| All India .. .. .. .. | 64,511,513 | 32,963,779 | 31,547,534 | 29,883,470 | 15,040,707 | 14,842,763 | 6,899,848 | 773,552 |

* Excludes Goa, Daman and Diu.

**Rural and Urban Population:** The first figure shows rural population and the second urban: *States*: Andhra Pradesh 29,708,939; 5,274,508; Assam 10,959,744; 913,028; Bihar 42,541,690; 3,913,920; Gujarat 15,316,726; 5,316,624; Jammu & Kashmir 2,967,661; 593.315; Kerala 14.349,574; 2.554,141; Madhya Pradesh 27,745,174; 4,627,234; Madras 24,606,425; 8,990,528; Maharashtra 28,391,157; 11,162,561; Mysore 18,390,279; 5,266,493; Orissa 16,439,196; 1,109,650; Punjab 16,218,217; 4,088,595; Rajasthan 16,874,124; 3,281,478;

† A Soviet information department release says that since India's independence in 1947, her population has grown by 100 million and stood at 453,147,000 in 1962.

Uttar Pradesh 64,266,506; 9,479,895; West Bengal 26,385,437; 8,540,842.

**Territories** :—Andaman and Nicobar Islands 49,473; 14,075; Delhi 299,204; 2,359,408; Himachal Pradesh 1,287,216; 63,928; Laccadive, Minicoy and Amindivi Islands 24,108; —; Manipur 712,320; 67,717; Tripura 1,039,008; 102,997; Dadra and Nagar Haveli 57,963; —; Goa, Daman & Diu —; —; N.E.F.A. 336,558; —; Nagaland 350,043; 19,157; Pondicherry 280,082; 88,997; Sikkim 155,341; 6,848.

## RURAL AND URBAN POPULATION

It should be pointed out here that whether an area is urban or rural depends on a number of factors of which population is only one. Also these factors vary from State to State.

The rural and urban population grew as follows:

| | Percentage | |
|---|---|---|
| | Rural | Urban |
| 1921 .. .. .. .. .. .. .. .. .. .. | 88·6 | 11·4 |
| 1931 .. .. .. .. .. .. .. .. .. .. | 87·9 | 12·1 |
| 1941 .. .. .. .. .. .. .. .. .. .. | 86·1 | 13·9 |
| 1951 .. .. .. .. .. .. .. .. .. .. | 82·7 | 17·3 |
| 1961 .. .. .. .. .. .. .. .. .. .. | 82·16 | 17·84 |

### Area, Density, No. of Towns, Population, Sex Ratio by State

| States/Territories | Area in sq. miles | Population per sq. mile | No. of towns | Population | Females per 1,000 males in 1961 |
|---|---|---|---|---|---|
| Andhra Pradesh .. .. .. .. .. .. | 106,286 | 339 | 223 | 35,983,447 | 981 |
| Assam .. .. .. .. .. .. .. | 47,091 | 252 | 60 | 11,872,772 | 876 |
| Bihar .. .. .. .. .. .. .. | 67,196 | 691 | 153 | 46,455,610 | 994 |
| Gujarat .. .. .. .. .. .. .. | 72,245 | 286 | 181 | 20,633,350 | 940 |
| Jammu & Kashmir .. .. .. .. .. | .. | .. | 43 | 3,560,976 | 878 |
| Kerala .. .. .. .. .. .. .. | 15,002 | 1,127 | 92 | 16,903,715 | 1,022 |
| Madhya Pradesh .. .. .. .. .. | 171,217 | 189 | 219 | 32,372,408 | 953 |
| Madras .. .. .. .. .. .. .. | 50,331 | 669 | 338 | 33,686,953 | 992 |
| Maharashtra .. .. .. .. .. .. | 118,717 | 333 | 265 | 39,553,718 | 936 |
| Mysore .. .. .. .. .. .. .. | 74,210 | 318 | 230 | 23,586,772 | 959 |
| Orissa .. .. .. .. .. .. .. | 60,164 | 292 | 62 | 17,548,846 | 1,001 |
| Punjab .. .. .. .. .. .. .. | 47,205 | 430 | 187 | 20,306,812 | 864 |
| Rajasthan .. .. .. .. .. .. | 132,152 | 153 | 145 | 20,155,602 | 908 |
| Uttar Pradesh .. .. .. .. .. .. | 113,654 | 649 | 275 | 73,746,401 | 909 |
| West Bengal .. .. .. .. .. .. | 33,829 | 1,032 | 184 | 34,926,279 | 878 |
| *Union territories and other areas :* | | | | | |
| Andaman & Nicobar Islands .. .. .. .. | 3,215 | 20 | 1 | 63,548 | 617 |
| Delhi .. .. .. .. .. .. .. | 573 | 4,640 | 3 | 2,658,612 | 785 |
| Himachal Pradesh .. .. .. .. .. | 10,885 | 124 | 13 | 1,351,144 | 923 |
| Laccadive, Minicoy & Amindivi Islands .. .. | 11 | 2,192 | .. | 24,108 | 1,020 |
| Manipur .. .. .. .. .. .. .. | 8,628 | 90 | 1 | 780.037 | 1,015 |
| Tripura .. .. .. .. .. .. .. | 4,036 | 283 | 6 | 1,142,005 | 932 |
| Dadra and Nagar Haveli .. .. .. .. | 189 | 307 | .. | 57,963 | 963 |
| Goa, Daman & Diu .. .. .. .. .. | 1,426 | 440 | .. | 626,978 | 1,070 |
| N.E.F.A. .. .. .. .. .. .. .. | 31,438 | 11 | .. | 336,558 | 894 |
| Nagaland .. .. .. .. .. .. .. | 6,366 | 58 | 3 | 369,200 | 933 |
| Pondicherry .. .. .. .. .. .. | 185 | 1,995 | 5 | 369,079 | 1,013 |

### Cities with a population of over one million each in 1961

Andhra Pradesh: Hyderabad 1,251,119; Gujarat: Ahmedabad 1,149,918; Madras: Madras 1,729,141; Maharashtra: Greater Bombay 4,152,056; Mysore: Bangalore 1,206,961; West Bengal: Calcutta 2,927,289.

## SNOW-BOUND AREAS

List of snow-bound areas in the States and their provisional population in 1961. Under each State the population of such areas in districts with the population of tahsils or sub-divisions in such areas of the districts is given :—

*Punjab State*: 178,694 (males 92,541; females 86,153): (*i*) Lahaul and Spiti District 20,478 (Males 11,538; females 8,940): (*a*) Spiti 5,324 (males 2,873; females 2,451); (*b*) Lahaul 15,154 (males 8,665; females 6,489); (*ii*) Kangra District 158,216 (males 81,003; females 77,213); (*a*) Kulu Sub-division 152,766 (males 78,431; females 74,335); (*b*) Bara Banghal Area 5,450 (males 2,572; females 2,878).

*Himachal Pradesh Territory*: 395,333 (males 206,967; females 188,366): (*i*) Chamba District 51,393 (males 27,655; females 23,738): (*a*) Pangi Sub-tahsil 11,644 (males 6,116; females 5,528); (*b*) Bharmur Sub-tahsil 25,582 (males 14,086; females 11,496); (*c*) Lyih Kanungo Circle of Chamba Tahsil 14,167 (males 7,453; females 6,714); (*ii*) Kinnaur District 40,640 (males 20,489; females 20,151): (*a*) Nichar Sub-division 12,062 (males 6,373; females 5,689); (*b*) Pooh Sub-division 13,012 (males 6,248; females 6,764); (*c*) Kalpa Sub-division 15,566 (males 7,868; females 7,698); (*iii*) Mahasu District 238,963 (males 126,143; females 112,820): (*a*) Rampur Tahsil 43,757 (males 22,519; females 21,238); (*b*) Chopal Tahsil 40,384 (males 22,603; females 17,781); (*c*) Theog Tahsil 41,014 (males 21,899; females 19,115); (*d*) Rohru Tahsil 51,805 (males 26,218; females 25,587); (*e*) Jubbal Tahsil 17,636 (males 9,413 females 8,223); (*f*) Kumarsain Sub-tahsil 23,822 (males 12,437; females 11,385); (*g*) Kot-Khai Sub-tahsil 20,545 (males 11,054; females 9,491); (*iv*) Mandi District 64,337 (males 32,680; females 31,657): (*a*) Pargana Chohar of Tahsil Jogindernagar 7,438 (males 3,637; females 3,801); (*b*) Parganas Uttarsal Badar and Snor of Tahsil Mandi Sadar 14,416 (males 7,501; females 6,915); (*c*) Parganas Maidangarh Dhangyara and Sraj of Tahsil Chachiot 42,483 (males 21,542; females 20,941).

*Uttar Pradesh State*: Pithoragarh District (Villages of Sipu, Marcha, Tejang, Khimling, Go, Filam, Dantu, Yangsung, Baun, Saun Dugtu, Dugtu, Baling, Nagling, Chal, Sela, Kuti, Navi, Rung, Kang, Napal Chyon, Gunji, Garbyang and Bundi of Dharchula Sub-division) 6,011 (males 3,150; females 2,861).

*Jammu & Kashmir State*: 300,657 (males 157,278; females 143,379): (*i*) Kathna District: Basohli Tahsil 16,418 (males 8,792; females 7,626); (*ii*) Poonch District 43,776 (males 23,050; females 20,726): (*a*) Haveli Tahsil 19,211 (males 10,078; females 9,133); (*b*) Mendhar Tahsil 6,607 (males 3,452; females 3,155); (*c*) Rajouri Tahsil 17,958 (males 9,520; females 8,438); (*iii*) Baramulla District 29,018 (males 15,783; females 13,235): (*a*) Karnah Tahsil 18,237 (males 9,929; females 8,308); (*b*) Handwara Tahsil 2,299 (males 1,244; females 1,055); (*c*) Sopore Tahsil 8,482 (males 4,610; females 3,872); (*iv*) Ladakh District 86,927 (males 43,695; females 43,232): (*a*) Leh Tahsil 42,486 (males 21,086; females 21,400); (*b*) Kargil Tahsil 44,441 (males 22,609; females 21,832); (*v*) Udhampur District: Reasi Tahsi 86,027 (males 43,695; females 43,232); (*vi*) Doda District 99,661 (males 52,988; females 46,673); (*a*) Ramaban Tahsil 36,579 (males 19,201; females 17,378); (*b*) Doda Tahsil 20,848 (males 11,282; females 9,566); (*c*) Kishtwar Tahsil 14,963 (males 7,955; females 7,008); (*d*) Bhaderwah 27,271 (males 14,550; females 12,721); (*vii*) Anantnag District: Anantnag Tahsil 503 (males 275; females 228).

List of Agency areas in Andhra Pradesh State and their population in 1961; Andhra Pradesh 530,803 (males 268,685; females 262.118): (*i*) Srikakulam 71,349 (males 36,337; females 35,012): (*a*) Parvatipuram 43,544 (males 22,321; females 21,223); (*b*) Salur 7,721 (males 3,942; females 3,779); (*c*) Palakonda 20,084 (males 10,074; females 10,010); (*ii*) Visakhapatnam 196,356 (males 100,514; females 95,842): (*a*) Narasapatnam (Agency) 4,073 (males 2,049; females 2,024); (*b*) Chintapalle (Agency) 44,039 (males 22,885: females 1,154); (*c*) Chodavaram (Agency) 8,072 (males 4,127; females 3,945); (*d*) S. Kota (Agency) 8,072 (males 4,005; females 4,067); (*e*) Paderu (Agency) 132,100 (males 67,448; females 64,652); (*iii*) East Godavari 120.141 (males 60,224; females 59,917): (*a*) Pratipadu Taluk 7,953 (males 4,045; females 3,908); (*b*) Rampachodavaram Taluk 48,618 (males 24,156; females 24,462); (*c*) Yellavaram Taluk 63,570 (males 32,023; females 31,547); (*iv*) West Godavari: Polavaram 46,271 (males 23,072; females 23,199); (*v*) Khammam 96,686 (males 48,538; females 48,148): (*a*) Bhadrachalam Taluk 55,707 (males 27,89; females 27,816); (*b*) Nugur Taluk 40,979 (males 20,647; females 20,332).

## CITIES OF POPULATION 100,000 AND OVER IN EACH STATE FOR 1961

| States and Cities | Population | Variation 1951-61 | Females per 1,000 males |
|---|---|---|---|
| *Andhra Pradesh :* | | | |
| Vijayawada | 230,397 | 69,199 | 947 |
| Guntur | 187,122 | 61,867 | 979 |
| Visakhapatnam | 182,004 | 73,962 | 920 |
| Warangal | 156,106 | 22,976 | 929 |
| Rajahmundry | 130,002 | 24,726 | 985 |
| Kakinada | 122,865 | 22,913 | 971 |
| Eluru | 108,321 | 21,108 | 1,004 |
| Nellore | 106.776 | 25,296 | 932 |
| Bandar (Masulipatam) | 101,417 | 23,464 | 947 |
| Kurnool | 100,815 | 40,593 | 938 |
| *Assam :* | | | |
| Shillong | 102,398 | 43,886 | 763 |
| Gauhati | 100,707 | 57,092 | 497 |
| *Bihar :* | | | |
| Patna | 364,594 | 81,115 | 769 |
| Jamshedpur | 328,044 | 109,882 | 784 |
| Dhanbad-Jaria-Sindri Town Group | 200,618 | 127,016 | 635 |
| Gaya | 151,105 | 17,405 | 834 |
| Monghyr - Jamalpur Town Group | 146,807 | 28,287 | 875 |
| Bhagalpur | 143,850 | 29,320 | 817 |
| Ranchi | 140,253 | 33,404 | 792 |
| Muzaffarpur | 109,048 | 35,454 | 695 |
| Darbhanga | 103,016 | 18,200 | 870 |
| *Gujarat :* | | | |
| Ahmedabad | 1,206,001 | 328,672 | 804 |
| Baroda | 298,398 | 86,991 | 857 |
| Surat | 288,026 | 64,844 | 916 |
| Rajkot | 194,145 | 62,076 | 927 |
| Bhavnagar | 176,473 | 38,522 | 916 |
| Jamnagar | 148,572 | 44,153 | 914 |
| *Jammu & Kashmir :* | | | |
| Srinagar | 295,084 | .. | 863 |
| Jammu | 102,738 | .. | 784 |
| *Kerala :* | | | |
| Cochin-Ernakulam-Alwaye Town Group | 313,030 | 119,542 | 932 |
| Trivandrum | 302,214 | 104,621 | 968 |
| Calicut Town Group | 248,548 | 89,824 | 965 |
| Alleppey | 138,834 | 22,556 | 945 |
| *Madhya Pradesh :* | | | |
| Indore | 394,941 | 84,082 | 851 |
| Jabalpur | 367,014 | 110,016 | 809 |
| Gwalior | 300,587 | 59,010 | 853 |
| Bhopal | 222,948 | 120,615 | 771 |
| Ujjain | 144,161 | 14,344 | 872 |
| Raipur | 139,792 | 49,988 | 890 |
| Durg Town Group | 133,230 | 112,981 | 594 |
| Sagar | 104,676 | 24,608 | 859 |
| *Madras :* | | | |
| Madras | 1,729,141 | 313,085 | 901 |
| Madurai | 424,810 | 63,029 | 952 |
| Coimbatore | 286,305 | 88,550 | 885 |
| Tiruchirapalli | 249.862 | 30,941 | 945 |
| Salem | 249,145 | 46,810 | 957 |
| Palayamcottai Town Group | 190,048 | 29,119 | 1,016 |
| Tuticorin Town Group | 127,356 | 28,490 | 966 |
| Vellore Town Group | 122,761 | 16,737 | 978 |
| Kurichi Town Group | 119,380 | 52,212 | 954 |
| Thanjavur | 111,099 | 10,419 | 979 |
| Nagercoil | 106,207 | 26,923 | 990 |
| *Maharashtra :* | | | |
| Greater Bombay | 4,152,056 | 1,157,612 | 663 |
| Poona Town Group | 737,426 | 137,075 | 870 |
| Nagpur Town Group | 690,302 | 205,038 | 886 |
| Sholapur | 337,583 | 60,496 | 902 |
| Nasik Town Group | 215,576 | 58,688 | 833 |
| Kalyan Town Group | 194,334 | 54,573 | 869 |
| Kolhapur Town Group | 193,186 | 56,351 | 884 |
| Amravati | 137,875 | 35,069 | 852 |
| Sangli Town Group | 127,183 | 36,672 | 906 |
| Malegaon | 121,408 | 66,386 | 893 |
| Ahmednagar | 119,020 | 13,745 | 886 |
| Akola | 115,760 | 26,154 | 854 |
| Thana Town Group | 109,215 | 41,456 | 774 |
| *Mysore :* | | | |
| Bangalore Town Group | 1,206,961 | 420,618 | 874 |
| Mysore | 253,865 | 9,542 | 904 |
| Hubli-Dharwar Town Group | 171,326 | 41,717 | 911 |
| Mangalore Town Group | 170,253 | 53,170 | 982 |
| Kolar Gold Fields | 146,811 | —12,273 | 984 |
| Belgaum Town Group | 146,790 | 26,458 | 879 |
| *Orissa :* | | | |
| Cuttack | 146,308 | 43,803 | 722 |
| *Punjab :* | | | |
| Amritsar Town Group | 398,047 | 61,933 | 789 |
| Jullundur Town Group | 265,030 | 63,040 | 791 |
| Ludhiana | 244,032 | 90,237 | 829 |
| Ambala Town Group | 181,747 | 29,725 | 772 |
| Patiala | 125,234 | 27,365 | 798 |
| *Rajasthan :* | | | |
| Jaipur | 403,444 | 112,314 | 856 |
| Ajmer | 231,240 | 34,607 | 887 |
| Jodhpur | 224,760 | 44,043 | 847 |
| Bikaner | 150,634 | 33,521 | 884 |
| Kota | 120,345 | 55,238 | 826 |
| Udaipur | 111,139 | 21,518 | 844 |
| *Uttar Pradesh :* | | | |
| Kanpur Town Group | 971,062 | 265,679 | 739 |
| Lucknow Town Group | 655,673 | 158,812 | 789 |
| Agra Town Group | 508,680 | 133,015 | 824 |
| Varanasi Town Group | 489,864 | 134,087 | 812 |
| Allahabad Town Group | 430,730 | 98,435 | 778 |
| Meerut Town Group | 283,997 | 50,814 | 802 |
| Bareilly Town Group | 272,828 | 64,745 | 841 |
| Moradabad Town Group | 191,828 | 29,974 | 845 |
| Saharanpur | 185,213 | 36,778 | 821 |
| Aligarh | 185,020 | 43,402 | 825 |
| Gorakhpur | 180,255 | 47,819 | 757 |
| Jhansi Town Group | 169,712 | 42.347 | 840 |
| Dehra Dun Town Group | 156,341 | 12,125 | 804 |
| Rampur | 135,407 | 1,130 | 850 |
| Mathura Town Group | 125,258 | 19,485 | 814 |
| Shahjahanpur Town Group | 117,702 | 12,867 | 868 |
| Mirzapur-cum-Vindhyachal | 100,097 | 13,569 | 893 |
| *West Bengal :* | | | |
| Calcutta | 2,927,289 | 228,795 | 612 |
| Howrah | 512,598 | 78,968 | 630 |
| South Suburban Town Group | 341,712 | 128,497 | 740 |
| Asansol Town Group | 168,689 | 73,925 | 660 |
| Bhatpara | 147,253 | 12,714 | 585 |
| Kharagpur | 147,253 | 17,617 | 810 |
| Bally | 130,896 | 67,758 | 553 |
| Kamarhati | 125,457 | 48,206 | 648 |
| South Dum-Dum | 111,284 | 49,893 | 778 |
| Burdwan | 108,224 | 32,848 | 789 |
| Baranagar | 107,837 | 30,711 | 762 |
| *Delhi :* | | | |
| Delhi | 2,061,758 | 941,888 | 788 |
| New Delhi | 261,545 | —14,769 | 727 |

## TOWNS

### Andhra Pradesh

*50,000—1,00,000* (8)

Nizamabad 79,093; Tenali 78,525; Vizianagaram 76,808; Adoni 69,951; Kothagudem 69,728; Vijayapuri 55,300; Anantapur 52,280; Proddatur 50,616.

*20,000—50,000* (51)

Cuddapah 49,027; Guntakal 48,083; Chittoor 47,876; Anakapalle 46,402; Chirala 45,410; Gudivada 44,801; Bhimavaram 43,821; Nandyal 42,927; Khammam 35,888; Tirupati 35,845; Ongole 35,804; Mahbubnagar 35,588; Srikakulam 35,071; Bapatla 33,668; Hindupur 32,445; Samalkot 31,924; Karimnagar 31,554; Bodhan 30,929; Kagaznagar 30,604; Narsapur 30,064; Narasaraopet 29,744; Malkapuram 29,186; Billampalle 29,101; Palacole 28,481; Pithapuram 27,910; Tadepalligudem 27,086; Kalahasti 26,460; Salur 26,111; Gudur 25,618; Bobbilli 25,592; Parvatipuram 25,281; Tanuku 24,657; Madanapalle 24,386; Nalgonda 24,383; Kadiri 24,307; Peddapuram 24,302; Amalapuram 24,063; Rayadrug 23,779; Tadpatri 23,129; Ponnur-Nidubrole 22,872; Narasapatnam 22,768; Chilakaluripet 22,666; Tuni 22,452; Mangalagiri 22,182; Repalle 21,941; Yemmiganur 21,051; Adilabad 20,970; Jagtial 20,941; Kavali 20,544; Narayanpet 20,504; Dharmavaram 20,405.

### Assam

*50,000—1,00,000* (1)

Dibrugarh 58,480.

*20,000—50,000* (11)

Silchar 41,062; Nowgong 38,600; Digboi Town Group 35,028; Pandu 31,173; Karimganj 28,683; Tinsukia 28,468; Dhubri 28,355; Jorhat 24,953; Tezpur 24,159; Lumding 23,186; Barpeta 22,207.

### Bihar

*50,000—1,00,000* (6)

Chapra-Revelganj Town Group 88,264; Bihar 78,581; Arrah 76,766; Dinapur Town Group 70,766; Barauni-Teghra Town Group 69,562; Katihar 59,344.

*20,000—50,000* (30)

Kumardhubi Town Group 42,722; Hazaribagh 40,958; Purnea 40,602; Bettiah 39,990; Dehri 38,092; Sasaram 37,782; Giridih 36,881; Mokameh 35,743; Dinapur Nizamat 35,159; Hajipur 34,044; Motihari 32,620; Jaridih Bazar 31,605; Sahibganj 31,409; Chakradharpur 30,906; Madhubani 28,229; Siwan 27,370; Begusarai 27,346; Kishanganj 27,002; Samastipur 25,726; Daltonganj 25,270; Jugsalai 24,528; Jamui 24,213; Teghra 23,573; Jehanabad 23,209; Buxar 23,068; Chaibasa 22,019; Jhumri-Tilaiya 21,777; Barahiya 20,502; Chakradharpur 20,260; Ramgarh Cantonment 20,041.

### Gujarat

*50,000—1,00,000* (10)

Nadiad 78,952; Porbandar 75,081; Junagadh 74,298; Broach 73,639; Veraval Town Group 60,857; Navsari 53,600; Godhra 52,167; Patan 51,953; Cambay 51,291; Morvi 50,192.

*20,000—50,000* (42)

Dhoraji 48,951; Surendranagar 48,602; Gondal 45,069; Anand 40,458; Bhuj 40,180; Viramgam 38,955; Bulsar 37,586; Dohad 35,483; Petlad 35,239; Amreli 34,699; Sidhpur 33,850; Mahuva 32,732; Mehsana 32,577; Dhrangadhra 32,197; Kalol 31,940; Jetpur 31,186; Savarkundla 31,051; Dabhoi 30,841; Palanpur 29,139; Upleta 27,613; Dholka 27,476; Wadhwan 27,104; Kapadvanj 27,053; Mandvi 26,609; Gandhidham 26,514; Botad 26,168; Visnagar 25,982; Bilimora 24,941; Borsad 24,704; Palitana 24,581; Kadi 23,661; Anjar 23,301; Wankaner 22,509; Limbdi 21,801; Rajpipla 21,426; Umreh 21,244; Mangrol 21,089; Unjha 20,371; Ankleshwar 20,287; Khambhalia 20,064.

### Jammu & Kashmir

*50,000—1,00,000* (Nil)

*20,000—50,000* (1)

Anantnag 21,087.

### Kerala

*50,000—1,00,000* (4)

Quilon 91,018; Palghat 77,620; Trichur 73,038; Kottayam 52,685.

*20,000—50,000* (25)

Cannanore Town Group 48,960; Tellicherry 44,763; Kayamkulam 44,571; Badagara 43,908; Changanacherry 42,376; Kilikolloor 32,273; Shertali 31,155; Chowghat 28,903; Kasargod 27,635; Chittoor-Thathamangalam 26,457; Thiruvalla 24,242; Azhikode 24,212; Feroke 24,124; Kanhangad 23,621; Ponnani 22,977; Muvattupuzha 22,900; Katakampally 22,488; Irinjalakuda 22,335; Chengannur 22,277; Attingal 22,051; Nileshwar 20,956; Kundara 20,945; Parur 20,852; Haripad 20,378; Neyyattinkara 20,268.

### Madhya Pradesh

*50,000—1,00,000* (4)

Ratlam 87,472; Bilaspur 86,706; Burhampur 82,090; Khandwa 65,505; Murwara Town Group 60,472.

*20,000—50,000* (30)

Mhow Cantonment 48,032; Damoh 46,656; Rajnandgaon 44,678; Rewa 43,065; Mandsaur 41,876; Satna 38,046; Chhindwara 37,244; Raigarh 36,933; Neemuch 36,287; Dewas 34,577; Itarsi 36,611; Dhamtari 31,552; Jaora 31,140; Guna 31,031; Khargone 30,652; Seoni 30,274; Datia 29,420; Shivpuri 28,681; Sehore 28,489; Morena 28,337; Dhar 28,325; Bhind 28,208; Vidisha 27,718; Bina 27,476; Rajhara-Jharandalli 23,346; Harda 22,276; Shahdol 22,196; Chhatarpur 22,146; Tikamgarh 20,469; Jagdalpur 20,412.

### Madras

*50,000—1,00,000* (22)

Kumbakonam Town Group 96,746; Dindigal 92,947; Kancheepuram 92,714; Valparai 80,023; Tiruppur 79,773; Cuddalore 79,168; Kallidaikurichi Town Group 75,657; Erode 73,762; Rajapalayam 71,203; Mount Alandur Town Group 63,702; Nagapattinam Town Group 61,305; Tirupparan-Kundram Town Group 57,748; Palni Town Group 56,909; Aruppukkotai Town Group 55,977; Virudhunagar 54,827; Pollachi 54,369; Coonoor Town Group 52,992; Mayooram 51,363; Karur 50,564; Pudukkotai 50,488; Gudiyatham 50,384; Ootacamund 50,140.

*20,000—50,000* (60)

Ranipet Town Group 48,003; Vaniambadi Town Group 47,918; Golden Rock (Ponmalaipatti) Town Group 47,070; Srivilliputtur 46,816; Tiruvannamalai 46,441; Bodinayakanur 44,914; Karaikudi 43,698; Villupuram 43,496; Srirangam 41,949; Kadayanallur 41,249; Chidambaram 40,694; Ambur 39,455; Tiruvattiyur Town Group 37,764; Mettupalayam 36,496; Periyakulam 36,335; Paramakudi Town Group 34,521; Tenkasi 34,403; Tindivanam 34,342; Tambaram Town Group 34,329; Mannargudi 33,558; Kovilpatti 33,305; Cumbum 32,517; Arni 31,351; Tiruppattur 30,799; Sivakasi 30,690; Arkonam 30,658; Pulliyangudi 30,648; Tiruvarur 30,137; Attur 29.018; Udumalpet 28,345; Kayalpattinam Town Group 28,336; Dharmapuri 28,031; Mettur 27,698; Gobichettipalayam 27,004; Ramanathapuram 26,890; Dharapuram 26,490; Chingleput 25,977; Udangudi Town Group 25,946; Anamalai Town Group 25,587; Devakottai 25,524; Uthamapalayam Town Group 25,427; Komarapalayam 24,757; Pattukottai 24,726; Gudalur 24,635; Allinagaram 24,606; Edappadi 24,366; Sankaranayinar Koil 24,089; Rasipuram 23,871; Krishnagiri 23,827; Erode 22,766; Tiruchendur Town Group 22,752; Bhavani 22,713; Nellikuppam 22,168; Tiruchengode 21,386; Nelliyalam Town Group 20,877; Kotagiri Town Group 20,737; Chinnamanur 20,586; Shencottah 20,528; Seithur Town Group 20,403; Lalgudi Town Group 20,009.

### Maharashtra

*50,000—1,00,000* (11)

Dhulia 98,893; Aurangabad Town Group 97,701; Nanded 81,087; Jalgaon 80,351; Bhusawal Town Group 79,121; Jalna 67,158; Gondia 56,320; Achalpur Town Group 54,028; Chanda 51,484; Ichalkaranji 50,978; Barsi 50,389.

*20,000—50,000* (44)

Wardha 49,113; Satara 48,709; Bhiwandi 47,630; Amalner 46,963; Yeotmal 45,587; Pandharpur 45,421; Khamgaon 44,432; Nandurbar 41,055; Latur 40,913; Dehu Town Group 40,902; Hinganghat 36,890; Parbhani 36,795; Ambarnath 34,509; Chalisgaon 34,280; Karad 33,772; Bhir 33,066; Manmad 31,551; Akot 31,459; Ratnagiri 31,091; Malkapur 29,687; Bassein Town Group 28,238; Pulgaon 28,063; Bhandara 27,710; Dhond 27,168; Washim 26,494; Chopda 26,460; Karanja 26,440; Tumsar 24,910; Badnera 23,840; Hingoli 23,407; Shrirampur 22,802; Umrer 22,682; Anjangaon 21,931; Dharangaon 21,771; Sangamner 21,729; Lonavala 21,713; Shegaon 21,674; Arvi 21,478; Akkalkot 21,278; Baramati 21,118; Yeola 21,039; Shirpur 20,846; Uran-Islampur 20,817; Ballarpur 20,351.

### Mysore State

*50,000—1,00,000* (9)

Gulbarga 97,069; Bellary 85,673; Bijapur 78,854; Davangere 78,124; Gadag-Betgeri 76,614; Bhadravati Town Group 65,776; Shimoga 63,764; Raichur 63,329; Hospet 53,242.

*20,000—50,000* (30)

Kargal 49,878; Tumkur 47,277; Bagalkot 39,934; Mandya Town Group 33,347; Chitradurga 33,336; Kolar 32,587; Bidar 32,420; Hassan 32,172; Ranibennur 31,304; Chikmagalur 30,253; Naipani 29,374; Rabkavi Banhatti 28,871; Doddaballapur 27,361; Channapatna 26,467; Yadgir 25,764; Udipi 24,610; Chamarajanagar Ramasamudram 24,430; Guledgud 24,292; Ilkal 24,222; Jamkhandi 24,017; Karwar 23,906; Chikballapur 23,025; Harihar 22,829; Kollegal 22,663; Gokak 21,854; Sirsi 21,240; Haveri 21,043; Konnur 20,795; Shahbad 20,454; Sagar 20,414.

### Orissa

*50,000—1,00,000* (3)

Rourkela 90,287; Berhampur 76,931; Puri 60,815.

*20,000—50,000* (8)

Sambalpur 38,915; Bhubaneswar 38,211; Balasore 33,931; Jeypore 25,291; Bhadrak 25,285; Parlakimedi 22,708; Birmitrapur 20,301; Baripada 20,301.

### Punjab

*50,000—1,00,000* (9)

Chandigarh Town Group 99,262; Ferozepur 97,932; Rohtak 88,193; Jagadhri Town Group 84,337; Karnal 72,109; Panipat 67,026; Hissar 60,222; Bhiwani 58,194; Pathankot 54,810; Bhatinda 52,253; Batala 51,300; Hoshiarpur 50,739; Faridabad 50,709.

*20,000—50,000* (31)

Moga 47,779; Abohar 46,863; Sonepat 45,882; Simla 42,597; Nangal Town Group 42,359; Malerkotla 39,543; Phagwara 37,929; Gurgaon 37,808; Rewari 36,994; Kaithal 34,890; Hansi 33,712; Sirsa 33,363; Kot Kapura 32,021; Fazilka 32,015; Muktsar 30,765; Nabha 30,603; Jagraon 29,617; Kapurthala 29 334; Sangrur 28,344; Rajpura 27,925; Palwal 27,863; Gurdaspur 27,665; Faridkot 26,735; Khanna 24,416; Jind 24,216; Narnaul 23,959; Mansa 22,473; Sunam 21,408; Barnala 21,354; Tarn Taran 20,961; Malout 20,774.

**Rajasthan**

*50,000—1,00,000* (4)

Alwar 72,707; Ganganagar 63,854; Beawar 53,931; Sikar 50,636.

*20,000—50,000* (22)

Bharatpur 49,776; Bhilwara 43,499; Tonk 43,413; Churu 41,727; Pali 33,303; Sardarshahar 32,072; Sujangarh 30,761; Barmer 27,600; Dholpur 27,412; Fatehpur 27,039; Ratangarh 26,631; Bundi 26,478; Kishangarh 25,244; Jhunjhunu 24,962; Nawalgarh 24,911; Nagaur 24,296; Nasirabad 24,148; Ladnu 23,825; Karauli 23,696; Baran 22,764; Gangapur 22,591; Sawai Madhopur 20,952; Hindaun 20,237.

**Uttar Pradesh**

*50,000—1,00,000* (16)

Firozabad 98,611; Farrukhabad-cum-Fatehgarh Town Group 94,591; Faizabad Town Group 88,296; Muzaffarnagar 87,622; Ghaziabad 70,438; Etawah 69,681; Amroha 68,965; Sambhal 68,940; Hathras 64,045; Jaunpur 61,851; Hardwar Town Group 59,960; Budaun 58,770; Pilibhit 57,527; Bahraich 56,033; Hapur 55,248; Sitapur 53,884.

*20,000—50,000* (51)

Maunath Bhanjan 48,785; Chandausi 48,557; Roorkee Town Group 45,801; Bulandshahr 44,163; Gonda 43,496; Khurja 41,491; Basti 38,403; Ballia 38,216; Haldwani-cum-Kath Godam 38,032; Banda 37,744; Kasganj 37,559; Ghazipur 37,147; Hardoi 36,725; Bara Banki Town Group 34,334; Najibabad 34,310; Bijnor; 33,821; Mainpuri 33,610; Tanda 32,687; Azamgarh 32,391; Lakhimpur 32,285; Balrampur 31,776; Nagina 30,427; Deoband 29,980; Rae Bareli 29,940; Unnao 29,780; Orai 29,587; Deoria 28,407; Shahabad 28,399; Fatehpur 28,323; Kairana 26,454; Samli 26,397; Sikandrabad 26,290; Sultanpur 26,081; Lalitpur 25,220; Vrindaban 25,138; Mahoba 24,878; Etah 24,719; Kannauj 24,646; Modinagar 24,266; Kashipur 24,258; Tilhar 23,936; Konch 23,708; Shikohabad 23,458; Sahaswan 23,293; Barauf 22,818; Chandpur 22,017; Bela 21,397; Kiratpur 21,127; Mughalsarai Town Group 21,086; Mawana 20,677; Bhadohi 20,302; Mau Ranipur 20,224.

**West Bengal**

*50,000—1,00,000* (23)

Panihati 93,749; Serampur 91,521; Hooghly-Chinsurah 83,104; Titagarh 76,429; Nabadwip 72,861; Krishnagar 70,440; Kanchrapara 68,966; Chandernagore 67,105; Uluberia Town Group 66,299; Siliguri 65,471; Ashoknagar Town Group 64,716; Barrackpur 63,778; Kasbah Town Group 62,935; Bankura 62,833; Berhampur 62,317; Barasat-Nabapally Town Group 61,621; Midnapur 59,532; Naihati 58,457; North Barrackpur 56,683; Ranaghat Town Group 55,100; Basirhat 53,943, Halisahar 51,423; Santipur 51,190.

*20,000—50,000* (46)

Jalpaiguri 48,738; Purulia 48,134; Sankrail Town Group 47,174; English-bazar 45,900; Bansberia 45,463; Baidyabati 44,312; Champdani 42,129; Cooch Behar 41,922; Durgapur Steel Project Area Town Group 41,696; Bangaon 41,082; Batanagar Town Group 40,656; Darjeeling 40,651; Budge Budge 39,824; Rishra 38,535; North Dum Dum 38,140; Bhadreswar 35,489; Chakdah 35,089; Kulti 34,280; Raiganj 32,290; Kotrung 31,031; Vishnupur 30,958; Domjur Town Group 30,843; Raniganj 30,113; Konnagar 29,443; Garulia 29,041; Chittaranjan 28,957; Alipur Duar 28,927; Khardah 28,362; Balurghat 26,999; Kalimpoug 25,105; Rajpur 24,812; Jangipur 24,201; Jiaganj Azimganj 23,675; Baduria 23,573; Bolpur 23,355; Suri 22,841; Kalna 22,603; Kalyani-Kataganj and Gokulpur Town Group 22,317; Contai 22,094; Uttarpara 21,132; Ghatal 21,062; New Barrackpur Colony 20,871; Katwa 20,621; Jagacha Town Group 20,094; Dum Dum 20,041; Mainguri Town Group 20,014.

**Manipur**

*50,000—1,00,000* (1)

Imphal 67,717.

*20,000—50,000* (Nil)

**Tripura**

*50,000—1,00,000* (1)

Agartala 54,878.

*20,000—50,000* (Nil).

**Pondicherry**

*50,000—1,00,000* (Nil)

*20,000—50,000* (2)

Pondicherry 40,421; Karaikal 22,252.

In Andaman and Nicobar Islands, Himachal Pradesh and Nagaland towns have population of only less than 20,000.

## LITERACY (1961)

| States/Union Territories | 1961 Population | Literates (including educated) in 1961 | | | Literacy rate 1961 | | |
|---|---|---|---|---|---|---|---|
| | | Persons | Males | Females | No. of persons to 1,000 Persons | No. of males to 1,000 males | No. of females to 1,000 females |
| INDIA | 439,235,082 | 105,333,281* | 77,828,163* | 27,505,118* | 240* | 344* | 129* |
| *States* | | | | | | | |
| Andhra Pradesh | 35,983,447 | 7,626,527 | 5,482,333 | 2,144,194 | 212 | 302 | 120 |
| Assam | 11,872,772 | 3,248,055 | 2,361,724 | 886,331 | 274 | 373 | 160 |
| Bihar | 46,455,610 | 8,547,845 | 6,950,967 | 1,596,878 | 184 | 298 | 69 |
| Gujarat | 20,633,350 | 6,283,256 | 4,373,373 | 1,909,883 | 305 | 411 | 191 |
| Jammu & Kashmir | 3,560,976 | 392,761 | 321,827 | 70,934 | 110 | 170 | 43 |
| Kerala | 16,903,715 | 7,919,220 | 4,596,265 | 3,322,955 | 468 | 550 | 389 |
| Madhya Pradesh | 32,372,408 | 5,544,862 | 4,481,454 | 1,063,408 | 171 | 270 | 67 |
| Madras | 33,686,953 | 10,580,616 | 7,532,323 | 3,048,293 | 314 | 445 | 182 |
| Maharashtra | 39,553,718 | 11,793,070 | 8,588,657 | 3,204,413 | 298 | 420 | 168 |
| Mysore | 23,586,772 | 5,990,585 | 4,352,428 | 1,638,157 | 254 | 361 | 142 |
| Orissa | 17,548,846 | 3,801,245 | 3,042,004 | 759,241 | 217 | 347 | 86 |
| Punjab | 20,306,812 | 4,917,396 | 3,591,177 | 1,326,219 | 242 | 330 | 141 |
| Rajasthan | 20,155,602 | 3,065,568 | 2,504,983 | 560,585 | 152 | 237 | 58 |
| Uttar Pradesh | 73,746,401 | 13,013,183 | 10,546,795 | 2,466,388 | 176 | 273 | 70 |
| West Bengal | 34,926,279 | 10,225,664 | 7,454,006 | 2,771,658 | 293 | 401 | 170 |
| *Union territories and other areas:* | | | | | | | |
| Andaman | 63,548 | 21,372 | 16,675 | 4,697 | 336 | 424 | 194 |
| Delhi | 2,658,612 | 1,402,298 | 904,801 | 497,497 | 527 | 608 | 425 |
| Himachal Pradesh | 1,351,144 | 231,664 | 191,139 | 40,525 | 171 | 272 | 62 |
| Laccadive | 24,108 | 5,610 | 4,273 | 1,337 | 233 | 358 | 110 |
| Manipur | 780,037 | 237,276 | 174,656 | 62,620 | 304 | 451 | 159 |
| Tripura | 1,142,005 | 231,188 | 175,060 | 56,128 | 202 | 296 | 102 |
| Dadra and Nagar Haveli | 57,963 | 5,495 | 4,342 | 1,153 | 95 | 147 | 41 |
| Goa, Daman & Diu | 626,978 | .. | .. | .. | .. | .. | .. |
| NEFA | 336,558 | 24,260 | 21,879 | 2,381 | 72 | 123 | 15 |
| Nagaland | 369,200 | 66,117 | 45,917 | 20,200 | 179 | 240 | 113 |
| Pondicherry | 369,079 | 138,149 | 92,384 | 45,765 | 374 | 504 | 246 |

* Excludes Goa, Daman & Diu.

## Area—States & Districts (Sq. miles)

**Andhra Pradesh :** 106,286 ; Srikakulam 3,901 ; Visakhapatnam 5,200 ; East Godavari 4,181 ; West Godavari 2,980 ; Krishna 3,378 ; Guntur 5,802 ; Nellore 7,974 ; Chittoor 5,855 ; Cuddapah 5,924 ; Anantapur 7,385 ; Kurnool 9,277 ; Mahbubnagar 7.119 ; Hyderabad 2,988 ; Medak 3,711 ; Nizamabad 3,105 ; Adilabad 6,306 ; Karimnagar 4,582 ; Warangal 4,988 ; Khammam 6,147 ; Nalgonda 5,483.

**Assam :** 47,091 ; Goalpara 4,007 ; Kamrup 3,804 ; Darrang 3,369 ; Lakhimpur 4,926 ; Nowgong 2,167 ; Sibsagar 3,453 ; Cachar 2,688 ; Garo Hills 3,119 ; United Khasi and Jaintia Hills 5,546 ; United Mikir and North Cachar Hills 5,878 ; Mizo Hills 8,134.

**Bihar :** 67,196 ; Patna 2,164 ; Gaya 4,766 ; Shahabad 4,408 ; Saran 2,669 ; Champaran 3,553 ; Muzaffarpur 3,018 ; Darbhanga 3,345 ; Monghyr 3,975 ; Bhagalpur 2,183 ; Saharsa 2,093 ; Purnea 4,259 ; Santal Parganas 5,470 ; Palamau 4,925 ; Hazaribagh 7,016 ; Ranchi 7,047 ; Dhanbad 1,114 ; Singhbhum 5,191.

**Gujarat :** 72,245 : Jamnagar 3,944 ; Rajkot 4,588 ; Surendranagar 4,006 ; Bhavnagar 4,652 ; Amreli 1,545 ; Junagadh 4,186 ; Kutch 17,060 Banaskantha 4,037 ; Sabarkantha 2,843 : Mehsana 4,324 ; Ahmedabad 3,461 ; Kaira 2,621 ; Panch Mahals 3,486 ; Baroda 2,961 ; Broach 2,986 ; Surat* 4,856 ; Dangs 689.

**Jammu & Kashmir†**

**Kerala :** 15,002 ; Cannanore 2,744 ; Kozhikode 2,042 ; Palghat 1,982 ; Trichur 1,149 ; Ernakulam 1,270 ; Kottayam 2,326 ; Alleppey 698 ; Quilon 1,944 ; Trivandrum 847.

**Madhya Pradesh :** 171,217 ; Morena 4,489 ; Bhind 1,723 ; Gwalior 2,002 ; Datia 782 ; Shivpuri 3,986 ; Guna 4,271 ; Tikamgarh 1,944 ; Chhatarpur 3,381 ; Panna 2,716 ; Satna 2,823 ; Rewa 2,509 ; Shahdol 5,412 ; Sidhi 4,060 ; Mandsaur 3,966 · Ratlam 1,727 ; Ujjain 2,360 ; Jhabua 2,615 ; Dhar 3,150 ; Indore 1,479 ; Dewas 2,706 ; West Nimar 5,206 ; East Nimar 4,132 ; Shajapur 2,388 ; Rajgarh 2,383 ; Vidisha 2,839 ; Sehore 3,600 ; Raisen 3,272 ; Hoshangabad 3,867 ; Betul 3,884 ; Sagar 3,961 ; Damoh 2,827 ; Jabalpur 3,918 ; Narsimhapur 1,979 ; Mandla 5,127 ; Chhindwara 4,565 ; Seoni 3,376 ; Balaghat 3,573 ; Surguja 8,626 ; Bilaspur 7,615 ; Raigarh 5,064 ; Durg 7,576 ; Raipur 8,214 ; Bastar 15,124.

**Madras :** 50,331 ; Madras Corporation 49 ; Chingleput 3,031 ; North Arcot 4,942 ; South Arcot 4,204 ; Salem 7,028 ; Coimbatore 6,018 ; Nilgiris 984 ; Madurai 4,910 ; Tiruchirapalli 5,514 ; Tanjavur 3,740 ; Ramanathapuram 4,849 ; Tirunelveli 4,419 ; Kanya Kumari 643.

**Maharashtra :** 118,717 ; Greater Bombay 186 ; Thana 3,658 ; Kolaba 2,716, Ratnagiri 5,025 ; Nasik 6,020 ; Dhulia 5,022 ; Jalgaon 4,573 ; Ahmednagar 6,586 ; Poona 6,033 ; Satara 4,041 ; Sangli 3,299 ; Sholapur 5,809 ; Kolhapur 3,141 ; Aurangabad 6,314 ; Parbhani 4,854 ; Bhir 4,268 ; Nanded 4,800 ; Osmanabad 5,504 ; Buldhana 3,751 ; Akola 4,095 ; Amravati 4,723 ; Yeotmal 5,246 ; Wardha 2,429 ; Nagpur 3,842 ; Bhandara 3,582 ; Chanda 9,200.

**Mysore :** 74,210 ; Bangalore 3,081 ; Tumkur 4,096 ; Chitradurga 4,185 ; Kolar 3,188 ; Bellary 3,825 ; Mysore 4,617 ; South Kanara 3,249 ; Coorg 1,587 ; Hassan 2,638 ; Shimoga 4,066 ; Chikmagalur 2,787 ; Mandya 1,924 ; Belgaum 5,163 ; Bijapur 6,594 ; North Kanara 3,965 ; Dharwar 5,303 ; Gulbarga 6,332 ; Bidar 2,119 ; Raichur 5,491.

**Orissa :** 60,164 ; Kalahandi 5,099 ; Koraput 9,864 ; Sambalpur 6,763 ; Bolangir 3,439 ; Baudh-Khondmals 4,284 ; Ganjam 4,824 ; Sundargarh 3,751 ; Dhenkanal 4,177 ; Puri 3,999 ; Keonjhar 3,206 ; Cuttack 4,236 ; Mayurbhanj 4,022 ; Balasore 2,500.

**Punjab :** 47,205 ; Hissar 5,380 ; Rohtak 2,330 ; Gurgaon 2,367 ; Karnal 3,062 ; Ambala 2,134 ; Simla 254 ; Kangra 4,904 ; Lahaul & Spiti 4,714 ; Hoshiarpur 2,210 ; Jullundur 1,335 ; Ludhiana

† The area of the State and Districts is not available.

### Population and Literacy of States and Districts in each State‡

| States/Districts | Total Population | | | Literacy | |
|---|---|---|---|---|---|
| | Total | Males | Females | Males | Females |
| *INDIA* .. .. .. .. | 439,235,082 | 226,293,620 | 212,941,462 | 77,828,163 | 27,505,118 |
| *Andhra Pradesh* .. .. .. | 35,983,447 | 18,161,671 | 17,821,776 | 5,482,333 | 2,144,194 |
| Srikakulam .. .. .. .. | 2,340,878 | 1,149,447 | 1,191,431 | 283,893 | 83,831 |
| Visakhapatnam .. .. .. | 2,290,759 | 1,142,647 | 1,148,112 | 286,025 | 106,941 |
| East Godavari .. .. .. | 2,608,375 | 1,305,003 | 1,303,372 | 435,878 | 242,346 |
| West Godavari .. .. .. | 1,978,257 | 993,020 | 985,237 | 378,492 | 230,073 |
| Krishna .. .. .. .. | 2,076,956 | 1,058,323 | 1,018,633 | 410,675 | 236,381 |
| Guntur .. .. .. .. | 3,009,900 | 1,522,865 | 1,487,035 | 568,616 | 263,843 |
| Nellore .. .. .. .. | 2,033,679 | 1,018,457 | 1,015,222 | 306,172 | 123,573 |
| Chittoor .. .. .. .. | 1,914,639 | 978,453 | 936,186 | 308,968 | 91,912 |
| Cuddapah .. .. .. .. | 1,342,015 | 685,597 | 656,418 | 230,571 | 61,383 |
| Anantapur .. .. .. .. | 1,767,464 | 908,254 | 859,210 | 287,676 | 76,580 |
| Kurnool .. .. .. .. | 1,908,740 | 964,554 | 944,186 | 317,719 | 90,879 |
| Mahbubnagar .. .. .. .. | 1,590,686 | 794,041 | 796,645 | 170,774 | 43,298 |
| Hyderabad .. .. .. .. | 2,062,995 | 1,056,578 | 1,006,417 | 484,760 | 238,240 |
| Medak .. .. .. .. | 1,227,361 | 614,852 | 612,509 | 143,342 | 29,042 |
| Nizamabad .. .. .. .. | 1,022,013 | 509,183 | 512,830 | 116,998 | 29,403 |
| Adilabad .. .. .. .. | 1,009,292 | 509,550 | 499,742 | 95,571 | 22,716 |
| Karimnagar .. .. .. .. | 1,621,515 | 812,491 | 809,024 | 171,958 | 37,140 |
| Warangal .. .. .. .. | 1,545,435 | 790,739 | 754,696 | 187,535 | 50,009 |
| Khammam .. .. .. .. | 1,057,542 | 539,994 | 517,548 | 118,995 | 42,079 |
| Nalgonda .. .. .. .. | 1,574,946 | 807,623 | 767,323 | 177,715 | 44,525 |
| *Assam :* .. .. .. .. | 11,872,772 | 6,328,129 | 5,544,643 | 2,361,724 | 886,331 |
| Goalpara .. .. .. .. | 1,543,892 | 812,723 | 731,169 | 246,495 | 78,677 |
| Kamrup .. .. .. .. | 2,062,572 | 1,109,608 | 952,964 | 435,171 | 129,136 |
| Darrang .. .. .. .. | 1,289,670 | 694,927 | 594,743 | 220,195 | 75,268 |
| Lakhimpur .. .. .. .. | 1,563,842 | 853,879 | 709,963 | 331,860 | 116,322 |
| Nowgong .. .. .. .. | 1,210,761 | 645,690 | 565,071 | 235,128 | 94,897 |
| Sibsagar .. .. .. .. | 1,508,390 | 808,935 | 699,455 | 364,315 | 153,307 |
| Cachar .. .. .. .. | 1,378,476 | 722,487 | 655,989 | 290,629 | 103,679 |
| Garo Hills .. .. .. .. | 307,228 | 156,740 | 150,488 | 40,554 | 20,780 |
| United Khasi and Jaintia Hills .. | 462,152 | 240,548 | 221,604 | 87,835 | 57,928 |
| United Mikir and North Cachar Hills | 279,726 | 150,127 | 129,599 | 38,799 | 9,983 |
| Mizo Hills .. .. .. .. | 266,063 | 132,465 | 133,598 | 70,743 | 46,354 |

### Population and Literacy of States and Districts in each State—*Contd.*

| States/Districts | Total Population | | | Literacy | |
|---|---|---|---|---|---|
| | Total | Males | Females | Males | Females |
| *Bihar :* .. | 46,455,610 | 23,301,449 | 23,154,161 | 6,950,967 | 1,596,878 |
| Patna .. .. | 2,949,746 | 1,522,687 | 1,427,059 | 662,562 | 185,020 |
| Gaya .. .. | 3,647,892 | 1,814,674 | 1,833,218 | 571,583 | 127,646 |
| Shahabad .. | 3,218,017 | 1,616,732 | 1,601,285 | 583,017 | 117,748 |
| Saran .. .. | 3,584,918 | 1,677,779 | 1,907,139 | 544,737 | 109,342 |
| Champaran .. | 3,006,211 | 1,519,803 | 1,486,408 | 327,653 | 68,077 |
| Muzaffarpur .. | 4,118,398 | 2,011,539 | 2,106,859 | 569,657 | 137,399 |
| Darbhanga .. | 4,413,027 | 2,142,880 | 2,270,147 | 607,878 | 131,583 |
| Monghyr .. | 3,387,082 | 1,702,709 | 1,684,373 | 517,993 | 125,036 |
| Bhagalpur .. | 1,711,136 | 877,029 | 834,107 | 272,677 | 74,843 |
| Saharsa .. | 1,723,566 | 886,440 | 837,126 | 206,935 | 34,475 |
| Purnea .. | 3,089,128 | 1,607,276 | 1,481,852 | 410,158 | 87,987 |
| Santal Parganas | 2,675,203 | 1,351,149 | 1,324,054 | 325,175 | 66,032 |
| Palamau .. | 1,187,789 | 598,600 | 589,189 | 136,976 | 24,261 |
| Hazaribagh .. | 2,396,411 | 1,203,503 | 1,192,908 | 293,149 | 53,658 |
| Ranchi .. | 2,138,565 | 1,076,251 | 1,062,314 | 313,973 | 95,271 |
| Dhanbad .. | 1,158,610 | 646,597 | 512,013 | 240,563 | 54,713 |
| Singhbhum .. | 2,049,911 | 1,045,801 | 1,004,110 | 366,281 | 103,797 |
| *Gujarat* .. | 20,633,350 | 10,633,902 | 9,999,448 | 4,373,373 | 1,909,883 |
| Jamnagar .. | 828,419 | 424,300 | 404,119 | 154,352 | 65,617 |
| Rajkot .. | 1,208,519 | 615,661 | 592,858 | 261,966 | 121,613 |
| Surendranagar | 663,206 | 341,301 | 31,905 | 115,448 | 47,178 |
| Bhavnagar .. | 1,119,435 | 577,729 | 541,706 | 221,457 | 85,585 |
| Amreli .. | 667,823 | 340,623 | 327,200 | 132,136 | 60,940 |
| Junagadh .. | 1,245,643 | 638,296 | 607,347 | 226,187 | 77,939 |
| Kutch .. | 696,440 | 341,224 | 355,216 | 114,056 | 60,032 |
| Banaskantha .. | 996,144 | 511,951 | 484,193 | 104,695 | 22,092 |
| Sabarkantha .. | 918,587 | 470,224 | 448,363 | 170,226 | 50,497 |
| Mehsana .. | 1,689,963 | 858,056 | 831,907 | 391,088 | 182,777 |
| Ahmedabad .. | 2,210,199 | 1,188,269 | 1,021,930 | 626,280 | 299,365 |
| Kaira .. | 1,977,540 | 1,039,720 | 937,820 | 503,735 | 213,268 |
| Panch Mahals | 1,468,946 | 758,561 | 710,385 | 220,022 | 62,511 |
| Baroda .. | 1,527,326 | 801,026 | 726,300 | 367,596 | 170,184 |
| Broach .. | 891,969 | 458,125 | 433,844 | 212,535 | 93,021 |
| Surat* .. .. | 2,451,624 | 1,231,418 | 1,220,206 | 546,259 | 295,972 |
| Dangs .. .. | 71,567 | 37,418 | 34,149 | 5,335 | 1,292 |

* Now split into two districts—Surat and Bulsar.

‡ Area of States and Districts is given separately.

1,324 ; Ferozepur 3,882 ; Amritsar 1,978 ; Gurdaspur 1,360 ; Kapurthala 630 : Bhatinda 2,706 ; Sangrur 3,031 ; Patiala 2,261 ; Mahendragarh 1,343.

**Rajasthan :** 132,152 ; Ganganagar 8,000 ; Bikaner 10,561 ; Churu 6,410 ; Jhunjhunu 2,283 : Alwar 3,241 ; Bharatpur 3,127 ; Sawai Madhopur 4,070 ; Jaipur 5,393 ; Sikar 3,027 ; Ajmer 3,283 ; Tonk 2,765 ; Jaisalmer 14,847 ; Jodhpur 8,772 ; Nagaur 6,884 ; Pali 4,792 ; Barmer 10,170 ; Jalore 4,916 ; Sirohi 1,979 ; Bilwara 4,034 ; Udaipur 6,812 ; Chittorgarh 4,033 ; Dungarpur 1,460 ; Banswara 1,946 ; Bundi 2,148 ; Kota 4,704 ; Jhalawar 2,405.

**Uttar Pradesh :** 113,654 ; Uttar Kashi 3,018 ; Chamoli 3.525 ; Pithoragarh 2,788 ; Tehri Garhwal 1,745 ; Garhwal 2,106 ; Almora 2,713 ; Naini Tal 2,635 ; Bijnor 1,866 ; Moradabad 2,289 ; Budaun 1,998 ; Rampur 895 ; Bareilly 1,591 ; Pilibhit 1,352 ; Shahjahanpur 1,762 ; Dehra Dun 1,201 ; Saharanpur 2,132 ; Muzaffarnagar 1,683 ; Meerut 2,322 ; Bulandshahr 1,887 · Aligarh 1,941 ; Mathura 1,467 ; Agra 1,861 ; Etah 1,715 ; Mainpuri 1,680 ; Farrukhabad 1,645 ; Etawah 1,669 ; Kanpur 2,357 ; Fatehpur 1,625 ; Allahabad 2,801 ; Jhansi 3,885 ; Jalaun 1,764 ; Hamirpur 2,775 ; Banda 2,950 ; Kheri 2,972 ; Sitapur 2,236 ; Hardoi 2,320 ; Unnao 1,774 ; Lucknow 977: Rae Bareilly 1,758 ; Bahraich 2,620 ; Gonda 2,829 ; Bara Banki 1,714 ; Faizabad 1,705 ; Sultanpur 1,713 ; Pratapgarh 1,458 ; Basti 2,821 ; Gorakhpur 2,439 ; Deoria 2,087 ; Azamgarh 2.222 ; Jaunpur 1 543 ; Ballia 1,183 ; Ghazipur 1,306 ; Varanasi 1.965 ; Mirzapur 4,369.

**West Bengal :** 33,829 ; Darjeeling 1,160 ; Jalpaiguri 2,407 ; Cooch-Behar 1,289 ; West Dinajpur 2,052 ; Malda 1,436 ; Murshidabad 2,056 ; Nadia 1,514 ; ; 24-Parganas 5,285 ; Calcutta 40 ; Howrah 575 ; Hooghly 1,216 ; Burdwan 2,716 ; Birbhum 1,757 ; Bankura 2,653 ; Midnapur 5,258 ; Purulia 2,415.

## Talukas, Area and Population (State-wise)

### Andhra Pradesh

District-wise names of Tehsils with area in square miles and population respectively are as follows :

*Adilabad Dist :* Adilabad : 580 ; 1,17,346 ; Asifabad : 834 ; 1,19,611 ; Boath : 554 ; 69,906 ; Chinoor : 689 ; 95,744 ; Khanapur : 313 ; 55,613 ; Lakshattipet : 734 ; 1,13,391 ; Mudhol : 413 ; 1,00,581 ; Nirmal : 566 ; 1,37,307 ; Sirpur : 856 ; 1,34,707 ; Utnoor : 726 ; 55,095.

*Anantapur Dist :* Anantapur : 926 ; 2,20,888 ; Dharmavaram : 736 ; 1,38,519 ; Gooty : 896 ; 1,59,916 ; Hindupur : 430 ; 1,82,997 ; Kadiri : 1,157 ; 2,47,299 ; Kalyandurg : 821 ; 1,41,276 ; Madakasira : 417 ; 1,35,972 ; Penukonda : 682 ; 1,41,533 ; Rayadurg : 682 ; 1,42,934 ; Tadapatri : 641 ; 1,54,222 ; Uravakonda : 472 ; 98,667.

*Chittoor Dist :* Bangarupalem : 212 ; 1,11,439 ; Chandragiri : 548 ; 1,99,677 ; Chittoor : 778 ; 2,29,090 ; Kalahasti : 615 ; 1,65,575 ; Kuppam : 304 ; 97,022 ; Madanapalle : 836 ; 2,27,814 : Palmaner : 720 ; 1,11,204 ; Punganur : 648 ; 1,68,277 ; Puttur : 564 ; 2,46,520 ; Satyavedu : 300 ; 1,42,398 ; Vayalpad : 802 ; 2,14,157.

*Cuddapah Dist :* Badvel : 757 ; 1,24,601 ; Cuddapah : 510 ; 1,79,184 ; Jammalamadugu : 613 ; 1,41,872 ; Kamalapuram : 303 ; 83,440 ; Prodattur : 430 ; 1,77,777 ; Pulivendla : 569 ; 1,22,958 ; Rajampet : 1,038 ; 2,06,844 ; Rayachoti : 1,103 ; 2,20,582 ; Siddavatham : 606 ; 84,882.

*East Godavari Dist :* Amalapuram : 353 ; 3,56,005 ; Kakinada : 384 ; 4,02,705 ; Kothapeta ; — ; 1,65,755 ; Peddapuram : 602 ; 1,93,665 ; Pithapuram : 138 ; 1,67,550 ; Prattipadu : 602 ; 1,37,234 ; Rajahmundry : 378 ; 3,83,502 ; Ramachandrapuram : 289 ; 3,78,349 ; Rampachodavaram : 710 ; 48,618 ; Razoli : — ; 1,82,288 ; Tuni : 183 ; 1,29,980 ; Yellavaram : 850 ; 63,570.

*Guntur Dist :* Bapatla : 670 ; 4,87,213 ; Guntur : 541 ; 5,78,913 ; Narasaraopet : 716 ; 3,21,909 ; Ongoli : 820 ; 3,88,832 ; Palnad : 1,041 ; 2,28,002 ; Repalle : 297 ; 2,35,105 ; Sattenapalli : 718 ; 2,44,660 ; Tenali : 324 ; 4,00,538 ; Vinukonda : 644 ; 1,24,825.

**Population and Literacy of States and Districts in each State—*Contd.***

| States/Districts | Total Population | | | Literacy | |
|---|---|---|---|---|---|
| | Total | Males | Females | Males | Females |
| *Jammu & Kashmir* .. | 3,560,976 | 1,896,633 | 1,664,343 | 321,827 | 70,934 |
| Anantnag .. .. | 654,368 | 351,932 | 302,436 | 48,166 | 4,422 |
| Srinagar .. .. | 640,411 | 346,434 | 293,977 | 71,852 | 21,540 |
| Baramulla .. .. | 604,659 | 324,672 | 279,987 | 43,541 | 4,457 |
| Ladakh .. .. | 88,651 | 44,972 | 43,679 | 6,911 | 458 |
| Doda .. .. .. | 268,403 | 141,133 | 127,270 | 20,568 | 2,423 |
| Udhampur .. .. | 254,061 | 132,936 | 121,125 | 18,400 | 4,270 |
| Jammu .. .. | 516,932 | 274,107 | 242,825 | 70,457 | 25,674 |
| Kathua .. .. | 207,430 | 108,899 | 98,531 | 19,432 | 4,458 |
| Poonch-Rajouri .. | 326,061 | 171,548 | 154,513 | 22,500 | 3,232 |
| *Kerala* .. .. | 16,903,715 | 8,361,927 | 8,541,788 | 4,596,265 | 3,322,955 |
| Cannanore .. .. | 1,780,294 | 874,667 | 905,627 | 454,489 | 280,549 |
| Kozhikode .. .. | 2,617,189 | 1,300,974 | 1,316,215 | 665,386 | 397,909 |
| Palghat .. .. | 1,776,566 | 851,746 | 924,820 | 358,850 | 246,128 |
| Trichur .. .. | 1,639,862 | 784,736 | 855,126 | 433,028 | 361,754 |
| Ernakulam .. .. | 1,859,913 | 931,248 | 928,665 | 538,075 | 402,151 |
| Kottayam .. .. | 1,732,880 | 882,580 | 850,300 | 550,809 | 429,464 |
| Alleppey .. .. | 1,811,252 | 893,435 | 917,817 | 569,953 | 459,977 |
| Quilon .. .. | 1,941,228 | 972,657 | 968,571 | 562,044 | 418,416 |
| Trivandrum .. | 1,744,531 | 869,884 | 874,647 | 463,631 | 326,607 |
| *Madhya Pradesh* .. | 32,372,408 | 16,578,204 | 15,794,204 | 4,481,454 | 1,063,408 |
| Morena .. .. | 783,348 | 426,061 | 357,287 | 101,069 | 15,547 |
| Bhind .. .. .. | 641,169 | 346,797 | 294,372 | 96,505 | 15,112 |
| Gwalior .. .. | 657,876 | 353,813 | 304,063 | 137,989 | 45,347 |
| Datia .. .. .. | 200,467 | 105,640 | 94,827 | 25,786 | 4,050 |
| Shivpur .. .. | 557,954 | 295,543 | 262,411 | 56,245 | 8,277 |
| Guna .. .. .. | 595,825 | 313,814 | 282,011 | 69,130 | 13,115 |
| Tikamgarh .. .. | 455,662 | 239,035 | 216,627 | 38,037 | 6,030 |
| Chhatarpur .. .. | 587,373 | 310,653 | 276,720 | 56,271 | 9,661 |
| Panna .. .. | 331,257 | 170,942 | 160,315 | 30,966 | 5,068 |
| Satna .. .. .. | 694,370 | 353,430 | 340,940 | 92,945 | 15,292 |
| Rewa .. .. .. | 772,602 | 388,887 | 383,715 | 101,130 | 13,868 |
| Shahdol .. .. | 829,649 | 424,042 | 405,607 | 41,802 | 11,560 |
| Sidhi .. .. | 580,129 | 293,507 | 286,622 | 139,307 | 3,290 |
| Mandsaur .. .. | 752,085 | 390,731 | 361,354 | 79,351 | 29,489 |
| Ratlam .. .. | 483,521 | 249,047 | 234,474 | 119,818 | 24,080 |
| Ujjain .. .. | 661,720 | 344,515 | 317,205 | 23,806 | 35,282 |
| Jhabua .. .. | 514,384 | 262,695 | 251,689 | 70,232 | 7,310 |
| Dhar .. .. .. | 643,774 | 328,177 | 315,597 | 202,455 | 16,375 |
| Indore .. .. | 753,594 | 400,470 | 353,124 | 65,100 | 85,660 |
| Dewas .. .. | 446,901 | 230,761 | 216,140 | 123,837 | 12,304 |
| West Nimar .. .. | 990,464 | 505,919 | 484,545 | 129,330 | 27,965 |
| East Nimar .. .. | 685,150 | 353,378 | 331,772 | 63,191 | 38,709 |
| Shajapur .. .. | 526,135 | 270,777 | 255,358 | 44,117 | 11,134 |
| Rajgarh .. .. | 516,871 | 269,666 | 247,205 | 54,877 | 7,499 |
| Vidisha .. .. | 489,213 | 258,840 | 230,373 | 122,545 | 11,225 |
| Sehore .. .. | 754,684 | 404,785 | 349,899 | 46,133 | 39,538 |
| Raisen .. .. | 411,426 | 215,709 | 195,717 | 111,395 | 8,834 |
| Hoshangabad .. | 618,293 | 319,760 | 298,533 | 75,778 | 30.199 |
| Betul .. .. | 560,412 | 281,055 | 279,357 | 126,623 | 16,950 |
| Sagar .. .. .. | 796,547 | 414,834 | 381,713 | 64,545 | 36,789 |
| Damoh .. .. | 438,343 | 223,067 | 215,276 | 271,714 | 16,329 |
| Jabalpur .. .. | 1,273,825 | 662,045 | 611,780 | .. | 91,942 |
| Narsimhapur .. | 412,406 | 211,238 | 201,168 | 68,749 | 20,115 |
| Mandla .. .. | 684,503 | 341,294 | 343,209 | 79,932 | 17,190 |
| Chhindwara .. | 785,535 | 396,672 | 388,863 | 102,809 | 25,110 |
| Seoni .. .. | 523,741 | 261,060 | 262,681 | 71,290 | 16,023 |
| Balaghat .. .. | 806,702 | 401,447 | 405,255 | 137,504 | 28,985 |
| Surguja .. .. | 1,036,738 | 530,166 | 506,572 | 81,590 | 13,273 |
| Bilaspur .. .. | 2,021,793 | 998,738 | 1,023,055 | 304,740 | 63,788 |
| Raigarh .. .. | 1,041,226 | 517,958 | 523,268 | 128,831 | 25,827 |
| Durg .. .. | 1,885,236 | 946,154 | 939,082 | 277,618 | 58,861 |
| Raipur .. .. | 2,002,004 | 982,679 | 1,019,325 | 304,433 | 65,821 |
| Bastar .. .. | 1,167,501 | 582,403 | 585,098 | 68,066 | 12,582 |
| *Madras* .. .. | 33,686,953 | 16,910,978 | 16,775,975 | 7,532,323 | 3,048,293 |
| Madras Corporation | 1,729,141 | 909,701 | 819,440 | 633,203 | 395,123 |
| Chingleput .. .. | 2,196,412 | 1,120,951 | 1,075,821 | 450,587 | 162,001 |
| North Arcot .. .. | 3,146,326 | 1,581,826 | 1,564,500 | 587,133 | 190,696 |
| South Arcot .. .. | 3,047,973 | 1,535,928 | 1,512,045 | 622,886 | 191,293 |
| Salem .. .. | 3,804,108 | 1,923,885 | 1,880,223 | 568,613 | 187,906 |
| Coimbatore .. | 3,557,471 | 1,809,591 | 1,747,880 | 783 113 | 291,116 |
| Nilgiris .. .. | 409,308 | 213,833 | 195,475 | 103,211 | 42,843 |
| Madurai .. .. | 3,211,227 | 1,607,229 | 1,603,998 | 773,408 | 298,647 |
| Tiruchirapalli .. | 3,190,078 | 1,588,249 | 1,601,649 | 709,822 | 245,105 |

*Hyderabad Dist :* Chevella : 202 ; 1,00,620; Hyderabad East : 269 ; 1,05,028 ; Hyderabad West : 277 ; 13,03,344 ; Ibrahimpatnam : 525 ; 1,21,645 ; Medchal : 307 ; 92,269 ; Pargi : 290 ; 1,07,177 ; Tandur : 371 ; 98,535 ; Vikarabad : 506 ; 1,34,983.

*Karimnagar Dist :* Huzurabad : 560 ; 2,68,171 ; Jagtiyal : 678 ; 2,39,106 ; Karimnagar : 720 ; 3,35,652 ; Manthani : 835 ; 98,371 ; Metpalli : 868 ; 1,43,627 ; Sirsilla : 722 ; 2,57,490 ; Sultanabad : 707 ; 2,78,000.

*Khammam Dist :* Bhadrachalam : 911 ; 90,852 ; Burgampahad : 755 ; 84,337 ; Khammam : 645 ; 2,75,102 ; Kothagudem : 947 ; 1,75,806 ; Madhira : 716 ; 2,13,529 ; Nugur : 593 ; 40,979 ; Yellandu : 1,167 ; 1,76,620.

*Krishna Dist :* Bandar : 343 ; 2,67,420 ; Divi : 465 ; 2,40,630 ; Gannavaram : 295 ; 2,19,694 ; Gudivada : 230 ; 2,24,977 ; Kaikalur : 286 ; 1,53,361 ; Nandigama : 679 ; 1,68,194 ; Nuzvid : 335 ; 1,27,761 ; Tiruvur : 430 ; 1,50,405 ; Vijayawada : 436 ; 4,58,606.

*Kurnool Dist :* Adoni : 765 ; 2,62,834 ; Allagadda : 613 ; 1,21,561 ; Alur : 613 ; 1,34,233 ; Atmakur : 267 ; 84,791 ; Banganapalli : 310 ; 55,458 ; Dhone : 836 ; 1,56,216 ; Giddalur : 1,056 ; 1,80,972 ; Koilkuntla : 518 ; 1,04,951 ; Markapur : 1,265 ; 1,57,004 ; Nandikotkur : 369 ; 90,066 ; Nandyal : 678 ; 1,50,699 ; Pattikonda : 747 ; 1,49,649.

*Mahbubnagar Dist :* Achampet : 1,126 ; 84,204 ; Alampur : 435 ; 96,710 ; Atmakur : 447 ; 1,02,079; Gadwal : 518 ; 1,18,638 ; Kalwakurthi : 785 ; 1,75,428 ; Kodangal : 461 ; 1,44,135 ; Kollapur : 661 ; 1,20,293 ; Mahbubnagar : 460 ; 1,79,712 ; Makhtal : 532 ; 1,35,828 ; Nagarkurnool : 561 ; 1,51,622 ; Shadnagar : 459 ; 1,43,789 ; Wanparti : 536 ; 1,38,251.

*Medak Dist :* Adol : 470 ; 1,68,086 ; Gaiwel : 386 ; 1,46,072 ; Medak : 520 ; 1,68,639 ; Narayankhed : 384 ; 96,355 ; Narsapur : 426 ; 1,16,469 ; Sangareddy : 474 ; 1,55,230 ; Siddipet : 619 ; 2,22,974 ; Zahirabad : 520 ; 1,52,640.

*Nalgonda Dist :* Bhongir : 614 ; 2,13,590 : Devarkonda : 1,041 ; 2,00,921 ; Huzurnagar : 532 ; 1,98,846 ; Miryalguda : 751 ; 2,22,413 ; Nalgonda : 954 ; 2,94,846 ; Ramannapet : 684 ; 1,94,906 ; Suryapet : 803 ; 2,50,085.

*Nellore Dist :* Atmakur : 639 ; 1,45,694 ; Darsi : 591 ; 1,25,935 ; Gudur : 463 ; 1,41,160 ; Kandukur : 801 ; 2,32,909 ; Kanigiri : 1,000 ; 1,70,869 ; Kavali : 548 ; 1,56,841 ; Kovvur : 385 ; 2,13,984 ; Nellore : 504 ; 3,03,108 ; Podili : 564 ; 1,04,441 ; Rapur : 594 ; 1,05,163 ; Sulurpet : 573 ; 1,13,109 ; Udayagiri : 871 ; 1,25,468 ; Venkatagiri : 427 ; 95,284.

*Nizamabad Dist :* Armoor : 748 ; 2,21,387 ; Banswada : 560 ; 1,03,849 ; Bodhan : 291 ; 1,56,896 ; Kamareddy : 483 ; 1,56,187 ; Nizamabad : 506 ; 2,26,788 ; Yellareddy : 438 ; 82,677.

*Srikakulam Dist :* Bobbili : 391 ; 2,86,305 ; Cheepurapalli : 462 ; 3,18,946 ; Ichapuram : 87 ; 87,304 ; Narasannapet : 200 ; 1,66,136 ; Palakonda : 494 ; 3,24,723 ; Parvatipuram : 590 ; 2,18,680 ; Pathapatnam : 463 ; 2,26,667 ; Salur : 491 ; 1,64,072 ; Sompeta : 212 ; 1,41,557 ; Srikakulam : 227 ; 2,17,995 ; Tekkali : 272 ; 1,89,906.

*Vishakhapatnam Dist :* Anakapalli : 304 ; 2,44,498 ; Bheemunipatnam : 337 ; 2,43,691 ; Chintapalli : 961 ; 44,039 ; Chodavaram : 739 ; 2,98,540 ; Narsipatnam : 516 ; 2,41,348 ; Paderu : 1,32,100 ; Srungavarapukota : 708 ; 2,07,445 ; Visakhapatnam : 196 ; 3,05,972 ; Vizianagaram : 359 ; 3,11,460 ; Yelamanchili : 347 ; 2,59,883.

*Warangal Dist :* Jangaon : 872 ; 3,19,153 ; Mahbubabad : 799 ; 2,74,217 ; Mulug : 1,347 ; 93,405 ; Narsampet : 745 ; 1,47,178 ; Parkal : 556 ; 1,72,231 ; Warrangal : 786 ; 5,39,566.

*West Godavari Dist :* Bhimavaram : 292 ; 2,76,758 ; Chintalapudi : 418 ; 1,21,840 ; Eluru ; 510 ; 3,12,666 ; Kovvur : 391 ; 2,47,175 ; Narasapur : 279 ; 3,37,006 ; Polavaram : 551 ; 1,18,479 ; Tadepalligudem : 360 ; 2,49,998 ; Tanuku : 214 ; 3,14,512.

**Population and Literacy of States and Districts in each State—*Contd.***

| States/Districts | Total Population | | | Literacy | |
|---|---|---|---|---|---|
| | Total | Males | Females | Males | Females |
| *Madras—Contd.* | | | | | |
| Tanjavur .. .. | 3,245,927 | 1,610,241 | 1,635,686 | 783,783 | 305.072 |
| Ramanathapuram .. | 2,421,788 | 1,175,769 | 1,246,019 | 568,347 | 209,212 |
| Tirunelveli .. .. | 2,730,279 | 1,330,220 | 1,400,059 | 664,923 | 328.396 |
| Kanya Kumari .. .. | 996,915 | 503,735 | 180,493 | 283,294 | 200,883 |
| *Maharashtra* .. .. | 39,533,718 | 20,428,882 | 19,124,836 | 8,588,657 | 3,204,413 |
| Greater Bombay .. | 4,152,056 | 2,496,176 | 1,655,880 | 1,624,958 | 808,246 |
| Thana .. .. .. | 1,652,678 | 861,117 | 791,561 | 353,853 | 150,852 |
| Kolaba .. .. .. | 1,058.855 | 514,534 | 544,321 | 187,138 | 72.943 |
| Ratnagiri .. .. | 1,827,203 | 816,804 | 1,010.399 | 344.332 | 176.206 |
| Nasik .. .. .. | 1,855,246 | 953,531 | 901,715 | 375,266 | 123,640 |
| Dhulia .. .. .. | 1,351,236 | 686,942 | 664,294 | 257,120 | 82.673 |
| Jalgaon .. .. .. | 1,765,047 | 902.001 | 863,046 | 444,864 | 155,480 |
| Ahmednagar .. .. | 1,775,969 | 905,313 | 870,656 | 356,299 | 113.430 |
| Poona .. .. .. | 2,466,880 | 1,268,710 | 1,198,170 | 585.911 | 260,489 |
| Satara .. .. .. | 1,430,105 | 698,555 | 731,550 | 331,164 | 154,765 |
| Sangli .. .. .. | 1,230,716 | 628,754 | 601,962 | 263,344 | 82,135 |
| Sholapur .. .. | 1,860,119 | 960.655 | 899,464 | 354,396 | 113,363 |
| Kolhapur .. .. | 1,596,493 | 811,693 | 784.800 | 325.408 | 94.488 |
| Aurangabad .. .. | 1,532,341 | 781,635 | 750,706 | 223,930 | 50,045 |
| Parbhani .. .. | 1,206.236 | 611,787 | 594,449 | 154,618 | 30.830 |
| Bbir .. .. .. | 1,001,466 | 508,827 | 492,693 | 125,170 | 25.969 |
| Nanded .. .. .. | 1,079,674 | 547,974 | 531,700 | 136,052 | 27,488 |
| Osmanabad .. .. | 1,477,656 | 758,235 | 719,421 | 208,685 | 43,329 |
| Buldhana .. .. | 1,059,698 | 541,026 | 518.672 | 222.652 | 63.398 |
| Akola .. .. .. | 1,189,354 | 613,832 | 575.522 | 275.046 | 96,037 |
| Amravati .. .. | 1,232,780 | 637,861 | 594,919 | 292.861 | 122,377 |
| Yeotmal .. .. | 1,098,470 | 557,010 | 541,460 | 196,839 | 61.043 |
| Wardha .. .. .. | 634,277 | 322,894 | 311,383 | 140,253 | 52,861 |
| Nagpur .. .. .. | 1,512,807 | 784,161 | 728,646 | 376,843 | 154.900 |
| Bhandara .. .. | 1,268,286 | 635,174 | 633,112 | 253,422 | 51,864 |
| Chanda .. .. | 1,238,070 | 623,681 | 614,389 | 178,233 | 35,602 |
| *Mysore* .. .. .. | 23,586,772 | 12,040,923 | 11,545,849 | 4,352,428 | 1,638,157 |
| Bangalore .. .. | 2,504,462 | 1,306,230 | 1,198,232 | 581,331 | 278.670 |
| Tumkur .. .. | 1,367,402 | 699,191 | 668,211 | 237,598 | 71.994 |
| Chitradurga .. .. | 1,094,284 | 563,988 | 530,296 | 207,791 | 66,787 |
| Kolar .. .. .. | 1,290,144 | 655,645 | 634,499 | 202.808 | 71.900 |
| Bellary .. .. | 915,261 | 466.923 | 448,338 | 150.165 | 41.223 |
| Mysore .. .. | 1,671,399 | 856,921 | 814,478 | 252.792 | 103.208 |
| South Kanara .. .. | 1,563,837 | 751,229 | 812,608 | 310,890 | 194,957 |
| Coorg .. .. .. | 322,829 | 173,338 | 149,491 | 75.378 | 41.696 |
| Hassan .. .. | 895,847 | 455,055 | 440,792 | 161,685 | 56.350 |
| Shimoga .. .. | 1,017.368 | 536,103 | 481,265 | 205.489 | 79.886 |
| Chikmagalur .. .. | 597.305 | 313,795 | 283,510 | 118.081 | 46.356 |
| Mandya .. .. | 899,210 | 457,143 | 442,067 | 120,912 | 34.739 |
| Belgaum .. .. | 1,983.811 | 1,016,564 | 967,247 | 385,260 | 131.077 |
| Bijapur .. .. | 1,660,178 | 840,180 | 819,998 | 319,622 | 86.270 |
| North Kanara .. .. | 689,549 | 354,344 | 335,205 | 153.744 | 76.839 |
| Dharwar .. .. | 1,950.362 | 999,804 | 950,558 | 474.197 | 176.306 |
| Gulbarga .. .. | 1,399.457 | 703.447 | 696,010 | 169.902 | 36.189 |
| Bidar .. .. .. | 663,172 | 336,480 | 326,692 | 80,826 | 15 252 |
| Raichur .. .. | 1,100,895 | 554.543 | 546,352 | 143,957 | 28,458 |
| *Orissa* .. .. .. | 17,548,846 | 8,770,586 | 8,778,260 | 3,042,004 | 759,241 |
| Kalahandi .. .. | 1,009,654 | 499,646 | 510,008 | 97,784 | 13,838 |
| Koraput .. .. | 1,498,271 | 753,398 | 744,873 | 102.325 | 22.115 |
| Sambalpur .. .. | 1,508.686 | 756,163 | 752.523 | 281.153 | 64.819 |
| Bolangir .. .. | 1,068.686 | 534,219 | 534,467 | 133,255 | 22,651 |
| Baudh-Khondmals .. | 514.427 | 255.685 | 258.742 | 79,990 | 11.025 |
| Ganjam .. .. | 1,872.530 | 899,329 | 973.201 | 319,165 | 80.048 |
| Sundargarh .. .. | 758,617 | 396,214 | 362,403 | 120,487 | 29.059 |
| Dhenkanal .. .. | 1,028.935 | 516,843 | 512.092 | 200.909 | 40.423 |
| Puri .. .. .. | 1,865.439 | 930,663 | 934.776 | 426.113 | 124.071 |
| Keonjhar .. .. | 743,315 | 375,090 | 368.225 | 109.699 | 21.559 |
| Cuttack .. .. | 3,060,320 | 1.531 244 | 1,529.080 | 699 090 | 213 461 |
| Mayurbhanj .. .. | 1,204.043 | 604,756 | 599.287 | 143,545 | 27.134 |
| Balasore .. .. | 1,415,923 | 717,340 | 698,583 | 328.489 | 89.038 |
| *Punjab* .. .. .. | 20,306,812 | 10,891,576 | 9,415,236 | 3.591,177 | 1,326,219 |
| Hissar .. .. .. | 1,540,508 | 827,658 | 712.850 | 215.103 | 52.878 |
| Rohtak .. .. .. | 1,420,391 | 751,225 | 669.166 | 243.192 | 59.751 |
| Gurgaon .. .. .. | 1,240.706 | 659,432 | 581.274 | 205 510 | 48.685 |
| Karnal .. .. .. | ,490,430 | 804,769 | 685.661 | 206.871 | 66.127 |
| Ambala .. .. .. | 1,373,477 | 758,127 | 615.350 | 291.894 | 120.129 |
| Simla .. .. .. | 112.653 | 65.078 | 47.575 | 35.933 | 18.205 |
| Kangra .. .. | 1,062.518 | 534,816 | 527,702 | 189.766 | 59.644 |
| Lahaul & Spiti .. .. | 20,463 | 11,519 | 8,934 | 3.247 | 332 |

### Assam

District-wise names of Sub-Divisions with area in square miles are as follows :

*Cachar Dist :* Hailakandi : 512 ; Karimganj : 709 ; Silchar : 1,459.

*Darrang Dist :* Mangaldai : 1,272 ; Tezpur : 1,334.

*Goalpara Dist :* Dhubri : 1,054 ; Goalpara : 1,098 ; Kokrajhar : 1,827.

*Kamrup Dist :* Barpeta : 1,254 ; Gauhati : 2,590.

*Lakhimpur Dist :* Dibrugarh : 2,808 ; North Lakhimpur : 1,345.

*Mizo Dist :* Aijal : 4,861 ; Lungleh : 3,282.

*Sibsagar Dist :* Golaghat : 1,363 ; Jorhat : 1,094 ; Sibsagar : 1,019.

*United Khasi—Jaisatia Hills Dist :* Jowai : 1,513 ; Shillong : 4,041.

*United Mikir and North Cachar Hills Dist :* Mikir Hills : 3,995 ; North Cachar : 1,888.

### Bihar

District-wise names of Sub-Divisions with area in square miles and population are as follows :

*Bhagalpur Dist :* Banka : 1,194 ; 6,88,776 : Sadar : 929 ; 10,26,352.

*Champaran Dist :* Bettiah : 1,997 ; 13,28,680 : Sadar : 1,528 ; 16,81,161.

*Darbhanga Dist :* Madhubani : 1,504 ; 16,02,906 : Sadar : 880 ; 12,50,101 ; Samastipur : 1,126 : 15,69,356.

*Dhanbad Dist :* Baghmara : — ; 4,16,759 : Sadar : — ; 7,41,604.

*Gaya Dist :* Aurangabad : 1,270 ; 8,28,949 : Jahanabad : 607 ; 6,83,172 ; Nawada : 951 : 7,41,644 ; Sadar : 1,911 ; 13,93,503.

*Hazaribagh Dist :* Chatra : 1,544 ; 3,21,986 ; Giridih : 2,046 ; 8,54,454 ; Sadar : 3,404 ; 12,17,877.

*Monghyr Dist :* Begusarai : 715 ; 9,54,727 ; Jamui : 1,303 ; 6,37,632 ; Khagaria : 757 ; 7,05,312 ; Sadar : 1,168 ; 10,87,226.

*Muzaffarpur Dist :* Hajipur : 786 ; 11,31,799 ; Sadar : 1,222 ; 14,97,335 ; Sitamarhi : 1,007 ; 13,87,186.

*Palamau Dist :* Garhwal : — ; 3,59,063 ; Latehar : 1,671 ; 2,44,753 ; Sadar : — ; 5,84,098.

*Patna Dist :* Barh : 572 ; 6,06,550 ; Bihar : 782 ; 9,78,039 ; Dinapur : 437 ; 6,13,436 ; Patna City : 30 ; 1,89,080 ; Patna Sadar : 295 ; 5,55,509.

*Purnea Dist :* Araria : 991 ; 7,80,481 ; Kishanganj : 1,332 ; 4,60,589 ; Sadar : 2,562 ; 9,39,832.

*Ranchi Dist :* Gumla : 2,056 ; 4,82,947 ; Khunti : 1,545 ; 4,39,405 ; Sadar : 2,069 : 8,96,391 ; Simdega : 1,247 ; 3,14,437.

*Saharsa Dist :* — ; 6,41,925 ; Sadar : — ; 4,17,973 ; Supaul : 987 ; 6,62,651.

*Santhal Parganas Dist :* Deoghar : 951 ; 4,82,110 ; Dumka : 1,474 ; 6,11,683 ; Godda : 854 ; 4,96,943 ; Jamtara : 696 ; 3,24,506 ; Pakur : 699 ; 3,44,587 ; Rajmahal : 846 ; 4,14,425.

*Saran Dist :* Gopalganj : 786 ; 9,26,005 ; Sadar : 1,043, 14,47,934 ; Siwan : 849 ; 12,11,592.

*Shahabad Dist :* Bhabua : 1,237 ; 5,32,100 ; Buxar : 683 ; 6,47,296 ; Sadar : 920 ; 10,24,131 ; Sasaram : 1,483 ; 10,18,949.

*Singhbhum Dist :* Dhalbhum : 1,167 ; 8,76,511 ; Sadar : 2,718 ; 7,65,090 ; Seraikella : 590 : 4,10,898.

### Gujarat

District-wise names of Talukas/Mahals with area in square miles and population respectively are as follows :

*Ahmedabad Dist :* Ahmedabad City : 108 ; 12,60,819 ; Daskroi : 327 ; 1,76,787 ; Dehgam : 334 ; 1,71,627 ; Dholka : 610 ; 1,75,310 ; Sanand : 294 ; 1,00,749 ; Viramgam : 651 ; 1,91,515.

**Population and Literacy of States and Districts in each State—*Contd.***

| States/Districts | Total Population | | | Literacy | |
|---|---|---|---|---|---|
| | Total | Males | Females | Males | Females |
| *Punjab—Contd.* | | | | | |
| Hoshiarpur .. .. | 1,233,493 | 649,343 | 584,150 | 256,060 | 99,623 |
| Jullundur .. .. | 1,227,367 | 655,493 | 571,874 | 277,066 | 135,944 |
| Ludhiana .. .. | 1,022,519 | 551,304 | 471,215 | 242,238 | 129,012 |
| Ferozepur .. .. | 1,619,116 | 876,373 | 742,743 | 266,501 | 98,687 |
| Amritsar .. .. | 1,534,916 | 827,821 | 707,095 | 304,729 | 151,413 |
| Gurdaspur .. .. | 987,994 | 530,107 | 457,887 | 178,186 | 71,358 |
| Kapurthala .. .. | 343,778 | 182,299 | 161,479 | 68,475 | 32,447 |
| Bhatinda .. .. | 1,055,177 | 574,549 | 480,628 | 153,964 | 45,698 |
| Sangrur .. .. | 1,424,688 | 774,470 | 650,218 | 181,252 | 53,623 |
| Patiala .. .. | 1,048,778 | 573,243 | 475,535 | 184,488 | 75,731 |
| Mahendragarh .. | 547,850 | 283,950 | 263,900 | 86,702 | 11,932 |
| *Rajasthan* .. .. | 20,155,602 | 10,564,082 | 9,591,520 | 2,504,983 | 560,585 |
| Ganganagar .. .. | 1,037,423 | 563,231 | 474,192 | 143,039 | 31,502 |
| Bikaner .. .. | 444,515 | 232,699 | 211,816 | 76,461 | 26,427 |
| Churu .. .. | 659,011 | 340,048 | 318,963 | 93,426 | 26,150 |
| Jhunjhunu .. .. | 719,650 | 370,457 | 349,193 | 115,418 | 19,257 |
| Alwar .. .. .. | 1,090,026 | 576,234 | 513,792 | 141,228 | 25,015 |
| Bharatpur .. .. | 1,149,883 | 624,090 | 525,793 | 151,745 | 23,172 |
| Sawai Madhopur .. | 943,574 | 504,351 | 439,043 | 106,203 | 13,396 |
| Jaipur .. .. | 1,901,756 | 1,006,134 | 895,622 | 276,527 | 74,751 |
| Sikar .. .. | 820,286 | 417,763 | 402,523 | 109,860 | 18,996 |
| Ajmer .. .. .. | 976,547 | 510,446 | 466,101 | 183,692 | 63,405 |
| Tonk .. .. | 497,729 | 260,589 | 237,140 | 47,449 | 9,173 |
| Jaisalmer .. .. | 140,338 | 77,871 | 62,467 | 10,156 | 1,227 |
| Jodhpur .. .. | 885,663 | 469,147 | 416,516 | 126,432 | 38,014 |
| Nagaur .. .. | 934,948 | 480,586 | 454,362 | 101,602 | 22,343 |
| Pali .. .. .. | 805,682 | 414,615 | 391,067 | 90,718 | 19,232 |
| Barmer .. .. | 649,794 | 347,811 | 301,983 | 43,571 | 4,905 |
| Jalore .. .. .. | 547,072 | 285,081 | 261,991 | 38,683 | 4,815 |
| Sirohi .. .. .. | 352,303 | 180,853 | 171,450 | 38,419 | 10,654 |
| Bilwara .. .. | 865,797 | 454,235 | 411,544 | 82,374 | 14,623 |
| Udaipur .. .. | 1,464,276 | 755,351 | 708,925 | 162,302 | 36,778 |
| Chittorgarh .. .. | 710,132 | 367,012 | 343,120 | 76,642 | 13,062 |
| Dungarpur .. .. | 406,944 | 204,342 | 202,602 | 35,363 | 7,110 |
| Banswara .. .. | 475,245 | 241,102 | 234,143 | 33,810 | 7,972 |
| Bundi .. .. .. | 338,010 | 178,193 | 159,817 | 33,793 | 6,261 |
| Kota .. .. .. | 848,389 | 447,181 | 401,208 | 103,285 | 31,349 |
| Jhalawar .. .. | 490,609 | 254,462 | 236,147 | 55,605 | 10,996 |
| *Uttar Pradesh* .. .. | 73,746,401 | 38,634,201 | 35,112,200 | 10,546,795 | 2,466,388 |
| Uttar Kashi .. .. | 122,836 | 62,534 | 60,302 | 17,962 | 1,179 |
| Chamoli .. .. | 253,137 | 120,092 | 133,045 | 49,766 | 5,410 |
| Pithoragarh .. .. | 263,579 | 128,292 | 135,287 | 53,605 | 7,943 |
| Tehri Garhwal .. | 347,736 | 157,909 | 189,827 | 51,817 | 3,797 |
| Garhwal .. .. | 482,327 | 222,892 | 259,435 | 96,681 | 15,866 |
| Almora .. .. | 633,407 | 304,459 | 328,948 | 117,085 | 18,332 |
| Naini Tal .. .. | 574,320 | 334,197 | 240,123 | 122,706 | 34,487 |
| Bijnor .. .. | 1,190,987 | 634,468 | 556,519 | 165,788 | 44,675 |
| Moradabad .. .. | 1,973,530 | 1,058,394 | 915,136 | 209,246 | 61,233 |
| Budaun .. .. | 1,411,657 | 768,583 | 643,074 | 109,250 | 26,768 |
| Rampur .. .. | 701,537 | 374,945 | 326,592 | 67,206 | 17,491 |
| Bareilly .. .. | 1,478,490 | 806,220 | 672,270 | 170,139 | 53,968 |
| Pilibhit .. .. | 616,225 | 334,599 | 281,626 | 66,783 | 15,815 |
| Shahjahanpur .. | 1,130,256 | 618,900 | 511,356 | 119,859 | 29,815 |
| Dehra Dun .. .. | 429,014 | 242,987 | 186,027 | 116,289 | 49,942 |
| Saharanpur .. .. | 1,615,478 | 885,109 | 730,369 | 249,127 | 74,620 |
| Muzaffarnagar .. | 1,444,921 | 785,031 | 659,890 | 195,116 | 45,835 |
| Meerut .. .. | 2,712,960 | 1,472,006 | 1,240,954 | 484,629 | 124,089 |
| Bulandshahr .. .. | 1,737,397 | 924,150 | 813,247 | 255,721 | 46,704 |
| Aligarh .. .. | 1,765,275 | 948,568 | 816,707 | 282,958 | 66,714 |
| Mathura .. .. | 1,071,279 | 582,894 | 488,385 | 191,420 | 38,604 |
| Agra .. .. .. | 1,862,142 | 1,012,056 | 850,086 | 345,040 | 102,219 |
| Etah .. .. .. | 1,299,674 | 696,924 | 602,750 | 175,392 | 39,954 |
| Mainpuri .. .. | 1,180,894 | 634,951 | 545,943 | 187,827 | 45,328 |
| Farrukhabad .. .. | 1,295,071 | 704,387 | 590,684 | 215,474 | 61,548 |
| Etawah .. .. | 1,182,202 | 639,974 | 542,228 | 216,706 | 54,438 |
| Kanpur .. .. | 2,381,353 | 1,314,673 | 1,066,680 | 546,643 | 203,132 |
| Fatehpur .. .. | 1,072,940 | 560,474 | 512,466 | 151,949 | 26,917 |
| Allahabad .. .. | 2,438,376 | 1,263,981 | 1,174,395 | 384,877 | 92,013 |
| Jhansi .. .. | 1,087,479 | 573,703 | 513,776 | 174,933 | 42,649 |
| Jalaun .. .. | 663,168 | 351,704 | 311,464 | 125,138 | 26,010 |
| Hamirpur .. .. | 794,449 | 412,917 | 381,532 | 109,836 | 19,149 |
| Banda .. .. | 953,731 | 500,573 | 453,158 | 126,276 | 15,472 |
| Kheri .. .. .. | 1,258,433 | 679,011 | 579,422 | 127,465 | 23,572 |
| Sitapur .. .. | 1,608,057 | 865,242 | 742,815 | 181,201 | 31,803 |
| Hardoi .. .. | 1,573,171 | 847,161 | 726,010 | 201,432 | 41,324 |
| Unnao .. .. | 1,226,923 | 648,560 | 578,363 | 152,542 | 33,185 |
| Lucknow .. .. | 1,338,882 | 728,214 | 610,668 | 284,900 | 119,394 |

*Amreli Dist :* Amreli : 297 ; 1,09,939 ; Babra : 163 ; 55,873 ; Dhari : 403 ; 81,528 ; Jafrabad : 127 ; 35,749 ; Khambha : 159 ; 28,054 ; Kodinar : 203 ; 76,078 ; Kunkavav : 255 ; 92,177 ; Lathi : 231 ; 68,630 ; Liliya : 153 ; 41,801 ; Rajula : 314 ; 77,558.

*Banaskantha Dist :* Danta : 342 ; 52,176 ; Deesa : 621 ; 1,40,861 ; Deodar : 323 ; 87,340 ; Dhanera : 433 ; 89,250 ; Kankrej : 304 ; 93,791 ; Palanpur : 531 ; 1,76,947 ; Radhanpur : 269 ; 51,965 ; Santhalpur : 393 ; 44,315 ; Tharad : 421 ; 83,723 ; Wadgam : 215 ; 90,173 ; Wav : 493 ; 85,439.

*Bhavnagar Dist :* Bhavnagar : 307 ; 2,31,938 ; Botad : 259 ; 77,578 ; Gadhada : 315 ; 71,883 ; Gogha : 225 ; 50,696 ; Gadiadhar : 65 ; 56,381 ; Kundla : 402 ; 1,29,671 ; Mahuva : 328 ; 1,48,409 ; Palitana : 183 ; 89,420 ; Sihor : 214 ; 74,045 ; Talaja : 324 ; 1,03,599 ; Umrala : 160 ; 44,207 ; Vallabhipur : 222 ; 40,919.

*Baroda Dist :* Baroda : 263 ; 4,61,094 ; Chhota Udepur : 434 ; 1,45,016 ; Dabhoi : 249 ; 1,19,778 ; Jabugam : 319 ; 1,10,893 ; Karjan : 232 ; 87,527 ; Naswadi : 212 ; 56,909 ; Padra : 209 ; 1,39,169 ; Sankheda : 254 ; 1,15,391 ; Savli : 315 ; 1,31,396 ; Sinor : 114 ; 47,050 ; Waghodia : 186 ; 75,662.

*Broach Dist :* Amod : 180 ; 56,680 ; Ankleshwar : 160 ; 77,843 ; Broach : 253 ; 1,80,574 ; Dediapada : 392 ; 45,084 ; Hansot : 154 ; 38,695 ; Jambusar : 386 ; 1,14,490 ; Jhagadia : 314 ; 97,932 ; Nandod : 437 ; 1,21,399 ; Sagbara : 128 ; 41,532 ; Vagra : 348 ; 53,111 ; Valia : 185 ; 64,451.

*Jamnagar Dist :* Bhanvad : 259 ; 58,574 ; Dhrol : 157 ; 35,315 ; Jam-Jodhpur : 333 ; 77,580 ; Jamnagar : 446 ; 2,54,763 ; Jodia : 328 ; 61,496 ; Kalawad : 441 ; 72,961 ; Kalyanpur : 546 ; 69,050 ; Khambhali : 57 ; 81,925 ; Lalpur : 444 ; 53,076 ; Okhamandal : 273 ; 59,985.

*Junagadh Dist :* Bhesan : 162 ; 36,717 ; Junagadh : 182 ; 1,45,150 ; Keshod : 226 ; 73,236 ; Kutiyana : 239 ; 52,843 ; Malia : 216 ; 65,748 ; Manavadar : 201 ; 89,468 ; Mangrol : 227 ; 78,820 ; Mendarda : 65 ; 33,133 ; Patan-Veraval : 261 ; 1,43,854 ; Porbandar : 395 ; 1,70,876 ; Ranavav : 206 ; 44,903 ; Talala : 185 ; 49,594 ; Una : 354 ; 1,28,739 ; Ventheli : 170 ; 62,668 ; Visavadar : 269 ; 65,337.

*Kaira Dist :* Anand : 260 ; 3,11,295 ; Balasinor : 201 ; 1,03,230 ; Borsad : 232 ; 2,54,672 ; Cambay : 399 ; 1,72,165 ; Kapadwanj : 380 ; 2,18,663 ; Matar : 223 ; 1,01,312 ; Mehmedabad : 193 ; 1,37,863 ; Nadiad : 241 ; 2,98,603 ; Petlad : 183 ; 2,22,209 ; Thasra : 252 ; 1,53,685.

*Kutch Dist :* Abdasa : 940 ; 65,108 ; Anjar : 482 ; 1,06,158 ; Bhachan : 641 ; 65,199 ; Bhuj : 840 ; 1,19,828 ; Khadir : 118 ; 3,124 ; Khavda : 224 ; 7,706 ; Lakhpat : 1,485 ; 18,393 ; Mandvi : 560 ; 1,01,533 ; Mundra : 396 ; 54,396 ; Nakhtrana : 708 ; 69,867 ; Rapar : 1,027 ; 84,392.

*Mehsana Dist :* Chanasma : 341 ; 1,39,737 ; Harij : 158 ; 44,028 ; Kadi : 320 ; 1,46,934 ; Kalol : 262 ; 1,83,551 ; Kheralu : 369 ; 1,62,111 ; Mehsana : 291 ; 1,86,682 ; Patan : 405 ; 2,05,835 ; Sami : 522 ; 71,102 ; Sidhpur : 257 ; 1,84,759 ; Vijapur : 362 ; 2,35,030 ; Visnagar : 175 ; 1,25,661.

*Panch Mahals Dist :* Baria : 420 ; 1,74,712 ; Dohad : 335 ; 1,88,714 ; Godhra : 381 ; 2,15,531 ; Halol : 246 ; 1,00,216 ; Jambughoda : 37 ; 16,622 ; Jhalod : 178 ; 1,20,978 ; Kalol : 382 ; 99,677 ; Limkheda : 409 ; 1,26,634 ; Lunawada : 360 ; 1,45,805 ; Santrampur : 525 ; 1,88,606 ; Shahera : 226 ; 89,990.

*Rajkot Dist :* Dhoraji : 200 ; 91,785 ; Gondal : 441 ; 1,40,288 ; Kondarna : 222 ; 40,873 ; Jasdan : 465 ; 99,905 ; Jetpur : 235 ; 92,016 ; Kotda-Sangani : 151 ; 30,785 ; Lodhika : 109 ; 22,095 ; Maliya : 267 ; 47,904 ; Morvi : 609 ; 1,62,053 ; Padadhari : 231 ; 36,470 ; Rajkot : 344 ; 2,61,465 ; Upleta : 279 ; 1,04,236 ; Wankaner : 432 ; 78,859.

*Sabarkantha Dist :* Bayad : 264 ; 1,07,632 ; Bhiloda : 187 ; 90,784 ; Himatnagar : 298 ; 1,09,345 ; Idar : 422 ; 1,54,024 ; Khedbrahma : 143 ; 74,405 ; Malpur : 132 ; 38,215 ; Meghraj : 138 ; 50,275 ; Modasa : 410 ; 1,18,565 ; Prantij : 301 ; 1,44,541 ; Vijayanagar : 153 ; 30,023.

**Population and Literacy of States and Districts in each State—*Contd.***

| States/Districts | Total Population | | | Literacy | |
|---|---|---|---|---|---|
| | Total | Males | Females | Males | Females |
| *Uttar Pradesh—Contd.* | | | | | |
| Rae Bareili .. .. | 1,314,949 | 669,113 | 645,836 | 148,890 | 24,487 |
| Bahraich .. .. | 1,499,929 | 790,492 | 709,437 | 156,761 | 19,284 |
| Gonda .. .. | 2,073,237 | 1,072,818 | 1,000,419 | 210,920 | 32,548 |
| Bara Banki .. .. | 1,414,547 | 746,738 | 667,809 | 146,120 | 24,162 |
| Faizabad .. .. .. | 1,633,359 | 824,004 | 809,355 | 194,652 | 39,076 |
| Sultanpur .. .. .. | 1,412,984 | 700,661 | 712,323 | 158,932 | 24,111 |
| Pratapgarh .. .. | 1,252,196 | 607,165 | 645,031 | 150,777 | 20,404 |
| Basti .. .. .. | 2,627,061 | 1,348,124 | 1,278,937 | 266,768 | 39,977 |
| Gorakhpur .. .. .. | 2,565,182 | 1,297,297 | 1,267,885 | 339,162 | 64,203 |
| Deoria .. .. .. | 2,375,075 | 1,186,527 | 1,188,548 | 289,389 | 46,000 |
| Azamgarh .. .. .. | 2,408,052 | 1,185,008 | 1,223,044 | 313,253 | 78,739 |
| Jaunpur .. .. .. | 1,727,264 | 838,028 | 889,236 | 250,725 | 46,558 |
| Ballia .. .. .. | 1,335,863 | 656,347 | 679,516 | 205,591 | 53,165 |
| Ghazipur .. .. .. | 1,321,578 | 654,246 | 667,332 | 189,255 | 48,300 |
| Varanasi .. .. .. | 2,362,179 | 1,211,588 | 1,150,591 | 446,281 | 110,859 |
| Mirzapur .. .. .. | 1,249,653 | 644,311 | 605,342 | 178,535 | 33,121 |
| *West Bengal* .. .. | 34,926,279 | 18,599,144 | 16,327,135 | 7,454,006 | 2,771,658 |
| Darjeeling .. .. .. | 624,640 | 335,036 | 289,604 | 134,516 | 44,776 |
| Jalpaiguri .. .. .. | 1,359,292 | 733,339 | 625,953 | 198,519 | 62,682 |
| Cooch-Behar .. .. | 1,019,806 | 539,694 | 480,112 | 169,684 | 44,486 |
| West Dinajpur .. .. | 1,323,797 | 694,372 | 629,425 | 180,238 | 45,589 |
| Malda .. .. .. | 1,221,923 | 621,990 | 599,933 | 133,533 | 35,010 |
| Murshidabad .. .. | 2,290,010 | 1,160,283 | 1,129,727 | 272,605 | 94,396 |
| Nadia .. .. .. | 1,713,324 | 879,430 | 833,894 | 314,703 | 152,093 |
| 24-Parganas .. .. | 6,280,915 | 3,366,805 | 2,914,110 | 1,476,757 | 563,240 |
| Calcutta .. .. .. | 2,927,289 | 1,815,791 | 1,111,498 | 1,154,018 | 581,443 |
| Howrah .. .. .. | 2,038,477 | 1,127,392 | 911,085 | 545,811 | 206,517 |
| Hooghly .. .. .. | 2,231,418 | 1,179,267 | 1,052,151 | 543,809 | 229,483 |
| Burdwan .. .. .. | 3,082,846 | 1,658,976 | 1,423,870 | 653,474 | 258,361 |
| Birbhum .. .. .. | 1,446,158 | 732,922 | 713,236 | 237,655 | 81,792 |
| Bankura .. .. .. | 1,664,513 | 840,423 | 824,090 | 304,019 | 80,172 |
| Midnapur .. .. .. | 4,341,855 | 2,240,073 | 2,117,782 | 926,489 | 257,815 |
| Purulia .. .. .. | 1,360,016 | 689,351 | 670,665 | 208,176 | 33,803 |

**Population and Literacy of States and Districts in each State—*Contd.***

| States/Districts | Total Population | | | Literacy | |
|---|---|---|---|---|---|
| | Total | Males | Females | Males | Females |
| *Union Territories and other areas :* | | | | | |
| Andaman & Nicobar Islands .. | 63,548 | 39,304 | 24,244 | 16,675 | 4,697 |
| Delhi .. .. .. .. .. | 2,658,612 | 1,489,378 | 1,169,234 | 904,801 | 497,497 |
| Himachal Pradesh .. .. .. | 1,351,144 | 702,697 | 648,447 | 191,139 | 40,525 |
| 1. Chamba .. .. .. .. | 210,579 | 110,700 | 99,879 | 19,482 | 4,066 |
| 2. Mandi .. .. .. .. | 384,259 | 192,687 | 191,572 | 57,600 | 13,017 |
| 3. Bilaspur .. .. .. .. | 158,806 | 81,363 | 77,443 | 25,798 | 5,101 |
| 4. Mahasu .. .. .. .. | 358,969 | 189,046 | 169,923 | 57,540 | 11,882 |
| 5. Sirmur .. .. .. .. | 197,551 | 108,093 | 89,458 | 25,216 | 5,672 |
| 6. Kinnaur .. .. .. .. | 40,980 | 20,808 | 20,172 | 5,503 | 787 |
| Laccadive, Minicoy and Amindivi Islands .. .. .. .. | 24,108 | 11,935 | 12,173 | 4,273 | 1,337 |
| Manipur .. .. .. .. | 780,037 | 387,058 | 392,979 | 174,656 | 62,620 |
| Tripura .. .. .. .. | 1,142,005 | 591,237 | 550,768 | 175,060 | 56,128 |
| Dadra and Nagar Haveli .. .. | 57,963 | 29,524 | 28,439 | 4,342 | 1,153 |
| Goa, Daman & Diu .. .. .. | 626,978 | 302,953 | 324,025 | .. | .. |
| N.E.F.A. .. .. .. .. | 336,558 | 177,680 | 158,878 | 21,879 | 2,381 |
| Nagaland .. .. .. .. | 369,200 | 191,027 | 178,173 | 45,917 | 20,200 |
| 1. Kohima .. .. .. .. | 108,924 | 57,704 | 51,220 | 17,239 | 5,538 |
| 2. Mokokchung .. .. .. | 126,001 | 64,366 | 61,635 | 23,870 | 13,462 |
| 3. Tuensang .. .. .. | 134,275 | 68,957 | 65,318 | 4,808 | 1,200 |
| Pondicherry .. .. .. .. | 369,079 | 188,347 | 185,732 | 92,384 | 45,765 |

*Surat Dist** : Bansda : 234 ; 92,530 ; Bardoli : 157 ; 89,958 ; Bulsar : 202 ; 1,69,668 ; Chikhli : 238 ; 1,39,987 ; Chorasi : 221 ; 4,52,283 ; Dharampur : 575 ; 1,45,430 ; Gandevi : 125 ; 1,29,819 ; Kamrej : 147 ; 62,700 ; Mahuwa : 138 ; 65,539 ; Mandvi : 277 ; 93,453 ; Mangrol : 294 ; 95,302 ; Navsari : 283 ; 2,25,640 ; Nizar : — ; 58,222 ; Olpad : 265 ; 79,425 ; Palsana : 58 ; 41,8 3 ; Pardi : 162 ; 1,30,866 ; Songadh : 299 ; 76,863 ; Ochhal : — ; 31,543 ; Umbergaon : — ; 95,836 ; Valod : 78 ; 42,837 ; Vyara : 317 ; 1,19,046.

*Surendranagar* : Chotila : 157 ; 55,814 ; Dasada : 363 ; 89,733 ; Dharangadhra : 399 ; 85,850 ; Halvad : 585 ; 52,860 ; Lakhtar : 274 ; 41,356 ; Limbdi : 663 ; 1,25,178 ; Muli : 317 ; 44,176 ; Sayla : 291 ; 41,203 ; Wadhwan : 281 ; 1,26,138.

Number of towns having a population of less than 2,000 : 1 ; 2,000 to 5,000 : 8 ; 5,000 to 10,000 : 63 ; 10,000 to 20,000 : 52 ; 20,000 to 50,000 : 42 ; 50,000 to 1,00,000 : 9 ; 1,00,000 and above : 6 ; Total : 181.

### Jammu and Kashmir

District-wise names of Tahsils with area in square miles are as follows :

*Anantnag Dist* : Anantnag : 1,034 ; Khas : 743 ; Kulgam : 588 ; Pulwama : 449.

*Astore Dist* : 1,632.

*Gilgit Agency* : Chilas : 2,800 ; Ghizar : 1,500 ; Hunza : 3,900 ; Ishkuman : 1,600 ; Kuh : 480 ; Nagar : 1,600 ; Punial : 1,600 ; Yasin : 1,200.

*Baramulla Dist* : Baramulla : 590 ; Sri Pratapsinghpura : 488 ; Uttarmachipura : 2,239.

*Jammu Dist* : Akhnur : 317 ; Jammu : 346 ; Samba : 327 ; Sri Ranbirsingpura : 157.

*Kathna Dist* : Basohli : 614 ; Jesmergarh : 185 ; Kathna : 224.

*Ladakh Dist* : Kargil : 7,392 ; Ladakh : 29,848 ; Skardu : 8,522.

*Mirpur Dist* : Bhimbar : 698 ; Kotli : 574 ; Mirpur : 355.

*Doda Dist* : Karnah : 1,342 ; Muzaffarabad : 546 ; Uri : 520.

*Poonch-Rajouri Dist* : Bagh : 321 ; Haveli : 479 ; Mendhar : 479 ; Sadhunti : 348.

*Reasi Dist* : Rampur Rajouri : 806 ; Reasi : 983.

*Srinagar Dist* : Not available.

*Udhampur Dist* : Bhadrawah : 553 ; Kishtwar : 3,021 ; Ramban : 588 ; Ramnagar : 525 ; Udhampur : 383.

### Kerala

District-wise names of Taluks with area in square miles and population respectively are as follows :

*Alleppey Dist* : Ambalapuzha : 68 ; 2,70,000 ; Chengannur : 78 ; 1,98,700 ; Karthigapally : 74 ; 2,84,400 ; Kuttanad : 117 ; 1,69,200 ; Mavelikara : 111 ; 2,70,500 ; Shertalai : 123 ; 3,11,600 ; Thiruvalla : 133 ; 3,05,100.

*Cannanore Dist* : Cannanore : 181 ; 3,91,400 ; Hosdrug : 372 ; 2,41,000 ; Kasaragod : 183 ; 2,71,000 ; Tellicherry : 594 ; 4,75,500 ; North Wynad : 276 ; 90,200 ; Taliparamba : 509 ; 3,10,700.

*Ernakulam Dist* : Alwaye : 151 ; 2,26,600 ; Cochin : 53 ; 3,13,900 ; Kanayannur : 125 ; 3,79,300 ; Kunnathunad : 162 ; 2,29,300 ; Muvattupuzha : 255 ; 3,01,400 ; Parur : 74 ; 2,21,000 ; Thodupuzha : 362 ; 1,87,000.

*Kottayam Dist* : Changanacherry : 102 ; 2,24,000 ; Devicolam : 380 ; 1,23,200 ; Kanjirapally : 134 ; 1,48,800 ; Kottayam : 211 ; 4,21,700 ; Meenachil : 279 ; 3,09,800 ; Peermade : 328 ; 1,32,700 ; Udumbanchola : 413 ; 1,55,400 ; Vaikom : 131 ; 2,14,900.

*Kozhikode Dist* : Badagara : 214 ; 3,19,800 ; Ernad : 863 ; 5,23,600 ; Kozhikode : 373 ; 6,59,900 ; Quilandy : 292 ; 3,65,600 ; South Wynad : 387 ; 1,85,000 ; Tirur : 220 ; 5,65,300.

*Palghat Dist* : Alathur : 219 ; 2,41,500 ; Chittoor : 389 ; 2,72,200 ; Ottapalam : 257 ; 3,24,300 ; Palghat : 205 ; 2,95,700 ; Perinthalmanna : 609 ; 3,39,100 ; Ponnani : 162 ; 3,02,600.

**Population of Workers, Scheduled Castes & Scheduled Tribes of States**

| States | Total Workers | | Scheduled Castes | | Scheduled Tribes | |
|---|---|---|---|---|---|---|
| | Males | Females | Males | Females | Males | Females |
| *INDIA* .. .. | 129,015,653 | 59,401,709 | 32,963,779 | 31,547,534 | 15,040,707 | 14,842,763 |
| *Andhra Pradesh* : .. .. | 11,299,400 | 7,363,642 | 2,512,325 | 2,461,291 | 670,368 | 654,000 |
| *Assam* .. .. .. | 3,423,454 | 1,713,957 | 389,271 | 343,485 | 1,057,076 | 1,011,288 |
| *Bihar* .. .. .. | 12,955,409 | 6,279,156 | 3,218,935 | 3,317,940 | 2,087,994 | 2,116,776 |
| *Gujarat* .. .. .. | 5,685,776 | 2,788,812 | 693,436 | 673,819 | 1,398,478 | 1,355,968 |
| *Jammu & Kashmir* .. | 1,096,940 | 426,681 | 134,765 | 133,756 | .. | .. |
| *Kerala* .. .. .. | 3,947,038 | 1,683,295 | 705,709 | 716,348 | 103,995 | 104,001 |
| *Madhya Pradesh* .. .. | 9,981,224 | 6,947,953 | 2,155,875 | 2,097,149 | 3,334,363 | 3,344,047 |
| *Madras* .. .. .. | 10,103,326 | 5,248,295 | 3,047,613 | 3,024,923 | 129,578 | 123,068 |
| *Maharashtra* .. .. | 11,662,264 | 7,286,217 | 1,135,191 | 1,091,723 | 1,211,605 | 1,185,554 |
| *Mysore* .. .. .. | 7,029,602 | 3,696,744 | 1,586,547 | 1,530,685 | 98,337 | 93,759 |
| *Orissa* .. .. .. | 5,328,366 | 2,333,163 | 1,371,410 | 1,392,448 | 2,094,753 | 2,129,004 |
| *Punjab* .. .. .. | 5,764,363 | 1,336,783 | 2,208,473 | 1,930,633 | 6,964 | 7,168 |
| *Rajasthan* .. .. .. | 6,141,506 | 3,442,334 | 1,747,476 | 1,612,164 | 1,198,886 | 1,110,561 |
| *Uttar Pradesh* .. .. | 22,480,360 | 6,369,781 | 7,944,364 | 7,472,881 | .. | .. |
| *West Bengal* .. .. | 10,040,239 | 1,539,956 | 3,629,182 | 3,321,544 | 1,047,287 | 1,016,596 |
| *Union Territories and other areas* : | | | | | | |
| Andaman & Nicobar Islands | 26,648 | 4,546 | .. | .. | 7,318 | 6,804 |
| Delhi .. .. .. | 778,282 | 76,169 | 189,470 | 152,085 | .. | .. |
| Himachal Pradesh .. | 443,449 | 362,038 | 191,429 | 178,487 | 54,719 | 53,475 |
| Laccadive, Miniçoy and Amindivi Islands .. | 6,158 | 6,291 | .. | .. | 11,466 | 11,925 |
| Manipur .. .. .. | 183,127 | 174,793 | 6,886 | 6,490 | 123,162 | 125,887 |
| Tripura .. .. .. | 322,043 | 115,186 | 62,069 | 57,656 | 184,174 | 175,896 |
| Dadra and Nagar Haveli | 18,317 | 16,477 | 498 | 686 | 26,002 | 25,259 |
| Goa, Daman & Diu .. | .. | .. | .. | .. | .. | .. |
| N.E.F.A. .. .. .. | 24,766 | 1,398 | .. | .. | 3,363 | 1,679 |
| Nagaland .. .. .. | 115,554 | 103,756 | 80 | 46 | 171,233 | 172,464 |
| Pondicherry .. .. | 101,095 | 37,275 | 28,804 | 28,057 | .. | .. |

*Quilon Dist* : Karunagapally : 88 ; 2,65,000 ; Kottarakkara : 212 ; 3,31,200 ; Kunnathur : 150 ; 2,37,900 ; Pathanamthitta : 926 ; 3,33,000 ; Pathanapuram : 473 ; 2,42,300 ; Quilon : 147 ; 5,20,500.

*Trichur Dist* : Chowghat : 98 ; 3,01,100 ; Cranganore : 29 ; 90,200 ; Mukundapuram : 487 ; 4,67,800 ; Talapally : 258 ; 3,18,900 ; Trichur : 246 ; 5,56,200.

*Trivandrum Dist* : Chirayinkil : 147 ; 3,70,100 ; Nedumangad : 228 ; 3,44,700 ; Neyyatinkara : 219 ; 4,56,900 ; Trivandrum : 121 ; 5,66,400.

### Madhya Pradesh

District-wise names of Tehsils with area in square miles and population respectively are as follows :

*Balaghat Dist* : Baihar : 1,556 ; 1,52,092 ; Balaghat : 1,085 ; 2,84,782 ; Waraseoni : 916 ; 3,69,746.

*Bastar Dist* : Bhanupratappur : 489 ; 58,793 ; Bijapur : 3,299 ; 93,103 ; Dantewara : 1,036 ; 1,34,204 ; Jagdalpur : 1,935 ; 3,42,916 ; Kanker : 941 ; 1,51,473 ; Kondagaon : 1,921 ; 1,87,233 ; Konta : 1,986 ; 1,08,749 ; Narayanpur : 2,885 ; 91,339.

*Betul Dist* : Betul : 1,598 ; Bhainsdehi : 1,340 ; 1,36,969 ; Multai : 972 ; 2,29,890.

*Bhind Dist* : Bhind : 537 ; 2,30,910 ; Gohad : 386 ; 1,17,533 ; Lahar : 418 ; 1,60,746 ; Mehgaon : 367 ; 1,32,037.

*Bilaspur Dist* : Bilaspur : 2,208 ; 6,66,063 ; Janjgir : 833 ; 3,91,646 ; Katghora : 2,553 ; 3,33,452 ; Mungeli : 1,452 ; 3,23,109 ; Sakti : 485 ; 3,07,802.

*Chhatarpur Dist* : Bijawar : 1,378 ; 1,62,161 ; Chhatarpur : 1,316 ; 2,98,025 ; Laundi : 695 ; 1,27,425.

*Chhindwara Dist* : Amarwara : 1,483 ; 1,72,705 ; Chhindwara : 1,981 ; 4,06,850 ; Saunsar : 1,114 ; 2,07,041.

*Damoh Dist* : Damoh : 1,248 ; 2,91,385 ; Hatta : 774 ; 1,47,664.

*Datia Dist* : Datia : 428 ;—; Seondha : 357 ; 84,068.

*Dewas Dist* : Bagli : 551 ; 83,431 ; Dewas : 393 ; 1,21,675 ; Kannod : 522 ; 72,268 ; Khategaon : 413 ; 57,945 ; Sonakatch : 497 ; 1,11,771.

*Dhar Dist* : Badnawar : 425 ; 76,466 ; Dhar : 748 ; 1,41,986 ; Kukshi : 664 ; 1,46,157 ; Manawa : 844 ; 1,94,085 ; Sardarp : 489 ; 84,907.

*Durg Dist* : Bemetara : 1,101 ; 3,17,039 ; Durg : 1,161 ; 5,20,343 ; Kawardha : 1,056 ; 1,72,571 ; Khairagarh : 1,265 ; 2,25,470 ; Rajnandgaon : 813 ; 2,69,011 ; Sanjari : 2,104 ; 3,81,472.

*Goona Dist* : Ashoknagar : 918 ; 1,51,538 ; Chachanra : 457 ; 83,431 ; Goona : 1,209 ; 1,27,694 ; Mungaoli : 887 ; 1,26,363 ; Raghogarh : 756 ; 1,04,517.

*Gwalior (Gird) Dist* : Bhander : 253 ; 63,639 ; Gird : 1,038 ; 4,24,789 ; Pichhore : 724 ; 1,69,698.

*Hoshangabad Dist* : Harda : 1,127 ; Hoshangabad : 776 ; 1,95,858 ; Seoni Malwa : 521 ; 73,935 ; Dhohagpur : 1,289 ; 1,71,637.

*Indore Dist* : Depalpur : 395 ; 84,591 ; Indore : 370 ; 4,80,281 ; Mhow : 310 ; 1,18,459 ; Sawer : 294 ; 70,444.

*Jabalpur Dist* : Jabalpur : 999 ; 5,44,202 ; Murwara : 1,057 ; 3,13,129 ; Patan 542 ; 1,34,525 ; Sihora : 1,181 ; 2,82,641.

*Jhabua Dist* : Alirajpur : 869 ; 1,30,231 ; Jhabua : 557 ; 1,29,966 ; Jobat : 424 ; 98,877 ; Petlawad : 369 ; 66,223 ; Thandla : 404 ; 89,801.

*Mandla Dist* : Dindori : 1,601 ; 1,79,978 ; Mandla : 2,109 ; 3,19,957 ; Niwas : 1,410 ; 1,84,540.

*Mandsaur Dist* : Bhanpura : 401 ; 58,494 ; Garoth : 439 ; 89,206 ; Jawad : 606 : — ; Malhargarh : 311 ; 74,688 ; Manasa : 586 ; 99,988 ; Mandsaur : 489 ; — ; Neemuch : 320 ; 98,427 ; Sitamau : 492 ; 98,835.

*Morena Dist* : Ambah : 409 ; 1,70,046 ; Joura : 615 ; 1,41,533 ; Morena : 412 ; 1,52,489 ; Sabalgarh : 501 ; 1,20,040 ; Sheopur : 1,457 ; 1,26,196 ; Vijaypur : 1,117 ; 66,868.

* Now split into two districts Surat (Talukas : Olpad, Chorasi, Mangrol, Kamrej, Mandvi, Bardoli, Songadh, Vyara, Mahuva. Mahals : Palsana, Valod, Uchhal, Nizar) and Bulsar (Talukas : Navsari, Chikhli, Bansda, Dharampur, Pardi, Umbergaon. Mahal : Gandevi).

*Narsimhapur Dist :* Gadarwara : 909 ; 2,04,928; Narsimhapur : 1,069 ; 2,07,459.

*Nimar (East) Dist :* Burhanpur : 1,138 ; 2,38,380 ; Harsud : 1,218 ; 1,34,090 ; Khandwa: 1,871 ; 3,11,022.

*Nimar (West) Dist :* Barwaha : 482 ; 1,11,233 ; Barwani : 605 ; 1,05,332 ; Bhikangaon : 624 ; 1,09,110 ; Kasrawad : 408 ; 82,381 ; Khargone : 1,411 ; 2,08,698 ; Maheshwar : 319 ; 73,244 ; Rajpur : 520 ; 1,42,113 ; Sendhwa : 764 ; 1,59,041.

*Panna Dist :* Ajaigarh : 264 ; 56,274 ; Panna : 1,219 ; 1,43,743 ; Pawai : 1,306 ; 1,31,366.

*Raigarh Dist :* Gharghoda : 519 ; 1,36,875 ; Jashpur : 1,766 ; 3,06,310 ; Raigarh : 495 ; 2,36,993 ; Sarangarh : 384 ; 1,85,024 ; Udaipur : 677 ; 1,77,198.

*Raipur Dist :* Baloda Bazar : 1,780 ; 4,99,031 ; Bindranawagarh : 1,877 ; 2,22,190 ; Dhamatari : 1,591 ; 3,30,128 ; Mahasamund : 1,922 ; 4,56,489 ; Raipur : 1,115 ; 4,95,608.

*Raisen Dist :* Baraily : 520 ; 96,675 ; Begumganj : 351 ; 52,180 ; Ghairatgunj : 361 ; 37,955 ; Goharganj : 672 ; 57,605 ; Raisen : 526 ; 59,480 ; Silwani : 499 ; 47,597 ; Udaipura : 322 ; 64,443.

*Rajgarh Dist :* Biaora : 440 ; 94,018 ; Khilchipur : 625 ; 1,39,246 ; Narsingarh : 517 ; 1,17,357 ; Rajgarh : 423 ; 79,954 ; Sarangpur : 349 ; 87,262.

*Ratlam Dist :* Alot : 366 ; 83,773 ; Jaora : 525 ; 1,42,259 ; Ratlam : 513 ; 1,85,471 ; Sailana : 474 ; 72,503.

*Rewa Dist :* Huzur : 707 ; 2,28,352 ; Mauganj : 694 ; 2,08,743 ; Sirmour : 526 ; 1,87,917 ; Teonthar : 586 ; 1,47,401.

*Sagar Dist :* Banda : 762 ; 1,13,710 ; Khurai : 985 ; 1,95,114 ; Rehli : 1,357 ; 1,86,389 ; Sagar : 1,170 ; 3,01,842.

*Satna Dist :* Amar Patan : 390 ; 1,42,117 ; Maihar : 413 ; 1,09,138 ; Nagod : 665 ; 1,35,972 ; Raghurajnagar : 1,272 ; 3,07,730.

*Sehore Dist :* Ashta : 555 ; 1,08,413 : Berasia : 548 ; 80,612 ; Budhni : 415 ; 50,893 ; Huzur 517 ; 2,93,521 ; Ichhawar : 429 ; 46,171 ; Nasrullahgunj : 510 ; 51,145 ; Sehore : 607 ; 1,24,262.

*Seoni Dist :* Lakhandon : 1,460 ; 1,93,043 ; Seoni : 1,756 ; 3,30,976.

*Shahdol Dist :* Bandhogarh : 1,403 ; 1,68,812 ; Beohari : 1,051 ; 1,39,919 ; Pushpragarh : 684 ; 82,930 ; Sohagpur : 2,281 ; 4,38,505.

*Shajapur Dist :* Agar : 565 ; 1,08,735 ; Shajapur : 698 ; 1,71,805 ; Shujalpur : 637 ; 1,49,057 ; Susner : 495 ; 96,614.

*Shivpuri Dist :* Karera : 784 ; 1,33,941 ; Kolaras : 857 ; 1,09,958 ; Pichhore : 890 ; 1,47,286 ; Pohri : 612 ; 73,781 ; Shivpuri : 760 ; 93,367.

*Sidhi Dist :* Deosar : 1,479 ; 1,41,722 ; Gopadbanas : 1,839 ; 3,33,261 ; Singrauli : 754 ; 1,05,742.

*Surguja Dist :* Ambikapur : 1,855 ; 3,43,287 ; Baikunthpur : 493 ; 84,261 ; Bharatpur : 906 ; 29,565 ; Manendragarh : 742 ; 1,17,739 ; Pal : 1,352 ; 1,14,457 ; Samri : 632 ; 75,424 ; Surajpur : 2,085 ; 2,71,936.

*Tikamgarh Dist :* Jatara : 776 ; 1,60,226 ; Niwari : 403 ; 1,24,736 ; Tikamgarh : 769 ; 1,71,157.

*Ujjain Dist :* Barnagar : 472 ; 1,02,934 ; Khachrand : 494 ; 1,26,642 ; Mahidpur : 437 ; 88,597 ; Tarana : 393 ; 95,487 ; Ujjain : 538 ; 2,49,190.

*Vidisha Dist :* Basoda : 912 ; 1,59,508 ; Kurwai : 341 ; 62,696 ; Lateri : 365 ; 39,525 ; Sirong : 485 ; 83,073 ; Vidisha : 721 ; 1,45,398.

### Madras

District-wise names of Taluks with area in square miles and population respectively are as follows :

*Chingleput Dist :* Ponneri : 626 ; 2,30,704 ; Tiruvellur : 523 ; 2,70,324 ; Tiruttani : — ; 2,13,833 ; Sriperumbudur : 306 ; 2,35,687 ; Saidapet : 227 ; 3,92,468 ; Chingleput : 436 ; 2,46,827 ; Kancheepuram : 412 ; 3,21,816 ; Madurantakam : 531 ; 2,82,062.

*Coimbatore Dist :* Bhavani : 572 ; 2,52,241 ; Gobi : 1,129 ; 4,01,944 ; Erode : 599 ; 5,11,381 ; Dharapuram : 854 ; 3,22,073 ; Palladam : 585 ; 3,89,481 ; Avanashi : 493 ; 2,94,933 ; Coimbatore : 493 ; 7,28,868 ; Pollachi : 709 ; 4,19,510 ; Udamalpet : 555 ; 2,20,970.

*Kanyakumari Dist :* Vilavancode : 167 ; 3,17,213 ; Kalkulam : 229 ; 3,40,513 ; Thovala : 142 ; 62,267 ; Agastheeswaram : 107 ; 2,76,859.

*Madurai Dist :* Dindigul : 894 ; 5,97,256 ; Palani : 625 ; 2,88,832 ; Kodaikanal : 361 ; 50,695 ; Periakulam : 1,106 ; 6,54,565 ; Nilakottai : 410 ; 2,90,845 ; Melur : 484 ; 2,42,354 ; Madurai : 268 ; 6,69,935 ; Tirumangalam : 721 ; 4,10,884.

*Nilgiris Dist :* Gudalore : 280 ; 66,061 ; Ootacamund : 462 ; 1,69,611 ; Coonoor : 240 ; 1,73,768.

*North Arcot Dist :* Arkonam : 319 ; 2,53,380 ; Wallajapet : 395 ; 3,61,724 ; Gudiyatham : 481 ; 3,84,412 ; Tirupattur : 589 ; 4,07,217 ; Vellore : 432 ; 4,07,872 ; Arni : 176 ; 1,69,620 ; Cheyyar : 2,09,845 ; Wandiwash : 340 ; 2,21,174 ; Polur : 568 ; 2,45,483 ; Chengam : 518 ; 2,22,476 ; Tiruvannamalai : 375 ; 2,58,780.

*Ramanathapuram Dist :* Tirupathur : 567 ; 3,13,498 ; Sivaganga : 657 ; 2,66,333 ; Tiruvadanai : 548 ; 2,17,540 ; Paramakudi : 440 ; 2,27,487 ; Ramanathapuram : 334 ; 1,92,279 ; Madukulathur : 647 ; 2,33,731 ; Arappukottai : 615 ; 2,69,244 ; Sathur : 580 ; 3,53,915 ; Srivilliputhur : 437 ; 3,48,916.

*Salem Dist :* Hosur : 1,168 ; 3,49,240 ; Krishnagiri : 688 ; 4,16,824 ; Harur : 915 ; 2,15,457 ; Dharmapuri : 946 ; 3,75,033 ; Omalur : 557 ; 4,24,817 ; Yercaud : 148 ; 23,721 ; Salem : 377 ; 6,16,518 ; Sankari : 287 ; 2,42,312 ; Tiruchangode : 603 ; 2,46,345 ; Rasipuram : 316 ; 2,00,746 ; Athr : 651 ; 2,95,236 ; Namakkal : 682 ; 4,20,100.

*South Arcot Dist :* Gingee : 410 ; 2,54,273 ; Tindivanam : 561 ; 3,52,347 ; Villupuram : 352 ; 3,56,334 ; Tirukoilur : 584 ; 3,98,135 ; Kallakurichi : 873 ; 3,82,821 ; Vriddhachalam : 576 ; 3,53,224 ; Cuddalore : 448 ; 5,11,336 ; Chidambaram : 404 ; 4,32,650.

*Thanjavur Dist :* Sirkali : 171 ; 1,85,808 ; Mayuram : 282 ; 3,64,151 ; Kumbakonam : 212 ; 3,68,017 ; Nannilam : 201 ; 2,66,926 ; Papanasam : 228 ; 2,33,088 ; Thanjavur : 421 ; 3,63,261 ; Orathanad : 348 ; 1,94,308 ; Mannargudi : 301 ; 2,73,998 ; Nagapattinam : 240 ; 2,78,950 ; Tiruthurapoondi : 496 ; 2,74,845 ; Pattukottai : 698 ; 2,90,656 ; Aranthangi : 398 ; 1,55,952.

*Tiruchirapalli Dist :* Perambalur : 678 ; 2,86,610 ; Udayarpalayam : 749 ; 4,57,666 ; Lalgudi : 373 ; 2,66,030 ; Musiri : 675 ; 3,69,504 ; Kulithalai : 913 ; 4,39,340 ; Karur : 610 ; 3,45,457 ; Tiruchirapalli : 328 ; 5,02,500 ; Kolathur : 465 ; 1,69,267 ; Alangudi : 347 ; 1,90,401 ; Tirumayam : 367 ; 1,62,824.

*Tirunelveli Dist :* Sankaranayanar Koil : 635 ; 3,35,002 ; Koilpatti : 1,086 ; 4,12,678 ; Srivaikuntam : 362 ; 3,30,803 ; Tirunelveli : 325 ; 3,38,077 ; Thenkasi : 493 ; 3,35,497 ; Senkotte : 70 ; 66,466 ; Ambasamudram : 498 ; 2,93,340 ; Nanguneri : 705 ; 3,25,378 ; Tiruchendur : 323 ; 2,92,256.

### Maharashtra

District-wise names of Talukas/Mahals with area in square miles and population respectively are as follows :

*Ahmednagar Dist :* Ahmednagar 585 ; 2,44,717 ; Akola : 575 ; 1,17,771 ; Jamkhed : 337 ; 73,036 ; Karjat : 560 ; 98,883 ; Kopargaon : 403 ; 1,97,369 ; Newasa : 480 ; 1,16,649 ; Parner : 690 ; 1,30,969 ; Pathardi : 425 ; 1,09,888 ; Rahuri : 419 ; 1,16,585 ; Sangamner : 625 ; 1,64,567 ; Sheogaon : 436 ; 1,04,125 ; Shrigonda : 618 ; 1,17,719 ; Shrirampur : 319 ; 1,78,788.

*Akola Dist :* Akola : 739 ; 2,86,972 ; Akot : 550 ; 1,92,481 ; Balapur : 530 ; 1,48,155 ; Mangrulpir : 616 ; 1,36,493 ; Murtajapur : 610 ; 1,74,096 ; Washim : 1,046 ; 2,47,477.

*Amravati Dist :* Achalapur : 490 ; 2,09,166 ; Amravati : 833 ; 3,82,372 ; Chandur : 694 ; 1,96,846 ; Daryapur : 505 ; 1,74,092 ; Melghat : 1,546 ; 72,522 ; Morsi : 623 ; 1,96,624.

*Aurangabad :* Ambad : 874 ; 1,89,273 ; Aurangabad : 666 ; 2,21,930 ; Bhokardan : 490 ; 1,20,516 ; Gangapur : 511 ; 1,11,679 ; Jafferabad : 312 ; 58,908 ; Jalna : 771 ; 2,25,709 ; Kannad : — ; 1,26,947 ; Khuldabad : 175 ; 42,777 ; Paithan : 567 ; 1,22,912 ; Sillod : — ; 1,42,594 ; Seogaon : — ; 33,368 ; Vaijapur : 623 ; 1,34,844.

*Bhandara Dist :* Bhandara : 967 ; 3,94,017 ; Gondia : 1,105 ; 4,95,016 ; Sakoli : 1,551 ; 3,59,486.

*Bhir Dist :* Ashti : 581 ; 1,07,739 ; Bhir : 582 ; 1,59,859 ; Georai : 618 ; 1,35,611 ; Kaij : 692 ; 1,64,058 ; Manjlegaon : 595 ; 1,43,865 ; Mominabad : 639 ; 1,99,138 ; Patoda : 510 ; 90,835.

*Buldana Dist :* Chikhali : 924 ; 2,58,802 ; Jalgaon : 474 ; 1,15,908 ; Khamgaon : 710 ; 2,11,730 ; Malkapur : 651 ; 2,39,942 ; Mehkar : 1,007 ; 2,36,009.

*Chanda Dist :* Brahmapuri : 897 ; 2,26,832 ; Chanda : 1,174 ; 2,96,832 ; Gadhchiroli : 2,870 ; 2,78,805 ; Rajura : 776 ; 89,521 ; Sironcha : 3,089 ; 1,08,098 ; Warora : 1,282 ; 2,38,613.

*Dhulia Dist :* Akhalkuwa : 672 ; 57,356 ; Akrani : 232 ; 34,639 ; Dhulia : 751 ; 2,98,762 ; Nandurbar : 507 ; 1,52,952 ; Nawapur : 422 ; 1,05,741 ; Sakri : 926 ; 1,85,408 ; Shahada : 447 ; 1,55,473 ; Shirpur : 756 ; 1,23,755 ; Sindkheda : 494 ; 1,72,357 ; Taloda : 198 ; 63,700.

*Greater Bombay Dist :* Andheri : 66 ; — ; Bombay City : 26 ; — ; Borivli : 98 ; — .

*Jalgaon Dist :* Amalner : 325 ; 1,62,869 ; Bhadgaon : 197 ; 65,472 ; Bhusaval : 329 ; 1,89,677 ; Chalisgaon : 460 ; 1,67,897 ; Chopda : 368 ; 1,28,695 ; Edlabad : 250 ; 62,840 ; Erandol : 369 ; 1,50,934 ; Jalgaon : 320 ; 1,91,482 ; Jamner : 521 ; 1,52, 221 ; Pachora : 309 ; 1,25,788 ; Parola : 292 ; 87,599 ; Raver : 361 ; 1,41,491 ; Yawal : 368; 1,38,496.

*Kolaba Dist :* Alibag : 196 ; 1,24,304 ; Karjat : 242 ; 87,070 ; Khalapur : 157 ; 53,385 ; Mahad : 271 ; 1,15 906 ; Mangaon : 363 ; 1,24,455 ; Mhasla : 134 ; 38,916 ; Murud : 133 ; 44,472 ; Panvel : 215 ; 1,15,516 ; Pen : 200 ; 83,192 ; Poladpur : 188 ; 38,749 ; Roha : 272 ; 79,700 ; Shrivardhan : 104 ; 54,899 ; Sudhagad : 162 ; 41,869 ; Uran : 75 ; 56,459.

*Kolhapur Dist :* Ajra : 205 ; 68,285 ; Bhavda : 261 ; 59,069 ; Bhudargad : 253 ; 78,641 ; Chandgad : 394 ; 93,448 ; Gandhinglaj : 192 ; 1,27,644 ; Hatkanangali : 235 ; 2,26,516 ; Kagal : 212 ; 1,28,852 ; Karvir : 262 ; 3,47,299 ; Panhala : 218 ; 1,14,050 ; Radhanagari : 345 ; 1,02,948 ; Shahuwadi : 407 ; 1,00,518 ; Shirol : 204 ; 1,51,130.

*Nagpur Dist :* Katol : 614 ; 1,67,277 ; Nagpur : 811 ; 8,26,465 ; Ramtek : 897 ; 1,75,275 ; Saoner : 543; 1,49,450 ; Umrer : 969 ; 1,92,920.

*Nanded Dist :* Biloli : — ; 1,76,022 ; Bhoker : 399 ; 88,101 ; Deglur : — ; 90,040 ; Hadgaon : 601 ; 1,37,718 ; Kandhar : 629 ; 1,72,427 ; Kinawat : — ; 1,17,879 ; Mukhed : 338 ; 1,01,532 ; Nanded : 395 ; 1,96,394.

*Nasik Dist :* Baglan : 629 ; 1,53,517 ; Chandor : 370 ; 96,936 ; Dindori : 496 ; 1,12,121 ; Igatpuri : 377 ; 1,13,226 ; Kalwan : 431 ; 99,629 ; Malegaon : 754 ; 3,13,497 ; Nandgaon : 431 ; 1,21,258 ; Nasik : 525 ; 3,26,158 ; Niphad : 417 ; 1,55,031 ; Peint : 342 ; 68,427 ; Sinnar : 517 ; 1,33,063 ; Surgana : 316 ; 58,197 ; Yeola : 409 ; 1,03,336.

*Osmanabad Dist :* Ahmedpur : 609 ; 1,65,267 ; Bhoom : 339 ; 72,858 ; Kalam : 474 ; 1,26,844 ; Latur : 420 ; 1,42,988 ; Nilanga : 536 ; 1,62,798 ; Omerga : 576 ; 1,62,452 ; Osmanabad : 445 ; 1,39,749 ; Owasa : 468 ; 1,22,792 ; Parenda : 406 ; 88,266 ; Tuljapur : 605 ; 1,18,530 ; Udgir : 632 ; 1,72,540.

*Parbhani Dist :* Basmath : 482 ; 1,40,171 ; Gangakhed : 630 ; 1,64,940 ; Hingoli : 730 ; 1,59,504 ; Jintur : 669 ; 1,40,835 ; Kalamnuri : 583 ; 1,27,493 ; Parbhani : 547 ; 1,76,022 ; Partur : 588 ; 1,33,852 ; Pathri : 618 ; 1,68,551.

*Poona Dist :* Ambegaon : 402 ; 1,18,844 ; Baramati : 540 ; 1,73,883 ; Bhor : 325 ; 95,387 ;

Dhond : 516 ; 1,28,454 ; Haveli : 515 ; 2,48,618 ; Indapur : 586 ; 1,53,814 ; Junnar : 533 ; 1,71,813 ; Khed : 539 ; 1,57,205 ; Maval : 414 ; 1,16,093 ; Mulshi : 353 ; 80,240 ; Poona City : 68 ; 7,21,134 ; Purandhar : 426 ; 1,26,532 ; Sirur : 611 ; 1,32,381 ; Vele : 196 ; 40,081.

*Ratnagiri Dist :* Chiplun : 434 ; 1,70,527 ; Dapoli : 327 ; 1,34,773 ; Deogad : 284 ; 1,01,206 ; Guhagar : 242 ; 91,486 ; Kankavli : 299 ; 1,11,506 ; Khed : 386 ; 1,37,010 ; Kudal : 317 ; 1,14,369 ; Lanja : 283 ; 82,236 ; Malvan : 256 ; 1,27,684 ; Mandangad : 160 ; 50,522 ; Rajapur : 496 ; 1,52,418 ; Ratnagiri : 358 ; 1,68,003 ; Sangameshwar : 499 ; 1,56,952 ; Sawantwadi : 516 ; 1,39,011 ; Vengurla : 127 ; 86,640.

*Sangli Dist :* Jath : 874 ; 1,38,861 ; Khanapur : 846 ; 2,23,310 ; Miraj : 611 ; 3,72,839 ; Shirala : 246 ; 89,827 ; Tasgaon : 446 ; 2,02,462 ; Walwa : 300 ; 2,02,341.

*Satara Dist :* Jaoli : 345 ; 80,062 ; Karad : 406 ; 2,51,221 ; Khandala : 203 ; 63,156 ; Khatav : 509 ; 1,55,715 ; Koregaon : 365 ; 1,38,574 ; Mahabaleshwar : 87 ; 24,359 ; Man : 556 ; 99,448 ; Patan : 514 ; 1,80,416 ; Phaltan : 456 ; 1,40,014 ; Satara : 353 ; 1,90,363 ; Wai : 229 ; 1,03,692.

*Sholapur Dist :* Akkalkot : 537 ; 1,74,680 ; Barsi : 628 ; 2,20,876 ; Karmala : 622 ; 1,28,688 ; Madha : 597 ; 1,56,081 ; Malsiras : 588 ; 1,65,879 ; Mangalwedha : 441 ; 89,071 ; Mohol : 550 ; 1,22,963 ; North Sholapur : 284 ; 4,05,735 ; Pandharpur : 498 ; 1,53,978 ; Sangola : 610 ; 1,28,036 ; South Sholapur : 462 ; 1,12,525.

*Thana Dist :* Bassein : 203 ; 1,66,007 ; Bhivandi : 264 ; 1,65,064 ; Dahanu : 372 ; 1,58,979 ; Jawhar : 310 ; 82,417 ; Kalyan : 279 ; 3,59,286 ; Mokhada : 242 ; 47,150 ; Murbad : 347 ; 84,373 ; Palghar : 422 ; 1,78,276 ; Shahpur : 635 ; 1,13,145 ; Talasari : — ; 43,068 ; Thana : 84 ; 1,85,368 ; Wada : 284 ; 70,204.

*Wardha Dist :* Arvi : 890 ; 1,76,537 ; Hinganghat : 729 ; 1,67,067 ; Wardha : 815 ; 2,87,763.

*Yeotmal Dist :* Darwha : 1,078 ; 2,54,913 ; Kelapur : 1,086 ; 1,96,712 ; Pusad : 1,285 ; 2,65,099 ; Wani : 862 ; 1,73,300 ; Yeotmal : 908 ; 2,07,947.

Number of towns having a population of below 5,000 : 16 ; 5,000 to 10,000 : 72 ; 10,000 to 20,000 : 89 ; 20,000 to 50,000 : 45 ; 50,000 to 1,00,000 : 14 ; over 1,00,000 : 12.

### Mysore

District-wise names of Taluks with area in square miles and population respectively are as follows :

*Belgaum Dist :* Athani : 744 ; 2,26,945 ; Belgaum : 394 ; 3,43,429 ; Chikodi : 479 ; 3,15,290 ; Gokak : 596 ; 2,14,902 ; Hukeri : 382 ; 1,95,659 ; Khanapur : 675 ; 1,28,196 ; Parasgad : 611 ; 1,50,667 ; Raibagh : 372 ; 1,15,730 ; Ramdurg : 470 ; 1,09,329 ; Sampgaon : 435 ; 1,79,097.

*Bellary Dist :* Bellary : 652 ; 2,03,269 ; Hadagalli : 587 ; 1,10,562 ; Harpanahalli : 611 ; 1,28,776 ; Hospet : 384 ; 1,54,259 ; Kudligi 703 ; 1,33,374 ; Mallapuram : — ; 28,456 ; Sandur : 481 ; 67,762 ; Siruguppa : 403 ; 87,426.

*Bidar Dist :* Bhalki : 589 ; 1,75,550 ; Bidar : 420 ; 1,73,234 ; Humnabad : 592 ; 1,90,201 ; Santpur : 456 ; 1,17,605.

*Bijapur Dist :* Badami : 527 ; 1,56,243 ; Bagalkot : 352 ; 1,20,835 ; Bagwadi : 764 ; 1,64,126 ; Bijapur : 1,028 ; 2,47,315 ; Bilgi : 327 ; 68,175 ; Hungund : 512 ; 1,60,196 ; Indi : 854 ; 1,76,021 ; Jamkhandi : 450 ; 1,68,621 ; Muddebihal : 570 ; 1,34,641 ; Mudhol : 349 ; 99,455 ; Sindgi : 830 ; 1,62,825.

*Chikmagalur Dist :* Chikmagalur : 644 ; 1,41,931 ; Kadur : 554 ; 1,51,734 ; Koppa : 335 ; 62,811 ; Mudigere : 365 ; 74,021 ; Narasimharajapura : 314 ; 33,376 ; Sringeri : 45 ; 14,745 ; Tarikere : 466 ; 33,117,229.

*Chitradurga Dist :* Challakere : 854 ; 1,52,151 ; Chitradurga : 477 ; 1,71,192 ; Davangere : 366 ; 1,87,948 ; Harihar : 184 ; 82,286 ; Hiriyur : 647 ; 1,31,220 ; Holakere : 419 ; 1,14,079 ; Hosadurga : 517 ; 1,11,022 ; Jagalur : 377 ; 82,830 ; Molakalmuru : 295 ; 61,400.

*Coorg :* Mercara : 566 ; 79,159 ; Somwarpet : 386 ; 1,09,199 ; Virajpet : 638 ; 1,33,158.

*Dharwar Dist :* Byadgi : 168 ; 70,643 ; Dharwar : 430 ; 1,92,534 ; Gadag : 413 ; 1,72,774 ; Hangal : 299 ; 1,17,346 ; Haveri : 402 ; 1,49,972 ; Hirekerur : 310 ; 1,24,484 ; Hubli : 290 ; 2,50,765 ; Kalghatgi : 259 ; 67,923 ; Kundgol : 235 ; 82,089 ; Mundargi : 336 ; 60,055 ; Nargund : 176 ; 42,547 ; Navalgund : 418 ; 96,453 ; Ranebennur : 362 ; 1,48,299 ; Ron : 476 ; 1,50,229 ; Shiggaon : 544 ; 1,24,256 ; Shirhatti : 367 ; 1,00,171.

*Gulbarga Dist :* Afzalpur : 514 ; 89,343 ; Aland : 678 ; 1,60,391 ; Chincholi : 609 ; 1,07,782 ; Chitapur : 691 ; 1,73,699 ; Gulbarga : 664 ; 2,28,967 ; Jevargi : 746 ; 1,09,390 ; Seram : 365 ; 90,460 ; Shahpur : 627 ; 1,33,920 ; Shorapur : 711 ; 1,37,206 ; Yadgir : 666 ; 1,60,687.

*Hassan Dist :* Alur : 164 ; 48,425 ; Arkalgud : 265 ; 1,06,487 ; Arsikere : 479 ; 1,67,702 ; Belur : 310 ; 1,02,204 ; Chennarayapatna : 404 ; 1,40,607 ; Hassan : 357 ; 1,61,178 ; Hole Narsipur : 232 ; 89,165 ; Manjarabad : 407 ; 77,611.

*Kolar Dist :* Bagepalli : 361 ; 84,107 ; Bangarpet : 237 ; 1,09,472 ; Chikballapur : 249 ; 91,958 ; Chintamani : 313 ; 1,26,263 ; Gauribidnur : 339 ; 1,48,740 ; Gudibanda : 87 ; 27,042 ; Kolar : 305 ; 1,54,677 ; Kolar Gold Fields City : 30 ; 1,46,200 ; Malur : 249 ; 1,01,596 ; Mulbagal : 316 ; 1,12,710 ; Sidlaghatta : 265 ; 90,135 ; Srinivaspur : 312 ; 98,322.

*Mandya Dist :* Krishnarajpet : 352 ; 1,28,963 ; Maddur : 238 ; 1,51,029 ; Malavalli : 307 ; 1,56,710 ; Mandya : 277 ; 1,83,299 ; Nagamangala : 402 ; 1,11,253 ; Pandavapura : 214 ; 87,418 ; Srirangapatna : 143 : 79,881.

*Mysore Dist :* Chamarajnagar : 479 ; 1,92,966 ; Gundlupet : 355 ; 1,17,475 ; Heggadevankote : 706 ; 98,112 ; Hunsur : 342 ; 1,01,102 ; Kollegal : 1,076 ; 1,78,255 ; Krishnarajnagar : 231 ; 1,32,300 ; Mysore City : 14 ; 2,53,524 ; Mysore : 303 ; 1,14,029 ; Nanjangud : 372 ; 1,89,404 ; Periapatna : 333 ; 94,841 ; T. Narsipur : 223 ; 1,52,977 ; Yelandur : 104 ; 44,889.

*North Kanara Dist :* Ankola : 348 ; 57,030 ; Bhatkal : 129 ; 58,389 ; Haliyal : 315 ; 62,533 ; Honavar : 278 ; 90,060 ; Karwar : 284 ; 91,379 ; Kumta : 235 ; 87,697 ; Mundgod : 257 ; 26,815 ; Sirsi : 556 ; 88,648 ; Siddapur : 333 ; 61,556 ; Supa : 732 ; 34,884 ; Yellapur : 508 ; 30,901.

*Raichur Dist :* Deodrug : 595 ; 1,03,542 ; Gangavati : 514 ; 1,12,141 ; Koppal : 542 ; 1,30,369 ; Kushtagi : 536 ; 1,05,740 ; Lingsugur : 739 ; 1,34,983 ; Manvi : 749 ; 1,19,500 ; Raichur : 588 ; 1,72,772 ; Sindhnoor : 628 ; 96,962 ; Yellurga : 545 ; 1,16,461.

*Shimoga Dist :* Bhadravati : 257 ; 1,30,810 ; Chennagiri : 458 ; 1,45,590 ; Honnali : 338 ; 1,07,475 ; Hosanagar : 539 ; 59,354 ; Sagar : 749 ; 1,55,141 ; Shikaripur : 342 ; 1,01,373 ; Shimoga : 409 ; 1,35,182 ; Sorab : 412 ; 92,837 ; Thirthahalli : 483 ; 86,961.

*South Kanara Dist :* Bantwal : — ; 1,79,136 ; Belthangady : — ; 1,06,454 ; Coondapur : 600 ; 1,95,173 ; Karkal : 629 ; 1,81,702 ; Mangalore : 228 ; 3,92,227 ; Puttur : 357 ; 3,25,958.

*Tumkur Dist :* Chiknaikanahalli : 413 ; 1,15,954 ; Gubbi : 466 ; 1,47,150 ; Koratgere : 256 ; 89,386 ; Kunigal : 383 ; 1,55,392 ; Madhugiri : 422 ; 1,53,824 ; Pavagada : 523 ; 1,17,138 ; Sira : 584 ; 1,53,983 ; Tiptur : 303 ; 1,14,646 ; Tumkur : 403 ; 2,17,654 ; Turuvekere : 305 ; 1,01,595.

### Orissa

District-wise names of Sub-Divisions with area in square miles and population respectively are as follows :

*Balasore Dist :* Bhadrak : 1,076 ; 5,79,232 ; Nilgiri : 263 ; 97,227 ; Sadar : 1,168 ; 7,39,353.

*Bolangir Dist :* Bolangir : 868 ; 3,05,887 ; Patangarh : 727 ; 1,87,155 ; Sonepur : 882 ; 2,75,458 ; Titalgarh : 935 ; 3,01,516.

*Cuttack Dist :* Athgarh : 556 ; 2,48,854 ; Jajpur : 1,115 ; 7,63,230 ; Kendrapara : 977 ; 6,50,905 ; Sadar : 1,562 ; 14,01,485.

*Dhenkanal Dist :* Angul : 902 ; 2,31,030 ; Athmalic : 711 ; 1,00,407 ; Hindol : 312 ; 84,940 ; Kamakhyanagar : 865 ; 2,16,971 ; Pal-Lahara : 450 ; 52,511 ; Sadar : 598 ; 2,27,890 ; Talcher : 388 ; 1,16,833.

*Ganjam Dist :* Berhampur : 908 ; 5,05,497 ; Chatrapur : 827 ; 5,52,473 ; Ghumsur : 1,691 ; 5,28,272 ; Parlakimedi : 1,299 ; 2,87,713.

*Kalahandi Dist :* Dharamgarh : 2,177 ; 3,54,555 ; Nawapara : 1,312 ; 2,67,320 ; Sadar : 1,568 ; 3,87,615.

*Keonjhar Dist :* Anandapur : 539 ; 1,99,481 ; Champaul : 612 ; 1,88,088 ; Sadar : 2,065 ; 3,58,324.

*Koraput Dist :* Koraput Sadar : 2,100 ; 3,06,033 ; Nowrangpur : 5,572 ; 8,51,547 ; Rayaghada : 2,203 ; 3,40,639.

*Mayurbhanj Dist :* Bamanghaty : 737 ; 2,97,556 ; Kaptipada : 418 ; 1,80,311 ; Panchpir : 761 ; 2,20,988 ; Sadar : 2,105 ; 5,10,242.

*Phulbhani Dist :* Balliguda : 2,173 ; 2,27,806 ; Bandh : 1,330 ; 1,90,329 ; Khondmals : 779 ; 96,227.

*Puri Dist :* Bhubaneswar : 225 ; 2,57,190 ; Khurda : 802 ; 3,78,931 ; Nayagarh : 1,551 ; 4,81,584 ; Sadar : 1,472 ; 7,48,129.

*Sambalpur Dist :* Bargarh : 2,252 ; 6,92,594 ; Deogarh : 1,044 ; 1,20,245 ; Kuchinda : 944 ; 1,32,819 ; Rairakhol : 833 ; 52,438 ; Sadar : 1,692 ; 5,10,625.

*Sundargarh Dist :* Bonai : 1,296 ; 1,39,301 ; Panposh : 711 ; 2,68,486 ; Sundargarh : 1,781 ; 3,51,653.

### Punjab

District-wise names of Tehsils with area in square miles and population of each Tehsil respectively are as follows :—

*Ambala District :* Ambala : 399 ; 3,65,796 ; Kharer : 415 ; 3,32,615 ; Jagadhri : 489 ; 3,02,011 ; Naraingarh : 422 ; 1,53,952 ; Rupar : 286 ; 1,55,458 ; Nalagarh : 272 ; 62,361.

*Amritsar District :* Amritsar : 545 ; 8,18,239 ; Tarn Taran : 594 ; 3,52,831 ; Ajnala : 418 ; 1,78,169 ; Patti : 415 ; 1,98,002.

*Bhatinda District :* Bhatinda : 1,253 ; 4,92,434 ; Faridkot : 562 ; 2,42,107 ; Mansa : 864 ; 3,21,492.

*Ferozepore District :* Ferozepore : 686 ; 3,08,025 ; Zira : 494 ; 1,81,426 ; Moga : 647 ; 3,62,629 ; Muktsar : 1,028 ; 3,90,968 ; Fazilka : 1,053 ; 3,77,341.

*Gurdaspur District :* Gurdaspur : 497 ; 3,64,155 ; Batala : 477 ; 3,68,528 ; Pathankot : 366 ; 2,51,469.

*Gurgaon District :* Gurgaon : 412 ; 2,12,320 ; Ferozepur Jhirka : 312 ; 1,41,831 ; Nuh : 401 ; 1,81,754 ; Palwal : 382 ; 2,14,566 ; Rewari : 554 ; 3,07,943 ; Ballabhgarh : 287 ; 1,79,714.

*Hissar District :* Hissar : 1,019 ; 3,48,956 ; Hansi : 803 ; 3,24,745 ; Bhiwani : 976 ; 2,64,056 ; Fatehabad : 919 ; 2,37,645 ; Sirsa : 1,639 ; 3,70,485.

*Hoshiarpur District :* Hoshiarpur : 572 ; 2,99,261 ; Dasuya : 500 ; 2,83,202 ; Garhshankar : 509 ; 2,87,043 ; Una : 686 ; 3,59,967.

*Jullundur District :* Jullundur : 389 ; 5,65,422 ; Nawanshahr : 299 ; 2,44,082 ; Phillaur : 283 ; 2,31,998 ; Nakodar : 363 ; 1,82,932.

*Kangra District :* Kangra : 422 ; 1,71,787 ; Dera Gopipur : 495 ; 1,69,791 ; Nurpur : 519 ; 1,18,739 ; Hamirpur : 588 ; 2,50,472 ; Palampur : 2,539 ; 1,93,512 ; Kulu : — ; 1,52,766.

*Kapurthala District :* Kapurthala : 525 ; 2,33,011 ; Phagwara : 118 ; 1,10,764.

*Karnal District :* Karnal : 861 ; 4,40,123 ; Kaithal : 1,210 ; 4,99,131 ; Thanesar : 554 ; 2,69,000 ; Panipat : 461 ; 2,81,425.

*Ludhiana District :* Ludhiana : 566 ; 5,62,180 ; Jagraon : 419 ; 2,42,548 ; Samrala : 344 ; 2,16,462.

*Mohendragarh District :* Mohendragarh : 401 ; 1,51,750 ; Narnaul : 367 ; 1,95,105 ; Dadri : 572 ; 2,00,309.

*Patiala District :* Patiala : 734 ; 3,97,089 ; Nabha : 240 ; 1,20,984 ; Rajpura : 427 ; 2,34,306 ; Sirhind : 522 ; 2,95,058.

*Rohtak District :* Rohtak : 317 ; 3,95,110 ; Jhajjar : 813 ; 4,08,939 ; Gohana : 553 ; 2,89,174 ; Sonepat : 448 ; 3,23,692.

*Sangrur District :* Sangrur : 889 ; 3,97,965 ; Jind : 471 ; 2,32,842 ; Narwana : 575 ; 2,31,984 ; Barnala : 580 ; 2,55,054 ; Malerkotla : 516 ; 3,07,416.

*Simla District :* Simla : 9 ; 42,467 ; Kandaghat : 214 ; 68,789.

### Rajasthan

District-wise names of Tehsils with area in square miles and population (in thousands) respectively of each Tehsil are as following :—

*Ajmer :* Ajmer : 914 ; 382 ; Beawar : 612 ; 177 ; Kekri : 894 ; 134 ; Arain : 215 ; 25 ; Kishangarh : 245 ; 52 ; Rupnagar : 204 ; 27 ; Sarwar : 239 ; 29.

*Alwar :* Alwar : 705 ; 180 ; Bansur : 256 ; 62 ; Behror : 282 ; 108 ; Lachhmangarh : 450 ; 146 ; Rajgarh : 384 ; 105 ; Thanagazi : 347 ; 57 ; Kishangarh : 288 ; 78 ; Mandawar : 223 ; 69 ; Tijara : 264 ; 57.

*Banswara :* Banswara : 440 ; 83 ; Gandhi : 271 ; 67 ; Ghatole : 498 ; 71 ; Bagidora : 328 ; 70 ; Kushalgarh : 409 ; 66.

*Barmer :* Pachpadra : 1,300 ; 28 ; Siwana : 760 ; 61 ; Barmer : 4,309 ; 214 ; Chohtan : 1,532 ; 90 ; Shiv : 2,448 ; 41.

*Bharatpur :* Bayana : 310 ; 72 ; Rupbas : 213 ; 64 ; Weir : 237 ; 74 ; Bharatpur : 368 ; 140 ; Nadbai : 173 ; 55 ; Deeg : 193 ; 63 ; Kaman : 284 ; 84 ; Nagar : 181 ; 55 ; Bari : 395 ; 61 ; Basari : 385 ; 63 ; Gird (Dholpur) : 231 ; 131 ; Rajakhera : 151 ; 45.

*Bhilwara :* Banera : 282 ; 50 ; Bhilwara : 359 ; 106 ; Mandal : 475 ; 79 ; Raipur : 210 ; 40 ; Sahara : 228 ; 52 ; Asind : 431 ; 83 ; Hurda : 254 ; 40 ; Kotri : 368 ; 60 ; Mandalgarh : 610 ; 75 ; Jahazpur : 427 ; 74 ; Shahpura : 404 ; 66.

*Bikaner :* Bikaner : 3,912 ; 192 ; Lunkaransar : 3,143 ; 40 ; Magra : 1,344 ; 35 ; Nokha : 1,320 ; 71.

*Bundi :* Bundi : 316 ; 62 ; Patan : 457 ; 72 ; Talera : 509 ; 40 ; Hindoli : 452 ; 51 ; Nainwa : 439 ; 56.

*Chittorgarh :* Begun : 381 ; 45 ; Bhainsrorgarh : 634 ; 28 ; Chittorgarh : 326 ; 61 ; Gangral : 279 ; 47 ; Rashmi : 187 ; 38 ; Kapasin : 200 ; 46 ; Barisadri : 214 ; 43 ; Bhadesar : 236 ; 47 ; Chhotisadri : 268 ; 40 ; Dungla : 230 ; 42 ; Nimbahera : 293 ; 50 ; Achanara : 226 ; 31 ; Pratapgarh : 671 ; 69.

*Churu :* Churu : 683 ; 83 ; Rajgarh : 1,000 ; 87 ; Taranagar : 781 ; 44 ; Dungargarh : 463 ; 52 ; Ratangarh : 396 ; 76 ; Sardarshahar : 1,860 ; 77 ; Sujangarh : 1,070 ; 104.

*Dungarpur :* Aspur : 288 ; 63 ; Dungarpur : 689 ; 145 ; Sagwara : 483 ; 100.

*Ganganagar :* Ganganagar : 539 ; 133 ; Sadulgarh : 1,154 ; 104 ; Suratgarh : 1,480 ; 44 ; Karanpur : 317 ; 68 ; Padampur : 324 ; 58 ; Bhadra : 669 ; 66 ; Nohar : 1,678 ; 84 ; Anupgarh : 1,300 ; 28 ; Raisinghnagar : 510 ; 45.

*Jaipur :* Amber : 402 ; 130 ; Jamwa Ramgarh : 548 ; 108 ; Baswa : 246 ; 92 ; Dausa : 343 ; 95 ; Lalsot : 325 ; 85 ; Sikrai : 216 ; 66 ; Bassi : 266 ; 72 ; Chaksu : 362 ; 60 ; Jaipur : 192 ; 325 ; Sanganer : 306 ; 70 ; Bairath : 451 ; 102 ; Kotputli : 287 ; 94 ; Dudu : 496 ; 55 ; Phagi : 441 ; 50 ; Phulera : 573 ; 118.

*Jaisalmer :* Fatehgarh : 1,692 ; 16 ; Jaisalmer : 3,620 ; 22 ; Ramgarh : 2,800 ; 11 ; Sam : 4,100 ; 13 ; Nachna : 1,350 ; 9 ; Pokran : 2,500 ; 40.

*Jalore :* Jaswantpura : 1,360 ; 150 ; Sanchore : 1,219 ; 85 ; Ahore : 802 ; 83 ; Jalore : 750 ; 106.

*Jhalawar :* Aklera : 239 ; 41 ; Bakani : 216 ; 38 ; Khanpur : 329 ; 58 ; Manoharthana : 223 ; 42 ; Dag : 251 ; 35 ; Gangdhar : 185 ; 32 ; Jhalrapatan : 270 ; 54 ; Pachpahar : 177 ; 33 ; Pirawa : 399 ; 71.

*Jhunjhunu :* Chirawa : 483 ; 128 ; Jhunjhunu : 633 ; 141 ; Khetri : 605 ; 139 ; Udaipurvati : 601 ; 181.

*Jodhpur :* Bilara : 1,112 ; 127 ; Jodhpur : 1,606 ; 278 ; Shergarh : 1,700 ; 83 ; Osian : 1,461 ; 93 ; Phalodi : 3,127 ; 91.

*Kota :* Anta : 207 ; 32 ; Baran : 239 ; 59 ; Kishanganj : 594 ; 36 ; Mangrol : 174 ; 33 ; Shahbad : 592 ; 34 ; Atru : 330 ; 47 ; Chabra : 310 ; 41 ; Chhipabarod : 327 ; 46 ; Chechat : 159 ; 21 ; Kanwas : 270 ; 25 ; Ramganjmandi : 134 ; 28 ; Sangod : 197 ; 35 ; Barod : 160 ; 24 ; Digod : 189 ; 26 ; Itawa : 148 ; 21 ; Ladpura : 558 ; 119 ; Pipalda : 294 ; 43.

*Nagaur :* Deedwana : 649 ; 88 ; Ladnu : 487 ; 66 ; Degana : 809 ; 83 ; Merta : 808 ; 92 ; Jayal : 896 ; 62 ; Nagaur : 1,712 ; 141 ; Nawa : 560 ; 97 ; Parbatsar : 865 ; 135.

*Pali :* Bali : 834 ; 154 ; Desuri : 710 ; 110 ; Jaitaran : 519 ; 69 ; Raipur : 414 ; 65 ; Pali : 1,024 ; 95 ; Kharchi : 600 ; 93 ; Sojat : 572 ; 75.

*Sawai :* Bamanwas : 267 ; 49 ; Gangapur : 258 ; 73 ; Nadoti : 240 ; 44 ; Hindaun : 236 ; 91 ; Mahwa : 186 ; 63 ; Toda Bhim : 208 ; 76 ; Karanli : 690 ; 105 ; Sapotra : 501 ; 56 ; Borli : 418 ; 68 ; Khandar : 416 ; 38 ; Sawai Madhopur : 537 ; 102.

*Sikar :* Fatehpur : 413 ; 88 ; Lachhmangarh : 460 ; 92 ; Danta Ramgarh : 513 ; 104 ; Neem-ka-Thana : 560 ; 100 ; Sikar : 615 ; 147 ; Sri Madhopur : 472 ; 146.

*Sirohi :* Abu Road : 304 ; 53 ; Pindwara : 434 ; 62 ; Reodhar : 473 ; 58 ; Sheoganj : 345 ; 50 ; Sirohi : 453 ; 67.

*Tonk :* Duni : 470 ; 63 ; Malpura : 655 ; 64 ; Toda Raisingh : 315 ; 50 ; Aligarh : 358 ; 52 ; Niwai : 398 ; 58 ; Tonk : 575 ; 114.

*Udaipur :* Bhim : 229 ; 55 ; Deogarh : 262 ; 37 ; Kotra : 704 ; 44 ; Phalasia : 579 ; 44 ; Amet : 194 ; 40 ; Kumbhalgarh : 348 ; 60 ; Railmagra : 219 ; 49 ; Rajsamand : 229 ; 62 ; Kherwada : 414 ; 69 ; Salumber : 395 ; 70 ; Sarada : 397 ; 69 ; Girwa : 665 ; 187 ; Gogunda : 346 ; 53 ; Nathdwara : 359 ; 95 ; Bhopalsagar : 158 ; 32 ; Lasodia : 562 ; Mavli : 299 ; 80 ; Vallabhnagar : 418 ; 90.

### Uttar Pradesh

District-wise names of Tehsils with area in square miles and population of each Tehsil respectively are as follows :—

*Agra District :* Agra : 291 ; 6,63,700 ; Bah ; 338 ; 1,74,335 ; Etmadpur : 278 ; 2,44,420 ; Fatehbad : 241 ; 1,65,469 ; Firozabad : 203 ; 2,64,515 ; Kheragarh : 308 ; 1,68,522 ; Kiraoli : 263 ; 1,78,999.

*Aligarh District :* Atrauli : 351 ; 3,04,020 ; Hathras : 291 ; 3,13,397 ; Iglas : 214 ; 1,61,509 ; Khair : 402 ; 2,78,160 ; Koil : 355 ; 4,49,541 ; Sikandra Rao : 337 ; 2,59,575.

*Allahabad District :* Chail : 303 ; 6,77,644 ; Handia : 298 ; 2,86,912 ; Karchhana : 521 ; 2,91,217 ; Manjhanpur : 274 ; 1,89,489 ; Meja : 658 ; 2,51,397 ; Phulpur : 292 ; 2,73,039 ; Sirathu : 233 ; 1,83,734 ; Soraon : 264 ; 2,73,139.

*Almora District :* Almora : 4,136† ; 6,50,804† ; Champawat : 600 ; 80,304.

*Azamgarh District :* Azamgarh : 313 ; 3,93,960 ; Ghosi : 364 ; 4,14,644 ; Lalganj : 384 ; 3,52,546 ; Mohammadabad : 358 ; 4,42,060 ; Phulpur : 444 ; 4,47,907 ; Sagri : 350 ; 3,50,367.

*Bahraich District :* Baraich : 931 ; 5,83,158 ; Kaisarganj : 664 ; 4,58,141 ; Nanpara : 1,022 ; 4,56,580.

*Ballia District :* Ballia : 446 ; 5,11,698 ; Bansdih : 374 ; 3,89,830 ; Rasra : 422 ; 4,25,289.

*Banda District :* Baberu : 610 ; 2,24,967 ; Banda : 614 ; 2,28,049 ; Karwi : 822 ; 2,16,975 ; Mau : 317 ; 90,908 ; Naraini : 523 ; 1,93,743.

*Bara Banki District :* Fatehpur : 493 ; 3,67,992 ; Haidarganj : 290 ; 2,49,878 ; Nawabganj : 360 ; 3,48,355 ; Ramsanehighat : 584 ; 4,45,658.

*Bareilly District :* Aonla : 317 ; 2,69,074 ; Baheri : 369 ; 2,49,215 ; Bareilly : 440 ; 6,36,750 ; Faridpur : 244 ; 1,67,620 ; Nawabganj : 221 ; 1,58,652.

*Basti District :* Bansi : 471 ; 3,77,575 ; Basti : 458 ; 4,97,533 ; Domariaganj : 499 ; 4,20,235 ; Harraiya : 485 ; 4,01,581 ; Khalilabad : 457 ; 5,38,499 ; Nangarh : 449 ; 3,86,514.

*Bijnor District :* Bijnor : 486 ; 3,24,125 ; Dhampur : 458 ; 4,01,143 ; Nagina : 457 ; 2,17,715 ; Najibabad : 438 ; 2,42,998.

*Budaun District :* Bisauli : 360 ; 2,91,124 ; Budaun : 454 ; 3,68,870 ; Dataganj : 419 ; 2,72,277 ; Gunnaur : 359 ; 20,85,545 ; Sahaswan : 422 ; 2,69,413.

*Bulandshahr District :* Anupshahr : 456 ; 4,39,408 ; Bulandshahr : 476 ; 5,34,837 ; Khurja : 459 ; 3,83,353 ; Sikandrabad : 521 ; 3,78,238.

*Chamoli District :* Chamoli : — ; 71,990 ; Joshimath : — ; 15,325 ; Karan Prayag : — ; 1,07,590 ; Ukhimath : — ; 57,813.

*Dehra Dun District :* Chakrata : 447 ; 66,782 ; Dehra Dun : 752 ; 3,63,404.

*Deoria District :* Deoria : 493 ; 6,13,869 ; Hata : 546 ; 5,61,562 ; Padrauna : 559 ; 5,99,866 ; Salempur : 495 ; 5,96,771.

*Etah District :* Aliganj : 517 ; 3,50,950 ; Etah : 482 ; 3,60,719 ; Jalesar : 227 ; 1,60,346 ; Kasganj : 487 ; 4,28,184.

*Etawah District :* Auraiya : 415 ; 2,97,688 ; Bharthana : 417 ; 2,83,715 ; Bidhuna : 429 ; 2,66,834 ; Etawah : 427 ; 3,34,751.

*Faizabad District :* Akbarpur : 536 ; 4,93,431 ; Bikapur : 460 ; 3,76,217 ; Faizabad : 355 ; 4,02,675 ; Tanda : 350 ; 3,57,953.

*Farrukhabad District :* Chhibramau : 418 ; 4,48,604 ; Farrukhabad : 483 ; 4,48,604 ; Kaimganj : 364 ; 3,52,431 ; Kannauj : 393 ; 2,87,315.

*Fatehpur District :* Fatehpur : 642 ; 4,21,037 ; Khaga : 485 ; 3,24,469 ; Bindki : — ; 3,32,054.

*Garhwal District :* Lansdowne : 1,056 ; 3,03,319 ; Pauri : 961 ; 1,75,881.

*Ghazipur District :* Ghazipur : 261 ; 2,90,581 ; Mohammadabad : 312 ; 3,25,377 ; Saidpur : 428 ; 4,25,324 ; Zamania : 297 ; 2,69,429.

*Gonda District :* Gonda : 619 ; 5,43,713 ; Tarabganj : 663 ; 4,80,782 ; Utraula : 1,560 ; 5,13,751 ; Balrampur : — ; 5,39,448.

*Gorakhpur District :* Bansgaon : 531 ; 5,98,605 ; Gorakhpur : 655 ; 9,57,510 ; Maharajganj : 682 ; 9,57,510 ; Pharenda : 569 ; 4,29,144.

*Hamirpur District :* Charkhari : 159 ; 1,39,288 ; Hamirpur : 416 ; 1,31,064 ; Mohoba : 354 ; 1,64,826 ; Maudaha : 604 ; 1,74,542 ; Rath : 648 ; 1,84,755.

*Hardoi District :* Bilgram : 588 ; 3,71,615 ; Hardoi : 632 ; 4,52,736 ; Sandila : 555 ; 3,81,271 ; Shahabad : 539 ; 3,62,245.

*Jalaun District :* Jalaun : 514 ; 2,46,372 ; Kalpi : 487 ; 1,45,579 ; Konch : 401 ; 1,53,087 ; Orai : 358 ; 1,16,439.

*Jaunpur District :* Jaunpur : 288 ; 3,98,420 ; Kerakat : 246 ; 2,98,123 ; Machhlishahr : 358 ; 3,25,861 ; Mariahu : 320 ; 3,48,322 ; Shahganj : 353 ; 3,57,292.

*Jhansi District :* Garautha : 594 ; 1,33,367 ; Jhansi : 482 ; 3,02,628 ; Lalitpur : 1,059 ; 2,21,471 ; Mehroni : 887 ; 1,50,238 ; Mau-Ranipur : 424 ; 1,45,700 ; Moth : 446 ; 1,32,815.

*Kanpur District :* Akbarpur : 368 ; 2,28,053 ; Bhognipur : 380 ; 2,24,579 ; Bilhaur : 387 ; 2,55,161 ; Derapur : 403 ; 2,50,316 ; Ghatampuri : 423 ; 2,54,695 ; Kanpur : 418 ; 11,49,635.

*Kheri District :* Lakhimpur : 1,053 ; 5,09,989 ; Mohamdi : 663 ; 3,62,027 ; Nighasan : 1,251 ; 3,91,215.

*Lucknow District :* Lucknow : 387 ; 9,07,852 ; Malihabad : 327 ; 2,48,034 ; Mohanlalganj : 275 ; 1,89,608.

*Mainpuri District :* Bhongaon : 457 ; 3,29,833 ; Jasrana : 317 ; 1,99,166 ; Karhal : 218 ; 1,38,497 ; Mainpuri : 388 ; 2,55,201 ; Shikohabad : 294 ; 2,52,292.

*Mathura District :* Chhata : 407 ; 2,11,097 ; Mat : 331 ; 2,34,499 ; Mathura : 410 ; 3,77,166 ; Sadabad : 308 ; 2,52,810.

*Meerut District :* Baghpat : 400 ; 4,89,658 ; Ghaziabad : 445 ; 5,31,715 ; Hapur : 407 ; 4,28,766 ; Mowana : 421 ; 3,20,069 ; Meerut : 286 ; 5,84,779 ; Sardhana : 341 ; 3,62,166.

*Mirzapur District :* Chunar : 562 ; 3,07,308 ; Dudhi : 988 ; 1,56,397 ; Mirzapur : 1,186 ; 5,09,897 ; Robertsganj : 1,633 ; 2,73,864.

*Moradabad District :* Amroha : 383 ; 3,44,571 ; Bilari : 333 ; 3,50,500 ; Hasanpur : 569 ; 2,84,971 ; Moradabad : 300 ; 4,34,566 ; Sambhal : 475 ; 4,03,180 ; Thakurdwara : 240 ; 1,53,347.

*Muzaffarnagar District :* Budhana : 288 ; 3,01,463 ; Jansath : 440 ; 3,29,693 ; Kairana ; 438 ; 3,80,563 ; Muzaffarnagar : 464 ; 4,32,897.

† Also includes Ranikhet Tehsil.

*Nainital District :* Bhabar : 1,279 ; 1,45,545 ; Kashipur : 181 ; 88,820 ; Nainital : 433 ; 1,13,933 ; Tarai : 885 ; 2,26,069.

*Pilibhit District :* Bilaspur : 365 ; 2,35,280 ; Pilibhit : 465 ; 2,65,128 ; Puranpur : 512 ; 1,17,812.

*Pithoragarh District :* Dharchula : — ; 32,590 ; Didihat : — ; 96,620 ; Munsiari : — ; 30,519 ; Pithoragarh : — ; 1,02,664.

*Pratapgarh :* Kunda : 537 ; 4,42,520 ; Patti : 457 ; 3,80,339 ; Pratapgarh : 437 ; 4,28,543.

*Rae Bareli District :* Dalmau : 472 ; 3,77,621 ; Maharajganj : 464 ; 3,18,461 ; Rae Bareli : 375 ; 2,92,260 ; Salon : 444 ; 3,28,411.

*Rampur District :* Bilaspur : 204 ; 76,061 ; Milak : 167 ; 1,11,667 ; Rampur : 180 ; 2,66,370 ; Sahabad : 167 ; 1,08,902 ; Suar : 213 ; 1,41,546.

*Saharanpur District :* Deoband : 386 ; 5,35,706 ; Nakur : 429 ; 2,79,634 ; Roorkee : 706 ; 4,78,459 ; Saharanpur : 626 ; 5,35,706.

*Shahjahanpur District :* Jalalabad : 363 ; 2,33,533 ; Powayan : 591 ; 2,51,973 ; Shahjahanpur : 395 ; 3,56,277 ; Tilhar : 413 ; 2,91,816.

*Sitapur District :* Biswan : 572 ; 3,71,416 ; Misrikh : 596 ; 4,02,914 ; Sidhauli : 554 ; 3,85,287 ; Sitapur : 511 ; 4,56,311.

*Sultanpur District :* Amethi : 366 ; 2,64,227 ; Kadipur : 447 ; 3,61,795 ; Musafirkhana : 397 ; 3,24,442 ; Sultanpur : 508 ; 4,62,588.

*Tehri-Garhwal District :* Deo Prayag : — ; 92,521 ; Pratapnagar : — ; 1,01,928 ; Tehri : — ; 92,521.

*Unnao District :* Hasanganj : 440 ; 3,06,996 ; Purwa : 551 ; 3,68,709 ; Safipur : 409 ; 2,77,065 ; Unnao : 402 ; 2,74,278.

*Uttar Kashi District :* Bhatwari : — ; 21,446 ; Dunda : — ; 43,075 ; Puraula : — ; 28,225 ; Rajgarhi : — ; 29,631.

*Varanasi District :* Bhadohi : 417 ; 4,63,185 ; Chakia : 474 ; 1,42,385 ; Chandauli : 510 ; 5,19,637 ; Varanasi : 596 ; 12,36,597.

### West Bengal

District-wise names of Sub-Divisions with area in square miles and population respectively are as follows :

*Bankura Dist :* Sadar : 1,933 ; — ; Vishnupur : 714 ; — .

*Birbhum Dist :* Rampurhat : 606 ; — ; Sadar : 1,137 ; — .

*Burdwan Dist :* Asansol : 624 ; — ; Kalna : 385 ; — ; Katwa : 409 ; — ; Sadar : 1,287 ; — .

*Cooch Behar Dist :* Dinhata : 272 ; — ; Mathabhanga : 343 ; — ; Mekliganj : 199 ; — ; Sadar : 285 ; — ; Tufanganj : 224 ; — .

*Darjeeling Dist :* Kalimpong : 408 ; — ; Kurseong : 164 ; — ; Sadar : 361 ; — ; Siliguri : 266 ; — .

*Hooghly Dist :* Arambag : 413 ; — ; Chandernagore : 388 ; — ; Sadar : 446 ; — ; Serampur : 160 ; — .

Names of districts showing within brackets the names of talukas and their area in square miles respectively under each district :

Bankura Dist. (Sadar, 1,933 ; Vishnupur, 714) ; Birbhum Dist. (Rampurhat, 606 ; Sadar, 1,137) ; Burdwan Dist. (Asansol, 624 ; Kalna, 385 ; Katwa, 409 ; Sadar, 1,287) ; Calcutta Dist. (Calcutta Municipal Area, 28 Acres) ; Cooch Behar Dist. (Dinhata, 272 ; Mathabhanga, 343 ; Mekliganj, 199 ; Sadar, 285 ; Tufanganj, 224) ; Darjeeling Dist. (Kalimpong, 408 ; Kurseong, 164 ; Sadar, 361 ; Siliguri, 266) ; Hooghly Dist. (Arambag, 413 ; Chandernagore, 388 ; Sadar, 446 ; Serampur, 160) ; Howrah Dist. (Sadar, 174 ; Uluberia, 386) ; Jalpaiguri Dist. (Alipur Duars, 1,079 ; Sadar, 1,296) ; Malda Dist. (Sadar, 1,296) ; Midnapur Dist. (Contai, 912 ; Ghatal, 369 ; Jhargram, 1,186 ; Sadar, 2,038 ; Tamluk, 749) ; Murshidabad Dist. (Jangipur, 437 ; Kandi, 454 ; Lalbagh, 522 ; Sadar, 659) ; Nadia Dist. (Ranaghat, 540 ; Sadar, 969) ; Purulia Dist. (2,408) ; 24 Parganas Dist. (Bangaon, 320 ; Barasat, 384 ; Barrackpur, 119 ; Basirhat, 818 ; Diamond Harbour, 1,262 ; Sadar, 1,107) ; West Dinajpur Dist. (Balurghat, 580 ; Islampur, 759 ; Raiganj, 865).

### Himachal Pradesh

District-wise names of Tehsils with area in square miles and population of each Tehsil respectively are as follows :

*Bilaspur Dist :* Bilaspur Sadar : 215 ; 79,043 ; Ghumarwin : 236 ; 79,501.

*Chamba Dist :* Chamba : 791 ; 69,034 ; Bhattiyat : 250 ; 48,089 ; Churah : 669 ; 56,118 ; Bharmour : 638 ; 5,582 ; Pangi : 787 ; 11,644.

*Kinnaur Dist :* Nichar, Kalpa, Pooh Sub-Divisions : 2,500 ; 40,640.

*Mahasu Dist :* Rampur : 853 ; 43,757 ; Jubbal : 105 ; 17,636 ; Arki : 156 ; 38,688 ; Chopal : 375 ; 40,384 ; Rohru : 580 ; 51,805 ; Kumharsain : 134 ; 23,822 ; Solan : 108 ; 34,938 ; Kusumpti : 151 ; 27,098 ; Theog : 163 ; 41,014 ; Suni : 93 ; 18,750 ; Kotkhai : 69,20,545.

*Mandi Dist :* Mandi Sadar : 202 ; 92,924 ; Joginder Nagar : 445 ; 68,412 ; Sarkaghat : 202 ; 84,360 ; Chachiot : 351 ; 57,518 ; Sunder Nagar : 168 ; 42,415 ; Karsog : 252 ; 37,978.

*Sirmur Dist :* Nahan : 214 ; 32,519 ; Paonta : 231 ; 61,336 ; Renuka : 380 ; 63,642 ; Pachhad : 316 ; 40,087.

### Manipur

Names of Districts with Sub-Divisions with area in square miles and population respectively within brackets of the latter are as follows :

Manipur Plains District (Bishenpur : 196 ; 79,031 ; Imphal West (including Imphal town) : 292 ; 2,99,863 ; Jiribam : 264 ; 18,143 ; Hills District (Mao : 982 ; 70,192 ; Tamenglong : 1,772 ; 36,554 ; Tengonpal ; 1,352 ; 27,651 ; Thonbal : 200 ; 1,35,133 ; Ukhrul : 1,832 ; 48,475 ; Churachandpur : 1,738 ; 63,276).

### Pondicherry

Area and Density of Population

Area : 186 square miles ; Total population : 3,69,083 (1961 census) ; 2,85,011 (1941 census) ; 3,17,253 (1948 census), Density of population : 1,984 per square mile.

Rural population : 2,80,094 (1,40,014 males, 1,40,080 females) ; Urban population : 88,989 (43,331 males, 45,558 females) ; Literacy : 35·67 per cent.

*Area and population by Communes :* Pondicherry : 113·4 sq. miles ; 2,58,590 ; Karaikal : 57·6 sq. miles ; 83,986 ; Mahe : 3·2 sq. miles ; 19,478 ; Yanam : 6·7 sq. miles ; 7,029.

*Estimated population :* 1966 : 4,14,335 ; 1971 : 4,67,612 ; 1976 : 5,26,959.

### Tripura

Names of the Sub-Divisions with area in square miles and population respectively are as follows :

Amarpur : 1,365 ; 56,289 ; Belonia : 1,020 ; 76,133 ; Dharmanagar : 662 ; 1,14,370 ; Kailasahar : 1,202 ; 1,04,247 ; Kamalpur : 622 ; 61,737 ; Khowai : 1,393 ; 1,29,935 ; Sabroom : 616 ; 43,361 ; Sadar : 1,559 ; 3,65,827 ; Sonamura : 531 ; 77,932 ; Udaipur : 637 ; 90,119.

The average birth rate, on the basis of incomplete data, was estimated to be about 34 per 1,000 in 1941–50, and apart from fluctuations usual for such a high figure, has not registered any serious decline during the last few years.

The estimated death rate shows a steady decline from 42·6 per 1,000 in 1901 to 27·4 in 1951 and 21·6 in 1961. Infant mortality has dropped from 232 in 1901 to 98 in 1960.

The expectation of life at birth has increased from 23 years in 1931 to 42 in 1961.

### Registered Foreigners in India

As many as 59,744 registered foreigners were reported to be resident in India on December 1, 1962, as against 61,705 in 1961.

The principal nationalities were : Tibetan—14,988 ; Chinese—10,627 ; Iranian—4,501 ; American—4,421 ; Afghan—3,648 ; German—2,930 ; Burmese—1,623 ; Russian—1,581 ; French—1,047 ; Italian—1,044 ; Japanese—937.

These figures do not include children below the age of 16 years and nationals of Commonwealth countries.

Consequent on the expiry of the Sino-Indian Agreement, exemptions from the provisions of the Indian Passport Rules, 1950, and the Foreigners (Protected Areas) Order, 1958, allowed to certain categories of Tibetans have been withdrawn.

The number of visas granted to foreigners during 1962 totalled 63,529.

### AGE GROUPS

Census Count by single year of Age for All India with males and females respectively in brackets :

| | | |
|---|---|---|
| 0—1,35,51,710 | (67,96,129 ; | 67,55,581) ; |
| 1—1,16,73,441 | (58,41,385 ; | 58,32,056) ; |
| 2—1,34,27,444 | (67,76,386 ; | 66,51,058) ; |
| 3—1,41,29,333 | (70,66,467 ; | 71,06,866) ; |
| 4—1,32,42,893 | (67,11,528 ; | 65,31,365) ; |
| 5—1,52,27,496 | (78,70,631 ; | 73,56,865) ; |
| 6—1,39,66,354 | (71,71,363 ; | 67,94,991) ; |
| 7—1,22,68,094 | (61,83,867 ; | 60,84,227) ; |
| 8—1,36,55,781 | (70,31,311 ; | 66,24,470) ; |
| 9—94,71,091 | (47,73,948 ; | 46,97,143) ; |
| 10—1,43,66,679 | (75,46,651 ; | 68,20,028) ; |
| 11—71,15,477 | (36,53,565 ; | 34,61,912) ; |
| 12—1,27,29,548 | (70,27,063 ; | 57,02,485) ; |
| 13—69,22,327 | (36,66,633 ; | 32,55,694) ; |
| 14—80,94,839 | (43,40,764 ; | 37,54,075) ; |
| 15—84,03,095 | (45,70,680 ; | 38,32,415) ; |
| 16—81,84,236 | (42,21,847 ; | 39,62,389) ; |
| 17—46,41,026 | (23,78,128 ; | 22,62,898) ; |
| 18—1,02,25,422 | (51,32,012 ; | 50,93,410) ; |
| 19—43,70,035 | (22,65,290 ; | 21,04,745) ; |
| 20—1,35,96,192 | (61,91,412 ; | 74,04,780) ; |
| 21—45,36,574 | (25,85,138 ; | 21,51,486) ; |
| 22—93,14,331 | (46,37,446 ; | 46,76,885) ; |
| 23—44,27,801 | (22,82,430 ; | 21,45,371) ; |
| 24—53,95,409 | (26,88,126 ; | 27,27,283) ; |
| 25—1,70,76,873 | (83,86,005 ; | 86,90,868) ; |
| 26—54,72,520 | (28,94,534 ; | 25,77,986) ; |
| 27—39,86,209 | (21,59,341 ; | 18,26,868) ; |
| 28—76,16,137 | (37,93,959 ; | 38,22,178) ; |
| 29—23,76,492 | (12,69,761 ; | 11,06,731) ; |
| 30—1,80,49,763 | (89,74,926 ; | 90,74,837) ; |
| 31—19,92,606 | (11,28,269 ; | 8,64,337) ; |
| 32—62,05,031 | (33,70,800 ; | 28,34,231) ; |
| 33—21,16,072 | (11,83,833 ; | 9,32,239) ; |
| 34—24,32,703 | (13,06,111 ; | 11,26,592) ; |
| 35—1,45,23,328 | (76,83,846 ; | 68,39,482) ; |
| 36—36,26,705 | (20,14,383 ; | 16,12,322) ; |
| 37—19,20,928 | (10,88,640 ; | 8,32,288) ; |
| 38—38,22,719 | (19,69,231 ; | 18,53,488) ; |
| 39—15,32,454 | (8,28,449 ; | 7,04,005) ; |
| 40—1,54,96,709 | (79,94,964 ; | 75,01,745) ; |
| 41—13,50,982 | (7,71,127 ; | 5,79,855) ; |
| 42—33,34,978 | (18,41,751 ; | 14,93,227) ; |
| 43—12,87,810 | (7,18,660 ; | 5,69,150) ; |
| 44—13,52,650 | (7,42,442 ; | 6,10,208) ; |
| 45—1,15,80,622 | (62,06,874 ; | 53,73,748) ; |
| 46—16,43,541 | (9,23,495 ; | 7,20,046) ; |
| 47—12,07,143 | (6,89,127 ; | 5,18,016) ; |
| 48—25,96,110 | (13,54,840 ; | 12,41,270) ; |
| 49—10,02,262 | (5,48,254 ; | 4,54,008) ; |
| 50—1,23,52,529 | (64,11,113 ; | 59,41,416) ; |
| 51—9,60,486 | (5,57,516 ; | 4,02,970) ; |
| 52—19,70,895 | (11,53,394 ; | 8,47,501) ; |
| 53—8,00,709 | (4,65,249 ; | 3,35,460) ; |
| 54—9,96,797 | (5,60,883 ; | 4,35,914) ; |
| 55—62,17,166 | (32,84,148 ; | 29,33,018) ; |
| 56—11,81,324 | (6,61,161 ; | 5,20,168) ; |
| 57—6,64,442 | (3,83,534 ; | 2,80,908) ; |
| 58—11,98,366 | (6,35,594 ; | 5,62,772) ; |
| 59—87,23,146 | (43,18,183 ; | 44,04,963) ; |
| 60—6,26,729 | (3,53,762 ; | 2,72,967) ; |
| 61—10,22,540 | (5,57,954 ; | 4,64,586) ; |
| 62—3,92,757 | (2,17,919 ; | 1,74,838) ; |
| 63—4,53,118 | (2,50,831 ; | 2,02,287) ; |
| 64—34,93,498 | (17,53,756 ; | 17,39,742) ; |
| 65—3,58,707 | (1,98,666 ; | 1,60,041) ; |
| 66—3,06,016 | (1,68,573 ; | 1,37,443) ; |
| 67—4,60,037 | (2,31,469 ; | 2,28,568) ; |
| 68—2,23,171 | (1,15,809 ; | 1,07,362) ; |
| 69 and over—86,01,562 | (41,69,203 ; | 44,32,359). |

*Note :* All-India excludes NEFA and Goa, Daman & Diu.

*Note :* The area and population of talukas are provisional figures.

## WORKING CLASS UNDER DIFFERENT CATEGORIES, 1961.†

| States/Territory | Sex | Total workers | Cultivators | Agricultural labourers | In Mining, Quarrying, Livestock, Forestry, Fishing, Hunting & Plantations, Orchards & allied industries | At Household Industry | Manufacturing other than Household Industry | In construction | In Trade and Commerce | In Transport, Storage and Communications | In Other services | Non-workers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Andhra Pradesh .. | M | 11,299,400 | 4,654,264 | 2,454,741 | 466,002 | 1,149,287 | 387,729 | 174,167 | 590,817 | 233,813 | 1,188,580 | 6,862,271 |
| | F | 7,363,642 | 2,832,555 | 2,881,753 | 94,956 | 665,867 | 87,946 | 46,083 | 207,330 | 4,147 | 543,005 | 10,458,134 |
| Assam .. .. | M | 3,423,454 | 2,189,874 | 158,179 | 291,163 | 28,293 | 91,326 | 32,212 | 174,845 | 74,637 | 376,925 | 2,904,675 |
| | F | 1,713,957 | 1,133,626 | 29,237 | 226,937 | 252,060 | 12,308 | 1,626 | 9,862 | 975 | 47,326 | 3,830,686 |
| Bihar .. .. .. | M | 12,955,406 | 6,926,057 | 2,574 239 | 541,511 | 602,958 | 385,396 | 99,333 | 448,487 | 227,763 | 1,149,665 | 10,346,040 |
| | F | 6,279,156 | 3,435,914 | 1,844,236 | 110,672 | 454,942 | 40,500 | 9,009 | 74,462 | 2,780 | 306,641 | 16,875,005 |
| Gujarat .. .. | M | 5,685,776 | 2,816,996 | 679,267 | 76,290 | 343,163 | 500,109 | 73,492 | 381,287 | 155,867 | 659,305 | 4,948,126 |
| | F | 2,788,812 | 1,702,064 | 572,733 | 28,560 | 212,443 | 36,050 | 16,551 | 29,869 | 3,194 | 187,348 | 7,210,636 |
| Jammu & Kashmir .. | M | 1,096,940 | 798,444 | 16,764 | 18,247 | 43,040 | 31,298 | 8,470 | 33,065 | 12,491 | 135,121 | 799,693 |
| | F | 426,681 | 354,959 | 1,653 | 7,232 | 52,588 | 2,155 | 264 | 555 | 739 | 6,536 | 1,237,662 |
| Kerala .. .. | M | 3,947,038 | 904,502 | 516,914 | 398,622 | 188,654 | 392,950 | 67,664 | 298,218 | 144,913 | 1,034,601 | 4,414,889 |
| | F | 1,683,295 | 273,601 | 461,482 | 88,737 | 299,908 | 136,522 | 3,038 | 23,715 | 7,600 | 388,692 | 6,858,493 |
| Madhya Pradesh .. | M | 9,981,224 | 5,932,754 | 1,397,278 | 383,803 | 528,795 | 302,703 | 141,983 | 350,141 | 153,673 | 790,094 | 6,596,980 |
| | F | 6,947,953 | 4,678,754 | 1,417,922 | 108,484 | 312,600 | 34,142 | 30,275 | 53,496 | 4,247 | 308,033 | 8,846,251 |
| Madras .. .. | M | 10,103,326 | 4,230,028 | 1,445,041 | 330,606 | 681,052 | 750,585 | 175,937 | 660,894 | 248,599 | 1,580,584 | 6,807,652 |
| | F | 5,248,295 | 2,227,805 | 1,383,333 | 104,892 | 525,760 | 97,717 | 29,390 | 97,407 | 5,002 | 776,989 | 11,527,680 |
| Maharashtra .. .. | M | 11,662,264 | 4,744,781 | 2,112,617 | 346,798 | 560,014 | 1,191,921 | 197,445 | 770,659 | 425,464 | 1,312,565 | 8,766,618 |
| | F | 7,286,217 | 3,992,294 | 2,397,385 | 62,593 | 272,155 | 112,414 | 38,171 | 85,391 | 21,348 | 304,466 | 11,838,619 |
| Mysore .. .. | M | 7,029,602 | 3,750,685 | 886,072 | 243,595 | 451,206 | 359,351 | 153,479 | 327,869 | 105,077 | 752,268 | 5,011,321 |
| | F | 3,696,744 | 2,055,979 | 875,038 | 92,481 | 257,504 | 62,529 | 36,459 | 63,151 | 1,241 | 252,362 | 7,849,105 |
| Orissa .. .. .. | M | 5,328,366 | 3,185,128 | 805,009 | 95.978 | 285,734 | 72,998 | 29,117 | 111,622 | 49,098 | 693,682 | 3,445,220 |
| | F | 2,333,163 | 1,167,884 | 498,502 | 36,018 | 245,075 | 13,199 | 1,741 | 35,840 | 2,618 | 332,286 | 6,445,097 |
| Punjab .. .. | M | 5,764,363 | 2,989,353 | 483,013 | 60,407 | 420,558 | 338,910 | 135,172 | 380,663 | 141,611 | 814,676 | 5,127,213 |
| | F | 1,336,783 | 1,007,378 | 60,782 | 5,743 | 120,291 | 15,148 | 5,071 | 4,808 | 861 | 116,701 | 8,078,453 |
| Rajasthan .. .. | M | 6,141,506 | 4,205,067 | 230,193 | 122,737 | 397,504 | 151,184 | 96,908 | 274,232 | 116,975 | 546,706 | 4,422,576 |
| | F | 3,442,334 | 2,850,012 | 163,438 | 48,344 | 200,678 | 20,841 | 12,254 | 13,925 | 934 | 131,908 | 6,149,186 |
| Uttar Pradesh .. | M | 22,480,360 | 14,302,062 | 2,035,588 | 147,427 | 1,319,180 | 771,059 | 209,914 | 996,260 | 396,530 | 2,302,340 | 16,153,841 |
| | F | 6,369,781 | 4,126,314 | 1,225,590 | 24,432 | 482,566 | 29,776 | 4,005 | 66,622 | 2,735 | 407,741 | 28,742,419 |
| West Bengal .. .. | M | 10,040,239 | 3,891,551 | 1,446,721 | 439,010 | 299,904 | 1,243,617 | 146,625 | 836,365 | 386,873 | 1,349,573 | 8,558,905 |
| | F | 1,539,956 | 567,228 | 324,987 | 138,871 | 187,407 | 75,543 | 4,665 | 35,839 | 5,352 | 200,064 | 14,787,179 |
| Andaman & Nicobar Islands .. .. | M | 26,648 | 5,228 | 337 | 6,986 | 2,047 | 1,145 | 5,426 | 1,065 | 403 | 4,011 | 12,656 |
| | F | 4,546 | 1,227 | 11 | 307 | 2,612 | 59 | 16 | 30 | .. | 284 | 19,698 |
| Delhi .. .. .. | M | 778,282 | 34,603 | 5,101 | 6,918 | 13,194 | 163,353 | 32,605 | 144,579 | 48,673 | 329,256 | 711,096 |
| | F | 76,169 | 20,855 | 2,224 | 1,748 | 3,516 | 6,971 | 2,755 | 2,148 | 896 | 35,056 | 1,093,065 |
| Himachal Pradesh .. | M | 443,449 | 334,266 | 7,555 | 8,251 | 27,686 | 6,105 | 13,202 | 7,006 | 2,889 | 36,489 | 259,248 |
| | F | 362,038 | 336,323 | 3,777 | 646 | 17,163 | 630 | 508 | 171 | 31 | 2,789 | 286,409 |
| Laccadive, Minicoy & Amindivi Islands .. | M | 6,158 | 135 | .. | 579 | 4,120 | 343 | 224 | 109 | 147 | 501 | 5,777 |
| | F | 6,291 | 4 | .. | 4 | 6,185 | 31 | 10 | 3 | 2 | 52 | 5,882 |
| Manipur .. .. | M | 183,127 | 141,182 | 1,186 | 574 | 7,291 | 848 | 2,003 | 5,328 | 3,014 | 21,701 | 203,931 |
| | F | 174,793 | 92,996 | 998 | 231 | 71,875 | 258 | 233 | 6,561 | 19 | 1,622 | 218,186 |
| Tripura .. .. | M | 322,043 | 199,308 | 29,307 | 7,773 | 7,011 | 9,039 | 3,998 | 17,957 | 4,770 | 42,880 | 269,194 |
| | F | 115,186 | 81,573 | 3,605 | 4,420 | 18,142 | 1,800 | 102 | 564 | 9 | 4,971 | 445,582 |
| Dadra & Nagar Haveli | M | 18,317 | 12,771 | 2,413 | 1,477 | 436 | 83 | 229 | 198 | 111 | 599 | 11,207 |
| | F | 16,477 | 13,027 | 2,536 | 518 | 172 | 2 | 79 | 28 | .. | 115 | 11,962 |
| NEFA .. .. | M | 24,766 | 96 | 10 | 342 | 15 | .. | 1,712 | 407 | 869 | 21,315 | 5,814 |
| | F | 1,398 | 57 | .. | .. | 461 | 17 | 1 | .. | .. | 862 | 6,727 |
| Nagaland .. .. | M | 115.554 | 91,702 | 1,214 | 492 | 63 | 597 | 373 | 1,173 | 721 | 19,219 | 75,473 |
| | F | 103.756 | 101,781 | 1,287 | 25 | 32 | 22 | 2 | 64 | 3 | 540 | 74.417 |
| Pondicherry .. .. | M | 101,095 | 17,962 | 21,386 | 7,299 | 4,244 | 15,300 | 3,463 | 10,127 | 3,264 | 18,050 | 82,252 |
| | F | 37,275 | 4,092 | 17,421 | 379 | 3,262 | 2,017 | 196 | 3,225 | 15 | 6,668 | 148,457 |
| Total (1961) .. .. | M | 129.015,653 | 66,406,765 | 17,311,474 | 4.003,058 | 7,365,650 | 7,168,015 | 1,812,830 | 6,824,790 | 2,938,441 | 15,184,621 | 96,827,914 |
| | F | 59,401,709 | 33,103,198 | 14,170,831 | 1,187,241 | 4,665,437 | 788,599 | 242,619 | 815,246 | 64,749 | 4,363,789 | 153,064,975 |
| Total (1951) .. .. | M | 99,082,627 | 51,424,129 | 14,816,966 | 2,765,489 | .. | 9,747,997* | 1,176,649 | 6,157,202 | 2,013,778 | 10,980,417 | 84,247,911 |
| | F | 40,438,553 | 18,367,873 | 12,693,671 | 1,356,751 | .. | 2,806,449* | 291,307 | 1,152,547 | 122,668 | 3,647,287 | 133,110,303 |

* Includes household industries. † Excludes Goa, Daman and Diu. M: Males. F: Females.

## POPULATION ACCORDING TO RELIGION

| State/Territories | | Buddhists | | Christians | | Hindus | | Jains | | Muslims | | Sikhs | | Others | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females |
| Andhra Pradesh .. | R | 2,781 | 3,106 | 579,779 | 569,632 | 13,607,235 | 13,447,431 | 926 | 614 | 754,350 | 741,973 | 534 | 390 | 107 | 81 |
| | U | 486 | 380 | 137,524 | 141,794 | 2,444,715 | 2,314,648 | 3,871 | 3,601 | 624,412 | 594,286 | 4,544 | 3,095 | 407 | 745 |
| Assam .. .. | R | 19,075 | 15,654 | 358,937 | 352,712 | 3,807,646 | 3,357,976 | 2,365 | 1,752 | 1,398,427 | 1,253,237 | 3,040 | 1,626 | 194,185 | 193,112 |
| | U | 991 | 793 | 26,034 | 26,870 | 434,353 | 284,946 | 3,610 | 1,741 | 69,004 | 44,841 | 3,251 | 1,769 | 7,211 | 7,614 |
| Bihar .. .. | R | 424 | 285 | 220,729 | 224,274 | 18,067,465 | 18,184,770 | 3,505 | 3,118 | 2,484,098 | 2,610,699 | 4,900 | 2,731 | 359,171 | 375,521 |
| | U | 1,444 | 732 | 29,848 | 27,344 | 1,726,967 | 1,367,848 | 6,161 | 4,814 | 365,206 | 325,628 | 20,693 | 16,089 | 10,838 | 10,308 |
| Gujarat .. .. | R | 869 | 560 | 25,511 | 23,825 | 7,291,165 | 6,956,600 | 79,628 | 91,259 | 429,533 | 410,987 | 1,040 | 632 | 2,476 | 2,641 |
| | U | 1,035 | 721 | 22,571 | 19,121 | 2,184,670 | 1,923,626 | 121,252 | 117,615 | 463,251 | 441,332 | 4,641 | 3,333 | 6,260 | 7,196 |
| Jammu & Kashmir | R | 22,886 | 22,972 | 617 | 557 | 426,715 | 389,858 | 401 | 4 | 1,104,304 | 957,897 | 20,014 | 21,427 | 9 | .. |
| | U | 1,192 | 1,310 | 910 | 764 | 105,770 | 90,850 | 865 | 157 | 200,698 | 169,168 | 12,251 | 9,377 | 1 | 2 |
| Kerala .. .. | R | 20 | 17 | 1,545,783 | 1,538,317 | 4,303,121 | 4,458,286 | 715 | 663 | 1,228,640 | 1,272,234 | 189 | 122 | 700 | 767 |
| | U | 178 | 13 | 252,316 | 250,949 | 767,325 | 753,836 | 834 | 755 | 261,349 | 265,416 | 405 | 106 | 352 | 307 |
| Madhya Pradesh | R | 47,959 | 47,181 | 63,846 | 65,381 | 13 586,090 | 13,190,848 | 53,390 | 49,683 | 317,681 | 292,017 | 11,444 | 8,311 | 4,628 | 6,715 |
| | U | 9,279 | 8,946 | 31,958 | 27,129 | 1,973 968 | 1,674,892 | 77,279 | 67,575 | 373,399 | 334,520 | 26,086 | 19,874 | 1,197 | 1,132 |
| Madras .. .. | R | 112 | 79 | 588,827 | 600,584 | 11,409,029 | 11,403,373 | 5,962 | 6,238 | 315,661 | 344,304 | 606 | 178 | 11,389 | 10,083 |
| | U | 380 | 206 | 288,272 | 285,271 | 3,816,983 | 3,667,730 | 9,544 | 6,606 | 456,004 | 444,445 | 1,107 | 676 | 7,102 | 6,202 |
| Maharashtra .. | R | 1,092 963 | 1,115,900 | 74 578 | 73,427 | 12,270,030 | 12,197,123 | 101,106 | 94,281 | 687,669 | 676,085 | 2,625 | 1,547 | 1,963 | 1,860 |
| | U | 307 844 | 272,794 | 219,868 | 192,721 | 4,509,242 | 3,554,506 | 159,536 | 130,749 | 923,805 | 746,773 | 32,343 | 21,102 | 45,310 | 45,968 |
| Mysore .. .. | R | 4,019 | 3,790 | 123 472 | 118,154 | 8,426,702 | 8,204,162 | 65,059 | 59,788 | 667,959 | 646,385 | 374 | 332 | 75 | 8 |
| | U | 1,010 | 951 | 124,054 | 121,907 | 2,073,414 | 1,878,575 | 26,879 | 22,644 | 525,933 | 488,099 | 1,737 | 844 | 240 | 210 |
| Orissa .. .. | R | 170 | 65 | 82,584 | 89,016 | 8,006,392 | 8,122,479 | 447 | 395 | 65,105 | 69,627 | 1,161 | 375 | 739 | 641 |
| | U | 115 | 104 | 16,530 | 12,887 | 552,083 | 442,240 | 808 | 645 | 42,099 | 38,488 | 2,263 | 1,231 | 90 | 67 |
| Punjab .. .. | R | 6,250 | 5,840 | 62,375 | 55,610 | 5,200,840 | 4,612,452 | 6,021 | 5,682 | 189,137 | 158,932 | 3,172,130 | 2,742,162 | 531 | 255 |
| | U | 2,171 | 596 | 17,911 | 13,938 | 1,719,450 | 1,397,303 | 19,479 | 17,572 | 28,483 | 16,762 | 466,716 | 388,121 | 82 | 11 |
| Rajasthan .. | R | 133 | 28 | 3,171 | 2,979 | 8,149,856 | 7,439,635 | 119,556 | 119,102 | 418,008 | 378,447 | 130,112 | 113,000 | 44 | 53 |
| | U | 232 | 366 | 8,536 | 8,178 | 1,356,956 | 1,186,240 | 87,115 | 83,644 | 272,094 | 246,064 | 17,896 | 13,190 | 370 | 594 |
| Uttar Pradesh .. | R | 3,373 | 2,806 | 22,260 | 20,033 | 29,107 866 | 26,878,529 | 29,867 | 27,755 | 4,153,384 | 3,869,952 | 84,526 | 66,063 | 69 | 23 |
| | U | 3,661 | 3,053 | 31,147 | 28,201 | 3,627,674 | 2,823,244 | 33,720 | 30,766 | 1,460,644 | 1,304,109 | 75,743 | 57,405 | 267 | 261 |
| West Bengal .. | R | 41,411 | 41,774 | 63,445 | 58,885 | 10,395,381 | 9,740,387 | 2,244 | 1,257 | 3,056,151 | 2,943,562 | 2,830 | 1,327 | 17,582 | 19,201 |
| | U | 16,240 | 12,828 | 45,578 | 36,622 | 4,277,033 | 3,110,557 | 14,921 | 8,518 | 643,190 | 342,384 | 21,128 | 8,899 | 2,010 | 934 |
| A. N. Islands .. | R | 674 | 510 | 10,364 | 6,244 | 15,222 | 8,967 | 2 | .. | 2,276 | 1,705 | 56 | 24 | 1,764 | 1,665 |
| | U | 302 | 221 | 861 | 504 | 5,799 | 2,793 | 1 | .. | 1,879 | 1,538 | 89 | 72 | 15 | 1 |
| Delhi .. .. | R | 66 | 20 | 213 | 163 | 156,993 | 133,344 | 94 | 91 | 3,347 | 2,525 | 1,327 | 1,069 | 2 | .. |
| | U | 2,909 | 2,471 | 14,850 | 14,043 | 1,098,131 | 846,189 | 15,472 | 13,938 | 87,077 | 62,494 | 108,786 | 92,734 | 161 | 153 |
| Himachal Pradesh | R | 3,483 | 2,737 | 127 | 74 | 646,387 | 606,476 | 15 | 3 | 12,740 | 9,825 | 2,937 | 2,338 | 41 | 33 |
| | U | 64 | 24 | 273 | 118 | 33,059 | 24,097 | 44 | 33 | 1,772 | 1.282 | 1,755 | 1,407 | .. | .. |
| L., M. & A. Islands | R | .. | .. | 45 | 11 | 206 | 57 | .. | .. | 11,684 | 12,105 | .. | .. | .. | .. |
| | U | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Manipur .. .. | R | 92 | 212 | 74,402 | 75,444 | 207,860 | 211,225 | 171 | 191 | 24,233 | 23,703 | 54 | 25 | 46,125 | 48,583 |
| | U | 10 | 11 | 1,368 | 669 | 30,839 | 31,188 | 244 | 172 | 392 | 260 | 236 | 208 | 1,032 | 1,088 |
| Tripura .. .. | R | 17,479 | 16,171 | 5,032 | 4,965 | 401,130 | 372,849 | 29 | 21 | 112,889 | 108,410 | 20 | 11 | 1 | 1 |
| | U | 46 | 20 | 28 | 14 | 49,895 | 44,124 | 88 | 57 | 4,589 | 4,114 | 10 | 8 | 1 | 3 |
| Dadra & Nagar Haveli | R | 1 | 1 | 426 | 373 | 28,761 | 27,815 | 68 | 52 | 250 | 193 | .. | .. | 18 | 5 |
| | U | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Goa, Daman and Diu | R | 152 | 9 | 85,087 | 106,901 | 163,338 | 168,080 | 11 | 9 | 3,751 | 3,498 | .. | .. | 101 | 66 |
| | U | 17 | 11 | 16,967 | 18,224 | 29,393 | 28,567 | 27 | 21 | 3,436 | 3,481 | .. | .. | 254 | 266 |
| Pondicherry .. | R | 6 | 6 | 8,834 | 9,335 | 126,248 | 124,610 | .. | .. | 4,831 | 6,101 | .. | .. | 70 | 41 |
| | U | 6 | 7 | 7,165 | 8,612 | 30,295 | 30,070 | 42 | 34 | 5,727 | 6,811 | 12 | 2 | 111 | 103 |
| NEFA .. .. | R | Not available. | | | | | | | | | | | | | |
| | U | | | | | | | | | | | | | | |
| Nagaland .. | R | 17 | 12 | 92,198 | 94,915 | 17,164 | 9,349 | 6 | .. | 166 | 125 | 115 | 4 | 69,595 | 66,377 |
| | U | 10 | 3 | 4,805 | 3,670 | 5,477 | 2,687 | 161 | 96 | 481 | 119 | 84 | 52 | 748 | 764 |
| All-India .. | R | 1,287,499 | 1,301,621 | 4,093,841 | 4,093,196 | 155,875,110 | 150,291,881 | 471,602 | 461,963 | 17,446,863 | 16,795,098 | 8,440,102 | 2,963,698 | 711,310 | 727,665 |
| | U | 352,319 | 308,788 | 1,299,538 | 1,239,615 | 32,854,503 | 27,481,384 | 581,949 | 511,753 | 6,814,962 | 5,882,434 | 801,776 | 639,594 | 84,060 | 83,929 |

*Notes:* R = Rural. U = Urban.

The percentage of religionwise population to the total population in the country and the percentage increase during 1951-61 in brackets are: Buddhists 0·74 (16·71); Christians 2·44 (27·38); Hindus 83·51 (20·29); Jains 0·46 (27·17); Muslims 10·69 (25·61); Sikhs 1·79 (25·13); others 0·37 (—13·07).

# LIVESTOCK

THE total livestock population in India is placed at 336·53 million, according to provisional estimates of the 1961 livestock census as against the 1956 census figure of 306·50 million. The net contribution of livestock to the national income at present is estimated to be over Rs. 10,000 million.

Meat from livestock is a valuable source of protein; about 0·9 per cent of the total cattle population is slaughtered for meat, and 36 and 32·5 per cent of the goat and sheep population respectively. The annual production of meat from goat is about 0·15 million tons and that of mutton 0·11 million tons. Production of beef, buffalo flesh and pork amounts to 0·12, 0·09 and 0·02 million tons respectively. The total annual production of meat from all species is estimated to be over 0·46 million tons valued at Rs. 760 million.

ANIMALS FOR FOOD & NON-FOOD
(Value in Mill. Rs.)

| Year | Food | | Non-Food |
|---|---|---|---|
| | Exports | Imports | Exports excluding monkey |
| 1961-62 .. | 1·047 | 0·216 | 2·446 |
| 1962-63 .. | 0·856 | 0·153 | 1·863 |
| 1963-64 .. | 0·756 | 0·048 | 5·535 |
| 1964-65 .. | 1·00 | 0·67 | 4·534 |

Export of monkeys and value in Rs. million:

| Year | Number | Value Rs. million |
|---|---|---|
| 1961-62 .. .. .. | 92,965 | 5·521 |
| 1962-63 .. .. .. | 79,954 | 4·511 |
| 1963-64 .. .. .. | 76,190 | 3·454 |
| 1964-65 .. .. .. | 44,866 | 2·229 |

## CATTLE

Among the well-defined breeds of cattle (26 in all), three broad divisions are: dairy or milch and draught cattle and those that serve a dual purpose.

*Dairy Milch* :—The Sahiwal, the best milch breed, are responsive to environment, have an yield of 4,000 lbs. a year. The Sindhi are also responsive to environment, the Gir in Saurashtra and Rajasthan have an yield of 3,700 lbs. a year. In the order of the productivity of milk the cattle may be arranged as follows: the Sahiwal, the Kankrej, the Ongole.

*Draught* :—The Amritmahal Hallikar (Mysore) are good for draught purposes but are poor milkers.

*Dual* :—The Galo in Madhya Pradesh are draught animals but also good milkers, 3,000 lbs. The Kangayam in the south and south-east of the country are powerful draught animals of average milk yield. The Kankrej, are essentially draught but have milk potentialities (3,000 lbs.); they belong to Gujarat. The best known in this group are the Hariana (Punjab, 3,000 lbs.), Tharparkar (Gujarat and Rajasthan, 3,000 lbs.), and Ongole (Andhra).

The best known breeds of buffaloes (26 in all) are the Murrah, Nili and Ravi of the Punjab, the Jufferbadi of Kathiawad, Mehsana of Gujarat, Nagpuri of Vidarbha and the Surti and Pandharpuri (a type of Nagpuri buffaloes) of Maharashtra. All except the Nagpuri are noted dairy breeds. Murrah is adapted to all climates. They also yield on an average about 3,000 lbs. of milk for over 300 days in a year.

The average annual milk yield of a buffalo is 1,100 lbs. against 413 lbs. of the Indian cow. Buffalo milk being one and a half times as rich in fat content as cow milk, is more valued for butter and ghee production. Buffaloes are also better utilisers of coarse fodder and are less expensive to keep.

## LIVESTOCK DEVELOPMENT

During 1961–62, 1962–63 and 1963–64 the number of Gaushalas taken up for development as cattle breeding-cum-milk production centre for Governmental efforts was 22, 31 and 31 respectively, for the supply of good breeding bulls and increasing milk production. The Central Council of Gosamvardhan co-ordinated the State activities on the improvement of cattle wealth. In 1962–63 it distributed free of cost 1,100 productive cattle and 14 breeding bulls to *bona fide* cattle breeders, and during the same period it organised a seminar on "Approach to Cattle Development" at Bombay. During 1963–64, 27 breeding bulls were distributed, 33 young bulls were selected for subsidised rearing and two cattle shows were organised with a view to developing marketing facilities. The National Livestock Cttee. organised two regional cattle and poultry shows in 1961–62, and 1962–63 and one poultry show at Nagpur and All India Cattle Show at Nagpur in March 1964 and at Hissar in Feb. 1965. The scheme for rehabilitation of nomadic cattle breeders operated in 4 States in 1964–65 (Andhra, Gujarat, Rajasthan and Uttar Pradesh) and during 1963-64 a centrally sponsored scheme for the development of Ratni, Tharparkar and Sanchora breeds of cattle for rehabilitation breeders was sanctioned and was being continued in 1964–65.

Legislation for livestock improvement and control of contagious disease exists in all States (except in Jammu & Kashmir, Tripura, Rajasthan and U.P.).

Livestock Development is stepped up through special schemes such as key village blocks with cattle breeding farms and arrangements for bull rearing, artificial insemination, subsidised calf rearing and also Goshalas and Gosadans. The programme included also poultry development schemes. The achievements under the cattle development programme with the objective to bring about increased milk production and raising draught efficacy of cattle in selected areas during the first two Plans and the current Plan are tabulated below. The scope of the scheme was expanded during the current Plan.

*Cattle Development Programmes*

| Items | Achievement 1st & 2nd Plans 1951-61 | Third Plan Target | Achievement 1961-64 |
|---|---|---|---|
| *Key Village Blocks* (Nos.) | | | |
| (*a*) Established .. .. .. .. .. | 407 | 79 | 43 |
| (*b*) Expanded .. .. .. .. .. | 114 | 64 | 49 |
| (*c*) Central semen collection stations .. | 18 | — | — |
| (*d*) Marketing Cell .. .. .. .. | 9 | — | — |
| Subsidised rearing of calves (Nos.) .. .. | 34,791 | 44,440 | 12,048 |
| *Cattle breeding farms* (Nos.): | | | |
| Established .. .. .. .. .. | — | 10 | 2 |
| Expanded .. .. .. .. .. | — | 35 | 9 |
| Establishment of bull breeding farms (Nos.) .. | — | 13 | 4 |
| Goshalas. (Nos.) .. .. .. .. .. | 255 | 168 | 76 |
| Gosadans (Nos.) .. .. .. .. .. | 61 | 23 | 4 |
| *Feed and Fodder* | | | |
| (*a*) Pasture demonstration plots (No. established) .. .. .. .. .. | — | — | 180 |
| (*b*) Pasturage improvement .. .. .. | — | — | 14 |
| (*c*) Farms for forage seed .. .. .. | — | — | 7 |

*Service Training Centres* :—For the development of livestock six service training centres were established at the end of 1963–64. The services of F.A.O. experts have been obtained to conduct four practical training courses of two months' duration each in artificial insemination and physiology of reproduction.

*Feed and Fodder* :—During 1963–64 the programme of feed and fodder resources operated in all the States except Nagaland and three Union Territories. 68 pasture demonstration plots were in existence at the end of 1963–64. Production of seeds and other propagative material of fodder and forage grasses were taken up at four farms, while pasture improvement was taken up in nine farms in 1963–64. Fodder and grazing centres were set up in all the States except Assam, Jammu and Kashmir, Orissa and Nagaland and two Union Territories during 1963–64. A standing committee has been recently set up in the Ministry of Food and Agriculture to review the progress of work on feed and fodder resources of the country.

*Salvaging* :—Under the scheme for the salvage of superior calves from milk colonies, 809 calves of six months age and above were bought from Aarey and Haringhata milk colonies upto the end of 1961 and distributed freely to *bona fide* breeders. During 1962–63 and 1963–64, 2,409 and 980 respectively such calves were allotted from Haringhatta (Bengal) and Aarey (Bombay) milk colonies. The Government Livestock Farm, Hissar is reorganised to produce 750 Hariana bulls annually to meet the demand of other States after the requirement of the Punjab Govt. 579 breeding bulls of Hariana breed were produced during 1963–64 out of which 496 were distributed mainly in the Punjab.

*Gosadans* :—The Gosadan Scheme aims at the removal and segregation of old, unproductive and uneconomic cattle. Old, infirm and useless cattle are segregated and sent to gosadans located in remote forests and other waste lands where grazing facilities are not fully utilised. All male stock were castrated before admission into the gosadans. The remains of dead animals such as skins, hides and hoofs, etc. were to be utilised by setting up a small 'charmalaya' at each centre.

Against a target (revised) of 38 during the two Plans, 36 gosadans were established.

Emphasis is laid in the Third Plan on the establishment of collection centres to increase the number of admissions to Gosadans. During the first three years (1961-64) 5 Gosadans and 25 collection centres were set up. At the Model Training-cum-Production Centre, Lucknow, 46 and 31 candidates were trained in hide flaying ; 15 and 20 in tanning ; and 15 and 20 in footwear and leather utilisation during 1962-63 and 1963-64 respectively.

*Gaushala Development* : The object is to convert them into efficient milk production centres and to breed better cattle. Total number of gaushalas taken up for development since the initiation in the 2nd Five-Year Plan upto 1963–64 were 328.

To eliminate the damage to crops by wild and stray cattle a scheme to catch them and dispose of them had been in operation as a part of Gaushala Scheme for the last few years at Delhi, Jammu & Kashmir, M.P., U.P. and Punjab. During 1962-63, 18,063 cattle were rounded up out of which 2,471 productive ones, were distributed for breeding purposes and 7,843 unproductive ones sent to gosadans. During April to December 1964, 14,012 cattle were rounded up out of which 1,760 productive ones distributed for breeding, 5,840 unproductive sent to Gosadans and the remaining were auctioned and released on payment of fine. Some of the rounded up cattle are also being provided to Dandakaranya Project. The scheme now provides for the training of State catching teams and the establishment of concentration camps.

Milk production in rural areas will be linked with marketing surplus production in urban centres, the supply and collection being done through net-work of Producers Cooperative Societies in the villages. During the Third Plan period 55 new supply schemes will be taken up in cities of 1 lakh population and above and in growing industrial townships. For the development of rural milk pockets four milk product factories and two cheese factories have been established.

In the veterinary field, it is proposed to double the number of hospitals and dispensaries during the Third Plan from 4,000 to 8,000. Every development block will have at least one hospital or dispensary. The entire bovine population of the country were expected to be vaccinated by 1963–64 against contagious diseases.

## SHEEP

It has been estimated that the number of sheep in the country was about 40·3 million in 1961 as against 39 million in 1956 and that the total quantity of wool produced is 54 million lb. annually valued at Rs. 10·5 million. The yield of wool per sheep varies greatly in different parts of the country. In Punjab, Uttar Pradesh and Rajasthan, the annual production per sheep is estimated at between 3·1 lb. and 4 lb., while in the rest of the States it does not exceed 1 lb. The average for the whole of the country is in the neighbourhood of 2 lb. per sheep per year.

Sheep also supply meat worth about Rs. 120 million every year in addition to pelts and manure. Sheep manure is very much valued among other manures as it contains twice as much nitrogen and potassium as are present in cattle manure. An individual sheep contributes 0·5 to 0·7 tons of manure annually.

India still requires large quantities of wool. About 16 million pounds of wool, tops and yarns costing about Rs. 120 million are imported. At the same time, we export about 38 million pounds valued at Rs. 81 million annually.

Sheep and wool development schemes have been launched on the lines of the key village scheme for cattle improvement, in 250 centres in different States. The Third Five Year Plan has laid great stress on sheep and wool development programme. Out of the provision made, two training centres, one sheep breeding farm and 122 wool extension centres have been set up upto the end of 1963–64.

Research in sheep breeding is promoted in three major sheep rearing tracts, *viz.* Temperate Himalayan, North Indian Plains and in the Deccan Plateaux, to evolve strains of sheep which will yield wool for apparel and also for superior types of carpets.

In the Himalayan regions and in the western portions of the Deccan plateaux, breeding the imported Merino with the local sheep, has shown great promise. Concerted efforts are being made in the Plan period at about 200 centres in the rural areas. Each centre will comprise an ewe population of 2,000 to 3,000 which would be systematically developed as nucleus ram producing flocks. In order to introduce better genetical material in our breeding programme an appeal has been made through F.A.O to U.S.A., Australia and New Zealand for the supply of 2,750 productive sheep. New Zealand sent a gift of 413 pedigree sheep, U.S.A. 300 and Soviet Union 500. In the Indo-German project of Agricultural Development at Mandi (H.P.) 50 Merino rams were received for improving local sheep.

## GOATS

Goats form an integral part of Indian agricultural economy. The goat is the principal source of meat supply ; it also provides manure, skin, hair (Mohair) and milk. There are about 61 million goats in India as against 55 million in 1956, which is a fourth of the world's goat population. About a fifth of this is used for milk production. Annually about 17 million goats are in demand for human consumption. About 21·3 million pieces of goat skins and hides valued at Rs. 75 million are produced in India, of which skins worth about 57·2 million rupees are exported. Goats are of active habit and multiply rapidly. Goats, unlike sheep, eat up even vegetation containing high tannic acid content which other animals shun. Rajasthan has the largest goat population followed by Maharashtra, Bihar and U.P.

The important breeds of Indian goats fall under four broad groups :—Himalayan Goats are found in the hills of Kashmir, Punjab and Uttar Pradesh. These are mostly reared for mohair production and also for meat. There is also the Pashmani goat of Kashmir which produces an undercoat of very fine variety of hair which goes into the manufacture of shawls. The plain goats comprise some of the best mutton and milch animals. Some of the better known breeds are Marwari, Konor and Jamnapari. The last yields 600 lbs. in a lactation of 250 days. Deccan plateaux goats yield small quantities of milk and are mostly reared for mutton.

Results from the Punjab and U.P. have shown that selected goats yield (6 to 8 lbs. milk per day going upto even 12 lbs. in U.P.) on an average about 400 lbs. of milk per lactation of 150 days while a few went up to 700 lbs. and even higher.

Large provision has been made for sheep and goat development in the Third Five Year Plan. In addition to the establishment of 15 new sheep breeding farms, 17 farms will be expanded to produce 2,500 quality rams for use in rural areas. The production is also expected to go up from 72 million pounds to 90 million pounds. 158 sheep and wool extension centres and eight training centres are also to be set up. During the first two years of the Plan (1961-63) two training centres (one sheep breeding farm and 16 sheep and wool extension centres) have been started. A large-scale sheep shearing and grading programme linked to sheep development forms an important part of the U.N. special fund project commenced during 1963-64 in Rajasthan. Under the guidance of five Australian specialists a training school in wool grading has been started at Jodhpur. A survey of sheep and wool production in Punjab has been conducted and similar work for grading and marketing will be extended there. A Central Institute with two sub-stations was established in Rajasthan to coordinate research in wool production.

## POULTRY

There were about 117 million poultry in India in 1961, as against about 95 million five years before.

Poultry-keeping is an important subsidiary industry of the poorer classes. Indigenous poultry of low grade produce on an average 50 small-sized eggs per year.

Even at a low rate of production, the annual contribution of Indian poultry to the country's economy is not less than Rs. 100 million.

At present, the *per capita* consumption of eggs in India is only four per annum as compared with 400 in U.K., U.S.A. or Denmark.

An improved strain of poultry has been evolved at Izatnagar by selective breeding for ten generations which give an average annual egg yield of 150 and sometimes of 234 of the larger egg type.

*Poultry Development.*—To stimulate poultry development as a subsidiary industry in the rural areas, a pilot project was approved early in 1955.

The 2nd Five-Year Plan had promoted an All-India Poultry Development Scheme to establish five regional poultry farms in Bangalore, Maharashtra, Bhubaneswar, Delhi and Himachal Pradesh and 300 demonstration extension centres at a total cost of Rs. 25·88 million. These five regional poultry farms have started functioning and with the help of incubators and other poultry equipment received from T.C.M. programme, production of eggs and birds is being stepped up. 266 extension-cum-development centres were established against the Plan target of 300. The regional farms are expected to produce 2·15 million eggs and distribute 0·43 million breeding stock during 1964–65 as against 1·5 million eggs and 0·23 million birds in 1963–64.

The Third Five Year Plan provided for the establishment of fifty intensive poultry development blocks at an estimated cost of Rs. one lakh each. With the revised phased programme, the state-wise allocation is given below :—

Seven blocks out of these have been established so far (two each in Andhra, Bihar and Punjab and one in Himachal Pradesh).

The present demand in an average town of about one lakh population is about 10,000 eggs and 300 table birds per day.

The project will popularise scientific poultry farming, provide consumers with good quality products at reasonable price and give also gainful occupation to a large number of poultry keepers. In view of the difficulty in bringing eggs and poultry products from long distances, transport difficulties and inadequate cold storage facilities, etc., this project will be implemented around large towns and cities having a population of one lakh only at present.

The salient features of the projects are—(*i*) It will be run on commercial and self-supporting basis through co-operatives, (*ii*) necessary requirements such as stock, disease protection arrangements, poultry feed, equipment, technical guidance, loans, subsidy and facilities for collection grading and marketing of the produce will be provided simultaneously, (*iii*) stimulate growth of commercial enterprise and gainful occupation of about 300 poultry farmers providing a monthly income ranging from 50 to 100

rupees per month, (iv) popularise rearing of day old chicks by the poultry farmers themselves so as to provide the basis for the development of a sound poultry industry and (v) provide the consumers with fresh, clean and good quality eggs and poultry at reasonable cost.

With proper management, better feeding and housing, each hen will lay at least 144 eggs in a year against the average production of 60.

The Animal Husbandry Wing of the Indian Council of Agricultural Research has also put through in cooperation with the State Govt. schemes for raising poultry, pig and sheep. Projects for increasing goat breeding in Assam and Bihar and wool grading in Rajasthan are being extended.

State-wise distribution of poultry development blocks under the phased programme for poultry development is as follows :—

Andhra Pradesh 5 ; Assam 1 ; Bihar 3 ; Gujarat 2 ; Himachal Pradesh 1 ; Jammu & Kashmir 1 ; Kerala 3 ; Maharashtra 2 ; Madhya Pradesh 4 ; Madras 6 ; Mysore 5 ; Orissa 2 ; Punjab 3 ; Rajasthan 3 ; Uttar Pradesh 6 ; West Bengal 4.

A large commercial firm with Canadian collaboration has been started near Gungaon (Delhi) in 1962-63 and another similar one has also been started functioning in Bombay. Balanced poultry feed is manufactured by over 30 private firms.

Under a centrally sponsored scheme one Regional Duck Farm has started functioning in Bengal.

*World Food Programme Aid :*—India and the World Food Programme signed an agreement on Feb. 1, 1964 covering aid for a project for increasing production of eggs and poultry at Babugarh (U.P.). Under the agreement India will receive $ 1,71,900 (about Rs. 8·3 lakhs) from WFP of the United Nations.

*Piggery.*—Under the 2nd Five-Year Plan an All-India Piggery Development Scheme was promoted to augment food production of high nutritive value at low cost and also to improve the economic condition of Harijans who mostly are engaged in piggery activities. The scheme provided for two regional pig-breeding stations and 10 piggery units for the production and multiplication of pure-bred stud boars, by whose help the indigenous stock would be upgraded in the piggery development blocks. Pork and pork products were also to be manufactured in the bacon factories attached to the regional stations.

During the Second Plan period two regional pig breeding station bacon factories have been established at Aligarh and at Haringhata. Two more such stations proposed to be established during the Third Plan period have been set up at Aarey (Maharashtra) and Kasanpalli (Andhra Pradesh). The three pig breeding stations viz. at Aligarh, Harringhata and Aarey sold 168 boars for breeding purposes. Pig breeding units established during the Second Five Year Plan were 15 against a target of 10, and piggery development blocks were 31 against the target of 51. During the Third Plan period, 5 pig breeding units and 10 piggery development blocks were started during 1961–62 and the programme for 1962–63 envisaged setting up 3 and 22 respectively.

## DAIRYING

Like agriculture dairying is one of the major industries in India as milk and milk products contribute not less than Rs. 6,200 million to the national income.

The dairy industry is still unorganised. Of 200 million cattle and buffaloes, 72 million or 36 per cent are milch animals (females over 3 years). Milk yield is, however, low : Cow 413 lb. per year, buffalo 1,100 lb. Though buffaloes form only 30 per cent. of milch animals, due to their comparatively high yield, they account for 55·9 per cent of the total milk produced. Buffalo milk has butter fat content 6·5 to 7 per cent. as against 4 to 5 per cent. of cow.

Gross production of milk is 20·65 mln. tons, of which 13·2 mln. tons are marketed, the rest being used for home consumption or for feeding the calves. *Per capita* daily consumption of milk and milk products varies from 16·89 oz. in the Punjab to 26·4 oz. in Orissa ; average 5·5 oz.

As a prelude to setting up city milk plants, pilot milk schemes were in operation in 15 centres during 1962-63. The dairy plants in operation during 1962-63, 1963-64 and 1964-65 were 18, 22 and 29 respectively, and 4, 3 and 4 new plants were also established during these years. The total daily average output of milk of these were about 8·5, 9·0 and 10·0 lakh litres respectively during these three years. Construction and installation of equipment are in progress for other 26 dairies (five of which with assistance of New Zealand Govt. and UNICEF).

The dairy plants at Calcutta & Madras are associated with cattle colonies like Bombay Milk scheme. In them, 12,000, 13,000 and 14,000 cattle have been resettled during 1962-63, 1963-64 and 1964-65 respectively. A second milk colony for Bombay is being set up at Venkas. A cattle feed compounding factory is being set up at Anand by Kaira Dt. Coop. Milk Producers Union to supply balanced cattle feed to the Coop. Milk producers.

In the field of milk products development, creameries have been started at Aligarh, Barauni and Junagadh. Milk products factories have been set up at Amritsar and Rajkot and another two (at Anand and Mehsana with the assistance of Denmark) are under construction. Two similar plants were under construction at Miraj (Maharashtra) and Vijayawada (Andhra). A milk drying plant is proposed for Bikaner Milk plant (with New Zealand assistance) at Indore. Dairy plants are expected to be set up at Madurai and Kanpur (with UNICEF aid). Dairy projects at Ludhiana, Baroda and Calcutta (expansion) are also helped by U.N.I.C.E.F. Assistance under Colombo Plan has been received from New Zealand for establishing dairies at Dehra Dun and Dhulia.

Efforts are being made to set up 130 intensive cattle development centres.

To provide dairy technical personnel for various dairy projects, training programme has been expanded with special courses in Dairy Engineering and Dairy Extension at N.D.R.I., Karnal and Southern Regional Station at Bangalore, Agricultural Institute at Anand, Dairy Technological Institute at Aarey, at Allahabad Agricultural Institute and Haringhata — altogether in six centres. Separate department for dairy development work has been set up in Bengal, Kerala and Maharashtra States.

## THIRD PLAN

The Third Five Year Plan provides about Rs. 90 crores for animal husbandry. During this period the Key Village Scheme is to be consolidated and expanded. Rs. 5·10 crores have been provided for the key village scheme. It is proposed to undertake, as an experimental measure, cross-breeding with exotic breeds and to convert 414 goshalas into cattle breeding-cum-milk production units.

The objectives of the animal husbandry programmes during the Third Five Year Plan are : (1) To increase the supply of milk, meat and eggs, greater consumption of which is very essential to balance the present customary diet ; (2) To provide sufficient bullock power for agricultural operations and (3) To improve the output of certain animal products *viz.* wool, hides, skins, bristles, bones, etc. which are industrial raw materials.

During the Third Plan livestock development is envisaged as an integral part of diversified farming in the form of mixed farming. Dual purpose breeds will be developed to provide good bullocks for farming and wholesome milk in dairy industry. The scope of key village schemes will be expanded to cover 10 Key Village units covering 8,000 to 10,000 head of cattle. Besides expanding 68 Key Village blocks already set up in previous plans 71 new ones will be established in well-known breeding tracts ; 40 central stations for collection, preservation and distribution of semen will also be established. Use of artificial insemination will be extended, 11 bull bearing farms will be established, 33 existing livestock farms expanded and 30,000 bull calves subsidized for rearing. Apart from 59 gosadans established already 23 more will be established and large scale castration of scrub bulls will be taken up. In addition to 256 Goshalas taken up for production of superior bulls during the previous plan period, 168 more will be developed into cattle and milk productive units. The rehabilitation of nomadic cattle-breeders will be continued.

The production of milk estimated at 19 and 22 million tons in First Five Year Plan and Second Five Year Plan is expected to go up to about 25 million tons by the end of the Third Five Year Plan. The average per capita consumption of milk and milk products estimated at 4·76 oz. per day in 1951 and 4·9 oz in 1961, is also likely to go up to 5·1 oz. per day by the end of the Third Plan against the minimum requirement of 10 oz. for balanced diet.

The Third Five Year Plan provided for 21 milk schemes as spill over from the Second Five Year Plan and the establishment of 55 new milk supply schemes in cities (with a population exceeding one lakh) and in growing industrial townships. Out of these six and two have been completed ; 11 and 11 are under implementation 4 and 13 are being implemented, during 1963-64 in the spill over schemes and new schemes respectively. Emphasis is laid in the Third Plan on the need for linking up dairy schemes with rural areas so as to make a tangible impact on cattle development both for milk supply and draught needs.

Production of infant and other milk food is being started by Messrs. Glaxo, Horlicks, Amul and Asok Nestles.

## PROGRESS OF DAIRY SCHEMES

The following are the names of milk schemes completed and schemes in progress of different States with their present capacity and expected capacity per day in litres respectively after completion.

*Andhra :* Completed :—Guntur Cooperative Milk Union 4,000 ; Co-operative Milk Union, Kurnool 4,000.

In progress :—Vizag Dairy Farm ; Nellore Milk Scheme 5,000; Hyderabad-Vijayavada Project 5,500 ; Chittoor Milk Scheme 5,500 ; Warangal 5,500.

*Bihar :* Completed :—Gaya 5,500 ; Barauni Rural Creamery.

*In Progress :*—Patna Milk Scheme 9,000 ; Ranchi Scheme 5,500.

*Delhi Milk Scheme:* Started in Nov. 1959 at a cost of Rs. 45 million to the Centre and Rs. 150 million to New Zealand Govt., distributes 3,500 mds. of milk daily through 500 depots and 6 milk booths meeting about half of the demand for Delhi City. The dairy plant is capable of handling 12,000 mds. daily. Produces also ghee, ice-cream, flavoured milk, cheese and milk powder.

The Government of India appointed a team of experts in July 1964 to examine the working of the scheme. The team has recommended that the scheme may be reorganised as a limited company and milk may be procured through milk producers cooperative unions. Some procedural changes have also been recommended. Government have entered into an agreement with the World Food Programme authorities for supply of skimmed milk powder for production of toned milk.

*Gujarat :* Completed :—Anand (Ahmedabad Milk Project) 20,000 (to expand from 400 mds. to 1,500 mds.); Rajkot Factory 6,000; Jamnagar creamery (Started).

*Gujarat :* 1) Anand Dairy; 2) Kaira Co-operative Milk Union continued to supply 1,050 mds. of pasturised milk daily in rail tankers to the Aarey Colony and manufactured large quantities of butter, ghee and condensed milk and milk powder. The Union's Milk Factory expanded to produce cheese, tinned cream and baby foods; 3) Junagadh Milk Scheme.

In Progress:—Ahmedabad Milk Factory 55,000; Gondal Pilot Project Milk Scheme 1,000; Junagadh Milk Creamery.

*Jammu & Kashmir :* In Progress :—Srinagar Milk Scheme 9,000.

*Kerala State :* Completed :—Travancore Milk Scheme 5,500; Trivandrum Dairy Scheme 100 mds.

*Kerala :* Kodapannakunnu and Ollukara Dairy Farms Expansion.

In Progress :—Calicut Milk Scheme 9,000.

*Madhya Pradesh :* Completed :—Bhopal Milk Scheme 9,000.

In Progress :—Jabalpore Milk Sheme 9,000.

*Madras :* Completed :—Nanginad Milk Union 700; Coimbatore Milk Union 5,500.

*Madras :* Madras Co-operative Milk Supply Union.

In Progress :—Madras Milk Project 75,000; Madurai Milk Scheme 25,000.

*Maharashtra :* Completed :—Aarey Scheme 14,000; Karjat Milk Collection Dept. to Aarey 1,000; Nagpur Milk Scheme 1,000.

*Maharashtra :* 1) Bombay Milk Scheme (Aarey); Continued to maintain 15,000 milch animals and supplied about 5,000 mds. of whole milk and toned milk daily to Bombay City. A second dairy has been set up at Worli; 2) Poona Milk Scheme; 3) Nagpur Milk Scheme.

In Progress :—Sholapur Milk Scheme 5,500; Worli Dairy Project 2,50,000; Kolhapur Milk Scheme 5,500; Nagpur Milk Scheme 36,000; Poona Milk Scheme 25,000; Nasik Milk Scheme 19,000; Miraj Dairy Project 50,000.

*Mysore:* Completed :—Kudige Milk Scheme 4,000; Bangalore Milk Project 5,500.

In Progress :—Bangalore Milk Project 50,000.

*Orissa :* In Progress :—Cuttack Milk Scheme 5,500; Roorkela Dairy Project 6,000.

*Punjab :* Completed :—Chandigarh Milk Scheme 9,000; Amritsar Milk Plant 2,500 mds.

In Progress:—Hissar Milk Project 4,000.

*Rajasthan :* In Progress :—Jaipur Milk Project 9,000.

*Tripura :* In Progress :—Agartala Milk Scheme 18,500.

*U.P. :* Completed :—Agra Milk Scheme 9,000; Allahabad Cooperative Milk Supply Union; Aligarh Rural Creamery; Lucknow Milk Union 40,000; Kanpur Milk Project 50,000.

*West Bengal :* Completed :—Haringhatta 54,000.

*West Bengal :* Calcutta Milk Project; Haringhatta Milk Scheme.

*Calcutta Milk Project :* About 5,000 milch animals were removed from the City to Haringhatta Milk Colony and over 1,400 mds. of milk are now handled daily. Toned milk and flavoured vitaminised milk (with one per cent fat) are also supplied. Three rural milk chilling stations were set up. The new dairy under construction in Calcutta made good progress.

In Progress :—Haringhatta-Kalyani Colony Milk.

*Foreign Aid :* UNICEF aid $6,13,000 for training and $760,000 for dairy projects of Worli (Maharashtra) and Kanpur (U.P.) were received.

The services of five experts in various fields of dairying were made available by F.A.O. and one expert by the Government of New Zealand during 1961-62. A number of scholarships were also awarded for training Indians abroad in different branches of dairying by T.C.M., F.A.O. and under Colombo Plan.

*Cattle Power :* Over 69 million cattle are engaged in agricultural operations to work approximately 38 million ploughs in addition to other farm work. Out of the 11 million carts in the country used for farm transport, about 0·5 million are located in the urban areas and the rest are in the countryside. Nearly 1·2 million working cattle are used for carting alone. Over half a million sugarcane crushers in the country are worked by bullocks. Over 0·3 million bullock driven ghanies are also run in the country each requiring at least one bullock.

## ANIMAL DISEASES

The chief diseases that the Animal Husbandry and Veterinary Departments have to deal with are glanders and surra in equines, foot and mouth disease, haemorrhagic septicaemia, black quarter and anthrax in ruminants while tuberculosis, Johne's disease and contagious abortion are assuming greater importance than in the past. Glanders and surra are both scheduled diseases under the Glanders and Farcy Act. Glanders is incurable but surra can now be successfully treated with Naganol or Antrypol. This disease (surra) also affects camels, cattle and dogs and in recent years its importance as a bovine disease has been more widely recognised.

A major scourge affecting Indian cattle is Rinderpest which causes a mortality of about 60 per cent resulting in an annual loss of 0·4 million heads of cattle, valued at about 300 million rupees. The First Plan and Second Plan had provided Rs. 1·67 million and Rs. 18·3 million respectively for Rinderpest eradication. Because of the eradication campaign of the past, Kerala, Mysore and Madras are now free from the disease. But, further north, in Andhra Pradesh, Gujarat and Maharashtra State the disease is prevalent and a pilot scheme to vaccinate and brand about 12 million cattle and buffaloes has been in operation since October, 1954. As a result of the last eight years' work over 112·4 million cattle and buffaloes have been protected out of an inoculable population of 131·6 million. The scheme is in operation in the States of Assam, Gujarat, Jammu & Kashmir, M.P., Orissa, Rajasthan and U.P.

Progress of operation is given below :

| Year | Doses of vaccine produced (in millions) | No. of animals vaccinated (in millions) |
|---|---|---|
| 1959-60 .. .. | 44·627 | 22·770 |
| 1960-61 .. .. | 35·575 | 18·448 |
| 1961-62 .. .. | 25·570 | 13·360 |
| 1962-63 .. .. | 27·245 | 16·001 |
| 1963-64 .. .. | 37·786 | 9·700 |
| 1964-65 .. .. | 34·461 | 4·932 |

To meet the demand for vaccine in various States, six vaccine production centres have been established during the Second Plan period at Izatnagar, Lucknow, Calcutta, Ranipet (Madras), Mhow and Hissar.

Of the diseases of ruminants mentioned, all, with the exception of foot and mouth disease, can now be controlled either by means of sera or by vaccines.

Indian poultry are also subject to several contagious diseases.

### Research and Educational Institutions

The Chief Research Centres under the Central Government :—Indian Veterinary Research Institute is situated at two places in Uttar Pradesh, Izatnagar, and at Mukteswar near Bareilly. They undertake both research and training.

The Institute supplies the veterinary demands of the whole of India for sera and vaccines and except for two minor institutions (one in Madras and the other in Mysore), it is the only source in India for these products. The present output of these products meets only ⅓rds of the demands. Recently on the advice of a foreign expert in the manufacture of Biological Products through modern methods, steps are being taken to modernise the equipment and processes.

Similarly, research in dairying is done at the Indian Dairy Research Institute, Karnal (Punjab) and at its southern regional station at Bangalore (Mysore). The Indian Dairy Research Institute is the principal educational and research centre in the country in Dairy Science. The institute and its southern regional station at Bangalore give courses in Animal Husbandry and Dairying. There is also the Agricultural Institute, Allahabad.

There are 19 Veterinary Colleges in India, one each at Hyderabad, Tirupathi (Andhra Pradesh); Gauhati (Assam); Patna and Ranchi (Bihar); Trichur (Kerala); Jabalpur (Madhya Pradesh); Madras (Madras); Bombay, Nagpur (Maharashtra); Hebbal (Mysore); Cuttack, Mhow (Orissa); Hissar (Punjab), Bikaner (Rajasthan); Mathura, Nainital and Izatnagar, (Uttar Pradesh); Calcutta (West Bengal).

### Recent Research in Animal Husbandry

Animal husbandry studies have proved the feasibility of centralised production of semen for cross-breeding the hill cattle with Jersey. Cross-breeding for increased milk production was in progress at various centres.

Under the Third Five Year Plan a comprehensive scheme for development of the hill cattle with Jersey is taken up and two Jersey farms at Mandi (H.P.) and at Harsanghatta (Mysore) have been set up stocked with Jerseys from U.S.A. Studies made hitherto have shown that the cross-bred animals in their first and second generations had given three to four times more productions of their dams, matured early and was also giving better returns. The sale value of cross-bred also increased by three to four times.

It has been observed at National Dairy Research Institute that the production of milk was not affected by feeding a lower level of D.C.P. i.e. 0·04 lbs. In Punjab it was observed that the freezing point of cow and buffalo milk is nearly the same and that it does not vary with seasonal variations. Very little change takes place in freezing point with advance in lactation. The freezing point can be used as a test for purity of milk. The N.D.R.I. Kernal has at the same time evolved a simple test *'Hansa test'* to distinguish between buffalo and cow milk.

The cross breeding of local sheep with Rambouillet Rams resulted in obtaining the third generation graded progeny. The *fleece lot* of the second generation graded rams weighed 7 to 8 lbs. as against 3–4 lbs. of its first generation and 1–1·5 lbs. of local sheep. Similarly cross-breeding of Nilgiri sheep with Ramcey Marsh rams in the second generation showed faster growth and more wool yield of uniform and finer staple than local sheep.

In poultry Rhode Inland Red showed better performance than white *leghorns* under battery system.

### LIVESTOCK STATISTICS

The following table shows the estimates of livestock population for 1961. (In thousands).

| Area | Cattle | Buffaloes | Sheep | Goats | Horses & Ponies | Other Livestock | Total Livestock | Poultry |
|---|---|---|---|---|---|---|---|---|
| STATES | | | | | | | | |
| Andhra Pradesh | 12,345 | 6,949 | 8,363 | 4,247 | 71 | 676 | 32,651 | 16,248 |
| Assam .. .. | 6,497 | 571 | 54 | 1,878 | 16 | 450 | 9,466 | 11,251 |
| Bengal (West) .. | 11,465 | 847 | 548 | 4,474 | 25 | 130 | 17,590 | 11,675 |
| Bihar .. .. | 16,104 | 3,698 | 1,156 | 8,671 | 133 | 848 | 30,610 | 12,358 |
| Gujarat .. .. | 6,553 | 2,915 | 1,481 | 2,222 | 113 | 165 | 13,449 | 2,047 |
| Jammu & Kashmir .. | 1,831 | 401 | 1,161 | 577 | 64 | 41 | 4,076 | 1,608 |
| Kerala .. .. | 2,753 | 485 | 24 | 1,312 | * | 123 | 4,697 | 9,106 |
| Madhya Pradesh | 24,774 | 5,576 | 1,009 | 5,539 | 203 | 466 | 37,567 | 6,525 |
| Madras .. .. | 10,817 | 2,574 | 7,159 | 3,427 | 20 | 643 | 24,641 | 11,296 |
| Maharashtra .. | 15,526 | 3,134 | 2,125 | 5,168 | 112 | 271 | 26,336 | 10,769 |
| Mysore .. .. | 9,659 | 3,022 | 4,763 | 2,905 | 46 | 268 | 20,664 | 9,522 |
| Orissa .. .. | 9,810 | 1,075 | 994 | 2,382 | 58 | 210 | 14,528 | 6,548 |
| Punjab .. .. | 6,053 | 4,426 | 901 | 1,221 | 74 | 518 | 13,194 | 2,237 |
| Rajasthan .. | 13,140 | 4,019 | 7,360 | 8,052 | 94 | 849 | 33,514 | 718 |
| Uttar Pradesh .. | 26,284 | 10,973 | 2,462 | 7,958 | 296 | 1,431 | 49,404 | 8,254 |
| Delhi .. .. | 89 | 61 | 33 | 6 | 18 | 60 | 267 | 79 |
| Himachal Pradesh | 1,213 | 208 | 662 | 595 | 6 | 9 | 2,692 | 91 |
| Manipur .. .. | 268 | 52 | 2 | 13 | * | 82 | 417 | 785 |
| Tripura .. .. | 481 | 43 | 3 | 153 | 1 | 37 | 718 | 703 |
| Andaman & Nicobar Islands .. | 7 | 8 | * | 9 | * | 14 | 39 | 77 |
| Laccadive, Minicoy & Amindivi Islands.. .. | 1 | .. | .. | 4 | .. | .. | 5 | 15 |
| TOTAL INDIA | 176,670 | 51,037 | 40,260 | 60,813 | 1,350 | 7,291 | 336,527 | 116,912 |

* Less than 500.

# GENERAL ELECTIONS (1962)

## TABLES

Below we give statistical tables—official—showing particulars about the 1962 general election returns.

### LOK SABHA

#### General Elections

Below we give particulars about the votes polled in the 1962 elections to the Lok Sabha.

| States | Seats* | Reserved Seats* | | Electorate | Uncontested gains | Valid votes polled |
|---|---|---|---|---|---|---|
| | | Scheduled Castes | Scheduled Tribes | | | |
| Andhra Pradesh .. .. | 41 | 6 | 2 | 19,007,856 | .. | 11,908,021 |
| Assam .. .. .. .. | 14 | 1 | 2 | 4,942,816 | .. | 2,495,311 |
| Bihar .. .. .. .. | 53 | 7 | 5 | 22,115,041 | .. | 9,946,244 |
| Gujarat .. .. .. .. | 24 | 1 | 3 | 9,534,974 | .. | 5,282,558 |
| Kerala .. .. .. .. | 19 | 2 | Nil | 8,003,142 | .. | 5,528,983 |
| Madhya Pradesh .. .. | 37 | 5 | 7 | 15,874,238 | .. | 6,704,417 |
| Madras .. .. .. .. | 39 | 7 | Nil | 18,214,670 | 1 | 12,424,036 |
| Maharashtra .. .. .. | 45 | 6 | 2 | 19,395,795 | .. | 11,148,615 |
| Mysore .. .. .. .. | 27 | 3 | Nil | 11,353,892 | .. | 6,419,142 |
| Orissa .. .. .. .. | 20 | 4 | 4 | 8,785,519 | 1 | 1,968,963 |
| Punjab .. .. .. .. | 23 | 5 | Nil | 10,745,652 | .. | 6,785,637 |
| Rajasthan.. .. .. .. | 23 | 3 | 2 | 10,327,596 | .. | 5,192,952 |
| Uttar Pradesh .. .. .. | 85 | 18 | Nil | 36,667,441 | 1 | 17,910,056 |
| West Bengal .. .. | 40 | 6 | 2 | 18,005,635 | .. | 9,733,184 |
| Delhi .. .. .. .. | 5 | 1 | Nil | 1,345,360 | .. | 894,149 |
| Manipur .. .. .. .. | 2 | Nil | 1 | 405,210 | .. | 264 627 |
| Tripura .. .. .. .. | 2 | Nil | 1 | 480,609 | .. | 319,085 |
| Himachal Pradesh .. .. | 4 | 1 | Nil | 711,596 | .. | 242,908 |
| Total .. .. .. | 503 | 76 | 31 | 215,917,042 | 3† | 115,368,888 |

* Allocation of seats including the reserved seats for Scheduled Castes & Scheduled Tribes as per the orders of the Delimitation Commission for all the States excluding Jammu & Kashmir State. † Congress.

The total number of seats for the States (excluding Jammu & Kashmir State) has been increased from 481 to 490. The number of seats reserved for Scheduled Castes has increased from 74 to 75 and that of the Scheduled Tribes from 29 to 33.

*Note*:—General Elections in Goa took place on Dec. 9, 1963, Nagaland in Jan. 1964 and Pondicherry on Aug. 23, 1964.

### Party Position

Below we show the party position in the Lok Sabha arising from the 1962 general elections.

| States | Congress | | P.S.P. | | Communist | | Jan Sangh | | Swatantra | | Republican | | Other Parties and Independents | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Candidates | Returned | Candidates | Returned | Candidates | Returned | Candidates | Returned | Candidates | Returned | Candidates | Returned | Candidates | Returned | Candidates | Returned |
| Andhra Pradesh .. .. | 43 | 34 | 1 | — | 20 | 7 | 8 | — | 28 | 1 | 3 | — | 44 | 1 | 147 | 43 |
| Assam .. .. .. | 12 | 9 | 8 | 2 | 4 | — | — | — | — | — | — | — | 17 | 1 | 41 | 12 |
| Bihar .. .. .. | 53 | 39 | 32 | 2 | 16 | 1 | 13 | — | 43 | 7 | 11* | 3* | 65 | 1 | 246 | 53 |
| Gujarat .. .. .. | 22 | 16 | 6 | 1 | — | — | 5 | — | 14 | 4 | 1 | — | 20 | 1 | 68 | 22 |
| Kerala .. .. .. | 14 | 6 | 4 | — | 14 | 6 | 4 | — | 1 | — | 3† | 2† | 10 | 4 | 50 | 18 |
| Madhya Pradesh .. .. | 35 | 24 | 19 | 3 | 3 | — | 28 | 3 | 5 | — | 7 | — | 62 | 6 | 159 | 36 |
| Madras .. .. .. | 40 | 30 | 5 | — | 14 | 2 | 1 | — | 16 | — | 20‡ | 7‡ | 55 | 1 | 151 | 40 |
| Maharashtra .. .. | 44 | 41 | 13 | 1 | 6 | — | 17 | — | 3 | — | 20 | — | 65 | 2 | 168 | 44 |
| Mysore .. .. .. | 26 | 25 | 12 | — | 3 | — | 7 | — | 7 | — | 4 | — | 29 | 1 | 88 | 26 |
| Orissa .. .. .. | 19 | 13 | 5 | 1 | 2 | — | — | — | 1 | — | — | — | 21 | 5 | 48 | 19 |
| Punjab .. .. .. | 22 | 14 | — | — | 4 | — | 17 | 3 | 6 | — | 14*a* | 3*a* | 44 | 4 | 107 | 24 |
| Rajasthan .. .. .. | 21 | 14 | — | — | 5 | — | 11 | 1 | 10 | 3 | — | — | 64 | 4*b* | 111 | 22 |
| Uttar Pradesh .. .. | 85 | 61 | 48 | 2 | 18 | 2 | 74 | 7 | 33 | 3 | 22 | 3 | 162 | 7 | 442 | 85 |
| West Bengal .. .. | 36 | 22 | 12 | — | 24 | 9 | 4 | — | 4 | — | 7*c* | — | 32 | 5 | 119 | 36 |
| Delhi .. .. .. | 5 | 5 | 1 | — | 1 | — | 5 | — | — | — | 1 | — | 15 | — | 28 | 5 |
| Himachal Pradesh .. | 4 | 4 | — | — | — | — | 2 | — | 2 | — | 1 | — | 2 | — | 11 | 4 |
| Manipur .. .. .. | 2 | 1 | 1 | — | 1 | — | — | — | — | — | — | — | 7 | 1 | 11 | 2 |
| Tripura .. .. .. | 2 | — | 1 | — | 2 | 2 | — | — | — | — | — | — | 2 | — | 7 | 2 |
| Total .. .. | 485 | 358 | 168 | 12 | 137 | 29 | 196 | 14 | 173 | 18 | 68 | 3 | 716 | 44 | 2,002 | 493 |

* Jharkhand. † Muslim League. ‡ 18 from Dravida Munnetra Kazhagam. *a* 7 from Akali Dal. *b* One seat won by Ram Rajya Parishad. *c* Hindu Mahasabha.

### CALENDAR

The third General Elections started on 16th February 1962 and ended on May 26. The first State to go to the polls was West Bengal and the last was the Leh Constituency of Jammu & Kashmir on May 26, 1962. The election at this constituency could not be held earlier on account of unavoidable circumstances.

Below we give the Calendar of the elections.

*Andhra Pradesh* February 19, 21 to 25.

*Assam* February 19, 24.

*Bihar* February 18, 21–23, 25.

*Gujarat* February 21, 23, 25.

*Kerala* February 24.

*Madhya Pradesh* February 19–25.

*Madras* February 17, 19, 21, 24.

*Maharashtra* February 20, 22, 25.

*Mysore* February 19, 22, 25.

*Orissa* February 19–25.

*Punjab* February 24.

*Rajasthan* February 19–23, 25.

*Uttar Pradesh* February 19, 21–23, 25.

*West Bengal* February 16–23, 25.

*Delhi* February 24.

*Manipur* February 19, 23, 27 and March 6.

*Tripura* February 21, 23, 25.

*Himachal Pradesh* April 1962.

The polling for the Presidentship took place on 7th May and the result was declared on 11th. Three candidates filed their nomination papers. The candidates were Dr. S. Radhakrishnan, New Delhi, Chaudhuri Hari Ram of Rohtak, Punjab, and Yamuna Prasad Trisulia of Ballia, Uttar Pradesh.

Of 5,62,945 valid votes cast in the polling the result was as follows :

Dr. Radhakrishnan—5,53,067 ; Chaudhuri Hari Ram—6,341 ; Mr. Yamuna Prasad—3,537. There were 98 invalid votes.

The polling for the Vice-Presidentship took place on 7th May and the result was declared on the same day. Two candidates filed their nomination papers. They were Dr. Zakir Hussain and Mr. N. C. Samantsinghar, a former Congress member of the Lok Sabha from Orissa.

The result of the polling was as follows: Dr. Zakir Hussain—568 ; Mr. N. C. Samantsinghar—14. There were 14 invalid votes.

### PARTIES FOR THE 1962 ELECTION

All those political parties which secured 3 per cent of the votes polled in the 1957 general elections were recognised for allotment of symbols.

The all-India parties recognised were : Indian National Congress, Praja Socialist Party, Communist Party of India and Bhartiya Jan Sangh ; and the recognised State parties were : People's Democratic Front, and Praja Party in Andhra Pradesh ; Peasants and Workers' Party in Andhra Pradesh and Maharashtra ; Janata Party and Jharkhand Party in Bihar ; United Independent Front in Himachal Pradesh ; Muslim League in Kerala ; Hindu Mahasabha in Madhya Pradesh and Delhi ; Dravida Munnetra Kazhagam in Madras ; Lok Seva Sangh in Mysore ; Ram Rajya Parishad in Rajasthan ; Socialist Party in Uttar Pradesh and Manipur ; Forward Bloc (Marxist) in West Bengal and Republican Party in Maharashtra and Punjab only. The symbol of the Republican Party was Elephant.

#### Two Ballot Papers

There were two ballot papers in the 1962 elections, pink for the Assembly and white for the Lok Sabha. Both the ballot papers were inserted in the same ballot box. There was no separate ballot box for a candidate or party as in the last two polls. The symbols of all the contesting candidates were printed in the same ballot paper.

*Two-member Constituencies (Abolition) Act*, 1961 : The Bill was passed in the Parliament and it received the assent of the President on March 9, 1961. By the abolition of double-member constituencies, there were only single-member constituencies in the 1962 general election.

#### Revised List

The following are the details of the new list of recognised political parties, prepared by the Election Commission on the basis of the votes polled in the 1962 general election :

The Communist party will have its symbol in all States except Gujarat, M.P., Mysore, U.P. and Tripura.

The Praja-Socialist party will be entitled to its reserved symbol in all States except Andhra Pradesh, Madras, the Punjab, Rajasthan and West Bengal.

The Swatantra party will be recognised in Andhra Pradesh, Bihar, Gujarat, Madras, Mysore, Orissa, Rajasthan and Himachal Pradesh.

The Jan Sangh will have a reserved symbol in M.P., the Punjab, Rajasthan, U.P. and Delhi. Earlier, it had a reserved symbol in Maharashtra also.

The Republican party, which had enjoyed recognition in Maharashtra and the Punjab before the election, will now have a reserved symbol in Maharashtra, the Punjab and Himachal Pradesh.

The Socialist party will have a reserved symbol in U.P. and Manipur.

The Jharkhand party, the Muslim League, the Dravida Munnetra Kazhagam, the Peasants and Worker's Party, the Akali Dal and the Forward Bloc will continue to enjoy the privilege in Bihar, Kerala, Madras, Maharashtra, the Punjab and West Bengal respectively.

## FACTS AND FIGURES

The total number of voters enrolled for the 1962 Elections were 216,050,506. Women voters totalled nearly 100 million. The estimated total population in the country in 1962 was about 440 million. Thus about 50 per cent of the total population was entered in the electoral rolls.

The task of organising and carrying through the elections was completed with the whole-hearted support of the electorate, political parties, candidates and Government. In all about 1,680,000 persons were employed to participate in the election operations in different capacities.

## STATE ASSEMBLIES

Below we give particulars about the votes polled in the general elections of 1962 to the State Assemblies.

| States | Seats | Electorate | Uncontested Gains | Valid votes polled | Percentage of valid votes |
|---|---|---|---|---|---|
| Andhra Pradesh .. .. | 300 | 19,011,417 | 6 | 11,700,182 | — |
| Assam .. .. .. | 105 | 4,934,302 | — | 2,444,232 | — |
| Bihar .. .. .. .. | 318 | 22,058,168 | — | 9,848,995 | — |
| Gujarat .. .. .. | 154 | 9,540,946 | — | 5,205,646 | — |
| Jammu & Kashmir .. .. | 75 | 2,000,000 | — | 701,206† | — |
| Kerala** .. .. | 133 | 8,557,405 | — | 6,311,247 | — |
| Madhya Pradesh .. .. | 288 | 15,856,404 | 3 | 6,555,417 | — |
| Madras .. .. .. | 206 | 18,669,080 | — | 12,620,995 | — |
| Maharashtra .. .. .. | 264 | 19,365,587 | — | 10,965,394 | — |
| Mysore .. .. .. | 208 | 11,351,529 | 2 | 6,301,778 | — |
| Orissa ‡ .. .. .. | 140 | 7,983,975 | 1 | 4,255,915 | 34·29 |
| Punjab .. .. .. | 154 | 10,715,335 | — | 6,701,171* | — |
| Rajasthan .. .. .. | 176 | 10,324,654 | 1 | 5,132,335 | — |
| Uttar Pradesh .. .. | 430 | 36,662,710 | — | 17,787,210 | — |
| West Bengal .. .. .. | 252 | 17,973,157 | 1 | 9,571,091 | — |
| Total .. .. .. | 2,930 | 198,463,289 | 15 | 105,535,452 | — |

* Excluding Seraj and Kulu Constituencies. † Excluding Leh Constituency.
** A general election was held in Kerala in March 1965 in which no party secured an absolute majority. ‡ Mid-term election held in June 1961. Analysis is given below.

### Party Position

Below we show the number of candidates put up by the various parties for the Assemblies and the number of seats won in the general elections of 1962.

| States | Congress | | P.S.P. | | Communist | | Jan Sangh | | Swatantra | | Republican | | Others & Independents | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Candidates | Returned | Candidates | Returned | Candidates | Returned | Candidates | Returned | Candidates | Returned | Candidates | Returned | Candidates | Returned | Candidates | Returned |
| Andhra Pradesh .. | 299 | 177 | 7 | — | 136 | 51 | 70 | — | 141 | 19 | — | — | 318 | 51 | 983* | 300* |
| Assam .. .. | 103 | 79 | 52 | 6 | 31 | — | 4 | — | — | — | — | — | 205 | 20 | 409** | 105 |
| Bihar .. .. | 318 | 185 | 199 | 29 | 84 | 12 | 75 | 3 | 259 | 50 | — | — | 387 | 12 | 1,529 † | 318†† |
| Gujarat .. .. | 174 | 113 | 32 | 7 | 1 | — | 22 | — | 106 | 26 | — | — | 184 | 8 | 519 | 154 |
| Jammu & Kashmir | 75 | 70 | 5 | 3 | — | — | — | — | — | — | — | — | 40 | 2 | 172 *a* | 75 *b* |
| Kerala@ .. .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Madhya Pradesh .. | 288 | 142 | 140 | 33 | 43 | 1 | 195 | 41 | 43 | 2 | 33 | — | 382 | 39 | 1,336 *c* | 288 *d* |
| Madras .. .. | 206 | 130 | 22 | — | 68 | 2 | 4 | — | 94 | 6 | — | — | 247 | 5 | 796 *e* | 206 *f* |
| Maharashtra .. | 264 | 215 | 101 | 9 | 56 | 6 | 127 | — | 9 | — | 66 | 3 | 445 | 15 | 1,161 *g* | 264 *h* |
| Mysore .. .. | 208 | 138 | 84 | 20 | 31 | 3 | 63 | — | 59 | 9 | — | — | 225 | 37 | 679 *i* | 208 *j* |
| Orissa‡ .. .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Punjab .. .. | 152 | 90 | 10 | — | 47 | 9 | 76 | 8 | 42 | 3 | — | — | 365 | 19 | 746 *k* | 154 *l* |
| Rajasthan .. | 176 | 88 | 23 | 2 | 45 | 5 | 94 | 15 | 92 | 36 | — | — | 397 | 22 | 890 *m* | 176 *n* |
| Uttar Pradesh .. | 429 | 249 | 288 | 38 | 145 | 14 | 377 | 49 | 167 | 15 | — | — | 946 | 41 | 2,620 *o* | 430 *p* |
| West Bengal .. | 252 | 157 | 87 | 5 | 145 | 50 | 25 | — | — | — | — | — | 393 | 27 | 961 | 252 |
| Total .. | 2,930 | 1,772 | 1,030 | 149 | 832 | 153 | 1,132 | 116 | 1,012 | 166 | 99 | 11 | 4,514 | 288 | 10,443 | 2,930 |

* Includes Socialist 14. ** Includes Socialist 2. † Includes Jharkhand 75, Socialist 132. †† Includes Jharkhand 20, Socialist 7.
*a.* Includes National Conference 75, D.N.C. 18, P.P. 25, H. Mandal 10. *b.* Includes National Conference 70, P.P. 3, others & independent 2. *c.* Includes Socialist 86, H.M.S. 50, R.R.P. 76. *d.* Includes Socialist 14, H.M.S. 6, R.R.P. 10. *e.* Includes D.M.K. 142, F.B. 6, Socialist 7. *f.* Includes D.M.K. 50, F.B. 3, Soc. 1. *g.* Includes Socialist 14, Peasants & Workers' Party 79. *h.* Includes Socialist 1, Peasants & Workers' Party 15. *i.* Includes Socialist 9. *j.* Includes Socialist 1. *k.* Includes Socialist 8, Akali Dal 46. *l.* Includes Socialist 4, Akali Dal 19. *m.* Includes Socialist 40, R.R.P. 23. *n.* Includes Socialist 5, R.R.P. 3. *o.* Includes Socialist 268. *p.* Includes Socialist 24. @ A general election was held in Kerala in March 1965 in which no party secured an absolute majority. ‡ Mid-term election held in June 1961. Analysis is given below.

### 1957 and 1962 GENERAL ELECTIONS

| | 1962 | 1957 |
|---|---|---|
| *Lok Sabha* | | |
| No. of seats .. | 494 | 494 |
| No. of constituencies | 494 | 403 |
| Single member .. | — | 312 |
| Two-member .. | — | 91 |
| No. of contesting candidates .. | 1,983 | 1,594 |
| *Legislative Assemblies* | | |
| No. of seats .. | 3,195 | 3,102 |
| No. of constituencies | 3,175 | 2,518 |

| | 1962 | 1957 |
|---|---|---|
| Single-member .. .. | — | 1,934 |
| Two-member .. .. | — | 584 |
| No. of contesting candidates .. .. | 12,764 | 10,177 |
| *Period of Poll* days .. | 10 | 19 |
| *Total expenditure* .. | — | 5,90,21,786 |
| *Expenditure on each voter* .. .. .. | — | As. 2·4 |
| *Percentage of Poll* | | |
| Parliamentary Constituencies .. .. | — | 47·54% |
| Assembly Constituencies | — | 48·23% |

| | 1962 | 1957 |
|---|---|---|
| *Number of Polling Stations* .. .. | 2,40,000 | 2,20,478 (Private bldgs. 18,379) |
| *Number of ballot boxes* | — | 21,00,931 |
| *Number of ballot papers* .. .. | 420 million | 579,371,000* |
| *Number of Election Petitions* .. .. | 360 | 472 (Lok Sabha 59) |
| *Electorate* .. .. | 210 million | 193 million |

* Cost : Rs. 11,52,506–13–0.

### Votes Polled

Below we give the number of votes polled by parties in the 1962 general election to the Lok Sabha.

| States | Congress | | P.S.P. | | Communist | | Jan Sangh | | Swatantra | | Republican | | Others & Independent | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Votes polled | Percentage of total | Votes polled | Percentage of total | Votes polled | Percentage of total | Votes polled | Percentage of total | Votes polled | Percentage of total | Votes polled | Percentage of total | Votes polled | Percentage of total |
| Andhra Pradesh | 5,711,263 | 47·96 | 8,287 | 0·07 | 2,505,619 | 21·04 | 138,843 | 1·17 | 1,775,495 | 14·91 | 114,872 | 0·96 | 1,653,436 | 13·8 |
| Assam .. .. | 1,126,977 | 45·16 | 478,099 | 19·16 | 176,098 | 7·05 | — | — | — | — | — | — | 714,137 | 28·69 |
| Bihar .. .. | 4,365,148 | — | 1,262,160 | 12·69 | 634,516 | 6·38 | 233,151 | 2·34 | 1,811,170 | 18·26 | 467,338* | 4·72* | 1,172,815 | 11·71 |
| Gujarat .. .. | 2,776,327 | 52·56 | 374,813 | 7·10 | — | — | 76,033 | 1·44 | 1,320,405 | 24·99 | 47,308 | 0·89 | 687,672 | 13·09 |
| Kerala .. .. | 1,895,226 | 34·28 | 546,621 | 9·89 | 1,960,683 | 35·46 | 37,485 | 0·68 | 9,675 | 0·17 | 248,038† | 4·49† | 831,255 | 15·01 |
| Madhya Pradesh | 2,651,882 | 39·55 | 824,703 | 12·30 | 60,196 | 0·90 | 1,197,957 | 17·87 | 48,864 | 0·72 | 123,117 | 1·84 | 1,797,698 | 26·83 |
| Madras .. .. | 5,623,013 | 45·26 | 209,101 | 1·68 | 1,272,303 | 10·24 | 4,581 | 0·04 | 1,300,526 | 18·64‡ | 191,162 | 1·54 | 3,823,340 | 30·71 |
| Maharashtra .. | 5,895,958 | 52·89 | 597,666 | 5·36 | 451,152 | 4·05 | 490,627 | 4·40 | 31,036 | 0·28 | 1,229,940 | 11·66 | 2,382,236 | 21·32 |
| Mysore .. .. | 3,381,276 | 52·67 | 930,061 | 14·49 | 98,668 | 1·53 | 171,929 | 2·68 | 501,212 | 7·81 | 247,461 | 3·86 | 1,088,535 | 16·96 |
| Orissa .. .. | 1,093,297 | 55·53 | 305,116 | 15·50 | 100,577 | 5·11 | 342,970*a* | 17·42*a* | 22,743 | 1·16 | 52,633*b* | 2·67*b* | 51,629 | 2·09 |
| Punjab .. .. | 2,802,692 | 41·30 | — | — | 320,588 | 4·73 | 1,029,831 | 15·18 | 829,129*c* | 12·55*c* | — | — | 1,733,261 | 26·62 |
| Rajas an .. | 1,951.507 | 37·58 | — | — | 155,380 | 2·99 | 482,138 | 9·28 | 940,106 | 18·10 | — | — | 339,821 | 26·24 |
| Uttar Pradesh .. | 6,842,472 | 38·20 | 1,851,857 | 10·35 | 650,255 | 3·63 | 3,147,293 | 17·59 | 903,094 | 5·04 | 763,788 | 4·27 | 3,751,297 | 32·04 |
| West Bengal .. | 4,553,677 | 46·78 | 441,656 | 4·54 | 2,859,731 | 29·38 | 102,184 | 1·05 | 99,293 | 1·02 | — | — | 1,676,643 | 20·94 |
| Delhi .. .. | 453,174 | 50·68 | 1,048 | 0·12 | 19,135 | 2·14 | 292,016 | 32·66 | — | — | 28,072 | 3·14 | 100,704 | 17·22 |
| Hima hal Pradesh | 166,749 | 68·65 | — | — | — | — | 10,896 | 4·49 | 31,049 | 12·78 | 15,941 | 6·56 | 18,273 | 11·26 |
| Man p r .. .. | 81,860 | 30·93 | 10,909 | 4·12 | 21,503 | 8·13 | — | — | — | — | — | — | 150,355 | 7·52 |
| Tripura .. .. | 136,586 | 42·81 | 6,302 | 1·98 | 163,623 | 51·27 | — | — | — | — | — | — | 12,574 | 56·82 |
| | | | | | | | | | | | | | | 3·94 |

* Jharkhand. † Muslim League. ‡ D. M. K. *a* Ganatantra. *b* Socialist. *c* Akali Dal.

### Votes Polled

Below we give the number of votes polled by parties in the general election of 1962 to the Assemblies.

| States | Congress | | P.S.P. | | Communist | | Jan Sangh | | Swatantra | | Other Parties and Independents | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Votes polled | Percentage | Votes polled | Percentage | Votes polled | Percentage | Votes polled | Percentage | Votes polled | Percentage | Votes polled | Percentage | Votes polled | Percentage |
| Andhra Pradesh | 5,550,457 | 47·44 | 61,209 | 0·52 | 2,286,058 | 19·54 | 121,724 | 1·04 | 1,212,552 | 10·36 | 2,411,091 | 20·61 | 11,700,182* | — |
| Assam .. .. | 1,179.305 | 48·25 | 308,735 | 12·63 | 156,153 | 6·39 | 10,887 | 0·45 | — | — | 752,932 | 30·80 | 2,444,232† | — |
| Bihar .. .. | 4,068,737 | 41·31 | 1,404,405 | 14·26 | 613,955 | 6·23 | 271,989 | 2·76 | 1,699,314 | 17·26 | 841,694 | 8·55 | 9,848,995‡ | — |
| Gujarat .. .. | 2,638,221 | 50·68 | 403,674 | 7·75 | 9,390 | 0·18 | 84,965 | 1·63 | 1,281,330 | 24·61 | 788,066 | 15·14 | 5,205,646 | — |
| Madhya Pradesh | 2,526,798 | 38·55 | 703,208 | 10·73 | 135,322 | 2·06 | 1,094,236 | 16·69 | 80,470 | 1·22 | 1,166,620 | 17·80 | 6,555,417*a* | — |
| Madras .. .. | 5,817,138 | 46·09 | 160,764 | 1·27 | 978,045 | 7·75 | 15,303 | 0·12 | 991,762 | 7·86 | 1,030,206 | 8·16 | 12,620,995*b* | — |
| Maharashtra .. | 5,617,275 | 51·23 | 792,755 | 7·23 | 647,390 | 5·90 | 547,598 | 4·99 | 48,484 | 0·44 | 1,848,672 | 16·86 | 10,965,394*c* | — |
| Mysore .. .. | 3,140,312 | 49·83 | 860,048 | 13·64 | 143,845 | 2·28 | 144,828 | 2·30 | 454,294 | 7·21 | 1,493,626 | 23·70 | 6,301,778*d* | — |
| Punjab @ .. | 2,935,352 | 43·80 | 60,390 | 0·90 | 478,315 | 7·14 | 640,894 | 9·56 | 261,276 | 3·90 | 1,432,238 | 21·37 | 6,701,171*e* | — |
| Rajasthan .. | 2,052,489 | 39·99 | 75,322 | 1·46 | 276,972 | 5·40 | 468,477 | 9·13 | 866,669 | 16·89 | 1,100,271 | 21·44 | 5,132,335*f* | — |
| Uttar Pradesh .. | 6,426.015 | 36·13 | 2,030,257 | 11·41 | 885,721 | 4·98 | 2,987,123 | 16·79 | 825,723 | 4·64 | 3,172,326 | 17·83 | 17,787,210*g* | — |
| West Bengal .. | 4,522,476 | 47·25 | 476,854 | 4·98 | 2,386,834 | 24·94 | 43,483 | 0·45 | — | — | 1,624,208 | 16·97 | 9,571,091*h* | — |
| Jammu & Kashmir $ .. | — | — | 10,898 | 1·55 | — | — | — | — | — | — | 64,493 | 9·20 | 701,206*i* | — |
| Total .. | 46,474,575 | | 7,318,519 | | 8,966,000 | | 6,431,507 | | 7,721,874 | | 17,716,441 | | 105,535,652 | |

* Includes Socialist 57,091. † Includes Socialist 36,220. ‡ Includes Socialist 516,259, Jharkhand 432,642. *a* Includes Socialist 307,551, Hindu Mahasabha 211,639, R.R.P. 245,548, Republican 84,025. *b* Includes D.M.K. 3,406,804, Forward Bloc 172,261, Socialist 48,712. *c* Includes Socialist 54,764, Republican 589,655, Peasants & Workers' Party 818,801. *d* Includes Socialist 94,829. *e* Includes Socialist 93,791. @ Excludes Sarraj and Kulu constituencies. *f* Includes Socialist 189,147, R.R.P. 102,983. *g* Includes Socialist 1,460,045. *h* Includes Hindu Mahasabha 76,138, Forward Bloc 441,098. *i* Includes National Conference 465,967, D.N.C. 22,724, Praja Parishad 123,381, Hindu Mandal 13,478. $ Excludes Leh constituency.

**A note on the first election in Goa after merger with India :** For the purpose of reservation of election symbols the Election Commission recognised three political parties viz., Congress, Frente Popular and Maharashtrawadi Gomantak for the assembly, and parliamentary elections in the Union Territory of Goa, Daman and Diu. The symbol 'Two Bullocks with Yoke on', was reserved for the Congress ; 'Elephant' for the Frente Popular; and 'Lion' for the Maharashtrawadi Gomantak. Elections in the parliamentary and assembly constituencies in Goa were held in the month of December 1963.

The position about election petitions pertaining to the general elections was as follows (March 15, 1960):—Seven were pending before Election Tribunals, five before High Courts, and ten before the Supreme Court.

### POST-GENERAL ELECTION POLLS

## GENERAL ELECTIONS IN GOA

Goa, Daman and Diu went to the poll for the first time on December 9, 1963. The election in Goa first in the country since the President's assent to the Sixteenth Amendment to the Constitution primarily designed to curb secessionist tendencies. The amendment requires every candidate to affirm his or her faith in India's sovereignty and integrity before his or her candidature is considered.

There are 30 Assembly constituencies including one each for Daman and Diu and two parliamentary constituencies Panjim (including Daman) and Mormugao (including Diu).

The candidates comprised nominees of four parties besides a host of independents. The Congress which fielded candidates for all the 30 Assembly seats (20 Hindus and 10 Catholics) including one each from Daman and Diu and for both the parliamentary seats (one Hindu and one Catholic) is the only All-India party. The other three, Maharashtrawadi Gomantak, United Goans and Frente Popular have their activity restricted to Goa.

Maharashtrawadi Gomantak which put up 27 candidates for the Assembly and two for Parliament is fighting for immediate merger of Goa in Maharashtra. The objective of the United Goans Party, which had nominees for 24 seats for the Assembly and one each for the Parliament, is a full-fledged State of Goa. Both these parties have made the future status of Goa their only election issue. The Frente Popular, an extreme left-wing party, contested only eight seats in the Assembly and none in Parliament. This party believes that the status of Goa should not become an issue at present.

*Assembly Poll:* Total number of seats: 30; Number of seats declared 30; Total electorates 3,50,039; Total votes polled: 2,60,372.

Party-wise particulars regarding the seats contested, seats won and votes polled respectively are as follows:—

Maharashtrawadi Gomantak: 27: 14: 1,00,117; United Goans: 24: 12: 17,081; Congress: 30: 1: 43,100; Frente Popular: 8 Nil: 4,589; Independents: 27: 3: 27,648; Invalid votes: 10,837.

*Parliamentary Poll:* Number of seats: 2; Number of seats declared: 2; Total electorate 3,50,039; Total votes polled: 2,60,869.

The following are particulars regarding seats contested; seats won and votes polled respectively by each party in the parliamentary election:—

Maharashtrawadi Gomantak: 2: 2: 1,16,073; United Goans 2: Nil: 82,497; Congress: 2: Nil: 43,602; Independents: 2: Nil: 11,616; Invalid votes: 7,081.

### ORISSA MID-TERM ELECTIONS

The mid-term election to the Orissa Legislative Assembly which began on 2nd June and ended on 12th June 1961, swept the Congress to power.

The final party position in the 140-member Assembly was: Congress 82, Ganatantra Parishad 37, Praja-Socialists 10, Communists four, Independents seven. The Independents include one member each from the Swatantra Party and the Socialist (Lohia) Party.

The following table gives details of the elections:—

| | 1957 | | 1961 | | |
|---|---|---|---|---|---|
| | Seats won | Percentage polled | Seats won | Votes polled | Percentage |
| Congress .. .. .. | 56 | 38·21 | 82 | 1,309,607 | 44·44 |
| Ganatantra Parishad .. | 51 | 28·37 | 37 | 642,822 | 21·81 |
| Praja-Socialist Party .. | 11 | 10·39 | 10 | 301,514 | 10·23 |
| Communist Party .. | 9 | 8·93 | 4 | 246,465 | 8·37 |
| Independents .. .. | 13 | 14·64 | 7 | 446,576 | 15·15 |

*Note:* 1961: Electorate 8,442,849, Votes polled 2,046,984, percentage 34.5.

Independent votes include Jharkhand Party 36,894. Socialist (Lohia) Party 18,810, Swatantra Party 18,080 and Adivasi Unnat Samaj 14,729. More details are given in the previous editions of the book.

The Election Commission had constituted 115 tribunals to process 348 petitions challenging elections upto Aug. 1965.

Of the 367 petitions received, 309 related to the election to the Legislative Assemblies, 46 to the Lok Sabha, 5 to the Rajya Sabha and 7 to the Legislative Councils.

State-wise election petitions from Parliamentary Constituencies are: Andhra Pradesh 1; Assam 1; Bihar 7; Gujarat 1; Madhya Pradesh 7; Madras 1; Orissa 2; Punjab 6; Rajasthan 5; Uttar Pradesh 12; West Bengal 2; Manipur 1.

Elections disputed in the Assembly Constituencies are:

Andhra Pradesh 27; Assam 8; Bihar 23; Gujarat 12; Jammu & Kashmir 11; Madhya Pradesh 32; Madras 12; Maharashtra 19; Mysore 18; Punjab 57; Rajasthan 30; Uttar Pradesh 50; West Bengal 10.

The following parties are eligible for a reserved symbol in the States and Union Territories shown against them.

1. Indian National Congress — all the States and Union Territories except Nagaland.
2. Communist Party of India — Andhra Pradesh, Assam, Bihar, Kerala, Madras, Maharashtra, Orissa, Punjab, Rajasthan, West Bengal and Tripura.
3. Communist Party of India (Marxist)— Andhra Pradesh. Kerala and West Bengal.
4. Praja Socialist Party — Assam, Bihar, Gujarat, Kerala, Madhya Pradesh, Maharashtra, Mysore, Orissa, Uttar Pradesh, and Manipur.
5. Swatantra Party — Andhra Pradesh, Bihar, Gujarat, Madras, Mysore, Orissa, Rajasthan and Himachal Pradesh.
6. Jana Sangh — Madhya Pradesh, Punjab, Rajasthan, Uttar Pradesh and Delhi.
7. Republican Party — Maharashtra, Punjab and Himachal Pradesh.
8. All Party Hill Leaders' Conference — Assam.
9. Jharkhand Party — Bihar.
10. Muslim League — Kerala.
11. Dravida Munnetra Kazhakam — Madras.
12. Peasants & Workers Party — Maharashtra.
13. Akali Dal — Punjab.
14. Forward Bloc — West Bengal.
15. People's Front — Pondicherry.
16. Frente Popular — Goa, Daman and Diu.
17. Maharashtrawadi Gomantak—Goa, Daman and Diu.
18. United Goans — Goa, Daman and Diu.
19. Democratic Party of Nagaland—Nagaland.
20. Naga Nationalist Organisation—Nagaland.
†21. Samyukta Socialist Party — Madhya Pradesh & Manipur.

**Miscellaneous**

No. of candidates who filed nomination papers — Lok Sabha 2,763; Assemblies 18,582.

No. of candidates whose nominations were rejected—Lok Sabha 35; Assemblies 247.

No. of candidates who withdrew their candidature—Lok Sabha 743; Assemblies 5,689.

No. of candidates who have contested — Lok Sabha — 1,985; Assemblies — 12,646.

The position about the forfeiture of deposits was as follows:—

For the Lok Sabha 856 and for the Assemblies 6,337.

Uncontested returns were:—Lok Sabha 3, all Congress (Madras, Orissa and Uttar Pradesh — one each).

Assemblies 13, all Congress (Andhra Pradesh 6; Madhya Pradesh 3; Mysore 2; Rajasthan 1 and West Bengal 1).

**Women Members**

38 women were elected to the Lok Sabha and 174 to the State Assemblies (excluding Kerala and Orissa where no general election took place). These figures also include the members nominated and the members elected to the Himachal Pradesh and Manipur.

31 women elected to the Lok Sabha belonged to the Congress Party, two to the Communist Party and five to the Swatantra Party.

Of those elected to the State Assemblies, 158 belonged to the Congress, four to the Communist, three Swatantra, three P.S.P., one Jana Sangh, two R.R.P., two D.M.K. and one Independent.

The Bihar Assembly had 25 women, the largest for any State, followed by Uttar Pradesh with 20, Mysore with 18 and Madhya Pradesh with 16.

**Biennial Elections to Rajya Sabha, 1964**

Under the Constitution, a third of the members of the Rajya Sabha have to retire every two years. Thus the term of 79 members (75 elected and 4 nominated) expired on April 2, 1964.

Statewise vacancies were:

Andhra Pradesh 6; Assam 2; Bihar 8; Gujarat 4; Kerala 3; Madhya Pradesh 6; Madras 6; Maharashtra 6; Mysore 4; Orissa 3; Punjab 4; Rajasthan 3; Uttar Pradesh 11; West Bengal 4; Jammu & Kashmir 2; Delhi 1; Himachal Pradesh 1.

119 candidates were in the field. The statewise figures were:—

Andhra Pradesh 12; Assam 2; Bihar 11; Gujarat 5; Kerala 5; Madhya Pradesh 17; Madras 7; Maharashtra 7; Mysore 7; Orissa 4; Punjab 13; Rajasthan 5; Uttar Pradesh 12; West Bengal 5; Jammu and Kashmir 3; Delhi 1; Himachal Pradesh 2.

The candidates from Assam and Delhi State were elected uncontested.

31 of the sitting members were elected/nominated and 48 were new members.

† The Praja Socialist Party disassociated from the Samyukta Socialist Party and retained their symbol 'Hut' since the merger agreement was not implemented.

### Bye-Elections

140 bye-elections, 27 to the Lok Sabha and 113 to the State Legislative Assemblies, have been held since the general poll in 1962 to Aug. 2, 1965.

The analysis of 27 Lok Sabha seats shows that Congress retained 19 seats in various bye-elections and registered no gain. The P.S.P. gained one seat and the Swatantra two. The Jan Sangh and Republican Party lost one seat each while the Forward Bloc two. Independents retained their two seats and the D.M.K. secured one seat.

The Congress gained 14 seats in various Assembly bye-elections held since the last general elections in 1962. The DMK gained one and the SSP three seats. The Communists, the Swatantra and Akali parties lost two seats each while the Gantantra Parishad lost one seat. The All Party Hill Leaders' Conference and Independents lost three and seven seats respectively. The Muslim League retained its two seats.

The following table shows State-wise particulars of the by-elections since General Elections in 1962 to 1965.

| Name of State | BYE-ELECTIONS | | | |
|---|---|---|---|---|
| | Lok Sabha | | Legislative Assemblies | |
| | Before Emergency | During Emergency | Before Emergency | During Emergency |
| Andhra Pradesh .. .. .. | 1 | 1 | 2 | 11 |
| Assam .. .. .. .. .. | .. | .. | .. | 11 |
| Bihar .. .. .. .. .. | .. | 2 | 2 | 3 |
| Gujarat .. .. .. .. .. | .. | 2 | 2 | 3 |
| Kerala .. .. .. .. .. | .. | .. | 2 | 3 |
| Madhya Pradesh .. .. .. | .. | 3 | 2 | 10 |
| Madras .. .. .. .. | 1 | 1 | .. | 4 |
| Maharashtra .. .. .. .. | .. | 3 | .. | 9 |
| Mysore .. .. .. .. .. | 1 | 4 | 1 | 5 |
| Orissa .. .. .. .. .. | .. | .. | 2 | 5 |
| Punjab .. .. .. .. .. | .. | .. | .. | 6 |
| Rajasthan .. .. .. .. .. | .. | 1 | .. | 5 |
| Uttar Pradesh .. .. .. .. | .. | 5 | .. | 7 |
| West Bengal .. .. .. .. | .. | 2 | 2 | 11 |
| Jammu & Kashmir .. .. .. | .. | .. | .. | 5 |
| | 3 | 24 | 15 | 98 |

### Election Petitions

333 election petitions after the general poll out of 367—have been disposed of by the different tribunals (Aug. 1965).

As of Aug. 1965, 56 petitions have succeeded, resulting in the setting aside of the election of the returned candidates. As many as 236 petitions were dismissed either by the tribunal in the first instance or by the appellate courts on appeal. Forty petitions were allowed to be withdrawn, and one petition abated on the death of the returned candidate.

In four cases, the returned candidates' election has been set aside and, in places some other candidate declared elected. In 9 cases where the election has been set aside, appeals are pending before the High Courts or the Supreme Court.

Punjab had the maximum number of election petitions, 67, and Uttar Pradesh was a close second with 64. There were 39 petitions from Madhya Pradesh, 35 from Rajasthan, 33 from Bihar, 29 from Andhra Pradesh and 20 from Maharashtra, two from Orissa and one from Manipur. Seventy-seven petitions came from the remaining six States, while there was none from Kerala, Delhi, Himachal Pradesh and Tripura.

The Election Commission dismissed 19 petitions on technical grounds. For the trial of the remaining 348 petitions, 115 tribunals were constituted. Eleven of them were presided over by retired High Court judges and 104 by serving District Judges.

On Aug. 2, 1965, 15 election petitions were pending before tribunals.

Two election tribunals presided over by retired High Court judges and 8 tribunals presided over by serving District Judges are functioning in the various States.

### Delimitation Commission

The Delimitation Commission has refixed the number of seats in each State legislative assembly for the next general election.

The strength is increased in ten States, remains the same in two States, Bihar and Orissa, and is slightly reduced in two other States, Uttar Pradesh and Andhra Pradesh.

The new allotment, including the reserved seats, is as follows :—

| Name of State | Total No. of seats | No. of seats reserved for | |
|---|---|---|---|
| | | Scheduled Castes | Scheduled Tribes |
| Uttar Pradesh .. | 425 | 89 | .. |
| Bihar .. .. | 318 | 45 | 29 |
| Maharashtra .. | 270 | 15 | 16 |
| Andhra Pradesh . | 287 | 40 | 11 |
| West Bengal .. | 280 | 55 | 17 |
| Madras .. | 234 | 42 | 2 |
| Madhya Pradesh . | 296 | 39 | 61 |
| Mysore .. .. | 216 | 29 | 2 |
| Gujarat .. .. | 168 | 11 | 22 |
| Punjab .. .. | 161 | 33 | .. |
| Rajasthan .. | 184 | 31 | 21 |
| Orissa .. .. | 140 | 22 | 34 |
| Kerala .. .. | 133 | 11 | 2 |
| Assam .. .. | 126 | 8 | 10 |

In Assam 16 seats are reserved for the autonomous districts : five for the United Khasi and Jaintia Hills District ; four for the Garo Hills District ; three for the Mizo District ; one for the North Cachar Hills and three for the Mikir Hills.

Under the Delimitation Commission Act, the total number of seats of the legislative assembly of a State has to be an integral multiple of the number of seats in the Lok Sabha allotted to that State.

These multiples at present are : Uttar Pradesh and Madras five ; Bihar and Maharashtra six ; Andhra Pradesh, West Bengal, Gujarat, Punjab, Orissa and Kerala seven ; Madhya Pradesh, Mysore and Rajasthan eight ; and Assam nine.

The Commission has decided to maintain the existing multiples in all States except Madras. The legislative assembly of this State has at present only 206 seats. In view of the fact that its quota in the Lok Sabha will for the future be reduced from 41 to 39, the Commission has increased its 'multiple' from five to six and assigned 234 seats to its legislative assembly.

The Commission has already increased the seats allotted to the 14 states in the Lok Sabha from 481 to 490. The new distribution, as already announced is as follows : Uttar Pradesh 85 ; Bihar 53 ; Maharashtra 45 ; Andhra Pradesh 41 ; West Bengal 40 ; Madras 39 ; Madhya Pradesh 37 ; Mysore 27 ; Gujarat 24 ; Punjab 23 ; Rajasthan 23 ; Orissa 20 ; Kerala 19 ; and Assam 14.

### PONDICHERRY ELECTION

The first general election to the Pondicherry Legislative Assembly took place on Aug. 23, 1964. There were 85 candidates in the field to contest 29 seats. The Congress contested all the 29 seats. The leading opposition party (Communist-dominated) People's Front had put up 17 candidates, and the remaining were independents.

In the election the Congress secured an absolute majority of 22 seats in the 30-member legislative assembly. The People's Front secured four seats. Other successful candidates were independents.

### President's Rule stays in Kerala

A no-confidence motion was passed against the Congress Ministry in Sept. 1964. President's rule was promulgated. New election took place in March 1965. The Legislative Assembly has however again been dissolved by the Presidents' proclamation under article 356 of the constitution on March 24, 1965, as no party had an absolute majority.

# ANDHRA PRADESH LEGISLATIVE COUNCIL

*Strength* :—90.

An estimate of party position is as follows :— Cong. 62, Communist Party 5, Swatantra 2, United Democratic Front 2, Ind. 11 (including Independent Group), C. D. L. F. 3 and National Democrats 7.

*Chairman :* G. Brahmayya ; *Dy. Chairman :* M. Anandam ; *Secretary :* G. V. Chowdary ; *Asstt. Secretary :* Sadasiva Reddy.

### Local Authorities' Constituencies (31)

Mohd. Arif Khan (Cong.), (*Adilabad*).
D. Narayana Reddy (Cong.), (*Anantapur*).
Smt. Katta Subbamma (*Chittoor*).
R. Venkata Subha Reddy (Cong.), (*Chittoor*).
K. Ramaiah (N.D.), (*Cuddapah*).
R. Ramalinga Raju (Cong.), (*Godavari-East*).
V. Satyanarayana Murthy (Cong.), (*Godavari-East*).
A. Sesha Rao (Cong.), (*Godavari-West*).
T. Veerabhadra Rao (Cong.), (*Godavari-West*).
B. Adi Narayana Rao (Cong.), (*Guntur*).
V. Satyanarayana Rao (Cong.), (*Guntur*).
M. Manik Rao (Cong.), (*Hyderabad*).
E. Satyanarayana (Cong.), (*Hyderabad*).
M. Chenna Kesava Reddy (Cong.), (*Karimnagar*).
Heeralal Moria (Cong.), (*Khammam*).
Smt. V. Kamala Kumari (Cong.), (*Krishna*).
G. Krishnamurty (Cong.), (*Krishna*).
D. Panduranga Reddy (Cong.), (*Kurnool*).
A. Vengala Reddy (Cong.), (*Kurnool*).
K. Ramachandra Reddy (Cong.), (*Mahboobnagar*).
K. Subrahmanyam (Cong.), (*Mahboobnagar*).
S. Lakshma Reddy (Cong.), (*Medak*).
Ch. Shankar Rao (Cong.), (*Nalgonda*).
P. Veera Raghava Reddy (Cong.), (*Nellore*).
P. Venkata Krishna Reddy (Cong.), (*Nellore*).
Ch. Hanumantha Reddy (Cong.), (*Nizamabad*).
B. Narayana Murthy (N.D.), (*Srikakulam*).
T. Rama Murthy (Cong.), (*Srikakulam*).
A. Appanna Dora (Cong.), (*Visakhapatnam*).
N. V. Ganga Raju (Cong.), (*Visakhapatnam*).
E. Laxma Reddy (Cong.), (*Warangal*).

### Elected by the Legislative Assembly (31)

Abu Yusuf (Cong.).
G. Brahmayya (Cong.).
S. Siddha Reddy (Cong.).
Smt. Faizunnisa (Cong.).
M. Hanumantha Rao (Cong.).
N. V. Jagannatham (Cong.).
Smt. D. Lakshmibayamma (Cong.).
I. Lingayya (Cong.).
N. M. Williams (Cong.).
K. V. Pratap Reddy (Cong.).
Meda Subbaiah (Cong.).
Smt. Alluri Annapurnamma (Cong.).
Shaik Galib (Cong.).
M. Subba Reddy (Cong.).
Makhdoom Mohiuddin (C.D.L.F.).
P. Venkataswami Reddy (Cong.).
I. Sadasivan (C.D.L.F.)
Pyndah Venkatanarayana (Swa.).
S. Rami Reddy (Swa.).
C. Subba Rao Chowdary (Ind.).
M. B. Gautam (Cong.).
D. Govinda Rajulu (Com.).
T. Ramaswami (Cong.).
N. Ramachandraiah (Com.).
G. V. Sudhakar Rao (Cong.).
K. Venkata Setty (Cong.).
S. Malakonda Reddy (Ind.).
Akkala Kotaiah (Cong.).
G. Appalaswamy (Cong.).
A. Chitambara Reddy (Cong.).
N. Durgamallikarjuna Prasada Rao (Com.).

### Graduates' Constituencies (8)

Dr. T. Kanakaraju (Cong.), (*Circars-Central*).
N. Somayajulu (N.D.), (*Circars-North*).
T. Swatma Rama Rao (N.D.), (*Circars-South*).
M. Anadam (Cong.), (*Hyderabad*).
M. Ataur Rahman (C.D.L.F.) (*Hyderabad*).
Y. C. Ranga Reddy (N.D.), (*Rayalaseema-East*).
B. V. Subbaraju (Ind.), (*Rayalaseema-West*).
A. Seetha Rama Reddy (Ind.), (*Telangana*).

### Teachers' Constituencies (8)

D. S. Subrahmanyam (Ind.), (*Circars-Central*).
T. P. V. Kurmacharyulu (N.D.), (*Circars-North*).
C. Lakshmaiah (Com.), (*Guntur*).
P. Sreerama Murthy (Ind.), (*Krishna*).
S. Ramakrishnaiah (Com.), (*Rayalaseema-East*).
V. Vijaya Ramu Raju (Ind.), ((*Rayalaseema-West*).
P. Narsing Rao (Cong.), (*Telangana-East*).
V. P. Raghavachari (N.D.), (*Telangana-West*).

### Nominated by the Governor (12)

M. Azamuddin (Cong.).
Smt. Zubeda Begum (Cong.).
Smt. I. Saraswathi Devi (Cong.).
K. Koti Reddy (Cong.).
Aluru Venkatasubbarao (Ind.).
S. Govindarajulu (Ind.).
Gurram Jashua (Ind.).
S. Sambhu Prasad (Ind.).
G. V. Sesha Sastry (Cong.).
S. Ahmadullah Qadri (Cong.).
Dr. (Miss) H. M. Lazarus (Cong.).
M. Narsing Rao (Cong.).

# ANDHRA PRADESH LEGISLATIVE ASSEMBLY

*Electorate :* 1,90,11,417.

*Speaker :* B. V. Subba Reddy ; *Deputy Speaker:* V. K. Naik ; *Secretary :* G. V. Chowdary ; *Editor of Debates :* M. K. Sastri.

The party position in the Andhra Pradesh Legislative Assembly is as follows : Congress 210 ; Communists Party 23 ; Legislature Communist Party 31 ; National Democrats 7 ; United Democrats 8 ; Swatantra 16 ; Independents 9 ; Nominated 1 ; Vacant 4 ; Total 301 ; Sch. Castes 43 ; Sch. Tribes 11.

Dr. K. Naganna (S.C.) (Cong.), (*Achampet (R)*).
P. S. Sundara Rao (S.C.) (L.C.P.), (*Achanta (R)*).
P. Ranganayakulu (L.C.P.), (*Addanki*).
Vithal Rao (Cong.), (*Adilabad*).
H. Sitarama Reddy (Cong.), (*Adoni*).
Smt. A. Kamala Devi (L.C.P.), (*Alair*).
D. Muralidhar Reddy (Cong.), (*Alampur*).
S. Jayaraju (S.C.) (Cong.), (*Allagadda (R)*).
C. Gangi Setti (S.C.) (Cong.), (*Allavaram (R)*).
Lakshmikantha Reddy (Cong.), (*Alur*).
N. Ramabhadra Raju (Cong.), (*Amalapuram*).
S. Singaiah (Com.), (*Ammanabrolu*).
K. Govinda Rao (L.C.P.), (*Anakapalli*).
P. Anthony Reddy (Cong.), (*Anantapur*).
P. Panasaramanna (L.C.P.), (*Anaparthi*).
Smt. S. L. Devi (Cong.), (*Andole*).
T. Ranga Reddy (Cong.), (*Armoor*).
Bhim Rao (S.T.) (Cong.), (*Asifabad (R)*).
M. M. Hashim (Cong.), (*Asifnagar*).
Som Bhopal (Ind.), (*Atmakur*).
A. Sanjeeva Reddy (Cong.), (*Atmakur*).
S. R. Datla (Ind.), (*Attili*).
Y. S. Prasad (Cong.), (*Avanigadda*).
N. Subba Reddy (Cong.), (*Badvel*).
V. K. M. Naidu (Cong.), (*Balijipeta*).
G. Raja Ram (Cong.), (*Balkonda*).
P. L. Rao (Cong.), (*Bandar*).
Sreenivasa Reddy (Cong.), (*Banswada*).
K. Venkateswararao (Com.), (*Bapatla*).
K. S. Gupta (Cong.), (*Begun Bazar*).
Md. Tahaseel (Ind.), (*Bhadrachalam*).
P. V. R. Gajapathi Raju (Cong.), (*Bheemunipatnam*).
N. V. Ramaiah (Cong.), (*Bhimavaram*).
K. A. Dhora (Cong.), (*Bhogapuram*).
A. R. Reddy (L.C.P.), (*Bhongir*).
C. Madhav Reddy (Cong.), (*Boath*).
T. Lakshmunaidu (Cong.), (*Bobbili*).
A. Dasavatharam (Cong.), (*Boddam*).
Dr. K. V. Reddy (Cong.), (*Bodhan*).
Smt. B. Lakshmi Narayanamma (Cong.), (*Brahmanatarla*).
Swarna Vemayya (S.C.) (L.C.P.), (*Buchireddipalem (R)*).
A. N. Reddy (Cong.), (*Buggaram*).
K. Butchayya (S.T.) (Com.), (*Burgampahad (R)*).
B. Subba Rao (S.C.) (Cong.), (*Burugupudi (R)*).
N. Yathiraja Rao (Ind.), (*Channur*).
K. S. A. Naidu (Swa.), (*Cheepurupalli*).
Md. K. Ahmed (Cong.), (*Cherial*).
V. Rama Rao (S.C.) (Cong.), (*Chevella (R)*).
P. Venkata Rao (Cong.), (*Cheyyeru*).
G. Mallikarjuna Rao (Cong.), (*Chillamcherla*).
Vacant, (*Chinnakondur*).
K. Rajamallu (S.C.) (Cong.), (*Chinnur (R)*).
R. Yesupadam (Cong.), (*Chintalapudi*).
D. K. Rao (S.T.) (Cong.), (*Chintapalli (R)*).
R. Yesupadam (S.C.) Cong.), (*Chintalapudi (R)*).
J. L. N. Chowdary (L.C.P.), (*Chirala*).
C. D. Naidu (Swa.), (*Chittoor*).
I. Satyanarayana (Cong.), (*Chodavaram*).
B. Ramulu (Cong.), (*Choppadandi*).
Pallaguri Seshaiah (Cong.), (*Cuddapah*).
D. V. Reddy (Cong.), (*Darsi*).
M. R. Rao (Cong.), (*Dendulur*).
Y. Peddaiah (S.C.) (L.C.P.), (*Devarkonda (R)*).
T. H. Chary (Cong.), (*Dharmasagar*).
P. V. Choudari (Cong.), (*Dharmavaram*).
C. Rambhupal Reddy (Cong.), (*Dhone*).
Khwaja Moinuddin (Cong.), (*Dommat*).
N. R. Reddy (Cong.), (*Dornakal*).
L. Lakshma Reddy (Cong.), (*Duggirala*).
V. Sanyasi Naidu (Cong.), (*Elamanchili*).
A. Sarweswara Rao (L.C.P.), (*Eluru*).
K. R. Bhupal (Cong.), (*Gadwal*).
T. Sanyasi Naidu (Cong.), (*Gajapathinagaram*).
G. Saidiah (S.C.) (Cong.), (*Gajwel (R)*).
P. Sundarayya (Com.), (*Gannavaram*).
N. P. V. Mohan Rao (Com.), (*Ghanpur*).
E. B. Reddy (Cong.), (*Giddalur*).
S. Appala Naidu (Swa.), (*Golugonda*).
V. K. A. Reddy (L.C.P.), (*Gooty*).
T. Veerar Raghavulu (S.C.) (Cong.), (*Gopalapuram (R)*).
B. V. Bayapa Reddy (Cong.), (*Gorantla*).
G. Rama Rao (S.C.) (Com.), (*Gudivada (R)*).
M. Munuswamy (S.C.) (Cong.), (*Gudur (R)*).
K. Nagaiah (L.C.P.), (*Guntur I*).
C. Hanumaiah (Cong.), (*Guntur II*).
K. Venkateswarlu (Cong.), (*Gurzala*).
C. Vasudeva Reddi (Ind.), (*Hasanparthi*).
B. Ramdev (Cong.), (*High Court*).
Vacant (*Hindupur*).
G. Ramulu (S.C.) (Cong.), (*Huzurabad (R)*).
A. Vasudeva Rao (Cong.), (*Huzurnagar*).
Smt. Sumitra Devi (S.C.) (Cong.), (*Hyderabad East (R)*).
M. N. Lakshmi Narsiah (Cong.), (*Ibrahimpatnam*).
K. Chendra Deo (Cong.), (*Ichapuram*).
B. Lakshmikantha Rao (Cong.), (*Indurthi*).
Keshavulu (Cong.), (*Jadcherla*).
V. Mutyala Rao (Cong.), (*Jaggampeta*).
G. Venkateswarlu (S.T.) (Cong.), (*Jaggayyapet (R)*).
K. Lakshminarasimha Rao (Cong.), (*Jagtial*).
T. N. Reddy (Cong.), (*Jammalamadugu*).
K. Raghavulu (Com.), (*Jangaon*).
Smt. Roda Mistry (Cong.), (*Jubilee Hills (R)*).
T. Naganatha Rao (Cong.), (*Jukkal*).
E. Gopalu Naik (S.T.) (Cong.), (*Kadiri (R)*).
K. Appa Rao (Cong.), (*Kaikalur*).
D. Bhaskara Rao (Cong.), (*Kakinada*).
A. Balaram Reddy (Cong.), (*Kalahasti*).
Smt. Shanta Bai (Cong.), (*Kalvakurthi*).
H. Narasappa (S.C.) (Cong.), (*Kalyandurg (R)*).
K. V. Narayana Reddy (Cong.), (*Kamalapur*).
V. Venkata Reddy (Cong.), (*Kamalapuram*).
V. R. Venkata Rama Reddy (Cong.), (*Kamareddy*).
N. C. Rama Naidu (Cong.), (*Kandukur*).
K. G. Reddy (L.C.P.), (*Kanigiri*).
M. Lakshmana Swamy (L.C.P.), (*Kankipadu*).
K. Sriramamurthy (Cong.), (*Kanithi*).
R. Thirupathy Rao (Cong.), (*Karapa*).
A. Kishan Reddy (Ind.), (*Karimnagar*).
Y. Penchalaiah (S.T.) (Cong.), (*Kavali (R)*).

N. Prasada Rao (Ind.), (*Khammam*).
K. Rukma Reddy (Cong.), (*Kodangal*).
Vacant, (*Kodumur* (*R*)).
N. Penchalaiah (S.C.) (Swa.), (*Kodur* (*R*)).
B. V. Subba Reddy (Cong.), (*Koilkuntla*).
K. Rang Das (Cong.), (*Kollapur*).
P. Venkataramana (L.C.P.), (*Kondakarla*).
C. R. Naidu (Cong.), (*Kondapi*).
K. Veeranna (Cong.), (*Korukonda*).
Satyanarayana Raju (Cong.), (*Kosigi*).
M. V. Suryasubba Raju (Cong.), (*Kothapeta*).
P. Gunnayya (S.C.) (Cong.), (*Kothuru* (*R*)).
R. D. Reddy (Cong.), (*Kovur*).
A. Bapineedu (Cong.), (*Kovvur*).
E. Subba Rao (Com.), (*Kuchinapudi*).
A. P. Vajravelu Chetty (Com.), (*Kuppam*).
T. K. R. Sarma (S.S.P.), (*Kurnool*).
G. V. Pithambara Rao (Cong.), (*Luxettipet*).
M. Kesavanayakudu (S.T.) (Cong.), (*Macherla* (*R*)).
Smt. B. Rukmini Devi (S.C.) (Cong.), (*Madakasira* (*R*)).
D. Seetharamaiah (Com.), (*Madanapalle*).
D. Venkiah (Cong.), (*Madhira*).
E. Basappa (S.C.) (Cong.), (*Madoor* (*R*)).
T. Viswanadham (N.D.), (*Madugula*).
M. Ram Reddy (Ind.), (*Mahbubnagar*).
M. Ramagopal Reddy (N.D.), (*Maidaram*).
K. Ramchander Rao (Cong.), (*Makthal*).
Mir Ahmed Ali Khan (Cong.), (*Malakpet*).
P. Pamideswara Rao (Cong.), (*Malleswaram*).
V. Shrikrishna (L.C.P.), (*Mangalagiri*).
P. V. Narasimha Rao (Cong.), (*Manthani*).
K. Obul Reddy (Cong.), (*Markapur*).
N. Venkateswarulu (Cong.), (*Martur*).
Smt. K. Ananda Devi (L.C.P.), (*Medak*).
V. Ramachandra Rao (N.D.), (*Medchal*).
V. Ranga Rao (Cong.), (*Metpalli*).
E. Ayyapu Reddy (Cong.), (*Midthur*).
T. C. Krishna Reddy (Cong.), (*Miryalaguda*).
G. Ganga Reddy (Cong.), (*Mudhole*).
B. Hanumantha Rao (Cong.), (*Mudinepalli*).
M. Krishnaiah (Cong.), (*Mulug*).
T. Anjaiah (Cong.), (*Musheerabad*).
P. Narayana Reddy (Swa.), (*Mydukur*).
V. Visweswara Rao (L.C.P.), (*Mylavaram*).
N. Ganeswara Rao (Cong.), (*Nagaram*).
A. Ranga Reddy (Cong.), (*Nagaram*).
D. Gopala Raju (Cong.), (*Nagari*).
T. Paparao (Cong.), (*Nagarikatakam*).
P. Mahendranath (S.C.) (Cong.), (*Nagarkurnool* (*R*)).
A. Lakshmunaidu (S.T.) (Cong.), (*Naguru* (*R*)).
N. Srinivasa Reddy (Com.), (*Nakrekal*).
B. Dharmabhiksham (L.C.P.), (*Nalgonda*).
Y. Papi Reddy (L.C.P.), (*Nallamada*).
P. Venkateswarulu (L.C.P.), (*Nandigama*).
P. V. Krishna Reddy (N.D.), (*Nandikokkur*).
K. Ramaiah Chowdary (Cong.), (*Nandipad*).
M. Subba Reddy (N.D.), (*Nandyal*).
S. Jagannatham (Swa.), (*Narasannapeta*).
Vithal Reddy (Cong.), (*Narasan*).
C. R. Chowdary (Cong.), (*Narsaraopet*).
D. Ramachandra Rao (Swa.), (*Narayankhed*).
A. Venkateswara Rao (Com.), (*Narsampet*).
P. Seshavatharam (Cong.), (*Narsapur*).
Vithal Reddy (L.C.P.), (*Narsapur*).
R. Lachapatrudu (Swa.), (*Narsipatnam*).
G. C. Kondaiah (Cong.), (*Nellore*).
B. Janakiram (S.C.) (Cong.), (*Nerella* (*R*)).
G. Bapanayya (S.C.) (Com.), (*Nidumolu* (*R*)).
P. Narsa Reddy (Cong.), (*Nirmal*).
Harinarayan (Cong.) (*Nizamabad*).
M. R. Apparao (Cong.), (*Nuzvid*).
Dr. B. Venkatalakshminarayana (Ind.), (*Ongole*).
D. Suri Dhora (S.T.) (Cong.), (*Pachipenta* (*R*)).
A. S. N. Murthy (Cong.), (*Palacole*).
K. Santhiah (S.C.) (Cong.), (*Palair* (*R*)).
K. Suryanarayana Naidu (Swa.), (*Palakonda*).
K. Nanjappa (S.C.) (Cong.), (*Palmaner* (*R*)).
P. Satyanarayana (Com.), (*Palvancha*).
S. B. P. Pattabhi Rama Rao (Cong.), (*Pamarru*).
M. Rama Dev Reddy (Cong.), (*Pargi*).
R. N. Ramaiah (S.C.) (Cong.), (*Parkal* (*R*)).
N. Venkataswamy (Com.), (*Paruchuru*).
S. C. Appalanaidu (Cong.), (*Parvada*).
V. C. Chudamani Deo (Cong.), (*Parvathipuram*).
L. Lakshmana Dasu (Cong.), (*Patapatnam*).
O. S. Salahuddin (Ind.), (*Pathergatti*).
K. B. Narasappa (Cong.), (*Pattikonda*).
M. Pitchalaiah (S.C.) (Com.), (*Payakaraopeta*(*R*)).
P. Koteswara Rao (L.C.P.), (*Peadakakani*).
G. R. Reddy (Cong.), (*Peddakurapadu*).
B. Rajaram (S.C.) (Cong.), (*Peddapalli* (*R*)).
P. Padmanabham (Cong.), (*Peddapuram*).
P. Parvatha Reddy (L.C.P.), (*Peadavoora*).
Ch. S. R. C. V. P. Murthy Raju (Cong.), (*Pentapadu*).
V. Satyanarayana (L.C.P.), (*Penugonda*).
Narasi Reddy (Cong.), (*Penukonda*).
K. Brahmananda Reddy (Cong.), (*Phirangipuram*).
C. K. Narayana Reddy (Com.), (*Pileru*).
Bavanna Rao (Cong.), (*Pithapuram*).
K. Narayanaswamy (Cong.), (*Podili*).
K. Baburao (L.C.P.), (*Polavaram*).
K. Narasayya (S.C.), (Cong), (*Ponduru*).
N. Venkatarao (Cong.), (*Ponnur*).
M. V. Raghavarao (U.D.F.), (*Pratipadu*).
P. Yerramuni Reddy (Cong.), (*Prodattur*).
C. Bali Reddy (Cong.), (*Pulivendla*).
V. Ramaswamy Reddy (Cong.), (*Punganur*).
T. Nagireddy (Com.), (*Putloor*).
P. Veerabhadra Rao (Cong.), (*Rajahmundry*).
K. Marareddy (Swa.), (*Rajampet*).
N. Satyanarayanarao (N.D.), (*Ramachandrapuram*).
K. Ramachandra Reddy (L.C.P.), (*Ramannapet*).
G. Suryanarayana (S.C.) (Cong.), (*Ramathirtham* (*R*)).
Smt. Ratnamma Reddy (Cong.), (*Ramayampet*).
A. C. Subba Reddy (Cong.), (*Rapur*).
R. N. Reddy (Swa.), (*Rayachoti*).
Lakka Chinnappa Reddy (Cong.), (*Rayadurg*).
M. Gaddem (S.C.) (Cong.), (*Razole* (*R*)).
G. Viswanatha Reddy (Cong.), (*Reddipalli*).
K. Satyanarayana (Com.), (*Repalle*).
K. Appala Naidu (Cong.), (*Revidi*).
C. Rajnarasimha (S.C.), (Cong.), (*Sadasivpet* (*R*)).
L. N. Sanyasi Raju (Cong.), (*Salur*).
Mohammed Ismail (Cong.), (*Samalkot*).
P. Ramachandra Reddy (Cong.), (*Sangareddy*).
T. Chanchaiah (S.C.) (Com.), (*Santhanuthalapadu* (*R*)).
V. Venkureddy (Cong.), (*Sarvepalli*).
V. G. Krishnayya (Ind.), (*Sattenapalli*).
T. Balakrishnaiah (S.C.) (Cong.), (*Satyavedu* (*R*)).
K. S. Narayana (Cong.), (*Secunderabad*).
B. V. Gurumurthy (Cong.), (*Secunderabad Cantt.*).
Damodara Reddy (Cong.), (*Shadnagar*).
B. H. Reddi (Cong.), (*Shermuhammadpuram*).
Someswara Rao (Cong.), (*Siddipet*).
J. Narsing Rao (Cong.), (*Sircilla*).
G. Sanjeeva Reddy (Cong.), (*Sirpur*).
G. Latchanna (Swa.), (*Sompeta*).
A. Thavitiah (Cong.), (*Srikakulam*).
G. Dharma Naidu (S.T.) (Cong.), *Srungavarapukota* (*R*)).
P. Siddiahnaidu (Cong.), (*Sullurpet*).
J. Malla Reddy (Cong.), (*Sultanabad*).
V. Krishnaji Naik (Cong.), (*Sultan Bazar*).
U. Malchooru (S.C.) (Com.), (*Suryapet* (*R*)).
C. K. Reddy (Cong.), (*Tadapatri*).
A. Krishna Rao (Cong.), (*Tadepalligudem*).
G. Kamayya (S.C.) (Cong.), (*Tallarevu* (*R*)).
M. Chenna Reddy (Cong.), (*Tandur*).
M. Harishchandra Prasad (Cong.), (*Tanuku*).
P. R. Naidu (Swa.), (*Tavanampalle*).
R. Satyanarayana (Swa.), (*Tekkali*).
A. Venkatramaiah (Cong.), (*Tenali*).
K. N. Reddy (Swa.), (*Thamballapalle*).
R. N. Reddy (Cong.), (*Tirupathi*).
P. Bapayya (Cong.), (*Tiruvur*).
V. V. Krishnamaraju (Cong.), (*Tuni*).
P. Venkata Reddy (Cong.), (*Udayagiri*).
G. Ranga Raju (Cong.), (*Undi*).
G. C. Venkanna (Ind.), (*Uravakonda*).
P. Narayana Reddy (Cong.), (*Vadamalpet*).
P. Thimma Reddy (Cong), (*Vayalpad*).
J. Vengala Rao (Cong.), (*Vemsoor*).
Vacant (*Vemur*).
A. Krishnaiah (S.C.) (Cong.), (*Venkatagiri* (*R*)).
G. N. Pattabhi Reddy (Ind.), (*Vepanjeri*).
A. Ramaswamy (S.C.) (Cong.), (*Vicarabad* (*R*)).
T. Potharaju (Com.), (*Vijayawada North*).
Dr. T. V. S. Chalapati Rao (Cong.), (*Vijayawada-South*).
P. Venkatasiviah (L.C.P.), (*Vinukonda*).
A. V. Bhanoji Rao (Cong.), (*Visakhapatnam*).
B. Sriramamurthy (Cong.), (*Vizianagaram*).
P. Sangamnaidu (Cong.), (*Vunukuru*).
K. Venkata Ratnam (Cong.), (*Vuyyur*).
Smt. Kumudini Devi (Cong.), (*Wanaparthi*).
B. Nagabhushana Rao (Cong.), (*Warangal*).
K. L. Narasimha Reddy (Cong.), (*Wardhannapet*).
M. A. Rasheed (Cong.), (*Yakutpura*).
K. L. Narasimha Rao (Com.), (*Yellandu*).
Smt. T. N. Sadalakshmi (S.C.) (Cong.), (*Yellareddy* (*R*)).
C. Mallikharjuna (S.T.) (Cong.), (*Yullavaram* (*R*)).
Y. C. Veerabhadra Gowd (Swa.), (*Yemmiganur*).
Patra Singariah (S.C.) (Cong.), (*Yerpedu* (*R*)).
P. Subbaiah (L.C.P.), (*Yerragondipalem*).
M. Bagareddy (Cong.), (*Zahirabad*).
J. T. Fernandez (*nominated Anglo-Indian*).

## ASSAM LEGISLATIVE ASSEMBLY

**Seats: 105 (S.C. 5; S.T. 23); Electorate: 49,34,302.**

*Speaker:* Mahendra Mohan Choudhury;
*Dy. Speaker:* Dandeswar Hazarika.

**An estimate of party position is given below:**
Congress 84; Samyukta Socialist Party 1; Independent and others 20.

C. H. Chhunga (Ind.) (*Aijal East*).
**J. F. Manliana (S.T.) (Ind.), (*Aijal West* (*R*)).**
K. Barbarua (R.C.P.I.), (*Amguri*).
A. J. Choudhury (Cong.), (*Badarpur*).
W. Sangma (S.T.) (Ind.), (*Baghmara* (*R*)).
Biswadev Sarma (Cong.), (*Balipara*).
S. N. Dass (S.T.) (Cong.), (*Barama* (*R*)).
M. K. Das (Cong.), (*Barchalla*).
Dhani Ram Talukdar (Cong.), (*Barpeta*).
Mahadev Das (S.C.) (Cong.), (*Bhabanipur* (*R*)).
Mohananda Bora (Cong.), (*Bihpuria*).
Ram Prasad Das (Ind.), (*Bijni*).
Derajuddin Sarkar (Cong.), (*Bilasipara*).
K. P. Tripathi (Cong.), (*Biswanath*).
U. N. Sanatan (Cong.), (*Bogdung*).
Narendranath Sarma (Cong.), (*Bokakhat*).
P. K. Choudhury (Cong.), (*Boko*).
Stanley D. D. Nichols-Roy (S.T.) (Ind.), (*Cherrapunji* (*R*)).
Nalindra Sangma (S.T.) (Ind.), (*Dainadubi* (*R*)).
Matlebuddin (Cong.), (*Dalgaon*).
Neelakanta Hazarika (S.C.) (S.S.P.), (*Dergaon* (*R*)).
L. K. Doley (S.T.) (Cong.), (*Dhakuakhana* (*R*)).
O. K. Das (Cong.), (*Dhekiajuli*).
Mohd. Idrish (Cong.), (*Dhing*).
Mohd. Umaruddin (Cong.), (*Dhubri*).
R. C. Baroosh (Cong.), (*Dibrugarh*).
D. C. Deb Sarma (Cong.), (*Digboi*).
Molla Tanti (Cong.), (*Doom-Dooma*).
H. C. Rabha (S.T.) (Cong.), (*Dudnai* (*R*)).
D. N. Sarma (Cong.), (*Gauhati*).
Syed Ahmad Ali (Cong.), (*Gauripur*).
K. N. Nath (Cong.), (*Goalpara*).
B. Upadhyaya (Cong.), (*Gohpur*).
D. Hazarika (Cong.), (*Golaghat*).
S. C. Sinha (Cong.), (*Golakganj*).
Mathius Tudu (Cong.), (*Gossaigaon*).
Rampirit Rudrapaul (Ind.), (*Hailakandi*).
M. M. Choudhury (Cong.), (*Hajo*).
Indreswar Khaund (Cong.), (*Jaipur*).
Begum Afia Ahmed (Cong.), (*Jamunamukh*).
F. A. Ahmed (Cong.), (*Jania*).
D. C. Barua (Ind.), (*Jorhat*).
E. Pohshna (S.T.) (Ind.), (*Jowai* (*R*)).
D. R. Dutta (Cong.), (*Kalaigaon*).
L. K. Bora (Cong.), (*Kaliabar*).
S. C. Goswami (Cong.), (*Kamalpur*).
R. N. Sen (Ind.), (*Karimganj North*).
A. M. Chowdhury (Cong.), (*Karimganj South*).
T. Bhattacharjee (Ind.), (*Katigora*).
G. S. Roy (Cong.), (*Katlicherra*).
Smt. Komol Kumari Barua (Cong.), (*Katonigaon*).
A. N. Deb (Cong.), (*Kokrajhar*).
L. P. Goswami (Cong.), (*Laharighat*).

*Note:* L.C.P. — Legislature Communist Party.

Smt. Lily Sengupta (Cong.), (*Lahowal*).
R. P. Choubey (Cong.), (*Lakhipur*).
S. R. Das Gupta (Ind.), (*Lumding*).
L. H. Lalmawia (S.T.) (Ind.), (*Lungleh (R)*).
M. C. Pegu (S.T.) (Cong.), (*Majuli (R)*).
S. P. Sarma (Cong.), (*Mangaldai*).
Zahirul Islam (Ind.), (*Mankachar*).
Chanoo Kheria (Cong.), (*Marangi*).
Baliram Das (S.T.) (Cong.), (*Morigaon (R)*).
S. S. Terang (S.T.) (Cong.), (*Mikhir Hills East (R)*).
C.S.Teron(S.T.)(Cong.), (*Mikir Hills West (R)*).
Smt. Padma Kumari Gohain (Cong.), (*Moran*).
Pabin Sarma (Cong.), (*Nalbari East*).
P. Goswami (Cong.), (*Nalbari West*).
Tankeswar Chetia (Cong.), (*Nazira*).
B. B. Lyngdoh (S.T.) (Ind.), (*Nongpoh (R)*).
H. Lyngdoh (S.T.) (Ind.), (*Nongstoin (R)*).
J. B. Hagjer (S.T.) (Cong.), (*North Cachar Hills (R)*).
L. N. Doley(S.T.)(Cong.), (*North Lakhimpur (R)*).
Ghanashyam Das (S.C.) (Cong.), (*North Salmara (R)*).
Rupram Sut (Cong.), (*Nowgong*).
R. R. Das (Cong.), (*Palasbari*).
B. Basumatry (S.T.) (Cong.), (*Panery (R)*).
H. D. Choudhury (Cong.), (*Patacharkuchi*).
Ramdeb Malah (S.C.) (Cong.), (*Patharkandi (R)*).
E. Sangma (S.T.) (Cong.), (*Phulbari (R)*).
M. N. Hazarika (S.C.) (Cong.), (*Raha (R)*).
H. N. Talukdar (Cong.), (*Rampur*).
Siddhinath Sarma (Cong.), (*Rangiya*).
B. N. Mookerjee (Cong.), (*Ratabari*).
A. N. Mohd. Ohid (Cong.), (*Rupohihat*).
D. N. Hazarika (Cong.), (*Saikhowa*).
D. K. Borooah (Cong.), (*Samaguri*).
Hoover Hynniewta (Ind.), (*Shillong*).
G. N. Gogoi (Cong.), (*Sibsagar*).
R. N. Brahma (S.T.) (Cong.), (*Sidli (R)*).
M. H. Chowdhury (Cong.), (*Silchar East*).
Nandkishore Sinha (Ind.), (*Silchar West*).
Pulakeshi Singh (Cong.), (*Sonai*).
B. P. Chaliha (Cong.), (*Sonari*).
A. K. Das (Cong.), (*Sorbhog*).
Bazlul Basit (Cong.), (*South Salmara*).
Haladhar Uzir (S.T.) (Cong.), (*Tamalpur (R)*).
Tajuddin Ahmed (Cong.), (*Tarabari*).
M. C. Das (Cong.), (*Tengakhat*).
Tilok Gogoi (Cong.), (*Teok*).
K. P. Agarwala (Cong.), (*Tezpur*).
Durgeswar Saika (Cong.), (*Thowra*).
Radhakishan Khemka (Cong.), (*Tinsukia*).
Sarbeswar Bordoloi (Cong.), (*Titabar*).
Emerson Momin (S.T.) (Ind.), (*Tura (R)*).
Dwarikanath Tewari (Cong.), (*Udharband*).

## BIHAR LEGISLATIVE COUNCIL

Seats: 96.

*Chairman:* Vacant; *Deputy Chairman:* Theodore Bodra; *Secretary:* E. Rahman; *Assistant Secretary:* R. N. Thacore.

### Graduates (8)

Krishna Bahadur (*Patna*).
Purnendu Narayan Singh (*Patna*).
Ram Ashraya Prasad Sinha (*Gaya-cum-Shahabad*).
Trivikramdeo Narain Sinha (*Muzaffarpur-cum-Saran-cum-Champaran*).
Lokesh Nath Jha (*Darbhanga*).
Ravaneshwar Mishra (*Bhagalpur-cum-Saharsa-cum-Purnea*).
Harendra Pd. Jha (*Monghyr-cum-Santhal Parganas-cum-Hazaribagh-cum-Dhanbad*).
Anil Kumar Sen (*Ranchi-cum-Singhbhum-cum-Palamau*).

### Teachers (8)

Jagdish Sharma (*Patna*).
Baij Nath Rai (*Gaya-cum-Shahabad*).
Brinda Prasad Roy 'Virendra' (*Tirhut Division*).
Kailash Sinha (*Tirhut Division*).
Hargouri Tiwari (*Monghyr*).
Bindhyeshwar Mishra (*Bhagalpur-cum-Shaharsa-cum-Purnea*).
Badri Narayan Mishra (*Santhal-Parganas-cum-Hazaribagh-cum-Dhanbad*).
Mahendra Prasad (*Ranchi-cum-Singhbhum-cum-Palamau*).

### Local Authorities (34)

Deva Saran Singh (*Patna-cum-Gaya*).
Ram Bilas Sharma (*Patna-cum-Gaya*).
Saraswati Devi (*Patna-cum-Gaya*).
Kumar Jha (*Patna-cum-Gaya*).
Syed Nazir Haider (*Patna-cum-Gaya*).
Indra Kumar (*Shahabad*).
Ram Das (*Shahabad*).
Ramanand Singh (*Saran*).
Tribhuwan Nath Pathak (*Saran*).
Bhola Mandal (*Saran*).
Shiva Shanker Kanodia (*Champaran*).
Lakshmi Kant Jha (*Champaran*).
Nitishwar Prasad (*Muzaffarpur*).
Krishna Nandan Sahay (*Mazaffarpur*).
Gulzar Prasad (*Muzaffarpur*).
Smt. Kishori Devi (*Darbhanga*).
Baidyanath Pajiar (*Darbhanga*).
Vidyaker Kavi (*Darbhanga*).
Krishna Mohan Pyare Singh (*Monghyr*).
Radha Krishna Prasad Singh (*Monghyr*).
Nurullah (*Saharsa*).
Narayan Pd. Singh (*Bhagalpur*).
Beer Narain Chand (*Purnea*).
Dinesh Kumar Singh (*Purnea*).
Pirthi Chand Kisku (*Santhal Parganas*).
Ram Charan Sah (*Santhal Parganas*).
Ram Prakash Lal (*Hazaribagh*).
Hari Krishna Lal (*Hazaribagh*).
Ram Ratan Ram (*Ranchi*).
Amanat Ali (*Ranchi*).
Ram Lakhan Pandey (*Palamau*).
Braj Mohan Agarwalla (*Dhanbad*).
Subodh Kumar Sen (*Singhbhum*).
Samu Charan Tubid (*Singhbhum*).

### Legislative Assembly (34)

Baburam Hembrom.
Sudama Mishra.
Basanta Chandra Ghose.
Kumar Ganga Nand Singh.
Jageshwar Prasad Khalish.
Rampyari Devi.
Abdus Sami Nadvi.
Theodore Bodra.
Jafar Immam.
Kailaspati Singh.
Chandrika Ram.
Maheshwari Pd. Sinha.
Radha Govind Prasad.
Anisur Rahman.
Rajandhari Sinha.
Smt. Rajeshwari Saroj Das.
Mungeri Lal.
A. A. Md. Noor.
Mahamaya Prasad Sinha.
Ram Khelawan Sinha.
Ram Govind Singh.
Rajeshwari Prasad.
Gajendra Prasad Sinha.
Sitaram Yadav.
Ramraj Jajware.
Pasupati Singh.
Sardar Harihar Singh.
Sidheshwar Prasad Sinha.
Kumar Dhanushdhari Singh.
Bhola Prasad Singh.
Basawan Singh.
Braj Mohan Singh.
Indradeep Singh.
Jamuna Pd. Sinha.

### Nominated (12)

Fazlur Rahman.
Shayama Prasad Sinha.
Parmanand.
Smt. Lady Anise Imam.
Smt. Parwati Devi.
Gauri Shanker Dalmia.
B. P. Sinha.
Smt. Kamal Kamini Prasad.
Narayan Soren.
Shiva Chandra Sharma.
Kuwar Ram.
Mathura Prasad Singh.

## BIHAR VIDHAN SABHA

Electorate: 2,20,58,168; Seats 319 (including one nominated); S.C.: 40; S.T.: 32.

*Speaker:* Dr. Lakshmi Narain Sudhansu, M.A., D. Litt.; *Dy. Speaker:* Satyendra Narayan Agrawal.

Party-wise position is as follows: Congress: 220 (excluding Speaker); Swatantra 47; S.S.P. 16; P.S.P. 9; Communist 12; Independent 8; Jan Sangh 4; Gantantra Parishad 1; nominated: 1.

R. B. Prasad (S.S.P.), (*Adapur*).
Yadunandan Jha (Cong.), (*Alamnagar*).
Mishri Sada (Cong.), (S.C.), (*Alauli*).
S. P. Bhagat (Cong.), (*Amarpur*).
Mohammad Alijan (Cong.), (*Amaur*).
Balkrishna Jha (Ind.), (*Araria*).
Smt. Sumitra Devi (Cong.), (*Arrah*).
Ambika Singh, (Cong.), (*Arrah Muffasil*).
Budhan Mehta (Cong.), (*Arwal*).
K. P. N. Singh (Cong.), (*Asthawan*).
Sheo Ratan Singh (Cong.), (*Atri*).
Brij Mohan Singh (Swa.), (*Aurangabad*).
Nandlal Marandi (S.T.), (P.S.P.), (*Azannagar (R)*).
Smt. Girish Kumari Singh (Cong.), (*Bachhwara*).
Narsingh Baitha (S.C.), (Cong.), (*Bagaha*).
Moti Ram (Swa.), (*Bagodar*).
Rafique Alam (Cong.), (*Bahadurganj*).
Maheshkant Sharma (Cong.), (*Bahera East*).
Smt. Krishna Devi (Cong.), (*Bahera South*).
Harinath Mishra (Cong.), (*Bahera West*).
Jhareshwar Ghosh (Ind.), (*Bahragora*).
Sheobachan Trivedi (Cong.), (*Baikunthpur*).
Haseebur Rahman (P.S.P.), (*Baisi*).
Md. S. Chaudhary (Cong.), (*Bakhtiarpur*).
Ramyatan Singh (Cong.), (*Bakhtiarpur*).
Medni Paswan (S.C.) (Cong.), (*Bakhri*).
Smt. Prema Devi (Cong.), (*Balia*).
Smt. Uma Pandey (Cong.), (*Baniapur*).
Smt. Bindhyabasni Devi (Cong.), (*Banka*).
Bhola Paswan (S.C.) (Cong.), (*Banmankhi*).
Mustaque Ali Khan (Swa.), (*Barachatti*).
Basudeo Prasad Singh (Cong.), (*Barari*).
Gorakh Rai (Cong.), (*Barauli*).
Smt. Leela Devi (S.C.) (Cong.), (*Barhiya (R)*).
Ramraj Prasad Singh (S.S.P.), (*Barharia*).
Kamakshya Narain Singh (Swa.), (*Barhi*).
Babulal Tudu (S.T.), (Cong.), (*Barahait (R)*).
Harihar Mahto (Cong.), (*Bariarpur*).
Rana S. P. Singh (Cong.), (*Barh*).
Akshayabat D. Singh (Swa.) (*Barbagaon*).
R. P. Sahi (Cong.), (*Baruraj*).
Sabhapati Singh (S.S.P.), (*Basantpur East*).
Jhulan Singh (Cong.), (*Basantpur West*).
R. N. Chaudhary (Cong.), (*Begusarai*).
Rameshwar Manjhi (S.C.) (Cong.), (*Belaganj (R)*).
Raghavendra N. Singh (Cong.), (*Belhar*).
Ramanand Singh (Cong.), (*Belsand*).
Tejnarain Jha (Com.), (*Benipatti*).
Rajkumar Purbey (Com.), (*Benipatti East*).
Bindeshwari Dubey (Cong.), (*Bermo*).
Paul Dayal (S.T.) (J.P.), (*Bero (R)*).
J. N. Prasad (Cong.), (*Bettiah*).
S. N. Pandey (Cong.), (*Bhabua*).
S. N. Agrawal (Cong.), (*Bhagalpur*).

Bholanath Das (S.C.) (Cong.), (*Bhagalpur Muffasil (R)*).
Shakar Pratap Deo (Swa.), (*Bhawanathpur*).
Rajmangal Mishra (Cong.), (*Bhore*).
Syed W. Ahmad (Cong.), (*Bihar North*).
Girwardhari Singh (Cong.), (*Bihar South*).
Sukdeo Chaudhary (Cong.), (*Bihpur*).
Smt. Manorma Devi (Cong.), (*Bikram*).
Smt. Manorma Pandey (Cong.), (*Bikramganj*).
Chandra Sekhar Jha (Ind.), (*Biraul*).
K. Murari Singh (Swa.), (*Bishrampur*).
Kuldip Mahto (Swa.), (*Bodh Gaya*).
Singrai Murmu (S.T.), (Cong.), (*Borio (R)*).
Budhi Nath Singh (Ind.), (*Brahmapur*).
Kapildeo Singh (P.S.P.), (*Burhee*).
Jagnarain Trivedi (Cong.), (*Buxar*).
Harischandra Deogam (S.T.) (Cong.), (*Chaibasa) (R)*).
Ramakrishna Ram (S.C.) (Cong.), (*Chainpur (R.)*).
Michael (S.T.) (Swa.), (*Chainpur (R)*).
Lakhan Murmu (S.T.) (S.S.P.), (*Chakai (R)*).
Rudra Sarangi (Ind.), (*Chakradharpur*).
R. P. Singh (Cong.), (*Chandi*).
P. K. Aditya Deb (Swa.), (*Chandil East*).
N. R. Chamar (S.C.) (Cong.), (*Chandil West (R)*).
P. K. Mishra (Cong.), (*Chanpatia*).
Smt. Sundri Devi (Cong.), (*Chapra*).
J. L. Chaudhari (S.C.) (Cong.), (*Chapra Muffasil (R)*).
Parbati Charan Mahto (Swa.), (*Chas*).
Keshav Prasad Singh (Swa.), (*Chatra*).
Nand Kishore Singh (Swa.), (*Chauparan*).
Ghanshyam Singh (Cong.), (*Chautham*).
Shree Gobind Ram (S.C.) (Cong.), (*Chenari (R)*).
Syed Maqbool Ahmad (Cong.), (*Colgong*).
Mishri Singh (Cong.), (*Dalsingh Sarai East*).
Baleshwar Ram (S.C.) (Cong.), (*Dalsingh Sarai West (R)*).
Sachidanand Tripathy (Swa.), (*Daltonganj*).
Ramayan Shukla (Cong.), (*Darauli*).
R. P. Sinha (Cong.), (*Darbhanga Central*).
Ramsewak Thakur (Cong.), (*Darbhanga East*).
S. S. Haque (Cong.), (*Darbhanga North*).
Kumari Shyam (S.C.) (Cong.), (*Darbhanga West (R)*).
R. N. S. Yadav (Cong.), (*Daudnagar*).
K. R. Singh (Cong.), (*Dawath*).
Abdul Qualyum Ansari (Cong.), (*Dehri*).
Smt. Shailabala Rai (Cong.), (*Deoghar*).
Mohammad Nek (Com.), (*Dhaka*).
R. L. Prasad (Cong.), (*Dhanaha*).
Sheoraj Prasad (Cong.), (*Dhanbad*).
Lakshmi Narain Sudhansu (Cong.), (*Dhamdaha*).
Gopal Rabidas (S.C.) (Swa.), (*Dhanwar (R)*).
Samiuddin Molvi (Cong.), (*Dhuraiya*).
Ramsewak Singh (S.S.P.), (*Dinapur*).
Ram Ashish Singh (Ind.), (*Dinara*).
Paul Murmu (S.T.) (Cong.), (*Dumka (R)*).
K. G. P. Singh (Cong.), (*Dumraon*).
Hemlal Pragnait (S.T.), (Swa.), (*Dumri (R)*).
Kauleshwar Das (S.C.) (Cong.), (*Fatwa*).
Saryu Mishra (Cong.), (*Forbesganj*).
G. P. Singh (Swa.), (*Garhwa*).
Sheoshankar Prasad (Cong.), (*Garkha*).
Girija Prasad Singh (Swa.), (*Gawan*).
Shyam Birthwar (Ind.), (*Gaya*).
Hardeo Singh (Cong.), (*Gaya Muffasil*).
Basta Soren (S.T.) (Com.), (*Ghatsila (R)*).
R. P. Singh (Cong.), (*Ghorasahan*).
M. P. Singh (Cong.), (*Ghosi*).
Raghunandan Ram (Cong.), (*Giridih*).
D. N. Chaudhary (Cong.), (*Godda*).
Munishwar Nath Singh (Cong.), (*Goh*).
Abdul Ghafoor (Cong.), (*Gopalganj*).
Smt. Maya Devi (Cong.), (*Gopalpur*).
Satchidanand Tripathi (Cong.), (*Govindganj*).
Punai Oraon (S.T.), (Cong.), (*Gumla (R)*).
Dip Narain Sinha (Cong.), (*Hajipur*).
Baidyanath Yadav (Com.), (*Harlakhi*).
N. D. Pathak (Cong.), (*Harsidhi*).
Gyani Ram (Cong.), (*Hazaribagh*).
Jagdish Prasad (J.S.), (*Hilsa*).
Smt. Rajkumari Devi (Cong.), (*Hisua*).
Ramdeni Ram (S.C.) (Cong.), (*Hussainabad (R)*).
A. P. Singh (Swa.), (*Imamganj*).
Shyamsunder Prasad (Swa.), (*Islampur*).
Sukar Ram (S.C.) (P.S.P.), (*Jagdishpur (R)*).
Mahabir Chaudhary (S.C.) (Cong.), (*Jahanabad (R)*).
R. K. Mahto (S.C.) (Cong.), (*Jainagar (R)*).
Eknearayan Chaudhary (Cong.), (*Jale*).
Yogendra Mahton (Cong.), (*Jamalpur*).
Ramavatar Singh (Com.), (*Jamshedpur*).
Kali Prasad Singh (Swa.), (*Jamtara*).
Indra Narain Singh (Swa.), (*Jamua*).
Gururam Das (S.C.) (Cong.), (*Jamui (R)*).
Tulsi Das Mehta (S.S.P.), (*Jandaha*).
Srikant Jha (Cong.), (*Jarmundi*).
Sri Krishna Singh (S.S.P.), (*Jhajha*).
Harishchandra Jha (Cong.), (*Jhanjharpur*).
R. N. Sharma (Cong.), (*Jorapokhar*).
Sunil Mukherjee (Com.), (*Jugsalai*).
K. N. Jha (Cong.), (*Kadwa*).
Y. P. Tripathi (Cong.), (*Kanti*).
Badri Mahara (S.C.) (Swa.), (*Katea (R)*).
Sukdeo Narain Sinha (Cong.), (*Katihar*).
Pandav Rai (S.S.P.) (*Katra*).
Nitishwar Prasad Sinha (Cong.), (*Katra South*).
Ramlal Das (S.C.) (Cong.), (*Kenduadi (R)*).
Pitambar Singh (Com.), (*Kessaria*).
K. N. S. Azad (Cong.), (*Khagaria*).
Sakoor Ahmad (Cong.), (*Khajauli*).
Nand Kumar Singh (Cong.), (*Kharagpur*).
Pulchand Kachap (S.T.) (Cong.), (*Khunti (R)*).
Mohammad H. Azad (Swa.), (*Kishanganj*).
Smt. Yashoda Devi (S.C.) (Cong.), (*Kishanganj (R)*).
Baidynath Mehta (Cong.), (*Kishanpur*).
Mundrika Singh (Cong.), (*Koch*).
A. B. Dikshit (Cong.), (*Kodarma*).
Sushil Bage (S.T.) (Cong.), (*Kolebira (R)*).
Kampa Murmu (S.C.), (Swa.), (*Kotoria (R)*).
Sheokumar Pathak (Cong.), (*Kuchaikot*).
Ramgulam Chaudhary (S.C.) (Cong.), (*Kurhani (R)*).
Ramcharan Singh (S.S.P.), (*Kurtha*).
Bateshwar Prasad (Ind.), (*Lalganj North*).
Birchand Patel (Cong.), (*Lalganj South*).
J. B. Munzani (S.T.) (Swa.), (*Latehar (R)*).
Deonarayan Gurmaita (P.S.P.), (*Laukaha*).
Subh Narain Prasad (Cong.), (*Lauriya*).
Ramkrishna Ram (S.C.) (Swa.), (*Lesliegani (R)*).
R. C. Kisku (S.T.) (Cong.), (*Lettipara (R)*).
Sushil Bakhla (S.T.), (Swa.), (*Lohardaga (R)*).
Premchandra Mishra (Cong.), (*Madhaipur*).
B. P. Mandal (Cong.), (*Madhipura*).
M. P. Yadav (Cong.), (*Madhuban*).
S. N. Singh (P.S.P.), (*Madhubani East.*).
Safiqullah Ansari (Cong.), (*Madhubani West*).
Chhotu Turi (S.C.) (Swa.), (*Madhupur (R)*).
Rajpati Ram (Cong.), (*Mahagama*).
Umashankar Prasad (Swa.), (*Maharajganj*).
Joseph Murmu (S.T.) (Swa.), (*Maheshpur (R)*).
Munishwar Pd. Singh (P.S.P.), (*Mahnar*).
R. Basawan Ram (S.C.) (Cong.), (*Mairva (R)*).
Sharan Balmuchu (S.T.) (Cong.), (*Majhgaon (R)*).
R. Swaroop Ram (S.C.) (Cong.), (*Majorganj (R)*).
S. P. Verma (Cong.), (*Makhdumpur*).
Z. A. Mohammad (Cong.), (*Mandar*).
Raghunandan Prasad (Swa.), (*Mandu*).
Budhdeo Singh (Cong.), (*Maner*).
Yuvraj (P.S.P.), (*Manihari*).
Vivekanand Pareya (S.T.) (Cong.), (*Manjore (R)*).
Jagannath Prasad Swatantra (S.C.) (Cong.), (*Manjhaulia (R)*).
Girish Tewary (Cong.), (*Manjhe*).
Subhnath Desgam (Cong.), (*Manoharpur*).
Suraj Singh (Cong.), (*Marhaura*).
Smt. Saraswati Chaudhary (S.C.) (Cong.) (*Masaurhi (R)*).
Prabhunath Singh (Cong.), (*Mashrakh North*).
Smt. Rajkumari Devi (Cong.), (*Mashrakh South*).
Janak Sinha (Cong.), (*Minapur*).
Prabhunath Tewari (Cong.), (*Mirganj*).
Mangal Charan Singh (Cong.), (*Mohania*).
Smt. Santi Devi (Cong.), (*Mohiuddinnagar*).
Smt. Mira Devi (S.C.) (Cong.), (*Mohua (R)*).
S. N. P. Singh (Ind.), (*Mokamah*).
J. P. Yadav (J.S.), (*Monghyr*).
Smt. Shakuntala Devi (Cong.), (*Motihari*).
Jaikumar Singh (S.S.P.), (*Murliganj*).
Mohan Lal Gupta (Cong.), (*Muzaffarpur*).
C. M. P. Singh (Cong.), (*Muzaffarpur Muffasil*).
Satyendra Narain Sinha (Cong.), (*Nabinagar*).
Bisheshwar Khan (Com.), (*Nalla*).
Dumar Lal Baitha (S.C.), (Cong.), (*Narpatganj (R)*).
Dasu Sinha (Cong.), (*Naubatpur*).
Gauri Shankar Keshri (J.S.), (*Nawada*).
Suraj Prasad (Com.), (*Nawanagar*).
L. N. Manjhi (S.T.) (Cong.), (*Nirsa (R)*).
Guthali Singh (Cong.), (*Nokha*).
Dilkeshwar Ram (S.C.) (Cong.), (*Obra (R)*).
P. C. Pandey (Cong.), (*Pakaur*).
Azimuddin Mohammad (Swa.), (*Palasi*).
Chetu Ram (S.C.) (Cong.), (*Pakribarwan (R)*).
R. L. Singh Yadav (Cong.), (*Paliganj*).
J. N. Sah Deo (Swa.), (*Panki*).
Suresh C. Mishra (Cong.), (*Parbatta*).
Daroga Prasad Rai (Cong.), (*Parsa*).
Chandu Ram (S.C.) (Cong.), (*Paru (R)*).
Bibhishan Kumar (Cong.), (*Patahi*).
Rameshwar Manjhi (S.T.) (Swa.), (*Patarbar (R)*).
Kamlesh Rai (P.S.P.), (*Patepur*).
Smt. Zahara Ahmad (Cong.), (*Patna East*).
Badri Nath Verma (Cong.), (*Patna South*).
Krishna Ballabh Sahay (Cong.), (*Patna West*).
Rasiklal Yadav (Cong.), (*Phulparas*).
S. P. Chaudhary (Cong.), (*Pipra*).
Indramani Singh (Cong.), (*Piro*).
Baikunth Ram (Cong.), (*Pirpainti*).
J. N. Murmu (S.T.) (Cong.), (*Poraiyahat (R)*).
M. Rasraj Tudu (S.T.) (Cong.), (*Potka (R)*).
Nawal Kishore Singh (Cong.), (*Punpun*).
Bhubneshwar Rai (S.S.P.), (*Pupri North*).
Devendra Jha (Cong.), (*Pupri South*).
K. N. Sinha (Cong.), (*Purnea*).
Rampukar Singh (Swa.), (*Rafiganj*).
Rajendra Mishra (Cong.), (*Raghopur*).
Devendra Sinha (S.S.P.), (*Raghopur*).
Ramanand Yadav (Cong.), (*Raghunathpur*).
R. S. P. Yadav (Cong.), (*Rajauli*).
Baldeo Prasad (S.C.) (Cong.), (*Rajgrih (R)*).
Binodanand Jha (Cong.), (*Rajmahal*).
Bishwanath Rai (Cong.), (*Ramgarh*).
T. P. Bakshi (Swa.), (*Ramgarh*).
Madan Besra (S.T.) (Cong.), (*Ramgarh (R)*).
Raja Narain Bikram Shah (Swa.), (*Ramnagar*).
Birendra Nath Ray (Cong.), (*Ranchi*).
Ambika Nath Sahdeo (Swa.), (*Ranchi Sadar*).
Barka Baski (S.T.) (Cong.), (*Raneshwar (R)*).
Ganesh Lall Verma (Ind.), (*Raniganj*).
Radha Pandey (Cong.), (*Rexaul*).
Ramakant Jha (S.S.P.), (*Rosera*).
Mahabir Raut (Cong.), (*Rosera East*).
Vivekanand Giri (Cong.), (*Runisaidpur*).
Brij Behari Singh (Cong.), (*Rupauli*).
Sheo Pujan Rai (Cong.), (*Sahar*).
Ramesh Jha (Cong.), (*Saharsa*).
Nawal Kishore Sinha (Cong.), (*Sahebganj*).
Mahesh Prasad Sinha (Cong.), (*Sakra*).
Sahdeo Mahto (Cong.), (*Samastipur East*).
T. N. Ishwar (Cong.), (*Samastipur West*).
Jhaman Prasad (Cong.), (*Sandesh*).
Kamdeo P. Singh (P.S.P.) (*Sarath*).
Dr. Dukhan Ram (Cong.), (*Sasaram*).
Raiful Azam (Swa.), (*Sekta*).
D. N. Narayan Singh (Ganatantra), (*Seraikella*).
Ramanand Tiwari (S.S.P.), (*Shahpur*).
Sheo Shankar Singh (Cong.), (*Sheikhpura*).
Chitranjan Singh (Cong.), (*Sheohar*).
Shahjahan Mohammad (Cong.), (*Sherghatti*).
B. Hembrom (S.T.) (Cong.), (*Shikaripara (R)*).
U. P. Verma (Cong.), (*Shikarpur*).
Mushtaque A. Sah (Cong.), (*Sikandra*).
Jogesar Choudhary (Swa.), (*Silli*).
Simon Oraon (S.T.) (Cong.), (*Simdega (R)*).
R. Mushhar (S.C.) (S.S.P.), (*Singheswarsthan (R)*).
B. L. Mahto (S.C.) (Cong.), (*Singhia (R)*).
Sitaram Bhagat (S.T.), (Swa.), (*Sisai (R)*).
Smt. Girja Devi (Cong.), (*Sitamarhi North*).
Kishori Lall Shaw (Cong.) (*Sitamarhi South*).
Janardan Tiwari (J.S.), (*Siwan*).
Somar Ram (S.C.) (Swa.), (*Sonahatu (R)*).
Sitaram Mahto (Cong.), (*Sonbarsa*).
Sheobachan Singh (Com.), (*Sonepur*).
Sanatan Samad (S.T.) (Cong.), (*Sonua (R)*).
Debi Prasad Mahto (Cong.), (*Sultanganj*).
V. K. Bidyalankar (S.C.) (Cong.), (*Sugauli (R)*).
Parmeshwar Kumar (S.S.P.), (*Supaul*).
Rajeshwari Prasad Singh (Cong.), (*Surajgarha*).
Smt. Prativa Devi (Cong.), (*Sursand*).
Karpoori Thakur (S.S.P.), (*Tajpur*).
D. S. Munda (S.T.) (Cong.), (*Tamar (R)*).
Jaimangal Singh (Cong.), (*Tarapur*).
Chandra Sekhar Singh (Com.), (*Teghra*).
P. N. Singh (Swa.), (*Topchanchi*).
Samuel Munda (S.T.) (Cong.), (*Torpa (R)*).
Khub Lall Mahto (Cong.), (*Tribeniganj*).
Gokuleshwar Mishra (Swa.), (*Tundi*).
Ram Kishan Singh (Cong.), (*Warsaliganj*).
B. Narain Singh (S.S.P.), (*Warisnagar East*).
Smt. Ramsukumari Devi (Cong.), (*Warisnagar West*).
Rajaram Choudhary (Swa.), (*Ziradei*).

## GOA LEGISLATIVE ASSEMBLY

Seats : 30. Electorate : 3,50,039.
*Speaker :* Pandurang Shirodkar.
*Dy. Speaker :* A. K. S. Usgaonkar.
*Secretary :* S. Balakrishnan.

An estimate of party position is given below : Maharashtrawadi Gomantak 14 ; United Goans 12 ; S.S.P. 2 ; Congress 1 ; Independents 1.

O. S. J. S. Lobo (U.G.), (*Aldona*).
Maurelio Furtado (U.G.), (*Benaulim*).
K. V. Kadkade (M.G.), (*Bicholim*).
John Marian D'Souza (U.G.), (*Calangute*).
G. B. Desai (M.G.), (*Canacona*).
L. P. Barbosa (U.G.), (*Cortalim*).
Sebastian Mazarelo (U.G.), (*Cuncolim*).
V. S. Karmali (M.G.), (*Curchorem*).
E. A. Pimenta (U.G.), (*Curtorim*).
K. P. Patel (Cong.), (*Daman*).
M. R. Jivani (Ind.), (*Diu*).
V. M. Kamulkar (M.G.), (*Mandrem*).
R. A. Tople (M.G.), (*Mapuca*).
Dayanand B. Bandodkar (M.G.), (*Marcaim*).
V. N. Sarmalkar (U.G.), (*Margao*).
Mrs. Urminda M. Lima Leitao (U.G.), (*Mormugao*).
A. L. Furtado (U.G.), (*Navelim*).
A. K. S. Usgaonker (M.G.), (*Pale*).
Dr. Jack Sequeira (U.G.), (*Panjim*).
K. A. S. Gaokar (M.G.), (*Pernem*).
G. G. Raicar (S.S.P.), (*Ponda*).
D. D. Desai (M.G.), (*Quepem*).
Tony Fernandes (M.G.), (*Sanguem*).
T. F. Pereira (U.G.), (*St. Andre*).
D. K. Chopadenkar (M.G.), (*St. Estevan*).
Joaquim Araujo (U.G.), (*Santa Cruz*).
J. V. Rane (S.S.P.), (*Satari*).
P. P. Shirodkar (M.G.), (*Siolim*).
P. S. Naik (M.G.), (*Siroda*).
S. N. Palyenkar (M.G.), (*Tivim*).

## GUJARAT LEGISLATIVE ASSEMBLY

Constituencies: 154; S.C. 11; S.T. 21; Electorate : 95,40,946.

*Speaker :* F. H. Palejwala ; *Dy. Speaker :* Premji T. Leuva.

An estimate of party position is given below : Congress 117 ; Swatantra 25 ; P. S. P. 2 ; Swatantra Pragatic Juth 7 ; Independent 2 ; Vacant 1.

M. M. Jadeja (Swa.), (*Abdasa*).
K. K. Patel (Swa.), (*Ambaliasan*).
N. N. Paneri (J.S.P.), (*Amreli*).
B. D. Patel (Swa.), (*Anand*).
M. P. Thacker (Swa.), (*Anjar*).
K. Y. Joshi (Cong), (*Ankleshwar*).
M. U. Pandya (Cong.), (*Asarva*).
C. J. Patel (Cong.), (*Aslali*).
J. D. Kansagra (Cong.), (*Babra*).
Smt. S. Y. Makvana (S.C.) (Cong.), (*Balasinor (R)*).
B. K. Patel (S.T.) (Cong.), (*Bansda (R)*).
B. M. Patel (Cong.), (*Bardoli*).
F. H. Palejwala (Cong.), (*Baroda City—East*).
C. H. Amin (Cong.), (*Baroda—North*).
B. G. Contractor (Cong.), (*Baroda City—West*).
L. K. Rahewar (Swa.), (*Bayad*).
M. F. Solanki (Cong.), (*Bhadran*).
P. T. Shah (Cong.), (*Bhavnagar*).
G. J. Trivedi (Cong.), (*Bhiloda*).
G. A. Dholakia (Swa.), (*Bhuj*).
M. V. Patel (Swa.), (*Borsad*).
D. M. Desai (Cong.), (*Botad*).
C. M. Bhatt (Cong.), (*Broach*).
Smt. S. A. Majmudar (Cong.), (*Bulsar*).
R. G. Shashtri (Ind.), (*Cambay*).
P. H. Patel (Cong.), (*Chanasama*).
B. M. Bhatt (Swa.), (*Chhota-Udepur*).
G. B. Patel (S.T.) (Cong.), (*Chikhli (R)*).
P. L. Chauhan (S.C.) (Cong.), (*Chorasi*) (*R*)).
T. M. Dave (Cong.), (*Chotila*).
B. M. Patel (Cong.), (*Dabhoi*).
M. H. Palkhiwala (S.P.J.), (*Dariapur*).
M. P. Vyas (Cong.), (*Dariapur-Kajipura*).
R. U. Parikh (Cong.), (*Dasada*).
D. R. Vasava (S.T.) (Cong.), (*Dediapada (R)*).
V. J. Patel (Cong.), (*Deesa*).
V. P. Amin (Cong), (*Dehgam*).
G. V. Vaghela (Cong.), (*Deodar*).
Maharawal Jaydeepsing (Swa.), (*Devgadh-Baria*).
B. M. Shah (Cong.), (*Dhandhuka*).
S. M. Shah (Cong.), (*Dhanera*).
R. B. Jadav (S.T.)(Cong.), (*Dharampur (R)*).
P. T. Leuva (S.C.) (Cong.), (*Dhari-Kodinar (R)*).
B. V. Pandya (S.C.) (Cong), (*Dholka (R)*).
G. K. Patel (Cong.) (*Dhoraji*).
L. M. Shukla (Cong.), (*Dhrangadhra*).
H. L. Ninama (S.T.) (Cong.), (*Dohad (R)*).
H. J. Kanani (Cong.), (*Dwarka*).
I. C. Sheth (Cong.), (*Ellis Bridge*).
I. C. Desai (Cong.), (*Gandevi*).
Smt. Z. A. Kapasi (Cong.), (*Ghogha-Daskroi*).
Dr. Taherali Abdulali (Cong.), (*Godhra*).
J. G. Parmar (S.C.) (Cong.), (*Gomtipur (R)*).
V. M. Shah (Cong.), (*Gondal*).
M. V. Naik (S.T.) (Swa.), (*Halol (R)*).
S. D. Patel (Cong.), (*Himatnagar*).
G. M. Bhambhi (S.C.) (Cong.), (*Idar (R)*).
K. M. Pandit (Cong.), (*Jabugam*).
G. C. Patel (Cong.), (*Jalalpore*).
K. R. Chhipa (Cong.), (*Jamalpur*).
C. J. Patel (Cong.), (*Jambusar*).
N. D. Patel (Cong.) (*Jam-Jodhpur*).
Smt. M. J. Dave (Cong.), (*Jamnagar*).
Smt. V. J. Shah (Cong.), (*Jasdan*).
N. K. Patel (Cong.), (*Jetpur*).
Smt. D. D. Vasava (S.T.) (Cong.), (*Jhagadia (R)*).
T. M. Hathila (S.T.) (Cong.), (*Jhalod (R)*).
N. P. Popat (Ind.), (*Jodia*).
D. K. Nanavati (Cong.), (*Junagadh*).
N. A. Patel (Cong), (*Kadi*).
B. B. Patel (Cong.), (*Kalawad*).
S. M. Thakore (Cong.), (*Kalol*).
V. B. Chauhan (Swa.), (*Kalol*).
U. S. Parikh (Cong.), (*Kapadwanj*).
N. G. Arya (S.C.) (Cong.), (*Karjan (R)*).
J. A. Thakore (Cong.), (*Kathalal*).
V. K. Tarachandani (Cong.), (*Kathawada*).
T. D. Ladani (Cong.), (*Keshod*).
B. R. Bhatt (P.S.P.), (*Khadia*).
H. R. Nakum (Cong), (*Khambhalia*).
M. S. Dabhi (S.T.) (Cong.), (*Khedbrahma*) (*R*)).
N. M. Patel (Cong.), (*Kheralu*).
L. M. Sheth (Cong.), (*Kundla*).
M. M. Odedra (Cong.), (*Kutiyana*).
Smt. S. H. Bhatt (Cong.), (*Lathi*).
P. G. Parmar (S.C.) (Cong.), (*Limbdi (R)*).
B. M. Gondia (S.T.) (Swa.), (*Limkheda (R)*).
J. D. Pandya (Cong.), (*Lunavada*).
C. P. Mehta (Cong.), (*Mahuva*).
Smt. D. B. Rathod (S.T.) (Cong.), (*Mahuva*).
R. U. Patel (S.P.J.), (*Malia*).
M. A. Chavda (S.C.) (Cong.), (*Manavadar (R)*).
R. R. Chaudhari (S.T.) (Cong.), (*Mandvi (R)*).
H. N. Kothari (Swa.), (*Mandvi*).
R. R. Chaudhari (S.T.) (Cong.), (*Mangrol (R)*).
B. S. Patel (Cong.), (*Mansa*).
F. T. Jamindar (Cong.), (*Matar*).
R. N. Patel (Swa.), (*Mehmedabad*).
Smt. S. B. Patel (Cong.), (*Mehsana*).
V. P. Mehta (Cong.), (*Modasa*).
G. D. Parmar (Cong.), (*Morvi*).
M. B. Desai (Swa.), (*Nadiad*).
H. M. Rajwadi (S.T.) (Cong.), ((*Nandod (R)*).
B. G. Tadvi (S.T.) (Cong.), (*Nasawadi (R)*).
S. E. Unia (Cong.), (*Navsari*).
H. K. Desai (Cong.), (*Olpad*).
M. P. Yuvraj (S.P.J.), (*Paddhari*).
S. D. Parmar (Swa.), (*Padra*).
D. G. Patel (Cong.), (*Palanpur*).
V. B. Patel (Cong.), (*Palitana*).
U. H. Patel (S.T.) (Cong.), ((*Pardi (R)*).
V. M. Trivedi (Cong.), (*Patan*).
J. C. Patel (Swa.), (*Petlad*).
P. D. Kakkad (Cong.), (*Porbandar*).
S. C. Patel (Cong.), (*Prantij*).
D. J. Porania (Cong.), (*Radhanpur*).
B. P. Vaidya (S.P.J.), (*Rajkot*).
C. T. Mehta (Cong.), (*Rajula*).
J. R. Morabia (Swa.), (*Rapar*).
S. L. Patel (Swa.), (*Sabarmati*).
R. J. Bhatia (Swa.), (*Salia*).
S. R. Makvana (S.C.) (Cong.), (*Sami (R)*).
S. T. Patel (Cong.), (*Sanad*).
C. N. Vasava (S.T.) (Cong.), (*Sankheda (R)*).
V. J. Bhabhor (S.T.) (Cong.), (*Santrampur (R)*).
M. M. Patel (Cong.), (*Savli*).
P. G. Parmar (Cong.), (*Shehra*).
M. M. Patel (Cong.), (*Sher-Kotda*).
B. A. Blu (Cong.), (*Sidhpur*).
Vacant, (*Sihor*).
R. P. Shah (Cong.), (*Somnath*).
C. G. Kumar (S.T.) (Cong.), (*Songadh (R)*).
H. J. Solanki (Swa.), (*Sunawa*).
I. G. Desai (Cong.), (*Surat City—East*).
U. P. Bhatt (Cong.), (*Surat City—West*).
S. K. Maharajkumar (S.P.J.), (*Talaja Datha*).
B. J. Patel (S.P.J.), (*Tharad*).
K. A. Thakore (Swa.), (*Thasara*).
S. D. Thackeria (S.T.) (Cong.), (*Umargava (R)*).
U. V. Vadodia (Swa.), (*Umreth*).
R. M. Adani (Cong.), (*Una*).
A. M. Patel (Cong.), (*Unjha*).
J. A. Patel (Cong.), (*Upleta*).
R. A. Patel (Swa.), (*Utar Sanda*).
H. S. Parmar (S.C.) (Cong.), (*Vadgam (R)*).
M. B. Rana (Cong.), (*Vagra*).
G. C. Raval (Cong.), (*Vijapur*).
P. R. Parikh (Swa.), (*Viramgam*).
Smt. M. A. Nagori (Cong.), (*Visavadar*).
R. T. Maniar (Cong.), (*Visnagar*).
P. G. Chaudhari (S.T.) (Cong.), (*Vyara (R)*).
Smt. A. S. Desai (Cong.), (*Wadhawan*).
M. M. Kashiwala (Cong.), (*Waghodia*).
D. P. Yuvaraj (S.P.J.), (*Wankaner*).

## HIMACHAL PRADESH VIDHAN SABHA

*Total Electorate :* 7,12,634.

*Seats :* 43 (S.C. 12). *Elected :* 41 ; *Nominated :* 2.

*Speaker :* Des Raj Mahajan.

*Dy. Speaker :* Tapindra Singh.

An estimate of party position is as follows : Congress 36 (including two nominated); Swatantra 4 ; Independent 2 ; Communist 1.

Khazan Singh (Cong.), (*Ajmerpur*).
Hari Das (Cong.), (*Arki*).
Desraj (Cong.), (*Banikhet*).
Ram Chand (Swa.), (*Bharmour*).
Dayachand (Cong.), (*Bhattiyat*).
Dinanath (Swa.), (*Bilaspur*).
Gopi Ram (S.C.) (Cong.), (*Chachiot (R)*).
Smt. Devindra Kumari (Cong.), (*Chamba*).
Anoop Singh (Cong.), (*Chaunira*).
Mohan Lal (Cong.), (*Chopal*).
Chuni Lal (S.C.) (Swa.), (*Churah (R)*).
Sarju Singh (Cong.), (*Dehar*).
Santram (Cong.), (*Dharampur*).
Nikoo (S.C.) (Cong.), (*Geharwin (R)*).
Gurdittu (S.C.) (Cong.), (*Ghumarwin (R)*).
Tara Chand (Com.), (*Jogendranagar*).
Keshavram (Ind.), (*Karsog*).
Hirasingh Pal (Cong.), (*Kasumpti*).
Gian Singh (Cong.), (*Kinnaur*).
Hargobind Singh (Swa.), (*Kot-Kehloor*).
Ram Lal (Cong.), (*Kot Khai*).
Hardayal Singh (Cong.), (*Kumarsain*).
Sukhram (Ind.), (*Mandi Sadar*).
Tapindra Singh (Cong.), (*Nahan*).
Mataram (S.C.) (Cong.), (*Pachhad (R)*).
Dhian Singh (Cong.), (*Pangi*).
Kalyan Singh (Cong.), (*Paonta*).
Zalam Singh (S.C.) (Cong.), (*Rainka (R)*).
Nehar Singh (Cong.), (*Rajgarh*).
Vidya Dhar (S.C.) (Cong.), (*Rajnagar (R)*).
Basant Ram (S.C.) (Cong.), (*Rampur (R)*).
Piru Ram (S.C.) (Cong.), (*Rewalsar (R)*).
Padam Dev (Cong.), (*Rohru*).
Dr. Y. S. Parmar (Cong.), (*Sangrah*).
Kashmir Singh (Cong.), (*Sarkaghat*).
Guman Singh (Cong.), (*Shillai*).
Karam Singh (Cong.), (*Siraj*).
Keshav Ram (S.C.) (Cong.), (*Solan (R)*).
Nikbinhoo (S.C.) (Cong.), (*Sundernagar (R)*).
Rajendra Singh (Cong.), (*Suni*).
Nek Ram (S.C.) (Cong.), (*Theog (R)*).
Balwant Singh (Cong.), (*Nominated*).
Mrs. Subhadra Amin Chand (Cong.) (*Nominated*).

## JAMMU AND KASHMIR LEGISLATIVE COUNCIL

*Strength :* 36. *Chairman :* Pt. Sheonarayan Fotedar, M.A. *Deputy Chairman :* Chaudhuri Mohammed Shaffi.

Party Position : Congress 28 ; National Conference 8.

**Elected by the Legislative Assembly :**

Jotshi Ram Krishen ; S. Piara Singh ; Wazir Paras Ram ; Pir Ghias-ud-Din ; Gulzar Ahmad ; Pir Gh. Mohd Masudi ; Gh. Hassan Dar ; Amir Ullah Khan ; Syed Hussain ; Habib Ullah ; Mansukh Rai ; Noor Mohammad ; Maulvi Mohd. Anwar Shah Masodi ; S. Gurmakh Singh ; Chuni Lal Sharma ; Shib Singh ; Gh. Hassan Mir ; Senam Wangil ; Ram Lal ; Pt. Sheonarayan Fotedar ; Sardari Lal ; Mahajan ; Mohammad Din Bandey.

**Elected by Local Authorities :**

Dina Nath Mahajan ; Mir Ghulam Hussain Gillani.

**Panchayat Constituency :**

Mir Ghulam Ahmad ; Mangat Ram ; Mukhtar Ahmad ; Bansi Lal Kohistani.

**Nominated by the Governor :**

Pir Saif-ud-Din Makhdoomi ; Jatinder Dev ; Madan Lal ; Haji Mir Alam ; Chaudhuri Mohd. Shaffi ; Col. Sir R. N. Chopra ; Ali Mohammad Tariq ; Major Piar Singh.

## JAMMU AND KASHMIR LEGISLATIVE ASSEMBLY

**Seats : 75 (including 4 seats reserved for Schedule Castes) ; Electorate : 18,44,370.**

*Speaker :* Ghulam Mohammed Mir Rajpori.

*Dy. Speaker :* Hemraj Jandhial.

An estimate of party position is given below : Congress 48 ; National Conference 19 ; Praja Parishad 3 ; Independent 1 ; Vacant 4.

Shiv Ram Manmar (Cong.), (*Akhnoor (R)*).
Noor Mohd Butt (Cong.), (*Amirakadal*).
Shamas-ud-Din (Cong.), (*Anantnag*).
Moh'd Ayub Khan (Cong.), (*Arnas*).
Syed Ali Safvi (NC), (*Badgam*).
Abdul Kabir Khan (NC), (*Bandipore-Gurez*).
S. Harbans Singh Azad (Cong.), (*Baramulla*).
Vacant, (*Basohli*).
Chuni Lal Kotwal (Cong.), (*Bhaderwah*).
Mohammed Anwar (NC) (*Bhalesa-Bunjwah*).
Ram Chand Khajuria (Cong.), (*Billawar*).
Abdul Qadus Azad (Cong.), (*Birwa*).
Trilochan Dutt (Cong.), (*Bishnah*).
Abdul Qayoom (NC), (*Charar-i-Sharif*).
Chhaju Ram (Cong.), (*Chhamb*).
Mufti Moh'd Syeed (Cong.), (*Dachhanpara*).
Moh'd Iqbal (Cong.), (*Darhal*).
Ghulam Nabi Wani (Badgami) (Cong.), (*Darhgam*).
Abdul Aziz Zargar (Cong.), (*Devsar*).
Lassa Wani (NC), (*Doda*).
Moh'd Sultan Tantrey (Cong.), (*Dragmulla*).
Mir Qasim (Cong.), (*Doru Shahabad*).
Abdul Salam Aitu (Cong.), (*Ganderbal*).
Durga Prasad Dhar (Cong.), (*Habba-Kadal*).
Abdul Gani Mir (Cong.), (*Handwara*).
Moh'd Yahya Sidiqui (NC), (*Hazratbal*).
Prem Nath Dogra (PP), (*Jammu City—Northern*).
Ram Chand Mahajan (Cong.), (*Jammu City—Southern*).
Thakur Rounaq Singh (NC), (*Jandrah Gharota*).
Girdhari Lal Dogra (Cong.), (*Jasmergarh*).
Mian Nizam-ud-Din (Cong.), (*Kangan*).
Aga Syed Ibrahim Shah (Cong.), (*Kargil*).
Moh'd Younis (Cong.), (*Karnah*).
Thakur Randhir Singh (Cong.), (*Kathua*).
Abdul Rahman Bhat (Ghazi) (N.C.), (*Khanyar*).
Sofia Ghulam Ahmad (N.C.), (*Khan Sahib*).
Noor-ud-Din Dar (NC), (*Khawarpora*).
Syed Mir Badshah (Cong.), (*Kishtwar*).
Manohar Nath Kaul (Cong.), (*Kothar*).
Moh'd Yakub Bhat (NC), (*Kulgam*).
Shiv Charan Gupta (PP), (*Landar Tikari*).
Kaushak Bakula (Cong.), (*Leh*).
Ghulam Nabi Wani (Cong.), (*Lolab*).
Syed Abbas (Cong.), (*Magam*).
Guranditta Mal (Cong.), (*Marh (R)*).
Peer Jamat Ali Shah (NC), (*Mendhar*).
Kulbir Singh (Cong.), (*Miran Sahib*).
Abdul Kabir Wani (Cong.), (*Nandi*).
Nizam-ud-Din (NC), (*Naubug Brang*).
Ghulam Hassan Khan (Cong.), (*Noorabad*).
Master Beli Ram (Cong.), (*Nowshera*).
Pirzada Ghulam Jeelani (NC), (*Pampore*).
Ghulam Moh'd Bhat Jalib (Cong.), (*Pattan*).
Master Ghulam Ahmad (NC), (*Poonch*).
Sanaullah Sheikh (Cong.), (*Pulwama*).
Ghulam Rasul Kar (Cong.), (*Rafiabad*).
Abdul Aziz Shawl (Cong.), (*Rajouri*).
Ghulam Moh'd Mir Rajpori (Cong.), (*Rajpora*).
Assadullah Mir (Cong.), (*Ramban*).
Vacant, (*Ramgarh (R)*).
Ghulam Moh'd Wani (NC), (*Ramhal*).
Hem Raj Jandial (Cong.), (*Ramnagar*).
Rishi Kumar Koushal (PP), (*Reasi*).
Bhagat Chhaju Ram (Cong.), (*R. S. Pora (R)*).
Bakshi Ghulam Moh'd (NC), (*Safakadal*).
Vacant, (*Samba*).
Abdul Majid Bandey (NC), (*Shopian*).
Abdul Khaliq Bhat (Cong.), (*Sonawari*).
Abdul Gani Malik (NC), (*Sopore*).
Moh'd Akbar (Cong.), (*Tangmarg*).
Ghulam Moh'd Sadiq (Cong.), (*Tankipora*).
Abdul Gani Trali (Cong.), (*Tral*).
Amar Nath Sharma (Cong.), (*Udhampore*).
Raja Moh'd Afzal Khan (NC), (*Uri*).
Moh'd Abdullah Shair (Cong.), (*Zaddibal*).

## KERALA LEGISLATIVE ASSEMBLY

A no-confidence motion against the Kerala Congress Ministry was passed on Sept. 8, 1964. The Assembly was dissolved. New election took place in March 1965. The legislative assembly has been again dissolved since no party had an absolute majority. There is no likelihood of a further new election before the next General Elections.

# MADHYA PRADESH LEGISLATIVE ASSEMBLY

Seats: 289 (inclusive of one nominated); (S.C. 43; S.T. 54); Electorate: 1,58,56,404.

*Speaker:* Kunjilal Dube.

*Dy. Speaker:* N. P. Srivastava.

An estimate of Party position is given below: Congress 173; Jan Sangh 44; P.S.P. 21; Samyukta Socialist 11; Ram Rajya Parishad, Hindu Maha Sabha & Samyukta Dal 13; Loktantriya Samajvadi Party 3; Independent 15; Swatantra 2; Communist 1; Nominated 1; Vacant 5.

Lakhanlal Gupta (Cong.), (*Abhanpur*).
Madanlal Bhandari (J.S.), (*Agar*).
Vacant, (*Akaltara*).
Bhagirath Bhanwar (S.T.) (Soc.), (*Alirajpur*).
Maya Ram Nanda (S.C.) (Cong.), (*Alot*).
Gulsher Ahmad (Cong.), (*Amarpatan*).
Jagdish Singh (P.S.P.), (*Ambah*).
Amresh Prasad Singh Deo (Cong.), (*Ambikapur*).
Jagmohandas Guru Gosain (S.C.), (Cong.), (*Arang* (*R*)).
Ramdayalsingh Raghuwanshi (Cong.), (*Ashoknagar*).
Umrao Singh (S.C.), (Cong.). (*Ashta* (*R*)).
Ram Krishna Dixit (Cong.), (*Attair*).
Dr. Govardhanlal Sharma (J.S.), (*Badnawar*).
Jagpati Singh (S.T.), (Cong.), (*Badwara* (*R*)).
Nairityapal Singh R.H.S.P., (*Bagicha*).
Kailashchandra Joshi (J.S.), (*Bagli*).
Balkrishna Paldheekar (J.S.), (*Bahoriband*).
M. N. Masram (S.T.), (Cong.), (*Baihar* (*R*)).
Jwala Prasad (P.S.P.), (*Baikunthpur*).
Nandkishore Jaisraj (Cong.), (*Balaghat*).
Kesholal Gomasta (Cong.), (*Balod*).
Brijlal Verma (Cong.), (*Baloda Bazar*).
Ramcharanlal Pujari (J.S.), (*Banda*).
Mishrilal Vishwakarma (Cong.), (*Bandhogarh*).
Ramchandra Bajpaee (Cong.), (*Baraundha*).
Raja Daulatsingh (S.T.), (Cong.), (*Bareli* (*R*)).
Jageshwarnath Bisen (P.S.P.), (*Barghat*).
C. P. Tripathi (Cong.), (*Bargi*).
Ramprakash Malhotra (S.S.P.), (*Barnagar*).
Pyarelal (Cong.), (*Barpali*).
Rana Balbahadur Singh (Cong.), (*Barwaha*).
Daval Nana (S.T.) (J.S.), (*Barwani* (*R*)).
Abdul Hamid Dani (Cong.), (*Basna*).
Ram Singh (Cong.), (*Basoda*).
Chitrakant Jayaswal (Cong.), (*Belha*).
Laxman Prasad Vaid (Cong.), (*Bemetra*).
Ram Kishore Shukla (Cong.), (*Beohari*).
Harikishan Singh (S.C.) (Cong.). (*Berasia* (*R*)).
Deepchand Gothi (Cong.), (*Betul*).
Dadu Singh Balaji (S.T.) (J.S.), (*Bhainsdehi* (*R*)).
Mahadeo Singh (S.T.), (Cong.), (*Bhaiyathan* (*R*)).
Rajaram Singh (S.C.), (Cong.), (*Bhander* (*R*)).
Mangal Singh (J.S.), (*Bhanpuri*).
Ram Charan Potai (S.T.), (Cong.), (*Bhanupratappur* (*R*)).
Shivlal Mehta (Cong.), (*Bhatapara*).
Reshamlal Jangde (S.C.), (Cong.), (*Bhatgaon* (*R*)).
Hiralal Yadav (J.S.), (*Bhikangaon*).
Gopal Singh (S.T.), (Cong.), (*Bhilai* (*R*)).
Narsingh Rao Dixit (Cong.), (*Bhind*).
Yogendranath Singh (R.H.S.P.), (*Bhoma*).
Shakir Ali Khan (Com.), (*Bhopal*).
Ramkaran Ugra (P.S.P.), (*Biaora*).
Shankerlal (S.T.), (R.H.S.P.), (*Bichhiya*(*R*)).
Hari Prasad (Cong.), (*Bijairaghogarh*).
Bakayyaraj Pambhoi (S.T.) (Cong.), (*Bijapur* (*R*)).
Govind Singh Ju Deo (Cong.), (*Bijawar*).
Naval Kishore Garg (Ind.), (*Bijeypur*).
Vacant, (*Bilaspur*).
S. S. Narayan Mushran (Cong.), (*Bina*).
Khan Singh (S.T.) (Ind.), (*Bindranawagarh* (*R*)).
Rani Padmavati Devi (Cong.), (*Birendranagar*).
Bansidhar Parasher (Ind.), (*Budhni*).
Abdul Quadir Siddiqui (Cong.), (*Burhanpur*).
Krishnapal Singh (Cong.), (*Budhar*).
Jiwanlal Sao (J.S.), (*Champa*).
Prabhulal (Cong.), (*Chanchaura*).
Dhansai Verma (Cong.), (*Chandrapur*).
T. H. Deharia (S.C.), (Cong.), (*Chaurai* (*R*)).
Thakur Deepsingh (S.T.) (Cong.), (*Chhapara*(*R*)).
Ram Swaroop Khare (J.S.), (*Chhatarpur*).
Smt. Vidyawati Mehta (Cong.), (*Chhindwara*).
Pakiloo Joga (S.T.), (J.S.), (*Chitrakot* (*R*)).
Deo Prasad Arya (S.T.), (L.S.P.) (*Chowki* (*R*)).
Brinda Sahai (Cong.), (*Dabra*).
A. K. Shrivastava (Ind.), (*Damoh*).
Parasram Sheoram Dhurve (S.T.), (Cong.), (*Damua* (*R*)).
Lachhu (S.T.), (J.S.), (*Dantewara* (*R*)).
Surya Deo Sharma (Ind.), (*Datia*).
Vinay Kumar Deewan (P.S.P.), (*Denwa*).
Krishna Kumar Katare (P.S.P.), (*Deori*).
Laxmi Kant (Cong.), (*Deosar*).
Raghvendra Singh (Cong.), (*Deotalao*).
Bapusingh Ramsingh Mandloi (S.S.P.), (*Depalpur*).
Devendra Vijay Singh (Cong.), (*Devendranagar*).
Bapulal Malviya (S.C.), (Cong.), (*Dewas* (*R*)).
Ganeshram Nayak (Cong.), (*Dhamana*).
Pandhri Rao Kridatta (J.S.), (*Dhamtari*).
Kanhaiyalal (Cong.), (*Dhar*).
Kishorimohan (Cong.), (*Dharamjaigarh*).
Hari Prem Baghel (P.S.P.), (*Dharsiwan*).
Raja Harbhagat Singh (S.T.), (Cong.), (*Dhimarkheda* (*R*)).
Manoharsingh Chouhan (S.T.), (J.S.), (*Dhulkot*).
Summersingh Ammarayya (S.C.) (Ind.), (*Dimni* (*R*)).
B. M. Kushram (S.T.), (Cong.), (*Dindori* (*R*)).
Jhumuklal Bhendiya (S.T.), (Cong.), (*Dondi-Lohara* (*R*)).
Madanlal Tiwari (S.S.P.), (*Dongaragaon*).
Ganeshmal Bhandari (Cong.), (*Dongargarh*).
Dhalsingh (Cong.), (*Durg*).
K. L. N. Agrawal (P.S.P.), (*Gadarwara*).
Mohanlal Sethia (J.S.), (*Garoth*).
Surendrakumar Singh (S.T.), (Cong.), (*Gharghoda* (*R*)).
Jangusingh Nizam (S.T.), (J.S.), (*Ghoradongri* (*R*)).
Dwarika Prasad Bilthare (Cong.), (*Ghugri*).
Mahesh Dutt Mishra (Cong.), (*Gird*).
Ramcharanlal (P.S.P.), (*Gohad*).
Dadhi Singh (S.T.), (P.S.P.), (*Gopadbanas* (*R*)).
Thakur Shashibhushansingh (Cong.), (*Gotegaon*).
Mathura Prasad Dube (Cong.), (*Gourella*).
Hiralal Malviya (S.C.), (Ind.), (*Gulana* (*R*)).
B. P. Tiwari (J.S.), (*Guna*).
Udairam (Cong.), (*Gunderdehi*).
Brij Raj Singh (Cong.), (*Gurh*).
Premchand Kashyap (Cong.), (*Gwalior*).
Laxman Rao Naik (Cong.), (*Harda*).
Rao Bhimsingh (Swa.), (*Harsud*).
Jugalkishore Bajaj (Ind.), (*Hatta*).
Smt. Sushila Devi Dixit (Cong.), (*Hoshangabad*).
V. V. Dravid (Cong.), (*Indore*).
Babulal Patodi (Cong.), (*Indore City-Central*).
Gangaram Tiwari (Cong.), (*Indore City-East*).
Mishrilal Gangwal (Cong.), (*Indore City-West*).
K. S. Mandloi (P.S.P.), (*Itarsi*).
Kunjilal Dube (Cong.), (*Jabalpur I*).
Jagdishnarain Awasthi (Cong.), (*Jabalpur II*).
Manmohandas Govind Das (Cong.), (*Jabalpur III*).
Chaitu Mahara (S.C.), (J.S.), (*Jagdalpur* (*R*)).
Ram Prasad Singh Partite (S.T.), (Cong.), (*Jaitpur* (*R*)).
R. P. Sharma (Cong.), (*Janjgir*).
Laxminarayan Pande (J.S.), (*Jaora*).
Sheoprasad Ojha (Cong.), (*Jarhagaon*).
Smt. Shakuntala Devi (S.T.), (R.H.S.P.), (*Jashpur* (*R*)).
Narendra Singh Dev (Cong.), (*Jatara*).
V. K. Sakhlecha (J.S.), (*Jawad*).
Mansingh Sal Singh (S.T.), (S.S.P.). *Jhabua* (*R*)).
Raysingh (S.T.), (S.S.P.), (*Jobat* (*R*)).
Pancham Singh (Ind.), (*Joura*).
Bhanupratapdeo (Cong.), (*Kanker*).
Chaturbhuj Gorani (Ind.), (*Kannod*).
Gautam Sharma (Cong.), (*Karera*).
Pt. Dwarika Prasad Mishra (Cong.), (*Kasdol*).
Ojhi Ramlal (P.S.P.), (*Katangi*).
Vishwaraj Singh (R.H.S.P.), (*Kawardha*).
Mankuram Sodi (S.T.), (J.S.), (*Keskal* (*R*)).
Bhairav Bhartiya (Ind.), (*Khachraud*).
Gyanendra Singh (Cong.), (*Khairagarh*).
Nilkanth Tukaram (L.S.P.), (*Khairalanjee*).
Hiralal (S.T.), (Swa.), (*Khalwa* (*R*)).
Bhagwantrao Mandloi (Cong.), (*Khandwa*).
Bhaichandra Bagdare (J.S.), (*Khargone*).
Hari Singh Pawar (Ind.), (*Khilchipur*).
Nandlal Parmanand (S.C.), (Cong.), (*Khurai* (*R*)).
Motiram Odgu (S.C.), (Cong.), (*Kirnapur* (*R*)).
Smt. Manorama Trivedi (Cong.), (*Kolaras*).
B. J. Hadma (S.T.), (J.S.), (*Konta* (*R*)).
L. C. Shekhar Singh (S.T.), (Cong.), (*Kota* (*R*)).
Rudrasaran Pratap Singh (S.T.), (Cong.), (*Katghora* (*R*)).
Smt. Girja Kumari (S.T.), (Cong.), (*Kotma* (*R*)).
Babu Singh (S.T.), (J.S.), (*Kukshi* (*R*)).
Yeshwant Rao Mehgawale (J.S.), (*Kurud*).
Takhtmal Jain (Cong.), (*Kurwai*).
Prabhudayal Jatav (S.C.), (Cong.), (*Lahar* (*R*)).
Narhari Prasad (R.H.S.P.), (*Lailunga*).
Vasantrao Uikey (S.T.), (Cong.), (*Lakhandon* (*R*)).
Dr. Tuman Lal (S.C.), (Cong.), (*Lal Bahadurnagar* (*R*)).
N. P. Shrivastava (Cong.), (*Lanji*).
Ramniwas Bangad (Cong.), (*Lashkar*).
Raghunath Singh (P.S.P.), (*Laundi*).
Lakshmi Narain Naik (P.S.P.), (*Lidhaura*).
Yeshwantraj Singh (R.H.S.P.), (*Lormi*).
Atmaram Ingole (S.C.), (P.S.P.), (*Lundra* (*R*)).
Nathooram (S.C.), (J.S.), (*Maharajpur* (*R*)).
Paran Singh (S.C.), (P.S.P), (*Maharamund* (*R*)).
Bhikaji Tantuji (S.C.), (J.S.), (*Maheshwar* (*R*)).
Durgadas Suryavanshi (S.C.), (Cong.), (*Mahidpur* (*R*)).
Gopal Sharan Singh (Cong.), (*Maihar*).
Arjun Singh (Cong.), (*Majhauli*).
Hansraj (S.C.), (Cong.), (*Malehra* (*R*)).
Vedram (S.C.), (Cong.), (*Malkharoda* (*R*)).
Sunderlal Patwa (J.S.), (*Manasa*).
Kunwar Fatehbhan Singh Chauhan (S.T.), (Cong.), (*Manawar East* (*R*)).
Thakur Mansingh Chauhan (S.T.), (J.S.), (*Manawar West* (*R*)).
Smt. Narayanidevi Jha (Cong.), (*Mandla*).
Shyamsunder Patidar (Cong.), (*Mandsaur*).
Rattiram (S.T.) (Cong.), (*Manendragarh* (*R*)).
R. R. Pratap Singh (Cong.), (*Mangawan*).
Sheolal Kurre (S.C.), (Cong.), (*Maro* (*R*)).
Smt. Laxmibai Biharilal (Cong.), (*Masod*).
Ganeshram Anant (S.C.), (Cong.), (*Masturi* (*R*)).
Chhotelal (S.C.), (Cong.), (*Mauganj* (*R*)).
Roopsingh (S.T.), (Cong.), (*Mehedwani* (*R*)).
Ramdhan Singh (Cong.), (*Mehgaon*).
R. C. Jall (Cong.), (*Mhow*).
Smt. Chandrakala Sahai (Cong.), (*Morar*).
Hari Ram Singh Saraf (Cong.), (*Morena*).
Balkrishna Patel (Cong.), (*Multai*).
Chandra Bhan Singh Chauhan (Cong.), (*Mungaoli*).
Moolchand Jangde (S.C.), (Cong.), (*Mungeli* (*R*)).
Ramdas Agrawal (S.S.P.), (*Murwara*).
Vacant, (*Narayanpur* (*R*)).
Mahendrasingh Kiledar (P.S.P.), (*Narsimhapur*).
Dr. Kailashnath Katju (Cong.), (*Narsingarh*).
Bisahudas Mahant (Cong.), (*Nawagarh*).
Khuman Singh (J.S.), (*Neemuch*).
Lokumal (Cong.), (*New Bhopal*).
Nathuram (S.C.), (P.S.P.), (*Niwari* (*R*)).
Shahju (S.T.), (Cong.), (*Niwas* (*R*)).
K. B. L. Guru (Cong.), (*Nohata*).
Udaibhan Shah (S.T.), (Cong.), (*Pagara* (*R*)).
Maharaj Kumar C. S. Singh (Cong.), (*Pal*).
Bhanwar Singh (S.C.), (P.S.P.), (*Pallari* (*R*)).
Parmanand Bhai Patel (Cong.), (*Panagar*).
Deokaran Patel (S.C.), (Cong.), (*Pandhana* (*R*)).
Narendra Singh (Cong.), (*Panna*).
Sewak Ram Dube (Cong.), (*Parasia*).
R. A. Trivedi (Cong.), (*Paraswara*).
Narain Prasad (S.C.), (Cong.), (*Patan* (*R*)).
Laljit Singh (S.T.), (R.R.P.), (*Pathalgaon* (*R*)).
Rameshwar Agnibhoj (S.C.), (Ind.), (*Patharia* (*R*)).
Jagsuriya (S.C.), (J.S.), (*Pawai* (*R*)).
Laxmi Narayan Gupta (H.M.S.), (*Pichhore*).
Smt. Ratan Kumari Devi (S.T.), (Cong.), (*Piparia* (*R*)).
Vacant, (*Pithora*).
Tularam Sagar (S.C.), (Cong.), (*Pohri* (*R*)).
Chintaram (S.T.), (P.S.P.), (*Pushparajgarh* (*R*)).
Raja Nareshchandra Singh (Cong.), (*Pussour*).
Dulichand Aherwar (S.C.), (Cong.), (*Raghogarh* (*R*)).
Govind Narain Singh (Cong.), (*Raghurajnagar*).
Niranjanlal Sharma (Cong.), (*Raigarh*).
Sharda Charan Tiwari (Cong.), (*Raipur*).
S. S. Khujneri (Ind.), (*Rajgarh*).
Shyama Charan Shukla (Cong.), (*Rajim*).
Eknath Marotirao (Cong.), (*Rajnandgaon*).

Devisingh Patel (S.T.), (J.S.), (*Rajpur (R)*).
Ranchusingh Ibnati (S.T.), (Cong.), (*Ramakona (R)*).
Babulal Paliwal (S.S.P.), (*Ratlam*).
M. J. Bhai Patel (Cong.), (*Rehli*).
S. S. Tiwari (Cong.), (*Rewa*).
Mahadeo Singh (Cong.), (*Ron*).
Buddharam (S.C.), (Cong.), (*Sabalgarh (R)*).
H. M. Shafi Sheikh Subarati (Cong.), (*Sagar*).
Smt. Tankrajeshwari (Cong.), (*Sakti*).
Laxman Singh Chitra (S.S.P.), (*Sailana*).
Jairam (S.T.), (Ind.), (*Samri (R)*).
Gulab Chand Tamot (L.S.P.), (*Sanchi*).
L. A. Jamnik (S.C.), (S.S.P.), (*Sainkheda (R)*).
R. M. Bahadur Singh (Cong.), (*Saraipali*).
Kumari Nanhu Dai (S.C.), (Cong.), (*Sarangarh (R)*).
Gangaram Jatav (S.C.), (J.S.), *Sarangpur (R)*).
Sumersingh Pawar (J.S.), (*Sardarpur*).
Sukhendra Singh (J.S.), (*Satna*).
S. G. Bute (Ind.), (*Sausar*).
Sajjansingh Vishnar (S.C.), (Cong.), (*Sawer (R)*).
M. I. Ullah Khan Tarzi Mashriki (Cong.), (*Sehore*).
R. S. Chauhan (S.T.), (J.S.), (*Sendhwa (R)*).
Kamta Prasad Saxena (Cong.), (*Seondha*).
Rajkumari Prabhawati Raje (R.H.S.P.), (*Seoni*).
Smt. Durgabai Deshmukh (P.S.P.), (*Shahpur*).
Rameshchandra Dubey (J.S.), (*Shajapur*).
Ram Swaroop Verma (R.H.S.P.), (*Sheopur*).
Dr. A. S. Mishra (Cong.), (*Shivpuri*).
Vishnucharan Joshi (Cong.), (*Shujalpur*).
Chandra Pratap Tiwari (P.S.P.), (*Sidhi*).
Narayan Singh (S.T.), (J.S.), (*Sihawa (R)*).
Kashi Prasad Pande (Cong.), (*Sihora*).
Shyam Kartik (S.S.P.), (*Singrauli*).
Y. P. Shastri (P.S.P.), (*Sirmaur*).
Madanlal Agrawal (R.H.S.P.), (*Sironj*).
Kishore Singh (J.S.), (*Sitamau*).
Mokshmadan Singh (S.T.), (Cong.), (*Sitapur*).
S. N. Shukla (Cong.), (*Sohagpur*).
Vikram Singh (J.S.), (*Soonkatch*).
Bansrup (R.R.P.), (*Surajpur*).
Dr. B. B. Rai (Cong.), (*Surkhi*).
Hari Bhau Joshi (J.S.), (*Susner*).
Champalal Arya (S.C.), (J.S.), (*Suwasara (R)*).
Murlidhar Misra (Cong.), (*Takhatpur*).
Smt. Yagyaseni Kumari (S.T.), (Cong.), (*Tanakhar (R)*).
Madhava Singh Ram Singh (J.S.), (*Tarana*).
L. K. Singh (Cong.), (*Teonthar*).
Pratap Singh (S.T.), (S.S.P.), (*Thandla (R)*).
Gyanendra Singh Dev (Cong.), (*Tikamgarh*).
Dhannalal Chaudhary (S.C.), (Cong.), (*Timarn (R)*).
Dr. S. D. Sharma (Cong.), (*Udaipura*).
A. G. Qureshi (Cong.), (*Ujjain North*).
Smt. Hansaben Patel (Cong.), (*Ujjain South*).
Gayadin (S.C.), (J.S.), (*Unchara (R)*).
Gorelal Raithore (S.C.), (Cong.), (*Vidisha (R)*).
V. S. Lal Sao (Swa.), (*Waraseoni*).
F. A. Lemos (*Nominated*).

Cong. = Congress; J.S. = Jan Sangh; P.S.P. = Praja Socialist Party; S.S.P. = Samyukta Socialist Party; R.H.S.P. = Ram Rajya Parishad, Hindu Maha Sabha and Samyukta Dal; Ind. = Independent; Com. = Communits; Swa = Swatantra Party; L.S.P. = Lok Tantriya Samajvadi Party.

## MADRAS LEGISLATIVE COUNCIL

**(An estimate of party strength is as follows: Congress 42, United Party 7, Independents 6, D. M. K. 6, Muslim League 1.)**

*Chairman:* M. A. Manickavelu; *Deputy Chairman:* V. K. Palaniswamy Gounder; *Secretary:* G. M. Alagarswamy.

**Legislative Assembly Constituency**

K. S. Abdul Wahab (I.U.M.L.).
T. S. Arunachalam (Cong.).
C. P. Chitrarasu, (D.M.K.).
M. Ethirajalu (Cong.).
E. Janakiram Mudaliar (Cong.).
A. Krishnaswamy Vandayar (Cong.).
Smt. Lakshmi Krishnamurthy (Cong.).
Mohanlal Mehta (Cong.)
N. V. Natarajan (D.M.K.).
J. Ponnuswamy Villavarayar (Cong.).
M. Rajagopal Pillai (Cong.).
K. Rajaram (Cong.).
K. Ramadass (Cong.).
K. Ramakrishna Achari (Cong.).
K. R. Ramaswamy (D.M.K.).
K. V. Ramaswamy (Cong.).
A. Subramanyam (Cong.).
R. Venkataraman (Cong.).
Sr. P. Ponnusamy Chettiar (Cong.).

**Local Authorities Constituency**

S. B. Aditanar (Ind.).
A. Chidambara Mudaliar (Cong.).
I. A. Chidambaram Pillai (Cong.).
T. V. Devaraja Mudaliar (Cong.).
K. Doraiswamy Naidu (Cong.).
T. Durairaj (Cong.).
S. Jayaram Reddiar (Cong.).
K. Kamalakannan (Cong.).
K. K. Kothandaraman (Cong.).
SP. K. A. Lakshmanan Chettiar (Cong.).
C. Muthiah (Cong.).
V. K. Ramaswamy Mudaliar (Ind.).
A. Sambasiva Reddiar (Cong.).
R. Sivasankara Mehta (Cong.).
Sivasubramania Pandian (Cong.).
M. Subbiah Chettiar (U.P.).
A. K. Thangavel Mudaliar (D.M.K.).
N. R. Thiagarajan (Cong.).
R. Venkatachalam (D.M.K.).
P. Venkatachala Thevar (Cong.).
G. Vijayarangam (Cong.).

**Graduates Constituency**

K. Balasubramania Ayyar (U.P.).
Dr. H. V. Hande (Ind.).
Dr. A. Lakshmanaswami Mudaliar (U.P.).
S. K. Sambandhan (U.P.).
Dr. T. V. Sivanandam (Cong.).
A. Srinivasaraghavan (Ind.).

**Teachers Constituency**

K. Anbazhagan (D.M.K.).
Dr. A. Chidambaranathan (U.P.).
G. R. Damodaran (U.P.).
G. Krishnamoorthy (U.P.).
M. Rajah Iyer (Ind.).
M. Sankaralingam Pillai (Cong.).

**Nominated by Governor**

Smt. Mary C. Clubwala Jadhav (Ind.).
Smt. S. Manjubashini (Cong.).
M. A. Muthiah Chettiar (Cong.).
V. Ramalingam Pillai (Cong.).
O. P. Ramaswamy Reddiar (Cong.).
V. Rengasamy (Cong.).
S. D. Sundaram (Cong.).
Smt. Saraswathi Pandurangam (Cong.).
Smt. T. L. Thirupurasundari (Cong.).

## MADRAS LEGISLATIVE ASSEMBLY

Electorate: 1,86,89,080.
Constituencies: 206.
Seats: 207 (S.C. 37; S.T. 1).
*Speaker:* S. Chellapandian.
*Dy. Speaker:* K. Parthasarathy.
An estimate of party position is given below:
Cong. 138; Com. 2; D.M.K. 51; Swa. 9; Soc. 1; Ind. 5; Nominated 1.

O. V. S. Reddi (Cong.), (*Acharapakkam*).
M. Dhandayuthapani (Cong.), (*Adirampattinam*).
K. S. Mani (D.M.K.), (*Aduthurai*).
P. Murugaiyan (S.C.) (D.M.K.), (*Alangudi (R)*).
S. Chellapandian (Cong.), (*Alangulam*).
G. G. Sankara Dikshitar (Cong.), (*Ambasamudram*).
P. Rajagopal (S.C.) (Cong.), (*Ambur (R)*).
K. Ponnian (S.C.) (Cong.), (*Anamalai (R)*).
C. Ambalakarar (Cong.), (*Andanallur*).
G. D. Perumal Raju (S.C.) (Cong.), (*Andhiyur (R)*).
Smt. A. Krishnaveni (S.C.) (Cong.), (*Andipatti (R)*).
A. Duraiyaraaan (D.M.K.), (*Arantangi*).
S. Sadasivam (Cong.), (*Aravakurichi*).
K. R. Muniratnam (D.M.K.), (*Arcot*).
R. Narayanan (D.M.K.), (*Ariyalur*).
S. J. Ramaswami (D.M.K.), (*Arkonam*).
C. Kothandarama Bagawathar (Cong.), (*Arni*).
T. K. V. Sundaram (Cong.), (*Aruppukottai*).
S. A. Naicker (Cong.), (*Attur*).
V. S. S. Mani (D.M.K.), (*Authoor*).
K. M. Gounder (Cong.), (*Avanashi*).
Smt. T.N. Anandanayaki (Cong.), (*Basin Bridge*).
Smt. N. K. Ranganayaki (Cong.), (*Bhavani*).
A. Ramachandra Rayar (Cong.), (*Bhuvanagiri*).
A. P. Soundaravel Servai (Cong.), (*Bodinayakanoor*).
C. K. Chinnaraje (D.M.K.), (*Chengam*).
K. R. Nallasivam (Soc.), (*Chennimalai*).
Pulavar K. Govindan (D.M.K.), (*Cheyyar*).
S. Sivasubramaniam (S.C.) (Cong.), (*Chidambaram (R)*).
C. G. Viswanathan (D.M.K.), (*Chingleput*).
G. E. Chinnadurai (Cong.), (*Coimbatore I*).
K. P. Palanisamy (S.C.) (Cong.), (*Coimbatore II (R)*).
A. Swamidhas (Ind.), (*Colachel*).
J. M. Gowdar (Cong.), (*Coonoor*).
P. R. S. Padayachi (Cong.), (*Cuddalore*).
Smt. Parvathi Arjunan (Cong.), (*Dharapuram*).
D. N. Vadivelu (Cong.), (*Dharmapuri*).
R. Rangaswamy (Cong.), (*Dindiyul*).
Smt. Jothi Venkatachellum (Cong.), (*Egmore*).
A. S. D. Gounder (Cong.), (*Erode*).
R. K. Gopalar (Cong.), (*Gandarvakottai*).
R. S. Arumugam (S.C.) (Cong.), (*Gangaikondan (R)*).
G. Rajaram (Cong.), (*Gingee*).
P. K. M. Gounder (Cong.), (*Gobichettipalayam*).
T. Manavalan (S.C.) (Cong.), (*Gudiyattam (R)*).
A. R. Reddi (Swa.), (*Gummidipundi*).
K. S. G. Haja Sheriff (Cong.), (*Harbour*).
C. Manickam (S.C.) (D.M.K.), (*Harur (R)*).
N. R. Reddy (Cong.), (*Hosur*).
Smt. Jagadambal Velayudham (D.M.K.), (*Jayankondam*).
C. V. Velappan, (D.M.K.), (*Kabilamalai*).
N. E. Mudaliar (Cong.), (*Kadambathur*).
S. Sangili (S.C.) (Cong.), (*Kadambur (R)*).
A. B. Balagan (Cong.), (*Kadayam*).
T. Chinnasamy (S.C.), (D.M.K.), (*Kallakurich (R)*).
S. V. Natesa Mudaliar (Cong.), (*Kancheepuram*).
K. S. Nataraja Gounder (Cong.), (*Kangayam*).
Dr. B. Natarajan (Cong.), (*Kanyakumari*).
Saw Ganesan (Swa.), (*Karaikudi*).
T. M. Nallasamy (Cong.), (*Karur*).
B. R. Naidu (Cong.), (*Katpadi*).
M. R. Krishnamurthy (D.M.K.), (*Kathumannarkoil*).
R. P. Nadar (Cong.), (*Killiyoor*).
M. Alagirisamy (Cong.), (*Kodaikanal*).
P. Jayaraj (S. C.) (Cong.), (*Kodavasal*).
M. P. M. Gounder (Cong.), (*Koilpalayam*).
N. V. Venugopalakrishnasami (Cong.), (*Koilpatti*).
P. V. Sriramulu (D.M.K.), (*Krishnagiri*).
V. Ramanathan (Cong.), (*Kulithalai*).

A. R. Ramasami (Cong.), (*Kumbakonam*).
P. Appavoo (S.C.) (Cong.), (*Kunnathur* (*R*)).
N. Rajangam (S.C.) (D.M.K.), (*Kurinjipady* (*R*)).
A. P. Dharmalingam (D.M.K.), (*Lalgudi*).
R. G. Naidu (Cong.), (*Madhavaram*).
V. Sankaran (Cong.), (*Madurai Central*).
Smt. P. K. R. Lakshmikantham (Cong.), (*Madurai East*).
B. Parameswaran (S.C.) (Cong.), (*Madurantakam* (*R*)).
R. Nallamuthu (S.C.) (D.M.K.), (*Mallasamudram* (*R*)).
K. Cheemaichamy (Swa.), (*Manamadurai*).
N. P. M. Chinniah Gounder (Cong.), (*Mannapparai*).
T. S. S. Odayar (Cong.), (*Mannargudi*).
G. N. Naidu (Cong.), (*Mayuram*).
Sv. Sm. Sivaramanambalam (Cong.), (*Melur*).
N. Shanmugasundaram (Cong.), (*Mettupalayam*).
K. S. A. Gounder (Cong.), (*Mettur*).
T. L. S. Thevar (F.B.), (*Mudukulathur*).
S. Ramalingam (S.C.) (Cong.), (*Musiri*) (*R*)).
Aranganal Rama (D.M.K.), (*Mylapore*).
A. M. P. S. Balagangadharan (Cong.), (*Nagapattinam*).
A. C. Nadar (Cong.), (*Nagercoil*).
K. N. Pillai (Cong.), (*Nallur*).
S. Chinnayan (S.C.) (Cong.), (*Namakkal* (*R*)).
A. K. K. Gounder (Cong.), (*Nambiyur*).
N. Duraipandi (Cong.) (*Nanguneri*).
M. D. T. Pillai (Cong.), (*Nannilam*).
V. Krishnamoorthy (D.M.K.), (*Nellikuppam*).
K. S. A. Azeez (Cong.), (*Nilakottai*).
T. K. Gowder (Cong.), (*Ootacamund*).
A. S. Gounder (Cong.), (*Ottanchatram*).
A. L. R. Naidu (Cong.), (*Ottapidaram*).
A. K. Nadar (Ind.), (*Padmanabhapuram*).
C. V. Gounder (Swa.), (*Palani*).
R. Sengaliappan (Cong.), (*Palladam*).
K. K. Muthiah (Cong.), (*Panjapatti*).
R. Subramanian (S.C.) (Cong.), (*Papanasam* (*R*)).
C. Srinivasan (Cong.), (*Paramakudi*).
V. Arunachalam (D.M.K.), (*Pattukkottai*).
M. V. Karivengadam (D.M.K.), (*Pennagaram*).
T. P. Alagamuthu (D.M.K.), (*Perambalur*).
Kumari D. Sulochana (S.C.) (Cong.), (*Perambur* (*R*)).
P. Ramachandran (Cong.), (*Peranamallur*).
N. S. S. Manradiar (Cong.), (*Perundurai*).
N. Mahalingam (Cong.), (*Pollachi*).
T. B. Kesava Reddiar (Ind.), (*Polur*).
T. P. Elumalai (S.C.) (Cong.), (*Ponneri* (*R*)).
K. R. Sambandam (Cong.), (*Porayar*).
A. Thiagarajan (D.M.K.), (*Pudukkottai*).
P. Urkavalan (S.C.) (Cong.), (*Puliangudi* (*R*)).
V. B. Reddi (Cong.), (*Purasawalkam*).
N. Sountharapandian (Cong.), (*Radhapuram*).
R. K. Naidu (Cong.), (*Rajapalayam*).
R. S. R. Sethupathi (Cong.), (*Ramanathapuram*).
R. A. Khaleel (D.M.K.), (*Ranipet*).
N. P. Sengottuvelu (D.M.K.), (*Rasipuram*).
L. Anandan (S.C.) (Cong.), (*Rishivandiyam* (*R*)).
Munu Adhi (D.M.K.), (*Saidapet*).
G. Venkataraman (Cong.), (*Salem I*).
A. R. Gounder (Cong.), (*Salem II*).
A. A. Thevar (Cong.), (*Saliamangalam*).
P. Kakkan (S.C.) (Cong.), (*Samayanallur* (*R*)).
S. M. A. Majid (Cong.), (*Sankarankoil*).
K. S. S. Gounder (Cong.), (*Sankari*).
K. Parthasarathy (Cong.), (*Sankarapuram*).
K. G. Gounder (Cong.) (*Sathiyamangalam*).
K. T. Kosalram (Cong.), (*Sattankulam*).
K. Kamaraj (Cong.), (*Sattur*).
V. R. Periannan (D.M.K.), (*Sendamangalam*).
Smt. A. S. Ponnammal (S.C.) (Cong.), (*Sholavandan*) (*R*)).
A. M. Ponrangam (Cong.), (*Sholingur*).
R. Thangavelu (S.C.) (Cong.), (*Sirkali* (*R*)).
R. V. Swaminathan (Cong.), (*Sivaganga*).
S. R. Naidu (Cong.), (*Sivakasi*).
M. Bhaktavatsalam (Cong.), (*Sriperumpudur*).
N. S. Chettiar (Cong.), (*Srirangam*).
A. P. C. Veerabahu (Cong.), (*Srivaikuntam*).
M. Chelliah (S.C.), (Cong.), (*Srivilliputhur* (*R*)).
Smt. C. Kolandaiammal (Cong.), (*Sulur*).
A. Duraiswamy (S.C.), (Cong.), (*Talaivasal* (*R*)).
A. Arumugam (S.C.), (Cong.), (*Tanipadi* (*R*)).
N. S. Sundararajan (Cong.), (*Taramangalam*).
A. R. S. Mudaliar (Cong.), (*Tenkasi*).
M. Karunanithi (D.M.K.), (*Thanjavur*).
S. S. Rajendran (D.M.K.), (*Theni*).
K. Manimozhiar (D.M.K.), (*Thiagarayanagar*).
V. Ramaiah (Cong.), (*Thirumayam*).
V. E. Naidu (Cong.), (*Thondamuthur*).
K. A. Mathialagan (D.M.K.), (*Thousandlights*).
S. Murugaiyan (D.M.K.), (*Thurinjapuram*).
A. Thangavelu (D.M.K.) (*Tindivanam*).
M. S. Selvarajan (Cong.), (*Tiruchendur*).
T. M. Kaliyannan (Cong.), (*Tiruchengode*).
M. S. Mani (D.M.K.), (*Tiruchirappalli I*).
M. Kalyanasundaram (Com.), (*Tiruchirappalli II*).
A. Perumal (S.C.) (F.B.), (*Tiruchuli* (*R*)).
Smt. B. Lakshminarasamma (Cong.), (*Tirukoilur*).
S. Madhavan (D.M.K.) (*Tirukoshtiyur*).
K. Thiruvengadam (Cong.), (*Tirumangalam*).
Smt. R. Kunchithapatham (Cong.) (*Tirunelveli*).
S. C. Thevar (Cong.), (*Tirupparankundram*).
K. Thirupathy (D.M.K.), (*Tiruppathur*).
K. N. P. Gounder (Cong.), (*Tiruppur*).
A. K. Subbiah S.C. (Com.), (*Tiruthuraipundi*).
C. C. Naidu (Ind.), (*Tiruttani*).
Kr. Rm. K. Ambalam (Swa.), (*Tiruvadanai*).
V. S. Arunachalam (S.C.) (Cong.), (*Tiruvallur*).
P. U. Shanmugam (D.M.K.), (*Tiruvannamalai*).
C. M. Ambikapathi (S.C.) (Cong.), (*Tiruvarur* (*R*)).
K. B. Palani (Cong.), (*Tiruvayar*).
S. Ramaswamy (D.M.K.), (*T. Palur*).
V. R. Nedunchezhiyan (D.M.K.), (*Triplicane*).
S. Ponnusamy (Cong.), (*Tuticorin*).
N. C. Muniswami Chetty (Swa.), (*Uddanapalli*).
R. R. Naicker (Cong.), (*Udumalpet*).
Smt. A. Manonmani Ammal (Swa.), (*Ulundurpet*).
V. A. Muthiah (Cong.), (*Uppiliapuram*).
P. K. M. Thevar (Swa), (*Usilampatti*).
M. Rajangam (D.M.K.), (*Uthamapalayam*).
M. Kamalanathan (D.M.K.), (*Uthangarai*).
O. S. Reddiar (Cong.), (*Uthiramerur*).
M. M. Pillai (Cong.), (*Vadamadurai*).
N. R. Udayar (Cong.), (*Valapadi*).
K. M. Krishna Swami (Cong.), (*Valavanur*).
M. P. Vadivelu (D.M.K.), (*Vaniyambadi*).
A. G. Balakrishnan (S.C.) (D.M.K.), (*Vanur* (*R*)).
N. S. Ramalingam (Cong.), (*Vedaranyam*).
S. N. Row (Cong.), (*Vedasandur*).
S. Arumugam (D.M.K.), (*Veerapandy*).
R. Jeevaratnam (Cong.), (*Vellur*).
S. Mani (S.C.) (D.M.K.), (*Vengalam* (*R*)).
M. William (Cong.), (*Vilavancode*).
M. Shunmugam (D.M.K.), (*Villupuram*).
R. Sampanghi (D.M.K.), (*Virinchipuram*).
G. Bhuvarahan (Cong.), (*Vridhachalam*).
S. Muthulingam (S.C.) (D.M.K.), (*Wandiwash* (*R*)).
M. M. Nadar (Cong.), (*Washermanpet*).
M. K. Gounder (S.T.) (Cong.), (*Vercaud* (*R*)).
Smt. A. Suares (Cong.) (*Nominated*).

## MAHARASHTRA LEGISLATIVE COUNCIL

Strength: 78.
*Chairman:* V. S. Page.
*Dy. Chairman:* V. N. Desai.

### Elected by Legislative Assembly

Smt. Kamlabai Ajmera (Cong.).
Jagannath S. Akarte (Cong.).
Yeshwant B. Ambedkar (S.M.S.—Rep.).
Ramrao Narayanrao Balbudhe (Cong.).
Balwant Dhondoji Baralay (Cong.).
Hari Bhaskar Bhide (S.M.S.—H.M.S.).
M. S. Deshmukh (Cong.).
J. M. Coelho (Cong.).
Devji Rattansey (Cong.).
Lodhu Ichharam Fegade (S.M.S.—S.S.).
V. N. Haralkar (Cong.).
Pralhad Narayan Khode (Cong.).
Jagannath Nathuji Korpe (Cong.).
Ganpati Dada Lad (S.M.S.—P. & W.).
Rajmal Jagannath Mantri (Cong.).
Bholasing V. Nayak (Cong.).
Vithal Sakharam Page (Cong.).
Narayan Dnyanu Patil (S.M.S.).
Balkrishna Narsingh Rajhans (S.M.S.—S.S.).
Bhaurao Vithoba Shende (Cong.).
Sambhajirao Maruti Thorat (Cong.).
Bhausaheb L. Shirole (Cong.).
Ramakrishna S. Gavai (S.M.S.—Rep.).
Jethamal Kisanlal (Cong.).
Ramchandra B. Kumbhare (Cong.).
Madhav P. Limaye (S.S.).
Ramchandra C. Patil (Cong.).
Vishvanath C. Pawar (Cong.).
Smt. Ashalai M. Tale (Cong.).
Smt. Bhadra V. Desai (Cong.).

### Local Authorities

S. G. Patil (Cong.), (*Ahmednagar*).
V. R. Parashar (Cong.), (*Akola & Buldana*).
R. A. Gupta (R.L.A.), (*Amravati*).
B. G. Jadhav (Cong.), (*Aurangabad*).
C. R. Pandye (Cong.), (*Bhandara*).
K. P. Fulkar (Cong.), (*Chanda & Rajura*).
Gajmal D. Mali (Cong.), (*Dhulia*).
C. D. Barfivala (Cong.), (*Gr. Bombay*).
S. S. Sawant (S.M.S.—P. & W.), (*Gr. Bombay*).
R. D. Patil (Cong.), (*Jalgaon*).
J. V. Lele (Cong.), (*Kolaba*).
Sadashiv A. Shinde (Cong.), (*Kolhapur*).
I. B. Deshmukh (Cong.), (*Nagpur*).
Lakhamichand R. Abad (Cong.), (*Nasik*).
Ramrao D. Avargaonkar (Cong.), (*Osmanabad & Bhir*).
Abasaheb D. Deshmukh (Cong.), (*Parbhani & Nanded*).
H. S. Barmukh (Cong.), (*Poona*).
D. B. Agarwal (S.M.S.—Ind.), (*Ratnagiri*).
D. B. Navale (Cong.), (*Sangli & Satara*).
J. H. Girme (Cong.), (*Sholapur*).
Z. M. Kalantri (Cong.), (*Thana*).
D. M. Deshmukh (Cong.) (*Wardha & Yeotmal*).

### Graduates

Dr. Vasantkumar T. Pandit (R.L.P.), (*Gr. Bombay*).
A. S. Sthalekar (Cong.), (*Gr. Bombay*).
M. V. Gavandi (R.L.A.), (*Maharashtra*).
V. B. Gogte (S.M.S.—H.M.S.), (*Maharashtra*).
B. S. Byas (R.L.A.), (*Vidarbha*).
R. F. Choudhary (R.L.A.), (*Vidarbha*).
S. A. Sohoni (R.L.P.), (*Vidarbha*)).

### Teachers

L. N. Chhapekar (Ind.) (*Gr. Bom.–Maharashtra*).
Kamalakar W. Desai (Ind.), ,, ,,
Shankar L. Ogale (R.L.A.), ,, ,,
G. S. Joglekar (R.S.A.), ,, ,,
J. G. Bhave (R.L.A.), ,, ,,
D. A. Dabhadkar (Ind.), (*Vidarbha*).
M. N. Anjikar (Ind.), (*Vidarbha*).
D. H. Sahasrabuddhe (Ind.), (*Vidarbha*).

### Nominated

Dayaram Y. Bhandalkar (Cong.).
Vishnuprasad N. Desai (Cong.).
R. B. Ghorpade (Cong.).
Saqui Niyazi (Cong.).
G. D. Madgulkar (Cong.).
Ratanlal Mohanlal (Cong.).
Smt. Sevingne G. P. Athaide (Ind.).
Kum. Sarojini Babar (Cong.).
Chandrashekhar N. Bajpai (Cong.).
Swami R. Bharati (Cong.).
Narayan W. Karwade (Cong.).
Salimuddin H. Kazi (Cong.
Vacant 1.

## MAHARASHTRA LEGISLATIVE ASSEMBLY

Seats : 265 (including one Anglo-Indian nominee). S.C. 33 ; S.T. 14. Total Electorate : 19,395,795.

*Speaker :* T. S. Bharde, B.A., LL.B. *Dy. Speaker :* K. T. Girme, LL.B. *Secretary :* S. H. Belavadi, B.Sc., LL.B., H. (H.S.). *Dy. Secretaries :* S. R. Kharabe, B.A., LL.B., H. (H.S.) ; A. B. Palekar, I.A.A.S., B.A. (Hon.), LL.B.

An estimate of party position is as follows : Cong. 216 ; Com. 4 ; S.S. 9 ; P. & W.P. 15 ; D.F. 14 ; Lal Nishan 1 ; Ind. 4 ; Nominated 1 ; Vacant 1.

A. S. Watane (D.F.), (*Achalpur*).
A. D. Gosawi (SC) (D.F.), (*Adyar* (*R*)).
M. B. Sangvikar (Cong.), (*Admedpur*).
B. N. Nagwade (S.M.S.)[4], (*Ahmednagar North*).
T. S. Bharde (Cong.), (*Ahmednagar South*).
Smt. Nirmala Raje V. Bhosale (Cong.), (*Akkalkot*).
M. A. Vairale (Cong.), (*Akola*).
G. B. Khedkar (Cong.), (*Akot*).
C. D. Bhandari (S.T.) (Cong.), (*Akrani* (*R*)).
D. K. Khanvilkar (Cong.), (*Alibag*).
S. J. Tadvi (S.T.) (Cong.), (*Amalner* (*R*)).
N. S. Jedhe (Cong.), (*Ambad*).
Smt. Venubai A. Awate (Cong.), (*Ambegaon*).
N. M. Bahekar (S.S.), (*Amgaon*).
U. M. Kedia (Cong.), (*Amravati*).
J. T. Mashakshetri (Cong.), (*Armori*).
N. R. Kale (S.M.S.)[5], (*Arvi*).
B. K. Ajabe (Cong.), (*Ashti*).
R. G. Sonone (S.C.) (Cong.), (*Ashti* (*R*)).
Dr. Rafiq Zakaria (Cong.), (*Aurangabad*).
M. G. Maharaj (S.M.S.)[3], (*Ausa*).
D. M. Karnale (S.C.) (Cong.), (*Badnapur* (*R*)).
P. K. Deshmukh (Cong.), (*Badnera*).
Pandit D. Patil (Cong.), (*Baglan*).
S. H. Manker (D.F.), (*Balapur*).
P. G. Kher (Cong.), (*Bandra*).
Smt. Malatibai M. Shirole (Cong.), (*Baramati*).
Smt. Prabhatai S. Zadbuke (Cong.), (*Barsi*).
R. P. Deshmukh (Cong.), (*Basmath*).
H. G. Vartak (Cong.), (*Bassein*).
R. J. Deotale (Cong.), (*Bhadravati*).
A. T. Kale (Cong), (S.C.), (*Bhagur* (*R*)).
D. D. Dhote (Cong.), (*Bhandara*).
K. T. Jadhav (S.M.S.)[1], (*Bhir*).
B. N. Bhoir (Cong.), (*Bhiwandi*).
B. N. Gavandhe (S.M.S.)[3], (*Bhokardan*).
S. M. Bhelke (Cong.), (*Bhor*).
A. K. Desai (Cong.), (*Bhudargad*).
D. S. Bhirud (Cong.), (*Bhusawal*).
V. B. Deshmukh (Tarodekar) (Cong.), (*Biloli*).
D Z. Palaspagar (S.C.) (Cong.), (*Borgaon* (*R*)).
I. P. Parekh (Cong.), (*Borivli*).
G. B. Meshram (S.C.) (Cong.), (*Brahmapuri* (*R*)).
Smt. Indirabai R. Kotamkar (Cong.), (*Buldana*).
Smt. Qamar N. Ahmed (Cong.), (*Byculla*).
M. S. Suryavanshi (Cong.), (*Chalisgaon*).
R. R. Potdukhe (D.F.), (*Chanda*).
V. K. Chavan Patil (Cong.), (*Chandgad*).
B. G. Jadhav (Cong.), (*Chandur*).
B. B. Shep (Cong.), (*Chausala*).
V. C. Gandhi (Cong.), (*Chembur*).
S. N. Patil (Cong.), (*Chikhali*).
M. D. Tumpalliwar (Cong.), (*Chimur*).
P. K. Sawant (Cong.), (*Chiplun*).
D. M. Nikam (Cong.), (*Chopda*).
K. S. Dharia (Cong.), (*Colaba*).
P. K. Atre (D.F.), (*Dadar*).
S. R. Patil (Cong.), (*Dahanu*).
R. V. Bhelose (Cong.), (*Dapoli*).
J. D. Patil (D.F.), (*Daryapur*).
A. H. Mamdani (Cong.), (*Darwha*).
W. N. Rane (Cong.), (*Deogad*).
Raja Fatelal Shah (S.T.) (D.F.), (*Dhanora* (*R*)).
S. B. Chavhan (Cong.), (*Dharmabad*).
Dr. K. S. Narola (Cong.), (*Dhobitalao*).
V. R. Pawar (S.C.) (Cong.), (*Dhond* (*R*)).
C. N. Patil (Cong.), (*Dhulia North*).
B. R. Pande (Cong.), (*Dhulia South*).
M. B. Mahindre (Cong.), (*Digras*).
R. G. Gunjal (Cong.), (*Dindori*).
M. G. Faki (Cong.), (*Dongri*).
H. I. Kalyani (S.C.) (Cong.), (*Edlabad* (*R*)).
D. S. Patil (Cong.), (*Erandol*).
P. R. Nalawade (Cong.), (*Gadhinglaj*).
Dr. D. N. Pathrikar Kamble (S.C.) (Cong.), (*Gangakhed* (*R*)).
Y. M. Satpute (Cong.), (*Gangapur*).
S. T. Pandit (Cong.), (*Georai*).
A. N. Namjoshi (Cong.), (*Girgaon*).
M. B. Patel (Cong.), (*Gondia*).
P. D. Rahangdale (S.S.), (*Goregaon*).
R. C. Salve (S.C.) (Cong.), (*Gowardhan* (*R*)).
Dr. P. V. Mandlik (S.S.), (*Guhagar*).
B. K. Deshmukh (Cong.), (*Hadgaon*).
K. N. Ghatge (S.C.) (Cong.), (*Hatkanangale* (*R*)).
M. D. Magar (Cong.), (*Haveli*).
V. M. Choudhari (D.F.), (*Hinganghat*).
N. L. Patil (Cong.), (*Hingoli*).
S. D. Zole (S.S.), (*Igatpuri*).
Shankarrao Bajirao Patil (Cong.), (*Indapur*).
K. R. Patil, (S.M.S.)[3], (*Jalamb*).
Smt. Pratibha N. Patil (Cong.), (*Jalgaon*).
D. K. Deshpande (Cong.), (*Jalna*).
A. N. Patil (Cong.), (*Jamner*).
B. P. Wankhede (S.C.) (Cong.), (*Janefal* (*R*)).
B. D. Bhilare (Cong.), (*Jaoli*).
T. K. Shendge (Cong.), (*Jath*).
B. S. Jadhao (S.T.) (Cong.), (*Jawhar* (*R*)).
W. A. Nayak (Cong.), (*Jintur*).
V. N. Awate (Cong.), (*Junnar*).
Shamrao Bhivanji Patil (Cong.), (*Kagal*).
G. K. Gaikwad (S.C.) (Cong.), (*Kaij* (*R*)).
P. S. Sarvade (S.C.) (Cong.), (*Kallam* (*R*)).
S. K. Wankhede (Cong.), (*Kalameshwar*).
S. N. Choudhari (S.C.) (Cong.), (*Kalamnuri* (*R*)).
D. R. More (S.T.) (Cong.), (*Kalwan* (*R*)).
K. N. Dhulup (S.M.S.)[2], (*Kalyan*).
A. D. Choudhari (S.C.) (Cong.), (*Kamptee* (*R*)).
K. S. Dhondge (S.M.S.)[3], (*Kandhar*).
Y. B. Dalvi (S.S.), (*Kankaoli*).
K. B. Deshmukh (Cong.), (*Kannad*).
P. D. Patil (Cong.), (*Karad North*).
Y. J. Mohite (Cong.), (*Karad South*).
E. B. Nimbalkar (Cong.), (*Karjat*).
P. M. Jagtap (Cong.), (*Karmala*).
D. V. Mudrale (Cong.), (*Karvir*).
D. P. Sutar (S.T.) (S.M.S.)[1], (*Kasa* (*R*)).
B. N. Sanas (Cong.), (*Kasba Peth*).
S. D. Gedam (Cong.), (*Katol*).
T. D. Deshmukh (Cong.), (*Kelapur*).
K. R. Mundhe (S.T.) (S.M.S.)[3], (*Khalapur* (*R*)).
T. G. Khumkar (D.F.), (*Khamgaon*).
S. S. Mane (Cong.), (*Khanapur*).
S. D. Pawar (Cong.), (*Khatav*).
H. M. Dalwai (Cong.), (*Khed—Ratnagiri*).
V. M. Manjre (Cong.), (*Khed-Poona*).
U. B. Rathod (Cong.), (*Kinwat*)
G. N. Kamble (S.C.), (Cong.), (*Kirkee* (*R*)).
T. S. Karkhanis (S.M.S.)[2], (*Kolhapur*).
T. P. Pawar (Cong.), (*Koregaon*).
B. M. Yagnik (Cong.), (*Kumbharwada*).
Dr. Smt. Anjanabai N. Magar (Cong.), (*Kurla*).
S. K. Athalye (S.S.), (*Lanja*).
K. S. Sonavane (Cong.), (*Latur*).
P. T. Patel (S.C.), (Cong.), (*Lovegrove* (*R*)).
K. B. Asware (S.C.) (Cong.), (*Madha* (*R*)).
S. B. Sawant (Cong.), (*Mahad*).
H. J. Taleyarkhan (Cong.), (*Mahalaxmi*).
F. M. Pinto (Ind.), (*Mahim*).
V. L. Reelkar (S.C.) (Cong.), (*Makhajan* (*R*)).
H. A. Ansari (Cong.), (*Malegaon*).
B. F. Shelki Patil (Cong.), (*Malkapur*).
S. N. Mohite (Cong.), (*Malsiras*).
S. G. Kocharekar (S.S.), (*Malwan*).
L. B. Bhingardeve (S.C.) (Cong.), (*Man* (*R*)).
S. Abdul Kadar (Cong.), (*Mandvi*).
G. L. Sonawane (S.C.) (Cong.), (*Mangalwedha* (*R*)).
D. M. Talegaonker (S.C.) (Cong.), (*Mangaon* (*R*)).
Smt. Shanta R. Page (Cong.), (*Mangrulpir*).
S. L. Kadam (Cong.), (*Manjlegaon*).
L. P. Shah (Cong.), (*Matunga*).
N. S. Mohol (Cong.), (*Maval*).
Dr. V. K. Toraskar (Cong.), (*Mazgaon*).
S. V. Deshmukh (Cong.), (*Mehkar*).
M. J. Khandelwal (D.F.), (*Melghat*).
G. D. Patil (Cong.) (*Miraj*).
M. H. Veer (S.T.) (Cong.), (*Mokhada* (*R*)).
P. S. Deshmukh (Ind.), (*Morsi*).
P. S. Sabne (S.C.) (Cong.), (*Mukhed* (*R*)).
S. G. Gholap (Cong.), (*Murbad*).
Smt. Kusumtai W. Korpe (Cong.), (*Murtijapur*).
Y. S. Bhangre (S.T.) (Cong.), (*Nagarakola* (*R*)).
V. R. Tulla (Cong.), (*Nagpada*).
Dr. (Smt.) Sushilabai Balraj (Cong.), (*Nagpur*).
V. S. Dandekar (D.F.), (*Nagpur I*).
D. D. Hedau (D.F.), (*Nagpur II*).
P. R. Wasnik (S.C.) (Cong.), (*Nagpur III* (*R*)).
Smt. Shanta C. Salve (S.C.) (Cong.), (*Naigaon* (*R*)).
S. Farook Pasha (Cong.), (*Nanded*).
V. B. Hire (Cong.), (*Nandgaon*).
G. T. Patil (Cong.), (*Nandurbar*).
V. N. Naik (Cong.), (*Nasik*).
D. J. Kokni (S.T.) (Cong.), (*Nawapur* (*R*)).
Sivajirao B. Patil (Cong.), (*Nilanga*).
Dattatraya B. Patil (Cong.), (*Niphad*).
V. S. Chalukya, (S.M.S.)[3], (*Omerga*).
V. G. Patil (Cong.), (*Osmanabad*).
Supdu B. Patil (Cong.), (*Pachora*).
K. P. Patil (Cong.), (*Paithan*).
S. S. Patil (Cong.), (*Palghar*).
A. K. Patil (Cong.), (*Pandharpur*).
S. D. Patil (S.M.S.)[3], (*Panhala*).
Dinkar B. Patil (S.M.S.)[3], (*Panvel*).
S. A. Deshmukh (S.M.S.)[3], (*Parbhani*).
M. G. Mane (Cong.), (*Parel*).
K. B. Patil (S.M.S.)[3], (*Parenda*).
Shantilal H. Shah (Cong.), (*Parle-Andheri*).
D. K. Bhagat (Cong.), (*Parner*).
G. N. Pawar (Cong.), (*Parola*).
B. D. Borade (Cong.), (*Partur*).
D. S. Desai (Cong.), (*Patan*).
N. G. Avhad (Cong.)[1], (*Pathardi*).
B. S. Naik (S.M.S.)[3], (*Pathri*).
L. S. Mhatre (Cong.), (*Pen*).
K. B. Raut (S.T.) (Cong.), (*Peint* (*R*)).
M. M. Naik-Nimbalkar (Cong.), (*Phaltan*).
K. T. Girme (Cong.), (*Poona Cantt.*).
S. V. Sonavane (S.C.) (Cong.), (*Pulgaon* (*R*)).
D. R. Khaire (Cong.), (*Purandar*).
V. P. Naik (Cong.), (*Pusad*).
D. S. Khandekar (Cong.), (*Radhanagari*).
B. B. Tanapure (Cong.), (*Rahuri*).
S. M. Thakare (Cong.), (*Rajapur*).
V. L. Dhote (Cong.), (*Rajura*).
M. A. Pathan (Cong.), (*Ramtek*).
S. L. Peje (Cong.), (*Ratnagiri*).
M. D. Choudhari (Cong.), (*Raver*).
A. G. Gite (S.M.S.)[5], (*Renapur*).
P. R. Sanap (S.M.S.)[3], (*Roha*).
S. M. Kanhekar (S.C.) (*Cong.*), (*Sadak Arjuni* (*R*)).
A. S. Paulzagade (Cong.), (*Sakoli*).
G. R. Gavit (S.T.) (Cong.), (*Sakri* (*R*)).
J. B. Shetye (S.S.), (*Sangameshwar*).
B. J. Khatal (Cong.), (*Sangamner*).
V. B. Patil (Cong.), (*Sangli*).
G. A. Deshmukh (S.M.S.)[3], (*Sangola*).
W. V. Gaddamvar. (Cong.), (*Saoli*).
N. M. Tidke (Cong.), (*Saoner*).
D. S. Jagtap (Cong.), (*Satara*).
S. K. Bhonsale (Cong.), (*Sawantwadi*).
S. G. Patkar (S.M.S.)[1], (*Sewree*).
U. N. Gaikwad (Cong.), (*Shahuwadi*).
M. S. Ghule (Cong.), (*Shevgaon*).
V. A. Naik (Cong.), (*Shirala*).
K. B. Rohamare (Cong.), (*Shirdi*).
R. B. Kumbhar (Cong.), (*Shirol*).
V. T. Dhobi (Cong.), (*Shirpur*).
Vacant (*Shivajinagar*).
G. B. Burgute (Cong.), (*Sholapur*).
Y. R. Madur (S.M.S.)[1], (*Sholapur City North*).
R. S. Dhavale (Cong.), (*Sholapur City South*).
V. G. Shivdare (Cong.), (*Sholapur South*).
B. M. Bharaskar (S.C.) (Cong.) (*Shrigonda* (*R*)).
B. S. Chaturbhuj (S.C.) (Cong.), (*Shrirampur* (*R*)).
A. R. A. Gafoor Antulay (Cong.), (*Shrivardhan*).
R. V. Telang (Cong.), (*Shukrawar Peth*).
B. J. Kale (Cong.), (*Sillod*).
N. S. Patil (Cong.), (*Sindhkheda*).
S. B. Waje (Cong.), (*Sinnar*).
V. D. Atram (D.F.), (*Sironcha*).
R. B. Pawar (Cong.), (*Sirur*).
D. N. Padvi (S.T.) (Cong.), (*Taloda* (*R*)).
D. Y. Patil (Cong.), (*Tasgaon*).
Smt. Champa G. Mokal (Cong.), (*Thana*).
S. R. Dixit (Cong.), (*Tirora*).
S. D. Hangargekar (Cong.), (*Tuljapur*).
R. B. Lanjewar (Cong.), (*Tumsar*).
V. B. Khadiwale (S.C.) (Cong.), (*Udgir* (*R*)).
P. K. Ailani (S.S.), (*Ulhasnagar*).
R. N. Shingankar (S.C.) (Cong.), (*Umarkhed* (*R*)).
D. S. Tarnekar (Cong.), (*Umrer*).

[1]Communist [2]P.W.P. [3]Republican Party [4]Lal Nishan ; [5]Independent.

Smt. Girjabai M. Jadhav (Cong.), (*Vaijapur*).
P. D. Bhonsale (Cong.), (*Vengurla*).
B. L. Pawar (S.C.) (Cong.), (*Vita* (*R*)).
D. K. Jagtap (Cong.), (*Wai*).
Smt. Maniben N. Desai (Cong.), (*Walkeshwar*).
R. A. Patil (Cong.), (*Walwa*).
Dr. V. Y. Gohokar (Cong.), (*Wani*).
B. M. Deshmukh (Cong.), (*Wardha*).
R. G. Zanak (Cong.), (*Washim*).
Dr. M. N. Birje (Cong.), (*Worli*).
Smt. Ramabai N. Deshpande (Cong.), (*Yawal*).
M. B. Khandate (S.T.) (Cong.), (*Yelabara* (*R*)).
H. M. Gavali (Cong.), (*Yeola*).
J. B. Dhote (D.F.), (*Yeotmal*).
Mrs. M. C. Fernandes (*nominated*).

## MANIPUR LEGISLATIVE ASSEMBLY

*Speaker :* Kh. Ibetombi Singh. *Dy. Speaker :* L. Solomon.
*Constituencies :* 30. *Electorate :* 4,05,210.

An estimate of party strength : Congress 22, Independents 6, Socialists 3.

D. Athuibo (Cong.), (*Aimol*).
R. K. Irabot Singh (Cong.), (*Bishenpur Moirang*).
Md. Chaoba (Ind.), (*Charangpat Khongjom*).
Pauneikhai (Cong.), (*Churachandpur*).
N. Kanhai Singh (Cong.), (*Hiyanglam Sugnoo*).
Md. Ashraf Ali (Ind.), (*Irinbung Top Chingtha*).
S. Bijoy Singh (Cong.), (*Jiribam*).
Kh. Ibetombi Singh (Cong.), (*Khwai Lalambung*).
M. Ibotombi Singh (Cong.), (*Kakching Wangjing*).
L. Thambou Singh (Cong.), (*Keisamthong*).
K. Borthakur Sharma (Soc.), (*Khurai*).
S. Angouba Singh (Cong.), (*Lamlai Keirao*).
Md. Alim Uddin (Cong.), (*Lilong*).
Ng. Thoiso (Ind.), (*Mao East*).
A. Daiho (Cong.), (*Mao West*).
Y. Yaima Singh (Cong.), (*Nambol Keinou*).
K. Envey (Cong.), (*Phaisat*).
N. Ibomcha Singh (Ind.), (*Sagolband*).
L. Birachandra Singh (Cong.), (*Sagolmang Pukhao*).
Ak. Kulachandra Singh (Ind.), (*Salam Khumbong*).
Kh. Chaoba (Cong.), (*Sekmai Lamsang*).
Th. Chandrasekhar Singh (Soc.), (*Singjamei*).
K. Kakhangai (Ind.), (*Tamenglong*).
Khersung Anal (Cong.), (*Tengnoupal*).
Goukhenpau (Cong.), (*Thanlon*).
W. Mani Singh (Cong.), (*Thoubal Chandrakhong*).
L. Solomon (Cong.), (*Ukhrul*).
L. Achaw Singh (Soc.), (*Wangkhei Kongba*).
Th. Toyaima Singh (Cong.), (*Wangoi Mayang Imphal*).
Smt. R. K. Mukhara Devi (Cong.) (*Nominated*).
Smt. Lhingjaneng Gangte (Cong.) (*Nominated*).

## MYSORE LEGISLATIVE COUNCIL

*Chairman :* G. V. Hallikeri. *Dy. Chairman :* H. F. Kattimara.
Party position : Congress 56 ;P.S.P. 2 ; Independent 4 ; Communist 1 ; Total 63.

**Elected by Legislative Assembly (21) :**

Smt. Abbasia Begum Mecci (Cong.); C. S. Balakrishna Gowda (Ind.); K. S. Channappa (Cong.); G. V. Hallikeri (Cong.); Manik Rao Phubkar (Cong.); R. B. Naik (Cong.); V. Venkatappa (Cong.); K. R. Achar (Cong.); M. V. Krishnappa (Cong.); Smt. Lakshmanna (Cong.); J. B. Mallaradhya (Ind.); Miss S. H. Marker (Cong.); M. C. Narasimhan (Com.); K. V. Narasappa (Cong.); Jivaraj Hirachand (Cong.); K. Kanthappa Shetty (Cong.); S. C. Kubasad (Cong.); M. Madiah (Cong.); S. S. Narayana Murthy (Cong.); D. Rajagopal (Ind.); M. T. Sreekantiah (Ind.).

**Local Authorities (21)**

K. G. Thimme Gowda (Cong.), (*Bangalore*); R. Subbanna (Cong.), (*Bangalore*); R. S. Mahantshetty (Cong.), (*Belgaum*); G. B. Patil (Cong.), (*Belgaum*); K. Channabasavanagoud (Cong.), (*Bellary*); S. G. Khelgi (Cong.), (*Bidar*); P. M. Nadgonda (Cong.), (*Bijapur*); I. Doddaveerappa (Cong.), (*Chitradurga*); L. H. Hiregoudar (Cong.), (*Dharwar*); H. F. Kattimani (Cong.), (*Dharwar*); A. V. Patil (Cong.), (*Gulbarga*); H. Ramaswamy (Cong.), (*Hassan*); V. Muniswamy (Cong.), (*Kolar*); Azeez Sait (Cong.), (*Mandya*); M. Linganna (Cong.), (*Mysore-cum-Coorg*); S. Channiah (Cong.), (*Mysore-cum-Coorg*); S. D. Gaonkar (Cong.), (*North Kanara*); Sanganna Agadi (Cong.), (*Raichur*); K. T. Shamaiah Gowda (Cong.), (*Shimoga-cum-Chikmagalur*); S. Narasapaya (Cong.), (*South Kanara*); A. S. Nandeesh (Cong.), (*Tumkur*).

**Graduates' Constituency (6)**

Smt. M. R. Lakshamma (Cong.), (*Bangalore*); G. V. Anjanappa (P.S.P.), (*Bangalore*); V. C. Pavate (Cong.), (*Mysore Central*); S. C. Edke (Cong.), (*Mysore North*); M. V. Rama Rao (Cong.), (*Mysore S.-East*); V. Srinivasa Shetty (P.S.P.), (*Mysore S.-West*).

**Teachers' Constituency (6)**

A. R. Badrinarayan (Cong.), (*Mysore North-Central*); K. R. Nitturkar (Cong.), (*Mysore North-East*); B. G Deshpande (Cong ), (*Mysore North-West*); S. Mukunda Rao (Cong.), (*Mysore South-Central*); V. R. Naidu (Cong.), (*Mysore South-East*); C. Bandi Gowda (Cong.), (*Mysore South-West*).

**Nominated (9)**

Ramachandra Rao Junge ; Smt. Sumitrabai Tatya Saheb Nimbalkar ; Syed Abdul Rahman ; M. Govardhan Rao ; B. T. Murnal ; M. P. L. Sastry ; S. Akbar Sait A. Kayum ; Tej Singh Rathod ; Dharmaprakasha L. S. Venkaji Rao.

## MYSORE LEGISLATIVE ASSEMBLY

**Constituencies : 179 (General 150 ; Reserved 29) ; Seats 209 ; Electorate : 1,13,51,529.**

An estimate of party position is given below : Cong. 149 ; P.S.P. 20 ; Swatantra 9 ; Communist 4 ; Soc. 1 ; Ind. 26.

*Speaker :* B. V. Baliga. *Dy Speaker :* A. R. Panchagavi.

Anna Rao Ganamukhi (Cong.), (*Afzalpur*).
Devappa Shamanna (S.C.) (Cong.), *Aland* (*R*)).
R. K. Prasad (Cong.), (*Anekal*).
S. P. Phayade (Cong.), (*Ankola*).
G. A. Thimmappa Gowda (Cong.), (*Arkalgud*).
P. B. Bommanna (Cong.), (*Arsikere*).
D. B. Pawar (Cong.), (*Athani*).
V. H. Patil (Cong.), (*Badami*).
S. Nijalingappa (Cong.), (*Bagalkot*).
B. Subbarayappa (S.C.) (Cong.), (*Bagepalli* (*R*)).
Smt. Sushila Bai (Cong.), (*Bagewadi*).
Y. Manjaiah Shetty (Cong.), (*Baindur*).
D. Munichinnappa (S.C.) (Ind.), (*Bangalore South* (*R*)).
E. Narayana Gowda (Ind.), (*Bangarpet*).
S. Siddiah (Cong.), (*Bannur*).
J. L. Kabadi (S.C.) (Cong.), (*Baradol* (*R*)).
M. Krishnappa (Cong.), (*Basavanagudi*).
V. S. Patil (Ind.), (*Belgaum—I*).
N. O. Samaji (Ind.), (*Belgaum—II*).
B. R. Suntankar (Ind.), (*Belgaum City*).
T. G. Satyanarayana (Cong.), (*Bellary*).
B. H. Lakshmanaiah (S.C.) (Cong.), (*Belur* (*R*)).
B. Vaikunta Baliga (Cong.), (*Belthangady*).
T. D. Devendrappa (Cong.), (*Bhadravati*).
S. Bhimanna (Cong.), (*Bhalki*).
Maqsood Ali Khan (Cong.), (*Bidar*).
S. B. Vastrad (Cong.), (*Bijapur*).
R. M. Desai (Cong.), (*Bilgi*).
D. M. Siddaiah (Cong.), (*Biligere*).
S. D. Samrajya (Cong.), (*Brahmavar*).
H. R. Abdul Gaffar (Cong.), (*Broadway*).
Smt. Siddamma Mallar (Cong.), (*Byadagi*).
B. L. Gowda (Cong.), (*Challakere*).
M. C. Basappa (Cong.), (*Chamarajanagar*).
R. Dayananda Sagar (Cong.), (*Chamarajpet*).
N. Huchmasthy Gowda (Cong.), (*Chandrashekarapura*).
Kundur Rudrappa (Cong.), (*Channagiri*).
B. J. Linge Gowda (Cong.), (*Channapatna*).
Smt. B. L. Subbamma (Cong.), (*Chickmagalur*).
Y. Ramachandra (Cong.), (*Chickpet*).
C. V. Venkatarayappa (Ind.), (*Chikkaballapur*).
C. H. Lingadevaru (Cong.), (*Chikkanayakanahalli*).
M. V. Shetti (Cong.), (*Chikodi*).
Veerendra Patil (Cong.), (*Chincholi*).
M. C. Anjaneya Reddi (Cong.), (*Chintamani*).
Smt. Vijayadevi R. Rao (Cong.), (*Chitapur*).
H. C. Boraiah (Cong.), (*Chitradurga*).
S. S. Kolke Bail (Cong.), (*Coondapoor*).
B. Nanjappa (Ind.), (*Cubbonpet*).
Kondajji Basappa (Cong.), (*Davanagere*).
Sharanappa (Cong.), (*Deodurg*).
R. Muniswamiah (Cong.), (*Devanahalli*).
S. V. Agnihotri (Cong.), (*Dharwar*).
G. Rame Gowda (Ind.), (*Doddaballapur*).
K. P. Gadag (Cong.), (*Gadag*).
Smt. Nagarathnamma Hiremath (Cong.), (*Gandhinagar*).
H. R. Keshava Murthy (P.S.P.), (*Gandasi*).
Thirumala Devaraya (Cong.), (*Gangavathi*).
N. A. Karalingannavar (Cong.), (*Gokak—I*).
A. R. Panchagavi (Cong.), (*Gokak—II*).
R. N. Lakshmipathi (Ind.), (*Gouribidanur*).
V. M. Deo (Ind.), (*Gubbi*).
Gangadhar Namoshi (Com.), (*Gulbarga*).
M. R. Pattan Shetty (Cong.), (*Guledgud*).
Smt. K. S. Nagarathnamma (Ind.), (*Gundlupet*).
Vidyadhar Guruji (Swa.), (*Gurmitkal*).
Angadi Channabasappa (Cong.), (*Hadagalli*).
G. N. Desai (Cong.), (*Hanagal*).
Sirasappa Ijari (Cong.), (*Harapanahalli*).
Ganji Veerappa (Cong.), (*Harihar*).
Smt. Yashodara Dasappa (Cong.), (*Hassan*).
B. V. Magavi (Cong.), (*Haveri*).
K. Lakkappa (P.S.P.), (*Hebbur*).
R. Peeranna (S.C.)(Swa.), (*Heggadevanakote* (*R*)).
G. B. Shanker Rao (Cong), (*Hirekerur*).
V. Masiyappa (Cong.), (*Hiriyur*).
G. Duggappa (S.C.) (Cong.), (*Holalkere* (*R*)).
H. D. Devegowda (P.S.P.), (*Holenarasipur*).
D. Parameswarappa (Cong.), (*Honnali*).
R. S. Hedge (Cong.), (*Honnavar*).
G. T. Rangappa (Cong.), (*Hosadurga*).
B. Channabyre Gowda (Swa.), (*Hoskote*).
Smt. Kamala M. Sriramulu (Cong.), (*Hospet*).
M. R. Patil (Cong.), (*Hubli*).
R. A. Koppa (Cong.), (*Hubli City*).
S. S. Patil (Cong.), (*Hukeri*).
B. A. Hulsoorker (Ind.), (*Hulsur*).
Gopal Rao Mudbi (Cong.), (*Humnabad*).
S. R. Kanthi (Cong.), (*Hungund*).
D. Devaraj Urs (Cong.), (*Hunsur*).
G. D. Patil (Swatantra), (*Indi*).
M. N. Krishna Singh (S.C.) (Cong.), (*Jagalur* (*R*)).
B. D. Jatti (Cong.), (*Jamkhandi*).
Neelakanthappa Sharanappa (Cong.), (*Jewargi*).
G. Marulappa (P.S.P.), (*Kadur*).
P. S. Veerana Gowda (Cong.), (*Kagawad*).
F. M. Hasabi (Cong.), (*Kalghatgi*).
S. Rudrappa (Cong.), (*Kalgi*).
Smt. Nagamma (Cong.), (*Kalmala*).
Smt. Annapurna Bai (Cong.), (*Kalyani*).
Smt. Lalitha Bai (Cong.), (*Kamalapur*).
S. Kariappa (P.S.P.), (*Kanakapura*).
Dayananda R. Kalle (P.S.P.), (*Karkal*).
B. P. Kadam (Com.), (*Karwar*).
B. Bhaskar Shetty (P.S.P.), (*Kaup*).
L. B. Birje (Ind.), (*Khanapur*).
M. Mallikarjuna Swamy (Cong.), (*Kirugavalu*).
P. Venkatagiriyappa (Ind.), (*Kolar*).

* Election set aside by Tribunal (Oct. 7, 1964).

S. Rajagopal (S.C.) (Com.), (*Kolar Gold Field (R)*).
B. Basavaiah (S.C.) (Cong.), (*Kollegal (R)*).
M. S. Patil (Cong.), (*Koppal*).
S. Anjaiah (Cong.), (S.C.) (*Koratagere (R)*).
K. S. Gowdaiah (Ind.), (*Krishnarajanagar*).
N. Nanje Gowda (Ind.), (*Krishnarajapet*).
V. Nagappa (S.C.) (Ind.), (*Kudligi (R)*).
Smt. V. V. Mirjankar (Cong.), (*Kumta*).
T. K. Kambli (Cong.), (*Kundgol*).
Andanaiah (P.S.P.), (*Kunigal*).
Allum Karibasappa (Cong.), (*Kurugodu*).
K. B. Desai (P.S.P.), (*Kushtagi*).
S. Linganna (Ind.), (*Lingsugur*).
**S. M. Krishna (P.S.P.), (*Maddur*).**
T. S. Shivanna (Cong.), (*Madhugiri*).
**C. R. Range Gowda (Ind.), (*Magadi*).**
G. Made Gowda (Cong.), (*Malavalli*).
K. Devaiah (Ind.), (*Malleswaram*).
S. V. Rame Gowda (Ind.), (*Malur*).
**J. Devaiah (P.S.P.), (*Mandya*).**
M. Srinivasa Naik (Cong.), (*Mangalore—I*).
A. Krishna Shetty (Cong.), (*Mangalore—II*).
Smt. Basavarajeshwari (Cong.), (*Manvi*).
K. Mallappa (Cong.), (*Mercara*).
S. H. Basanna (Cong.), (*Molakalmuru*).
Gopala Salenna (S.C.) (Swa.), (*Mudabidri (R)*).
S. M. Guraddi (Cong.), (*Muddebihal*).
N. K. Naik (Cong.), (*Mudhol*).
K. H. Ranganath (S.C.) (Ind.), (*Mudigere (R)*).
J. Narayanappa (S.C.) (Cong.), (*Mulabagal (R)*).
C. S. Hulkoti (Cong.), (*Mundargi*).
K. Puttaswamy (Cong.), (*Mysore*).
K. S. Suryanarayana Rao (Cong.), (*Mysore City*).
B. K. Puttaiah (P.S.P.), (*Mysore City—North*).
T. N. Madappa Gowda (P.S.P.), (*Nagamangala*).
N. Rachaiah (Cong.), (*Nanjangud*).
M. Rajashekara Murthy (Cong.), (*T. Narasipur*).
A. S. Patil (Cong.), (*Nargund*).
R. M. Patil (Cong.), (*Navalgund*).
K. Prabhakar (Cong.), (*Nelamangala*).
Govinda Krishna Manvi (Ind.), (*Nippani*).
G. V. Gowda (Ind.), (*Palya*).
B. Y. Neele Gowda (Cong.), (*Pandavapura*).
K. Nagappa Alva (Cong.), (*Panemangalore*).
V. S. Thimma Reddy (Cong.), (*Parasgad*).
R. Kenchappa (Cong.), (*Paragoda*).
**K. M. Devaiah (Cong.), (*Periyapatna*).**
K. Venkataramana Gowda (Cong.), (*Puttur*).
B. S. Soudagar (Cong.), (*Raibag*).
M. Ghous Mohiuddin (Cong.), (*Raichur*).
T. Madiah Gowda (Cong), (*Ramanagaram*).
R. S. Patil (Cong.), (*Ramdurg*).
Smt. Yellawwa Sambrani (Cong.), (*Ranibennur*).
D. Venkataramaiah (Cong.), (*Robertsonpet*).
**A. J. Doddameti (Cong.), (*Ron*).**
S. S. Patil (Cong.), (*Sadalga*).
V. S. Lakshmikantappa (Cong.), (*Sagar*).
**S. A. Vasanna Shetty (Cong.), (*Sakleshpur*).**
**V. Channappa Shankarappa (Cong.), (*Sampagaon—I*).**
**M. N. Naghnoor (Cong.), (*Sampagaon—II*).**
**M. Y. Ghorpade (Cong.), (*Sandur*).**
Smt. Champabai Bhogale (S.C.) (Cong.), (*Sankeswar (R)*).
Prabhu Rao Jagdale (Cong.), (*Santapur*).
B. Rachaiah (Cong.), (*Santhemaranahalli*).
J. P. Sarwesh (S.C.) (Cong.), (*Serum (R)*).
M. S. Virupakshaiah (Swa.), (*Shahpur*).
T. Fakirappa Siddappa (Cong.), (*Shiggaon*).
Veerappa (S.C.) (Cong.), (*Shikaripur (R)*).
Smt. Ratnamma M. Rao (Cong.), (*Shimoga*).
Siddiah Kashinath (Swa.), (*Shirahatti*).
R. P. Naik (Swa.), (*Shorapur*).
S. Shivappa (P.S.P.), (*Shravanabelagola*).
S. Avala Reddy (Cong.), (*Siddlaghatta*).
C. M. Desai (Cong.), (*Sindgi*).
Basavantha Rao (Cong.), (*Sindhanoor*).
C. J. Mukkannappa (Ind.), (*Sira*).
Ramakrishna Hegde (Cong.), (*Sirsi*).
C. M. Revanasiddaiah (Swa.), (*Shiruguppa*).
A. Hanumanthappa (Cong.), (*Solur*).
Kadidal Manjappa (Cong.), (*Sringeri*).
G. Narayana Gowda (Cong.), (*Srinivasapur*).
A. G. Bandi Gowda (Cong.), (*Srirangapatna*).
S. Subbaya Naik (S.T.) (Cong.), (*Sullia (R)*).
Sanjeevanath Ikala (P.S.P.), (*Suratkal*).
G. N. Patil (Cong.), (*Talikota*).
T. R. Parameswaraiah (Cong.), (*Tarikere*).
S. Gopala Gowda (Socialist), (*Thirthahalli*).
B. M. Patil (Cong.), (*Tikota*).
K. P. Revanasiddappa (P.S.P.), (*Tiptur*).
Smt. G. C. Bhageerathamma (Cong.), (*Tumkur*).
B. Byrappaji (*Turuvekere*).
M. Madhwaraja (Cong.), (*Udipi*).
Smt. Grace Tucker (Cong.), (*Ulsoor*).
J. Srinivasa Reddy (P.S.P.), (*Uttarahalli*).
A. P. Appanna (Cong.), (*Virajpet*).
**K. L. Shivalinge Gowda (Cong.), (*Virupakshipura*).**
**Bhoj Raj (Ind.), (*Yadgir*).**
Y. Ramakrishna (S.C.) (Cong.), (*Yelahanka (R)*).
Veerabhadrappa Earappa (P.S.P.), (*Yelburga*).
K. V. Byre Gowda (Cong.), (*Yeshavanthapur*).
Major P. F. D'Mellow (Ind.), (*Nominated*).

## NAGALAND LEGISLATIVE ASSEMBLY

Total electorate : 81,903. Seats : 46 (incl. six for Tuensang District).
Elected : 40; Nominated by the Regional Council of Tuensang : 6.
*Speaker :* T. N. Angami. Dy. Speaker : Kiyekhu Shikhu.
*Secretary :* S. Kar Gupta.
Ihezhe Sema (*Aghunato*).
Hokishe Sema (*Akuluto*).
Zulutemba (*Alongtaki*).
T. N. Angami (*Angami-West*).
R. C. Chiten Jamir (*Arkakong*).
Kiyekhu Shikhu (*Atoizu*).
Taenlamo Kikon (*Bhandari*).
Pudenu Demo (*Chazouba I*).
Netsutso Theyo (*Chazouba II*).
Lhusetsu Venu (*Chizami*).
Debalal Mech (*Dimapur*).
Gobinda Chandra Paira (*Dimapur Town*).
Langkam Kuki (*Ghaspani*).
P. Shilo Ao (*Impur*).
Jasokie Angami (*Kohima Town*).
Amon (*Meluri*).
Khelhoshe Sema (*Mokokchung*).
Wezhulhu (*Pfutsero*).
Lhuthipru Vasa (*Phek*).
Kiyelho Sema (*Pughoboto*).
Mhodamo Kithan (*Sanis*).
L. Yeshito Sema (*Satakha*).
Nihovi Ayemi (*Suruhoto*).
Lalkholam (*Tening*).
Tsanthungo Ngullie (*Tyui-Longchum*).
N. L. Odyuo (*Wokha*).
Suzumar Imsong (*Yisemyong*).
Kihoto Sema (*Zhunheboto*).

### ELECTED BY REGIONAL COUNCIL OF TUENSANG

Litingse Setongkiu Sangtam (*Chare Village*).
Kilongba Pire (*Chessore Village*).
Lipikiu Pisekiu Sangtam (*Sanchore Village*).
Kamlichung Akum Imlong (*Sibongsang Village*).
Tochi Hanso (*Taknyu Village*).
Sangnyu Yako Konyak (*Wakching Village*).

## ORISSA LEGISLATIVE ASSEMBLY

**No. of constituencies : 140; No. of seats : 140; (Res. for S.C. 25; S.T. 29); Electorate : 8,785,517.**

*Speaker :* Lingaraj Panigrahi. *Dy. Speaker :* Lokanath Misra.

An estimate of party position is given below :
Congress 89; Swa. 35 Praja Socialist Party 10; Communist Party 4; Independents 1; Socialist 1.

Makar Sethi (SC), (Cong.), (*Anandpur (R)*).
Kumud Chandra Singh (Cong.), (*Angul*).
Lokanath Misra (Cong.), (*Aska*).
Achutananda Das (Cong.), (*Athalgarh*).
Kshetramohan Panigrahi (Swa.), (*Athamallick*).
Dalaganjan Chhuria (Cong.), (*Attabira*).
S. N. Bhanj Deo (Cong.), (*Aul*).
Sonaram Soren (Cong.), (*Bahalda*).
Arjun Patra (P.S.P.), (*Baisinga*).
Bijoy Krushna De (Cong.), (*Balasore*).
Dubara Podra (Swa.), (*Baliguda*).
Bipin Behari Das (Cong.), (*Balikuda*).
Gopinath Bhoi (Cong.), (*Balipatna-Balliguda*).
Gokulananda Prahraj (Cong.), (*Banki*).
Prasannakumar Das (Cong.), (*Bangiriposi*).
Raghunath Misra (Ind.), (*Banpur*).
Bidyadhar Nayak (Cong.), (*Baramba*).
Gananath Padhan (Soc.), (*Bargarh*).
Santosh Kumar Sahu (Cong.), (*Baripada*).
Maheswar Baug (P.S.P.), (*Basta*).
Nilamani Routroy (Cong.), (*Basudevpur*).
Gangadhar Paikay (C.P.I.), (*Begunia*).
Dhananjaya Lenka (Cong.), (*Berchana*).
Sisir Kumar Narendradeo (Cong.), (*Berhampur*).
Nityananda Mahapatra (Cong.), (*Bhadrak*).
Magun Chiaran Pradhan (Cong.), (*Bhanjanagar*).
Mrs. Saraswati Pradhan (Cong.), (*Bhatli*).
Anchal Majhi (Swa.), (*Bhawanipatna*).
Pyari Mohan Das (P.S.P.), (*Bhograi*).
Satyapriya Mohanty (Cong.), (*Bhubaneswar*).
Mohan Nag (SC), (Cong.), (*Bijipur (R)*).
Chittaranjan Nayak (Cong.), (*Binajharpur*).
Anantaram Nanda (Swa.), (*Binka*).
Premchand Bhagat (Swa.), (*Bisra*).
Biswanath Choudhury (Swa.), (*Bissam-Cuttack*).
Chandra Sekhar Singh (Swa.), (*Bolangir*).
Hemendra Prasad Mohapatra (SC), (Swa.), (*Bonai (R)*).
Anirudha Dipa (Swa.), (*Boudh*).
Gopabandhu Patra (Cong.), (*Brahmagiri*).
Prasanna Kumar Panda (C.P.I.), (*Brajrajnagar*).
Gurucharan Naik (Swa.), (*Champua*).
Bairagi Jena (Cong.), (*Chandbali*).
Lakshman Mahapatra (C.P.I.), (*Chatrapur*).
Pada Nayak (Cong.), (*Chhendipada*).
B. Patnaik (Cong.), (*Choudwar*).
Biren Mitra (Cong.), (*Cuttack*).
Laxman Mallick (Cong.), (*Cuttack-Sadar*).
Jagannath Tripathy (Cong.), (*Dabugam*).
Saheb Naik (Cong.), (*Dasapalla*).
Muralidhar Jena (Cong.), (*Dhamnagar*).
Mukunda Naik (Swa.), (*Dharmagarh*).
Gadadher Dutt (Cong.), (*Dharamsala*).
Jayadeb Thakur (Swa.), (*Deogarh*).
Mrs. Ratnaprava Debi (Swa.), (*Dhenkamal*).
Raghunath Mahapatra (Cong.), (*Digapahandi*).
Dr. P. V. Jagannathrao (Cong.), (*Dura*).
Ratnamali Jema (Cong.), (*Ersama*).
Kalia Dehuri (Swa.), (*Gondhia*).
Kanduri Charan Mallick (SC), (P.S.P.), *Govindpur (R)*).
Narasimho Patro (Cong.), (*Gunupur*).
Sarangadhar Pradhan (Cong.), (*G. Udaigiri*).
Brundaban Nayak (Cong.), (*Hingili*).
Udiya Nayak (Cong.), (*Jaganath Prasad*).
Priyanath Dey (Cong.), (*Jagatsinghpur*).
Prasanna Kumar Paul (P.S.P.), (*Jaleswar*).
Santanu Kumar Das (Cong.), (*Jaipur-East*).
Narayana Chandra Pati (Cong.), (*Jaipur West*).
Mochiram Triya (Cong.), (*Jashipur*).
Raghunath Patnaik (Cong.), (*Jeypore*).
Binod Bihari Bariha (Cong.), (*Jharsuguda*).
Maheshwar Naik (Swa.), (*Junagarh*).
Upendra Mahanty (Cong.), (*Kakatpur*).
Sugnana Kumari Deo (Cong.), (*Khallikot*).
Brundaban Tripathi (Swa.), (*Kamakshanagar*).
R. N. Singh Deo (Swa.), (*Kantabanji*).
Prabhakar Behara (Cong.), (*Karanjia*).
Mrs. Nabakumari Debi (Cong.), (*Kasipur*).
Bishnu Prasad Misra (Swa.), (*Katarbaga*).
Karunakar Pradhan (Swa.), (*Keonjhar*).

Dhruba Charan Sahu (Cong.), (*Kendrapada*).
Harihar Singh Mardaraj (Cong.), (*Khandapara*).
Anupsingh Deo (Cong.), (*Khariar*).
Prasanna Kumar Dash (P.S.P.), (*Khunta*).
Banamali Patnaik (Cong.), (*Khurda*).
Banamali Maharana (P.S.P.), (*Kodala-West*).
Lingaraj Panigrahi (Cong.), (*Kodala-East*).
T. Sanganna (Cong.), (*Koraput*).
Dayanidhi Naik (Swa.), (*Koksara*).
Mahadeb Bakaria (Cong.), (*Kotpad*).
Ramprasad Misra (Cong.), (*Loisingha*).
Birakeshari Deo (Swa.), (*Madanpur-Rampur*).
Surendranath Patnaik (Cong.), (*Mahanga*).
Guru Nayak (Swa.), (*Malkanjiri*).
Sachidananda Padhi (Cong.), (*Melchamunda*).
Biswanath Nayak (Cong.), (*Mohana* (*R*)).
Sakila Soren (P.S.P.), (*Muruda*).
Ghasiram Majhi (Swa.), (*Nawapara*).
Brundaban Chandra Singh (Cong.), (*Nayagarh*).
Rajendra Chandra Mardaraj Harichandan (Swa.), (*Nilgiri*).
Govinda Chandra Sethi (Cong.), (*Nimapara*).
Miru Harijan (SC), (Cong.), (*Nowrangpur* (*R*)).
Ganeswar Mahapatra (Cong.), (*Padwa*).
B. B. Singh Bariha (Cong.), (*Padmapur*).
Pabitra Mohan Pradhan (Cong.), (*Pal-Lahara*).
Nalla Kurma Naikulu (Cong.), (*Parlakimedi*).
Lokanath Misra (Cong.), (*Patkura*).
Raj Ballabh Misra (Swa.), (*Patna*).
Ramesh Chandra Bhoi (SC), (Swa.), (*Patnagarh*).
Trilochan Jani (Cong.), (*Patrapur*).
Prahlad Mallik (Cong.), (*Pattamundei*).
Ramchandra Patnaik (Cong.), (*Pipili*).
Himahsu Sekhara Padhi (Cong.), (*Phulbani*).
Pangi Musuri Santa (Cong.), (*Pottangi*).
Bhagaban Pratihari (Cong.), (*Puri*).
Padmacharan Nayak (P.S.P.), (*Rajnagar*).
Bhanugang Tribhuvan Deb (Swa.), (*Rairakhol*).
Chandramohan Singh (Cong.), (*Rairangpur*).
Rang Ballabh Amat (Cong.), (*Rajgangpur* (*R*)).
Murlidhar Kuanr (Cong.), (*Ramchandrapur*).
Ramachandra Ram (C.P.I.), (*Ranpur*).
Madangi Kamayya (Cong.), (*Rayagada*).
Ainthu Sahu (Swa.), (*Saintala*).
Baidhar Bahera (P.S.P.), (*Salepur*).
Banamali Babu (Cong.), (*Sambalpur*).
Raj Raj Dev (Swa.), (*Satyabadi*).
Bhagiratha Das (Cong.), (*Simulia*).
Daulata Ganda (Swa.) (*Sonepur*).
Karunakar Panigrahi (Cong.), (*Soro*).
Baidhar Singh (Cong.), (*Sukinda*).
Harihar Patel (Swa.), (*Sundergarh*).
Arjuna Naik (Cong.), (*Suruda*).
Madan Mohan Pradhan (Cong.), (*Talcher*).
Gangadhar Pradhan (S.T.), (Swa.), (*Talsara* (*R*)).
Gobinda Munda (Swa.), (*Telkoi*).
Pratapchandra Mohanty (Cong.), (*Tirtol*).
Achyutananda Mahananda (SC), (Swa.), (*Titil garh* (*R*)).
Nandkishore Misra (Swa.), (*Tusra*).
Manmohan Tudu (Cong.), (*Udala*).
Rama Chandra Bhoya (Cong.), (*Udayagiri* (*R*)).
Sadashiv Tripathy (Cong.), (*Umerkote*).

## PONDICHERRY LEGISLATIVE ASSEMBLY

No. of Constituencies 30 (Pondicherry 20, Karikal 7, Mahe 2, Yanam 1).
*Speaker :* M.O. H. Farook Maricar.
*Deputy Speaker :* V. N. Purushothaman.
An estimate of party position is as follows: Congress 22, People's Front 4, Independents 4.
P. Rathnavelu (Cong.), (*Ariancoupom*).
R. Thangavelu Clemencea (S.C.) (P.F.) (*Bahour* (*R*)).
C. M. Achraff (Ind.), (*Bussy*).
M. K. Jeevarathina Udayar (Cong.), (*Calapeth*).
A. S. Kankeyan (Cong.), (*Cassicade*).
G. Nagarajan (S.C.) (Cong.), (*Cotchery* (*R*)).
Padmini Chandrasekharan (Cong.), (*Couroussoucoupom*).
Subramanya Padayachi (Ind.), (*Courouvinattam*).
P. Angammal (S.C.) (Cong.), (*Embalom* (*R*)).
V. M. C. Varada Pillai (Cong.), (*Grand Aldee*).
Farook Marikar (Cong.), (*Karikal North*).
Mohamad Ibrahim Maricar (Ind.), (*Karikal South*).
Valavil Kesavan (Cong.), (*Mahe*).
Manickavasava Reddiar (Cong.), (*Mannadipeth*).
V. K. Subbiah (P.F.), (*Modeliarpeth*).
P. Shanmugam (Cong.), (*Muthalpeth*).
P. Shanmugam (Cong.), (*Nedoungadou*).
N. Ranganadin (P.F.), (*Nellitope*).
Nagamoutou Pillai (Cong.), (*Neravy*).
V. Venkatasubha Reddiar (Cong.), (*Nettapacom*).
S. Govindassamy (Cong.), (*Oulgaret*).
Raja G. Perumal (Ind.), (*Oupalom*).
N. Harikrishnan (S.C.) (Cong.), (*Oussoudou* (*R*)).
V. N. Purushotham (Cong.), (*Pallour*).
N. Gurusamy (P.F.), (*Pudusaram*).
Edouard Goubert (Cong.), (*Raj Nivas*).
R. Kulandai (S.C.) (Cong.), (*Tiroubouvane* (*R*)).
Subbarayalu (Cong.), (*Tirounoular*).
S. T. Kanakarasu (Cong.), (*Villenour*).
Kamichetty P. V. R. Naidou (Cong.), (*Yanam*).

## PUNJAB LEGISLATIVE COUNCIL

*Strength :* 51 (including Chairman & Dy. Chairman.
An estimate of party strength : Congress 41 ; Independent 4 ; Jan Sangh 3 ; Haryana Lok Samiti 1 ; Communist 2.
*Chairman :* Durga Das Khanna.
*Deputy Chairman :* Mrs. Lekhwati Jain.

**Legislative Assembly (18)**

Capt. Birendra Singh Rao (Cong.).
Des Raj (Cong.).
Durga Dass Khanna (Cong.).
Master Hari Singh (Communist).
Kanwar Lal Sharma (Cong.).
Sardar Kapoor Singh (Cong.).
Chaudhri Kartar Singh (Ind.).
Mrs. Lajja Varma (Cong.).
Milkhi Ram Rattan (Cong.).
Mohan Lal (Cong.).
Nasib Singh Thakar (Jan Sangh).
Nihal Singh Maharaj (Cong.).
Sardar Puran Singh Azad (Cong.).
Prof. Sher Singh (Harayana Lok Samiti).
Dr. Shyam Lal Thapar (Cong.).
Smt. Sita Devi (Cong.).
Sultan Singh Chaudhri (Cong.).
Teja Singh Swatantar (Communist).

**Local Bodies (17)**

Amar Singh Chaudhri (Cong.).
Maj. Chaudhri Amir Singh (Cong.).
Beli Ram Thakur (Cong.).
Dr. Chanan Singh (Cong.).
Bhupinder Singh Mann (Cong.).
Chander Bhan Gupta (Cong.).
Daya Krishan (Cong.).
Hans Raj Sharma (Cong.).
Harendra Singh Chaudhri (Jan Sangh).
Kalyan Singh Chaudhri (Cong.).
Kharati Ram Sarin (Cong.).
Kundan Lal Ahooja (Cong.).
Mrs. Lekhwati Jain (Cong.).
Narinder Singh (Ind.).
Prem Singh Lalpur (Cong.).
Premsukh Dass (Cong.).
Sat Paul Mittal (Cong.).

**Graduates (4)**

Babul Shri Chand Goyal (Cong.).
Mrs. Ila Rani Ahooja (Cong.).
Krishnan Lal (Jan Sangh).
Nand Lal (Cong.).

**Teachers (4)**

Gopal Krishnan Chatrath (Ind.).
Gurcharan Singh (Cong.).
Pt. Prem Chand Markanda (Cong.).
Prof. S. L. Chopra (Ind.).

**Nominated (8)**

Bawa Daswandha Singh (Cong.).
Mrs. Gian Kaur Vidyarthi (Cong.).
Kartar Singh Qaumi (Cong.).
Ravindra Nath (Cong.).
S. F. Deane (Cong.).
Smt. Savita Behen (Cong.).
Sri Chand Chaudhuri (Cong.).
Prof. Yashwant Rai (Cong.).

## PUNJAB LEGISLATIVE ASSEMBLY

Seats : 154 (S.C. 33) ; Electorate : 1,07,15,335.
An estimate of party position is given below : Congress 112 ; Progressive Independent Group 9 ; Jan Sangh 7 ; Akali 15 ; Communist 8 (Leftist Wing 2) ; Samyukta Socialist Party 1 ; un-attached 1, Vacant 1.
*Speaker :* Harbans Lal.
*Dy. Speaker :* Smt. Shanno Devi.
Chandi Ram Varma (Cong.), (*Abohar*).
Sardar Harinder Singh (Cong.), (*Ajnala*).
Pt. Mohan Lal Datta (P.I.G.), (*Amb*).
Dev Raj Anand (Cong.), (*Ambala Cantt.*).
Khan Abdul Ghaffar Khan (Cong.), (*Ambala City*).
Sardar Jai Inder Singh (Cong.), (*Amritsar City—Civil Lines*).
Dr. Baldev Prakash (J.S.), (*Amritsar City—East*).
Balramji Dass Tandon (J.S.), (*Amritsar City—West*).
Sardar Gurmej Singh (S.C.), (Cong.), (*Amritsar Sadar* (*R*)).
Baloo Ram Chaudhari (Cong.), (*Anandpur*).
Didar Singh (S.C.), (Com.), (*Baghapurana* (*R*)).
Hardwari Lal Chaudhri (Cong.), (*Bahadurgarh*).
Hira Lal (Cong.), (S.C.), (*Ballabgarh*).
Sardar Dilbagh Singh (Cong.), (*Banga*).
Sardar Sampuran Singh Dhaula (Cong.), (*Barnala*).
Smt. Sarla Devi (Cong.), (*Barsar*).
Mohan Lal (Cong.), (*Batala*).
J. Sohan Singh Jalalusman (Cong.), (*Beas*).
Sagar Ram Gupta (Cong.), (*Bhiwani*).
Sardar Tej Singh (S.C.), (Akali), (*Budhlada* (*R*)).
Multan Singh (Cong.), (*Butana*).
Sardar Niranjan Singh Talib (Cong.), (*Chandigarh*).
Kesara Ram (S.C.), (Cong.), (*Dabwali* (*R*)).
Smt. Chandrawati (Cong.), (*Dadri*).
Giani Kartar Singh (Cong.), (*Dasuya*).
Sardar Makhan Singh (Akali), (*Dera Baba Nanak*).
Mehar Singh Thakur (Cong.), (*Dera Gopipur*).
Sardar Kultar Singh (S.C.), (Akali), (*Dharamkot* (*R*)).
Hari Ram Chaudhri (Cong.), (*Dharamsala*).
Sardar Gurbakhsh Singh Gurdaspuri (Akali), (*Dhariwal*).
Bhan Singh Bhaura (S.C.), (Com.), (*Dhuri* (*R*)).
Giani Zail Singh (Cong.), (*Faridkot*).
Devi Lal Chaudhri (P.I.G.), (*Fatehabad*).
Sardar Gurmej Singh (Akali), (*Fatehgarh*).
Satya Dev Chaudhri (J.S.), (*Fazilka*).
Sardar Kulbir Singh (J.S.), (*Ferozepur*).
Tayyab Husain Khan Chaudhri (Cong.), (*Ferozepur Jhirka*).
Pt. Chiranji Lal Sharma (P.I.G.), (*Ganaur*).
Capt. Rattan Singh (Cong.), (*Garhshankar*).
Rulya Ram Lala (Cong.), (*Gharaunda*).
Pt. Ram Dhari Gaur (Cong.), (*Gohana*).
Prabodh Chandra (Cong.), (*Gurdaspur*).
Kanhiya Lal Poswal (Cong.), (*Gurgaon*).
Jaswant Singh Guru (Cong.), (*Guru Har Sahai*).
Rup Singh Phul (S.C.), (Cong.), (*Hamirpur* (*R*)).
Tek Ram Chaudhri (P.I.G.), (*Hansi*).
Guran Dass Hans Bhagat (S.C.), (Cong.), (*Hariana* (*R*)).
Har Kishan Chaudhri (Cong.), (*Hassanpur*).
Hunna Mal (Cong.), (*Hissar City*).
Net Ram Chaudhri (S.S.P.), (*Hissar Sadar*).
Dr. Bal Krishen (Cong.), (*Hoshiarpur*).

Sardar Lachhman Singh Gill (Akali)† (*Jagraon*).
Ram Rattan Chaudhri (S.C.), (Cong.), (*Jahan Khelan* (*R*)).
Sardar Trilochan Singh Riasti (Cong.), (*Jaitu*).
Makhan Singh Tarsikka (Com.), (*Jandiala*).
Nihal Singh Rao (Cong.), (*Jatusana*).
Bhagwat Dayal (Cong.), (*Jhajjar*).
Dal Singh Chaudhri (Cong.), (*Jind*).
Sardar Karam Singh Kirti (Cong.), (*Jullundur Cantt.*).
Ram Kishan (Cong.), (*Jullundur City—(North-East)*.
Yash Pal (Cong.), (*Jullundur City—(South-West)*.
Smt. Om Prabha Jain (Cong.), (*Kaithal*).
Ranbir Singh Chaudhri (Cong.), (*Kalanaur*).
Amar Nath Sharma (Cong.), (*Kangra*).
Banwari Lal (S.C.), (Cong.), (*Kanina*).
Sardar Lakhi Singh Chaudhri (Cong.), (*Kapurthala*).
Ram Piara (U.A.), (*Karnal*).
Sardar Gurbanta Singh (S.C.), (Cong.), (*Kartarpur* (*R*)).
Sardar Narain Singh Shahbazpuri (Cong.), (*Khalra*).
Sardar Jagir Singh Dard (S.C.), (Cong.), (*Khanna* (*R*)).
Pandit Lall Chand Prarthi (Cong.), (*Kulu*).
Sardar Ujagar Singh (S.C.), (Cong.), (*Lambi* (*R*)).
Sardar Pritam Singh Sahoke (S.C.), (Cong.), (*Lehra*).
Dina Nath Agarwal (Cong.), (*Ludhiana City*).
Bachan Singh Baboo (P.I.G.), (*Ludhiana North*).
Sardar Shamsher Singh (Akali), (*Ludhiana South*).
Ranjit Singh (Cong.), (*Mahal Kalan*).
Nihal Singh (Cong.), (*Mahendragarh*).
Gurmail (S.C.), (Cong.), (*Mahilpur* (*R*)).
Smt. Dr. Parkash Kaur (Cong.), (*Majitha*).
H. H. Yusuf Zaman Begum (Cong.), (*Malerkotla*).
Sardar Gurmit Singh (Cong.), (*Malout*).
Sardar Surjit Singh Theri (Akali), (*Mansa*).
Ram Dhari Balmiki (S.C.) (Cong.), (*Meham* (*R*)).
Sardar Gurcharan Singh (Akali), (*Moga*).
Ram Prakash Chaudhri (S.C.), (Cong.), (*Molana* (*R*)).
Sardar Ajaib Singh Sandhu (S.C.), (Akali), (*Morinda* (*R*)).
Rala Ram (Cong.), (*Mukerian*).
Sardar Harcharan Singh Brar (Cong.), (*Muktsar*).
Sardar Gurdarshan Singh (Cong.), (*Nabha*).
Sardar Tara Singh Lyallpuri (S.C.), (Akali), *Nagoke* (*R*)).
Darshan Singh Chaudhri (Cong.), (*Nakodar*).
Dasondhi Ram Chaudhri (S.C.), (Cong.), (*Nalagarh* (*R*)).
Jagjit Singh Tikka (Cong.), (*Naraingarh*).
Amar Singh (S.C.) (Cong.), (*Narnaund* (*R*)).
Ram Saran Chand Mittal (Cong.), (*Narnaul*).
Chaudhri Sunder Singh (S.C.), (Cong.), (*Narot Jaimal Singh*).
Fakiria (S.C.) (Cong.), (*Narwana* (*R*)).
Jagat Ram Chaudhri (S.C.), (Cong.), (*Nawanshahr* (*R*)).
Gurbakhsh Singh Dhaliwal (Com.), (*Nihalsinghwala*).
Khurshed Ahmad Chaudhri (Cong.), (*Nuh*).
Sardar Darbara Singh (Cong.), (*Nurmahal*).
Ram Chandra (Cong.), (*Nurpur*).
Sardar Hardit Singh (S.C.), (Akali), (*Pakka Kalan* (*R*)).
Bakshi Partap Singh (Cong.), (*Palampur*).
Roop Lal Mehta (Cong.), (*Palwal*).
Fateh Chand Vij (J.S.), (*Panipat*).
Babu Dayal Sharma (Cong.), (*Pataudi*).
Pt. Bhagirth Lal (Cong.), (*Pathankot*).
Ram Partap Garg (Cong.), (*Patiala*).
Sardar Umrao Singh (Cong.) (*Patti*).
Lieut. Bhag Singh (S.C.), (Cong.), (*Payal* (*R*)).
Sardar Piara Singh (Cong.), (*Pehowa*).
Om Parkash Agnihotri (P.I.G.), (*Phagwara*).
Sardar Hari Singh (Cong.), (*Phillaur*).
Babu Singh Master (Com.), (*Phul*).
Ram Pal Singh Kanwar (Cong.), (*Pundri*).
Ran Singh Chaudhri (S.C.) (Cong.), (*Radaur* (*R*)).
Rizaq Ram Chaudhri (Cong.), (*Rai*).
Sardar Gurnam Singh (Akali), (*Raikot*).
Sardar Jasdev Singh Sandhu (Cong.), (*Raipur*).
Smt. Parsani Devi (Cong.), (*Rajaund*).
Sardar Prem Singh (Cong.), (*Rajpura*).
Raj Kumari Sumitra Devi (Cong.), (*Rewari*).
Mangal Sein (J.S.), (*Rohtak*).
Shamsher Singh Josh (Com.), (*Rupar*).
Sardar Gulab Singh (Cong.), (*Sadhaura*).
Inder Singh Malik Chaudhri (P.I.G.), (*Safidon*).
Chand Ram (S.C.), (Cong.), (*Salhawas* (*R*)).
Sardar Harchand Singh (S.C.), (Cong.). (*Samana* (*R*)).
Chuhar Singh Chaudhri (Cong.), (*Sambhalka*).
Ram Sarup Chaudhri (P.I.G.), (*Sampla*).
Sardar Ajmer Singh (Cong.), (*Samrala*).
Hardit Singh Bhathal (Com.), (*Sangrur*).
Vacant (*Sarhali*).
Jit Ram Lala (S.C.) (Cong.), (*Seraj* (*R*)).
Sardar Dalip Singh (S.C.), (Cong.), (*Shahkot* (*R*)).
Ajit Kumar Babu (S.C.), (Akali), (*Sidhwanbet* (*R*)).
Gian Chand (Cong.), (*Simla*).
Sardar Gian Singh Rarewala (Cong.), (*Sirhind*).
Sita Ram Bagla (Cong.), (*Sirsa*).
Mukhtiar Singh Malik Chaudhri (J.S.), (*Sonepat*).
Sardar Satnam Singh Bajwa (Cong.), (*Srigobindpur*).
Sardar Balwant Singh (Cong.), (*Sultanpur*).
Brish Bhan (Cong.), (*Sunam*).
Jangir Singh Joga (Com.), (*Talwandi Saboo*).
Sardar Gurdial Singh Dhillon (Cong.), (*Tarn Taran*).
Banarsi Dass Gupta (Cong.), (*Thanesar*).
Manphul Singh Chaudhri (Cong.), (*Tohana*).
Jagan Nath (P.I.G.), (*Tosham*).
Surinder Nath Gautam (Cong.), (*Una*).
Sardar Jagjit Singh (Akali), (*Zira*).

Cong.—Congress; P.I.G.—Progressive Independent Group; Com.—Communist; Swa.—Swatantra; J.S.—Jan Sangh; Akali—Akali Party.

## RAJASTHAN LEGISLATIVE ASSEMBLY

Seats: 176. (S.C. 28; S.T. 20). Electorate: 1,03,24,654.

*Speaker:* Ram Niwas Mirdha. *Dy. Speaker:* Narain Singh Masuda.

An estimate of party position is given below: Congress 106; Swatantra 36; Jan Sangh 14; Sanyukt Samajwadi Dal 11; Communist Party 3; Independents 5; Vacant 1.

Dalpat Singh (Cong.), (*Abu*).
Chhater Singh (Swa.), (*Ahore*).
B. K. Kaul (Cong.), (*Ajmer City—East*).
Pohumal Issardass (Cong.), (*Ajmer City—West*).
Dr. Bhairav Lal Badal (S.T.) (Cong.), (*Aklera*(*R*)).
Rama Nand Agerwal (C.P.I.), (*Alwar*).
Man Singh Mahar (Swa.), (*Amber*).
Girdhari Lal (Cong.), (*Asind*).
Maharaj Laxman Singh (Swa.), (*Aspur*).
Madho Lal Khanpuria (S.C.) (Cong.), (*Atru* (*R*)).
P. R. Maderna (Cong.), (*Ausiyan*).
Nathuram (S.T.) (Cong.), (*Bagidora* (*R*)).
Smt. Kamla Beniwal (Cong.), (*Bairath*).
Mohan Raj (Cong.), (*Bali*).
Mathuresh Behari Mathur (Swa.), (*Bandikui*).
Umrao Singh Dhabriya (S.S.D.), (*Banera*).
Badri Prasad Gupta (Cong.), (*Bansur*).
Vithal (S.S.D.), (*Banswara*).
Daya Chand Soan (S.C.) (J.S.), (*Baran* (*R*)).
Raghubir Singh (Cong.), (*Bari*).
Umed Singh (Ind.), (*Barmer*).
Abhey Singh (Swa.), (*Bassi*).
M. Behari Lal Goyal (S.S.D.), (*Bayana*).
Kumar Nand (C.P.I.), (*Beawar*).
Chausar Singh Babel (Swa.), (*Begun*).
Ghasi Ram Yadav (Cong.), (*Behrod*).
Ganesh Lal (Cong.), (*Bhadesad*).
Nathi Singh (S.S.D.), (*Bharatpur*).
Smt. Nirmala Devi Nahar (Cong.), (*Bhilwara*).
Smt. Laxmi Kumari Chundawat (Cong.), (*Bhim*).
Chothmal Verma Mal (S.C.) (Swa.), (*Bhinai* (*R*)).
Malam Singh (Cong.), (*Bhinmal*).
Amritlal Yadava (Cong.), (*Bhopalsagar* (*R*)).
Murlidhar Vyas (S.S.D.), (*Bikaner*).
Chander Singh Barpha (Cong.), (*Bilara*).
Brij Sunder Sharma (Cong.), (*Bundi*).
Nathu Lal Karol (Swa.), (*Chaksu*).
Jujhar Singh (Cong.), (*Chechat*).
Smt. Nagendra Bala (Cong.), (*Chhabra*).
Chaturbhuj Upadhyaya (Cong.), (*Chittorgarh*).
Fateh Singh (Swa.), (*Chohatan*).
Bhanu Prasad Karadia (S.C.) (Swa.), (*Chomu*(*R*)).
Mohar Singh Rathor (Ind.), (*Churu*).
Jai Lal (S.C.) (J.S.), (*Dag* (*R*)).
Jagan Singh (Cong.), (*Danta-Ramgarh*).
Mool Chand Chaudhri (Swa.), (*Dausa*).
Moti Lal Chowdhary (Cong.), (*Deedwana*).
Raja Man Singh (Swa.), (*Deeg*).
Smt. Gori Poonia (Cong.), (*Degana*).
Dinesh Rai Dangi (S.C.) (Cong.), (*Desuri* (*R*)).
Hari Shanker (S.S.D.), (*Dholpur*).
Kunwar Mahendra Singh (J.S.), (*Digod*).
Amar Singh (Swa.), (*Dudu*).
Daulat Ram Saran (Cong.), (*Dungargarh*).
Vijay Pal Katra (S.T.) (Swa.), (*Dungarpur* (*R*)).
Balu Ram Chaudhary (Ind.), (*Fatehpur*).
Kedarnath (S.S.D.), (*Ganganagar*).
Govind Sahai (J.S.), (*Gangapur*).
Harideo Joshi (Cong.), (*Ghatol*).
Jodh Singh Chohan (J.S.), (*Girwa*).
Lalit Mohan (S.T.) (Cong.), (*Gogunda* (*R*)).
Nathi Singh (Cong.), (*Govindgarh*).
Th. Jiv Raj Singh (Swa.), (*Gudha*).
Ganga Ram Chaudhary (Cong.), (*Gura-Malani*).
Kumbha Ram Arya (Cong.), (*Hanumangarh*).
Durga Lal Bardhar (Swa.), (*Hawamahal*).
Sarwan Lal (S.C.) (J.S.), (*Hindaun* (*R*)).
Ganga Singh Parihar (S.T.), (Cong.), (*Hindoli* (*R*)).
Ram Prasad Ladha (Cong.), (*Jahazpur*).
Maharaj Hukum Singh (Cong.), (*Jaisalmer*).
Virda Ram (S.C.) (Cong.), (*Jalore* (*R*)).
Dunga Ram Rajolia (Swa.), (*Jamwa Ramgarh*).
Ganga Singh *Rathor* (Swa.), (*Jayal*).
Harish Chandra (Cong.), (*Jhalrapatan*).
Smt. Sumitra (Cong.), (*Jhunjhunu*).
Anand Singh Kachhwaha (Cong.), (*Jodhpur City I*).
Barkatullah Khan (Cong.), (*Jodhpur City II*).
Satish Chandra Agarwal (J.S.), (*Johari Bazar*).
Majilis Khan (Cong.), (*Kama*).
Bhavani Shanker Nandwana (Cong.), (*Kapasin*).
Jawand Singh (Ind.), (*Karanpur*).
Maharaj Kumar Brijendrapal (Cong.), (*Karauli*).
Gokul Chand Jatav (S.C.) (*Cong.*), (*Kathumar* (*R*)).
Haribhan Upadhyaya (Cong.), (*Kekri*).
Harphool (S.C.) (Swa.), (*Khandhar* (*R*)).
Prabhulal Sentre (Cong.), (*Khanpur*).
Kesree Singh Jojawar (Cong.), (*Kharchi*).
Shis Ram Ola (Cong.), (*Khetri*).
Bal Chand Daga (Swa.), (*Kishangarh*).
B. S. Shekhawat (J. S.), (*Kishanpol Jaipur*).
Manik Chand Surana (S.S.D.), (*Kolayat*).
Krishna Kumar Goyal (J.S.), (*Kotah*).
Mukti Lal Modi (Cong.), (*Kotputli*).
Govind Singh (Swa.), (*Kumbhalgarh*).
Hira Bhai (S.T.) (S.S.D.), (*Kushalgarh* (*R*)).
Kishan Singh Batar (Cong.), (*Laxmangarh*).
Mathurdas Mathur (Cong.), (*Ladnu*).
Ram Sahai (Swa.), (*Lalsot* (*R*)).
Udai Lal Verdia (Swa.), (*Lasadia*).
Swaroop Singh (Ind.), (*Luni*).
Bhimsen (Cong.), (*Lunkaransar*).
Ramchandra (Cong.), (*Madhopur*).
Mandhata Singh (Swa.), (*Maluwa*).
Bharat Lal (S.T.) (Cong.), (*Malarna-Chour* (*R*)).
Maharaj Kumar Jai Singh (Swa.), (*Malpura*).
Gokul Prasad (Cong.), (*Mandal*).
Ganpati Lal (Cong.), (*Mandalgarh*).
Raghubir Singh Bisau (Swa.), (*Mandawa*).
Hari Prasad Sharma (Cong.), (*Mandwar*).
Narain Singh Masuda (Cong.), (*Masuda*).
Sampat Lal Bohra (J.S.), (*Merti*).
Nathu Ram Mirdha (Cong.), (*Merta*).
Nathi Lal (S.C.) (Cong.), (*Nadbai* (*R*)).
Chultan Lal (S.T.) (Cong.), (*Nadoti*).
Ram Niwas Mirdha (Cong.), (*Nagaur*).
Jwala Prasad (Cong.), (*Nasirabad*).
Vijay Singh Jhala (J.S.), (*Nathdwara*).

Bhim Singh Mandawa (Cong.), (*Nawalgarh*).
Hanuman Singh (Cong.), (*Nawan*).
Chhotu Ram (S.C.) (Cong.), (*Neem-ka-Thana(R)*).
Abdul Jabbar (J.S.), (*Nimbahera*).
Jai Narain Salodiya (S.C.) (Swa.), (*Niwai (R)*).
Daya Ram (Ind.), (*Nohar*).
Rooparam Panwar (S.C.) (Cong.), (*Nokha*).
Parash Ram Maderana (Cong.), (*Osian*).
Amar Singhgasol (Swa.), (*Pachpadra*).
H. Kesri Singh (Swa.), (*Pali*).
Jeth Mal Barwad (S.C.) (Cong.), (*Parbatsar*).
Hari Prasad Sharma (J.S.), (*Patan*).
Gopi Lal Gothwal (S.C.) (Cong.), (*Phagi*).
Nana Rathore (Swa.), (*Phalasia*).
Lala Ram (S.C.) (Cong.), (*Phalodi (R)*).
Sagar Mal (Cong.), (*Phulera*).
Hajari Lal Sharma (Cong.), (*Pilani*).
Ravi Shanker Yagnik (Cong.), (*Pindwara*).
Laxmi Chand (S.T.) (J.S.), (*Pipalda (R)*).
Govind Singh (Cong.), (*Pidawa*).
Harlal (Cong.), (*Pratapgarh*).
Smt. Prabha Misra (Cong.), (*Pushkar*).
Mangi Lal Rinwa (Cong.), (*Raipur*).
Yogendernath Handa (C.P.I.), (*Raisinghnagar*).
Hari Kishan (Cong.), (*Rajgarh*).
Damodarlal Vyas (Cong.), (*Rajakhera*).
Niranjan Nath Acharya (Cong.), (*Rajsamand*).
Kum. Uma Mathur (Cong.), (*Ramgarh*).
Bhag Raj Chaudhary (Cong.), (*Raniwara*).
Mohan Lal Saraswat (S.S.D.), (*Ratangarh*).
Jug Lal (S.C.) (Cong.), (*Rawatsar (R)*).
Sanwalia Ram (S.C.) (Cong.), (*Roopwas (R)*).
Shanker Lal Jat (Cong.), (*Sadari*).
Rawat Ram (S.C.) (Cong.), (*Sadulpur (R)*).
Bheeka Bhai (S.T.) (Cong.), (*Sagwara (R)*).
Devender Kumar (S.T.) (Cong.), (*Sahada (R)*).
Mawa (S.T.) (Swa.), (*Salumber (R)*).
Raghunath Vishnai (Cong.), (*Sanchore*).
Devi Lal (S.T.) (Cong.), (*Sarada (R)*).
Chandan Mal Baid (Cong.), (*Sardar-Shahar*).
Ram Singh (Swa.), (*Sawai Madhopur*).
Kana Bhai (S.C.) (Cong.), (*Shahpura (R)*).
Sobhag Singh (Swa.), (*Shergarh*).
Swaroop Narain Purohit (Cong.), (*Sikar*).
Laxman Prasad Patel (S.T.) (Swa.), (*Sikrai (R)*).
Ram Deo Singh (Cong.), (*Singrawat*).
Dharmaram (S.C.) (Cong.), (*Sirohi (R)*).
Hari Ram Gharu (S.C.) (Cong.), (*Siwana (R)*).
Teja Ram Gahlot (Cong.), (*Sojat*).
Ram Chandra (Cong.), (*Sri Madhopur*).
Phool Chand Jain (Cong.), (*Sujanagarh*).
Aldaram Mena (S.T.) (Cong.), (*Sumerpur (R)*).
Shiv Narain Chhachhia (S.C.) (Cong.), (*Surajgarh (R)*).
Manphool Singh (Cong.), (*Suratgarh*).
Jai Krishna (Cong.), (*Thana Gazi*).
Gyan Chand Modi (Cong.), (*Thoi*).
Hari Ram Chohan (S.C.) (C.P.I.), (*Tijara (R)*).
Radha Krishna Goyal (Swa.), (*Tonk*).
Mohan Lal Sukhadia (Cong.), (*Udaipur*).
Digvijai Singh (Swa.), (*Uniara*).
Ram Krishan (S.S.D.), (*Weir*).

## TRIPURA LEGISLATIVE ASSEMBLY

*Total Electorates :* 4,80,609.

Constituencies: 30; Seats: 32 (including two nominated).

*Speaker :* Upendra Kumar Roy.

*Dy. Speaker :* Ershad Ali Choudhury.

An estimate of party position is as follows: Congress 20; Communist 12.

Sachindra Lal Singh (Cong.), (*Agartala Sadar I*).
Binod Behari Das (Cong.), (*Agartala Sadar II*).
Sudhanwa Deb Barma (Com.), (*Agartala Sadar III*).
Krishnadas Bhattacharjee (Cong.), (*Agartala Town I*).
Sukhamoy Sengupta (Cong.), (*Agartala Town II*).
Upendra Kumar Roy (Cong.), (*Belonia*).
Dasami Riang (Cong.), (*Birganj*).
Umesh Lal Singh (Cong.), (*Bishalgarh*).
Aghore Deb Barma (Com.), (*Charilam*).
K. N. Choudhury (Cong.), (*Dharmanagar North*).
Manoranjan Nath (Cong.), (*Dharmanagar South*).
Bulu Kuki (Com.), (*Dumbarnagar*).
Gopesh Ranjan Deb (Cong.), (*Fatikroy*).
Manindra Lal Bhowmik (Cong.), (*Kailashahar*).
Ram Charan Deb Barma (Com.), (*Kalyanpur*).
Sunil Chandra Dutta (Cong.), (*Kamalpur*).
Raj Prasad Choudhury (Cong.), (*Kanchanpur*).
Nripendra Chakraborti (Com.), (*Khowai*).
Dinesh Deb Barma (Com.), (*Kulaihour*).
Abul Wazid (Cong.), (*Kurti*).
Hlura Aung Mog (Com.), (*Muharipur*).
P. R. Das Gupta (Com.), (*Mohanpur*).
Hemanta Deb (Com.), (*Old Agartala*).
Nishi Kanta Sarkar (Cong.), (*Radhakishorepur*).
Sunil Kumar Choudhary (Com.), (*Sabroom*).
Ershad Ali Choudhury (Cong.), (*Salgarha*).
Atiqul Islam (Com.), (*Sonamura North*).
Munchor Ali (Cong), (*Sonamura South*).
B. C. Deb Barma (Com.), (*Takarjala*).
Prafulla Kumar Das (Cong.), (*Teliamura*).
Smt. Renu Chakraborty (Cong.), (*Nominated*).
Rajkumar Kamaljit Singh (Cong.), (*Nominated*).

## UTTAR PRADESH LEGISLATIVE COUNCIL

*Strength :* 108.

*Chairman :* Darbarilal Sharma.

*Dy. Chairman :* Virendra Swarup.

An estimate of party position is as follows:—Congress 73, Ind. 8, S.P.D. 1, Nationalist Party 11, Jan Sangh 5, Swatantra 2, Republican 1, Samyukta Socialist 3; Praja Socialist 3; Communist 1.

### Elected by Legislative Assembly (39)

Ajai Kumar Basu (Cong.).
Dr. A. J. Faridi (P.S.P.).
Algu Rai Shastri (Cong.).
Ganesh Dutt Paliwal (Swa.).
Darbarilal Sharma (Cong.).
Hayatulla Ansari (Cong.).
Gend Lal (Cong.).
Kalyan Chand (Cong.).
H. P. Singhania (Ind.).
Nathu Ram (Cong.).
Khushal Singh (Cong.).
Rudra Datt Giri (Cong.).
Smt. Sunita Chauhan (Cong.).
Khan Bahadur Mohd. Aziz Husain (Cong.).
Kunwar Mahabir Singh (Cong.).
Shiv Prasad Singh (J.S.).
Shakir Ali Siddiqi (Cong.).
Ram Prakash Gupta (J.S.).
Rajendra Pal Singh (Cong.).
Smt. Shanti (Cong.)
Mohd. Shahid Fakhiri (Cong.).
Sita Ram (J.S.).
Chedilal Sathi (Rep.).
Maharaj Singh (Cong.).
Ramji Verma (Cong.).
Virendra Shah (Swa.).
Ram Dhari Pandey (Cong.).
Rani Tandon (Cong.).
Banshi Dhar Shukla (Cong.).
Lal Suresh Singh (Cong.).
Beni Prasad Madhav (P.S.P.).
Smt. Savitri Shyam (Cong.).
Gopi Nath Singh (Cong.).
Gopal N. Saxena *alias* Palanji (S.S.P.).
Vasudev Misra (Cong.).
Ram Sagar (S.S.P.).
Smt. Shivrajwati Nehru (Cong.).
Pitamber Das (J.S.).
Smt. Daya Vati (Cong.).

### Local Authorities (39)

S. P. Gupta (Cong.), (*Agra*).
Ch. S. N. Singh (Cong.), (*Allahabad-cum-Fatehpur-cum-Banda*).
P. C. Sharma (Cong.), (*Aligarh*).
Mangla Prasad (Cong.), (*Allahabad-cum-Fatehpur-cum-Banda*).
Bindhyachal Rai (Cong.), (*Azamgarh-cum-Ballia-cum-Ghazipur*).
Jagannath Singh (Cong.), (*Azamgarh-cum-Ballia-cum-Ghazipur*).
Tej Bahadur (Com.), (*Azamgarh-cum-Ballia-cum-Ghazipur*).
Keshav Datt (Cong.), (*Bahraich-cum-Gonda*).
Kr. D. Pratap Singh (Cong.), (*Bahraich-cum-Gonda*).
Sachidanand Tripathi (Cong.), (*Basti-cum-Gorakhpur-cum-Deoria*).
Shugan Chand (Cong.), (*Basti-cum-Gorakhpur-cum-Deoria*).
Jagannath Acharya (Cong.), (*Basti-cum-Gorakhpur-cum-Deoria*).
Mathura Pd. Pandey (Cong.), (*Basti-cum-Gorakhpur-cum-Deoria*).
Saeedul Hasan (Cong.), (*Bulandshahr*).
Maulana Abur Rauf Khan (S.P.D.), (*Budaun-cum-Rampur-cum-Bareilly*).
Ram Lakhan (Cong.), (*Budaun-cum-Rampur-cum-Bareilly*).
Mukhtar Ahmed Kidwai (Cong.), (*Faizabad*).
Behari Lal Vashishtha (Cong.), (*Hamirpur-cum-Jhansi*).
Raghuraj Singh (Cong.), (*Jalun-cum-Etawah*)).
Harcharan Lal Agarwal (J.S.), (*Jaunpur*).
C. L. Paliwal (Cong.), (*Kanpur-cum-Farrukhabad*).
Virendra Bahadur Singh Chandel (P.S.P.), (*Kanpur-cum-Farrukhabad*).
Smt. Kudsia Begum (Begam Aizaz Rasul) (Cong.), (*Kheri-cum-Sitapur-cum-Hardoi*).
Dr. M. P. Mehrey (Cong.), (*Kheri-cum-Sitapur-cum-Hardoi*).
Kr. Guru Narain (Cong.), (*Lucknow-cum-Unnao-cum-Rae-Bareli*).
Dr. Ram Narain Pandey (Cong.), (*Lucknow-cum-Unnao-cum-Rae-Bareli*).
Sultan Singh Pachori (Cong.), (*Mainpuri-cum-Etah-cum-Mathura*).
Nawab Singh Yadav (Cong.), (*Mainpuri-cum-Etah-cum-Mathura*).
Madan Mohan Lal (Cong.), (*Meerut-cum-Muzaffarnagar*).
Kailash Prakash (Cong.), *Meerut-cum-Muzaffarnagar*).
Ram Ghulam (Cong.), (*Moradabad*).
Kr. Jyoti Prasad (Cong.), (*Pilibhit-cum-Shahjahanpur*).
Smt. Begum Mohsina Khalil Kidwai (Cong.), (*Pratapgarh-cum-Sultanpur-cum-Bara Banki*).
Th. H. Govind Singh (Cong.), (*Pratapgarh-cum-Sultanpur-cum-Bara Banki*).
Din Dayalu Shastri (Cong.), (*Saharanpur-cum-Dehradun*).
L. S. Adhikari (Cong.), (*Uttarkhand-cum-Kumaun-cum-Bijnore*).
Pyarelal Gupta (Cong.), (*Uttarkhand-cum-Kumaun-cum-Bijnore*).
Onkar Nath Upadhyaya (Cong.), (*Varanasi-cum-Mirzapur*).
Prabhu Narain Singh (S.S.P.), (*Varanasi-cum-Mirzapur*).

### Graduates (9)

Kalka Prasad Bhatnagar (Ind.), (*Agra*).
Dr. Ishwari Prasad (Ind.), (*Allahabad*).
Ravindra Nath Sanyal (Ind), (*Gorakhpur-cum-Faizabad*).
Virendra Swarup (Ind.), (*Kanpur-cum-Jhansi*).
Nirmal Chandra Chaturvedi (Cong.), (*Lucknow*).
Madan Mohan (Ind.), (*Meerut*).
Satya Keta Vidyalankar (Ind.), (*Rohilkhand*).
Braj Pal Saran Rastogi (N.P.). (*Uttarkhand-cum-Kumaun*).
Shyamanarayan (N.P.), (*Varanasi*).

**Teachers (9)**

Lallu Singh Chauhan (N.P.), (*Agra*).
Ahsanullah (N.P.), (*Allahabad*).
Devi Pd. Misra (N.P.), (*Gorakhpur-cum-Faizabad*).
Raja Ram Pande (N.P.), (*Kanpur*).
B. P. Bajpai (N.P.), (*Lucknow*).
Hariraj Singh (N.P.), (*Meerut*).
Smt. Maya Choudhry (N.P.), (*Rohilkhand*).
Vidya Sagar Dikshit (N.P.), (*Uttarkhand-cum-Kumaun*).
Hridaya Narayan Singh (N.P.), (*Varanasi*).

**Nominated (12)**

Dr. K. N. Gairola (Cong.).
Capt. V. R. Mohan (Ind.).
Smt. Shanta Bai Kher (Cong.).
Rauf Jafri (Cong.).
Suraj Pd. Avasthi (Cong.).
L. N. Sarin (Cong.).
Shiv Kumar Singh Visen (Cong.).
Smt. Prabha Shome (Cong.).
Maulana Mohd. Naseer (Cong.).
Raja Ram Shastri (Cong.).
R. C. Gupta (Cong.).
P. D. Tandon (Cong.).

## UTTAR PRADESH LEGISLATIVE ASSEMBLY

Seats: 431 (S.C. 81).

Electorate : 3,66,62,710.

*Speaker :* Madan Mohan Verma.

*Dy. Speaker :* Hoti Lal Agrawal.

An estimate of party position is given below:

Congress 273 ; Jan Sangh 51 ; P.S.P. 5 ; Samyukta Socialist Party 38 ; Swatantra 13 ; Communist 14 ; Republican 7 ; Independent 29. Vacant 1.

**Basant Singh (J.S.), (*Afzalgarh*).**
**Jabir Singh (Cong.), (*Agota*).**
Baloji Agarwal (Ind.), (*Agra City I*).
Khem Chandra (Rep.), (*Agra City II*).
C. P. Ambesh (S.C.) (Cong.), (*Agra Rural (R)*).
**Vishwanath Pandey (Cong.), (*Ahraura*).**
Sukh Lal (S.C.) (Cong.), (*Ajitmal (R)*).
Balwan Singh (P.S.P.), (*Akbarpur*).
**Smt. Ram Rati Devi (S.C.) (Cong.), (*Akbarpur (R)*).**
Shanker Lal (S.C.) (Cong.), (*Aldemau (R)*).
Lokpal Singh (J.S.), (*Aliganj*).
Abdul Basir Khan (Rep.), (*Aligarh*).
**Smt. R. K. Bajpai (Cong.), (*Allahabad City — North*).**
K. C. Mohiley (P.S.P.), (*Allahabad City—South*).
**Ganga Singh Bisht (Cong.), (*Almora*).**
Baijnath Singh Vaidya (Cong.), (*Amethi*).
**S. H. Rizvi (C.P.I.), (*Amroha*).**
**Raja Ram (Cong.), (*Amsin*).**
**Chunni Lal (Cong.), (*Anupshahr*).**
Nawal Kishore (Cong.), (*Aonla*).
**K. Tejbhan Singh (S.S.P.), (*Atheha*).**
Babu Singh (S.S.P.), (*Atrauli*).
**Brij Behari Misra (Cong.), (*Atraulia*).**
**Badri Prasad Paliwal (Cong.), (*Auraiya*).**
Bhima Prasad (S.S.P.), (*Azamgarh*).
**Deshraj Singh (Cong.), (*Baberu*).**
**Bhagwan Din (S.C.) (Soc.), (*Bachhrawan (R)*).**
Rukum Singh Rathod (Cong.), (*Badayun*).
**Y. P. Khanduri (Cong.), (*Badrinath*).**
**S. Hameed Khan (Cong.), (*Baghpat*).**
Nain Singh (S.C.) (S.S.P.), (*Baghra (R)*).
**Smt. Vidyawati Rathor (Cong.), (*Bah*).**
Ram Murti (Cong.), (*Baheri*).
**Bishan Lal Yadav (Cong). (*Bahjoi*).**
Jagdish Prasad (Cong.), (*Bahraich—North*).
Daljeet Singh (Cong.), (*Bahraich—South*).
Ram Anant Pandey (Cong.), (*Ballia*).
**Sukhdeo Prasad (S.C.) (J.S.), (*Balrampur—North (R)*).**
Babban Singh (Cong.), (*Balrampur—South*).
B. M. Lal Gupta (Cong.), (*Banda*).
Chandrapal Rawat (J.S.), (*Banganga—East*).
M. P. Tripathi (J.S.), (*Banganga—West*).
Sewa Ram (S.C.) (Cong.), (*Bangarmau (R)*).
**Kashi Nath Misra (S.S.P.), (*Bansdih—East*).**
**Shiv Mangal (Cong.), (*Bansdih—West*).**
Ganesh Prasad (Cong.), (*Bansgaon*).
K. Karun Krishna Nayar (J.S.), (*Bansi—North*).
S. L. Dhusia (S.C.) (Cong.), (*Bansi—South (R)*).
Ram Kumar Sastri (Cong.), (*Bansi—West*).
Raghunath Prasad (S.C.) (Cong.), (*Bara (R)*).
Ramakant Singh (Cong.), (*Baraunsa*).
**Mool Chandra Shastri (Cong.), (*Barauli*).**
**Mohammad Husain (Cong.), (*Bareilly Cantt.*).**
J. S. Agarwal (Cong.), (*Bareilly City*).
Baijoo Ram (S.C.) (Cong.), (*Bari (R)*).
Jamadar Singh (Ind.), (*Barnawa*).
R. C. Sharma (Cong.), (*Barsathi*).
Smt. Rajendra Kishori (Cong.), (*Basti*).
**Smt. Shakuntala Nayar (J.S.), (*Basti Nagar*).**
**Chhangur Ram (S.C.) (C.P.I.), (*Bela Daultabad (R)*).**
**Het Ram Singh (S.C.) (Cong.), (*Belari (R)*).**
Lal Bahadur Singh (Cong.), (*Beyalsi*).
Bansidhar Pandey (Cong.), (*Bhadohi*).
**D. D. Misra (Cong.), (*Bhagwantnagar*).**
**Sahdeo Singh (S.S.P.), (*Bharthana*).**
Gokul Prasad (S.C. (Ind.), (*Bharwari (R)*).
Ram Chandra Singh (Cong.), (*Bhawan*).
R. L. Shukla (Cong.), (*Bhawapar*).
Munnu Singh (Swa.), (*Bhinga*).
Ram Asrey Varma (S.S.P.), (*Bhitauli*).
Subedar Singh (Cong.), (*Bhogaon*).
R. N. Misra (Cong.), (*Bhognipur*).
H. K. Gangawar (J.S.), (*Bhojipura*).
Mahram Singh (Cong.), (*Bhojpur*).
S. C. Mazdoor (S.C.) (Cong.), (*Bhokerheri (R)*).
Vijai Shanker (Cong.), (*Bidhuna*).
**Satyabir Kunwar (Cong.), (*Bijnor*).**
Akhand Pratap Singh (Cong.), (*Bikapur*).
**Smt. Kala Rani Misra (Cong.), (*Bilgram*).**
Murlidhar Kureel (S.C.) (Cong.), (*Bilhaur (R)*).
Jagannath Singh (Cong.), (*Bindki*).
Shyam Sunder Sukla (Cong.), (*Birapur*).
**Sukhram Dass (S.C.) (Cong.), (*Birhar (R)*).**
Durga Prasad (S.C.) (Cong.), (*Bisalpur (R)*).
Shiv Raj Singh (Cong.), (*Bisauli*).
G. P. Mehrotra (J.S.), (*Biswan*).
**Smt. Brij Rani Misra (Cong.), (*Bithoor*).**
Girdhari Lal (S.C.) (Cong.), (*Boodpur (R)*).
**K. Rukum Singh Rathore (Cong.), (*Budaun*).**
Vijai Pal Singh (Com.), (*Budhana*).
Irtiza Husain (Cong.), (*Bulandshahr*).
C. Nounihal Singh (Ind.), (*Chail*).
Ram Lakhanvakil (S.C.) (Cong.), (*Chakia (R)*).
Khushi Ram (S.C.) (Cong.), (*Champawat (R)*).
Mata Prasad (S.C.) (Cong.), (*Chanda (R)*).
Kamlapati Tripathi (Cong.), (*Chandauli*).
Narendra Singh (Cong.), (*Chandausi*).
**Nardeo Singh Datiyanavi (Ind.), (*Chandpur*).**
Prem Singh (Swa.), (*Charda*).
M. L. Ahirwar (S.C.) (Cong.), (*Charkhari (R)*).
Lakhi Singh (S.S.P.), (*Chhata*).
**Dharam Singh (S.C.), (Cong.) (*Chhatari (R)*).**
K. S. Bhadhuria (Cong.), (*Chhibramau*).
Kalpnath Singh (Cong.), (*Chillupar*).
**Raj Narain Singh (Cong.), (*Chunar*).**
**Ram Chandra Vikal (Cong.), (*Dadri*).**
Mahabir Prasad (Cong.), (*Dalmau*).
Mohan Singh Mehta (Cong.), (*Danpur*).
Dwijendra Narain (J.S.), (*Dariyabad*).
M. S. Shishodia (Ind.), (*Dasna*).
Narain Singh (J.S.), (*Dataganj*).
Himmat Singh (J.S.), (*Debai*).
B. B. Sharan (Cong.), (*Dehra Dun*).
Phool Singh (Cong.), (*Deoband*).
Satyadeo (Cong.), (*Deogaon*).
Smt. Vinay Laxmi Suman (Cong.), (*Deoprayag*).
Ram Lal (Cong.), (*Deoria—North*).
**Krishna (S.S.P.), (*Deoria—South*).**
Nityanand Pandey (Cong.), (*Derapur*).
Khub Singh (Cong.), (*Dhampur*).
**Tej Narain Trivedi (Cong.), (*Dhaurahra*).**
**R. S. Bhartiya (Cong.), (*Dhingwas*).**
Smt. Yashoda Devi (S.C.) (Cong.), (*Dhuriapar (R)*).
Bhanu Pratap Singh (Swa.), (*Domariagang—North*).
K. J. Abbasi (Cong.), (*Domariaganj—South*).
**Manager Singh (P.S.P.), (*Duaba*).**
Ram Pyare (S.C.) (Cong.), (*Dudhi (R)*).
**Ganga Prasad Verma (J.S.), (*Etah*).**
Hoti Lal Agrawal (Cong.), (*Etawah*).
Shiv Charan (S.C.) (Soc.) (*Etmadpur—North (R)*).
Multan Singh (Soc.), (*Etmadpur—South*).
**Madan Mohan Verma (Cong.), (*Faizabad*).**
Ch. A. H. Khan (Swa.), (*Fakharpur*).
Hem Raj (S.C.) (J.S.), (*Faridpur (R)*).
**Daya Ram Shakya (J.S.), (*Farrukhabad*).**
Banwari Lal Bipra (Rep.), (*Fatehabad*).
Badri Prasad (S.C.) (Cong.), (*Fatehpur (R)*).
**Smt. Champawati (Cong.), (*Fatehpur-Sikri*).**
**B. D. Yadvendu (Rep.), (*Ferozabad*).**
R. N. Shastri (Cong.), (*Gangapur*).
Jagmohan Singh Negi (Cong.), (*Ganga Salan*).
Sri Niwas (Cong.), (*Gangiri*).
Vir Sen (S.C.) (Cong.), (*Garh Mukteshwar (R)*).
**K. P. Dwivedi (Cong.), (*Garotha*).**
Bhagwati Din Tewari (Cong.), (*Garwara*).
K. Rudra Pratap Singh (Ind.), (*Gaura Jamo*).
**Dr. Sita Ram (S.C.) (Cong.), (*Gauri Bazar (R)*).**
Shiv Nath Singh (Soc.), (*Ghatampur—East*).
Jwala Prasad (S.C.) (Cong.), (*Ghatampur—West (R)*).
Tej Singh (Cong.), (*Ghaziabad*).
Krishna Nand Rai (Cong.), (*Ghazipur*).
Madho Narain Mudgal (Cong.), (*Ghiror*).
**Jharkhande Rai (C.P.I.), (*Ghosi*).**
**Acharya J. Kishore (Cong.), (*Gobardhan*).**
Kanhiyal Lal (S.C.) (Cong.), (*Gokul (R)*).
Ishwar Saran (Cong.), (*Gonda—East*).
Navrang Singh (Swa.), (*Gonda—North*).
Ganga Prasad (Cong.), (*Gonda—West*).
**Mohan Lal Verma (Cong.), (*Gondwa*).**
Parmai Lal (S.C.) (J.S.), (*Gopa Mau (R)*).
Uma Shanker (Cong.), (*Gopalpur*).
Niamatullah Ansari (Cong.), (*Gorakhpur*).
Jugal Kishore (Cong.), (*Gunnaur*).
Harigain Ram (S.C.) (Cong.), (*Gyanpur (R)*).
**R. K. Tripathy (Ind.), (*Haidergarh*).**
S. D. Bajpai (Cong.), (*Hamirpur*).
Prem Sunder (Ind.), (*Hapur*).
Mahesh Singh (Cong.), (*Hardoi*).
**Shanti Prapanna Sharma (Cong.), (*Hardwar*).**
**Jai Gopal (Cong.), (*Haronda*).**
Ram Lakhan Singh (Cong.), (*Harriya—East*).
Ran Bahadur Singh (Cong.), (*Harriya—West*).
Bhikha Lal (S.C.) (Com.), (*Hasanganj (R)*).
Jagdish Prasad (Cong.), (*Hasanpur—North*).
**Sukkhan Lal (S.C.) (Cong.), (*Hasanpur—South (R)*).**
Pritam Singh Pradhan (Cong.), (*Hastinapur*).
**R. S. Kaithwar (S.C.) (Ind.), (*Haswa (R)*).**
Banke Lal (P.S.P.), (*Hata*).
N. K. Deo Vashistha (Cong.), (*Hathras*).
Ram Bhajan (Cong.), (*Hyderabad*).
Shivadan Singh (Ind.), (*Iglas*).
**M. P. Arya (S.C.) (Swa.), (*Ikauna (R)*).**
P. N. Saran Singh (Ind.), (*Inhauna*).
Surajpal Singh Yadwa (Cong.), (*Islamnagar*).
Ram Bali Misra (Cong.), (*Issouli*).
Indra Pal (S.C.) (Cong.), (*Jagdishpur (R)*).
**Raghubir (S.C.) (C.P.I.), (*Jahurabad (R)*).**
Kesho Singh (Cong.), (*Jalalabad*).
Chaturbhuj Sharma (Cong.), (*Jalaun*).
**Chiranji Lal Jatav (S.C.) (Swa.), (*Jalesar (R)*).**
Ram Murti Anchal (Cong.), (*Jamaur*).
Ahmad Baksh (Cong.), (*Jansath*).
Balbir Singh (Swa.), (*Jasrana*).
Natthu Singh (S.S.P.), (*Jaswant Nagar*).
Yadvendra Dutt Dube (J.S.), (*Jaunpur*).
Jasram Singh (S.C.) (Cong.), (*Jewar (R)*).
Sri Ram Tiwari (Cong.), (*Jhalotar Ajgain*).
**Ram Surat Prasad (S.C.) (Cong.), (*Jhangaha (R)*).**
Lalpathram Sharma (Ind.), (*Jhansi*).
**Banshi Lal (Cong.), (*Jhusi*).**
S. A. Ansari (Cong.), (*Jawalapur*).
Shripati Misra (Cong.), (*Kadipur*).
**Siya Ram Gangwar (P.S.P.), (*Kaimganj*).**
Chandan Singh (Ind.), (*Kairana*).
Hukum Singh Visen (Cong.), (*Kaiserganj*).
S. S. Sharma (Cong.), (*Kalpi*).
**P. R. Aharwar (S.C.) (Cong.), (*Kannauj (R)*).**
A. C. Grice (Cong.), (*Kanpur*). (*nominated Anglo-Indian*)).
Smt. Tara Agrawal (Cong.), (*Kanpur City I*).
**Sant Singh Yusuf (C.P.I.), (*Kanpur City II*).**
Hamid Khan (Cong), (*Kanpur City III*).
S. G. Datta (Cong.), (*Kanpur City IV*).
Smt. Sushila Rohatgi (Cong.), (*Kanpur City V*).
S. B. Singh (P.S.P.), (*Kanpur Rural*).
Dau Dayal Khanna (Cong.), (*Kanth*).
Aziz Imam (Cong.), (*Kantit—North*).
**Bechan Ram (S.C.) (Cong.), (*Kantit—South (R)*).**
**R. S. Shastri (C.P.I.), (*Karanda*).**
**N. R. Shikshak (S.C.) (J.S.), (*Karari (R)*).**

S. N. Pande (S.S.P.), (*Karchhana*).
Ram Singh (S.C.) (Swa.), (*Karhal (R)*).
Din Dayal Karwaria (Cong.), (*Karwi*).
Girwar Prasad (J.S.), (*Kasganj*).
D. D. Chhimbai (Cong.), (*Kashipur*).
Gaya Prasad (S.S.P.), (*Kaswar*).
Dr. Raghunath Singh (S.S.P.), (*Katehar*).
G. D. Maithani (Cong.), (*Kedarnath*).
Ram Samjhawan (S.C.) (Cong.), (*Kerakat (R)*).
Baij Nath Pandey (Cong.), (*Kewai*).
Raksha Pal Singh (J.S.), (*Khaga*).
Chaithan Raj Singh (Swa.), (*Khaira*).
Tambreshwari Prasad (J.S.), (*Khairabud*).
Smt. Genda Devi (S.C.) (Cong.), (*Khalilabad (R)*).
Surendra Vikram (Cong.), (*Khera Bajhera*).
Jagan Prasad Rawat (Cong.), (*Kheragarh*).
Bankata Singh (Cong.), (*Kheri*).
Mahabir Singh (Cong.), (*Khurja*).
Kandhai Lal (S.C.) (Ind.), (*Khutar (R)*).
Deep Narain Singh (Ind.), (*Kishanpur*).
G. C. Kachhi (Cong.), (*Kishni*).
Kumari Shraddha Devi (Cong.), (*Kithor*).
Bhoop Singh (Rep.), (*Kol*).
Udal (C.P.I.), (*Kolaslah*).
Vijai Singh (Swa.), (*Konch*).
Onkar Nath Divedi (J.S.), (*Konhdour*).
Mandhata Singh (Cong.), (*Kopachit*).
Dr. Z. A. Ahmad (C.P.I.), (*Kopaganj*).
Kesho Ram (S.C.) (Cong.), (*Kot (R)*).
Charan Singh (Cong.), (*Kotana*).
Niaz Hasan Khan (Cong.), (*Kunda*).
Nattha Ram Rawat (S.S.P.), (*Kursi*).
B. B. Tewari (J.S.), (*Laharpur*).
Ghasi Ram Jatava (S.C.) (Cong.), (*Lakhana (R)*).
Ayodhya Prasad (S.C.) (Cong.), (*Lalitpur (R)*).
Uma Dutt (Cong.), (*Lammhua*).
B. Mukandi Lal (Cong.), (*Lansdowne*).
Balak Ram Vaish (Cong.), (*Lucknow Cantt.*).
M. P. Srivastava (Cong.), (*Lucknow City Central*).
Kishori Lal Agarwal (Cong.), (*Lucknow City —East*).
Syed Ali Zaheer (Cong.), (*Lucknow City—West*).
K. P. Pandey (P.S.P.), (*Machhlishahar*).
Dalla Ram (S.C.) (Cong.) (*Machhrehta (R)*).
Kesh Bhan (Cong.), (*Maghar*).
Vishnu Pratap Singh (Cong.), (*Mahadeva*).
Raj Narain Singh (Cong.), (*Mahaich*).
Duryodhan (S.C.) (Cong.), (*Maharajganja (R)*).
Shivendra Pratap (J.S.), (*Mahmudabad*).
Madanpal Singh (Cong.), (*Mahoba*).
Sukh Lal (S.C.) (J.S.), (*Mahona (R)*).
Krishna Chandra (Cong.), (*Mahroni*).
R. A. Kanaujia (S.C.) (Swa.), (*Mahshi (R)*).
Daulat Lal (P.S.P.), (*Mahul*).
K. N. Bahadur Pal (Swa.), (*Mahuli—East*).
Shyam Lal (S.C.) (Rep.), (*Mahuli—West (R)*).
Brijeshwar Sahai (Cong.), (*Mainpuri*).
Ram Pal Trivedi (Cong.), (*Malihabad*)
J. P. Misra (Cong.), (*Mallawan*).
Dhoom Prasad (S.C.) (J.S.), (*Mangalsi (R)*).
Smt. Sia Dulari (S.C.) (Cong.), (*Manikpur (R)*).
Avedvanath (J.S.), (*Maniram*).
Hemawati N. Bahuguna (Cong.), (*Manjhanpur*).
Kambar Anand Singh (Cong.), (*Mankapur*).
Raghubir Singh (Cong.), (*Marehra*).
Jagarnath Rao (J.S.), (*Mariahun*).
R. S. Sharma (S.S.P.), (*Mat*).
Kedar Nath Bhargava (Cong.), (*Mathura*).
Smt. Beni Bai (S.C.) (Cong.), (*Mau (R)*).
Brijraj Singh (Cong.), (*Maudaha*).
Smt. Prakash Wati Sood (Cong.), (*Meerut Cantt.*).
J. S. Rastogi (Cong.), (*Meerut City*).
Hari Singh (S.C.) (Cong.), (*Meerut Rural*).
Salig Ram Jaiswal (S.S.P.), (*Meja*).
Smt. Sucheta Kripalani (Cong.), (*Mendhawal*).
Mahadeo (Ind.), (*Mijhaura*).
Bhagwas Das (J.S.), (*Mirzapur*).
Avadesh Kumar Sinha (S.S.P.), (*Misrikh*).
V. N. Sharma (Cong.), (*Modinagar*).
Uma Shanker Tewari (S.S.P.), (*Moghalsarai*).
Manna Lal (S.C.) (J.S.), (*Mohamadi (R)*).
Vijay Shanker Singh (Cong.), (*Mohammadabad*).
C. J. Yadav (C.P.I.), (*Mohammadabad Gohna*).
Khiayali Ram (S.C.) (P.S.P.), (*Mohanlalgunj (R)*).
H. R. Maulai (Rep.), (*Moradabad City*).
Riasat Husain (P.S.P.), (*Moradabad Rural*).
S. P. Goswami (Cong.), (*Moth*).
Surjan Ram Visharad (S.C.) (C.P.I.), (*Mubarakpur (R)*).
Gulab Singh (Cong.), (*Mussoorie*).
Sardar Singh (Ind.), (*Muzaffarabad*).
Keshav Gupta (Cong.), (*Muzaffarnagar*).
Ram Singh (S.C.) (Cong.), (*Nagal (R)*).
Govind Sahai (Cong.), (*Nagina*).
Devendra Singh (Cong.), (*Naini Tal*).
Shri Ram (J.S.), (*Najibabad*).
Yespal Singh Verma (Cong.), (*Nakur*).
Basant Lal Sharma (Cong.), (*Nanpara*).
Matola Singh (J.S.), (*Naraini*).
Ram Sunder Pandey (S.S.P.), (*Nathupur*).
Jagdish Prasad Pandey (J.S.), (*Naugargh*).
Naurang Lal (Cong.), (*Nawabganj*).
J. R. Kidwai (Cong.), (*Nawabganj*).
Rajendra Singh (J.S.), (*Nidhpur*).
Ram Charan Shah (J.S.), (*Nighasan*).
Vijay Kumar Tripathy (Cong.), (*Nigohan*).
Amjad Ali (Cong.), (*Nizamabad*).
Hari Nath Tewari (J.S.), (*Pachhimarath*).
Jhilmit Ram (S.C.) (C.P.I.), (*Pachottar (R)*).
Genda Singh (Cong.), (*Padrauna—East*).
Chandradeo (Cong.), (*Padrauna—North*).
Ramayan Rai (Cong.), (*Padrauna—South*).
Mangal (Cong.), (*Padrauna—West*).
S. C. Shukla (Cong.), (*Paharpur*).
Sarda Bhakt Singh (J.S.), (*Pali*).
C. L. Chaudhri (S.C.) (Cong.), (*Palia (R)*).
Ram Kinker (S.C.) (Cong.), (*Patti (R)*).
Chandra Singh Ravat (Cong.), (*Pauri*).
D. P. Pande (Cong.), (*Pharendra—East*).
N. N. Pandey (Cong.), (*Pharenda—West*).
Muzaffar Hasan (Cong.), (*Phulpur*).
Ram Rup Singh (Cong.), (*Pilibhit*).
Achhaibar Singh (Cong.), (*Pipraich*).
Narendra Singh Bisht (Cong.), (*Pithoragarh*).
B. B. Pratap Singh (J.S.), (*Pratapgarh—North*).
B. L. Srivastava (J.S.), (*Pratapgarh—South*).
Mohan Lal Acharya (Cong.), (*Puranpur*).
Ram Adhin Singh (Cong.), (*Purwa*).
Raja Vikram Shah (Ind.), (*Puwayan*).
Krishna Pal Singh (J.S.), (*Rae Bareli—North*).
Ch. Rati Pal (S.S.P.), (*Rae Bareli—South*).
Rajdeo (Cong.), (*Ramkola*).
Smt. Kishwar Ara Begum (Cong.), (*Rampur City*).
Kalyan Rai (Cong.), (*Rampur—Rural*).
Haridatt Kandpal (Cong.), (*Ranikhet—North*).
Chandrabhanu Gupta (Cong.), (*Ranikhte—South*).
Kunwar Sripal Singh (J.S.), (*Rari*).
Raghunath (S.C.) (C.P.I.), (*Rasra (R)*).
Doongar Singh (Cong.), (*Rath*).
Ram Nath Pathak (Cong.), (*Robertsganj*).
Wasi Naqvi (Cong.), (*Rokha*).
Jagdish Narain Sinha (Cong.), (*Roorkee*).
Mukut Behari Lal (J.S.), (*Rudauli*).
Chandrabali (S.S.P.), (*Rudrapur*).
Asharaf Ali Khan (Cong.), (*Sadabad*).
Rajnath Singh (Cong.), (*Sadiabad*).
A. N. Pratap Singh (J.S.), (*Sadullahnagar*).
Gopi Nath Dikshit (Cong.), (*Safipur*).
Indrasan Singh (Cong.), (*Sagri*).
Brahm Datt Mayor (Ind.), (*Saharanpur*).
Ulfat Singh Yadav (J.S.), (*Sahsawan*).
Bedram (J.S.), (*Sahawar*).
Kamla Singh Yadav (S.S.P.), (*Saidpur*).
Mumtaz Mohammad Khan (Cong.), (*Saina*).
Kailas (Cong.), (*Salempur—East*).
Raja Awadesh Pratap (Cong.), (*Salempur —South*).
Ugrasen (S.S.P.), (*Salempur—West*).
Pitai Ram (S.S.P.), (*Salon*).
Mahmood Hasan Khan (P.S.), (*Sambhal*).
Pancham Das (S.C.) (Cong.), (*Sandila (R)*).
Rameshwar Nath Urf Chowbe (Ind.), (*Sanha*).
Mangaldeo (S.C.) (S.S.P.), (*Sarai Mir (R)*).
Dr. Ramji Lal Sahayak (S.C.) (Cong.), (*Sardhana (R)*).
Guptar Singh (Cong.), (*Sareni*).
Girja Prasad (S.S.P.), (*Sarju*).
Smt. Shakuntala Devi Shastri Prabhakar (S.C.) (Cong.), (*Sarsawa (R)*).
R. P. Deshmukh (S.C.) (Cong.), (*Sasni (R)*).
Mendi Lal (S.C.) (S.S.P.), (*Satrikh (R)*).
Hori Lal Yadav (S.S.P.), (*Saurikh*).
Baldeo Singh Arya (S.C.) (Cong.), (*Shahabad (R)*).
Pyarey Lal Misra (J.S.), (*Shahabad*).
Laxmi Shanker Yadava (Cong.), (*Shahganj*).
Mohd. Rafi Khan (Cong.), (*Shahjahanpur*).
Rajendra Singh Yadav (Cong.), (*Shamshabad*).
Sukan Chand Sharma (Cong.), (*Shikarpur*).
Mansa Ram (Ind.), (*Shikohabad*).
Puran Lal (S.C.) (J.S.), (*Shiroman Nagar (R)*).
Lal Bahadur Singh (Cong.), (*Shirpur*).
Shishkanlal Saxena (Cong.), (*Shyamendurwa*).
Ganga Prasad Singh (Cong.), (*Siar*).
Ghan Shyam Das (S.C.) (Cong.), (*Siddhaur (R)*).
Chhotey Lal Paliwal Ramsingh Sakhya (J.S.), (*Sidhpura*).
Dasarat Prasad (Cong.), (*Sidhuwa Jobna (R)*).
Banarsi Dass (Cong.), (*Sikandrabad*).
J. Chaudhari (Cong.), (*Sikandarpur*).
Nekram Sharma (Ind.), (*Sikandra Rao*).
Dharam Datt Vaidya (Cong.), (*Siroli*).
Sharda Nand (J.S.), (*Sitapur*).
Shiv Murti (Cong.), (*Soraon—East*).
Mewa Lal Jaiswal (P.S.P.), (*Soraon—West*).
Banshidhar Misra (Cong.), (*Srinagar*).
Nawabzada Sayed Julfiqar Ali Khan (Cong.), (*Suar Tanda*).
Abdul Sami (Cong.), (*Sultanpur*).
Vacant (*Surhurpur*).
G. L. Chaudhari (S.C.) (Cong.), (*Tambaur (R)*).
Anisur Rahman (Cong.), (*Tanakpur*).
Jai Ram Verma (Cong.), (*Tanda*).
Ram Kishore Verma (Ind.), (*Tappajar*).
Mahendra Singh (Ind.), (*Tappal*).
Sital Prasad (Cong.), (*Tarabganj*).
Trepan Singh (Cong.), (*Tehri*).
Ram Pal Singh (Cong.), (*Thakurdwara*).
Bhagwan Sahai (Ind.), (*Tilhar*).
Yadvendra Singh (Cong.), (*Tilpur*).
Baldeo Singh (J.S.), (*Tulsipur*).
Purshotam Lal Bavdar (Ind.), (*Ujhani*).
Basant Lal (S.C.) (Cong.), (*Umari (R)*).
Ziaur Rahman (Cong.), (*Unnao*).
Narottam Singh (Ind.), (*Usehat*).
Suraj Lal Gupta (J.S.), (*Utraula*).
Krishna Singh (Cong.), (*Uttarkashi*).
Vishwanath Prasad (J.S.), (*Varanasi City —North*).
Girdhari Lal (Cong.), (*Varanasi City—South*).
Ram Avadh Singh (Cong.), (*Vinaikpur*).
V. N. Sharma (Cong.), (*Zamania*).

## WEST BENGAL LEGISLATIVE COUNCIL

*Strength :* 75. *Chairman :* Dr. Pratap Chandra Guha Ray. *Dy. Chairman :* Vacant.

**Local Authorities' Constituencies (27)**

Bibhutibushan Ghatak (*Bankura*).
Debendra Kumar Mukhopadhay (*Birbhum*).
Pasupati Nath Maliah (*Burdwan*).
Dr. Rudranath Ghosh (*Burdwan*).
Vacant (*Calcutta*).
Mohit Kumar Moitra (*Calcutta*).
Rabindralal Sinha (*Calcutta*).
Vacant (*Cooch Behar*).
R. S. Prasad (*Darjeeling*).
Byomkesh Chakravarti (*Dinajpur West*).
Sudhindra Nath Mukherjee (*Hooghly*).
Kali Charan Ghose (*Hooghly*).
Vacant (*Howrah*).
Lalit Mohan Chatterjee (*Howrah*).
Dhirendra Nath Moitra (*Jalpaiguri*).
Pashupati Jha (*Malda*).
Chittaranjan Roy (*Midnapur*).
Ramdas Ramanujdas Mohanta (*Midnapur*).
Dr. Das Behari Pal (*Midnapur*).
Sasanka Sekhar Sanyal (*Murshidabad*).
Sreepada Bhattacharyya (*Murshidabad*).
Dr. Biswaranjan Roy (*Nadia*).
Dhirendra Nath Bhattacharya (*Purulia*).
Dr. Janaki Ballabha Bhattacharyya (*24-Parganas*).
Hansadhwaj Dhara (*24-Parganas*).
Pijush Chandra Ghose (*24-Parganas*).
Suresh Chandra Paul (*24-Parganas*).

**Graduates' Constituencies (5)**

Nirmal Chandra Bhattacharyya (*Calcutta*).
Gopal Haldar (*Calcutta*).
Nanda Kishore Ghose (*Calcutta*).
Dr. Charu Chandra Sanyal (*West-Bengal-North*).
Nirmalya Bagchi (*West Bengal S. West*).
Rebati Raman Manna (*West Bengal—S. East*).

P.S. — Praja Samajwadi Party.

**Teachers' Constituencies (6)**

Satya Priya Roy (*Calcutta*).
Smt. Anila Debi (*Calcutta*).
Rajkumar Chakraverty (*24-Parganas*).
Jatindra Singha (*West Bengal—North*).
Santosh Kumar Bhattacharyya (*West Bengal—S. East*).
Manoranjan Sen Gupta (*West Bengal—S. West*).

**Elected by Legislative Assembly (27)**

Abdul Halim.
Upendranath Barman.
Sukumar Dutta.
Dr. Esmail Ebrahim.
Nar Bahadur Gurung.
Dhajadhari Mondal.
Nirmal Bose.
Biswanath Mukherjee.
Snehangshu Kanta Acharyya.
Manoranjan Gupta.
Krishna Kumar Chatterjee.
Amar Prasad Chakrabarty.
Mohammad Sayeed Mia.
Dr. Pratap Chandra Guha Ray.
Ashutosh Ghosh.
Subodh Sen.
Sudhir Kumar Banerjee.
Jatin Chakravorty.
Abdullah Rasul.
Mohitosh Rai Choudhuri.
Rezaul Karim.
Kishori Lal Dhandhania.
Lakshman Prodhan.
Narendra Nath Das.
Smt. Abha Chatterjee.
Ram Lagan Singh.
Dharamchand Sarawgi.

**Nominated by Governor (9)**

Dr. Anil Chandra Banerjee.
Smt. Reba Sen.
Ahmad Hossain.
Promotho Nath Bisi.
Smt. Labanyaprova Dutt.
Musharruf Hossain.
Shaik Mohammad Jan.
Dr. Srikumar Banerjee.
G. N. Khaitan.

## WEST BENGAL LEGISLATIVE ASSEMBLY

**Seats : 256. S.C. 45 ; S.T. 15. Electorate 1,79,73,157. Nominated : 4.**

*Speaker :* **Keshab Chandra Basu.** *Deputy Speaker :* **Asutosh Mullick.**

**An estimate of party position is as follows:** Congress 165 ; Communist 49 (Left wing 37 ; Right wing 12) ; Forward Bloc 13; Revolutionary Socialist Party 7 ; Praja Socialist Party 2; Samyukta Socialist Party 3 ; Lok Sevak Sangha 4 ; Independents 13.

**Somnath Lahiri (Com.)†, (*Alipur*).**
**P. K. Mukherjee (Cong.), (*Alipur Duars*).**
**T. Pramanik (Cong ), (*Amta*).**
**P. C. Sen (Cong.), (*Arambagh East*).**
**R. K. Pal (Cong.), (*Arambagh West*).**
**Daman Kuiry (F.B.), (*Arsa*).**
**Bijoy Pal (Com.), (*Asansol*).**
**Monoranjan Baksi (Ind.), (*Ausgram*).**
**M. Z. Haque (Cong.), (*Baduria*).**
**R. K. G. Chowdhury (Cong.), (*Bagnam*).**
**M. B. Biswas (S.C.) (Cong.), (*Bagdah (R)*).**
**B. Chattopadhyay (Cong.), (*Balagarh*).**
**P. Mahata (L.S.S.), (*Balrampur*).**
**S. L. Mukherjee (Cong.), (*Bally*).**
**Anil Maitra (Cong.), (*Ballygunge*).**
**S. R. Chattopadhyay (Cong.), (*Balurghat*).**
**K. Majhi (S.T.) (L.S.S.), (*Banduan (R)*).**
**A. Bhattacharya (Com.),† (*Bankura*).**
**H. Chakravorty (Com.),† (*Barabani*).**
**I. D. Jalan (Cong.), (*Barabazar*).**
**Jyoti Basu (Com.), (*Baranagar*).**
**A. K. Datta (Cong.), (*Barasat*).**
**M. C. Mukhopadhyay (Cong.), (*Barjora*).**
**S. K. Sarkar (S.C.) (Cong.), (*Baruipur (R)*).**
**Smt. Shakila Khatun (Cong.), (*Basanti*).**
**B. C. Sen (Cong.), (*Basirhat*).**
**R. N. Mukhopadhyay (Com.), (*Behala*).**
**D. S. Ghosh (L.S.S.), (*Beldanga*).**
**Ganesh Ghosh (Com.), (*Belgachia*).**
**Jagat Basu (Com.), (*Beliaghata North*).**
**G. P. Roy (S.C.) (Cong.), (*Beliaghata South (R)*).**
**S. K. Raha (Com.),† (*Berhampur*).**
**G. B. Mukherjee (Com.),† (*Bhadreswar*).**
**S. N. Adhikary (S.S.P.), (*Bhagabangola*).**
**Smt. Abha Maiti (Cong.), (*Bhagabanpur*).**
**A. K. M. Ishaque (Cong.), (*Bhangar*).**
**S. G. Das (R.S.P.), (*Bharatpur*).**
**Aswani Roy (Com.),† (*Bhatar*).**
**Dayaram Beri (Cong.), (*Bhatpara*).**
**S. S. Ray (Ind.), (*Bhowanipur*).**
**Monoranjan Roy (Com.), (*Bijpur*).**
**M. C. Saren (S.T.) (Cong.), (*Binpur (R)*).**
**Smt. Santilata Mondal (S.C.) (Cong.), (*Bishnupur East (R)*).**
**J. C. Santra (Cong.), (*Bishnupur West*).**
**R. K. Singha (Ind.), (*Bolpur*).**
**Smt. Charu Shila Dhar (Cong.), (*Bongaon*).**
**Bijoy Singh Nahar (Cong.), (*Bow Bazar*).**
**Haralal Haldar (Cong.), (*Budge Budge*).**
**B. K. Chowdhury (Com.), (*Burdwan*).**
**Nikhil Das (R.S.P.), (*Burtola North*).**
**A. N. Basu (Com.), (*Burtola South*).**
**A. C. Halder (S.C.) (Ind.), (*Canning (R)*).**
**Smt. Santi Das (Cong.), (*Chakdah*).**
**K. K. Hembram (S.T.) (Cong.), (*Chhatna (R)*).**
**B. Mukhopadhyay (Com.), (*Chandernagore*).**
**K. L. Dey (Cong.), (*Chanditala*).**
**Indrajit Roy (Cong.), (*Chandrakona*).**
**M. Haldar (S.C.) (Ind.), (*Chapra (R)*).**
**S. C. Ghosh (F.B.), (*Chinsurah*).**
**C. M. Afaque (Cong.), (*Chopra*).**
**N. N. Mookerjee (Cong.), (*Chowringhee*).**
**B. K. Maity (Cong.), (*Contai North*).**
**S. C. Das (P.S.P.), (*Contai South*).**
**S. D. Gupta (F.B.), (*Cooch Behar North*).**
**S. Basunia (S.C.) (F.B.), (*Cooch Behar South (R)*).**
**S. K. Das Gupta (Cong.), (*Cossipore*).**
**C. C. Mahanty (Cong.), (*Cantan*).**
**D. P. Rai (Ind.), (*Darjeeling*).**
**M. Bhattacharya (Com.), (*Daspur*).**
**S. K. Mukherjee (Cong.), (*Debra*).**
**M. B. R. Dargapuri (Cong.), (*Deganga*).**
**B. Choudhry (Cong.), (*Dhaniakhali*).**
**J. C. Halder (Cong.), (*Diamond Harbour*).**
**K. K. Guha (F.B.), (*Dinhata*).**
**Tarapada Dey (Com.), (*Domjur*).**
**B. B. Mandal (F.B.), (*Dubrajpur*).**
**T. K. Sen Gupta (Com.), (*Dum Dum*).**
**A. G. Mukhopadhyaya (Cong ), (*Durgapur*).**
**Hrishikesh Chakravarty (Cong.), (*Egra*).**
**Narendra Nath Sen (Cong.), (*Ekbalpur*).**
**Santi Gopal Sen (Cong.), (*English Bazar*).**
**A. A. Md. Obaidul Ghani (Com.),† (*Entally*).**
**Hiralal Singha (Cong.), (*Falakata*).**
**Khagendra Nath Das (Cong.), (*Falta*).**
**S. A. Hossain (Cong.), (*Farakka*).**
**Smt. Maitreyee Bose (Cong.), (*Fort*).**
**K. L. Das (S.C.) (Cong.), (*Galsi (R)*).**
**Sishuram Mondal (S.C.) (Cong.), (*Gangajalghati (R)*).**
**Mangla Kisku (S.T.) (Com.), (*Gangarampur (R)*).**
**S. M Abdullah (Cong.). (*Garden Reach*).**
**Smt. Tusar Tudu (S.T.) (Cong.), (*Garbeta (R)*).**
**Nagen Dolai (S.C.) (Com.), (*Ghatal (R)*).**
**Md. Hayat Ali (Cong.), (*Golapokhar*).**
**S. N. Mahata (Cong.), (*Gopiballavpur*).**
**N. C. Murmu (S.T.) (Com.), (*Habibpur (R)*).**
**T. K. Ghosh (Cong.), (*Habra*).**
**R. K. Mallick (S. C.), (Cong.), (*Hanskhali (R)*).**
**Abdul Latif (Cong.), (*Hariharpara*).**
**Narendranath Sarkar (Cong.), (*Haringhata*).**
**B. K. Maitra (Cong.), (*Harishchandrapur*).**
**Jehangir Kabir (Cong.), (*Haroa*).**
**Dinabandhu Das (Cong.), (*Hasnabad*).**
**Gopika Ranjan Mitra (Cong.), (*Hirapur*).**
**Bijoy Bhattacharya (Cong.), (*Howrah East*).**
**Saila Mukherjee (Cong.), (*Howrah North*).**
**K. L. Bhattacharya (F.B.), (*Howrah South*).**
**Anadi Das (Ind.), (*Howrah West*).**
**R. R. P. Singha Deo (Cong.), (*Hura*).**
**Ashutosh Mullick (S.C.) (Cong.), (*Indupur (R)*).**
**Joynal Abedin (Cong.), (*Itahar*).**
Satyanarayana Khan (Cong.), (*Jagatballavpur*).
Adwaita Mandal (S.C.) (L.S.S.), (*Jaipur (R)*).
A. B. Motkar (Cong.), (*Jalangi*).
K. N. Das Gupta (Cong.), (*Jalpaiguri*).
**Puranjoy Pramanik (Cong.), (*Jamalpur (R)*).**
Amarendra Mandal (S.C.) (Cong.), (*Jamuria (R)*).
Biswanath Saha (S.C.) (Cong.), (*Jangipara (R)*).
M. P. Chatterjee (Cong.), (*Jangipur*).
D. N. Mahato (Cong.), (*Jhalda*).
M. N. Mahata (Cong.), (*Jhargram*).
Nepal Ch. Roy (Cong.), (*Jorabagan*).
B. P. Poddar (Cong.), (*Jorasanko*).
B. B. Hamal (Com.), (*Jorebungalow*).
J. Chakravarty (Cong.), (*Joynagar North*).
Anadi Mohan Tanti (S.C.) (Cong.), (*Joynagar South (R)*).
Smt. Maya Banerjee (Cong.), (*Kakdauripur*).
Nani Bhattacharjee (R.S.P.), (*Kalchini*).
**P. R. Bose (Cong.), (*Kaliachak*).**
S. P. Barman (S.C.) (Cong.), (*Kaliaganj (R)*).
Biva Mitra (Cong.), (*Kalighata*).
Lakshmi Ranjan Josse (Ind.), (*Kalimpong*).
R. K. Mondal (S.C.) (Cong.), (*Kalinagar (R)*).
H. K. Konar (Com.), (*Kalna*).
J. C. Sinha (Cong.), (*Kandi*).
P. C. Sinha (Cong.), (*Karandighi*).
Smarajit Bandopadhyaya (Cong.), (*Karimpur*).
Budhan Mujhi (S.T.) (Cong.), (*Kashipur*).
Subodh Choudhury (Com.), (*Katwa*).
Bankim Roy (Cong.), (*Keshpur*).
S. Thakur (Com.), (*Ketugram*).
Abanti Kumar Das (S.C.) (Cong.), (*Khajuri (R)*).
Krishna Pada Pandit (S.C.) (Cong.), (*Khanakul (R)*).
Jaharlal Banerjee (Cong.), (*Khandaghosh*).
Narayan Choubey (Com.),† (*Kharagpur*).
Mrityunjoy Jana (Cong.), (*Kharagpur Local*).
**Golam Yazdani (Com.), (*Kharba*).**
Gopal Banerjee (Com.),† (*Khardah*).
A. P. Saha (S.C.) (R.S.P.), (*Khargram (R)*).
B. D. Raikut (S.C.) (Cong.), (*Kharia (R)*).
K. K. Maitra (S.S.P.), (*Krishnagar*).
**Jaganath Koeay (Cong.), (*Kotulpur*).**
Hrishikesh Haldar (Ind.), (*Kulpi*).
Jayanarayan Sharma (Cong.), (*Kulti*).
**Khalil Sayed (Ind.), (*Kushmandi*).**
Radhanath Chattoraj (Com.), (*Labhapur*).
Syed K. A. Meerza (Cong.), (*Lalgola*).
**A. H. Besterwitch (S.T.) (R.S.P.), (*Madarihat (R)*).**
A. S. Naskar (S.C.) (Cong.), (*Magarhat East (R)*).
Abdul Hashem (Cong.), (*Magrahat West*).
B. Hansdah (S.T.) (Cong.), (*Mahammadbazar (R.)*).
A. A. Mufti (Cong.), (*Mahestola*).
Sushil Kumar Dhara (Cong.), (*Mahishadal*).
K. M. Roy (S.C.) (Cong.), (*Mainaguri (R)*).
B. K. Bhowmick (Cong.), (*Mal*).
Kamal Krishna Roy (Cong.), (*Malda*).
Girish Mahato (L.S.P.), (*Manbazar*).
Narayan Das (S.C.) (Com.), (*Mangalkot (R)*).
S. M. Misra (Cong.), (*Manikchak*).
Smt. Ila Moitra (Com.),† (*Maniktola*).
M. N. Dakua (S.C.) (Cong.), (*Mathabhanga (R)*).
B. Gayen (S.C.) (Cong.), (*Mathurapur N.-West (R)*).
B. C. Das (Cong.), (*Mathurapur S.-East*).
**S. A. M. Habibullah (Com.), (*Manteswar*).**
S. M. Das (Cong.), (*Mayna*).
Gobardhan Das (S.C.) (Com.), (*Mayureswar (R)*).
A. N. Roy Pradhan (F.B.), (*Mekliganj*).
Suchand Soren (S.T.) (Com.), (*Memari (R)*).
Syed S. Bari (Cong.), (*Midnapore*).
P. C. Chunder (Cong.), (*Muchipara*).
**Shamsuddin Ahammed (Cong.), (*Murarai*).**
B. N. Ray (Ind.), (*Murshidabad*).
D. P. Basu (Com.), (*Nabadwip*).
Budhu Bhagat (S.T.) (Cong.), (*Nagrakata (R)*).
Gopal Basu (Com.), (*Naihati*).
S. M. Fazlur Rahman (Cong.), (*Nakashipara*).
Shiromani Prasad (S.C.) (Cong.), (*Nalhati (R)*).
S. C. Maiti (Cong.), (*Nandigram North*).
P. C. Jana (Cong.), (*Nandigram South*).
Mohammad Israil (Cong.), (*Navda*).
J. B. Saha (Com.), (*Noapara*).

† Right Wing Communist.

K. P. Mandal (S.C.) (Cong.), (*Narayangarh (R)*).
D. Hansda (S.T.) (Cong.), (*Nayagram (R)*).
G. B. Das (Cong.), (*Onda*).
A. L. Majumdar (F.B.), (*Panchla*).
Radha Nath Das (S.C.) (Cong.), (*Pandua (R)*).
R. K. Pramanik (Cong.), (*Panskura East*).
S. D. Bhattacharyya (Cong.), (*Panskura West*).
Nepal Bauri (S.C.) (Cong.), (*Para (R)*).
R. N. Dasadhikari (Cong.), (*Pataspur*).
Gurupada Khan (S.C.) (Cong.), (*Patrasayir (R)*).
Tenzing Wangdi (S.T.) (Cong.), (*Phansidewa (R)*).
B. Tarkatirtha (Cong.), (*Purbasthali*).
Tarapada Roy (Cong.), (*Purulia*).
S. N. Singh Deo (Cong.), (*Raghunathpur*).
Siddheswar Mondal (S.C.) (F.B.), (*Rajnagar (R)*).
Ramendra Nath Dutt (Cong.), (*Raiganj*).
P. K. Guha (Cong.), (*Raina*).
Smt. S. R. Dutta (Cong.), (*Raipur*).
P. P. Roy (S.C.) (Cong.), (*Rajarhat (R)*).
B. L. Dasmahapatra (P.S.P.). (*Ramnagar*).
Smt. N. Majumdar (Cong.), (*Rampurhat*).
G. C. Kundu (Com.), (*Ranaghat*).
Jaleswar Hansda (S.T.) (Com.), (*Ranibandh (R)*).
Lakhan Bagdi (S.C.) (Com.), (*Raniganj (R)*).
Syed Nawab Mirza (S.S.P.). (*Ranimagar*).
B. K. Banerjee (Ind.), (*Rashebari Avenue*).
Dhaneswar Saha (S.C.) (Cong.), (*Ratna (R)*.
A. K. Bakura (Cong.), (*Sabang*).
Ambika Charan Das (S.C.) (Cong.), (*Sagardighi (R)*).
Niranjan Khamrai (Cong.), (*Salbani*).
A. B. Ray (Cong.), (*Saltora*).
A. K. Baidya (S.C.) (Cong.), †(*Sandesh Khali (R)*.
D. C. Mondal (S.C.) (Com.), (*Sankrail (R)*).
Kanai Pal (Ind.), (*Santipur*).
P. G. Bhauduri (Com.), † (*Serampore*).
H. K. Basu (F.B.), (*Shampukur*).
M. M. Manya (Cong.), (*Shyampur*).
Arun Kumar Moitra (Cong.), *Siliguri*).
Probhakar Pal (Cong.), (*Singur*).
B. K. Roy (S.C.) (F.B.), (*Sital Kuchi*)(*R*)).
K. K. Roy Chowdhury (Com.), (*Sonarpur*).
Ashadulla Choudhry (Cong.), (*Sujapur*).
K. C. Basu (Cong.), (*Sukeas Street*).
Baidyanath Banerjee (Cong.), (*Suri*).
M. C. Das (S.C.) (Cong.), (*Sutahata (R)*).
Lutfal Haque (Cong.), (*Suti*).
Abdul Gafur (Cong.), (*Swarupnagar*).
Smt. P. Mukhopadhyay (Cong.), (*Taldangra*).
Karam Hossain (Cong.), ((*Taltola*).
A. K. Mukherji (Cong.), (*Tamluk*).
N. Murmu (S.T.) (R.S.P.), (*Tapan (R)*).
P. C. Hazra (Cong.), (*Tarakeshwar*).
S. D. Banerji (Cong.), (*Tehatta*).
K. K. Shukla (Cong.), (*Titagarh*).
N. C. Sen Gupta (Com.), (*Tollygunge*).
J. K. Dey (Com.), (*Tufanganj*).
Arabinda Roy (Cong.), (*Udayanarayanpur*).
B. B. Mondal (S.C.) (F.B.), (*Uluberia North*).
Monoranjan Hazra (Com.), (*Uttarpara*).
N. C. Roy (Com.), (*Vidyasagar*).
R. Dhibar (S.C.) (Com.), (*Vishnupur (R)*).
Smt. O. Pemantle (*Nominated*).
R. E. Platel (*Nominated*).
C. L. Blanche (*Nominated*).
Clifford Noronha (*Nominated*).

† Right Wing Communist.

# RAJYA SABHA

Total no. of seats : 238.

*Chairman :* Dr. Zakir Husain.
*Dy. Chairman :* Smt. Violet Alva.
*Secretary :* B. N. Banerjee.
*Joint Secretary :* S. S. Bhalerao.
*Dy. Secretaries :* P. N. Krishna Mani, M. S. Panigrahi, M. A. Amladi.
*Under-Secretaries :* S. P. Ganguly, Kewal Krishan, P. K. Bhor, Kishan Singh, I. N. Chary.

An estimate of party position in the Rajya Sabha is : Congress 171; Praja Socialist Party 6 ; Communist 6; Swatantra Party 12 ; Independents (including Muslim League, Jan Sangh, Progressive Independent Party, Socialist, a D.M.K. member, a Republican, a Jharkhand Party member and others) 29 ; nominated members 12 and vacant 2.

### ANDHRA PRADESH—18

Makkineni Basavapunnaiah ; Dr. B. Ramakrishna Rao; P. K. Kumaran ; Akbar Ali Khan ; Smt. Seeta Yudhvir ; Kota Punnaiah ; Miss Mary Naidu ; V. C. Kesava Rao ; K. Vengala Reddy ; Yerrapureddi Adinarayana Reddy ; N. Narotham Reddy ; Narla Venkateshwara Rao ; Dr. K. L. Narasimha Rao ; Yella Reddy ; K. V. Raghunatha Reddy ; D. Sanjivayya ; Shrimati C. Ammanna Raja ; N. Sanjiva Reddy.

### ASSAM—7

S. C. Deb ; Shrimati Bedavati Buragohain ; Baharul Islam ; Robindra Nath Kakati ; Purnananda Chetia ; A. Thanglura ; Lila Dhar Barooah.

### BIHAR—22

Bipin Behary Varma ; Chaudhary A. Mahamad ; S. N. Mishra ; Dhirendra Chandra Mallik ; Dr. Syed Mahmud ; Shrimati Lakshmi N. Menon ; Pratul Chandra Mitra ; Mahesh Saran ; Mahabir Dass ; Rajeshwar Prasad Narain Sinha ; Shishir Kumar ; Brij Kishore Prasad Sinha ; Ganga Sharan Sinha ; Rajendra Pratap Sinha ; Anand Chand ; Ram Bahadur Sinha ; Lalit Narayan Mishra ; Jagat Kishore Prasad ; Narayan Singh Mohan Singh Oberoi ; Rajendra Prasad Jain* ; Awadheshwar Prasad Sinha ; Shrimati Jahanara Jaipal Singh.

### GUJARAT—11

Khandubhai K. Desai ; Mahipat Mulshankar Mehta ; Kum. Maniben Vallabhbhai Patel ; Dahyabhai V. Patel ; Suresh J. Desai ; Maneklal Chunilal Shah ; Jethalal Harikrishna Joshi ; Jaisukhlal Lalshanker Hathi ; Khemchandbhai Shomabhai Chavda ; Maganbhai Shankarbhai Patel ; G. H. Vallmohmed Momin.

### KERALA—9

K. Madhava Menon ; Shrimati Devaki Gopidas ; M. N. Govindan Nair ; Palat Kunhi Koya ; Joseph Mathen ; Salay Mohamed Sait ; Ebrahim Sulaiman Sait ; Kizhedath Damodaran ; Vacant.

### MADHYA PRADESH—16

Niranjan Singh ; Syed Ahmad ; Pt. Bhawani-Prasad Tiwary ; Gurudev Gupta ; Mahant Laxmi Narayan Das ; Ratanlal Kishorilal Malviya ; Dayaldas Kurre ; Prakash Chandra Sethi ; Vimalkumar Mannalalji Chordia ; Ram Sahai ; R. S. Khandekar ; Khub Chand Baghel ; A. D. Mani ; Thakur Bhanu Pratap Singh ; Gopikrishna Vijaivargiya ; Vacant.

### MADRAS—18

Prof. (Mrs.) G. Parthasarathy ; Dr. S. Chandrasekar ; P. Ramamurti ; S. S. Vasan ; C. N. Annadurai ; N. M. Anwar ; M. Ruthnaswamy ; S. S. Mariswamy ; P. Thanulinga Nadar ; T. S. Pattabiraman ; A. K. A. Abdul Samad ; K. S. Ramaswamy ; J. Sivashanmugam Pillai ; M. J. Jamal Moideen ; T. Chengalvaroyan ; Mrs. Lalitha Rajagopalan.

### MAHARASHTRA—19

Abid Ali ; Ganpatrao Devji Tapase ; Babubhai M. Chinai ; M. C. Chagla ; Shrimati Tara Ramchandra Sathe ; Vithalrao Tukaram Nagpure ; M. M. Dharia ; D. B. Desai ; Udhavrao Sahebrao Patil ; Pandharinath Sitarma Patil ; Kodardas Kalidas Shah ; Deokinandan Narayan ; S. B. Bobdey ; Dhairyashilrao Yeshwantrao Pawar ; S. K. Vaishampayen ; Bhaurao Krishnarao Gaikwad ; Shripad Krishna Limaye ; Baba Saheb Savnekar ; Bidesh Tukaram Kulkarni.

### MYSORE—12

B. C. Nanjundaiya ; D. P. Karmarkar ; Shrimati Annapurna Devi Thimmareddy ; Mulka Govinda Reddy ; Patil Puttappa ; M. S. Gurupadaswamy ; J. Venkatappa ; M. Govinda Reddy ; N. Sri Rama Reddy ; C. M. Poonacha ; Sherkhan ; Shrimati Violet Alva.

### ORISSA—10

Bairagi Dwibedy ; B. K. Mahanti ; B. C. Patnaik ; Vacant ; Narayan Patra ; Manmathnath Misra ; Shrimati Nandini Satpathy ; Lokanath Misra ; Sundarmani Patel ; Nanda Kishore Das.

### PUNJAB—11

Mohan Singh ; Diwan Chaman Lall ; Uttam Singh Dugal ; Jagat Narain ; Anup Singh ; Bansi Lal ; Neki Ram ; Sardar Raghbir Singh Panjhazari ; Smt. Mohinder Kaur ; Abdul Ghani ; Surjit Singh Ahval.

### RAJASTHAN—10

Maulana Abdul Shakoor ; Devi Singh ; Sadiq Ali ; Shanti Lal Kothari ; Ramesh Chandra Vyas ; P. N. Kathju ; Sawai Man Singh ; Dalpat Singh Siriyari ; Smt. Sharda Bhargava ; Vacant.

### UTTAR PRADESH—34

G. S. Pathak ; Dattopant Thengari ; Lila Dhar Asthana ; Bhagwat Narayan Bhargava ; Shrimati Anis Kidwai ; C. D. Pande ; Jogesh Chandra Chatterji ; Col. Bashir Hussain Zaidi ; A. C. Gilbert ; Mustafa Rashid Shervani ; Faridul Haq Ansari ; Dr. Madan Mohan Singh Siddhu ; Nafisul Hasan ; Sitaram Jaipuria ; Prof. Mukut Behari Lal ; Smt. Sarla Devi ; Ram Singh ; T. N. Singh ; Uma Shanker Dikshit ; Chandra Shekhar ; P. N. Sapru ; Atal Bihari Vajpayee ; Piare Lall Kureel *urf* Talib ; Ramgopal Gupta ; Gaure Mura Hari ; Hira Vallabha Tripathi ; Dr. Dharam Prakash ; Pandit Sham Sundar Narain Tankha ; M. P. Shukla ; M. P. Bhargava ; Arjun Arora ; Mrs. Indira Gandhi ; Jogendra Singh ; Smt. Shyam Kumari Khan.

### WEST BENGAL—16

Debabrata Mukherjee ; Nikunja Behari Maiti ; R. S. Doogar ; Biren Roy ; Dwijendra Lal Sen Gupta ; Bhupesh Gupta ; Ramprasanna Ray ; Sudhir Ghosh ; Shrimati Phubrenu Guha ; Muhammad Ishaque ; Syed Nausher Ali ; Mriganka Mohan Sur ; Surendra Mohan Gose ; Niren Ghosh ; R. K. Bhuvalke ; Satyendra Prosad Ray.

### JAMMU AND KASHMIR—4

Om Mehta ; Krishan Dutt ; G. M. Mir ; Vacant. 1.

### NAGALAND—1

Melhupra Vero.

### DELHI—3

Santokh Singh ; Kumari Shanta Vasisht Inder Kumar Gujral.

### HIMACHAL PRADESH—2

C. L. Varma ; Shivanand Ramaul.

### MANIPUR—1

S. K. Singh.

### PONDICHERRY—1

Bhadauria P. Abraham.

### TRIPURA—1

Tarit Mohan Dasgupta.

### NOMINATED BY THE PRESIDENT—12

Prof. B. N. Prasad ; G. Ramachandran ; M. Ajmal Khan ; Jairamdas Doulatram ; Tara Shankar Banerjee ; Dr. Gopal Singh ; Smt. Shakuntala Paranjpye ; R. R. Diwakar ; M. Satyanarayana ; Prof. A. R. Wadia : Dr. Tara Chand ; Prof. Satyavrata Siddhantalankar.

* Election declared void by the Election Tribunal on June 1, 1965.

# LOK SABHA

Seats : 510 ; No. of seats reserved for S.C. 76 ; No. of seats reserved for S.T. 31 ; Nominated 13. *Total electorate :* 213 million.
*Speaker :* Sardar Hukam Singh. *Dy. Speaker :* S. V. Krishna Murthy Rao. *Secretary :* S. L. Shakdher.

An estimate of party position is given below :— Congress 377 ; Communist 29 ; Praja Socialist Party 11 ; Jan Sangh 13 ; Swatantra 28 ; S.S.P. 6 ; Republican 2 ; United Progressive Parliamentary Group 9 ; Independent Parliamentary Group 8 ; Vacant 1 ; Dravida Munnetra Kazhagam 8 ; Muslim League 2 ; Unattached 2 ; Nirdaliya Dal Group 4 ; Independent 10.

## ANDHRA PRADESH (43)

G. Narayan Reddy (Cong.), (*Adilabad*).
P. Venkatasubbaiah (Cong.), (*Adoni*).
B. S. Murty (S.C.) (Cong.), (*Amalapuram (R)*).
M. S. Murty (Cong.), (*Anakapalli*).
S. Osman Ali Khan (Cong.), (*Anantapur*).
R. V. G. K. Ranga Rao (Cong.), (*Cheepurupalli*).
Prof. N. G. Ranga (Swa.), (*Chittoor*).
Y. Eswara Reddy (Com.), (*Cuddapah*).
Smt. V. Vimala Devi (Com.), (*Eluru*).
J. R. Rao (Cong.), (*Gadwal*).
M. Ankineedu (Cong.), (*Gudivada*).
K. Raghuramaiah (Cong.), (*Guntur*).
K. V. R. Reddy (Cong.), (*Hindupur*).
Dr. Gopal S. Melkote (Cong.), (*Hyderabad*).
M. Thirumala Rao (Cong.), (*Kakinada*).
J. Ramapati Rao (Cong.), (*Karimnagar*).
B. Gopala Reddi (Cong.), (*Kavali*).
Smt. T. Lakshmikantamma (Cong.), (*Khammam*).
Smt. Yeshoda Reddy (Cong.), (*Kurnool*).
R. Surendar Reddy (Cong.), (*Mahbubabad*).
J. B. M. Rao (Cong.), (*Mahbubnagar*).
G. Y. Reddy (Com.), (*Markapur*).
M. Venkataswamy (Ind.), (*Masulipatnam*).
P. Hanmanth Rao (Cong.), (*Medak*).
Laxmi Das (Com.), (*Miryalguda*).
R. N. Reddy (Com.), (*Nalgonda*).
Balarama Raju (Cong.), (*Narasapur*).
M. Matcharaju (S.T.) (Cong.), (*Narsipatnam (R)*).
B. Anjanappa (S.C.) (Cong.), (*Nellore (R)*).
H. C. Heda (Cong.), (*Nizamabad*).
M. N. Swamy (Com.), (*Ongole*).
B. Satyanarayana (S.T.) (Cong.), (*Parvathipuram (R)*).
M. R. Krishna (S.C.) (Cong.), (*Peddapalli (R)*).
Dr. D. S. Raju (Cong.), (*Rajahmundry*).
C. L. Narasimha Reddy (Swa.), (*Rajampet*).
A. Mohiuddin* (Cong.), (*Secunderabad*).
B. Rajagopala Rao (Cong.), (*Srikakulam*).
Kolla Venkaiah (Com.), (*Tenali*).
C. Dass (S.C.) (Cong.), (*Tirupati (R)*).
Smt. S. Laxmi Bai (Cong.), (*Vicarabad*).
Dr. K. L. Rao (Cong.), (*Vijayawada*).
Maharajkumar Dr. Vijaya Ananda (Cong.), (*Visakhapatnam*).
B. A. Mirza (Cong.), (*Warangal*).

## ASSAM—12

G. Gilbert Swell (S.C.) (U.P.P.G.), (*Autonomous Dists. (R)*).
Smt. Renuka Devi Barkataki (Cong.), (*Barpeta*).
Smt. Jyotsna Chanda (Cong.), (*Cachar*).
B. Bhagavati (Cong.), (*Darrang*).
Ghyasuddin Ahmad (Cong.), (*Dhubri*).
J. N. Hazarika (Cong.), (*Dibrugarh*).
Hem Barua (P.S.P.), (*Gauhati*).
D. Basumatari (S.T.) (Cong.), (*Goalpara (R)*).
R. N. Barua (P.S.P.), (*Jorhat*).
N. R. Laskar (S.C.) (Cong.), (*Karimganj (R)*).
L. D. Kotoki (Cong.), (*Nowgong*).
P. C. Borooah (Cong.), (*Sibsagar*).

## BIHAR—53

Rani Lalita Rajya Laxmi (Swa.), (*Aurangabad*).
Kamal Nath Tiwari (Cong.), (*Bagha*).
Smt. Shakuntala Devi (Cong.), (*Banka*).
Smt. Tarakeshwari Sinha (Cong.), (*Barh*).
M. P. Mishra (Cong.), (*Begusarai*).
Bhola Raut (S.C.) (Cong.), (*Bettiah (R)*).
B. J. Azad (Cong.), (*Bhagalpur*).
R. S. Singh (Cong.), (*Bikramganj*).
A. P. Sharma (Cong.), (*Buxar*).
Dr. R. S. P. Singh (Cong.), (*Chapra*).
Smt. Vijaya Raje (Swa.), (*Chatra*).
S. N. Das (Cong.), (*Darbhanga (R)*).
P. R. Chakravarti (Cong.), (*Dhanbad*).
S. C. Besra (S.T.) (Cong.), (*Dumka (R)*).
Brajeshwar Prasad (Cong.), (*Gaya*).
Bateshwar Singh (Swa.), (*Giridih*).
P. D. Himatsingha (Cong.), (*Godda*).
Pandit D. N. Tiwari (Cong.), (*Gopalganj*).
Rajeshwar Patel (Cong.), (*Hajipur*).
B. N. Singh (Swa.), (*Hazaribagh*).
Smt. Satyabhama Devi (Cong.), (*Jahanabad*).
Y. P. Mandal (Cong.), (*Jainagar*).
Nayantara Das (S.C.) (Cong.), (*Jamui (R)*).
Dr. U. Misra (Com.), (*Jamshedpur*).
Priya Gupta (S.S.P.), (*Katihar*).
Bhishma Prasad Yadava (Cong.), (*Kesaria*).
Jialal Mandal (Cong.), (*Khagaria*).
Mohd. Tahir (Cong.), (*Kishanganj*).
D. Munzni (S.T.) (Cong.), (*Lohardaga (R)*).
Yogendra Jha (U.A.), (*Madhubani*).
K. K. Singh (Cong.), (*Maharajganj*).
C. M. Chaudhary (S.C.) (Cong.), (*Mahua (R)*).
Madhu Limaye (S.S.P.), (*Monghyr*).
Bibhuti Mishra (Cong.), (*Motihari*).
D. N. Singh (Cong.), (*Muzaffarpur*).
Sidheshwar Prasad (Cong.), (*Nalanda*).
R. Dhani Das (S.C.) (Cong.), (*Nawada (R)*).
Smt. Shashanka Manjari (Swa.), (*Palamau*).
Smt. Ramdulari Sinha (Cong.), (*Patna*).
Shashi Ranjan (Cong.), (*Pupri*).
P. G. Sen (Cong.), (*Purnea*).
Iswar Marandi (S.C.) (Cong.), (*Rajmahal (R)*).
P. K. Ghosh (Swa.), (*Ranchi East*).
Jaipal Singh (S.T.) (I.P.G.), (*Ranchi West (R)*).
Rameshwar Sahu (S.C.) (Cong.), (*Rosera (R)*).
Lahtan Chaudhri (Cong.), (*Saharsa*).
S. N. Sinha (Cong.), (*Samastipur*).
Jagjivan Ram (S.C.) (Cong.), (*Sasaram (R)*).
Bali Ram Bhagat (Cong.), (*Shahabad*).
H. C. Soy (S.T.) (I.P.G.), (*Singhbhum (R)*).
N. P. Yadav (Cong.), (*Sitamarhi*).
Mohd. Yusuf (Cong.), (*Siwan*).
T. Ram (S.C.) (Cong.), (*Sonbarsa (R)*).

## GUJARAT—22

I. K. Yajnik (U.P.P.G.), (*Ahmedabad*).
Smt. Jayaben Shah (Cong.), (*Amreli*).
Narendra Singh Mahida (Swa.), (*Anand*).
Smt. Zohraben A. Chavda (Cong.), (*Banaskantha*).
F. P. Gaekwad (Cong.), (*Baroda*).
Jashvant Mehta (Cong.), (*Bhavnagar*).
Chhotubhai M. Patel (Cong.), (*Broach*).
N. N. Patel (S.T.) (Cong.), (*Bulsar (R)*).
Purshottamdas H. Bheel (S.T.) (Swa.), (*Dohad (R)*).
Manubhai Shah (Cong.), (*Jamnagar*)
C. R. Raja (Cong.), (*Junagadh*).
P. N. Solanki (Swa.), (*Kaira*).
Himmatsinhji (Swa.), (*Kutch*).
C. M. Kedaria (S.T.) (Cong.), (*Mandvi (R)*).
Man Sinh P. Patel (Cong.), (*Mehsana*).
D. J. Naik (Cong.), (*Panchmahals*).
P. R. Patel (Cong.), (*Patan*).
M. R. Masani (Swa.), (*Rajkot*).
Gulzari Lal Nanda (Cong.), (*Sabarkantha*).
M. B. Vaishya (Cong.), (*Sabarmati*).
Morarji R. Desai (Cong.), (*Surat*).
Ghanshyamlal Oza (Cong.), (*Surendranagar*).

## KERALA—18

P. K. Vasudevan Nair (Com.), (*Ambalapuzha*).
A. V. Raghavan (Com.), (*Badagara*).
M. K. Kumaran (Com.), (*Chirayinkil*).
A. M. Thomas (Cong.), (*Ernakulam*).
A. K. Gopalan (Com.), (*Kasergod*).
Mathew Maniyangadan (Cong.), (*Kottayam*).
C. H. Mohd. Koya (M.L.), (*Kozhikode*).
M. Mohd. Ismail (M.L.), (*Manjeri*).
R. Achuthan (S.C.) (Cong.), (*Mavelikkara (R)*).
C. J. Kappen (Cong.), (*Muvattupuzha*).
P. Govinda Menon (Cong.), (*Mukundapuram*).
P. Kunhan (S.C.) (Com.), (*Palghat (R)*).
E. K. Imbichibava (Com.), (*Ponnani*).
N. Sreekantan Nair (U.P.P.G.), (*Quilon*).
S. K. Pottekkatt (Com.), (*Tellicherry*).
Ravindra Varma (Cong.), (*Thiruvalla*).
K. K. Warior (Com.), (*Trichur*).
P. S. Nataraja Pillai (Cong.), (*Trivandrum*).

## MADHYA PRADESH—36

Bholaram Paradhi (P.S.P.), (*Balaghat*).
Smt. Minimata Agamdas Guru (S.C.) (Cong.), (*Baloda Bazar (R)*).
L. Bhawani (S.T.) (N.D.), (*Bastar (R)*).
Surya Prashad (S.C.) (Cong.), (*Bhind (R)*).
Smt. Maimoona Sultan (Cong.), (*Bhopal*).
Chanderbhan Singh (Cong.), (*Bilaspur*).
B. L. Chandak (Cong.), (*Chhindwara*).
Smt. Sahodra Bai Rai (S.C.) (Cong.), (*Damoh (R)*).
H. C. Kachwai (S.C.) (J.S.), (*Dewas (R)*).
M. L. Bakliwal (Cong.), (*Durg*).
R. S. Pandey (Cong.), (*Guna*).
Maharani V. R. Scindia (Cong.), (*Gwalior*).
H. V. Kamath (P.S.P.), (*Hoshangabad*).
Homi F. Daji (Com.), (*Indore*).
Dr. Govind Das (Cong.), (*Jabalpur*).
Sardar A. S. Saigal (Cong.), (*Janjgir*).
Smt. Jamuna Devi (S.T.) (Cong.), (*Jhabua (R)*).
R. S. Tiwari (Cong.), (*Khajuraho*).
Mahesh Datta Misra (Cong.), (*Khandwa*).
Ramchandra V. Bade (J.S.), (*Khargone*).
Vidya Charan Shukla (Cong.), (*Mahasamund*).
M. G. Uikey (S.T.) (Cong.), (*Mandla (R)*).
U. M. Trivedi (J.S.), (*Mandsaur*).
Vijaya Bhushan Singh Deo (I.P.G.), (*Raigarh*).
Smt. Shyamkumari Devi (S.T.) (Cong.), (*Raipur (R)*).
Maharaja B. P. Singh (I.P.G.), (*Rajgarh*).
B. B. Singh (Cong.), (*Rajnandgaon*).
S. D. Upadhyaya (Cong.), (*Rewa*).
Pt. J. P. Jyotishi (Cong.), (*Sagar*).
N. M. Wadiwa (S.T.) (Cong.), (*Seoni (R)*).
B. S. Utiya (S.T.) (S.S.P.), (*Shahdol (R)*).
V. C. Parashar (Cong.), (*Shivpuri*).
Anand Chandra Joshi (Cong.), (*Sidhi*).
Babunath Singh (S.T.) (Cong.), (*Surguja (R)*).
Kure Mate (P.S.P.), (*Tikamgar*).
Radhelal Vyas (Cong.), (*Ujjain*).

## MADRAS—41

R. Kasinatha Dorai (Cong.), (*Aruppukkottai*).
R. Kanakasabai (Cong.), (*Chidambaram*).
O. V. Alagesan (Cong.), (*Chingleput*).
P.R. Ramakrishnan (Cong.), (*Coimbatore*).
T. D. Ramabadran (D.M.K.), (*Cuddalore*).
Smt. T. S. Soundaram Ramachandran (Cong.), (*Dindigul*).
S. K. Paramasivan (Cong.), (*Erode*).
P. G. Karuthiruman (Cong.), (*Gobichettipalayam*).
R. Ramanathan Chettiar (Cong.), (*Karur*).
S. C. Balakrishnan (S.C.) (Cong.), (*Koilpatti (R)*).
K. Rajaram (D.M.K.), (*Krishnagiri*).
C. R. Pattabhiraman (Cong.), (*Kumbakonam*).
Dr. P. Srinivasan (Cong.), (*Madras North*).
K. Manoharan (D.M.K.), (*Madras South*).
N. M. R. Subbaraman (Cong.), (*Madurai*).
Smt. M. Chandrasekhar (S.C.) (Cong.), (*Mayuram (R)*).
P. Maruthiah (S.C.) (Cong.), (*Melur (R)*).
G. Thengondar (Cong.), (*Nagapattinam*).
A. Nesamony (Cong.), (*Nagercoil*).
V. K. Ramaswamy (S.C.) (Cong.), (*Namakkal (R)*).
Smt. Akkamma Devi (Cong.), (*Nilgiris*).
Era Sezhiyan (D.M.K.), (*Perambalur*).
M. Malaichami (Cong.), (*Periyakulam*).
C. Subramaniam (Cong.), (*Pollachi*).
R. Umanath (Com.), (*Pudukkottai*).
N. Arunachalam (Cong.), (*Ramanathapuram*).
S. V. Ramaswamy (Cong.), (*Salem*).
P. Sivasankaran (S.C.) (D.M.K.), (*Sriperumbudur (R)*).
M. P. Swamy (Cong.), (*Tenkasi*).
V. V. Thevar (Cong.), (*Thanjavur*).
R. V. Reddiar (Cong.), (*Tindivanam*).
T. T. Krishnamachari (Cong.), (*Tiruchandur*).
S. Kandappan (D.M.K.), (*Tiruchengode*).
Anandan Nambiar (Com.), (*Tiruchirapalli*).
L. Elayaperumal (S.C.) (Cong.), (*Tirukoilur (R)*).
P. Muthiah (Cong.), (*Tirunelveli*).
R. M. Gounder (D.M.K.), (*Tirupattur*).
V. G. Naidu (Cong.), (*Tiruvallur*).
R. Dharmalingam (D.M.K.), (*Tiruvannamalai*).
T. Abdul Wahid (Cong.), (*Vellore*).
A. Jayaraman (S.C.) (Cong.), (*Wandiwash (R)*).

* Election declared void by Election Tribunal on May 31, 1965.

### MAHARASHTRA—44

M. K. Firodia (Cong.), (*Ahmednagar*).
Mohd. Mohibbul Haq (Cong.), (*Akola*).
Mrs. Vimalabai Deshmukh (Cong.), (*Amravati*).
B. D. Deshmukh (Cong.), (*Aurangabad*).
G. K. Jedhe (Cong.), (*Baramati*).
R. M. Hajarnavis (Cong.), (*Bhandara*).
Dwarkadas Mantri (Cong.), (*Bhir*).
Y. M. Mukne (S.T.) (Cong.), (*Bhiwandi (R)*).
N. S. Kajrolkar (S.C.) (Cong.), (*Bombay City Central North (R)*).
V. B. Gandhi (Cong.), (*Bombay City Central South*).
V. K. Krishna Menon (Cong.), (*Bombay City North*).
S. K. Patil (Cong.), (*Bombay City South*).
S. R. Rane (Cong.), (*Buldana*).
Mrs. Tai Kannamwar (Cong.), (*Chanda*).
C. A. Rawandale (Cong.), (*Dhulia*).
Balkrishna Wasnik (S.C.) (Cong.), (*Gondia (R)*).
K. L. More (S.C.) (Cong.), (*Hatkanangle (R)*).
J. S. Patil (Cong.), (*Jalgaon*).
R. N. Y. Lonikar (Cong.), (*Jalna*).
D. R. Chavan (Cong.), (*Karad*).
L. S. Bhatkar (S.C.) (Cong.), (*Khamgaon (R)*).
R. K. Khadilkar (Cong.), (*Khed*).
Bhaskar N. Dighe (Cong.), (*Kolaba*).
V. T. Patil (Cong.), (*Kolhapur*).
Annasahib Shinde (Cong.), (*Kopargaon*).
T. D. Kamble (S.C.) (Cong.), (*Latur (R)*).
M. L. Jadhav (Cong.), (*Malegaon*).
V. R. Dafle (Cong.), (*Miraj*).
Dr. M. S. Aney (Ind.), (*Nagpur*).
T. S. Jadhav (Cong.), (*Nanded*).
L. V. Valvi (S.T.) (Cong.), (*Nandurbar (R)*).
Y. B. Chavan (Cong.), (*Nasik*).
T. A. Patil (Cong.), (*Osmanabad*).
T. H. Sonavane (S.C.) (Cong.), (*Pandharpur (R)*).
S. S. Deshmukh (Cong.), (*Parbhani*).
S. S. More (Cong.), (*Poona*).
Nath Pai (P.S.P.), (*Rajapur*).
M. B. Patil (Cong.), (*Ramtek*).
Smt. Sharda Mukerjee (Cong.), (*Ratnagiri*).
Kisan Veer (Cong.), (*Satara*).
Medeppa B. Kadadi (Cong.), (*Sholapur*).
Sonubhau D. Baswant (Cong.), (*Thana*).
Kamalnayan Bajaj (Cong.), (*Wardha*).
D. S. Patil (Cong.), (*Yeotmal*).

### MYSORE—26

H. K. Veeranna Gowdh (Cong.), (*Bangalore*).
K. Hanumanthaiah (Cong.), (*Bangalore City*).
H. V. Kaujalgi (Cong.), (*Belgaum*)
T. Subramanyam (Cong.), (*Bellary*).
R. Veerappa (S.C.) (Cong.), (*Bidar (R)*).
Rajaram G. Dube (Cong.), (*Bijapur North*).
S. B. Patil (Cong.), (*Bijapur South*).
S. M. Siddiah (S.C.) (Cong.), (*Chamarajanagar (R)*).
H. C. Linga Reddy (Cong.), (*Chikballapur*).
V. L. Patil (Cong.), (*Chikodi*).
S. Veerabasappa (Cong.), (*Chitradurga*).
Dr. Sarojini B. Mahishi (Cong.), (*Dharwar North*).
F. H. Mohsin (Cong.), (*Dharwar South*).
M. Rampure (Cong.), (*Gulbarga*).
H. Siddananjappa (Cong.), (*Hassan*).
Joachim P. Alva (Cong.), (*Kanara*).
Dodda Thimmaiah (S.C.) (Cong.), (*Kolar (R)*).
Sivamurthy Swamy (U.P.P.G.), (*Koppal*).
M. K. Shivananjappa (Cong.), (*Mandya*).
A. Shankar Alva (Cong.), (*Mangalore*).
M. Shankaraiya (Cong.), (*Mysore*).
J. V. Chandriki (Cong.), (*Raichur*).
S. V. Krishnamoorthy Rao (Cong.), (*Shimoga*).
C. R. Basappa (Cong.), (*Tiptur*).
Mali Mariyappa (Cong.), (*Tumkur*).
U. S. Malliah (Cong.), (*Udipi*).

### ORISSA—20

Harekrushna Mahtab (Cong.), (*Angul*).
G. Mohanty (Cong.), (*Balasore*).
Kanhu Charan Jena (S.C.) (Cong.), (*Bhadrak (R)*).
Mohan Nayak (S.C.) (Cong.), (*Bhanjanagar*).
P. C. Deo Bhanj (Cong.), (*Bhubaneswar*).
H. K. Mahananda (S.C.) (Swa.), (*Bholangir (R)*).
A. T. Sarma (Cong.), (*Chatrapur*).
N. Kanungo (Cong.), (*Cuttack*).
B. C. Patnaik (Cong.), (*Dhenkanal*).
R. C. Mallick (S.C.) (Cong.), (*Jajpur (R)*).
Maharaja Pratap Keshari Deo (Swa.), (*Kalahandi*)
S. Dwivedy (P.S.P.), (*Kendrapara*).
L. N. B. Deo (Cong.), (*Keonjhar*).
R. Ulaka (S.C.) (Cong.), (*Koraput (R)*).
M. Naik (S.T.) (Cong.), (*Mayurbhanj (R)*).
Jaganatha Rao (Cong.), (*Nowrangpur*).
Dr. Rajendra Kohar (S.T.) (Swa.), (*Phulbani (R)*).
Bibudhendra Misra (Cong.), (*Puri*).
K. Pattnayak (P.S.P.), (*Sambalpur*).
Y. N. Singh (S.T.) (Swa.), (*Surendragarh (R)*).

### PUNJAB—22

Chunilal (S.C.) (Cong.), (*Ambala (R)*).
Sardar Gurumukh Singh Musafir (Cong.), (*Amritsar*).
D. S. Gulshan (S.C.) (Swa.), (*Bhatinda (R)*).
Sardar Iqbal Singh (Cong.), (*Ferozepore*).
D. C. Sharma (Cong.), (*Gurdaspur*).
Gajraj Singh Rao (Cong.), (*Gurgaon*).
M. R. Bagri (S.S.P.), (*Hissar*).
A. N. Vidyalankar (Cong.). (*Hoshiarpur*).
J. S. Siddhanti (N.D.), (*Jhajjar*).
Sardar Swaran Singh (Cong.) (*Jullundur*).
D. D. Puri (Cong.), (*Kaithal*).
Hem Raj (Cong.), (*Kangra*).
Swami Rameshwaranand (J.S.), (*Karnal*).
Sardar Kapur Singh (Swa.), (*Ludhiana*).
Yudhvir Singh (J.S.), (*Mahendragarh*).
Sardar Buta Singh (Swa.), (*Moga (R)*).
Sardar Hukam Singh* (Cong.), (*Patiala*).
Sadhu Ram (S.C.) (Cong.), (*Phillaur (R)*).
Lahri Singh (J.S.), (*Rohtak*).
Sardar Ranjit Singh (Cong.), (*Sangrur*).
Sardar Surjit Singh Majithia (Cong.), (*Tarn Taran*).
Sardar Daljit Singh (S.C.) (Cong.), (*Una*).

### RAJASTHAN—22

M. B. L. Bhargava (Cong.), (*Ajmer*).
K. R. Gupta (U.P.P.G.), (*Alwar*).
Ratanlal (S.T.) (Cong.), (*Banswara (R)*).
Maharaja Tansingh (Swa.), (*Barmer*).
Raj Bahadur (Cong.), (*Bharatpur*).
Shiv Charan Mathur (Cong.), (*Bhilwara*).
Maharaja Karni Singhji (I.P.G.), (*Bikaner*).
Manikyalal Verma (Cong.), (*Chittorgarh*).
Prithvi Raj (Swa.), (*Dausa*).
P. L. Barupal (S.C.) (Cong.), (*Ganganagar (R)*).
T. R. Paliwal (Cong.), (*Hindaun*).
Maharani Gayatri Devi (Swa.), (*Jaipur*).
H. C. Mathur (Cong.), (*Jalore*).
B. R. Singh Kotah (Cong.), (*Jhalawar*).
R. R. Morarka (Cong.), (*Jhunjhunu*).
L. M. Singhvi (I.P.G.), (*Jodhpur*).
O. L. Berwa (S.C.) (J.S.), (*Kotah (R)*).
S. K. Dey (Cong.), (*Nagour*).
Jaswantraj Mehta (Cong.), (*Pali*).
Kesar Lal (S.C.) (Swa.), (*Sawai Madhopur (R)*).
Rameshwar Tantia (Cong.), (*Sikar*).
Dhuleshwar Meena S. T. (Cong.), (*Udaipur (R)*).

### UTTAR PRADESH—86

Seth Achal Singh (Cong.), (*Agra*).
Panna Lal (S.C.) (Cong.), (*Akbarpur (R)*).
B. P. Maurya (Rep.), (*Aligarh*).
Lal Bahadur Shastri (Cong.), (*Allahabad*).
J. B. Singh Bist (Cong.), (*Almora*).
J. B. Kripalani (Ind.), (*Amroha*).
R. H. Yadav (Cong.), (*Azamgarh*).
Ram Singh (Swa.), (*Bahraich*).
Smt. Subhadra Joshi (Cong.), (*Balrampur*).
Murli Manohar (Cong.), (*Ballia*).
Smt. Savitri Nigam (Cong.), (*Banda*).
Mahadeo Prasad (S.C.) (Cong.), (*Bansgaon (R)*).
Sheo Narain (Cong.), (*Bansi (R)*).
Ansar Harvani (Cong.). (*Bisauli*).
Ramsevak Yadav (S.S.P.), (*Bara Banki*).
B. R. Singh (J.S.), (*Bareilly*).
K. D. Malaviya (Cong.), (*Basti*).
P. V. Shastri (N.D.), (*Bijnor*).
B. B. Mehrotra (Cong.), (*Bilhaur*).
Onkar Singh (J.S.), (*Budaun*).
Surendra Pal Singh (Cong.), (*Bulandshahr*).
Masuriya Din (S.C.) (Cong.), (*Chail (R)*).
Balkrishna Singh (Cong.). (*Chandauli*).
Mahavir Tyagi (Cong.), (*Dehra Dun*).
Bishwanath Roy (Cong.), (*Deoria*).
Kripa Shankar (Cong.), (*Domariaganj*).
Bishan Chandra Seth (Ind.), (*Etah*).
G. N. Dixit (Cong.), (*Etawah*).
Brij Basi Lal (Cong.), (*Faizabad*).
Ram Manohar Lohia (Ind.), (*Farrukhabad*).
Gauri Shankar Kakkar (U.P.P.G.), (*Fatehpur*).
S. N. Chaturvedi (Cong.), (*Firozabad*).
Bhakt Darshan (Cong.), (*Garhwal*).
Tula Ram (S.C.) (Cong.), (*Ghaziabad (R)*).
V. N. Singh Gahmari (Cong.), (*Ghazipur*).
J. B. Singh (Com.), (*Ghosi*).
N. Dandekar (Swa), (*Gonda*).
Sinhasan Singh (Cong.), (*Gorakhpur*).
M. L. Dwivedi (Cong.), (*Hamirpur*).
Smt. Kamala Chaudhri (Cong.), (*Hapur*).
Kindar Lal (S.C.) (Cong.), (*Hardoi (R)*).
K. N. Pandey (Cong.), (*Hata*).
Vacant, (*Hathras (R)*).
Ch. Ram Sewak (S.C.) (Cong.), (*Jalaun (R)*).
Krishna Pal Singh (S.S.P.), (*Jalesar*).
Rajdeo Singh (Cong.), (*Jaunpur*).
Dr. Smt. Shushila Nayar (Cong.), (*Jhansi*).
P. K. Khanna (Cong.), (*Karimganj*).
Yash Pal Singh (Swa.), (*Kairana*).
Smt. Basant Kunwar Ba (Swa.), (*Kaisarganj*).
S. M. Banerjee (Ind.), (*Kanpur*).
Balgovind Verma (Cong.), (*Kheri*).
K. L. Balmiki (S.C.) (Cong.), (*Khurja (R)*).
V. Prasad (S.C.) (P.S.P.), (*Lalganj (R)*).
B. K. Dhaon (Cong.), (*Lucknow*).
Ganapati Ram (S.C.) (Cong.), (*Machhlishahar (R)*).
Dr. Mahadeva Prasad (Cong.), (*Maharajganj*).
Badshah Gupta (Cong.), (*Mainpuri*).
D. S. Chaudhuri (Cong.), (*Mathura*).
Shah Nawaz Khan (Cong.), (*Meerut*).
S. D. Misra (Cong.), (*Mirzapur*).
Gokaran Prasad (S.C.) (J.S.), (*Misrikh (R)*).
Smt. Ganga Dev (S.C.) (Cong.), (*Mohanlalganj (R)*).
Muzaffar Husain (Rep.), (*Moradabad*).
Sumat Prasad (Cong.), (*Muzaffarnagar*).
Rananjaya Singh (Cong.), (*Musafirkhana*).
K. C. Pant (Cong.), (*Nainital*).
Mrs. V. L. Pandit (Cong.), (*Phulpur*).
Mohan Swarup (P.S.P.), (*Pilbhit*).
Ajit Pratap Singh (J.S.), (*Pratapgarh*).
Baij Nath Kureel (S.C.) (Cong.), (*Rae Bareli (R)*).
S. Ahmad Mehdi (Cong.), (*Rampur*).
Swami Ramanand Shastri (S.C.) (Cong.), (*Ramsanehighat (R)*).
Sarjoo Pandey (Com.), (*Rasra*).
Ram Swarup (S.C.) (Cong.), (*Robertsganj (R)*).
Sunder Lal (S.C.) (Cong.), (*Saharanpur (R)*).
Vishwanath Pandey (Cong.), (*Salempur*).
Dinesh Singh (Cong.), (*Salon*).
Pt. K. C. Sharma (Cong.), (*Sardhana*).
Y. D. Singh (J.S.), (*Shahabad*).
Ch. Lakhan Dass (S.C.) (N.D.), (*Shahjahanpur (R)*).
Suraj Lal Verma (J.S.), (*Sitapur*).
K. K. Verma (Cong.), (*Sultanpur*).
Maharaja Manabendra Shah (Cong.), (*Tehri-Garhwal*).
K. D. Tripathi (Cong.), (*Unnao*).
Raghunath Singh (Cong.), (*Varanasi*).

### WEST BENGAL—36

Atulya Ghosh (Cong.), (*Asansol*).
Mono Mohan Das (S.C.) (Cong.), (*Ausgram (R)*).
Sarkar Murmu (S.T.) (Com.), (*Balurghat (R)*).
Dr. Ramgoti Banerji (Cong.), (*Bankura*).
A. C. Guha (Cong.), (*Barasat*).
Smt. Renu Chakravarty (Com.), (*Barrackpore*).
Humayun Kabir (Cong.), (*Basirhat*).
T. K. Chaudhuri (U.P.P.G.), (*Berhampur*).
Dr. S. K. Saha (S.C.) (Cong.), (*Birbhum (R)*).
N. C. Chatterji (Ind.), (*Burdwan*).
H. N. Mukerjee (Com.), (*Calcutta Central*).
Dr. Ranen Sen (Com.), (*Calcutta East*).
Asoke Kumar Sen (Cong.), (*Calcutta N.-West*).
Indrajit Gupta (Com.), (*Calcutta S.-West*).
Basanta Kumar Das (Cong.), (*Contai*).
P. C. Barman (Cong.), (*Cooch-Behar*) (*R*)).
T. Manaen (Cong.), (*Darjeeling*).
S. B. Das (Cong.), (*Diamond Harbour*).
Sachindra Choudhuri (Cong.), (*Ghatal*).
Prabhat Kar (Com.), (*Hooghly*).
Mohd. Elias (Com.), (*Howrah*).
Nalini Ranjan Ghosh (Cong.), (*Jalpaiguri*).
Subodh Hansda (S.T.) (Cong.), (*Jhargram (R)*).
Paresh Nath Kayal (S.C.) (Cong.), (*Joynagar (R)*).
Dr. Saradish Roy (Com.), (*Katwa*).
Smt. Renuka Ray (Cong.), (*Malda*).
P. S. Naskar (S.C.) (Cong.), (*Mathurapur (R)*).
G. K. Singha (Cong.), (*Midnapur*).
Syed Badrudduja (Ind.), (*Murshidabad*).
Haripada Chatterjee (U.A.), (*Nabadwip*).

* Being Speaker in the Parliament has no party affiliation so long as he is in office.

Bhajahari Mahato (U.P.P.G.), (*Purulia (Ind.)*).
C. K. Bhattacharyya (Cong.), (*Raiganj*).
D. Bhattacharya (Com.), (*Serampore*).
S. C. Samanta (Cong.), (*Tamluk*).
Dr. P. N. Khan (Cong.), (*Uluberia*).
Dr. P. Mandal (S.C.) (Cong.), (*Vishnupur (R)*).

**DELHI—5**

Sham Nath (Cong.), (*Chandni Chowk*).
S. C. Gupta (Cong.), (*Delhi Sadar*).
Naval Prabhakar (S.C.) (Cong.), (*Karol Bagh (R)*).
M. C. Khanna (Cong.), (*New Delhi*).
Ch. Brahm Perkash (Cong.), (*Outer Delhi*).

**HIMACHAL PRADESH—4**

Chattar Singh (Cong.), (*Chamba*).
Virbhadra Singh (Cong.), (*Mahasu*).
Lalit Sen (Cong.), (*Mandi*).
Partap Singh (S.C.) (Cong.), (*Sirmur (R)*).

**MANIPUR—2**

Salaon Tombi Singh (Cong.), (*Inner Manipur*).
R. Keishing (S.T.) (Cong.), (*Outer Manipur (R)*).

**TRIPURA—2**

Dasaratha Deb (S.T.) (Ind.), (*Tripura East (R)*).
Biren Dutta (Ind.), (*Tripura West*).

**JAMMU AND KASHMIR—(6)***

Sham Lal Saraf (Cong.).
Bakshi Abdur Rashid (Cong.).
Abdul Ghani Goni (Cong.).
Gopal Dutt Mengi (Cong.).
Inder J. Malhotra (Cong.).
Nazir Hussain Samnani (Cong.).

**ANDAMAN AND NICOBAR ISLANDS—(1)***

Niranjan Lall (Cong.).

**LACCADIVE, MINICOY AND AMINDIVI ISLANDS—(1)***

K. Nallakoya Thangal (Cong.).

**DADRA AND NAGAR HAVELI—1***

Sanji Rupji (Cong.).

**GOA, DAMAN AND DIU—(2)**

Peter Alvares (P.S.P.), (*Panjim*).
M. P. Shinkre (U.P.P.G.), (*Mormugao*).

**NORTH EAST FRONTIER TRACT (1)***

D. Ering (Cong.).

**NAGALAND**

S. C. Jamir (Cong.).

**PONDICHERY (1)**

Ku. Sivaprakasam (Cong.).

**ANGLO-INDIANS—(2)***

Frank Anthony (I.P.G.).
A. E. T. Barrow (I.P.G.).

**ESTIMATES COMMITTEE (1965-66)** : *Chairman :* Arun Chandra Guha ; *Members :* Bhagwat Jha Azad, Dinen Bhattacharyya, C. K. Bhattacharyya, Brij Raj Singh—Kotah, Jagannath Rao Chandriki, Chuni Lal, R. Dharmalingam, Digambar Singh Chaudhri, Indrajit Gupta, Smt. Jamuna Devi, Narayan Sadoba Kajrolkar, Gauri Shanker Kakkar, C. M. Kedaria, L. D. Kotoki, Narendrasingh Mahida, Dwarka Dass Mantri, Jaswantraj Mehta, Mahesh Dutta Misra, Mohan Swarup, Chowdhry Ram Sewak, B. Rajagopala Rao, J. Ramapathi Rao, P. G. Sen, H. Siddananjappa, Nardeo Snatak, N. M. R. Subbaraman, Ramachandra Ulaka, Vishram Prasad and Yudhvir Singh.

**PUBLIC ACCOUNTS COMMITTEE (1965-66)** : *Chairman :* R. R. Morarka : *Members :* Smt. Akkamma Devi, Ram Dhani Das, Gulabrao Keshavrao Jedhe, Cherian J. Kappen, R. Keishing, M. R. Krishna, B. P. Maurya, V. C. Parashar, Nanubhai N. Patel, C. L. Narasimha Reddy, G. Yallamenda Reddy, Prakash Vir Shastri, Surendra Pal Singh, U. M. Trivedi, M. P. Bhargava, Chandra Shekhar, S. C. Deb, R. S. Panjhazari, Ram Sahai, Niranjan Singh and Atal Bihari Vajpayee.

* Nominated by the President.

# ROADS

IT is estimated that India in 1914 had 273,000 Km. of roads. Against this, the length in April 1963 was 756,211 Km. made up of 251,961 Km. of metalled roads, and 504,250 Km. unmetalled roads. Included in this, however, are roads constructed in Community Development and N.E.S. Blocks, amounting to 263,100 Km. which are generally mere tracks and are often not properly maintained.

## ROAD FUND

The first all-India move for road development came in 1928 when the Road Development Committee presided over by the late M. R. Jayakar recommended the creation of a Road Development Fund out of a two-anna share per gallon of the proceeds of the import and excise duties on motor spirit, whose unexpended balances should not lapse at the end of the financial year. The share was later raised to two and a half annas per gallon.

Up to the end of March 1963 total receipts in the Central Road Fund since its inception were about Rs. 75·82 crores and those in the Central Road Fund Reserve since its inception were about Rs. 8·42 crores.

At present the annual revenue accruing to the Fund amounts to roughly Rs. 4 crores. For the first 15 years after its inauguration, the Central Road Fund was the main source of revenue for the construction of new roads or the improvement and modernisation of existing ones. However at present this fund represents hardly 2 per cent of the total tax revenue from motor transport, 5 per cent of the total expenditure on original road works provided for in the 3rd Five Year Plan and 4 per cent of the gross expenditure on roads inclusive of the maintenance cost of the road system.

On the administrative side roads except for the small mileage of National Highways described later are a State subject and may be divided into two main classes, State Roads under the Public Works Department and Local Roads in charge of local bodies.

## NAGPUR PLAN

In December 1943 the Chief Engineers of the various States met in conference at Nagpur and evolved a road plan based on the minimum needs of the country. Adopting as their objective the very modest proposition that no village in a well-developed agricultural area should remain more than 5 miles from a metalled road, the Chief Engineers recommended the increase of Indian Union's road mileage from 220,000 to 331,000 (522,700 Km.) of which nearly 40 per cent would be metalled.

The net increase in road mileage under this Plan, now known as the Nagpur Plan works out at 50 per cent.

Five-year programmes for commencement from April 1947 and representing varying proportions of the Nagpur scheme were prepared by the States for their respective areas as part of their post-war reconstruction programmes.

These programmes, exclusive of National Highways were estimated to cost nearly Rs. 120 crores over a five-year period, and were intended to embrace the construction or improvement of 80,000 miles (129,000 Km.) of roads.

During the eight years ending March 1951, India's road mileage increased by just 13 per cent. Thus at the beginning of the First Five Year Plan, India had 389,942 Km. of roads, of which 157,019 Km. were metalled and the remaining 242,923 Km. unmetalled.

## FIVE YEAR PLANS

At the beginning of the Five Year Plan, the lengths remaining to be constructed, in order to reach the targets of the Nagpur Road Plan, were 40,970 km. of metalled roads and 91,792 km. unmetalled roads, making a total of 132,762 km. in all.

A provision of Rs. 156 crores was made for road development during the First Five Year Plan period ending March 1956. Physical achievements during the 5-year period consisted of 109,691 km. of new roads.

The provision for road development in the Second Five Year Plan was Rs. 244 crores, against Rs. 156 crores in the First Plan. Details are as under :—

(Rs. in Crores)

| | 2nd 5-Year Plan April 1956 to March 1961 | 1st 5-Year Plan April 1951 to March 1956 |
|---|---|---|
| National Highways .. | 45 | 27·00 |
| State Roads financed by the Union Government .. .. .. | 7 | 4·24 |
| Central Aid for roads of inter-State or economic importance .. | 16 | 10·00 |
| State Roads .. .. | 151 | 89·75 |
| Central Road Fund .. | 25 | 25·00 |
| Total .. | 244 | 155·99 |

During the Second Plan 52,763 km. of metalled roads and 1,58,000 km. of unmetalled roads were added to the road system, thereby exceeding the Nagpur Plan in terms of total mileages, taking India as a whole : but the actual position was that the length of district and village roads was slightly larger than the minimum size laid down in the Nagpur Plan while the arterial roads comprising National Highways and State Highways were short of the Nagpur targets. Moreover at the end of the Second Plan there were hundreds of unbridged river crossings whose number, on National Highways alone, was 80. Again over 25 per cent of the road system representing village roads constructed in the community development and N.E.S. blocks were sub-standard roads and very often mere tracks with no arrangement for their annual maintenance or repairs.

**Extra-Municipal Road Length, Km.**

| Year ending March | Surfaced Roads | Unmetalled Roads | Total |
|---|---|---|---|
| 1957 .. | 191,470 | 324,084 | 515,554 |
| 1958 .. | 201,889 | 370,001 | 571,890 |
| 1959 .. | 210,517 | 408,401 | 618,918 |
| 1960 .. | 220,426 | 444,925 | 665,351 |
| 1961 .. | 235,790 | 473,330 | 709,120 |
| 1962 .. | 244,552 | 473,508 | 718,060 |
| 1963 .. | 251,961 | 504,250 | 756,211 |

## THIRD FIVE YEAR PLAN

The Planning Commission originally provided for an expenditure of Rs. 271 crores on roads in the Third Plan within the total overall allocation of Rs. 7,500 crores in the public sector. The actual programmes included in the Third Plan amounted to Rs. 324 crores and efforts, it was promised, would be made to provide funds to this extent to implement those programmes according to the annual budgetary position. The following is the break-up of the outlay of Rs. 324 crores:

| | | |
|---|---|---|
| **Central Sector** | | |
| National Highways .. .. .. .. | Rs. 48·50 crores | |
| Roads in Sikkim .. .. .. .. | Rs. 1·50 crores | |
| | Rs. 50·00 crores | |
| Central aid for roads of Inter-State or economic importance .. .. .. | Rs. 30·00 crores | |
| | | Rs. 80·00 crores |
| **State Sector** | | |
| State Plans .. .. .. .. | Rs. 218·31 crores | |
| Union Territories .. .. .. .. | Rs. 25·75 crores | |
| | | Rs. 244·06 crores |

In addition, the International Development Association has extended a development credit of Rs. 29 crores to meet a substantial part of the cost of certain selected road and bridge projects on National Highways. This increased the total provision for National Highways in the Third Plan from Rs. 48·5 crores to about Rs. 77 crores and the total road programme ceiling from Rs. 324 crores to Rs. 353 crores.

Further augmentation of the road programme was witnessed in 1963 and 1964. To ease the bottlenecks in transport of coal by switching over some of the short distance traffic to road and water, it has been decided to construct and improve roads in Bengal and Bihar at a cost of Rs. 20 crores. Again in the face of the emergency created by the Chinese invasion another provision of Rs. 34·5 crores has been made for the improvement of 1,000 miles of National Highways. Special permission has also been given by the Planning Commission to go ahead with the construction of 9 bridges over certain National Highways in Assam, Bihar and Bengal for which a provision of Rs. 4 crores is expected. New roads for facilitating the movement of iron ore from the States of Mysore, Andhra Pradesh and Orissa to nearby ports are at the same time being taken up. Further, with a view to meeting the economic and other needs of the other northern border of the country, it has been decided to develop a lateral road connecting Bareilly in U.P. to Amingaon in Assam *via* Siliguri in West Bengal. The total length of the lateral road, with four link roads is about 1,300 miles. The total cost of the road and of 21 major bridges on it will be Rs. 110 crores. Work commenced in 1964 and the major portion will be completed in four years. In view of all these additions, it is likely that the total outlay on roads during the Third Plan will be around Rs. 459 crores.

The road mileage in the country compares very poorly with that of other countries in relation to the area of the land and its population. Over 60 per cent of India's mileage is unmetalled and unsuited for all-weather traffic.

## NATIONAL HIGHWAYS

The Central Government, as part of their contribution towards post-war development accepted liability for the construction and maintenance of the National Highways with effect from 1st April 1947.

On 1st April, 1947 the total length of the roads provisionally accepted as national highways was 13,400 miles. Consequent on partition and the integration of the former princely States with the Indian Union the total length of these roads increased to about 22,209 km. On the 1st of April 1947 the selected national highway routes had approximately 2,250 km. of missing road links and thousands of missing culverts and bridges out of which about 150 were bridges on large rivers. In addition, about 9,000 miles of these roads had low-grade surface.

During the 5 years ending March 1956, 636 miles of missing links and a large number of culverts and bridges including 30 major bridges were constructed, about 4,000 miles of existing sections improved and provided with one-lane asphalted carriageway, and about 400 miles of the improved sections made fit for two-lane traffic.

National Highways include the following roads:—1. The Grand Trunk Road from Calcutta to Amritsar *via* Banaras, Kanpur, Agra and Delhi; 2. The Agra-Bombay Road; 3. The Bombay-Bangalore-Madras Road; 4. The Madras-Calcutta Road; 5. The Calcutta-Nagpur-Bombay Road; 6. The Banaras-Nagpur-Hyderabad-Bangalore-Cape Comorin Road; 7. The Delhi-Ahmedabad-Bombay Road; 8. The Road from Ahmedabad to Kandla with a branch Road to Porbandar; 9. The Hindustan-Tibet Road from Ambala to Tibet border *via* Simla; 10. The Delhi-Lucknow-Gorakhpur-Muzzafarpur Road with a branch road to Nepal border; 11. The Assam Access Road; 12. The Assam Trunk Road on the South Bank of the Brahmaputra; 13. The road branching off from the Assam Trunk Road towards the Burma border through the State of Manipur.

In 1961 three additional roads were classed as National Highways. They are Jabalpur-Bhopal-Biaro Road, Agra-Jaipur-Bikaner Road and Sholapur-Chitradurg Road. Consequently the length of the National Highway system has now increased to 14,880 miles.

Targets fixed for the development of National Highways during the Second Five Year Plan from April 1956 to March 1961, and the progress achieved during the five years ending March 1961 were as follows:—

| | Targets for 5 years ending 31st March 1961. | Work done during 5 years ending 31st March 1961. |
|---|---|---|
| Construction of missing links, Miles .. | 700 | 640 |
| Construction of major bridges, Numbers .. | 40 | 41 |
| Improvements to existing lengths, Miles .. .. | 3,500 | 3,500 |
| Widening of roads to two-lane carriageways, Miles .. | 1,200 | 1,000 |

At the end of the Second Plan, only about 3,000 miles of National Highways had 2 lane carriageways. There were about 400 miles of missing links and 1,600 miles of low grade surfaces. The remaining 9,880 miles had one-lane asphalt or cement concrete carriageway. There were also 77 major bridges to be constructed.

Some of the important works completed on national highways so far are the Barakar and Poon bridges and the rail-road bridge over the Ganga near Mokameh in Bihar, the Kathjuri and Kuakhai bridges in Orissa, the Mahi bridge in Bombay, the Pennar and Champavati bridges in Andhra Pradesh, Pugalur and Palar bridges in Madras, Beyne and Ghagger bridges in the Punjab, Gheesh and Leesh bridges in West Bengal, Bygool, Bhakra and Betwa bridges in U.P., the Chambal bridge near Dholpur in Madhya Pradesh and the bridge over the Ganga at Garhmukteshwar in U.P.

Among the important projects in progress are the construction of National Highway No. 28 from Dalsingsarai to Barauni and Pipra to Kasia (Salemgarh) in Bihar, construction and improvement of roads in the Dandakaranya area in Madhya Pradesh, improvement of National Highway No. 2 from Mathura to Agra District border in U.P. and construction of the following bridges costing over Rs. one crore each: (*a*) across Gowthami branch of the river Godavari in Andhra; (*b*) across Kosi river at Kurdela in Bihar; (*c*) across Beas river near Mirthal on Jullundar-Pathankot road; (*d*) across Sutlej river on mile 99 of Grand Trunk Road; and (*e*) over the Ganga river at Allahabad.

The west coast road, though under construction mainly at the cost of the Central Government, has not yet been declared a National Highway. Passing through the States of Maharashtra, Mysore, Goa and Kerala this 763 mile road from Panvel in Maharashtra to Chalissery in Kerala is expected to be completed during the Fourth Plan. Against the total estimated cost of Rs. 23·15 crores, an expenditure of roughly Rs. 9·85 crores was incurred upto April 1964.

During the 3rd Plan, 300 miles of missing links and 60 major bridges are likely to be constructed on National Highways. About 2,300 miles of low-grade surface are proposed to be improved and 900 miles of carriageways are expected to be widened. The above targets also include the road and bridge works under the I.D.A. projects. The schemes of the I.D.A. seek to serve primarily certain highly congested areas near big cities like Calcutta and Bombay, the industrial belt of Jamshedpur and the Gangetic planes of northern Bihar which are fully populated. The projects cover the construction or improvement of about 660 miles of National Highways including 19 major bridges. A short length of a new 4-lane Highway is to be built to provide an easy access to Calcutta through Joypurbeel and the Vivekananda bridge. Another Highway will be constructed to serve the fertile coastal areas of West Bengal which are not connected by road to Calcutta at present. Among the 19 major bridges selected is one across the Sone which will fill the existing gap in the Grand-Trunk Road. Also included in this programme is the Eastern Express Highway for the Bombay Region.

Even with the inclusion of the IDA works, the National Highway programme for the Third Plan will fall substantially short of India's immediate needs. The Jha Committee on automobile industry has recommended that by the end of the Third Plan India should have about 4 lakhs of passenger cars, one lakh of buses and three lakhs of trucks. The traffic generated by these vehicles calls for at least 50 per cent of the National Highways to be widened to 2 lane carriageway, but, as at present proposed, only 4,200 miles out of 14,880 miles of these National Highways will have double-lane carriageways.

The National Highways are distributed over the length and breadth of the country on a fairly uniform basis. The actual National Highway mileages in the various States in 1961 were as follows:—

States: Andhra 1,351, Assam 723, Bihar 935, Gujarat 579, Maharashtra 1,431, Jammu &

Kashmir 338, Kerala 250, Madhya Pradesh 1,669, Madras 1,033, Mysore 820, Orissa 852, Punjab 879, Rajasthan 620, Uttar Pradesh 1,402, West Bengal 742.

Union Territories : Delhi 50, Himachal Pradesh 151, Manipur 132, NHTA 69, Sikkim 39. Total mileage excluding missing links 14.065.

## EXPRESS HIGHWAYS

Four express highways designed for fast motor traffic form part of the current road schemes. Two of these are at the northern outskirts of Bombay City known as the Western and Eastern Express Highways. A portion of the former leading to the Bombay airport was thrown open to traffic in 1963. While the latter, leading from Bombay to Thana was opened to light traffic early in 1964. Work on the remaining two express highways, which are comparatively longer, being roughly 100 miles each, is in progress. They connect Calcutta to Durgapur in West Bengal and Sukinda mines to Paradip port in Orissa. These express highways as well as the new roads in the coal areas are expected to give a fillip to the use of heavy vehicles and truck-trailer combinations for the transport of coal and mineral ores.

## NEW ROAD PLAN

Now that the Nagpur Roads Plan of 1943 has been completed in some respects, a new assessment of India's needs for the next 20 years has been undertaken by the Chief Engineers at the instance of the Government of India and a new Road Plan has been prepared for execution during the 20-year period from 1961 to 1981.

The broad outline of the plan is to raise the mileage of roads from 4·10 lakhs in 1961 to 6·57 lakhs by 1981 with provision for two lane carriage-ways on National Highways. The Plan aims at increasing the intensity of roads from 0·32 to 0·52 per square mile of territory. When the plan is completed the average distance from a village in an agricultural area to a metalled road will be reduced from five to three miles and the distance to an unmetalled road will be reduced from two to 1½ miles.

There is also a provision to have 1,000 miles of Expressways with limited access and also grade separation at most of the crossings.

The cost of this scheme is estimated at Rs. 5,200 crores and it is recommended should be split up between four 5-year periods as under :—

| | | |
|---|---|---|
| 1961-62 to 1965-66 | .. | Rs. 590 crores |
| 1966-67 to 1970-71 | .. | Rs. 1,075 ,, |
| 1971-72 to 1975-76 | .. | Rs. 1,545 ,, |
| 1976-77 to 1980-81 | .. | Rs. 2,000 ,, |

Statement showing how the allotments in the scheme are made—for Highways, District Roads and Village Roads.

| | Mileage | | Cost in Rs. crores (improvement and new construction) |
|---|---|---|---|
| | As expected on 1-4-1964 | Targets proposed in the Plan | |
| National Highways .. .. .. .. | 14,880 | 32,000 | 980 |
| State Highways .. .. .. .. | 35,000 | 70,000 | 1,580 |
| Major District Roads .. .. .. .. | 95,200 | 1,50,000 | 1,360 |
| Other District Roads .. .. .. .. | 78,300 | 1,80,000 | 650 |
| Village Roads (Classified) .. .. .. | 1,86,520 | 2,25,000 | 630 |
| Total .. .. .. .. | 4,09,900 | 6,57,000 | 5,200 |

A sum of Rs. 459 crores would be spent for the development of roads in the country during the 3rd Plan period out of Rs. 590 crores suggested by the Chief Engineers. Consequently India's progress towards an adequate road system for the country will now be very slow.

## INTERNATIONAL HIGHWAYS

A major development likely to take shape during the Third Plan period is the linking up of our national highways with the international highways as proposed by the ECAFE. These international roads have to be of certain minimum standards which have been laid down after discussion among experts of the countries concerned.

These highways are divided into two categories, the first consisting of main arterial routes joining the capitals of the countries and the second consisting of other routes joining main cities, ports etc. with the arterial network. Constituting a part of the main international system by linking India with Lahore in Pakistan and Mandalay in Burma the main arterial highway through India is the Amritsar-Delhi-Agra-Calcutta-Golaghat-Imphal road. Next in importance are two routes, Agra via Gwalior, Hyderabad and Bangalore to Danushkodi and Barhi to Kathmandu. Highways of the second category in India will include roads such as Agra-Bombay, Delhi-Multan, Bangalore-Madras, Golaghat-Ledo etc.

While in most cases the national highways satisfy the minimum standards of international roads, a few sections will have to be constructed or up-graded. Besides the geometrical and structural requirements, there are certain other facilities which have to be provided along these international roads. These include the provision of service stations and petrol filling stations, hotels, rest-houses, telephone booths, first aid posts etc. and water tanks in dry areas.

Through the international highways in Turkey, the Asian highway will link up with the European highways on the west, while on the east the highway will extend to Rangoon, Bangkok, Saigon and Singapore. Road travel between Asian and European countries will thus lose its hazards in due course.

## BORDER ROADS

A "Border Roads Development Board" was formed in March 1960 to accelerate the economic development of the North and North Eastern border areas. Its programme includes improvement of certain existing roads and tracks and construction of new ones. While all road agencies like the State P.W.D. and the Central P.W.D. cooperate with the Board, work is being carried out directly by the Board in the most forward areas and especially at high altitudes and in difficult terrain. For this purpose a special organisation viz. General Reserve Engineer Force (G.R.E.F.) has been created. The Board has taken over overall responsibility for the maintenance and improvement of the Pathankot-Jammu-Srinagar-Uri National Highway.

Owing to the national emergency some special roads might also be constructed for defence purposes.

## LENGTH OF EXTRA-MUNICIPAL ROADS MAINTAINED BY P. W. D. AND LOCAL BODIES AND ROADS CONSTRUCTED IN C. D. & N. E. S. BLOCKS IN INDIA AS ON 31st MARCH 1963.

(In kilometres)

| State/Union Territory | Surfaced Roads | Unsurfaced Roads | Total |
|---|---|---|---|
| Andhra Pradesh .. | 27,299 | 34,629 | 61,928 |
| Assam .. | 3,805 | 29,730 | 33,535 |
| Bihar .. | 11,145 | 42,129 | 53,274 |
| Gujarat .. | 13,140 | 14,864 | 28,004 |
| Jammu and Kashmir .. | 2,486 | 9,538 | 12,024 |
| Kerala .. | 8,052 | 12,076 | 20,128 |
| Madhya Pradesh .. | 24,352 | 27,558 | 51,910 |
| Madras .. | 33,815 | 22,297 | 56,112 |
| Maharashtra .. | 25,637 | 30,708 | 56,345 |
| Mysore .. | 28,719 | 39,952 | 68,671 |
| Nagaland .. | 103 | 2,741* | 2,844 |
| Orissa .. | 8,171 | 30,333 | 38,504 |
| Punjab .. | 11,422 | 26,742 | 38,164 |
| Rajasthan .. | 15,366 | 25,069 | 40,435 |
| Uttar Pradesh | 22,087 | 87,556 | 109,643 |
| West Bengal | 13,581 | 51,551 | 65,132 |
| Union Territories ** .. | 2,781 | 16,777 | 19,558 |
| Total .. | 251,961 | 504,250 | 756,211 |

* Data in respect of unsurfaced roads constructed by C.D. & N.E.S. Blocks are not available.

** Includes 63 kilometres of national highway length in Sikkim as on 31st March 1961.

## REVENUE FROM MOTOR TRANSPORT

In 1962-63 the expenditure on roads amounted to Rs. 120·03 crores made up of Rs. 76·43 crores on road construction or improvements and Rs. 43·59 crores on road maintenance The Governments at the Centre and in the States realised in the year an amount of Rs. 227·65 crores from motor transport, as under :—

| | Revenue, 1962-63 (Rs. in Crores) |
|---|---|
| *Central Revenues.* | |
| Motor Spirit and Diesel Oil Duties<br>Tyre Excise and Import Duties<br>Vehicle Parts Imports Duties | 144·67 |
| *State Revenue.* | |
| Vehicle Taxes and Petrol Sales Taxes, Passenger and Goods Taxes, etc. | 82·98 |
| | 227·65 |

## MOTOR VEHICLES

The number of motor vehicles in use in India in March 1963 was 844,553. In terms of the population of the country, this represents about 160 vehicles per lakh of inhabitants.

The 844,553 vehicles operating in India in March 1963 were distributed among the various States as in the table shown on next page. The growth of motor vehicles in India in the past eight years is about 125 per cent, the total number having increased from 3·76 lakhs in March 1955 to 8·45 lakhs in March 1963.

An estimate of the number of bullock carts and bicycles in the country puts the figures at 10 million and 4 million respectively (Nov 1959).

## NUMBER OF MOTOR VEHICLES ON THE ROAD IN INDIA ON 31st MARCH 1963.

| State | Motor cycles | Auto Rickshaws | Jeeps | Private cars | Taxis | | |
|---|---|---|---|---|---|---|---|
| | | | | | Petrol | Diesel | Total |
| Andhra Pradesh .. .. | 8,381 | 77 | 4,280 | 19,029 | 908 | 165 | 1,073 |
| Assam .. .. .. .. | 1,294 | 30 | 1,979 | 8,219 | .. | .. | 359 |
| Bihar .. .. .. .. | 5,706 | .. | .. | 14,795 | .. | .. | 971 |
| Gujarat .. .. .. .. | 12,381 | 1,950 | .. | 19,174 | .. | .. | 1,060 |
| Maharashtra .. .. .. | 18,251 | 543 | 4,098 | 55,472 | .. | .. | 7,546 |
| Kerala .. .. .. .. | 3,243 | 138 | .. | 16,591 | .. | .. | 2,954 |
| Madhya Pradesh .. .. | 5,660 | 214 | 3,700 | 10,182 | .. | .. | 517 |
| Madras .. .. .. .. | 11,169 | 705 | 2,348 | 27,931 | .. | .. | 2,515 |
| Mysore .. .. .. .. | 10,195 | 989 | 2,374 | 17,561 | 870 | 130 | 1,000 |
| Orissa .. .. .. .. | 1,670 | .. | 2,215 | 3,002 | .. | .. | 96 |
| Punjab .. .. .. .. | 9,365 | 567 | 1,170 | 6,953 | .. | .. | 302 |
| Rajasthan .. .. .. | 4,103 | .. | .. | 13,069 | .. | .. | 297 |
| Uttar Pradesh .. .. .. | 10,748 | 21 | 3,353 | 13,832 | .. | .. | 408 |
| West Bengal .. .. .. | 13,710 | 110 | 6,587 | 62,498 | .. | .. | 5,274 |
| Jammu and Kashmir .. .. | 577 | 10 | 328 | 1,039 | .. | .. | 141 |
| Delhi* .. .. .. .. | 18,777 | 3,784 | 708 | 19,010 | .. | .. | 2,055 |
| Tripura .. .. .. .. | 70 | .. | 456 | 55 | .. | .. | 63 |
| Himachal Pradesh .. .. | 18 | .. | 141 | 65 | .. | .. | 38 |
| Manipur* .. .. .. | 68 | .. | 199 | 78 | .. | .. | .. |
| Andaman and Nicobar Islands (31-3-1964) .. .. .. | 63 | .. | 57 | 30 | .. | .. | 19 |
| Goa .. .. .. .. | 1,070 | .. | .. | 2,731 | .. | .. | 579 |
| Total .. .. | 136,519 | 9,138 | 33,993 | 311,306 | 1,788 | 295 | 27,267 |

## NUMBER OF MOTOR VEHICLES ON THE ROAD IN INDIA ON 31st MARCH 1963—(*Contd.*)

| State | Buses | | | Goods Vehicles | | | Miscellaneous | | | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | Petrol | Diesel | Total | Petrol | Diesel | Total | Petrol | Diesel | Total | |
| Andhra Pradesh .. .. | 220 | 5,336 | 5,556 | 3,340 | 10,150 | 13,490 | 3,843 | 1,916 | 5,759 | 57,645 |
| Assam .. .. .. .. | 1,340 | 67 | 1,407 | 6,348 | 2,288 | 8,636 | 1,576 | 3,806*d* | 5,382 | 27,306 |
| Bihar .. .. .. .. | .. | .. | 2,621 | .. | .. | 14,172 | .. | .. | 1,461 | 39,726 |
| Gujarat .. .. .. .. | 132 | 2,574 | 2,706 | 4,444 | 9,877 | 14,321 | 220 | 6,243*e* | 6,463 | 58,055 |
| Maharashtra .. .. .. | 1,482 | 3,014*a* | 4,496 | 20,022 | 13,033*b* | 33,055 | 796 | 3,360*f* | 4,156 | 1,27,617 |
| Kerala .. .. .. .. | .. | .. | 4,253 | .. | .. | 7,630 | .. | .. | 787 | 35,596 |
| Madhya Pradesh .. .. | 1,175 | 2,869 | 4,044 | 4,568 | 8,262 | 12,831 | 969 | 3,042*g* | 4,011 | 41,159 |
| Madras .. .. .. .. | .. | .. | 5,957 | .. | .. | 12,802 | .. | .. | 1,549 | 64,976 |
| Mysore .. .. .. .. | 1,155 | 4,399 | 5,544 | 3,631 | 10,853*c* | 14,484 | 784 | 3,071*h* | 3,855 | 56,012 |
| Orissa .. .. .. .. | 303 | 542 | 845 | 2,203 | 3,648 | 5,851 | 361 | 618*i* | 979 | 14,658 |
| Punjab .. .. .. .. | .. | .. | 2,609 | .. | .. | 7,423 | .. | .. | 2,731 | 31,120 |
| Rajasthan .. .. .. | .. | .. | 5,225 | .. | .. | 10,232 | .. | .. | 5,517 | 38,443 |
| Uttar Pradesh .. .. | 1,832 | 6,234 | 8,066 | 4,306 | 11,994 | 16,300 | 1,466 | .. | 1,915 | 54,643 |
| West Bengal .. .. .. | .. | .. | 5,387 | .. | .. | 28,909 | .. | .. | 6,325 | 1,28,800 |
| Jammu and Kashmir .. .. | .. | .. | 724 | .. | .. | 2,876 | .. | .. | 34 | 5,729 |
| Delhi* .. .. .. .. | .. | .. | 1,506 | .. | .. | 4,674 | .. | .. | .. | 50,514 |
| Tripura .. .. .. .. | 185 | 4 | 189 | 593 | 77 | 670 | .. | .. | 36 | 1,539 |
| Himachal Pradesh .. .. | .. | .. | 173 | .. | .. | 433 | .. | .. | 36 | 904 |
| Manipur* .. .. .. | .. | .. | 165 | .. | .. | 509 | .. | .. | 71 | 1,090 |
| Andaman and Nicobar Islands (31-3-1964) .. .. .. | .. | .. | 13 | .. | .. | 156 | .. | .. | 71 | 409 |
| Goa .. .. .. .. | .. | .. | 563 | .. | .. | 3,679 | .. | .. | .. | 8,612 |
| Total .. .. | .. | .. | 62,059 | .. | .. | 2,13,183 | .. | .. | 51,138 | 8,44,553 |

* Provisional. (*a*) Includes 14 others. (*b*) Includes 50 others. (*c*) Includes 8 others. (*d*) Includes 2,703 others. (*e*) Includes 2,498 others. (*f*) Includes 531 others. (*g*) Includes 856 others. (*h*) Includes 2,184 others. (*i*) Includes 317 others.

## NATIONALISED TRANSPORT

Programmes for nationalisation of road transport have occupied a prominent place in the plans of State Governments from 1946 onwards. In April 1951 nationalised bus services had a total fleet of about 8,000 vehicles. By March 1961, the total number of such vehicles increased to 17,982 representing 33·2 per cent of the passenger services in the country.

Nationalised bus services covered in 1961 almost the major parts of Gujarat, Maharashtra, Orissa, Delhi, Manipur and Himachal Pradesh.

No nationalisation has taken place in Tripura but in the remaining parts of the country the extent to which services have been nationalised varies from one State to another, some having started only experimental nationalisation while in some others more than 90 per cent of the bus services are under State ownership as is shown in the following table:

**PRIVATE AND NATIONALISED BUSES AT BEGINNING OF THIRD PLAN, 1ST APRIL 1961**

| Name of State/Union Territory | Number of buses in public sector | Number of buses in private sector | Total | Percentage of 2 to 4 |
|---|---|---|---|---|
| Andhra Pradesh | 1,302 | 3,151 | 4,453 | 28·33 |
| Assam | 444 | 736 | 1,180 | 37·60 |
| Bihar | 613 | 1,869 | 1,982 | 31·00 |
| Maharashtra | 3,623 | 3,065 | 6,688 | 57·20 |
| Gujarat | 3,190 | 359 | 3,549 | 90·00 |
| Kerala | 559 | 2,640 | 3,199 | 17·50 |
| Madhya Pradesh | 673 | 2,415 | 3,088 | 21·70 |
| Madras | 692 | 4,487 | 5,179 | 13·40 |
| Mysore | 1,657 | 2,358 | 4,015 | 41·25 |
| Orissa | 386 | 403 | 789 | 49·00 |
| Punjab | 722 | 2,208 | 2,930 | 24·60 |
| Rajasthan | 177 | 3,314 | 3,491 | 5·10 |
| Uttar Pradesh | 2,984 | 4,528 | 7,512 | 39·70 |
| West Bengal | 730 | 3,270 | 4,000 | 18·25 |
| Delhi | 668 | 74 | 742 | 90·40 |
| Jammu and Kashmir | 143 | 497 | 640 | 22·30 |
| Himachal Pradesh | 261 | Nil | 261 | 100·00 |
| Manipur | 115 | 3 | 118 | 97·40 |
| Andaman and Nicobar Islands | 5 | 5 | 10 | 50·00 |
| Tripura | .. | 369 | 369 | — |
| Total | 17,982 | 36,213 | 54,195 | 33·20 |

Freight transport is operated by certain State Transport organisations such as those in Assam, Maharashtra, Uttar Pradesh, Jammu & Kashmir and Himachal Pradesh. While these freight lorries as a rule operate on charter basis or on scheduled parcel services without monopoly, the State Transport in Assam has a monopoly of the truck traffic on 68 miles of roads and the entire goods traffic in Himachal Pradesh is a State monopoly. The number of goods lorries operated by nationalised concerns is however not more than two per cent of the total goods vehicles in India.

Expansion of nationalisation during the Third Plan commencing April 1961 will be confined as in the Second Plan to passenger services. The Third Plan envisages the addition of 5,000 vehicles so as to increase the nationalised fleet of buses to 23,000 by March 1966.

## TRANSPORT BODIES

The department in the Central Government which deals with the overall direction of the roads plan and co-ordination of State planning is the Roads Wing under the Ministry of Transport. The chief official is the Consulting Engineer (Road Development) who is also Joint Secretary to the Ministry of Transport.

The Roads Wing gives technical advice and arranges for the allocation of Central Road Fund reserves among the States.

An inter-State Transport Commission has been set up to develop, co-ordinate and regulate operation of motor vehicles in areas or routes common to two or more States. The present Chairman of the Commission is Mr. N. P. Mathur.

For proper and planned development of transport as a whole and to ensure co-ordination between the various modes of transport on the one hand and the Central and State transport policies on the other, Government of India in 1958 set up three transport bodies. They are the *Transport Development Council, the Road and Inland Water Transport Advisory Committee, and the Central Transport Co-ordination Committee.* These replaced the Transport Advisory Council constituted in 1935, the Central Board of Transport and the Standing Committee of the Central Board of Transport.

The Transport Development Council is a high-level body to advise the Government of India on all matters of policy relating to roads, road transport as well as inland water transport. The Council will also advise on problems relating to co-ordination between different forms of transport that may be referred to it by the Government of India.

The membership of this Council is restricted to Transport Ministers of the States and Lt. Governors and Chief Commissioners of the Union Territories. From the Centre, the Ministers of Transport, Commerce, Industry and Railways, Minister of State in the Ministry of Transport, Deputy Minister of Transport and member in charge of transport in the Planning Commission are its members.

The Union Minister of Transport is the chairman of the Council and the Transport Secretary to the Government of India its Secretary. The Council will meet at least once a year.

The Road and Inland Water Transport Advisory Committee has been set up to discuss problems relating to roads, road transport and inland water transport and to make recommendations to the Transport Development Council for final decisions. The Committee consists of official and non-official members and the Minister of State in the Ministry of Transport is its chairman

The Central Transport Co-ordination Committee has been constituted in the place of the Standing Committee of the Central Board of Transport and deals with the day-to-day transport problems confronting the different ministries of the Government of India. The Transport Secretary to the Government of India is the chairman of this Committee.

The Government of India has also prepared a pilot scheme for setting up transport co-operative societies. To begin with, two such societies have been set up one each in Delhi and Kerala. Other States in which such societies are to be formed are West Bengal, Orissa and Madras.

The objective of the scheme is twofold; to bring more vehicles on the road; and to find employment for the educated unemployed.

The co-operative societies will be under the control of the State Government. Financial assistance by way of loans will be granted to the societies by the Government of India. The cost of training of the members of the co-operative societies would also be borne by the Central Government.

The membership of the co-operative societies will be restricted to workers, like drivers, mechanics, booking clerks, depot managers, etc.

On the basis of five persons to man one vehicle, each co-operative society will have 50 members. Each member will be required to contribute Rs. 1,000 towards the capital of the society.

### Road Transport Reorganisation Committee

The Government of India in 1958 appointed a Road Transport Reorganisation Committee under the chairmanship of Mr. M. R. Masani, M.P. to recommend changes in the machinery of transport administration in the States so that road transport might be developed to meet the demands created by the country's plans of economic development.

The recommendations were given in the 1960-61 Directory.

The Government appointed another committee under the chairmanship of Mr. K. C. Neogy in 1959 to study and recommend on the problem of transport policy and co-ordination. Mr. Neogy tendered his resignation in 1964 and Mr. Tarlok Singh has been appointed as Chairman of the committee. The report is awaited.

# FOOD

THE areas covered by the Punjab and Madhya Pradesh (former Vindhya Pradesh) are generally surplus in wheat.

The areas covered by the following States are generally surplus in rice: Orissa, Madhya Pradesh, Andhra, Punjab.

From the point of view of food generally the position is roughly as follows: Surplus areas: Madhya Pradesh, Punjab, Orissa, Andhra. Self-sufficient areas: U.P., Rajasthan, Madras, Mysore, Assam. Deficit areas: Maharashtra, Gujarat, Himachal Pradesh, Bihar, West Bengal, Kerala, Kashmir, Tripura. Manipur is marginal.

## PRODUCTION

In 1963-64 food production was 79·4 million tons and the index figure 134·9. Production of rice and wheat in 1963-64 was estimated at 36 mln., and 11 mln., tonnes respectively.

Total foodgrains production in the country from 1952-53 to 1963-64 was as follows (figures in million tons): 1952–53: 58·27; 1953–54: 68·72; 1954–55: 66·60; 1955–56: 65·3; 1956–57: 68·7; 1957–58: 64·3; 1958–59: 77·1; 1959–60: 76·7; 1960–61: 80·9; 1961–62: 81·0; 1962-63: 78·4; 1963-64: 79·4.1964-65: 88·4

The following are the comparative production figures of rice, wheat, barley, millets and pulses during the period 1960–61 to 1963–64.

(000 met. tons)

| Year | Rice | Wheat | Barley | Millets | Pulse | Maize |
|---|---|---|---|---|---|---|
| 1960–61 .. | 34,198 | 10,992 | 2,886 | 16,247 | 12,652 | 4,015 |
| 1961–62 .. | 34,807 | 12,039 | 3,152 | 15,138 | 11,631 | 4,270 |
| 1962–63 .. | 31,914 | 10,829 | 2,423 | 17,264 | 11,440 | 4,578 |
| 1963–64 .. | 36,489 | 9,708 | 1,985 | 16,846 | 9,875 | 4,527 |

The production of gram in 1963-64 was 4·5 million tons, Tur 1·3 million tons.

State-wise details of production of foodgrains in 1963-64 (in '000 met. tons) are as under :—

Andhra Pradesh 7,195 ; Assam 1,899 ; Bengal (West) 5,809 ; Bihar 7,406 ; Gujarat 2,524 ; Jammu & Kashmir 618 ; Kerala 1,148 ; Madhya Pradesh 9,163 ; Madras 5,672 ; Maharashtra 6,749 ; Mysore 4,072 ; Orissa 4,072; Punjab 4,819; Rajasthan 5,790 ; Uttar Pradesh 11,825 ; Andaman and Nicobar Islands 9 ; Delhi 53 ; Himachal Pradesh 345 ; Manipur 109 ; Tripura 175 ; Nagaland 71.

The index of production of foodgrains is as follows (1949-50 = 100) :—

1961-62 : 137·5 ; 1962-63 : 130·4 ; 1963-64 : 134·9.

| Food grains | 1961–62 | 1962–63 | 1963–64 |
|---|---|---|---|
| Rice .. .. .. | 139·0 | 127·4 | 145·7 |
| Wheat .. .. .. | 178·3 | 160·4 | 143·8 |
| Jowar .. .. .. | 111·2 | 138·2 | 132·5 |
| Bajra .. .. .. | 111·3 | 121·9 | 117·0 |
| Ragi .. .. .. | 121·6 | 122·9 | 120·4 |
| Maize .. .. .. | 152·5 | 163·5 | 161·7 |
| Small Millets .. .. .. | 101·0 | 95·4 | 104·2 |
| Barley .. .. .. | 133·6 | 102·7 | 84·1 |
| *Cereals* .. .. .. | 140·0 | 132·4 | 139·9 |
| Gram .. .. .. | 149·5 | 137·1 | 114·9 |
| Tur .. .. .. .. | 68·7 | 80·5 | 65·3 |
| Other pulses .. .. .. | 106·9 | 107·8 | 98·2 |
| *Pulses* .. .. .. | 120·3 | 116·9 | 101·2 |
| Food grains .. .. .. | 137·5 | 130·4 | 130·4 |

Total Internal Procurement and Issue of Food Grains. (000 met. tons)

| Calendar Year | Procured by | | | Issued through | | |
|---|---|---|---|---|---|---|
| | State | Centre | Total | State | Centre | Total |
| 1962.. .. | 183 | 296 | 479 | 1,281 | 3,084 | 4,365 |
| 1963.. .. | 205 | 545 | 750 | 1,673 | 3,505 | 5,178 |
| 1964.. .. | 673 | 741 | 1,414 | 3,906 | 4,757 | 8,663 |

## SUPPLY

The demand and supply of cereals from 1962-1964 :

(000 met. tons)

| | | 1962 | 1963 | 1964 (*e*) |
|---|---|---|---|---|
| Production (Net) .. | | — | — | — |
| Procurement .. | | 479 | 750 | 1,414 |
| Opening Stocks in Godowns | States | 183 | 205 | 673 |
| | Centre | 296 | 545 | 741 |
| | Total | 479 | 750 | 1,414 |
| Offtake from Godowns | States | 1,281 | 1,673 | 3,906 |
| | Centre | 3,084 | 3,505 | 4,757 |
| | Total | 4,365 | 5,178 | 8,663 |

(*e*) Figures for 1964 are provisional and subject to revision.

The balance sheet of foodgrains distributed by Governments during 1963 and 1964 was as follows :

(in thousand met. tons)

| — | 1963 | 1964 (*a*) |
|---|---|---|
| Opening Stock with States .. | 395 | 319 |
| Procurement .. .. | 296 | 545 |
| Stocks with States at the end of the year .. .. | 319 | 467 |
| Central Reserves at the end of the year .. .. | 1,940 | 530 |

(*a*) Provisional.

Offtake from Central Government stock in 1964, was 8·663 million tons comprising 1·857 million tons rice, 6·785 million tons wheat and 0·023 million tons coarse grains. The total number of fair price shops in different States at the end of Dec. 1964 was about 104,560.

The total procurement of rice in 1964 was 1·283 million tons. Of this 7,41,000 tons were procured by the Centre and the rest 5,42,000 tons by the States as detailed below : (Fig. in million tons) : Andhra Pradesh 0·046 ; Assam 0·071 ; Gujarat 0·011 ; J. & K. State 0·015 ; Kerala 0·003 ; Madras 0·072 ; Maharashtra 0·013 ; Orissa 0·072 ; Punjab 0·011 ; U.P. 0·145 & W. Bengal 0·663.

Manipur and Tripura procured 10,000 tons each.

With effect from 1st April 1956 foodgrains have been supplied to State Governments and others at a specially reduced price with a view to stabilising the market price in the country as follows (Figures in million Rs.) :

1956-57 : 184·8 ; 1957-58 : 230·4 ; 1958-59 : 100·2 ; 1959-60 : 88·18 ; 1960-61 : 128·51 ; 1961-62 : 124·12.

Supplies of food grains to State Governments from Central Stocks (Mill. met. tons).

| Year | Rice | Wheat | Others | Total |
|---|---|---|---|---|
| 1961 .. | 2·70 | 0·65 | — | 3·35 |
| 1962 .. | — | — | — | 4·30 |
| 1963 .. | 1·12 | 3·80 | — | 4·92 |
| 1964 .. | 1·40 | 6·85 | — | 8·25 |

## IMPORTS (1960-64)

Imports of food grains into India in 1964 were about 6,266 thousand metric tons.

The imports of foodgrains over the years were as follows :

(figures in million long tons)

1960—5·056 ; 1961—3·44 ; 1962·—3·64 valued at Rs. 141·1 crores ; 1963—4·56 valued at about Rs. 183·6 crores and 1964—6·266 valued at about Rs. 266·25 crores. Of the 1964 imports, 5·621 mln. tonnes were wheat and 0·645 mln. tonnes rice.

The imports of individual grains were as follows :

(in million metric tons)

| | 1962 | 1963 | 1964 |
|---|---|---|---|
| Rice .. .. .. | 0·390 | 0·083 | 0·645 |
| Wheat (including flour) | 3·250 | — | — |
| Others .. .. .. | — | — | — |

Countries from which imports were obtained from 1962 to 1964 with quantity (in million metric tons) were as follows :

| | Quantity | | |
|---|---|---|---|
| | 1962 | 1963 | 1964 |
| Country | | | |
| U.S.A. .. | 3·036 | 4·198 | 5·586 |
| Australia .. | 0·356 | 0·156 | 0·261 |
| Canada .. | 0·045 | 0·019 | 0·107 |
| U.A.R. .. | — | — | 0·029 |
| Burma .. | 0·201 | 0·173 | 0·152 |
| Others .. | — | 0·010 | 0·131 |
| TOTAL | 3·640 | 4·556 | 6·266 |

Countries from which wheat and rice imported during the year 1964 : (quantity in million metric tons).

| | Wheat | Rice |
|---|---|---|
| U.S.A. .. .. .. | 5·253 | 0·333 |
| Australia .. .. .. | 0·261 | — |
| Burma .. .. .. | — | 0·152 |
| Canada .. .. .. | 0·107 | — |
| U.A.R. .. .. .. | — | 0·029 |
| Others .. .. .. | — | 0·131 |
| TOTAL .. .. | 5·621 | 0·645 |

The Plan provided for an import of 6 million tons of foodgrains costing about Rs. 48 crores a year.

An important event which had a salutory effect on the market sentiment during 1960 was the conclusion of the long-term P.L. 480 agreement with U.S.A. in May 1960 for the import of 16 million tons of wheat and one million metric tons of rice over a period of four years.

## PRICE LEVEL

The movement in the price of some items is shown by the following table of index numbers of wholesale prices :

(Base 1952-53 — 100)

| | 1963 | | 1964 | 1964 | 1965 |
|---|---|---|---|---|---|
| | January | December | January | December | January |
| All commodities .. | 126·0 | 134·9 | 136·3 | 158·0 | 159·4 |
| Food Articles .. .. | 123·4 | 136·2 | 137·9 | 166·0 | 167·9 |
| Cereals .. .. .. | 102·8 | 117·4 | 118·3 | 142·1 | 145·3 |
| Pulses .. .. .. | 103·9 | 121·7 | 124·0 | 194·8 | 196·3 |
| Rice .. .. .. | 108·1 | 121·7 | 124·0 | 128·9 | 127·9 |
| Wheat .. .. .. | 88·4 | 106·3 | 112·0 | 145·4 | 151·2 |
| Jowar .. .. .. | 127·7 | 114·3 | 122·7 | 203·7 | 217·2 |
| Bajra .. .. .. | 116·2 | 138·6 | 139·3 | 179·8 | 197·1 |
| Ragi .. .. .. | 116·2 | 138·6 | 139·3 | 192·4 | 203·3 |
| Gram .. .. .. | 88·9 | 110·2 | 112·5 | 192·5 | 187·1 |
| Arhar .. .. .. | 116·4 | 144·5 | 141·3 | 231·4 | 241·4 |
| Mung .. .. .. | 97·0 | 116·5 | 129·4 | 184·1 | 189·0 |
| Ulud .. .. .. | 118·3 | 125·4 | 123·7 | 143·3 | 140·8 |
| Masur .. .. .. | 117·1 | 125·8 | 127·2 | 225·6 | 239·7 |

The Central Government gave financial and technical assistance to State Governments for agricultural development programmes during 1961-62 to the tune of Rs.477·9 million; 1962-63: Rs. 524 million ; 1963-64 : Rs. 736·5 million.

## SEED

The area under improved seeds of food grains is proposed to be increased from 55m. acres (1960-61) to about 203 m. acres (1965-66).

A bill on seed certification is proposed for laying down standards of quality and making arrangements for seed analysis, inspection certification and regulation of notified seeds.

The Govt. of India has set up a Central Seed Corporation as a company registered under the Indian Companies Act, 1956 with a share capital of Rs. 50 million divided into five lakh equity shares of Rs. 100 each to promote the production of improved seeds in the country by financial aid, technical guidance, organising marketing agencies and sponsoring training programmes in collaboration with Central and State Governments and other interests. Four seed units each of 500 acres will be set up in the 3rd Plan for hybrid maize and one to two for hybrid jowar.

## FERTILIZERS & MANURES

India's requirement of nitrogen fertilizer is placed at between 2 and 2·5 million tons. Minimum requirement would probably be estimated at 1·5 million tons on the basis of 30 lbs. per acre.

It is estimated that the use of one ton of fertilizer on an area of 75 acres results in an extra 10-ton production of food grain.

An expert Committee under the Chairmanship of Mr. B. Shivraman was appointed to examine the problems relating to production, pricing and distribution of fertilisers and the report was submitted in May 1965.

**Consumption of Fertilizers**

(met. tons)

| Plant Food | 1963-64 | 1964-65 |
|---|---|---|
| | Consumption | Consumption |
| Nitrogen .. .. | 3,76,827 | 5,55,246 |
| Phosphoric Acid .. | 1,16,499 | 1,48,689 |
| Potash .. .. | 50,620 | 55,922 |
| All fertilizers .. | — | — |

The night soil compost scheme, which has now been introduced in Madras, Rajasthan, Punjab, Orissa and Mysore, will cover 500 bigger panchayats, for which Central assistance has been given at the rate of Rs. 2,000 per panchayat.

A total number of 2,250 urban centres was also engaged in night soil compost production in the States. 111 million tons of rural compost were expected to be produced in 1964-65.

**Urban Compost**

| Year | Quantity prepared (million tons) | No. of centres | Quantity distributed (million tons) |
|---|---|---|---|
| 1961–62 | 2·95 | 2,135 | 2·560 |
| 1962–63 | 3·10 | — | — |
| 1963–64 | 3·30 | 2,410 | — |
| 1964–65 | 3·6 | — | — |

Distribution of green manure seeds in parcels is encouraged in most States. A subsidy of Rs. 2 per maund is given to the State for multiplying green manuring seed. The total area green manured during 1962-63 : 16 million acres ; 1963-64 : 17 million acres and 1964-65 : 22·3 mil. acres.

# THE FOOD PROBLEM

The *per capita* net availability of food grains in India :

(in grams)

| Year | Cereals | Pulses | Total |
|---|---|---|---|
| 1959 .. | 385·3 | 74·4 | 459·7 |
| 1960 .. | 379·3 | 64·9 | 444·2 |
| 1961 .. | 392·6 | 68·4 | 461·0 |
| 1962 .. | 384·8 | 61·6 | 446·4 |

The *per capita* consumption in India of all food items in terms of calories compares as follows :—Canada : 3,140 ; U.S.A. : 3,150 ; U.K. : 3,270 ; Japan : 2,110 ; and India : 1,880.

The problem can be summed up in some such way as the following :—

The consumption of food grains and pulses in India has been increasing over the last three years faster than production.

The increase in population of eight million persons per year in itself will require one million tons of additional food grains each year. With an increase of the *per capita* intake of 100 calories per day, India would require an additional five million tons food grains per year.

It will take another five years for India to achieve the 81-million-ton food target of the Second Five-Year Plan. Consumption in the meantime will increase to 87 million tons, leaving a net deficit of six million tons per year.

Of this, India would probably import one million tons per year commercially. The balance of five million tons would need to be met somehow.

A reserve for India is necessary to meet crop failures and other contingencies.

The Government of India concluded a long-term agreement with the U.S.A. under P.L. 480 for import of 16 million metric tons of wheat and one million metric tons of rice from the U.S.A. over a period of four years to meet the current demands and also build up a reserve stock of five million tons of food grains.

The following agreements were signed in 1963 for import of foodgrains : (*a*) Government of Canada (Under the Colombo Plan 1963-64) for an aid of $1·5 million for wheat purchases fetching about 20,000 tons of wheat ; (*b*) Under P.L. 480, 0·156 million tons of wheat purchased from Australia against 0·2 million tons (for U.S. fiscal years 1962-63 and 1963-64) ; (*c*) South Viet-Nam (agreement of 3rd Sept. 1963) to import 10,000 tons of rice which arrived in Oct. 1963 ; (*d*) Burma (contracts of Sept. and Dec. 1963) 0·170 million tons of rice imported in 1963 and 0·15 million tons to be imported in 1964 ; (*e*) U.A.R. (contract dated 25th Dec. 1963) to import 35,000 tons of rice during 1964.

### Buffer Stocks

The Government of India propose to build up a buffer stock of four million tons of wheat and two million tons of rice. The stock of wheat is to be built from imports from U.S.A. under P.L. 480 agreement of May 1960 and that of rice from internal procurement and imports.

Distribution of foodgrains from Government stocks channelled through 60,000 fair price shops amounted to 4·92 million tons comprising 3·80 mln. tons of wheat, 1·12 mln. tons of rice in 1963 as against 4·31 mln. tons in 1962.

### Price Support

The support prices for standard venture of coarse paddy was announced in Oct. 1964 ; ranged Rs. 34—41 per quintal by Jha Committee. In the case of wheat (Feb. March 1965) red variety Rs. 45·50 ; white Rs. 49·50 and superior variety Rs. 53·50 per quintal. The State Govts. were authorised to announce producers price for gram within the range of Rs. 40—40·50 per quintal for 1964-65. They were also authorised to fix prices of jawar, bajra and maize within the price-range of Rs. 38—38·50, Rs. 40—40·50 and Rs. 36—36·50 respectively.

Maximum whole-sale and retail prices of rice were fixed in Bengal (Jan. '64) and in the Southern States (Aug. 1964). Subsequently the Government fixed the maximum price of paddy Re. 1/- higher than the support prices. Maximum prices of wheat have been fixed by the Govt. of Rajasthan and of jawar by Madhya Pradesh and Maharashtra.

To regulate trade activities the wholesale dealers in foodgrains are licensed in all States. Statutory rationing in Calcutta (Jan. 1965), informal rationng in Kerala (Nov. 1964) and in Delhi (Nov. 1964) were introduced.

## WAREHOUSES

It is estimated that about three million tons of foodgrains go waste in the country owing to lack of efficient storage facilities To arrest wastage of agricultural produce, warehousing has been adopted as a national programme in the public sector.

A Central Warehousing Corporation was established in 1956 under the Agricultural Produce (Development and Warehousing) Corporation

Act, 1956. The target set for the Third Five Year plan is 100 Central Warehouses and 600 State Warehouses including sub-ware houses.

As many as 80 types of commodities are now stored in the warehouses including foodgrains, oilseeds, cattle fodder, raw cotton, cotton seed, raw jute, turmeric, gur, ginger, pepper, cardamom, coffee seeds, chicory, fertilizers and food products.

### Food Corporation

The Food Corporation was set up as a statutory body in Jan. 1965 to function in the long term comprehensive strategy for solving the food problem.

During 1965 the Corporation purchased about 20 lakh tons of rice through Central and State Govts. (*For more details see under All India Corporations*).

### Subsidiary Foods

A Food and Nutrition Board with 10 members consisting of scientists and technologists has been setup in the Department of Food for securing accelerated, coordinated, effective implementation of programmes of development and popularisation of subsidiary and protective food with the Secretary in Dept. of Food as the Chairman.

The Board has initiated investigations for the development of cotton-seed protein for human consumption, fortification of common salt with calcium and development of food from green vegetation and further work on parboiled rice and vegetable milk powder.

Programme has been initiated for the promotion of food preservation technique. It is proposed to establish demonstration-cum-community canning and food preservation centres one each at Delhi, Bombay, Madras and Calcutta. The Delhi Centre has already started functioning. Four mobile food and nutrition extension units for the systematic campaign for promotion and popularisation of food preservation technique, suitable dietary habits, cost balanced diet and scientific technique of cookery, proper utilisation of food etc. with Hd. Quarters at Delhi, Bombay, Calcutta and Madras, have also started functioning.

## PACKAGE PROGRAMME

A U.S.A. team of 13 Agricultural Experts arrived in India under the sponsorship of the Ford Foundation, early in 1959, and with the help of their Indian counterparts, they studied the Indian agricultural problem.

A summary of the Ford Foundation report published during the year 1959 is given in the 1960-61 edition of the Directory.

The recommendation that intensified work on a pilot project basis be taken up in selected areas is also being given effect to. A pilot project has been drawn up for selected districts, one each in seven States—four rice-growing States, namely, Andhra Pradesh, Bihar, Madras and, Madhya Pradesh, two wheat growing States namely, U.P. and Punjab, and one millet-growing State, namely, Rajasthan.

The pilot project is part of a "package programme" in which all the factors that are likely to contribute significantly to a rapid increase in food production would be combined into one programme. The essence of the scheme is to make available to the farmer in the selected districts all his needs in terms of credit, supplies including fertilizers and seeds and demonstrations. All supplies will be made available at the farmer's door or at least within bullock-cart distance. The programme would include adequate incentives and aids to cultivators to increase production.

The Ford Foundation has agreed to finance the pilot project in a big way.

Among other things, the Foundation will underwrite up to a certain percentage losses incurred by co-operative societies in advancing loans to non-credit-worthy farmers, and fully any loss of stocks which will have to be stored three months in advance of need by service co-operatives. The farmer will be guaranteed against any failure of crops.

The Foundation will also help to organise public works programmes to put landless labour to work on projects like soil and water conservation, and to establish modest agricultural implements factories.

It is prepared to supplement Governmental efforts to the extent necessary to try out all the measures essential to raise production in the selected districts provided the scheme is tried for a period of five years and all the suggestions are accepted as a whole.

Suitable storage and marketing facilities will be provided. The Government will undertake to buy all the produce at a stated minimum price or the prevailing market rate, whichever is higher.

Another requirement will be well-developed village institutions, particularly co-operatives and panchayats, through which developmental efforts will be made to reach the farmer.

The results will be evaluated from the beginning on a yearly basis to see whether the investment is commensurate with the extra production. Crop-cutting surveys will be undertaken of the actual production before the scheme is launched and every two seasons thereafter to assess progress.

The programme was initially introduced in 7 districts—Tanjore (Madras), West Godavari (Andhra), Raipur (M.P.), Shahabad (Bihar), Aligarh (U.P.), Pali (Rajasthan) and Ludhiana (Punjab).

As compared with the levels of average yields prevailing during the 3-year period preceding the introduction of the Package Programme the yields of paddy during 1963-64 recorded an increase of 25·2 per cent in W. Godavari (A.P.), 20 per cent in Raipur (M.P.), 40 per cent in Mandya (Mysore) and 39·7 per cent in Burdwan (W. Bengal), during the same period the yield of wheat in Ludhiana increased by 78 per cent. Good increase was also recorded in maize, barley and Jawar.

Achievements of the "Intensive Agricultural District programme" in the first seven districts:

| | 1962-63 | 1963-64 |
|---|---|---|
| No. of farm plans prepared .. .. | 380,000 | 861,000 |
| Improved seeds (000 tons) .. .. | — | 18,53 |
| Nitrogenous fertilisers distributed (000 tons) .. .. | 119·9 | 227 |
| Plant protection coverage—area treated for pests and diseases (in 000 acres) | 815 | 18,56 |
| No. of field demonstration plots in cultivated fields.. .. | 17,400 | 23,000 |

The German Democratic Republic has sponsored a similar package programme—with greater emphasis on Animal Husbandry and Horticulture—in the Mandi District of Himachal Pradesh. The Delhi Territory is also being granted a package programme.

The project was launched in Nov. 1962 in the pattern of mixed farming where emphasis is laid on the development of cattle, sheep, piggery, poultry and fruit and vegetable cultivation. Up to 1963, farm plans have been prepared for 28,643 out of the total number of 50,000 cultivating families, 2,495 composite demonstration plots laid out and over 1,700 tonnes of chemical fertilisers distributed in the district.

### PACKAGE PRACTICE

The general approach to the programme is similar to that of I.A.D.P. (package programme functioning with the co-operation of Ford Foundation) to concentrate on a region which has the best natural conditions for increasing agricultural production, the necessary supplies (improved seeds, green manure, fertilisers, plant protection facilities) and service, *i.e.*, technical assistance. Extensive and repeated trials in the rice growing areas have indicated that the current rice production could be stepped up by about 25–30 per cent in one year by the adoption of the combination of the production technique such as (1) use of suitable pure improved seed after dressing them with fungicide, (2) raising stocky seedlings by using lesser seed in well-prepared nurseries and line sowing and best spacing, (3) green manuring wherever feasible and fertilisation by the application of 150 and 100 lb. of nitrogenous and superphosphate per acre respectively, and (4) rope protection from weeds (by weeding and interculture with rotary hoe) and against insect pests (like stem borer, gall fly, gundhi bug and other pests).

Since it may not probably be possible to cover the whole of the area with these practices, a phased programme may be followed, with a coverage of 20 per cent of the area in the first, 40 per cent in the second and 60 per cent in the third year.

The coverage under the programme has increased to 245 blocks out of a total number of 308 C.D. blocks of the selected districts, accounting for a cultivated area of 5·187 m. acres representing 35 per cent of the total cultivated area in the selected districts.

### Export Promotions

Export promotion division is set up in the Ministry for export of agricultural commodities. It has set up a number of study groups for the export promotion studies in agricultural commodities; Viz. myrobalans, walnuts, mushroom. Export possibilities of banana to Japan is being pursued. Five advisory panels have been set up to advise the Govt. in matters of policy and implementation of research, development and educational programmes relating to Indian farming.

## AGRICULTURE PRICES COMMITTEE

The Govt. has appointed the Agricultural Price Committee with Prof. M. L. Dantawalla of Bombay University as Chairman, to advise the Govt. on the price policy of agricultural commodities particularly, rice, wheat, millet, pulses, oilseeds, sugar cane, cotton and jute. The price policy will aim at evolving a balanced and integrated price structure taking into account the overall needs of the economy with due regard also to the producers' and consumers' interests. In recommending, the Committee will consider: (1) need to provide incentive to the producers for adopting improved technology for maximising production; (2) need to ensure rational utilisation of land and other production resources; (3) the likely effect of the price policy on the cost of living, level of wages, industrial cost structure, etc. The Committee may also put forward any other measures necessary to achieve the objectives, viz. Collection of information on agricultural policy and programmes, marketing and production costs, etc. The Committee will recommend from time to time measures necessary to make price policy effective in respect of different commodities.

# U. S. AID TO INDIA

U. S. economic assistance to India consists of both grants and loans. The total commitments of the U.S. under various agreements with the Government of India now stand at $6,151·6 million (Rs. 2,929·3* crores).

*U.S. Aid from the inception of the Economic Assistance Programme to India in June* 1951 *through June* 25, 1965: The first figure is in million dollars and the figure in brackets the rupee equivalent in crores: 1. U.S. Agency for International Development Mission's Technical Cooperation Programme: (*a*) Development grants (not repayable) 378·1 (180·0); (*b*) Loans (repayable in rupees or dollars) 154·2 (73·4); 2. U.S. Agency for International Development: Development loans (repayable in dollars) 1,376·7 (655·6); 3. U.S. Development Loan Fund credits (repayable in rupees) 509·2 (242·5); 4. Public Law 480. Title I (grants & loans repayable in rupees) 2,911·5 (1,386·4); 5. Public Law 480, Title II (grants not repayable) 15·8 (7·5); 6. Public Law 480, Title III (agricultural commodities donated through voluntary agencies: not repayable) 204·5 (97·4); 7. Emergency Flood & Famine Relief grants (not repayable) 5·5 (2·6); 8. Export-Import Bank loans (repayable in dollars) 406·4 (193·6); 9. Wheat Loan of 1951 (repayable in dollars) 189·7 (90·3); Total 6,151·6 (2,929·3)

*Breakdown:* 1. Grants (not repayable) 1,392·1 (662·8); 2. Loans repayable in dollars 1,927·7 (939·5); 3. Local currency repayments (This includes loans repayable in rupees or dollars; the Cooley Fund for loans to private enterprise; and amounts under PL-480, Title I, agreements reserved for U.S. Government uses) 2,786·8 (1,327·0): Total 6,151·6 (2,929·3).

It will be noted that only 32 per cent of total American aid to India involves foreign exchange repayments. The greater part of this amount bears exceptionally low rates of interest and is repayable over a long period (40 years).

Nearly a quarter of the total aid represents grants. The remainder (45·3 per cent) represents loans repayable in rupees. These repayments do not involve the utilization of India's foreign exchange earnings or the export of goods from this country.

## EMERGENCY WHEAT LOAN

In 1951 the U.S. Congress enacted legislation for a loan of $189·7 million (Rs. 90·3 crores) to India to finance the purchase of 2 million tons of wheat to meet an acute food shortage. The loan is repayable in dollars and carries an interest rate of 2¼ per cent. Repayment was scheduled to commence on June 30, 1957. However, in view of India's serious foreign exchange difficulties, the U.S. Government has postponed the 18 semi-annual instalments of interest and principal due from December 31, 1959 and re-scheduled them to fall due from December 1986 to 1995, without additional interest payments.

American assistance to India is at present extended through the following three agencies.

## U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT (U.S.A.I.D.)

This new Agency was created on November 3, 1961 to bring American economic assistance under a unified administration. It is in charge of activities previously administered by the International Cooperation Administration, which was represented in India by the Technical Cooperation Mission (TCM), the Development Loan Fund, the Food for Peace Programme (Public Law 480) in its relation with other countries, and other staff and related functions.

U.S.A.I.D. gives both developmental loans and grants. Grants have been made to the Malaria Eradication Programme, Small-pox eradication, higher education, National Productivity Council, craftsmen training, dairy development, community development, crop production and a number of other projects. U.S.A.I.D. and its predecessor, TCM. have also aided India by making available American experts to work on specific technical and economic problems in the Indian development programme, by giving advanced training to Indian participants both in India and abroad, and by the provision of supplies and equipment. The names of the principal divisions of U.S.A.I.D. (Agriculture, Industry, Health, Education, Labour and Management) indicate the comprehensive scope of its activities. Developmental grants total $378·1 million (Rs. 180·0 crores). These, of course, do not involve repayment.

The 35 developmental loans given by U.S.A.I.D. since its establishment in November 1961 total $1,376·7 million (Rs. 655·6 crores). These loans are repayable in dollars, but in order to avoid an excessive foreign exchange debt servicing burden to India, the terms of the loans are set at a long period, taking into account such factors as other foreign debt and the foreign exchange earnings of the country. Repayment is scheduled over 40 years, with a 10-year grace period: that is, no payments of principal during the first ten years.

The 22 loans authorized through 1963 are free of interest and carry a credit fee of three quarters of one per cent per annum. The foreign aid legislation enacted by the U. S. Congress for the fiscal year 1964 effected a slight change in the terms of these loans: instead of a credit fee they are now subject to payments of interest at three quarters of one per cent during the first ten years and at two per cent during the remaining thirty years. Ten loans were authorized in India under these terms. The legislation that was passed for the fiscal year 1965 established a minimum interest rate during the first ten years of development loans of one per cent per annum and of 2¼ per cent thereafter. So far, three loans have been authorized in India under new terms.

**Details of the developmental loans given by the U.S.A.I.D. are as follows:**

| | Date of Agreement or Announcement | Project | Dollars (Millions) | Rupee Equivalent (Crores) |
|---|---|---|---|---|
| 1. | Feb. 28, '62 | Dhuvaran Thermal Power Station, Gujarat (Cambay) | 33·6 | 16·0 |
| 2. | Feb. 28, '62 | Premier Automobiles, Ltd., Bombay, Maharashtra (second loan) | 3·0 | 1·4 |
| 3. | Mar. 30, '62 | Industrial Finance Corporation (second loan) | 20·0 | 9·5 |
| 4. | April 11, '62 | Pamba-Kakki (Sabarigiri) Hydroelectric Project, Kerala | 20·2 | 9·6 |
| 5. | June 21, '62 | General Non-Project Loan for maintenance imports (first loan) | 200·0 | 95·2 |
| 6. | June 21, '62 | Bandel Thermal Power Project, West Bengal | 38·0 | 18·1 |
| 7. | June 21, '62 | Hindustan Steel Ltd., for Patherdih Coal Washery, Bihar | 4·2 | 2·0 |
| 8. | June 21, '62 | Fourth Railway Loan | 43·0 | 20·5 |
| 9. | June 28, '62 | Delhi Cloth Mills Ltd., for their rayon tyre cord plant at Kotah, Rajasthan | 9·8 | 4·7 |
| 10. | July 27, '62 | Napco Bevel Gear of India Ltd. (precision gearplant), Faridabad, Punjab | 2·3 | 1·1 |
| 11. | Oct. 12, '62 | Trombay Power Plant (Tatas), Maharashtra | 17·9 | 8·6 |
| 12. | Nov. 2, '62 | Ramagundam Thermal Power Project, Andhra Pradesh | 8·4 | 4·0 |
| 13. | Dec. 7, '62 | Hindustan Motors Ltd., Calcutta (first loan) | 15·8 | 7·5 |
| 14. | Dec. 7, '62 | Tata Engineering & Locomotive Co. Ltd., Jamshedpur, Bihar (first loan) | 13·7 | 6·5 |
| 15. | Feb. 25, '63 | General Non-Project loan for maintenance imports (second loan) | 240·0 | 114·3 |
| 16. | Mar. 8, '63 | Indraprastha (Delhi "C") Thermal PowerStation | 16·0 | 7·6 |
| 17. | Mar. 8, '63 | Satpura Thermal Power Station, Madhya Pradesh | 25·1 | 12·0 |
| 18. | Mar. 25, '63 | Chandrapura Thermal Power Project, Bihar (Second loan) | 16·0 | 7·6 |
| 19. | April 21, '63 | Fifth Railway Loan | 15·9 | 7·6 |
| 20. | May 21, '63 | Central Ropeways 'F', Jharia Bihar | 7·7 | 3·7 |
| 21. | May 21, '63 | Dugda Coal Washery Expansion, Bihar | 5·1 | 2·4 |
| 22. | July 1, '63 | Tarapur Nuclear Power Station, Maharashtra | 80·0 | 38·1 |
| 23. | Feb. 6, '64 | National Engineering Industries, Ltd., Jaipur, Rajasthan | 4·3 | 2·0 |
| 24. | Feb. 24, '64 | General Non-Project loan for maintenance imports (third loan) | 225·0 | 107·1 |
| 25. | June 19, '64 | Trombay Fertilizer Plant, Maharashtra (second loan) | 7·8 | 3·7 |
| 26. | July 7, '64 | Hindustan Motors, Ltd., Calcutta, West Bengal (second loan for expanding automobile production) | 23·0 | 11·0 |
| 27. | July 7, '64 | Hindustan Motors, Ltd., Calcutta, West Bengal (for production of power shovels) | 3·0 | 1·4 |
| 28. | July 7, '64 | Tata Engineering and Locomotive Co. Ltd., Jamshedpur, Bihar (second loan) | 11·8 | 5·6 |
| 29. | Aug. 6, '64 | General non-project loan for Maintenance Imports (fourth loan) | 50·0 | 23·8 |
| 30. | Aug. 6, '64 | Sixth Railway Loan | 7·2 | 3·4 |
| 31. | Aug. 6, '64 | Sharavathi Hydro-Electric Power Project, Mysore (third loan) | 3·1 | 1·5 |
| 32. | Aug. 6, '64 | U.S. Consulting Services | 2·0 | 1·0 |
| 33. | Jan. 13, '65 | Industrial Finance Corporation (third loan) | 10·0 | 4·8 |
| 34. | June 17, '65 | Seventh Railway Loan | 3·8 | 1·8 |
| 35. | June 17, '65 | General Non-project Loan for Maintenance Imports (fifth Loan) | 190·0 | 90·5 |
| | | Total | 1,367·7 | 655·6 |

* Military assistance is not included.

Prior to November 1961, the Technical Cooperation Mission had given the Indian Government loans totalling $154·2 million (Rs. 73·4 crores). These could be repaid in either rupees or dollars at the option of the Government of India. (For the sake of simplicity, a sum of $5·8 million (Rs. 2·8 crores), which was made available to the Govt. of India in the form of Italian, French and Japanese currencies in exchange for Indian rupees, is included in this item).

The U.S. Development Loan Fund, which has now been absorbed into U.S.A.I.D., extended loans to India totalling $509·2 million (Rs. 242·5 crores) between 1958 and September 30, 1961. These loans are repayable in non-convertible rupees.

## U.S. PUBLIC LAW 480

(Food for Peace Programme)

India has been the largest recipient of U.S. agricultural commodities under Title I, P.L. 480. The first Title I agreement was signed with India on August 29, 1956. Since then eight additional agreements and eighteen supplemental agreements have been signed. The last supplemental agreement was signed on December 31, 1964. The market value of the commodities (including some ocean transportation costs) in all these agreements and amendments through June 25, 1965, totals $2,911·5 million (Rs. 1,386·4 crores).

The Government of India pays for the commodities imported under Title I, P.L. 480, with rupees. From these total sales proceeds, 80·4 per cent is returned to the Government of India as loans and grants for economic development purposes. An additional 7·2 per cent is available for loans to private enterprises in India. The U.S. and India governments have agreed that the sales proceeds should be used in the following manner:

| | Rupees crores |
|---|---|
| 1. For grants to the Indian Government (not repayable) .. .. | 375·3 |
| 2. For loans to the Indian government (repayable in rupees, generally over a period of 40 years) .. .. .. .. | 740·2 |
| 3. For loans to private enterprises under the Cooley Amendment .. | 100·4 |
| 4. For meeting the expenses within India of U.S. government agencies .. .. .. .. | 170·5 |
| Total .. .. .. | 1,386·4 |

As of March 31, 1965, a sum of Rs. 1,119·7 crores had accrued as sales proceeds of commodities supplied to India.

This amount has been allotted as follows:

| | Rs. crores |
|---|---|
| 1. For grants to Indian government | 360·1 |
| 2. For loans to Indian government | 539·3 |
| 3. Cooley Fund for loans to private enterprise .. .. .. | 75·0 |
| 4. For U.S. government uses .. | 145·3 |
| Total .. .. .. | 1,119·7 |

## GRANTS FROM U.S. PUBLIC LAW 480 SALE PROCEEDS

The nine agreements between the United States and India under U.S. Public Law 480 provide for the grant of Rs. 375·3 crores from the sale proceeds of agricultural commodities to the Indian Government for economic development projects

As of March 31, 1965 a sum of Rs. 360·1 crores had become available from sale proceeds for grants to the Indian Government. Agreements have been concluded for grants to be made to the following projects:

| | Crores Rs. |
|---|---|
| 1. River Valley Development (Chambal, Hirakud, Damodar Valley, Mahi Right Bank Canal, Kakrapar, Nagarjunasagar, Kosi, Bhadra, Tungabhadra, Mahanadi Delta Irrigation, Kundah and Koyna Projects) .. .. | 5·94 |
| 2. Malaria Eradication .. .. | 69·24 |
| 3. Indian Institute of Technology, Kanpur .. .. .. .. | 3·20 |
| 4. U.P. Agricultural University, Pant Nagar .. .. .. .. | 2·16 |
| 5. All India Institute of Medical Sciences, New Delhi .. .. | 2·90 |
| 6. Indian Investment Centre .. | 0·55 |
| 7. Dairy Development .. .. | 3·60 |
| 8. Soil and Water Conservation .. | 6·65 |
| 9. National Highways .. .. | 20·00 |
| 10. Exploration of Groundwater Resources .. .. .. .. | 0·80 |
| 11. Craftsmen Training .. .. | 27·40 |
| 12. Modern Storage of Food Grains .. | 13·13 |
| 13. Higher Technical Education .. | 6·90 |
| 14. Elementary Education .. .. | 62·80 |
| 15. Smallpox Eradication .. .. | 8·74 |
| 16. Primary Health Centres .. .. | 9·78 |
| 17. Medical Educator Training .. | 7·40 |
| 18. National Productivity Council .. | 0·07 |
| 19. Agricultural Refinance Corporation .. .. .. .. | 5·00 |
| Total .. | 256·26 |

### Loans to the Indian Government from U.S. P.L. 480 Sale Proceeds

The nine agreements between the United States and India under U.S. Public Law 480 provide for loans totalling Rs. 740·2 crores from the sale proceeds of agricultural commodities to the Indian Government for economic development projects.

As of March 31, 1965 a sum of Rs. 539·3 crores had become available from the sale proceeds for loans to the Indian government.

Agreements have been concluded for loans to the following projects:

| | Crores Rs. |
|---|---|
| 1. Refinance Corporation (now renamed The Industrial Development Bank of India) .. .. | 36·20 |
| 2. River Valley Development (Chambal, Hirakud, Damodar Valley, Mahi Right Bank Canal, Kakrapar, Nagarjunasagar, Kosi, Bhadra, Tungabhadra, Mahanadi Delta Irrigation, Kundah and Koyna projects) .. .. | 232·23 |
| 3. Sharavathi Hydroelectric Project, Mysore .. .. .. | 34·45 |
| 4. Industrial Credit and Investment Corporation of India .. .. | 20·00 |
| 5. Industrial Finance Corporation .. | 20·00 |
| 6. Chandrapura Thermal Power Project, Bihar .. .. .. | 20·50 |
| 7. Barauni Thermal Power Project, Bihar .. .. .. .. | 1·31 |
| 8. Durgapur Thermal Power Project, West Bengal .. .. .. | 3·43 |
| 9. Kanpur Thermal Power Project.. | 0·95 |
| 10. Barapani Hydroelectric Power Project, Assam .. .. | 6·40 |
| 11. Trombay Fertilizer Plant.. .. | 13·43 |
| 12. Rihand Valley Hydro-Electric Project .. .. .. .. | 8·92 |
| 13. Cambay Thermal Power Station.. | 9·02 |
| 14. Amarkantak (Amlai) Thermal Power Project, M.P. .. .. | 6·67 |
| 15. Bandel Thermal Power Project .. | 8·40 |
| 16. Talcher Thermal Power Project, Orissa .. .. .. .. | 8·54 |
| 17. Pamba—Kakki (Sabarigiri) Hydroelectric Power Project, Kerala .. .. .. .. | 18·40 |
| 18. Satpura Thermal Power Project, Madhya Pradesh .. .. | 15·30 |
| 19. Indraprastha (Delhi "C") Thermal Power Project .. .. .. | 8·30 |
| 20. Ramagundam Thermal Power Project .. .. .. .. | 3·70 |
| Total of loan agreements .. | 476·15 |

Public Law 480, which is playing a significant role in ensuring the availability of agricultural commodities to India at reasonable prices at a time of intense economic development, has four titles (chapters).

### P. L. 480 Title I

Under Title I of PL-480, the United States has entered into nine agreements with India for the supply of large quantities of wheat, rice, coarse grains, cotton, dried milk powder, tobacco, and other agricultural commodities. India pays for these commodities in rupees. The total value of the commodities covered by these agreements is Rs. 1,386·4 crores ($2,911·5 million). Of this, Rs. 170·5 crores ($358·2 million) is reserved for U.S. Government uses; Rs. 100·4 crores ($210·8 million) for loans to private enterprise under the Cooley Amendment; Rs. 375·3 crores ($788·2 million) for grants to the Indian Government for development projects; and the balance of Rs. 740·2 crores ($1,554·3 million) for loans to the Indian Government for the same purpose. Thus 87 per cent of the value of agricultural commodities supplied under Title I of PL-480 is utilized in financing irrigation dams, power projects, educational and research facilities, the malaria eradication programme, industrial enterprises, and other development undertakings.

### P.L. 480 Title II

Title II of Public Law 480 enables the U.S. President to furnish emergency assistance to foreign countries in meeting famine or other urgent or extraordinary relief requirements. Under this title India has received agricultural commodities worth $15·8 million (Rs. 7·5 crores).

### P.L. 480 Title III

Under Title III of Public Law 480, $204·5 million (Rs. 97·4 crores) worth of dried milk, wheat, rice, corn, cottonseed oil, and other such commodities has been distributed in India through voluntary agencies. Some 80 lakh school children receive free lunches through programmes assisted under this title.

### P.L. 480 Title IV

Title IV provides for long-term credits to friendly nations for purchase of agricultural commodities during periods of economic development. Repayment in dollars could be spread over twenty years. No transactions have taken place between India and the United States under this title.

## COOLEY FUND

The Cooley Amendment to U.S. Public Law 480 (named after Congressman Harold D. Cooley, Chairman of the Committee on Agriculture of the U.S. House of Representatives) provides that up to 25-per cent of the local currency proceeds from the sale of American agricultural commodities shall be made available to U.S.A.I.D. for lending in the private sector to two categories of borrowers :

1. American firms or their subsidiaries operating in the host countries (India) or indigenous (Indian) firms having an affiliation with an American firm ;
2. Indigenous firms of the host countries with no American affiliation but which are facilitating the disposal of American agricultural products, *e.g.* local private warehouses storing grain or flour mills processing the grain, etc.

The nine agreements between India and the United States under Public Law 480 provide for Rs. 100·4 crores to be given in loans to private enterprise under the Cooley amendment.

As of March 31, 1965 a sum of Rs. 75·0 crores had become available to the Cooley Fund.

The following loans have been extended from the Cooley Fund (in Rs. crores) : 1. Otis Elevator

of India Ltd., Bombay (elevators) 0·2 ; 2. Goodyear Tyre & Rubber Co. of India Ltd., Ballabgarh, Punjab (rubber products) 2·25 ; 3. Mysore Cements Ltd (M/s. Sarangapani Mudaliar/Kaiser), Ammasandra, Mysore (cement) 1·375 ; 4 Hindustan Aluminium, Ltd. (M/s. Birla/Kaiser) Renukoot, U.P. (aluminium) 2·0 · 5. Synthetics and Chemicals, Ltd., (M/s. Kilachand/Firestone), Bareilly, U.P. (synthetic rubber) 6·5; 6. Ex-Cell-O (India) Pte. Ltd. (M/s. Amerind Engineering Co./Ex-Cell-O Co. Detroit, Mich.) Bombay (machine tool parts) 0·2 ; 7. Premier Tyres Ltd. (Joint enterprise with Dayton Rubber Co.), Kalamaseri, Kerala (rubber tyres) 0·3 ; 8. Seshasayee Paper & Board Ltd., Erode, Madras (M/s. Seshasayee/Parsons and Whittemore) (bagasse pulp and paper mill) 2·0 ; 9. Cyanamid India Ltd., Bombay, Maharashtra (American Cyanamid Co. of New York) (antibiotics) 0·25 ; 10. Gabriel India Private Ltd., Mulund, Bombay, Maharashtra (M/s. D. C. Anand/Gabriel of Detrioit) (shock absorbers) 0·19 ; 11. Madras Rubber Factory Ltd., Madras (Mansfield Rubber Co. of Ohio) (rubber tyres) 0·75 ; 12. East India Hotels Ltd. (M/s. Oberoi/Intercontinental Hotel Corporation) New Delhi (construction of hotel in New Delhi) 0·76 ; 13. Wyeth Laboratories, Pte. Ltd. (American Home Products Corporation), Bombay, Maharashtra (steroid compounds and hormones) 0·17 : 14. Victor Gasket India (Pte.) Ltd., Mulund, Bombay, Maharashtra (Victor Mfg. & Gasket Co., Chicago) (gaskets) 0·075 ; 15. Union Carbide (India) Ltd., Calcutta, West Bengal (chemicals and plastics) 2·16 ; 16. McNally-Bird Engineering Co. Ltd., Kumaradhubi, Bihar (manufacture of coal washeries and allied equipment) 0·5; 17. Harig-Malik Manufacturing Co. Pte. Ltd., Faridabad, Punjab (Haring Manufacturing Corporation, Chicago) (tools, dies, gauges, etc.) 0·6028 ; 18. Precision Bearings India Ltd.. Baroda (Norma-Hoffman Bearings Corporation, Stanford, Conn.) (ball and cylindrical bearings) 0·3; 19. Wyman-Gordon Ltd., Bombay, Maharashtra (Wyman-Gordon Co., Worcester) (precision foreigns) 0·25; 20. Arbor Acres Farm India Pte. Ltd. ; Talegaon, Maharashtra (Arbor Acres Farm inc., Glastonbury, Connecticut) (poultry breeding) 0·25; 21. Mandya Paper Mills, Ltd., Belagula, Mysore (Parsons and Whittemore, New York (paper mill) 1·5 ; 22. Kirloskar-Cummins, Ltd., Poona, Maharashtra (Cummins Engine Co., Columbus, Indiana) (engines) 1·25 ; 23. Napco Bevel Gear of India, Ltd., Faridabad, Punjab (Napco Industries Inc., Minneapolis, Minnesota) (gears, joints and allied parts) 0·8 ; 24. Coromandel Fertilizers, Ltd., Visakhapatnam, Andhra (California Chemical Company, and International Minerals & Chemicals Corporation) 10·76 ; 25. Elpro International Ltd., Bombay (General Electric Co., New York) (lightning arresters, X-ray equipment and magnets) 0·4; 26. Frick India, Ltd., New Delhi (Frick Co., Waynesboro, Pennsylvania) (refrigeration equipment) 0·25 ; 27. Bharat Steel Tubes, Ltd., Ganaur, Punjab (Abbey Etna Machine Co., Perrysburg, Ohio) (steel tubes) 0·25; 28. I.A. & I.C. Pte. Ltd., Bombay, Maharashtra (Lapic Inc.) (sulphur grinding) 0·05; 29. Everest Refrigerants, Ltd., Bombay, Maharashtra (Technical Enterprises Inc., New York) (refrigerant gases and aerosol dispensers) 0·6; 30. Borosil Glass Works, Ltd., Andheri, Maharaashtra (Corning Glass Works, New York (glassware) 0·71 ; 31. Synbiotics Ltd., Ahmedabad, Gujarat (Olin Mathieson International, New York (antibiotics and fine chemicals) 1·34 ; 32. Graphite India Ltd., Calcutta, West Bengal (Great Lakes Carbon Co poration, New York) (graphite electrodes, anodes and carbon products) 0·69 ; 33. Chemicals and Plastics India Ltd., Mettur, Madras (B.F. Goodrich Chemical Co., Cleveland, Ohio) (polyvinyl chloride plastics) 0·326 ; 34. Indabrator Ltd., Bombay (Wheelabrator Corporation, Mishawaka, Indiana) (air blast and shot blast equipment and dust collectors) 0·143 ; 35. American Universal Electric (India) Ltd., Faridabad, Punjab (Universal Electric Company, Owosso, Michigan) (fractional-horsepower electric motors) 0·21; 36. Shama Forge Co. Ltd., Bhopal, Madhya Prdesh (Kropp Forge Co., Chicago, Illinois) (steel forgings) 0–48 ; 37. Sylvania & Laxman Ltd., New Delhi (Sylvania International, New York) (fluorescent tubes and Mercury vapour lamps) 0·5 ; 38. Rockwell India Ltd., Udhna, Gujarat (Rockwell Manufacturing Co., Pittsburgh, Pennsylvania) (power tools) 0·1693 ; 39. Renusagar Power Co. Ltd., Renukoot, Uttar Pradesh (Kaiser Aluminium & Chemical Corporation, Oakland, California) (thermal power station) 3·0 ; 40. United Carbon India Ltd., Bombay (United Carbon Co., Ashland, Kentucky) (carbon black) 1·41 ; 41. Herdillia Chemicals Ltd., Thana, Maharashtra (Hercules Power Co. Inc., Wilimington, Delaware) 2·65 ; 42. Semiconductors Ltd., Bombay (Raytheon Co. Inc., Lexington, Massachusetts) 0·135 ; 43. Raymon Engineering Works Ltd., Calcutta (World Investments Inc., Wichita, Kansas) 2·14 ; Total 50·28.

## THE EXPORT-IMPORT BANK

The bank has authorized 23 loans to India totalling $406·4 million (Rs. 193·6 crores). The Bank extends loans and guarantees for the primary purpose of promoting the export and import trade of the United States. Loans given by it are repayable in dollars. In determining the rate of interest to be charged on loans, the Bank takes into consideration the maturity of the loans and the extent of credit risk to be assumed by the Bank as affected by such guarantees as may be offered, as well as prevailing United States commercial and government rates. For instance, the First Line of Credit of $150 million to the Government of India authorized in 1958 carries an interest rate of 5¼ per cent. The principal is repayable in 20 semi-annual instalments beginning in January 1964.

Loans in Rs. crores given by the U.S. Export-Import Bank to India. Loans are repayable in dollars : 1. Sundatta Foods and Fibres, Ltd., Bombay 0·03 ; 2. National Rayon Corpn., Kalyan 0·86 ; 3. First Line of Credit to Government of India 71·43 ; 4. Hindustan Aluminium Ltd., Pipri, Uttar Pradesh 6·50 ; 5. Air India (first loan) 1·95 ; 6. Second Line of Credit to GOI 23·81; 7. Orient Paper Mills, Ltd., Amlai, M.P. 8·81 ; 8. Air India (second loan) 3·30 ; 9. East India Hotels Ltd., New Delhi 0·34 ; 10. Third line of credit to GOI 11·90 ; 11. Union Carbide India Ltd., Calcutta 3·64 ; 12. Hindustan Aluminium Ltd., Pipri, U.P. 2·38 ; 13. Indian Rayon Corporation Ltd., Veraval, Gujarat 2·24 ; 14. Varanasi Diesel Locomoitve Factory (Indian Railways), U.P. (first loan) 9·05 ; 15. Bharat Forge Co. Ltd., Poona 1·86 ; 16. Coromandel Fertilizers, Ltd., Visakhapatnam, Andhra 12·90 ; 17. Mysore Acetate Chem. Co. Ltd. Mandya, Mysore ; 18. Chemicals Plastics ( India ) Ltd., Mettur, Madras & Bombay 1·50 ; 19. Fourth line of Credit to Govt. of India 11·90 ; 20. Hindustan Aluminium Ltd., Pipri, U.P. (third loan) 5·24 ; 21. Central Pulp Mills Ltd., Fort Songhad, Gujarat 3·25 ; 22. Varanasi Diesel Locomotive factory (Indian Railways), U.P. (second loan) 8·10 ; 23. Herdillia Chemicals Ltd., Thana, Maharashtra 1·57; Total 193·56.

## U. S. ASSISTANCE FOR POWER DEVELOPMENT IN INDIA

India has received substantial assistance from the United States for power development. The total stands at Rs. 574·4 crores ($1,206·2 million). It consists of $461·4 (Rs. 219·8 crores) in foreign exchange and Rs. 354·6 crores in rupees derived from the sale of agricultural commodities supplied to India under U.S. Public Law 480 and Section 402 of Public Law 665.

Thirteen projects with a total installed capacity of 2·4 million kilowatts are financed entirely by the United States (both rupees and foreign exchange). Eighteen other projects with a total installed capacity of 4·4 million kilowatts are financed partially by the United States.

Thus U.S. assisted projects will have a total capacity of 6·8 million kilowatts. This may be compared with the Third Five Year Plan target of 12·7 million kilowatts.

## INDO-AMERICAN TECHNICAL ASSISTANCE

The position is as on June 30, 1965. Figures are in thousands of dollars :

**Project and Title :—**

*Food and Agriculture* :—Acquisition and distribution of Fertilizers 17.310 ; Acquisition and distribution of Iron and Steel for Agricultural purposes 19,739 ; Plant Protection and Locust Control 584(*a*) ; Soil Fertility and Fertilizer use 1,029 ; Expansion and Modernization of Marine and Inland Fisheries 2,902 ; Ground water Irrigation 18,284 ; Agricultural Extension 2,875 ; Ground Water Exploration 4,092 ; Agricultural Machinery Utilization 206 ; Agricultural Universities Development 14,712 ; Foodgrains Storage 1,665 ; Engineering Services in Water Resources and Power Development 43 ; Animal Husbandry 922 ; Agricultural Information, Production and Training 371 ; Agricultural Economic Research 289 ; Crop Production 1,413 ; Farmers' Organization 275 ; Dairy Development 994 ; Cooperative Marketing and Warehousing of Agricultural Produce 20 ; Calcutta Milk Scheme 518 ; Cooperative Membership Education 93 ; Soil and Water Conservation 998 ; Agricultural Extension 8 ; River Valley Development 7,187 ; Water Resources Survey and Minor Irrigation Works 477 ; Forest Research 356; Provision of Engineering Services to the Damodar Valley Corporation 95 ; Augmenting Fertilizer Supply 3,800 ; Production, Processing and Marketing of Citrus Fruit 17 ; Assistance to Ministry of Food and Agriculture 33 ; Fertilizer 7,862 ; Fertilizer 5,262(*b*) ; Agriculture Programme Direction & Development 162 ; Total 114,493.

*Industry and Mining* : Forest Research 189 ; Construction Equipment Operators 489 ; Rihand Valley Development 6,009 ; Assistance to Industrial Research & Technical Services Organization 3,010 ; Hot Lines Maintenance 394 ; Water and Power Development 1,076 ; National Productivity Council 3,398 ; Delhi Thermal Plant 3,981 ; Geological Survey of India 537 ; Oil and Gas Commissiou 106 ; Assistance to Lime Industry 1 ; Assistance to Coal Industry 149 ; Assistance to C.S.I.R. 19 ; Steel Training 1,213 ; Assistance to Phosphorous Industry 13 ; Orissa Iron Ore 18,348 ; River Valley Development 730 ; Mineral Development 1,149 ; Building Material Development 34 ; Exploratory Lignite Excavation & Development 606 ; Augmenting Steel Supply 41,054 ; Improvement of Rajasthan Power Facilities 1,046 ; Survey of the Expansion of the Sindri Fertilizer Plant 17 ; Provision of Industrial Technical Services 2,056 ; Mineral Survey Development 103 ; Flood Control 315(*c*) ; Industrial Programme Adviser 154 ; Technical Assistance to Irrigation Research Institute 92 ; Steel Casting Foundry 1 ; Steel Standards 142 ; Tele-Communication Development 47 ; Marketing Conference & Study Tour 5 ; Machine Tool Industry Development 18 ; Natural Resources Programme Development 10 ; Steel Industry 17 ; Bokaro Steel Plant 686 ; Non-Metalic Minerals and Productions 47 ; Tubewell Casing 1,954 ; Cement Manufacturing Equipment 6,231 ; Rural Electrification 2,945 ; Total 98,391.

*Power* : Power Generation & Distribution 174 ; Construction Equipment Training and Utilization 569 ; Total 743.

*Transportation* : Aviation Ground Facilities 2,875 ; Highways and Bridges 52 ; Indian Airlines 3 ; Railway Rehabilitation and Development 74,501 ; Highway Transportation 27 ; Total 77,458.

*Labour* : Trade Union Development 81 ; Labour Ministry Training 245 ; Bombay Central Training Institute for Craftsmen & Instructors 968 ; Industrial Safety 29 ; Establishment of a Central Labour Institute 83 ; Construction Equipment Operators 425 ; Study of the Effects of Thermal Environment Conditions 63 ; Trades Training 661 ; Foreman Training 37 ; Labour Programme Development 47 ; Total 2,639.

*Health and Sanitation* : Water Supply and Sanitation 6,450 ; Medical Educator Training 1,753 ; Nursing College Development 1,173 ; Public Health Education 377 ; Official Health Agencies 377 ; Insect-Borne Disease Control 131 ; Malaria Eradication 62,498 ; Malaria Control 27,690 ; Health Instruction Training Centres 27 ; Assistance to Medical College & Allied Institutions 1,056 ; Control of Filaria 2,425 ; Venereal

Disease Control 6 ; Health Programme Development 81 ; Sc. Equipment Repair Training 12 ; Communicable Disease Control 153 ; Total 104,009.

*Education :* Technical Education Institutes 4,352 ; Home Science Education & Research 1,045 ; Multipurpose Secondary Education 3,189 ; Rural Institute 222 ; National Institute of Basic Education 29 ; National Professional Education Centre 391 ; Indian Institute of Technology, Kanpur 8,938 ; Teachers Training in Engineering Education 2,233 ; National Institute of Education 1,832 ; Assistance to Teachers Training in Audio-Visual Education 160 ; Educational Advisor 58 ; Foundry Training 171 ; Educational Programme Direction and Development 189 ; Assistance to Educational Administration 60 ; School Building Improvement 62 ; Assistance to Training in Adult Education 51 ; Assistance to Central Institute of Education 14 ; Delhi Regional Secondary School 628 ; Total 24,581.

*Public Administration :* Indian Statistical Institute 128 ; Government Operations 466 ; Procurement of Consultation Services 2 ; Economic Planning 37 ; Improved Operating Statistics and Reports 22 ; Training in Public Administration 55 ; Public Services Programme Development 42 ; Invest. Promotion & Study Tour 9 ; Top Management (control of economic enterprises) 672 ; Total 1,433.

*Community Development, Social Welfare and Housing :* Social Welfare Education 583 ; Community Development Programme 13,509 ; Building Material Development 165 ; Demonstration of Improved Methods of Low Cost Housing Construction 47 ; Total 14,304.

*General and Miscellaneous :* Nuclear Engineering 921 ; Small Industries Development 807 ; Nuclear Research 662 ; Life Insurance Corporation 3 ; Banking and Investment 74 ; Mass Communication Training 272 ; Procurement of Consultation Services 11 ; Procurement Services 160 ; Participant Training 34 ; Indian Investment Centre 570 ; Electrical Apparatus and Clay Products 575(*b*) ; Total 4,089.

Wheat 52,172.

Cotton 15,490.

Technicians, Programme Direction and Technical Support Activity 24,842(*d*).

Grand Total 534,644.

(*a*) Includes $28,500 from Regional Allotment.

(*b*) Triangular Trade Activities.

(*c*) Includes U.S. FY 1955 Allotment of $109,000 for Flood Control.

(*d*) Tech. Support activity $15,335, and Cost Element not distributed by Projects $9,507.

## U. S. TECHNICIANS

Programme personnel (U.S. Technicians) assigned to India by field of activity as of June 30, 1965 are given in the table below:

U.S. Fiscal Year ending June 30.

| Field | 1952/56 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 |
|---|---|---|---|---|---|---|---|---|---|---|
| Agriculture and Natural Resources .. .. | 196 | 76 | 76 | 53 | 59 | 58 | 45 | 50 | 49 | 42 |
| Industry and Mining .. | 170 | 58 | 40 | 27 | 30 | 36 | 41 | 34 | 26 | 21 |
| Transportation .. .. | 13 | 2 | 1 | 1 | — | — | — | — | — | — |
| Labour .. .. .. | 4 | 3 | 2 | — | 1 | 2 | 1 | 8 | 9 | 8 |
| Health and Sanitation .. | 40 | 22 | 18 | 24 | 26 | 19 | 26 | 21 | 19 | 15 |
| Education .. .. .. | 74 | 16 | 9 | 11 | 27 | 21 | 30 | 50 | 53 | 62 |
| Public Administration .. | 14 | — | 1 | 2 | 4 | 1 | 1 | 1 | 7 | 8 |
| Community Development, Social Welfare and Housing .. .. .. | 51 | 9 | 9 | 9 | 4 | 2 | — | — | — | — |
| General and Miscellaneous | 27 | 21 | 12 | 13 | 16 | 30 | 16 | 26 | 27 | 35 |
| TOTAL .. .. | 589 | 207 | 165 | 140 | 167 | 159 | 160 | 190 | 190 | 191 |

Grand Total from 1952-65 : 2,158.

The total of 191 as of June 30, 1965, includes 76 direct-hire, 8 participating agency employees and 107 under contract, all working on joint projects or in project support positions in the U.S.A.I.D. Mission. The above figures do not include 142 Consultants for Summer Science institutes who were assigned for eight weeks. In addition, there were 29 persons in administrative positions in the Mission.

## INDO-AMERICAN PARTICIPANT TRAINING PROGRAMME

Nominations processed during U.S. fiscal year ending June 30, 1965 :—

Year ending June 30.

| Field of Activity | 1951/57 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| Agriculture and Natural Resources .. | 303 | 120 | 142 | 121 | 107 | 119 | 105 | 123 | 150 | 1,290 |
| Industry and Mining .. .. .. | 156 | 42 | 246 | 385 | 201 | 106 | 84 | 85 | 20 | 1,325 |
| Transportation .. .. .. .. | 41 | 10 | 10 | 16 | 5 | — | — | — | — | 82 |
| Labour .. .. .. .. .. | 57 | — | 2 | 8 | 11 | 30 | 19 | 18 | 18 | 163 |
| Health .. .. .. .. .. | 85 | 49 | 39 | 64 | 46 | 34 | 45 | 29 | 37 | 428 |
| Education .. .. .. .. | 102 | 97 | 168 | 72 | 56 | 135 | 20 | 32 | — | 682 |
| Public Administration .. .. | 8 | 1 | — | 2 | 4 | 4 | 36 | 41 | 57 | 153 |
| Community Development, Social Welfare and Housing .. .. | 11 | 9 | 3 | — | — | — | — | — | — | 23 |
| General and Miscellaneous .. .. | 20 | 24 | 36 | 33 | 21 | 22 | 33 | 16 | 10 | 215 |
| TOTAL Since 1951 .. .. .. | 783 | 352 | 646 | 701 | 451 | 450 | 342 | 344 | 292 | 4,361 |
| Under Contract Arrangements .. | (162) | (100) | (95) | (70) | (89) | (208) | (77) | (90) | (51) | |

Of the total, 3,914 have returned to India and are now working in their particular fields, 252 are in the U.S. or elsewhere for training and 195 are preparing to depart.

# CHURCHES IN INDIA

## CATHOLIC CHURCH

India is divided into Dioceses and Prefectures Apostolic, which are grouped in 17 Ecclesiastical Provinces or Archdioceses, as follows :—Archdiocese of : 1. Agra with the Dioceses of Ajmer-Jaipur, Allahabad, Jhansi, Lucknow, Meerut and the Prefecture Apostolic of Banaras and Gorakhpur ; 2. Bangalore with the Dioceses of Bellary, Mangalore, Mysore, Chickmagalur, 3. Bombay with the Dioceses of Ahmedabad, Belgaum, Poona ; 4. Calcutta with the Dioceses of Dibrugarh, Jalpaiguri, Krishnagar, Bhagalpur, Patna, Dumka, Darjeeling, Shillong, Tezpur and the Prefectures Apostolic of Haflong; 5. Changanacherry (Syro-Malabar) with the Dioceses of Kottayam and Palai ; 6. Delhi with the Dioceses of Simla, Chandigarh and the Prefectures Apostolic of Jammu-Kashmir and Jullundur ; 7. Ernakulam (Syro-Malabar) with the Dioceses of Kothamangalam, Tellicherry and Trichur ; 8. Goa and Daman ; 9. Hyderabad with Dioceses of Guntur, Nellore, Vijayawada, Visakhapatnam and Warangal ; 10. Madras-Mylapore with the Dioceses of Coimbatore, Ootacamund and Vellore ; 11. Madurai with the Dioceses of Kottar, Tiruchirapalli and Tuticorin ; 12. Nagpur with the Diocese of Amravati and the Prefecture Apostolic of Raipur and the Oriental Ordinariate of Chanda. 13. Pondicherry and Cuddalore with the Dioceses of Kumbakonam, Salem, and Tanjore ; 14. Ranchi with the Dioceses of Cuttack, Jamshedpur and Sambalpur ; 15. Trivandrum (Syro-Malankara) with the Diocese of Tiruvalla ; 16. Verapoly with the Dioceses of Alleppey, Calicut, Cochin, Quilon, Trivandrum (Latin) and Vijayapuram ; 17 Bhopal, with the Dioceses of Indore, Jabalpur, Raigarh and Ambikapur.

In all there are 17 Archdioceses (Metropolitan Sees), 55 Dioceses (Suffragan Sees) and 5 Prefectures Apostolic. At the head of an Ecclesiastical Province or Archdiocese there is an Archbishop ; at the head of a Diocese there is a Bishop ; and at the head of a Prefecture Apostolic there is a Prefect Apostolic.

*The Apostolic Internuncio :* His Excellency The Most Rev. Dr. James R. Knox (Apostolic Internunciature, Chanakya Puri, New Delhi 21).

*The Cardinal :* His Eminence Valerian Gracias, D.D., M.Agg. (Archbishop's House, Bombay 1).

*Statistics :* Number of Catholics : 65,15,592 ; Clergy (Foreign) : 1,211 ; Clergy (Indian) : 6,520 ; Colleges : 59 ; High Schools : 6,899 ; Technical & Industrial Schools : 137 ; Students in Colleges : 47,959 ; Students in Schools : 15,49,009 ; Hospitals : 132 ; Dispensaries : 407 ; Homes for the Aged : 97 ; Orphanages & Foundling Homes : 554 ; Leper Asylums : 7 ; Creches : 64 ; Rescue Homes : 6 ; Poor Homes : 20.

## PROTESTANT CHURCHES

Below are given particulars about Protestant churches in India which may be of interest.

Places of Worship : 28,533 ; Ordained Ministers : National : 6,885 ; Foreign : 1,033 ; Laymen : National : 24,636 ; Foreign : 363 ; Women Foreign Workers : 1,426 ; Christian Colleges : 46 ; High Schools : 314 ; Industrial Schools : 42 ; Hospitals : 258 ; Leprosy Institutions : 49 ; Tuberculosis Sanatoria : 12 ; Homes for Blind Deaf, etc. : 8 ; Homes for Women : 15 ; Orphanages : 85 ; Social & Welfare Organisations : 87.

Percentage of literacy for Protestants, 21·5 (1941 Census) : Number of languages in which the scriptures (Protestant version) are available either wholly or in part, 86.

### Assemblies of God

*Assemblies of God in Great Britain and Ireland in India :* 25, Third Street, Tatabad, Coimbatore.

*Australian Assemblies of God Mission :* Mission Bungalow, Khed, Taluka Khed, Poona Dist.

*South India Assemblies of God :* Bethel Bible School, Punalur P.O., Kerala.

### Baptist Churches

*Baptist Union of India, Pakistan, Burma and Ceylon :* The Baptist Union of India, Pakistan, Burma and Ceylon came into being in 1937 in response to a widespread desire on the part of churches and missions of that order for closer co-operation and fellowships in their task.

The union functions as the representative of the affiliated churches and missions in relation to the National Christian Council, the Baptist World Alliance and in other ways that call for concerted voice and action.

*Address :* Ramapatnam, Nellore Dist., Andhra Pradesh.

*Council of Baptist Churches in Northern India :* 44, Acharya Jagadish Bose Road, P.O., Park Street, Calcutta-16.

*Baptist Union of North India :* Collier Memorial Hostel, Bankipore, Patna.

*Bengal Baptist Union :* 95-A, Elliott Road, Calcutta-16.

*South Mizo Presbytery, Assam (Zo Ram Baptist Church) :* Baptist Mission, Lungbh, Mizo Dist., Assam.

*Utkal Christian Church Central Council :* Madhusudhan Road, Cuttack, Orissa.

*United Christian Missionary Society :* 336, Napier Town, Jabalpur, M.P.

*Samavesham of Telugu Baptist Churches :* C. A. M. Compound, Nellore, Nellore Dist., A.P.

*American Baptist Telugu Mission :* C.A.M. High School Compound, Nellore, A.P.

*Christian Service Society :* Balasore, Orissa.

*Council of Baptist Churches in Assam and in Manipur :* A. B. Mission, Gauhati, Assam.

*Garo Baptist Union :* Bagpara P.O., Bongaigaon, Goalpara Dist., Assam.

*Mid Missions :* Makunda, Hatikhira P.O., Cachar Dist., Assam.

*North Bank Baptist Association :* Biswanathghat, Darrang, Assam.

*Baptist General Conference of America :* Baptist Mission, Tezpur, Assam.

*Convention of the Baptist Churches of the Northern Circars :* McLarin High School, Kakinada P.O., E. Godavari, Andhra Pradesh.

*Canadian Baptist Mission :* Kakinada, Andhra Pradesh.

*Goalpara Boro Baptist Church Union :* Bengtol P.O., *via* Bongaigaon, Dist. Goalpara, Assam.

*North Goalpara Garo Baptist Union :* P.O. Bongaigaon, Dist. Goalpara, Assam.

*Australian Baptist Foreign Mission Inc. :* Bongaigaon, Goalpara Dist., Assam.

*Tripura Baptist Christian Union :* Arundhatinagar P.O., Agartala, Tripura.

*New Zealand Baptist Missionary Society :* Arundhatinagar, Agartala, Tripura.

*Central India Baptist Mission :* Elichpur, P.O., Amravati.

*Freewill Baptist Mission :* Krishnaganj, Purnea Dist., Bihar.

*Strict Baptist Mission:* Morupatti, Mettupalayam, Tiruchirapally.

*Swedish Baptist Mission :* Padrauna, Deoria Dist., U.P.

*Christian & Missionary Alliance of India :* Akola, Maharashtra.

### Church of the Brethren

*First District Church of the Brethren :* Ankleswar, Broach District.

*Second District Church of the Brethren :* Ahwa, Dangs District.

*The Joint Council Church of the Brethren :* J. C. Office, Bulsar, Surat Dist.

*General Brotherhood Board, Church of the Brethren (U.S.A.) :* Post Box 92, Bombay 1.

### Churches of Christ

*Conference of Churches of Christ in Western India :* P.O. Box 26, Baramati, Dt. Poona.

*Australian Churches of Christ Foreign Mission Board Inc. :* Shrigonda, Ahmednagar Dt.

*Convention of Churches of Christ :* Jabalpur P.O., M.P.

*Mandliyon Ki Pratinidhi Kamiti :* Nawa Bhandaria, Palamau Dist., Bihar.

*United Christian Missionary Society :* B. D. 336, Napier Town, Jabalpur P.O., M.P.

*Churches of Christ in Great Britain and Ireland Missionary Committee :* Nawa Bhandaria, Palamau District, Bihar.

*Kulpahar Church of Christ Mission :* Kulpahar, Hamirpur Dist., U.P.

### Churches of God

*American Churches of God Mission :* Ulubaria, Howrah District, W. Bengal.

*Church of God Mission (Orissa) :* The Shelter Cuttack, Orissa.

*Church of God in South India:* Girideepam, Chengannur, Kerala.

*Church of God, Autonomous Churches in Assam, W. Bengal and Orissa :* Goalapetty, Shillong, Assam.

*Church of God in India :* Mulakuzha, Chengannur, Kerala.

*Church of God :* P.B. 60, Coimbatore, Madras State.

*Open Bible Church of God :* Site No. 141, Tatabad, Coimbatore, Madras State.

### The Church of India, Pakistan, Burma & Ceylon

Bishop's House, 51, Chowringhee Road, Calcutta-16.

*Dioceses in India :* Assam (Bishop's Kuti, Shillong) ; Amritsar (Taylor Road, Amritsar, Punjab) ; Barrackpore (86, Middle Road, Barrackpore, W. Bengal) ; Bhagalpur (Bishop's House, P.O. Champnagar, Bhagalpur, Bihar) ; Bombay (S. John's House, Duxburylane, Colaba, Bombay 5) ; Calcutta (Bishop's House, 51, Chowringhee Road, Calcutta-16) ; Chota Nagpur (Bishop's Lodge, Ranchi 1, Bihar) ; Delhi (1, Church Lane, New Delhi) ; Lucknow (Bishop's House, 11, Mahatma Gandhi Road, Allahabad, U.P.) ; Nagpur (Cathedral House, Nagpur) ; Nasik (No. 1, Outram Road, Ahmednagar, Maharashtra), Nandyal (Bishop's House, Nandyal, Kurnool, Andhra Pradesh).

*Oxford Mission to Calcutta :* 111, Vivekananda Road, Calcutta-6.

*Cambridge Mission to Delhi :* 7, Court Lane, Delhi-6.

*Christa Prema Seva Sangha :* Shivajinagar, Poona 5.

*Christa Yesudasi Sangha :* 36, Pottinger Road, Ahmednagar.

*Dublin University Mission to Chota Nagpur :* P.O. Box 5, Hazaribagh, Bihar.

*Old Church Chinese Mission & Old Church Hebrew Mission :* 11, Mission Row, Calcutta.

### The Church of South India

*Moderator,* Most Rev. A. H. Legg, Church of South India, Trivandrum, Kerala State.

*Dioceses :* Coimbatore (Diocesan Office, Coimbatore) ; Dornakal (Dornakal, Warangal Dist.) ; Kerala-North (Diocesan Office, Shoranur, Kerala) ; Krishna and Godavari (Bishop's House, Eluru, W. Godavari Dist.) ; Madras (Diocesan Office, Cathedral P.O., Madras-6) ; Madurai and Ramnad (College Compound, Tallakulam, Madurai-2) ; Medak (Bishop's House, Medak, Andhra Pradesh) ; Mysore (2, Mission Road, Bangalore-2) ; Rayalseema (Cuddapah) ; Tirunelveli (Palamcotah, Tirunelveli Dist.) ; Central Kerala (Bishop's House, Kottayam, Kerala) ; South Kerala (Diocesan Office, Trivandrum 1,

Kerala); Tiruchirapally-Tanjore (Diocesan Office, Puthur, Tiruchirapally); Kanyakumari (Diocesan Office, Nagercoil, Kanyakumari Dist.).

*United Church Board for World Ministries:* American Madura Mission, Madurai, S.I.

*Board of Foreign Missions of the Reformed Church in America:* American Arcot Mission, Ranipet, N. Arcot Dist.

*Basel Evangelical Missionary Society:* Mangalore.

*Church Missionary Society:* C.M.S. College, Kottayam, Kerala State.

*Indian Missionary Society of Tirunelveli:* Palamcottah, Tirunelveli-2.

*London Missionary Society:* Rev. I. L. Thomas, Bishop Cotton Boys School, Bangalore 1.

*Methodist Missionary Society:* Mission House, Karim Nagar, Hyderabad-Dn.

*Mulag Mission:* Mulag, *via* Kazipet, Warangal Dist., Andhra Pradesh.

*Parkhal Mission:* Nekonda, Warangal Dist., Andhra Pradesh.

### Local Autonomous Churches

Throughout the country there are a large number of local churches, generally of a congregational order, which are fully autonomous.

This group consists of hundreds of local independent churches or assemblies on the simple N.T. pattern throughout India, having no common centralised set up but maintaining close fellowship with one another. Most of these were established through the faithful labours of Indian Nationals.

### Other Groups

Some of the other Independent Churches have been unified under two organisations:

(1) THE ALL INDIA FEDERATION OF NATIONAL CHURCHES with Rev. R. S. Modak as President and Rev. R. S. Williams as General Secretary.

(2) THE FELLOWSHIP OF CHRIST IN INDIA—BHARAT CHRIST SANGH—in Northeast India with the Rev. B. D. Roy, M.A., B.T., Dip. Ed. (Bristol) as President and the Rev. R. C. Das, M.A., as Executive Secretary.

These aim at creating an independent and indigenous church in India. At present there is no formal inter-relation. There is however a fellowship, and sometimes some co-operation.

### Lutheran Churches

*Federation of Evangelical Lutheran Churches in India:* is an expression of the spiritual unity of the Lutheran churches.

The Federation started in July 1953, a Theological College in Madras in which 8 of its constituent bodies now co-operate. This institution is named as *The Gurukul Lutheran Theological College and Research Institute*, and directs its course of study to the B.D. and M.T.L. degree. A further aim is graded research in both Christian and non-Christian religions against the Indian background. It has a governing council of 11 members and is established at Gurukul, Madras 10.

*Andhra Evangelical Lutheran Church:* Guntur, Andhra Pradesh.

*United Lutheran Church Mission:* Rajahmundry, Andhra Pradesh.

*Arcot Lutheran Church:* Tiruvannamalai, North Arcot Dist., Madras State.

*Northern Evangelical Lutheran Church:* Benagaria P.O., Santal Parganas, Bihar.

*Santal Mission of the Northern Churches:* Dumka P.O., Santal Parganas, Bihar.

*Evangelical Lutheran Church in Madhya Pradesh:* Saugor, M.P.

*Evangelical National Missionary Society of Stockholm:* Chindwara, M.P.

*Gossner Evangelical Lutheran Church:* Ranchi, Bihar.

*India Evangelical Lutheran Church:* Ambur, North Arcot Dist., Madras State.

*Jeypore Evangelical Lutheran Church:* Jeypore, Koraput Dist., Orissa.

*South Andhra Lutheran Church:* Nayudupet, Nellore Dist.

*American Lutheran Conference:* Pilar Chittoor Dt., Andhra Pradesh.

*Tamil Evangelical Lutheran Church:* Tranqualiar House, Tiruchirapalli 1.

*Church of Sweden Mission:* Margaret Cottage, Raja Street, Coimbatore 1.

### Elim Churches

*Elim Churches of India:* Dudhi, Mirzapur Dist., U.P.

*Elim Church (New Zealand):* Karmala P.O., Sholapur Dist.

*The Evangelical Alliance Mission:* Parola, Jalgaon.

### Mennonite Churches

*Mennonite Church in India:* Dhamtari P.O., Raipur District, M.P.

*Telugu Mennonite Brethren Convention and American Mennonite Brethren Mission:* Shamshabad, Hyderabad Dist., Andhra.

*Mennonite Brethren Churches of North America:* Medical Centre, Jadcherla, Andhra Pradesh.

*General Conference Mennonite Church:* Jagdeeshpur P.O., *via* Mahasamund, Raipur Dist., M.P.

*Danish Missionary Society:* Gunupur, Koraput Dist., Orissa.

### The Methodist Church

*The Methodist Church of North India:* P.O. Garh-Raipur, Bankura Dist., W. Bengal.

*Methodist Missionary Society:* Wesley House, 62, The Causeway, Bombay-1.

*Methodist Overseas Mission:* Azamgarh, U.P.

*The Methodist Church in Southern Asia:* Robinson Memorial, Sankli Street, Byculla, Bombay; Inter Mission Business Office, P.O. 92, Bombay-1.

*Wesleyan Methodist Church, India Conference:* Pardi, Surat Dist.

*Wesleyan Methodist Church of America Missionary Society:* Pardi, Surat Dist.

*Free Methodist Church of North America, General Missionary Board:* Garden Bungalow, Yeotmal.

### Pentecostal Churches

*Ceylon Pentecostal Mission:* 48, Main Road, Royapuram, Madras.

*India Christian Assemblies (Finnish Pentecostal Mission):* Chilakalapudi, Krishna Dist.

*Indian Pentecostal Church of God:* The Indian Pentecostal Church of God is a group of indigenous independent churches established since 1924 in several parts of India and having fellowship with one another. It has no foreign mission control. The government of the church rests with the council of ministers elected yearly by the general body. This group sends forth Indian nationals as missionaries even to other lands.

*Address:* Faith Home, Vijayawada 2, Andhra.

*Maisihi Mandli (Autonomous and Indigenous Church):* Dehra Dun, U.P.

*Pentecostal Holiness Church:* Madhupur, Santal Parganas, Bihar.

*Swedish Free Mission:* 25, New Cantt. Road, Dehra Dun, U.P.

*United Pentecostal Church:* Box 347, Kanpur, U.P.

### The Presbyterian Church

*Commission on Ecumenical Mission and Relations of the United Presbyterian Church in the U.S.A.:* United Church Compound, "Lowriston", 5, Rajpur Road, Dehra Dun, U.P. & C/o Inter Mission Business Office, P.O. 92, Bombay 1.

*Bible Presbyterian Church of India:* Box 347, Kanpur, U.P.

*Independent Board for Presbyterian Mission:* Box 347, Kanpur, U.P.

*Canadian Presbyterian Mission:* Amkhut, *via* Dohad, M.P.

*Reformed Presbyterian Mission:* Roorkee, U.P.

*Presbyterian Church of Ireland Foreign Mission:* I. P. Mission, Parantij, Sabarkantha Dist.

*Presbyterian Church of Wales Foreign Mission:* Theological College, Cherrapunji, Assam.

*Church of Moravian Brethren:* Leh-Ladakh, Kashmir.

*Presbyterian Church of New Zealand Mission:* Committee, U.N.C.I. Compound, Ferozepur Cantt., Punjab.

### Seventh Day Adventist Church

(Salisbury Park, Poona).

See under 'Christian Missions' for detailed note.

### Syrian and Armenian Churches

*The Apostolic Holy Church of Armenia:* The church of the first nation to become Christian. Efforts to evangelise date from A.D. 34 (Thaddeus and Bartholomew). The See of Edgmiatzen (near Eravan) dates from A.D.300. In Calcutta the oldest church belongs to the Armenians—The Holi Church of Nazareth (1704); there are a college and Girls' High School also. Other churches in India are in Bombay, Surat, Saidabad, Madras, Chinsurah and Agra.

*Apostolic Legation of the Holy See of Antioch in Malabar:* Omallur, Kaipattur P.O., Kerala.

*Chaldean Syrian Church:* Church of the East, Trichur, Kerala State.

*Mar Thoma Syrian Church:* Sabha Office, P.O. Thiruvalla, Kerala State.

*Mar Thoma Syrian Christian Evangelic Association of Malabar:* Thiruvalla, Kerala.

*The Orthodox Syrian Church of Malabar:* Kottayam, Kerala State.

*Malabar Independent Syrian Church:* Thozhiyoor, Kottapadi, S. Malabar, Kerala State.

*Malankara Syrian Knanaya Diocese:* Mar Ephraim Seminary, Chingavanam P.O., Kerala.

### United Basel Mission Church

*Address:* Balmatta, Mangalore-1.

### The United Church of Northern India

(*Head Quarters:* Hillside Bungalow, Kasturchand Park, Nagpur 1.)

The United Church of Northern India was organised in 1924 from the union of the Presbyterian Church and the Congregational Church in Northern India. It includes Churches formed through the work and witness of the following missions in Northern India.

The United Presbyterian Church Commission U.S.A.; The Church of Scotland Mission; The United Church of Canada; The United Church Board for World Ministries U.S.A.; The London Missionary Society; The Welsh Mission; The Moravian Church of England; The Canadian Presbyterian Church; The Irish Presbyterian Church; The Presbyterian Church of New Zealand; The Presbyterian Church of England.

*Moderator:*—The Rt. Rev. Dr. Gurbachan Singh, Gass Memorial Centre, Raipur (Madhya Pradesh).

*Vice-Moderator:*—The Rev. Aziz William, The Manse, Jammu (J. & K.).

*Executive Secretary:*—The Rev. P. S. Bhonsle, "Hillcrest", Satara (Maharashtra).

*Treasurer:*—J. S. S. Malelu, Madraswala Building, 17, Shepherd Road, Byculla, Bombay 8.

*Statistician:*—Dr. W. S. Theophilus, United Christian Schools, Jullunder City (Punjab).

# CHRISTIAN MISSIONS IN INDIA

## CONGREGATIONAL SOCIETIES

**The Evangelical Alliance Mission.**

*Western India Headquarters* :—Amalner, Jalgaon District.

*Chairman* :—Rev. E. Berthelsen.

*Secretary* :—Helem Leisle.

**Hindustani Covenant Church.**

(In fellowship with Mission Covenant Church of Sweden)

*Moderator* : Rev. B. Thoma, 3, Transport Line, Poona 2.

**Swedish Hindustani Mission.**

*Secretary* : Rev. Karl G. Henningson, 16-A, Shankarshet Road, Poona 2.

## LUTHERAN SOCIETIES

**The Council of the India Mission of the Lutheran Church in America.**

*President* : Rev. William D. Coleman Luthergiri, Rajahmundry.

*Vice-President* : Dr. George K. Gesler Riverdale, Rajahmundry.

*Secretary* : Miss Dolores I. Dohlen, Lutheran Industrial Home, Rajahmundry.

*Treasurer* : E. Edwin Nabert, Post Box No. 231, Guntur-2.

**Federation of Evangelical Lutheran Churches in India.**

*President* : The Rt. Rev. Dr. R. B. Manikam, Tranqueber House, Tiruchirapalli1, South India.

*Vice-President* : The Rev. Dorairaj Peter, 'Carmel' Tiruvannamalai, S. India.

*Secretary* : The Rev. Dr. G. Devasahayam, Luthergiri, Rajahmundry, Andhra Pradesh.

*Treasurer* : K. D. Benjamin, Mission Compound, Renigunta, Andhra Pradesh.

There is an institution named The Gurukul Lutheran Theological College and Research Institute in Madras; it points its course of study to the granting of B.D. degree and M.Th. degree.

A further aim is graded research in both Christian and non-Christian religions against the Indian background.

The Theological College has a governing council of 14 members and is established at Gurukul, Purasawalkam High Road, Kilpauk, Madras-10

Its Officers are :

*President* : The Rev. Dr. R. B. Manikam, Tarnquebar House, Tiruchirapalli, India.

*Secretary and Principal of College* :—The Rt. Dr. P. David, 'Gurukul', Kilpauk, Madras-10.

**Tamil Evangelical Lutheran Church.**—Organised Churches (Pastorates) 69; Ordained Indian Ministers 71; Other Indian workers 133; Baptized membership 62,540; Schools 174; Teaching staff 1,188; Pupils: Boys 22,783; Girls 16,006.

*President* :—The Rt. Rev. Dr. R. B. Manikam, M.A., B.D., Ph.D., D.D., S.T.D., Bishop of Tranquebar, "Tranquebar House", Tiruchirapalli, S. India.

**India Evangelical Lutheran Church.**

*General Secretary* : Rev. N. J. Ezekiel, Immanuel Lutheran Church, Ambur, N.A. District, S. India.

## INTER-DENOMINATIONAL MISSIONS

**Bible and Medical Missionary Fellowship.**

*Secretary* :—R. F. S. Hills.

*Field Secretary* :—A. E. Norrish, Edgehill, Landour P.O., Mussoorie, U.P.

**The Mission to Lepers.**

The Indian Auxiliary of The Mission to Lepers. Hon. Treasurers are—W. M. Smith, C/o Messrs. Macneill & Barry Ltd., 2, Fairlie Place, Calcutta 1 and Rev. J. C. Becke, C/o. The Scots Kirk Office, 11, Waudby Road, Bombay 1.

The General Secretary of the Mission is Rev. W. H. Russell, B.A., 7, Bloomsbury Square, London, W.C.1. The Secretary for Southern Asia is V. P. Das, Purulia (S.E. Rly.), West Bengal.

**National Missionary Society of India.**

The Office-bearers for the present triennium: —

The Rt. Rev. R. B. Manikam (*President*); Rt. Rev. J. Amritanand, (Allahabad); Rt. Rev. Anand Rao Samuel (Elluru); Rev. B. Pradhan, (Cuttack); D. R. Vedamuthu, (Madras); Bp. G. Sundaram, (Hyderabad); (*Vice-Presidents*); S. W. Kanagaraj, Madras (*Hon. Treasurer*): Rev. Paul Das, Rev. Dr. A. C. Abraham, S. Deva Prasad (*Associate General Secretaries*); Rev. P. J. Thomas (*General Secretary*).

*Address* :—N. M. S. House, Royapettah, Madras 14.

**All-India Fellowship Training Ashram (Ashram Training Village Workers).**

*Chief Worker* : Mrs. P. Sircar, Pirumadara P.O., Nainital District, U.P.

**Christa Seva Vidhyalaya.**

(Training College for Women Church Workers of advanced Education).

*Secretary* : Miss K. M. Freeman, 7/2, College Road, Madras 6.

**Dohnavur Fellowship.**

*Secretary* : V. Thyagaraj Ananda, Dohnavur, Tirunelveli Dt., S. India.

**Hospital.**

*Medical Officers* : Miss C. A. Rogan, M.B.Ch.B.; Miss N. E. Robbins, M.B., B.S., M.R.C.P.

**Nasrapur Spiritual Life Centre Fellowship.**

*Director* : Rev. J. P. Crozier, Spiritual Life Centre, Nasrapur, Poona Dist.

**Old Church Hebrew Mission.**

*Missioner* : Rev. A. E. D. Frederick, Vicar, 5, R. N. Mukherjee Road, Calcutta 1.

**Ramabai Mukti Mission.**

The main departments are: A Girls' Orphanage, School, Home and School for the Blind, Medical, Agricultural and Rescue Home.

*Superintendent, Secretary and Treasurer* :—Miss J. Callan, R. M. Mission, Kedgaon, Poona District.

**Student Christian Movement of India.**

S.C.M. House, 2-E, Mission Road, Bangalore 2.

(Affiliated to the World Student Christian Federation).

*Gen. Secretary* : G. R. Karat, M.A.

The Student Christian Movement of India works amongst students in Indian universities and has at present over 150 local unions.

## MISCELLANEOUS

**American Advent Mission.**

(Woman's Home and Foreign Mission Society of the Advent Christian Denomination).

*Chairman* : Rev. C. Marvin Casey, B.D., American Advent Mission, Velacheri, Madras, 42.

**American Baptist Bengal-Orissa Missionary Fellowship.**

*Secretary & Treasurer* : Rev. C. C. Roadarmel, Midnapore, W. Bengal.

**American Friends' Mission.**

*Superintendent* : W. R. Hess, Yeotmal, Maharashtra.

**Behat Village Mission.**

*Secretary* : Rev G. C. Massey, Mission House, Behat P.O., Saharanpur Dist., U.P.

**Bharat Evangelical Mission.**

Post Box 41, Rajahmundry, Andhra Pradesh.

(Helen Clerke Children's Home, Home for Orphans and Destitutes of both sexes).

**Bharat Evangelical Mission.**

*Superintending Missionary* : Hubert Edwards, B.E.M. Mission, 41, Main Road, St. Thomas Mount, Madras-16.

**Board of Christian Institutions.**

*Chairman* : Rev. William Baur, Civil Lines Raipur, M.P.

**Boys' Christian Home Mission.**

*Secretary* : H. Mc Millen, Dhond, Poona Dist.

**Brethren in Christ Mission.**

*Superintendent*, Rev. Harvey Sider, P.O. Banmankhi, Dist. Purnea, Cihar; *Secretary* : Esther G. Book, Saharsa, N. E. Rly, Dist. Saharsa, Bihar.

**Brethren in Christ Church**

*Superintendent* : Rev. Harvey Sider, P.O. Banmankhi, Dist. Purnea, Bihar; *Treasurer* : Rev. S. N. Rai, P. O. Saharsa, N. E. Rly., Dist., Saharsa, Bihar; *Secretary* : Patras Dass, P. O. Barjora, *via* Murliganj, N. E. Rly., Dist., Saharsa, Bihar.

**Buchanan Memorial Orphanage**

89, James Street, Poonamallee, Madras-56.

*Founder & Supdt.* : Shakespeare M. Edwards.

*Secretary* : Mabel Shakespeare.

**Central Asian Mission.**

*Representative* : M. H. Mazzoni, The Mission Hospital, Manali, Kulu Valley, Punjab.

**Christian and Missionary Alliance.**—Dates from the year 1892 under the name of the International Missionary Alliance, but a number of its missionaries were at work in the area of Berar much earlier. Work is carried on in the areas of Berar and Khandesh. There is a staff of 33 missionaries and 22 Indian workers. The number of mission stations is 11, with additional out-stations. There is a Christian community of 5,600. There are 2 boarding schools, one for boys and one for girls, 2 training schools for Indian workers. There are 35 organized congregations, including one English at Bhusawal.

*Chairman* :—The Rev. G. L. Carner, Akola, Maharashtra.

Work in the Gujarat field is carried out from Bungalow No. 20, Camp, Ahmedabad—Rev. P. L. Morris.

**Church of the Brethren (American).**

*Secretary* :—I. L. Christachari, Mission House, Bulsar, Gujarat.

*Treasurer* :—A. H. Holderreed, 364, Dr. Dadabhoy Naoroji Road, Bombay 1.

**Church of the Nazarene Mission.**

*Mission Chairman* :—Rev. J. W. Anderson, Basin, Akola Dt., Maharashtra.

**Church of the Nazarene of Bharat.**

*Dist. Supt.* :—Rev. S. T. Gaikwad, Buldana, Maharashtra.

**Dipti Mission.**

*Superintendent* : Mrs. K. M. Clemence, M.A., B.Ed., Sahibganj, Bihar; *Treasurer* : L. Clemence.

**Evangelical Missionary Society in Mayurbhanj.**
*Field Secretary :* Oswald Lahey, Baripada, Mayurbhanj Dist., Orissa.

**Free Church of Finland Mission.**
*Field Secretary :*—Miss Riitta Siikanen, Ghoom, Darjeeling, West Bengal.

**Gass Memorial Centre**
The institution gives services similar to the Y.M.C.A.
*Superintendent :* Dr. Gurbachan Singh, Raipur, M.P.

**Home Missionary Society of India.**
This Society is the organized endeavour of the Anglo-Indian Community. A school for underprivileged girls in Coonoor called 'Mountain Home School' is run by the Society.
*Secretary and Treasurer :*—Mrs. K. Mc. Dermott, 22, Stephens Road, Frazer Town, Bangalore-5.

**World Mission to Children**
*Field Director :*—Walter Faszer, House of Praise, Hoskote, Bangalore Dist.

**House of Worship**
*Missionaries :*—Miss J. D. Watson; Miss M. Alderson, Bethamangala, Kolar Dt., Mysore State.

**India Christian Mission.**
Champawat P.O., Almora Dist., U.P.

**India Church Council of the Disciples of Christ**
*Exec. Secretary :* P. Solomon, Damoh, M.P.
*Treasurer :* L. A. Davis, 336, Napier Town, Jabalpur, M.P.

**India Gospel Fellowship Mission.**
*Secretary :*—Rev. J. Darashah, B.A., Mount Zion, Ketti, Nilgiris.

**India Industrial Mission.**
Cossipore, Calcutta-2.

**India United Evangelical Mission.**
The Mission has 5 Chapels, 4 day schools and one dispensary, all in Bangalore area.
*Field Director*, Rev. Jesudhason Ebenezer.

**Interior India Mission.**
*Field Secretary :*—Rev. S. L. Rassmann, Bahraich, U.P.

**India Mission.**
Trimulgherry, Hyderabad Dist., A.P.

**Lakher Pioneer Mission.**
*Senior Missionary :*—Rev. A. B. Lorrain Foxall, P.O. Serkawr, South Mizo Dist., Assam.

**Metropolitan Church Association.**
P.O. Siwait, Allahabad Dist., U.P.

**Mission to Indian Villages.**
*Secretary :*—Rev. Mrs. C. Benfield, Latur, Osmanabad, Marathwada.

## NATIONAL CHRISTIAN COUNCIL OF INDIA

Chiefly to help to co-ordinate the activities of member Churches and Regional Councils and to assist them to co-operate with one another where such co-operation is desirable.

*President :*—Miss Renuka Mukerji Somasekhar, Nawazkhan Road, Madras-6.

*Vice-Presidents :*—Rt. Rev. J. W. Sadiq, Cathedral House, Nagpur-1; Rt. Rev. Philipose Marchrysostom, Olivet, Chengannur, Kerala.

*Treasurer :*—J. S. S. Maleiu, 17, Shepherd Road, Bombay 8.

*Executive Secretary:*—Korula Jacob, M.A., M.Ed.; *Secretaries :*—Miss Lily Quy, M.A.Z.; Roiston, M.A.; Rev. D. H. S. Lyon, M.A.; Rev. A. D. Manuel, B.L., S.T.M.

*Address :*—The National Christian Council, Christian Council Lodge, Nagpur 1, Maharashtra.

**Nepal Evangelistic Band.**
*Secretary :*—Dr. G. M. A. Turner, Christian Dispensary, Nautanwa, Gorakhpur, U.P.

**The Nepali Isai Sahitya Sangha, B. K. Gomgba Road, Darjeeling.**

**North East India General Mission.**
*Compound Superintendent :*—Nengzachin, P.O. Mission Compound, Churachandpur, Manipur.

**Norwegian Free Evangelical Mission.**
N.F.E.M., Banda, U.P.

**Oriental Missionary Society.**
*Director for India :*—Dr. W. Duewel, 20, Stanley Rd., Allahabad, U.P.

**Pilgrims Mission.**
Varanasi Cantt., U.P.

**Poona and Indian Village Mission.**
Mission Headquarters, 10, Napier Road, Poona-1.

**Scripture Union & Children's Special Service Mission.**
*Chairman :* Rev. Cecil M. Johnston, C/o E.L.D. 11/1, Mission Row, Calcutta 1. *General Secretary :* Rev. P. S. Sanjeeva Rao, Scripture Union Office, Governorpet, Vijayawada-2. Andhra.

*Secretary-Treasurer :* O. C. Mathew, B.Sc., Kottooreth, Chengannur (Kerala State).

**Swedish Alliance Mission.**
*Secretary :*—Rev. Sigurd Ohlsson, Nandurbar, Dhulia District, Maharashtra.

**Swedish Women Missionary Society.**
E. Pihlquist, Dinhatta P.O., Cooch Behar, West Bengal.

**United Missionary Society.**
*Field Superintendent :*—Rev. Weyburn Johnson, 10, St. George Gate Road, Calcutta 22.

**United Presbyterian Church in the U.S.A. in association with the United Church of Northern India.**
*Commission Representative:*—The Rev. Gordon M. Ruff, 51, Rajpur Road, Dehra Dun, U.P.

*Secretary, India Council :*—The Rev. Gordon M. Ruff, 51, Rajpur Road, Dehra Dun, U.P.

*Secretary, Kolhapur Church Council :*—J. C. Kincaid, Church Council House, Kolhapur, Maharashtra.

*Secretary, North India Synod :*—The Rev. Dayal Chand, Church House, Mainpuri, U.P.

*Secretary, Punjab Synod :*—The Rev. John A. Peters, United Church Compound, Ludhiana, Punjab.

**Woman's Union Missionary Society.**
*Secretary :*—Dr. Gertrude J. Smith, M.D., Broadwell Hospital, Fatehpur, U.P.

**World Gospel Mission.**
Anandagiri, Box 20, Bangarapet (Mysore State).
*Superintendent :* Rev. Karl K. Rice.
*Treasurer :* Mrs. Edna L. Dewey.
*Secretary :* Mrs. Grace I. Rice.
The Anandagiri Christian Fellowship, Anandagiri, Box 20, Bangarapet (Mysore State).
*Chairman :* Rev. Ivan P. Carroll.
*Secretary :* Miss Aleyamma Zachariah.
*Principal, South India Bible Institute :* Rev. C. S. Dewey.

**World Mission Prayer League, Inc.**
*Chairman :* Roy Hagen, Mission House, Darjeeling. *Secy. :* Dorothy Christianson,

**Free Methodist Mission of North America.**
This mission was founded in 1892.
*Field Superintendent :*—Rev. Elmer S. Root, Chikalda, Amravati Dist., Maharashtra.

## SEVENTH-DAY ADVENTIST CHURCH

**Southern Asia Division.**

Seventh-day Adventist Church—Western India (Pastor M. D. Moses, President). *Office Address :*—16, Club Road, Byculla, Bombay 8. P.O. Box 4565.

Seventh-day Adventist Church—Burma. (Pastor W. L. Murrill, President). *Office Address :* 68, U. Wisara Road, Rangoon, Burma, Post Box 977.

Seventh-day Adventist Church—North-eastern India. (Pastor B. J. Williams, President). *Office Address :* Karmatar, Bihar.

Seventh-day Adventist Church—North-western India (Pastor O. W. Lange, President). *Office Address :* 11, Hailey Road, New Delhi 1.

Seventh-day Adventist Church—South India. (Pastor A. J. Johanson, President). *Office Address :* 13, Cunningham Road, Bangalore. P.O. Box 20.

Seventh-day Adventist Church—Pakistan. (Pastor C. H. Hamel, President). *Address :* 32, Mozang Road, Lahore, Post Box 32.

Seventh-day Adventist Church—Ceylon (Pastor E. C. Beck, President). *Office Address :* 15, Alfred House Gardens, Colombo 3. P.O. Box 1253.

The general headquarters for India, Pakistan, Burma and Ceylon are located at Salisbury Park, Poona. R. L. Lowry, President; C. R. Bonney, Secretary; C. B. Guild, Treasurer. (Office Address: Post Box 15, Poona.)

## SALVATION ARMY

The work of the Salvation Army in India and Ceylon was commenced in 1882 by the late Commissioner Booth-Tucker and was for many years under his control, with Headquarters in India. For some time now, the areas occupied have been divided for administrative purposes into 6 Territories, each under a Territorial Commander; and one smaller Command. The headquarters for Pakistan are at Lahore.

*North-Eastern Territory*, with Headquarters at Calcutta.

*Western Territory*, with Headquarters at Bombay.

*Madras and Andhra Territory*, with Headquarters at Madras.

*Southern Territory*, with Headquarters at Trivandrum, in Kerala.

*Ceylon Territory*, with Headquarters at Colombo.

*Burma Command*, with Headquarters at Rangoon.

The Registered Audit and Editorial office is at Poona.

The Commanders are directly responsible to the International Headquarters in London.

**North-Eastern Territory.**—The area in this Territory is the Salvation Army work in the Punjab (India), Uttar Pradesh, Orissa, Bengal, Delhi, Assam, Bihar, Manipur and Cachar.

Evangelistic work is extensively carried on.

Medical work is carried on in one Hospital which is in Dhariwal, Punjab and also dispensaries.

There are boarding and day schools, Social Service Centre in Calcutta, a Young Women's Hostel, and orphanages for both girls and boys. A home and school for the Blind at Kalimpong. 'Red Shield' Guest House, Calcutta.

| | |
|---|---|
| Village centres at which the S. A. works | 2,127 |
| Officers and Employees | 605 |
| Social Institutions | 12 |
| Boarding and day schools | 13 |
| Hospital | 1 |
| Guest House | 1 |

*Territorial Headquarters :* 37, Dharamtala Street, Calcutta 13.

*Territorial Commander :*—Lt. Commissioner Lawrence Fletcher.

**Madras and Andhra Territory.**—Embraces Madras City, the central and northern districts of Madras, Andhra Pradesh and Mysore. 455 fully commissioned officers and 365 workers are fully occupied in evangelical, educational and village uplift work carried on in just over 339 villages, a high school with hostels for boys and girls, a Training Institute for men and women selected for officership ; agricultural settlement of 2,782 men, women and children —many work at Chirala, the others on the land. A Leprosy Hospital, General Hospital, a Social Services Department where wastepaper sorting, etc. is carried on, and a Women's and Children's Home in Madras complete the list of institutions where work is going forward.

*Territorial Headquarters :*—The Salvation Army, 1C, Ritherdon Road, P.O. Box 453, Vepery, Madras 7.

*Territorial Commander :*—Colonel Arthur G. Long.

*Chief Secretary :*—Colonel S. Gnanaseelan.

**Southern India Territory.**—The Territorial Headquarter is in Trivandrum in Kerala State.

In 1,153 Corps and Centres of work, the majority of officers labour among the village population. The Army has a membership in South India of 102,383.

This territory is divided, for administrative purposes into 14 divisions, 5 among the Tamil-speaking people and 9 among those who speak Malayalam.

The Catherine Booth Hospital at Nagercoil, 12 miles from Cape Comorin is a 360 bed general hospital with special departments in ophthalmology, plastic and reconstructive surgery and a modern obstetric block. Radiotheraphy by Deep X-Ray and radium is available and a new Physiotheraphy Department with associated Rehabilitation Department (in which surgical boots and appliances are made). Wards for the Surgical Rehabilitation of leprosy were opened in 1963. In 1963 out-patients were cared for at the Catherine Booth Hospital and Branches with 4,000 operations performed. Schools of Nursing, Midwifery, Radiography and Physiotheraphy are maintained.

The Evangeline Booth Leper Hospital at Puthencruz in Central Kerala, accommodates 200 patients. These institutions carry on work in accordance with the highest traditions of Christian service.

Staff in the Territory consist of 1,056 officers & 439 employees. There are 404 Officered Corps and 111 societies, 28 primary day schools, 2 boarding schools, 1 middle school, 1 high school, 1 training college, 572 outposts, 1 women's industry.

*Territorial Headquarters :*—Kowdiyar, Trivandrum 3.

**Western India Territory.**—This territory comprises Corps 242 ; Outposts 674 ; Social Institutions 14 ; Day Schools 67 ; Boarding Schools 2 ; Training College 1.

Besides the evangelical operations there are in this Territory, two large Hospitals, the Emery Hospital at Anand, and the Evangeline Booth Hospital at Ahmednagar and two dispensaries. Patients treated at both Hospitals during 1964 were—Out-patients 13,594, In-patients 3,178 ; Major Operations performed 413 ; Minor Operations performed 1,034. Both Hospitals are well-equipped and have a Nurses' Training School attached.

Social work in Bombay includes the King George V Memorial Infirmary, and Lady Dhunbai Jehangir Home for Destitutes, Industrial and Rescue Home for Women at Matunga and Industrial Home for Men at Byculla. A night shelter for men where about 50 men are given shelter every night. A well-equipped Red Shield House, is situated on Merewether Road, Fort, Bombay. Accommodation for visitors to Bombay may be secured there.

*Territorial Headquarters :*—P.O. Box 4510, Morland Road, Byculla, Bombay 8. B. C.

*Territorial Commander :*—Lieut. Commissioner Stanley Hannam.

*Chief Secretary :*—Col. Maganlal Mulji.

# MONEY SUPPLY

According to the Reserve Bank's Report on Currency & Finance, Money supply expanded during 1964-65, though the pace of expansion was made slower as compared to that in the previous year reflecting partly the slackening tempo of growth in industrial output and partly the impact of measures taken by the monetary authorities to restrict expansion in bank credit and curb the growth of liquidity in the economy. Money supply expanded by Rs. 328 crores or 8·7 per cent. as compared to Rs. 442 crores or 13·4 per cent in 1963-64 and Rs. 264 crores or 8·7 per cent. in 1962-63. In the 1964 slack season, as was normally expected, there was a contraction in money supply of Rs. 33 crores as against an unseasonal expansion of Rs. 30 crores in the 1963 slack season. In the 1962 slack season the contraction was of the order of Rs. 63 crores. In the 1964-65 busy season also, the expansion in money supply was smaller than in the preceding busy season though it was higher than in the 1962-63 busy season.

It was observed that in 1963-64, deposit money accounted for nearly one-half of the increase in money supply, whereas during 1962-63 the increase in money supply was shared between currency and deposit money roughly in the proportion of 2 : 1. During 1964-65, increase in money supply was shared equally by currency with the public and deposit money (Rs. 164 crores each).

As regards the factors contributing to the monetary expansion, net bank credit to the Government continued to be the principal factor influencing the expansion in money supply, though the rate of its increase during the year was lower than in the preceding year. Net bank credit to Government rose by Rs. 235 crores as compared to Rs. 281 crores in 1963-64 and Rs. 269 crores in 1962-63. The smaller rise this year was mainly due to lower growth in the Reserve Bank credit to Government reflecting a levelling off of the tempo of growth of defence expenditure coupled with a smaller increase in the non-developmental expenditure, the extent of rise being Rs. 127 crores this year compared to Rs. 195 crores in 1963-64. The rate of increase in net bank credit to the private sector (mainly to private trade and industry), registered an appreciable slowing down during 1964-65 ; the increase under this head was Rs. 74 crores as compared to Rs. 163 crores in 1963-64 and Rs. 105 crores in 1962-63. The smaller increase this year was mostly explained by a substantially larger rise in time deposits of banks (adjusted for P.L. 480 and P.L. 665 funds) of Rs. 162 crores than in the preceding year (Rs. 81 crores) and partly by restrictive credit controls imposed by the Reserve Bank of India. If, seasonal variations in money supply and the factors affecting them are considered, it is seen that while in the slack season of 1964, net bank credit to the private sector showed a contraction of Rs. 180 crores in contrast to an expansion in net bank credit to the Government of Rs. 139 crores, in the busy season of 1964-65, the expansion in net bank credit to the private sector was substantially larger (Rs. 276 crores) than that (Rs. 165 crores) to the Government following a record rise in scheduled bank credit ; it may be noted that the busy season expansion in bank credit this year was somewhat prolonged and continued up to mid-May 1965. For the financial year, the movement in balance of payments as measured by changes in foreign exchange assets of the banking sector exerted a contractionary impact on money supply of the order of Rs. 19 crores as against its expansionary impact last year (Rs. 39 crores). Other factors comprising mainly the net non-monetary liabilities of the banking system exerted an expansionary influence (Rs. 38 crores) as agianst their contractionary role in 1963-64 (Rs. 41 crores).

**VARIATIONS IN MONEY SUPPLY** (Rs. Crores)

| ITEM | 1962-63 (1) | 1963-64 (2) | 1964-65 (3) |
|---|---|---|---|
| 1. Currency with the Public .. .. .. | + 178 | + 222 | + 164 |
| 2. Deposit Money .. .. .. .. .. | + 86 | + 216 | + 164 |
| 3. Money Supply .. .. .. .. | + 264 | + 442 | + 328 |
| **FACTORS AFFECTING MONEY SUPPLY** | | | |
| A. Net Bank credit to Government Sector(*a*) .. | + 269 | + 281 | + 235 |
| B. Net Bank Credit to Private Sector(*a*) .. | + 105 | + 163 | + 74 |
| C. Net Foreign Exchange Assets .. .. | — 43 | + 39 | — 19 |
| D. Others (Increase —) .. .. .. .. | — 67 | — 41 | + 38 |

(*a*) Adjusted for P.L. 480 and P.L. 665 deposits with banks in India other than the Reserve Bank but ignoring the transfer of P.L. 480 deposits from the State Bank to Reserve Bank (Rs. 40 crores) during November 1964—March 1965.

# PUBLIC FINANCE

## SOURCES OF REVENUE AND EXPENDITURE

THE principal sources of Central revenue are: customs duties, excise duties levied by the Central Government, corporation tax, income tax (excluding taxes on agricultural income), wealth tax, estate and succession duty, the earnings from the mints, terminal taxes on goods or passengers carried by railway, sea or air, taxes on railway fares and freights, taxes (other than stamp duty) on transactions in stock exchange and future markets, stamp duty on bills of exchange, cheques, bills of lading, letters of credit, insurance policies, transfer of shares, etc., taxes on sale and purchase of newspapers and on advertisements in newspapers.

The railways and the posts and telegraphs contribute to the Central revenues. There are also the profits on the Government industrial undertakings.

About as much as 81 per cent of the revenue is derived from the customs, excise duties, corporation and income-taxes.

The principal sources of revenue for the individual States are: State taxes (on agricultural income, lands and buildings, mineral rights, consumption or sale of electricity, sale or purchase of goods other than newspapers, advertisements other than in newspapers, goods and passengers carried by road or on inland water-ways, vehicles, animals, boats, tolls, professions, trades, luxuries, amusements), capitation taxes, stamp duties, excise duties on alcoholic liquors, opium and other narcotics.

A point about the Sales Tax is worth mentioning here. The Union has the power of declaring any commodity as essential for the life of the community and thereby vetoing any sales tax levied on it by a State Government. This power comes from the Essential Goods Act of 1952.

Then there are the subventions from the Central Government. Part of the proceeds of the income-tax and excise duties are distributed among the States. There are also special grants which are made to certain States.

Collection and appropriation of taxes are not always vested in the same authority. Some taxes are levied by the Central Government but collected and appropriated by the States (stamp duties, excise duties, duties on medicines and toilet preparations). Some are levied and collected by the Union but assigned to the States (estate duties on property other than agricultural, terminal taxes on passengers, railway fares, freights, stock exchange, future markets, newspapers or advertisements). Corporation tax is collected and retained by the Union, but taxes on other incomes are levied and collected by the Union and distributed between the Union and States.

The two biggest items of expenditure of the Central Government are outlay on development programmes (capital account) and defence.

Three important heads of expenditure of the States under the revenue account are: irrigation security and social services.

Then there is public debt which consists of rupee loans, sterling loans and loans received from other countries. The rupee debt may be divided into three classes, long term loans and money market liabilities, the unfunded debt which includes provident funds, postal deposits, saving certificates, and last the deposits.

The following table shows the budget estimates of revenue and expenditure of the Government of India for 1965-66 as compared with the budget and revised estimates for 1964-65 and actuals for 1963-64:

**Revenue Receipts of the Central Government**

In crores of Rs.

| Heads of Revenue | 1962-63 Accounts | 1963-64 Accounts | 1964-65 Revised | 1965-66 Budget |
|---|---|---|---|---|
| Customs | 245·96 | 334·75 | 385·00 | 405·00<br>+ 14·50* |
| Union Excise Duties | 598·83 | 729·58 | 773·05 | 827·17<br>— 7·98*† |
| Corporation Tax | 221·50 | 274·59 | 342·00 | 386·00<br>— 14·40* |
| Taxes on Income | 185·96 | 258·60 | 268·00 | 294·00 |
| Estate Duty | 3·94 | 4·67 | 7·00 | 7·40 |
| Taxes on Wealth | 9·54 | 10·20 | 11·05 | 12·00<br>+ 1·50* |
| Expenditure Tax | 0·20 | 0·12 | 0·75 | 1·55 |
| Gift Tax | 0·97 | 1·12 | 3·10 | 3·10 |
| Other Heads | 18·14 | 20·21 | 21·93 | 23·87 |
| Debt Services | 153·23 | 243·54 | 265·57 | 296·73 |
| Administrative Services | 6·92 | 8·27 | 9·13 | 9·51 |
| Social and Developmental Services | 46·91 | 29·60 | 30·40 | 23·57 |
| Multi-purpose River Schemes, etc. | 0·56 | 0·19 | 0·12 | 0·13 |
| Public Works, etc. | 3·75 | 4·46 | 3·90 | 3·94 |
| Transport and Communications | 7·13 | 6·31 | 7·14 | 6·75 |
| Currency and Mint | 54·23 | 56·18 | 52·11 | 61·69 |
| Miscellaneous | 27·88 | 21·06 | 21·38 | 25·47 |
| Contributions and Miscellaneous Adjustments | 24·88 | 30·41 | 32·71 | 34·81 |
| Extraordinary Items | 73·91 | 94·58 | 124·62 | 60·50 |
| Deduct Share of Income-tax payable to States | — 95·27 | —119·29 | —123·77 | —122·93 |
| Deduct Share of Estate Duty payable to States | — 3·88 | — 4·22 | — 6·78 | — 7·17 |
| TOTAL REVENUE | 1,585·29 | 2,004·93 | 2,228·41 | 2,353·09<br>— 6·38†* |
| Deficit on Revenue Account | — | — | — | — |
| TOTAL | 1,585·29 | 2,004·93 | 2,228·41 | 2,346·71 |

* Effect of Budget proposals. † Excludes a sum of Rs. 502 lakhs to be deducted from the States' share of Union Excise Duties.

**Revenue Expenditure of the Central Government**

In crores of Rs.

| Heads of Expenditure | 1962-63 Accounts | 1963-64 Accounts | 1964-65 Revised | 1965-66 Budget |
|---|---|---|---|---|
| Collection of Taxes and Duties | 23·47 | 23·93 | 26·41 | 28·88 |
| Debt Services | 245·43 | 278·35 | 317·61 | 356·11 |
| Administrative Services | 75·17 | 77·51 | 82·17 | 91·36 |
| Social and Developmental Services | 159·20 | 146·00 | 165·11 | 184·66 |
| Multi-purpose River Schemes, etc. | 1·36 | 1·05 | 1·33 | 1·98 |
| Public Works, etc. | 18·50 | 17·10 | 20·66 | 22·98 |
| Transport and Communications | 9·31 | 9·17 | 10·37 | 10·62 |
| Currency and Mint | 22·03 | 15·50 | 15·36 | 16·40 |
| Miscellaneous | 104·45 | 92·81 | 95·17 | 116·27 |
| Contributions and Miscellaneous Adjustments | 323·36 | 369·38 | 420·22 | 472·64 |
| Extraordinary Items | 64·31 | 82·44 | 128·04 | 65·84 |
| Defence Services (Net) | 425·30 | 704·15 | 716·81 | 748·74 |
| TOTAL EXPENDITURE | 1,471·89 | 1,817·39 | 1,999·26 | 2,116·48 |
| Surplus on Revenue Account | 113·40 | 187·54 | 229·15 | 230·23 |
| TOTAL | 1,585·29 | 2,004·93 | 2,228·41 | 2,346·71 |

## CAPITAL ACCOUNT

The estimate of the receipts and disbursements on capital account of the Central Government are shown below. These cover receipts and disbursements connected with capital schemes undertaken by the Central Government, borrowings at home and abroad, Gold bonds, premium prize bonds, annuity certificates, treasury bills, post office savings bank including the cumulative time deposits scheme, the National Plan Savings and National Defence Certificates issued through post offices and the treasury savings deposit and defence deposit certificates sold through the public debt offices, treasuries and sub-treasuries etc. They also cover a variety of other items such as the National Defence Fund, the State Provident Funds, the investments of deposits of U.S. Government P. L. 480 counterpart funds, the various deposits under the Income-tax Act, the depreciation and reserve funds of departments like railways and posts and telegraphs and special *ad hoc* funds created from time to time by the Government.

The capital requirements of the Government are ordinarily met from four sources. Firstly, regular loans are floated and in the case of short-term requirements, treasury bills are issued, ordinarily for a period of 91 days at a time. Secondly, there is the flow of money through the postal savings bank and other small savings schemes. Thirdly, there are the receipts into the various depreciation, reserve and other funds and under the deposit heads including the National Defence Fund and the investment in special securities of P.L. 480 counterpart funds deposited by U.S. Government with the Reserve Bank of India. Fourthly any sum provided in the revenue budget for reduction or avoidance of debt or for debt redemption is also available, as it is transferred to capital by debit to the revenue budget. To the extent to which the receipt from these sources is insufficient to meet the capital requirements, the deficit has to be made good from revenue, the accumulated cash balances, and if neither is available, by the sale of *ad hoc* treasury bills to the Reserve Bank.

### CAPITAL TRANSACTIONS

The following two statements summarise the capital transactions of the Central Government.

**Capital Receipts of the Central Government**

| | Accounts 1963-64 | Revised 1964-65 | Budget 1965-66 |
|---|---|---|---|
| | | (In Lakhs of Rupees) | |
| Capital Receipts outside Revenue Account .. .. | .. | .. | 432 |
| *Permanent Debt :* | | | |
| Debt raised in India .. | 4,51,82 | 3,48,10 | 2,70,40 |
| Debt raised outside India | 3,84,57 | 6,53,92 | 6,68,86 |
| Floating Debt (Other than Treasury Bills) (Net) .. | 3,45 | 2 | (−) 3,43 |
| *Repayment of Loans and Advances :* | | | |
| State and Union Territory Governments .. .. | 1,79,33 | 2,31,31 | 2,73,69 |
| Other Loans and Advances | 35,05 | 70,00 | 60,00 |
| Inter-State Settlement (Net) .. | 5 | .. | .. |
| Contingency Fund of India .. | 1 | 2,31 | .. |
| *Unfunded Debt :* | | | |
| Small Savings Schemes (Net) | 1,26,88 | 1,34,95 | 1,34,95 |
| State Provident Funds (Net) | 49,94 | 49,62 | 54,66 |
| Income Tax Annuity Deposits (Net) .. .. .. | .. | 65,00 | 65,00 |
| Compulsory Deposits (Net) | 30,12 | (−) 1,44 | (−) 3,07 |
| Investment of Deposits of U.S. Government P. L. 480 Funds (Net) .. .. | 87,38 | 11,00 | 1,91,00 |
| Other Items (Net) .. .. | 1,40 | 32 | 1,24 |
| *Deposits, Advances and Remittances :* | | | |
| Depreciation and other Reserve Funds (Net) .. | 47,62 | 18,83 | 49,30 |
| Appropriation for Reduction or Avoidance of Debt .. | 5,00 | 5,00 | 5,00 |
| Other Items (Net) .. .. | 1,15,60 | 2,79,54 | 1,65,28 |
| TOTAL—CAPITAL RECEIPTS | 15,18,22 | 18,68,48 | 19,37,20 |
| Add Surplus on Revenue Account .. .. | 1,87,54 | 2,29,15 | 2,36,61 |
| Overall Deficit* .. .. | 91,86 | 30,30 | .. |
| GRAND TOTAL .. | 17,97,62 | 21,27,93 | 21,73,81 |
| * To be met by : | | | |
| (*a*) Expansion of Treasury Bills .. .. .. | 82,41 | 22,00 | .. |
| (*b*) Drawing down of Cash Balance .. .. | 9,45 | 8,30 | .. |
| TOTAL .. .. | 91,86 | 30,30 | .. |

**Capital Disbursements of the Central Government**

| | Accounts 1963-64 | Revised 1964-65 | Budget 1965-66 |
|---|---|---|---|
| | | (In Lakhs of Rupees) | |
| CIVIL : | | | |
| *Social and Developmental Services :* | | | |
| Investment in Industrial and Economic Development : | | | |
| Government Companies and Corporations .. .. | 1,87,53 | 1,74,67 | 89,74 |
| Other Investments .. .. | 12,68 | 22,83 | 41,87 |
| Other Items .. .. .. | 3,23 | 5,36 | 8,05 |
| Multipurpose River Schemes, Irrigation and Electricity Schemes .. .. .. | 8,91 | 11,28 | 21,50 |
| Public Works (including Roads) and Schemes of Miscelleneous Public Improvements .. .. | 82,81 | 92,59 | 97,21 |
| Transport and Communications (Other than Roads) .. | 8,82 | 9,24 | 16,77 |
| Currency and Mint .. .. | 14,66 | (−) 5,77 | 4,49 |
| Miscellaneous .. .. | 91,29 | 2,05,76 | 1,65,10 |
| TOTAL CIVIL .. .. | 4,09,93 | 5,15,96 | 4,39,73 |
| Defence Capital Outlay .. | 1,11,97 | 1,17,95 | 1,30,05 |
| Railway Capital Outlay .. | 2,60,53 | 2,51,92 | 2,40,00 |
| Posts and Telegraphs Capital Outlay .. .. .. .. | 31,48 | 26,59 | 32,83 |
| | 8,13,91 | 9,12,42 | 8,42,61 |
| *Loans and Advances :* | | | |
| States and Union Territories | 5,83,60 | 6,88,93 | 7,03,46 |
| Other Loans and Advances : | | | |
| Government Companies and Corporations .. .. | | 1,63,14 | 2,74,68 |
| Other parties .. .. | 1,56,89 | 86,44 | 75,26 |
| TOTAL—LOANS AND ADVANCES .. .. | 7,40,49 | 9,38,51 | 10,53,40 |
| Repayment of Debt : | | | |
| Debt raised in India .. | 1,76,28 | 1,91,89 | 1,70,35 |
| Debt raised outside India .. | 63,73 | 85,11 | 97,29 |
| TOTAL—REPAYMENT OF DEBT .. .. .. | 2,40,01 | 2,77,00 | 2,67,64 |
| Inter-State Settlement .. | 90 | .. | .. |
| Contingency Fund of India .. | 2,31 | .. | .. |
| TOTAL—DISBURSEMENTS | 17,97,62 | 21,27,93 | 21,63,65 |
| Overall Surplus* .. .. | .. | .. | 10,16 |
| GRAND TOTAL .. | 17,97,62 | 21,27,93 | 21,73,81 |
| * To be utilised for : | | | |
| (*a*) Discharge of Treasury Bills .. .. .. | .. | .. | 10,00 |
| (*b*) Raising of Cash Balance .. | .. | .. | 16 |
| TOTAL .. .. | .. | .. | 10,16 |

## DEBT POSITION

The outstanding public debt of the Government of India is expected to amount to Rs. 7,842 crores at the end of the 1965-66 financial year compared to Rs. 7,183 crores in the revised estimates of 1964-65. An analysis of the debt position is shown in the following statement.

Taking into account other liabilities indicated in the Statement, the overall debt stands at Rs. 11,230 crores in 1964-65 and Rs. 11,280 crores at the end of 1965-66.

**Summary of Debt Position** (Rs. crores)

| | As on March 31, 1963 (Acctts.) | As on March 31, 1965 (Revised) | As on March 31, 1966 (B. E.) |
|---|---|---|---|
| Current Loans | 2,851·04 | 3,234 | 3,350 |
| Treasury Bills | 1,414·98 | 1,404 | 1,394 |
| Special Floating Loans | 281·08 | 285 | 281 |
| Expired Loans | 24·46 | 35 | 24 |
| Prize Bonds | — | 29 | 15 |
| Total internal debt | 4,571·56 | 4,987 | 5,074 |
| External debt | 1,379·03 | 2,192 | 2,764 |
| Total public debt | 5,950·59 | 7,179 | 7,838 |
| Other liabilities * | 2,045·80 | 2,944 | 3,442 |
| Total debt | 7,996·39 | 10,123 | 11,280 |

* Include the investments of deposits of P.L. 480 Counterpart Funds, the balances in the various provident funds, small savings depreciation and reserve funds of Railways, Posts and Telegraphs etc. and certain other deposits mainly relating to deposits of income-tax and super-tax and exclude war contribution, the liability in respect of which remains suspended.

**Debt, Liabilities, Capital Outlay And Loans** (Crores of Rupees)

| | As at the end of | | | | |
|---|---|---|---|---|---|
| | 1950-51 1 | 1955-56 2 | 1960-61 3 | 1964-65 (Revised) 4 | 1965-66 (Budget) 5 |
| *Debt and Liabilities of the Government of India* | | | | | |
| I. Public Debt | | | | | |
| A. Debt Raised in India | | | | | |
| (a) Permanent Debt : | | | | | |
| (1) Current Loans | 1,438·46 | 1,508·63 | 2,555·72 | 3,233·97 | 3,350·29 |
| (2) Prize Bonds | — | — | 15·63 | 29·45 | 14·45 |
| (3) Loans in Course of Repayment | 6·49 | 12·32 | 22·73 | 35·20 | 33·88 |
| Total | 1,444·95 | 1,520·85 | 2,594·08 | 3,298·62 | 3,398·62 |
| (b) Floating Debt : | | | | | |
| (1) Treasury Bills | 358·02 | 595·25 | 1,106·29 | 1,403·95 | 1,393·95 |
| (2) Special Floating Loan | 212·60 | 212·60 | 274·18 | 284·55 | 281·12 |
| (3) Treasury Deposit Receipts and other Floating Loans | 6·73 | 0·06 | .. | .. | .. |
| Total | 577·35 | 807·91 | 1,380·47 | 1,688·50 | 1,675·07 |
| Total Debt Raised in India | 2,022·30 | 2,328·76 | 3,974·55 | 4,987·12 | 5,073·69 |
| B. Debt Raised outside India | | | | | |
| (1) England | | | | | |
| — Loans | .. | .. | 106·52 | 228·97 | 269·45 |
| — Others | 12·37 | 2·61 | 15·45 | 0·12 | 0·12 |
| (2) U.S.A. | | | | | |
| — Loans | .. | 91·72 | 210·84 | 588·96 | 703·21 |
| — U.S. Export Import Bank | — | .. | 25·41 | 108·66 | 109·51 |
| — P. L. 480 | .. | .. | 77·88 | 451·28 | 531·00 |
| (3) U.S.S.R. | .. | .. | 57·48 | 217·64 | 288·67 |
| (4) Canada | .. | .. | 14·07 | 14·80 | 18·52 |
| (5) Federal Republic of Germany | .. | .. | 103·19 | 178·34 | 193·62 |
| (6) Japan | .. | .. | 9·93 | 43·66 | 68·15 |
| (7) International Bank for Reconstruction and Development | 19·66 | 19·80 | 140·19 | 175·13 | 171·67 |
| (8) International Development Association | .. | .. | .. | 114·01 | 205·78 |
| (9) Other countries | .. | .. | .. | 54·99 | 80·11 |
| (10) New Credits | .. | .. | .. | 15·67 | 126·99 |
| Total Debt Raised outside India | 32·03 | 113·63 | 760·96 | 2,192·23 | 2,763·80 |
| Total Public Debt (A + B) | 2,054·33 | 2,442·39 | 4,735·51 | 7,179·35 | 7,837·49 |
| II. Other Liabilities | | | | | |
| A. Unfunded Debt | | | | | |
| (i) Small Savings Schemes (including Annuity certificates) | 336·87 | 575·77 | 973·44 | 1,397·36 | 1,532·36 |
| (ii) Other Unfunded Debt | 111·15 | 182·98 | 551·37 | 1,028·92 | 1,337·74 |
| Total | 448·02 | 758·75 | 1,524·81 | 2,426·28 | 2,870·10 |
| B. Reserve Funds and Deposits | | | | | |
| (i) Bearing Interest | 260·85 | 188·96 | 142·19 | 248·30 | 296·78 |
| (ii) Not bearing Interest | 102·20 | 120·97 | 141·73 | 269·68 | 275·47 |
| Total B | 363·05 | 309·93 | 283·92 | 517·98 | 572·25 |
| Total Other Liabilities (A + B) | 811·07 | 1,068·68 | 1,808·73 | 2,944·26 | 3,442·35 |
| Total Debt & Liabilities (I + II) | 2,865·40 | 3,511·07 | 6,544·24 | 10,122·61 | 11,279·84 |

## ADVANCED BY THE GOVERNMENT OF INDIA

(Crores of Rupees)

| | 1950-51 1 | 1955-56 2 | 1960-61 3 | 1964-65 (Revised) 4 | 1965-66 (Budget) 5 |
|---|---|---|---|---|---|
| | Rs. | Rs. | Rs. | Rs. | Rs. |
| Amount due from Pakistan | 300·00 | 300·00 | 300·00 | 300·00 | 300·00 |
| Net Liabilities of the Central Government | 2,565·40 | 3,211·07 | 6,244·24 | 9,823·61 | 10,979·84 |
| I. *Capital Outlay :* | | | | | |
| A. Outlay on Departmental Undertakings | | | | | |
| (1) Railways | 817·93 | 959·87 | 1,512·57 | 2,400·96 | 2,640·96 |
| (2) Posts & Telegraphs | 49·98 | 89·26 | 139·99 | 230·60 | 263·43 |
| (3) Atomic Energy Development | .. | 0·56 | 15·34 | 40·18 | 72·93 |
| (4) Mints | 1·95 | 3·09 | 4·13 | 4·41 | 4·54 |
| (5) Others* | 24·87 | 11·52 | 10·60 | 23·79 | 29·62 |
| Total A | 894·73 | 1,064·30 | 1,682·63 | 2,699·94 | 3,011·48 |
| B. Investments in Autonomous Corporations, Companies, etc. | | | | | |
| (*a*) Govt. Companies and Corporations | | | | | |
| (1) Hindustan Steel | .. | 0·04 | 300·00 | 528·00 | 528·00 |
| (2) Oil and Natural Gas Commission | .. | .. | 17·10 | 113·54 | 121·57 |
| (3) Heavy Engg. Corpn. | .. | .. | 6·65 | 84·00 | 84·60 |
| (4) National Coal Development Corporation | .. | .. | 26·98 | 52·33 | 61·08 |
| (5) Damodar Valley Corpn. | 4·86 | 22·66 | 36·67 | 49·25 | 54·16 |
| (6) Air Corporation | .. | 12·24 | 35·40 | 48·60 | 48·60 |
| (7) Fertilizer Corpn. of India | .. | 17·04 | 39·64 | 48·05 | 48·05 |
| (8) Heavy Electricals | .. | .. | 22·91 | 48·00 | 30·00 |
| (9) Neyveli Lignite Corpn. | .. | .. | 48·29 | 79·43 | 79·43 |
| (10) Others* | 4·57 | 17·83 | 56·19 | 172·87 | 263·23 |
| Total (*a*) | 9·43 | 69·81 | 589·83 | 1,244·07 | 1,318·72 |
| (*b*) Financial Institutions : | | | | | |
| (1) International Monetary Fund | 201·00 | 201·00 | 296·28 | 281·75 | 281·75 |
| (2) International Bank for Reconstruction & Development | 36·93 | 36·93 | 36·93 | 36·93 | 36·93 |
| (3) International Development Association | .. | .. | 4·42 | 19·22 | 19·22 |
| (4) Reserve Bank of India | 11·12 | 11·12 | 11·12 | 11·12 | 11·12 |
| (5) Life Insurance Corporation | .. | .. | 5·00 | 5·00 | 5·00 |
| (6) Industrial Finance Corpn. | 1·00 | 1·00 | 1·00 | 1·40 | 1·40 |
| (7) Others* | .. | 0·09 | 5·20 | 7·78 | 7·78 |
| Total (*b*) | 250·05 | 250·14 | 359·95 | 363·20 | 363·20 |
| (*c*) Other Companies, Corpns., etc. | 0·25 | 0·80 | 9·97 | 29·73 | 30·28 |
| Total (a + b + c) | 259·73 | 320·75 | 959·75 | 1,617·00 | 1,712·20 |
| C. Other Capital Outlay | | | | | |
| (1) Defence Services | 260·93 | 314·43 | 454·34 | 755·93 | 885·98 |
| (2) Others* | 72·62 | 166·73 | 493·49 | 862·26 | 1,049·90 |
| Total C | 335·55 | 481·16 | 947·83 | 1,618·19 | 1,935·88 |
| Total Capital Outlay (A + B + C) | 1,488·01 | 1,866·21 | 3,590·21 | 5,935·13 | 6,659·56 |
| II. *Loans Advanced by the Govt. of India :* | | | | | |
| (1) State Government | 195·58 | 819·39 | 1,909·63 | 3,428·43 | 3,839·53 |
| (2) Union Territory Govts. | .. | 13·36† | .. | 27·88 | 46·54 |
| (3) Foreign Governments, etc. | 0·01 | 0·11 | 29·17 | 27·53 | 26·72 |
| (4) Govt. Servants | 0·51 | 4·15 | 5·32 | 10·75 | 12·03 |
| (5) Other parties | 24·58 | 105·88 | 590·36 | 1,068·67 | 1,358·14 |
| Total Loans Advanced by the Govt. of India | 220·68 | 942·89 | 2,534·48 | 4,563·26 | 5,282·96 |
| Total Capital Outlay and Loans Advanced (I + II) | 1,708·69 | 2,809·10 | 6,124·69 | 10,498·39 | 11,942·52 |
| Excess ( − ) or Shortfall ( + ) of Debt and Liabilities Over Capital Outlay and Loans Advanced | − 856·71 | − 401·97 | − 119·55 | + 674·78 | + 962·68 |

* Residual. † Erstwhile Part C States.

## TRANSFER OF RESOURCES TO THE STATES

The following statement shows the resources transferred from the Centre to the States.

(Rs. crores)

| | 1st Five Year Plan | 2nd Five Year Plan | 3rd Five Year Plan | | | | |
|---|---|---|---|---|---|---|---|
| | Actuals | Actuals | Actuals 1961-62 | Actuals 1962-63 | Actuals 1963-64 | Revised 1964-65 | Budget 1965-66 |
| I. Taxes and Duties | | | | | | | |
| 1. Income Tax | 278·24 | 374·67 | 93·85 | 95·27 | 119·29 | 123·77 | 122·93 |
| 2. Union Excise Duties | 46·06 | 152·96 | 41·10 | 79·02 | 92·38 | 86·20 | 94·85 |
| 3. Additional duties of excise in lieu of Sales Taxes | — | 128·27 | 39·55 | 45·89 | 48·61 | 41·14 | 46·04 |
| 4. Taxes on Railway passenger fares | — | 42·56 | — | — | — | — | — |
| 5. Estate Duty | 2·44 | 12·67 | 3·88 | 3·88 | 4·22 | 6·78 | 7·17 |
| Total—Part I | 326·74 | 711·13 | 178·38 | 224·06 | 259·50 | 257·89 | 270·99 |
| II. Grants met from Revenue | 248·01 | 667·93 | 199·02 | 200·41 | 205·39 | 255·63 | 287·70 |
| III. Grants from Central Road Fund | 15·93 | 18·96 | 1·75 | 2·82 | 3·48 | 4·50 | 4·50 |
| IV. Grants met from Capital | 23·76 | 59·06 | 15·87 | 18·96 | 22·39 | 28·98 | 50·69 |
| V. Loans | 798·53 | 1,410·84 | 452·42 | 523·55 | 623·95 | 690·80 | 693·41 |
| GRAND TOTAL | 1,412·97 | 2,867·92 | 847·44 | 969·80 | 1,114·71 | 1,237·80 | 1,307·29 |

## UNION EXCISE DUTIES

(In crores of Rs.)

| Basic Duties | Accounts 1963-64 Total | Budget 1964-65 Total | Revised 1964-65 Total | Budget 1965-66 Total |
|---|---|---|---|---|
| Motor Spirit | 67·55 | 71·65 | 72·30 | 74·00 |
| Kerosene | 35·74 | 39·60 | 40·80 | 45·00 |
| Sugar | 52·11 | 58·25 | 50·72 | 53·65 |
| Matches | 20·84 | 21·50 | 22·50 | 23·50 |
| Steel Ingots | 0·20 | 0·02 | 0·25 | 0·25 |
| Tyres and Tubes | 23·82 | 23·52 | 25·20 | 26·50 |
| Tobacco | 80·66 | 84·69 | 86·04 | 88·32 |
| Vegetable Products | 14·54 | 15·00 | 13·20 | 15·46 |
| Coffee | 2·07 | 2·40 | 2·40 | 2·40 |
| Tea | 15·76 | 15·28 | 15·28 | 17·00 |
| Cotton Fabrics | 57·36 | 54·94 | 54·83 | 58·50 |
| Artificial Silk Fabrics | 1·80 | 1·38 | 1·64 | 1·81 |
| Cement | 26·62 | 27·60 | 25·80 | 26·40 |
| Footwear | 2·43 | 3·20 | 2·45 | 2·60 |
| Soap | 5·01 | 4·62 | 4·38 | 4·62 |
| Woollen Fabrics | 2·10 | 2·16 | 1·55 | 1·90 |
| Electric Fans | 1·50 | 1·92 | 1·50 | 1·62 |
| Electric Bulbs | 1·69 | 1·70 | 1·65 | 1·82 |
| Electric Batteries | 2·87 | 3·00 | 3·00 | 3·17 |
| Paper | 18·08 | 16·66 | 18·15 | 19·00 |
| Paints and Varnishes | 4·09 | 4·68 | 4·50 | 4·80 |
| Vegetable non-essential oils | 1·42 | 1·70 | 1·00 | 1·00 |
| Refined Diesel Oils and Vaporizing Oil | 67·23 | 64·30 | 75·30 | 82·50 |
| Diesel Oil N.O.S. | 16·77 | 17·90 | 13·60 | 14·20 |
| Furnace Oil | 10·56 | 12·00 | 12·50 | 13·75 |
| Rayon and Synthetic Fibres and Yarn | 15·16 | 18·50 | 18·50 | 18·50 |
| Motor Vehicles | 14·86 | 13·60 | 16·25 | 17·15 |
| Asphalt and Bitumen | 2·92 | 2·50 | 3·00 | 3·30 |
| Aluminium | 2·57 | 2·93 | 2·88 | 3·30 |
| Tin Plate | 2·11 | 1·82 | 1·82 | 1·98 |
| Pig Iron | 1·66 | 3·90 | 3·50 | 4·50 |
| Silk Fabrics | 0·06 | 0·8 | 0·8 | 0·08 |
| Cycles, parts thereof | 1·72 | 1·65 | 2·00 | 2·25 |
| Internal Combustion Engines | 1·86 | 1·65 | 2·20 | 2·42 |
| Electric Motors | 1·91 | 1·70 | 2·10 | 2·22 |
| Cinematograph Films | 1·22 | 1·20 | 1·08 | 1·20 |
| Soda Ash | 0·49 | 0·50 | 0·50 | 0·55 |
| Caustic Soda | 0·65 | 0·60 | 0·72 | 0·80 |
| Glycerine | 0·12 | 0·12 | 0·12 | 0·12 |
| Synthetic Organic Dyestuff | 1·93 | 1·82 | 2·30 | 2·50 |
| Patent & proprietary medicines | 5·62 | 45·00 | 6·50 | 7·00 |
| Cosmetics | 1·71 | 1·50 | 1·80 | 1·92 |
| Cotton Yarn | 12·67 | 18·16 | 23·65 | 25·00 |
| Woollen Yarn | 3·52 | 3·69 | 3·33 | 4·00 |
| Glass & Glassware | 3·12 | 2·75 | 2·92 | 3·04 |
| Chinaware | 1·33 | 1·30 | 1·30 | 1·40 |
| Copper | 2·11 | 2·30 | 1·75 | 2·00 |
| Zinc | 0·16 | 0·15 | 0·17 | 0·19 |
| Refrigerators and Airconditioning Machinery | 1·77 | 1·40 | 2·40 | 2·80 |
| Wireless Receiving Sets | 1·92 | 1·30 | 2·20 | 2·33 |
| Plastics | 2·48 | 2·00 | 4·80 | 5·10 |
| Cellophane | 0·59 | 0·50 | 0·45 | 0·50 |
| All Petroleum Products N.O.S. | 0·40 | 0·50 | 0·60 | 0·65 |
| Nitric, etc. Acids | 1·08 | 0·81 | 0·95 | 1·10 |
| Gases | 2·14 | 0·36 | 0·55 | 0·60 |
| Rubber products | 0·76 | 1·35 | 1·50 | 1·62 |
| Plywood | 1·16 | 1·20 | 1·10 | 1·15 |
| Sodium Silicate | 0·05 | .. | 0·70 | 0·80 |
| Jute Manufactures | 6·50 | 0·40 | 6·60 | 6·82 |
| Asbestos-cement products | 1·30 | 5·50 | 1·45 | 1·60 |
| Iron and Steel products | 38·13 | 1·20 | 40·50 | 49·00 |
| Electric wires and cables | 3·59 | 59·41 | 4·75 | 5·25 |
| Gramophones and records | 0·23 | 3·40 | 0·09 | 0·10 |
| Salt Cess | 0·87 | 0·10 | 0·87 | 0·91 |
| Coal Cess | 14·15 | 0·85 | 14·00 | 14·50 |
| Cess on Copra | 0·12 | 12·25 | 0·10 | 0·10 |
| Cess on oils and oilseeds | 0 32 | 0·10 | 0·20 | 0·21 |
| Cess on Iron Ores | 0·09 | 0·20 | 0·50 | 0·60 |
| Rubber Cess | 0·92 | 0·25 | 1·10 | 1·16 |
| Miscellaneous | 3·15 | .. | 0·58 | 0·58 |
| TOTAL—Gross Revenue | 694·02 | 669·75 | 735·00 | 786·67 |
| Deduct—Refunds and Drawbacks | —7·55 | —5·77 | —6·26 | —6·51 |
| TOTAL—Net Revenue | 686·47 | 663·98 | 728·74 | 780·16 |
| ADDITIONAL DUTIES | | | | |
| Sugar | 14·90 | 17·00 | 14·50 | 15·60 |
| Textiles | 20·78 | 22·63 | 21·33 | 22·53 |
| Tobacco | 7·67 | 8·50 | 8·72 | 9·12 |
| Total-Gross Revenue | 43·35 | 48·13 | 44·55 | 47·25 |
| Deduct — Refunds etc. | —24 | —23 | —24 | —24 |
| Total-Net Revenue | 43·11 | 47·90 | 44·31 | 47·01 |
| GRAND TOTAL—Union Excise Duties | 729·58 | 711·88 | 773·05 | 827·17 |

## TAX PROPOSALS FOR 1965-66

The table below summarises the yield from additional taxation under major heads proposed for 1965-66.

| Tax Proposals | (Rs. crores) Estimated Revenue (−) or additional revenue (+) |
|---|---|
| I. *Direct:* | |
| Income-tax (Loss of revenue on account of proposed changes offset by increased collections expected) | — |
| Corporation tax | − 14·40 |
| Wealth tax | 1·50 |
| Total I | − 12·90 |
| II. *Indirect:* | |
| Union excise | − 7·98* |
| Customs | + 14·50 |
| Total II | 6·52 |
| III. Grand Total (I + II) | − 6·38 |

* Excludes Rs. 5·02 crores representing States' share.

### Direct Taxation

The net loss of Rs. 14·40 crores under Corporation tax is the result of modification of the existing structure of corporate taxation. However, while various changes are proposed in the general schemes of corporate taxes, the essential features which are sound remain unaltered. For instance, no changes have been proposed in respect of the divided tax in view of the continued need for a degree of restraint on dividend distribution in the context of inflationary pressures and also for generating sufficient resources for investment in the corporate sector. Like-wise, no changes have been proposed in respect of surtax.

As regards personal taxation, revenue from income-tax is expected to show a loss of Rs. 21 crores because of a few changes. The loss of revenue is, however expected to be offset by the expected improvement in tax collection.

### Indirect Taxation

Under indirect taxation, the changes proposed in union excise duties are expected to result in a net loss of Rs. 7·98 crores. However, the net effect of the changes proposed in indirect taxation including customs and excise for the budget year 1965-66 will be an increase in revenue by Rs. 6·52 crores. The additional yield from customs on account of increases in import duty on certain items like paints, colours, non-cellulostic art silk, stainless steel plates, etc. is expected to be arround Rs. 6·50 crores. In addition, there will be an increase in revenue of Rs. 8 crores as a result of the countervailing duty in steel tinplates, iron and steel products and copper. It may also be mentioned in this connection that the regulatory duty of customs at 10 per cent *ad valorem* imposed with effect from February 17, 1965, on all goods except foodgrains, fertilizers, pesticides, books and accessories used for family planning, is expected to yield Rs. 20 crores for 1965-66.

### TAX (INCLUDING SURCHARGE) PAYABLE BY A MARRIED PERSON WITH MORE THAN ONE CHILD

| Income before deduction of Annuity Deposit | Amount of Annuity Deposit | Total Income (Col. 1 minus Col. 2) | AMOUNT OF TAX | | | |
|---|---|---|---|---|---|---|
| | | | Wholly Earned Income | | Wholly Unearned Income | |
| | | | 1964-65 | 1965-66 | 1964-65 | 1965-66 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| 4,500 | .. | 4,500 | 30 | 10 | 30 | 10 |
| 5,000 | .. | 5,000 | 60 | 35 | 60 | 35 |
| 7,500 | .. | 7,500 | 310 | 285 | 310 | 285 |
| 10,000 | .. | 10,000 | 685 | 585 | 685 | 585 |
| 12,500 | .. | 12,500 | 1,060 | 910 | 1,193 | 910 |
| 15,000 | .. | 15,000 | 1,560 | 1,285 | 1,755 | 1,285 |
| 20,000 | 1,000 | 19,000 | 2,360 | 2,085 | 2,655 | 2,245 |
| 25,000 | 1,880 | 23,120 | 3,832 | 3,221 | 4,311 | 3,608 |
| 40,000 | 3,000 | 37,000 | 10,340 | 9,285 | 11,891 | 10,885 |
| 70,005 | 7,000 | 63,000 | 26,590 | 23,585 | 30,579 | 28,435 |
| 1,00,000 | 12,500 | 87,500 | 44,615 | 39,160 | 52,423 | 47,904 |
| 2,00,000 | 25,000 | 1,75,000 | 1,15,865 | 98,473 | 1,29,532 | 1,18,998 |

# PUBLIC SERVICES

PUBLIC Services in India can be broadly classified into four distinct categories: All India Services, Central Services, State Services and Local Bodies' Services. All India Services are common to the Union and the States and are created under Article 312 of the Constitution. The Central and State Services are intended for the administration in the respective fields assigned to the Union and the States under the Constitution. The Local Bodies in different States have their own Services though they may also utilise the State or All India Services for specific functions.

The Constitution provides for the setting up of a Public Service Commission for the Union and for each State. Two or more States may, however, join together to have a common Public Service Commission.

The Union Public Service Commission or the State Public Service Commission, as the case may be, is required under the Constitution to be consulted on all matters relating to the methods of recruitment to Civil Services and for civil posts and on the principles to be followed in making appointments to Civil Services and posts, and in making promotions and transfers from one service to another, as well as on disciplinary matters affecting a person serving under the Government of India or the Government of a State in a civil capacity.

However, the President in respect of the All-India Services and other services and posts in connection with the affairs of the Union, and the Governor in respect of the other services and posts in connection with the affairs of a State, may make regulations specifying the matters in which either generally or in any particular class of cases or in any particular circumstances, it shall not be necessary for the Public Service Commission to be consulted.

The Chairman and Members of the Union Public Service Commission, and of Joint Commissions if any, are appointed by the President of the Union while the chairman and members of a State Public Service Commission are appointed by the Governor.

A member of the Union Commission holds office for six years or till he attains the age of 65. A member of a State Commission also holds office for six years but retires earlier on attaining the age of 60.

In order to assure the independence of Public Service Commissions beyond doubt, the Constitution has provided that the Chairman of the Union Public Service Commission shall be ineligible for further employment either under the Government of India or under the Government of a State; the Chairman of a State Public Service Commission shall also be ineligible for employment either under the Government of India or under the Government of a State except as the Chairman or Member of the Union Public Service Commission or as the Chairman of any other State Public Service Commission. A Member of the Union Public Service Commission shall also be eligible for employment only as the Chairman of the Union Public Service Commission or as the Chairman of a State Public Service Commission. And a Member of a State Public Service Commission shall be eligible only for appointment as the Chairman or Member of the Union Public Service Commission or as the Chairman of that or any other State Public Service Commission.

The Chairman or any Member of a Public Service Commission shall only be removed from his office by an order of the President on grounds of misbehaviour after the Supreme Court, on reference being made to it by the President, has, on inquiry held in accordance with the procedure prescribed in that behalf, reported that the Chairman or such other Member, as the case may be, ought on any such ground to be removed.

In the discharge of their functions, the Union and State Commissions conduct examinations for recruitment to Government services.

The Union Public Service Commission also serves as the Commission for the Union Territories.

The annual reports of the Public Service Commissions which are required to include a list of cases in which Government did not accept the advice of Commissions, together with memoranda from the Government explaining the reasons for non-acceptance of the advice of the Commissions on such matters, are placed before the appropriate legislature.

In addition to the Union Public Service Commission, there are the following Public Service Commissions in different States:— Andhra Pradesh Public Service Commission (Hyderabad). Assam Public Service Commission (Shillong). Bihar Public Service Commission (Patna). Gujarat Public Service Commission (Ahmedabad). Jammu & Kashmir Public Service Commission (Srinagar). Kerala Public Service Commission (Trivandrum). Madhya Pradesh Public Service Commission (Indore). Madras Public Service Commission (Madras). Maharashtra Public Service Commission (Bombay). Mysore Public Service Commission (Bangalore). Orissa Public Service Commission (Cuttack). Punjab Public Service Commission (Patiala). Rajasthan Public Service Commission (Jaipur). Uttar Pradesh Public Service Commission (Allahabad). West Bengal Public Service Commission (Calcutta).

## ALL INDIA SERVICES

Under the federal system of Government that exists in this country, there are 'Central Services' to administer purely central subjects such as defence, foreign affairs, railways, posts and telegraphs, customs, income-tax, etc. The officers of these services are in the exclusive employ of the Central Government. The subjects lying within the field of State autonomy such as land revenue, agriculture, forest, education, health, etc. are administered by States Services. In addition, India also has a third category of services known as the All India Services (I.A.S./I.P.S.) created under Article 312 of the Constitution. These services are common to the Centre and States, officers of these services are liable to serve in connection with the affairs of a State or under the Union Government: mostly both at different times, although at the State end service is generally confined to the particular State of allocation.

The All India Services are organised into a number of Cadres—one for each State, except for a joint cadre each of the IAS/IPS for the Union Territories of Delhi & Himachal Pradesh. Initial recruitment is made by the Central Government on the result of an open all India Competitive Examination held by the Union Public Service Commission. This shows the high quality inherent in a system of all India Competition. The officers so recruited are allotted by the Central Government to different State Cadres. The Central Government also arranges the initial training of recruits at Central training institutions to ensure a certain uniformity of standards. The strength of each cadre is so fixed as to include a reserve of officers for service under the Central Government on tenure deputation for periods varying from three to five years. This system ensures that:

(*i*) evolution of high policies is not divorced from practical administration in the field acquired in the States: and the experience of different States is pooled at the policy making levels of the Union Government;

(*ii*) the States, derive the benefit of their officers acquiring an all India outlook;

(*iii*) the interchange of officers contributes to the administrative unity of the country.

The control of the Central Government over the All India services is exercised through the various rules and regulations framed by it, in consultation with the State Governments. In all important matters such as pay, cadre structure, seniority, pension, leave, discipline and appeal etc., apart from recruitment and promotion, uniform conditions of service have been provided. The more serious penalties such as reduction in rank, removal or dismissal are exercised only by the Central Government.

Recruitment to the two All India Services is made on the basis of an open competitive written examination, supplemented by a personality test, conducted by the Union Public Service Commission except for 25 per cent of the senior duty posts in the various State cadres of the two Services which are reserved for promotion from the State Civil Service and the State Police Service Officers respectively, including a proportion (15% of the above) from among any persons of outstanding ability and merit serving in State Services other than the State Civil Service.

The total authorized cadre strength of the I.A.S. and I.P.S. in the different States was 2,474 and 1,342 respectively as on 1st Jan. 1965 as against 1,206 and 590 respectively in 1950.

The State-wise break-up of I.A.S. and I.P.S. respectively is as follows: Andhra Pradesh 176, 80; Assam 117, 52; Bihar 188, 71; Gujarat 147, 67; Jammu & Kashmir 33, 26; Kerala 85, 37; Madhya Pradesh 201, 148; Madras 164, 57; Maharashtra 196, 106; Mysore 125, 68; Orissa 170, 79; Punjab 162, 103; Rajasthan 144, 80; Uttar Pradesh 314, 175; West Bengal 169, 128.

In 1964, 169 and 128 officers were appointed to the I.A.S. and I.P.S. respectively on the results of the competitive examinations conducted by the U.P.S.C. During the same period 40 and 11 officers were appointed by promotion selection to the I.A.S. and I.P.S. from the State Services.

The States Reorganisation Commission's recommendation that at least 50 per cent of new entrants to the All-India Services be from outside the State has been implemented in case of both the I.A.S. and I.P.S.

### New All India Services

There are two All India Services, *viz.*, the Indian Administrative Service and the Indian Police Service at present. Legislation providing for the constitution of three more All India Services, *viz.*, the Indian Services of Engineers (Irrigation, Power Buildings and Roads), the Indian Forest Service and the Indian Medical and Health Service has been enacted and the services will be constituted in due course.

The Union Government propose to introduce legislation during 1965 winter session of Parliament to amend the All-India Services Act, 1951, to bring within its scope two new all-India services, one for agriculture and the other for education (general and technical).

All State Governments have agreed in principle to the creation of these two services. The Rajya Sabha also adopted a resolution in March, 1965 suggesting that it was necessary and expedient in the national interest to create these two services.

The creation of new all-India services was recommended by the States Reorganisation Commission as one of the measures to be adopted to help in promoting national integration. New services for engineering, forestry and medical and public health have already been agreed upon by all the State Governments. The two latest additions proposed for agriculture and education are in furtherance of this process.

Consultations are now taking place between the Centre and the State Governments about the initial constitution of the two new services and it is hoped that once legislation is enacted, more rapid progress would be made in organising them.

### Training

NATIONAL ACADEMY OF ADMINISTRATION: In the context of the objectives of a welfare State and the need for the successful implementation of the Five Year Plans, it has been considered essential that civil servants particularly those at the higher levels, should possess not merely professional skill and experience but also a wide outlook, greater adaptability and a deeper realisation of the ethics and obligations of public service. With this object in view, a combined course of training for new entrants to All India Services and Central Services, in background and foundational subjects, is now imparted at the National Academy of Administration which was set up at Mussoorie in September 1959.

The programme of training of probationers of All India Services and the Central Services class I, in the foundational subjects has since undergone some change. Due to increase in the number of probationers, the scheme of the foundational course was reviewed. It was considered that besides the accommodation difficulties, it has become difficult to ensure the requisite personal contact between them and the directing staff. It has, therefore, been decided that two foundational courses may be conducted with effect from 1965 instead of one previously. The probationers of various services to be given training in foundational subjects in these courses are as under :—

First Foundational Course : 1st July to 30th Oct. : IAS., IFS., IPS., IA & AS., IRAS., IDAS., IITS.

Second Foundational Course : 15th Feb. to 15th June : TT & C.D., MLCS., IOFS., IPOS., CIS and IC & ES.

The Academy also arranges a refresher course for Central and State Government Officers with 10 to 15 years' service.

The Director of the Academy also functions as Director of Training, Government of India and in the latter capacity co-ordinates the training programmes of probationers in the All India Services as well as Central Services.

### Retirement Age

The retirement age of the Central Government employees has been extended from 55 years to 58 years.

### Central Health Service

Rules for the Central Health Service were published on May 1, 1963 and they came into force on May 15, 1963. The Service will cover all medical and public health posts under the Central Government and the Union Territories, other than those under Ministries of Railways and Defence.

The initial strength of the Service at the constitution will be 1,030 permanent posts and 1,303 temporary posts.

The Service will be divided into two classes : Class I and Class II, comprising four classes of scale of pay divided into five categories as shown below :—

| Class of scale | Category | Scale of pay | Classification |
|---|---|---|---|
| Super-time scales | A (*i*) D.G.H.S. | Rs. 2,750 fixed | |
| | (*ii*) Additional D.G.H.S. | Rs. 2,250 fixed | |
| | (*iii*) Other posts | Rs. 1,600–100–2,000 | Central Health Service, Class I |
| | B | Rs. 1,300–60–1,600 | |
| Senior scale | C | Rs. 675–35–850–40–1,050–50–1,500 | |
| Junior scale | D | Rs. 425–25–450–30–600–35–705–E.B.–35–950 | |
| Class II scale | E | Rs. 325–25–500–30–590–E.B.–30–800 | Central Health Service, Class II |

## QUALIFICATIONS FOR CENTRAL SERVICES

The lower levels of Government services, namely, Class III and IV services are generally not required to have a university degree.

The higher level of Government services, All India and Central Class I and II will continue to require a candidate to possess a university degree. Generally the qualifications and age limits prescribed are as given below :—

| Service | Qualifications | Age limits |
|---|---|---|
| I. SUPERIOR SERVICES | | |
| All India and Central (Class I) | University Degree essential. | 21–24 years ; for Indian Police Service—20–24 years. |
| II. MIDDLE GROUP SERVICES | | |
| (*i*) Central Class II (Gazetted) | University Degree essential. | 21–24 years. |
| (*ii*) Central Class II (non-gazetted) | University Degree essential. | 20–24 years. |
| (*iii*) Central Class III (non-clerical) other than SAS Apprentices and Divisional Accountants in the Indian Audit & Accounts Service. | Intermediate/Senior Cambridge/Higher Secondary or equivalent qualifications. | 19–23 years. |
| III. CLERICAL SERVICES | | |
| Upper Division other than those recruited direct to this grade in the Indian Audit & Accounts Department. | Intermediate/Senior Cambridge/Higher Secondary or equivalent qualifications. | 18–21 years. |
| Lower Division. | Matriculation or equivalent qualifications until replaced by Higher Secondary. | 18–21 years. |

The above will not, however, apply to technical, professional and specialist services.

## CENTRAL SERVICES

The total number of Central Government employees (including work charged personnel, contingent staff and local recruits abroad) as on March 31, 1963 was 23,48,675.

All employees declared surplus as a result of the economy drive are reported to the Special Cell in the Directorate General of Employment and Training, which has been created for re-absorption of surplus employees in alternative posts. All vacancies occurring in Central Government offices are also reported to the Special Cell. Surplus employees on the register of the Special Cell are given top priority for employment in these vacancies. Vacancies against which they cannot *prima facie* be considered are released to the Regional Employment Exchange.

Recruitment to the non-technical Central Class I Services also takes place on the basis of an open competitive written examination conducted by the Union Public Service Commission.

The following are the more important among the class I Central Services :—

Archaeological Service (Class I); Botanical Survey of India (Class I); Central Engineering Service (Class I); Central Electrical Engineering Service (Class I); Central Health Service (Class I); Central Revenues Chemical Service (Class I); Central Secretariat Service : (*a*) Selection Grade, (*b*) Grade I, (*c*) Grade II, General Central Service (Class I); Geological Survey of India (Class I); Indian Audit and Accounts Service; Indian Defence Accounts Service; Indian Foreign Service (Class I); Indian Meteorological Service (Class I); Indian Postal Service (Class I); Indian Posts and Telegraphs Traffic Service (Class I ; Indian Revenue Service : (*a*) Customs Branch (Indian Customs Service, Class I); (*b*) Central Excise Branch Central Excise Service (Class I); (*c*) Income Tax Branch (Income Tax Service, Class I); Indian Salt Service (Class I); Mercantile Marine Training Ship Service (Class I); Mines Department (Class I); Overseas Communications Service (Class I); Survey of India (Class I); Telegraph Engineering Service (Class I); Zoological Survey of India (Class I); Indian Frontier Administrative Service (Class I); Central Legal Service (Class I); Railway Inspectorate Service (Class I); Indian Foreign Service (Branch B); Central Information Service; Indian Supply Service (Class I) and Indian Inspection Service (Class I); Indian Statistical Service; Indian Economic Service.

## INDUSTRIAL MANAGEMENT POOL

For staffing senior managerial posts in the public enterprises operating under the Union Ministries, the Government of India constituted in November, 1957 an Industrial Management Pool. For the present, the Ministries of Steel and Mines, Industry and Supply, Commerce, Transport and Civil Aviation are participating in the Scheme which is under the administrative control of the Union Ministry of Home Affairs. Any other Ministry concerned with the running of industrial undertakings may later join the scheme. At present there are 109 officers of the Pool working in various undertakings.

## SCIENTISTS' POOL

The Scientists' Pool under the Council of Scientific and Industrial Research was established in 1958, to provide temporary placement for well-qualified Indian scientists, technologists, engineers and medical personnel until they are absorbed in regular employment. This Pool is mainly intended for scientific and technical personnel who return from abroad after acquiring high qualifications in their subjects. There is also provision for the appointment of persons with Indian qualifications who have outstanding academic records. A limited number of places in the Scientists' Pool are also now available for placement of persons with high qualifications in some branches of Social Science. All persons enrolled in the Indians Abroad Section of the National Register of Scientific and Technical Personnel are considered for the selection to the Pool. Advertisements are also issued periodically to enable suitable persons to apply.

Persons selected to the Pool are attached or seconded to Government Departments, State Undertakings, National Laboratories, Universities or Scientific and technical institutions, and other establishments including those in the private sector.

Six hundred nineteen persons were working in the Pool on June 1, 1965. More than 3,500 persons have been selected for the scientists' pool since its constitution in 1958. The persons selected to the pool, start usually on a monthly salary between Rs. 400 and Rs. 700 per month. 871 have so far left the "Pool" on securing regular appointment.

The number of persons selected to the pool from various countries of training up to Sept. 1, 1965:

| Country of training | Science | Engg. | Tech. | Medicine | Total |
|---|---|---|---|---|---|
| U.S.A. | 712 | 616 | 89 | 159 | 1,576 |
| Canada | 110 | 46 | 5 | 23 | 184 |
| U.K. | 139 | 435 | 62 | 816 | 1,452 |
| W. Germany | 49 | 182 | 23 | 7 | 261 |
| Other European countries | 55 | 75 | 14 | 6 | 150 |
| Other Countries | 24 | 39 | 2 | 3 | 68 |
| India | 57 | 10 | 4 | 38 | 109 |
| Total | 1,146 | 1,403 | 199 | 1,052 | 3,800 |

The Secretariat Training School imparts training in various subjects including training in typewriting, to the ministerial staff of the Govt. of India, namely, Section Officers, Assistants and Lower Division Clerks who are recruited on the results of the Union Public Service Commission examinations and also to those who are already employed under the Government of India.

During 1961, a new 3 months' course had been instituted to impart specialised theoretical and practical training in work involving dealings in cash and maintenance of accounts, to select ministerial officials of the Secretariat and its attached offices. The aim of this course is to create a strong corps of trained officials well-versed in cash and accounts matters.

From April 1, 1965, an 8 weeks training in work study O. & M. techniques has been started. The aim of this course is to train officials for manning O. & M. work study units and for implementing programmes of administrative reforms in Central and State Governments.

## POLICE TRAINING

The Central Police Training College was established by the Government of India at Mount Abu on Sept. 15, 1948. to train I.P.S. probationers with the object of centralising the training of All India Police Service Officers. Before this the I.P. officers were trained in their respective State training centres after recruitment.

General theoretical training as well as practical professional training is imparted to the probationers. The I.P.S. probationers are taught criminal law, legal procedure and medical jurisprudence. They are trained in methods of observation of the scene of crime, the use of scientific aids like examination of finger-prints, foot-prints, blood strains, photography, handwriting etc. as aid to the detection of crime.

## SERVICE CONDITIONS

The Public Employment (Requirement as to Residence) Act, 1957 provides that there shall not be any condition of residential qualification for any public service in India except in regard to certain non-gazetted appointments in subordinate posts in the Telangana area of Andhra Pradesh and in the Union Territories of Himachal Pradesh, Manipur and Tripura. The special provisions made in respect of these areas will, however, be operative only for a specified period.

The conditions of service of Central Government servants and norms of conduct for them are embodied in four sets of rules *viz.* the Fundamental and the Supplementary Rules, the Civil Service Regulations, the Central Civil Service (Conduct) Rules and the Central Civil Service (Classification, Control and Appeal) Rules. The Fundamental and the Supplementary Rules and the Civil Service Regulations were framed many years ago. The Conduct Rules and the Classification (Control & Appeal) Rules are more recent.

## SECRETARIAT TRAINING SCHOOL

The Secretariat Training School was started in Delhi in May, 1948 to give the new entrants to the Central Secretariat "pre-entry" training. It has since been placed on a permanent footing and functions as an attached office under the administrative control of the Union Ministry of Home Affairs.

The Conduct Rules require every Government servant to maintain integrity and devotion to duty. Government servants are expected to avoid participation in politics except to the extent of casting their votes by secret ballot at elections. They may not offer themselves as candidates even for elections to municipal and other local authorities. The rules provide that Government servants shall not join or continue to be members of asssociations the objects or activities of which are prejudicial to the interests of the sovereignty and integrity of India or public order or morality. Revised rules for recognition of Service Associations/Unions of Government employees are being framed. The Conduct Rules disallow non-industrial employees to organise strikes or demonstrations in furtherance of their service interests.

Staff Councils consisting of representatives of the different sections of employees and the nominees of Government have been in existence in some of the Ministries and other organisations for the purpose of promoting employer-employee understanding and to serve as a forum for discussion of general questions affecting the employees' conditions of service. With the object of promoting harmonious relations and of securing the greatest measure of cooperation between the Government in its capacity as employer and the general body of its employees in the matter of common concern and with the object, further, of increasing the efficiency of public service, the Government of India has decided to establish a machinery for joint consultation and arbitration of unresolved differences. The Joint Councils are being set up at National/Departmental/Regional/Office levels. They will replace the Staff Councils.

The Conduct Rules for the All India Services and the Railway Services require, as in the case of the Central Civil Services, that Government servants' transactions in immovable and movable property should in specified circumstances be reported to Government either for their information or for according sanction to those transactions. Officers of the All India Services and of the Class One Central Services may not take up commercial employment within two years of their retirement from Government service without first obtaining Government's permission. The son, daughter or other dependant of such officers may take up employment with a private firm having dealings with Government only after the officer concerned has reported the facts to Government and obtained their permission.

## ADMINISTRATIVE VIGILANCE DIVISION

The Administrative Vigilance Division was set up in August 1955 in pursuance of the decision of the then Home Minister that there should be in the Ministry of Home Affairs an organisation which would assume the overall responsibility and provide the necessary drive, direction and coordination to ensure sustained and rigorous action against lack of integrity. The Administrative Vigilance Division functions substantially in an advisory capacity in keeping with the basic principle that initiative for prevention of corruption in a Ministry/Department in its sphere of activity must come from within that Ministry/Department. Reference to the Division on individual cases cover a wide range, advice being sought on technical points of procedure and the assessment of merits in individual cases.

Cases relating to members of the following Services are dealt with in the Ministry of Home Affairs—

(1) All India Services—

(*a*) cases relating to members of such services who are serving in connection with the affairs of a State Government where it is proposed to impose the penalty of dismissal, removal or compulsory retirement;

(*b*) all cases relating to members of such services borne on the Delhi Himachal Pradesh Cadre.

(2) Central Secretariat Service (Selection Grade and Grade I).

Consequent on decentralisation of the three Central Secretariat Services, control over staff of and up to the grade of the Section Officers of the Central Secretariat Service and over the Central Secretarial Stenographers' Service, Central Secretariat Clerical Service was transferred to the Administrative Ministries/Departments concerned.

(3) Industrial Management Pool.

(4) Indian Economic Service.

(5) Indian Statistical Service.

The agencies at present responsible for implementing the anti-corruption measures of the Central Government are :—

(*a*) The Administrative Vigilance Division in the Ministry of Home Affairs; (*b*) The Vigilance Units in the respective Ministries/Departments and their attached and subordinate offices and in the public sector undertakings; (*c*) Central Bureau of Investigation (The Delhi Special Police Establishment has been merged with it as one of the divisions); (*d*) Central Vigilance Commission.

A measure of the work done by the Administrative Vigilance Division during the last five years is given below :

**Complaints**

| Year | Carried over from previous year | Received during the year | Total | Disposed of | Percentage of disposal | Pending at the end of the year |
|---|---|---|---|---|---|---|
| 1960 | 2,283 | 8,438 | 10,721 | 8,548 | 79·73 | 2,173 |
| 1961 | 2,173 | 8,308 | 10,481 | 8,148 | 77·74 | 2,333 |
| 1962 | 2,333 | 18,128 | 20,461 | 16,178 | 79·06 | 4,283 |
| 1963 | 4,283 | 20,914 | 25,197 | 19,925 | 79·07 | 5,219 |
| 1964* | 5,228 | 22,985 | 28,213 | 21,425 | 75·95 | 6,788 |

* Variation in figures of pendency is due to organisational changes in the Ministries/Departments etc.

**Vigilance Cases**

| | | | | | | |
|---|---|---|---|---|---|---|
| 1960 .. .. | 3,655 | 9,650 | 13,305 | 9,530 | 71·63 | 3,775 |
| 1961 .. .. | 3,755 | 11,361 | 15,116 | 10,973 | 72·52 | 4,143 |
| 1962 .. .. | 4,143 | 15,134 | 19,277 | 13,454 | 69·79 | 5,823 |
| 1963 .. .. | 5,823 | 14,291 | 20,114 | 13,967 | 69·44 | 5,665 |
| 1964* .. .. | 5,670 | 14,539 | 20,209 | 13,728 | 67·98 | 6,481 |

* Variation in figures of pendency is due to organisational changes in the Ministries/Departments etc.

*Note :* All the complaints and vigilance cases do not relate to charges of bribery and corruption. Quite a number of them are in respect of other types of disciplinary offences.

The above vigilance cases include those initiated on S.P.E.'s recommendation.

During the period 1st Jan. 1960 to 31st Dec. 1964 major penalties (dismissal, removal, compulsory retirement, reduction in rank) were imposed on 5,958 Government servants (124 gazetted, 5,834 non-gazetted); action including imposition of minor penalties was taken against 55,251 Government servants (1,233 gazetted and 54,018 non-gazetted).

### CENTRAL BUREAU OF INVESTIGATION

The Government of India established the Central Bureau of Investigation on 1st April 1963. The Delhi Special Police Establishment has been merged in the Central Bureau of Investigation and has become its integral part as one of the Divisions. In July 1964, a new wing known as the Economic Offences Wing was established and formed part of the Delhi Special Police Establishment Division. In May 1965, still another wing was added *viz.* Food Offences Wing. The Delhi Special Police Establishment Division now consists of three wings, *viz.*, General Wing, Economic Offences Wings and Food Offences Wing. Of the 1,955 new cases relating to bribery, corruption and other malpractices registered by the Delhi Special Police Establishment Division of the Central Bureau of Investigation during 1964, 1,396 (71 per cent) were registered on the basis of information collected by its own staff. During 1964, the Special Police Establishment Division collected 2,886 informations through its own sources.

Including those pending at the beginning of year, the S.P.E. Division processed during the year 1964, 3,253 informations. Of these, 1,308 were registered as cases for formal investigation ; 702 were referred to Departments concerned for necessary action, 783 were dropped and 460 remained pending at the end of the year.

Special units have been created in the S.P.E. Division of the C.B.I. to collect information about "big corruption" and about the corruption in higher ranks.

### ORGANISATION & METHODS DIVISION

The first phase of the activities of the O & M Division, established in March 1954 for making sustained and concerted efforts for improving administrative efficiency, was directed towards creating consciousness for an ordered improvement in work handled in the Secretariat, by expediting disposal of cases and keeping track of them to avoid delay. The second phase, which began in 1961 in collaboration with the Special Reorganisation Unit of the Ministry of Finance and Committee on Plan Projects, aims *inter alia* at securing improvements in procedural competence, techniques of programming, work studies of organisations, matching of workload with staffing, and securing cost reduction in projects.

In view of the increasing importance of work study techniques in simplifying the existing methods of work and assessing staff requirements, so as to secure the maximum utilisation of men and material, the O & M Division periodically conducts instructional courses in work study and also in such specialised techniques as Operations Research. These courses are attended by officers of the lower/middle supervisory level from the Ministries as well as Commercial and Industrial State enterprises. A quarterly journal 'WORK IMPROVEMENT' is also issued by the Division covering different aspects of O & M and work study.

A Committee of Direction set up under the aegis of the O & M Division is engaged in simplifying, coordinating and rationalising the system of reporting by the different sectors of trade and industry to Government authorities.

**Education Allowances :**—With effect from March 1, 1962, an educational allowance of Rs. 15 per child for secondary and higher secondary classes and Rs. 10 for primary classes, subject to a total of Rs. 50 per month, was admissible to every Central Government servant drawing a salary of Rs. 349 or below per month.

The Government has liberalised the educational allowance scheme of Central employees (May 1964). At present, the children's educational allowance, sanctioned in 1962, is available if the children are educated at places other than the place of duty of a Government servant. Under the liberalised scheme the tuition fees payable and actually paid in the middle and higher secondary schools should be reimbursed to the employees at rates not exceeding those approved by the State Government of the area for Government and aided schools.

## PAY COMMISSION REPORT

The Second Pay Commission was appointed in Aug. 1957 to enquire into the emoluments and conditions of service of Central Government employees.

The members of the Commission were Mr. Jagannadha Das (Chairman), Dr. V. B. Gandhi, Mr. N. K. Sidhanta, Prof. M. L. Dantwala, Mrs. M. Chandrasekhar, Mr. L. P. Singh (Secretary), Mr. H. F. B. Pais (Associate Secretary)

Towards the end of 1957 the Commission submitted an interim report on which Government issued orders in Dec. 1957.

The final report was submitted to Government on Aug. 24, 1959 and was laid on the table of the Lok Sabha on Nov. 30, 1959.

The details of the report are given in the 1960-61 Directory.

## GOVERNMENT DECISIONS

On August 2, 1960 the Finance Member laid on the table of the Lok Sabha a statement giving the Government of India's decisions on the recommendations of the Pay Commission. These differed in many respects from the ones that were announced earlier.

The total cost to the exchequer would now be about Rs. 44 crores annually. The earlier estimate was Rs. 29 crores.

Below we give a brief summary.

Briefly, it may be stated that the Government has accepted all the major recommendations of the Pay Commission with a financial bearing.

The pay structure is changed with the minimum wage fixed at Rs. 80 a month.

The earlier decision to give effect to these new scales from November 1, 1959, has been rescinded and the date proposed by the Commission, namely, July 1, 1959, adopted.

Further the arrears for the entire period will be paid in cash.

The Commission's recommendations regarding the liberalisation of retirement benefits, casual leave and holiday and leave travel concessions have been accepted, as also the suggestions about converting temporary posts into permanent posts.

Central Government employees who get less than Rs. 350 a month have been granted a Children educational allowance, subject to fulfilment of certain conditions. These children will be eligible for education at boarding schools of their choice in the absence of suitable facilities at stations of posting.

The maximum house rent recoverable from employees getting less than Rs. 150 will be 7-1/2 per cent. of the pay. A compulsory provident fund scheme will be introduced to which employees will be required to contribute 6 per cent. of their pay. Class IV employees will have the option of a slightly lower contribution range.

Government have accepted the recommendation of the Commission that if during a period of 12 months the consumer price index remains on an average 10 points above 115, the Government should review the position and consider whether an increase in the allowance should be allowed ; and if so, at what rate.

After making the necessary review, orders have been issued to increase the dearness allowance admissible to civilian Government employees drawing a basic pay below Rs. 320 p.m. and to extend the benefit of dearness allowance to those drawing a basic pay between Rs. 320 and Rs. 399 with effect from 1-11-1961. The increase generally ranges between Rs. 5 and Rs. 10 p.m. in each case.

In terms of the recommendations of the Second Pay Commission accepted by the Government, the rates of D.A. were reviewed by the Government at the highest level on May 7, 1964.

This is because the average of the working class consumer price index for 12 months reached 135 in January.

Nearly 23 lakhs of civilian Central Government employees will get increased dearness allowance with retrospective effect from February 1, 1964.

The increase ranges from Rs. 3·50 to Rs. 15 per month, according to the pay of the employees at present eligible for the allowance.

The Government has also decided to extend the benefit of D.A. to those drawing a basic pay between Rs. 400 and Rs. 580—the D.A. being Rs. 20.

The increased D.A. will cost the exchequer Rs. 14 crores per annum.

In October 1964, when the average index rose to 145, the rates of dearness allowance was further revised giving an increase of Rs. 7·50 at the lowest pay scale and Rs. 50 at the slab 400–599.

The increased D.A. will cost the exchequer Rs. 30·78 crores per annum.

Again, when in March 1965, the average index rose to 155, the rates of D.A. were raised giving an increase of Rs. 5 at the lowest slab and Rs. 20 at the highest slab. The D.A. was also extended to Government servants drawing pay upto Rs. 1,000 per month.

The increased D.A. will cost the exchequer Rs. 25·21 crores per annum.

Orders have already been issued implementing the decisions on the recommendations relating to pension which were announced on 30th November, 1959. Government have agreed to liberalise these orders by accepting the Commission's recommendation that special pay should

also count for pension in full if the post to which it was attached was held in a substantive capacity, and to the extent of half in all other cases.

The Government have accepted and already announced their decisions on the Commission's recommendations regarding the grant of gratuity to temporary and quasi-permanent employees on their retirement, discharge from service, or death, and improvement of death gratuity in the case of permanent employees who die before completing five years of qualifying service, as also in respect of employees who are governed by the Contributory Provident Fund Scheme.

The recommendations of the Commission for improvement or liberalisation of retirement benefits in the case of scientists and technologists have also been accepted and orders issued.

Below we give some typical new pay-scales. The existing scales are given in brackets.

Indian Audit and Accounts Service : Class I—Rs. 400—1,250. ((I) Rs. 600—1,150, (II) Rs. 350—850 ).

Central Secretariat Service—Class I : Grade I : Rs. 900—1,250. (Rs. 800—1,150). Grade II : Rs. 350—900 (Rs. 530—800).

Section Officers : Rs. 350—900 (Rs. 530—800 (II) ; Rs. 275—500 (III)).

Central Secretariat Service—Class II : Assistants : Rs. 210—530 (Rs. 160—450).

Central Secretariat Stenographers' Service : Grade I : Rs. 350—650 (Rs. 275—500). Grade II : Rs. 210—530 ((I) Rs. 250—375, (II) Rs. 160—330 ).

Central Secretariat Clerical Service : Grade I : Rs. 130—280 (Rs. 80—220). Grade II : Rs. 110—180 (Rs. 60—130).

Stenographers : Non-Secretariat : Rs. 130—300 (Rs. 80—220).

U.D.C. Non-Secretariat : Rs. 130—300 (Rs. 80—220).

L.D.C. Secretariat : Rs. 110—180 (Rs. 60—130).

L.D.C. Non-Secretariat : (I) Rs. 150—240, (II) Rs. 110—180 (Rs. 60—130).

Staff car drivers : Rs. 110—139 (Rs. 60—75).

Despatch riders : Rs. 100—130.

The Union Ministry of Finance have accepted all the recommendations of the Pay Commission in regard to casual labour.

It has been decided that casual labour should be paid at market rates subject to the condition that where the market rates are lower than the minimum wages fixed by the respective State Governments for comparable scheduled employments, the wages shall be the minimum wages fixed by the State Governments.

Other three recommendations of the Pay Commission accepted by the Finance Ministry are :

1. Casual employment should be restricted to work of a truly casual nature and in order to ensure that this is done, there should be a general review of the existing position :

2. All casual labour under the Central Government including those to whom the minimum wages law is not applicable, should have the benefits and safeguards provided by Rules 23-25 of the Minimum Wages (Central) Rules, 1950 relating to weekly holidays, working hours, night shifts and payment for overtime ; and

3. Long experience as casual labour should be taken into consideration while making selections for appointment to regular establishments.

The decisions of the Finance Ministry have already come into force.

Two lakh persons working under the various establishments of the Government of India come under the category of casual labour. The Ministry of Railways employs about 1·6 lakhs as casual labour and the rest are employed in the other Ministries including Defence, Posts and Telegraphs and the Central Public Works Department.

A minimum wage has also been fixed. The total expenditure involved as a result of the new decisions is expected to be a few crores of rupees.

The Government have approved of a revised scale of pay for general service officers of the Defence Services. These scales have already been announced.

The Government have accepted in principle the Commission's recommendations regarding the working conditions, canteen facilities and staff welfare. An *ad hoc* inter-departmental committee as recommended by the Commission has been set up and its report has been submitted to the Cabinet.

The Commission have recommended setting up of a Whitely type machinery, with a Central Joint Council representing the whole body of Central Government employees, both industrial and non-industrial, for negotiation and settlement of disputes. It is proposed to introduce a bill for setting up a Whitely type machinery and providing for compulsory arbitration as recommended by the Commission.

## STATISTICS

Below we give the total number of employees of the Central Government from 1953. Figures for the period 1953 to 1959 relate to 30th June of each year and from 1960, relate to 31st March of each year.

1953 : 15,60,627 ; 1954 : 16,12,552 ; 1955 ; 16,92,336 ; 1956 : 17,92,082 ; 1957 : 18,38,517 ; 1958 : 19,13,981 ; 1959 : 19,88,798 ; 1960. 20,25,237 ; 1961 : 20,94,477 ; 1962 : 21,56,220 : 1963 : 23,48,675.

The distribution of regular employees by pay ranges as on 31st March 1963 is given below :—

| | |
|---|---|
| Below–75 : .. .. | 4,15,498 |
| 75–100 .. .. | 7,83,449 |
| 100–150 .. .. | 4,83,610 |
| 150–200 .. .. | 2,88,143 |
| 200–300 .. .. | 1,41,889 |
| 300–400 .. .. | 40,884 |
| 400–500 .. .. | 20,741 |
| 500–750 .. .. | 15,066 |
| 750–1000 .. .. | 5,899 |
| 1000–1500 .. .. | 3,904 |
| 1500–2000 .. .. | 981 |
| 2000–2500 .. .. | 361 |
| 2500–3000 .. .. | 72 |
| 3000 and above .. | 140 |
| Total .. .. | 22,00,637 |

(Gazetted 33,381 ; Non-Gazetted 21,67,256).

Number of persons employed by department and class is given below. The figures are as on 31st March 1963.

**EMPLOYEES—BY CLASS AS ON 31st MARCH, 1963.**

| Class of post | No. of persons employed as on 31st March, 1963. | | |
|---|---|---|---|
| | Railways | Posts and Telegraphs | Others |
| 1 | 2 | 3 | 4 |
| Class I .. .. .. .. .. | 2,037 | 816 | 11,732 |
| Class II .. .. .. .. .. | 1,975 | 1,322 | 25,753 |
| Class III .. .. .. .. .. | 4,96,240 | 2,60,544 | 3,25,967 |
| Class IV .. .. .. .. .. | 7,27,405 | 60,563 | 3,35,866 |
| Unclassified .. .. .. .. .. | 1,111 | — | 3,306 |
| TOTAL .. .. .. .. .. | 12,28,768 | 2,69,245 | 7,02,624 |
| Permanent .. .. .. .. .. | 10,61,433 | 2,03,335 | 2,91,878 |
| Temporary .. .. .. .. .. | 1,67,335 | 65,910 | 4,10,746 |
| Work-charged, contingent and local recruits abroad .. .. .. .. .. | 51,571 | 59,542 | 36,925 |

# FORESTS

TOTAL Forests : 302,688 sq. miles. Percentage of Forests to Land : 21·8. Per capita forest area will be about half an acre.

Revenue : 1955–56 : Rs. 26·83 crores ; 1956–57 : Rs. 34·50 crores ; 1957–58 : Rs. 42·10 crores ; 1958–59 : Rs. 46·37 crores ; 1959–60 : Rs. 54·01 crores.

Financial return per acre of Forest : Rs. 2·60.

The forests are unevenly distributed and the production is also proportionately low, being only 2·5 c.ft. per acre per year as compared to 56·8 c.ft. in France, 37·3 c.ft. in Japan and 18·1 c.ft. in U.S.A.

Private forests : In Assam 400 sq. miles (in Khasi and Jaintia Hills), Orissa 600 sq. miles mostly in zamindari agencies, Punjab 340 sq. miles in scattered units, and Himachal Pradesh 29 sq. miles in Jabbal Division.

About 16 per cent of the total forest area is inaccessible and 45 per cent of these could yield timber and other forest products.

Systematic management and administration of forests in India date back to over a century. The first enunciation of policy was in 1894, when forests were classified into four classes : (*a*) protection forests ; (*b*) timber forests ; (*c*) minor forests ; and (*d*) pasture lands.

The limited outlook of this policy was enlarged upon by the Government of India, and the new forest policy laid down in 1952. The details are given in 1960-61 Directory.

Most of the country's forests are worked according to Forest Working Plans prepared by special staff. On the basis of present conditions and past working, these plans lay down, for a 10-15-year period at a time, silvicultural systems, schedules for thinnings and other cultural work, methods of management, staff requirements and exploitation programmes, besides development schemes for roads and buildings.

The formation of forest plantations involving a long-term policy for increased production,

is now-a-days an important feature of Indian Forestry, *e.g.* the very valuable and extensive plantations of Teak, Bluegum, Wattle, Casuarina, Sal, Deodar, as also evergreen species and softwoods for matches.

'Forests' are a State subject.

The Government of India, however, are responsible for forest research and forest education. The Ministry of Food and Agriculture in the Government of India co-ordinates forest activities in the country, but no forests are directly worked by it except the Andaman forests. The Inspector-General of Forests is their technical adviser in forest matters.

All States have separate Forest Departments. Usually a Chief Conservator of Forests (C.C.F.) heads the Department.

For purposes of administration the States are divided into one or more Forest Circles, each in charge of a Conservator of Forests.

Each Circle is in turn divided into four to eight Divisions, each under a Divisional Forest Officer. The unit of administration and execution of forest works is the Forest Range, managed by a Range Forest Officer. Four to eight of these are included in each Division. A Division may be coextensive with Civil districts or larger or smaller than those districts depending on the importance of the locality and extent of forests in them.

## EDUCATION AND RESEARCH

Forest research and education are centralised in one large institution known as the Forest Research Institute and Colleges located at Dehra Dun.

The Forest Research Institute as such came into being in 1906 as an adjunct to the then Imperial Forest College. Through progressive stages of development the Institute has now attained a position which has earned for it international prestige as evidenced by its recognition by the Food and Agricultural Organisation of the United Nations as a Centre for training in Forestry for South-East Asia.

The Forest Research Institute and Colleges are under the administrative control of the Ministry of Food and Agriculture of the Government of India. Its administrative Head is designated the President. It has under its control two Regional Forest Research Centres, one at Bangalore and the other at Coimbatore to deal with the special problems pertaining to the area. It has a strength of about 100 officers and about 1,300 other staff.

The institute was reorganised into four directorates working under the President, *viz.*, 1) The Directorate of Forest Education, 2) The Directorate of Forestry Research, 3) the Directorate of Forest Products Research and 4) the Directorate of Biological Research.

The education wing of the Institute comprising three Colleges is in the charge of the Director of Forest Education.

The Indian Forest College trains recruits of the State Governments to their gazetted forest services. The course stretches over a period of two years and the minimum qualification for admission is a B.Sc. degree.

The Northern Forest Rangers College (Dehra Dun) and the Southern Forest Rangers College (located in Coimbatore) offer training for two years to rangers selected by State Governments in the northern and southern regions of the country respectively, the minimum qualification for admission being Inter Science.

**Directorate of Forestry Research:** This has two branches (1) Silviculture Branch—studies rates of growth of the different kinds of trees, forest management, influences of forests, study of soils and forest ecology. It also has a museum, a demonstration area and experimental gardens under its control. The important cloves of fast growing poplars which hold promise of early production of industrial wood have been successfully established. Extensive work on the cultivation of economic plants is continued.

(2) The other is the Logging Branch dealing with the methods of scientific felling of trees and economic extraction and conversion of timber. Fifty sets of efficient modern logging tools supplied at half the cost by the Government of Switzerland were distributed to various States and Union Territories for demonstration purposes.

**Directorate of Biological Research:** Has six branches under it :—

(1) The Minor Forest Products Branch is engaged in economic research on forest plants which constitute about 30 per cent of the forest wealth of India and earn foreign exchange of about Rs. 40 crores annually. The branch has established Artemisia and Santonin industry in India and has done work on the cultivation of medicinal and essential oil yielding plants.

(2) The Botany Branch maintains a herbarium which has over a quarter-million carefully preserved authentic specimens from all over the world and about 3–4 thousand exotic and indigenous specimens are added every year to it. The branch takes up the identification of plants, their breeding and experiments on genetics and introduction of new species of trees in various regions.

(3) The Forest Pathology Branch specializes in investigations of tree diseases and timber decays caused by fungi with a view to evolving methods of control. This branch forms one of the centres of the Indian National Committee on Type Cultures of Micro-organisms.

(4) The Entomology Branch functions to reduce the losses to forest trees and forest products caused by harmful insects and pests.

(5) The Wood Anatomy Branch has one of the finest timber collections in the world comprising about 15,000 indigenous and foreign wood samples.

(6) The Wood Preservation Branch conducts experiments on improving the timber by impregnation with various chemicals and preservatives and thus protects it from deterioration and damage by the insects and fungi. Both the above branches coach the students for the certificate and diploma courses in these subjects, which are awarded by the Institute.

**Directorate of Forest Products Research:** Has six branches :—

(1) The Wood Seasoning Branch has designed a number of seasoning sheds and seasoning kilns including veneer driers. It has also found out Indian substitutes for foreign timbers for various wood based industries and textile mills accessories.

(2) The Composite Wood Branch undertakes to study the problems of improved woods like plywood, compregnated wood, building boards etc. and also conducts research on suitability of various glues.

(3) The Cellulose and Paper Branch is the only place in India where organised research is being done on the utilisation of forest produce and agricultural wastes for the production of pulp, paper and boards. The branch is equipped with a six-ton pilot paper plant by which the researches carried out in the laboratory are piloted before they are advised to the paper industry. The branch has diploma and short-term courses regularly in pulp and paper technology.

(4) The Timber Mechanics Branch studies the various properties of timbers and also finds out their suitability for various purposes.

(5) The Timber Engineering Branch has done work on the utilisation of non-conventional timbers and the use of short-length, small dimensioned timbers for making buildings, pavilions and bridges.

(6) The Chemistry of Forest Products Branch has done work on extraction of essential oils from the various forest produce and also Katha from *Acacia catechu* tree.

There is a well equipped Publicity & Liaison Branch for the various branches of the Institute. Their research results and activities are published in technical journals. The publication of research papers, strengthening of liaison with various woodbased industries and departments of the Government, and organisation of meetings and conferences are the main activities of this branch.

The staff of this Institute are provided with adequate housing accommodation and there is also a well-equipped rest house for visitors. The Institute has a high school, a hospital, a cooperative society, clubs, play-grounds and P. & T. office in the campus.

## U. N. AID

The U.N. is expected to help India's Rs. 1,440-lakh project of scientific survey of forest resources from its special fund.

The U.N. is expected to contribute, mainly in the form of technical experts and equipment, including helicopters and aerial survey apparatus, to the tune of Rs. 40 lakhs.

An agreement was signed in 1964-65 by the Govt. of India and representatives of U.N. Special Fund and FAO of U.N.O. for providing assistance to a Govt. Forestry project involving more than $2 6 million. The project is intended to assist development and forest incentives.

A project for pre-investment survey of forest resources to assess various forest reserves in selected regions and the scope for industrial development they offer, is being started. Another, for the establishment of four logging training centres to introduce more efficient logging technique by modern equipment and transport is also being taken up. Both these are being implemented with the help of U.N. Special Fund. To meet the requirement of wood-based industries a centrally sponsored scheme for the plantation of quick growing species is under operation. During 1961-64, an area of 68,000 acres was brought under such plantation and it was expected to extend the same to another 64,000 acres during 1964-65.

The Central Board of Forestry met in Poona in June 1964 and reviewed the progress made in the implementations of the previous recommendations. A sub-committee of the same made detailed examinations of the scope for afforestation of various canal banks.

The annual session of the Board met in Ranchi in Jan. 1965 and suggested measures for the development of forestry particularly in Andaman and Goa on a priority basis.

## FOREST PRODUCE

Forest produce is divided into two main heads—(1) Major produce, i.e., timber and firewood, and (2) Minor produce, comprising all other products, such as bamboos, canes, leaves, fruits, fibres, grasses, gums, resins, essential oils, medicinal and poisonous plants, fatty oils and fats, dyes, tans and animal and mineral products.

The annual output of timber is 274 million c.ft. and 700 million c.ft. of firewood. At present annual import of wood and wood products is of the order of 40 million c.ft.

The bulk of the timber supply is used for railway sleepers, constructional requirements, furniture, plywood (especially for tea chests), matches, etc.; but the country imports timber for specialized uses such as jute and textile mill accessories.

Exports from India are limited to selected rosewood logs for high grade furniture to Europe, teak poles for the Middle East and a few other items. Up-to-date, Indian rural economy (and perhaps only to a slightly less extent even its urban population) depends on wood fuel, much of which is derived from the forests. The large-scale use of bamboos and some forest grasses in the expanding paper industry, the exports of sandalwood and its oil and the development of medicinal plants deserve mention in connection with the utilisation of other forest produce.

In the Andamans, the North Andaman forests are leased out to a private agency for working

the virgin forests of these islands. The Middle and South Andamans continue to be worked departmentally, mainly to meet the needs of the mainland especially for matchwood and plywood logs. Over half a million tons of timber is extracted and shipped to mainland from the Andamans every year. An area of 1,200 acres is now under teak plantation for raising industrial plantations.

Nearly two million people are estimated to be employed on forest work; but the figures are probably below the actuals, as much forest labour is not full-time labour, devoting seven or eight months in the year to agriculture and the rest to forest work.

The general practice of the Forest Departments in the various States is to dispose of standing timber and forest produce by open auctions. Departmental conversion and sales of the produce itself are resorted to only where special considerations necessitate them, *e.g.* working of sandalwood because of its great value.

Timber production in India is not sufficient to meet internal needs. While foreign markets could be readily developed for Indian timber, exports are limited to small quantities of ornamental timbers for European countries, teak poles for the Middle East from the west coast and traditional despatches to markets in Pakistan.

Exports are regulated by quotas which are periodically re-examined.

Imports are regulated by protective or revenue duties and are restricted to such specialized items as are not readily obtainable from local production.

### Third Five Year Plan

The Third Plan has provided an outlay of Rs. 510 millions for various forest development programmes at the Centre and in the States, as against Rs. 193 millions during the Second Plan period. Besides expansion and intensification of the schemes initiated earlier, provision has been made in the Third Plan for new schemes for pre-investment survey of forest resources, plantation of fast-growing species, improved methods of logging and farm forestry. The progress of the principal forestry programmes during the first two years of the Plan is shown in the table below :—

| Scheme | Unit | Third Plan target | 1961-63 achievement |
|---|---|---|---|
| Fast-growing species | Million acres | 0·137 | 0·020 |
| Economic plantations | " " | 0·695 | 0·22 |
| Farm forestry | " " | 1·126 | 0·031 |
| Rehabilitation of degraded forests | " " | 0·508 | 0·169 |
| Survey | 000 square miles | 46·0 | 13·31 |
| Demarcation | 000 miles | 14·81 | 4·88 |

The total outlay on forestry schemes during the first three years of the Plan came to about Rs. 220 million.

**Forest Statistics.**

| States & Union Territories | 1962-63 (in sq. miles) forest area | | | 1962-63 Economy (in Rs. 1,000) | |
|---|---|---|---|---|---|
| | Reserved | Protected | Unclassed* | Revenue | Expenditure |
| Andhra Pradesh† | 15,530 | 7,229 | 1,273 | 34,172 | 11,494 |
| Assam | 6,240 | — | 3,940 | 20,400 | 9,400 |
| Bengal (West) | 2,693 | 1,582 | 262 | 9,500 | 11,000 |
| Bihar | 1,577 | 9,809 | 647 | 24,800 | 14,400 |
| Gujarat | 2,067 | 834 | 3,348 | 36,400 | 39,400 |
| Jammu & Kashmir † | — | — | — | 36,161 | 7,611 |
| Kerala | 3,481 | — | 1,200 | 48,000 | 12,100 |
| Madhya Pradesh† | 30,889 | 30,335 | 4,799 | 101,163 | 31,415 |
| Madras | 6,653 | 1,476 | 440 | 22,300 | 13,900 |
| Maharashtra | 15,652 | 6,550 | 2,263 | 62,900 | 27,600 |
| Mysore† | 11,125 | 926 | 1,943 | 76,195 | 29,562 |
| Orissa† | 11,102 | 6,676 | 8,011 | 25,604 | 10,278 |
| Punjab | 223 | 3,580 | 1,165 | 15, 00 | 16,300 |
| Rajasthan | 4,078 | 6,946 | 3,703 | 8,000 | 8,100 |
| Uttar Pradesh | 9,647 | 742 | 3,281 | 89,500 | 45,500 |
| Delhi | 3 | 5 | 11 | 20·5 | 2 47 |
| Himachal Pradesh | 582 | 3,149 | 569 | 32,700 | 18,800 |
| Manipur | — | — | — | — | — |
| Tripura | 1,591 | 862 | — | 1,000 | 1,900 |
| Andaman & Nicobar Islands | 1,498 | 555 | 447 | 9,900 | 10,800 |
| Laccadive, Minicoy & Amindivi Islands | — | — | — | — | — |
| Naga Hills-Tuensang Area | 127 | 200 | 700 | 600 | 800 |
| NEFA | 331 | 3,241 | 15,057 | 3,700 | 2,200 |
| Goa | 2,167 | — | — | 100 | 100 |

* Including private forests. † Denotes data for the year 1961–62.

# INDEX NUMBER

## INDEX NUMBERS OF WHOLESALE PRICES—BY GROUPS AND SUB-GROUPS

[1952-53 = 100]

| Period. | All commodities. | Food articles. | Liquor and tobacco. | Fuel, power, light and lubricants. | Industrial raw materials. | Manufactures. |
|---|---|---|---|---|---|---|
| 1958-59 | 112·9 | 115·2 | 95·4 | 115·4 | 115·6 | 108·3 |
| 1959-60 | 117·1 | 119·0 | 99·5 | 116·5 | 123·7 | 111·7 |
| 1960-61 | 124·8 | 120·0 | 109·9 | 120·0 | 145·4 | 123·9 |
| 1961-62 | 125·1 | 120·1 | 100·3 | 122·1 | 142·6 | 126·6 (R) |
| 1962-63 | 127·9 | 126·1 | 100·9 (R) | 124·4 (R) | 136·5 | 128·8 (R) |
| 1963-64 | 135·3 | 136·8 | 119·6 | 139·4 (R) | 139·5 | 131·1 |
| 1964-65 | 152·7 | 159·9 | 131·2 | 144·5 | 162·7 | 137·2 |

Source of information :—Index Number of wholesale prices in India (Revised series) issued by the office of the Economic Adviser.
(R) = Revised.

## CONSUMER PRICE

The all-India working class consumer price index rose by 17·1 per cent between December 1963 and December 1964. The following table shows the working class consumer price indices for 1960-61 to 1963-64 as well as for the months of June, September and December 1964.

### CONSUMER PRICE INDEX NUMBERS—WORKING CLASS

[Year 1949 = 100]

| Centre. | 1960-61. | 1961-62. | 1962-63. | 1963-64. | 1964. | | |
|---|---|---|---|---|---|---|---|
| | | | | | June. | September. | December. |
| All-India | 124 | 127 | 131 | 137 | 150 | 159 | 164 |
| Bombay | 137 | 142 | 145 | 150 | 166 | 173 | 177 |
| Calcutta* | 113 | 116 | — | — | — | — | — |
| Delhi* | 121 | 128 | — | — | — | — | — |
| Madras City | 146 | 149 | 150 | 153 | 169 | 174 | 186 |

* Discontinued.

# COMMUNITY DEVELOPMENT PROJECTS AND PANCHAYATS

AT the Centre the Ministry that is responsible for community development projects is the Ministry of Community Development and Co-operation. The Ministry is responsible also for village panchayats.

The C. D. programme, which was launched on Oct. 2, 1952, entered its 13th year of operation on Oct. 2, 1964.

The Government proposes to set up 1,000 additional community development blocks during the Fourth Plan period.

The entire country has now been covered by the C. D. programme. There are 2,709 Stage I blocks, 1,910 Stage II blocks and 601 Post-Stage II blocks besides 18 blocks in the pre-extension phase.

Out of the 450 Tribal Development Blocks to be opened during the Third Plan period only 299 have so far been allotted. The balance is expected to be allotted in the last year of the Third Plan period.

The Government expenditure amounted to Rs. 188 crores during the Second Plan period. The people's contribution in terms of cash, kind and labour on schemes of community benefit during the Second Plan totalled Rs. 77·11 crores.

**BUDGET** (Rs. in lakhs)

| | Revised Estimates 1964-65 | Budget Estimates 1965-66 |
|---|---|---|
| I. *Revenue Expenditure* :— | | |
| Grants to States for C. D. Programme :— | | |
| Plan .. .. .. .. .. .. .. .. | 2,419·35 | 2,744·50 |
| Non-Plan .. .. .. .. .. .. .. .. | 5·65 | .. |
| Grants to States for Central Schemes :— | | |
| Plan .. .. .. .. .. .. .. .. | 61·45 | 63·35 |
| Non-Plan .. .. .. .. .. .. .. .. | 3·37 | 2·68 |
| Direct Central expenditure on Central schemes :— | | |
| Plan .. .. .. .. .. .. .. .. | 22·36 | 21·10 |
| Non-Plan .. .. .. .. .. .. .. .. | 36·39 | 37·48 |
| Total Revenue Expenditure .. | 2,548·57 | 2,869·11 |
| II. (*a*) *Capital Expenditure* :— | | |
| Capital outlay on schemes of Govt. Trading | | |
| Material and Equipment under T. C. A. Programmes .. | 7·00 | 4·00 |
| Transfer to special development fund of loan received from U.S.A. .. .. .. .. .. .. | .. | .. |
| Loans to Govt. Servants .. | 7·00 | 4·00 |
| Total Capital Expenditure .. | 1,494·46 | 1,802·06 |

## COMMUNITY DEVELOPMENT

An outlay of over Rs. 60·89 crores for the Community Development programme is proposed for 1965–66.

*Agriculture:* Agricultural production has continued to be the main focus of community development. The administrative structure has been streamlined from the State to the village level to achieve a rapid increase in agricultural production.

Formulation of a realistic village agricultural production plan was studied by a team appointed by the Min. of Food and Agriculture with which Min. of C. D. & Cooperation was actively associated. According to the team, in any scheme of rural advancement, the role of Panchayati Raj bodies is vital, for they represent the people at the local level and mobilise the village community in the task of maximising production. Certain measures were suggested to the State Governments with a view to ensuring effective involvement of Panchayati Raj institutions in this behalf. The measures suggested included drawing up of a precise programme of action by the P. R. bodies for their respective areas indicating time schedules for each operational component and allotment of a group of villages to the officers of the Panchayati Raj institutions. The officers concerned are expected to see that the operational schedules for various programmes are being adhered to.

The Agricultural Production Board has approved a scheme of provision of incentives to progressive farmers. Prizes in the shape of agricultural implements, animal husbandry equipment and other useful items like cycles, radio, cow-dung gas plants, etc. are also proposed to be given to progressive farmers in recognition of their meritorious accomplishments. A scheme of study tours, exchange of farm leaders and facilities for higher training are also included in the proposals. A working group has been set up by the Ministry to consider and devise criteria for the classification of blocks with a view to facilitating intensive programmes of agricultural production.

The working group has submitted its report in May 1964. The group has recommended the classification of blocks under three categories, *viz.* blocks where impact programmes of agricultural development can be immediately taken up, blocks where potential for agriculture is insignificant but where there is considerable scope for undertaking intensive programmes of animal husbandry, dairying, sheep-rearing etc., and blocks where programmes of water and land development will have to be first undertaken before intensive production programmes become possible. These recommendations were endorsed by the annual conference.

*Fisheries :* Considerable progress was recorded in the implementation of the special scheme for intensive development of fisheries in 600 selected blocks covering the States of Andhra Pradesh, Gujarat, Madhya Pradesh, Mysore and U.P.

*Poultry:* Poultry programme recorded good progress during the year under review. Development of poultry in C. D. blocks around large urban centres was taken up by 11 States. The Agricultural Production Board decided that this programme should be taken up as an integral part of the programmes of agricultural development in the States.

The last annual conference recommended that a sum of Rs. 10,000 should be provided from the block budget in each block where intensive poultry programme is under implementation for loans to poultry farmers.

*Village and Small Scale Industries :* Almost all the States have accepted the minimum target of four village industries in each block. This target has been achieved in Andhra Pradesh, Gujarat, Kerala, Maharashtra, Mysore, Orissa, Punjab and U.P. To encourage the development of small industries in the rural areas, the Ministry of Industry and Supply have agreed to earmark foreign exchange to the tune of Rs. 50 lakhs for the issue of import licences for raw materials required by units in rural industrial estates. The Khadi and Village Industries Commission has agreed to provide necessary funds for promoting Khadi and village industries programmes in the block.

*Health :* There were 4,186 Primary Health Centres against 5,205 blocks on June 30, 1964.

*Adult Literacy :* During the period from October 1963 to September 1964, 46,578 Adult Literacy Centres were started, and a total of about 8 lakh adults attended them. Over the same period 86 lakhs of adults had been made literate. During the same period, 13,740 Reading Rooms/Libraries were started bringing the total to 143,026.

*Community Listening Sets. :* Over 1,85,000 community listening sets have been already supplied and located in the rural areas. It is envisaged that every Panchayat should have a commentary listening set by the end of the Third Plan period.

### SPECIAL PROGRAMMES

*Applied Nutrition :* The Applied Nutrition Programme has been taken up for implementation in 222 selected blocks. The programme aims at increased production at the village level of various protective and body-building foods and training and education of the villagers in the production, preparation and consumption of these foods. This programme is now in operation in 183 blocks in the States of Andhra Pradesh, Orissa, Uttar Pradesh, Madras, Madhya Pradesh, Kerala, Mysore, W. Bengal, Punjab & Himachal Pradesh. 34 more blocks were expected to be taken up by the end of 1965.

*Youth and Women's Programme :* The rural youth and women's club continued their social, cultural and recreational activities. During 1964-65, 1,19,709 Yuvak Mandals and 61,224 Mahila Mandals with a membership of about 23 and 13 lakhs respectively were functioning in the country.

*Balwadis :* The Integrated Child Welfare Projects, launched by the Ministry of Education in collaboration with Ministry of Community Development and Cooperation, have now been undertaken by almost all States. In all, 22,689 Balwadis were functioning in the country at the end of Sept. 1964.

*Rural Works :* From the Planning Commission the rural works programme has been transferred to the Ministry of Community Development & Panchayats with effect from Sept. 1, 1964. The programme which started in 1960 on a pilot basis in 32 blocks, now covers 995 blocks. This programme seeks to provide full-time employment to those who are under-employment or exposed to seasonal unemployment. An amount of Rs. 5·6 crores has been spent on this programme till the end of 1963-64. It was estimated that the expenditure for 1964-65 would be over Rs. 7 crores. As against 188 lakh man-days of employment generated by the programme during 1963-64, the employment to be generated during 1964-65 was expected to be 350 lakh man-days.

State-wise coverage of Rural Works Programme and number of blocks are as follows ; Andhra Pradesh 106; Assam 43; Bihar 81;

Gujarat 33 ; Jammu & Kashmir 16 ; Kerala 36 ; Madhya Pradesh 65 ; Madras 72 ; Maharashtra 128 ; Mysore 45 ; Orissa 45 ; Punjab 36 ; Rajasthan 40 ; Uttar Pradesh 169 ; West Bengal 46 ; Himachal Pradesh 28 ; Tripura 6—Total 995.

### CONSULTATIVE COUNCIL

The Ministry of Community Development & Co-operation has set up a consultative council on Panchayati Raj. The 51-member council with Mr. S. K. Dey, Minister for Community Development & Co-operation as Chairman, includes members of Parliament and State legislatures, Union and State Ministers, members of the Planning Commission, eminent individuals in various walks of life and representatives of voluntary organisations.

The council will review the progress of the implementation of Panchayati Raj with special reference to the adequacy and depth of decentralisation, suggest measures to ensure local initiative for the growth and consolidation of the Panchayati Raj movement and make proposals for training and research. The council is empowered to set up committees to deal with specific aspects of its functions. Its first meeting was held early in June 1964.

## PANCHAYATI RAJ

Panchayati Raj was in force at the end of 1963-64 in 11 States, namely Andhra Pradesh, Assam, Gujarat, Madras, Maharashtra, Mysore, Orissa, Punjab, Rajasthan, Uttar Pradesh and West Bengal.

Though Panchayat Samitis and Zila Parishad Act was enacted in Bihar State in Feb. 1962, and notification issued in Aug. 1963 for bringing Panchayati Raj into force, formal inauguration of Panchayati Raj has taken place only in two Districts, namely, Ranchi and Bhagalpur, on Oct. 1964.

The Kerala Panchayat Union Council and Zila Parishad Bill introduced in the State Assembly lapsed on the dissolution of the State Legislature, in Sept. 1964.

In Jammu and Kashmir State the Democratic Decentralisation Committee, set up by the State Government was to suggest suitable pattern of Panchayati Raj for the State by March 1963.

The Government of Mysore have introduced a Bill in the State legislature to give effect to the recommendations of the Committee on Panchayati Raj set up by them.

The Ministry continued to assist the State Governments in the formulation and implementation of Panchayati Raj legislation.

### CONSULTATIVE COUNCIL

During 1964-65 a consultative council on Panchayati Raj was set up. The council is a national forum reflecting different shades of public opinion for advising the Ministry on general policies regarding Panchayati Raj. The Council constituted a Committee under the chairmanship of late Shri Balwantray Mehta to suggest measures required to safeguard the integrity and to strengthen the finances of Panchayati Raj institutions. The Committee has submitted its interim report. The council has also appointed four zonal committees to study the functions of Panchayati Raj institutions in the States.

*Mehta Committee's Suggestions :* The Committee, headed by late Shri Balwantray Mehta, has recommended that the financial relationship between the State Govts. and Panchayati Raj institutions should be modelled generally on the pattern of the existing financial relationship between the Centre and the States.

Among the measures suggested by the Committee to strengthen the finances of Panchayati Raj institutions are: (1) The earmarking of the entire proceeds of land revenue in the States to Panchayati Raj institutions, and (2) the provision of capital assistance, partly with the rupee counterpart of PL 480 funds to enable Panchayati Raj bodies to create remunerative assets in the form of markets, plantations, fisheries and cottage and small scale industries.

The number of village panchayats in the country was a little over 2,19,604 as on March 31, 1964. They cover 5,49,187 villages and a population of 3,538 lakhs.

#### Santhanam Committee

The Committee on Panchayati Raj Elections, set up by the Ministry of Community Development and Cooperation, submitted its report in March 1965. The report is unanimous.

The Committee was appointed on February 22, 1964, with Shri K. Santhanam as Chairman.

The terms of reference of the committee were:

To study the different methods of elections to Panchayati Raj bodies being followed in the States with special reference to the methods and procedures which have been conducive to the vigorous and healthy growth of Panchayati Raj and to make recommendations on the following:

(1) The strength and composition and the method of election to Panchayati Raj bodies at the village, block and district levels as can ensure the democratic and efficient functioning of these bodies and the evolution of a harmonious and coordinated pattern of representative institutions ;

(2) The need for co-option, the categories to which co-option should be applied, the manner of its application and other related matters;

(3) The measures for ensuring adequate and effective representation to the weaker sections on these bodies;

(4) The method of election of office bearers of these bodies;

(5) The association of members of Parliament and State legislature with Panchayati Raj bodies ;

(6) The terms of membership and the periodicity of elections to Panchayati Raj bodies ;

(7 How far unanimity in elections is practicable consistent with the growth of democratic processes ;

(8) Whether and to what extent political parties should participate in Panchayati Raj elections ;

(9) The measures required to ensure free and fair elections to Panchayati Raj bodies and the desirability of setting up a State-level Commission for the purpose.

A study team has been set up to undertake a detailed examination of the working of the present system of audit of the accounts of Panchayati Raj institutions, to locate deficiencies, to devise measures to strengthen the system and to suggest a basic pattern of audit. A senior representative from the office of the Controller and Auditor General of India headed the team. The report of the team was expected by the end of March 1965.

*Study and Research :* An opinion survey of rural leaders and officials in Panchayati Raj institutions by the Indian Institution of Public-opinion revealed that whilst younger and better educated leadership was being thrown up, well designed training programmes were needed to educate them into an awareness of their roles and responsibilities. A majority of the rural leaders had fairly close contact with the general public. A majority of the block officials were satisfied with the change effected in their position by the introduction of Panchayati Raj. There was a fairly high degree of satisfaction among the people with the working of the Panchayati Raj though there was a feeling that safeguards were necessary to prevent the monopoly of influential groups in the villages.

A five-year plan of basic research on Panchayati Raj and Community Development has been initiated by the Indian Institute of Public Administration. The study is envisaged in four phases and is expected to be completed by 1967.

### TRAINING & EDUCATION

The training programmes have been maintained on a country-wide basis for both officials and non-officials engaged in the implementation of the development programmes. This is a continuous process. Important aspects of the training were examined closely from time to time during 1964-65 and steps taken as necessary, to reorganise and further strengthen the programme.

The National Institute of Community Development, the apex institute for training, study & research in Community Development and Panchayati Raj, functioned during 1964-65 from Hyderabad and Dehra Dun.

Five orientation courses had earlier been organised at the Institute. The instruction wing of the institute conducted two courses of each for instructors of training centres and sub-divisional officers at Rajpur during 1964-65. It also organised a special course in communication media and audio-visual aids for artists and selected instructors from the training centres.

The draft constitution of the National Institute as an autonomous registered organisation has been finalised. It is proposed to form the institute into a registered society during 1965.

The research on fundamental and applied research was stepped up.

The following are particulars of the studies completed by the National Institute of Community Development and by the training centres:—

(1) A study of benefits accruing to Tribals in the special Multipurpose Tribal blocks ; (2) A study of capital formation in agriculture ; (3) Factors associated with the adoption of recommended agricultural practices ; (4) An evolution of orientation of school teachers in community development.

By the training centres : (1) The role of production committees of the Panchayat Samiti and Gram Panchayats in planning and execution of production programme in their respective areas (Orientation and Study Centre, Junagadh) ; (2) Role of supervision in Development Administration (Orientation and Study Centre, Junagadh) ; Study of the work load of Block Development and Panchayat Officer in Punjab (Orientation and Study Centre, Nelokheri).

*Social Education :* All the eight training centres continued functioning during 1964-65 imparting special courses for the orientation of teacher-educators in Community Development. In addition, three months' condensed courses were organised at a few centres to provide training in social education to composite functionaries entrusted with the work of social education along with other duties in the blocks. Special courses were also organised at all the training centres for imparting orientation in community development to instructors from training institutions for primary school teachers.

*Mukhya Sevika Training Centres :* The ten Mukhya Sevika Training Centres continued to handle job courses for Mukhya Sevikas. The duration of the courses was 10½ months.

*Training of Extension Officers (Industries) :* It has been decided to conduct integrated training courses, on pilot basis, at the Khadi Gram Udyog Vidyalayas at Nilokheri and Rajendranagar (Hyderabad). The Small Industries Service Institutes and Khadi Gram Udyog Vidyalayas continued to conduct their separate courses of four and eight months' duration respectively.

*Higher Training of selected Gram Sevaks :* During the year 1963-64, opportunities for higher education to Village Level Workers continued impetuously. During 1964-65, 205 scholarships were awarded as against 152 in the previous year, the total number of scholarships

awarded since the inception of the scheme in 1961 came to 534.

*Training of Foreigners:* During the year 1963–64, 49 administrators and field workers from 26 countries visited India for study and training in various aspects of the programmes under the Colombo Plan and schemes sponsored by the United States Agency for International Development, etc.

*Gram Sahayaks:* The programme of training of Gram Sahayaks (village leaders) taken up in 1957 continued during the year. The number of Gram Sahayaks Training Camps held was 11,272 during the 12 months ending Sept. 1964. Total number trained from the inception of the programme is about 61 lakhs.

*Youth and Women:* The programme of training of youth and women workers associated with Yuvak and Mahila Mandals was stepped up during 1964-65. 218 twelve-day training camps for youth leaders and 85 one month camps for associate women workers were sanctioned during 1964-65. Special emphasis was laid on the training of these workers in blocks taken up for the applied nutriton and other intensive development programmes.

*Panchayati Raj Training Centres:* Following an overall review by the All India Seminar held at Nilokheri in March, 1964 comprensive suggestions were conveyed to the State Governments for securing more effective implementation of the Panchayati Raj training programme. In addition to the institutional and peripatetic training of office-bearers and members of Panchayats, training courses for children and members of Nyaya Panchayats and Panchayat Secretaries are also conducted at the Panchayati Raj Training Centres. In view of the increasing requirements of training, their number continues to grow. Of the 122 centres sanctioned so far, 101 have already been set up by various State Governments. It is expected that by the end of the Third Plan period, almost half the districts in the country will each have a centre.

The Central Institute of Training and Research in Panchayati Raj continued to conduct its three courses of three months duration each for traning Principal Instructors of Panchayati Raj Training Centres. A Committee, recently set up, is now engaged in evaluating its work.

### STAFF POSITION (as on Sept. 1, 1964).

*Essential Staff:* No. of blocks reporting (including pre-extension blocks) 5,264; Block Development Officers 4,951; Gram Sevaks 49,628; Extension Officers (Agriculture) 5,117; Social Education Organisers (Men); Extension Officers (Panchayats) 6,028; Extension Officers (Cooperation) 4,641.

*Other Staff:* No. of Block reporting (Stage I, Stage II and Post Stage II Blocks only) 5,162; Extension Officers (Animal Husbandry) 4,087; Extension Officers (Village Industry) 2,980; Mukhya Sevikas 2,726; Overseers 4,891; Gram Sevikas 6,726; Medical Officers 2,319; Progress Assistants 3,658.

### PROGRAMME DURING THE THIRD PLAN

The Third Plan period is expected to bring about vast changes in the developmental activities in the rural side mainly due to the progress made by the Community Development Programme and the Panchayati Raj.

The period will also witness a shift in the emphasis of the Programme. Instead of the official agencies initiating the schemes, the people will be encouraged to take the initiative in the developmental activities.

The following are among the ten-point test by which the success of Panchayati Raj will need to be measured from time to time:—

1. Agricultural production as the highest national priority during the Third Plan;
2. Development of rural industry;
3. Development of co-operative institutions;
4. Full utilisation of the local manpower and other resources;
5. Development of facilities for education and adult literacy;
6. Optimum utilisation of resources available to Panchayati Raj institutions such as finance, personnel, technical assistance and other facilities from higher levels, and efforts by them to raise their own resources;
7. Assistance to the economically weaker sections of the village community;
8. Progressive disposal of authority and initiative with special emphasis on the rule of voluntary organisations;
9. Understanding and harmony between elected representatives and public servants to be achieved through comprehensive training in education and a clear demarcation of duties and responsibilities and progressive increase in competence both among officials and non-officials; and
10. Cohesion and mutual self-help within the community.

### PLAN OUTLAY

(Rupees lakhs)

| Particulars | Outlay | Actuals 1963-64 | Anticipated 1964-65 | Approved 1965-66 |
|---|---|---|---|---|
| Community Development Programme | 287,67·00 | 52,70·80 | 58,19·15 | 60,89·16 |
| Panchayat Schemes | 2,800·00 | 219·39 | 309·93 | 383·66 |
| Central Schemes | 600·00 | 36·39 | 83·81 | 84·44 |

### PROGRAMME ACCORDING TO STATES

Blocks allotted as on 1st January 1965:—

| State/Union Territory | No. of blocks allotted | | | | | Population covered (lakh nos). | Villages covered | Area (in sq. Km. covered |
|---|---|---|---|---|---|---|---|---|
| | No. of Blocks | Pre-extension | Stage I | Stage II (incl. post-Stage II) | Total | | | |
| Andhra Pradesh | 445 | .. | 260 | 185 | 445 | 334 | 27,100 | 275,300 |
| Assam | 160 | 8 | 78 | 74 | 160 | 118 | 25,700 | 122,000 |
| Bihar | 575 | .. | 265 | 310 | 575 | 452 | 67,700 | 174,000 |
| Gujarat | 224 | .. | 95 | 129 | 224 | 194 | 18,600 | 187,000 |
| Jammu & Kashmir | 52 | .. | 10 | 42 | 52 | 32 | 6,600 | 123,300 |
| Kerala | 142 | .. | 94 | 48 | 142 | 162 | 1,600 | 38,900 |
| Madhya Pradesh | 416 | .. | 248 | 168 | 416 | 309 | 70,400 | 443,500 |
| Madras | 375 | .. | 90 | 285 | 375 | 303 | 14,100 | 130,400 |
| Maharashtra | 425 | .. | 255 | 170 | 425 | 328 | 35,900 | 307,500 |
| Mysore | 268 | .. | 154 | 114 | 268 | 217 | 26,400 | 192,200 |
| Nagaland | 16 | 1 | 9 | 6 | 16 | 4 | 800 | 16,500 |
| Orissa | 307 | .. | 151 | 156 | 307 | 174 | 46,500 | 155,800 |
| Punjab | 228 | .. | 93 | 135 | 228 | 192 | 21,300 | 122,200 |
| Rajasthan | 232 | .. | 106 | 126 | 232 | 189 | 32,200 | 342,300 |
| Uttar Pradesh | 899 | .. | 484½ | 413 | 897½ | 690 | 112,600 | 294,300 |
| West Bengal | 341 | .. | 255 | 86 | 341 | 301 | 38,500 | 87,100 |
| A. and N. Islands | 5 | 1 | 2 | 2 | 5 | 0·6 | 400 | 8,300 |
| Dadra & Nagar Haveli | 2 | .. | .. | 2 | 2 | 0·6 | 100 | 500 |
| Delhi | 5 | .. | .. | 5 | 5 | 3·0 | 300 | 1,500 |
| Goa, Daman & Diu | 11 | .. | 11 | .. | 11 | 5·5 | 250 | 3,700 |
| Himachal Pradesh | 38 | .. | 13 | 25 | 38 | 13·6 | 10,400 | 28,200 |
| Manipur | 14 | .. | 6 | 8 | 14 | 6·7 | 1,900 | 22,300 |
| NEFA | 41 | 8 | 18 | 15 | 41 | 3·4 | 2,200 | 81,400 |
| Pondicherry | 4 | .. | 1 | 3 | 4 | 3·7 | 400 | 500 |
| Tripura | 15 | .. | 11 | 4 | 15 | 9·4 | 4,900 | 10,500 |
| TOTAL | 5,240* | 18 | 2,709½ | 2,511 | 5,238½ | 4,046 | 566,900 | 3,169,200 |

* Excludes 79½ additional C.D. Blocks on account of Tribal Development Blocks.

## PERFORMANCE UNDER SELECTED ITEMS OF ACTIVITY OF C. D. PROGRAMME

| | Achievements during year ending September | | Achievements from block during year ending September | |
|---|---|---|---|---|
| | 1962-63 | 1963-64 | 1962-63 | 1963-64 |
| *Agriculture :—* | | | | |
| Improved seeds distributed (Quintals) | 34,88,000 | 35,66,000 | 884 | 810 |
| Chemical fertilizers distributed (Quintals) | 1,43,45,000 | 1,84,07,000 | 3,634 | 4,180 |
| Chemical pesticides distributed (Quintals) | 1,68,000 | 1,77,500 | 60 | 60 |
| Improved implements distributed (Nos.) | 6,68,000 | 7,38,965 | 169 | 170 |
| Agricultural demonstrations held (Nos.) | 10,13,300 | 9,94,400 | 257 | 225 |
| Compost pits dug (Nos.) | 73,98,900 | 80,20,200 | 1,875 | 1,820 |
| *Animal Husbandry :—* | | | | |
| Improved animals supplied (Nos.) | 29,065 | 34,124 | 9·0 | 9·5 |
| Improved birds supplied (Nos.) | 6,40,951 | 10,17,851 | 162 | 231 |
| Fish fingerlings supplied (Nos.) | 6,00,57,000 | 6,75,32,000 | 15,216 | 15,315 |
| Animals castrated (Nos.) | 29,85,800 | 31,88,000 | 756 | 723 |
| Animals artificially inseminated (Nos.) | 7,67,809 | 9,47,525 | 195 | 215 |
| *Health and Rural Sanitation :—* | | | | |
| Rural latrines constructed (Nos.) | 1,12,400 | 98,930 | 28 | 22 |
| Pucca drains constructed (metres) | 14,39,000 | 8,61,000 | 446 | 242 |
| Village lanes paved (sq. metres) | 11,44,800 | 9,48,000 | 355 | 266 |
| Soakage pits constructed (Nos.) | 2,62,200 | 2,60,700 | 81 | 73 |
| Drinking water wells constructed (Nos.) | 40,035 | 42,711 | 10 | 10 |
| Drinking water wells renovated (Nos.) | 47,194 | 46,327 | 12 | 11 |
| *Social Educations :—* | | | | |
| Adult literacy centres started (Nos.) | 47,809 | 46,578 | 12·8 | 11·2 |
| Adults made literate (Nos.) | 7,78,857 | 8,28,488 | 197 | 188 |
| Reading rooms and libraries started (Nos.) | 15,644 | 13,740 | 4·0 | 3·1 |
| Youth clubs and Farmers' Unions started (Nos.) | 42,582 | 57,656 | 10·8 | 13·1 |
| No. of members in Youth Clubs and Farmers' Unions | 8,43,549 | 8,72,431 | 214 | 198 |
| Functional Gram Sahayaks camps held (Nos.) | 15,999 | 11,272 | 5·0 | 3·2 |
| Functional Gram Sahayaks' Leaders trained (Nos.) | 7,42,873 | 6,87,624 | 188 | 157 |
| *Women's Programme :—* | | | | |
| Mahila Samitis/Mandals Started (Nos.) | 23,069 | 27,138 | 5·8 | 6·2 |
| Membership in Mahila Samitis/Mandals | 4,62,842 | 6,14,371 | 117 | 139 |
| No. of women participated in the Women camps held | 1,68,275 | 1,40,582 | 52 | 35 |
| Women's camps held (Nos.) | 5,199 | 5,885 | 1·6 | 1·6 |
| Balwadis/Nurseries Started (Nos.) | 8,226 | 10,040 | 2·3 | 2·6 |
| Children attending in Balwadis/Nurseries | 2,14,481 | 2,80,272 | 61 | 71 |
| *Communications :—* | | | | |
| New Kacha roads constructed (Kilometres) | 33,749 | 25,483 | 8·6 | 5·8 |
| Existing roads improved (Kilometres) | 57,384 | 49,266 | 14·5 | 11·2 |
| Culverts constructed (Nos.) | 24,277 | 24,678 | 6·2 | 5·8 |
| *Village and Small Industries :—* | | | | |
| Ambar Charkha introduced (Nos.) | 8,696 | 8,965 | 2·7 | 2·5 |
| Brick kilns started (Nos.) | 18,147 | 18,886 | 6·5 | 6·1 |
| Bricks manufactured (lakh Nos.) | 15,233 | 16,868 | 6·0 | 6·0 |
| Tiles manufactured (lakh Nos.) | 4,284 | 3,705 | 1·7 | 1·3 |
| Sewing machines distributed (Nos.) | 9,342 | 9,394 | 2·4 | 2·1 |
| New Tannery pits introduced (Nos.) | 3,604 | 2,118 | 1·3 | 0·8 |
| Improved ghanis introduced (Nos.) | 1,235 | 703 | 0·44 | 0·25 |
| Bee-hives introduced (Nos.) | 19,596 | 19,057 | 7·0 | 6·8 |
| Flaying centres started (Nos.) | 257 | 261 | 0·1 | 0·1 |
| Value of improved tools and appliances distributed for Blacksmithy (Rs.) | 4,48,000 | 4,30,000 | 161 | 153 |
| " " " " " for Carpentry (Rs.) | 4,64,000 | 4,01,000 | 167 | 142 |
| *Minor Irrigation :—* | | | | |
| Net additional area likely to be irrigated through minor irrigation works (Hectares) | 4,67,522 | 4,52,533 | 147 | 130 |

## TRAINING PROGRAMME—A SUMMARY

| Description of the Training Centre (figures in bracket give the number of Training Centres) | Category of persons trained | Duration of training | Number trained during the year 1964-65 | Total trained |
|---|---|---|---|---|
| National Institute of Community Development (1) | Senior officials and selected non-officials like M.Ps., M.L.As. | 1 month | 148 | 1,326 |
| National Institute of Community Development (Instruction Wing) (1) .. .. .. .. | (*a*) Instructors at Training Centres | 4½ months | 21 | 182 |
| | (*b*) District Panchayat Officers, S.D.Os. | 1½ months | 47 | 362 |
| Orientation & Study Centres (12) .. .. .. | (*a*) B.D.Os., E.Os., Non-officials (Orientation Training). | 4 weeks | 1,398 | 2,465 |
| | (*b*) B.D.Os. (Job Training). .. | 7 weeks | 418 | 3,936 |
| | (*c*) B.D.Os., District Officers, non-officials (Study). | 3 weeks | 586 | 3,168 |
| Tribal Orientation and Study Centres (4) .. .. | B.D.Os., E.Os. (Agri.), S.E.Os. and Mukhya Sevikas. | 3 months | 167 | 270 |
| Social Education Organisers Training Centres (8) .. | (*a*) S.E.Os. (Job Course) .. .. | 6 months | 169 | 4,234 |
| | (*b*) Principals of Teachers Training Colleges. | 3 days | 316 | 1,451 |
| | (*c*) Teacher-Educators of Training Colleges. | 1 month | 582 | 1,858 |
| | (*d*) S.E.O.-*cum*-P.E.Os. (From U.P. and Punjab). | 3 months | 180 | 358 |
| Mukhya Sevikas Training Centres (10) .. .. | Mukhya Sevikas (Job Course) .. | 10½ months | 215 | 2,641 |
| Small Industries Service Institutes (4) .. — | Extension Officers (Industries) | 4 months | 319 | 3,478 |
| Khadi Gramodyog Vidyalayas (4) .. + | | | | |
| Integrated Training Centres (2) .. .. .. | Extension Officers .. .. | 8 months<br>1 year | | |

## PANCHAYATS AS ON 31st MARCH 1964

| State | No. of Panchayats | No. of Panchayat Samities | No. of Zila Parishads | No. of Villages covered by Panchayats | Rural population covered by Panchayats (in lakhs) | Percentage villages covered by Panchayats | Percentage rural population covered by Panchayats |
|---|---|---|---|---|---|---|---|
| Andhra Pradesh .. .. | 15,268 | 378 | 20 | 27,084 | 297 | 100 | 100 |
| Assam (Plains) .. .. .. | 2,570 | 120 | 16 | 17,717 | 83 | 100 | 100 |
| Bihar .. .. .. .. | 10,702 | 59 | 2 | 67,510 | 421 | 99 | 99 |
| Gujarat .. .. .. .. | 11,536 | 182 | 16 | 18,208 | 153 | 100 | 100 |
| Jammu & Kashmir .. .. | 960 | .. | .. | 6,559 | 30 | 100 | 100 |
| Kerala .. .. .. .. | 922 | .. | .. | 1,574 | 144 | 100 | 100 |
| Madhya Pradesh .. .. | 21,301 | .. | .. | 70,414 | 277 | 100 | 100 |
| Madras .. .. .. .. | 12,563 | 374 | 21 | 13,983 | 247 | 99 | 100 |
| Maharashtra .. .. .. | 19,741 | 293 | 25 | 35,492 | 281 | 99 | 99 |
| Mysore .. .. .. .. | 7,450 | 172 | 20 | 26,377 | 183 | 100 | 100 |
| Orissa .. .. .. .. | 2,340 | 313 | 13 | 47,939 | 158 | 94 | 96 |
| Punjab .. .. .. .. | 13,452 | 226 | 18 | 21,269 | 162 | 100 | 100 |
| Rajasthan .. .. .. .. | 7,391 | 232 | 26 | 32,240 | 169 | 100 | 100 |
| Uttar Pradesh .. .. .. | 72,333 | 854 | 51 | 1,12,624 | 643 | 100 | 100 |
| West Bengal .. .. .. | 19,649 | 325 | 14 | 38,530 | 264 | 100 | 100 |
| A. & N. Islands .. .. | 30 | .. | .. | 107 | 0·45 | 80 | 93 |
| Delhi .. .. .. .. | 215 | 5 | .. | 276 | 3 | 100 | 100 |
| Goa, Daman & Diu .. .. | 159 | .. | 245 | 265 | 5 | 100 | 100 |
| Himachal Pradesh .. .. | 637 | 6 | 5 | 10,438 | 13 | 100 | 100 |
| Manipur .. .. .. .. | 227 | .. | .. | 518 | 5 | 31 | 63 |
| Tripura .. .. .. .. | 248 | .. | .. | N.A. | N.A. | N.A. | N.A. |
| TOTAL .. | 2,19,694 | 3,539 | 247 | 5,49,187 | 3,533 | 99 | 99 |

*Note:* For State-wise achievements of Community Development Blocks, see table in "Late Particulars".

# AWARDS AND PRIZES

Including the 1965 awards, the number of persons who have received Bharat Ratna is 13, Padma Vibhushan 29, Padma Bhushan 193 and Padma Shri 222.

The 13 persons who have received Bharat, Ratna are : Mr. Jawaharlal Nehru (1954), Mr. C. Rajagopalachari (1954), Dr. S. Radhakrishnan (1954), Dr. C. V. Raman (1954), Dr. Bhagwan Das (1955), Mr. M. Visvesvaraya (1955), Pandit Govind Ballabh Pant (1957), Dr. D. K. Karve (1958), Dr. B. C. Roy (1961), Mr. Purushottam Das Tandon (1961), Dr. Rajendra Prasad (1962), Dr. Zakir Hussain (1963) and Dr. P. V. Kane (1963).

There was no award in 1959 and 1960.

### 1965 AWARDS*

The President made 43 awards on the 15th Republic Day (Jan. 26, 1965). They are one Padma Vibhushan, 16 Padma Bhushan, 26 Padma Shri.

The highest award Bharat Ratna is given for exceptional work for the advancement of art, literature and science and in recognition of public service of the highest order.

The award of Padma Vibhushan made for exceptional and distinguished service, has gone to Mr. Mehdi Nawaz Jung, then Governor of Gujarat.

Forty-two other persons, including four women have also received awards : Padma Bhushan 16 and Padma Shri 26. All of them have won recognition either in the field of administration, education, medicine, science, arts, surgery, literature, archaeology, journalism, social work, agriculture, or sports.

*Padma Bhushan* (16) : Dr. Balchandra Babaji Dikshit, formerly Director, All India Institute of Medical Sciences, New Delhi; Brindaban Lal Verma, Advocate, Uttar Pradesh ; Captain His Highness Raja Shrimant Chintaman Dhundirao alias Appasaheb Patwardhan Raja of Sangli ; Dr. Jayant Vishnu Narlikar, King's College, Cambridge; Dr. Joges Chandra Banerjea, Consultant and Honorary Director-Professor, Dept. of Medicine, Medical College, Calcutta ; Dr. Kalpathi Ramakrishna Ramanathan, Director, Physical Research Laboratory, Ahmedabad ; Krishnaswami Balasubramania Ayyar, Advocate, Madras ; Manikya Lal Verma, Social Worker, Rajasthan ; Mir Akbar Alikhan, Saifabad, Andhra Pradesh ; Prof. Mohd. Mujeeb, Vice-Chancellor, Jamia Millia, New Delhi ; Narasinh Narayan Godbole, formerly Principal, College of Technology, Banaras Hindu University ; Santu Jouharmal Shahaney, Director-General of Ordnance Factories, Calcutta ; Satyajit Ray, Film Director, Calcutta ; Shantanu Lakshman Kirloskar, Managing Director, Kirloskar Oil Engines Ltd., Poona ; Pandit Shiv Sharma, Honorary Adviser on Ayurveda, Planning Commission, New Delhi ; Dr. Triguna Sen, Rector, Jadavpur University, Calcutta.

*Padma Shri* : Hakim Abdul Hameed, Administrator, Hamdard Dawakhana, Delhi ; Prof. Anant Atmaram Kanekar, Marathi Poet, Maharashtra ; Dr. Dwipeendra Nath Mukerjee, Leprosy Specialist, Madhya Pradesh ; Gopal Prasad Vyas, Hindi Journalist and Writer, Delhi ; Gordhandas Bhagwandas Narottamdas, Philanthropist, Maharashtra ; Hanumanbax Kanoi, Tea Planter, Assam ; Jashbhai Shankarbhai Patel, Vice-Chancellor, Agriculture University, Jabalpur ; Rt. Rev. John Richardson, Bishop of Car Nicobar Island ; John Travere Mends Gibson, Principal, Mayo College, Ajmer ; Kandathil Mammen Cherian, Managing Editor, *Malayala Manorama*, Kottayam, Kerala ; Krutartha Acharya, President, State Handloom Weavers' Cooperative Society, Orissa ; Guru Kunju Kurup, Kathakali Dancer, Kerala ; Smt. Lakshmi Mazumdar, Social Worker, Delhi ; Smt. Mona Chandravati Gupta, Social Worker, Uttar Pradesh ; Smt. Mrinalini Sarabhai, Vice-Chairman, Gujarat Sangeet Nritya Natya Academy, Gujarat ; Prof. Mrityanjaya Vaidyanathan, Prof. of Mathematics, St. Berchman's College, Changanaca ; Rev. Panavelil Thomas Chandi, Principal, St. John College, Agra ; Ravishanker Mahashanker Raval, Artist, Gujarat ; Smt. Thrity H. Taleyarkhan, Social Worker, Maharashtra ; Dr. Tonse Madhava Anantha Pai, President and Registrar of the Academy of General Education, Manipal, Mysore ; Varghese Kurien, General Manager, Kaira District Co-operative Milk Producers' Union Ltd., Anand, Gujarat ; Dr. Vishnu Madhava Ghatage, Dy. General Manager (Designs & Development), Hindustan Aeronautics Ltd., Bangalore ; Prof. Vishnu Namdeo Adarkar, Dean, Sir J. J. Institute of Applied Art, Bombay ; Vuppalathadiyam Nagayya, Cinema Artist and Producer-Director, Madras ; Wilson Jones, Billiards Player, Maharashtra.

The awards were instituted in 1954 and are awarded on the Republic Day.

### LITERATURE

The Sahitya Akademi Awards for 1964 for outstanding books published in the Indian languages during the previous three years. The awards were given for the following books in the languages shown against each :

*Assamese : Asamar Lok Sanskriti* (Study in folk-culture) by (late) Dr. B. K. Barua.

*Bengali : Yata Durei Jai* (Poems) by Subhas Mukhopadhyaya.

*Gujarati : Naivedya* (Essays) by Dolarray R. Mankad.

*Hindi : Angan Ke Par Dvar* (Poems) by S. H. Vatsyayan.

*Kannada : Kranti-Kalyan* (Novel) by B. Puttasamaya.

*Malayalam : Avalkkar* (Novel) by P. Kesava Dev.

*Marathi : Swami* (Novel) by Ranjit Desai.

*Oriya : Atmajibani* (Autobiography) by Pt. Nilkanth Das.

*Punjabi : Pabbi* (Poems) by Smt. Prabhjot Kaur.

*Sanskrit : Tantrik Vanmaya Men Shaktadrishti* (Research) by Dr. Gopinath Kaviraj.

*Sindhi : Anookha Ajmooda* (Reminiscences) by Ram Panjwani.

*Telugu : Kreestu Charitra* (Poem) by G. Joshua.

*Urdu : Meri Hadis-e-Umr-e-Gurezan* (Poems) by A. N. Mulla.

The awards are given in the form of a cheque for Rs. 5,000 and an attractive copper tablet in which the name of the author, the name of the book, the year of the award and the facsimile signature of the President of the Akademi, Dr. Radhakrishnan are inscribed. The awards for 1964 were given on Feb. 15, 1965.

Books are eligible for prizes in 16 languages *viz.*, the fourteen major languages enumerated in the Constitution of India and Sindhi and English (as written by Indian authors).

There are two prizes for Sanskrit, one for creative writing in Sanskrit, the other for scholarly research or exposition relating to Sanskrit, written in any language. To be eligible for award a book must have been originally published during the three years preceding the year in which the Award is announced.

#### Hindi

*Hindi :* Twelve prizes of Rs. 1,500 each have been announced on fictions in Hindi written by persons belonging to non-Hindi speaking States.

*Sanskrit :* To encourage the production of Sanskrit literature a Prize Scheme for production of graded Readers for VI, VII & VIII classes was formulated by the Govt. Under this scheme, the following readers, noted in the table below, have been selected and prizes shown against each have been awarded :—

| Name of the Book | Author | Reader and Prize | Amount |
|---|---|---|---|
| Sanskrit Vihara .. | Prof. P. N. Virkar and P. S. Joshi. | Reader I, 1st Prize. | Rs. 700 |
| Bodhanavali .. | K. L. V. Shastri. | Reader I, 2nd Prize. | Rs. 600 |
| Sanskrit Swadhyaya .. | Gajanana Shastri Gaitonde. | Reader I, 3rd Prize. | Rs. 500 |
| Bodhanavali .. .. | K. L. V. Shastri. | Reader II, 1st Prize. | Rs. 800 |
| Sanskrit Swadhyaya .. | Gajanana Shastri Gaitonde. | Reader II, 2nd Prize. | Rs. 700 |
| Bodhanavali .. .. | K. L. V. Shastri. | Reader III, 1st Prize. | Rs. 900 |
| Sanskrit Swadhyaya .. | Gajanana Shastri Gaitonde. | Reader III, 2nd Prize. | Rs. 800 |

*Research Scholarships :* The Govt. of India awarded 17 Research scholarships of Rs. 100·00 each tenable for 2 years during 1960-61, for the products of Traditional Sanskrit Pathshalas. These scholarships have been awarded to 17 persons during the year 1961-62 and to 29 in 1963-64.

*Certificates of Honour :* The President has awarded Certificates of Honour to four Sanskrit Scholars and one Persian Scholar. They are : Desika Tirumali Tatacharya, Dr. Satkari Mookerjee, Govindlal Hargovind Bhatt, Parameshwaranand Shastri and Qazi Abdul Wahood.

The Certificate of Honour is awarded every year on the Independence Day.

#### Books for Neo-Literates

Under the prize scheme for books for Neo-literates about 40 prizes are awarded annually to the authors of selected books/manuscripts in the principal Indian languages.

The Union Ministry of Education has announced an award of Rs. 500 each to the authors of the following 40 books/manuscripts received under the Eleventh Prize Competition held in 1964 for Books for the Neo-literates :

*Assamese :* "Rang Rod Anongoi Bol" by A. D. Sharma.

*Bengali :* "Sishu Palaner Gorar Katha" by Kamla Devi ; "Bharat Shasan Ain" by Amalendu Sen ; "Atiter Kahani" by A. N. Roy ; "Natun Prabhat " by Smt. Sabitri Sen Gupta.

*Gujarati :* "Sarvodaya Patra" by P. N. Patil ; "Barhathnu Chibhdu" by Jaybhiku and B. V. Desai ; "Khedutno Shikari Ane Madhyamsarni Chal" by Jugatram Dave ; "Ankh Ada Kan" by Paunalal Patel.

*Hindi :* "Andherey ka Shatru Prakash" by Viyathit Hriday ; "Himalaya Ke Prahari" by Shco Kumar Goel ; "Kasturba" by Prof. Radhey Shiam ; "Sardar Bhagat Singh" by Jai Prakash Bharati ; "Pathar Bolte Hain" by Satish ; "Zindagi Ki Qadren" by G. S. Johri ; "Hindi Sahitya Ke Sitare" by Anant ; "Abadi Roko Barbadi Roko" by Dr. Inder Sen ; "Heera Moti" by Srikrishan ; "Bhojan—Kyon, Kya Aur Kitna" by Vishwambhar Prasad.

*Kannada :* "Mategondu Matu" by S. B. Halkatti ; "Koodi Dudiyona" by Kumar Venkanna.

*Malayalam :* "Swatantra India Engottu" by John Dharma Theethan.

*Marathi :* "Apala Hat Jagannath" by Smt. Shalini R. Joshi ; "Aika Kahari Dharticht" by N. G. Shukla ; "Guni Manase" by Smt.

* See also page 279 for more awards of Padma Vibhushan and Padma Bhushan.

Nalini S. Devale; "Shetakari Jivanatil Amole Bol" by T. G. Teli (Pawar); "Diwalyachi Diwali" by V. B. Argade.

*Oriya:* "Gram Rairaju Ram Raija" by Bibhuti Pattanaik; "Bhai Bhai" by B. M. Mohanty; "Chastaratar Banija Math" by Bira Kishor Das.

*Punjabi:* "Aaram Hai Haram" by Bali Chopra.

*Sindhi:* "Hik Zindgi Anek Roop" by Hundraj Dukhayal.

*Tamil:* "Kulandaikalin Kann" by Dr. J. Rajasekaran; "Panayum Payanum" by K. Sambandham; "Panakkarar Akum Vazhi" by Sundara Shanmugam".

*Telegu:* "Kaanarani-Jeevaalu" by P. V. Suryanarayana Murthy; "Bhasha Veraina Bhavam O Kate" by C. R. Sarma; "Rangu Rangu Poolu" by Y. Satyanarayanrao.

*Urdu:* "Nehru Amar Hai" by Fasahat Hasan Khan; "Ganga Ki Kahani" by Rafi Ahmed.

*Approved for purchase only: Marathi:* "Himalaya Sama Amuche Veer" by Smt. Nalini S. Devale; "Phalzadanchi Lagavad" by T. G. Teli (Pawar).

### UNESCO Prize Competition for Books

The Government of India, in cooperation with UNESCO, held the IIIrd biennial Competition for Books for New Reading Public in 1963. Seven prizes of the value of Rs. 1,900 approximately (US $400 each) each in three Indian languages, that is, four in Hindi, two in Bengali and one in Urdu, were awarded to the best books. The following books received the awards:

*HINDI:* *"Keetanu aur Sumnya Rog"* by Dhirendra Aggarwal; *"Hamare Adivasi"* by Hari Prakash; *"Aaq Hamari Mitra va Shatru"* by Ramesh Chander Varma; *"Chhote Bare Janvar"* by Kishore Garg.

*BENGALI:* *"Sab Pavechhir Desh"* by Amar Nath Roy; *"Chalo Jai"* by Prof. Amiya Chakraborty.

*URDU:* *"Hamari Dastkarian"* by Smt. Kishwar Zaidi.

In the first Competition held in 1959, 6 books (4 in Hindi and 2 in Bengali) won the prize. In the Second Competition held in 1961, 7 books (4 in Hindi and 3 in Tamil) were awarded the prize. Thus, in all, 20 books have been awarded prizes, in all the three competitions held so far.

Seventeen books have been selected on the basis of the results of the fourth UNESCO competition for the new reading public. Their authors will receive Rs. 1,000 each.

The books are: "Simantar Mati Aru Manuh" (*Assamese*) by Prof. Lila Gogoi; "Sakur Arar Nedekha Kahini" (*Assamese*)—Dr. Kanak Chandra Mahanta; "Bharat Amar" (*Bengali*)—Amar Nath Roy; "Virat Darshan" (*Gujarati*) by Manubehn Gandhi; "Swami Vivekanandani Vato" (*Gujarati*)—Narajanbohn Kalarathi; "Anuyug Ka Naya Savera" (*Hindi*)—Dr. Arun Rashmi; "Hridaya Ki Bhasha" (*Hindi*)—R. K. Vyas; "Soron Ka Sant" (*Hindi*)—Ram Krishana Sharma; "Deep Jo Jalte Hi Rahenge" (*Hindi*)—Vyahit Hirdaya; "Vinoba Ki Bodh Kathayen" (*Hindi*)—Ram Kumar Gupta; "Grama Sevak Ramachandra" (*Kannada*)—B. Malla Raj Urs; "Keralathilae Africa" (*Malayalam*)—K. Panoor; "Draupadichi Thali" (*Marathi*)—Shankar Inamdar; "Bharat De Pahelwan" (*Punjabi*)—Balbir Singh Kanwal; "Mittai Pappa" (*Tamil*)—'Kalvi' Gopalakrishnan; "Sankellu Threnchukonnam" (*Telugu*)—S. L. Narasimha Rao; and "Chand Ki Taraf Pehla Qadam" (*Urdu*)—Mohd Ishaq Siddiqi.

### Children's Books

With a view to promoting the production of good books for children, the Government of India initiated a scheme for the award of prizes to authors of children's books/manuscripts of outstanding merit in all the modern languages of India. The first Prize Competition was organised during 1954-55, under the scheme of Production of Literature for Children of the Ministry of Education.

Ten prize competitions were organised till the end of 1964.

*Ninth Prize Competition:* Twelve prizes of the value of Rs. 1,000 each and two prizes of the value of Rs. 500 each were awarded to authors in different Indian languages.

*Tenth Prize Competition:* The Ministry of Education announced on Nov. 13, 1964, the award of 25 prizes in the tenth competition for children's literature held in 1964.

The following is the list showing the language, names of the books and their authors. (The prize amounts vary from Rs. 500 to Rs. 1,000).

*Assamese:* "Daktor Kokai": Mrs. Punya Prabha Mahanta.

*Bengali:* "Chotader Vyashadev-Rachita Mahabharat": Sashi Bhusan Das Gupta; "Nanan Desher Rupkatha": Mrs. Sukhlata Rao.

*Gujarati:* "Gandhi Bapu": Jitendra J. Desai; "Ek-ajab-gajab-nu-bulbul": Leena Mangaldas.

*Hindi:* "Sare Jahan Se Achha Hindustan Hamara": Yogendra Kumar Lalla; "Vigya-ki-kaha-niyan": Ratna Prakash "Sheel"; "Main Hawa Hoon": Vyathit Hriday; "Kudarati Kemara": Gupta Bandhu.

*Kannada:* "Vinoda": K. V. Vittal Shenoi; "Navu Geleyaru": Sashi Kumara.

*Malayalam:* "Idiyum Minnalum": T. V. John; "Kuttikalude Indraprastham" (author's name not given).

*Marathi:* "Bharatache Paramvir": Capt. S. G. Chaphekar; "Ranzara": Mrs. Durga Bhagwat.

*Oriya:* "Huke-ho" (author's name not given); "Pilanka Pasupakhi Purana": Pt. Upendra Tripathi.

*Punjabi:* "Chanan di Kahani": Gurbachan Singh; "Jalparian": S. S. Amole.

*Sindhi:* "Chachita": Manohar Das Kauromal; "Dadia-ji-dat": Lekhraj "Hans".

*Tamil:* "Pandaya Ulagil Parakkum Pappa": 'Kalvi' Gopalakrishnan.

*Telugu:* "Pagalu Rathri": Mrs. D. Kanya Kumari.

*Urdu:* "Talibilm-ki-kahani": Mrs. Abdul Ghaffar Madholi; "Zameen se Chand tak": Mrs. Kashwar Zaidi.

### INTERNATIONAL CHILDREN'S COMPETITION 1962

Four hundred and twenty one prizes shared by 68 countries were awarded—379 for paintings and 42 for literary entries, in the Shankar's International Children's Competition 1962, held on January 24, 1964.

Over 100,000 entries were received from children of 84 countries for this competition. Of these 97,000 were paintings and the rest literary entries.

The President's Award for best painting has been awarded to a 15-year-old Indian girl Meera Jain by name for the painting entitled "Ramlila".

The Vice-President's Award for the best literary entry has been awarded to a 14-year-old Canadian girl Joanne Ruth Nichols by name for the novelette entitled "The Winter".

The 12 First Prizes for painting, called Jawaharlal Nehru Prizes, have been won by the following countries: India and Japan three prizes each, Austria two prizes and Czechoslovakia, Ceylon, Poland and U.S.S.R. one each.

The 9 First Prizes for literary entries, also called Jawaharlal Nehru Prizes, have been won by India (5 prizes), Australia (2 prizes), New Zealand and Greece (one prize each).

The annual Competition for Children in painting and writing, which was started in 1949, was at first confined to Children from India. In 1950 it became international with 6,000 entries received from 13 countries; gradually it gained more popularity and in the subsequent years the number of entries received and the number of countries participating have gone on steadily increasing.

The President's Award for the best painting was instituted in 1951 and has so far been won by children belonging to nine diffrent countries.

The Vice-President's Award for the best literary entry was instituted in 1952 and has so far been won by children from 8 different countries.

During the period from 1950 to 1962, 264 Prime Minister's First Prizes have been won by children belonging to 31 different countries.

A large number of paintings, drawn by children who won in these competitions, were lent for exhibition in different countries.

### TEACHERS

The scheme of National Awards for Teachers was instituted during 1958-59 by the Union Ministry of Education with the object of raising the prestige of teachers and giving public recognition to the meritorious services of outstanding teachers working in the primary, middle, high and higher secondary schools.

The scheme is being continued during the Third Five Year Plan.

The Government of India announced on Sept. 5, 1965 the names of 90 teachers—47 primary and 43 secondary, who have been selected for the 1965-66 National Awards.

Each recipient of the Award will receive a Certificate of Merit and Rs. 500 cash.

Since inception, 520 teachers—276 primary and 244 secondary, have received the National Award till 1964-65.

Twenty teachers and headmasters of secondary schools and lecturers of training colleges have been selected for the award of cash prizes of Rs. 500 each in the all-India competition of seminar readings for 1963-64.

The competition was organised by the Directorate of Extension Programmes for Secondary Education, National Council of Education Research and Training to facilitate and encourage teachers and other educational workers to popularise their experiences in the field of secondary education.

### ART

Below we give the Lalit Kala Akademi Awards in 1965. The work of the following artists were selected for the award of cash prizes of Rs. 1,000 each.

Jivan Adalja for "The Dark Wall" (Oil); Badri Narayan for "The Family" (Oil); Ramnik Bhavsar for "Painting II" (Oil); R. S. Bisht for "Cityscape III" (Oil); Bal Chhabda for "The Graces" (Oil); A. M. Davierwalla for "She and Three Others" (Metal); Mrs. Anita Jacob for "The Image" (Wood); Krishen Khanna for "Window into Winter" (Oil); Tyeb Mehta for "Figure of a Woman" (Oil); K. G. Subramanyan for "Studio" (Oil).

The Committee withheld the Gold Plaque of the Akademi, as no work was adjudged of outstanding merit.

*Skill Competition:* In the All-India Skills Competition of the industrial training institutes in the trades of fitter, machinist and turner, winners Inder Raj, Delhi (fitter), R. Tulsidas, Madurai (machinist) and Taquir Ahmed, Cawnpur (turner) were awarded prizes. Delhi, adjudged as the best State was awarded a shield.

### MUSIC, DANCE, DRAMA *

The Sangeet Natak Akademi Awards are given below. The winners are selected by the General Council of the Akademi.

The Awards presented by the President consist of a shawl, a sanad and a gold medal.

Below we give the Awards for 1963-64:

*Music:*

| | | |
|---|---|---|
| *Hindustani Music (Instrumental)* | .. | Rahimuddin Khan Dager. |
| *Carnatic Vocal* .. | .. | Chittoor Subramanyam Pillai. |
| *Carnatic Music (Instrumental)* | .. | K. N. Chinnaswamy Iyer. |

* For 1964-65 awards see under *Late Particulars.*

*Dance :*

| | |
|---|---|
| *Kathak* .. .. .. | Birju Maharaj. |
| *Yakshagana* .. .. | Haradi Rama Ganiga. |
| *Bharatanatyam* .. .. | K. Venkatalakshamma. |
| *Chakiar Koothu* .. .. | P. M. Madhava Chakiar. |

*Drama :*

| | |
|---|---|
| *Acting in Marathi* .. | Keshav Trimbak Date. |
| *Drama Direction* .. | T. S. Rajamanikkam. |

The following were elected as the Fellows of the Akademi: Dr. P. V. Rajamannar; Dr. V. Raghavan; T. L. Venkatarama Aiyar; Dr. B. R. Deodhar; Birendra Kishore Roy Choudhury; Smt. C. Saraswati Bai.

The following categories have been approved by the General Council of the Akademi for Award in 1964-65.

*Dance :* Classical (Kathakali and Manipuri).

*Music :* Carnatic Vocal and Instrumental Music, Hindustani Vocal and Instrumental Music.

*Drama :* Playwriting. Acting in Malayalam, Sanskrit and Gujarati.

### PLAYS

The following plays were awarded cash prizes of Rs. 1,500 each: "Suvarnarekha" (Gujarati) by Mr. Shivkumar Joshi; "Raigadala Jevha Jag Yete" (Marathi) by Mr. Vasant Kanetkar; "Viswantara" (Telugu) by Mr. Amancharla Gopala Rao.

The President, Dr. Radhakrishnan gave away the awards and prizes at a special ceremony in New Delhi on November 12, 1964.

## STATE AWARDS FOR FILMS—1964

"Charulata", a feature film in Bengali has been adjudged as the best feature film of 1964 by the Central Committee of State Awards for Films and has won the President's Gold Medal. Its producer will get a cash prize of Rs. 20,000 and the director Rs. 5,000.

The All-India Certificte of Merit for the second best feature film goes to "Haqeeqat" (Hindi) with a cash prize of Rs. 10,000 to its producer and Rs. 2,500 to its director.

For the third prize in this category, "Unnaipol Oruvan" (Tamil) has been selected by the Committee and will get the All-India Certificate of Merit.

For the first time since its institution, the award for the best story writer, a Certificate of Merit, went to Balaichand Mukherji, author of the story of the film "Aarohi" (Bengali).

The feature, documentary and educational films and filmstrips were initially examined by the respective regional and special committees constituted for the purpose.

The Government invited entries of the feature films for the Cash Prizes of Rs. 25,000 and Rs. 20,000 respectively for the films aimed at promoting family planning and national unity and emotional integration. While no entry was received for the former, none of the three films entered for the latter were considered to be suitable for the award by the Central Committee.

Among the children's films, the Central Committee did not find any film to be of a standard to merit any award.

*Documentary Films :* No documentary was found suitable for the President's Gold Medal.

*Educational Film :* The educational film "Sterilization of the Female" Produced by the Films Division has been recommended for a Certificate of Merit only.

No filmstrip has been recommended for an Award.

*Regional Awards :* "Dosti" in Hindi, "Pathlaag" in Marathi, "The Avalanche" in English, "Jagga" in Punjabi, "Mainz Raat" in Kashmiri, "Aarohi" in Bengali, "Pratidhwani" in Assamese, "Sadhana" in Oriya, "Kai Kodutha Deivam" in Tamil, "Doctor Chakravarti" in Telugu, "Chandavalliya Thota" in Kannada, "Thacholi Othenan" in Malayalam.

These awards had been announced by the Government of India on the recommendations of the Central Committee of State Awards for Films presided over by Mr. G. D. Khosla.

### Filmfare Awards for 1964

*Best Picture :* "Dosti".

*Best Director :* Raj Kapoor (Sangam).

*Best Actor :* Dilip Kumar (Leader).

*Best Actress :* Vyjayantimala (Sangam).

*Best Supporting Actor :* Nana Palsikar (Shehar Aur Sapna).

*Best Supporting Actress :* Nirupa Roy (Shehnai).

*Best Story Writer :* Ban Bhatt (Dosti).

*Best Music Director :* Laxmikant-Pyarelal (Dosti).

*Best Dialogue Writer :* Govind Moonis (Dosti).

*Best Lyricist :* Majrooh Sultanpuri (Chahunga Main in Dosti).

*Best Playback Singer :* Mohammed Rafi (Chahunga Main in Dosti).

*Best Colour Photography :* Krishnarao Vashirde (Geet Gaya Pattharon Ne).

*Best Black and White Photography :* K. H. Kapadia (Woh Kaun Thi).

*Best Sound Recording :* Allauddin (Sangam).

*Best Editing :* Raj Kapoor (Sangam).

*Best Art Director* (Colour): Sant Singh (Jahan Ara).

*Best Art Direction* (Black & White): G. L. Jadhav and T. K. Desai (Kohraa).

### Regional Languages

"Filmfare" Awards, which have been extended to Best Pictures in the regional languages produced in 1964, have been awarded to "Charulata" in Bengali, "Sant Nivratti Gyandeo" in Marathi, "Server Sundaram" in Tamil and "Mooga Manasulu" in Telugu.

## SERVICE OFFICERS

The awards won by officers and men of the defence forces in 1965 are given below:

### Padma Vibhushan

Gen.-J. N. Chaudhuri, Chief of the Army Staff; Air Marshal Arjan Singh, Chief of the Air Staff.

### Padma Bhushan

Lt. Gen. Harbaksh Singh, General Officer Commanding-in-Chief, Western Command; Lt. Gen. K. S. Katoch, General Officer Commanding the XV Corps in Jammu & Kashmir; Lt.-Gen. J. S. Dhillon, General Officer Commanding the XI Corps in the Lahore Sector; Lt.-Gen. P. O. Dunn, General Officer Commanding I Corps in the Sialkot Sector; Air Vice-Marshal P. C. Lal, Vice-Chief of the Air Staff; Air Vice-Marshal R. Rajaram, Air Officer Commanding-in-Chief, Western Command.

### Param Vir Chakra

Company Quarter-Master Havildar Abdul Hamid (Posthumous).

### Maha Vir Chakra

Major Sushil Kumar Mathur; Major B. S. Pandhawa (Posthumous); Capt. Chander Narain Singh (Posthumous); Lt. Col. Gurbans Singh Sanha; Major Bhaskar Roy; Major Ranjit Singh Dayal; Sqn. Ldr. P. Gautam; Lt. Col. Salim Caleb; Lt. Col. H. L. Mehta (Posthumous); Lt. Col. D. Hyde; Sub. Ajit Singh (Posthumous).

### Vir Chakra

Major P. K. Bali; Lt. Arjan Singh; Havildar Gopinath; Fly. Officer U. Barabara; Hav. Kaula Singh (Posthumous); Jem. Tej Bahadur Gurung (Posthumous); Capt. E. N. Iyengar; Capt. V. N. Madan; Capt. Ranbir Singh (Posthumous); Lt. Col. Sampuran Singh (Posthumous); Sub. Man Bahadur Gurung; Sqn. Ldr. D. Keelor; Flt. Lt. A. K. Majumdar; Flt. Lt. V. Kapila; Flt. Lt. H. S. Mangat; Flt. Lt. S. Kulkarni; Fly. Officer P. Pingle; Lt. Col. Chajju Ram; Maj. M. A. R. Sheikh (Posthumous) Maj. Megh Singh; Maj. Jitinder Kumar; Maj. S. C. Vadera; Capt. R. C. Bakshi; Lt. Teja Singh.

### Ashoka Chakra

*Ashoka Chakra Class II :* Nk. Karna Bahadur Gurung; Maj. D. N. Kanwarpal.

*Ashoka Chakra Class III :* Khem Singh, Assam Rifles; Subir, Assam Rifles; Jem. Neki Ram, Assam Rifles.

### Vishist Seva Medal

*Vishist Seva Medal Class I :* Brig. S. S. M. Pahlajani; Lt. Gen. T. B. Henderson Brooks (Retd.); Maj. Gen. K. N. Dubey; Brig. S. N. Antia; Brig. S. B. Raza; Brig. B. N. Upadhyay; Brig. V. K. Ghai.

*Vishist Seva Medal Class II :* Brig. B. P. Wadhera; K. C. Soni; Wing. Com. H. S. Dhillon; Maj. S. P. Anand; Sqn. Ldr. Karam Singh.

## POLICE

On the Independence Day, 1965 the President approved the award of the Police and Fire Services Medals for distinguished services to five officers and Police Medals for meritorious services to 74 officers.

## CHILDREN

The Indian Council for Child Welfare selecte three boys for national awards for 1964 fod outstanding courage.

Ishwar Shivu Ambig, of Bangalore displayed great courage during a storm in the Aghanashini River on February 12 and pulled a boat carrying 40 students and teachers to the shore with the help of a rope.

P. K. Chandran (16) saved the life of a two-and-a-half-year-old girl who had fallen into a tank near his village, Pillikode in Kerala, on April 7.

One of the boys, Nirmal Kumar Mukerji (12), of Calcutta, saved a seven-year-old boy from drowning in the Ganga near Hooghly village on June 24.

The details of the prizes for 1962 were given in the 1963-64 edition of the Directory. No prize was awarded for 1963 as there were no deserving cases.

### Gram Sevaks/Sevikas

The 1963-64 prize for the best Gram Sevak has been won by Shri Bhagwan Singh of Chiraigaon Block in the Varanasi District of Uttar Pradesh. Among the Union Territories the State level prize was won by Shri S. Lakshinarayanan of Pondicherry Block, Pondicherry.

These awards relate to the sixth all-India competition for Gram Sevaks organised by the Ministry of Community Development and Co-operation; prizes are given to Gram Sevaks for outstanding work at the national, State and district level. The 1962-63 prize at the national level was won by Shri Mukhram Singh of Chakia Block in the Varanasi District, U.P.

In the second all-India competition among the Gram Sevikas, organised by the Ministry of Community Development and Co-operation during 1963-64, the national level prize was won by Smt. Kamla Awasthi, Nawabganj Block of Unnao District, U.P. and State level prize from among Union Territories by Smt. V. Shakuntala of Karaikal Block in Pondicherry.

The prizes to the best Gram Sevaks/Sevikas were awarded in the shape of "Certificate of Merit".

The items of work for which the competitions are organised relate to irrigation, agriculture, animal husbandry, co-operation and panchayats in the case of gram sevaks, and agriculture animal husbandry, environmental sanitation nutrition, and home improvement, etc. in th case of Gram Sevikas.

## CULTURAL SCHOLARSHIPS

The following 47 persons were selected by the Union Ministry of Education for the award of scholarships under the "Scheme of Scholarships to Young Artistes in Different Cultural Fields" during the year 1964-65 :—

*Bharat Natyam :* Narendra Bhatt ; Kum. Matura Varalakshmi ; Kum. K. R. Gita ; Kum. Asha Devi.

*Drama :* Mukund Naik ; Amar Kaicker.

*Folk Song :* Balai Chakravarty.

*Hindustani Music (Instrumental) :* Manas Dasgupta (*Tabla*) ; Gopal W. Wadegaonkar (*Tabla*) ; Kum. Sharmistha Sen (*Sitar*) ; Mohamed Yamin (*Vichittar Veena*) ; Rafiq Ahmed (*Sarangi*).

*Hindustani Music (Vocal) :* Gulam Taqi Khan ; Kum. Shailaja Apte ; P. J. Karekar ; Rajeshwar Bobde ; Kum. Sarla K. Bhide ; Kum. Aroti Paul ; Kum. Provati Mukherjee.

*Karnatak Music (Instrumental) :* A. Jayalakshmi Seshadri (*Veena*) ; Smt. Rajlakshmi Tirunarayanan (*Veena*) ; A. Kalyanasundaram (*Mridangam*) ; V. Surendran Nair (*Mridangam*) ; V. Gopalkrishnan (*Mridangam*) ; D. Papa Rao (*Violin*).

*Karnatak Music (Vocal) :* V. Ramachandran ; Kum. Padma Narasinhachari ; Kum. G. Seethalakshmi Ammal ; Smt. Usha Sagar.

*Kathak :* Kum. Purnima Joshi ; Smt. Shakuntala Nair ; Kum. Anjani Ambegaonkar.

*Kathakali :* Bhaskar Kumar ; D. Kesavan Namboodri.

*Painting :* K. V. Haridasan ; Gokal Krishen Dembi ; M. Suryamurthy ; Eruch Hakim ; Kum. Anju Chaudhuri ; A. P. Panneerselvam ; Bimal Banerjee.

*Rabindra Sangeet :* Kum. Swapna Chatterjee ; Kum. Bulbul Sen.

*Sculpture :* Balbir Singh Katt ; Binit Kumar Roy ; Ashit Das Gupta.

## NATIONAL LOAN SCHOLARSHIPS

During the Third Plan, the Ministry of Education introduced the National Loan Scholarships Scheme with a Plan provision of Rs. 9 crores. Started in 1963-64, it provided 18,100 scholarships in 1963-64, 22,300 in 1964-65 and 26,500 in 1965-66.

A meritorious student whose parent's income does not exceed Rs. 500 per month is eligible for the loan. The maximum loan limit will vary from Rs. 720 to Rs. 1,500 per annum according to the course of study ; in the case of students for engineering and other technical and professional courses, the limit will be increased by Rs. 250. Loans will be recovered in monthly instalments commencing one year after the loanee secures employment. One of the attractive features of the scheme is that the loan would remain interest free in case the borrower does not make a default in making regular return payments. Another feature is that the loanee need not provide security or sureties.

The scheme extends a special privilege to those loanees who join the teaching profession. In their case one-tenth of the loan amount would be written off for every year of service put in. Each recipient will be issued a loan scholarship book wherein all amount given and repaid by him will be entered.

## RESEARCH SCHOLARSHIP

On the recommendation of the Central Sanskrit Board, 20 scholars have been selected for the award of Research Scholarships for the products of the Traditional Sanskrit Pathasalas during 1962-63.

The amount of scholarship has been raised from Rs. 100 p.m. to Rs. 150 p.m. as recommended by the Central Sanskrit Board from 1962-63 onwards.

## BHATNAGAR AWARDS

Four scientists have been chosen for the grant of the Shanti Swarup Bhatnagar Memorial Award for 1964 for their contributions to physical, Chemical, engineering and biological sciences.

The scientists are : Dr. A. R. Verma (Physical Sciences) ; Dr. Sukh Dev (Chemical Sciences) ; Dr. B. R. Nijhawan (Engineering Sciences) and Dr. D. S. Athwal (Biological Sciences).

The awards carry a cash prize of Rs. 10,000 each.

## SHRAM VIR NATIONAL AWARDS

The Union Ministry of Labour and Employment has instituted a scheme to be known as the Shram Vir National Awards Scheme.

The scheme will be open to only such undertakings where suggestion schemes already exist. It will apply to factories, mines, plantations and docks.

There will be five prizes in class I, carrying a reward of Rs. 2,000 each, ten prizes in class II of Rs. 1,000 each and 20 prizes in class III of Rs. 500 each. In addition, a certificate of "Shram Vir" will also be awarded.

For the promotion of safety consciousness, four schemes for the grant of national safety awards have been instituted to recognise good safety records in industrial undertakings.

## SCHOLARSHIP IN HUMANITIES & SCIENCE

The University Grants Commission has selected 91 teachers in Humanities including Social Sciences for awards under the scheme of financial assistance to teachers for research work during 1964-65.

The scheme has been instituted by the Commission with a view to encouraging teachers to undertake research work.

The following is a list of subjects and the number of teachers awarded scholarships under each subject during 1964-65:—Archaeology 2 ; Commerce 1 ; Economics 4 ; English 4 ; Geography 4 ; Urdu 2 ; Hindi 16 ; History 17 ; Linguistics 1 ; Music 1 ; Law 3 ; Philosophy 5 ; Political Science 6 ; Psychology 3 ; Sanskrit 2 ; Sociology 8 ; Bengali 1 ; Oriya 2 ; Malayalam 2 ; Telugu 1 ; Tamil 1 ; Kannada 2 ; Education 1. Fine Arts 1 :—and Marathi 1.

An amount of Rs. 69,400 has been shared by 92 teachers.

## POST GRADUATE RESEARCH SCHOLARSHIPS IN SCIENCE-AWARDS DURING 1962-63.

*Chemistry* 14 ; *Mathematics* 29 ; *Physics* 25 ; *Geology* 14 ; *Geophysics* 4 ; *Agronomy* 3 ; *Statistics* 7 ; *Zoology* 7 ; *Horticulture* 2 ; *Botany* 5 ; *Microbiology* 1 ; *Agriculture* 1 ; *Cytogenetics* 2.

Altogether 114 scholarships were awarded during 1962-63 under the various subjects.

## PRINTING AND DESIGNING

The Tenth State Awards, in 24 Categories, for excellence in printing and designing of books and other publications for 1964 were given away by Dr. C. D. Deshmukh, at a special function held in Delhi in May, 1965.

These Awards are being organised every year by the Directorate of Advertising and Visual Publicity, Ministry of Information and Broadcasting.

Following is the full list of the recipients of the Awards :

*Children's Books :* First Prize not awarded ; Bolanath (Marathi) ; Etu Lokancha Desh (Marathi) ; Nanhi Nartaki (Hindi) ; Arun Barun Kiran Mala (Bengali).

*Art Books :* Kangra Paintings of the Gita Govinda ; South Indian Bronzes.

*Books (English) :* Farmers of India Vol. III ; India in World Affairs (1954-56) ; Towards a Prosperous India.

*Books (Indian Languages) :* Nain Nakash (Punjabi) ; Manu-Dwadash (Bengali) ; Saranara Anubhava Sahitya (Kannada) ; Shri Shiv Chhatrapati (Marathi).

*Daily Newspapers (English) :* The Indian Express, Bombay ; The Hindustan Times ; The Economic Times.

*Daily Newspapers (Indian Languages) :* Maharashtra Times (Marathi) ; Hindustan (Hindi) ; Navamani (Tamil).

*Display Advertisement Layouts :* The clasp ; Not an Iota less, for students—Now 30% off ; Vacancies for 4 Million People ; Deadly Distance.

*Art Magazines and Annuals :* First Prize not awarded ; second prize not awarded ; Roopa-Lekha ; Marg.

*Periodicals (Other than Annuals—English) :* Illustrated Weekly of India ; Pradeep ; Oxygen News.

*Periodicals (Other than Annuals—Indian Languages) :* First Prize not awarded ; Visva-Bharati Patrika (Bengali) : Sandesh (Bengali) ; Deepavali (Marathi).

*Posters :* First Prize not awarded ; Air-India—Rome ; Incomplete address delays your mail ; 15 Vanamahotsava 1964.

*Folders (Offset/Photogravure) :* Indian Pavilion —New York World Fair 1964-65 ; Corto-Quinol ; India-Goa ; Beehive Brandy.

*Folders (Letterpress) :* Menu Card for Pope Paul VI ; Monuments to Bayer Pesticides in Japan ; How High Should the Post be ; India-Calcutta.

*Calendars (Offset/Photogravure) :* Air-India Calendar 1965—Festivals of India ; Assam oil Company Calendar 1965 ; G.K.W. Prestige Calendar 1965 ; Indian Oxygen Ltd., Calendar 1965-Konarak ; The Premier Automobiles Ltd. Calendar 1965-Series of Arts & Crafts in India.

*Calendars (Letterpress) :* Mukund Iron & Steel Works Ltd. Calendar 1965 ; The Indian Iron & Steel Co. Ltd., Calendar 1965 ; Agfa India Ltd., Calendar 1964 ; Tea Board Calendar 1964—Birds of India.

*Diaries :* Desk Diary 1964 ; India 1965 ; Air Conditioning Corpn. Ltd. New Look Diary 1965.

*Devnagiri Type Faces :* No prizes awarded.

*Publicity Booklets :* The Changing Face of India-Agriculture ; India Makes ; As India Builds (Telugu) ; The Changing Face of India ; The King Lear ; Great Cigarettes from India.

*Labels :* K.M.P. Castor Hair Oil Label ; Dipy's Cidep Label ; Sikkim Orange Label ; Doolia Supreme Darjeeling Tea Label.

*Best Bound Books :* Baukunar Mandir ; Iyengar on Income-Tax Vol. III ; Statistics for Iron & Steel Industry in India.

*Packaging :* Wrapping Paper ; Tata-Finlay "Bahadur" Dust Tea Carton ; Liberty Shorts Carton ; Tiara Tale Carton ; Container for whisky glasses.

*Point of Sales (Counter and Display Material) :* Dunlopillo Showcard ; Maxifix Showcard ; National Ekco Radio Hanger ; Waterbury's Compound Red Label Showcard.

*Printed Pictures :* Contemporary Paintings of India ; Second Prize not awarded ; Certificate of Merit not awarded.

*Greeting Cards and Picture Postcards :* With Best wishes for a colourful New Year ; Greeting Card—Tonga Ride ; Greeting Card—Landscape II ; Greeting Card—Peace ; Greeting Card—Decorated Bull.

### Basic and Cultural Literature

The Ministry of Education, in consultation with the Ministry of Community Development and Co-operation announced on July 3, 1964 an award of Rs. 1,000 to each of the authors of the following 27 books/manuscripts received in the third competition for production of basic and cultural literature :—

*Assamese :* "Jon, Beli Tora" by Satyabrata Sharma.

*Bengali :* "Mahashunyer Katha" by Monoj Dutta ; "Bharat-Varser Bado Bado Lekhak" by S. K. Das ; "Mahakabir Jiban Katha" by Kanon Mukerji ; "Desh Neta Moti Lal Nehru" by Paresh Dhar.

*Gujarati :* "Akashna Deeva" by Rajanikant Mody.

*Hindi :* "Rabindra Pratibha" by Krishna Kriplani; "Rog-Danav-se-Yudha" by Dr. Inder Sen Varma; "Jhilmilate Sitare" by Ramesh Varma; "Moti Lal Nehru" by Jagdish Goel; "Graha-Nakshatra" by Krishna Vallabh Dwivedi; "Moti Lal Nehru" by Hans Raj Rehbar.

*Kannada :* "Akashada Ascharya" by H. Bhadriah; "Stars and Planets" by V. Cheluvaroj Iyengar.

*Malayalam :* "Nakshathrangalum Grihangalum" by M. P. Parameswaran.

*Marathi :* "Apale San and Apale Utsav" by S. R. Devale; "Pandit Moti Lal Nehru" by Raja Mangalwedhekar; "Don Jyoti" by Pramil Vasant Kulkarni.

*Oriya :* "Yuga Yuga ra Kala" by Durga Prasad Patnaik.

*Punjabi :* "Guru Dev Tagore" by S. S. Amole.

*Tamil :* "Heroes of Indian History" by P. Surianarayanan;" India's Rivers" by V. R. Sastri; "Odi Villaiyadu Pappa" by C. S. Balaguranthan.

*Telugu :* "Indian Handicrafts" by Dr. R. V. Rao; "Common Diseases" by Dr. Y. Suryanarayana Rao.

*Urdu :* "Quami Jhande ki Kahani" by S Ibrahim Fikri; "Sitaron ki Duniya Bahut dur tak hai" by Athar Parvaz.

### SPORTS

The Government of India have made selections for the "*Arjuna Awards*" to the Sportsmen of the year 1964, on the basis of outstanding contribution made to enhance the glory of the game during the year. These awards were instituted in 1961.

The following seven persons were awarded the *Arjun Awards* by the President in 1965: Makan Singh (*Athletics*); Nawab of Pataudi (*Cricket*); Jarnail Singh (*Football*); S. Lakshman (*Hockey*); Rao Raja Hanut Singh (*Polo*); Gautam R. Divan (*Table Tennis*); Birhambar Singh (*Wrestling*).

One award is also to be given as a special case to the entire team of Indian mountaineers, who successfully climbed Mount Everest in May, 1965.

The *Arjuna Awards* were instituted in 1961 for outstanding recognition in different departments in the field of sports.

### PUBLIC SECTOR

The committee for Presidential awards for public sector industrial undertakings has awarded a shield in silver and copper to the Indian Telephone Industries, Bangalore, whose all-round performance was adjudged the best for 1962-63.

The I.T.I. also received along with the Hindustan Cable Factory, Rupnarainpur, and Hindustan Antibiotics, Pimpri, the Certificate of merit for outstanding performance. The Nangal unit of the Fertiliser Corporation of India was presented with the certificate of honour performance.

The annual awards to public sector industrial undertakings were instituted at the instance of the Prime Minister to encourage them to exceed their production targets and achieve outstanding all-round performance. A committee under the chairmanship of Mr. Khandubhai Desai, M.P., was subsequently set up to evaluate the performance of these undertakings.

### SUR-SINGAR SAMSAD'S FILM AWARD

Sur-Singar Samsad's award for 1964 for the best classical film song went to "Manmohan man mein" from the film "Kaise Kahoon".

The following were the recipients of the awards for 1964 :

Saraswati Award : Ram Bellara, Producer of "Kaise Kahoon".

Swami Haridas Award : S. D. Burman, music director of "Kaise Kahoon".

Mian Tansen Award : Mohammed Rafi, Suman Kalyanpur and S. D. Batish, Singers.

The Dr. Brahaspati award for the largest number of classical songs in a film went to "Sant Dnyaneshwar".

### KALINGA AWARD

Dr. R. Warren Weaver, of the United States, has been selected for award of the 13th International Kalinga Prize for 1964 for the popularisation of science.

The selection of the recipient was made as usual by an international jury appointed by UNESCO.

A professor, administrator and a pioneer of science, Dr. Weaver is the author of numerous works. They include "*Lady Luck*", "*The Theory of Probability*", "*The Mathematical Theory of Communication*", "*Science and Complexity*" and "*People, Energy and Food*".

The 1,000 pound Kalinga Prize is a personal donation by Mr. Bijoyanand Patnaik, an industrialist and a director of the Kalinga Foundation.

### KRISHI PANDIT AWARD

In the first All-India paddy crop competition, conducted by the Government of India for the *Kharif* season 1964-65, a Maharashtra farmer, Sri A. K. Nirgudkar, having obtained the largest yield 3,664·955 kgs. per acre, was declared the first prize winner. Sri D. A. Naik, also from Maharashtra stood second with 3,345·124 kgs. per acre, followed by Sri J. Nabi Saheb of Andhra Pradesh who won the third prize with 2,125·427 kgs. yield per acre.

### NEHRU PRIZE

The Government of India has instituted, to honour the memory of the late Prime Minister Jawaharlal Nehru, an international award named "Nehru Prize for International Understanding".

It will be an international award open to citizens and institutions of all countries. The prize will be awarded every year to a person or an institution who has contributed most during the preceding year to the ideals of world peace and international understanding. The prize will consist of Rs. one lakh and a medal. The award winner will be invited to India to receive the prize and will also be asked to deliver a lecture following the formal presentation of the prize.

The first prize was expected to be awarded on Nov. 14, 1965.

# GLASS INDUSTRY

THE more commonly used raw materials for glass industry are : sand, borax, soda ash and salt cake, dolomite, lime or limestone, saltpetre and sulphur, manganese dioxide and colouring materials. Though supplies of sand are in plenty, its quality is not uniform. Nearly all the glass factories of northern India and West Bengal obtain their requirements of sand from the Allahabad district. Subsequent to the Tariff Board's inquiry in 1932, little progress has been made in the installation of grading and washing equipment for sand. Borax is mostly obtained from abroad, while soda ash is received from indigenous manufacturers and importers. Sufficient quantities of lime or limestone are available. Coal is the commonest fuel. The bulk of refractories is obtained from indigenous sources.

The industry comprises the manufacture of sheet glass, blown and pressedware and bangles.

The Tariff Commission reviewed the protection granted to the sheet glass industry in 1957 and 1960. The protection has been withdrawn from the end of 1965. Therate of protection duty continues at 70 per cent *ad valorem*.

At the commencement of the Second Plan there were 109 glass factories in India with an annual installed capacity of about 291,000 tons. In addition, there were 22 factories with a capacity of about 23,000 tons which were, more or less, permanently closed. By March 1961 the number of factories had gone up to 148 and the installed capacity to 444,000 tons, which includes the 22 closed factories referred to above. Recently, the Development Wing of the then Ministry of Commerce & Industry had gone in detail into the question of the effective capacity of the glass industry. They had reached the conclusion that 51 factories with a capacity of about 61,000 tons which had been lying idle for over 3 years may be scrapped for the purpose of planning the future development of the glass industry as there was little likelihood of these units ever coming into production again. The State-wise distribution of the remaining 97 factories representing a capacity of about 383,000 tons is given below :

| State | Number of factories | Annual capacity (tons) |
|---|---|---|
| Uttar Pradesh | 28 | 83,000 |
| West Bengal | 24 | 1,10,400 |
| Maharashtra | 22 | 57,900 |
| Madras | 6 | 11,100 |
| Bihar | 4 | 60,700 |
| Gujarat | 2 | 27,900 |
| Orissa | 2 | 13,200 |
| Punjab | 2 | 5,800 |
| Delhi | 2 | 1,800 |
| Rajasthan | 1 | 4,800 |
| Kerala | 1 | 3,600 |
| Andhra Pradesh | 1 | 1,800 |
| Madhya Pradesh | 1 | 700 |
| Mysore | 1 | 500 |
| TOTAL | 97 | 3,83,200 |

The itemwise break-up of this capacity is a follows :

| Item | Annual capacity (in tons) |
|---|---|
| Bottles and vials | 1,74,100 |
| Table and pressedware | 74,500 |
| Sheet glass | 61,800 |
| Lampware | 42,200 |
| Scientific glassware | 14,000 |
| Thermos flasks | 8,480 |
| Shells for electric lamps | 2,860 |
| Miscellaneous glassware | 10,400 |
| TOTAL | 3,83,340 |

The production of different types of glass and glassware from 1960 onwards is given below :

| | Units | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 (January April) |
|---|---|---|---|---|---|---|---|
| Sheet glass .. .. | Thousand sq. meters. | 7,524 | 6,780 | 8,724 | 9,840 | 9,623 | 2,205 |
| Laboratory Glass .. | Metric tonnes. | 4,872 | 3,576 | 3,948 | 4,440 | 4,464 | 1,145 |
| Glass shells .. .. | Lakh pieces. | 461 | 623 | 682 | 744 | 535 | 174 |
| Other Glassware .. | Thousand tonnes | 171 | 177 | 186 | 190 | 198 | 49 |
| Thermos Flasks .. | Thousand Pieces. | 1,382 | 1,541 | 1,542 | 1,939 | 1,936 | 525 |

A number of items have been produced for the first time in the country. There is a notable improvement in the quality of glassware produced. The incentives for exports have been increased from 20 per cent to 70 per cent.

Coloured sheet glass, safety glass, glass wool and fibre glass, building blocks, glass syringes, synthetic stones and glass chatons are some of the new items whose manufacture was undertaken for the first time in the country during the Second Plan period. The pilot plant project to experiment with the production of optical glass undertaken in the Central Glass and Ceramic Research Institute, Calcutta, has shown good results. The Institute is expected to start the manufacture of optical glass during the Third Plan period with a view to meeting the demand for this product in the country. The manufacture of ophthalmic glass will be undertaken in a public sector project to be located at Durgapur and financed out of the credit of 500 million roubles offered by the U.S.S.R. Government. Its project report is at present under preparation by the Russian consultants. The total cost of the project is tentatively estimated at Rs. 2·6 crores of which the foreign exchange component would be about Rs. 2·0 crores. The factory, which will have a capacity of 300 tonnes per annum, is likely to go into production in the beginning of the Fourth Plan.

Imports and exports are as follows : (Rupees in lakhs)

| | 1960 | 1961 | 1962 | 1962–63 | 1963–64 | 1964-65 |
|---|---|---|---|---|---|---|
| Imports .. .. .. | 120·82 | 130·63 | 136·94 | 148·58 | 158·35 | 122·96 |
| Exports .. .. .. | 24·50 | 23·55 | 24·05 | 24·11 | 33·33 | 63·74 |

There was a rapid increase in the domestic consumption of glass and glassware during the Second Plan period and the average annual rate of increase has worked out to about 17 per cent.

On balance of all considerations it is estimated that the requirements of glass and glassware in 1965–66 would be of the order of 440,000 tons inclusive of export requirements of about 15,000 tons. This would give an average annual increase of a little over 15 per cent during the Third Plan period. An item-wise break-up of this demand among different categories of glass and glassware is broadly visualised as follows :

| | (tons) |
|---|---|
| Bottles and vials .. .. | 2,00,000 |
| Table and pressedware .. | 65,000 |
| Sheet glass, plate glass etc. .. | 1,00,000 |
| Lampware .. .. .. | 30,000 |
| Scientific glassware .. .. | 15,000 |
| Thermos flasks .. .. | 2,700 |
| Shells for electric lamps .. | 3,300 |
| Miscellaneous glassware .. | 24,000 |
| TOTAL .. .. .. | 4,40,000 |

On the basis of 80 per cent utilisation of installed capacity in the case of sheet glass and 70 per cent in other categories, the capacity target is visualised at about 615,000 tons, requiring a capital investment of Rs. 11 crores during the Third Plan. The additional employment is estimated at 28,000. Planning on this basis would provide adequate buffer capacity to boost up production further, if required.

The demand for highly specialised process equipment is increasing on account of the growth of chemical, pharmaceutical and allied industries. Glassed steel plays an important role in these industries because of its corrosion resistance and versatility. Recently, therefore, the Investment Corporation of India Ltd. entered into an agreement with the famous Pfaudler Permutit Inc. of the United States for the formation of a jointly-owned company in India to manufacture Pfaudler glassed steel, alloy process equipment, Ionac water and waste treatment equipment and chemicals. This will not only help other industries but also will go a long way to save considerable foreign exchange for the country.

The project of National Investments Ltd.—an ophthalmic glass factory at Durgapur—would be completed by early 1966. The production schedule includes glass pressings for optical lenses, coloured glass pressing for goggles, lenses and prisms for cameras, microscopes and other optical instruments.

# NON-FERROUS INDUSTRY*

(See also under 'Mines and Minerals'.)

## COPPER

THOUGH there are many copper fields in India, extraction of copper ores is at present confined to only one area *viz.* Mosabani area in the Singhbhum district, Bihar, which is operated by Messrs. Indian Copper Corporation. Copper pyrites is the principal ore of copper and it is a double sulphide of copper and iron. More and more deposits of copper are being located and important among such areas are: Almora and Garhwal in U.P., Singbhum and Baragunda in Bihar; Khetri and Daribo in Rajasthan; Sikkim; Manipur; NEFA; and Jammu and Kashmir. Detailed work in the Khetri-Daribo area of Rajasthan and Rangpo area of Sikkim has established substantial workable reserves of copper ore — about 28 million tons with an average copper content of 0·8 per cent metal in Khetri and about 0·35 million tons averaging about 6·24 per cent of combined copper lead and zinc in Rangpo. The deposits in Daribo are found to be rich in copper content but the extent of the reserves is yet to be fully proved. The Khetri Copper Project has been started in the public sector and it is expected to be completed by the end of 1966. The capacity of this project is fixed at 10,000 tons of metal per annum.

Domestic production meets only a small part of the country's requirements of this metal. A large tonnages of copper, copper alloys and other manufactures have to be imported. In 1956 the internal production met only about 29 per cent of the demand. There is only one copper mine and smelter in the country with a capacity of 10,000 tonnes a year.

Installed capacity and production of copper and allied products (metric tons)

| Year | Virgin Metal | | Pipes and Tubes | | Sheets and Circles | |
|---|---|---|---|---|---|---|
| | Installed capacity | Production | Installed capacity | Production | Installed capacity | Production |
| 1954 .. | 7,315·2 | 7,276·8 | 369·6 | 16·8 | 46,452 | 1,488 |
| 1955 .. | 7,315·2 | 7,398·0 | 369·6 | 50·4 | 46,452 | 1,584 |
| 1956 .. | 7,315·2 | 7,750·8 | —do.— | 45·6 | —do.— | 1,776 |
| 1957 .. | 7,315·2 | 7,974·0 | 369·6 | 58·8 | 45,672 | 2,376 |
| 1958 .. | 7,315·2 | 7,966·8 | 369·6 | 54·0 | 46,896 | 3,204 |
| 1959 .. | 7,315·2 | 7,764·0 | 369·6 | 44·4 | 46,896 | 2,724 |
| 1960 .. | 7,320·0 | 9,015·6 | 4,020·0 | 195·6 | 70,200 | 3,276 |
| 1961 .. | 7,320·0 | 8,745·6 | 4,020·0 | 348·0 | 54,000 | 4,368 |
| 1962 .. | 9,000·0 | 9,781·2 | 4,020·0 | 303·6 | 54,000 | 3,528 |
| 1963 .. | 9,960·0 | 9,592·8 | 4,920·0 | 598·8 | 48,000 | 3,168 |
| 1964 .. | 9,960·0 | 9,454·8 | 4,920·0 | 619·2 | 54,000 | 2,064 |

Import of Copper and Copper Alloys

| Year | Copper and alloys refined or unwrought | | Copper and alloys worked | | Total | |
|---|---|---|---|---|---|---|
| | Quantity (lakh kgs.) | Value (Rs. lakhs) | Quantity (lakh kgs.) | Value (Rs. lakhs) | Quantity (lakh kgs.) | Value (Rs. lakhs) |
| 1960-61 .. | 568·56 | 1,903·62 | 58·48 | 286·18 | 627·04 | 2,189·80 |
| 1961-62 .. | 650·86 | 2,030·58 | 61·63 | 296·40 | 712·49 | 2,326·98 |
| 1962-63 .. | 697·40 | 2,228·24 | 55·23 | 300·67 | 752·63 | 2,528·91 |
| 1963-64 .. | 694·18 | 2,381·44 | 50·37 | 222·79 | 744·55 | 2,604·23 |
| 1964-65 .. | 527·15 | 2,106·11 | 56·46 | 334·95 | 583·61 | 2,441·10 |

* Protection to non-ferrous industries has been withdrawn from Dec. 31, 1965.

**Investment & Employment :** Messrs. Indian Copper Corporation have invested nearly Rs. 5·6 crores on the developmental activity such as proving of reserves of copper ore and on the plant and machinery during the Second Plan period. It is anticipated that the Indian Copper Corporation will increase its production to 11,000 tonnes by 1966.

The Development Council for non-ferrous metals had estimated the demand for copper by 1965–66 at 170,000 tons per year, without taking into account the substitution possibilities by aluminium. Estimating these possibilities as equivalent to about 20,000 tons of copper, the Council estimated the demand for copper inclusive of the copper element of brass in 1965–66 as follows : (Figures in tons) :

Commercial copper sheets and circles (hot rolled) 4,000 ; Copper sheet (cold rolled) 1,500 ; Industrial copper strips (cold rolled) in cut length and coils 2,500 ; Electrolytic copper wire rods for cables, wires and strips 75,000 ; Copper rods and sections (extruded) 2,000 ; Copper pipes and tubes (extruded) 2,500 ; Total 87,500. Commercial brass sheets/circles (hot rolled) 35,000 ; Brass sheets (cold rolled) 4,000 ; Industrial brass strips in cut lengths or coils (cold rolled) 8,000; Brass rods and sections (extruded) 10,000 ; Brass pipes and tubes (extruded) 6,000 ; Brass/copper wires (non-electrical) 3,500 ; Copper base alloys and castings 30,000 ; Total 96,500; Copper equivalent 62,700. Total 1,50,200.

Items 1 to 5 total to 87,500 tons of copper. Items 6 to 11 are for copper and brass base alloys and total to 96,500 tons. Taking an average of 65 per cent of copper content, this will work out to 62,700 tons. Thus the total requirements of copper would come to about 1,50,000 tons including the substitution.

The demand for copper, the indigenous production and the import requirements are expected to be as shown below during the Third Plan period ('000 tons): 1961–62 : 90 ; 13; 77 ; 1962–63 : 101 ; 14; 87 ; 1963 –64: 115 ; 15 ; 100; 1964–65 : 135 ; 23 ; 112 ; 1965–66 : 145 ; 35 ; 110.

**Import Duty.**—The Government of India has announced the imposition of 10 per cent regulating duty on copper. Excise duty on copper sheets and circles, etc. has been raised from Rs. 200 per ton to Rs. 500 per ton.

## LEAD

Lead ores are known to occur at a number of places in India. The only large deposits now being worked are those of Zawar which is about 17 miles from Udaipur city, where lead is found in association with zinc. These mines are worked by Messrs. Metal Corporation of India.

The present mining capacity is 500 tons run-off mine ore per day.

**Production Figures of Metal Corporation**

| Year | Ore raised | Ore dressed in Mill | Lead Concentrates | Zinc Concentrates | Lead Ingots |
|---|---|---|---|---|---|
| 1959–60 .. | 152,274 L.T. | 142,647 L.T. | 5,976 L.T. | 9,567 L.T. | 3,700 L.T. |
| 1960–61 .. | 151,447 L.T. | 145,307 L.T. | 6,360 L.T. | 9,882 L.T. | 3,803 L.T. |
| 1961–62 .. | 146,949 M.T. | 147,402 M.T. | 5,216 M.T. | 8,860 M.T. | 3,177 M.T. |
| 1962–63 .. | 157,369 M.T. | 158,813 M.T. | 7,358 M.T. | 11,031 M.T. | 3,771 kg. |
| 1963–64 .. | 153,869 M.T. | 152,590 M.T. | 5,147 M.T. | 9,900 M.T. | 3,754 kg. |
| 1964–65 .. | 162,550 M.T. | 159,635 M.T. | 6,296 M.T. | 10,880 M.T. | 6,055 kg. |

The outlook for the lead industry has considerably improved in the last few years. The current annual production of lead from the only smelter of Messrs. Metal Corporation of India at Tundoo, Bihar, is of the order of 4,000 tons against the installed capacity of 6,000 tons per annum. The Development Council for non-ferrous metals has estimated the demand for non-ferrous metals as 35,000 tons per year in 1960.

Installed capacity and production (Metric tons)

| Year | Virgin Metal | | Lead Pipes and Tubes | | Lead Sheets | |
|---|---|---|---|---|---|---|
| | Installed capacity | Production | Installed capacity | Production | Installed capacity | Production |
| 1959 .. | 6,096·0 | 3,957·6 | 4,876·8 | 619·2 | 1,092 | 36 |
| 1960 .. | 6,096·0 | 3,746·4 | 4,872·0 | 399·6 | 2,316 | 264 |
| 1961 .. | 6,096·0 | 3,664·8 | 4,872·0 | 534·0 | 2,316 | 504 |
| 1962 .. | 6,096·0 | 2,848·8 | 4,872·0 | 752·4 | 2,316 | 720 |
| 1963 .. | 6,096·0 | 3,536·4 | 4,800·0 | 639·6 | 3,000 | 720 |
| 1964 .. | 6,096·0 | 3,624·0 | 4,800·0 | 584·8 | 3,000 | 696 |

*Import of lead :*

| Year | Lead and alloys unwrought | | Lead and alloys worked | | Total | |
|---|---|---|---|---|---|---|
| | Quantity (lakh kgs.) | Value (Rs. lakhs) | Quantity (lakh kgs.) | Value (Rs. lakhs) | Quantity (lakh kgs.) | Value (Rs. lakhs) |
| 1960–61 .. | 244·55 | 243·90 | 1·80 | 2·87 | 246·35 | 246·77 |
| 1961–62 .. | 285·15 | 252·06 | 3·60 | 6·83 | 288·75 | 258·89 |
| 1962–63 .. | 339·70 | 266·55 | 0·97 | 2·18 | 340·67 | 268·73 |
| 1963–64 .. | 370·52 | 333·18 | 1·69 | 2·08 | 372·21 | 335·26 |
| 1964–65 .. | 337·79 | 457·01 | 3·22 | 4·87 | 341·01 | 461·88 |

**Third Plan :** The demand for lead is expected to rise to 60,000 to 65,000 tons by 1965–66, with the break-up as given below : Non-ferrous and alloys 12,000 ; Electric industries 30,000 to 35,000 ; Chemicals (Paints) 12,500 ; Heavy mechanical engineering and light mechanical engineering 2,500 ; Small-scale industries 2,000 ; Miscellaneous 1,000 ; Total 60,000 to 65,000.

## ANTIMONY

Antimony ore deposits are situated at the Shigree Glacier in Lahaul, Kangra district, Punjab and in the region of Nagpur in Maharashtra State. For antimony, there is only one smelter at Bombay, working on imported ores with a capacity of 1,000 tons.

Statistics regarding installed capacity and production in tonnes during the period 1954 to 1964 are shown below : 1954 : 710·4 ; 547·2 ; 1955 : 710·4 ; 512·4 ; 1956 : 710·4 ; 599·8 ; 1957 : 710·4 ; 510·0 ; 1958 : 710·4 ; 535·2 ; 1959 : 710·4 ; 674·4 ; 1960 : 912·0 ; 810·0 ; 1961 : 912·0 ; 620·4 ; 1962 : 900·0 ; 661·2 ; 1963 : 900 ; 909·6 ; 1964 912·0 ; 840·0 .

The production of antimony in India during 1963 was 9,096 tonnes. During 1964-65 the quantity of antimony metals and alloys imported was 46,296 Kgs. valued at Rs. 2·66 lakhs.

According to the 1962 report of the Tariff Commission, domestic consumption of antimony increased from 614 tonnes in 1956 to 787 tonnes in 1960.

## ZINC

Deposits of zinc, at present, are known to occur at only two places in India in Zawar Mines in Udaipur and in Riasin District in Kashmir State. Due to the nonavailability of smelting facilities, the Metal Corporation of India is exporting about 7,000 to 8,000 tons of zinc concentrates every year to Japan for smelting on a toll basis. The Metal Corporation has established an electrolytic Zinc Refinery near Udaipur—the construction of which is complete. This has been projected to produce 18,000 tonnes of zinc, 28,000 tonnes of sulphuric acid, 75 tonnes of Cadmium, 11,000 tonnes of virgin pig lead and 540,000 ozs. of silver. Comnco-Binani is establishing a Zinc Refinery at Alwaye which is to produce 12,000 tonnes of metallic zinc.

The Development Council for Non-ferrous Metals has estimated the present requirements of zinc to be about 85,000 tons per annum and that they are likely to increase upto 185,000 tons by 1965–66.

Installed capacity and production of zinc sheets and strips in metric tons during 1953 to 1964 are as follows : 1954 : 4,480·8 ; 46·8 ; 1955 : 4,480·8 ; 43·2 ; 1956 : 3,754·8 ; 92·4 ; 1957 : 5,925·6 ; 956·4 ; 1958: 5,925·6 ; 2,113·2 ; 1959 : 5,925·6 ; 2,876·4 ; 1960 : 4,800·0 ; 3,270·0 ; 1961 : 4,800·0 ; 3,774·0 ; 1962 : 4,800·0; 3,525·6 ; 1963 : 4,800·0 ; 3,882·0 ; 1964 : 4,800·0; 4,647·6.

**Imports**

| Year | Zinc and zinc alloys wrought | | Zinc alloys worked | | Total | |
|---|---|---|---|---|---|---|
| | Quantity (lakh kgs.) | Value (Rs. lakhs) | Quantity (lakh kgs.) | Value (Rs. lakhs) | Quantity (lakh kgs.) | Value (Rs. lakhs) |
| 1960–61 .. | 707·3 | 894·4 | 14·3 | 24·4 | 721·6 | 918·8 |
| 1961–62 .. | 669·2 | 722·9 | 9·8 | 16·2 | 679·0 | 739·1 |
| 1962–63 .. | 875·4 | 885·1 | 13·1 | 17·0 | 888·5 | 902·1 |
| 1963–64 .. | 842·1 | 967·9 | 11·6 | 17·6 | 853·7 | 985·5 |
| 1964–65 .. | 700·5 | 1,106·8 | 11·3 | 22·7 | 711·8 | 1,129·0 |

*Note.*—Figures are in metric tonnes from 1960 onwards.

According to the Industrial Policy Resolution of April 1956, the developments in this field fall under Schedule "A", which is the responsibility of the public sector. Some of the important deposits that are proposed to be investigated are as follows :

Deposits in Cuddapah, Kurnool and Nellore districts (Andhra Pradesh), Hazaribagh, Santal Parganas and Monghyr districts (Bihar), Jubbulpore and Bastar Districts (Madhya Pradesh), Pachekani (Sikkim), Almora and Garhwal Districts (Uttar Pradesh), Udaipur District (Rajasthan), Riasi (Jammu & Kashmir), Mayurbhanj District (Orissa) and Manipur.

## TIN

Tin ores are in Hazaribagh, Ranchi and Gaya districts of Bihar. At present there is no indigenous production in the primary metal. So India has to depend on imports. A substantial part comes from Malaysia. Statistics of imports of tin during recent years are given below.

**Imports of Tin :** The quantity in lakh kgs. and the value in Rs. lakhs respectively during 1960-61 to 1964-65 :

| Year | Tin and alloys unwrought | | Tin and alloys worked | | Total | |
|---|---|---|---|---|---|---|
| | Quantity (Lakh kgs.) | Value (Rs. lakhs) | Quantity (Lakh kgs.) | Value (Rs. lakhs) | Quantity (Lakh kgs.) | Value (Rs. lakhs) |
| 1960–61 .. | 36·0 | 377·7 | 0·1 | 1·6 | 36·1 | 379·3 |
| 1961–62 .. | 49·5 | 570·5 | 0·4 | 5·8 | 49·9 | 576·3 |
| 1962–63 .. | 42·8 | 507·9 | 0·2 | 2·5 | 43·0 | 510·4 |
| 1963–64 .. | 50·5 | 618·7 | 1·7 | 21·1 | 52·2 | 639·8 |
| 1964–65 .. | 48·8 | 771·8 | 1·3 | 18·6 | 50 1 | 790·4 |

## NICKEL

| Year | Nickel & Alloys unwrought | | Nickel and Alloys | | Total | |
|---|---|---|---|---|---|---|
| | Quantity (Lakh kgs.) | Value (Rs. lakhs) | Quantity (Lakh kgs.) | Value (Rs. lakhs) | Quantity (Lakh kgs.) | Value (Rs. lakhs) |
| 1960–61 .. | 11·2 | 113·5 | 3·6 | 28·5 | 14·8 | 142·0 |
| 1961–62 .. | 13·8 | 123·6 | 3·9 | 28·3 | 17·7 | 151·9 |
| 1962–63 .. | 13·7 | 126·5 | 2·1 | 17·7 | 15·8 | 144·2 |
| 1963–64 .. | 17·3 | 151·2 | 2·7 | 26·4 | 20·0 | 177·6 |
| 1964–65 .. | 13·3 | 117·9 | 4·1 | 35·8 | 17·4 | 152·7 |

India has no proven deposits of nickel ores so far. It is likely that with further geographical exploration nickel ores might be found.

## ALUMINIUM

Aluminium is the only non-ferrous metal which India can produce in large quantities because of extensive deposits of bauxite and adequate supplies of bulk power. At present, considerable attention has been paid for augmenting the production of aluminium in order to arrest the rising trend in the import of this non-ferrous metal involving considerable foreign exchange.

Even though it is known that India possesses bauxite, the basic raw material for aluminium to the extent of 250 million tons, accurate detailed information regarding the extent and quality of the individual deposit has not yet been collected ; only reserves of 25 million tons have stated to have been proved to be suitable for the manufacture of aluminium.

Except bauxite and coal, most of the other raw materials are available only partly or not at all from indigenous sources. Caustic soda and soda are not produced in sufficient quantities, cryolite, aluminium floride, carbon black and filter cloth have to be imported and the possibilities of producing cryolite in this country are being explored.

**Aluminium — Installed Capacity and Production**

(Metric tons)

| Year | Virgin Metal | | Aluminium Sheets and Circles | | Aluminium Foils | | Aluminium Wire Rods (ACSR) | | Aluminium Rods and Sections (extruded) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Installed Capacity | Production | Installed Capacity | Production | Installed Capacity | Production | Installed Capacity | Production | Installed Capacity | Production |
| 1960 .. .. | 18,192 | 18,413 | 20,400 | 16,418 | 2,028 | 3,000 | 14,016 | 4,656 | 1,224 | 1,296 |
| 1961 .. .. | 22,116 | 18,382 | 21,600 | 16,930 | 3,000 | 3,216 | 13,056 | 8,292 | 3,756 | 1,584 |
| 1962 .. .. | 53,340 | 35,212 | 22,200 | 16,294 | 4,200 | 3,444 | 13,056 | 11,352 | 3,756 | 3,060 |
| 1963 .. .. | 53,340 | 53,386 | 22,200 | 22,244 | 3,000 | 3,444 | 13,056 | 17,988 | 3,756 | 3,936 |
| 1964 .. .. | 53,340 | 54,539 | 22,200 | 22,501 | 3,000 | 2,544 | 29,400 | 20,256 | 3,756 | 3,240 |

**Imports**

| Year | Aluminium and Alloys unwrought | | Aluminium and Alloys worked | | Total | |
|---|---|---|---|---|---|---|
| | Quantity (Lakh kgs.) | Value (Rs. lakhs) | Quantity (Lakh kgs.) | Value (Rs. lakhs) | Quantity (Lakh kgs.) | Value (Rs. lakhs) |
| 1960–61 .. | 104·6 | 262·4 | 149·5 | 501·8 | 254·1 | 766·2 |
| 1961–62 .. | 80·9 | 212·8 | 174·7 | 580·1 | 255·6 | 792·9 |
| 1962–63 .. | 151·8 | 357·2 | 236·3 | 693·1 | 388·1 | 1,050·3 |
| 1963–64 .. | 39·4 | 86·4 | 207·4 | 550·9 | 246·8 | 637·3 |
| 1964–65 .. | 35·4 | 97·4 | 194·1 | 626·6 | 229·5 | 724·0 |

**Consumption :** It was expected that the demand for aluminium would expand from 20,000 tons to nearly 30,000 tons by 1960–61 mainly owing to an increase in the production of A.C.S.R. cables. The Tariff Commission Report (1960) on Aluminium Industry placed the requirements by 1963 at 74,000 tons per annum as given below : Utensils 16,000 ; A.C.S.R. and A.A.C. 27,000 ; Transportation and aluminium alloys 11,500 ; Building and construction 5,000 ; Food and farming 2,500 ; Canning and Packaging 6,000 : Miscellaneous 6,000. Total 74,000.

An investment of the order of Rs. 12 crores is estimated to have been made in the aluminium industry during the Second Plan period against Rs. 22 crores, anticipated at the time of formulating the programmes of development in 1956.

The investment in the aluminium industry under the Third Plan is estimated at about Rs. 65 crores. About 8,000 to 10,000 additional persons are expected to find employment in this industry.

**Schemes Under Implementation :**

The progress made by some of the aluminium companies is as follows :

**Aluminium Corporation of India :** This company is the first producer of aluminium metal from Indian bauxite. The Corporation successfully completed the new smelter and put into operation on June 2, 1962. The full rated capacity was achieved by November, 1962. The Company has been granted a letter of intent for further expansion from 7,500 tonnes to 12,500 tonnes.

**Aluminium Industries :** About 55,200 kilometres of bare conductor and 10·19 million core metres of covered aluminium conductor were manufactured in 1962–63 as compared to 62,000 kilometres of bare conductor and 9·86 million core metres in 1961–62. The expansion of the covered aluminium conductor factory at Kundara and the new factory at Hyderabad is nearing completion.

**Indian Aluminium Co. :** Production at Hirakud smelter was stabilised at its rated capacity and 21,040 tonnes of metal were produced in 1964 against 19,984 tonnes in 1963. Alumina production at Muri was 65,500 tonnes compared to 59,309 tonnes in 1963. At Lohardoga bauxite mining at 196,444 tonnes showed improvement over the 1963 level of 163,556 tonnes.

In May 1964, the Company submitted proposals to the Govt. of India for establishment of an integrated Aluminium industry in Western India. These proposals consist in setting up in the first stage of a 30,000 tonne smelter in Mysore, a 13,000 tonne sheet mill in Maharashtra and a 65,000 tonne alumina plant in Maharashtra. Capital investment will be of the order Rs. 260

*Note :* Figures upto 1959 are in tons and from 1960 onwards are in metric tons.

million of which Rs. 108 million will be the foreign exchange requirement.

Total production in the year 1964 has been 22,880 M. Tons comprising 13,320 M. Tons of electrical grade and 9,560 M. Tons of Commercial grade. Total production of Alumina during the year was 43,294 M. Tons as against 39,040 M. Tons during 1963. Properzi plant was commissioned in Jan. 1964 and it has been possible to achieve a production of 6,623 M. Tons of Re-draw rods against the rated capacity of 6,000 M. Tons.

**The Madras Aluminium Company:** It is expected that the plant will commence production during the latter half of the year 1964. This company has undertaken the manufacture in collaboration with the Martecatine of Italy.

**Growth of Demand and Supply of Aluminium:** The data in the following table give an indication of the growth of demand of aluminium during the Third Plan period.

Demand for electrical grade and commercial grade respectively of aluminium in '000 tons: 1961-62: 23·0; 35·0; 1962-63: 27·0; 40·0; 1963-64: 33·0; 44·0; 1964-65: 45·0; 51·0; 1965-66: 55·0; 60·0.

The following table summ rises the development programme of the industry envisaged in the Third Plan (unit in tons).

| | 1960–61. | 1965–66. |
|---|---|---|
| No. of Smelters .. | 3 | 6 |
| Installed capacity | 18,100 | 87,305 |
| Production .. | 18,243* | 80,000 |

* Production during 1960.

### BRASS

The position with regard to the production of brass pipes and tubes, and brass sheets and circles respectively from 1954 to 1964 is as follows: Figures in tonnes: 1954: 0·36; 15,888; 1955: 13·20; 13,228; 1956: 0·84; 13,800; 1957: 0·72: 18,072; 1958: 0·72; 20,724; 1959: 0·84; 21,300; 1960: 0·36; 26,988; 1961: 106·8; 24,612; 1962: 181·2; 23,748; 1963: 352·8; 22,644; 1964: 642·0 20.328.

The quantity imported during 1964-65 and the value of brass were 18·1 lakh Kgs. and Rs. 97·7 lakhs respectively.

The position regarding the value in Rs crores of imports of non-ferrous base metals during 1962-63, 1963-64 and 1964-65, respectively is as shown below: 1962-63: 55·14; 1963-64: 55·06; 1964-65: 58·30.

# PAPER INDUSTRY

THE bulk of the production comprises the more common types of paper, especially printing and writing paper. The manufacture of superior varieties is also undertaken but on a restricted scale.

The following table gives the trend of production:—

(In thousand tonnes)

| | 1960 | 1961 | 1962 | 1963 | 1964 |
|---|---|---|---|---|---|
| Printing & Writing .. .. .. .. | 216·7 | 229·5 | 234·4 | 300·0 | 320·5 |
| Wrapping .. .. .. .. .. | 67·4 | 59·9 | 75·5 | 75·0 | 85·0 |
| Special Varieties .. .. .. .. | 8·53 | 9·0 | 8·0 | 6·6 | 6·5 |
| Paper Boards .. .. .. .. | 57·37 | 65·5 | 69·7 | 80·0 | 80·4 |
| Total .. .. .. .. .. | 350·00 | 363·9 | 387·6 | 461·6 | 492·4 |

According to the Annual Survey of Industries the total factory sector as a whole employed Rs. 91·5 crores (productive capital) in paper industry in 1962.

At present (as at the end of 1964) there are 42 paper mills manufacturing paper and paperboards with a total installed capacity of 5·65 lakh tonnes. The aggregate installed capacity of the paper industry was 433,800 tonnes in 1962, as compared to 409,992 tons in 1961, 400,000 tons in 1960, 321,000 tons in 1959, 268,600 tons in 1958. The consumption of paper was 411,000 tons in 1962-63, and 389,000 tons in 1961-62. The consumption is expected to be of 493,000 tons in 1963-64.

The Statewise distribution of the industry as on March 1, 1964 is as follows:

| State | Position as on 1-3-1964 | |
|---|---|---|
| | No. of units | Annual installed capacity (tons) |
| West Bengal .. .. | 5 | 1,14,550 |
| U.P. .. .. .. | 2 | 31,200 |
| Bihar .. .. .. | 2 | 63,000 |
| Orissa .. .. .. | 3 | 98,000 |
| Punjab .. .. | 4 | 45,760 |
| Gujarat .. .. | 5 | 15,050 |
| Maharashtra .. .. | 11 | 48,310 |
| Andhra Pradesh .. | 2 | 43,000 |
| Mysore .. .. | 5 | 53,640 |
| Kerala .. .. .. | 1 | 8,640 |
| Madras .. .. | 1 | 20,000 |
| Madhya Pradesh .. | 1 | 8,000 |
| Total .. | 42 | 5,49,150 |

The following are the leading industries in paper and paper industries having an annual installed capacity of more than 30,000 tonnes, statewise.

| State | Name and location of the company | Annual capacity (tonnes) |
|---|---|---|
| West Bengal .. | Messrs. Titaghur Paper Mills, Titaghur .. .. | 50,000 |
| | Bengal Paper Mills, Raniganj .. | 36,000 |
| Bihar .. | Rohtas Industries Ltd., Dalmianagar .. .. | 60,000 |
| Orissa .. .. | Orient Paper Mills Ltd., Brajrajnagar .. .. | 68,000 |
| Punjab .. | Shree Gopal Paper Mills Ltd., Yamunanagar .. | 40,000 |
| Andhra Pradesh. | Sirpur Paper Mills Ltd., Sirpur .. | 40,000 |
| Mysore .. | West Coast Paper Mills, Dandeli .. | 30,000 |

The Madhya Pradesh Government sanctioned the establishment of a paper mill at Amlai (Sahdol), with an annual capacity of 48,000 tonnes. This project costing Rs. 17 crores was inaugurated on April 16, 1965 and is expected to produce well over 200 tons of fine writing printing grades of paper per day. Two new factories for the manufacture of paper will soon be established in Maharashtra. These units will be located at Ahmednagar District by Mr. Sohan Lal of New Delhi and Messrs. K. L. Gupta & Co., of Bombay, the annual capacity of these units being 42,000 and 37,200 tonnes respectively.

The Industries Directorate of the State Government has already studied the fuel problem of the sugar factories making over their bagasse for pulp or paper manufacture.

India imported paper and paperboards worth Rs. 13 crores in 1964-65. Some exports of paper and paperboards have also been taking place. Such exports were valued at Rs. 71 lakhs in 1964-65. The leading countries importing Indian paper and paperboards were Indonesia, Turkey, Egypt, Ceylon and East and West Pakistan. Cigarette paper alone accounted for Rs. 43 lakhs in 1964-65.

Paper and paper pulp had protection from 1925 to April 1947.

The Tariff Commission in its report submitted to the Government in 1959, recommended a substantial reduction in the ex-works and selling price of paper and paperboards and fixed fair prices of paper and paperboards of 24 varieties.

The selling prices of white printing and creamlaid paper have now been fixed at Rs. 1·55 and Rs. 1·61 respectively (per Kg.), excluding excise duties, State Government and local levies.

The Tariff Commission recommended several measures for expanding paper production in the country and creating new capacity to meet the increasing demands. It also suggested steps to tighten up the distribution system to keep a check on the prices. The Tariff Commission recommended that the Government should take early steps to make technical assessment of the capacity of each unit in terms of several types of paper and paperboards and production should be planned in such a way as to rectify the imbalance in the pattern of production which had developed during the last few years.

The possibility of permitting long-term leases of forests to paper mills was suggested by the Commission. It recommended that establishment of pulp manufacturing units independently of paper mills and direct supply of waste paper in bulk quantities from the Government departments to mills, instead of through intermediate dealers, should be encouraged.

In its resolution on the Commission's report, the Government of India announced that it would take necessary steps to implement the recommendations.

### DEVELOPMENT PROGRAMME

The Union Government have also approved and granted licence for 15 new (large) units with a total capacity of 397,000 tonnes and 35 small units for production of paper and paperboards. Out of these 15 (large) units, 11 will be bagasse based units. The three units, which are reported to manufacture paper and paperboards

from bagasse are, Rohtas Industries, Mandya National Paper Mills, and Seshasayee Paper and Boards Ltd.

At the end of the First Plan period there were 24 units producing straw boards and other boards with an annual capacity of 59,380 tons. During the Second Plan period the number increased to 26 with an annual capacity of 77,424 tons. The Planning Commission has envisaged production and capacity targets of 70,000 tons and 90,000 — 100,000 tons per year respectively, for 1965-66. As on March 1, 1964 there were 30 units with an annual capacity of 92,404 tonnes. Fourteen new units with an annual capacity of 47,100 tonnes have been licensed. With the implementation of these schemes, the indigenous capacity would increase to 1·4 lakh tonnes.

The target for paper and paperboards in the Fourth Plan is 1·5 million tons against the Third Plan target of 820,000 tons. In order to reach the Fourth Plan target, it was estimated that 25 to 30 new paper mills each having a capacity of 100 tons per day would have to be set up. The Fourth Plan target suggested by the Development Council for Paper, Pulp and Allied Industries are : 1) Paper and Paperboard 1·4 million tons ; 2) Newsprint 330,000 tons ; 3) Pulp 220,000 tons.

The Second Plan envisaged the establishment of three hardboard factories. Of these, one, namely, Anil Hardboard Ltd. in Bombay, went into production in November 1958. The annual capacity of this factory is 6,000 tons. The company proposes to double the capacity of its hardboard plant and secured licence to import plant and machinery worth Rs. 29 lakhs. The other two factories now being set-up are the 6,000 tons Madhya Pradesh Industries Ltd. and the 3,700-ton Western Indian Plywood Ltd. at Baliapatam.

The progress made by the paper industry during the First and Second Plan periods and the targets set for it in the Third Plan are indicated below :

(In '000 tons)

| | Paper and paperboard | Newsprint | Security paper (In tons) |
|---|---|---|---|
| 1950-51 Production .. .. .. .. | 114 | .. | .. |
| 1955-56 Capacity .. .. .. .. | 210 | 30 | .. |
| 1955-56 Production .. .. .. .. | 187 | 4·2 | .. |
| *Second Plan targets :* | | | |
| 1960-61 Capacity .. .. .. .. | 450 | 60 | .. |
| 1960-61 Production .. .. .. .. | 350 | 60 | .. |
| 1960-61 Capacity (anticipated) .. .. | 363 | 30 | .. |
| 1960-61 Production (anticipated) .. .. | 320 | 28 | .. |
| *Third Plan* | | | |
| 1965-66 Target Capacity .. .. .. | 820 | 150 | 1,500 |
| 1965-66 Target production .. .. .. | 700 | 120 | 1,500 |

During the First Plan period, the consumption of paper and paperboard increased on an average by about 8 per cent per annum. It showed a progressive increase of 10 per cent during the Second Plan. On this basis, the demand by 1960-61 might have been about 350,000 tons. The demand for newsprint went up to 120,000 tons, and that for strawboards and other boards to 40,000 tons by end of the Plan period. A sum of Rs. 44 crores over and above the investment of about 4·25 crores in public sector projects was invested in the paper and paperboard industry during the Plan period, to achieve the target capacity of 450,000 tons. The investment on newsprint factories was Rs. 6 crores for 60,000 tons. An increase in the production of paper to the extent of 700,000 tons is envisaged during the Third Plan period, *i.e.*, by 1965-66.

In order to achieve self-sufficiency, a production target of 700,000 tons and a capacity target of 820,000 tons was fixed. It is expected to attain production of 680,000 tons by 1965-66. The utilization of capacity in the paper industry has been over 85 per cent during the last several years.

The National Industrial Corporation of the Government of India has prepared the feasibility report for setting up two paper plants costing Rs. 22 crores in Jammu and Kashmir to be implemented during the IV Plan, for manufacturing rayon grade pulp and newsprint and white printing paper.

Besides, it has been proposed to start one newsprint factory in Punjab and another in U.P. with a capacity of 60,000 tonnes and 30,000 tonnes per year respectively.

The *per capita* consumption of paper in India at present stands at 2·6 lbs., as compared with 453 lbs. in the U.S., 126·4 lbs. in Japan and 207 lbs. in the U.K. Hence, it is imperative that the industry should expand even though there is actually a glut in certain varieties of paper such as ordinary writing paper, printing and wrapping paper.

### NEWSPRINT

The National Newsprint and Paper Mills Ltd. (NEPA) is India's first newsprint mill. (For details see under Government Industrial Undertakings.)

The total licensed capacity of newsprint at present is 180,000 tonnes per year. Of the three new schemes licensed, *viz.* Messrs. Birla Gwalior Pvt. Ltd. (U.P.), Shree Gopal Paper Mills Ltd. (Punjab) and Rohtas Industries (Maharashtra), only the first two are likely to materialise by the end of the Fourth Plan. It has also been agreed in principle to expand the capacity of the NEPA Mills from 30,000 tons to 60,000 tons per annum. NEPA Mills produced 30,300 tons of newsprint during 1962-63, exceeding the original target by 300 tons.

It is estimated by the Planning Commission that by 1965-66, the annual demand for newsprint will be of the order of 150,000 tons. An inhibiting factor in the growth of these industries was the dearth of raw materials. In the Third Plan, a target capacity of 150,000 tons per year has been fixed for newsprint, to meet the estimated consumption of 120,000 tons in 1965-66. This demand is based on the actual consumption of newsprint under the restrictive policy for newsprint adopted by the Government. The target for the Fourth Plan is 330,000 tons.

A five-fold expansion from 30,000 tons to 150,000 tons has been proposed in anticipation of growing demand during the Third Plan period. Additional capacity is expected to be achieved through the doubling of the Nepa mills and through the establishment of new newsprint factories based on bagasse and on the soft woods available in the Himalayan region. The table below will throw some light on the expansion of the newsprint industry during the Plan periods.

The following table summarises the development of paper and paperboard industry envisaged during the period of the Third Plan.

('000 tons)

| | 1960-61 | | 1965-66 | |
|---|---|---|---|---|
| | Annual rated capacity | Production | Annual rated capacity | Production |
| Paper and paperboard | 410·0 | 343·2 | 820·0 | 700·0 |
| Newsprint .. | 30·0 | 22·9 | 150·0 | 120·0 |
| Strawboard and other boards .. | 77·4 | 54·5 | 90–100·0 | 70·0 |

The Import of newsprint is given in the table below.

| Year | Value (Rs. crores) |
|---|---|
| 1960–61 .. .. .. | 5·95 |
| 1961–62 .. .. .. | 9·71 |
| 1962–63 .. .. .. | 7·63 |
| 1963–64 (April-Dec.) .. | 5·06 |
| 1964-65 .. .. .. | 7·40 |

The main supplying countries of newsprint to India are Canada, Finland, Norway, Poland, Sweden and U.S.S.R.

# PETROLEUM INDUSTRY

PETROLEUM is a mixture of hydrocarbons which may be in liquid, solid or gaseous forms. Very frequently these three forms are found together but in completely different proportions in different localities. In addition to hydrocarbons, petroleum is usually contaminated with small quantities of compounds containing sulphur, nitrogen or other elements.

Because of the varying proportions of hydrocarbons, crude oils from different sources differ widely in their characteristics. Thus, from some crude oils sufficient lubricating oils and waxes may be obtained while others may yield insignificant quantities of wax but huge quantities of asphaltic bitumen.

Crude oil may be divided, very broadly, into three classes :—

(1) Paraffin Base Crudes : They usually give substantial yields of paraffin wax and lubricating oils, e.g. Assam Crudes. (2) Asphaltic Base Crude : This type of crude contains little or no paraffin but asphaltic matter in large proportions, e.g. crudes from Venezuela. (3) Mixed Base Crudes : Contain both parafin wax and asphaltic matter in quantity, e.g. Indonesian crude.

Crude oil is processed in a unit called a refinery for obtaining various products. There are hundreds of products manufactured from crude oil. In fact, today, there is hardly an industry which does not use some kind of petroleum product. To list here a few products :—

Kerosene is used as an illuminant and a cooking fuel. Motor Spirit and Aviation Spirit are

used as fuel by automobiles and aircraft respectively. High Speed Diesel Oil is used by trucks, buses and tractors. Furnace Oil is used in miscellaneous industrial units including power generation. Mineral Turpentine is used as base in paints and varnishes. Wax is used for manufacturing candles. Lubricants are used for lubricating machines. Bitumen is used in road-making, insulation purposes. Chemicals produced from petroleum sources and generally known as petrochemicals are used for industrial and agricultural purposes.

The demand for petroleum products in India has been steadily growing with the years. Between the years 1948 and 1964, the total inland demand has increased from 2·24 million tons to 11·4 million metric tons, representing an annual average growth rate of about 10 per cent. By 1966, it is expected that demand will be about 15 million metric tons.

Individual petroleum products have been showing a rise in consumption over the years. Most marked increases have been registered in the consumption of products like kerosene and high speed diesel oil, which are usually known as middle distillates and furnace oil.

With the growth in India's economy and rapid industrialisation, set in motion by the various Five-Year Plans, oil consumption has steadily grown but compared with other countries the per capita consumption is still very low. The per capita consumption of some countries including India are given below: U.S.A. 3·379 K.L.; Australia 1·65 K.L.; Ceylon 0·122 K.L.; Burma 0·038 K.L.; India 0·03 K.L.

India's current production of crude oil is about 2·3 million tonnes which is expected to rise to about six million tonnes per year by 1966. In order to bridge the gap between indigenous availability and the demand, India has to import crude oil and petroleum products from various countries.

During 1964 the refining capacity in the country was 8·50 million tonnes. This will rise to about 14·5 million tonnes during 1966. A little over a third of this capacity will be based on indigenous crude. By the end of the 4th Plan period, refining capacity is expected to be about 25 million tonnes per annum.

## OIL EXPLORATION AND PRODUCTION

At present oil exploration in India is conducted by three agencies: The Assam Oil Company, The Oil India Ltd., and the Oil and Natural Gas Commission.

The oil bearing regions in India extend over Punjab, Ganga Valley, Assam, West Bengal, Gujarat, Kutch, Rajasthan and the off-shore areas along the eastern and western coasts and have been estimated at 1,040,000 sq. kilometers. The Assam Oil Company and the Oil India Ltd. operate within the areas allotted to them in Assam State while the Oil and Natural Gas Commission is responsible for exploration over the remaining parts of the country including off-shore areas. Technical training institutes in prospecting, drilling, exploration etc. are being run by the oil and Natural Gas Commission at Bareilly, Cambay and Sibsagar. In addition, the Commission has a Research and Training Institute at Dehra Dun. The activities of the three agencies are briefly described below:

**Assam Oil Company:** India's first oil-well, 102 feet deep, was drilled with a steam-powered drill, near an oil seepage at Nahar Pong in Assam in 1866. It failed to strike oil. But on 26th March 1867, oil was struck at 118 feet at Makum. A few more wells were dug but not much was done for the next twenty years.

Assam Railway and Trading Company were the pioneers in the field of exploration. Between 1890 and 1893 they drilled 4 wells varying in depth from 662 feet to 910 feet. They obtained a concession from the Government to search for oil.

Another company, Assam Oil Syndicate, also obtained a similar concession. Both the companies met with a fair measure of success. By 1898, 15 wells were dug and the crude was refined at Margherita where a small refinery was set up.

The two companies then merged and formed the Assam Oil Company. A refinery was built at Digboi with a capacity of 17,000/20,000 gallons a day.

By 1920, the Assam Oil Company completed about 80 wells. Production reached 14,000 gallons a day. Burmah Oil Company, which had achieved considerable success in Burma, now took over control of the Assam Oil Company and re-equipped Digboi with modern machinery. By 1925, well No. 125, the first large well, was drilled. Production reached 4,500 barrels a day in 1931. Assam Oil Company has drilled nearly 1,000 wells so far out of which nearly 600 are in operation now. The present rate of production of Assam Oil Company is of the order of 0·4 million tonnes.

Oil India Private Ltd., a partnership between the Government of India and the Burmah Oil Company, was registered on February 18, 1959, in Shillong, as a Rupee Company. The headquarters of the Company is at Duliajan.

Oil India has an authorised capital of Rs. 50 crores, divided into 500,000 shares of Rs. 1,000 each. In terms of an agreement signed in 1961, the Govt. of India and the Burmah Oil Company became equal partners in Oil India Ltd.

Oil India Ltd. has drilled upto Sept. 1963, 164 wells out of which 127 were oil or gas producing.

Oil India Ltd. propose to drill 57 wells during 1964 and 1965 so as to be in a position to supply the crude oil requirement of Barauni Refinery also. This Company has already discovered crude oil reserves capable of sustaining an annual production of three million tons. This quality of oil is committed for supply to the Government owned refineries at Gauhati and Barauni.

The oil exploration work in the Andamans has revealed interesting prospects. The geological survey in the middle Andamans has revealed some structures which called for more work. As soon as it was completed, it was proposed to extend oil exploration in the region.

Another oilfield of substantial size has been discovered near about the small town of Kalol, 15 miles north of Ahmedabad and 80 miles from Cambay. According to official sources Gandhinagar area is likely to prove to be one of the richest oilfields in India.

### OIL AND NATURAL GAS COMMISSION*

The Oil and Natural Gas Commission was formed in May 1956 and functioned as a Government department till 1959 when it was converted into a statutory organisation. The Oil and Natural Gas Commission, of which the Minister for Petroleum & Chemicals is chirman, has its Hqrs. in Dehra Dun. About 12,620 persons are employed on its staff. The Commission has three Directorates—Geology, Geophysics and Engineering.

Geological and geophysical surveys are carried out by the Commission in various parts of the country—Jammu & Kashmir, Punjab and U.P. foot-hills and plains, Bihar, Assam, West Bengal, Gujarat, Saurashtra, Kutch, Rajasthan, Cauvery basin in Madras and Godavari basin in Andhra Pradesh and coastal regions of Kerala and Andaman & Nicobar islands.

On the basis of the results of these Geological and Geophysical surveys, drilling is in progress in Gujarat, U.P., Punjab, Assam, Bihar, Rajasthan and Madras. Drilling will shortly be taken up in West Bengal and in the Gulf of Cambay.

Oil and/or gas has been found in Cambay, Ankleshwar and Kalol areas of Gujarat and Rudrasagar and Lakwa areas of Assam. In Gujarat, commercial reserves of oil have been proved. The current rate of production from Gujarat fields is 3,300 tonnes per day. Up to March 31, 1965 a total of 280 wells have been drilled in Gujarat and it is estimated that these fields are capable of producing three million tonnes of crude per annum. Based on these reserves, a refinery at Koyali in Gujarat is under construction.

The Commission have entered into an agreement with the National Iranian Oil Company for exploration and production of oil in certain off-shore areas in the Persian Gulf in collaboration with AGIP of Italy and Phillips of U.S.A. The first well in the area was spudded in on the 29th of May 1965 and drilling is still in progress.

### DISTRIBUTION

Distribution is that stage of the petroleum industry when refined products leave the refinery on their way to the customer. Inland distribution is a very big undertaking in this country. About 11 million tonnes of petroleum products have been distributed during 1964.

At present the major oil distributing companies are: Burmah-Shell, Esso, Caltex and the Government owned Indian Oil Corporation, which apart from distributing the products obtained from its refineries, imports products from rupee payment sources. With the establishment of additional refineries, the Corporation will be handling increasing quantities of petroleum products.

#### Prices

In August 1960, the Government appointed the Oil Price Inquiry Committee under the chairmanship of Mr. K. R. Damle "to examine the principles and elements according to which the selling prices of various petroleum products in India should be determined after April 1, 1961", and *inter alia* to examine and report on specific aspects of petroleum pricing. The Committee submitted its Report in July, 1961. The Government announced its decisions on the Report late in September, 1961 and implemented them with effect from October 1, 1961.

The private oil companies have reduced the price of crude oil twice by 2 cents and 4 cents per barrel during Dec. 1964 and July 1965 respectively. This led to a saving on foreign exchange of about 2 crores.

The Union Government appointed on May 13, 1964 a working group headed by Mr. J. N. Taluqdar, to re-examine the pricing principles for enforcement from about the middle of 1965.

### MISCELLANEOUS

A joint committee of the Government and representatives of the private oil industry known as Oil Advisory Committee has been set up by the Government of India to study problems of supply, distribution and future demand in relation to indigenous production and refining capacity. In this way, a machinery has been set up for close and continuous consultation between the private and public sectors on matters of common interest. Representatives from the Government and oil industry are associated with the working of this Committee.

An institution known as the Indian Institute of Petroleum has also been set up under the control of the Council of Scientific and Industrial Research to do research and give training in petroleum technology.

### REFINERIES

The Digboi Refinery of the Assam Oil Company was commissioned in 1899, and it was the only refinery in India till 1954. A new gasoline plant and a new luboil distillation unit were added to the refinery in 1954. In 1964, the refinery produced a total of 4,35,450 tonnes of petroleum products. Its annual throughput is 0·45 million tonnes of Crude.

* O. N. G. C.'s production increased from 40,000 tons in 1961-62 to almost a million tons in 1963-64. It is expected to produce about 3 million tons by 1966 and 10 million by 1971.

As a result of agreements between the Government of India on the one hand and Burmah-Shell, ESSO and Caltex on the other, three new refineries were set up in mid-fifties. The refineries by Burmah-Shell and ESSO are located at Trombay near Bombay while the Caltex refinery is at Vishakapatnam. The capacities of these refineries are : Burmah-Shell 3·75 million tonnes ; ESSO 2·50 million tonnes ; Caltex 1·05 million tonnes.

## PUBLIC SECTOR REFINERIES

The first public sector refinery at Gauhati was commissioned in January 1962. The capacity of this refinery is 0·75 million tonnes.

The total cost of the Gauhati refinery is estimated at Rs. 17·70 crores. The Rumanian Government have agreed in principle to provide the necessary technical and financial assistance for expansion of the refinery from its present capacity of ·75 million tonnes per annum to 1·1/1·25 million tonnes per annum. The proposal is under examination.

The second public sector refinery at Barauni in Bihar was commissioned in the second half of 1964. The initial capacity of the refinery will be two million tonnes but the capacity will be ultimately expanded to three million tonnes in the beginning of the Fourth Plan period. The first stage of one million tonnes was commissioned in July 1964 and the second stage of another million tonnes and the luboil plant were expected to be commissioned during 1965.

The cost of Design and Technical Assistance as well as plant and equipment for Barauni refinery is being met out of Soviet credit. An amount of Rs. 16·48 crores has so far been utilised from this credit. The total cost of the refinery is estimated at Rs. 40·51 crores with a foreign exchange component of Rs. 17·54 crores.

The third public sector refinery is also under construction at Koyali near Baroda in Gujarat and was expected to be commissioned during the second half of 1965. Its initial capacity will also be two million tonnes to be ultimately expanded to three million tonnes.

The Gujarat refinery is estimated to cost Rs. 30·21 crores for the initial capacity of 2 million tonnes per annum. The expansion of the refinery by another million tonne will cost a further Rs. 2·91 crores. The foreign exchange component of the initial stage expenditure will be Rs. 8·78 crores and the same of the cost of expansion will be Rs. ·9746 crores. Soviet credit amounting to Rs. 8 crores has so far been allocated for the project. The balance of the foreign exchange requirement will also be found from the Soviet credit and any savings out of the same earmarked for Barauni refinery. The initial stage expenditure is expected to be incurred during the Third Plan while the expenditure on expansion will be incurred during the Fourth Plan.

**Cochin Refinery.**—The Cochin Refinery is expected to go on stream by March, 1966.

The cost of the project is estimated at Rs. 21·92 crores, and the foreign exchange component is Rs. 10·39 crores.

The Refinery has been designed to produce annually 2·5 million tons of petroleum products, with the provision for expansion of the capacity to 3·5 million tons later.

The Refinery will have a crude oil storage of 1 lakh tons. It will provide employment to about 1,000 persons.

**Indian Oil Corporation Ltd.**—A Government owned and Government managed private limited company—Indian Refineries Ltd. was incorporated on August 20, 1958 to control and manage the first two public sector refineries, namely the Gauhati and Barauni refineries. This Company has with effect from 1st September 1964 been merged with the public sector marketing company the Indian Oil Company Ltd. to form what is now known as the Indian Oil Corporation Ltd. A separate division of the Corporation called the Refineries Division is looking after the above public sector refineries. With effect from April 1, 1965, the ownership of the Gujarat Refinery has also been transferred to the Indian Oil Corporation Ltd. (Refineries Division) from the Oil and Natural Gas Commission.

In terms of an agreement signed on 27th April 1963 between the Government of India, Phillips Petroleum Company of U.S.A. and Messrs/ Duncan Brothers and Co., Ltd., Calcutta, a Govt. Public Limited Company was incorporated in Kerala State on September 6, 1963 to construct and operate an oil refinery with a capacity of 2·5 million tonnes of crude per annum. This refinery will initially process imported crude oil. The foreign exchange requirements have been obtained through equity participation of Phillips Petroleum Company and a long-term loan arranged by that company from U.S. Banks. The construction of the refinery has made rapid progress and it is expected to be commissioned in the beginning of 1966.

In order to meet the additional demands for petroleum products during the Fourth Plan period, it has been decided to increase the refining capacity to about 25 million tonnes by the end of the Fourth Plan by erecting three more refineries, the first at Madras, the second at Haldia near Calcutta and the third at a suitable location in North-Western India. The construction of the Madras Refinery will be entrusted to Messrs. National Iranian Oil Company and the American International Oil Co. whose collaboration for the refinery has been approved. Regarding Haldia Refinery, tenders have been invited from foreign parties and a suitable collaborator will be selected before the end of 1965.

**Gauhati Product Pipeline.**—This pipeline which is designed for the transport of petroleum products from Gauhati Refinery, was completed and commissioned in November, 1964. The total cost of the pipeline is estimated at Rs. 7·02 crores with a foreign exchange component of Rs. 1·70 crores. The foreign exchange cost has been met out of ENI credit from Italy.

**Barauni Refinery Pipeline.**—This pipeline is being constructed for the transport of petroleum products from the Barauni refinery to areas of consumption. The cost of the pipeline is estimated at Rs. 26·047 crores with a foreign exchange component of Rs. 9·074 crores. The foreign exchange cost will be met out of ENI credit from Italy. The construction of the pipeline is almost complete except for the rail bridge crossings, pump stations and terminals. These are expected to be completed by the end of 1965.

The construction of pipelines is being looked after by a separate division of the Indian Oil Corporation Ltd. The authorised share capital of the Indian Oil Corporation Ltd. is Rs. 75 crores and that of Oil India Ltd. Rs. 50 crores.

**Gujarat Pipeline System.**—The construction of the following pipelines for the transportation of crude oil, gas and products was taken up : Cambay-Dhuvaran Gas Line ; Ankleshwar Uttaran Gas Line; Ankleshwar-Baroda Gas Line ; Ankleshwar-Koyali Crude Line ; and Koyali-Ahmedabad Product Pipeline.

Of these the first two gas lines have since been completed and the remainig three are expected to be completed during 1965.

The total cost of Gujarat Pipeline system is estimated at Rs. 6·732 crores with a foreign exchange cost of Rs. 1·965 crores. The foreign exchange cost will be met out of ENI credit from Italy.

## BURMAH-SHELL REFINERIES LTD.

Burmah-Shell Refineries Ltd. was incorporated in India on 3rd November 1952 for the purpose of constructing and operating a petroleum oil refinery on a 450-acre plot of land in south-west Trombay—near Bombay.

The Refinery commenced operations on January 30, 1955.

The crude oil intake of the Refinery is about four million tons per annum ; the crude oil comes from the Persian Gulf area and from Ankleshwar in Gujarat.

The Refinery manufactures motor spirit, kerosene, high speed diesel oil, light diesel oil, fuel oil, bitumen, liquefied petroleum gas and special boiling point solvents.

The total cost of the Refinery was about Rs. 26 crores, and the total labour staff employed in the Refinery including all categories is about 1,550.

Residential quarters for key operating staff have been provided at a short distance from the refinery, and in addition, Burmah-Shell Refineries Ltd., have paid Rs. 40 lakhs to the Bombay Government for the provision of houses for Refinery labour employees and their families in the Chembur-Ghatkopar area.

Burmah-Shell Refineries Ltd., have also provided a 10-acre recreation ground for their staff and labour employees.

## CALTEX OIL REFINING (INDIA) LTD.

The Caltex Oil Refinery, a product of India's Second Five Year Plan, is located at Visakhapatnam. Its products include petrol, kerosene, diesel oil and fuel oils from the Refinery's flexible two-stage crude oil distillation unit, the fluid catalytic cracking unit with gas recovery facilities, the polymer plant, the propane decarbonisation unit and treating and blending plants.

The Visakhapatnam Refinery is one of the most modern and efficient refineries. It occupies an area as large as 515 acres, and this relaxed setting makes for beauty and work comfort, besides providing room for expansion.

## ESSO REFINERY

The Refinery, which is situated on Trombay island, near Bombay, cost about Rs. 17·5 crores. Construction was started in December 1952 and production started in July 1954. The refinery is capable of running 60,000 barrels of crude oil per stream day nearly 3 million tons a year of crude oil.

Initially the Refinery was designed to process 25,000 B/CD of crude from the Middle East. Besides stepping up refining capacity, new products such as bitumen, jute batching oil, solvents and liquified petroleum gas were introduced to meet the growing needs of the country and save foreign exchange. The Esso Bombay Refinery earned foreign exchange of over Rs. 57 crores during the first decade of its operations.

# PLASTICS INDUSTRY

PLASTICS can be classified into two groups, the-mosetting and thermoplastic. The thermosets soften only once under heat and do not soften again on subsequent heating. Thermoplastics soften when heat is applied and harden on cooling. They can be reshaped again and again. There is also a close relationship between the chemical industry and the plastic industry. The chemical industry supplies the plastic industry with raw materials necessary for the manufacture of synthetic resins.

The U.S.A. produces the largest quantity of plastics followed by Germany, Japan, U.K. and the U.S.S.R.

The Indian plastics industry is a post-war development and, during the first 10 years of its existence, the industry developed in the processing sector with the help of imported raw materials, machinery and moulds. But, at present, the main raw materials such as P.F. moulding powder, U.F. moulding powder, polyestyrene, polythylene, P.V.C. sheeting, nylon monofilament and laminated sheets are manufactured in the country. The plastics industry has now over 200 factories operating on modern lines, in addition to innumerable small ones working on small-scale or cottage industry basis. The capital invested by the industry is reckoned at more than Rs. 25 crores and the same may reach about Rs. 80 to 100 crores by 1966. The industry provides employment to more than 30,000 workers.

During the Third Plan period, the plastics industry is expected to expand more than six-fold. The targeted capacity of raw material production is aimed at 1,33,000 tons by 1965-66 and at 4,00,000 tons by 1970-71.

The machine capacity of the industry at present is estimated as under :—

Compression moulding : 35,000 tons ; injection moulding : 1,200 ounces ; extrusion : 200 inches and surface coating : 10 units.

The Tariff Commission's recommendation to de-protect the industry from January 1, 1963 was accepted by the Government.

There are six units manufacturing polyvinyl chloride (PVC) plastic coated cables, wires and flexibles with an annual capacity of 11 million yards. Six units are manufacturing leather cloth with a capacity of 8·7 million yards per annum. There is one unit producing phenolic resin laminates, with a capacity of 450 tons per annum. There are six units manufacturing polythylene films, layflat tubings and have an aggregate capacity of 837 tons.

The following table shows the total installed capacity and output of important plastic goods in 1962, 1963 and 1964. ('000 kgs)

| | 1962 | | 1963 | | 1964 | |
|---|---|---|---|---|---|---|
| | Installed capacity | Production | Installed capacity | Production | Installed capacity | Production |
| P. F. Moulding Powder | 4,512·0 | 2,422·8 | 4,512·0 | 3,087·6 | 4,512·0 | 3,225·6 |
| Polystyrene Moulding Powder .. .. | 5,443·2 | 3,886·8 | 5,443·2 | 5,515·2 | 5,443·2 | 5,114·2 |
| Phenolic Laminate .. | 1,479·6 | 1,174·8 | 1,478·4 | 1,657·2 | 1,621·2 | 1,708·8 |
| Polythene Films and layflat tubings .. | 3,324·0 | 1,987·2 | 3,324·0 | 1,744·8 | 4,468·8 | 2,292·4 |
| P. V. C. (Flexible) sheetings (unsupported) .. | 3,734·4 | 1,812·0 | 3,758·4 | 1,956·0 | 3,758·4 | 2,067·6 |
| U. F. Moulding Powder | 1,078·8 | 679·2 | 1,078·8 | 1,030·8 | 1,080·0 | 1,220·4 |
| Linoleum .. .. | 852·0 | 480·0 | 852·0 | 681·6 | 900·0 | 835·2 |
| Leather Cloth .. .. | 8,262·0 | 6,658·8 | 8,262·0 | 6,895·2 | 8,262·0 | 8,990·4 |

The articles now manufactured cover a wide range of household consumer and utility items, electrical accessories, telephone equipment, gramophone records, insulated wires, combs, toys, tooth brushes, spectacle-frames, hand-bags, leather cloth, packaging materials, films, industrial items and accessories for automobile engineering, radio and air-conditioning industries. Production of mechanised toys has been an important achievement in recent years.

The per capita consumption of plastics in India is estimated to be ·07 kilos per year against 18 kilos in U.S.A., 18 in West Germany, 12 in Britain and 8 in Japan.

A large part of the raw material is imported. Phenol formaldehyde moulding powder, phenol and formaldehyde and alkyd resin are manufactured in the country out of imported basic materials.

The first moulding powder to be manufactured in India was Phenol Formaldehyde moulding powder. This industry, is however, dependent largely upon imports of phenol, cresol and formaldehyde. In 1960-61, four units were engaged in the manufacture of P.F. moulding powder. Of these four units, three are located in Maharashtra, and one in Gujarat. The three concerns located in Maharashtra are, Industrial Plastics Corporation, Plastic Products of India and Indian Plastics. The requirement of formaldehyde by the plastic industry by 1965-66 is estimated at about 30,000 tonnes per annum. At present there are five units manufacturing P.F. moulding powder with an annual installed capacity of 4,500 tonnes.

*P.V.C. :* Two more factories are being set up, one in Bombay and the other at Mettur for production of this raw material. The capacity of the Bombay unit will be 20,000 tonnes and the other 6,000 tonnes per annum. The companies concerned are National Organic Chemical Industries and Chemical and Plastics India.

*H.D. Polyethylene :* Messrs. Polyolefine Industries Ltd., Bombay in collaboration with Farbwerke Hoechst, Germany were erecting a factory near Bombay for production of 20,000 tonnes. They would also produce 8,000 tonnes of Vinyl acetate and 12,000 tonnes of polyvinyl acetate.

Union Carbide will install a naptha cracker involving a capital outlay of Rs. 8·5 crores. They will produce 9 million kilogrammes of polyethylene per annum. This plant is scheduled to be completed in 1966.

*Polystyrene :* In addition to the plant of Messrs. Polychem of Bombay, one more factory was set up at Visakhapatnam for the production of this raw material. This plant of Messrs. Hindustan Polymers is making good progress and is expected to go on stream by the end of 1966. The licensed capacity of this plant is 10,000 tonnes per annum.

## THIRD PLAN PROGRAMME

The plan for plastics materials is to raise the capacity from 15,540 tons at the end of the Second Plan (1961) to 85,000 tons in the Third Plan (1966) at an estimated fixed investment of Rs. 25·0 crores of which Rs. 10 crores would be in the form of foreign exchange. The production target is placed at 74,000 tons, of which at least 11,000 tons of material as such or converted will be for export. The total employment in this industry in the large-scale sector is estimated to be of the order of 40,000 persons.

The capacity targets set under the Third Five-Year Plan for different articles are given in the table below :

| Material | Capacity (tons) |
|---|---|
| P.F. Moulding Powder .. .. | 6,700 |
| U.F. Moulding Powder .. .. | 4,450 |
| Cellulose Acetate .. .. | 6,700 |
| Polystyrene (including styrene alloys) | 13,400 |
| Polyolefines .. .. .. | 26,800 |
| P.V.C. .. .. .. .. | 13,400 |
| Polyvinyl Acetate .. .. .. | 4,450 |
| Cellulose Nitrate .. .. .. | 890 |
| Laminates .. .. .. | 1,780 |
| Nylon .. .. .. .. | 890 |
| Aceylics .. .. .. .. | 1,780 |
| Polyesters .. .. .. .. | 1,340 |
| Polyurethanes .. .. .. | 890 |
| Others .. .. .. .. | 1,340 |
| Total .. .. .. .. | 84,840 |

SOURCE : Programmes for Industrial Development 1961-66.

Indigenous fabrication of processing equipment and tools will be tailored for a consumption of 60,000 tons of material. It has been estimated that 350 presses of different sizes for compression moulding and lamination can handle 11,000 tons of thermosets. 350 extruders would convert 22,000 tons of thermoplastics into extruded products, besides, compounding 16,000 tons for injection moulding by 800 machines of varying capacities. The value of 1,500 machines and presses inclusive of replacements required for the period of the Plan together with auxiliary equipment such as predryers, preformers, tumbling barrels, scrap grinders, haul off for extruders, mould temperature controllers and other miscellaneous equipment for vacuum forming, vacuum metallising, hot stamping, embossing and printing rollers, heat welding machines, automatic blow moulding equipment, lamination presses, rotational casting machines, etc. would be around Rs. 10 crores. The miscellaneous equipment will cater to foaming, blowing, coating, calendering, casting and fabrication of 11,000 tons of thermoplastic materials.

The requirements of moulds for compression and injection moulding will progressively increase from 800-1,000 in the beginning of the Plan to 3,500-4,000 by 1966—an average of 2,500 moulds per year. As many as 2,500-3,000 dies for extrusion will also be required in the period of the Plan—an average of 500 dies annually. The value of moulds and dies required over the whole period may be put at Rs. 7-8 crores. Alloy steel for the construction of moulds would also become available by the end of the Plan.

The supply of plastics raw materials in the country through domestic production will increase substantially during the next Plan period. According to Planning Commission's working group on petro-chemical industries, polyethylene supply will increase to 26,000 tons in 1967 and to one lakh tons in 1970-71. Supply of PVC will rise from 27,000 tons in 1967 to one lakh tons in 1970-71. The availability of polystyrene will rise from 10,000 tons to 35,000 tons.

The main problem facing the plastics industry is the inflated cost structure which owes mainly to the steep excise duties and high raw material prices. The present rate of excise duty of twenty per cent *ad colorem* plus twenty per cent

surcharge on basic duty is very high. Imports, however, are still quite large, although, since 1957, a restrictive policy has been pursued. The value of imports of raw materials, which was Rs. 4·53 crores in 1959, rose to Rs. 5·71 crores in 1964-65. In 1961-62 imports amounted to Rs. 6·11 crores. The following table shows imports of some of the important raw materials of plastics industry :

(Rs. lakhs)

| Material | 1962-63 | 1963-64 | 1964-65 |
|---|---|---|---|
| P. F. Moulding Powder .. | 6·36 | 6·89 | 6·63 |
| U. F. Moulding Powder .. | 1·82 | 0·51 | 0·36 |
| Cellulose Acetate Moulding Powder .. | 40·65 | 17·16 | 7·96 |
| Polystyrene Moulding Powder .. | 16·66 | 3·22 | 4·72 |
| Vinyl Resins .. | 104·12 | 30·47 | 35·93 |
| Polyethylene Moulding Powder .. | 45·63 | 19·05 | 72·09 |

A Development Council for oil-based and plastics industries has been set up to advise the Government of India on various matters concerning development of soaps, paints and plastics industries.

The country is now an exporter of plastics goods. The following is the yearly exports of plastics from India :

| Year | Rs. crores |
|---|---|
| 1960-61 .. .. | 0·76 |
| 1961-62 .. .. | 0·83 |
| 1962-63 .. .. | 1·05 |
| 1963-64 .. .. | 2·64 |
| 1964-65 .. .. | 3·19 |

Item-wise exports of some of the plastics items were as under :

(Value in lakhs of rupees)

| Plastics Item | 1962-63 | 1963-64 | 1964-65 |
|---|---|---|---|
| Leather Cloth .. | 23·95 | 30·86 | 23·40 |
| Linoleum .. | 17·31 | 30·46 | 24·63 |
| Spectacle Frames | 7·71 | 8·07 | 8·74 |
| Bangles .. .. | 7·70 | 17·89 | 17·59 |
| Umbrella Handles | 2·09 | 1·23 | 2·05 |

In order to encourage exports, an Export Promotion Council was set up in 1955. The Government also allows rebate of import duty at specified rates on raw materials used in the manufacture of plastics goods intended for export. At present the concession is given on urea formaldehyde, cellulose acetate/cellulose acetate butyrate and polystyrene moulding powders.

The leading item of export is leather cloth. The major importers of leather cloth from India are South Viet Nam, Britain, Kuwait, Ceylon and Thailand.

Ceylon leads other countries in import of Indian plastics goods. The other importing countries include Burma, Kuwait, Kenya, Saudi Arabia, Tanganyika, Mauritius and Mozambique.

The following is the yearly import of synthetic plastics materials to India :

| Year | Rs. lakhs |
|---|---|
| 1960–61 .. .. .. .. | 571 |
| 1961–62 .. .. .. .. | 777 |
| 1962–63 .. .. .. .. | 648 |
| 1963–64 .. .. .. .. | 471 |
| 1964–65 .. .. .. .. | 318 |

# RAYON INDUSTRY

## RAYON, SYNTHETIC FIBRES, AND CELLULOSE FILM

### Rayon Filament

There were three units at the beginning of the Second Plan in the country, manufacturing rayon filament with an annual capacity of 22·3 million lbs. Subsequently, three new units with a combined capacity of nearly 21·6 million lbs. had commenced production. There are now nine large scale units engaged in production of viscose filament rayon in India, one in acetate filament and three in staple fibre.

The staple fibre factory of Gwalior Rayons started production in 1954 with a capacity of 5,400 tons per year. The production capacity has now increased to 36,000 tons per year. The South India Viscose has a capacity of 4,000 tons per year.

A Rs. 6 crore nylon plant with a production capacity of 5 tons a day is to be set up at Modinagar, U.P.

The consumption of rayon filament on the basis of production plus imports from 1957-58 to 1962-63 is estimated as under :

(Million lbs.)

| Year | Production | Imports | Availability |
|---|---|---|---|
| 1957–58 .. .. | 26·6 | 40·9 | 67·5 |
| 1958–59 .. .. | 35·0 | 44·5 | 79·5 |
| 1959–60 .. .. | 38·0 | 39·7 | 77·7 |
| 1960–61 (estimated) | 47·0 | 32·0 | 79·0 |
| 1961–62 .. .. | 51·8 | 36·3 | 88·1 |
| 1962–63 .. .. | 63·9 | 27·8 | 91·5 |

At current prices and taxation levels, the consumption of rayon filament can be assessed at about 80 million lbs.

### Staple Fibre

At the start of the Second Plan, Messrs. Gwalior Rayon Silk Manufacturing (Weaving) Company was the only factory producing staple fibre. Its plant at Nagda had a capacity of 16 million lbs. per annum at that time. Since then it has expanded its capacity to 48 million lbs. per annum thereby exceeding the target capacity of 32 million lbs.

The production of staple fibre during 1960 to 1964 is given below :

('000 tonnes)

| Year | Installed Capacity | Production |
|---|---|---|
| 1960 .. .. | 21·60 | 21·78 |
| 1961 .. .. | 25·20 | 26·00 |
| 1962 .. .. | 26·04 | 32·38 |
| 1963 .. .. | 26·04 | 32·24 |
| 1964 .. .. | 26·04 | 37·43 |

About Rs. 35 crores are estimated to have been invested in the rayon and synthetic fibre industry during the Second Plan period. The foreign exchange component of this investment is placed at about Rs. 25 crores.

### Programme of Development in the Third Five Year Plan

As the main use of rayon filament, staple fibre, nylon yarn and other synthetic fibres is in the art silk weaving industry, the demand for these during the Third Plan period has to be assessed in the light of the production envisaged for art silk cloth. In addition, account has to be taken of the demand for rayon yarn arising from other miscellaneous uses.

The production of art silk fabrics during the Second Plan period as reported to the Textile Commissioner has been as follows :—

| Year | Production (Million yards) |
|---|---|
| 1955-56 .. .. .. | 251·18 |
| 1956-57 .. .. .. | 296·11 |
| 1957-58 .. .. .. | 278·39 |
| 1958-59 .. .. .. | 310·87 |
| 1959-60 .. .. .. | 330·00 |
| 1960-61 .. .. .. | 350·00 |

The production during the Third Five Year Plan period viz. 1961 to 1964 is given below :

(Production of Art Silk fabrics including synthetics).

(million metres)

| Year | Production |
|---|---|
| 1961 .. .. .. .. | 570·0 |
| 1962 .. .. .. .. | 600·0 |
| 1963 .. .. .. .. | 648·0 |
| 1964 .. .. .. .. | 832·8 |

It was found that the actual increase in the per capita consumption was less than 3 per cent. per annum during the Second Plan period. The likely increase in the per capita consumption of art silk fabrics during the Third Five-Year Plan cannot be forecast with any great degree of accuracy. However, it seems likely that if supplies were available the per capita consumption would increase at the rate of about 8 per cent. per annum during the Third Plan period. On this presumption the per capita consumption could be reckoned at about 1·8 yards in 1965–66. The requirements of art silk fabrics by 1965-66 can thus be placed at about 864 million yards. While estimating the overall requirements of art silk cloth, account has to

be taken of exports. Export of art silk fabrics is, at present estimated to be of the order of 25–30 million yards. But with continuing efforts it might be possible to export about 50 million yards by 1965-66.

On the above basis, the total requirements of art silk fabrics by 1965-66 may be reckoned at about 915 million yards. On the assumption that (1) consumption of rayon filament and staple fibre will be in the ratio of 60 : 40 and (2) that one lb. of yarn will produce 5 yards of cloth, the total requirements of weaving industry for filament yarn and staple fibre by 1965-66 would be of the order of 110 million lbs. and 75 million lbs. respectively.

In addition to the weaving industry, rayon filament is required for tyre cord and other miscellaneous industries and purposes such as knitting and hosiery industries, gas mantles, fishing nets etc. The demand for rayon tyre cord from the automobile industry is provisionally estimated at 20 million lbs. by the end of the Third Plan period. In order to meet this demand, the Government gave licence to establish a tyre cord plant at Kalyan. This plant was established by Century Rayon in collaboration with Algemene Kunstzijde Unie N. V. of Holland and Veneinigte-Glanstoff Fabriken, A.G. of West Germany.

**Pattern of Consumption :**

In terms of different types of filament and staple fibre the requirements by 1965-66, based on the above target are estimated as follows :

(Million lbs.)

| Nature of fibre | Filament yarn | Staple fibre |
|---|---|---|
| Viscose .. | 96·0* | 64·0 |
| Acetate .. | 24·0 | 8·0 |
| Cuprammonium | 10·0 | .. |
| Synthetics .. | 10·0 | 3·0 |
| Total .. | 140·0 | 75·0 |

* includes 20 million lbs. of tyre cord.

The above estimates are broadly in conformity with the first assessment of demand made by the Development Council for the art silk industry. The Development Council, however, subsequently revised its estimates. According to the revised estimates, the requirements of filament and staple fibre in 1965-66 are placed at 204 million lbs. (including 20 million lbs. for tyre cord) and 141 million lbs. respectively.

The overall position regarding licensing of additional capacity in relation to anticipated requirements is indicated in the following statement :

(Million lbs.)

| Name of the fibre | Estimated requirements by 1965-66 | Total capacity expected on the basis of licences issued under the Industries Act | Total capacity expected on the basis of C.G. clearance |
|---|---|---|---|
| I. Rayon filament | | | |
| Viscose .. .. .. .. .. | 96·0 | 100·6 | 84·6 |
| Acetate .. .. .. .. .. | 24·0 | 19·0 | 4·0 |
| Cuprammonium .. .. .. .. | 10·0 | 13·0 | 5·0 |
| Synthetics .. .. .. .. .. | 10·0 | 13·4 | 7·1 |
| Total .. .. .. .. .. | 140·0 | 146·0 | 100·7 |
| II. Staple fibre | | | |
| Viscose .. .. .. .. .. | 64·0 | 56·0 | 56·0 |
| Acetate .. .. .. .. .. | 8·0 | 1·0 | .. |
| Synthetics .. .. .. .. .. | 3·0 | .. | .. |
| Total .. .. .. .. .. | 75·0 | 57·0 | 56·0 |
| Total of I and II .. .. .. | 215·0 | 203·0 | 156·7 |

The schemes so far licensed or recommended for licence under Industries Act will increase the overall capacity for rayon filament, staple fibre and synthetics to about 203 million lb. as against the target of 215 million lb. envisaged for the Third Plan.

**Investment and Employment :** It is estimated that a sum of Rs. 75 crores would have to be invested in the rayon and synthetic fibres industry during the Third Plan period to achieve the targets indicated. The foreign exchange component of this investment is placed at about Rs. 45 crores. The expansion of the industry is estimated to provide employment to about 8,000 additional persons.

**Requirements of Raw Materials :** The chief raw materials for the viscose process of filament and staple fibre, are rayon grade pulp, caustic soda and sulphur. The requirements of these raw materials for the production of 96 million lb. of viscose filament, 64 million lb. of staple fibre and 32 million lb. of acetate filament and acetate staple fibre are estimated as follows :

| | | |
|---|---|---|
| Rayon grade pulp .. .. | 82,000 | tons |
| Caustic Soda .. .. | 80,000 | „ |
| Sulphur (including carbon disulphide .. .. .. | 60,000 | „ |
| Alcohol .. .. .. | 6·4 | million gallons |
| Cotton linters (for acetate process only) .. .. .. | 13,000 | tons |

In addition, small quantities of copper sulphate, ammonia, sodium hydroxide, cotton linters and sulphuric acid will be required for the manufacture of cuprammonium and phenol and ammonia for the manufacture of caprolactum.

The entire requirements of rayon grade pulp are at present met by imports. A number of schemes for the manufacture of rayon grade pulp with a total annual capacity of about 270,000 tons have, however, been licensed or recommended for licence under the Industries Act.

## CELLULOSE FILM

The first unit for the production of cellulose film was set up by Messrs. Travancore Rayon Ltd. with an annual capacity of 400 tons in 1960. Licences have been granted to two more units, details of which are given below :

1. Messrs. Kesoram Cotton Mills have been licensed to set up a cellulose film unit at Hooghly with a capacity of 1,800 tons per annum. The foreign exchange for the import of plant and equipment for this project has been cleared by the capital goods committee.

2. Messrs. National Rayon secured licence for a capacity of 1,800 tons per annum.

On the basis of schemes so far licensed under the Industries Act, the total capacity for cellulose film is expected to increase from 3,600 tons to 7,200 tons per annum. Of this, the total capacity expected to materialise on the basis of capital goods clearance is 5,400 tons.

According to the then Ministry of Commerce & Industry, the effective demand for cellulose film at that time was about 5,000 tons. The demand for cellulose film is also on the increase on account of its usefulness as an attractive and improved medium for packing export articles. Current projections are that by 1965-66 the total demand will go upto about 10,000 tons per annum.

**Requirements of Raw Materials :**

The requirements of raw materials for a production target of 5,400 tons of cellulose film are estimated to be as follows :

| | |
|---|---|
| Rayon grade pulp .. .. | 6,200 tons |
| Caustic Soda .. .. | 5,400 tons |
| Sulphur .. .. .. | 4,500 tons |

The table given below summarises the development of rayon, staple fibre and cellulose film industry envisaged during the Third Plan :

| Particulars | 1960–61 | 1965–66 |
|---|---|---|
| ANNUAL CAPACITY : | | |
| 1. Rayon filament (million lb.) .. | 52·3 | 140·0 |
| 2. Staple fibre (million lb.) .. .. | 48·0 | 75·0 |
| 3. Cellulose film (tons) | 3,600 | 5,400 |
| 4. Rayon grade pulp (tons) .. .. | .. | 1,00,000 |
| PRODUCTION : | | |
| 1. Rayon filament (million lb.) .. | 47·0 (estimated) | 140·00 |
| 2. Staple fibre (million lb.) .. .. | 48·0 (estimated) | 75·0 |
| 3. Cellulose film (tons) | 2,084 (estimated) | 5,400 |
| 4. Rayon grade pulp (tons) .. .. | .. | 90,000 |
| EXPORTS : | | |
| 1. Art Silk Cloth (million yds.) .. | 30·0 (estimated) | 50·0 |

**Recent Developments :**

World production of man-made fibres had increased from 48 million lb. in 1921 to 8,665 million lb. in 1962. Its share in the total for all fibres had increased from 1 per cent. to 25 per cent. during this period.

Mr. A. R. Ramanathan, Chairman of the Association of Man-made Fibre Industry observed that along with specialisation and diversification, the fibre was being made cheaper. Though man-made fibres were in short supply in India, unlike in foreign countries, further expansion in their production desired on lines was not feasible on account of the slender exchange resources. The price of man-made fibres had been frozen at the 1957 level in spite of the all-round rise in costs. Meanwhile, market prices were falling and stocks with the spinners were mounting.

The Government, in the circumstances, should allow spinners to sell such quotas which are not lifted by the consumers within the prescribed time limit.

The Government has asked the Tariff Commission to recommend fair prices for all kinds of man-made fibre yarn other than acetate rayon yarn. The Commission has been asked to recommend both a fair ex-mill price and also the fair price payable by the consumer.

The development council has recommended to the Government that the Third Plan target for viscose staple fibre, including the controversial polynosic fibre, be increased to one lakh tons. The present licensed capacity for viscose staple fibre yarn is about 40,000 tons. It had been suggested that the target should be raised to one lakh tons, but reserving 40,000 tons for polynosic fibre, which is yet to be tested under Indian conditions.

**Rayon Fabrics Export :** Exports of silk and synthetic fibre which rose to a peak of 90·5 million metres (Rs. 10·35 crores) during 1963 declined to 64·76 million metres (Rs. 7·94 crores) in 1964. The figures for 1964 are provisional.

The principal buyers were Malaysia, Ceylon, Hongkong, Aden and Afghanistan. 1. Malaysia Rs. 101·68 lakhs (90·86 lakh metres) ; 2. Ceylon Rs. 77·43 lakhs (75·70 lakhs metres) ; 3. Hongkong Rs. 60·17 lakhs (57·64 lakh metres); 4. Aden Rs. 39·83 lakhs (47·22 lakh metres ; 5. Afghanistan Rs. 38 97 lakhs (28·91 lakh metres).

# RUBBER INDUSTRY

INDIA produced 45,618 metric tonnes of raw rubber during 1964–65 as against 37,487 metric tonnes in 1963–64.

Rubber production in India during March 1964 totalled 1,924 tonnes, according to the latest statistics of the Rubber Board. About 5,209 tonnes were consumed by manufacturers during the period. Stocks with estates and dealers during the same period were 5,907 m. tonnes.

Manufacturers held 10,185 tonnes in addition to 3,012 tonnes of synthetic rubber and 1,428 tonnes of reclaimed rubber. Imports of natural rubber amounted to 2,940 tonnes during March 1964. Exports were nil.

Of an area of about 377,938 acres under rubber cultivation at the end of 1963–64, over 94 per cent is located in the State of Kerala. Other rubber growing areas are the districts of Kanya Kumari, Coimbatore, Salem, Nilgiris and Madura in Madras State and Coorg and Chickmagalur in Mysore State, and Andamans and Tripura.

The total number of rubber estates registered up to the end of 1963–64 was 70,768.

The following are other details :—

| Year | Planted area in acres | Tappable Area (worked out on the basis of year of planting) in acres | Production (Metric Tonnes) | Average yield per acre in kgs. |
|---|---|---|---|---|
| 1956-57 | 234,351 | 178,500 | 24,060 | 135 |
| 1957-58 | 261,998 | 175,500 | 24,534 | 140 |
| 1958-59 | 286,567 | 173,600 | 24,169 | 139 |
| 1959-60 | 305,452 | 172,500 | 24,173 | 140 |
| 1960-61 | 321,002 | 173,600 | 25,697 | 148 |
| 1961-62 | 348,121 | 183,600 | 27,446 | 149 |
| 1962-63 | 361,142 | 207,700 | 32,239 | 155 |
| 1963-64 | 377,938 | 236,000 | 37,487 | 159 |

**STATEWISE DISTRIBUTION OF THE PLANTED AREA AT THE END OF 1963-64**
(Area in acres)

| STATES | Holdings | | Estates | |
|---|---|---|---|---|
| | No. of units | Area | No. of units | Area |
| Kerala .. .. .. .. | 69,309 | 227,974 | 565 | 128,372 |
| Madras .. .. .. .. | 815 | 5,836 | 41 | 10,977 |
| Mysore .. .. .. .. | 25 | 392 | 11 | 3,945 |
| Andamans .. .. .. | Nil | Nil | 1 | 422 |
| Tripura .. .. .. .. | 1 | 20 | Nil | Nil |
| TOTAL .. .. | 70,150 | 234,222 | 618 | 143,716 |

Areas upto and including 50 acres are classified as *Small Holdings* — (small growers).
Areas above 50 acres are classified as *Estates* — (large growers).

With effect from December 19, 1963, the Government of India fixed for all classes of business the following minimum prices, exclusive of sales tax, for the various grades and qualities of rubber and latex of different concentrations, excluding the cost of container, as mentioned below :

The quality of rubber and minimum price (F.O.B. Cochin for 50 kgms.) in Rs. respectively for the respective groups are as follows : Group 1 : R.M.A. IX ; 161·50 ; R.M.A. 1 ; 161·50. Group 2 : R.M.A. 2 ; 159·85 ; R.M.A. 3 ; 158·20 ; Cuttings No. 1 ; 149·93. Group 3 : R.M.A. 4 ; 154·34 ; R.M.A. 5 ; 149·93 ; Cuttings No. 2 ; 143·32. Group 4 : Precoagulated crepe ; 167·57 ; Pale latex crepe: IX ; 165·36; Pale latex crepe 1 ; 163.16 ; Pale latex crepe 2 ; 162·06 ; Pale latex crepe 3 FAQ ; 160·96. Group 5 : E.B.C. Super IX ; 156·54 ; Estate brown crepe IX ; 152·13 ; Estate brown crepe 2X ; 148·83 ; Smoked blanket; 152·13 ; Remilled crepe 2 ; 143·87. Group 6 : Estate brown crepe 3X ; 140·01 ; Remilled crepe 3 ; 137·81 ; Remilled crepe 4 ; 131·74. Group 7 : Flat bark : 122·37.

Normal latex upto 35 per cent concentrates : Rs. 161·50 plus a premium of Rs. 19·29 per 50 kgms. of D.R.C.

Latex concentrates of 36 per cent to 50 per cent (both inclusive) : Rs. 161·50 plus a premium of Rs. 36·38 per 50 kgms. of D.R.C.

Latex concentrates of 51 to 60 per cent (both inclusive) : Rs. 161·50 plus a premium of Rs. 47·40 per 50 kgms. of D.R.C.

With the expansion of existing factories and with more factories coming into existence every year, the consumption of rubber is increasing.

The quantities actually consumed during the last few years in metric tonnes were :

1953–54 : 24,157 (natural 24,142 ; synthetic 15) ; 1954–55 : 26.353 (natural 26,332 ; synthetic 21) ; 1955–56 : 28,906 (natural 28,445 ; synthetic 461) ; 1956–57 : 32,864 (natural 29,998 ; synthetic 2,866) ; 1957–58 : 36,235 (natural 33,074 ; synthetic 3,161) ; 1958–59 : 39,244 (natural 35,767 ; synthetic 3,477) ; 1959–60 : 45,455 (natural 40,491 ; synthetic 4,964) ; 1960–61 : 55,545 (natural 48,148 ; synthetic 7,397) ; 1961–62 : 58,596 (natural 48,410 ; synthetic 10,186) ; 1962–63 : 64,276 (natural 53,553 ; synthetic 10,723) ; 1963-64 : 73,114 (natural 61,155 ; synthetic 11,959).

Imports of rubber in metric tons were : 1953–54 : 44 (natural 25 ; synthetic 19) ; 1954–55 : 3,447 (natural 3.425 ; synthetic 22) ; 1955–56 : 5,629 (natural 4,428 ; synthetic 1,201) ; 1956–57 : 10,475 (natural 7,341 ; synthetic 3,134) ; 1957–58: 14,371 (natural 11,357 ; synthetic 3,014) ; 1958–59 : 16,767 (natural 12,538 ; synthetic 4,229) ; 1959–60 : 21,005 (natural 15,287 ; synthetic 5,718) ; 1960–61 : 31,222 (natural 23,125 ; synthetic 8,097) ; 1961–62 : 32,649 (natural 22,528 ; synthetic 10,121) ; 1962–63 : 33,657 (natural 23,360 ; synthetic 10,297) ; 1963-64 : 35,087 (natural 26.275 ; synthetic 8,812).

By the end of the Third Plan it might be possible to stop imports altogether.

The estimated production of natural rubber during the last year of the Third Five Year Plan period is as follows (in metric tonnes) : 1965-66 : 41,453. The estimated demand for different types of rubber during 1964-65 & 1965-66 is as given below :

| Year | Estimated demand (in Metric Tonnes) | | | |
|---|---|---|---|---|
| | Natural rubber | Synthetic rubber | Reclaimed rubber | Total |
| 1964-65 | 49,580 | 24,384 | 11,176 | 85,140 |
| 1965-66 | 55,168 | 26,416 | 13,716 | 95,300 |

At present about 16 per cent of the demand is met by synthetic rubber.

The total value of rubber plantation in the country is estimated at over Rs. 50 crores. The rubber plantation and manufacturing industries offer direct employment to about 1,30,000 workers and means of livelihood for over four lakh people according to a modest estimate.

## SYNTHETIC RUBBER

With the commissioning of the 30,000-ton Synthetic Rubber Plant at Bareilly (U.P.), on July 15, 1964, the problem of accumulation of alcohol in the distilleries in U.P. has been considerably solved. The plant would consume in a year 20 to 22 million gallons of alcohol, the main ingredient of synthetic rubber.

Besides being the first and the only unit in India, this factory makes a big headway in bridging the wide gap between the production and demand for rubber in the country. Foreign exchange to the tune of about Rs. 10 crores is expected to be conserved yearly by the country through this plant.

It introduces a new technology in rubber manufacture which, in the years to come, will help the country immensely in securing self-sufficiency in respect of rubber. The State alone, with over 70 sugar mills, has a vast potential of alcohol production from molasses.

Installed at a total outlay of Rs. 18 crores in the private sector, the plant has been brought into existence by Synthetic and Chemicals Limited, in collaboration with several American and one German concerns, for large-scale production of Butadiene and Styrene, the two main components of synthetic rubber.

Located on the Delhi-Bareilly National Highway, the open-air plant has been set up as a completely self-contained unit with elaborate arrangements for quality control and the safety of workers. It employs about 1,200 persons, mostly from the State.

The plant is supplying synthetic rubber to all tyre companies, rubbersole shoe factories, cable industries and other rubber goods factories in the country. Several technicians from Brazil were recently trained in this plant for production of synthetic rubber from alcohol.

About 116,333 tonnes of synthetic rubber was produced during 1964-65. The per capita consumption of Synthetic rubber in India is estimated to be 0·06 lbs per year against 15·5 lbs in U.S.A., 6·6 in Australia, 5·8 in West Germany and 2·9 in Japan.

## RUBBER GOODS

India has a modern manufacturing industry.

The raw materials used in Rubber goods are titanium dioxide, carbon black and zinc oxide.

In this, the manufacture of tyres and tubes accounts for about 70 per cent of the total consumption of rubber and bulk of capital investment, followed by foot-wear with 15 per cent annual consumption.

The total investment in the industry in 1957 is estimated at about Rs. 13 crores and the number of persons employed is about 21,800.

The progress of the manufacturing industry is given below :—

| Product | 1960 | 1961 | 1962 | 1963 | 1964 |
|---|---|---|---|---|---|
| Footwear (Lakh pairs) | 446·4 | 451·2 | 498 | 465·6 | 470·4 |
| Dipped Rubber goods, Toys, Balloons, etc.(Lakh Doz.) | 324·9 | 255·6 | 3,076·8 | 2,740·4 | 3,075·7 |
| Tyres : | | | | | |
| Automobile (000) | 1,362·0 | 1,562·4 | 1,710 | 1,926 | 2,090·4 |
| Cycle (000) | 10,830·0 | 11,346·0 | 11,940 | 14,186·4 | 16,156·8 |
| Tractor (No.) | 49,476 | 48,456 | 56,556 | 43,212 | 74,544 |
| Aero (No.) | 2,664 | 2,652 | 8,064 | 15,660 | 14,052 |
| Cab (000 meters) | 61·2 | 39·6 | 49·2 | 60 | 48 |
| Tubes : | | | | | |
| Automobile (000) | 1,281·6 | 1,484·4 | 1,644 | 2,029 | 2,208 |
| Cycle (000) | 12,675·6 | 12,848·4 | 11,562 | 13,342·8 | 15,194·4 |
| Tractor (No.) | 50,712 | 53,724 | 52,752 | 63,156 | 75,180 |
| Aero (No.) | 1,080 | 2,418 | 2,940 | 3,696 | 4,608 |
| Hoses : | | | | | |
| Radiator (000) | 248·4 | 249·6 | 205·2 | 207·6 | 276·0 |
| Vacuum Brake (000) | 345·6 | 724·8 | 1,114 | 1,920 | 1,220·4 |
| Other Types (000 meters) | 3,592·8 | 4,632 | 5,050·8 | 5,390·4 | 6,584·4 |
| Fan Belt (000s.) | 1,087·2 | 1,076·4 | 1,984 | 1,216·8 | 1,328·4 |
| Ebonite (kgms.) | 133·2 | 166·8 | 124·8 | 141·6 | 132·0 |
| Waterproof fabrics (000 meters) | 3,694·8 | 4,731·6 | 4,166·4 | 6,466·8 | 4,627·2 |
| Latex foam sponge (kgms) | 1,261·2 | 1,516·8 | 1,683·6 | 1,420·8 | 1,056·0 |

The programme of development for the rubber goods industry envisaged under the Plans period is summarised below :—

(In million Nos.)

| | 1955-56 Production | 1960-61 Installed Capacity | 1960-61 Production | Targets for 1965-66 Capacity | Targets for 1965-66 Production |
|---|---|---|---|---|---|
| *Automobile tyres* | 0·92 | 1·61 | 1·49 | 3·70 | 3·0 |
| *Bicycle tyres* | 5·80 | 15·12 | 11·15 | 38·6 | 30·9 |

### IMPORTS

Considerable quantities are being imported to meet the increased domestic demand of the manufacturing industry.

(Rs. lakhs)

| Imports | 1960-61 | 1961-62 | 1962-63 | 1963-64 | 1964-65 |
|---|---|---|---|---|---|
| 1. Crude rubber, including thetic and reclaimed | 1,078·22 | 1,010·37 | 1,023·22 | 975·04 | 542·89 |
| 2. Rubber fabricated materials | 22·59 | 15·72 | 21·4 | 23·19 | 22·39 |
| 3. Rubber manufacturedi articles | 302·85 | 333·09 | 154·13 | 174·93 | 116·75 |

*Import duty :* An initial duty of 5 per cent was introduced in May 1957. But this was increased to 10 per cent in March 1961 and 22 per cent in April 1963. With the regulatory import duty of 10 per cent introduced in Feb. 1965, the present duty comes to 32 per cent. But the excise duties on tyres, tubes footwear and cycle parts have been totally removed.

# SHIPPING INDUSTRY

INDIAN shipping is a potential and quick earner of foreign exchange. During the 2nd Five Year Plan period, India paid in terms of foreign exchange an average of Rs. 130 crores per annum to foreign shipping companies for obtaining their services.

The important shipping Companies are Scindia, India Steamship, Great Eastern Shipping, Bharat Line, Malabar Steam Ship, Bengal Assam Steamship, Port Shipping, Jayanti Shipping Company, Chowgule Steamships, Mogul Line Ltd., Shipping Corporation of India and South India Shipping Corporation Ltd.; Thakur Shipping Company Ltd., is a new Company formed during 1964-65.

In 1962, the Indian Shipping crossed the milestone of a million gross registered tons. The Jayanti Shipping Company registered its first tanker *Adi Jayanti* at Bombay in 1961 with g.r.t. of 20,418. With the delivery of *Lilavati Jayanti & Bhaskar-Jayanti* in Aug. 1965, the company's total tonnage exceeded 5,00,000 d.w.t.

The routes operated are India—U.K.—Continent, India—Black and Red Sea Ports, India—West Africa—Mediterranean, India—U.S.A., India—South America, India—Japan Far East and India—Australia.

During 1963, Indian shipping companies acquired 30 vessels totalling 275,206 g.r.t. 415,099 d.w.t. bringing the strength of the Indian merchant fleet to 208 vessels of 1,233,853 g.r.t. (1,777,945 d.w.t.) as on Jan. 1, 1964.

A notable feature of the past two years is the acquisition of bulk carriers and tankers which formed a major part of the total acquisition during this period.

Since the end of 1963, seven more vessels, totalling 47,582 g.r.t. have been acquired bringing the strength of the Indian fleet to 215 vessels aggregating 1,305,861 g.r.t.

Indian shipping now proposes to aim at a target of 2.5 million grt, inclusive of orders placed for new constructions or acquisitions at the end of Third Plan. It had crossed the one million mark a couple of years ago and if firm orders already placed for the construction or acquisition of more vessels are taken into account, it would go well beyond the 1.5 million mark.

**Analysis of Tonnage as on 1st January 1964**

| Trade | No. of vessels | G.r.t. | D.w.t. |
|---|---|---|---|
| OVERSEAS | | | |
| Drycargo | 87 | 665,910 | 942,931 |
| Cargo-cum-passenger | 6 | 43,000 | 46,370 |
| Tanker | 1 | 20,418 | 33,015 |
| Banana carrier | 5 | 107,819 | 166,373 |
| Total Overseas | 99 | 837,147 | 1,188,689 |
| COASTAL | | | |
| Drycargo | 96 | 357,625 | 542,717 |
| Cargo-cum-passenger | 3 | 9,138 | 9,812 |
| Passenger | 7 | 6,114 | 2,204 |
| Tanker | 3 | 23,829 | 34,523 |
| Total Coastal | 109 | 396,706 | 589,256 |
| Grand total of overseas and coastal tonnage | 208 | 1,233,853 | 1,777,945 |

*Source :* Indian Shipping.

**Agewise Analysis of Indian Tonnage**
**(1st January 1964)**

| Age of vessels | Overseas | | Coastal | | Total | |
|---|---|---|---|---|---|---|
| | No. of vessels | g.r.t. | No. of vessels | g.r.t. | No. of vessels | g.r.t. |
| Under 10 years (built in 1954 or later) .. | 76 | 676,773* | 11 | 42,777 | 87 | 719,552 (58·3%) |
| Between 10 and 14 years (built between 1949 and 1953) .. .. | 11 | 73,230 | 31 | 107,478 | 42 | 180,708 (14·7%) |
| Between 15 and 19 years (built between 1944 and 1948) .. .. | 11 | 81,268 | 31 | 137,427 | 42 | 218,695 (17·7%) |
| 20 years and over (built in 1943 or earlier) .. | 1 | 5,876 | 31 | 107,258 | 32 | 113,134 (9·2%) |
| Small Companies† .. | — | — | 5 | 1,764 | 5 | 1,167 (0·1%) |
| | 99 | 837,147 | 109 | 396,706 | 208 | 1,233,853 (100 %) |

* As much as 80·8 per cent. of the Indian tonnage operating in the overseas trades is under 10 years of age.

† Owning total tonnage not exceeding 1,000 g.r.t. and plying in short coastal range.

*Source :* Indian Shipping.

The Shipping Corporation of India operates regular services in the eight international trade routes: India—U.K./ Continent; India—Poland; India—U.S.S.R.; India—East Africa; India—Malaysia; India—Australia; East Coast of India—Japan; West Coast of India—Japan; India—U.S.A.

The Shipping Corporation of India is now having a fleet of 32 ships, the total dead weight tonnage of which is 4,05,768 and gross registered tonnage is 2,82,491. In addition to this three bulk carriers will be delivered during 1967-68 each of 35,000 dead weight tons. 20 more ships are on order with different Shipyards out of which 12 dry Cargo Vessels are with Hindustan Shipyard.

The future expansion is expected to be still faster and the gross registered tonnage of over half a million ton is expected to be reached by 1967.

A significant step taken during the Second Plan period was the establishment of a non-lapsing shipping development fund for grant of loans to shipping companies for the acquisition of tonnage.

The Fund is composed of annual contributions from the Consolidated Fund of India, the quantum of which will be determined from year to year. Repayments against loans already granted to shipping companies are also to be credited to the Fund.

Another significant step taken in the field of shipping was the establishment of a Shipping Co-ordination Committee in the Department of Transport. The Committee is intended to bring about better liaison between various Ministries of the Government of India and other Government organisations which have cargoes requiring transport, on the one hand, and the Indian shipping companies, on the other, so as to ensure the maximum utilisation of the available Indian tonnage.

The Government of India has agreed to permit the acquisition of second-hand tonnage on deferred payment terms which involve not more than 20 per cent down payment, with the balance of the price spread over a period of 5 years. Despite the foreign exchange difficulty, not a single proposal for the acquisition of tonnage on deferred payment basis has been turned down by Government. The Government has also agreed to consider orders for building new ships provided the payment of price is spread over a period of 7 years after delivery, with a small initial cash payment.

## PROGRESS OF INDIAN TONNAGE

*Note :* While the fleet tonnage figures are as on the dates mentioned in column 1 of the Table, the tonnage of coastal cargo carried (column 5)† is for the year ending on those dates and the tonnage of the total overseas and coastal cargoes (column 6) is for the twelve months ended 31st March of the year mentioned in column 1.

| (1) | FLEET | | | | | | TRADE | |
|---|---|---|---|---|---|---|---|---|
| | (2) Coastal | | (3) Overseas | | (4) Total Coastal and Overseas | | (5) Coastal | (6) Total overseas and coastal |
| As on | No. of vessels | G.R.T. | No. of vessels | G.R.T. | No. of vessels | G.R.T. | Cargo carried by Members of Indian Coastal Conference (Shipping tons) | Cargo handled at the major ports of India (Dw. tons) |
| 1st April 1951 (I Plan beginning) .. .. | 71 | 205,699 | 23 | 166,679 | 94 | 372,378* | .. | .. |
| 31st December, 1951 .. | 79 | 217,202 | 24 | 173,505 | 103 | 390,707* | 2,410,749 | 18,806,000 |
| ,, ,, 1952 .. | 88 | 255,119 | 23 | 168,383 | 111 | 423,502* | 2,584,572 | 22,223,429 |
| ,, ,, 1953 .. | 98 | 257,217 | 25 | 178,083 | 123 | 435,300 | 2,802,321 | 21,498,827 |
| ,, ,, 1954 .. | 101 | 286,066 | 25 | 179,198 | 126 | 465,264 | 2,848,433 | 20,049,220 |
| ,, ,, 1955 .. | 92 | 220,960 | 33 | 255,347 | 125 | 478,307* | 2,660,508 | 20,401,715 |
| Planned target at end of I Plan† .. .. | .. | 315,000 | .. | 285,000 | .. | 600,000 | .. | . |
| 1st April 1956 (II Plan beginning) .. .. | 90 | 239,927 | 36 | 239,953 | 126 | 479,880 | .. | .. |
| 1st December, 1956 .. | 85 | 246,724 | 39 | 270,615 | 124 | 517,339 | 2,543,232 | 24,103,677 |
| ,, ,, 1957 .. | 85 | 267,252 | 46 | 309,277 | 131 | 576,529 | 2,525,753 | 27,314,271 |
| ,, ,, 1958 .. | 85 | 267,252 | 46 | 309,277 | 131 | 576,529 | 2,525,753 | 27,314,271 |
| ,, ,, 1959 .. | 95 | 306,869 | 64 | 437,320 | 159 | 744,189 | 2,492,566 | 28,744,701 |
| ,, ,, 1960 .. | 98 | 315,397 | 74 | 528,619 | 172 | 844,016 | 2,660,992 | 31,012,045 |
| Planned target at end of II Plan .. .. | .. | 436,200§ | .. | 465,505 | .. | 901,705 | .. | .. |
| 1st April 1961 (III Plan beginning) .. .. | 97 | 313,694 | 75 | 544,139 | 172 | 857,833 | .. | .. |
| 31st December, 1961 .. | 104 | 361,705 | 70 | 539,315 | 174 | 901,020 | 2,407,899 | 33,690,000‡ |
| ,, ,, 1962 .. | 107 | 394,939 | 80 | 629,303 | 187 | 1,024,242 | 3,539,451‡ | 33,920,000‡ |
| ,, ,, 1963 .. | 109 | 396,706 | 99 | 837,174 | 208 | 1,233,853 | .. | 42,710,000‡ |
| Planned target at end of III Plan .. .. | .. | 824,500 | .. | 761,400 | .. | 1,085,900 | .. | .. |
| Revised Planned target at end of III Plan .. | .. | .. | .. | .. | .. | 1,300,000 | .. | .. |

* In respect of these figures, there has been a slight discrepancy amounting to a few thousand tonnes when compared with figures of licensed tonnage published in the earlier issues of this journal because of one or two ships having been acquired but not licensed on the dates indicated.

† The Planning Commission appears to have taken the figure at the end of the year (31-12-1951) as the tonnage at the beginning of the Plan.

‡ Metric tonnes. § Including 23,000 tons of tankers and salvage tug of 1,000 tons. *Source :* Indian Shipping.

At the end of 1964 the total tonnage rose to 13·87 lakhs from 12 34 lakhs at the end of 1963. The operative tonnage at the end of the Third Plan is expected to be 15 lakhs and another 5 lakhs would be on order or under construction.

### SHIPPING ACT

The Merchant Shipping Act 1958 provides for the establishment of a National Shipping Board and a Shipping Development Fund. It also provides for the safety and the efficiency of the merchant marine and the welfare of seamen and passengers.

There is a Director-General of Shipping to administer the provisions of the Act. There will also be officers under the Act at all ports.

There is a National Welfare Board for Seafarers to advise Government on welfare problems.

An important provision is about the definition of an Indian ship.

The Act was brought into force in its entirety with effect from 1st January 1961.

#### Shipping Board

The National Shipping Board mentioned in the Act was set up on 1st March 1959. It consisted of 22 members.

Immediately after the 1st Board was set up, it appointed a Committee under the chairmanship of Mr. A. Ramaswami Mudaliar to formulate the shipping target for the Third Five-Year Plan. The Board was reconstituted with Mr. C. H. Bhaba as Chairman and Mr. Govind H. Seth as Member-Secretary. Mr. Bhabha resigned in the middle of 1964. The present Chairman is Mr. Raghunath Singh, M.P.

### MERCHANT NAVY TRAINING

Besides "Dufferin," there are six training establishments for the training of Merchant Navy personnel. Till the end of 1963 the Union Government spent about Rs. 4·9 crores for the training of merchant navy personnel and about 25,000 candidates had been trained since 1947.

A Merchant Navy Training Board was set up by the Government of India in Aug. 1959 to advise the Government on all training problems and to supervise the training imparted in the merchant navy establishments. The Board was reconstituted in April 1963. The address of the Board is : C/o Directorate General of Shipping, Currimbhoy Building, Ballard Estate, Bombay 1.

To focus attention on the problems connected with the life and service of seamen and the role they play in promoting the economy, it was decided to observe National Maritime Day on April 5 of every year. The First National Maritime Day on April 5, 1964 was celebrated on a grand scale.

### FIVE-YEAR PLANS

Taking into account the financial resources available, a programme of development was formulated which aimed at raising the total gross registered tonnage to over 600,000 by the end of the period of the First Five-Year Plan.

At the beginning of the First Five-Year Plan India had a tonnage of 390,707* G.R.T. (174,000 G.R.T. overseas and 217,000 G.R.T. coastal). On 31st March 1956, the actual tonnage stood at 480,000 G.R.T. (240,000 G.R.T. overseas and 240,000 G.R.T. coastal) but taking into consideration the tonnage of 109,000 G.R.T. (17 ships) on order in Indian and foreign yards, the target had been exceeded.

In the Second Five-Year Plan it was proposed that about 301,000 tons should be added after allowing for obsolescence of 90,000 tons. Thus by the end of the Second Plan, the total tonnage is believed to have reached 905,000 G.R.T. (613,000 G.R.T. overseas and 292,000 G.R.T. coastal).

With the achievement of this target, Indian tonnage was expected to carry at least 15 per cent of the country's overseas trade, as against 7 to 8 per cent, in the beginning of the 2nd Plan, 50 per cent of the trade with adjacent countries as against 40 per cent, besides 100 per cent of coastal trade.

The Third Plan has fixed a target of 374,500 gross registered tons to be acquired by 1965–66 made up as follows :—

(Gross registered tons.)

| | Private sector | Public sector | Total |
|---|---|---|---|
| *Coastal :* | | | |
| Replacement .. .. .. .. .. | 100,000 | — | 100,000 |
| Addition .. .. .. .. .. | 25,000 | 7,500 | 32,500 |
| Total .. .. .. .. | 125,000 | 7,500 | 132,500 |
| *Overseas :* | | | |
| Replacement .. .. .. .. .. | 56,000 | 37,600 | 93,600 |
| Addition .. .. .. .. .. | 35,200 | 113,200 | 148,400 |
| Total .. .. .. .. | 91,200 | 150,800 | 242,000 |
| Grand Total .. .. .. .. | 216,200 | 158,300 | 374,500 |

The 3rd Plan allocation of funds is Rs. 55 crores. In addition, Rs. 4 crores are likely to be available from the Shipping Development Fund. The shipping companies are expected to contribute Rs. 7 crores from their own resources. A little more than half of the total amount is proposed to be spent in the private sector.

Programmes for ship-building during the Third Plan include the expansion of Hindustan Shipyard, the construction of a drydock at Visakhapatnam and a ship-yard at Cochin in collaboration with the Mitsubishi group of Japan. When the schemes are fully implemented, the Visakhapatnam Shipyard will be capable of producing ships of total tonnage of 50,000 to 60,000 d.w.t. per year. A second shipyard is also to be established at Cochin at an estimated cost of Rs. 20 crores and a scheme for the manufacture of marine diesel engines is to be undertaken at the cost of Rs. 5 crores.

#### Sailing Vessels

The Sailing Vessels Committee emphasised that if the industry were to survive, the owners of sailing vessels should be encouraged to mechanise their vessels. Government have, therefore, approved a scheme for the grant of loans for this purpose. Under the scheme, loans are being granted for mechanisation of sailing vessels of 100 tons and over upto a maximum of 75 per cent of the cost of auxiliary machinery, provided the vessels in question are considered seaworthy and suitable for installation of machinery.

The effective rate of interest to be charged on these loans is 2¼ per cent and the period of repayment ordinarily extends to 5 to 6 years, but may be extended by one or two years more if the circumstances of the loanee so justify. Other measures taken by the Govt. of India to develop the sailing vessels industry include the constitution of Central and Regional Advisory Committees, education of *tindals* in the traditions of the sea, training of seamen under sail, and issue of identity cards to the crew of sailing vessels proceeding to Ceylon.

The Government of India has signed an agreement with the Mitsubishi Heavy Industries, Japan in June 1964 for the construction of India's Second Shipyard at Cochin. The shipyard will be built as a part of India's Third Five-Year Plan and will comprise among other things a dock of 30,000 deadweight tons and a slipway of 15,000 deadweight tons.

### SHIP-BUILDING

(See 'Hindustan Shipyard', 'Mazagon Docks Ltd.' and 'Garden Reach Workshop Ltd'.) Under Government Industrial Undertakings.

* Allowing for obsolescence.

# SMALL-SCALE INDUSTRIES

Indian industry is made up primarily of small-scale rather than large-scale units. It is reckoned that there are about two crore persons engaged in small-scale and cottage industries.

The small-scale industry is primarily the responsibility of the State Government and not of the Centre. But the Centre supplements the efforts of the State Governments.

Small-scale industries include all industrial units with a capital investment of not more than Rs. 5 lakhs irrespective of the number of persons employed.

Under the State Aid to Industries Act/Rules State Governments are empowered to provide finance in the form of loans, guarantees for loans raised from banks, subscription to shares and debentures, etc. Although loans under the Act are generally for medium and long-term needs, advances are made for short-term requirements also.

In most of the States, loans up to Rs. 1,000 are being advanced on personal bonds, up to Rs. 5,000 against one or more personal sureties and above Rs. 5,000 at 75 per cent of the security (land, building, machinery, equipment, stocks and other assets including those created out of the loans) offered. These loans are repayable in easy equal instalments spread over 10 years. No loan to any single party can normally exceed Rs. one lakh and to an industrial co-operative Rs. two lakhs without the prior concurrence of the Central Government.

The rate of interest on loans advanced under State Aid to Industries Act would be governed by the capital investment of small scale industries —it would be 3 per cent to industrial undertakings with capital investment up to Rs. 2 lakhs, 4½ per cent to undertakings with capital investment of Rs. 2 to 4 lakhs and 6 per cent to undertakings with capital investment of more than Rs. 4 lakhs. This does not, however, apply to industrial co-operatives in the small scale sector

which will continue to receive loans at 2½ per cent.

New industries as well as industries which need revival or development in the cottage and small-scale sectors are eligible for grant of loans, and preference is given to such industries. Preference would also be given to small scale units in the light of their capital investment *i.e.* units with smaller capital investment would be given preference over others.

While much is not yet known about the role of commercial banks in this process, the State Bank of India under its liberalised scheme made significant progress. Another landmark had been initiation from 1st July 1960 of the Credit Guarantee Scheme by the Reserve Bank of India. Loans are also guaranteed to small industries by the National Small Industries Corporation and the State Financial Corporations. The N.S.I.C. has been extending financial assistance through its scheme under which it supplies machines on hire-purchase basis.

Small-scale industries are distinct from village industries and handicrafts. Generally speaking village industries are of traditional nature catering primarily to local markets.

Small-scale industries can and do produce a large variety of consumer goods :—bicycles, agricultural implements, sewing machines, domestic electrical appliances, builders' hardware, cutlery and domestic hardware, furniture, wood work, footwear and other leather products, ceramics, glassware, sports goods, hand tools, surgical and drawing and surveying instruments, mechanical toys, matches, chemicals, paints and varnishes, polishes, etc.

Small-scale industries can really be classified into four main groups :—manufacturing industries, feeder industries to large industries, servicing industries, and ancillaries to large industries.

Manufacturing industries include complete articles or products manufactured for sale directly to consumers (consumer items) and in some cases used as spare parts.

Feeder industries are a kind of general engineering shops which specialise in certain types of products and services such as castings, forging tools and dies, electroplating and galvanizing, welding and other services for large scale industries. They do not have a regular line of work but take job orders from time to time depending upon the need of the large industry.

Servicing industries mostly cover light repair shops which are necessary to maintain mechanical equipment owned by the community. They cater to such works as auto repairs, repair of cycles and radios, photographic studios, repair of pumps, motors and other kinds of light machinery used in industry, agriculture, etc.

Ancillaries to large scale units include parts and components for several light engineering products such as cycles, sewing machines, electric motors, radios, clocks, automobiles, diesel engines, textile and other machinery and machine tools.

## REVIEW

The Small-scale Industries Board which helps the Government in formulating various policies and programmes relating to the development of small-scale industries was reconstituted with effect from July 1961. The Board met twice during the year. For implementing the existing and new schemes for the development of small-scale industries, Central assistance amounting to Rs. 922 lakhs in the shape of loans and grants was sanctioned to the various State Governments during 1962-63. The total Central assistance during the first two years of the Third Plan amounted to Rs. 1,445 lakhs. By the end of the Second Five-Year Plan, there were about 92 industrial estates providing factory accommodation to small-scale industries at suitable sites with facilities of water, electricity and transport. These provided employment to more than 20,542 persons.

Reviewing the growth of small-scale industries during the last 10 years, Shri Dasappa said that there were in June 1964, over 57,000 small scale units registered with the various State Directorates of Industries. The number of on-register small scale factories which availed of facilities from Central Small Industries Organisation have been estimated at about 2 to 2·5 lakhs. Even the limited data available on the production and employment potential of this sector show that the gross value of output in the small-scale sector is about Rs. 1,400 crores or about 31 per cent of total output in the industrial sector and 26 per cent of the value added by manufacture.

A number of schemes designed to help the small entrepreneurs have been implemented. Apart from the Central and State assistance to the small-scale industries, the State Bank of India and the State Financial Corporations have been advancing long and medium term loans. During the Second Plan period (1956-61), the total credit both long-term and short-term provided to small-scale industries by various institutional agencies and State Governments, amounted to Rs. 70 crores.Under the Credit Guarantee Scheme, the Reserve Bank of India issued till the end of November 1963, 6,925 guarantee certificates amounting to Rs. 25·74 crores. The Directors of Industries of the State Governments continued to render special assistance to these industries by arranging procurement of scarce raw materials such as steel, tin plates and non-ferrous metals.

The Third Plan has earmarked Rs. 112 crores for the development of small-scale industries.

During the first three years of the Third Plan the State Governments advanced Rs. 8·81 crores to small units. The State Financial Corporations sanctioned loans to the extent of Rs. 14·49 crores to 1,718 units up to end of Sept. 1963 out of their own funds out of which Rs. 6·88 crores were actually advanced. Under the agency arrangements, the State Financial Corporations of Punjab, Maharashtra, Kerala, Andhra Pradesh, Assam, U.P., Rajasthan and Gujarat sanctioned loans to the extent of Rs. 4·94 crores to 3,331 applicants out of which Rs. 3·56 crores had been actually advanced upto Sept. 30, 1963.

The State Bank of India sanctioned Rs. 20·42 crores by the end of March 1964.

The intensive campaign which aims at the development of small-scale industries in underdeveloped areas in various districts of States was launched in the States of Andhra, Uttar Pradesh, Madhya Pradesh, Mysore, Punjab and West Bengal during 1961-62, bringing the total number of such districts to 42. Similarly, under the impact programme, out of 455 schemes prepared up to December 1961, 348 schemes were finalised.

There are now 16 small Industries Service Institutes, 5 Branch Institutes and 63 Extension Centres, including Production Centres. They give valuable assistance to the small-scale units such as giving technical advice and demonstrations, preparing drawings for various types of improved tools and small machines and giving training in the handling of modern tools and equipment. The various training programmes initiated by the Small Industries Service Institutes include training of block level extension officers, evening classes in business management for the benefit of Government Officers and small-scale industrialists. Forty-seven mobile workshops fitted with modern machine tools attached to the S.I.S.I. have been touring rural areas with a view to imparting technical knowledge

To encourage the spirit of inventiveness amongst industrial workers, artisans and technicians, the Inventions Promotion Board has been giving financial incentives in the form of grants and prizes. Prizes worth Rs. 11,000 were distributed among sixteen inventors during 1962. Out of 250 applications received during the year for grant of loans, the Board sanctioned loans to 87 applications aggregating Rs. 110,416.

The responsibility for the development of *khadi* and village industries, which help in relieving unemployment and under-employment in rural areas, has been vested in the Khadi and Village Industries Commission. (For details of the progress achieved in village industries, see article *Cottage Industries* in this book).

The development of the coir industry, which is entirely in the small-scale sector, is the responsibility of the Coir Board. A sum of Rs. 3 crores has been allotted for its development during the Third Plan.

An outlay of Rs. 114·83 crores was made in the Third Plan for the development programme of small-scale industries and industrial estates as compared to Rs. 55·57 crores in the Second Plan. The break-up of the Plan allocation under the major heads is as follows (in Rs. crores): State Government schemes : 62·62; Industrial Estate : 30·21; Central Government schemes : 22·00; Total 114·83.

## DEVELOPMENT AGENCIES

The nature of assistance available and the organisations responsible for rendering such assistance are given below :—

1. (*i*) Technical know-how; (*ii*) industries information service; (*iii*) model schemes and industrial designs; and (*iv*) market research : Central Small Industries Organisation (Small Industries Service Institutes and Extension Centres); (*v*) Common facilities (Small industries service institutes, extension centres and State Govts.).

2. Training : both technical and managerial (Small industries service institutes, State Govts. Directorates of Industries), Directorate of Training and Employment (Industrial Training Institute).

3. Finance : (*a*) For cash loans :—(*i*) Long term (State Govts. under State Aid to Industries Acts, State Financial Corporations); (*ii*) Short term (State Bank of India, cooperative banks, scheduled banks under the Guarantee Scheme of the Reserve Bank of India); (*b*) For machinery on hire purchase (National Small Industries Corporation, New Delhi and its branches).

4. Marketing Services (Specially Govt. Purchase Scheme) (National Small Industries Corporation and its branches).

5. Factory accommodation in industrial estates (State Govts. Directorates of Industries), National Small Industries Corporation (for accommodation at Okhla and Naini industrial estates only).

6. Raw material and power supply (State Directorates of Industries).

The agencies mainly concerned with the development of small-scale industries in the country are thus the State Directorates of Industries, Small Scale Industries Organisation under the Development Commissioner, Small Industries Service Institutes functioning in the States as well as in New Delhi and the National Small Industries Corporation, with four branches one each at Bombay, Calcutta, Delhi and Madras.

## INDUSTRIES AND LOCATION

The Office of the Development Commissioner of Small-Scale Industries, New Delhi, carried out a survey in certain areas relating to location of industry and production. The findings of this survey which show what industries were located in the area surveyed and what the production was in that area are given in the 1959-60 edition of the *Directory*.

## EXPORTS

The following items of small industries' products have been selected by the National Small Industries Corporation for promoting their sales in overseas markets :—Leather footwear and leather goods; Cotton and Woollen hosiery; Sports goods; Builders' hardware, locks and scissors; Tinned fruits, chutneys and pickles; Paints and varnishes; Glass beads. Nearly six lakh pairs of shoes supplied by small scale units have been exported to countries like Russia, Poland and German Democratic Republic through the agency of the Corporation.

National Small Industries Corporation and the State Trading Corporation also assist in import and distribution of some articles like copper, zinc, copper and brass scrap, cycle and sewing machine parts, knitting needles.

## NATIONAL SMALL INDUSTRIES CORPORATION LTD.

(See article 'All India Corporations').

## SERVICE INSTITUTES

Economic and commercial information useful to small industrialists, who want to start new industrial units, is provided by the Small Industries Service Institutes set up by the Government of India early in 1956.

The Institutes give broad outlines of the potentialities of different small-scale industries. They supply information on the number of existing units, their production and installed capacities as well as the present consumption, future demands and export possibilities for their products.

Information about the working capital required for a new unit, suppliers of machinery and raw materials and markets for the sale of products, is also made available by the Institutes.

There are 21 Small Industries Service Institutes including five branch institutes in the country.

They are located in New Delhi, Bombay, Calcutta, Madras, Agra, Jaipur, Ludhiana, Bangalore, Indore, Rajkot, Patna, Cuttack, Gauhati, Srinagar, Kanpur, Allahabad, Hubli, Hyderabad, Trichur, Ahmedabad and Goa.

There are also 63 Extension Centres to provide specialized technical assistance to particular industries.

## INDUSTRIAL ESTATES

Another feature of the industrial policy is the establishment of industrial estates. This was initiated in 1955.

The main object is decentralization. Government seeks to remove small industrial units from crowded urban areas and thus reduce the pressure on the latter, and secondly it seeks to provide small units with factory space and common facilities for efficient working.

The State Governments acquire and develop land, construct roads, put up factory buildings, arrange for supply of water and electricity and also set up common service workshops. The factory buildings in the States are then let out at concessional rents, outright sale or hire-purchase basis to small entrepreneurs.

The Government of India advance to the States the entire cost of the estates as loans Grants are also given for specific purposes, such as planning and designing of these estates. The loans will carry interest at 4½ per cent.

These industrial estates provide better accommodation for small industries with facilities of power, water, etc. They bring industries together and facilitate the establishment of common servicing centres, introduction of modern techniques, collective purchase of raw materials and sale of finished products. They stimulate the co-operative spirit among them.

Industrial estates are of two kinds—large estates near big cities and urban areas and small ones in community development blocks.

The larger estates cost roughly from Rs. 20 to 30 lakhs, the smaller ones from Rs. 2 to 3 lakhs.

Only two—the one at Naini and the other at Okhla—are under the National Small Scale Industries Corporation. The rest are under the States.

The Second Plan provision of Rs. 15 crores for Industrial Estates was revised and fixed at Rs. 11·12 crores to set up 120 Estates by the end of Second Plan period. Of these 20 Estates are located in the Community Project Blocks, 9 in the Pilot Project areas and 20 in the backward area. The cost of these Estates was restricted to Rs. 5 lakhs each out of which a total of Rs.2 lakhs was to be spent up to the Second Five Year Plan.

During 1963-64, 35 new Industrial Estates were approved bringing the total number of Estates sanctioned to 291 till the end of March 1964. Out of these, 141 industrial estates were completed and 100 were functioning; 1,985 units were engaged in the production of an estimated value of products worth Rs. 27·5 Crores and provided employment to 30,000 persons as at the end of December 1963.

During 1960, the Government took decision to establish several new types of Industrial Estates namely Industrial Estates by private agencies, Ancillary Industrial Estates, functional Industrial Estates, University Industrial Estates and smaller Industrial Estates.

Apart from the government sponsored industrial estates a number of estates are being set up by Cooperative Societies and Joint Stock Companies of industrialists. In Maharashtra and Gujarat 20 such estates were functioning at the end of March 1964.

A State-wise list of Industrial estates approved by this organisation is given below :

**Industrial Estates Approved (as on 31st March 1963)**

*Andhra Pradesh :* Sanatnagar ; Vijayawada ; Samal Kot ; Visakhapatnam ; Nandyal ; Warangal ; Karim Nagar ; Mehboob Nagar ; Nellore ; Nirmal ; Prodattur ; Masulipatnam ; Amadalavalasa ; Khammam ; Suriyapat ; Janagaon ; Hyderabad ; Kisannagar : Sadalpalli.

*Assam :* Gauhati ; Dhekiajute ; Nalbari ; Tinsukhia ; Silisagar.

*Bihar :* Patna ; Biharshariff ; Darbhanga ; Muzaffarpur, Purulia ; Daltanganj ; Katihar ; Jasidih ; Kishanganj ; Ranchi ; Lakhisanai ; Ramnagar ; Tilaiya ; Baroon, Murliganj ; Adityapur ; Bhagalpur.

*Gujarat :* Rajkot ; Ahmedabad ; Baroda ; Udhna ; Gandhidham ; Bhavnagar ; Sanjan ; Godhra ; Mehsana ; Navsari ; Baroda ; Mehmedabad ; Junagadh ; Amreli.

*Jammu and Kashmir :* Gandhinagar ; Srinagar ; Anantnag ; Gandarbal ; Bandipura ; Baramula ; Sopore ; Shopian ; Kulgaon ; Kulgua ; Sonawari ; Udhampur ; Bijbehara ; Pulwana ; Tral ; Pattan ; R. S. Para ; Akhnoor ; Samba ; Hiranagar ; Ramnagar ; Poonch ; Reasi ; Rajauri.

*Kerala ;* Pappanamcode ; Ettumanoor ; Kollakadava ; Olavakkod ; Ollur ; Veli & Kozhikode ; Palayad.

*Madhya Pradesh :* Indore ; Gwalior ; Bhopal ; Jabalpur ; Burhanpur ; Sagar ; Raipur ; Ujjain ; Satna ; Ratlam ; Durg ; Kathi ; Bilaspur.

*Madras :* Guindy ; Madurai ; Trichy ; Erode ; Virudhunagar ; Marthandam ; Pettai ; Tanjore ; Katpadi ; Salem.

*Maharashtra :* Kolhapur ; Hadapsar ; Karad ; Nagpur ; Amravati ; Kurla ; Sangli ; Ichalkaranji ; Nanded ; Lonavla ; Parvati ; Jalgaon ; Bapty Road ; Parli ; Malegaon ; Goregaon ; Miraj ; Ahmadnagar ; Kopargaon ; Chanda ; Sholapur ; Nasik ; Shivarampur ; Dhulia ; Jalna ; Satara ; Hingoli.

*Mysore :* Mysore ; Bangalore ; Hubli ; Harihar ; Gulbarga ; Mangalore ; Belgaum ; Ramanagram ; Bijapur ; Dandeli ; Jamkhavali.

*Orissa :* Cuttack ; Jharsuguda ; Rourkela ; Berhampur ; Kendrapara ; Baripada ; Dhenkanal.

*Punjab :* Ludhiana ; Sonepat ; Malerkotla ; Nilokheri ; Batala ; Bhatinda ; Patiala ; Kangra ; Narnaul ; Industrial Colony (Hoshiarpur); Nokodar ; Kaithal ; Mohindergarh ; Bahhanpura ; Hariana ; Pinjore ; Una ; Fatehgarh ; Kanthunangal ; Dudhike ; Fatehabad ; Sunam ; Lal ; Ramgarh Sardaran ; Dera Gopipur ; Gurgaon ; Hissar ; Ferozepur ; Rajpura.

*Rajasthan :* Jaipur ; Bhilwara ; Makhapura ; Kotah ; Jodhpur ; Udaipur ; Sumerpur ; Bharatpur ; Sriganganagar ; Bikaner ; Alwar ; Dholpur ; Gangapur ; Pali.

*Uttar Pradesh :* Kanpur ; Agra ; Naini ; Deoband ; Loni ; Vanarsi ; Aligarh ; Joya ; Jhansi ; Farrukhabad ; Bhojeepura ; Lalanei Khera ; Bharaich ; Lalitpur ; Khairabad Sitapur ; Muzaffarnagar (Harijan); Muzaffarnagar (General); Deoria ; Mirzapur ; Khalilabad ; Gorakhpur ; Bijnor ; Etah ; Varanasi ; Lucknow ; Meerut ; Clutter-buck-Ganj ; Roorkee ; Dehra Dun ; Unnao ; Azamgarh ; Moradabad ; Saharanpur ; Khurja ; Agra ; Chauharpur ; Rundrapur ; Orai ; Banda ; Sultanpur ; Mahoba ; Bikapur ; Bhalthat ; Salempur ; Ghose ; Auraiya ; Phoolpur ; Nagina ; Chandrawal ; Golagokernath ; Atrauli ; Shyam Mandi ; Gobardhan ; Jaunpur ; Barabanki ; Faizabad ; Rampur ; Shahjahanpur ; Lakhimpur ; Firozabad ; Mathura ; Manipuri ; Hathras.

*West Bengal :* Baruipur ; Kalyani ; Saktigarh ; Howrah ; Siliguri ; Baruipur (No. 2).

*Delhi :* Okhla ; Badli.

*Himachal Pradesh :* Solan.

*Manipur :* Tekyal.

*Pondicherry :* Thattanchavadi.

*Tripura :* Arundhutinagar ; Korikal ; Udaipur ; Kumarghat.

# STEEL INDUSTRY*

THE first successful and the most outstanding attempt to manufacture steel in the country on a commercial basis was that of the Tata Iron & Steel Co. which started its Steel Works at Sakchi in the year 1908. Pig iron was made in 1911 and the first steel ingot a year later.

The Indian Iron & Steel Company was started in 1918 at Hirapur about 4 miles from Asansol junction on the Eastern Railway for producing pig iron. Eighteen years later it floated another company, the Steel Corporation of Bengal to manufacture steel. Towards the end of 1952 the two companies were merged.

An iron works was started at Bhadravati in Mysore State in 1921 to which a steel plant was added in 1934. During World War II, a 25-ton basic furnace and two small electric furnaces were installed.

The total capital investment in the private sector is about Rs. 191 crores and the number of workers employed about 60,000. Of the total investment, Tatas account for Rs. 135 crores and the Indian Iron and Steel Co. for Rs. 56 crores.

The three steel plants set up in the public sector during the Second Plan period are Rourkela, Bhilai and Durgapur mills under the management of Hindustan Steel Ltd. The shares are owned wholly by the Central Government. The authorized share capital is Rs. 600 crores. The Government of India has advanced loans amounting to Rs. 357.1 crores upto the end of December 1964. The Government of India has subscribed Rs. 510 crores up to the end of 1964, towards share capital.

The revised overall cost of the three public sector steel projects are: Rourkela Rs. 170 crores (excluding Rs. 44 crores representing the cost of all other ancillaries including township, water supply system, iron ore mines, limestone quarries and railway sidings); Bhilai Rs. 131 crores; Durgapur Rs. 138 crores (excluding the township, fees to consultants and other ancillaries estimated to cost Rs. 29 crores).

Each of these has a production capacity of about a million tons with scope for increase. All the three have already gone into production.

Another public sector company the Bokaro Steel Ltd. for setting up the Bokaro Steel Plant at Bokaro, was registered in New Delhi on Jan. 29, 1964. The Company will have a share capital of Rs. 100 crores.

(For details see under 'Government Industrial Undertakings').

The Second Plan target of steel (ingots) production was fixed at 6 million tons (or about 4·5 million tons of saleable steel), as against the production level of 1·3 million tons in 1955-56. This was proposed to be achieved by raising the capacity of the Tata Iron and Steel Works at Jamshedpur from 900,000 tons to 2 million tons, of the Indian Iron and Steel Company's works at Burnpur from 500,000 tons to 900,000 tons and of the Mysore Iron and Steel Works from 30,000 tons to 100,000 tons. The remaining three million tons were to be produced by setting up three new works in the public sector at Rourkela, Bhilai and Durgapur. The estimated capacity and production (ingots) in 1960-61 was 6·0 million tons and 3·5 million tons, respectively. By the end of Second Plan (1959–60), the actual production of saleable steel amounted to 4,488,898 tons for the entire Plan period.

## PRODUCTION

The recent trend of production in India is given below :—

(In thousand tons)

| Year. | Pig iron. | Steel ingots. | Semi-finished steel. | Finished steel. |
|---|---|---|---|---|
| 1957 | 1,789 | 1,715 | 1,440 | 1,346 |
| 1958 | 2,003 | 1,813 | 1,600 | 1,300 |
| 1959† | 2,994 | 2,434 | 2,542 | 1,832 |
| 1960† | 4,130 | 3,287 | 3,463 | 2,280 |
| 1961† | 4,960 | 4,072 | 1,201 | 2,851 |
| 1962† | 5,764 | 5,113 | 1,086 | 3,799 |
| 1963† | 6,600 | 6,000 | 1,200 | 4,260 |
| 1964† | 6,600 | 6,030 | 1,080 | 4,344 |
| Installed Capacity. † at the end of 1964 | 5,643 | 4,572 | 1,390 | 3,640 |

† In thousand metric tons.

Steel production in India in 1963 increased to 4,443,600 tonnes from 3,718,200 tonnes in 1962. The figure includes production of different categories of steel in all the public and private sector plants. In 1963 8 lakh tannes of steel was imported.

The per capita consumption of crude steel in India was only 14 kg. in 1962 as against Czechoslovakia 513; West Germany and U.S.A. 488; U.S.S.R. 334; U.K. 332: Japan 242 and China 20.

Against a target capacity of 1·5 million tons of pig iron envisaged in the Third Plan, the integrated steel works will be producing a million tons and the balance of half a million tons will be available from small and medium sized pig iron plants in the private sector. So far, a capacity of about 285,000 tons (which includes two medium-sized plants each with a capacity of 100,000 tons per annum) has already been licensed. It is also proposed to license a further capacity to cover the gap in the private sector.

The Tata expansion plans took place in two stages, first to 930,000 tons, and then to 2,000,000 tons of steel ingots to be rolled into 1,500,000 tons of finished steel. The Tata expansion, which had practically been completed by March 1959, cost Rs. 95 crores, including expenditure on ore mines, collieries and other ancillaries.

The Company obtained for this purpose two loans from the World Bank totalling 32·5 million dollars and one from the Government of India of Rs. 10 crores.

The expansion was undertaken through agreement with Henry J. Kaiser Co. of California, U.S.A.

The Indian Iron and Steel Co. obtained from the World Bank two loans totalling 50·02 million dollars to meet the foreign exchange cost of the expansion programme. The Central Government gave a loan of Rs. 7·9 crores and a special advance of Rs. 10 crores.

The first of the two new blast furnaces went into operation in Feb. 1958 and the second went into production in 1959. The cost of the expansion was Rs. 50 crores (original estimate).

The targets fixed for the steel industry under the Third Five Year Plan are as follows :

| | 1965-66 Capacity | 1965-66 Production | Fixed investment during 1961-1966 (Rs. crores) |
|---|---|---|---|
| Steel ingots (mln. tons) | 10·2 | 9·2 | 640 |
| Finished steel (mln. tons) | 7·5 | 6·8 | |
| Pig iron for sale (mln. tons) | 1·5 | 1·5 | |
| Alloy, tool and special steel ('000 tons) | 200 | 200 | |
| Grey iron castings (mln. tons) | 1·2 | 1·2 | 30 |
| Steel castings (mln. tons) | 0·20 | 0·20 | |
| Steel forging ('000 tons) | 200 | 200 | |

Of the total capacity target of 10·2 million tons (ingots), public sector accounts for 7·0 million tons and private sector for 3·2 million tons. The break-down is as follows :

*Public Sector* (in million tons): Bhilai 2·5; Rourkela 1·8; Durgapur 1·6; Mysore Iron and Steel Works 0·1; Bokaro Steel project 1·0.

In addition, there is included in the Plan a project for a pig iron plant using the iron ore from Salem and the Neyveli lignite, the capacity of which is to be still decided.

*Private Sector* (million tons): Tata Steel and Indian Steel 3·2.

Total 10·2 mln. tons.

The demand projections were made by three different agencies as follows (at the end of the IV Plan).

Dastur & Co.: 14·214 million tonnes.

U.S. Steel Cansultants: 11·235 million tonnes.

N.C.A.E.R.: 12·270 million tonnes.

A cut in the steel out-lay during the IV Plan has been made, recently from Rs. 1,100 crores to Rs. 800 crores and this may cause a proportionate reduction in the tentative target put at 16 5 million tonnes.

(For the Mysore Iron and Steel Works see under 'Government Industrial Undertakings').

## PRICE AND DISTRIBUTION

Since the war in 1939 the price and distribution of steel have been controlled by the Government.

The prices of all controlled categories of steel were raised by Rs. 70 per ton uniformly in May 1957. The increase followed the enhancement of excise duty on steel from Rs. 4 per ton to Rs. 40 per ton with effect from 16th May 1957.

On 11th November 1959, the Government of India again raised the retention prices payable to the Tata Iron and Steel Company (T.I.S.C.O.) and the Indian Iron and Steel Company (I.I.S.C.O.) by Rs. 5 per ton to Rs. 424 per ton, excluding the excise duty of Rs. 45·75 per ton for the period 1955-56 to 1959-60 for all categories of steel taken together. The I.I.S.C.O. had represented to the Government in December 1958 that their costs had risen as a result of increases in wages, railway freight, prices of coal etc. A similar representation was made by the T.I.S.C.O. in January 1959. The two representations were

* See also under "Hindustan Steel Ltd." in *Late Particulars*.

considered by the Government and the matter was referred to the Cost Accounts Branch of the Ministry of Finance in April 1959 for examination, which made the following recommendations:

(i) The average retention price payable to the T.I.S.C.O and the I.I.S.C.O. for the period 1955-56 to 1959-60 on all categories of steel taken together should be increased by Rs. 7 per ton, if negotiated labour settlements are to be accepted and Rs. 5 per ton if such settlements are not accepted.

(ii) The 1954-55 retention prices for the I.I.S.C.O. as adjusted from time to time, should be increased by the same amount as mentioned in (i) above and consequently, the average amount per ton to be credited by the Company to its development fund during the period 1955-56 to 1959-60 shall remain unchanged.

(iii) As the 1954-55 retention price for the T.I.S.C.O. has increased only by Rs. 4 per ton, as against the present increase of Rs. 7 per ton in the retention price if negotiated settlement is to be taken into account and Rs. 5 per ton, if negotiated settlements are to be ignored. The average amount to be credited by the T.I.S.C.O. to its development fund during the period 1955-56 to 1959-60, should be increased by Rs. 3 per ton, if negotiated settlements are admitted and Re. 1, if they are not accepted.

The Government of India stated in November 1959 that they were examining separately the question of admitting increases in labour costs due to negotiated settlements. The latest increase in the retention price, it was claimed, had enabled the T.I.S.C.O. to increase its contribution by Re. 1 to its development fund, i.e to the level of Rs. 50 per ton and the I.I.S.C.O. to maintain its contribution of Rs. 7 per ton.

A year later, that is, in November 1960, the Government raised the average retention price payable to the two companies by Rs. 4·85 per ton for the period 1955-56 to 1959-60. This brought the total increase for the five years to Rs. 29·85 per ton. The latest price increase did not, however, involve any rise in the official selling prices of steel which average Rs. 598 per ton uniformly at all rail-heads.

On September 7, 1962, the Union Government raised the average retention price of saleable steel for 1960–61 and 1961–62 by Rs. 10·50 per tonne over the provisional price of Rs. 512. This increase was to be uniformly applied to products of both public and private sector plants.

The increase is of a much lower order than that of Rs. 38 a tonne recommended by the Tariff Commission but the two figures are not comparable because the figure proposed by the Commission included an element of Rs. 8 a tonne for payment of interest and repayment of special advances made by the Government to the two private sector producers, T.I.S.C.O. and I.I.S.C.O.

Again on June 17, 1963, the Union Government decided to allow an increase of Rs. 10 per tonne in the steel retention prices with effect from July 1, 1963, to enable the producers to cover the cost of the Emergency War Risks Insurance. This amount will, however, be finally adjusted with the equalisation fund on the basis of the actuals of each steel plant.

Simultaneously the Government allowed a further increase in the escalation of rupees eight per tonne in the case of steel and rupees four per tonne in the case of pig iron with effect from April 1, 1963. For the period 1962–63 it was decided to allow the escalation element of Rs. 10 per tonne on the 1960–62 retention prices of saleable steel and pig iron respectively. These increases will be inclusive of the escalations already allowed. The Government decision was in response to representations made by steel producers.

A World Bank mission, which visited India early in 1963, strongly pleaded for higher steel retention prices.

The four-member committee headed by Dr. K. N. Raj was appointed by the Government to go into the question of distribution and control of iron and steel. In its report, the Committee not only suggested decontrol, but also favoured a higher retention price. These measures, it pointed out, would, on the one hand, remove market aberrations, and give, on the other, the much needed financial support to the steel producers.

Finally on March 2, 1964, the Government came out with its decision to abolish the statutory control over the price and distribution of all categories of steel except pig iron and ingot moulds and bottom plates, billets and tin bars, plates, sheets and wide strip, skelp, tin plates, hoops and their respective defectives, with effect from March 1, 1964.

A Joint Plant Committee was set up with the Iron and Steel Controller as Chairman and representatives of the main producers and the Railways as members. The Committee will announce and list *ex*-works prices (including base prices and extras) of the decontrolled categories to which a fixed element of equalised freight will be added. The Joint Plant Committee will plan the production of both controlled and de-controlled items on the basis of priorities determined by the Government from time to time.

### SUPPLY POSITION

A large level steel priority committee with the Secretary of the Department of Iron and Steel as chairman will make bulk allocations of steel for priority purposes.

Intents for the controlled categories will have to be backed by quota certificates as hitherto.

The operations of the Steel Equalisation Fund have been discontinued from March 1, 1964, as freight equalisation has been entrusted to the Joint Plant Committee and statutory price control over the bulk of the production (two third) has been abolished. In consequence there will not be any distinction between sale prices and retention prices whether in the case of controlled or non-controlled items and therefore no surcharges.

At present the J.P.C. accepts the intents from the registered and controlled stockists and actual users and non-registered and non-controlled stockists as well.

It has been reported that the Government had decided to permit an average increase of Rs. 30 per tonne on the main producers retention price for controlled items.

Further, that the Joint Plant Committee for steel will raise the producers price for decontrolled items by about Rs. 50 per tonne shortly ( Nov. 1965 ).

The total output of saleable steel during the Second Plan period was estimated at about 11 million tons, as against the overall requirements over the five years assessed by the Planning Commission at about 17 million tons. Production was expected to be equal to the demand only in the last year of the Plan. The total demand of steel in 1961-62 was 6·02 million tons against 5·06 million tons in 1960-61.

Steel production in India in 1963 increased to 4,443,600 tonnes from 3,718,200 tonnes in 1962. The figure includes production of different categories of steel in all the public and private sector plants.

Imports of steel on barter basis were also continued against export of pig-iron, ingots, blooms, billets etc. produced by Hindustan Steel Limited as well as against export of scrap and ores etc. Only those categories of steel which are essential to the economy of the country were allowed to be imported. In 1964-65 India imported Rs. 104 crores worth of finished iron and steel products. During 1964-65 (up to December 1964) India exported Rs. 5·5 crore worth of finished steel and scrap.

### WAGE BOARD

The Govt. of India have appointed a Central Tripartite Wage Board for the iron and steel industry with Mr. G. K. Shinde as Chairman, to determine the categories of employees who should be brought within the scope of the proposed wage fixation and to work out a wage structure based on the principles of fair wages as set forth in the report of the Committee on Fair Wages. The headquarters of the Board is at Patna.

### Special Steels Plant

Stainless steel vessels are made of one of the varieties of steel commonly known as alloy and special steels. Domestic production of the entire category is insignificant. So India's requirements are met by imports. India spent about Rs. 6 crores in 1960 on import of these varieties. The demand is expected to reach 200,000 tons by the end of the Third Plan.

The new plant to be located at Durgapur next to the integrated steel works is estimated to produce 80,000 tons of ingots per year or about 48,000 tons of finished products. The plant is estimated to cost Rs. 38·4 crores.

A special steel plant is to be set up in Maharashtra. The plant which will be in the private sector is promoted by the well-known business house of "Mahindras".

## RE-ROLLING MILLS

The steel re-rolling industry in India had its beginnings about the year 1928. In March 1961, there were over 175 re-rolling mills in the country, of which three were making distinctly special products, namely tin plates and tubes. Geographically the re-rolling units are well dispersed in almost all parts of the country. Largest concentration, however, is in Calcutta, Punjab, Kanpur and Bombay regions. In the south the mills are too few in number.

The Committee which reported on re-rolling mills (in April 1957) estimated the capacity of all the re-rollers in the country at about 700,000 tons on single shift.

While in the country as a whole, there is an adequate number of re-rolling units, the Committee recommended the establishment of new re-rolling units in certain States where there are no units at present. One new re-rolling unit each has been sanctioned in Assam, Andhra Pradesh, Bihar (north of Ganges) and Kerala and a few more in other regions too.

In addition, some plant and machinery have been licensed by the Iron and Steel Controller to be obtained from abroad or indigenously, mainly for replacement. The additional capacity during the Second Plan was assessed at 104,760 tons per annum.

In planning the development of the steel industry in the Third Plan, the position of the steel re-rolling industry was reviewed taking into account the demand for sections which could be rolled in the re-rolling mills. The review showed that it should be possible to license about 100,000 to 150,000 tons of additional capacity in the re-rolling industry to small units to meet local demands. Accordingly, a capacity of 128,600 tons for setting up new re-rolling mills in Assam, Bihar, Gujarat, Kerala, Madras, Madhya Pradesh, Andhra, Maharashtra and Jammu and Kashmir has been sanctioned, and a further capacity of 15,000 tons each for Mysore and Orissa is proposed to be sanctioned. The Bawa Steel Re-rolling Mill near Nagpur went into production in Feb. 1962.

By virtue of the Government's decision to abolish the statutory control on steel with effect from March 1, 1964, the re-rollers are practically free from all control as they are mostly engaged in the rolling of non-flat products, which have been decontrolled.

Against the alloy steel requirements of the Third Plan which have been estimated at 200,000 tons a year, 85,000 tons are estimated to

be available from the Central Alloy and Tool Steel Plant and Ordnance factories. A further capacity of 120,100 tons has been sanctioned for the manufacture of such steel in the private sector. This is in addition to an existing capacity of about 10,000 tons. For the manufacture of alloy steel castings and such alloy steels as do not require special rolling equipment, capacity already existing and licensed is about 100,000 tons. Recently, an additional capacity of 126,500 tons was also sanctioned.

Electric furnaces already sanctioned and those in progress are likely to provide a total of about 200,000 tons of billets a year for the re-rolling industry.

The question of permitting further capacity will be considered in the light of the recommendations of the Scrap Investigation Committee.

It is estimated that the requirements of tin plates by the end of the Third Plan period will be about 300,000 tons to 350,000 tons. The capacity so far approved is about 330,000 tons, of which the existing capacity is 80,000 tons. This figure also includes the capacity planned on the Rourkela Steel Plant—50,000 tons of hot dip plates and 100,000 tons of electrolytic tinplates.

Re-rollers use steel semis (Billets) and steel re-rollable scrap for rolling steel sections mostly lighter sizes of bars, rods, flats, hoops and strips, etc. The main sources of supply are the main producers, Messrs. Tata Iron & Steel Co., Ltd., Indian Iron & Steel Co., Ltd., Hindustan Steel Ltd. (Bhilai and Durgapur). Re-rollable scrap is also available from miscellaneous other sources such as, the Railways, Engineering Concerns, etc. Present availability both of billets and scrap is inadequate and so the full capacity is not being utilised.

Raw materials required by the industry:—Having regard to the recent developments it is estimated that the recognised sector of the re-rolling industry including the Secondary Producers would require about 1·8 million tons of semis by the end of the Third Plan period. As against this provision has been made for supply of only 1 million tons of semis during the Third Plan from the main producers.

The re-rollers at places like Amritsar, Jullundur, etc. situated at considerable distance from the ports had to incur heavy freight charges which inflated their production costs. Relief was given to all outstation rerollers from 1953 when the maximum statutory prices became applicable to deliveries f.o.r. all railhead stations in India.

Production during 1964-65 was 81 lakh tonnes as against 96 lakh tonnes in 1963-64. This fall is discouraging in view of the fact that the industry as a whole is capable of producing 2·5 million tonnes to which it is geared.

Total investment in the industry is estimated to be of the order of Rs. 25 crores.

It is estimated that about 40,000 persons are employed by the industry in various parts of the country.

A seamless tube plant belonging to the Indian Tube Company (1953) Ltd. was formally inaugurated in Jamshedpur in the last week of January 1960. Work on the tube project commenced in 1953 and the first plant, the Fretz-Moon tube mill, came into operation in November 1955. The second plant, the Rs. 2-crore electric resistance weld mill and the ancillary cold rolled strip plant, went into production in April 1957.

The seamless tube plant, which has now been added, represents the third and final phase of the project. The present capacity of the works is about 140,000 tons of steel tubes per year. The Company has also established capacity at Jamshedpur for the manufacture of 30,000 tons per year of cold rolled steel strip for use in tube making and for sale as strip. In addition, a plant has been installed for the fabrication of upto 150,000 tubular steel poles per year.

With the commissioning of the 140,000-ton Jamshedpur tube plant, the total installed capacity of the tube industry now works out at 175,000 tons a year.

The Kalinga Tubes (Cuttack) account for a capacity of 30,000 tons and the Tube Investments in Madras for 5,000 tons.

The great bulk of the total capacity—about 68 per cent—is in Fretz-Moon tubes used for conveyance of gas, water and steam.

The other category of electrically welded precision tubes, used mainly in railway locomotives, bicycles and steam boilers, accounts for another 14 per cent. Seamless tubes make up the balance of 18 per cent, the main applications being high-pressure conveyance of gas, manufacture of transmission poles and lighting columns for water-well casing, besides numerous other industrial applications.

Generally speaking, the industry is a small to medium scale one. The individual units are, however, of varying sizes and capacities. There has been some increase in the capacities of mills due to improvements effected. The potential capacity of the industry is of the order of 2·5 million tonnes. The Government of India appointed a Technical Committee headed by S. C. Mukherjee to assess the capacity of re-rolling mills on bullets and scraps.

In allowing further capacity the Government has taken a stand that it will be decided only after the recommendations of the above Committee.

A project has, however, been approved for setting up a unit at Rourkela which will produce 100,000 tons of tubes a year in sizes varying from 8″ to 20″ in diameter. Thus, the Third Plan will see India manufacturing substantial quantities of tubes in sizes ranging from ¼″ to 20″. The foundations of self-sufficiency have thus been laid.

# WOOLLEN INDUSTRY

THE woollen industry is more or less scattered all over the country but the major concentrations are in Maharashtra and the Punjab The Punjab occupies a very prominent position inasmuch as 25 woollen spinning mills are working in the State out of about 40 in the whole of India. Maharashtra comes second with 10 mills. The remaining are in the rest of India. Similarly, out of 30 woollen composite mills, about 14 are in the Punjab and 6 in Maharashtra. Amongst livestock products, wool ranks second only to hides and skins as an earner of foreign exchange. The total production of wool in India, based on an *ad hoc* survey in 1961, has been reckoned at 72 min. lbs. Forty per cent of the total internal production of wool is from Rajasthan. During the Third Plan, this is to be raised to 90 min. lbs.

The total capital investment in the industry is reckoned at about Rs. 25 crores.

The organized sector of the industry employs about 20,000 workers.

The raw material used is wool tops (imported), shoddy wool (all of which is imported), wool waste, rags etc. (imported and indigenous) and raw wool (imported and Indian). In addition, the industry uses some quantities of man-made fibres.

In order to meet the wool top requirements of worsted spinning units, 5 wool top manufacturing factories, with a total capacity of 17·2 million lbs. per year, have been licensed. In addition, the establishment of a combing unit of five million lbs. capacity to be set up as a co-operative venture by the spinning mills in Ludhiana, has been approved. Licence for the establishment of synthetic fibre tops upto a capacity of 3·36 mln. lbs. has also been given. Of these, the installed capacity is at present 8 million lbs. per year.

According to the Development Council for the Woollen Industry, the potential demand for woollen cloth stood at 22 million yards in 1960. They have visualised a 10 per cent growth in demand and put the Third Plan target at 33 million yards. The requirements at the end of the Third Plan are expected to be as follows: Worsted yarn: 28 million lbs.; woollen and shoddy yarn: 24 million lbs.; staple fibre tops: 4·5 million lbs. In addition, production of 4·5 million lbs. of terylene staple fibre is envisaged. While part of the output may be consumed by cotton mills, it is assumed that the entire production will be used for manufacture of staple fibre tops to serve as a substitute for wool tops in worsted spinning.

There are at present about 300 organised woollen units in India of which 36 are purely spinning units, and 30 composite.

The production figures were as follows:

| | Woollen/worsted fabrics | Woollen/worsted yarn |
|---|---|---|
| | (million yds.) | (million lbs.) |
| 1959 .. | 14·83 | 28·60 |
| 1960 .. | 14·61 | 27·80 |
| 1961 .. | 13·20* | 14·76+ |
| 1962 .. | 18·29* | 18·01+ |
| 1963 .. | 20·40 | 22·73 |
| 1964 .. | 11·74 | 20·91 |

* Million metres + Million kgs.

The region-wise distribution as on 31-3-1961 was as follows:

| State | Woollen | Shoddy | Worsted |
|---|---|---|---|
| Delhi .. | — | — | 864 |
| Mysore .. | 9,556 | — | — |
| Punjab .. | 18,657 | 3,751 | 43,780 |
| U.P. .. | 11,287 | — | 9,672 |
| West Bengal | 1,380 | — | 6,472 |
| J. & Kashmir | 2,018 | — | 1,576 |
| M. Pradesh | 876 | — | — |
| Maharashtra | 4,500 | 7,668 | 53,132 |
| Gujarat .. | 5,280 | — | 9,168 |
| Total .. | 53,554 | 11,419 | 124,664 |

If all the schemes licensed are implemented, the position will be as follows: Woollen spindles: 54,169; worsted spindles: 1,45,680; and shoddy

spindles : 20,057. There are about 4,000 looms including both registered and unregistered. The wool combing capacity now stands at 16 million lbs.

The Government of India have approved a scheme of Messrs. Duncan Bros., Calcutta for the establishment of Wool Tops Combing Plant in collaboration with Messrs. Isaac Holden & Sons Ltd., Bradford for a productive capacity of 10 million lbs. per annum. The installation of this unit was completed towards the end of the Second Plan period.

The Tariff Commission has been asked to report on the price structure of all types of woollen yarns and fabrics. The Woollen Textiles (Production and Distribution Control) Order, 1960, empowering the Textile Commissioner to regulate the production of all types of woollen yarn, and to fix the prices of all types of such yarn and woollen fabrics manufactured therefrom had been promulgated during 1960. The Tariff Commission's recommendation that ex-mill and retail prices of woollen manufactures be fixed was rejected by the Central Government recently on the ground that conditions in woollen industry are not normal because of emergency. A panel for the development of carpets and druggets has been constituted to examine the various problems of the carpet industry and also to suggest measures to be taken for the development of the industry during the Third Plan period.

There are about 900-1,000 hosiery units in the country of which nearly 800 units are situated in Ludhiana. It is estimated that about 10,000 machines of different types are installed in this sector. The capital investment in the sector is estimated at about Rs. 3·5 crores. A large number of the machines employed are hand operated and locally fabricated. Industry caters practically to the whole of the domestic market. The Govt. of India appointed a Working Group to consider the problem of the hosiery industry.

The quantity of yarn consumed by the hosiery industry in the country is estimated at more than 5 million pounds.

The export of wool (raw) amounted to 30 million pounds worth about Rs. 8 crores in 1964-65. In 1964-65 wool and wool products worth Rs. 9 crores were exported. The main destinations were U.S.S.R., U.K., U.S.A., Canada and Australia. India's exports have risen from 20 mln. lbs. in 1953-54 to an average of over 35 mln. lbs. within the course of the last few years.

**Imports :** During 1964-65 India imported Rs. 66·8 million worth of raw wool, Rs. 30 million worth of wool tops and about Rs. 1 million worth of yarn and fabrics.

## FIVE-YEAR PLANS

For increasing wool production in the country and for improving the quality of wool, four sheep breeding farms and two wool testing laboratories were established during the Second Five Year Plan for carrying out wool development programme in rural areas. 222 sheep and wool expansion centres were organised in ten States.

Among the various measures envisaged for the improvement of the industry in terms of both quantity of production and quality are the setting up of : (1) a central sheep and wool research institute at Malpura with a Plan outlay of Rs. 75 lakhs, (2) one wool research institute at Bombay, (3) wool processing plant at Visnagar, and (4) two central sheep breeding farms, one at Kulu (Punjab) and the other at Kodaikanal (Madras). The Government of India has negotiated with Australia for securing the help of Australian experts to instruct Indian wool graders. It is also proposed that merino studs be brought to India from Australia or Russia.

The estimated population of 40 million sheep produces about 70 million pounds of wool annually which forms only 1·3 per cent of the world production. A wool combing plant is expected to be set up in Jammu and Kashmir.

The yield of wool varies from three-fourths of a pound to four pounds per sheep per year. The present average yield per sheep in India is estimated at 1·7 pounds per annum. Annually about 50 per cent of the clip, is exported. The mill industry concerned with the manufacture of superior cloth has to depend on the import of raw or semi-processed wool to the extent of 15 million pounds estimated to cost about Rs. 100 to Rs. 110 million in foreign exchange. If the quality of indigenous wool is improved, India can gradually decrease the import of wool.

The latest position regarding installed capacity and production (on three shift basis) as also the production targets at the end of the Third Plan and the tentative targets for IV Plan are set out in the following table.

| | Installed capacity* | Production for the year 1964–65 | Target for III Plan | Tentative target for IV Plan |
|---|---|---|---|---|
| 1. Raw wool (million lbs.) .. .. | — | 74·00 | 90·00 | 90·00 |
| 2. Wool tops (million lbs.) .. .. | 38·80 | 25·60 | 9·70 | 46·00 |
| 3. Shoddy yarn (million lbs.) .. | 8·43 | 11·85 | 10·00 | 18·00 |
| 4. Worsted yarn (million lbs.) .. | 28·17 | 14·06 | 28·00 | 40·00 |
| 5. Fabrics (million yards) .. .. | 37·50 | 12·30 | 35·00 | 41·00 |

* On double shift basis.

The woollen industry may not require installation of any additional spindles and looms during the Third Plan period, if the programme of development tentatively drawn up by the Planning Commission were finally implemented. This programme is in accordance with the recommendation made by the Development Council for woollen textiles. The Council is of the view that the present installed capacity of the industry is more than sufficient to produce the entire requirements of woollen worsted yarn and cloth, inclusive of export demand.

The report of the working group for rehabilitation and modernisation of the woollen industry, 1960, appointed by the N.I.D.C. has indicated that the industry would require a substantial amount of rehabilitation and modernisation during the Third Plan, costing about Rs. 11·25 crores of which the foreign exchange element would be about Rs. 9·25 crores.

The weaving sector of the industry, is working, on an average, a little over 1½ shifts and the spinning sector only about one shift. The existing installed capacity of the industry (calculated on the basis of two shifts and 300 working days) is estimated at 67 million lbs. of woollen worsted yarn and 48 million yards of cloth. The production targets for the Third Plan are 52 million lbs. of yarn and 35 million yards of cloth. The productive capacity of wool tops including synthetic tops has been fixed substantially higher, at 31·5 million lbs. for the Third Plan. The production of woollen textiles is expected to be only 22 m. yards by the end of the Third Plan against the target of 35 m. yards.

During the Third Plan six new sheep breeding farms and 4,000 new extension centres are proposed to be established, the sheep population covered by each centre varying from 10,000 to 15,000. It is envisaged that 300 wool grading and marketing centres to be run by co-operatives of producers should be set up during the Third Plan. Facilities for shearing, grading, baling and storing of wool will be provided at these centres.

The employment potential in this industry is expected to increase by about 5,000 persons during the Third Five-Year Plan.

The consumption of electric power during 1960-61 in this industry was approximately 13,000 KWH. This is likely to go up to about 20,000 KWH. by the end of the Third Five-Year Plan.

Since the declaration of emergency following the Chinese aggression in October 1962, the wool industry is geared to meet the enhanced defence requirements. The Government has, therefore, made a special foreign exchange allocation of Rs. 5 crores for the import of raw wool and wool tops. It has also considered the imports of spare parts.

The Government have recently approved of the setting up of a synthetic wool fibre project near the Barauni refinery.

Within the next two or three years about 50 per cent of the woollen industry will be modernized in terms of a programme finalized by the Union Commerce Ministry. Imports of machinery under various credit and barter agreements have already been made.

# FOREIGN AID TO INDIA

INDIA has received technical assistance from many friendly foreign countries and specialised institutes of the United Nations. The total amount of external assistance (other than commodity assistance under U.S. P.L. 480 and 665) for the public and private sector authorised upto the end of the Second Plan period (31-3-1961) is now estimated at Rs. 17,784·6 million. Of this Rs. 12,669·8 million were repayable in foreign currencies. In addition, commodity assistance authorised under P.L. 480 was of the order of Rs. 13,864·3 million. Authorisations during the Third Plan period upto December 31, 1964 total Rs. 18,804·3 million of which grants amount to Rs. 699·6 million.

## TABLE SHOWING AID FROM ALL SOURCES

(Rupees Million)

| Source of Assistance | Authorisation upto end of Second Plan | | Utilization upto end of Second Plan | | Balance available for utilization in Third Plan | | Authorisation from 1-4-61 to 31-3-64 | |
|---|---|---|---|---|---|---|---|---|
| | Loans | Grants | Loans | Grants | Loans | Grants | Loans | Grants |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1. *Australia* | — | 132·8 | — | 126·4 | — | 6·4 | — | 12·6 |
| 2. *Austria* | — | — | — | — | — | — | 42·1 | — |
| 3. *Belgium* | — | — | — | — | — | — | 95·2 | — |
| 4. *Britain* | | | | | | | | |
| (a) Durgapur Project | 353·3 | — | 353·3 | — | — | — | 293·3 | — |
| (b) Naharkatiya Oil Pipeline | 40·0 | — | 31·9 | — | 8·1 | — | — | — |
| (c) Import of Capital Goods | 380·0 | — | 380·0 | — | — | — | 993·2 | — |
| (d) Balance of Payment Assistance | 453·3 | — | 453·3 | — | — | — | 333·4 | — |
| (e) Steel Credit | — | — | — | — | — | — | 46·7 | — |
| (f) Grants Under Colombo Plan | — | 8·1 | — | 4·6 | — | 3·5 | — | 6·4 |
| 5. *Canada* | 157·1 | 894·4 | 157·1 | 800·0 | — | 94·4 | 73·5 | 292·9 |
| 6. *Czechoslovakia* | 231·0 | — | — | — | 231·0 | — | — | — |
| 7. *Denmark* | — | — | — | — | — | — | 10·3 | — |
| 8. *Federal Republic of Germany* | | | | | | | | |
| (a) Rourkela Steel Plant | 777·9 | — | 635·9 | — | 142·0 | — | 559·5 | — |
| (b) Import of Capital Goods | 200·0 | — | 200·0 | — | — | — | 799·5 | — |
| (c) Refinancing Loans | 117·1 | — | 117·1 | — | — | — | 448·1 | — |
| (d) Balance of Payment Assistance | 297·8 | — | 297·8 | — | — | — | 321·4* | — |
| (e) For Institutions | — | — | — | — | — | — | 77·3 | — |
| (f) Okhla & I.I.T. Madras | — | 20·9 | — | 6·1 | — | 14·8 | — | — |
| 9. *France* | | | | | | | | |
| (a) Credits for Capital Goods | — | — | — | — | — | — | 333·3 | — |
| (b) Credits for IFC | — | — | — | — | — | — | 47·6 | — |
| 10. *Italy* | — | — | — | — | — | — | 470·4 | — |
| 11. *Japan* | | | | | | | | |
| (a) Import of Capital Equipment | 230·0 | — | 160·1 | — | 69·9 | — | 761·8 | — |
| (b) Credit for Orissa Iron Ore Project | 38·1 | — | — | — | 38·1 | — | — | — |
| (c) Ad hoc Credits | — | — | — | — | — | — | 47·6 | — |
| (d) Grants | — | 3·5 | — | 3·5 | — | — | — | — |
| 12. *Netherlands* | — | — | — | — | — | — | 131·5 | — |
| 13. *New Zealand* | — | 34·3 | — | 32·3 | — | 2·0 | — | 2·0 |
| 14. *Norway* | — | 25·3 | — | 25·3 | — | — | — | 16·5 |
| 15. *Poland* | 143·0 | — | — | — | 143·0 | — | 155·0 | — |
| 16. *Sweden* | — | — | — | — | — | — | — | 9·9 |
| 17. *Switzerland* | 66·0 | — | — | — | 66·0 | — | 86·5 | — |
| 18. *U.S.S.R.* | | | | | | | | |
| (a) Bhilai Steel Plant | 647·4 | — | 645·4 | — | 2·0 | — | — | — |
| (b) Industrial Projects | 595·3 | — | 80·8 | — | 514·5 | — | — | — |
| (c) Drugs Project | 95·2 | — | — | — | 95·2 | — | — | — |
| (d) Barauni Oil Refinery | 119·1 | — | 4·3 | — | 114·8 | — | — | — |
| (e) Credits for Third Plan | 2,381·1 | — | 18·0 | — | 2,363·1 | — | — | — |
| (f) Grants for Machinery | — | 11·5 | — | 11·5 | — | — | — | — |
| 19. *U.S.A.* | | | | | | | | |
| (a) Wheat Loan | 903·1 | — | 903·1 | — | — | — | — | — |
| (b) T.C.A. Programme other than PL 665 and PL 480 | 422·2 | 1,302·7 | 422·2 | 1,181·7 | — | 121·0 | — | 116·6 |

*Source :* "External Assistance 1964" brought out by the Ministry of Finance, Department of Economic Affairs, Government of India.

* A sum of Rs. 35·7 million has been set apart for institutions.

## TABLE SHOWING AID FROM ALL SOURCES

(Rupees Million)

| Source of Assistance | Utilization from 1-4-61 to 31-3-64 | | Balance available as on 1-4-64 | | Authorisation from 1-4-64 to 31-12-64 | | Total Authorisation from inception to 31-12-64 | |
|---|---|---|---|---|---|---|---|---|
| | Loans | Grants | Loans | Grants | Loans | Grants | Loans | Grants |
| | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 1. *Australia* | — | 12·0 | — | 7·0 | — | 7·0 | — | 152·4 |
| 2. *Austria* | 12·0 | — | 30·1 | — | 19·0 | — | 61·1 | — |
| 3. *Belgium* | — | — | 95·2 | — | — | — | 95·2 | — |
| 4. *Britain* | | | | | | | | |
| (*a*) Durgapur Project | 34·1 | — | 259·2 | — | — | — | 646·6 | — |
| (*b*) Naharkatiya Oil Pipeline | 8·1 | — | — | — | — | — | 40·0 | — |
| (*c*) Import of Capital Goods | 509·7 | — | 483·5 | — | 193·3 | — | 1,566·5 | — |
| (*d*) Balance of Payment Assistance | 291·9 | — | 41·5 | — | 133·3 | — | 920·0 | — |
| (*e*) Steel Credit | 31·0 | — | 15·7 | — | — | — | 46·7 | — |
| (*f*) Grants Under Colombo Plan | — | 2·0 | — | 7·9 | — | — | — | 14·5 |
| | | | | | | | 3,219·8 | 14·5 |
| 5. *Canada* | 8·0 | 241·3 | 65·5 | 146·0 | 245·0 | 130·0 | 475·6 | 1,317·3 |
| 6. *Czechoslovakia* | 7·9 | — | 223·1 | — | 400·0 | — | 631·0 | — |
| 7. *Denmark* | — | — | 10·3 | — | 13·8 | — | 24·1 | — |
| 8. *Federal Republic of Germany* | | | | | | | | |
| (*a*) Rourkela Steel Plant | 54·2 | — | 647·3 | — | — | — | 1,337·4 | — |
| (*b*) Import of Capital Goods | 262·4 | — | 537·1 | — | 315·5 | — | 1,315·0 | — |
| (*c*) Refinancing Loans | 448·1 | — | — | — | 107·1 | — | 672·3 | — |
| (*d*) Balance of Payment Assistance | 321·4 | — | — | — | — | — | 619·2 | — |
| (*e*) For Institutions | — | — | 77·3 | — | 29·6 | — | 106·9 | — |
| (*f*) Okhla & I.I.T. Madras | — | 8·5 | — | 6·3 | — | — | — | 20·9 |
| | | | | | | | 4,050·8 | 20·9 |
| 9. *France* | | | | | | | | |
| (*a*) Credits for Capital Goods | — | — | 333·3 | — | 95·2 | — | 428·5 | — |
| (*b*) Credits for IFC | — | — | 47·6 | — | — | — | 47·6 | — |
| 10. *Italy* | 24·0 | — | 446·4 | — | 171·4 | — | 641·8 | — |
| | | | | | | | 476·1 | |
| 11. *Japan* | | | | | | | | |
| (*a*) Import of Capital Equipment | 307·9 | — | 523·8 | — | 285·7 | — | 1,277·5 | — |
| (*b*) Credit for Orissa Iron Ore Project | 20·2 | — | 17·9 | — | — | — | 38·1 | — |
| (*c*) Ad hoc Credits | — | — | 47·6 | — | — | — | 47·6 | — |
| (*d*) Grants | — | — | — | — | — | — | — | 3·5 |
| | | | | | | | 1,363·2 | 3·5 |
| 12. *Netherlands* | — | — | 131·5 | — | 26·3 | — | 157·8 | — |
| 13. *New Zealand* | — | 2·1 | — | 1·9 | — | 5·0 | — | 41·3 |
| 14. *Norway* | — | 11·7 | — | 4·8 | — | 3·3 | — | 45·1 |
| 15. *Poland* | 24·7 | — | 273·3 | — | — | — | 298·0 | — |
| 16. *Sweden* | — | — | — | 9·9 | 22·1 | 11·0 | 22·1 | 20·9 |
| 17. *Switzerland* | 18·4 | — | 134·1 | — | — | — | 152·5 | — |
| 18. *U.S.S.R.* | | | | | | | | |
| (*a*) Bhilai Steel Plant | 2·0 | — | — | — | — | — | 647·4 | — |
| (*b*) Industrial Projects | 300·4 | — | 214·1 | — | — | — | 595·3 | — |
| (*c*) Drugs Project | 62·9 | — | 32·3 | — | — | — | 95·2 | — |
| (*d*) Barauni Oil Refinery | 100·3 | — | 14·5 | — | — | — | 119·1 | — |
| (*e*) Credits for Third Plan | 577·3 | — | 1,785·8 | — | — | — | 2,381·1 | — |
| (*f*) Grants for Machinery | — | — | — | — | — | — | — | 11·5 |
| | | | | | | | 3,838·1 | 11·5 |
| 19. *U.S.A.* | | | | | | | | |
| (*a*) Wheat Loan | — | — | — | — | — | — | 903·1 | — |
| (*b*) T.C.A. Programme other than PL 665 and PL 480 | — | 195·5 | — | 42·1 | — | 14·6 | 422·2 | 1,433·9 |

**TABLE SHOWING AID FROM ALL SOURCES—(*concld.*).**

(Rupees Million)

| Source of Assistance | Authorisation upto end of Second Plan | | Utilization upto end of Second Plan | | Balance available for utilization in Third Plan | | Authorisations from 1-4-61 to 31-3-64 | |
|---|---|---|---|---|---|---|---|---|
| | Loans | Grants | Loans | Grants | Loans | Grants | Loans | Grants |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| *U.S.A.*—contd. | | | | | | | | |
| (*c*) Orissa Iron Ore Project .. | 87·5 | — | 0·2 | — | 87·3 | — | — | — |
| (*d*) DLF/AID Loans: | | | | | | | | |
| (1) Power Projects .. | 381·9 | — | 47·6 | — | 334·3 | — | 1499·9 | — |
| (2) Railway Development | 547·4 | — | 292·5 | — | 254·9 | — | 280·3 | — |
| (3) Procurement of Steel | 401·9 | — | 222·9 | — | 179·0 | — | — | — |
| (4) Manufacture of Road TPT Vehicles.. .. | 186·0 | — | 123·0 | — | 63·0 | — | 189·0 | — |
| (5) Development of Industries in the Private Sector .. .. | 233·1 | — | 82·7 | — | 150·4 | — | 3,261·9 | — |
| (6) Coal Washeries .. | — | — | — | — | — | — | 81·0 | — |
| (7) Manufacture of Fertilizers .. .. .. | 142·9 | — | — | — | 142·9 | — | — | — |
| (8) Financial Corporations for lending to Private Sector .. .. | 47·6 | — | — | — | 47·6 | — | 166·6 | — |
| (9) Direct Loans to Private firms other than Road & TPT .. | — | — | — | — | — | — | 57·6 | — |
| *Exim Bank* | | | | | | | | |
| (1) General Lines of credit for import of Capital Goods .. .. | 952·4 | — | 281·4 | — | 671·0 | — | 119·0 | — |
| (2) Air India .. .. | — | — | — | — | — | — | 68·2 | — |
| (3) Loans to Private Sector .. .. | 73·9 | — | 28·0 | — | 45·9 | — | 193·0 | — |
| (4) Railways Direct Loan | — | — | — | — | — | — | 90·5 | — |
| (*e*) U.S. Banks .. .. | 59·0 | — | 59·0 | — | — | — | 109·3 | — |
| 20. *Yugoslavia* .. .. .. | 190·5 | — | — | — | 190·5 | — | — | — |
| 21. *U. N. Special Fund* .. .. | — | 40·1 | — | — | — | 40·1 | — | 26·0 |
| 22. (*a*) *I.B.R.D.* | | | | | | | | |
| (*a*) Public .. .. | 2,150·2 | — | 1,685·3 | — | 464·9 | — | 338·1 | — |
| (*b*) Private .. .. | 1,048·0 | — | 880·8 | — | 167·2 | — | 497·7 | — |
| (*b*) *I.D.A.* .. .. .. | — | — | — | — | — | — | 1,428·6 | — |
| 23. *Ford Foundation* .. .. | — | 160·7 | — | 116·8 | — | 43·9 | — | 12·1 |
| TOTAL .. .. .. | 15,150·3 | 2,634·3 | 8,563·7 | 2,308·2 | 6,586·6 | 326·1 | 14,507·9 | 495·0 |

**TABLE SHOWING AID FROM ALL SOURCES—(*concld.*).**

(Rupees Million)

| Source of Assistance | Utilization from 1-4-61 to 31-3-64 | | Balance available as on 1-4-64 | | Authorisation from 1-4-64 to 31-12-64 | | Total Authorisation from inception to 31-12-64 | |
|---|---|---|---|---|---|---|---|---|
| | Loans | Grants | Loans | Grants | Loans | Grants | Loans | Grants |
| | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| *U.S.A.*contd.— | | | | | | | | |
| (*c*) Orissa Iron Ore Project .. | 71·7 | — | 15·6 | — | — | — | 87·5 | — |
| (*d*) DLF/AID Loans. | | | | | | | | |
| (1) Power Projects .. | 603·3 | — | 1,230·9 | — | 14·8 | — | 1,896·6 | — |
| (2) Railway Development | 419·3 | — | 115·9 | — | 34·3 | — | 862·0 | — |
| (3) Procurement of Steel | 175·2 | — | 3·8 | — | — | — | 401·9 | — |
| (4) Manufacture of Road TPT Vehicles.. .. | 166·9 | — | 85·1 | — | 56·2 | — | 431·2 | — |
| (5) Development of Industries in the Private Sector .. .. | 1,762·7 | — | 1,649·6 | — | 238·1 | — | 3,733·1 | — |
| (6) Coal Washeries .. | 17·0 | — | 64·0 | — | — | — | 81·0 | — |
| (7) Manufacture of Fertilizers .. .. .. | 116·3 | — | 26·6 | — | 37·1 | — | 180·0 | — |
| (8) Financial Corporations for lending to Private Sector .. .. | 69·1 | — | 145·1 | — | — | — | 214·2 | — |
| (9) Direct Loans to Private firms other than Road & TPT .. | 29·4 | — | 23·2 | — | 20·5 | — | 78·1 | — |
| *Exim Bank* | | | | | | | | |
| (1) General Lines of credit for import of Capital Goods .. .. | 689·4 | — | 100·6 | — | 119·0 | — | 1,190·4 | — |
| (2) Air India .. .. | 68·2 | — | — | — | — | — | 68·2 | — |
| (3) Loans to Private Sector .. .. | 111·0 | — | 127·9 | — | 138·6 | — | 405·5 | — |
| (4) Railways Direct Loan | — | — | 90·5 | — | — | — | 90·5 | — |
| (*e*) U.S. Banks .. .. | 28·1 | — | 81·2 | — | — | — | 168·3 | — |
| | | | | | | | 11,213·8 | 1,433·9 |
| 20. *Yugoslavia* .. .. .. | 4·0 | — | 186·5 | — | — | — | 190·5 | — |
| 21. *U. N. Special Fund* .. .. | — | 10·8 | — | 55·3 | — | 9·4 | — | 75·5 |
| 22. (*a*) *I.B.R.D.* | | | | | | | | |
| (*a*) *Public* .. .. | 647·0 | — | 156·0 | — | — | — | 2,488·3 | — |
| (*b*) Private .. .. | 197·4 | — | 467·5 | — | — | — | 1,545·7 | — |
| | | | | | | | 4,034·0 | |
| (*b*) *I.D.A.* .. .. .. | 521·9 | — | 906·7 | — | 880·9 | — | 2,309·5 | — |
| 23. *Ford Foundation* .. .. | — | 17·6 | — | 38·4 | — | 24·3 | — | 197·1 |
| TOTAL .. .. .. | 9,124·8 | 501·5 | 11,969·7 | 319·6 | 3,596·8 | 204·6 | 33,255·0 | 3,333·9 |

NOTE :—This Statement Excludes :—

(1) Suppliers' credit other than those forming a part of Consortium AID.
(2) Rockefeller Foundation.
(3) Assistance Under Title II & III of P.L. 480.
(4) Technical assistance in the form of experts, trainees etc.
(5) Ad hoc grants, in the form of equipment and supplies where the value is not known.
Third Country Currency Assistance from U.S.A.

## WORLD BANK

The loans sanctioned by the World Bank for various projects in the public and private sectors, upto Dec. 31, 1964 amounted to $847·13 million (Rs. 4,034 million) out of which a sum of $742·70 million (Rs. 3,536·6 million) was actually drawn up to that date. These loans are available for import of machinery and equipment from all countries which are members of the Bank as well as from Switzerland.

The particulars of the loans sanctioned upto Dec. 31, 1964 including the terms of repayment applicable to each loan and the present status of withdrawals and repayments, are given in the following statement :

| Sl. No. | Name of the Loan | Date of Agreement | Rate of Interest | Period of loan (years) | Amount of loan after cancellation $ mil. | Amount drawn $ mil. | Amount Repaid $ mil. |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | *(a) Public Sector* | | | | | | |
| 1. | Agriculture .. .. | 29-9-49 | 3½% | 7 | 7·20 | 7·20 | 7·20 |
| 2. | Railways-I .. .. | 18-8-49 | 4% | 15 | 32·80 | 32·80 | 32·80 |
| 3-6. | Railways-II .. .. | 12-7-57 | 5⅛% | 15 | 90·01 | 90·01 | 22·97 |
| 7. | Railways-III .. .. | 16-9-58 | 5¾% | 20 | 85·00 | 85·00 | 6·59 |
| 8. | Railways-IV .. .. | 15-7-59 | 6% | 20 | 50·00 | 50·00 | 3·62 |
| 9. | Railways-V .. .. | 29-7-60 | 5¾% | 20 | 70·00 | 70·00 | 2·52 |
| 10. | Railways-VI .. .. | 13-10-61 | 5¾% | 20 | 50·00 | 50·00 | —A |
| 11. | D. V. C. I.. .. .. | 18-4-50 | 4% | 20 | 16·72 | 16·72 | 9·62 |
| 12. | D. V. C. II .. .. | 23-1-53 | 4⅞% | 25 | 10·50 | 10·50 | 2·93 |
| 13. | D. V. C. III .. .. | 23-7-58 | 5⅛% | 20 | 22·00 | 21·37 | 2·96 |
| 14. | Koyna .. .. .. | 8-4-59 | 5¾% | 25 | 18·70 | 17·08 | — |
| 15. | Air India .. .. .. | 5-3-57 | 5½% | 9 | 5·60 | 5·60 | 3·92 |
| 16. | Calcutta Port-I .. .. | 25-6-58 | 5½% | 20 | 29·00 | 27·17 | 2·52 |
| 17. | Calcutta Port-II .. .. | 17-8-61 | 5¾% | 25 | 21·00 | 5·69 | —A |
| 18. | Madras Port .. .. | 25-6-58 | 5½% | 20 | 14·00 | 8·93 | 1·22 |
| | TOTAL (*a*) .. .. .. | | | | 522·53 | 498·07 | 98·87 |
| | *(b) Private Sector* | | | | | | |
| 19. | IISCO-I .. .. .. | 18-12-52 | 4¾% | 15 | 29·20 | 29·20 | 17·78 |
| 20. | IISCO-II .. .. .. | 19-12-56 | 5% | 11 | 19·95 | 19·95 | 11·55 |
| 21. | IISCO-III .. .. .. | 22-12-61 | 5¾% | 12 | 19·50 | 2·07 | —A |
| 22. | TISCO-I .. .. .. | 26-6-56 | 4¾% | 15 | 75·00 | 75·00 | 29·20 |
| 23. | TISCO-II .. .. .. | 20-11-57 | 6% | 13½ | 32·50 | 32·50 | 18·36 |
| 24. | Trombay-I .. .. | 19-11-54 | 4¾% | 20 | 13·85 | 13·74 | 4·39 |
| 25. | Trombay-II .. .. | 29-5-57 | 5⅝% | 18 | 9·67 | 9·53 | 2·29 |
| 26. | ICICI-I .. .. .. | 14-3-55 | 4½% | 15 | 9·93 | 9·88 | 4·19 |
| 27. | ICICI-II .. .. .. | 15-7-59 | Variable | 10 | 10·00 | 9·50 | 2·85 |
| 28. | ICICI-III .. .. .. | 28-10-60 | do. | 10 | 20·00 | 16·44 | 3·35 |
| 29. | ICICI-IV .. .. .. | 28-2-62 | do. | 15 | 20·00 | 8·27 | neg. A |
| 30. | ICICI-V .. .. .. | 5-6-63 | do. | Not fixed | 30·00 | 4·48 | —A |
| 31. | Coal Industry .. .. | 9-8-61 | 5½% | 15 | 35·00 | 14·06 | —A |
| | TOTAL (*b*) .. .. | | | | 324·60 | 244·62 | 93·96 |
| | GRAND TOTAL .. .. | .. | | | 847·13 | 742·69 | 192·83 |

'A'—These loans were sanctioned according to the commitments made in the Consortium meetings from 1961 onwards.

## INTERNATIONAL DEVELOPMENT ASSOCIATION

I.D.A. Credits are generally repayable over periods ranging upto 50 years with a moratorium of 10 years. No interest is charged on these credits though a service charge of 3/4 of one per cent per annum, to cover the Association's administrative expenses, is payable on the amounts outstanding from time to time. Upto end of December, 1964 the IDA has extended sixteen credits to India in pursuance of the commitments made in the Consortium meetings. The names of the projects for which the credits were sanctioned and the amounts of credits and drawals upto end of December, 1964 are given below :—

(Million Dollars)

| Sl. No. | Name of the Project | Date of Agreement | Amount of the Credit | Amount drawn |
|---|---|---|---|---|
| 1. | Construction of National Highways .. .. .. .. .. .. | 21-6-61 | 60·00 | 39·89 |
| 2. | U.P. Govt.'s Tubewell Irrigation Scheme .. .. .. .. .. | 6-9-61 | 6·00 | 6·00 |
| 3. | Shetrunji Irrigation Project in Gujarat .. .. .. .. .. | 22-11-61 | 4·50 | 2·46 |
| 4. | Salandi Irrigation Project in Orissa .. .. .. .. .. | 22-11-61 | 8·00 | 1·36 |
| 5. | Drainage-cum-Flood Control Project of Punjab Govt. .. .. .. | 22-11-61 | 10·00 | 9·06 |
| 6. | Installation of Third Unit at DVC's Thermal Station at Durgapur .. | 14-2-62 | 18·50 | 1·92 |
| 7. | Sone Barrage in Bihar .. .. .. .. .. .. | 29-6-62 | 15·00 | 6·22 |
| 8. | Purna Irrigation & Power Project in Maharashtra .. .. .. .. | 18-7-62 | 13·00 | 6·53 |
| 9. | Second Stage of Koyna Hydro-Electric Project in Maharashtra .. .. | 8-8-62 | 17·50 | 4·18 |
| 10. | Improvements in Bombay Port .. .. .. .. .. | 14-9-62 | 18·00 | 2·81 |
| 11. | Expansion Programme of P & T Deptt. (I) .. .. .. .. .. | 14-9-62 | 42·00 | 15·45 |
| 12. | Railways (VII) .. .. .. .. .. .. .. | 22-3-63 | 67·50 | 67·50 |
| 13. | Kothagudem Power Project in Andhra Pradesh .. .. .. .. | 24-5-63 | 20·00 | 1·14 |
| 14. | Industrial Imports .. .. .. .. .. .. | 9-6-64 | 90·00 | 16·34 |
| 15. | Expansion Programme of P & T Deptt. (II) .. .. .. .. .. | 6-7-64 | 33·00 | 0·26 |
| 16. | Railways (VIII) .. .. .. .. .. .. .. | 26-10-64 | 62·00 | 8·71 |
| | Total .. .. .. .. .. .. .. .. | | 485·00 | 189·85 |

### CONSORTIUM AID TO INDIA

The Aid-India Consortium been considering India's requirements of external assistance for the Third Five Year Plan in its periodical meeting since May-June 1961. Taking into account the aid pledged by the Consortium in its last meeting in April 1965 (to consider aid to India for the year 1965-66), the total aid made available by the Consortium for India's Third Five Year Plan amounts to $5472 million (Rs. 26,058 million) as shown in the table below.

(U. S. $ million)

| Sl. No. | Country | Pledges for (Indian Fiscal Years) | | | | | Five-Year Total |
|---|---|---|---|---|---|---|---|
| | | 1961-62 | 1962-63 | 1963-64 | 1964-65 | 1965-66 | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1. | Austria | — | 5·00 | 7·00 | 0·85 | 5·00 | 17·85 |
| 2. | Belgium | — | 10·00 | 10·00 | — | 4·00 | 24·00 |
| 3. | Canada | 28·00 | 33·00 | 30·50 | 41·16 | 41·16 | 173·82 |
| 4. | France | 15·00 | 45·00 | 20·00 | 20·00 | 20·00 | 120·00 |
| 5. | Germany | 225·00 | 139·00 | 99·50 | 95·00 | 85·90 | 644·40 |
| 6. | Italy | — | 53·00 | 45·00 | 36·00 | 36·00 | 170·00 |
| 7. | Japan | 50·00 | 55·00 | 65·00 | 60·00 | 60·00 | 290·00 |
| 8. | Netherlands | — | 11·00 | 11·00 | 11·10 | 11·10 | 44·20 |
| 9. | United Kingdom | 182·00 | 84·00 | 84·00 | 84·00 | 84·00 | 518·00 |
| 10. | United States | 545·00 | 435·00 | 435·00 | 435·00 | 435·00 | 2,285·00 |
| 11. | IBRD & IDA | 250·00 | 200·00 | 245·00 | 245·00 | 24 ·00 | 1,185·00 |
| | TOTAL | 1,295·00 | 1,070·00 | 1,052·00 | 1,028·11 | 1,027·16 | 5,472·27 |
| | Rs. million | (6,167) | (5,095) | (5,010) | (4,896) | (4,890) | (26,058) |

# OFFICIAL LANGUAGE PROBLEM

IN accordance with the provisions of Article 344 of the Constitution the President constituted a Commission to make recommendations on the progressive use of Hindi and restriction on the use of English and also on the languages to be used for communication between the Union and a State or between one State and another.

This Commission called, for short, Official Language Commission, submitted its report to the President on 31st July 1956, and was laid on the table of Parliament on August 12, 1957.

A summary of the report was given in the previous edition of the *Directory* as well as the background of the language controversy.

It may be mentioned that the Constitution requires that the recommendations of the Language Commission have to be examined by a Parliamentary Committee consisting of 30 members (20 from the Lok Sabha and 10 from the Rajya Sabha). The President will base his final order on the report of this Committee.

### PARLIAMENTARY COMMITTEE

The Committee held its first meeting on 16th Nov. 1957 at which Pandit Govind Ballabh Pant was elected chairman.

A summary of the Committee's report is given in the *Directory* for 1959-60.

With the permission of the President the report was laid on the tables of the two Houses on April 22, 1959 and later discussed in Parliament.

The general sense of Parliament appeared to be, and this was reflected in a Government of India resolution on the subject, that while the date for the switch-over to Hindi as the principal language should be retained there should be a flexible approach in the matter of the discontinuance of the use of English — an approach that should take into account the views of the non-Hindi speaking areas. In effect this means that English would continue to be used along with Hindi though to a progressively diminishing extent, and there would be no dead-line.

Apart from permitting the use of English for official work at the Centre for an indefinite period, the Government of India resolution gives the States the option to address communications to the Government of India or other States in that language.

It also urges the provision of adequate facilities in schools and at the university-level for the continued study of English.

On the other hand, the resolution recommends that all judicial courts, up to the level of the High Court, should entertain applications in Hindi and generally provide facilities for transaction of work in this language to the extent possible.

Candidates appearing for examinations conducted by the Union Public Service Commission will have the option of answering question-papers in Hindi.

The resolution discusses in some detail the lines along which the various regional languages of the country should develop. In the interests of national unity, it urges that, as far as possible, these languages should come closer together, particularly in the matter of vocabulary. It praises in this context the work of the Sahitya Akademy.

### PRESIDENT'S ORDER

The President then made his order published in a gazette notification of April 27, 1960.

The President broadly accepted the recommendations of the Parliamentary Committee on Official Language and the Government of India's resolution and directed that after 1965 Hindi with international numerals should be the principal official language and English should continue as an associate language. No restrictions are therefore to be imposed for the present on the use of English for any of the official purposes of the Union.

The President directed that the Home Ministry should take necessary action in consultation with the UPSC for the introduction of Hindi as "an alternative medium of examinations for recruitment to all-India services and higher Central services."

It has, however, been clarified that, "for the present, only an optional Hindi language paper may be introduced." Such candidates as are selected and have qualified in this paper may be exempted from passing the Hindi departmental test after recruitment.

It is directed that international numerals be adopted uniformly in all technical and statistical publications of the Government of India. A uniform basic policy should be adopted for the use of Devnagari numerals, in addition to international numerals, in the Hindi publications of the Central Ministries.

The President has accepted the recommendation that the functioning of the Supreme Court should eventually be in Hindi. But it is pointed out that this will "require appropriate action only when the time comes for the change-over."

In respect of the language of the High Courts, the President has urged that the Ministry of Law may undertake necessary legislation in their case to provide for the use "optionally of Hindi and other official languages of the States for the purposes of judgment, decrees and orders, with the previous consent of the President."

The Union Government should prepare and implement a plan of action for the progressive use of Hindi as the official language.

The details of the President's order was given in the previous editions of the *Directory*.

The Congress Working Committee broadly endorsed the Union Government's scheme to give legislative effect to late Prime Minister Nehru's assurances regarding the continued use of English for administrative purposes in June 1965. The resolution is as follows :

(*a*) It will be obligatory for all the States to introduce the three-language formula in their educational curriculum, extend it to the University stage and to apply it strictly ; (*b*) The U.P.S.C. examinations will be conducted in English, Hindi and the other national languages ; (*c*) In the U.P.S.C. examinations, there will be compulsory papers in Hindi and English and in the case of candidates whose medium for the

U.P.S.C. examinations is Hindi, a paper in any other language in the Schedule; (*d*) The national language of each State will become the medium of administration as well as instruction at the University stage as early as possible; (*e*) The standard of teaching of Hindi will have to be raised progressively in the schools as well as at the University stage; (*f*) English will continue to be taught as a language which has an important role.

*Note:* Owing to National Emergency, the Official Language Bill has not been finally drafted.

## PROPAGATION OF HINDI

### Assistance to Voluntary Organisations

The work of propagation of Hindi through voluntary organisations gained momentum. Grants-in-aid amounting to Rs. 4.22,168 were given to voluntary organisations for this purpose, during 1963-64.

### Appointment of Hindi Teachers

Under the programme of direct propagation of Hindi through schools under the control of the State Governments, the Union Government have been placing funds at the disposal of the State Governments in their development budgets for appointment of Hindi teachers at various levels.

During the past years the Ministry has been providing funds for the appointment of at least one Hindi teacher in a high or higher secondary school. In 1962-63 this provision was extended to cover primary and middle schools as well. Also from 1962-63 the Union Government agreed to meet hundred per cent expenditure on the appointment of Hindi teachers at high/higher secondary, middle and primary school levels.

### Hindi Teachers' Training Colleges

Several Hindi teachers training colleges have been opened at various centres in the country. Full expenditure is being met by the Union Govt. During 1961-62 and 1962-63, Kerala, Mysore, Gujarat and Madras States were assisted to start one Hindi teachers training college each. Financial assistance was also given to Andhra Pradesh and Maharashtra to expand the existing facilities. In 1964 one additional training college was set up in Mysore to meet the growing demand of trained Hindi teachers there and West Bengal has also been assisted to open a similar college in the State.

Grants given to training Colleges of Non-Hindi speaking States: Kerala—Rs. 1,50,700; Mysore—Rs. 2,14,650; Andhra Pradesh—Rs. 30,423; Gujarat—Rs. 89,414; Maharashtra—Rs. 42,000 and Madras—Rs. 1,21,800.

### Kendriya Hindi Shikshana Mandal, Agra

In order to supply up-to-date expert knowledge and professional guidance in respect of teaching methods and allied pedagogical problems, the Union Government had set up an autonomous body entitled Kendriya Hindi Shikshana Mandal, which is running a Hindi Teachers Training and Research Institute at Agra. The Institute is catering for three different courses equivalent to T.T.C., B.Ed., and M.Ed. and is also conducting research on vocabulary, content of various courses and techniques of teaching with special reference to the requirement of non-Hindi regions. Teachers from different parts of the country as well as regional teachers training colleges have been benefited by the expert guidance and research work done by the Institute. During 1963-64 a grant of Rs. 2·75 lakhs was given to the Mandal for the training of Hindi teachers and various other projects launched by it.

### Scholarships

To encourage and help non-Hindi-speaking students to prosecute higher studies in Hindi and to conduct research, the Union Government have instituted a large number of scholarships. During 1963-64, 427 scholars of previous years continued their studies under the scheme. Two hundred and twenty scholarships were announced for 1963-64.

### Free Supply of Hindi Books

As a follow-up programme, arrangements have been made to supply books worth Rs. 2 lakhs free of cost to different schools, colleges and public libraries in the non-Hindi-speaking areas during 1964-65. Certain selected books have also been supplied to Hindi-speaking States and universities and private Hindi organisations.

### Preparation of Bilingual Primers

Under this scheme, Hindi-Malayalam, Hindi-Kannada and Hindi-Telugu primers are under preparation by the Dakshina Bharat Hindi Prachar Sabha, Madras, on behalf of the Ministry. Hindi-Tamil self taught is under print.

### Regional Offices

Two Regional Offices had been set up, one at Calcutta and the other at Madras, to effect greater coordination and cooperation between the Union Government and the voluntary Hindi organisations. The direct contact thus established with these organisations has helped considerably in the propagation of Hindi in non-Hindi-speaking areas. It was proposed to establish more Regional Offices in 1964-65.

### Shiksha Samiti

A conference of voluntary Hindi organisations was called in 1951 to consider the measures that might be necessary for the propagation and development of Hindi. On a recommendation of the Conference, an Advisory Committee known as the 'Hindi Shiksha Samiti' was set up to advise the Government on matters relating to the propagation and development of Hindi in the country.

### Encouragement of Hindi Abroad

Two schemes have been followed under this programme during 1963-64. Under the first, facilities for teaching Hindi to African students studying in Indian Universities were provided and paid for by the Ministry, particularly in the form of stipends. Under the second, prizes in the form of free round-trip to India are provided to foreign students learning Hindi and also other Indian languages.

In addition, the Indian Council for Cultural Relations, an autonomous organisation financed by the Ministry follows a programme of promotion of teaching Hindi abroad. This programme includes the appointment of or subsidising the appointment of Hindi lecturers in institutions in other countries, grant of scholarships to foreign students and scholars for study in Hindi and presentation of Hindi books to universities, schools, libraries and private organisations.

**Development and Enrichment of Hindi:** *Production of Literature:*—The Ministry of Education is primarily engaged in the production of such literature as would enrich Hindi and make it a powerful medium of instruction and vehicle of administration. The activities in this behalf include the evolution of terminology in scientific and technical subjects, publication of lists of such terminology, pamphlets, booklets, dictionaries and glossaries of technical terms in English with Hindi equivalents and their Hindi-English version.

### Periodicals

Four regular issues of the 'Bhasha' quarterly were brought out during 1963-64. In addition, one special number 'Shanti-Raksha' has been brought out. It is also proposed to bring out a monthly magazine, 'Bhartiya Shiksha'. The Commission for Scientific and Technical Terminology propose to bring out a quarterly periodical entitled, 'Indian Journal of Scientific and Technical Terminology'.

### Dictionaries

The definitional dictionaries (Hindi-English) in Physics, Mathematics and Botany have been reviewed and their press copies are under preparation (May 1964).

A Hindi-English Dictionary of Common Words has been compiled. It has about 6,000 words, and is under print.

### Devanagari Key-Board

A new key-board designated the Devanagari (Hindi-Marathi) key-board has been designed, and this supersedes the Hindi key-board announced in 1962. This Devanagari key-board for standard typewriters will have 46 keys. In portable typewriters keys Nos. 44 and 45 will be dropped and key No. 46 will become key No. 44 and will be positioned next to key No. 31. This key-board has also been approved by the Government of Maharashtra for use on the Marathi typewriter.

Key-boards according to this design were to be ready during 1964.

### Terminology Work

An organisation has been set up at Roorkee, under the auspices of the Roorkee University, for review and evolution of terminology in engineering subjects in collaboration with the Commission. It will work under the member-in-charge of the subject in the Commission.

### Hindi in Foreign Universities

According to available information the undermentioned foreign universities and institutions (name within brackets) in the following countries teach Hindi:

Hindi:—Belgium (Brussels, Ghent, Liege and Catholic); Ceylon (Vidyalankara and Vidyadaya); China (Peking); Czechoslovakia (Charles); East Germany (Free University, Berlin); France Ecole de Langues Orientale Vivantes); Hungary Budapest); Iran (Tehran); Italy (Ismeo, Rome); Japan (Tokyo, Osaka and Kyoto); Mauritius (Teachers Training College); Nepal (Nepal University); Netherlands (Utrecht); Poland (Warsaw); United Kingdom (School of Oriental and African Studies, London); U.S.A. (Johns Hopkins, Washington); U.S.S.R. (Moscow, Leningrad); Yugoslavia (Zagreb).

## HINDI EXAMINATIONS

About 2·6 lakh employees have completed one or more of the prescribed courses and nearly 1·4 lakh employees have passed the prescribed examinations. There are still about 3 lakh employees who have yet to be trained in Hindi. There are 225 training centres in the country, including six centres for training in Hindi typewriting and Hindi stenography.

Employees are offered three courses—Prabodh, Praveen and Pragya—lasting for 9 months, 9 months and one year respectively. Prabodh is intended for those who do not know Devanagiri script and who speak a South Indian language or English. Praveen is meant for those who pass Prabodh examination or those whose mother tongue is Marathi, Gujarati, Bengali, Assamese, Sindhi or other allied language. Pragya is intended for those who pass the Praveen examination or whose mother tongue is Punjabi, Urdu, Kashmiri or other allied language.

Training in Hindi is obligatory for all non-Hindi knowing employees who were below 45 years of age as on 1st January 1961, excepting employees below class III grade, industrial establishments and work-charged staff. It has, however, been laid down that no penalty will be imposed for failure to attain the prescribed standard by the due date. Teaching facilities are provided to the employees free of cost during the office hours. Cash awards are granted creditably in the Praveen, Pragya and Hindi typewriting and Hindi stenography examinations. Incentives are also given in the form of one advance increment to be absorbed in future increase in pay to non-Hindi knowing non-gazetted Central Government employees passing the Pragya examination or the Hindi typewriting and Hindi stenography examinations.

On the recommendation of the Hindi Shiksha Samiti the Government of India have recognised, for purposes of employment under them, the Hindi Examinations conducted by certain organisations. The names of the organisations, examinations recognised and the standard of Hindi prescribed in the equivalent examinations are given in the table below :

| Name of the Organisation. | Name of the Examinations recognised. | Standard of Hindi prescribed in the equivalent examination. |
|---|---|---|
| Hindi Sahitya Sammelan, Allahabad. | Prathma<br>Madhyama<br>(Visharad)<br>Uttama<br>(Sahityaratna) | Matric<br>B.A.<br><br>Higher than B.A. but not equal to M.A. |
| Rashtrabhasha Prachar Samiti, Wardha | Parichaya<br>Kovid<br>Ratna | Matric<br>Inter<br>B.A. |
| Prayag Mahila Vidyapith, Allahabad. | Vidushi<br>Saraswati | Inter<br>B.A. |
| Hindi Vidyapith, Deoghar. | Praveshika<br>Sahityabhushan<br>Sahityalankar | Matric<br>Inter<br>B.A. |
| Travancore Hindi Prachar Sabha. | Pravesh<br>Bhooshan | Matric<br>Inter |
| Assam Rashtrabhasha Prachar Samiti, Gauhati. | Prabodh<br>Visharad | Matric<br>Inter |
| Hindi Prachar Sabha, Hyderabad. | Visharad<br>Bhushan<br>Vidwan | Matric<br>Inter<br>B.A. |
| Bombay Hindi Vidyapith, Bombay. | Uttama<br>Bhasha Ratna<br>Sahitya-Sudhakar | Matric<br>Inter<br>B.A. |
| Maharashtra Rashtrabhasha Sabha, Poona. | Prabodh<br>Pravin<br>Pandit | Matric<br>Inter<br>B.A. |
| Mysore Hindi Prachar Parishad, Bangalore. | Pravesh<br>Uttama<br>Ratna | Matric<br>Inter<br>B.A. |
| Gujarat Vidyapith, Ahmedabad. | Tisri<br>Vinit<br>Sevak | Matric<br>Inter<br>B.A. |
| Dakshin Bharat Hindi Prachar Sabha, Madras. | Praveshika<br>Visharad<br>Praveen | Matric<br>Inter<br>B.A. |
| Hindustani Prachar Sabha, Bombay. | Qabil<br>Vidwan | Matric<br>Inter |

## REGIONAL LANGUAGES

Central grants are made to States and private institutions under the Union Education Ministry's scheme for the development of modern Indian languages.

The purpose is to provide for, among other things, the preparation and publication of encyclopaedias and old manuscripts, rare books, bilingual dictionaries, popular books on science and culture, works bringing out similarities among different Indian languages on points of grammar, syntax or specialised vocabulary and for literary conferences.

The total allocation for the scheme for 1964-65 has been Rs. 5,63,998.

State-wise allocations for 1964-65 in rupees were : Andhra Pradesh 9,000 : Assam 9,626 ; Kerala 7,260 ; Madras 62,325 ; Maharashtra 1,23,178 ; Mysore 1,13,500 ; Orissa 1,01,152 ; Uttar Pradesh 14,000 ; West Bengal 1,21,547 ; India 2,400 ; Total 5,63,988.

Language-wise allocations for 1964-65 in rupees were : Bengali 1,23,173 ; English 13,700 ; Kannada 1,11,300 ; Malayalam 8,760 ; Marathi 1,08,178 ; Oriya 1,01,152 ; Tamil 35,825 ; Telugu 26,500 ; Maithili 10,000 ; Miscellaneous 22,400 ; Total 5,63,988.

Hindi and Sanskrit are not included in the programme as their development is undertaken through a separate scheme.

Under the scheme of development of modern Indian languages each State Government could develop any language and not confine itself only to those languages prevailing in its area. Further, all institutions in a State, engaged in the development of a modern Indian language, other than Hindi, will be eligible for assistance although that language be not the regional language of the State.

Generally, the Centre shares 50 per cent of the expenditure incurred by the State Governments or institutions on approved scheme. In special cases, however, a cent per cent grant is permissible.

State Governments may also recommend grants to private institutions engaged in language development work. In such cases the grants by the Centre equal the assistance given by the State Governments.

The Central grants of Rs. 20 lakhs for the teaching of Hindi in schools and colleges in non-Hindi speaking areas for 1964-65 have been increased to Rs. one crore.

*Languages Bill :* The seal of the Parliament's approval was set on the Official Languages Bill on 7th May 1963, which was passed in the Lok Sabha on 27th April 1963, permitting continuance of English as an associate official language with Hindi, even after the expiry of the present time limit on Jan. 26, 1965, for an indefinite period. The use of English in the State legislatures will also be debarred after January 26, 1965 unless amending laws are passed by the States providing for continuing the business in English.

Even after that date, those States conducting business in the regional languages will be required to have authoritative texts of the laws and amending Bills in English. These implications of the Official Languages Bill were explained to the Chief Ministers at their informal meeting with the Union Home Minister.

The Punjab Government had decided to introduce Hindi in the Hindi region and Punjabi in the Punjabi region of the State as court languages upto the district level from Jan. 1, 1962. The Maharashtra Govt. has been taking steps to facilitate an early and smooth switch-over from English to Marathi as the official language. In Kerala steps are being taken by the Government for the progressive introduction of Malayalam as the official language in the State.

The Kerala Government has adopted Malayalam as the official language since Nov. 1, 1965 in specified departments.

Communications received by the Govt. in Malayalam would be replied in the same language.

The Mysore Assembly passed on Sept. 5, 1963, the Official Language Bill making Kannada the official language of the State, but providing for the continued use of English in the Legislature and for other purposes beyond 1965.

In July 1964, the Andhra Pradesh legislature passed a Bill permitting the continuance of English as the official language of the State beyond Jan. 1965. Legislation for adopting Telugu as the medium of administration was expected to be introduced in the November session of the legislatur . There has been progress in evolving a Telugu typewriter key board and shorthand script. The glossary of 26.000 words prepared by the Kaleswara Rao Committee would be adopted for translating into Telugu, words from other languages.

As far as possible, it would be necessary to evolve uniform equivalent words in various regional languages, taking Sanskrit or Arabic roots.

Orders have been passed requiring Government offices at the taluka and lower levels to use Telugu as the official language of administration. In due course, the district and State levels would also start employing Telugu.

The Gujarat Government, which has adopted Gujarati as the language of administration since May 1, 1965, has decided to correspond with Hindi speaking States in Hindi only, instead of English.

### Official Language (Legislature) Commission

The Commssion has been appointed by the Government of India to prepare and publish a standard legal terminology for use in all official languages. It has to prepare and publish authoritative texts in Hindi of all Central Acts, ordinances, regulations and orders and to arrange for translation of the same in various languages of the States. The 15-member Commission includes five full-time members and is headed by Mr. C. P. Sinha, retired Chief Justice of Assam High Court.

# EDUCATION

SINCE August 15, 1947 Education at the Centre has been constituted into a separate Ministry of Education. The State Governments are fully autonomous in regard to educational matters except in respect of educational development programmes for which they receive grants-in-aid from the Central Government. Such programme has to be approved by the Central Government who have to examine whether it is in accord with the All-India approved educational policy.

The Ministry has offices in London, Washington. Nairobi and Bonn.

The work of the Ministry has been distributed mainly in five Bureax : (1) The Bureau of school education ; (2) the Bureau of higher education ; (3) the Bureau of scholarships ; (4) The Bureau of planning and ancillary education services ; (5) the Bureau of languages, literature and fine arts. Each Bureax is under the charge of a Joint Secretary/Joint Educational Adviser. These Bureax consist of various divisions and units.

The Ministry is also respgonsible for the four Central Universities of Aligarh, Banaras, Delhi and Visva Bharati and some Institutions of higher learning. Other Departments that come within its purview are Anthropological Survey of India, Archaeological Survey of India, National Archives, National Library, Calcutta, Council of Scientific and Industrial Research, Survey of India, Botanical Survey of India, Zoological Survey of India, National Museum, etc. The Ministry is also responsible for cultural relations with foreign countries and UNESCO.

An Education Commission has been set up in Oct. 1964 to survey the entire field of educational development and to have a comprehensive review of the country's educational system. The commission will advise the government on the national pattern of education and on the general principles and policies for the development of education at all stages and in all its aspects, except legal, medical and adult education.

Some of the other educational bodies associated with the Ministry are :

All-India Council for Elementary Education, All-India Council for Secondary Education, National Council for Women's Education and the University Grants Commission.

For secondary education, there is a division in the Ministry itself, and a subordinate office called Directorate of Extension Programmes for Secondary Education. The latter performs advisory as well as executive functions. This Directorate has since been merged in the National Council of Educational Research and Training which has been set up as an autonomous organization. Education in the Union Territories is also one of the responsibilities of this division.

In the States, the Secretary, Department of Education, is the permanent head of the Department and the Director of Education acts as an expert Adviser to the Minister in charge of Education. The Director controls the inspecting staff and the teaching staff of the Government institutions. In some States the functions of Director are discharged by the Educational Officer, in others by the Education Secretary.

There are two types of Union Territories *viz.* one with Legislatures and the other without Legislatures. The Territories which have Legislatures are Himachal Pradesh, Manipur, Tripura, Pondicherry and Goa, Daman and Diu. The Territories which do not have Legislatures are Delhi, Andaman and Nicobar Islands, L. M. A. Islands and Dadra and Nagar Haveli.

The Government of India is ultimately responsible for education in Union Territories. In case of Territories which have their own Legislatures, some of the powers are enjoyed by the respective Governments.

The authority of Government in controlling the system of public instruction is in part shared with and in part delegated to Universities, and Boards of Secondary and Intermediate Education as regards secondary education, and to local bodies as regards elementary education in some States.

The control over higher education is exercised through the University Grants Commission.

In 1965 there were 62 universities, nine deemed to be universities and 15 Boards of Secondary Education.

Scientific Research, Technical Education and Cultural activities also come within the purview of the Ministry of Education after the merger with the Ministry of Education of the Ministry of Scientific Research and Cultural Affairs.

Institutions under private management are controlled by Government and by local bodies by "recognition" and by the payment of grants-in-aid, with the assistance of the inspecting staffs employed by Government and by local bodies.

For every 100 rupees of the Central Government expenditure on education in 1960-61, 52·5 were for indirect expenditure which includes direction and inspection, construction of buildings, scholarships, hostel charges etc., 19·9 for universities and general education colleges, 14·3 for professional and technical education (school and college standards), 6·2 for secondry education, 6·2 for primary (including pre-primary) education and 0·9 for special education (school and college standards).

During 1965-66, two of the States and Union Territories have earmarked more than 30 per cent of their total state budget to education, two between 25 and 30 per cent, seven between 20 and 25 per cent, eleven between 10 and 20 per cent.

During 1962-63, the expenditure on education in the States was highest in Uttar Pradesh, followed by Madras, Andhra, Maharashtra and West Bengal. Among the Union Territories Delhi hopped the list.

The average annual cost per capita (of population) was Rs 8·7 in 1961-62 as against Rs. 3·2 in 1950-51, representing an increase of about 172 per cent in a decade.

It is found that 4,623 foreign students were studying in Indian Univs. and Colleges on March 31, 1963. Of these, 789 were in receipt of Govt. of India scholarships.

## NATIONAL DISCIPLINE SCHEME

The National Discipline Scheme is a national reconstruction drive combining physical instructions with cultural songs and dance activities as well as training in team work and administration with emphasis on India's past glory, traditions, culture and heritage. The story of the Scheme is one of rapid growth and solid worth. It continues to make headway in the Third Five Year Plan and into the Fourth Plan under the charge of the Ministry of Education.

The National Emergency which came in the wake of the massive Chinese invasion across our northern border in the winter of 1962, added an element of urgency to the importance of the scheme. On the death of its arch-designer, Shri J. K. Bhonsle, in 1963, Major General Anant Singh Pathania, M.V.C., M.C., took over as the Director General of the scheme on 1st August 1963.

During the national emergency, the National Discipline Scheme has been transformed into an integrated scheme of National Discipline and Physical Education bringing together within its scope the advantages of conventional physical education schemes and the noble conceptions of the National Discipline Scheme.

The broad aspects of the integrated scheme are :—

(1) *Objects :* (*a*) to make the youth physically strong and resilient for the defence of the country by developing in them physical efficiency, toughness, endurance, courage, discipline and patriotic fervour ; (*b*) to develop among the students a sense of appreciation for the democratic values of life and love for their country, its past history and future destiny.

(2) *Programme :* The programme of the scheme includes the best of all the essentials of the various schemes in force for school children with due regard to the national requirements during the emergency. It consists of :—(*i*) Exercise Tables ; (*ii*) Drill and Marching ; (*iii*) Lezium ; (*iv*) Track and Field Events ; (*v*) Games and Relays ; (*vi*) Gymnastics for boys/Folk Dances for girls ; (*vii*) Simple Combats, Wrestling, Jodo, Jambia ; (*viii*) Hiking and Cross-Country ; (*ix*) Instruction and Practice in Tests ; (*x*) Field Craft (for boys)/Home Nursing (for girls); (*xi*) General Information, Practical Projects and Community Singing.

### School Curriculum

Each school has to provide five periods per class per week for all classes including the highest class for implementing the programme. The scheme has to cover all students in the age-group of 9 to 16 numbering about 1·02 crores. A teacher in full-time charge of the programme in a school is expected to handle a minimum of 250 and upto a maximum of 400 children.

The training programme has been drawn up by experts and is a synthesis of whatever is the best and practicable in Physical Education, A.C.C., National Discipline Scheme etc. In selecting the activities, care has been taken to include those which can be carried out by a majority of the schools with whatever facilities available with them. The programme does not unnecessarily emphasise the Western aspects of physical education but attempts to include our traditional activities.

The Government of India has carefully planned for the training of teachers to handle the scheme in schools. The two institutes, situated at Sariska near Alwar in Rajasthan and Barwaha near Indore in Madhya Pradesh offer a six months vigorous training schedule to a batch of about 600 instructor-trainees. The selection of the trainees is done on an all-India basis through the Regional Employment Exchanges. A matriculate satisfying the prescribed medical standards and preferably in the age-group of 18 to 25 is eligible for this training. During the period of training, a trainee receives a stipend of Rs. 85 per mensem. After successful completion of the training course, they are accredited to various schools as National Discipline Scheme Instructors. Roughly 7,000 instructors have been so far trained and through them nearly 20 lakh school children in about 4,500 schools are receiving training.

### Physical Education Teachers

The services of qualified and trained physical education teachers, serving in schools, are also being geared into this gigantic nation-building programme. A network of training centres have been planned for their reorientation in the integrated scheme. At present these centres are located at Chiki in Gujarat and Habra near Calcutta. The teachers are deputed to these centres for the three months intensive training course for which they are paid travelling allowance and a stipend of Rs. 45 per mensem each in addition to the usual pay and allowance that they get from their schools. On successful completion of training, they are employed wholetime in implemdnting the scheme syllabus on return to their schools.

Steps are also being taken to give a short-term training to National Discipline Scheme Instructors at selected physical education colleges in such aspects of the physical education activities, which are included in the integrated scheme but not covered under the training course, which they had earlier undergone.

The Government of India have allotted a total sum of Rs. 8·83 crores during the Third Five Year Plan.

The scheme is in operation in all States of the country including Union Territories, except Madras, who have not conveyed their final acceptance of the programme.

The most significant feature of the scheme and indeed its appeal and strength lies in the unique absence of compulsion in its varied activities. It is non-political in character. It is a "harmonious blend of beauty and discipline" and carefully

avoids regimentation of any kind. It is democratic in its outlook and approach and socialistic in its ideals. It teaches self-discipline and self-knowledge and by infusing self-confidence and courage equip the youth better for social and national service both in times of peace and war.

### PHYSICAL EDUCATION

An integrated programme of physical education named "National Fitness Corps" for all middle, high and higher secondary schools was launched from the academic year 1965-66 replacing the existing programmes of Physical Education, National Discipline and A.C.C. It will be a compulsory curricular activity for all students.

During 1965-66 as a first priority all high and higher secondary schools numbering over 22,000 are expected to be covered. The middle schools are expected to be covered in a phased programme during the Fourth Plan period. By the end of the Fourth Plan, the new programme is expected to achieve a full coverage of all the middle, high and higher secondary schools (one teacher per school).

The National Physical Efficiency Drive which has been launched by the Government of India to make the country fitness conscious, was organised all over the country in Nov. 1964. About 4,900 testing centres were set up all over the country with over nine lakh persons participating in the drive. At the fourth annual competition for the national awards in physical efficiency held in Feb. 1965, 11 persons won the national awards.

The Lakshmibai College of Physical Education, Gwalior which was set up by the Government of India in 1957 as a national institution is progressively extending its activities. The college, which is co-educational, offers a three year degree course and also a two year post-graduate master's degree course in physical education.

### PRIMARY EDUCATION

Primary Education in India has made considerable progress since the attainment of Independence. Under Article 45 of the Constitution, the State is required to provide free and compulsory education for all children up to the age of 14 years. In 1947, only about 35 per cent of the children in the age-group 6-11 were in schools. This percentage rose to 40 at the beginning of the First Plan; to 50 at the end of the First Plan and 61·3 at the end of the Second Plan. The Third Plan proposes to raise it still further to 80 per cent. The total enrolment in this age-group has increased from about 140 lakhs in 1947–48 to 185 lakhs in 1950–51; to 251 lakhs in 1955–56; and to 349 lakhs in 1960–61. By the end of the Third Five Year Plan, this enrolment is expected to rise by 163·07 lakhs and reach the figure of 512·07 lakhs. It is now estimated that by the end of the Third Plan the total enrolment in classes I–V would be 512·07 lakhs or 77·8 per cent of the population of the corresponding age-group. Of these, the number of girls will be 196·01 lakhs.

The increase of enrolment in the age-group 11-14 has also been equally satisfactory. In 1946-47 only 12 per cent of children in this age-group were at school. By 1950-51, this percentage increased to about 18, and it was expected to rise to about 28 by 1960-61. At the end of the Third Five Year Plan, about 107·96 lakhs of children are expected to be enrolled in classes VI-VIII and the percentage of children in the age-group 11-14 actually enrolled in schools is expected to rise nearly to 31·6 per cent.

The most important programmes about expansion relate to the raising of the minimum qualifications for primary teachers from a pass at the middle school to a pass at the secondary stage, increasing the percentage of trained teachers and raising the duration of the training course uniformly to two years; improving the remuneration of primary teachers; provision of free supply of books and writing materials to needy children; associating the local communities with the administration of Primary Education; the provision of midday meals; the conversion of primary schools to the basic pattern.

The proportion of trained teachers in primary schools has increased from 58·8 per cent in 1950–51 to 64·1 per cent in 1960–61 and 64·3 per cent in 1961–62. As against 3,16,124 trained primary school teachers in 1951, the number has gone upto 5,11,246 in 1961–62. During the Third Five Year Plan, there will be 70·2 per cent trained teachers in primary schools.

The outlay on primary education alone will be Rs. 209 crores during the Third Plan. The number of primary schools is likely to increase from about 210,000 in 1950–51 to 415,000 in 1965-66.

During the Third Five Year Plan, intensive efforts have been made, particularly in the backward States, to organise annual enrolment drives and increase the enrolment of children. Special attention will be paid to increasing the enrolment of girls and a number of programmes have been drawn up for this purpose. These include: educating public opinion to overcome traditional prejudices against the education of girls; recruitment of women teachers in increasing numbers; provision of amenities and inducements for girls to be enrolled in the schools, etc.

*Basic Education :* The objective of this scheme is to develop the entire personality of the child by imparting instruction in a correlated manner through a useful and productive craft. A good deal of progress has already been made in this sector and a fair percentage of schools has already been converted to the basic pattern. During the Third Five Year Plan, a programme of orientating all primary schools to the basic pattern has been undertaken. The problem, being gigantic, will take some time to complete.

### THREE LANGUAGES IN SCHOOLS*

The State Education Ministers' Committee reviewed in detail and noted with satisfaction the progress made in implementing the three-language formula.

According to the committee, at least three languages should be taught at the school stage, and the provision for teaching should ensure that a student passing out of the secondary school has an adequate knowledge of these languages.

The committee pointed out that in Hindi-speaking States the three-language formula should be so implemented that, progressively and as early as possible, teaching of one of the modern Indian languages also becomes compulsory in the school curricula. It further recommends that financial assistance on 100 per cent basis should be given to these States to enable them to provide for the teaching of modern Indian languages on the same lines as is being done at present for teaching of Hindi in non-Hindi States.

Under the Third Plan, the Centre bears 50 per cent of the cost of the conversion of high schools into higher secondary schools and 75 per cent of the cost for improvement of science teaching in secondary schools. In addition, there is a centrally sponsored scheme under which grants are given for strengthening of selected multi-purpose schools.

## SECONDARY EDUCATION

No. of secondary schools in 1963-64 : 22,810.

At the beginning of the Third Plan 11·7 per cent of the boys and girls in the age group of 14–17 were going to schools. This percentage is expected to increase to 17·8 at the end of the Third Plan.

No. of multi-purpose schools in 1963–64: 2,340.

No. of Higher Secondary Schools in 1963–64 : 5,511 (including 1,000 Intermediate Colleges of U.P. called Higher Secondary Schools).

Third Plan allotment for reorganization of secondary education : Rs. 88 crores.

Under the Third Five Year Plan the Centre bears 50 per cent of the cost of the conversion of high schools into higher secondary schools and 75 per cent of the cost for improvement of science teaching in secondary schools, 100 per cent for teacher training and 50 per cent for improvements in emoluments of teachers. In addition, there are centrally sponsored schemes for setting up State Bureaux of Educational and Vocational Guidance, State Education Evaluation Units, strengthening of selected multi-purpose schools and improvement of secondary education.

The accepted pattern of education comprises eight years of elementary (Basic) education; three years of secondary education with diversified courses to give it a vocational bias and make it a terminal point for entry into trade or profession; and three years of university education leading to the first degree. Some of the States have adopted a pattern of seven years of elementary (Basic) education followed by four years of secondary education.

At the secondary stage, a child in a multi-purpose school should in addition to the core curriculum which would include languages, social studies, general science and one compulsory craft, opt for one of the following diversified courses to be provided in reorganized multi-purpose schools :—humanities, science, technical, commerce, agriculture, fine arts or home science.

Except science, humanities and commerce, the groups are relatively new to secondary schools. Multi-purpose schools are schools in which these have been introduced.

#### Strengthening of Multi-purpose Schools

Multi-purpose schools have grown rapidly. The schemes to consolidate and improve their working are provided in the State sector of the Third Plan. The Ministry is helping the State Governments to develop a few selected schools to a high level of effectiveness so that they may serve as models for future plans. A scheme in this regard had been finalised and was being implemented from 1963–64.

The scheme for the conversion of high schools into multi-purpose schools was launched in 1954 along with a number of ancillary schemes, such as the training of teachers in new subjects, improvement of teaching facilities particularly in science, of school libraries, the introduction of craft in middle schools, and also other miscellaneous schemes like teachers' seminars, training of career masters, etc.

The three-language formula now generally accepted is as follows :—

(1) Regional language and mother tongue when the latter is different from the regional languages; (2) Hindi or in Hindi-speaking areas another modern Indian language; and (3) English or any other modern European language.

#### Examination Reform

The Ministry of Education (Govt. of India) formulated a comprehensive long-term programme of examination reform in 1957. This plan was unanimously accepted by the Chairmen and Secretaries of the Boards of Secondary Education and its implementation had gradually started from 1958.

The reform is directed towards improvement of examinations of the board and the school level in such a manner that they become better measures of pupil achievement and that evaluation becomes one of the vital forces in the improvement of instruction and other aspects of education. To accomplish these purposes the Central Examination Unit staffed with trained evaluation officers operates at the Directorate

* The recommendations of the Implementation Committee of Education Ministries on Three-Language Formula were forwarded to State Govts. or consideration.

of Extension Programmes for Secondary Education (National Council of Educational Research and Training), New Delhi.

During the past eight years of its existence, the Central Examination Unit has worked extensively with the State Boards of Secondary Education, the Teachers Training Colleges and the Secondary School teachers in several conferences, seminars, workshops and working groups for the purposes of orientation as well as the production of evaluation material. The Unit has sponsored and undertaken several research studies in evaluation and from time to time, provided consultative services in respect of quite a few experiments undertaken and the problems faced by different educational agencies in the country.

A fresh venue of the activity for the Unit has also been opened with the establishment of State Evaluation Units in 13 States and in one Union Territory of the country. The Unit is planning a short term training course for the officers of the State Evaluation Units. It helps them in developing their programmes by holding annually a joint conference of the officers of the State Evaluation Units and the Central Unit.

The Central Board of Secondary Education has already introduced objective type tests in its examinations from 1964 onwards.

Another significant activity of the Central Examination Unit has been with regard to the training of paper-setters in setting better question papers for the Boards of Madhya Pradesh, Maharashtra, Rajasthan, Gujarat, Mysore, Vidarbha and the Punjab University.

The Rajasthan Board started its programme of examination reform, in collaboration with the Central Examination Unit, by organising two workshops for the training of paper-setters in the subjects of elementary mathematics, general science and social studies. These workshops were followed up by two working groups in which six brochures consisting of sample papers and specimens of objective based items were compiled and published in the months of July and August, 1964 and circulated to all the secondary schools in the State. Simultaneously the Board made an announcement that it was going to introduce improved question papers in its examination of 1965. To prepare the teachers for this change, the Board organised district level workshops and covered almost all the teachers connected with these three subjects. It also conducted orientation workshops for all the teachers of general science. Administration of the improved question papers by the Rajasthan Board marks a significant step forward in the movement of examination reform in the country.

The Board of Secondary Education, Rajasthan has extended this programme to the elective subjects of physics, chemistry, biology and maths. The Board proposes to extend its programme of examination reform further by taking up the subjects of Hindi and English during 1965-66.

In addition to the improvement of external examinations, the Board is also taking action to improve the practical examinations in chemistry, physics and biology. Two try-outs have been done under the guidance of the officers from the Central Examination Unit. The results are under analysis and suitable instructions will be issued by the Board when the procedures and tools are finalised as a result of these try-outs.

The Central Examination Unit is also trying to develop satisfactory procedures for conducting oral examinations. It has already carried out three try-outs to develop the necessary procedures.

The various activities of the Unit are already reflected in its publications which among others include brochures on evaluation in different subjects, the pools of objective-based items, unit tests and sample papers, and research and studies in examinations.

### Crash Programme

A Centrally sponsored scheme known as "Crash Programme" was formulated in Sept., 1964 with the object of strengthening science laboratories, school libraries and science teaching in secondary schools. Central assistance is given at 100 per cent basis for all these programmes to the State Government through whom the scheme is being implemented.

### Educational and Vocational Guidance

The provision of diversified courses has given rise to the need for Educational & Vocational guidance in schools. Accordingly it was recommended by the Secondary Education Commission in its report (1952–53) that a Central Bureau of Educational & Vocational Guidance as well as a Bureau of Guidance in each State should be established. Bureaus now exist in all the States except Madras, Jammu and Kashmir.

The Central Bureau of Educational and Vocational Guidance was set up by the Ministry of Education, Government of India in Oct. 1954 to foster the Guidance Movement in the country and to provide leadership at the national level to help develop it along right lines. The various activities of the Central Bureau include promoting awareness of the nature of guidance services and the need for them, planning at the national level and bringing about co-ordination among the various agencies working in the field of guidance, offering professional training in the field of guidance, undertaking research, preparation of guidance tools and offering educational and occupational information. To meet the needs of the nation during the present emergency, the Central Bureau has brought out a number of publications giving detailed information about the defence services and held short term training courses for Delhi school teachers to help in the dissemination of occupational information about the defence services in the schools.

To develop the guidance movement and to give a uniform direction to the guidance services in the schools, a centrally sponsored scheme has been drawn up in the Third Five Year Plan. It aims at: (*a*) establishing State Bureaus of Educational and Vocational Guidance in the States where they have not been set up; (*b*) Strengthening existing bureaus in other States; and (*c*) Providing guidance services in 120 multi-purpose schools as a preliminary stage in extending such services in future.

The Third Plan provision for the implementation of this scheme is Rs. 30 lakhs.

In May 1962, an All-India Workshop on the Implementation of the Centrally Sponsored Scheme for guidance was held in Bangalore with a view to involving the representatives of all the State Bureaus of Guidance and some private Bureaus in co-operative thinking and planning regarding various issues related to the development of guidance.

### Science

The Secondary Education Commission made two recommendations with regard to the provision of science: 1. That every secondary school should provide general science as a core subject. 2. That elective science should be provided in as many secondary schools as possible to encourage students with a special talent in the subject to pursue further study.

To strengthen science education in schools, a Department of Science Education has been created. This Department is working in the following directions:—

(*i*) *Curricular Development*:—

Based on the syllabus of general science for elementary schools, classes I–VIII, guide-books for classes VI–VIII, indicating the activities for teachers and pupils have been prepared. Similar guide books for classes I–V, are under preparation.

(*ii*) *Text-books*:—

Three expert panels of scientists, professors and teachers have been set up to prepare mode text-books for elective sciences (Biology, Physics and Chemistry). The books were expected to be ready in 1964.

A series of text-books for classes VI–VIII based on the new draft syllabus are also under preparation.

Forty-nine Summer Institutes in elective sciences for teachers are proposed to be held during the summer of 1965-66, against sixteen Summer Institutes during the previous year.

(*iii*) *Science Clubs*:—

To provide a forum for creative activities and development of scientific attitude, 816 Science Clubs have been sponsored in the secondary schools during 1964-65, by the grant-in-aid of Rs. 1,200 each. To strengthen the activities of the science clubs by providing orientation to the teachers, both in-service and pre-service, 64 Central science clubs have been established in Teacher Training Institutions by an award of a grant of Rs. 2,000 each.

(*iv*) *Science Fairs*:—

To energise activities in the school science clubs, give recognition to the talented and to infuse competition among the young boys and girls at the school level, 90 science fairs are being organised in the Extension Service Centres/Units all over the country.

The Science Talent Search Scheme initiated as a pilot project in 1962–63 was extended all over the country from the year 1964-65. About 6,395 students of the secondary schools of the country participated in the 1965 contest for the award of 350 scholarships and 200 Certificates of Merit for higher studies in basic sciences. Out of these, 325 scholarships and 190 certificates of Merit for higher studies in basic science have been awarded.

The Central Institute of English, Hyderabad, was established by the Govt. of India as an autonomous organization, with the assistance of the Ford Foundation and the British Council in November 1958, to improve the teaching of English, specially at the secondary school stage. Besides doing research in the problems of teaching English as a second language and preparing suitable teaching materials to meet the present requirements, the Institute had been running 4-month training courses for lecturers of training colleges, university lecturers and secondary school teachers. It started from July 1962 a 9-month diploma course for training key personnel in the States.

Extension services had been provided in the 93 training colleges covering about 11,700 high and higher secondary schools.

Extension services had already been provided in 29 training institutes for primary teachers.

### Higher Secondary Pattern

Below we describe the position in regard to the reorganisation of secondary education in the various States.

Nine States and two Union Territories (Assam, Jammu & Kashmir, Madhya Pradesh, Maharashtra, Mysore, Orissa, Punjab, Rajasthan, West Bengal, Delhi and Tripura) have already introduced the revised pattern of Secondary Education. However, Andhra Pradesh and Kerala States have decided to hold over the implementation of the higher secondary pattern of education.

With regard to the progress of reorganisation, by the end of the Second Plan 3,763 schools were of the higher secondary pattern. At the end of the Third Plan it is expected that 6,735 Secondary Schools would have been converted to the new pattern.

A new body known as the National Council of Educational Research and Training has been set up by the Government of India and it has been registered under the Societies Registration Act. Its main aims are to undertake, aid, promote and coordinate research in all branches of education and to organise both pre-service and in-service training for teachers and other educational personnel and to meet other demands of educational reconstruction. The Directorate of

Extension Programme for Secondary Education and the Bureaus of Text-book Research and Education and Vocational Guidance have been merged into it. A number of important Plan Schemes like the establishment of four regional colleges for the training of teachers of multi-purpose schools have been entrusted to it for implementation.

(A summary of the difficulties experienced by multi-purpose schools is given in the 1959-60 edition of the *Directory*).

### Text Books

All the State Governments except Gujarat have introduced the programme of nationalisation of text books upto different stages of education.

**Midday Feeding :** The States of Andhra Pradesh, Gujarat, Kerala, Madhya Pradesh, Madras, Maharashtra, Mysore, Orissa, Punjab, U. P. and West Bengal have adopted the scheme of midday feeding of children in schools.

The Governments of Madhya Pradesh and Uttar Pradesh were expected to implement this scheme from 1965-66.

**UNESCO Aid for Technical Education :** UNESCO had approved assistance to the extent of $ 1,500,000 for the period 1965-66 for technical education and scientific research programmes in India.

**Assistance to Blind and Dumb Students :** The Government proposed to set up a training centre for the adult deaf and dumb during the Third Plan.

During 1960–61, about Rs. 1,27,000 had been distributed by way of scholarships for the blind, deaf and dumb. Over Rs. 2½ lakhs had been spent on the Training Centre for the Adult Blind at Dehra Dun and about Rs. 97,000 on the Model School for Blind Children in the same city.

## UNIVERSITY EDUCATION

(*See Late Particulars*)

## UNIVERSITY GRANTS COMMISSION

(Mathura Road, New Delhi)

The members and staff of the Commission are as given below :

*Members :* Dr. D. S. Kothari (*Chairman*), Pandit H. N. Kunzru, Dr. A. C. Joshi, B. Shiva Rao, P. N. Kirpal, D. C. Pavate, Prof. A. R. Wadia, S. R. Das, Dr. D. S. Reddi, T. P. Singh.

*Secretary*, K. L. Joshi; *Development Officer (S)*, Dr. V. S. Patankar; *Development Officer (Humanities)*, Dr. S. Bhattacharya; *Deputy Secretary*, R. K. Chhabra.

The statement given below shows the grants paid to the universities during 1963-64 :

*Central Universities :* (in Rs.) : Aligarh Muslim University, 71,65,000; Banaras Hindu University, 91,00,000; Delhi University, 1,28,74,745; Visva Bharati University, 25,00,000; Indian Institute of Science, Bangalore, 60,50,000; Indian School of International Studies, New Delhi, 4,50,086; Total : 3,81,39,831.

The grants* paid to the Universities for development schemes during 1963-64 : Rs. 6,46,00,641.

The grants paid towards Engineering and Technological education in Universities during the year 1963–64 : Rs. 1,13,89,631.

The grants paid to colleges for development during 1963–64 : Rs. 98,65,453.

The grants paid during 1963–64 for the implementation of the Three-Year Degree course scheme in Universities and their colleges : Rs. 1,44,06,164.

The grants paid to affiliated colleges for the development of Post-Graduate studies in Science subjects during 1963–64 : Rs. 21,70,620.

The grants paid to the Universities towards the revision of salary scales of college and University teachers during 1963–64 : Rs. 61,43,183.

The grants paid under Plan and Non-Plan Projects during 1963–64 : Rs. 12,58,50,286.

### Fellowships & Scholarships

*Followships :* During 1963-64, 25 senior fellowships in the humanities (including social sciences) and 26 in science subjects were awarded. Grants amounting to Rs. 2·66 lakhs were paid to the universities for these fellowships.

69 junior research fellowships were awarded in science subjects and 53 in the humanities (including social sciences) during 1963-64. Grants amounting to Rs. 4·97 lakhs were paid to the universities for junior fellowships in the humanities and Rs. 2·74 lakhs for those in science subjects.

During 1963-64, 30 research fellowships in engineering and technology, each of the value of Rs. 400 per month, were awarded. These fellowships also carry a grant of Rs. 1,000 per annum each for expenditure on contingencies relating to the research undertaken. The total grants paid to universities during the year for these fellowships was Rs. 1·88 lakhs. With effect from 1964-65, the research fellows in engineering and technology may be paid a further sum of Rs. 1,000 per annum each for the publication of their research work and for meeting the necessary expenditure on field work.

*Scholarships :* 250 scholarships each of the value of Rs. 200 per month are provided every year for promoting advanced study and research in humanities and science subjects. A sum of Rs. 7·68 lakhs was spent for this purpose during 1963-64.

### Three Year Degree Course

For implementing the three year degree course scheme, an expenditure of Rs. 23·41 crores in 36 universities had been approved, the Commission's share being Rs. 11·91 crores upto 1963-64.

### Revision of Salary Scales

The Commission's assistance is available to universities for the introduction of the following scales of pay for their teaching staff : Professors Rs. 1,000–50–1,500; Readers Rs. 700–40–1,100; Lecturers Rs. 400–30–640–800; Instructors Rs. 300–25–350.

The Commission shares 80 per cent of the additional expenditure required for the introduction of these pay scales provided the universities or State Governments concerned pay the balance and give an assurance that the revised scales of pay will be maintained after the Commission's assistance ceases. Assistance to central universities is provided on a cent per cent basis.

About 4,000 university teachers in 39 universities have received the benefit of the enhanced scales of pay so far during the Third Plan period.

In order to improve the salaries of teachers in affiliated colleges, the Commission decided to provide assistance to the colleges for introducing the following scales of pay during the Second Plan period : Principals Rs. 600–40–800; Heads of Departments Rs. 400–25–700; Senior Lecturers Rs. 300–25–600; Lecturers Rs. 200–15–320–25–500; Demonstrators/Tutors Rs. 150–10–200.

So far about 14,000 teachers working in 461 colleges affiliated to 23 colleges have received the benefit of the above mentioned scales of pay.

The question of improving the salary scales available to college teachers was examined by the committee dealing with collegiate education. The need for a further revision of these pay scales was reiterated. The following scales of pay were recommended : Principals Rs. 700–40–1,100; Heads of Departments/Senior Lecturers Rs. 500–30–800; Lecturers Rs. 300–20–600.

### Examination Reform

The Commission provided assistance to the universities of Aligarh, Baroda and Gauhati for setting up examination reform units. A report on the investigations undertaken by the Aligarh Muslim University is under preparation. The examination reform unit of the Gauhati University started functioning with effect from June 1, 1963. A brochure entitled *Three Studies in Examination Techniques* by Dr. H. J. Taylor, Ex-Vice-Chancellor, Gauhati University, has been published.

### Agricultural Education

Six agricultural universities, constituted by Acts of State Legislatures, are at present functioning in the country. They are : U. P. Agricultural University, Pantnagar; Panjab Agricultural University, Ludhiana; Udaipur University, Udaipur†; Orissa University of Agriculture and Technology, Bhubaneswar; Andhra Pradesh Agricultural University, Rajendranagar, Hyderabad; University of Agricultural Science, Hebbal, Bangalore.

In 1963-64, 48 agricultural colleges were functioning in the country. Facilities for education in agriculture at the degree level were also available in 18 multi-faculty colleges.

An amount of Rs. 17 crores has been made available to the Central Ministry and State Departments of Agriculture in the Third Plan for education in agriculture and veterinary science at the university level.

### Measures for the Promotion of General Education

General education necessitates a reorientation and modernisation of the existing undergraduate studies in order to raise academic standards and enable students to have a better understanding of problems relating to present day life and environment.

The Standing Advisory Committee constituted earlier by the Commission continued to advise and assist the Universities in the implementation of their general education programme.

*Health Centres :* Grants are being given to universities for establishing health centres to provide facilities for medical examination and treatment of simple ailments. During 1963-64 grants amounting to Rs. 1·78 lakhs were paid to the universities on this account.

### Medium of Instruction

The University Grants Commission has suggested that the change from English to an Indian language should not be hastened and that it should be preceded by adequate preparatory measures. The Commission has further appointed a working group of educationists representing all the Indian languages to study further the question of medium of instruction in the universities and to draw up a plan of action for the change-over from English to an Indian language with primary regard to the effectiveness of teaching and learning and consistent with the maintenance of high standards in English which should continue as a common second language even after the change is made.

### U.G.C. REPORT 1963-64

During 1963-64, the total number of universities that were functioning in the country was 61. The new universities that have recently come into existence are Andhra Pradesh Agricultural University, Rajendranagar, Hyderabad; University of Bangalore; Indore University; Jiwaji University, Gwalior; Ravi Shankar University, Raipur; University of Agricultural Sciences, Hebbal, Bangalore. The total enrolment in the universities and colleges including Intermediate Boards was 13·85 lakhs as against 12·73 lakhs during 1962-63. In 1963-64, the number of affiliated and university colleges in the country was 2,111 as against 1,938 in 1962-63 (These figures do not include Intermediate colleges under the Board of Intermediate Education, U.P.). During 1963-64, 135 new arts, science and commerce colleges were established and the number of women's colleges rose from 235 in 1962-63 to 254 in 1963-64. There were 270 colleges affiliated to various universities which provided facilities for post-graduate courses in arts, science, commerce, education and law in 1963-64.

Upto 1963-64, the Commission approved an expenditure of Rs. 23·41 crores for the implementation of the three-year degree course scheme in 36 universities and 723 colleges. The Commission's share of this expenditure was estimated to be Rs. 11·91 crores.

* Exclusive of grants paid for Engineering and Technological education, revision of scales and introduction of three-year degree course.

† This has since become a multi-faculty university.

The total grants paid during 1963-64 for higher scientific education and research amounted to Rs. 1·53 crores. For the Third Plan period Rs. 8·47 crores were allocated for the development of teaching and research in humanities and social sciences.

An amount of Rs. 7·95 crores was allocated to the universities and institutions deemed to be universities for the Third Plan period for general schemes such as hostels, staff quarters, guest houses, non-resident students centres, hobby workshops, health centres and printing presses.

### Engineering and Technological Education

Against a provision of Rs. 6·50 crores for the Third Plan made for the development of engineering and technological education in the universities and the institutions maintained by them, the Commission has so far sanctioned development grants amounting to Rs. 3·29 crores. In addition to the grants mentioned above, there was a spill-over of about Rs. 3·35 crores in respect of the schemes approved during the Second Plan but carried over to the next Plan period. Thus the total commitment amounts to Rs. 6·63 crores.

During 1963-64, there were 118 institutions in the country conducting courses in engineering and technology for the first degree.

During 1963-64, the Commission awarded 378 junior fellowships, each of the value of Rs. 250 per month, to students of various post-graduate courses in engineering and technology. An amount of Rs. 6·62 lakhs was paid on this account. 30 fellowships, each of the value of Rs. 400 per month, were awarded during 1963-64 for advanced study and research in engineering and technology beyond the post-graduate degree.

### Centenary Grants to Colleges

The U.G.C. has been making a special grant of Rs. one lakh to every college on its attaining the age of hundred years of its history.

Centenary grants have so far been sanctioned to 53 colleges for various projects such as the construction of college buildings, hostels, staff quarters, libraries, laboratories, auditoria and sports pavilions.

During 1963-64, the proposals of Lucknow Christian College and the Government Law College, Bombay, for the admissible grants were approved. A sum of Rs. 1·91 lakhs was paid under the scheme to the colleges concerned. Payments are regulated in accordance with the progress made in the implementation of the approved projects.

## RURAL HIGHER EDUCATION

On the recommendation of the Rural Higher Education Committee, a National Council for Rural Higher Education was established in 1956 to advise Govt. on all matters relating to the development of rural higher education.

Under the scheme, 14 Rural Institutes are at present functioning in different parts of the country. These are Gandhi Gram Rural Institute, Madurai; Ramakrishna Mission Vidyalaya Rural Institute, Coimbatore; Lok Bharati Rural Institute, Sanosara; Rural Institute, Amravati; Karmaveer Hire Rural Institute, Gargoti; Vidya Bhavan Rural Institute, Udaipur; Balwant Vidyapeeth Rural Institute, Bichpuri, Agra; Rural Institute, Jamia Millia, New Delhi, Institute of Rural Higher Education, Sriniketan, West Bengal; Rural Institute of Higher Studies, Birouli, Bihar; Kasturba Rural Institute, Rajpura, Punjab; Rural Institute, Wardha and the Rural Institute at Hanumanamatti, Mysore State and Rural Institute, Thavanoor.

The courses, as approved by the Council and adopted by the Rural Institutes, are:

(*i*) a three-year Diploma Course in Rural Services; (*ii*) a three-year Diploma Course in Civil and Rural Engineering; (*iii*) a two-year Certificate Course in Agricultural Science; (*iv*) a one-year Sanitary Inspectors' Course; (*v*) a two-year Post-Diploma Course in Rural Sociology and Community Development; (*vi*) a two-year Post-Diploma Course in Rural Economics and Cooperation; (*vii*) a three-year Diploma Course in Rural Services (Education), and (*viii*) a one-year Preparatory Course to initiate matriculates into the three-year Diploma Course in Rural Services: (*ix*) a one-year Advanced course for Health Inspectors.

The Post-Graduate Diploma in Rural Economics and Cooperation has been recognised by the Government of India povisionally for two years as equivalent to M.A. degree of a recognised university for purposes of appointment under the Central and State Governments. The Post Graduate Diploma in Rural Sociology and Community Development has also been privisionally recognised by the Government of India for two years as equivalent to M.A. degree for purposes of appointments under the Central and State Governments.

(*ii*) The Diploma in Rural Services has been recognised by the Central and most of the State Governments as being equivalent to the first degree of a recognised university for purposes of employment under them. Many Indian Universities have also recognised this Diploma for admission to certain post-graduate courses.

(*iii*) The Diploma in Civil and Rural Engineering has been recognised by the Central and most of the State Governments, for purposes of employment under them. The Diploma has also been recognised for admission to part-time degree courses in Engineering at the Jadavpur University and the Delhi Polytechnic.

(*iv*) The Certificate in Agricultural Science and the Sanitary Inspectors Certificate have been recognised by most of the State Governments for purposes of employment under them.

(*v*) The Diploma in Rural Services (Education) has been recognised by the State Government of Maharashtra as equivalent to B.T. degree for purposes of employment under the State Government.

## TECHNICAL EDUCATION

The All-India Council for Technical Education was set up by the Government of India in November 1945 to advise them on all matters relating to the co-ordination and development of technical education in the country after the high school stage. Its personnel have been drawn from Government of India Departments, State Governments, Parliament, industry and commerce, professional and educational bodies.

Five Higher Technological Institutions of national importance, one in each region, at Kharagpur, Bombay, Madras, New Delhi and Kanpur have been set up. Besides these higher technological institutions, fourteen large-sized regional engineering colleges, a number of other engineering colleges, technological institutions and polytechnics have been set up. For specialised courses such as Mining, Engineering and Metallurgy, a number of centres have been established both for degree and diploma courses. For Printing Technology, four regional schools one each at Madras, Calcutta, Allahabad and Bombay have been established. New faculties have been added in institutions whose activities were previously restricted. For instance, Tele-communication Engineering, Chemical Engineering, Architecture, Textile Technology, Petroleum Technology, Production Technology, Geophysics are some of the subjects in which several institutions are today offering courses. Besides the establishment of new institutions and new courses, the old institution have also been expanded and developed. In 1947 there were only 38 institutions for degree courses in engineering and technology and 53 institutions for diploma courses with an admission capacity of 2,940 and 3,670 respectively. By the end of the Second Plan period *viz.* by 1960-61, the number of institutions for degree and diploma courses rose to 102 and 195 with an admission capacity of 13,824 and 26,501 respectively and by 1964-65 the number of institutions has risen to 131 and 264 with an admission capacity of 23,757 and 46,243 respectively. Thus since 1947 admissions to degree courses have increased nearly eight-fold and admissions to diploma courses more than twelve-fold. Prior to 1947, facilities for post-graduate courses were practically non-existent. Today a large number of Centres have been developed and more than 1,500 places have been made available for advanced training for post-graduate courses and research. Thought has also been given to technical training at secondary stage and facilities for technical education at this level have been created by establishing junior technical schools, a special type of schools, designed specially for those who wish to enter industry and other technical occupations. Eighty-six Junior Technical Schools have been established by the academic year 1964-65.

### All India Council

The Council represents all the interests which are concerned with the technical education. It consists of representatives of all State Governments, Ministries of the Central Government, Parliament, Industry, Commerce, Labour, Professional and learned societies, Universities, Technical Institutions and various other concerned interests. Its functioning, *inter-alia*, includes the preparation of plans for the development of technical man-power of different types and suggesting measures to meet them, suggesting improvement in the pattern of technical education from time to time to suit changing conditions, establishing liaison between industry, Government departments and other organisations on the one hand and technical institutions on the other, coordinating the activities of States, recommending grants and other forms of assistance that might be given by the Centre to the State Government institutions, University institutions and other organisations for development of technical education. For the proper discharge of its functions, the Council has set up a Coordinating Committee, four Regional Committees and seven Boards of Technical Studies. The regional committees assist the Council in promoting a coordinated development of technical education in the regions. The coordinating committee is the Executive of the Council and coordinates work of the regional committees and the boards of studies.

### Courses

Technical Education in India is a four-tiered structure comprising post-graduate courses and research; first degree courses; diploma courses; and Vocational or Industrial training. Each tier is a self-contained aspect intended to serve a specific purpose.

A scheme has also been formulated for a two-year diploma course for training technicians, with higher secondary as the admission qualification. The scheme aims at giving specialised training in particular fields of engineering directly related to the functions of a diploma holder in Industry. It is proposed to introduce the scheme in about 30 selected engineering colleges each with an annual capacity of 90 students.

Another scheme has been formulated for part-time diploma courses in engineering for persons working in the Industry. To begin with, 25 centres with about 2,500 annual admissions will be organised at existing polytechnics. Out of 25 centres approved for the purpose, 16 centres have already started functioning.

*Higher Institutes of Technology*: Five Higher Technological Institutes have been established one in each region, at Kharagpur, Bombay, Madras, Kanpur and Delhi. The institutes have started functioning since 1951, 1958, 1959, 1960 and 1961 respectively. The ultimate student enrolment at the Kharagpur institute is 2,500 (2,000 under-graduates and 500 post-graduate and research workers). In the case of other institutes, the target is 1,600 under-graduates and 400 at the post-graduate and research level. These institutions have been declared as institutions of national importance by an Act of Parliament. A high-powered council under the chairmanship of Minister of Scientific Research and Cultural Affairs as provided under the Act, has been set up to

coordinate the activities of these Higher Technological Institutions. The concept behind the establishment of these institutions is that for the training of the highest possible grades of technologists who are required in large numbers, national institutes provided with all necessary resources and full freedom to adapt themselves to the fast changing situations are necessary. In addition to the training of technical personnel, the institutions should be the fountain-heads of scientific and technical knowledge and should contribute through research and other activities to the industrial achievement of the country.

The admission to these institutes at the undergraduate level are made on the basis of a common entrance examination conducted at several centres in the country and one centre at London.

*Indian Institute of Science, Bangalore :* An important centre of post-graduate studies in Engineering is the Indian Institute of Science, Bangalore, established in 1911. In the last 15 years, the institute has become a centre of advanced technology with particular reference to Power Engineering, Aeronautical Engineering, Metallurgy, Internal Combustion Engineering and Electrical Communication Engineering.

*School of Planning and Architecture, Delhi :* The School offers graduate courses in Architecture for the Bachelor's degree course of the university of Delhi and the National Diploma course of the All India Council for Technical Education. Besides, post-graduate courses in Town and Country Planning — both part-time and full-time and in Housing (full-time) are run by the School.

*All India Institute of Management, Calcutta and Ahmedabad :* The institutes were established by the Central Government in 1962-63 in collaboration with the State Governments, local industrialists and Ford Foundation. They conduct post-graduate courses and research in management and related fields. The institutes also do consultancy work in response to requests from Government departments and private enterprises.

*Administrative Staff College, Hyderabad :* Established in 1957 as a joint enterprise of the Central Government and private industry and commerce, this institute offers a 12-week course to young administrators from all walks of national life in the principles and techniques of organisation, administration and leadership in civil life.

*Central School of Printing, Kalyani :* To meet the demands for trained technical personnel at the higher executive levels for efficient and economic management of the presses particularly those engaged in quality printing, the Central Government will establish during the Fourth Plan a Central School of Printing at Kalyani near Calcutta. Apart from preparing students to degree level, the School will also provide research facilities and prepare students to play an effective role in the ever expanding areas of graphic arts, photography, printing and packaging.

*National Institute for Training in Industrial Engineering, Bombay :* Established in 1964 with the U.N. Special Assistance Fund, the institute is intended to train suitably qualified persons in industrial engineering and to conduct research in industrial engineering methods and techniques.

*National Institute of Foundry, Forge Technology, Ranchi :* With a view to providing training facilities in foundry engineering and forging, the Central Government have approved the establishment of the institute in 1965-66. It will also conduct short-term refresher courses in the latest methods and techniques of production, design and development for persons working in the industry.

### Finance

In the First Plan period, the Centre provided about Rs. 16·33 crores for technical education and for the Second Plan, Rs. 40 crores. Exact figures of expenditure incurred by private societies are not readily available but it is estimated that this sector has contributed on an average about Rs. 5 crores per year in the last three to four years.

In the Third Plan a much larger outlay has been made. An amount of Rs. 140·35 crores is proposed to be spent on the expansion of technical education — Rs. 69·44 crores by the Central Government and Rs. 70·91 crores by the States.

*Foreign Aid :* The extent of foreign aid received for technical education during 1963 is as below :

(*i*) Number of foreign experts—16: (*ii*) Equipment—Rs. 0·44 million; (*iii*) Number of Fellowships for the training abroad—17.

### Third Plan Programmes

The Third Plan envisages provision of 25,000 admission to first degree courses and 50,000 admission to diploma courses in engineering and technology by 1965-66. To achieve these targets, plans have been formulated to develop fully higher technological institutions, certain other institutions and establishment of 23 new engineering colleges and 94 new polytechnics. Out of these, 18 engineering colleges and 68 polytechnics have been started in the first four years. Intake capacity of certain existing institutions has also been increased. It is proposed to reach the remaining physical targets by expansion of existing institutions and establishment of new institutions provided for in the Third Plan.

A provision for the establishment of 117 junior technical schools and 24 technical institutions for girls has also been made in the Third Plan out of which 48 junior technical schools and 17 technical institutions for girls have been started in the first four years of the Plan-period.

### Fourth Plan Programme

The A.I.C.T.E. has approved the draft outline of the Fourth Plan for technical education. The draft provides for a target of about 35,000 admissions at the degree level and 72.000 admissions at the diploma level in the various engineering and technological courses. To achieve these targets, it is proposed that the existing institutions be expanded to the maximum possible extent and correspondence courses be introduced.

The Plan also envisages to provide post-graduate and research training facilities for 20 per cent of the output of graduates in engineering.

The Council has approved in principle, the establishment of institute for training in foremanship and supervision in collaboration with industry.

The Council has recommended that for the needs of automobile industry, special courses at the diploma level in automobile engineering should be provided at various centres on full-time as well as sandwich pattern basis.

The Council has also recommended that the institutions charging fees at high rate should bring down their fees so that no institution in the country realises a fee more than Rs. 400 for degree courses and Rs. 220 for diploma courses per year from the students.

*Practical Training Stipends Scheme :* Under this scheme, senior stipends of the value of Rs. 150 per month are given to degree holders and junior stipends of the value of Rs. 100 per month are given to diploma holders. The duration of the training is one to two years.

*Merit-cum-Means Scholarships Scheme :* Under the scheme, 1,969 scholarships were instituted during the Second Five Year Plan. Under the Third Plan, 9,305 scholarships for fresh entrants for degree and diploma courses have been instituted during the first four years of the Third Plan. Each scholarship is tenable for the full course of studies of the students concerned (provided the progress is satisfactory), and is of the value of Rs. 75 per month for degree students and Rs. 50 per month for diploma students. In addition, the scholarship holders are either exempted from the tuition fees by their own institutions or have their scholarship increased by an equal amount.

*Technical Teachers Training Programme :* Under the scheme, fellowships of the value of Rs. 400 per month are awarded to young graduates on the at least 60 per cent marks in the qualifying examination in the appropriate branch of engineering, metallurgy or architecture. The training period lasts for two to three years. On the completion of training, they are posted as lecturers in the technical institutions.

*Mine Surveyor's Examination :* The examinations for the Mine Surveyor's and the Second class Manager's Certificate of Competency are held twice a year.

The State Governments have been advised to create facilities for part-time education of mine workers to prepare them for " Shortfirers " and " Sirdors " examination.

The Government of India have under consideration a scheme for vocational training of all mine workers. It has been decided to set up a National Mine Safety Council *inter alia* to arrange for refresher courses for members of supervisory staff.

Below is shown the progress made in this field—the number of institutions in existence; the intake of students and the outturn of students :

| | | 1947 | 1951 | 1956 | 1961 | 1964 |
|---|---|---|---|---|---|---|
| Institutions | Degree .. .. | 38 | 53 | 71 | 111 | 131 |
| | Diploma .. .. | 53 | 89 | 109 | 209 | 264 |
| Intake | Degree .. .. | 2,940 | 4,788 | 6,612 | 15,850 | 23,757 |
| | Diploma .. .. | 3,670 | 6,216 | 10,318 | 27,701 | 46,243 |
| Outturn | Degree .. .. | 1,270 | 2,693 | 4,337 | 7,026 | 9,456 |
| | Diploma . | 1,440 | 2,626 | 4,103 | 10,349 | 15,202 |

The increase in the seating capacity sanctioned by Western region technical institutes for degree and diploma courses for the year 1963-64 respectively were : Maharashtra 248, 740 ; Gujarat 240, 420 and Madhya Pradesh 245, 300.

### Medical Colleges

The Union Health Ministry have sanctioned Rs. 15,000 for non-recurring expenditure and Rs. 2,000 a year for recurring expenditure for each admission beyond the present quota of 7,000. The money provided under the scheme will be over and above the State Plan ceiling. With this extra financial assistance the existing 71 medical colleges were expected to be able to admit 3,000 more students for the academic year 1963-64.

### Residential Schools for Children of Defence Personnel

A scheme for opening a chain of residential schools for the children of Defence personnel and other Government officials had been formulated. The schools under this scheme would offer instruction in Hindi and English, follow a common syllabus and prepare pupils for the examinations of the Central Board of Secondary Education.

The cost of tuition and board for a resident student would not exceed Rs. 75 p.m. Hotel charges of Central Government employees of low income groups would also be subsidized on a sliding basis.

### Central Schools

The Central Schools Scheme has been implemented by the Government of India in pursuance of the recommendation of the Second Pay Commission to provide educational facilities to the children of transferable Central Government employees. Under this scheme, 100 higher secondary schools are to be established, with a common syllabus, with a common medium of instruction Hindi/English and preparing students for a common examination *viz.* the all-India

higher secondary examination of the Central Board of Secondary Education, New Delhi. These schools are being developed as quality schools, at a moderate cost to the parent. The children of the following categories of personnel liable to transfer are eligible for admission in the following order of priority : Central Government employees including Defence personnel; All-India Services; employees of autonomous and semi-autonomous bodies fully financed by the Central Government; floating and local population.

The scheme was started in 1963-64. 54 schools were functioning during 1964-65 with an enrolment of 25,200 children. At the beginning of the school year 1965-66, the number of schools has increased to 86.

These schools fall under two categories, *viz.*, (1) schools established in regimental centres, on the recommendation of the Ministry of Defence, to serve concentrations of Defence personnel: (2) schools established at important concentrations of other Central Government employees, in State capitals and other towns, on the recommendations of the State Governments, either by taking over existing schools or by starting new schools.

The entire expenditure on the schools is borne by the Ministry of Education, through grants. Each school is administered by a local school management committee, composed of highly placed and responsible persons, including educationists, with the chairman being either the Station Commander of a service formation or a very senior State Government Officer or a distinguished educationist. It is envisaged that as soon as the schools are established, a Central Schools Society (a registered body) will be formed to run the schools.

No tuition fee is charged in classes I to VIII. Tuition fee at the rate of Rs. 6, Rs. 7 and Rs. 8 per month is charged in classes IX, X and XI respectively.

Scheduled Caste/Tribe students are exempted from payment of tuition fee. Children of JCOs, ORs and equivalent ranks are exempted from payment of tuition fees during the Emergency. A Pupils' Fund fee at the rate of Re. one per month in classes I to V and Rs. two per month in classes VI to IX is also permitted to be collected in the school. As soon as possible, residential accommodation will be provided to a part of the students, with subsidised boarding facilities for low-income Central Government employees. A wide range of elective subjects in humanities and science is provided for in the higher secondary classes.

The schools are located at the following places : *Andhra Pradesh :* Secunderabad (2 schools), Tirupathi; *Bihar :* Dinapore Cantt., Patna ; *Gujarat :* Ahmedabad, Baroda (2 schools), Jamnagar, Rajkot, Surat ; *Kerala :* Cochin, Ernakulam, Kozhikode, Trivandrum ; *Madhya Pradesh :* Amla, Bhopal, Gwalior, Indore, Pachmarhi, Saugor ; *Madras :* Avadi, Madras (2 schools), Tambaram ; *Maharashtra :* Ahmednagar, Ambarnath, Bombay (3 schools), Dehu Road, Deolali, Khadakvasla, Kirkee, Lonavala, Nagpur, Nasik Road Camp, Poona, Pulgaon Camp ; *Mysore :* Hubli, Bangalore (5 schools) ; *Orissa :* Puri, Sambalpur ; *Punjab :* Adampur, Ambala (2 schools), Ferozepur, Halwara, Jullundur, Simla ; *Rajasthan :* Alwar, Bikaner, Jaipur, Jodhpur, Kotah ; Udaipur ; *Uttar Pradesh :* Agra (2 schools), Babina Cantt., Bareilly (2 schools), Dehra Dun (2 schools), Fatehgarh, Jhansi, Kanpur (2 schools), Lansdowne, Lucknow, Manauri, Mathura, Meerut (3 schools), Ranikhet, Roorkee (2 schools), Varanasi ; *West Bengal :* Barrackpore ; *Delhi :* Delhi Cantt., New Delhi : *Manipur :* Imphal.

## FOREIGN ASSISTANCE

Statement of foreign assistance in the form of services of foreign experts at Indian Institutions, training facilities for Indian trainees abroad and equipment obtained under various foreign aid programme till Dec. 1961.

| Programme | Foreign Experts | Fellowships abroad | Equipment (Rs. in lakhs) |
|---|---|---|---|
| T.C.M. (U.S.A.) .. .. .. .. .. .. | 69 | 291 | 48·57 |
| Colombo Plan .. .. .. .. .. .. | 18 | 34 | 12·75 |
| UNESCO/UNTAA .. .. .. .. .. | 68 | 43 | 103·70* |
| Indo-French .. .. .. .. .. .. | 2 | 2 | (*a*) |
| Indo-West Germany .. .. .. .. .. | 8 | 15 | 35·47 |
| Indo–U.S.S.R. .. .. .. .. .. .. | 7 | — | 4·80 |
| Total .. .. .. | 172 | 385 | 205·29 |

* Does not include the Survey Team of 7 T.C.M. experts which visited India in Nov. 1961 in connection with the project for establishment of the Indian Institute of Technology, Kanpur.

(*a*) Includes assistance obtained by the Indian Institute of Technology, Bombay.

About 40 million (Canadian) dollars from the Counterpart Fund of the Colombo Plan could be utilised by India for its educational advancement.

Canada had already contributed 10 million dollars for the setting up of Engineering Colleges in India under the Colombo Plan.

### Central Training Institute

The Prime Minister inaugurated the Central Training Institute of the Directorate General of Employment and Training, Ministry of Labour and Employment, at Bombay on March 20, 1963.

Technical assistance will be made available to the Institute through a cooperative programme between the United States Agency for International Development and the Government of India.

The U.S.A.I.D. will contribute advisory staff, machinery, equipment and books. Its planned expenditure on this assistance programme will be about 1,000,000 dollars in foreign exchange. The complementary investment by the Government of India will be about Rs. 120·40 lakhs.

This Training Institute will be one of the most modern craft-instructor training institutes in the country. Its workshops have been equipped with up to date machines. Latest techniques in teaching will be employed at the Institute, including audio-visual aids such as films, film-strips, tape recordings, charts and models of all kinds.

The Institute will enroll about 250 trainees annually. The main objectives of the Institute will be to provide instruction in various trades and in the art of teaching these trades ; to train the instructors required for the craft-training institutions ; and to provide refresher courses to enable trade-instructors to keep abreast of the latest industrial techniques and advances in teaching their respective trades.

Training will be offered in 15 trades and the duration of the course in each trade will be 9 months. The Institute will operate all the year round.

## LOAN SCHOLARSHIPS

Besides giving financial assistance to needy and meritorious students for completing their education, this scheme will encourage students to enter the teaching profession.

The loan will be written off at the rate of ten per cent every year, if the holder of a loan-scholarship takes to teaching at the end of his studies.

A meritorious student whose parent's income does not exceed Rs. 500 per month will be eligible for a loan-scholarship. The maximum limit of loans will vary from Rs. 720 to Rs. 1,500 per annum, according to the course of study and it will be raised by Rs. 250 in the case of students of engineering and other similar technical and professional courses. Candidates in full time employment are not eligible.

*Scope :* The loan scholarships are available for studies in India only. These will be given for all recognised full time courses of education and training after the Matriculation or School Leaving Stage on the basis of the results of any examination conducted by a Board of Education or a University or a recognised Education Authority. These scholarships are open to nationals of India only.

The total number of loan scholarships for the remaining three years of the Third Five Year Plan is 66,900. Its tentative break-up is as follows : Under-Graduate stage : 60,000 ; Post-Graduate stage : 6,600 ; Post M.A., M.Sc., stage : 300. The Scheme will cost Rs. nine crores.

**Repayment Date :** The repayment of a loan will be by monthly instalments commencing one year after the loanee secures employment. No interest will be payable on the loans so long as the monthly instalments are paid on the due dates. Interests will be chargeable for default.

The loan will be given without any security or surety, except in the case of minors. Each recipient will be issued a loan scholarship book wherein all amounts given to him and repaid by him will be entered.

The Union Ministry of Education will advance funds to the State Governments for paying loans on the basis of total enrolment at the different stages of education.

The procedure for applying for loans will be simplified so that a selected candidate is enabled to claim loan-scholarship immediately on joining an institution, as full-time student.

## FOREIGN-TRAINED TECHNICIANS

Among the scientific and technical persons who have been abroad after Jan. 1, 1957 for higher studies, training or employment 9,916 were registered in the Indians Abroad Section of the National Register by Dec. 31, 1964. Of these 4,688 had already reported their return.

The position in each field is briefly indicated below :

Registration and return of Indians Abroad as on Dec. 31, 1964 :

| | *Returned* | *Abroad* |
|---|---|---|
| Scientists .. .. | 1,433 | 1,573 |
| Engineers .. .. | 2,068 | 2,467 |
| Technologists .. .. | 418 | 382 |
| Medical Personnel .. | 769 | 806 |
| Total .. .. | 4,688 | 5,228 |

The broad distribution of the registrants abroad as on December 1, 1964 by country and category is shown below :

| Country | Science | Engg. | Technology | Medicine | Total |
|---|---|---|---|---|---|
| U.S.A. .. .. .. | 1,626 | 1,342 | 228 | 300 | 3,496 |
| Canada .. .. .. | 300 | 118 | 21 | 71 | 510 |
| U.K. .. .. .. | 515 | 1,727 | 279 | 1,099 | 3,620 |
| Germany .. .. .. | 172 | 823 | 150 | 23 | 1,168 |
| Other European countries | 168 | 282 | 57 | 32 | 539 |
| Australia & New Zealand.. | 44 | 32 | 22 | 7 | 105 |
| African countries .. .. | 60 | 45 | 12 | 17 | 134 |
| Burma & Ceylon .. .. | 30 | 52 | 10 | 15 | 107 |
| Other countries .. .. | 91 | 114 | 21 | 11 | 237 |
| Total .. .. .. | 3,006 | 4,535 | 800 | 1,575 | 9,916 |

In addition, 530 persons in the field of Business Administration and Accountancy and 11 persons in various Social Sciences have been registered by Dec. 31, 1964 who have been abroad for studies or training.

## SOCIAL EDUCATION

The new concept of social education is embodied in a five point programme; literacy, education in health and hygiene, training for trade, profession or calling, citizenship, and healthy recreation.

It is also directed to arouse interest in the development plans in Community Project areas and to provide leadership.

The programme of Social Education is put through literacy classes, Community Centres, Youth Clubs, including Gram Raksha Dal, Farmers' Clubs and Mahila Samities and libraries which are an essential agency of mass education.

The number of State, Central and District Libraries has steadily increased. In December 1959 there were 13 State Central and 180 District Libraries in the country.

Radio listening and Discussion Groups, demonstrations and excursions have been effectively used. Besides radio, visual aids and printed literature have served as means of imparting education to the masses.

The Ministry of Community Development, Panchayat Raj and Co-operation conducts a number of Social Education Organisers Training Centres under their scheme. The National Fundamental Education Centre, which is now a part of the National Institute of Educational Research and Training of the Ministry of Education, trains District Social Education Organizers. The Centre also conducts research and evaluation of social education programmes. So far (July 1965), 133 District Social Education Officers, 125 Adult Literacy Instructors of Indo-Tibetan Border Force under the Ministry of Home Affairs and 15 Educational Officers of the Central Board for Workers' Education under the Ministry of Labour and Employment have been trained at the Centre.

To encourage production of suitable literature for neo-literates and the new reading public, the Ministry has organized a number of schemes, including the award of prizes to authors, and the bulk purchase of good books and holding of Sahitya Shivirs (literary workshops) in different parts of the country.

The Ministry has also a programme of publishing literature for social education workers and neo-literates. Two volumes of an encyclopaedia for neo-literates called the "Gyan Sarovar" have been published. All the twelve volumes of Hindi Vishwa Bharati have been published. Twelve model books for neo-literates in Hindi are being brought out with the assistance of Indian publishers.

The Workers' Social Education Institute established at Indore in 1960 as a pilot project of social education for industrial workers continues to function.

The Central Government assists Voluntary Educational Organisations for development of their activities in the field of Social Education. The scheme which was started in the 1st Five Year Plan has been continued during the Second and Third Five Year Plans. During Second Five Year Plan grants to the tune of Rs. 25·03 lakhs were sanctioned to 50 institutions. A provision of Rs. 26 lakhs has been made for the Third Five Year Plan period including Mysore Vidyapeeth Programme assisted by the Ford Foundation. Out of this, 55 institutions have been assisted so far (June 1965) to the extent of Rs. 13 lakhs.

The Third Five Year Plan provides for the development of the Delhi Public Library and for the opening of branches for the use of residents in certain localities. Upto March 1965, four Branch Libraries and seven Community Libraries have been opened. Two mobile vans have also been added raising the total to four.

## VIJNAN MANDIRS

The Vijnan Mandir scheme was launched in 1953 by the Council of Scientific and Industrial Research, Ministry of Scientific Research and Cultural Affairs*, to make the rural people science conscious and to make them familiar with the scientific principles involved in the day-to-day problems arising in agriculture and village sanitation.

Upto the end of 1964, 50 Vijnan Mandirs were set up.

A Vijnan Mandir consists of a scientific wing, a library and a museum.

The scientific wing has a laboratory for analysis of soil, water and food and gives demonstrations about common insects and pests, health and hygiene, common diseases and general scientific principles. There are period lectures by teachers of science. A science club is generally attached to the science wing for purposes of discussion and information. There are in addition working models of steam engine, aeroplane, telephone and so on, which are probably made in the Mandir itself.

The library contains books on science in simple language.

The Museum displays specimens regarding the structure of the human body, the local flora, fauna, minerals, shells, corals, archæological relics as also improved models of utensils, ploughs, domestic implements etc.

To foster interest competitions are organized—such as essay writing, modelling, etc., and prizes are awarded.

In pursuance of the recommendations of the Assessment Committee on Vijnan Mandirs, the administrative control of the Vijnan Mandirs has been transferred to the State Governments/Union Territories with effect from 1st April 1963 (1st June 1963 in the case of Vijnan Mandirs in Madhya Pradesh).

Below we give a State-wise list of Vijnan Mandirs :

*Andhra Pradesh :* Amadalavalasa (Distt. Srikakulam); Kapileswarapuram (Distt. East Godavari); Vicarabad (Distt. Hyderabad); Kodur (Dist. Cuddappah).

*Assam :* Dimoria (Distt. Kamrup); Hailakandi (Distt. Cachar).

*Bihar :* Haveli-Kharagpur (Distt. Monghyr); Ormanjhi (Distt. Ranchi); Vaishali (Distt. Muzaffarpur); Pusa (Dist. Darbhanga).

*Delhi :* Najafgarh.

*Gujarat :* Shahpur (Dist. Junagadh); Valod (Dist. Surat).

*Himachal Pradesh :* Sundarnagar-2 (Bhojpur), (Distt. Mandi).

*Jammu and Kashmir :* Ranbir Singh Pura (Dist. Jammu Tawi).

*Kerala :* Chengannur (Distt. Alleppey); Ramavaramapuram, Pudur (Distt. Palghat); Tirur (Dist. Kozhikode).

*Madhya Pradesh :* Nowgong (Distt. Chattarpur); Sehore (Distt. Sehore).

*Madras :* Ariyagoundampatti (Distt. Salem); Shri Ramakrishna Mission Vidyalaya, Perianaickenpalayam (Distt. Coimbatore); S. V. Nagram (Distt. North Arcot); T. Kallupatti (Distt. Madurai); Korukathi (Dist. Thanjavur); Valavanur (Dist. South Arcot).

*Maharashtra :* Amravati (Shivajinagar) (Distt. Amravati).

*Mysore :* Devaraya Samudram (Distt Kolar); Mayasandra (Distt. Tumkur); Moodbidri (Distt. South Kanara); Konanur (Dist. Hassan); Shiralakoppa (Dist. Shimoga); Ilkal (Bijapur Dist.).

*Orissa :* Angul (Distt. Dhenkanal); Bhadrak (Distt. Balasore); Hinjilicut (Distt. Ganjam).

*Punjab :* Nilokheri (Distt. Karnal).

*Rajasthan :* Dabok (Distt. Udaipur); Pisangan (Distt. Ajmer); Sardarshahr (Distt. Churu); Sumerpur (Distt. Pali).

*Uttar Pradesh :* Masauli (Distt. Barabanki); Bachhrawan (Dist. Rae Barelli); Ratsand (Dist. Ballia); Pitaura (Dist. Farukhabad).

*West Bengal :* Barsul (Distt. Burdwan); Ergoda (Distt. Midnapur); Haroa (Distt. 24-Parganas); Itachuna (Distt. Hooghly); Jhilimili (Distt. Bankura).

## FREE AND COMPULSORY EDUCATION

In accordance with the Directive Principle of State policy contained in Article 45 of the Constitution, the State (this expression includes the Government of India, the State Governments and the local bodies) has to endeavour to provide for free and compulsory education to all children until they complete the age of 14 years. The progress so far achieved in this sector is indicated below :—

*Free Elementary Education :* During the last 16 years, considerable progress has been made in reaching the target set before the country by the Constitution. Primary education (classes I–IV in some States and I–V in others) is now free throughout the country. Middle school education is also free in a large number of States such as Andhra Pradesh, Jammu & Kashmir, Kerala, Madhya Pradesh, Maharashtra, Mysore and Punjab. In Gujarat, fee is charged in High Schools corresponding classes V to X. In those States where it is not wholly free as yet, steps have been taken to provide very liberal concessions in fees. Education at primary and middle stages is free for girls and students coming from Scheduled Castes and Scheduled Tribes.

*Compulsory Primary Education :*—Progress in compulsory education is usually measured by the ratio which the enrolment in Classes I to VIII bears to the total number of children in the age-group 6-14. The ultimate goal is to reach an enrolment in classes I-V which would be about 120 per cent of the population of children in 6-11 age-group (because a number of children below 6 or above 11 will also attend these classes). Similarly, the target for enrolment in classes VI–VIII is about 90 per cent of the children in the age-group 11–14 because, although a few children of 11 or 14 will attend these classes, a large number of children in the age-group 11-14 will be attending classes I-V. On this basis, the

* Now merged with the Ministry of Education.

progress made at the end of the Second Plan as well as that which is proposed to be achieved at the end of the Third Plan (revised targets) is given below :—

| Name of the State | Classes I-V | | Classes VI-VIII | |
|---|---|---|---|---|
| | Enrolment at the end of 1960-61 | Targets for 1965-66 | Enrolment at the end of 1960-61 | Target for 1965-66 |
| Andhra Pradesh | 68·3% | 85·6% | 16·8% | 23·7% |
| Assam | 67·7% | 81·8% | 25·8% | 37·5% |
| Bihar | 50·7% | 71·1% | 17·1% | 25·5% |
| Gujarat | 72·1% | 91·5% | 26·3% | 36·8% |
| Jammu & Kashmir | 46·6% | 54·9% | 24·6% | 29·1% |
| Kerala | 98·8% | 123·6% | 58·3% | 82·8% |
| Madhya Pradesh | 49·2% | 62·5% | 15·5% | 19·7% |
| Madras | 85·5% | 104·7% | 31·6% | 38·6% |
| Maharashtra | 77·3% | 86·7% | 27·8% | 40·1% |
| Mysore | 73·8% | 93·8% | 22·5% | 32·1% |
| Orissa | 63·7% | 82·6% | 9·1% | 23·5% |
| Punjab | 50·8% | 83·2% | 29·4% | 37·9% |
| Rajasthan | 40·9% | 68·1% | 14·5% | 24·9% |
| Uttar Pradesh | 44·7% | 59·5% | 16·6% | 21·1% |
| West Bengal | 64·9% | 82·7% | 21·7% | 40·5% |
| Delhi | 83·4% | 136·0% | 61·5% | 99·0% |
| Himachal Pradesh | 50·9% | 77·8% | 22·7% | 32·2% |
| Pondicherry | 45·2% | 125·8% | 31·6% | 35·7% |
| Other Union Territories | 78·6% | 84·0% | 28·4% | 36·1% |
| All India | 62·4% | 80·2% | 22·6% | 32·3% |

As against the target enrolment of 22·5 lakh additional children in classes I to V in 1961–62, the actual additional enrolment was 39·92 lakhs. The Third Plan target of 152·2 lakhs additional enrolment has been revised to 176 lakhs in classes I to V.

*Legislation regarding Compulsory Primary Education* :—Every State in India has a compulsory education law on its Statute Book. But the following States have revised them on the lines recommended by the Govt. of India: Andhra Pradesh (1961); Assam (1962); Gujarat (1961); Madhya Pradesh (1961); Mysore (1961); Punjab (1960); West Bengal (1963); Rajasthan (1963).

## WOMEN'S EDUCATION

Women's education in pre-independence India was confined largely to non-governmental efforts in urban areas. According to the census of 1941 the percentage of literacy for women was as low as 6·0 as against 22·6 for men.

The proportion of boys to girls then in educational institutions was 100 to 30 and the disparity was the widest in the colleges of professional and special education where only 7 girls were under instruction for 100 boys enrolled.

The total number of girls under instruction at the end of March 1947 was 42,97,785. Of these, 34,75,165 girls were at the primary, 6,02,280 at the secondary and 23,207 at the collegiate stage and 56,090 were in special schools which opened out varied careers for women and 1,41,043 in unorganised institutions.

Out of the total number of 2,18,165 educational institutions at the time, 28,196 were specially meant for girls.

The period after 1947 has been marked by a planned approach to the problem of women's education.

The percentage of literacy according to the 1961 census is 12·9 for women as against 34·4 for men.

In 1949-50 the number of universities and research institutes for girls was only one with an enrolment of 2,063; in 1961–62, the enrolment increased to 10,450.

In 1949-50 there were 66 colleges of General Education with an enrolment of 36,313 girls; their number increased to 182 and 1,42,939 respectively in 1961-62.

In 1949-50 there were 17 colleges of professional and technical education with an enrolment of 3,668 girls; in 1961-62 their number increased to 108 and 32,055 respectively.

In 1949-50 there were 438 schools of vocational and technical education with an enrolment of 35,714 girls; in 1961-62 their number rose to 896 and 82,368 respectively.

In 1961 total enrolment of girls at all stages was 1,66,44,758 or 45 for every 100 boys.

During the same period the number of women teachers rose from 1,16,666 to 3,26,433. Out of this increased number of women teachers, 1,39,094 were in primary schools, 94,264 in middle schools, 71,284 in High/Higher secondary schools, 8,928 in universities and colleges and the remaining in other types of schools.

There is a constantly widening disparity between the rates of progress of boys' and girls' education. The percentage of rise in the number of boys between 6 and 11 from 59·8 per cent in 1950-51 to 70·3 per cent in 1955-56 and 83·2 in 1960-61, where as in the case of girls the rise was from 24·6 to 32·4 and 41·8 respectively during the same period.

Similarly, in the age group 11 to 14, the percentage of rise in the number of boys was from 20·7 to 25·5 and 32·6 and in the case of girls the rise was from 4·5 to 6·9 and 11·0 respectively during the same period.

As regards the age group 14–17, the percentage of rise in the number of boys was from 8·7 to 12·8 and 18·5 and in the case of girls the rise was from 1·8 to 2·6 and 4·4 respectively during the same period.

The National Committee on Women's Education appointed in May 1958 under the chairmanship of Mrs. Durgabai Deshmukh submitted a report in Jan. 1959.

A summary of the report appeared in the previous editions of the Directory.

As per the recommendations of the National Committee on Women's Education the Government set up the National Council for Women's Education in 1959. Since then, 20 State Councils for Women's Education have also been set up in all the States and Territories (except Nagaland) and some Union Territories.

For the Third Plan, the Government have also decided to have a special programme for overcoming the peculiar difficulties of girls over and above the normal programme of development available for all children. The Government have also decided to have special measures for increasing the number of women teachers, the revised targets fixed for the Third Plan being 60·6 per cent of girls as against 94·6 per cent for boys at the primary stage, 17·2 per cent as against 45·6 at the middle stage and 7·8 per per cent as against 27·3 at the secondary stage. In absolute numbers according to revised estimates, this would mean enrolling additionally 99 lakhs of girls out of a total of 223·43 lakhs of children upto the secondary stage.

It will thus be seen that the targets fixed for the Third Plan will, at least at the primary stage, help in bridging the gap between the education of boys and girls as the percentage increase for boys at this stage is to be only 11·4 as against 18·8 for girls. The percentage increase at the middle stage would be 13 for boys as against 6·2 for girls. The percentage increase at the secondary stage would be 8·2 for boys as against 3·2 for girls.

A massive effort is needed even to achieve the moderate targets that have now been finally included in the Plan. To realise this target it has been estimated that of the resources about Rs. 175 crores will be devoted to education of girls including a sum of Rs. 12 crores for special programme. Of this Rs. 175 crores, Rs. 114 crores would be for education at the primary and middle school stages.

With a view to educating public opinion and organizing propaganda for the spread of women's education, it is proposed to hold 22 seminars every year in all the States (except Nagaland) and the Union Territories of Delhi, Tripura, Himachal Pradesh and Manipur. During 1964-65, however, only 16 seminars were proposed to be held by various States and Union Territories.

As an advance action for the Fourth Plan, it is proposed to introduce during 1965-66, a scheme for accleration of girls' education with a provision of Rs. 25 lakhs.

A survey on "Attitude of Women towards Part-time Employment" was conducted by two schools of social work in Delhi and Bombay. It was recommended that more attitude surveys should be conducted in smaller towns with greater emphasis on (1) differences in the attitude of women towards part-time employment *vis-a-vis* their educational attainment and vocational training; and (2) attitude of women towards part-time employment as teachers.

The Committee "to look into the causes for lack of public support for girls' education in rural areas and to enlist public co-operation" under the Chairmanship of Mr. M. Bhaktavatsalam, Chief Minister of Madras, emphasised that official action and the programme based on public initiative must move in close harmony.

### Plan and Education

The total outlay for General Education in the Third Five Year Plan is Rs. 408 crores. This is nearly double the anticipated expenditure during the Second Plan. The distribution of the outlays during the First, Second and Third Plan is given in the following table:

(Rs. in Crores)

| Group | First Plan (Actual Expenditure) | Second Plan (Estimated Expenditure) | Third Plan Outlay |
|---|---|---|---|
| Elementary Education | 85 | 87 | 209 |
| Secondary Education | 20 | 48 | 88 |
| University Education | 14 | 45 | 82 |
| Other Educational Schemes | 14 | 24 | 29 |
| Total | 133 | 204 | 408 |

The achievements under the First Plan and Second Plan and targets aimed at under the Third Plan are indicated below :

| Activity | 1950–51 | 1955-56 | 1960-61 (Estimated) | 1965-66 (Targets) |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| Number of Pupils in Classes I to V (in lakhs) | 192 | 252 | 343 | 496 |
| Percentage thereof to Total Population of the Age Group 6-11 | 42·6 | 52·9 | 61·1 | 76·4 |
| Number of Pupils in Classes VI to VIII (in lakhs) | 31 | 43 | 63 | 98 |
| Percentage thereof to Total Population of the Age Group 11-14 | 12·7 | 16·5 | 22·8 | 28·6 |
| Number of Pupils in Classes IX to XI (in lakhs) | 12 | 19 | 29 | 46 |
| Percentage thereof to Total Population of the Age Group 14-17 | 5·3 | 7·8 | 11·5 | 15·6 |
| Number of Pupils at the University Stage (Arts, Science and Commerce) (in lakhs) | 4 | 6 | 9 | 13 |
| Percentage thereof to Total Population in the Age Group 17-23 | 0·9 | 1·5 | 1·8 | 2·4 |
| Percentage of Students Reading Science at University Stage | 38·1 | 33·0 | 35·8 | 42·5 |
| Number of Primary/Junior Basic Schools | 2,09,671 | 2,78,135 | 3,42,000 | 4,15,000 |
| Number of Middle/Senior Basic Schools | 13,596 | 21,730 | 39,600 | 57,700 |
| Number of High/Higher Secondary Schools | 7,288 | 10,838 | 16,600 | 21,800 |
| Number of Multipurpose Schools | .. | 255 | 2,115 | 2,446 |
| Number of Training Schools | 782 | 930 | 1,307 | 1,424 |
| Number of Training Colleges | 53 | 107 | 236 | 312 |
| Number of Arts, Science and Commerce Colleges | 542 | 772 | 1,050 | 1,400 |
| Number of Universities | 27 | 32 | 46 | 58 |
| Percentage of Trained Teachers— | | | | |
| Primary | 58·8 | 61·2 | 65·0 | 75·0 |
| Middle Schools | 53·3 | 58·5 | 65·0 | 75·0 |
| High/Higher Secondary Schools | 53·8 | 59·7 | 68·0 | 75·0 |

**Primary School Education :** In the field of primary education, the number of schools in 1946-47 was 1,72,661 as against 3,30,399 in 1960-61. By the end of 1965-66, it is expected to touch four lakhs, which would include 25,000 schools for girls.

*Enrolment :* Enrolment in primary/junior basic schools in 1946-47 was 130 lakhs as against 266 lakhs in 1960-61. It is expected to reach 400 lakhs in 1965-66.

*Teachers :* In 1946-47, the primary/junior basic schools had over four lakh teachers as against 7,41,515 in 1960-61. It is estimated to have 10,50,000 teachers including two lakh female teachers in 1965-66.

*Expenditure :* In 1950-51, expenditure on primary education was Rs. 36 crores as against Rs. 73·44 crores in 1960-61. In 1965-66, it is expected to be round about Rs. 112 crores.

**Middle School Education :** The number of middle schools was 12,843 in 1946-47 as against 46,663 in 1960-61. In 1965-66, it is estimated to have 78,000 such schools, which will include 8,000 schools for girls.

*Enrolment :* In middle/senior basic schools, the total number of enrolment in 1946-47 was about 18 lakhs as against 106 lakhs in 1960-61. It is estimated to touch 160 lakhs in 1965-66.

*Teachers :* The total number of teachers in middle schools was 72,413 in 1946-47 as against 3·5 lakhs in 1960-61. It is expected to be about 5,20,000 in 1965-66.

*Expenditure :* In 1946-47, the expenditure on middle school education amounted to over Rs. 480 lakhs as against Rs. 43 crores in 1960-61. It is expected to be round about Rs. 65 crores in 1965-66.

**Higher Secondary Education :** The number of institutions at this level in 1946-47 was 5,298 as against 17,257 in 1960-61. It is estimated to touch 27,000 including 4,000 for girls in 1965-66.

*Enrolment :* In high/higher secondary schools, the enrolment was 21·94 lakhs in 1946-47 as against 72·12 lakhs in 1960-61. It is estimated to be 110 lakhs, including 30 lakh girls in 1965-66.

*Teachers :* In 1946-47, there were 87,862 teachers in all high/higher secondary schools as against 2,96,305 in 1960-61. The total number of teachers in these institutions is likely to reach 4,40,000 including 95,000 females in 1965-66.

*Expenditure :* The total expenditure on high/higher secondary education was Rs. 12·22 crores in 1946-47 as against Rs. 68·91 crores in 1960-61. In 1965-66, it is expected to be Rs. 108 crores, including Rs. 22 crores for girls.

**Arts and Science Colleges :** In 1946-47, there were 420 arts and science colleges as against 1,039 in 1960-61. In 1965-66, the number of these colleges is estimated to touch 1,500 including 200 colleges fo girls.

*Enrolment :* In 1946-47, enrolment in these colleges was about two lakhs as against 6·91 lakhs in 1960-61. The totl enrolment is estimated to touch 10 lakhs, including 1·8 lakh girls during 1965-66.

*Teachers :* The number of teachers was 15,312 in 1950-51 as against 35,555 in 1960-61. It is estimated to have 50,000 teachers including 8,000 women in all the arts and science colleges in 1965-66.

*Expenditure :* In 1950-51, the total expenditure on arts and science education was Rs. 4·39 crores as against Rs. 21 crores in 1960-61. It is estimated to touch Rs. 30 crores, including Rs. five crores on girls' education in 1965-66.

**Professional Educations :** In 1946-47, the number of professional colleges was 140 as against 852 in 1960-61. It is estimated to have 1,200 professional colleges including 130 for girls in 1965-66.

*Enrolment :* The total enrolment in professional colleges was 34,000 in 1946-47 as against 1,94,000 in 1960-61. It is estimated to be round about three lakhs including 52,000 girls in 1965-66.

*Expenditure :* The expenditure on professional colleges amounted to Rs. 1·86 crores in 1946-47 as against Rs. 15·80 crores in 1960-61 while the estimates in 1965-66 are Rs. 32 crores.

## EDUCATION OF THE HANDICAPPED

Since the beginning of the Second Five Year Plan, the Government of India has been making special efforts to promote services for the education, training and rehabilitation of the handicapped. Some of the activities that have been undertaken are : Model school for blind children ; Training centre for the adult blind ; Sheltered workshop ; National library for the blind ; Training centre for the blind and deaf ; school for the mentally deficient children; central rehabilitation centre for the orthopaedically handicapped ; Training of teachers of the handicapped, Training in crafts ; Awards of fellowships to teachers of the handicapped ; Special employment exchanges ; scheme of assistance to voluntary organisations for the handicapped ; and scholarships for the handicapped.

## NATIONAL SCHOLARSHIP SCHEME DURING THIRD PLAN

This scheme was initiated in 1961-62 as a Third Plan scheme. In 1965-66, 2,650 awards are being made, 1,850 on the results of the school-leaving examinations and 800 on the results of the first degree B.A., B.SC., B.COM., and B.SC. (AG.) examinations.

The awards have been divided among the States/Territories on the basis of population.

The awards made on the results of the school-leaving examinations will terminate on the completion of the first degree examination and those made on the results of first degree examination will terminate on the completion of the Master's degree.

The rate of scholarship for inter/P.U.C. or first year of 3 years course is Rs. 50 per month ; for B.A./B.SC. etc. and second and third year of 3 years course Rs. 75 per month and for professional courses Rs. 100 per month ; for M.A./M.SC. studies also the rate is Rs. 100 per month. Those who stay in the hostel are paid Rs. 10 in addition.

*Means Test :* Rates of scholarship are subject to a means test which prescribes that full rate will be paid if the income of the parents is upto Rs. 500 per month ; at half the rate if the income is between Rs. 500 to 1,000 per month. If the income is bove Rs. 1,000 per month no scholarship is paid but a certificate of merit is issued.

## SCHOLARSHIPS FOR TEACHERS' CHILDREN

A scheme on the pattern of National Scholarships was introduced from 1961-62 for the meritorious children of primary and secondary school teachers. The number of scholarships is 500 every year and the child of a teacher, who secures at least 60 per cent marks in the school-leaving or pre-university examination is eligible to apply against the quota of a State/Territory. The rates under the scheme are the same as under the National Scholarships Scheme except that the additional allowance of Rs. 10 per month to resident scholar is not payable under this scheme.

## NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

With a view to promoting advanced study and research in educational problems and providing training for educational personnel the Govt. of India set up with effect from Sept. 1, 1961 a National Council of Educational Research and Training, an autonomous body recognised under the Societies Registration Act (Act XXI of 1960), with the Union Minister of Education as Ex-Officio President.

The main objectives of the Council are : (*i*) Promoting, organising and fostering research in all branches of education ; (*ii*) Organising pre-service and in-service training at an advanced level ; (*iii*) Organising extension services in the training institutions in the country in association with the State Governments and other authorities concerned and in other ways disseminating improved techniques and practices in the educational institutions in the country ; (*iv*) Establishing institutes for research and training, particularly for the teaching of vocational and

scientific subjects in schools and such other subjects as are required for the development of multi-purpose education; (*v*) Acting as a clearing house for ideas and information on educational research and training; (*vi*) Undertaking publication of such books, periodicals and other literature as may be necessary for the furtherance of its objectives; and (*vii*) Rendering advisory and consultative services.

The programmes of the Council are being implemented through the National Institute of Education which was formed by converting the institutes transferred from the Ministry of Education into departments of National Institute. To these, some new departments/units have since been added. The National Institute of Education now consists of the following Departments/Institutes: (1) Department of Science Education; (2) Department of Psychological Foundations; (3) Department of Curriculum, Methods and Textbooks; (4) National Institute of Basic Education; (5) National Institute of Audio-Visual Education; (6) Central Institute of Education; (7) Directorate of Extension Programmes for Secondary Education; (8) National Fundamental Education Centre (A Unit on Literacy is being developed in the Centre. A unit for the Study of the Educational Problems of Scheduled Tribes is also being developed); (9) Department of Teacher Education. (Set up as a Unit in the Central Institute of Education); (10) Department of Educational Administration; (11) Department of Foundations; (12) Publication Unit.

The Council has set up a Central Committee on Educational Literature with the following objectives: (*a*) To prepare and publish or assist in the preparation and publication of books, supplementary educational material for use in educational institutions, in languages in use in such institutions; (*b*) To organise conferences and seminars for writers, artists, illustrators, publishers, librarians and others concerned with the production of educational literature for use in educational institutions; (*c*) To promote and conduct research in the production of text books and other educational literature; (*d*) To commission writers, illustrators and other experts for preparing specific books; (*e*) To prepare and bring out book lists, arrange exhibitions and organise effective dissemination of improved techniques of text book production; (*f*) On behalf of the National Council of Educational Research and Training, to advise the Government of India, the State Governments and other educational organisations and institutions on matters relating to the production of text books and educational literature and to collaborate with them in the furtherance of the objects for which the Committee is set up.

The Committee has in turn set up subject panels for the preparation of model text books for various subjects. The subjects covered are Hindi, History, Mathematics, Physics, Chemistry, Biology, Geography, Technology, Commerce, General Science, Sanskrit, Teacher Training and Agriculture. Some of the panels have already made considerable progress in their work.

The Council, in cooperation with the Governments of Rajasthan, Madhya Pradesh, Orissa and Mysore, has established four Regional Colleges of Education at Ajmer, Bhopal, Bhubaneshwar and Mysore as a part of a broad programme of improving secondary education in general and multi-purpose schools in particular. The regional colleges of education at Ajmer, Bhubaneswar and Mysore started their second session and the college at Bhopal opened its first session (May 1965). The colleges started four year integrated courses in technology and science education and one year programme of teacher education in agriculture, commerce, science and home science. Different courses in industrial crafts education for preparing teachers in crafts were also started.

The enrolment in each college is in the range of 190 to 300 students. As planned, the demonstration multi-purpose schools attached to the college at Ajmer, Bhubaneswar and Mysore opened their first session and the average enrolment in each school is 260 students.

The schools are affiliated to the Central Board of Secondary Education, Delhi and will serve as a laboratory for new experiments in the fields of secondary education and teacher education. Courses leading to college education and preparation for gainful occupations in agriculture, commerce and technology have been introduced on an experimental basis.

The main objectives of the Department of Science Education are drawing up of syllabi for various courses, organising refresher courses for teachers in service; organising science clubs and science fairs as an extension work of the co-curricular activities of the pupils; implementing the science talent search scheme for the promising and talented students with an aptitude for science who are selected for pursuing higher education in the basic sciences; programme of text books, laboratory manuals (through panels and by the department), supplementary readers and other teaching aids; establishing an Instructional Material Centre where the schools and teachers can get information about laboratory equipment, literature, instructional material etc.; research studies of various problems of science education: dissemination of science information through periodicals, newsletters etc. All these programmes have already begun and considerable work has been done on them.

A considerable headway has been made in the field of educational research. In addition to assisting financially, the National Institute of Education has undertaken in collaboration with U.S. Office of Education, nine research projects of all India significance in different areas; (1) a survey of secondary schools in India, (2) curriculam for teaching of mathematics in higher secondary schools, (3) evaluation criteria for inspection and supervision of secondary schools, (4) achievement motive in high schools and training for it, (5) scholastic aptitude test in Hindi at two levels of school education, (6) survey of achievement in mathematics at three levels of school education, (7) identification and incidence of talent in elementary and secondary schools, (8) wastage and stagnation in primary, middle and secondary schools, (9) a study of costs of education in India during the period 1951-61.

For the training of research personnel, a training course in research methodology has been started.

Realising the importance of pre-primary education, a training course in early childhood education is being run in the Institute.

## BASIC EDUCATION

Basic Education has been adopted as national pattern for elementary stage of education. As a result of this all elementary schools are to be ultimately brought under basic system. About 20 per cent schools have already been converted to basic pattern. The rest are being gradually brought under this system through a programme of 'Orientation'.

By the end of the Second Plan about 18·3 per cent of the total number of primary schools had been converted to Basic and about 32·9 per cent of middle schools to Senior Basic. More than 76·6 per cent of the training institutions were also of the basic pattern. A programme of orientating all non-basic schools to the basic pattern has been undertaken, which envisages introduction of such of the activities of basic schools as do not require specifically trained personnel and large financial outlays. By the end of 1965-66, all training institutions for primary school teachers are expected to be converted into basic.

## TRAINING COLLEGES

The Government of India also proposed setting up four regional teachers' training colleges as a Central Scheme in the Third Plan.

The output of these training colleges would be 200 trained teachers per college a year.

The Extension Service centres would be attached to another 25 training colleges in the Third Plan.

## CATERING COLLEGE

The Union Government has started one Catering College at Delhi. Two colleges one each at Calcutta and Madras started functioning from December 1963. All the four Institutes of Catering Technology and Applied Nutrition, included in the Third Plan, have commenced courses. The Institute at Bombay has been reorganised as the nucleus of the College of Catering and Institutional Management. Arrangements are nearing completion for the establisment of food polytechnics in Uttar Pradesh and Kerala.

## DEVELOPMENT OF HINDI, SANSKRIT AND MODERN LANGUAGES

HINDI: The programme for the propogation of Hindi includes grant of financial assistance to voluntary Hindi organisations, appointment of Hindi teachers in primary, middle and higher secondary schools in non-Hindi speaking States, establishment of Hindi teachers' training colleges in non-Hindi speaking States, maintenance of an institute of research and training of Hindi teachers, free supply of Hindi books to school and college libraries particularly in non-Hindi speaking areas and award of scholarships for post-matric studies in non-Hindi speaking States. The programme of enrichment and development of Hindi includes schemes of preparation, translation and publication of standard books of university level in Hindi through official and voluntary agencies as well as universities and learned societies, preparation, and translation of books in Hindi with the assistance of private publishing concerns and preparation and publication of encyclopaedias, dictionaries and translation of official literature and evolution of scientific and technical terminology in Hindi.

SANSKRIT: Various schemes for propagation and development of Sanskrit are being continued. They include financial assistance to voluntary Sanskrit organisations, gurukulas and Sanskrit pandits in indigent circumstances; maintenance of Kendriya Sanskrit Vidyapeetha; reprinting of important out of print Sanskrit books; scholarships to the products of Sanskrit pathashalas and Sanskrit students in high/higher secondary schools.

MODERN INDIAN LANGUAGES: A separate programme is implemented for the development of modern Indian languages (other than Hindi) under which grants are given to various State Governments, voluntary organisations/institutions for bringing out suitable publications *e.g.* encyclopaedias, bilingual dictionaries, books of knowledge and books bringing out similarities among different languages.

## PROPAGATION OF HINDI

The work of propagation of Hindi through voluntary organisations particularly in non-Hindi speaking States has gained momentum during 1964-65. Grants totalling Rs. 10·41 lakhs have been given to voluntary organisations during 1964-65 as against Rs. 4·71 lakhs during 1963-64. The quantum of grant admissible under the scheme has been raised from 60 per cent to 75 per cent of the expenditure on approved activities from 1965-66 onwards.

The two regional offices set up at Calcutta and Madras serve as liasion between the Ministry of Education and voluntary Hindi organisations.

In order to supply up-to-date expert knowledge and professional guidance in respect of teaching methods and allied padagogical problems, the Government of India has set up an autonomous body entitled Kendriya Hindi Shikshana Mandal which is running a Hindi teachers' training and research institute at Agra. The institute is catering for three different courses equivalent to T.T.C.; B. Ed. and M. Ed. and is also conducting research on vocabulary, content of various courses and techniques of teaching Hindi with special reference to the requirements of non-Hindi regions.

*Preparation of Bilingual Primers (self-taught series)*: To facilitate learning of various south Indian languages through the medium of Hindi,

Hindi-Malaylam; Hindi-Kannada and Hindi-Telugu primers are under preparation by the Dakshin Bharat Hindi Prachar Sabha, Madras on behalf of the Education Ministry. A provision of Rs. 8 lakhs has been made for this project during 1965-66.

A standard key-board for Devanagari (Hindi-Marathi) typewriters has since been finalised and typewriters with this key-board are expected to be manufactured soon (May 1965).

To enrich Hindi lexicographical literature, dictionaries and encyclopaedias are being compiled by the Central Hindi Directorate as also by a few Hindi organisations and academic bodies.

Proposals for compilation of bilingual dictionaries with Hindi as one of the languages, preparation of encyclopaedia and dictionaries are under consideration (May 1965).

Two exhibitions of scientific books in Hindi and a few regional languages were organised at Gauhati and Bengalore during 1964.

In order to encourage Hindi writers and poets of non-Hindi speaking areas, a scheme to award prizes has been introduced in 1965.

## CENTRAL BOARD OF SECONDARY EDUCATION

17-B, Indraprastha Marg, New Delhi 1.

The Central Board of Secondary Education was reconstituted by the Government of India, Ministry of Education with effect from 1st July, 1962 to make the services of the Board available to various educational institutions in the country and abroad to meet the educational needs of students whose parents have to move from one State to another from time to time and to set up an All-India standard for the Secondary stage of Education.

The Board has since instituted an All-India Higher Secondary Examination. The All-India Scheme provides for a unified syllabus with Hindi and English as media of instruction and examination. The Board also conducts Higher Secondary, Higher Secondary Technical and Higher Secondary Multi-purpose Examinations (3-year course) and Higher Secondary (One-Year Course) Examination according to Delhi Scheme and Ratna, Bhushan and Prabhakar examinations in Hindi.

The Higher Secondary Technical Examination is being conducted for the last time this year (1965).

Any educational institution situated in or outside India can get itself affiliated to the Board. If such an institution is in receipt of a regular maintenance grant from the State Government, the application for recognition of the school is not entertained without the concurrence of the State Government concerned. All the Higher Secondary Schools of Delhi and all the Central Schools of the Government of India are affiliated to the Board besid s a number of other schools situated in different parts of the country. The Indian School in Tehran (Iran), three schools in Andaman and Nicobar Islands and four Demonstrational Multipurpose schools attached to regional colleges of education, started by the National Council of Educational Research and Training, are also affiliated to the Board. Union Territory of Manipur has also decided to follow the courses of the studies of the Board.

The Board has also proposed to introduce correspondence courses at the higher secondary stage for the benefit of such students as are unable to join any institution.

## NON-AFFILIATED INSTITUTIONS FOR DEGREE OR DIPLOMA IN ENGINEERING, TECHNOLOGY, COMMERCE ETC

[*Note :* See also under Universities in each State.]

### ANDHRA

Alladin Technical Training Institute, Begul Kunta, Hyderabad; Andhra Polytechnic, Kakinada; Engineering College, Anantapur; Govt. Technical College, Saifabad, Hyderabad; Government Ceramic Institute, Gudur; Vuyyuru Polytechnic, Vuyyuru; Central Crafts Institute, Mallepally, Hyderabad; Government College of Fine Art, Hyderabad; Industrial Training Institute, Anantapur; Industrial Training Institute, Kakinada; Visakhapatnam Polytechnic, Visakhapatnam; Warangal Polytechnic, Warangal; A.J.K. Industrial School, Masulipatam; E.S.C. Government Polytechnic, Nandyal; Government Polytechnic, Anantapur; Government Polytechnic for Girls, Kakinada; Government Polytechnic, Guntur; Government Polytechnic, Nellore; Government Mining Institute, Kothagudem; Hyderabad Polytechnic, Hyderabad; Polytechnic Engineering College, Kakinada; Polytechnic, Mahboobnagar; Sri Venkateswara Polytechnic, Tirupathi; Anwarul-Uloom Dip. College of Commerce, New Mallapally, Hyderabad; Govt. College of Commerce, Hyderabad; Domestic Science Training College, Saifabad, Hyderabad; Girls' Vocational Institute, Warangal; Girls' Vocational Institute, Hyderabad; Girls' Vocational Institute, Secunderabad; Andhra Medical College, Visakhapatnam; Govt. Ayurvedic College, Hyderabad; Nizamia Government Tibbi College, Hyderabad; Govt. College of Fine Arts, Gunfoundry, Hyderabad; Domestic Science Training College, Saifabad, Hyderabad; Govt. Post-Basic Training College, Pentapadu.

### ASSAM

Assam Engineering Institute, Gauhati; H.R.H. Prince of Wales Institute of Engineering and Technology, Jorhat; Silchar Polytechnic, Silchar; Nowgong Polytechnic, Nowgong; Silchar Polytechnic, Silchar; Assam Ayurvedic College, Gauhati; Gauhati Music College, Gauhati; Nalbari Sanskrit College, Nalbari; Post-Graduate Basic Training College, Titabar; Post-Graduate College, Jorhat; Assam Veterinary College, Gauhati.

### BIHAR

Bhagalpur School of Engineering, Bhagalpur; Dhanbad Polytechnic, Dhanbad; Indian School of Mines and Applied Geology, Dhanbad; Industrial Training Institute: Bhagalpur; Darbhanga; Dhanbad; Digha; Gaya; Katihar Kodarma; Muzaffarpur; Jamshedpur Technical Institute, Jamshedpur; Junior Technical School Dehri; Junior Technical School, Marhourah, (Saran); Kodarma Mining Institute, Kodarma; Mining Classes, P.O. Bhaga (Dist. Dhanbad); Patna Polytechnic, Patna; Patna School of Engineering, Patna; Ranchi School of Engineering, Ranchi; Tirhut School of Engineering, Muzaffarpur; Chaibasa Technical School, Chaibasa; Ranchi Technical Training School, Ranchi; Sindri School of Engineering, Sindri; Welfare Technical School, Dumka; Welfare Technical School, Ranchi; College of Commerce, Patna; Shiksha Bhawan Mandir Vidyapith, via Barahat (Dist. Bhagalpur); Ajodhya Shivkumari Ayurvedic College, Begusarai (Monghyr); Govt. Ayurvedic College, Patna; Govt. Tibbi College, Patna; Sheo Ganga Ayurvedic Mahavidyalaya, Madhubani; Sri Y. N. A. Aslaing Ayurvedic College, Bhagalpur; Govardhan Sahitya Mahavidyalaya, Hindi Vidyapith, Baidyanath, Deoghar; Institute of Post-Graduate Studies & Research in Arabic and Persian Learning, P.O Mahendra (Patna); Nava Nalanda Mahavihara, Nalanda (Patna); Govt. College of Health and Physical Education, Patna; Hirapur School of Physical Education, Dhanbad; Rural Institute of Higher Studies, Sundarnagar Birauli, Darbhanga; Teachers' Training College, Bhagalpur; Ranchi; Turki.

### DELHI

Delhi Polytechnic, Delhi; Govind Ballabh Pant Polytechnic, New Delhi; Pusa Polytechnic Delhi; Lady Irwin College, Delhi; Jamia Millia Islamia, Jamianagar, Delhi; Ayurvedic and Unani Tibbia College, Delhi; Jamia Millia Rural Institute, Jamianagar, New Delhi; Statistical Branch of Indian Council of Agricultural Research, New Delhi; Govt. Co-educational Teachers' Training Institute, Daryaganj, Delhi; Jamia Teachers' College, Jamia Mijlia Islamia, Jamianagar, New Delhi.

### GUJARAT

Birla Vishwakarma Mahavidyalaya, Vallabh Vidyanagar (*Via* Anand); C. N. Polytechnic, Ahmedabad; Dr. S. & S. S. Gandhy College of Engineering and Technology, Surat; Faculty of Technology, Baroda; Government Polytechnic, Ahmedabad; Lukhdhirji Engineering College, Morvi; R. C. Technical Institute, Ahmedabad; K. J. Polytechnic, Broach; Shri A. V. Parikh; Technical Institute Rajkot; Sir Bhavsinhji Polytechnic, Bhavnagar; B. B. Polytechnic, Anand; Govt. Polytechnic, Dohad; Govt. Polytechnic, Porbandar; K. D. Polytechnic, Patan; Polytechnic, Baroda; Ayurved Mahavidyalaya, Jamnagar; B. J. Medical College, Ahmedabad; J. S. M. G. Ayurvedic Medical College, Nadiad; M. L. B. College, Uttarsanda (Dist. Kaira); O. H. Nazar Ayurveda Mahavidyalaya, Surat; Sheth J. P. Ayurved Vidyalaya, Bhavnagar; Sheth Vadilal Sarabhai General Hospitals and Sheth C. Maternity Hospital, Ellis Bridge, Ahmedabad; Shuddha Ayurved Mahavidyalaya, Mahalaxmi Society, Ellis Bridge, Ahmedabad; Shuddha Ayurved Vidyalaya Ajwa Road, Baroda; Swadhayaya Mandal, Kila-Pardi (Dist. Surat); G. S. College of Yoga & Cultural Synthesis, Lonavala*; Training Institute for Physical Education, Kandivalli*; Lok Bharati, Lok Seva Mahavidyalaya, Sanosara (Saurashtra); Lok Bharati Rural Institute, Sanosara; Graduate Basic Training Centre, Porbandar; Graduate Basic Training Centre, Rajpipla (Dist. Broach).

### KERALA

Alagappanagar Polytechnic, Alagappanagar; Carmel Polytechnic, Alleppey; Central Polytechnic, Trivandrum; Govt. Polytechnic, Kalamasseri; Institute of Textile Technology, Trivandrum; Govt. Polytechnic, Perinthalmena; Seethi Sahib Memorial Polytechnic, Tirur; Women's Polytechnic, Trichur; Women's Polytechnic, Trivandrum; Kerala Polytechnic, Kozhikode; Maharaja's Technological Institute, Trichur; N.S.S. Polytechnic, Pandalam; S. N. Polytechnic, Quilon; Sri Rama Polytechnic, Thriprayar; Cooperative College, Trivandrum; Fatima Mata National College, Quilon; Sanatan Dharam College, Alleppey; Govt. Polytechnic, Cannanore; Govt. Polytechnic, Kottayam; Music Academy, Palghat; R. L. V. Music Academy, Trippunithura; R. V. School of Painting, Mavelikara; School of Arts, Trivandrum; S. S. T. Academy of Music, Trivandrum; Govt. College of Physical Education, Trivandrum; Physical Education College, Kozhikode.

### MADHYA PRADESH

Central Technical Institute, Gwalior; Govt. Polytechnic, Jaora; Govt. Polytechnic, Nowgong (Chhatarpur); Govindram Seksaria Technological Institute, Indore; Kala Niketan, Jabalpur; Leather Technological Institute, Morar; Government Polytechnic, Ujjain; Samrat Ashok Technological Institute, Vidisha; Government Kirodimal Polytechnic, Raigarh; Government Mining Polytechnic, Chhindwara; Government Polytechnic, Jabalpur; S. V. Government Polytechnic Institute, Bhopal; Govt. Agricultural Institute, Laxmipur, Panna; Govt. Mining Polytechnic, Shahdol; Govt. Polytechnic, Khandwa; Ashtang Ayurved Mahavidyalaya, Ujjain;

* In Maharashtra.

Govt. Ayurvedic College, Gwalior; Shri Ashtang Ayurved Mahavidyalaya, Ayurvedic Brahmcharya Ashram, Indore; Shri Raj Kumar Singh Ayurvedic College, Biyabani, Indore; Govt. College of Fine Arts, Gwalior; Kala Mahavidyalaya, Indore; Laxmi Kala Bhawan, Dhar; M. S. Bhand's School of Arts, Gwalior; Abhyanand Sanskrit Mahavidyalaya, Shahdol; Govt. D. S. V. Sanskrit Mahavidyalaya, Raipur; Govt. Sanskrit College, Gwalior; Govt. Sanskrit College, Indore; Vanket Sanskrit College, Rewa; Lakshmibai College of Physical Education, Gwalior; Vaishnav Technological Institute, Indore.

## MADRAS

Alagappa Polytechnic, Alagappa College Post, Karaikudi; Annamalai Polytechnic, Chettinad; Central Polytechnic, Madras; C. N. Technical & Industrial Institute, Vepery, Madras; Govt. Polytechnic, Peelamedu, Coimbatore; Institute of Leather Technology, Washermanpet, Madras; Madras Institute of Technology, Chromepet P.O., Chingleput Dist.; Ramakrishna Mission Technical Institute, Madras; Regional School of Printing, Broadway, Madras; Seshasayee Institute of Technology, Tennur, Tiruchirapalli; Tamilnad Polytechnic, Madurai; Murugappa Chettiar Memorial Polytechnic, Avadi, Madras; Muthiah Polytechnic, Annamalainagar; Nachimuthu Polytechnic, Pollachi; Sanskar Institute of Polytechnic, Talaiyuthu; Thiagarajar Polytechnic, Salem; Valivalam Desigar Polytechnic, Tanjore; Virudhunagar S. V. Polytechnic, Virudhunagar; P. S. G. Polytechnic, Coimbatore; Govt. Polytechnic, Nagercoil; Govt. Polytechnic, North Arcot at Madras; C. S. I. Polytechnic, Nazareth; Institute of Film Technology, Broadway, Madras; Rajagopal Polytechnic, Gudiyattam; Srinivasa Subharaya Polytechnic, Sirkalai; Southern Forest Rangers' College, Coimbatore; Madurai Govt. College, Madurai; Medical College, Madras; Y.M.C.A. College of Physical Education, Saidapet, Madras; Shri Ramakrishna Mission Vidyalaya Rural Institute of Higher Education, Sri Ramakrishna Vidyalaya P.O., Perianaickenpalayam, Coimbatore; The Gandhigram Rural Institute, Gandhigram P.O. (Dist. Madurai).

## MAHARASHTRA

Bombay Technical School, Bombay; College of Engineering, Poona; Indian Institute of Technology, Powai, Bombay 40; Kala Niketan, Amravati; M. H. Saboo Siddik Technical Institute, Bombay; Navbharat Audiyogiga Vidyalaya, Bombay; Northcot Technical High School, Sholapur; Government Leather Working School, Bandra (Greater Bombay); Govt. Polytechnic, Amravati; Govt. Polytechnic, Karad; Govt. Polytechnic, Nagpur; Govt. Polytechnic, Khamgaon; Govt. Polytechnic, Kolhapur; Govt. Polytechnic, Ratnagiri; Sangli Technical Institute, Sangli; Govt. Polytechnic, Poona; Govt. Polytechnic, Sholapur; Govt. Tanning Institute, Bandra, Bombay; Institute of Engineering & Technology, Dhulia; School of Printing Technology, C/o J. J. School of Arts, Bombay; St. Xavier's Technical Institute, Bombay; Sir Cusrow Wadia Institute of Electrical Technology, Poona; Victoria Jubilee Technical Institute, Bombay; Deccan Education Society's Technological Institute, Poona; Walchand Engineering College, Sangli; Co-operative Training College, 5, B. J. Road, Poona; Sydenham College of Commerce & Economics, Bombay; Girls' Vocational Institute, Aurangabad; Maharani Vijaimala Chatrapati Grahini Mahavidyalaya, Old Palace, Kolhapur; Institute of Social Science, Nirmala Niketan, 38, New Marine Lines, Bombay 1; College of Catering and Institutional Management, Andheri, Bombay; Govt. Polytechnic, Aurangabad; Govt. Polytechnic, Bombay; Govt. Polytechnic, Jalgaon; Miraj Institute of Civil Engineering, Miraj; P. L. Smarak Technological College, Lathur; Sir J. J. College of Agriculture, Bombay; Victoria Jubilee Municipal School, Poona; Vidyut Vidyalaya, Girgaon, Bombay; Training Ship Dufferin, Bombay; Aryangla Vaidyak Mahavidyalaya, Satara; Ashtang Ayurved Mahavidyalaya, 479/11, Sadashiv Peth, Poona 2; Atreya Ayurved Mahavidyalaya, Vishram Bagh, Sangli; Ayurveda Mahavidyalaya, Ahmednagar; Ayurveda Mahavidyalaya, Poona; Ayurved Mahavidyalaya, Shri Pakwasa Samanvaya Rugnaleya Mahal, Nagpur; Govt. Ayurvedic College, Nanded; Radhakrishna Toshnival Ayurved Mahavidyalaya, Akola; R. A. Podar Ayurvedic Medical College, Worli, Bombay; Robertson Medical School, Mayo Hospital Compound, Nagpur; Shri Gurudeo Shuddha Ayurved Mahavidyalaya, Guru Kunk Ashram, Mozri (Amravati); Shri Punarvasu Ayurved Mahavidyalaya, 143-B, Gowalia Tank Road, Cumballa Hill, Bombay; Shuddha Ayurved Mahavidyalaya, Ganesh Park, Jalana (Aurangabad); Shuddha Ayurved Mahavidyalaya, Sion, Bombay; Shuddha Ayurved Vidyalaya, Nasik; Sir C. E. M. Dental College, Bombay; Topiwala National Medical College, Dr. A. L. Nair Road, Bombay; Vidarbha Ayurved Mahavidyalaya, Amravati; Sir J. J. School of Art, Bombay; Sir J. J. School of Commercial Art, Bombay; Maharashtriya Mandal, Poona 1; A. J. Vidya Bhawan (Graduates' Basic Training Centre), Gargoti (Dist. Kolhapur); Rural Higher Institute, Mouni Vidyapeeth, Gargoti; Rural Institute, Shivajinagar, Amravati; Shri G. K. Institute of Rural Education, Gargoti (Dist. Kolhapur); Tata Institute of Social Sciences, Chembur, Bombay; Acharya Jawadekar Vinay Bhawan, Gargoti (Dist. Kolhapur); Gandharva Mahavidyalaya Mandal, Poona; Graduate Basic Training Centre, Dhulia; Nai Talim Bhavan, Sevagram (Wardha).

## MANIPUR

Industrial Training Institute, Imphal; Adimjati Technical Institute, Imphal.

## MYSORE

Smt. L. V. Polytechnic, Hassan; National Institute of Engineering, Mysore; Polytechnic, Bellary; Govt. Polytechnic, Raichur; Polytechnic for Women, Bangalore; Polytechnic, Chintamani; Polytechnic, Gulbarga; School of Engineering, Bangalore; School of Mines, Kolar G.F., Oorgaum, Kolar; Silver Jubilee Polytechnic, Bhadravati; Sri Jayachamarajendra Polytechnic, Bangalore; Sri K. Silver Jubilee Technological Institute, Bangalore; Karnatak Polytechnic, Mangalore; Acharya Pathasala Polytechnic, Basavanagudi, Bangalore; Basaveswara V. V. S. Polytechnic, Bagalkot, Bijapur; B. V. Bhoomaraddi College of Engineering, Hubli; D. A. C. G. Polytechnic, Chickmagalur; K. H. Kabbur Institute of Engineering, Dharwar; Mysore Technical Education Society, Bangalore; Polytechnic, Channapatna; Polytechnic, Karwar; Polytechnic, Tumkur; National Dairy Research Institute, Bangalore; Girls' Vocational Institute, Gulbarga; C. P. C. Polytechnic, Mysore; D. R. R. Polytechnic, Davangere; Polytechnic, Belgaum; Govt. College of Indian Medicine, Mysore; Maharaja Sanskrit College, Mysore; Sanskrit College, Melkote; Sanskrit College, Siddaganga; S. B. S. College, Karkala; S. M. S. P. Sanskrit College, Udipi; Sri Chamarajendra Sanskrit College, Bangalore; Graduate Basic Training College, Dharwar.

## ORISSA

Automobile and Diesel Training Institute, Cuttack; Berhampur Engineering School, Berhampur; Engineering School, Jharsuguda; Industrial Training Centre, Cuttack; Industrial Training Institute, Berhampur; Industrial Training Institute, Hirakud; Orissa School of Engineering, Cuttack; Technical Training Institute, Takatpur; Engineering School, Kendrapara; Bhadrak Engineering School, Bhadrak; Industrial Training Institute, Balasore; Gopabandhu Ayurveda Vidyapith, Puri; S. C. B. Medical College, Cuttack; Govt. School of Arts and Crafts, Khallikote; Kalavikash Kendra, Cuttack; Utkal College of Music and Dance, National Music Association, Cuttack; Bidyabushan Sanskrit College, Bolangir; Parlakimedi Sanskrit College, Parlakimedi; Ramdhin Sanskrit College, Berhampur; Sadasiva Sanskrit College, Puri; Govt. College of Physical Education, Cuttack; Social Education Organisers' Training Centre, Lewis[illegible]; Basic Training School, Angul; Basic Training School Bargarh, Sambalpur; Basic Training School, Bhanjanagar (Ganjam); Basic Training School, Nawrangpur (Koraput); Basic Training School, Raj Sunakhala, Puri; Basic Training School, Tudigadia, Balasore; Govt. Secondary Training School, Chikiti (Ganjam); Secondary Training School, Agarpada (Balasore); Secondary Training School, Cuttack; Secondary Training School for Women, Cuttack; Secondary Training School, Kundura, Sundargarh.

## PONDICHERRY

Motilal Nehru Polytechnic, Pondicherry.

## PUNJAB

Choturam College of Education, Rohtak; Government Polytechnic, Amritsar; Guru Nanak Engineering College, Ludhiana; Motor Chand Polytechnic, Jullundur; National Institute of Engineering, Hoshiarpur; Govt. Polytechnic, Hoshiarpur; Govt. Polytechnic, Phagwara; Govt. Polytechnic, Nilokheri; Homoeopathic Polytechnic, Phagwara; Thapar Institute of Engineering and Technology, Patiala; Vishwakarma Institute of Engineering and Technology, Ludhiana; Vaish Technical Institute, Rohtak; Central Polytechnic, Gandhigram; S. D. Polytechnic, Baij Nath (Kangra); Arya Medical School, Ludhiana; Dayanand Ayurvedic College, Jullundur; Govt. Ayurvedic College, Patiala; Shri Mast Nath Ayurveda College, Asthar Bahar (Dist. Rohtak); Govt. School of Arts, Simla; Ahir College, Rewari; Dayanand Training Institute, Nowanshahr, Punjab; Govt. School of Arts, Simla; Janta High and Training School, Butana, Rohtak; Motor Chand Technical Institute, Jullundur; Kangarlia Training College, Phagwara; Tara Karan S. D. Technical Institute, Baijnath Kangra.

## RAJASTHAN

Ajmer Polytechnic, Ajmer; Jodhpur Polytechnic, Jodhpur; Vidyapeeth Polytechnic, Udaipur; Alwar Polytechnic, Alwar; Kota Polytechnic, Kota; Bikaner Polytechnic, Bikaner; Ayurved Vishwavidyalaya, Sardar Shahr; Birla Sanskrit Ayurved College, Pilani; Digambar Jain Sanskrit College, Jaipur; Govt. Ayurvedic College, Jaipur; Govt. Ayurved College, Udaipur; Shri Hanuman Ayurvedic College, Ratangarh; Shri P. K. Ayurvedic College, Sikar; Shri Ramdeo Sanskrit College, Diwana; Shri Sanatan Dharam Ayurved Vidyalaya, Bikaner; Birla Sanskrit College, Pilani; Govt. Sanskrit College, Alwar; Govt. Sanskrit College, Jodhpur; Govt. Sanskrit College, Sikar; G. R. Chamariya Sanskrit College, Fatehpur; Maharaja Sanskrit College, Jaipur; Maharana Sanskrit College, Udaipur; Matangiduttia Mahavidyalaya, Ratangarh; Rashtriyal Brahmacharyashram, Sanskrit College, Lakshmangarh; Sanskrit College, Nathdwara; Shri Garnkal, Chirawagarh; Shri Shardul Sanskrit Vidyapith, Bikaner; Sri Dadu Mahavidyalaya, Jaipur; Sri Digambar Jain Sanskrit College, Jaipur; Sri Ramayan Sanskrit College, Dadwana; Sri Vitthalnath Sanskrit Mahavidyalaya, Kotah; Govt. College of Physical Education, Jodhpur; Vidya Bhawan Rural Institute, Udaipur; Ajmer Music College, Ajmer.

## TRIPURA

Tripura Polytechnic Institute, Bimangarh, Narsingarh; College of Music and Fine Arts, Agartala; Basic Training College, Kukrabar; Training College, Agartala; Craft Teachers' Training Institute, Agartala; Hindi Teachers' Training Institute, Agartala.

## UTTAR PRADESH

Civil Engineering School, Chandauli (Varanasi); Civil Engineering School, Lucknow; Government Wood Working Institute, Allahabad; Government Central Textile Institute, Kanpur; Government Central Weaving

Institute, Varanasi; Govt. College of Arts and Crafts, Lucknow; Govt. Leather Working School, Kanpur; Government Polytechnic, Allahabad; Government Polytechnic, Dehra Dun; Government Polytechnic, Jaunpur; Government Polytechnic, Ghazipur, Lucknow; Govt. Polytechnic, Gorakhpur; Govt. Polytechnic Institute, Lucknow; Govt. Polytechnic Institute, Meerut; Government Technical Institute, Gorakhpur; Govt. Polytechnic, Kanpur; Government Technical Institute, Jhansi; Government Technical Institute, Lucknow; Harcourt Butler Technological Institute, Kanpur; Hewett Engineering School, Lucknow; I. D. Technical Institute, Bahjoi; M. G. Technical Institute, Hethras; M. P Engineering Institute, Gorakhpur; National Sugar Institute, Kanpur; Northern School of Printing Technology, Allahabad; Overseer School, Nainital; Prem Mahavidyalaya Engineering College, Mathura; Technical College, Dayalbagh, Agra; Technical Institute, Handia (Allahabad); Civil Engineering School, Allahabad; Civil Engineering School, Ballia; Deonagri Institute of Engineering, Meerut; D. J. Engineering Institute, Baraut (Meerut); Gandhi Engineering Institute, Baghra; K. O. Technical Institute, Roorkee; The Engineering Vocational School, Lucknow; B. P. K. Govt. Polytechnic, Varanasi; Indian Institute of Technology, Kanpur; Arjun Ayurvedic Vidyalaya, Varanasi; Arjun Darshana Nand Ayurvedic College, Varanasi; Ayurvedic College, Attara; Ayurvedic College, Dehra Dun; Baldeo Ayurvedic College, Baragaon, Varanasi; Bundhelkhand Ayurvedic College, Jhansi; Gurukul University Ayurvedic College, Kangri; Latif Hari Ayurvedic College, Navchandi; Rishikul Ayurvedic College, Hardwar; Takmil-ut-Tib College, Lucknow; Unani Medical College, Allahabad.

### WEST BENGAL

Air Technical Training Institute, Dum Dum; Asansol Polytechnic, P.O. Asansol; Bengal Ceramic Institute, 71, Sura First Lane, Belegghata; B.P.C. Institute of Technology, Krishnagar; Calcutta Technical School, Calcutta; College of Aeronautical Services, Dum Dum; College of Leather Technology, Calcutta; College of Textile Technology, Berhampore; College of Textile Technology, Serampore (Hooghly); Directorate of Marine Engineering Training, New Taratala Road, Calcutta; Hooghly Institute of Technology, Hooghly; Institute of Jute Technology, Calcutta; Jadavpur Polytechnic, Jadavpur; Jalpaiguri Polytechnic, Jalpaiguri; Jhargram Polytechnic, Jhargram (Midnapur); Kanchrapara Technical School, Kanchrapara; K. G. Engineering Institute, Vishnupur, Bankura; M. B. C. Institute of Engineering & Technology, Burdwan; Murshidabad Institute of Technology, Murshidabad; Purulia Polytechnic, Purulia; R. K. Mission Silpa Mandir, Belur, Howrah; R. K. Mission Silpa Pith, Belgharia; Sree Ramakrishna Silpa Vidyapith, P.O. Suri, Birbhum Dt.; School of Printing Technology, Jadavpur, Calcutta-32; Birla Institute of Technology, 56, B. T. Road, Calcutta; Juan Chand Ghose Polytechnic, 7, Mayurbhanj Road, Calcutta.

All India Institute of Hygiene and Public Health, Calcutta; Ayurvidya Pratisthan, 123, Harish Mukherjee Road, Calcutta; D. N. De Homoeopathic Medical College and Hospital, 63-Upper Circular Road, Calcutta; Jamini Bhushan Ashtanga Ayurvedic College, 170, Raje Dinendra Street, Calcutta; Pratap and Itering Memorial Homoeopathic College and Hospital, 14-1, Narkeldanga North Road, Calcutta; School of Tropical Medicine, Calcutta; Shyamdas Vaidya Shastrapith, 294/3/1, Upper Circular Road, Calcutta; The Bengal Allen Homoeopathic Medical College and Hospital, 169, Bowbazar Street, Calcutta; The Calcutta Homoeopathic Medical College and Hospital, 265, Upper Circular Road, Calcutta; The Midnapore Homoeopathic Medical College and Hospital, Midnapore; Vaidyak Pathshala, Cotal, Midnapore; Vishwanath Ayurveda Mahavidyalaya, Calcutta.

### AGRICULTURE AND DAIRYING

Government Agricultural Institute, Bulandshahr (U.P.); Government Agricultural Institute, Chirgaon (U.P.); Agriculture Institute, Laxmipur, Panna, Madhya Pradesh.

Allahabad Agricultural Institute, Allahabad; F.N.E. Agricultural School-cum-Extn. Training Centre, Rajghat, Varanasi; Gurukul University, Kangri; K. M. Munshi Land Institute, Sarojini Nagar, Lucknow; Sri Gandhi Smarak Agricultural School, Samodhpur (Jaunpur); Rajakiya Krishi Vidyalaya, Gorakhpur; National Dairy Research Institute, Bangalore; Agricultural School, Muzaffarnagar; Agricultural School, Dallana; Agricultural School, Ballia; Rural Agricultural School, Bisawar (Mathura).

### BANKING, COMMERCE AND CO-OPERATION

Anwar-ul-Uloom Dip. College of Commerce, New Mallapally, Hyderabad; Govt. College of Commerce, Hyderabad; Calicut Cooperative College, Calicut; Cooperative College, Trichur; N. S. S. Cooperative College, Pandalam; Sree Narayana College, Quilon: College of Commerce, Patna; Co-operative Training College, Poona; Sydenham College of Commerce and Economics, Bombay; Delhi Polytechnic, Delhi; Cooperative College, Trivandrum; Fatima Mata National College, Quilon; Sanatan Dharam College, Alleppey; Goenka College of Commerce and Business Administration, 210, Bowbazar Street, Calcutta.

### DOMESTIC SCIENCE

Lady Irwin College, New Delhi; Domestic Science Training College, Hyderabad; Girls' Vocational Institute, Aurangabad; Girls' Vocational Institute, Gulbarga; Girls' Vocational Institute, Warangal; Girls' Vocational Institute, Hyderabad; Girls' Vocational Institute, Secunderabad; Nirmala Niketan Home Science Institute, New Marine Lines, Bombay.

### FORESTRY

Southern Forest Rangers College, Coimbatore; Indian Forest College, Dehra Dun; Northern Forest Ranger College, Dehra Dun.

### MARINE TRAINING

Training Ship, "Dufferin", Bombay; Marine Engineering Training, Calcutta.

### MUSIC AND FINE ARTS

Madhava Music College, Gwalior; Government School of Arts, Simla; S.S.T. Academy of Music, Trivandrum; Bhatkhande (Morris) College of Hindustani Music, Lucknow; Kamboj Sapt-kala Niketan, Meerut; Prayag Sangit Samiti, Allahabad; Sangeet Vidyalaya, Almora; All India College of Music, Arts and Crafts, Dhakuria (24-Parganas); Arya Sangeet Vidyapeeth, 199, Landsdowne Road, Calcutta; Bengal Music College, 4, Hindusthan Road, Calcutta; Government College of Arts and Crafts, 28, Chowringhee Road, Calcutta; Ram Saran College of Music, Vishnupur, Bankura; Laxmi Kala Bhawan, Dhar; M. S. Bhand's School of Arts, Gwalior; Music College, Indore; Hrishikesh Sangeet Vidyalaya, Nabadwip, Nadia; Ajmer Music College, Ajmer.

Sangit Bharati, 25-B, Russa Road, Calcutta; Govt. College of Fine Arts, Gunfoundry, Hyderabad; Gauhati Music College, Gauhati; Music Academy, Palghat; R. L. V. Music Academy, Tripunithura; R. V. School of Painting, Mavelikara; School of Arts, Trivandrum; Anand Sangeet Vidyalaya, Dhar; Govt. College of Fine Arts, Gwalior; Kala Mahavidyalaya, Indore; Govt. School of Arts & Crafts, Khallikote, Orissa; Utkal College of Music and Dance, National Music Association, Cuttack; College of Music and Fine Arts, Agartala; Bhatkhande Sangeet Vidyapeeth, Lucknow; Govt. College of Arts and Crafts, Lucknow; Sangeet Samaj College, Meerut; Academy of Dance, Drama and Music, 5, Dwarkanath Tagore Lane, Calcutta; Gita Bitan Shikshayatan, 25-B, Shyam Prasad Mukerjee Road, Calcutta; Sir J. J. School of Art, Bombay; Sir J. J. School of Commercial Art, Bombay; Bhatkhande Sangeet Mahavidyalaya, Bilaspur; Bhatkhande Sangeet Mahavidyalaya, Jabalpur; Indian Sangeet Academy, Khairagarh; Kamla Devi Kala Mandir, Raipur; Madhav Sangeet College, Ujjain; Music College, Maihar; Music School, Mandsaur; Music School, Narsinghgarh; Shri Ram Sangeet Mahavidyalaya, Raipur; Prayag Sangit Samiti, Allahabad.

### ORIENTAL LEARNING AND THEOLOGY

Kendriya Sanskrit Vidyapeetha, Tirupati (Andhra); Swadhyaya Mandal, Killa-Pardi (Dist. Surat); Government Sanskrit College, Gwalior; Sanskrit Mahavidyalaya, Indore; Maharaja's Sanskrit College, Mysore; Sanskrit College, Melkote (Mysore); Sanskrit College, Siddaganga (Mysore); Sri Chamarajendra Sanskrit College, Bangalore; Bidyabhushan Sanskrit College, Balangir (Orissa); Sadasiva Sanskrit College, Puri; Birla Sanskrit College, Pilani; Government Sanskrit College, Alwar; Government Sanskrit College, Jodhpur; Government Sanskrit College, Sikar (Rajasthan); Maharaja's Sanskrit College, Jaipur; Sanskrit College, Nathdwara (Rajasthan); Shri Dadu Mahavidyalaya, Jaipur; Shri Digamber Jain Sanskrit College, Jaipur; Shri Sardul Brahmacharya Ashram Sanskrit College, Bikaner; Shri Vithal Nath Sanskrit Mahavidyalaya, Kotah; Darul-Uloom, Deoband (U.P.); Calcutta Madrasah, 21, Wellesley Square, Calcutta; Serampore College, Serampore, Hooghly.

Nalbari Sanskrit College, Nalbari; Govardhan Sahitya Mahavidyalaya, Hindi Vidyapith, Baidyanath, Deoghar; Institute of Post-Graduate Studies & Research in Arabic and Persian Learning, P.O. Mahendru (Patna); Nava Nalanda Mahavihara, Nalanda (Patna); Govt. D.S.V. Sanskrit Mahavidyalaya, Raipur; S. B. S. College, Karkala; Parlakimedi Sanskrit College, Parlakimedi; Chamadiya Sanskrit College, Fatepur; Maharana Sanskrit College, Udaipur; Rishikul Brahmacharyashram Sanskrit College, Lakshman Garh; Shri Ramanuj Sanskrit College, Didwana; Shri Gurukul, Chittorgarh; Darul-Uloom Nadvat-ul-Uloom, Lucknow; Govt. Oriental College, Rampur; Gurukul Vishwa Vidyalaya, Vrindaban, Mathura; Kanya Gurukul, Dehra Dun; Madrasa Mazahir-ul-Uloom, Saharanpur; Abhyanand Sanskrit Mahavidyalaya, Shahdol; Vanket Sanskrit College, Rewa; Ramdhin Sanskrit College, Berhampur; Government Sanskrit College, Alwar; Calcutta Madrasah, 21, Hazi Muhammad Mohsin Square, Calcutta.

### PHYSICAL EDUCATION

Andhra Training College of Physical Education, Vijayawada; Government College of Health and Physical Education, Patna; Training Institute for Physical Education, Kandivli (Bombay); Hanuman Vyayam Prasarak Mandal, Amravati; Y.M.C.A. College of Physical Education, Saidapet, Madras; Government College of Physical Education, Rampur.

Govt. School of Physical Education, Hyderabad; G.S. College of Yoga and Cultural Synthesis, Lonavla; College of Physical Education, Trivandrum; Physical Education College, Kozhikode; Govt. College of Physical Education, Orissa, Cuttack; Government College of Physical Education for Women, Allahabad; Shri Gandhi Smarak Training Institute, Samodhpur (Jaunpur); Post-Graduate Training College of Physical Education, Banipur, P.O. Baigachi (24-Parganas); Lakshmibai College of Physical Education, Gwalior; Government College of Physical Education, Jodhpur; Christian College of Physical Education, Lucknow; Shri Shivaji Sharirik Shikshan College, Amravati (Maharashtra).

### RURAL STUDIES

Rural Institute of Higher Studies, Sundernagar, Birauli, Darbhanga; A. J. Vidya Bhawan (Graduates' Basic Training Centre), Gargoti (Dist. Kolhapur); Lok Bharati Lok Seva Mahavidyalaya, Sanosara (Saurashtra); Lok Bharati Rural Institute, Sanosara; Rural Institute, Shivajinagar, Amravati; Rural Institute, Wardha; Rural Institute, Hanumanamatti; Shri G. K. Institute of Rural Education, Gargoti (Dist. Kolhapur); Jamia Millia Rural Institute, Jamia Nagar, New Delhi; Shri Ramakrishna Mission Vidyalaya Rural Institute, College of Rural Higher Education, Shri Ramakrishna

Vidyalaya P.O., Perianaikenpalayam, Coimbatore; The Gandhigram Rural Institute, Gandhigram (Dist. Madural); Vidya Bhavan Rural Institute, Udaipur; Balwant Vidyapeeth Rural Institute, Bichpuri, Agra; Institute of Rural Higher Education, Sriniketan (W. Bengal).

### SOCIAL SCIENCES

Tata Institute of Social Sciences, Chembur, Bombay; Kashi Vidhyapith, Varanasi; The Indian Institute of Social Welfare and Business Management, College Square, Calcutta; Social Education Organisers' Training Centre, Gopalpur.

### STATISTICS

Statistical Branch of Indian Council of Agricultural Research, New Delhi; Research Training School of the Indian Statistical Institute, Calcutta.

### TEACHERS' TRAINING

Teachers' Training College, Ranchi; Graduate Basic Training Centre, Dhulia (Maharashtra); Graduate Basic Training Centre, Rajpipla (Gujarat); Graduate Basic Training Centre, Dharwar; Lady Irwin College, New Delhi; Domestic Science Training College, Hyderabad; Balwant Rajput College, Agra; D. A. V. College, Kanpur; Government Basic Training College, Varanasi; Government College of Home Science for Women, Allahabad; Government Constructive Training College, Lucknow; Government Junior Basic Training College, Allahabad; Government Junior Basic Training College, Lucknow; Government Junior Basic Training College, Muzaffarnagar; Government Nursery Training College, Allahabad; Government Training College for Women, Allahabad; Government Training College for Women, Lucknow; Kishori Raman College, Mathura; K. P. Training College, Allahabad; Meerut College, Meerut; Tilak Dhari College, Jaunpur; Government Central Pedagogical Institute, Allahabad; St. Mary's Convent Training College, Allahabad, Training College for Teachers for Schools for Defectives, Lucknow.

Govt. Post-Basic Training College, Pentapadu; Post-Graduate College, Jorhat; Teachers' Training College, Bhagalpur; Teachers' Training College, Turki; Acharva Jawadekar Vinay Bhawan, Gargoti (Dist. Kolhapur); Gandharva Mahavidyalaya Mandal, Poona; Graduate Basic Training Centre, Porbandar; Nai Talim Bhavan, Sevagram (Wardha); Jamia Teachers' College, Jamia Millia Islamia, Jamianagar (New Delhi); Basic Training College, Ramavarmapuram, Trichur; Post-Graduate Basic Training College, Doddabalapur (Bangalore Dist.); Ahir College, Rewari; Dayanand Training Institute, Nawanshahr, Doaba; Govt. School of Arts, Simla; Janta High School and Training School, Butana, Rohtak; Mehar Chand Technical Institute, Jullundur; Ramgarhia Training College, Phagwara; Tara Karan S. D. Technical Institute. Basic Training (Teachers') College, Agartala; Bureau of Psychology, Allahabad; Christian Training College, Lucknow; Dharan Samaj Teachers' Training College, Aligarh; Govt. College of Arts and Crafts, Lucknow; Secondary Training School, Agarpada; United Church of Northern India Girls Higher Secondary School, Dehra Dun; Govt. College of Arts & Crafts, 28, Chowringhee Road Calcutta; Loreto College, 7, Middleton Row, Calcutta; Post-Graduate Basic Training College, Banipur (24-Parganas); Senior Basic Training College, Banipur (24-Parganas); Shree Ramakrishna Senior Basic Training College, Darjeeling; Post-Graduate Basic Training College, Titabar; Hindi Teachers' Training Institute, Agartala; Government Wood Working Institute, Allahabad; K. R. Training College for Girls, Mathura; Lal Bagh Girls' H. S. School (Nursery classes), Lucknow; Chittaranjan Teachers' Training Centre, 101, Beltala Road, Calcutta; Geeta Vani, Nidayaghat, Nibadwip (Nadia); Senior Basic Training College, Barsul (Burdwan); Teachers' Training Institution, 398/1, Keyatala Lane, Calcutta; Gokhale Memorial Girls' College, 1/1, Harish Mukherjee Road, Calcutta; Post Graduate Basic Training College. Rahara (24-Parganas); Senior Basic Training College, Mahammadbazar (Birbhum); Centre Pedagogique, Karikal (Pondicherry); Basic Training College, Panisagar (Tripura).

### VETERINARY SCIENCE

Assam Veterinary College, Gauhati; Rajasthan College of Veterinary Science and Animal Husbandry, Bikaner; Indian Veterinary Research Institute, Izatnagar (U.P.); Indian Veterinary Research Institute, Mukteshwar (U.P.).

# THE PRESS

THE Annual Report of the Registrar of Newspapers for India for the year 1964 shows that there were 8,161 newspapers and periodicals, including 514 dailies and 46 tri- and bi-weeklies, in 1964 compared to 7,790 newspapers and periodicals including 503 dailies and 49 tri- and bi-weeklies in 1963.

There was a 6·2 per cent increase in the circulation of newspapers and periodicals during 1964 (taking 3,992 papers for which circulation data for 1963 as well as 1964 were available). The total circulation of these papers rose from 181·36 lakhs in 1963 to 192·59 lakhs in 1964. The circulation of dailies common to both 1963 and 1964 rose by 5·9 per cent from 52·88 lakhs in 1963 to 56 lakhs in 1964.

### CIRCULATION

Of the total circulation (193 lakhs) of the common papers in 1964, the largest share was that of the English language papers (50·2 lakhs) followed by Hindi (36 lakhs) and Tamil (22·7 lakhs). The rate of increase in circulation was the highest in case of Malayalam (11·6%), followed by Tamil (9·4%), Bengali (8·5%) and English (7·9%) against the all India increase rate of 6·2 per cent. There was 16·7 per cent decrease in the circulation of Sanskrit papers and of 1·4 per cent in case of Punjabi papers. Marathi language papers recorded a rise of only one per cent and Urdu 1·9 per cent.

#### Periodicity-wise break-up of Circulation

*Circulation of Dailies :* The number of dailies in 1964 was 514 as compared to 503 in the previous year. The circulation (preliminary) of dailies in 1964 was 56·93 lakhs. The number and circulation of dailies in the various languages in 1964 are given below in descending order of magnitude of circulation :

English 56 papers (15·26 lakhs); Hindi 149 (7·99 lakhs); Tamil 28 (6·69 lakhs); Malayalam 35 (6·26 lakhs); Marathi 41 (5·52 lakhs); Gujarati 34 (4·24 lakhs); Bengali 7 (3·17 lakhs); Urdu 68 (2·91 lakhs); Kannada 36 (1·90 lakhs); Telugu 13 (1·54 lakhs); Oriya 4 (58,000); Punjabi 17 (40,000); Assamese 1 (7,000); Sanskrit 1 (1,000); bilingual 12 (12,000); others 12 (27,000).

At the end of 1964, there were 7,601 periodicals in India. The total circulation of 4,493 periodicals, for which circulation data for the year were available, was 150 lakhs.

Among the periodicals in 1964, monthlies were the most predominant category (3,365); followed by weeklies (2,311). In circulation also monthies topped with 66·1 lakhs followed by weeklies 62·6 lakhs.

In 1964, 802 periodicals (including 241 weeklies) commenced publication against 913 in 1963. Hindi had the largest number of new periodicals, namely 182, followed by English (178) and Urdu (88).

In 1964, 230 periodicals (including 82 weeklies) ceased publication as against 336 in 1963. The largest number of casualties (62) was in English. Hindi lost 47 and Urdu 19 periodicals.

There were 46 tri- and bi-weeklies in 1964 compared to 49 in the previous year.

*Readership :* The number of papers in India per lakh inhabitants in 1964 as well as in 1963 was 1·7 compared to 1·6 in 1962. Newspaper circulation per 1,000 inhabitants worked out at 52·4 in 1962 and 50·6 in 1963.

### OWNERSHIP

The number of common ownership units and the total number of papers owned by them decreased during 1964 though their combined circulation slightly increased.

Dailies under common ownership accounted for about two-thirds of the total circulation of all dailies in the country.

The predominant form of ownership of newspapers in 1964 was "individual" which accounted for 4,675 papers or 57·3 per cent of the total number. Societies and associations (including religious societies) was the second biggest ownership category accounting for 1,647 papers. Firms and partnerships, joint stock companies (public and private Limited) and Central and State Governments were the other important ownership categories accounting for 540, 460 and 368 papers respectively in 1964.

The total number of papers owned by political parties in 1964 was 71 (including 7 dailies and 33 weeklies), of which the Congress owned as many as 31, the Communist Parties of India 22 and the Praja Socialist Party 6.

The circulation of common ownership dailies rose by 42·2 per cent from 27·54 lakhs in 1960 to 39·17 lakhs in 1964 and that of the news interest weeklies by 62·4 per cent from 7·89 lakhs in 1960 to 12·81 lakhs in 1964. The total circulation of papers under common ownership rose by 46·7 per cent from 35·43 lakhs to 51·98 lakhs.

The largest number of news interest papers owned by a single common ownership unit in 1964 was 19, by the Express Newspapers which also owned the largest number of dailies (12) and the highest combined circulation (11 lakhs). The unit also commanded the highest daily circulation (6·64 lakhs) for any common ownership unit during 1964. The Bennett, Coleman and Company Limited (11 papers), commanded the second largest circulation among common ownership units, namely, 6·10 lakhs. The Hindustan Times and Allied Publications (11 papers), had a combined circulation of 3·14 lakhs.

The combined circulation of 138 dailies owned by 63 common ownership units, for which data were available, were 39·17 lakhs in 1964. This constituted 67·8 per cent of the total daily circulation.

There were 19 common ownership units which together owned 47 dailies in the metropolitan centres (Delhi, Calcutta, Bombay and Madras) and accounted for 25·72 lakhs or 95 per cent of the total circulation.

### NEWSPAPERS

There were 8,161 newspapers and periodicals, including 514 dailies and 46 tri- and bi-weeklies in 1964 compared to 7,790 newspapers and periodicals including 503 dailies and 49 tri- and bi-weeklies in 1963.

During 1959-64 the number of papers in India rose by 33·9 per cent from 6,096 to 8,161 and the number of dailies by 22·4 per cent from 420 to 514. The number of tri-and bi-weeklies rose by 84 per cent from 25 to 46 and of weeklies by 32·7 per cent from 1,741 to 2,361.

In 1964 there were newspapers in India in 44 different languages and dailies in 19 languages.

In Tangkhul Naga and Sevahili languages, newspapers were started for the first time in 1964.

*Dailies:* There were 514 dailies in 1964 compared to 503 in 1963. Twenty-seven new dailies and two tri-and bi-weeklies commenced publication in 1964.

Hindi had the largest number of dailies 149, followed by Urdu 68, English 56, Marathi 41, Kannada 36, Gujarati 34, Tamil 28, Punjabi 17, Telugu 13, Bengali 7, Oriya 4 and Assamese 1. There were 12 dailies in other languages and 12 bilingual papers. Hindi added the largest number of new dailies (10) followed by Urdu (6) in 1964.

Uttar Pradesh had the largest number of dailies (80), followed by Maharashtra (78). The number of dailies in other States was as follows: Madhya Pradesh 52; Mysore 45; Kerala 42; Madras 34; Punjab 30; Andhra Pradesh 28; Gujarat 27; Delhi 24; West Bengal 22; Rajasthan 15; Bihar 11; Orissa 5; Goa 9; Manipur 5; Tripura 2 and Andaman and Nicobar Islands 1.

There were no daily newspapers from Himachal Pradesh, Nagaland and Pondicherry, besides Dadra and Nagar Haveli, Laccadive, Minicoy and Amindivi Islands and NEFA which published no papers at all.

*Periodicals:* The number of periodicals in the country rose from 7,238 in 1963 to 7,601 in 1964. There were 367 periodicals brought out by the Government departments (194 Central Government and 173 State Governments) in 1964. These included 37 weeklies, 42 fortnightlies and 161 monthlies. As many as 164 among the Government-owned periodicals were in English, 84 in Hindi and 10 in Bengali. Among Government publications there were 15 papers in the languages other than the principal ones. The total circulation of the Government publications for which data were available for 1964, was 8·2 lakhs or about 4 per cent of the circulation of all papers in the country

*New Publications:* During 1964, 831 papers commenced publication against 947 in 1963. The number of dailies started in 1964 was 27 compared to 30 in 1963.

The number of new publications was the largest in case of Hindi (193), English (180) and Urdu 194.

The largest number of new weeklies was in Hindi (83), followed by Urdu (40) and English (22).

*Papers which ceased publication:* During 1964, 252 newspapers and periodicals ceased publication compared to 360 in 1963. These included 22 dailies.

The number of papers which ceased publication was the largest in the case of English (63), followed by Hindi (53) and Urdu (20). Of the 22 dailies, Malayalam lost 7 and Hindi 6. Among the weeklies which ceased the largest number was in Hindi (28) followed by English (13) and Urdu (11).

Newspapers were published in India in 1964 in 44 languages in all and dailies in 19 languages. In 1963, there were newspapers in 45 languages and dailies in 19 languages.

The largest number (1,179) was from Maharashtra followed by Uttar Pradesh (1,096), West Bengal (1,024), Delhi (826), Madras (730) and Punjab (595).

Of the 514 dailies in 1964, Uttar Pradesh had the largest number (80), followed by Maharashtra (78) and Madhya Pradesh (52). Uttar Pradesh had 9 tri-and bi-weeklies and Andhra Pradesh and Maharashtra 7 each.

Of the 8,161 papers, more than a third (2,858) were from the four metropolitan cities (Delhi, Calcutta, Bombay and Madras). The metropolitan cities had 106 out of 514 daily papers in the country. State capitals had 98, other cities with population of more than one lakh 229 and towns with population less than one lakh 81 dailies.

**Dailies**

| | *Circulation* (1964) |
|---|---|
| *English:* | |
| *Indian Express* (Bombay, Madras, Madurai, Delhi, Vijayawada & Chittoor) | 3,10,200 |
| *Times of India* (Bombay & Delhi) | 1,85,875 |
| *Hindu* (Madras) | 1,41,708 |
| *Statesman* (Calcutta & Delhi) | 1,38,354 |
| *Hindustan Times*, (Delhi) | 1,13,557 |
| *Amrita Bazar Patrika* (Calcutta) | 1,04,404 |
| *Free Press Journal* (Bombay) | 84,188 |
| *Hindi:* | |
| *Nav Bharat Times* (Bombay & Delhi) | 1,42,683 |
| *Hindusthan* (Delhi) | 84,764 |
| *Tamil:* | |
| *Thanthi* (Madurai, Madras & Tiruchirapalli) | 2,34,836 |
| *Dinamani* (Madras & Madurai) | 1,36,356 |
| *Marathi:* | |
| *Loksatta* (Bombay) | 1,28,137 |
| *Sakal* (Poona) | 72,843 |
| *Maharashtra Times* (Bombay) | 60,979 |
| *Malayalam:* | |
| *Mathrubhumi* (Kozhikode & Ernakulam) | 1,69,573 |
| *Malayala Manorama* (Kottayam) | 1,52,056 |
| *Kerala Kaumudi* (Trivandrum) | 82,175 |
| *Bengali:* | |
| *Ananda Bazar Patrika* (Calcutta) | 1,61,809 |
| *Jugantar* (Calcutta) | 1,31,004 |
| *Telugu:* | |
| *Andhra Prabha* (Vijayawada) | 62,854 |
| *Kannada:* | |
| *Prajavani* (Bangalore) | 60,591 |
| *Gujarati:* | |
| *Bombay Samachar* (Bombay) | 59,137 |

*Note:* All the above form part of a chain, group or multiple unit.

**Periodicals**

| | |
|---|---|
| *Kumudam*, Tamil, Weekly (Madras) | 3,05,146 |
| *Ananda Vikatan*, Tamil Weekly (Madras) | 1,68,115 |
| *Kalyan*, Hindi Monthly (Gorakhpur) | 1,33,756 |
| *Filmfare*, English Fortnightly (Bombay) | 1,26,341 |
| *Kalki*, Tamil Weekly (Madras) | 1,09,248 |
| *Blitz*, English Weekly (Bombay) | 2,00,505 |
| *Hindu Survey of Indian Industries*, English Annual (Madras) | 1,41,339 |
| *Desh*, Bengali Weekly (Calcutta) | 55,624 |
| *Janmabhoomi Pravasi*, Gujarati Weekly (Bombay) | 50,979 |
| *Varantar Rani*, Tamil Weekly (Madras) | 1,31,464 |
| *Kalkandu*, Tamil Weekly (Madras) | 1,17,791 |
| *Malayala Manorama*, Malayalam Weekly (Kottayam) | 1,52,056 |
| *Saptahi, Hindustan*, Hindi Weekly (Delhi) | 64,274 |
| *Sushama*, Hindi Monthly (Delhi) | 62,750 |
| *Blitz*, Hindi Weekly (Bombay) | 54,029 |
| *Chandoba*, Marathi Monthly (Madras) | 51,813 |
| *Andhra Prabha Illustrated Weekly*, Telugu (Madras) | 1,33,665 |
| *Screen*, English Weekly (Bombay) | 65,046 |
| *Illustrated Weekly of India*, English Weekly (Bombay) | 96,590 |
| *Dharmayug*, Hindi Weekly (Bombay) | 1,01,915 |
| *Cinema Masika*, Bi-lingual, (Kottayam) | 67,333 |
| *Shama*, Urdu Monthly (Delhi) | 1,20,583 |
| *Pesum Padam*, Tamil Monthly (Madras) | 67,427 |
| *The Mathrubhumi Illustrated Weekly*, Malayalam (Kozhikode) | 98,686 |
| *Betar Jagat*, Bengali Fortnightly (Calcutta) | 65,231 |
| *Andhra Sachitra Vara Patrika*, Telugu Weekly (Madras) | 90,121 |
| *Reader's Digest*, English Monthly (Bombay) | 1,21,96 |
| *Parag*, Hindi Monthly (Bombay) | 56,41 |

**TABLE 1. DISTRIBUTION OF NEWSPAPERS ACCORDING TO STATE AND PERIODICITY (DECEMBER 31, 1964)**

| State/Union Territory | Dailies | Tri-and bi-weeklies | Weeklies | Fortnightlies | Monthlies | Quarterlies & Half yearlies | Annuals | Grand Total |
|---|---|---|---|---|---|---|---|---|
| Andhra Pradesh | 28 | 7 | 124 | 67 | 199 | 32 | 3 | 460 |
| Assam | 4 | 2 | 32 | 10 | 24 | 11 | 3 | 86 |
| Bihar | 11 | 2 | 79 | 23 | 63 | 19 | 1 | 198 |
| Gujarat | 27 | 2 | 108 | 54 | 204 | 41 | 2 | 438 |
| Kerala | 42 | — | 68 | 20 | 221 | 31 | 4 | 386 |
| Madhya Pradesh | 52 | 5 | 127 | 19 | 59 | 20 | 1 | 283 |
| Madras | 34 | 2 | 124 | 123 | 356 | 81 | 10 | 730 |
| Maharashtra | 78 | 7 | 279 | 80 | 497 | 181 | 57 | 1,179 |
| Mysore | 45 | 4 | 129 | 33 | 151 | 29 | 1 | 392 |
| Orissa | 5 | — | 11 | 11 | 42 | 15 | — | 84 |
| Punjab | 30 | 1 | 228 | 61 | 236 | 33 | 6 | 595 |
| Rajasthan | 15 | 1 | 155 | 40 | 69 | 19 | — | 299 |
| Uttar Pradesh | 80 | 9 | 486 | 108 | 347 | 66 | — | 1,096 |
| West Bengal | 22 | 3 | 221 | 124 | 441 | 198 | 15 | 1,024 |
| Andaman & Nicobar Islands | 1 | — | — | 2 | — | 2 | — | 5 |
| Delhi | 24 | — | 123 | 66 | 438 | 171 | 4 | 826 |
| Goa | 9 | — | 6 | 2 | 4 | 2 | 1 | 24 |
| Himachal Pradesh | — | — | 1 | 1 | 3 | 2 | — | 7 |
| Manipur | 5 | — | 2 | 3 | 7 | 4 | 1 | 22 |
| Nagaland | — | — | — | — | 1 | 1 | — | 2 |
| Pondicherry | — | — | 1 | — | 3 | 11 | — | 15 |
| Tripura | 2 | 1 | 7 | — | — | — | — | 10 |
| TOTAL | 514 | 46 | 2,311 | 847 | 3,365 | 969 | 109 | 8,161 |

## TABLE 2. DISTRIBUTION OF NEWSPAPERS ACCORDING TO STATE AND LANGUAGE (DECEMBER 31, 1964)

| State/Union Territory | English | Hindi | Assamese | Bengali | Gujarati | Kannada | Malayalam | Marathi | Oriya |
|---|---|---|---|---|---|---|---|---|---|
| Andhra Pradesh .. .. | 60 | 11 | — | — | — | — | — | 1 | — |
| Assam .. .. .. | 13 | 5 | 26 | 14 | — | — | — | — | — |
| Bihar .. .. .. | 34 | 111 | — | 3 | — | — | — | — | — |
| Gujarat .. .. .. | 35 | 6 | — | — | 356 | — | — | 4 | — |
| Kerala .. .. .. | 40 | 2 | — | — | — | 1 | 239 | — | — |
| Madhya Pradesh .. .. | 14 | 236 | — | — | — | — | — | — | — |
| Madras .. .. .. | 202 | 5 | — | — | 1 | 3 | 7 | 1 | — |
| Maharashtra .. .. .. | 345 | 71 | — | 1 | 123 | 7 | 4 | 415 | — |
| Mysore .. .. .. | 66 | 1 | — | — | — | 249 | 2 | 6 | — |
| Orissa .. .. .. | 13 | 1 | — | — | — | — | — | — | 61 |
| Punjab .. .. .. | 71 | 98 | — | — | — | — | — | — | — |
| Rajasthan .. .. .. | 10 | 226 | — | 1 | — | — | — | — | — |
| Uttar Pradesh .. .. | 100 | 709 | — | 5 | — | — | — | — | — |
| West Bengal .. .. | 284 | 92 | 3 | 520 | — | — | — | 1 | 9 |
| Andaman & Nicobar Islands | 4 | 1 | — | — | — | — | — | — | — |
| Delhi .. .. .. | 410 | 173 | — | 2 | — | — | 1 | 1 | — |
| Goa | 3 | — | — | — | — | — | — | 6 | — |
| Himachal Pradesh .. .. | — | 5 | — | — | — | — | — | — | — |
| Manipur .. .. .. | 1 | — | — | — | — | — | — | — | — |
| Nagaland .. .. .. | — | — | — | — | — | — | — | — | — |
| Pondicherry | 3 | 2 | — | — | — | — | — | — | — |
| Tripura .. .. .. | — | — | — | 10 | — | — | — | — | — |
| TOTAL .. .. | 1,708 | 1,754 | 29 | 559 | 482 | 261 | 252 | 437 | 70 |

## TABLE 2. DISTRIBUTION OF NEWSPAPERS ACCORDING TO STATE AND LANGUAGE (DECEMBER 31, 1964)—(*Contd.*)

| State/Union Territory | Punjabi | Sanskrit | Tamil | Telugu | Urdu | Bi-lingual | Multi-lingual | Others | Total |
|---|---|---|---|---|---|---|---|---|---|
| Andhra Pradesh .. .. | — | — | — | 240 | 94 | 37 | 12 | 1 | 460 |
| Assam .. .. .. | — | — | — | — | — | 8 | 1 | 18 | 86 |
| Bihar .. .. .. | 1 | 2 | — | — | 28 | 9 | 2 | 8 | 198 |
| Gujarat .. .. .. | — | 1 | — | — | — | 22 | 6 | 8 | 438 |
| Kerala .. .. .. | — | — | 3 | — | — | 90 | 10 | 1 | 386 |
| Madhya Pradesh .. .. | — | — | — | — | 16 | 8 | 4 | 4 | 283 |
| Madras .. .. .. | — | 2 | 417 | 37 | 7 | 37 | 11 | 1 | 730 |
| Maharashtra .. .. .. | 8 | 6 | 2 | 1 | 55 | 67 | 40 | 34 | 1,179 |
| Mysore .. .. .. | — | — | 7 | 3 | 16 | 27 | 9 | 6 | 392 |
| Orissa .. .. .. | — | — | — | — | — | 10 | — | — | 84 |
| Punjab .. .. .. | 153 | 2 | — | — | 216 | 36 | — | 19 | 595 |
| Rajasthan .. .. .. | — | 2 | — | — | 2 | 31 | 9 | 18 | 299 |
| Uttar Pradesh .. .. | 2 | 4 | — | — | 177 | 86 | 3 | 10 | 1,096 |
| West Bengal .. .. | 3 | 2 | 2 | 2 | 23 | 50 | 22 | 13 | 1,024 |
| Andaman & Nicobar Islands | — | — | — | — | — | — | — | — | 5 |
| Delhi .. .. .. | 26 | 1 | 2 | 1 | 124 | 50 | 11 | 12 | 826 |
| Goa .. .. .. .. | — | — | — | — | — | 4 | 2 | 9 | 24 |
| Himachal Pradesh .. .. | — | — | — | — | — | 2 | — | — | 7 |
| Manipur .. .. .. | — | — | — | — | — | 4 | 1 | 16 | 22 |
| Nagaland .. .. .. | — | — | — | — | — | — | — | 2 | 2 |
| Pondicherry .. .. .. | — | — | 2 | — | — | — | — | 8 | 15 |
| Tripura .. .. .. | — | — | — | — | — | — | — | — | 10 |
| TOTAL .. .. | 193 | 22 | 435 | 285 | 772 | 578 | 162 | 162 | 8,161 |

## TABLE 3. LANGUAGE AND PERIODICITY-WISE DISTRIBUTION ON DECEMBER 31, 1964

| Language | Dailies | Tri-and bi-Weeklies | Weeklies | Fort-nightlies and Tri-Monthlies | Monthlies | Quarter-lies & Half-yearlies | Annuals | Grand Total |
|---|---|---|---|---|---|---|---|---|
| English .. .. .. .. .. .. .. | 56 | 6 | 213 | 135 | 749 | 486 | 63 | 1,708 |
| Hindi .. .. .. .. .. .. .. | 149 | 10 | 726 | 175 | 604 | 85 | 5 | 1,754 |
| Assamese .. .. .. .. .. .. | 1 | 1 | 8 | 4 | 10 | 5 | — | 29 |
| Bengali .. .. .. .. .. .. | 7 | 4 | 164 | 68 | 221 | 91 | 4 | 559 |
| Gujarati .. .. .. .. .. .. | 84 | 3 | 114 | 52 | 235 | 30 | 5 | 482 |
| Kannada .. .. .. .. .. .. | 36 | 3 | 98 | 20 | 92 | 11 | 1 | 261 |
| Malayalam .. .. .. .. .. .. | 35 | — | 46 | 13 | 149 | 7 | 2 | 252 |
| Marathi .. .. .. .. .. .. | 41 | 5 | 143 | 31 | 162 | 43 | 12 | 437 |
| Oriya .. .. .. .. .. .. | 4 | — | 9 | 10 | 38 | 9 | — | 70 |
| Punjabi .. .. .. .. .. .. | 17 | — | 71 | 7 | 93 | 5 | — | 193 |
| Sanskrit .. .. .. .. .. .. | 1 | — | 2 | 3 | 10 | 6 | — | 22 |
| Tamil .. .. .. .. .. .. | 28 | — | 94 | 103 | 200 | 10 | — | 435 |
| Telugu .. .. .. .. .. .. | 13 | 2 | 64 | 54 | 145 | 7 | — | 285 |
| Urdu .. .. .. .. .. .. | 68 | 7 | 334 | 90 | 261 | 12 | — | 772 |
| Bilingual .. .. .. .. .. .. | 12 | 4 | 158 | 51 | 253 | 99 | 6 | 578 |
| Multi-lingual .. .. .. .. .. .. | — | — | 30 | 13 | 74 | 35 | 10 | 162 |
| Others .. .. .. .. .. .. | 12 | 1 | 42 | 18 | 69 | 19 | 1 | 162 |
| TOTAL .. .. .. .. .. | 514 | 46 | 2,311 | 847 | 3,365 | 969 | 109 | 8,161 |

## TABLE 4. CIRCULATION OF NEWSPAPERS DURING 1964

figs. in 000's.

| Language | Dailies | Tri-& bi-Weeklies | Weeklies | Fort-nightlies | Monthlies | Bi-monthlies, quarterlies half-yearlies etc. | Annuals | Grand Total |
|---|---|---|---|---|---|---|---|---|
| English .. .. .. .. | 1,526 | 6 | 1,248 | 433 | 1,461 | 428 | 191 | 5,293 |
| Hindi .. .. .. .. | 799 | 18 | 1,195 | 147 | 1,721 | 37 | — | 8,917 |
| Assamese .. .. .. .. | 7 | 10 | 65 | 4 | 29 | 9 | — | 124 |
| Bengali .. .. .. .. | 317 | 18 | 338 | 140 | 313 | 36 | 2 | 1,164 |
| Gujarati .. .. .. .. | 424 | 21 | 355 | 43 | 386 | 21 | 25 | 1,275 |
| Kannada .. .. .. .. | 190 | 5 | 193 | 23 | 155 | 8 | 1 | 575 |
| Malayalam .. .. .. .. | 626 | — | 499 | 6 | 329 | 5 | 3 | 1,468 |
| Marathi .. .. .. .. | 552 | 2 | 315 | 32 | 363 | 39 | 52 | 1,355 |
| Oriya .. .. .. .. | 58 | — | 18 | 7 | 56 | 2 | — | 141 |
| Punjabi .. .. .. .. | 40 | — | 82 | 6 | 135 | 2 | — | 265 |
| Sanskrit .. .. .. .. | 1 | — | — | 2 | 11 | 2 | — | 16 |
| Tamil .. .. .. .. | 669 | — | 1,036 | 134 | 523 | 6 | — | 2,368 |
| Telugu .. .. .. .. | 154 | — | 304 | 37 | 271 | 2 | — | 768 |
| Urdu .. .. .. .. | 291 | 4 | 317 | 54 | 422 | 5 | — | 1,093 |
| Bilingual .. .. .. .. | 12 | 1 | 163 | 28 | 304 | 59 | 1 | 568 |
| Multi-lingual .. .. .. | — | — | 53 | 7 | 77 | 18 | 7 | 162 |
| Others .. .. .. .. | 27 | — | 77 | 12 | 57 | 17 | 2 | 192 |
| TOTAL .. .. .. .. | 5,693 | 85 | 6,258 | 1,115 | 6,613 | 696 | 284 | 20,744 |

## TABLE 5. STATE-WISE DISTRIBUTION OF OWNERSHIP OF NEWSPAPERS AS ON DECEMBER 31, 1964

| State | Individual | Firm or partnership | Joint Stock Company | | Trust | Co-operative Society | Society or association* | Educational institutions | Political party | Government | | International Bodies | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Puolic Ltd. | Private Ltd. | | | | | | Central† | State‡ | | |
| Andhra Pradesh .. | 300 | 28 | 11 | 2 | 7 | 3 | 95 | 1 | — | 3 | 10 | — | 460 |
| Assam .. .. | 32 | 16 | — | 4 | 1 | 4 | 21 | — | 3 | 1 | 4 | — | 86 |
| Bihar .. .. .. | 93 | 17 | 3 | 12 | 4 | 1 | 49 | — | 2 | 1 | 16 | — | 198 |
| Gujarat .. .. | 202 | 59 | 20 | 2 | 28 | 5 | 102 | 7 | 5 | 3 | 5 | — | 438 |
| Kerala .. .. | 212 | 22 | 16 | 10 | 6 | 3 | 95 | 1 | 4 | 9 | 8 | — | 386 |
| Madhya Pradesh .. | 205 | 10 | 4 | 5 | 6 | 7 | 37 | — | 2 | — | 7 | — | 283 |
| Madras .. .. | 424 | 52 | 25 | 23 | 13 | 5 | 154 | 6 | 4 | 13 | 11 | — | 730 |
| Maharashtra .. .. | 525 | 110 | 42 | 75 | 48 | 19 | 289 | 34 | 8 | 15 | 14 | — | 1,179 |
| Mysore .. .. | 257 | 18 | 4 | 13 | 16 | 2 | 66 | 2 | 3 | 7 | 4 | — | 392 |
| Orissa .. .. | 50 | 5 | — | — | 4 | 2 | 17 | — | 2 | — | 4 | — | 84 |
| Punjab .. .. | 457 | 19 | 2 | 4 | 7 | 7 | 60 | 17 | 6 | 1 | 15 | — | 595 |
| Rajasthan .. .. | 227 | 12 | — | 3 | 3 | 3 | 35 | 7 | 3 | — | 6 | — | 299 |
| Uttar Pradesh .. | 774 | 51 | 18 | 20 | — | 6 | 153 | — | 8 | 8 | 40 | — | 1,096 |
| West Bengal .. .. | 531 | 67 | 11 | 67 | 14 | 4 | 253 | 24 | 6 | 19 | 18 | — | 1,024 |
| Andaman & Nicobar Islands .. .. | 2 | — | — | — | — | — | 1 | — | — | — | 2 | — | 5 |
| Delhi .. .. .. | 340 | 51 | 29 | 34 | 16 | 6 | 202 | 17 | 11 | 114 | 5 | 1 | 826 |
| Goa .. .. .. | 17 | 3 | — | 1 | — | — | 3 | — | — | — | — | — | 24 |
| Himachal Pradesh .. | 1 | — | — | — | — | 1 | 2 | — | — | — | 3 | — | 7 |
| Manipur .. .. | 5 | — | — | — | — | — | 12 | — | 4 | — | 1 | — | 22 |
| Nagaland .. .. | 1 | — | — | — | — | — | 1 | — | — | — | — | — | 2 |
| Pondicherry .. .. | 2 | — | — | — | 13 | — | — | — | — | — | — | — | 15 |
| Tripura .. .. | 8 | — | — | — | 1 | — | — | — | — | — | 1 | — | 10 |
| TOTAL .. | 4,675 | 540 | 185 | 275 | 205 | 78 | 1,647 | 116 | 71 | 194 | 174 | 1 | 8,161 |

* Includes newspapers published by religious societies. † Includes newspapers published by autonomous bodies under Central Government.
‡ Includes newspapers published by local bodies under State Government.

## TABLE 6

The following table shows the language-wise distribution by subject during 1964.

| Languages | News & Current Affairs | Literary & Cultural | Religion & Philosophy | Women | Children | Films | Sports | Radio and Music | Education | Science | Medicine & Health | Art | Social Welfare | Commerce & Industry | Finance and Economics | Insurance, Banking & Co-operation. | Labour | Law & Public Administration | Agriculture and Animal Husbandry | Engineering & Technology | Transport and Communications | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| English .. .. .. .. | 272 | 86 | 177 | 9 | 5 | 41 | 16 | 6 | 42 | 62 | 118 | 18 | 40 | 235 | 35 | 24 | 42 | 110 | 71 | 110 | 43 | 1,592 |
| Hindi .. .. .. .. | 745 | 249 | 169 | 12 | 35 | 46 | 3 | 6 | 23 | 5 | 36 | 1 | 99 | 30 | 4 | 9 | 26 | 15 | 33 | 1 | 5 | 1,552 |
| Assamese .. .. .. .. | 7 | 9 | — | 2 | 2 | — | — | 1 | 1 | — | — | — | 1 | 1 | 1 | — | 1 | — | — | — | — | 26 |
| Bengali .. .. .. .. | 176 | 169 | 56 | 6 | 6 | 27 | 13 | 4 | 7 | 1 | 15 | 5 | 10 | 3 | — | 2 | 4 | 2 | 6 | 1 | 4 | 517 |
| Gujarati .. .. .. .. | 80 | 52 | 54 | 10 | 14 | 11 | — | 1 | 17 | — | 10 | — | 47 | 3 | 1 | 3 | 5 | 7 | 4 | 2 | 2 | 323 |
| Kannada .. .. .. .. | 68 | 22 | 26 | — | 2 | 6 | — | — | 5 | — | 3 | 1 | 4 | 1 | — | — | 3 | 2 | 1 | 4 | — | 148 |
| Malayalam .. .. .. .. | 26 | 56 | 49 | — | 3 | 32 | — | — | — | — | 9 | 7 | 7 | 2 | — | — | — | 2 | — | 4 | 1 | 198 |
| Marathi .. .. .. .. | 104 | 82 | 26 | 4 | 14 | 6 | 1 | — | 15 | — | — | 1 | 22 | 5 | 1 | 10 | 6 | 5 | 9 | — | 1 | 312 |
| Oriya .. .. .. .. | 17 | 16 | 10 | 1 | 4 | 2 | — | — | — | — | 2 | — | 3 | — | — | — | 1 | 1 | 1 | 1 | 1 | 60 |
| Punjabi .. .. .. .. | 69 | 43 | 31 | 4 | 5 | 9 | — | 1 | 1 | — | 4 | — | 4 | — | — | — | — | 1 | — | 3 | 1 | 176 |
| Sanskrit .. .. .. .. | 1 | 17 | 2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 20 |
| Tamil .. .. .. .. | 98 | 82 | 76 | 4 | 16 | 40 | — | 2 | 4 | 1 | 11 | — | 12 | 15 | 1 | 2 | 12 | 3 | 5 | 1 | 2 | 387 |
| Telugu .. .. .. .. | 81 | 31 | 63 | 2 | 6 | 19 | — | 2 | 5 | 3 | 14 | 2 | 9 | 4 | — | 3 | 2 | 6 | 2 | — | 2 | 256 |
| Urdu .. .. .. .. | 344 | 112 | 100 | 4 | 8 | 27 | 2 | 2 | 5 | — | 22 | 2 | 6 | 9 | — | — | 20 | 2 | — | 1 | 3 | 669 |
| Bilingual .. .. .. .. | 156 | 48 | 94 | 1 | 5 | 6 | 3 | 1 | 27 | 1 | 30 | 2 | 17 | 19 | — | 12 | 35 | 11 | 10 | 8 | 11 | 497 |
| Multilingual .. .. .. | 26 | 23 | 27 | — | 4 | 2 | — | — | 10 | — | 8 | — | 6 | 9 | — | 5 | 4 | 2 | 2 | 3 | 7 | 138 |
| Others .. .. .. .. | 26 | 31 | 24 | 1 | 2 | 6 | — | 10 | — | — | — | — | 2 | — | — | — | 1 | — | 2 | — | — | 105 |
| TOTAL .. .. .. | 2,296 | 1,128 | 984 | 60 | 131 | 280 | 38 | 36 | 162 | 73 | 312 | 39 | 289 | 336 | 43 | 74 | 164 | 165 | 156 | 128 | 82 | 6,976 |

### Small Newspapers

The Government of India had set up in May 1965, a nine-member small newspapers' advisory committee under the chairmanship of Mr. R. R. Diwakar, M.P. to make an investigation of the difficulties and problems facing small newspapers and to advise the Government on the measures to be taken for assisting the small newspapers published in various languages.

The report was submitted to the Government in Oct. 1965 and was expected to be presented to Parliament in Nov. 1965.

The members of the committee are: A. D. Mani, A. R. Bhat, Joachim Alva, Hiren Mukherjee, Benarsi Das Chaturvedi, Prem Narayan, Durga Das and Hayatullah Ansari.

## PRESS LAWS

In general the laws which affect the Press in India today are Press and Registration of Books Act, 1867; the Indian Official Secrets Act No. XIX of 1923; Sections 124-A, 153-A, 171-G, 255, 292, 293, 294-A, 295-A, 489-A, 499–502 and 505 of the Indian Penal Code; Sections 99-A–99-G and 108 of the Criminal Procedure Code; Sections 81, 84 and 87 of the Indian Evidence Act No. I of 1872; Sections 11, 12, 44, 52 of the Customs Act No. LII, 1962; Sections 19, 20, 26, 27-A–27-D of the Indian Post Office Act No. VI of 1898; Section 5 of the Indian Telegraph Act No. XIII of 1885; Sections 40, 52 and 53(1)(*b*) of the Patents and Designs Act No. II of 1911; the Police (Incitement to Disaffection) Act, 1922; Section 69 of the Trade Marks Act No. V of 1940; the Contempt of Courts Act, 1952 (Act XXXII of 1952); The Indian Post Office (Amendment) Act LII of 1960; Article 19(1) (*a*) and (*g*) and Clause (2) and (6) of the same Article of the Constitution of India. The amendment to Article 19 (1)(*a*) reads: "Nothing in Sub-clause (A) of Clause 1 (the Citizen's Right to Freedom of Speech and Expression) shall affect the operation of any existing law or prevent the State from making anyl aw in so far as such law imposes reasonable restrictions on the exercise of the right conferred by the said sub-clause in the interest of the sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency, morality, or in relation to contempt of court, defamation or incitement to an offence (Arts. 105 and 194 of the Constitution of India); the Tax on Newspapers (Sales and Advertisements) Repeal Act No. XXVIII of 1951; S. 7 of the Collection of Statistics Act (XXXII of 1953); the Press and Registration of Books (Amendment) Act No. 55 of 1955.

The Delivery of Books (Public Libraries) Act 27 of 1954.

The Drugs and Magic Remedies (Objectionable Advertisements) Act 21 of 1954. This Act controls the advertisement of drugs in certain cases and prohibits the advertisement for certain purposes of remedies alleged to possess magic qualities.

The Criminal Procedure Amendment Act contains a section (198B) which empowers the Government to prosecute a newspaper for defamation of public servants.

The Working Journalists (Industrial Disputes) Act (No. 1 of 1955). The Act extends the provisions of the Industrial Disputes Act, 1947 to working journalists.

The Parliamentary Proceedings (Protection of Publication) Act (No. 24 of 1956). It protects the publication of a substantially true report of any proceedings of either House of Parliament.

Section 11 of the Prize Competitions Act (Act 42 of 1955) contains rules regarding printing and publishing tickets, coupons, etc. in connection with prize competitions.

The Working Journalists Conditions of Service and Miscellaneous Provisions Act (Act 45 of 1955) regulates conditions of service of working journalists.

The Working Journalists (Amendment) Act No. 65 of 1962.

The Punjab Special Powers (Press) Act was passed on 5th September 1955. It empowers the authorities to control the irresponsible activities of the press indulging in and fostering communal disharmony, dissemination of 'violent' news and pernicious propaganda of a communal nature.

The Newspaper (Price and Page) Act 45 of 1956.

The Young Persons (Harmful Publications) Act No. 93 of 1956.

The Copyright Act 14 of 1957.

The Indian Post Office (Amendment) Act No. 7 of 1958.

The Working Journalists (Fixation of Rates of Wages) Act 29 of 1958.

The Press and Registration of Books (Amendment) Act No. 26 of 1960.

The Newspaper (Price and Page) Continuance Act No. 36 of 1961.

The Indian Penal Code (Amendment) Act No. 41 of 1961.

The Drugs and Magic Remedies (objectionable advertisements) Amendment Act No. 42 of 1961.

Defence of India Act No. 51 of 1962.

The Working Journalists Amedment Act No. 65 of 1962.

On 12th December 1958 the Supreme Court of India delivered a very important judgment* relating to freedom of the press *vis-a-vis* the privileges of legislatures. It laid down "that under the Constitution of India, Indian legislatures have the right or privilege to prohibit absolutely the publication of even a true and faithful report of the debates or proceedings that take place within the House and to inflict punishment for a breach of such privilege. The right to freedom of speech and expression must be read subject to Art. 194(3) and in Art. 105(3).

See 1959 S.C.J. p. 925.

## NEWSPAPERS

The following is a list of some English dailies with the names of the editors:

*Amrita Bazar Patrika*, Tushar Kanti Ghosh: Calcutta.
*Assam Tribune*, Satish Ch. Kakati: Gauhati.
*Deccan Chronicle*, K. R. Pattabhiram (*Mg. Ed.*): Secunderabad.
*Deccan Herald* (*Mg. Editor*): K. A. Nettakallappa. (*Editor*): G. V. Krupanidhi: Bangalore.
*Eastern Times*, J. B. Patnaik: Cuttack.
*Economic Times*, P. S. Hariharan: Bombay.
*Evening News of India*, N. J. Nanporia: Bombay.
*Financial Express*, G. M. Laud: Bombay.
*Free Press Bulletin*, A. B. Nair: Bombay.
*Free Press Journal*, A. B. Nair: Bombay.
*Hindu*, G. Narasimhan (*Mg. Editor*); G. Kasturi (*Editor*): Madras.
*Hindustan Times*, S. Mulgaokar: New Delhi.
*Hitavada*, A. D. Mani (*Chief Editor*): Nagpur.
*Indian Express*, Frank Moraes (*Editor-in-Chief*): Bombay, Delhi, Madras, Madurai, Vijayawada and Bangalore.
*Indian Nation*. Dr. Sachin Sen: Patna.
*Leader*, K. C. Sarda (*Ag. Editor*).
*Mail*, V. P. V. Rajan: Madras.
*Nagpur Times*, C. B. Bakhale: Nagpur.
*National Herald*, M. Chalapathi Rau; Lucknow.
*Navhind Times*, T. V. Parvate; Lambert Mascarenhas (*Jt. Editors*): Panjim.
*Pioneer*, S. N. Ghosh: Lucknow.
*Searchlight*, T. J. S. George: Patna.
*Statesman*, Alfred Evan Charlton: Calcutta and New Delhi.
*Times of India*, N. J. Nanporia: Bombay and New Delhi.
*Tribune*, R. Madhavan Nair: Ambala.

## INDIAN NEWS AGENCIES

The following list is not exhaustive:

Press Trust of India (P.T.I.).
357, *Dr. Dadabhai Naoroji Road, Bombay.*
*General Manager*, K. S. Ramachandran.

NAFEN—Near and Far East News (Asia) Ltd., *Temple Bar Bldg., 70, Forbes Street, Bombay* 1.
Dhiman Press of India,
*Ludhiana (Punjab).*
Rao's Press Features,
160, *VII Block, Jayanagar, Bangalore* 11.
*Editor*, K. P. Rao.

## FOREIGN NEWS AGENCIES

The following list is not exhaustive:

Agence France Presse: Bureau De New Delhi, 1, Curzon Road, New Delhi.

Associated Press (of America): 19, Narendra Place, New Delhi.

Reuters: 27, Prithviraj Road, New Delhi.

Tass News Agency of U.S.S.R.: 155, Jor Bagh, New Delhi 3.

United Press International: I.E.N.S. Building, Rafi Marg, New Delhi.

## INFORMATION SERVICES

### Indian Information Service

Indian Government publicity work is carried out chiefly through the following units of the Ministry of Information and Broadcasting:

1. All-India Radio, 2. Press Information Bureau, 3. Publications Division, 4. Films Division, 5. Directorate of Advertising and Visual Publicity, 6. Research and Reference Division, 7. Directorate of Field Publicity, 8. Song and Drama Division.

Officers of the Press Information Bureau are attached to Central Ministries for liaison purposes.

There are regional offices of the Bureau in Bombay, Calcutta, Madras, Bangalore, Ernakulam, Ahmedabad, Lucknow, Jullundur, Gauhati, Cuttack, Nagpur, Patna, Jaipur, Srinagar, Varanasi, Hyderabad, Bhopal, Poona and Jammu.

There is also a Defence Wing for publicity for the Armed Forces.

The Bureau also has Information Centres at New Delhi, Jullundur and Srinagar which are entirely run by the Union Ministry of Information and Broadcasting. Apart from these, 18 information centres at other Cities are run on a cost sharing basis with State Governments. They are located at Patna, Lucknow, Hyderabad, Rajkot, Nagpur, Madras, Trivandrum, Bhubaneswar, Jaipur, Bhopal, Shillong, Bombay, Bangalore, Indore, Ajmer Vijayawada, Hubli and Madurai.

The Bureau's news, feature and reference services are provided in the following languages: English, Hindi, Urdu, Gujarati, Marathi, Tamil, Bengali, Telugu, Malayalam, Assamese, Oriya, Punjabi and Kannada.

Photographs and ebonoid blocks are also issued to the press.

The Bureau keeps the Government informed of the views and comments in the press on Government policy and actions.

*Principal Information Officer:* L. R. Nair; *Dy. Principal Information Officers:* M. J. E. Pritchard (*Publicity-Coordination*); C. L. Bhardwaj (*Ministry of Railways*); Dr. A. R. Baji (*Ministry of Food and Agriculture*); Surjeet Singh (*Press Relations*); G. Govindan (*Ministry of Community Development*); H. C. Saraswat (*National Emergency*); N. Sethi (*Prime Ministers' Secretariat*). *Defence Wing:* R. L. Handa, (*Director, Public Relations, Ministry of Defence*); Baldev Sahai (*Information Officer*).

## DIRECTORATE OF ADVERTISING AND VISUAL PUBLICITY

The Directorate of Advertising & Visual Publicity functions as the central organization for the Press advertising and visual publicity campaigns of the various Ministries of the Government of India (excepting Railways), their attached and subordinate offices and a number of autonomous undertakings of the Government of India.

* M. S. M. Sharma v. Shri Krishna Sinha, A. I. R. 1959 S. C. 395.

The Directorate has an Exhibition Division which, through its central and regional wings, organises exhibitions depicting progress of the Five-Year Plans and other themes of national importance.

*Director :* M. L. Bhardwaj.

**British Broadcasting Corporation**
Post Box No. 109, New Delhi.

**British Information Services**
(Chanakyapuri, New Delhi).

*Director :* R. McC. Samples.
*Deputy Director :* G. R. Gauntlett.
*Editor-in-Chief :* John Smallwood.
*Regional Information Officer & Visual Aids Officer :* Miss J. M. Murdoch.
*Publications Officer :* K. J. A. Hunt.
Bombay Office : (Mercantile Bank Building, Mahatma Gandhi Road).
*Regional Information Officer :* F. W. Bustin.
*Information Officer :* F. S. Napier.
Calcutta Office : (1, Harington Street).
*Regional Information Officer :* L. R. H. Rowdon.
*Information Officers :* J. S. Jasper ; J. C. Church.
Madras Office : (6, Armenian Street).
*Regional Information Officer :* C. Le. G. Eaton.
*Information Officer :* C. K. Woodfield.

**Canada**

(Canada House, 4 Aurangzeb Road, New Delhi.)
*Second Secretary (Information) :* W. H. Montgomery.
(Bombay: Gresham Assurance House, Mint Road.)
*Canadian Government Trade Commissioner,* S. G. Harris (*Acting*).

**Commonwealth of Australia**

(Australian High Commission, 9/48, Sardar Patel Road, New Delhi.)
*Information & Press Attache :* C. C. Twelftree.

**U. S. Information Service**

Bahawalpur House, Sikandra Road, New Delhi.
*Country Public Affairs Officer and Minister Counsellor for Public Affairs :* William H. Weathersby.
*Deputy Country Public Affairs Officer and Attache :* Lawrence J. Hall.
*Executive Officer and Attache :* William H. Smith.
*Chief Information Officer and Attache :* Lawrence P. Dalcher.
*Chief Cultural Affairs Officer and Attache :* Dr. Robert R. R. Brooks.
*Press Attache :* John W. Shirley.
*Press Officer and Attache :* Bernie T. Marquis.
*Director of Libraries and Attache :* William W. Bennett.

(Delhi Regional Staff)

*Cultural Affairs Officer and Attache :* Thomas D. Murphy.

BOMBAY OFFICE
("International", 16, Queen's Road Estate.)

*Director,* Herbert Baumgartner.
*Chief Cultural Affairs Officer,* Manning Hawthorne.
*Cultural Affairs Officers,* Betty Almasy, Leaford C. Williams.
*Information Officers,* Edward L. Robinson, James H. Feldman, Miss Corinne A. Heditsian.
*Librarian,* Miss Dorothy L. Clark.
*Executive Officer,* Charles G. Gosselink.

CALCUTTA OFFICE
(7, Jawaharlal Nehru Road, Calcutta 13.)

*Public Affairs Officer :* Heath Bowman.
*Information Officer :* Philip F. Gould.
*Cultural Affairs Officer :* Malcolm McLean.
*Asst. Cultural Affairs Officer :* Richard A. Von Glatz.
*University Officer :* John Lepperd.
*Audio-Visual Officer :* Elizabeth Rousseau.
*Executive Officer :* Phyllis M. Carpenter.
*Director of Library Services :* Anna G. Banker.
*Secretary :* Martha E. Foley.

MADRAS OFFICE
(158, Mount Road, Madras 2.)

*Public Affairs Officer,* A. M. Sirkin.
*Information Officer,* Daniel M. Kennedy.
*Cultural Affairs Officer,* Fentress Gardner.
*Assistant Cultural Affairs Officer,* Peter J. Reuss.
*Asst. Cultural Affairs Officer,* Francis P. Coward.
*Director of Library Service :* Mrs. Evelyn E. McCabe.
*Administrative Officer :* Miss Ruth R. Tryon.
*Press Officer,* James W. Baker.
*Secretary :* Miss Charlene Holliday.

U.S. INFORMATION SERVICE LIBRARY
24, Curzon Road, New Delhi.

*Director of Libraries :* William W. Bennett.

AMERICAN LIBRARY (USIS)
150-B, Mount Road, Madras 2.

*Director of Library Service :* Evelyn E. McCabe.

**American Cultural Centre (USIS)**
Main Road, Trivandrum.

*Director :* V. R. Parameswaran Nair.
*Officer-in-Charge :* Daniel L. Miller.

**American Cultural Centre (USIS)**
Sri Narasimha Raja Square, Bangalore 2.
(Mysore State)

*Director :* Edward T. Penney.

**Turkey**

(Turkish Embassy, 27, Jor Bagh, New Delhi.)

**United Arab Republic**

Bombay : Eros Cinema Building, 124-D, Queen's Road, Bombay-1. Tel. Nos. 245425 & 212910.
*Consul-General :* A. A. El-Moursi. Delhi : 26, Jor Bagh, New Delhi 3. *Press Attache,* Galal El-Rashidi. Calcutta : 8/6, Alipore Park Rd., Calcutta 27. *Consul-General,* Aziz Abdalla Khalil.

**Denmark**

Royal Danish Embassy, 6, Golf Links Area, New Delhi ; Danish Govt. Trade Commission, Pallonji Mansion, New Cuffe Parade, Colaba, Bombay 5.

**France**

(Consulate-General)
(Vulcan Insurance Building, 5th Floor, Churchgate, Bombay 1.)

*Consul-General :* Georges Meunier.

**Italy**

(*Consulate-General*)

(Vaswani Mansions, Dinsha Wachha Rd., Churchgate Reclamation, Bombay 1. Tel. Nos. 245177 & 245178.)

**United Nations**
(21, Curzon Road, New Delhi).

*United Nations Technical Assistance Board :*
*Resident Representative and Director of Special Fund Programmes :* Dr. John McDiarmid.
*Dy. Resident Representatives :* A. Shahbaz ; Nessim Shallon.
*United Nations Information Service :*
*Director :* Leonard A. Berry.

**W.H.O. Regional Office for S. E. Asia, Public Information Unit**

(Indraprastha Estate, Ring Road, New Delhi.)
*Information Officer :* J. G. Milwertz.

## PRESS ASSOCIATIONS, SOCIETIES

All-India Newspaper Editors' Conference, 50-51, Theatre Communication Bldgs., Connaught Place, New Delhi : *President,* A. K. Jain ; *Hon. Treasurer,* Inder Jit ; *Office Secy.,* Jag Parvesh Chandra.

Indian and Eastern Newspaper Society, I.E.N.S. Bldgs., Rafi Margh, New Delhi 1 : *President :* G. N. Sahi (*Hindustan Times*) ; *Dy. President :* C. G. K. Reddy (*Sport & Pastime*) ; *Vice-President :* J. M. D'Souza (*Illustrated Weekly of India*) ; *Hony. Treasurer :* Yunus Dehlvi (*Shama*) ; *Secretary :* R. D. Seth.

Indian Federation of Working Journalists, Flat No. 29, New Central Market, Connaught Circus, New Delhi 1. *President :* A. C. Banerjee, *Secretary-General,* L. M. Sundaram ; *Treasurer,* Kedar Ghosh.

**Indian Languages Newspapers' Association** (Janmabhoomi Bhavan, Ghoga Street, Fort, Bombay).

Press Owners' Association, Bombay (196-B, Gaiwadi, Girgaon, Bombay).

Southern India Journalists' Federation (15, Ritchie Street, Mount Road, Madras 2) : *President :* R. Narasinhan ; *Secretary :* T. R. Ramaswami.

## FEATURE SYNDICATES

King Features Syndicate (235, East 45th Street, New York 17) : *Agents :* Advertising Films of India Private Ltd., 4th Floor, Khorshed Bldg., Sir Pherozeshah Mehta Road, Bombay 1 and 21, Princep Street, Calcutta 13.
Tel. 263023-24.
*Director-in-charge,* Ramesh C. Jain, B.Com.

## PRESS CLIPPINGS

All-India Press Cutting Service : D-2, Amerchand Mansions, Mayo Road, Bombay 1.

Indian Press Service : 16A, Friends Colony, New Delhi 14.

The Asiatic Press-Clippings Service,
P. B. No. 1663.
91, The Mall, Kingsway, Delhi-9
(Tel. No. 225337).

International Clipping Service : Lakshmi Building, Sir Pherozeshah Mehta Road, Bombay 1.
*Tel :* 263451.
*Member,* F. I. B. E. P., Paris.

Oriental Languages Bureau : Lakshmi Building, Sir Pherozeshah Mehta Road, Fort, Bombay 1.
*Tel :* 263451.

## PRESS PHOTO AGENCIES

Bombay Photo Stores Private Ltd. : 33-34, Park Mansions, Park Street, Calcutta.

News Photo Flash : 11-12, Scindia House, New Delhi.

Press Photo Bureau : 374, Pycrofts Road, Royapetta P.O., Madras 14.

## PRESS COMMISSION

The report of the Press Commission of 1952, the provisions of the Working Journalists Act of 1955, and the report of the Wage Board Committee for journalists appointed by the President are all given in previous editions of the *Directory.*

The recommendations of the Wage Board Committee and of the Journalists Act are now generally in force. No case of non-implementation of the recommendations of the Wage Committee has been brought to the notice of the Government.

**Wage Boards for Working Journalists & Non-Journalists**

A second Wage Board for working journalists was constituted by the Government of India on November 13, 1963 under the chairmanship of Mr. G. K. Shinde. The other members of the Board are Mr. Nettakalappan (*Prajavani*) and Mr. Upendra Acharya representing employers, Mr. L. Meenakshisundaram (*Madras Mail*) and Kedar Ghosh (*Statesman*) representing employees, P. Brahmayya and Sidheswar Prasad, M.P. (Independent members).

The Government of India constituted in February 1964 a Wage Board for the non-journalist employees of newspaper establishments under the chairmanship of Mr. G. K. Shinde.

The other members of the Wage Board are: Mr. Sidheswar Prasad, M.P., and Mr. P. Brahmayya (Independent members), Mr. Narendra Tiwari and Mr. Upendra Acharya (employers' representatives) and Mr. Amarnath Vidyalankar, M.P., and Mr. S. Y. Kolhatkar* (workers' representatives).

The board will also consider the demand for grant of gratuity to non-journalist employees of the newspaper establishments.

While making its recommendations, the wage board for non-journalists shall have regard to the cost of living, the prevalent rates of wages for comparable employments, the circumstances relating to the newspaper industry in different regions of the country, and to any other circumstances which to the board may seem relevant. The Secretary of both the wage boards is Mr. V. R. Kulkarni.

There is also a Registrar of Newspapers who makes an annual report based on the terms of reference mentioned in the Journalists Act.

The Advertising Council of India has also been set up.

### NEWSPRINT CONTROL ORDER

The Government of India promulgated on Jan. 17, 1962 the Newsprint Control Order to regulate the acquisition, sale and consumption of newsprint in the country. It came into force immediately. A revised policy was announced in April 1963. Details of the announcement were given in the 1963–64 *Directory*.

On April 2, 1964, the newsprint allocation policy for 1964–65 was announced by the Government of India, imposing cuts ranging from 12½ to 7½ per cent on newspapers consuming more than 500 tonnes. Smaller publications consuming less than 500 tonnes were completely exempted from these cuts.

No newsprint is to be made available to new newspapers proposed to be started by "chains, groups and multiple units." In the case of other new daily papers, newsprint would be allotted for a circulation of 5,000 copies of eight pages of standard newspaper size. But no newsprint would be allotted to any new periodicals.

Existing newspapers and periodicals with a circulation of fewer than 10,000 copies are to be allowed to increase their circulation up to 10,000 copies, or by 25 per cent of their circulation during the April '61–March '62 period, whichever is less. Smaller publications will be permitted to increase their circulation freely up to 5,000 copies.

On April 29, 1964 the Government of India announced another press note announcing its decision not to enforce the phased cuts in newsprint allocation announced on April 2, 1964.

A block cut of five per cent, will, however, be imposed on publications consuming 1,000 m. tonnes and above as from April 1, 1964.

The daily newspapers which were allowed a circulation increase in October, 1963, March, 1964, will be permitted to maintain the increased circulation.

In the case of newspapers with a circulation range between 10,000 and 25,000 copies per publishing day, the increase will be maintained to the full extent of 20 per cent and in the case of newspapers in the circulation range between 25,000 and 50,000 copies, to the extent of 10 per cent.

It has also been decided to raise the allocation of white printing paper to as much as 10 per cent of the annual entitlement of the newspapers concerned. This would enable the publishers using white printing paper to offset the cuts.

Newspapers and periodicals having annual entitlements of more than 100 tonnes will be given 30 per cent in NEPA newsprint and the remaining 70 per cent from imported stocks. Of the imported entitlement, 70 per cent will be given from free resources (sterling imports) and the remaining 30 per cent from the rupee account (Eastern European countries).

### PRESS COUNCIL

The Press Council Bill was passed in Nov. 1965. The President has given his assent. The object of the Council shall be to preserve the liberty of the press and maintain and improve the standards of newspapers in India. The Council may, in furtherance of its object, perform the following functions (*a*) to help newspapers to maintain their independence; (*b*) to build up a code of conduct for newspapers and journalists in accordance with high professional standard; (*c*) to ensure on the part of newspapers and journalists the maintenance of high standards of public taste and foster a due sense of both the rights and responsibilities of citizenship; (*d*) to keep under review any development likely to restrict the supply and dissemination of news of public interest and importance; (*e*) to keep under review any assistance received by any newspaper or news agency in India from foreign sources; (*f*) to promote the establishment of such common service for the supply and dissemination of news to newspapers as may, from time to time, appear to it to be desirable; (*g*) to provide facilities for the proper education and training of persons in the profession of journalism; (*h*) to promote a proper functional relationship among all classes of persons engaged in the production or publication of newspapers; (*i*) to study developments which may tend towards monopoly or concentration of ownership of newspapers, including a study of the ownership or financial structure of newspapers, and if necessary, to suggest remedies therefor.

# PUBLIC HEALTH

MATTERS connected with health fall largely in the State field.

The Centre is, however, directly responsible even for State subjects in the Union Territories of Delhi, Andaman and Nicobar Islands and Minicoy and Amindivi Islands.

The Central Health Service Rules, 1963 were notified in the Gazette during the first half of 1963. The rules came into force with effect from 15th May 1963. The Service will cover all medical and public health posts under the Central Government and the Union Territories other than those under the Ministries of Railways and Defence.

The strength of the Service at the initial constitution will be 1,030 permanent posts and 1,303 temporary posts. This includes posts under the Delhi Municipal Corporation, the New Delhi Municipal Committee, the All India Institute of Mental Health, Bangalore, the Employees' State Insurance Corporation and the Lady Hardinge Medical College, New Delhi. The posts under these organizations will be filled by members of the Central Health Service without any extra remuneration.

An 18-member Health Survey and Planning Committee was appointed in June 1959 to review developments in public health under the chairmanship of Dr. A. Lakshmanaswamy Mudaliar and to make recommendations for the Third and subsequent Five Year Plans. The Committee gathered information on different subjects from the States, and submitted their report to the Government in Jan. 1962. The report was considered by the Central Council of Health in their meeting held in New Delhi on 9th and 10th April 1963 and the action suggested by the Council on various recommendations of the Committee is being taken.

### CENSUS

Hospitals and Dispensaries 12,600 (March 1961); Beds 195,390 (1961); Primary Health Centres 3,352 (March 1963); Medical Colleges 79 (1963); Annual admission 8,000; Dental Colleges 13; Annual admission 400; Doctors 81,888 (March 1964); Vaids 150,000 (1961); Compounders 20,801 (1961); Vaccinators, 5,872 (1961); Dentists 3,802 (1961); Nurses 31,190 (March 1963); Auxiliary Nurses/Midwives 25,430 (March 1963); Health visitors 2,960 (March 1963); Nurse dais/Dais 15,200 (Sept. 1962); Sanitary Inspectors 11,000 (March 1962); Pharmacists 65,000 (1962); Malaria Units 391 (March 1963); Filaria units 47 (March 1962); T.B. clinics 263 (March 1963); T.B. Training Centres 13 (March 1963); T.B. Beds 27,809 (March 1963); B.C.G. Teams 174 (March 1963); T.B. tested by the teams 34 million (March 1963); B.C.G. vaccinated 13 million (March 1963); Leprosy Centres 137 (March 1963); V.D. Headquarters Clinics 5 (March 1963); V.D. District Clinics 91 (March 1963).

### VITAL STATISTICS

The registered All-India birth rates, death rates and infant mortality rates are given below:

| — | Birth rate. | Death rate. | Infant Mortality rate. |
|---|---|---|---|
| 1953 .. | 25·2 | 14·9 | 125 |
| 1954 .. | 24·6 | 12·5 | 114 |
| 1955 .. | 26·7 | 11·7 | 103 |
| 1956 .. | 22·4 | 10·4 | 109 |
| 1957 .. | 22·0 | 11·2 | 103 |
| 1958 .. | 22·3 | 11·5 | 102 |
| 1959 .. | 23·6 | 9·9 | 88 |
| 1960 .. | 22·8 | 10·0 | 87 |
| 1961 .. | 23·1 | 10·1 | 83 |
| 1962 .. | 22·9 | 9·7 | 81 |

The infant and maternal death rates in some of the Indian cities are given below:

| Name of the City | Infant mortality rate per thousand live births. | | Maternal mortality rate per 1,000 live and still births. | |
|---|---|---|---|---|
| | 1963 | 1962 | 1963 | 1962 |
| Ahmedabad .. .. .. .. .. .. .. .. | 101 | 96 | 0·7 | 0·1 |
| Bangalore .. .. .. .. .. .. .. .. | 67 | 75 | 0·7 | 0·6 |
| Bombay .. .. .. .. .. .. .. .. | 81 | 84 | 1·1 | 1·0 |
| Calcutta .. .. .. .. .. .. .. .. | 127 | 108 | 1·6 | 1·0 |
| Delhi .. .. .. .. .. .. .. .. | 67 | 75 | 0·3 | 0·5 |
| Hyderabad .. .. .. .. .. .. .. .. | 50 | 51 | 0·5 | 0·6 |
| Lucknow .. .. .. .. .. .. .. .. | — | 85 | — | 0·2 |
| Madras .. .. .. .. .. .. .. .. | 108 | 97 | 1·0 | 1·6 |
| Nagpur .. .. .. .. .. .. .. .. | 97 | 96 | 4·7 | 4·8 |

* Now under detention under the Defence of India rules.

## TROPICAL DISEASES

The following table gives the number of deaths and death rates (number of deaths for every million of the population) from different diseases recorded in the country for 1962 and 1961.

| | 1962* | | 1961* | |
|---|---|---|---|---|
| | Total | Rate | Total | Rate |
| Cholera | 11,404 | 28·29 | 26,947 | 66·78 |
| Dysentery & Diarrhoea | 1,79,714 | 445·87 | 2,19,654 | 544·36 |
| Fevers | 13,64,252 | 3,775·96 | 14,68,809 | 3,640·11 |
| Malaria | § | § | § | § |
| Plague | 200 | 0·49 | 131 | 0·32 |
| Respiratory disease | 3,12,144 | 849·38 | 342,391 | 848·54 |
| Smallpox | 35,173 | 87·26 | 38,180 | 94·62 |
| Tuberculosis | § | § | § | § |
| Other Causes | 15,92,957 | 3,941·91 | 15,98,101 | 3,960·54 |
| Total | 35,50,315 | 8,785·58 | 37,42,962 | 9,276·09 |

* Excluding Manipur and Tripura.

§ Not available.

Death rates from certain causes recorded in the various States of India (Number of deaths for every million of population) for 1961 and 1962.

| States/Territories | Year | Cholera | Smallpox | Plague | Fever | Dysentery and Diarrhoea | Respiratory | All other causes | Total |
|---|---|---|---|---|---|---|---|---|---|
| Andhra Pradesh | 1961 | 19·09 | 69·88 | 0·03 | 2,520·22 | 371·51 | 549·03 | 3,949·71 | 7,027·23 |
| | 1962 | 78·77 | 72·58 | .. | 2,569·14 | 412·49 | 547·10 | 4,047·50 | 7,869·26 |
| Assam | 1961 | 2·73 | 11·93 | .. | 1,608·07 | 237·03 | 286·53 | 830·36 | 3,036·81 |
| | 1962 | 0·96 | 10·67 | .. | 1,540·79 | 276·16 | 316·80 | 840·23 | 3,078·70 |
| Bihar | 1961 | 188·09 | 17·34 | 1·93 | 3,409·22 | 109·88 | 108·43 | 971·52 | 4,887·35 |
| | 1962 | 15·75 | 18·07 | 2·10 | 2,740·25 | 70·10 | 88·84 | 887·88 | 3,879·40 |
| Gujarat | 1961 | 2·02 | 292·93 | .. | 4,640·77 | 263·69 | 1,558·01 | 3,926·59 | 10,912·82 |
| | 1962 | 0·75 | 270·40 | .. | 4,104·34 | 209·54 | 920·08 | 4,730·06 | 10,453·39 |
| Jammu and Kashmir | 1961 | 81·25 | 43·99 | .. | 2,924·62 | 2,201·73 | 1,708·60 | 3,119·64 | 10,079·85 |
| | 1962 | 4·41 | 32·52 | .. | 1,480·70 | 108·05 | 504·68 | 3,487·87 | 570·14 |
| Kerala | 1961 | .. | 27·54 | .. | 725·99 | 499·68 | 800·52 | 5,026·01 | 7,249·75 |
| | 1962 | .. | 30·29 | .. | 587·91 | 306·58 | 661·35 | 4,610·29 | 6,336·68 |
| Madhya Pradesh | 1961 | 19·01 | 162·50 | .. | 4,353·12 | 450·59 | 619·41 | 3,060·84 | 8,665·49 |
| | 1962 | 1·82 | 117·75 | .. | 3,618·12 | 429·97 | 503·48 | 3,991·19 | 8,663·06 |
| Madras | 1961 | 0·88 | 101·53 | 0·16 | 2,060·79 | 14,106·42 | 1,207·33 | 9,054·55 | 14,034·00 |
| | 1962 | 2·86 | 110·53 | 0·39 | 1,825·88 | 872·95 | 1,109·20 | 8,411·98 | 12,522·99 |
| Maharashtra | 1961 | 63·75 | 95·59 | .. | 3,757·58 | 1,023·64 | 1,941·37 | 6,371·70 | 13,469·43 |
| | 1962 | 16·69 | 52·05 | .. | 4,395·86 | 1,015·13 | 2,252·39 | 6,902·29 | 14,910·36 |
| Mysore | 1961 | 68·04 | 135·49 | 2·10 | 3,699·87 | 842·33 | 1,242·77 | 5,575·96 | 11,777·87 |
| | 1962 | 161·26 | 122·17 | 5·62 | 3,458·50 | 788·41 | 1,219·63 | 6,919·91 | 12,385·59 |
| Orissa | 1961 | 52·99 | 32·91 | .. | 7,700·30 | 844·48 | 430·81 | 3,883·92 | 13,149·59 |
| | 1962 | 7·87 | 30·78 | .. | 6,781·16 | 740·54 | 455·04 | 3,215·01 | 11,501·79 |
| Punjab | 1961 | .. | 26·57 | .. | 6,951·75 | 804·42 | 1,432·70 | 2,476·12 | 11,328·94 |
| | 1962 | .. | 27·56 | .. | 7,095·09 | 309·20 | 1,449·37 | 2,235·33 | 11,228·21 |
| Rajasthan | 1961 | 3·54 | 289·50 | .. | 2,254·15 | 513·96 | 1,217·39 | 2,956·88 | 7,463·76 |
| | 1962 | 6·73 | 131·77 | .. | 1,950·94 | 517·13 | 861·13 | 3,108·68 | 6,757·29 |
| Uttar Pradesh | 1961 | 125·60 | 142·90 | .. | 5,322·52 | 414·52 | 860·78 | 1,837·61 | 8,794·36 |
| | 1962 | 13·12 | 156·08 | .. | 5,035·95 | 373·19 | 756·48 | 1,575·90 | 7,988·49 |
| West Bengal | 1961 | 78·89 | 7·00 | .. | * | 261·96 | * | 6,349·39 | 6,697·25 |
| | 1962 | 69·30 | 21·00 | .. | * | 259·77 | * | 6,097·60 | 6,671·19 |
| Andaman & Nicobar Islands | 1961 | .. | .. | .. | 646·15 | 476·92 | 969·23 | 3,153·84 | 5,246·15 |
| | 1962 | .. | .. | .. | 104·47 | 477·60 | 805·95 | 4,065·70 | 6,089·55 |
| Delhi | 1961 | .. | 76·75 | .. | 1,257·69 | 313·68 | 1,603·26 | 5,001·85 | 8,253·24 |
| | 1962 | .. | 32·02 | .. | 1,607·67 | 323·40 | 1,783·08 | 4,801·19 | 8,798·02 |
| Himachal Pradesh | 1961 | 0·73 | 16·14 | .. | 4,123·26 | 952·31 | 443·87 | 3,367·67 | 8,903·88 |
| | 1962 | .. | 1·42 | .. | 3,545·19 | 827·88 | 656·42 | 2,286·22 | 7,438·31 |
| Manipur | 1961 | * | * | * | * | * | * | * | * |
| | 1962 | * | * | * | * | * | * | * | * |
| Pondicherry | 1961 | .. | 2,356·76 | .. | 2,751·35 | 2,748·64 | 994·59 | 16,491·89 | 25,343·24 |
| | 1962 | 15·82 | 976·06 | .. | 2,139·84 | 2,305·61 | 1,086·85 | 15,550·70 | 22,081·70 |
| Tripura | 1961 | * | * | * | * | * | * | * | * |
| | 1962 | * | * | * | * | * | * | * | * |

* Information not available.

## NATIONAL INSTITUTE OF COMMUNICABLE DISEASES

The National Institute of Communicable Diseases was inaugurated on July 30, 1963.

The objectives and functions of the new Institute are to advise State Governments on all matters pertaining to communicable diseases and initiate investigations in these diseases. It will also assist State organisations in carrying out investigations taken up by them. In view of the fact that National Programmes already exist with reference to some of the communicable diseases, such as Malaria, Tuberculosis, Leprosy and Smallpox, the emphasis at the Institute to begin with would be on vector-borne diseases and infections of animals communicable to man.

The Institute will undertake research into all basic facts underlying the prevalence and spread of communicable diseases and their prevention and study of aetiological agents, vectors, mechanism of infection, including endemic and epidemic phenomena, and any zoonotic reservoirs.

The Institute will conduct epidemiological investigations, including mapping of endemicity, study communicable disease statistics on modern lines, and generally elucidate the underlying principles of prevalence of communicable diseases in the country. Another aspect of the Institute's work will involve clinical investigations in communicable diseases, including treatment and study of early diagnostic technique, relapse problems and effects of new drugs. The Institute will publish the results of its findings and bring out guides and bulletins for the use of the medical profession.

Arrangements will be made at the Institute for training research workers and teaching and training personnel in epidemiology, medical zoology and control of communicable diseases. One course of training in epidemiology (duration five months) attended by 14 medical officers was conducted in 1964. Another course (duration 3 months) commenced at the Institute with 22 candidates in April 1965.

With the expansion and reorganisation, the Institute will have six divisions for Biochemistry, Epidemiology and Statistics, Medical Entomology, Microbiology, Training and Administration, and Zoonosis. The Institute has been recognised by ten universities for the purpose of post-graduate research degrees of Ph.D. & D.Sc. (PH).

The Institute has been entrusted with the work of evaluating the National Smallpox Eradication Programmes in the country.

**Venereal Diseases & Other Allied Treponemal Diseases:** Among communicable diseases, venereal diseases will easily rank the third major problem, next only to malaria and tuberculosis. Their prevalence is relatively higher in the larger cities, ports, industrial areas and in some of the sub-Himalayan tracts. The common venereal diseases prevalent and of public health importance are six, namely, Syphilis, Gonorrhoea, Chancroid, Granuloma, Inguinale, and Lymphogranuloma Venerum. With the increasing shift of population from rural to urban areas as a result of rapid industrialisation of the country, venereal diseases are likely to assume even greater importance in the future.

Control measures against venereal diseases are distinctly different from those of other communicable diseases for various reasons. Here we have to deal with a chronic disease, with a long period of latency. It requires a lot of persuation to induce people to seek diagnosis and treatment. Epidemiological and educational measures are as important as treatment.

The first major step taken towards control of these diseases was the establishment of a W.H.O. V.D. Demonstration Team in Himachal Pradesh in 1949. The team carried out extensive survey and mass treatment programme in the area and also trained 16 teams deputed by the different State Governments. The team was withdrawn in 1951 and the work continued and expanded by the Himachal Pradesh Administration. As a result of these a reduction in the incidence of these diseases has been observed.

With the ultimate object of having a V.D. Clinic at the headquarters of each State, at the headquarters of every district and at important cities and industrial townships, a beginning was made by the inclusion of a scheme for control of Venereal Diseases in the Second Five Year Plan for the establishment of 8 State Headquarter Clinics and 75 district headquarter clinics. Provision was also made for free supply of penicillin (PAM) to all these V.D. Clinics. V.D. Training facilities were also made available at the Institute of Venereology, Madras, and at the V.D. Training & Demonstration Centre, New Delhi.

The expenditure in respect of the scheme was shared between the Central and State Govts. at the ratio of 75 : 25 in respect of non-recurring expenditure such as equipment and 50 : 50 in respect of recurring expenditure and training.

During the 2nd Plan, 5 State Headquarter Clinics and 95 district clinics were established in the country. During the Third Plan upto the end of March, 1965, two State Headquarter Clinics and 30 district clinics have been established. Further requests for establishment of 8 more V.D. Clinics during 1965-66 have also been received.

Social voluntary agencies such as the Association for Moral and Social Hygiene in India and the Delhi Maternity Hospital were given financial assistance to establish V.D. Clinics as a result of which 4 and 1 V.D. Clinics respectively were established by them.

According to reports received the number of patients treated in these clinics during the year 1964 was 4,30,916.

Further progress was made for the establishment of an inter-laboratory evaluation programme of serological methods at the V.D. laboratory of the Institute of Venereology, Madras with Central Govt. assistance.

Proposals have been included in the V.D. control programme as a Central sponsored scheme.

A V.D. Advisory Committee has been formed with the Director General of Health Services as the Chairman and its second meeting was held in 1964.

**Yaws:** Yaws is prevalent in some areas of Andhra Pradesh, Maharashtra, Madhya Pradesh and Orissa. While the work in Andhra Pradesh has been completed, it is expected that these teams would cover the entire area in Madhya Pradesh and Orissa shortly.

**Cancer:** The number of persons who die of cancer annually is believed to be in the neighbourhood of 2 lakhs.

Limited surveys conducted by the Indian Cancer Research Centre, Bombay, during the past few years showed that in India all types of cancer occurring in the different parts of the body were prevalent; that the total incidence of cancer was probably the same in India as in the other countries of the world; that there was a greater frequency of oral cancer in Western India than in Europe and North America; that smoking and chewing of tobacco had some causal relationship to the incidence of oral cancer; and that lung cancer was prevalent in India on the same scale as in Western countries.

There are 40 general hospitals in the country where facilities for cancer treatment are available.

Their locations are as follows: Three in the Punjab (Amritsar, Gurdaspur, Patiala), four in U.P. (Agra, Lucknow, Allahabad), four in Madras (Madras and Madurai), three in Maharashtra (Bombay, Nagpur), three in Gujarat (Ahmedabad, Bhavnagar, Jamnagar), four in Mysore (Bangalore, Mysore, Mangalore), three in Kerala(Trivandrum, Ernakulam and Kozhikode), two in Assam (Dibrugarh and Shillong), four in Rajasthan (Jaipur, Bikaner, Jodhpur, Ajmer), one in Orissa (Cuttack), one in Bihar (Patna), four in West Bengal (all in Calcutta), two in Delhi and two in Andhra Pradesh (Visakhapatnam, Hyderabad).

Research is conducted at the Cancer Research Centre, Bombay, Tata Memorial Hospital, Bombay, Chittaranjan Cancer Institute, Calcutta and the Cancer Institute, Madras.

### Cobalt Beam Therapy Unit

Undermentioned Hospitals/Institutions have so far been/being supplied one unit each under Colombo Plan Capital Aid Programme.

Chittaranjan Cancer Hospital, Calcutta; Tata Memorial Hospital, Bombay; Christian Medical College Hospital, Ludhiana; Cancer Institution (WIA), Madras; Christian Medical College Hospital, Vellore; Medical College Hospital, Trivandrum; Safdarjang Hospital, New Delhi; S. C. B. Medical Hospital, Cuttack; Radium Institute & Cancer Hospital, Hyderabad; J. K. Institute of Radiology & Cancer Research, Kanpur; Victoria Hospital, Bangalore; Patna Medical College, Patna; Medical College, Pondicherry; All India Institute of Medical Sciences, New Delhi; Sawai Man Singh Medical College, Jaipur; Medical College Hospital, Calcutta; Tata Memorial Hospital, Bombay; Recommended for allotment of Cobalt Therapy Units: Post-graduate Institute of Medical Education and Research, Chandigarh; Medical College, Dibrugarh; P. B. S. M. General Hospital for Men and Women, Bikaner; Miraj Medical Centre, Miraj; Gujarat Cancer Society, Ahmedabad.

## PUBLIC HEALTH AGENCIES

A Central Council of Health exists with the Union Health Minister as chairman and State Health Ministers as members.

The Council is an advisory body and in that capacity performs the following duties:—(*a*) to consider and recommend broad lines of policy in regard to matters concerning health in all its aspects; (*b*)to make proposals for legislation; (*c*) to examine the whole field of possible co-operation on a wider basis in regard to inter-State quarantine during times of festivals, outbreaks of epidemic diseases and serious calamities such as earthquakes, famines, etc., and to draw up a common programme of action; (*d*) to make recommendation to the Central Govt. regarding distribution of available grants-in-aid for health purposes to the States and to review periodically the work accomplished in different areas through the utilisation of these grants-in-aid and (*e*) to establish any organisation or organisations invested with appropriate functions for promoting and maintaining co-operation between the Central and State Health administrations.

The body in charge of research is the Indian Council of Medical Research.

A sum of Rs. 3·5 crores is provided for research programmes under the Council for the 3rd Plan. The annual grant to the Council amounts to about Rs. 50 lakhs.

There are five main medical depots — one each at Bombay, Calcutta, Hyderabad, Karnal and Madras. The depots at Bombay and Madras have pharmaceutical factories attached to them.

*List of Medical Research Institutes/Laboratories in India:* Indian Council of Medical Research, Medical Enclave, New Delhi; Indian Cancer Research Centre, Bombay; Central Research Institute, Kasauli (Himachal Pradesh); All India Institute of Hygiene and Public Health, Calcutta; School of Tropical Medicine, Calcutta; Malaria Institute of India (Central Institute for Communicable Diseases), Delhi; Central Drugs Laboratory, Government of India, 3, Kyd Street, Calcutta; Haffkine Institute, Bombay; Nutrition Research Laboratories, Tarnaka, Hyderabad-7 (Dn.); Pasteur Institute of Southern India, Coonoor; K. E. VII Memorial Pasteur Institute, Shillong; Government Vaccine Institute, Namkum (Ranchi); Regional Research Laboratory, Jammu, Tawi; B. C. G. Laboratory, Guindy, Madras-15; Vaccine Institute, Public Health

Institute ,Mysore, Bangalore ; Leprosy Research Centre, Madras ; King Institute, Guindy, Madras ; Virus Research Centre (B. J. Medical College, Old Building), Poona ; Vallabhbhai Patel Chest Institute, University of Delhi, Delhi ; Pasteur Institute, School of Tropical Medicine, Calcutta-12 ; Cancer Institute, Madras ; All India Institute of Mental Health, Bangalore ; Central Drug Research Institute, Lucknow ; Chittaranjan Cancer Research Centre, Calcutta ; Radium Research and Cancer Hospital, Hyderabad (Andhra Pradesh) ; Institute of Post Graduate Medical Education and Research, Calcutta ; Central Leprosy Teaching and Research Institute, Tirumani ; National Chemical Laboratory, Poona ; All India Institute of Medical Sciences, New Delhi ; National Institute of Experimental Medicine and Biochemistry, Calcutta-13 ; Central Food Technological Research Institute, Mysore-2 ; Institute of Child Health, Calcutta ; National Medical Institute, Calcutta ; Institute of Ophthalmology, Aligarh ; Pasteur Institute, Patna ; Bose Institute, Calcutta ; Institute of Venereology, Madras ; Institute of Obstetrics and Gynaecology, Madras ; Barnard Institute, Madras.

## CONTROL OF DISEASES

Steps are being taken to control a number of diseases that are rampant.

### Malaria

The National Malaria Control Programme was launched from April, 1953. This programme functioned for 5 years and with effect from April 1958 this programme has been switched over to National Malaria Eradication Programme.

At the end of 1958-59, 230 malaria eradication units, designed to afford protection to 230 million people, had been allotted. These units afforded protection to about 214·15 million people.

During 1959-60, another 160 units were allotted, bringing the total to 390 units (230 endemic and 160 hypo-endemic), covering the entire population of the country exposed to malaria, with spraying of residual insecticides like D.D.T. in every roofed structure.

With the liberation of Goa, malaria eradication operations were extended to that Territory and 0·50 unit was allotted in 1962-63. An additional 0·50 unit has been allotted to Orissa State in 1963-64 for Sundergarh area. Thus at present the number of units allotted and functioning is 391·00. The Government of India have also decided to extend malaria eradication measures to the neighbouring country of Bhutan in order to check infiltration of the infection from across the border and 1·00 unit has been allotted to Bhutan, thereby raising the total number of units to 392·00. However, the unit allotted to Bhutan has not been established yet.

As a result of eradication operations the child spleen rate, infant parasite rate and proportional case rate have shown a reduction of 94·9, 97·5 and 88 per cent respectively upto 1960-61 as compared to the data for 1953-54. The proportional case rate has shown further decrease from 88 per cent to 96·3 per cent upto end of 1962.

Six Regional Co-ordinating Organisations with headquarters at Hyderabad, Bangalore, Baroda, Bhubaneswar, Shillong and Lucknow are functioning for co-ordinating the activities of N.M.E.P. A special working committee constituted for advice and guidance in technical matters have been established at the Centre. High level working committees have been formed in almost all the major States.

The expenditure on National Malaria Eradication Programme during the Third Five Year Plan is now estimated to be Rs. 74·86 crores.

The W.H.O. is also assisting the programme by way of meeting partially the expenditure on the salaries of the staff at the Regional Co-ordinating Organisations, meeting travel cost of trainees and conference participants, providing fellowships for training abroad and making available services of W.H.O. epidemiologists etc.

The U.S.A.I.D. have also made available the services of two epidemiologists and one medical entomologist besides providing fellowships to Indian participants.

### Filaria

National Filaria Control Programme was launched as a large scale pilot project with the assistance of U.S.A.I.D. towards the end of 1955. A total provision of Rs. 236·61 lakhs has been made for the programme in the 3rd Plan under the States.

Under the Programme, 18 Survey Units and 47 Control Units were established.

The control measures adopted under the Programme consisted of : (1) mass therapy with diethylcarbamazine, (2) anti-mosquito measures and (3) anti-larval measures.

As the first two measures did not produce the desired results, they have been given up. Anti-larval measures continue to be in operation. Wherever these measures have been adequately applied, the mosquito densities have been considerably reduced and consequently the transmission of the infection has been reduced.

A Committee was appointed in 1960 to evaluate the National Filaria Control Programme. In its report submitted in July, 1961, the Committee had recommended :—

(1) Re-organisation of Filaria Control Units on the basis of population.
(2) Establishment of three more Research-cum-Training centres on the lines of the one already functioning at Kozhikode.
(3) Establishment of special bureau in each State as a part of State Bureau of Epidemiology.
(4) Establishment of Research-cum-Training units in each State for conducting research and evolving suitable methodology for the control of filariasis in rural areas.
(5) Establishment of six filaria clinics attached to hospitals.
(6) Taking up of *B. Malayi* project in Kerala State.
(7) Intensifying research in filariasis.
(8) Provision of proper facilities for health education for filariasis.
(9) As a long-term measure, provision of proper drainage facilities for the disposal of sewage.

It was estimated that for achieving the above targets, an expenditure of above Rs. 11 crores would be required. However, as the provision was for Rs. 236·61 lakhs only, it was left to the States to phase out the programme and make necessary provision in their plans. But due to financial stringency, the States have not been able to implement the recommendations.

A pilot project for the control of *B. Malayi* infection in Kerala is being established.

### Leprosy

It is estimated that there are about 2·5 million leprosy patients in India, the incidence in some places being as high as 40 per thousand. About 20 per cent of the estimated cases are in the infective type.

In India the problem of leprosy is massive in eight States. The estimation of cases in these States has been done on the basis of available epidemiological data. In between Andhra Pradesh and Madras, it has been estimated that there are nearly half the total number of cases of leprosy in India.

The names of the States with population in millions and estimated number of cases in lakhs respectively are as follows :—

Madras 33·6–6·4 ; Andhra Pradesh 36·0–5·2 ; Bihar 46·5–2·8 ; Maharashtra 39·6–2·2 ; Mysore 17·2 (Population of endemic zones only)—1·4 ; Orissa 17·5–1·9 ; U.P. 29·2 (Population of endemic zones only)—1·4 ; West Bengal 35·0–2·4 ; Remaining States N.A.—1·3 ; Total of estimated no. of cases in lakhs 25·0.

Treatment with sulphone is now regarded as the most potent and generally applicable weapon in the control of leprosy. Apart from clinical improvement, sulphone therapy brings about a gradual reduction in the number of leprosy bacilli in the near skin, and promotes healing of ulcers in nose and elsewhere. It also reduces infective discharge from patients.

The Leprosy Control Programme of the Government of India continued to function satisfactorily during 1964. The Central Assistance under the Scheme was given to the State Governments during the first two Plan periods. During the Second Plan period the Government of India met full non-recurring expenditure to the extent of 80 per cent for the first year, 70 per cent for the second year, 50 per cent for the third year, 30 per cent for the fourth year and 20 per cent for the fifth year. The grant was released after the State Governments submitted their proposals and the Government of India incurred the expenditure for their share.

During the First Plan, 33 Leprosy Control Units were established in various States. The programme was expanded during the Second Plan and 104 centres were added. Upto the end of 1964, 166 Leprosy Control Units have been functioning in the country.

104 Additional Subsidiary Centres were established during the Second Five Year Plan. During the first three years of the 3rd Plan, 28 leprosy control centres have been established. Thus a total of 162 centres have been located in various States (December 1963).

In areas having a prevalance rate of Leprosy less than 10 per thousand, the S.E.T. Centres (Survey Education and Treatment Centre) attached to Hospital, Primary Health Centre, dispensaries etc. have been established. Para Medical Workers are responsible to do the control work in and around the Hospital, Primary Health Centre, Dispensary and they cover a population of 20,000 in plain areas and 5,000 in hilly areas. Upto Second Plan 194 S.E.T. centres were established and during first four years of the III Plan 363 S.E.T. more Centres have been established. Thus upto December, 1964, 557 S.E.T Centres were functioning in the country.

During the III Plan period the Government of India decided to give cent per cent grant to suitable Voluntary Organisations for undertaking survey and domiciliary work in leprosy control. The amount of grant for one year per Institution is Rs. 30,800 (Rs. 18,000 non-recurring and Rs. 12,800 recurring). Sanction was accorded to 38 such Institutions out of which 33 were working in December, 1964.

Upto December, 1964 the consolidated work done by 166 Control Centres, 557 S.E.T. Centres and 33 Voluntary Agencies is as follows :—

Population covered 48·3 million ; persons examined 20·6 million ; cases detected 2,15,912 ; recorded cases 4,70,403 (inside project area 2,82,665 and outside project area 1,87,738) ; cases registered for treatment 4,38,400 (inside project area 2,50,662 and outside project area 1,87,738) ; healthy contacts registered 9,85,929 ; healthy contacts examined 2,27,099.

The Directorate General of Health Services, published an all India Leprosy Directory giving first hand information of the activities of both the Government and the voluntary organisations working in the field of leprosy. The second edition is under preparation.

The Government of India constituted a Leprosy Advisory Committee consisting of representatives of officials and voluntary organisations, with the Union Health Minister as Chairman, to review the working of leprosy Control Programme in different parts of the country, and to suggest measures for grants to voluntary institutions for assistance for participating in the Leprosy Control Programme. The Committee held ten meetings up to Dec. 1964.

The Central Leprosy Teaching and Research Institute was established in 1955 at Chingleput in Madras State. The Institute undertakes

research in the various problems concerning leprosy, promotes field studies for the application of the results of the researches to control the spread of leprosy in sufficient numbers and of the requisite quality, functions as a centre for offering technical advice and guidance for the promotion of anti-leprosy work on sound lines and participates actively in the organisation and development of State Leprosy Institutes when they are established and make available its services for the investigation of special problems in all parts of the country.

So far 256 Doctors, 328 Para-Medical workers, 33 Physiotherapy Technicians and 4 W.H.O. Fellows and one medical officer on a fellowship from Hind Kusht Nivaran Sangh have been trained by the Institute.

With the collaboration of the State Government of Maharashtra, a training centre at the Medical College and Hospital, Nagpur has been started from 22 July 1959 for giving six weeks training to doctors.

In collaboration with the Gandhi Memorial Leprosy Foundation, a training programme was started on 15th December 1960, at Chilakalapalli in Andhra Pradesh for the training of the senior medical officer from the public health department of the States which have established Leprosy Subsidiary Centres under the National Leprosy Control Scheme.

During the first four years of the Third Plan Leprosy Training Centres have been established one each in Andhra Pradesh, Kerala, Madhya Pradesh, Madras, Maharashtra, Bihar, Orissa and Uttar Pradesh for the training of Para-Medical workers. West Bengal is expected to start one shortly.

The physical targets for the Third Plan are to establish the 50 Leprosy Control Units, 786 S.E.T. Centres and 10 Training Centres for Para-Medical workers and the achievements upto Dec. 1964 are 32 Leprosy Control Units, 363 S.E.T. Centres and 8 training centres.

The WHO and the UNICEF are assisting the Government of India and the State Governments in the National Leprosy Control Programme. The assistance is being given in the shape of personnel, fellowships, transport, equipment, drugs, teaching aids and stipends for trainees.

The WHO has given two consultants to help National Leprosy Control Programme. The third consultant has been assigned Danish Leprosy Centre, Pogiri, Andhra Pradesh.

The UNICEF has so far released 34 different models of vehicles, 165·95 million depsone tablets, 10 sets of training equipments, 34 microscopes, one gramophone, one adding machine and $9,894·24 as stipends for trainees.

Private bodies like the Mission to Lepers, an international society, Hind Kusht Nivaran Sangh (Indian Leprosy Association) and Gandhi Memorial Leprosy Foundation have been taking active part in controlling leprosy.

The Hind Kusht Nivaran Sangh was formed in 1949 taking over the assets and liabilities of the British Empire Leprosy Relief Association (B.E.L.R.A.). It has its headquarters in New Delhi and branches in 10 States. The Sangh's activities include financial assistance to leprosy homes and clinics, propaganda through publication of posters and other material assistance in the training of medical workers and physiotherapists, and publication of the quarterly journal " Leprosy in India ".

The Gandhi Memorial Leprosy Foundation, a leprosy section of the Gandhi Smarak Nidhi (Gandhi National Memorial Trust) was established in 1951. The activities of the Foundation include house to house case detection work, out-patient treatment of all detected cases and training of leprosy workers. It has got 10 control units established in various States.

A draft Fourth Plan for Leprosy Control Programme has been approved by the Expert Committee. It is proposed to cover an additional 140 million population. The entire endemic population of Madras and Andhra Pradesh and the population of high endemic zones of Bihar, Maharashtra, Mysore, Uttar Pradesh, Orissa and West Bengal will be covered. The estimated expenditure works out to be about Rs. 17·6 crores.

### Tuberculosis

Mortality figures for cities show a tuberculosis death-rate ranging from 200 to 250 per 100,000 as far as can be ascertained. Little information is available from rural areas. About six to seven million people are estimated to be affected by the disease and about 1·8 million cases among them are infectious.

The national tuberculosis survey conducted by the Indian Council of Medical Research, came to the following conclusions :

1. The morbidity of T.B. varies from 13 to 25 per thousand persons in different areas ; 2. The prevalence of T.B. in villages, small towns and cities is not so markedly different as originally expected ; 3. The morbidity rates are lower for females than for males ; 4. The prevalence of T.B. among the persons of the age group of 45 years and above is considerably higher than for the age group of 5 to 34 years ; and 5. Bacteriologically positive cases varied from 2 to 8 per thousand persons in different areas.

The Government of India has an Adviser on Tuberculosis, who advises the Central Government and the various State Governments on tuberculosis control policy and helps in coordinating various tuberculosis control activities.

Prophylactic (BCG) Vaccination against tuberculosis was introduced in India on a restricted scale in August, 1948 with the assistance of WHO/UNICEF. The mass campaign was started in April, 1951 and has since been in progress in all the States. Upto the end of Dec. 1964, 22·15 crore persons had been tuberculin tested of whom about 8·12 crores were vaccinated with BCG and thus given protection against tuberculosis.

In Dec. 1964 the number of BCG teams each containing one team leader and six BCG technicians rose to 182.

With a view to covering the younger group of population more thoroughly house to house vaccination has been started and vaccination of the new born through maternity hospitals and maternity centres has been advocated in some States.

The contribution of UNICEF and WHO in terms of services of international personnel, provision of equipment and supplies consisting of vaccination kits, vehicles, film projectors, public address equipment, etc. would amount to approximately 2.3 million dollars upto end of 1964.

Field studies have indicated that it is quite safe to offer direct vaccination to the entire young age group and such a procedure will be able to cover the entire susceptable group in a reasonable period of time.

*T.B. Demonstration and Training Centres :* There are at present 15 anti-tuberculosis demonstration and training centres, one each at New Delhi, Patna, Trivandrum, Madras, Hyderabad, Bangalore, Patiala, Agra, Calcutta, Ahmedabad, Cuttack, Srinagar, Ajmer, Darbhanga, Nagpur.

*National Tuberculosis Institute :* This was started at Bangalore by the Government of India with the help of WHO and UNICEF, to give special training to key staff required for the National T.B. control programme and for investigating effective T.B. control methods which would be applied on a community basis. This Institute runs regular courses of three months' duration to train doctors, home visitors, laboratory technicians and x-ray technicians in batches of 100 each.

*T. B. Clinics :* It was proposed to establish or upgrade about 200 T.B. Clinics in the country during the Third Plan so as to have at least one T.B. Clinic in each District. Upto the end of 1964, 414 T.B. clinics have been established in the country. The UNICEF have so far supplied equipment to 53 TB clinics/centres out of which 41 centres are fully equipped. The necessary equipment is likely to be supplied to the remaining TB clinics when the clinic buildings are ready and the clinic staff has been trained at the N.T.I., Bangalore.

*University Training Centres :* There are about six University Training Centres in the country which train doctors for Diploma in Tuberculosis (T.D.D.). Attached to the Delhi University is the ' Patel Chest Institute ' for teaching and research in T.B. and other diseases of the chest. The Government of India also have provided for research in various aspects of T.B. by providing funds for the purpose to the ICMR.

Two hospitals for tubercular children have been established, one in Delhi and the other at Arogyavaram in Andhra Pradesh with 52 and 76 beds respectively. According to the latest available figures there are in the country 71 sanatoria, 70 hospitals, 225 clinics, 151 wards with a strength of a little over 34,000 beds for the treatment of T.B. patients. This includes beds established for isolating advanced cases of T.B.

*After-care and Rehabilitation Work Centres :* There are ten After-care and Rehabilitation Colonies in the country for giving vocational training to ex-tuberculosis patients.

The building of a Rehabilitation Centre at Dhubulia (West Bengal) has been completed and equipment is being procured. The centres at Amargarh, Hyderabad and Delhi are complete but work has not yet started for want of equipment.

The Union Ministry of Health proposed to establish 200 tuberculosis clinics, 5 T.B. Demonstration and Training Centres, 5,000 isolation beds, and about 25 mobile T.B. clinics for rural areas during the Third Plan in addition to continuing the mass BCG vaccination programme. Against this target of the Third Plan, 67 clinics were established upto the end of 1964 and about 40 more were expected to be established or upgraded during the last year of the Plan period ; 8 T.B. demonstration centres and over 1,500 T.B. beds have been established during the Plan period. The Central allocation for the supply of free anti-TB drugs to T.B. clinics is expected to total Rs. 70 lakhs in each of the remaining two years of the Plan.

*Publicity and Education :* This machinery is to form the nucleus of the health education and publicity work in connection with the overall tuberculosis control programme in the country.

### Goitre

Endemic goitre associated with critinism, deaf-mutism and various other grades of physical and mental deterioration is prevalent in the northern parts of Kashmir, Punjab, Himachal Pradesh, Bihar, Uttar Pradesh, West Bengal, Assam, N.E.F.A. and Manipur. According to the latest available data, approximately 40 million people inhabit this goitrous belt of the country and at least 9 million of them suffer from goitre.

The incidence of goitre with the names of States already surveyed and the figures in percentage are as follows :—

Himachal Pradesh 20·9 to 39·9; Uttar Pradesh 26·3 to 37·0; Bihar 20·3 to 41·7; Punjab 40·3 to 52·3 ; Naga Hills 26·1 to 50·2; Jammu and Kashmir 31 ; West Bengal 30·0 to 33·0.

At present there is one iodised plant supplied by UNICEF functioning at Sambhar Lake. A spray type iodisation plant had been received from the UNICEF in 1964 and has been installed in Calcutta. At the end of 1965, 9 more spray type plants were expected to be received from the UNICEF. All these plants would process two lakh tons of iodised salt per year.

A provision of Rs. 80 lakhs has been made during the Fourth Plan to process two lakh tons of salt.

**National Smallpox Eradication Programme:**

The National Smallpox Eradication Programme was launched as a centrally assisted scheme in most of the States in the last quarter of 1962. In 1964, 152 eradication units with full complement of staff operated in all the States and Union Territories. Upto the end of 1964, 66·8 per cent of the population has been given protection against smallpox and out of 328 districts (excluding Union Territories), 166 districts have been covered. During 1964, 35,627 cases with 10,067 deaths were reported as against 73,176 cases and 22,179 deaths in 1963.

To meet the requirements of the vaccine, the Government of the USSR have gifted 650 million doses of vaccine.

The Plan allocation for this programme is Rs. 10·5 crores. The U.S.A.I.D. have also given a sum of Rs. 471 lakhs towards this programme.

**Cholera:** The incidence of cholera is of a considerable magnitude in the States of West Bengal, Bihar, Uttar Pradesh, Orissa, Andhra Pradesh, Madhya Pradesh, Gujarat, Maharashtra, Madras and Mysore. At present the incidence is low in the Punjab, Assam and Kerala and is not a major public health problem in Rajasthan and Jammu and Kashmir. The incidence is more marked in most States in the second half of the year in contrast to smallpox which is prevalent in the first half of the year.

In accordance with the recommendations of the Central Expert Committee on Smallpox and Cholera, the Indian Council of Medical Research has established a Cholera Research Centre in the Central Food Laboratory building at 3, Kyd Street, Calcutta, to carry out continuous research on various aspects of the problem of cholera with a view to developing ultimately practical measures for the control and prevention of the disease.

The Government of West Bengal who are collaborating in the project have agreed to place two wards of 40 beds each in the Infectious Diseases Hospital, Calcutta, at the disposal of the Indian Council of Medical Research for this purpose.

The Centre started functioning in February, 1962, with the object of carrying out researches on various aspects of the cholera problem on a long term basis. A Pilot Project for the evaluation of the efficacy of different types of cholera vaccines has been started in Calcutta under the auspices of West Bengal Government in collaboration with the I.C.M.R. and W.H.O. The Cholera Research Centre is playing an active part in this project.

Researches on immunochemical, genetic and other aspects of cholera are also being conducted at various institutions under the auspices of the Council.

### Maternity

Maternity and Child Welfare are very important components of health service. Seventeen States and Union Territories, have established posts of Assistant Directors of Health Services to direct Maternity & Child Welfare Services, *viz.* the States of Andhra Pradesh, Assam, Bihar, Gujarat, Jammu and Kashmir, Kerala, Madhya Pradesh, Madras, Maharashtra, Mysore, Orissa, Punjab, Rajasthan, Uttar Pradesh, West Bengal, Delhi and Himachal Pradesh. The Union Govt. has an officer in the Directorate General of Health Services who assists States and Union Territories on Maternity & Child Welfare activities.

Non-official bodies engaged in welfare work are the Indian Council for Child Welfare, New Delhi; The Kasturba Gandhi Memorial Trust; The Central Social Welfare Board; and the Indian Red Cross Society.

The Central Social Welfare Board through its State Boards assists voluntary organisations in promoting Maternity and Child Welfare services. As a result, a large number of agencies undertake services for mothers and children and training programmes for staffing the services with trained personnel.

In the rural areas maternity and child welfare services are incorporated as a function of the primary health centres. Upto Dec. 31, 1964, 4,373 primary health centres have been established. Every primary health centre has 3 subcentres and maternity and child welfare services are an integrate part of all these centres. It is expected that by the end of the Third Plan, a public health centre in each block will be established. This will raise the number of centres to 5,223. In urban areas maternity and child welfare services are available at maternity and child health centres established by local bodies and State Govts., in addition to those established by voluntary organisations. Separate maternity beds and paediatric beds are provided in major hospitals at most capital and district levels.

With a view to improving maternity and paediatric services the Govt. of India included in the IInd Five Year Plan, projects relating to the training of dais, auxiliary nurse — midwives and health visitors for assistance to establishment of paediatric centres in medical colleges. The former two schemes are continued during the Third Five Year Plan while the third one has not been included as UNICEF is assisting in the upgrading of paediatric departments of medical colleges.

The scheme for training of dais has been continued in the Third Five Year Plan. The pattern for financial assistance to State Govts. for implementation of this scheme is Rs. 250 per dais trained in the Third Five Year Plan. The training of dais is intended to give orientation training to hereditary indigenous dais in modern techniques of asepsis and make better use of their services. The target of the Third Plan is the training of 30,000 dais. The achievement by the end of the Third Plan is estimated to be not more than 12,000 dais.

During the Fourth Plan, a provision of Rs. 4·35 crores has been made to train 2,50,000 dais.

At the end of September 1964, 3,921 candidates qualified as health visitors from the inception of the scheme in the 1st Plan and 1,063 candidates are under training. The target of 2,000 health visitors is expected to be achieved by the end of the Third Plan and the number of trained health visitors will be raised to 5,000.

### Defectives

The last census of handicapped persons (blind, deaf, crippled, mentally retarded, etc.), took place in 1931. These put the number of blind at about 600,000 and the number of deaf and hard-of-hearing at 230,000.

It is estimated that the total number of blind is about 2,000,000 and the deaf about 700,000 (1961).

There is a Training Centre for the Adult Blind at Dehra Dun to impart training in engineering and non-engineering trades. The present capacity of the Centre is 150 men trainees and 35 women trainees. There is also a common Braille code for Indian languages known as Bharati Braille. The Central Braille Printing Press at Dehra Dun has already published several Braille books in English, Hindi and other regional languages.

At Dehra Dun the Govt. of India have also established a Model School for Blind Children. At present the school has nine classes. Eventually this school will become a Secondary School for blind children.

There are in all 109 institutions for the blind and 68 for the deaf and 22 for the mentally handicapped. 19 institutions cater for the orthopaedically handicapped children.

The Government of India give scholarships to blind and deaf persons between the age of 16 and 30 in order to help them to undertake higher academic education, or, professional, vocational or technical training in normal institutions of learning. Scholarships are also awarded to orthopaedically handicapped children and adults who fall in the age-group of 12-30.

The number of scholarships awarded upto 1962-63 was 1,278. During 1963-64, 517 scholarships were awarded.

The first special Employment Exchange for the physically handicapped under this scheme was established at Bombay in March 1959. The second Exchange in Delhi started functioning from April, 1961. The third exchange came into existence at Madras from April 1, 1962. A fourth exchange in Hyderabad started functioning from September 1962. Four more such exchanges were set up during 1963-64 at Bangalore, Calcutta, Ahmedabad and Chandigarh and one during 1964-65 at Kanpur.

The total number of placements made by these exchanges since their inception upto 31st Dec. 1964 is 1,500.

A separate scheme called "Assistance to Voluntary Organisations for the Handicapped" with a separate set of rules has been formulated. In the Second Plan period this scheme formed part of a general scheme of Assistance to Voluntary Educational Organisations". Under the revised scheme rules for grants-in-aid to Voluntary Organisations for the handicapped have been liberalised. The quantum of assistance has been raised from 60 per cent to 75 per cent.

A training centre for the adult deaf has been set up at Hyderabad during 1962-63 to provide facilities for training in engineering and non-engineering occupations. There were 30 trainees who completed their course in Oct. 1964. The training is now imparted in sheet metal, wiremanship and fitting trades. The Department of Social Security have established a National Library for the Blind at Dehra Dun. The library is being built from books produced by the Central Braille Press at Dehra Dun and books donated by organisations for the blind abroad. The library will have books both in Indian and Foreign languages.

During 1963-64, the Government of India launched a scheme for the Training of Teachers of the Blind on regional basis. The first centre under this scheme started functioning at Bombay with effect from 15th July, 1963, with a batch of 10 trainees. The second centre was started in Delhi with effect from 30th January, 1964, with a batch of 10 trainees. The third centre was set up at Narendrapur in West Bengal in Jan. 1965.

### Mental Disease

The number of mentally ill persons in India who need institutional treatment is estimated at 1·5 million, and of psycho-neurotics about 3 million. The number of hospital beds is a little less than 15,000. Qualified psychiatrists number about 175, and those practising but formally unqualified about 1,000.

There are at present 27 institutions for mentally retarded and handicapped.

Major centres are in: Chandigarh (1); Dehra Dun (1); New Delhi (4); Bombay (9); Trivandrum (1); Bangalore (1); Hyderabad (1).

At present there are 32 mental hospitals with accommodation for about 20,000 patients.

The Mysore Government Mental Hospital at Bangalore and the Hospital for Mental Diseases at Ranchi are the ones which are best equipped.

The following is a list of mental hospitals in India:

Mental Hospital, Tezpur; Hospital for Mental Diseases, Ranchi; Ranchi Manasika Arogyashala (Ranchi); N. M. Mental Hospital, Thana (Bombay); Mental Hospital, Ratnagiri (Maharashtra); Central Mental Hospital, Yeravada; Mental Hospital, Ahmedabad; Mental Hospital, Dharwar; Mental Hospital, Baroda; Mental Hospital, Nagpur; Government Mental Hospital, Madras; Government Mental Hospital, Waltair; Government Mental Hospital, Kozhikode; Punjab Mental Hospital, Amritsar; Mental Hospital, Agra; Mental Hospital, Bareilly; Mental Hospital, Banaras; Mental Hospital, Mankunda, Calcutta; Lambini Park Mental

Hospital, P.O Tiljala, 24 Parganas; Bangiyaunmad Ashram, 29-A, Vivekananda Road, Dum Dum; Mental Observation Ward, Bhawanipur, Calcutta; Mental Hospital, Jalna; Mental Hospital, Srinagar; Mental Hospital, Lashkar; Mental Hospital, Bonganga, Indore; Mental Hospital, Bangalore; Mental Hospital, Jaipur; Mental Hospital, Jodhpur; Mental Hospital, Udaipur; Mental Hospital, Bhavnagar; Mental Hospital, Trivandrum; Mental Hospital, Trichur.

The All-India Institute of Mental Health, Bangalore, established by the Government of India on 15th September 1954, conducts the various post-graduate courses in Diploma in Psychological Medicine (D.P.M.) and Diploma in Medical and Social Psychology (D.M. & S.P.). The M.D. in Psychiatry will be started in the near future. The University of Mysore to which the institute is affiliated and the Governing Body of the institute have approved the introduction of this course. A post-graduate Diploma in Psychiatric Social Work (D.P.S.W.) has also been approved for introduction at this institute. The institution is affiliated to Bangalore University.

Post-certificate course in Psychiatric Nursing is also conducted at the institute. The diploma awarded by the institute is recognised by the Government of India and the Indian Nursing Council.

## PUBLIC HEALTH MEASURES

4,034 primary health centres had been opened by the State Governments/Administration upto March 31, 1964 and 744 primary health centres were proposed to be established during 1964-65 out of which 466 were opened. Thus there were 4,500 primary health centres functioning in the country on March 31, 1965.

The aim is to have one primary health centre in each of the 5,200 blocks by the end of the Third Plan period.

Each primary health centre is getting Central subsidy upto a ceiling of Rs. 67,500 towards non-recurring expenditure on buildings and equipment and Rs. 8,500 per annum towards expenditure on staff and drugs. As against Rs. 19 crores provided in the Second Five Year Plan period a provision of Rs. 16·68 crores has been made by the Govt. of India in the Third Five Year Plan of the States/Union Territories for this programme.

The W.H.O. provides technical assistance and the UNICEF some material and equipment including transport for the programme. The UNICEF has so far allocated $9,610 000 (approximately Rs. 457 lakhs) for this programme. The U.S.A.I.D. has agreed to reimburse the Government of India upto Rs. 70 million for rupee expenditure incurred by the Ministry of Health with effect from 1st April 1961 towards Health Ministry's share of expenditure (which is at present upto Rs. 52,500 per centre) on buildings for Primary Health Centres. It is likely that additional funds will be made available by the UNICEF and the U.S.A.I.D. for the remaining period of the Third Plan.

Total number of primary health centres as on March 31, 1965 (Statewise): Andhra Pradesh 302; Assam 77; Bihar 582; Gujarat 267; Jammu and Kashmir 47; Kerala 146; Madhya Pradesh 374; Madras 144; Maharashtra 414; Mysore 419; Orissa 206; Punjab 220; Rajasthan 187; Uttar Pradesh 733; West Bengal 193; Delhi 8; Himachal Pradesh 41; Manipur 10; Tripura 18; Pondicherry 9; Laccadive, Minicoy and Amindivi Islands 7; NEFA 96.

### Central Government Health Scheme

The Contributory Health Service Scheme has been re-named as Central Government Health Scheme. This Scheme provides a comprehensive medical cover to the Central Government servants and members of their families stationed in Delhi and New Delhi. The Scheme is regarded as a fore-runner of the National Health Service and undertakes to provide facilities for hospitalisation, general and specialised treatment, supply of all medicines, diagnostic facilities including laboratory and X-ray facilities, electric treatment, physiotherapy and special arrangement for treatment of diseases like Tuberculosis, Cancer, Mental diseases, Polio, etc. On the preventive side, general check-up, mass X-ray of chest, preventive inoculations and special Yogic Classes have been provided.

### Water Supply and Sanitation

The National Water Supply and Sanitation Programme initiated by the Ministry of Health in August 1954 is continued during the Third Five Year Plan period with a provision of Rs. 88·95 crores and Rs. 16·33 crores for water supply and sanitation schemes under the urban and rural phases of the Programme. Long-term interest bearing loans were sanctioned for urban water supply and sanitation schemes and 50 per cent grant-in-aid for rural water supply and sanitation schemes.

*National Water Supply and Sanitation Programme (Urban):* Most of the 402 water supply schemes and 103 sewerage schemes estimated to cost Rs. 81·52 crores approved during the first two Plans have been completed and the remaining few are expected to be completed by the end of the Third Plan. In addition, 369 water supply schemes and 106 sewerage schemes, estimated to cost Rs. 62·33 crores and Rs. 25·93 crores respectively, have been approved during the Third Plan upto June, 1965. Loans to the extent of Rs. 46·91 crores were paid to the States during the first four years of the Third Plan for implementation of the scheme. A budget provision of Rs. 15 crores exists for 1965-66.

*National Water Supply and Sanitation Programme (Rural):* The 349 rural water supply and sanitation schemes estimated to cost Rs. 19·23 crores approved during the first two plan periods have been mostly completed. During the Third Plan period, 753 schemes estimated to cost Rs. 13·32 crores have been approved upto March, 1965. Grants-in-aid to the extent of Rs. 4·12 crores were released to the State Governments during the first four years of the Third Plan. A budget provision of Rs. 1·50 crores has been made for 1965-66 for the execution of the schemes.

## DRUGS

The Drugs Act, 1940, is now in force in the whole country except Jammu and Kashmir.

The control over import is exercised by the Central Government through its offices at the ports of Bombay, Calcutta, Cochin and Madras.

The control over manufacture, sale and distribution is exercised by State Governments.

The Drugs and Cosmetics Act has been amended empowering the Central Government to assist State Governments in exercising control over the quality of manufactured drugs. In order to control the sale of spurious drugs in the country, Drugs Act has been amended so as to prevent evasion and to enhance the punishment for the manufacture and sale of sub-standard and adulterated drugs so as to be deterrent. Cosmetics, Ayurvedic and Unani medicines have been brought under the purview of the Drugs Act. Rules for the control of Homœopathic medicines under the Drugs and Cosmetics Rules have been published and have been brought into force.

The Government of India have set up two Pharmacopœia Committees — one for Ayurvedic and the other for Unani for laying down standards of single drugs and compound preparations of these systems. The Chairman of these two Committees is Col. Ram Nath Chopra. The committees consist of leading Vaidyas, Hakims, Pharmacognists, Chemists and Pharmacologists. The two committees have commenced work and it is expected that Ayurvedic and Unani Pharmacopœial lists will be prepared in the first instance pending the preparation of Standard Ayurvedic and Unani Pharmacopœia.

### Hormones

Four firms are at present engaged in the manufacture of cortical and sex hormones with a total installed capacity of 398 kgs./annum.

A scheme for the manufacture of various corticosteroid hormones and intermediates based on indigenous raw materials with a total capacity of 3,000 kgs./annum is under implementation.

### Vitamins

Two units have been set up for the manufacture of Vitamin A with a total capacity of 20 MMU/annum. Production commenced in 1959. Production of Vitamin $B_{12}$ also started in the latter half of 1959.

A scheme for the production of Vitamin $B_6$ (1 ton/annum), Vitamin C (60 ton/annum) was licensed and was expected to go into production in 1961.

A new undertaking was established with a licensed capacity of 4 kgs./annum for the manufacture of Vitamin $B_{12}$. The firm has already gone into production from imported intermediate.

### Antibiotics

Besides the Hindusthan Antibiotics, two units were licensed for a capacity of 20 MMU/annum of penicillin and were expected to go into production early in 1962. In addition, three more units are going ahead with their plans for the basic manufacture of tetracyclines in the country. Four units have been licensed for the production of Chloramphenicol besides one firm which is already manufacturing it.

### Sulpha Drugs

A few units in the private sector produce sulpha drugs and the combined annual capacity is about 400 tons/annum. Two schemes have been approved for the basic manufacture of sulpha drugs.

### Anti-Malarial

Chloroquin and Amodiaquin are being produced by two units one in West Bengal and another in Bombay.

Quinine salts are being manufactured by three Government factories two in Madras State and one in West Bengal.

### Anti-Diabetic Drugs

At present only one firm is producing antidiabetic drugs tolbutamide and carbutamide on a small scale. Schemes have been licensed to other parties also for expansion in the capacity of those drugs and are under implementation

### Anti-Leprosy Drugs

In addition to the three units already existing, a fourth unit has installed capacity for this item. The total installed capacity is 18·3 tons per annum.

### Surgeons' Requisites

The first edition of the "Indian Pharmacopoeia" was published in 1955 and a supplement to it in 1960. The National Formulary of India which was published in May, 1960 has been revised. The second edition is also under print (Sept. 1964).

The Drugs and Magic Remedies (objectionable advertisement) Act, came into force on April 1, 1955 and was amended in 1963. This Act prohibits the publication of objectionable advertisements relating to drugs and certain magical remedies alleged to be useful in prevention, cure or mitigation of sexual disorders, venereal diseases, diseases peculiar to women and certain diseases enlisted in the schedule to the Act. The import and export of objectionable advertisements are controlled in close liaison with the customs and postal authorities who can, under section 6 of the Act, intercept articles suspected to contain objectionable advertisements. Liaison is also maintained with the Indian Embassies,

High Commissions, Legations and Consulates abroad. Advertisements of contraceptives which are approved by the Government of India are, however, permitted in view of their importance for the promotion of Family Planning activity in the country.

### AUXILIARY WORKERS

In order to meet extreme shortage of doctors in the country as a whole and particularly in the rural areas, it was proposed to introduce a new type of Auxiliary Medical and Public Health Worker.

He would not be entrusted with diagnosis and treatment of diseases beyond what is necessary as a part of ordinary first-aid work, and the training should be such as to enable him to assist the health authorities, in as large a measure as possible, in preventive measures including sanitation, health education, etc. The syllabus of training throws more emphasis on the preventive aspects of the training, rather than the curative side.

During training it was proposed to give the trainees free lodging and a stipend of Rs. 50 p.m.

The Government of India have approved the establishment of training centres at the following institutions:— Public Health Institute, Patna (Bihar), Medical College, Visakhapatnam (Andhra), S.M.S. Medical College, Jaipur (Rajasthan).

### NURSING

At the end of the year 1963 there were 42,635 registered nurses, 49,862 registered midwives, 2,336 registered health visitors and 6,817 auxiliary nurse-midwives. The total number of qualified health visitors in India on 31st Dec. 1963 was about 3,957. Separate figures for urban and rural areas are not available.

The Health Survey and Planning Committee recommended that there should be a ratio of one nurse to 5,000 of population. On this basis, the total requirements for nurses would be 1,10,940.

The number of training institutions for nursing personnel and of students under training at the end of 1963 were as follows (The figure in brackets shows the number of students):—

Nurses 228 (15,084); Midwives 247 (2,896); Health Visitors 17 (1,058); Auxiliary Nurse Midwives 260 (8,332).

The Indian Nurses Register, published by the Indian Nursing Council contains the names of all nursing personnel registered with the State Nursing Council upto 1959 except Bihar and Madras.

Training in nursing is offered in centres attached to almost all large hospitals. The Colleges of Nursing in New Delhi, Hyderabad, Bombay, Poona and Indore and the School of Nursing of the Christian Medical College, Vellore offer basic courses in nursing leading to B.Sc. degree. Apart from the basic degree course the College of Nursing, New Delhi also offers a course leading to Master of Nursing degree of the Delhi University and post certificate course for ward Sisters, Sister Tutors, Midwife Tutors and in Nursing Administration. Courses in Public Health Nursing are being given at the All India Institute of Hygiene and Public Health, Calcutta, Public Health Nursing School, Ahmedabad, Health School, Nagpur, Graduate School for Nurses, Indore, Lady Reading Health School, Delhi and the College of Nursing, Trivandrum. For qualified nurses, two post-basic courses leading to a B.Sc. degree have been established by the Universities of Kerala and Punjab at the Colleges of Nursing in Trivandrum and Chandigarh respectively. These courses offer advanced preparation in teaching, administration and public health nursing.

### FIVE-YEAR PLANS

As against an outlay of Rs. 140 crores and Rs. 225 crores in the First and Second Five Year Plans respectively, Health Programmes in the Third Five Year Plan involve a total outlay of about Rs. 342 crores (Rs. 297 crores being in the States and the rest at the Centre). There has been progressive increase in the expenditure on Health Schemes since the First Five Year Plan was initiated. The following table shows under broad headings the progress of expenditure during the Third Five Year Plan:—

(Rs. in Crores)

| Programme | Third Plan Outlay | Actual expenditure during 1961–62 | Actual expenditure, 1962–63 | Actual expenditure, 1963–64 | Actual expenditure, 1964–65 |
|---|---|---|---|---|---|
| Water Supply and Sanitation .. | 105·27 | 17·14 | 10·13 | 17·47 | 26·01 |
| Primary Health Units, Hospitals and Dispensaries .. .. .. | 61·69 | 8·10 | 8·56 | 8·32 | 12·91 |
| Control of Disease .. .. .. | 70·46 | 17·83 | 20·58 | 20·85 | 19·70 |
| Medical Education, Training and Research .. .. .. .. | 56·31 | 8·72 | 11·39 | 13·15 | 16·85 |
| I. S. M. .. .. .. .. | 9·82 | 0·60 | 0·71 | 0·81 | 1·44 |
| Family Planning .. .. .. | 26·98 | 1·38 | 2·69 | 3·97 | 6·05 |
| Other Schemes .. . .. | 11·27 | 1·59 | 1·26 | 1·50 | 1·53 |
| TOTAL .. | 341 80 | 55·36 | 65·32 | 66·07 | 84·49 |

The table given below shows the facilities which existed at the end of the Second Plan and facilities expected at the end of the Third Plan for training of health and medical personnel.

| Category | 1960–61 | | | 1965–66 | | |
|---|---|---|---|---|---|---|
| | Institutions | Intake | Outturn | Institutions | Intake | Outturn |
| Doctors .. .. .. | 57 | 5,800 | 3,200 | 80 | 11,500 | 4,830 |
| Nurses .. .. .. | 250 | 4,000 | 2,800 | 350 | 6,200 | 4,500 |
| Auxiliary Nurse-Midwives/Midwives .. | 420 | 5,200 | 4,000 | 550 | 9,100 | 7,000 |
| Health Visitors .. .. | 30 | 650 | 375 | 50 | 850 | 500 |
| Sanitary Inspectors .. | 20 | 2,250 | 2,250 | 38 | 2,850 | 2,850 |
| Pharmacists .. .. | 10 | 550 | 480 | 15 | 1,450 | 1,270 |

**Doctors, Nurses, etc.:**—The achievement at the end of the Second Plan and the target at the end of the Third Plan respectively are: Nurses 27,000 : 45,000 ; Doctors 70,000 ; 81,000 ; Auxiliary Nurses/Midwives 19,900 ; 48,500 ; Health Visitors 1,500 ; 3,500 ; Nurse/Dais 11,500 ; 40,000 ; Sanitary Inspectors 6,000 ; 19,200 ; Pharmacists 42,000 ; 48,000.

Under the auspices of the Central Public Health Engineering Organisation training courses for Public Health Engineers and auxiliary personnel are organised.

**Hospitals & Dispensaries:**—The number of hospitals and dispensaries has increased from 12,600 in 1960-61 to 14,600 in 1965-66 and of beds from 1,85,600 to 2,40,100. A basic type of health organisation providing an integrated preventive and curative service has been established in 2,800 development blocks with a population of about 200 million.

#### The Countess of Dufferin's Fund

The Countess of Dufferin's Fund was established in the year 1885. The main objects of the Fund were:—Medical tuition including teaching and training of women as doctors, nurses and midwives ; Medical relief by establishing hospitals for the treatment of women and children ; Founding of hospitals for women and children and opening of female wards under female superintendence in existing hospitals and dispensaries.

The Fund with its residue work including assets and liabilities has been taken over by the Government of India by an Act passed by Parliament No. 63 of 1957 (Countess of Dufferin's Fund Act, 1957). The main function is now to grant scholarship to Lady Post-graduate and Under-graduate Medical students and B.Sc. (Nursing) and Public Health Nursing students studying in Medical and Nursing Colleges respectively in India. The following scholarships are awarded from the Fund:—1. Post-graduate scholarships of the value of Rs. 200 p.m. 12 ; 2. Under-graduate scholarship of the value of Rs. 75 p.m. 75 ; 3. B.Sc. (Nursing) scholarships of the value of Rs. 75 p.m. 8 ; 4. P. H. Nursing course scholarships of the value of Rs. 100 p.m. 2.

The building of Countess of Dufferin's Fund situated near the President's Estate, Simla was converted into Holiday Home known as "Vishram" for the use of women doctors and nurses to enable them to have ideal holiday camping at cheaper rates and was formally inaugurated in Oct. 1964. The Home is fully furnished with all kinds of amenities.

During the year 1964, 9 Post-graduate, 27 Under-graduate, 3 B.Sc. (Nursing) and 2 P.H. Nursing Scholarships have been awarded.

#### President's Silver Medal

With a view to making women medical students interested in the medical studies, President's Silver Medal is awarded every year for each University in India having facilities of M.B B.S. examination to the woman candidate who stands first in the final M.B.B.S. examination at the first attempt among women candidates and obtains not less than 60 per cent of the aggregate marks.

Two medals are available for B.Sc. Nursing women candidates one each at the College of Nursing, New Delhi and Christian Medical College School of Nursing, Vellore.

In 1964, 24 medals have been awarded to women candidates who qualified in M.B.B.S. examination and one medal for B.Sc. Nursing Course.

#### National School Health Council

In Feb. 1963, a National School Health Council was set up. The term of the Council is 3 years in the first instance after which it may be reconstituted. The functions of the Council are mentioned below:—

(i) To assist in the formulation of National School health policies and to review the same

periodically; (*ii*) To encourage and assist the States in the establishment of school health services and school meal programmes and to co-ordinate them; (*iii*) To initiate and guide studies, research and training on problems connected with school health administration and services; (*iv*) To assist in the formulation of standards for school health services and to lay down minimum uniform procedures; (*v*) To advise the Central Government in the allocation of grants and other resources to the States for School Health Programme; (*vi*) To take steps to enlist the active participation of the people in the implementation of the programme; and (*vii*) To consider the problems raised by the State Advisory Committee, Ministries or individual members.

The student health programme has been included in the Fourth Plan as a Centrally-aided scheme and a provision of Rs. 36·99 crores has been proposed.

## DENTAL EDUCATION

The total number of registered dentists in the country as on 1st April 1964 was 5,259 excluding those who could not renew their registration at the close of the year. The number of dentists in the areas not covered under the Dentists Act, 1948, viz. the State of Jammu and Kashmir where the Act has not been extended, and the former State of Madhya Bharat where the provisions of the Dentist Act have not yet been enforced, can be roughly estimated at about 3,000. There are about 500 dental hygienists and 300 dental mechanics. The ratio of dentists to population at present is 1 : 75,000.

Dental Education in the country is making rapid progress. There are now 13 Dental Institutions all affiliated to Universities training students for the degree in dental surgery, viz.: B.D.S. (Bachelor of Dental Surgery) having facilities for about 450 admissions per year. Post-graduate dental education (M.D.S.) is available at the three dental colleges, two at Bombay and one at Lucknow, viz.: (*i*) Government Dental College and Hospital, Bombay, (*ii*) Nair Hospital Dental College, Bombay and (*iii*) Dental College, Lucknow.

With the decision of the Govt. of Madras to start the Dental Hygienists course at the Dental Wing, Madras Medical College, and the impending starting of this course at the Govt. General Hospital, Chandigarh, including the Dental College, Trivandum, where this training is already in operation, the number of the Dental Institutions training Dental Hygienists has risen to 3. Similarly, with the introducing of the Dental Mechanics course at the Dental Wing, Madras Medical College, Madras and the Dental College, Trivandrum from 1965, the number of Dental institutions for this course has now become four, after taking into account the Govt. Dental College, Bombay, and the Dental College Lucknow where such courses are already in existence.

In the field of Dental Research, there is already one project on 'Oral Calculus' going on at the Dental Wing, Madras Medical College, under PL 480 Grants since 1962 for a period of 4 years with a total budget of Rs. 4 lakhs. The other Unit established is in 'Periodontology' at the Dental College and Hospital, Lucknow under the aegis of the Indian Council of Medical Research.

As an 'Advance Action' to meet the requirements of experienced and qualified Dental Teachers in the Dental institutions during the 4th Plan, the Government of India propose to open out 10 more post-graduate Departments—two each in the Dental institutions at Trivandrum, Bangalore, Lucknow and the two Dental Colleges at Bombay, during the remaining period of the 3rd Plan. There are at present roughly 200 State Dental Clinics mostly at District Hospitals and by the end of the next five years more such clinics are expected to be opened at District and Tehsil Hospitals, of which some are to be mobile Clinics. Besides this, a sizeable number of School Dental Clinics are expected to be opened in various parts of the country. Each School Dental Clinic shall be designed to look after 3,000 school-going children between the age of 5-16 years. At present there exist Dental Departments in about 80 Medical College Hospitals and about 100 such departments in Railway Hospitals.

## MEDICAL EDUCATION

The Third Plan envisages the establishment of 15 new medical colleges. The admission capacity of the medical colleges as in December 1962 was about 7,394. At the end of 1962-63 there were 71 medical colleges. To meet the demand for doctors arising from the emergency, it has been decided to further increase the annual admission to medical colleges by upto 3,000 additional students and to treat this emergency programme as a Centrally sponsored programme.

There are 13 dental colleges in the country. The colleges have an admission capacity of about 400. In 1958 there were about 3,681 registered dentists in the country.

Below we give a list of medical colleges in India :

*Andhra Pradesh :* Andhra Medical College, Visakhapatnam; Guntur Medical College, Guntur; Kurnool Medical College, Kurnool; Osmania Medical College, Hyderabad-Dn.; Gandhi Medical College, Hyderabad-Dn.; Rangaraya Medical College, Kakinada; Kakatiya Medical College, Warangal; S. V. Medical College, Tirupati, Distt. Chittoor.

*Assam :* Assam Medical College, Dibrugarh; Gauhati Medical College, Gauhati; Medical College, Silchar.

*Bihar :* Prince of Wales Medical College, Patna; Darbhanga Medical College, Laheriasarai; Rajendra Medical College, Ranchi; Medical College, Damodar Road, Jamshedpur.

*Gujarat :* B. J. Medical College, Ahmedabad; Medical College, Baroda; M. P. Shah Medical College, Jamnagar; Municipal Medical College, Ahmedabad; Medical College, Surat.

*Jammu & Kashmir :* Medical College, Srinagar.

*Kerala :* Medical College, Trivandrum; Medical College, Calicut; Medical College, Kottayam; Medical College, Alleppey.

*Madhya Pradesh :* Medical College, Jabalpur; M. G. M. Medical College, Indore; G. R. Medical College, Gwalior, Gandhi Medical College, Bhopal; Medical College, Rewa; Medical College, Raipur.

*Madras :* Madras Medical College, Madras; Stanley Medical College, Madras; Kilpauk Medical College, Kilpauk, Madras-10; Christian Medical College, Vellore; Madurai Medical College, Madurai; Thanjavur Medical College, Thanjavur.

*Maharashtra :* Grant Medical College, Bombay; Seth G. S. Medical College, Parel, Bombay; Topiwala National Medical College, Bombay; B. J. Medical College, Poona; Medical College, Nagpur; Govt. Medical College, Aurangabad; Armed Forces Medical College, Poona; Medical College, Miraj; Medical College, Sholapur; Medical College, Sion, Bombay.

*Mysore :* Kasturba Medical College, Manipal; Medical College, Mysore; Bangalore Medical College, Bangalore; Medical College, Bellary; Karnatak Medical College, Hubli; St. John's Medical College, Bangalore; Medical College, Gulbarga; Medical College, Belgaum.

*Orissa :* S. C. B. Medical College, Cuttack; Medical College, Burla (Sambalpur); Medical College, Berhampur (Cuttack).

*Punjab :* Medical College, Amritsar; Christian Medical College, Ludhiana; Government Medical College, Patiala; Medical College, Rohtak; Dayanand Medical College, Ludhiana.

*Rajasthan :* S. M. S. Medical College, Jaipur; Bikaner Medical College, Bikaner; Medical College, Udaipur.

*Uttar Pradesh :* K. G. Medical College, Lucknow; Medical College, Agra; G. S. V. M. Medical College, Kanpur; College of Medical Sciences, Banaras Hindu University, Varanasi; Motilal Nehru Medical College, Allahabad; Medical College, Muslim University, Aligarh.

*West Bengal :* Medical College, Calcutta; R. G. Kar Medical College, Belgachia Road, Calcutta-4; Nilratan Sircar Medical College, Calcutta; Calcutta National Medical Institute, 32, Gorachand Road, Calcutta; Bankura Tammilani Medical College, Bankura.

*Delhi :* Lady Hardinge Medical College (for women), New Delhi; All India Institute of Medical Sciences, New Delhi; Maulana Azad Medical College, New Delhi.

*Goa :* Medical College, Goa.

*Pondicherry :* Medical College, Pondicherry.

## AYURVEDIC AND UNANI INSTITUTIONS

Below we give a list of Ayurvedic institutions (it is not an exhaustive list) :

Ayurvedic College, Gauhati, Assam.

Gopobandhu Ayurvedic Institute, Puri, Orissa.

The Asafia Tibbia College, Bhopal.

Shri Narain Prasad Awasthi Ayurvedic School, Raipur (M.P.).

Ayurvedic Vidyalaya, Jamnagar, Saurashtra.

Ayurvedic Medical School, Bhawnagar, Saurashtra.

Govt. Ayurvedic College, Gwalior (M.P.).

Shri Raj Kumar Singh Ayurvedic College, Indore (M.P.).

Nizam's Tibbi College, Hyderabad.

Govt. Ayurvedic College, Hyderabad.

Govt. Aided S.Y.N.A. Ayurvedic College, Bhagalpur, Bihar.

Govt. Ayurvedic College, Patna.

Govt. Tibbi College, Patna.

Ayodhya Shiva Kumari Ayurvedic College, Begusarai, Monghyr, Bihar.

Ayurvedic Vibhag Vidyalaya, Patiala.

Shri Dhanwantri College, Sangrur, Punjab.

Shri Ayurved Vidyalaya, Barnala, Punjab.

Shri Venkateswara Ayurvedic Kalasala, Vijayawada, Krishna District, Andhra Pradesh.

Shri Ram Mohan Ayurvedic College, Guntur.

Aryavaidyapatasala, Kottakkal, Kerala.

The Venkataramana Dy & Ayurvedic College, Mylapore, Madras.

College of Indigenous Medicine, Kilpauk, Madras.

Madhava Memorial Ayurvedic College, Cannanore.

Keraleeya Ayurvedic Mahapatasala, Shoranur (Kerala).

Akhila Travancore Sidhamruth, Kalloore & Siddha Medical Training College.

Govt. Ayurvedic College, Trivandrum.

J. S. Maha Gujarat Ayurvedic Medical College, Nadiad (Gujarat).

Shri Ochhavlal N. Ayurvedic Mahavidyalaya, Surat.

Ayurveda Mahavidyalaya, Poona.

Aryangla Vaidyak Mahavidyalaya, Satara City.

Ayurveda Vidyalaya, Jamnagar.

R. A. Podar Medical College (Ayurvedic), Worli, Bombay.

Ayurved Mahavidyalaya, Ahmednagar.

Jamini Bhushan Ashtanga Ayurved Vidyalaya (College), Calcutta.

Vishvanath Ayurvedic Mahavidyalaya (College), Calcutta.

Shyamadar Vaidya Shastrapith (College), Calcutta.

Govt. Ayurvedic College, Jaipur.

Maharana Ayurvedic College, Udaipur.

Rajputana Ayurvedic & Unani Tibbi College, Jaipur.

Dayanand Ayurvedic College, Amritsar.

Govt. Ayurvedic & Unani College, Mysore.

Ayurvedic College, Hindu University, Banaras.
Ayurvedic College, Lucknow University, Lucknow.
Ayurvedic College, Gurukul University, Kangri.
Ayurvedic College, Gurukul Vrindaban, Distt. Mathura (U.P.).
Bundelkhand Ayurvedic College & University, Jhansi.
Rishikul Ayurvedic College, Hardwar.
Lakit Hari Ayurvedic College, Pilibhit.
Kanya Kubja Ayurvedic College, Lucknow.
Ram Sahai Ayurvedic College, Meerut.
Lekh Ram Ayurvedic College, Dorli (Distt. Meerut).
Ayurvedic College, Dehra Dun.
Arjuna Ayurveda Vidyalaya, Banaras.
Baldeo Ayurvedic College, Baragaon, Banaras.
Ayurvedic College, Farrukhabad.
Narendra Vidya Mandir, Kirooli (Distt. Agra).
Moolchand Rastogi Ayurvedic College, Lucknow.
Uttra Khand Vidyapith Vidyalaya, Guptakashi (Distt. Garhwal).
Tibbia College, M.U., Aligarh.
Takmil-ut-Tib College, Lucknow.
Unani Medical College, Himmat Ganj, Allahabad.
Tibbia College, Saharanpur.
Darshanand Ayurvedic College, Banaras.
Shiv Ganga Ayurveda Mahavidyalaya, Madhubani, Bihar.
The Suddha Ayurved Vidyalaya, Sion, Bombay.
The Punarvasu Ayurved Vidyalaya, Bombay.
The Ashtang Ayurved Mahavidyalaya, Poona.
The Karnatak Ayurved Vidyalaya, Belgaum, Mysore.
The Suddha Ayurved Vidyalaya, Hubli.
The Suddha Ayurved Vidyalaya, Nasik.
The Suddha Ayurved Vidhalaya, Bijapur.
Vidarbha Ayurveda Mahavidyalaya, Amravati.
Government Ayurvedic College, Raipur.
Bidyabhushan Sanskrit College, Bolangir, Orissa.
Sanskrit College, Parlakimedi, Orissa.
Sadasiv Sanskrit College, Puri, Orissa.
Dayanand Ayurvedic College, Jullundur.
Ayurvedic College, Sikar.
Ayurvedic College, Bikaner.
Gurukul Vishwa Vidhyalaya, Virmdaban.
State Ayurvedic College, Lucknow.
Nabadwip Ayurvedic College, P.O. Nabadwip, District Nadia, West Bengal.
Vaidya Sastrapith Parisad College, Calcutta.
Ayurvedic Sewak Sangh Vaidyak Pathshala, P.O. Contai, Midnapore.
Banwari Lal Ayurvedic Vidyalaya, Delhi.
Jamia Tibbia College, Delhi.
Dharma Samaj Sanskrit College, Muzaffarpur, Bihar.
Shudha Ayurved Vidyalaya, Malbipole, Baroda.
Shri Ayurved Mahavidyalaya, Samanvaya Rugnalaya Mahal, Nagpur.
Ayurved Medical College, Nanded, Maharashtra.
Radhakrisan Toshniwal Ayurved Mahavidyalaya, Akola.
Government Ayurvedic College, Dabala.
Birla Sanskrit (Ayurvedic) College, Pilani.
Meerut Ayurvedic College, Nanchandi, Meerut.
Ayurvedic College, Atarra, District Band.
Mahila Ayurvedic College, Meerut.
Divedi Ayurvedic College, Kanpur.
Ayurvedya Partisthan, 123, Harish Mookerjee Road, Calcutta-26.
Dayanand Ayurvedic Kanaya Mahavidyalaya, Delhi.
Government College of Indian Medicine, Mysore.
Taranath Ayurveda Vidyapeetha, Bellary (Mysore).

### Pharmacy

The following institutions provide courses of study in Pharmacy in the country. The names of States and the course offered respectively are shown within brackets:

J.V.D. College of Science and Technology, Waltair (Andhra Pradesh; B. Pharm.); Girls' Polytechnic, Hyderabad (Andhra Pradesh; Dip. Pharm.); Andhra Medical College, Visakhapatnam (Andhra Pradesh; Dip. Pharm.); L. M. College of Pharmacy, University Campus, Ahmedabad (Gujarat; Dip. Pharm.; B. Pharm.; M. Pharm.; Ph.D.); Pharmacy School, Gulzar Bagh, Patna (Bihar; Dip. Pharm.); Department of Chemical Technology, Bombay University, Bombay (Maharashtra; B. Pharm.); Bombay College of Pharmacy, 213-219, Frere Road, Bombay-1 (Maharashtra; Dip. Pharm); Armed Forces Medical College, Poona (Maharashtra; Dip. Pharm.); Govt. Dental College, Bombay (Maharashtra; Dip. Pharm.); Poona College of Pharmacy, Poona (Maharashtra; Dip. Pharm); Nagpur University, Nagpur (Maharashtra; B. Pharm.); Madras Medical College, Madras (Madras; Dip. Pharm.; B. Pharm.); Madurai Medical College, Madurai (Madras; Dip. Pharm.); Christian Medical College, Vellore (S. India) (Madras; Dip. Pharm.); Bangalore Medical College, Bangalore (Mysore; Dip. Pharm.; B. Pharm.); Mysore Medical College, Mysore (Mysore; Dip. Pharm.; B. Pharm.); The Kasturba Medical College, Manipal (Mysore; Dip. Pharm.); S.C.D. Medical College, Cuttack (Orissa; Dip. Pharm.); Department of Pharmacology, Medical College, Burla, Sambalpur (Orissa; Dip. Pharm.); Medical College, Amritsar (Punjab; Dip. Pharm. and Dressers' Course); Govt. Medical College, Patiala (Punjab; Dip. Pharm.); Department of Pharmacy, Punjab University, Chandigarh-3 (Punjab; B. Pharm.; M. Pharm.; Ph.D.); Department of Pharmacy, Saugar University, Saugar (Madhya Pradesh; B. Pharm.; M. Pharm; Ph.D.); Birla College, Pilani (Rajasthan; B. Pharm.; M. Pharm.); College of Technology, Banaras Hindu University, Varanasi-5 (Uttar Pradesh; B. Pharm.; M. Pharm., Ph.D.); G.S.V.M. Medical College, Kanpur (Uttar Pradesh; Dip. Pharm); Pharmacy Training Centre, Jalpaiguri (West Bengal; Dip. Pharm.).

In addition to this the following institutions also intend to start Diploma course in Pharmacy shortly in accordance with the Education Regulations of the Pharmacy Council of India :— Andhra Univ., Waltair; Guntur Medical College, Guntur; Kakatiya Medical College, Warangal; Rangaraya Medical College, Kakinada; Mahila Seva Samaj, Nagpur; Grant Medical College, Bombay; G. B. Pant Polytechnic, Okhla, New Delhi; Women's Polytechnic, New Delhi; Govt. Girls' Polytechnic, Lucknow; V. M. Hospital, Agartala (Tripura); Osmania Medical College, Hyderabad; Assam Medical College, Dibrugarh; Govt. Medical College, Calicut; Kurnool Medical College, Kurnool.

### Pharmacy Council

During 1964-65 the Pharmacy Council of India continued its efforts towards the (*a*) complete enforcement of Pharmacy Act, 1948; (*b*) furtherance of training facilities for Diploma in Pharmacy course; (*c*) revision of the Education Regulations; (*d*) educating public about the profession and prospects in Pharmacy.

*Enforcement of the Pharmacy Act, 1948 :* The Pharmacy Act 1948 is endforced throughout the country except for the State of Jammu and Kashmir. The State Pharmacy Councils have been formed in the States of Andhra Pradesh, Assam, Bihar, Maharashtra, Madras, Orissa, Punjab, Uttar Pradesh, West Bengal and the Union Territory of Delhi. The State Pharmacy of West Bengal is also functioning for the Union Territory of Tripura. The Manipur Administration is contemplating the formation of a joint State Council with the Assam Pharmacy Council.

The Registration Tribunals have been set up in the States of Mysore and Kerala.

The Council has recommended that the displaced persons from Pakistan, Ceylon, Burma or from any other country be allowed registration according to the provision of section 31 of the Act giving relaxation for the date of submitting application for registration. This proposal is also under consideration of the Govt. of India.

The following institutions are approved by the Council for the courses mentioned within brackets :

Institute of Pharmacy, Gulzarbagh, Patna (Diploma); L. M. College of Pharmacy, Navarangpura, Ahmedabad-9 (Diploma & Degree); Bombay College of Pharmacy, Frere Road, Bombay-1 (Diploma); Christian Medical College, Vellore (Diploma); Madurai Medical College, Madurai (Diploma); Madras Medical College, Madras (Diploma & Degree); Deptt. of Pharmacy, Saugar University, Sagar (M.P.) (Degree); S. C. B. Medical College, Cuttack (Diploma; Medical College, Amritsar (Diploma & Dresser's); Punjab University, Chandigarh (Degree); Govt. Medical College, Patiala (Diploma & Dresser's); Birla College, Pilani (Degree); Pharmacy Training Centre, Jalpaiguri (Diploma).

The following institutions have started the Diploma course in Pharmacy: Department of Pharmacology, Medical College, Burla (Orissa); Kashmere Gate Polytechnic, Delhi; Rangaraya Medical College, Kakinada (Andhra Pradesh); Institute of Pharmacy, Medical College, Dibrugarh (Assam); Govt. Polytechnic, Karad (M.S.); Govt. Polytechnic, Jalgaon (M.S.); Govt. Polytechnic, Amravati (M.S.).

The following new institutions have started the Degree course in Pharmacy.

Madurai Medical College, Madurai; Jadavpur University, Calcutta; Escola Medical College, Goa.

*Approval of the Practical Training Institutions :* After completion of the regular course, the student pharmacists are required to undergo a practical training for 750 hours in a recognised Institutions/Hospital/Pharmacy/Dispensary.

The list of the number of approved institutions is given below :

| State | No. of institutions approved for practical training | |
|---|---|---|
| | Final | Provisional |
| Andhra .. .. | — | 13 |
| Bihar .. .. .. | 13 | 4 |
| Gujarat .. .. | — | 22 |
| Madhya Pradesh .. | — | 1 |
| Madras .. .. | 28 | — |
| Maharashtra .. .. | 31 | 1 |
| Punjab .. .. | 13 | 4 |
| Mysore .. .. | 1 | — |
| West Bengal .. | 2 | 19 |
| Delhi .. .. | 1 | 3 |

*Registration of Pharmacists :* The registration of pharmacists is the responsibility of the State Pharmacy Council. There are 71,146 registered pharmacists upto 31st December, 1963.

*Publicity of the Profession :* The National Pharmacy Week was celebrated from 22nd Nov. to 28th Nov. 1964. Popular lectures, film shows, radio talks, symposiums on different spheres of pharmacy were also held throughout the country.

A pamphlet entitled " Pharmacy as a Career " has been published by the Council in English. It has been proposed to bring out the Hindi Edition of the same and the work for the purpose has been taken in hand. The State Pharmacy Council have been requested to publish the same in regional languages also.

# AGRICULTURE

INDIA is predominantly an agricultural country. About half of the country's national income is derived from agriculture and allied activities which absorb nearly ⅓ of its working force (of about 152 million in 1956 inclusive of dependents).

Some major facts about Indian agriculture (1962-63); Area of India,† 806·3 mil. acres; area available according to village papers, 740·9 acres (rest is mostly unsuitable for cultivation); uncultivated area 410·8 mil. acres (forest 140·0 mil. acres, area not available for cultivation 120·8 mil. acres, other uncultivated area 91·7 mil. acres and fallow 51·7 mil. acres); area actually sown 336·6 mil. acres; total cropped area taking into account area sown more than once 385·8 mil. acres; area sown with foodgrains 283·1 mil. acres; area sown with other crops 96·6 mil. acres; gross area irrigated 72·6 mil. acres.

India virtually holds the monopoly in lac, leads the world in groundnut and tea production, and is the second largest producer of rice, jute, raw-sugar, rape, sesmaum and castor seeds.

Average rainfall 45″; deficiency of 25 per cent is classed dry; deficiency of 40 per cent severe drought; usually one year in five is a dry year, one in ten, a year of severe drought, one in 20 to 25 years widespread severe drought.

Out of the gross cultivated area in the Indian Union of 385·8 million acres in 1962-63, about 72·6 million acres are irrigated. Of this area 26·9 million acres are irrigated by canals, 11·6 million acres by tanks, 18·9 million acres by wells and 5·9 million acres from other sources. The percentage of irrigated area to total cultivated area is, however, small, being only about 16 per cent. Protective irrigation works have made agriculture stable instead of precarious in many districts.

Over one-fourth of the total irrigation of the country is got from lifting water from wells ranging in depth from a few feet to over fifty feet.

* Latest available information. † According to Surveyor-General of India.

## PRODUCTION

The following table will show the area under principal crops and the yield :

### AREA AND PRODUCTION

| Crops | Area in '000 hectares | | | Production in '000 met. tons | | |
|---|---|---|---|---|---|---|
| | 1962-63 | 1963-64 | 1964-65 | 1962-63 | 1963-64 | 1964-65 |
| Rice | 34,934 | 35,474 | 36,076 | 31,914 | 36,489 | 38,732·3 |
| Wheat | 13,657 | 13,305 | 13.453 | 10,827 | 9,708 | 12,078·3 |
| Barley | 3,022 | 2,794 | 2,667·6 | 2,423 | 1,985 | 2,478·1 |
| Maize | 4,607 | 4,546 | 4,591·1 | 4,578 | 4,527 | 4,558·1 |
| Jowar | 18,021 | 18,174 | 18,012 | 9,621 | 9,227 | 9,810·5 |
| Bajra | 10,800 | 10,810 | 11,712·1 | 3,892 | 3,736 | 4,465·2 |
| Ragi | 2,316 | 2,364 | 2,429·3 | 1,891 | 1,852 | 1,920·6 |
| Small Millets | 4,693 | 4,614 | 4,554·9 | 1,860 | 2,031 | 1,976·7 |
| *Total Cereals* | 92,050 | 92,081 | 93,496·8 | 7,008 | 9,555 | 76,019·8 |
| Gram | 9,177 | 9,242 | 9,010·5 | 5,343 | 4,478 | 5,763·1 |
| Redgram | 2,418 | 2,418 | N.A. | 1,592 | 1,292 | N.A. |
| Black gram | 4,521 | 2,815 | N.A. | 351 | 601 | N.A. |
| Green gram | 3,594 | 1,766 | N.A. | 364 | 351 | N.A. |
| Horse gram | 4,303 | 2,285 | N.A. | 450 | 442 | N.A. |
| Lentil | 1,873 | 1,879 | N.A. | 355 | 277 | N.A. |
| Khesari | 4,474* | 4,641 | N.A. | 807 | 934 | N.A. |
| Peas & Cowpeas | 3,172 | 3,195 | N.A. | 964 | 667 | N.A. |
| Moth | 3,276 | 1,544 | N.A. | 363 | 259 | N.A. |
| Other pulses | 3,158 | 2,736 | 12,502·2 | 448 | 593 | 4,720·9 |
| *Total pulses* | 23,959 | 23,768 | 23,986·1 | 11,440 | 9,875 | 12,777·9 |
| *Total foodgrain* | 116,009 | 115,849 | 117,482·9 | 8,448 | 79,430 | 88,397·7 |
| Sesamum | 2,487·6 | 2,342·7 | 2,503·1 | 463·3 | 410·5 | 466·2 |
| Groundnut | 6,864·2 | 6,804·3 | 7,072·0 | 4,821·2 | 5,290·6 | 6,175·9 |
| Rape & Mustard | 3,108·3 | 3,004·3 | 2,813·8 | 1,294·4 | 909·4 | 1,375·0 |
| Linseed | 1,898·8 | 1,954·2 | 2,010·7 | 432·8 | 385·1 | 465·8 |
| Castor seed | 437·5 | 448·8 | 449·4 | 100·6 | 100·6 | 100·9 |
| *Total oilseeds* | 14796·4 | 14,554·3 | 14,849·0 | 7,113·3 | 7,096·2 | 8,583·8 |
| Coconut | 1,955 | 1,977 | N.A. | 4,916·2 | 4,666 | N.A. |
| Sugarcane | 2,280 | 2,214 | 2,544·1‡ | 9,544 | 10,258 | 12,315·0‡ |
| Tobacco | 416 | 397 | N.A. | 366 | 335 | N.A. |
| Cotton | 7,845 | 7,919 | 8,153·8 | 5,309 | 5,426 | 5,407·7† |
| Jute | 851 | 862 | 841·3 | 5,449 | 5,957 | 6,079·4† |
| Mesta | 379 | 385 | 359·1 | 1,697 | 1,819 | 1,588·7† |
| Sanhemp | 250·50 (196·27) | 251·31 (213·67) | 194·4 | 76·20 | 86·36 | 72·6 |
| Pepper | 102·11 | 102·5 | 102·7 | 26·11 | 24·41 | 24 3 |
| Ginger | 20·7 | 21 | 22·4 | 20 | 20 | 21·2 |
| Chillies | 629 | 639 | 713·5 | 420 | 413 | 454·7 |
| Turmeric | 137 | 141 | N.A. | 104 | 107 | N.A. |
| Tea | 333 | 334 | N.A. | 347 | 346 | N.A. |
| Coffee | .. | .. | N.A. | .. | .. | N.A. |
| Rubber | 357 | 375 | N.A. | 202 | 232 | N.A. |
| Banana | 444 | 456 | N.A. | 2,353 | 2,451 | N.A. |
| Papaya | 16 | 16 | N.A. | 228 | 224 | N A. |
| Potato | 411 | 398 | N.A. | 3,336 | 2,468 | N.A. |
| Sweet Potato | 327 | 320 | N.A. | 836 | 826 | N.A. |
| Tapioca | 251 | .. | N.A. | 1,799 | .. | N.A. |
| Indigo | 6 | 6 | N.A. | @ | @ | N.A. |
| Opium | 64 | 52 | N.A. | 0·7 | 0·6 | N.A. |
| Lac | .. | .. | N.A. | 41·7 | 287 | N.A. |
| Arecanut | 293 | 299 | N.A. | 399 | 412 | N A. |
| Cashewnut | 377 | 381 | N.A. | 135 | 135, | N.A. |
| Cardamum | 55 | . | N.A. | 8 | | N.A. |

A total area of about 18.5 lakh acres had been covered by land reclamation and land development schemes during the last five years. The annual additional food production from reclamation of new lands was estimated at about eight maunds per acre.

*Note.*—Data for 1962-63 and 1963-64, relate to Partially Revised and Final Estimates respectively and are subject to revision :—(*a*) Production of rice is in terms of cleaned rice; groundnut as unshelled nuts; sugarcane as raw sugar or gur; cotton as lint jute and mesta as dry fibred in thousand bales (of 180 kg.); coconut as million nuts. (*b*) Pepper, Ginger and Chillies as dry. (*c*) Area and production of rubber and coffee relate to calendar year 1961-62. (*d*) Opium production in 1,000 maunds (of 82 2 7 lbs.). Other pulses include black and green gram and lentil, etc. in Tripura, Orissa and Delhi wherefrom pulsewise data are not available. Sanhemp figures in brackets relate to area under fibre. @ Negligible, below 500. † In thousand bales of 180 Kgs. each. ‡ Production in tonnes of cane was 122, 126 6 and 104, 907·9 thousand tonnes in 1964-65 and 1963-64 respectively.
N.A. Not available.

## INDEX OF PRODUCTION—ALL COMMODITIES

(Base 1949-50 = 100)

| Year | INDEX NUMBERS OF PRODUCTION | | |
|---|---|---|---|
| | Foodgrains. | Non-foodgrains. | All commodities. |
| 1960–61 .. .. .. | 137·1 | 152·6 | 142·2 |
| 1961–62 .. .. .. | 140·3 | 153·9 | 144·8 |
| 1962–63 .. .. .. | 130·4 | 151·8 | 137·5 |
| 1963–64 .. .. .. | 135·9 | 156·2 | 142·6 |
| 1964–65 .. .. .. | 149·1 | 174·9 | 157·6 |

## INDEX OF PRODUCTION—INDIVIDUAL CROPS

| Commodity/Groups | 1960-61 | 1961-62 | 1962-63 | 1963-64 | 1964-65 |
|---|---|---|---|---|---|
| I. FOODGRAINS | | | | | |
| (a) *Cereals*— | | | | | |
| Rice .. .. .. | 137·7 | 142·4 | 127·4 | 146·6 | 153·9 |
| Maize .. .. .. | 146·7 | 154·3 | 163·8 | 162·9 | 163·1 |
| Jowar .. .. .. | 141·1 | 115·4 | 138·3 | 131·3 | 141·0 |
| Bajra .. .. .. | 102·9 | 114·1 | 121·8 | 116·9 | 139·8 |
| Ragi .. .. .. | 121·7 | 132·0 | 123·2 | 127·6 | 124·9 |
| Small Millets .. .. | 98·2 | 105·2 | 95·4 | 103·5 | 101·5 |
| Wheat .. .. .. | 162·8 | 178·8 | 160·4 | 146·1 | 178·9 |
| Barley .. .. .. | 118·0 | 133·5 | 102·7 | 86·3 | 105·0 |
| *Cereals* .. .. (*Kharif*) | *134·8* | *137·1* | *128·7* | *142·2* | *149·8* |
| (*Rabi*) | *154·3* | *170·2* | *149·4* | *134·7* | *164·8* |
| (*as a whole*) | *138·3* | *143·1* | *132·4* | *140·8* | *152·5* |
| (b) Gram .. .. .. | 160·4 | 148·5 | 137·2 | 115·5 | 148·0 |
| Tur .. .. .. | 160·0 | 70·0 | 80·4 | 69·2 | 95·6 |
| Other Pulses .. .. | 105·1 | 110·2 | 107·8 | 100·2 | 113·0 |
| *Pulses* .. .. .. .. | *129·0* | *121·5* | *116·9* | *102·8* | *125·8* |
| *TOTAL FOODGRAINS* | *137·1* | *140·3* | *130·4* | *135·9* | *149·1* |
| II. NON-FOODGRAINS | | | | | |
| (a) *Oilseeds*— | | | | | |
| Groundnut .. .. | 142·1 | 147·5 | 142·4 | 153·9 | 182·3 |
| Sesamum .. .. .. | 77·2 | 90·3 | 111·9 | 105·9 | 112·4 |
| Rape & Mustard .. | 165·7 | 165·6 | 159·2 | 111·1 | 169·2 |
| Linseed .. .. .. | 95·3 | 111·1 | 103·9 | 90·9 | 111·8 |
| Castorseed .. .. | 82·1 | 83·6 | 77·5 | 78·3 | 77·5 |
| *All Oilseeds* .. .. .. | *134·0* | *140·0* | *137·7* | *132·8* | *163·4* |
| (b) *Fibres*— | | | | | |
| Cotton .. .. .. | 202·1 | 174·9 | 201·7 | 209·3 | 206·0 |
| Jute .. .. .. | 125·3 | 192·7 | 165·1 | 187·4 | 184·2 |
| Mesta .. .. .. | 168·8 | 280·8 | 250·4 | 276·5 | 234·4 |
| *All Fibres* .. .. .. .. | *176·0* | *187·5* | *193·6* | *207·0* | *201·1* |
| (c) *Plantation Crops*— | | | | | |
| Tea .. .. .. | 120·9 | 133·4 | 130·5 | 130·2* | 141·6* |
| Coffee .. .. .. | 246·4 | 229·6 | 280·2 | 341·5* | 341·5* |
| Rubber .. .. .. | 167·0 | 178·9 | 207·8 | 246·5 | 293·2 |
| *All Plantation Crops* .. .. | *129·2* | *140·0* | *141·0* | *145·2* | *156·9* |
| (d) *Other crops*— | | | | | |
| Sugarcane .. .. | 178·9 | 167·5 | 156·8 | 173·9 | 202·1 |
| Tobacco .. .. .. | 164·3 | 126·2 | 132·2 | 129·7 | 132·2 |
| Potato .. .. .. | 168·6 | 151·7 | 192·6 | 149·4 | 201·2 |
| Pepper (Black) .. .. | 134·8 | 134·8 | 123·9 | 116·3 | 115·3 |
| Chillies (Dry) .. .. | 142·5 | 130·3 | 143·0 | 155·3 | 155·0 |
| Ginger (Dry) .. .. | 116·3 | 124·2 | 128·8 | 140·7 | 140·0 |
| *NON-FOODGRAINS* .. | *152·6* | *153·9* | *151·8* | *156·2* | *174·9* |
| *ALL COMMODITIES* .. | *142·2* | *144·8* | *137·5* | *142·6* | *157·6* |

* Based on provisional estimates.

*Note.*—The indices for 1962-63 to 1963-64 are generally based on partially Revised Estimates and those for 1964-65 on Final Estimates. They are, therefore, subject to revision.

The agricultural season is divided into two main sub-divisions the Kharif season of the monsoon and the Rabi season of the cold weather. This is not well-marked in the extreme east or extreme south.

The ground is generally prepared for cultivation in April and May for kharif crops, and by the end of October or early November for rabi crops, *i.e.*, after the kharif crops have been harvested. Kharif crops are sown in the monsoon, generally after the first shower. The usual time for sowing of rabi crops is the middle of November. The crops are harvested from the middle of March to the end of April.

The chief Kharif crops are : rice, jowar, bajra, maize, cotton, sugarcane, sesamum and groundnut. The chief Rabi crops are : wheat, barley, tea, gram, linseed, rape and mustard ; and in south India rice, jowar and cotton.

### FOODGRAINS

Foodgrains production in 1964-65 reached the record level of over 88·4 million tonnes. This is nearly 9 million tons more than 1963-64. The increase is mostly due to the record rise in the production of wheat and rice in 1964-65. The previous record was 81 million tonnes in 1961-62.

### RICE

Rice crop occupies the largest area in the Indian Union, about 34 million hectares giving 32 million tons of rice. During 1964-65 the area under rice cultivation was 36·08 million hectares and the production was about 88·73 million tonnes.

Madras, Bihar, Bengal, Orissa, Madhya Pradesh, Uttar Pradesh, Assam, Andhra, Maharashtra, Mysore, Kerala and Gujarat are the main rice growing States and they together claim about 95 per cent of the total rice area in India.

Rice yield in India is, however, one of the lowest in the world. The average yield is a fourth of that of Spain and Italy, a third of Japan, and half of what the Chinese and the American rice farmers obtain. At present 76 research stations spread almost all over the States of the country are working on similar problems of rice. Though about 4,000 distinct types of rice differing in essential characteristics occur in this country, 455 superior strains giving an average of 10 to 20 per cent better yield than the farmers' varieties have been evolved. It is proposed to saturate 12·5 million acres of irrigated paddy lands in 30 districts with an improved and high yielding paddy variety from Taiwan, *i.e.* Taichurg Native 1. This could be cultivated in all the seasons and the expected yield is 70 to 90 mds. of paddy per acre if manured well (120 lbs. nitrogen per acre).

### WHEAT

The area under wheat is about 13 million hectares and production about 10 million tons. During 1964-65, the area under wheat was 13·45 mill. hectares and production 12·08 mill. metric tons. Wheat is grown widely throughout the north as a winter crop, U.P., M.P. and Punjab supplying over 72 per cent of the total outturn in the country. This crop occupies, on an average, about 10 per cent, of the total cultivated area.

More than one-third of the crop is irrigated.

The crop is generally grown after a summer fallow and except in irrigated tracts, depends largely on the conservation of the soil moisture from the previous monsoon. The crop is generally harvested in February to April and the threshing and winnowing go on up till the end of May.

A virulent fungus disease called rust affects the production of wheat to a great extent. In normal years, the loss is about 5 per cent involving about sixty million rupees.

Systematically planned work on the development of rust resistant wheats is being done under the ægis of the Indian Council of Agricultural Research and a large number of rust resistant varieties have been produced.

At present improved varieties form only 16 per cent in M.P., 33 per cent in U.P. and about 70 per cent in the Punjab, of the wheat area of the respective States. It is proposed to saturate 8 mill. acres of irrigated wheat lands with Mexican wheat varieties (Sanora 64, Lerma Rojo, and V. 18) to produce an additional 8 million tons of wheat. These dwarf varieties are highly responsive to manuring and yield about 60 mds. per acre.

### MILLETS

Mostly of short duration (2½ to 6 months from seed to seed) millets are grown in localities and in conditions where most of the other cereal crops are not grown, such as poor and infertile soils and low rainfall (of 20–50").

**Jowar :**—Among the millets jowar occupies a premier position because of the size of the crop and the economic importance of the grain

About 17 million hectares are grown under this to yield about 9 million tons of grain. Maharashtra, Andhra, Mysore, M.P. and Gujarat contribute to over ¾ of the natural acreage. The jowar area and production respectively during 1963-64 were 18·2 mill. hectares and 9·2 mill. tonnes and in 1964-65 were 18·01 mill. hectares & 9·81 mill. tonnes. A hybrid CSH. 1, suitable for growing under irrigated and rainfed conditions and yielding upto 60 mds. per acre under intensive manuring is prepared to be put under cultivation in about 40 lakh acres.

**Bajra** :—Occupies about 27 million acres to yield about four million tons of grains. U.P., Rajasthan, Punjab, Gujarat and Maharashtra, are the chief growing tracts. The duration of the crop varies from about 2½ to 5 months. During 1963-64 bajra was cultivated in 10·8 mill. hectares and produced about 3·7 mill. tons. The all-India final estimate of bajra production for 1964-65 is : area under bajra crop 11,712,100 hectares and production 4,465,200 met. tons. Hybrid bajra evolved to yield over 30 mds. per acre is being put under intensive manuring in about 40 lakhs of acres.

**Ragi** :—Ragi ranks third in importance among the Millets and occupies about 2 million hectares to produce about 1·8 million tons of grain. Its average yield is rather high, 800 kg. per hectare compared to jowar and bajra with 500 and 350 kg. respectively. More than half the area is in Mysore, Madras and Andhra. Sixteen improved strains of ragi evolved in Madras and two in Mysore are being grown in these States. The area and yield during 1963-64 were 2·4 mill. hectares & 1·8 mill. tonnes respectively & during 1964-65, 2·43 mill. hectares & 1·92 mill. tonnes respectively.

**Other Millets** :—The others grouped under lesser or minor millets form about 1/6 of the total area under millets and are grown in about 4·6 mill. hectares and yield about 1·9 million tons of grain. The area and yield during 1964-65 were 4·6 mill. hectares and 1·98 mill. tons respectively. The most important among them are Kora or Kangi, Kodon, Cheena or Varagu, Oodalu, and Sawan.

**Maize** :†—Maize is cultivated in India in about 4·5 mill. hectares to produce about 4·5 mill. tons of grain. The major growing areas, U.P., Bihar, Rajasthan, Punjab and M.P. which between th mselves account for about three-fourth of the maize area. As in other crops the per acre yield is limited in the crop also. The average yield is only about 10 mds. per acre. Seven hybrids (Ganga 2 and 3, Ganga Saffed, Ganga high Starch, Raxyit, Deccan and Himalaya) giving 56-70 per cent more than local varieties have been produced. Seeds have been distributed to farmers particularly through the Seed Corporation set up by the Government of India. About 40 lakhs of acres are prepared to put under hybrid maize in the intensive programme for food grain production during 1964-65.

**Barley** :—During 1964-65 barley was cultivated in an area of 2,667,600 hectares and the production estimate was 2,478,100 met. tons.

### COTTON ‡

The area under cotton during 1964-65 was 8·15 mill. hectares against 8·16 mill. hectares in 1963-64.

The Sea Island cotton is gradually assuming commercial status. This cotton is grown on marginal lands in Mysore and Kerala. The acreage of cultivation of the Sea Island cotton for Mysore and Kerala States for 1961-62 and 1962-63 respectively were 3,928 and 1,230 and 4,109 and 1,052 acres. The production during 1961-62 for the above States were 300 and 175 bales.

Hybrid cotton is grown in Surat. But it has not made much progress. It is hoped that the use of a chemical FW-450 might reduce sterility.

The most important in the matter of self-sufficiency is the long staple variety—those possessing 1" to 1⅛" which are capable of spinning 40's and over. The acclimatised Egyptian variety being grown in Mysore could be raised as a summer crop in the Babbur area.

The evolution of Indo-American varieties and of Sea Island, Andrews and hybrid cottons which can replace imported cottons constitute an important landmark in the progress of cotton research. Further work for isolating still better and finer types continues under three schemes in operation in the Punjab, Bombay,* Madras.

Cotton extension schemes initiated in 1950 were continued in the Third Plan and were in operation in Andhra Pradesh, Gujarat, Madhya Pradesh, Maharashtra, Mysore, Orissa, Punjab, Rajasthan and Uttar Pradesh. Measures taken to increase production include provision of manures and fertilizers, extra irrigational facilities, improved seeds, bunding of cotton fields and improved agricultural practices including plant protection. During the years 1961-62 and 1962-63, 57 and 60 research schemes respectively were in operation on various aspects of cotton production.

Package programme for increased production of cotton in cotton growing states has been prepared. Under this, 4,35,000 acres will be brought under intensive cultivation in 20 selected districts of nine cotton growing states. Production incentives such as subsidies for phosphate fertilizers/composts (25 per cent), green manure (Rs. 2 per md.) and pesticides (25 per cent) are also provided. The programme initiated in Andhra and Madras in 1962-63 was expected to be implemented during 1963-64 in other major growing areas.

The deficit in large and medium staple cotton has now been wiped out and we are now self-sufficient in 1 1/16" mesta cotton. This is reflected in the imports which is restricted to the above 1 1/16".

## FRUIT

A wide variety of fruit and vegetables is cultivated in the country.

The total area under all fruit at present is about three million acres.

During the Second Plan period about 166,000 acres of new orchards were planted, 132,000 acres of old orchards renovated and over 4,000 gardeners were trained. About six million acres are under fruits and vegetables. This is expected to be increased to seven million acres in the Third Plan. The fruits and vegetable production of 40,000 tons at the end of the Second Plan is expected to rise to about 1,00,000 tons by the end of the Third Plan.

Fruit products amounting to over 23,000 tons are now manufactured in the country by over 800 licensed factories in Amritsar, Bombay, Calcutta, Delhi, Lucknow, Madras, Mathura and other centres.

During the three years 1960-63, 5,532, 5,448 and 5,144 metric tons of walnuts costing Rs. 17·483 mln., Rs. 15·034 mln. and Rs. 12·832 mln. respectively were exported. It is now proposed to set apart 1,000 acres in Himachal Pradesh for growing walnuts of exportable variety. A plant to manufacture banana-based ice cream powder for export purposes only is to be set up shortly.

In order to encourage the production and export of fruit products several concessions are given to the manufacturers through Directorate of Marketing by way of loans for starting new factories and renovating old ones, subsidy on tin-plate, rebate on excise duty on sugar etc

EXPORT OF FRUITS

| Fruits | 1961-62 | | 1962-63 | | 1963-64 April '63 to Jan. '64 | |
|---|---|---|---|---|---|---|
| | Quantity in met. tons | Value in Rs. mln. | Quantity in met. tons | Value in Rs. mln. | Quantity in met. tons | Value in Rs. mln. |
| Apples .. .. .. | 3 | 0·012 | 9 | 0·025 | 2 | 0·007 |
| Bananas .. .. .. | 7,082 | 1·976 | 11,269 | 3·181 | 9,025 | 3·064 |
| Citrus .. .. .. | 3,913 | 1·468 | 3,559 | 1·188 | 1,286 | 0·387 |
| Grapes .. .. .. | 3 | 0·01 | 4 | 0·009 | 2 | 0·006 |
| Mangoes .. .. .. | 2,109 | 1·912 | 1,803 | 1·521 | 1,548 | 1·562 |
| Pine apple .. .. | 73 | 0·051 | 251 | 0·008 | — | — |

(Citrus fruits include orange, lemon, lime and others).

## REGULATED MARKETS

One of the visible benefits of regulated markets, which work on democratic principles, has been the reduction in the market charges to extents varying between 29 to 50 per cent. The saving to the producer on this account is estimated to be Rs. 3 for every Rs. 100 worth of goods sold by him. Open auction system which yields better price to the producer has also been introduced in a majority of the markets. New market yards with modern amenities are also being provided.

Training of personnel in Agricultural Marketing is provided through three courses. (1) One year course for training superior personnel of the State Marketing Dept. at Nagpur ; (2) Five months course for training market secretaries and superintendents at Sangli, Hyderabad and Lucknow ; (3) Three months course for training grading supervisors and assessors at Nagpur and Madras. The total number of trainees in the three courses were 196, 621 and 264 respectively. A Central Government stipend is paid at Rs. 75 p.m. for one year course and Rs. 50 for other courses.

The Directorate of Marketing is entrusted with the development of the fruit and vegetable preservation industry and administers the Fruit Products Order promulgated under the Essential Commodities Act of 1955. This Order envisages the compulsory licensing of the manufacturers of fruit products for sale. During 1964-65, 80 licences were granted to the manufacturers of fruits and vegetable products bringing the total number of licences so far granted to 908.

Surveys of market conditions were started soon after the Directorate was set up. As a result, five reports dealing with the production, qualitative and quantitative, internal and external demands, prices and price spreads, standardisation, markets and their operation, distribution channels, and the improvements imperative for the better marketing of 41 agricultural commodities (including cereals and pulses), 12 dealing with live-stock and live-stock products, 24 dealing with special crops have been published.

Ten major commodities among these, have been re-surveyed and reported again.

Two reports, one on marketing of wheat (second revision) and the other one on fruits and vegetables (in selected cities) were published in 1964. Reports on wool, tobacco, turmeric, co-operative marketing of cotton, walnuts, cardamom, coconut and its products, etc. are under print.

#### Grading and Standardisation

The Government of India passed the Agricultural Produce (Grading and Marketing) Act of 1937 to promote orderly marketing on the basis of statutory grades.

* Bilingual. † During 1964-65, the area under maize was about 4·6 mill. hectares and production 4·56 mill tonnes. ‡ Production of cotton during 1964-65 was 5·4 mill. tonnes (in thousand bales of 180 kgs. each) as 5·49 mill. tonnes in 1963-64.

The Act authorised the Agricultural Marketing Adviser, to fix grade standards for different types and varieties of agricultural produce, prescribe grade designation marks to indicate each quality, and issue certificate of authorisation to persons or co-operative societies to grade and mark with "Agmark" their commodities on the basis of the standards laid down.

The organisation has developed standards for 33 commodities covering 124 varieties.

The following important commodities are graded under "Agmark" for consumption within the country : Rice, paddy, wheat, atta, gur (Jaggery), fruit (mangoes, oranges, grapes, apples and sapota), potatoes, cotton, sugarcane, honey, creamery butter, ghee, vegetable oils and eggs. The Govt. is contemplating the introduction of compulsory grading of all agricultural produce meant for internal consumption.

The following commodities are graded primarily for export purposes ; myrobalans, walnuts, cigarette tobacco leaf, sann-hemp fibre, essential oils (sandalwood, lemon-grass and palmarosa oils), vegetable oils (castor and linseed), wool, goat hair and bristles. Compulsory grading of black pepper, cardamom and chillies meant for export came into force from 1st Dec. 1962. Primary grading of these is done by the Spices Export Promotion Council, which will set up laboratories at important centres for this purpose. Analysis of the check samples (for which the Directorate of Marketing and Inspection will be responsible) will be done at the Regional laboratories at Madras and Cochin.

Compulsory quality control before export in respect of onion, garlic, ginger, turmeric, pulses, tender leaves and senna leaves and edible mushrooms, potatoes, etc. is contemplated.

To ensure that the producer may get an adequate return commensurate with the quality of his produce 242 grading units at the producer level have been set up in the regulated markets and selected marketing co-operatives in various States. Specific programmes have also been undertaken to operate some pilot grading centres for grading tobacco at Ongole (A.P.) and of Kapas in Hubli-Gadag area (Mysore).

The State Agricultural Produce Market Acts, are in force in all the States except Assam, Kerala and West Bengal.

The number of regulated markets was 730, at the end of 1960-61, 970 at the end of 1961-62, 978 at the end of 1962-63, 1,035 at the end of 1963-64 and 1,204 in 1964-65.

**Marketing, Processing :** An integrated programme of marketing development embracing rural credit, marketing, processing, and ware-housing is working in the country, as a result of the recommendations contained in the Rural Credit Survey Report.

The main features of the programme are :— (1) Linking credit with marketing in the form of marketing societies ; (2) Developing processing and distribution of farming requisite on co-operative lines, and (3) Promotion of storage and warehousing.

A National Agricultural Co-operative Marketing Federation was established in 1958 to promote inter-State and export trade through co-operatives.

The marketing societies are also being encouraged to take up inter-State export of surplus agricultural commodities.

During the Third Plan period it is expected to set up 783 co-operative pressing units including 48 cotton ginning and pressing, 36 rice mills, 29 jute baling plants, 33 oil mills, 63 groundnut decorticators, 77 fruit canning units, 411 rice hullers and 86 other units.

## COLD STORAGE

The wastage on fruits and vegetables produced in the country amounts to 15 to 20 per cent due to want of proper storage and marketing facilities.

The Cold Storage Order, 1965 issued under the Essential Commodities Act, 1965, came into force from Jan. 1, 1965. It makes obligatory for all cold storages with a capacity of 300 cft. or more for storing articles of food like fruits, milk, dairy products, eggs, fish, vegetables, potatoes etc., to take licences for the purpose from Agricultural Marketing Adviser to the Government of India. Since the promulgation of the order, 24 licences were granted by the end of Jan. 1965.

The present capacity of cold storage in the country is about 2·5 million maunds provided by 200 cold storages mostly run by private traders.

The total number of Central Warehouses, under the Central Warehousiug Corporation, functioning in the country at the end of 1965 was 85 with a total capacity of 4·40 lakh tonnes.

Rs. 2 million had been earmarked by the Cooperative Wing as financial assistance for cold storage. West Bengal, Maharashtra, Gujarat, Jammu & Kashmir, Mysore and Punjab States have co-operative cold storage plants.

## AGRICULTURAL ECONOMICS

The Directorate of Economics & Statistics is one of the main organizations under the Central Government which deals with all agro-economic problems in the sphere of food and agriculture. It also co-ordinates all works relating to planning in agriculture sector, including financial reserves for the development programme, policies and procedures in Central and State Sectors.

The Directorate has a scheme for the improvement of marketing intelligence. This has been implemented in all States and Territories. Arrangements have been made for broadcasting daily prices of important agricultural commodities and weekly reviews on food and price positions on the rural programme of AIR. Market news bulletins are also issued regularly in regional languages for wider dissemination. About 400 markets in relation to 70 commodities are covered in the broadcasts.

A Price Intelligence Organisation has been set up in the Directorate to study on a regular basis the flow of market supplies, market sentiment, factors leading to rise or fall in prices, crop outlook, market behaviour etc. to advise the Govt. from time to time in formulating proper price control measures.

A research division has been set up in the Directorate to co-ordinate Farm Management investigations and also to conduct research in production economics. Various economic surveys on productivity aspects of agriculture and the pattern of input/output, agroclimatic alignment etc. are also taken up.

The statistical wing of the Indian Council of Agricultural Research does fundamental and applied investigation in statistics and also trains statisticians for field work. It has issued comprehensive index of field experiments carried out in the different States during the last decade.

## SOIL CONSERVATION

It is estimated that in the country as a whole about 200 million acres are exposed to erosion. Out of this about 100 million come under land under cultivation, 50 million acres are fallow and other uncultivated land and 50 million are desert mainly in Rajasthan.

National Soil Conservation programme was first initiated in 1953.

The co-ordination of soil conservation work between the States and Territories is achieved through the agency of the Central Soil Conservation Board which was set up in the Ministry of Food and Agriculture in 1953. Similar boards are also set up in most of the States and Territories.

The Union Ministry of Food and Agriculture have also set up a National Co-operating Committee to organize research in arid and semi-arid regions of India and to collect information on arid zone research in the country and abroad and make it available to other countries through the UNESCO.

The Union Minister for Food and Agriculture is the chairman. The Committee will also approve fundamental and applied research programmes for the several Divisions of the Central Arid Zone Research Institute, Jodhpur.

The Secretary of the Soil Conservation Board is the Secretary of the Committee.

According to the Third Five Year Plan, contour bunding and terracing were to be carried out in about 16 million acres of agricultural land. At the end of the third year of the Third Plan coverage achieved was only 4 million acres and it was expected to cover another 2.6 million acres during 1964-65.

Altogether 10 research-cum-training centres have been established at the following places :—

1. Ootacamund (Madras) for erosion control in the Nilgiri and other hills ; 2. Bellary (Mysore) for soil conservation studies in black soils ; 3. Kotah (Rajasthan) with sub-centre at Agra for erosion control in the Chambal and Jumna ravines ; 4. Jodhpur (Rajasthan) for afforestation in the Rajasthan desert ; 5. Dehra Dun (U.P.) for studying problems of afforestation in the Sivalik hills with the sub-station at Chandigarh (Punjab) for training *chos* (hill torrents) ; 6. Vasad (in the Gujarat tract for erosion control in the ravines along rivers in Gujarat) ; 7. Chandigarh (outer Sivaliks) ; 8. Chatra (water shed management) ; 9. Agra (Yamuna ravines) ; 10. Ibrahimpatnam (Andhra) for tackling red soil problems.

The Board proposes to set up one more in Orissa.

Research and training in soil and water conservation are intensified at the Regional Research Centres. During 1963-64, 30 officers and 121 assistants were trained and another 26 officers and 111 assistants were under training, bringing the total upto date to 160 officers and 907 assistants trained during the four years of the Third Plan.

The station at Jodhpur has been upgraded as a Central Arid Zone Research Institute to carry out research on fundamental and applied problems of arid zones.

During 1963-64 over 200 soil conservation schemes to cover 2·877 mill. acres of contour bunding, 6.364 mill. acres under dry farming and 0.203 mill. acres of saline and alkali soils, wastelands etc., were in progress. Centrally sponsored soil conservation schemes were in operation in the catchments of river valley projects in 14 States to reduce silt in dams and reservoirs. During 1964-65 about 0·186 mill. acres were expected to be treated bringing the anticipated achievement since initiation of Third Plan to about three-fourth of the Plan target.

An Integrated All-India Soil and Land Use Survey Scheme has been and is being executed by the Central Soil Conservation Board with four Zonal Centres at Delhi, Nagpur, Bangalore, and Haringhata, with effect from 1st March 1959. This scheme, since inception, had surveyed about 9.8 million acres by the end of 1964-65.

## RESEARCH

The Indian Council of Agricultural Research co-ordinates research work, suggests programmes of research, gives financial assistance for approved schemes, and also undertakes schemes of its own.

The annual grants made to I.C.A.R. fall under two main heads :—(a) An annual Government grant for running the administration. This

varies from year to year according to requirements, and averages about Rs. 1·35 million a year. (*b*) Payment of the net proceeds of the cess on agriculture produce. The income from this source is estimated at about Rs. 4·4 million annually.

Besides these, specific grants are made to I.C.A.R. for undertaking certain schemes from time to time. The total estimated expenditure (including the special grant) will be Rs. 5 to 8·5 million annually.

During 1964-65, 53 new research schemes were sanctioned at a cost of Rs. 3.643 million.

## NEW SCHEMES

Studies on soil such as biological fixation of nitrogen (at the Bose Institute), physico-chemico studies on acid soil (West Bengal), soil structure in relation to tillage implements (Kharagpur) are being undertaken. Similarly, studies on irrigation, *viz.*, impact of minor irrigation in farm economy (Banaras Hindu University), effect of Bhakra Nangal Project on the different regions of the Punjab are also being implemented. Studies on the adoption of improved agricultural practices in the Punjab Agricultural University and the behaviour of the prices of jowar in some of the markets of Vidarbha (at Sitabai College, Akola) are some of the socio-economic studies promoted.

Among fruit crops, co-ordinated studies on commercial storage of mango, citrus and banana and the incidental studies are being taken up in Andhra Pradesh, West Bengal, Madras, Mysore and Punjab. Cocoa is proposed to be tried on pilot trials basis in Andhra Pradesh. Floriculture is also proposed to be studied in Andhra Pradesh. Chickori is being taken up for study at the Punjab Agricultural University. Pests and diseases are also given adequate place in the investigational programme, as for example, virus on vegetable crops, in Lucknow, and white rust or Cruciferi in the Presidency College, Calcutta. Nematodes are proposed to be studied in five States and also at the Aligarh Muslim University. Mite problem is to be tackled in the Punjab Agricultural University, while dynamics of the Hemipterus pests are to be tackled at the Pilani College of Science.

On the Animal Husbandry side, a number of studies are being undertaken on livestock and its products. Poultry problem is being studied ranging from breeding to the economy of poultry keeping. Similarly, the pests and diseases of livestock like virus, Helminth are being proposed for study through various schemes. Studies on Animal Products such as on the fundamental chemico-physico properties of Casein in the Punjab Agricultural University, effect of carbonisation on Indian Wool at Sri Ram Institute, Delhi, are also proposed.

## CURRENT SCHEMES

For the saline areas situated along the coastal belt of Andhra Pradesh, a short-duration hybrid culture of rice C. 1327 has been released as MCM-1. In the Nellore delta where monsoon reaches late, culture M. 1834 has been released as BCP. 6. A hybrid called Co-ordinated Sorghum Hybrid No. 1 (CSH-1) has been released for general cultivation in the irrigation summer sorghum tract. In Maharashtra, the strains of cotton, AK. 235 and AK. 277 in the Vidarbha tract and Y.I. in the Khandesh tract were confirmed to be superior to the existing strains in yield and quality and were, therefore, approved for release for general cultivation in their respective tracts. The extra long strain ISC. 67 was recommended for release for general cultivation in the Taloi area of Gujarat, for its resistance to blackarm, better spinning count and higher yield. Two tomato varieties, Sioux and Perfection, were finally selected and released for general cultivation at Kalimpong (West Bengal). Amongst the round and long varieties of brinjal at Rajendranagar (Andhra Pradesh), Green Long Cluster and Green Long Stripped, Milk White Round and Black Round were selected for their outstanding performance. The Onion Research Station, Niphad (Maharashtra) has released scarlet onion variety N. 53 for kharif sowing. At the Banana Research Station, Tanuku (Andhra Pradesh), the growing of pineapple as an inter-crop in banana gave encouraging results. Trial cultivation of the White-Burley tobacco variety in the Darsingh Sarai areas of Bihar, has indicated the possibility of growing this type which is so suitable for export.

A number of central committees have been set up to promote production and marketing of agricultural commodities. Those committees are being wound up to be merged with the reorganised I.C.A.R., which will control also the Central Research Institutes and laboratories and regional crop institutes. The whole agricultural research set up is being reorganised under I.C.A.R. which will control all agricultural, animal husbandry, fish and forestry research institutes in India. The ICAR will be headed by a career scientist as Director General and will control three national research institutes (I.A.R.I., I.D.R.I. and I.V.R.I.).

### Research Laboratories

The Ministry of Food and Agriculture maintains directly a number of research laboratories: 1 Indian Agricultural Research Institute, New Delhi. Sub-stations at Karnal (Punjab) and Pusa (Bihar). Two new divisions of Microbiology and Plant Introduction were created. 2. Central Potato Research Institute, Simla. Laboratory at Potato Multiplication Subdivision, Bhowali (U.P.). Laboratory at Potato Breeding Sub-Station, Patna. The services of an expert, Dr. William Black, were obtained for organising research on fungal diseases. An amount of $ 65,000 was provided by the Rockefeller Foundation for the supply of laboratory equipment and books for the Institute. 3. Central Rice Research Institute, Cuttack. 4. Sugar Cane Breeding Institute, Coimbatore. Sub-station at Karnal (Punjab). 5. Central Vegetable Breeding Station, Kulu, P.O. Naggar, District Kangra (Punjab). 6. Sahni Institute, Lucknow.

Bose Institute in West Bengal, Vivekananda Laboratory in U.P., Agricultural Institute at Allahabad, and Agricultural Institute at Anand, are some of the private institutions apart from some of the universities dealing with agricultural research problems.

### Agricultural Colleges

There are 70 agricultural colleges in India, Bapatla, Tnirupathi and Hyderabad (Andhra), Jorhat (Assam), Ha inghatta, Sriniketan (Bengal), Sabour, Pusa and Kanke (Bihar), Nava Sarai and Solan (H.P.), Anand and Junagadh (Gujarat), Ranbirsinghpura and Sopore (Jammu and Kashmir), Vellayani (Kerala), Poona, Nagpur, Akola, Parbhani, Dapoli, Dhulia, Amravati and Kolhapur (Maharashtra), Madurai, Coimbatore and Annamalai (Madras), Gwalior, Jabalpur S hore, Rewa, Indore and Raipur (M.P.), Dharwar and Hebbal (Mysore), Bhubaneshwar (Orissa), Ludhiana, Karnal, Amritsar, Hissar and Mashvana (Punjab), Jobner, Udaipur, Ajmer and Sangaria (Rajasthan), Azamgarh, Allahabad, Barhalganj, Baleswar, Baraut, Banaras, Agra, Lakhoti, Kanpur, Ajitmal, Narsan, Muzaffarnagar, Simboli, Rampur, Ballia, Bijnor Ajitmal Hamirpur, Allahabad, Jaunpur, Deoria, Machhara, Pantnagar, Sheoka bad and Ghazipur (U.P.).

Eight agricultural universities of the pattern of Land Grant Colleges have already been established in Bengal (Kalyani), in Orissa (Univ. of Agri. and Technology, Bhubaneshwar), Punjab (Chandigarh), Rajasthan (Udaipur), U.P. (Pantnagar), Andhra (Rajendranagar), Madhya Pradesh (Jabalpur), and in Mysore (Hebbal). The Indian Agricultural Research Institute, New Delhi, now declared as the only National institute for agricultural research in India also gives coaching and examination and tests for post graduate degree courses in agricultural diplomas.

## LAND POLICY

The land policy of the Government of India has been formulated for the promotion of agricultural production and for the provision of social justice in the rural economy. The agrarian reform undertaken by the various State Governments during the past few years fall generally into four broad classes :—

(1) The abolition of intermediaries.

(2) Tenancy reform designed to, (*a*) Scale down rents to 1/4–1/5 of the produce, (*b*) to give permanent rights to the tenants (subject to the landlord's rights to resume a minimum holding for his personal cultivation within a limited time) and (*c*) to enable tenants to acquire ownership of their lands (subject to the landlord's right of resumption for personal cultivation) on payment of moderate compensation to the landlord spread over a period of years.

(3) Fixation of ceiling on holdings.

(4) Reorganisation of agriculture including (*a*) Consolidation of holdings, (*b*) Prevention of fragmentation and (*c*) Development of co-operative village management and co-operative farming.

The view taken in the Planning Commission is that once the land is redistributed on the basis of the current legislation, the land system should not be disturbed for a period of about 15 years thereafter.

### Land Reforms

The National Development Council called upon the State Governments to complete implementation of the land reform programmes before the end of the Third Plan and constituted a Committee of Chief Ministers under the Chairmanship of the Union Minister for Home Affairs to review at regular intervals, progress of the land reforms in different States and to suggest measures for strengthening and improving implementation.

At the suggestion of the Committee, an officer was specially deputed to go round the States to study the implementation of land reform programmes and the difficulties experienced in expeditious and effective implementation. The difficulties encountered in giving effect to the land reform programmes have been examined in detail in respect of Andhra Pradesh, Assam, Bihar, Gujarat, Madhya Pradesh, Madras, Maharashtra, Mysore, Orissa, Punjab, Rajasthan, Uttar Pradesh, West Bengal and Himachal Pradesh and the resulting recommendations relating to Bihar, Gujarat, Madras, Maharashtra, and U.P. have since been considered by the Implementation Committee, in consultation with the Chief Minister concerned. Questions relating to Mysore were considered in the Central Committee for Land Reforms. The conclusions reached in respect of these States are now engaging the attention of the State Governments concerned.

With a view to strengthening implementation, the Committee of the National Development Council made a number of general suggestions such as appointment of special officers and necessary staff for implementing the programme according to the fixed schedule and of a high level Committee in each State to review the progress of implementation, periodical reports to the Government of India on the state of implementation, steps for ensuring that tenant-cultivators are provided with necessary financial assistance to enable them to participate fully in the production plans and the preparation and revision of a record of tenancies.

## ABOLITION OF INTERMEDIARIES

The programme for the abolition of intermediary tenures has been almost entirely completed. During the year 1964-65 legislation has been enacted in Madras for certain tenures prevalent in parts of the State, i.e. *Sreepandaravaka*, *Thirippuvaram* and *Jenmikaram* payments. In Rajasthan legislation was enacted providing for acquisition of estates held by ex-rulers.

The position with regard to the abolition of intermediaries in the country as a whole is as follows :

| | In million acres | Percentage of total area. |
|---|---|---|
| Area in which intermediary tenures existed .. .. | 343·8 | 43 |
| Area in which legislation for the abolition of intermediaries has been passed .. .. | 322·3 | 40 |
| Area in which the abolition of intermediaries has been effected .. | 306·0 | 38 |
| Area in which intermediaries remain .. | 37·8 | 5 |

## COMPENSATION

Apart from the annual payment to be made to religious and charitable institutions whose estates were brought under the State, the compensation payable for the aquisition of intermediary rights was estimated at Rs. 641 crores (including for compensation, rehabilitation grants and for interest payments). Compensation to the extent of Rs. 230 crores has been paid to the ex-intermediaries.

## TENANCY REFORM

With the abolition of intermediaries, the tenures come under two broad categories, *i.e.* (*i*) owners who hold land directly from the State ; (*ii*) and the tenants who hold land from owners. Their rights and obligations are regulated under tenancy laws enacted in the States. Thus the multiplicity of tenancy has been considerably reduced, and in the most parts, tenants who hold land under intermediaries have now become owners of land.

**Scaling down rents—Land revenue assessment :** Legislation has been adopted in all States for the regulation of rent.

The Plan recommendation is that it should not exceed one-fourth or one-fifth of the gross produce.

But the rent fixed however varies with the State.

Legislation has been enacted in all the States for regulating maximum rents which a landlord may receive.

| States | Maximum rent payable as fraction of the value of the produce. |
|---|---|
| Andhra Pradesh .. .. .. | ¼–⅓ gross produce. |
| Assam .. .. .. .. .. | ¼ or less |
| Bihar .. .. .. .. .. | ¼ or less |
| Delhi .. .. .. .. .. | 1/5 (4 times of the land revenue) |
| Goa .. .. .. .. .. | 1/5 of the produce |
| Gujarat .. .. .. .. .. | ¼ or less |
| Himachal Pradesh .. .. .. | ¼ or less |
| Jammu & Kasbmir .. .. .. | ¼ or less |
| Kerala .. .. .. .. .. | ¼ or less |
| Madhya Pradesh .. .. .. | not to exceed 2—4 times of the land revenue |
| Madras .. .. .. .. .. | ⅛—2/6 or less |
| Maharashtra .. .. .. .. .. | ⅛ or less |
| Manipur .. .. .. .. .. | ⅛—1/5 (4 times of the land revenue) |
| Mysore .. .. .. .. .. | ¼ or less |
| Orissa .. .. .. .. .. | ¼ or less |
| Punjab .. .. .. .. .. | ⅛ or less |
| Rajasthan .. .. .. .. .. | ⅛ (twice the land revenue or less) |
| Tripura .. .. .. .. .. | ⅛—1/5 (4 times of the land revenue) |
| West Bengal .. .. .. .. .. | ⅛ or less |

**Security of Tenure :** Legislation providing security of tenure has been enacted in all the states. In Andhra Pradesh and Madras the existing provisions are of temporary nature and a comprehensive bill is under consideration. In Orissa the provisions are yet to be enforced. During the year the provisions of the Kerala Land Reforms Act, 1963 (Act I of 1964) regarding security of tenure, regulation of rent etc. were brought into force. In Goa legislation has been brought on the Statute Book.

**Temporary Protection :** Pending enactment of adequate legislation, ejectment of tenants and sub-tenants has been stayed for varying periods prescribed by law in Andhra, Kerala, Madras, Madhya Pradesh, Manipur, Mysore, Orissa and Punjab.

**Fixity of Tenure :** A number of States legislated to provide for fixity of tenure and restricted grounds on which landlord could eject them, either on a qualifying basis (*i.e.* tenants holding land for a specified period and or by prescribing conditions for the resumption of limited land by the landlord). Security of tenure on the qualifying basis of occupancy or other conditions has been granted in some States 6-10 years in Andhra ; 12 years in Mysore, the PEPSU area of the Punjab and Bihar ; 3-7 years in Madhya Pradesh, and 6-12 years in the Punjab.

**Resumption :** Legislation has been put through in most of the States prescribing a basis for the resumption of the land by the landlords, as shown below : *Assam :* Landlords can resume ⅔ of the area owned subject to a minimum of 5⅓ acres and a maximum of 33⅓ acres ; *Bengal :* Limit on resumption has been placed at ⅔ of the area owned ; *Jammu and Kashmir :* 2-6 acres ; *Madras :* Owners with 12½ acres of wet land or less can resume for personal cultivation half the area leased, subject to a maximum of 5 acres ; and in *Orissa :* Owner has a right to resume an area upto 7 standard acres of wet land or 14 acres of dry land for personal cultivation. But in Bengal with regard to *Bargadars* (crop sharers) the landlord may resume only ⅓ of the area if it is more than 7½ acres, but all, if it is less.

*Himachal :* ¼ upto a maximum of 3 acres ; *Andhra :* 3 family holdings (12-48 acres); *Mysore :* 50 to 75 per cent ; *Maharashtra :* ¼ upto a maximum of 3 family holdings (12-180 acres) ; *Telangana :* 3 family holdings (12-180 acres).

A basis for resumption had to be found to prevent large-scale ejectments. In the Second Plan a distinction was made between owners who own a family holding or less and others who own land exceeding a family holding. It was suggested that owners in the former class may be permitted to resume one-half of the area leased, and if thereby a tenant's holding is reduced to less than a basic holding the Government should find extra land for the tenant. About land-owners in the second category resumption is subject to the tenants' right to retain minimum land between a basic and a family holding.

The definition of 'personal cultivation' also presented difficulty. In most State legislation the definition is made specific and comprehensive.

**Ownership Right for Tenants :** Tenants were declared owners on payment of compensation to owners in almost all States.

The right of purchase is optional in Punjab. In Assam, Bihar, Jammu and Kashmir, Madras and West Bengal the right of ownership is available only to tenants cultivating lands above the ceiling limit of land holders.

Implementation of the provision has been completed only in Bengal (in respect of raiyats), Delhi and U.P. while it is in progress in other States.

| States | Purchase price determined in no. of tenants (in lakhs) | Holdings in lakhs of acres |
|---|---|---|
| Gujarat .. .. | 4.60 | 14.00 |
| Maharashtra .. | 4.36 | 15.50 |
| Punjab .. .. | 0.19 | 1.30 |
| U.P. .. .. | 0.19 | 0.12 |

**Restrictions and Conditions :** In some parts of certain States tenant's right to purchase was restricted as follows : *Andhra* (Hyderabad), *Maharashtra* (Marathwad), *Gujarat* (Kutch). Only protected tenants were conferred the rights. *Madhya Pradesh and Himachal :* Only for occupancy tenants in M.P. more than 5 years possession with the tenants ; *Punjab :* Only such tenants of non-resumable areas (in continuous possession for six years) were permitted to buy ; *Bihar and Mysore :* For continuous possession for twelve years. The time limit for purchase was fixed as follows : Where the right to purchase ownership is optional, the tenant can exercise it in time at his discretion. But in Gujarat, Maharashtra and Madhya Pradesh (former Madhya Bharat area) the right must be exercised within a prescribed period.

**Compensation to Landlords :** The joint committee on the Constitution (17th Amendment) Bill has recommended on March 25, 1964, that no land under personal cultivation held within the prescribed ceiling limits can be acquired by the State without payment of compensation at a rate not less than its market value.

For the purpose of achieving this object, Clause I of Article 31A of the Constitution has been suitably amended.

Compensation payable by tenants for the requisition of ownership varied from State to State except in the Punjab (where it is fixed at ⅓ of the average market value). Compensation is generally a multiple of rent or land revenue. In Andhra (Hyderabad 6–15) ; Madhya Pradesh (Madhya Bharat : 2–8 of the net income of landlord) ; Ajmer : 12 ; former Vindhya Pradesh : 15 ; former Madhya Pradesh (7–10) ; Rajasthan (for unirrigated lands) ; 10 and Uttar Pradesh 10.

In the Travancore part of Kerala it is fixed at eight and a half times the net annual income.

The compensation is fixed as a multiple of the assessment in five States :—Gujarat and Maharashtra : 20–200 times of the assessment ; Delhi : 20-40 ; Himachal Pradesh : 48 and Punjab (PEPSU) : 90 times of the assessment. This compensation is generally payable in instalments (except in former Madhya Pradesh) spread over a period of 5–15 years.

The optional right to purchase is seldom exercised. Tenants required persuasion and help. In Gujarat and Uttar Pradesh the State Governments had to organise administrative drives to persuade tenants to become owners of land. The State Government (in former Saurashtra) provided even credit facilities amounting to about Rs. 20 million through the Land Mortgage Banks to enable the tenants to acquire ownership rights.

The Second Five Year Plan had recommended that tenants of non-resumable areas should be brought into direct relationship with the State, but the total burden, including land revenue and instalment payments towards purchase price, should not exceed the level of rent recommended in the Plan.

## FIXATION OF CEILING

**Ceiling on Holding :** There is a general movement towards fixing a maximum and minimum on land holdings, as an aspect of land reform. This relates to (1) the absolute amount of land which any individual may hold and (2) the future acquisition of land.

Legislation placing ceiling on agricultural holdings have been enacted in all states and territories except Punjab. Though there is no outright ceiling on ownership in Punjab, the Government is empowered to settle ejected tenants on lands under personal authorities of owners in excess of the prescribed limits.

The following table shows ceiling on existing and future holdings in different States :—

| State | Existing Holding in Acres | Future Holding in Acres |
|---|---|---|
| Andhra Pradesh | 27—324 | 12—260 |
| Assam | 50 | 50 |
| Bihar | 20—60 | 20—60 |
| Gujarat | 19—132 | 19—132 |
| Jammu & Kashmir | 22¾ | 22¾ |
| Kerala | 15—37½ | 15—37½ |
| Madhya Pradesh | 25—75 | 25—75 |
| Madras | 24—120 | 24—120 |
| Maharashtra | 18—126 | 12—126 |
| Mysore | 27—216 | 18—144 |
| Orissa | 25—100 | 25—100 |
| Punjab | 30 Std. | 30 Std. |
| Rajasthan | 30 Std. | 30 Std. |
| U.P. | 40 | 12½ |
| W. Bengal | 25 | 25 |
| Delhi | 30 Std. | 30 Std. |
| H.P. | 30 Std. | 30 Std. |
| Manipur | 25 | 25 |
| Tripura | 25—75 | 25—75 |

As a result of implementation of legislation for ceilings on holdings considerable acreage has become surplus and allotted to tenants etc. as below :—

Land declared surplus & allotted :

(million acres)

| States | Declared surplus | Allotment made |
|---|---|---|
| Andhra | 0·0521 | .. |
| Assam | 0·021 | 3,000 acres were taken over. |
| Bengal | 0·524 | Leased to landless workers on 3 yearly basis. |
| Jammu and Kashmir | 0·45 | Distributed to tenants. |
| Maharashtra | 0·1 | 37,000 acres were taken over. |
| Punjab | 0·42 | 0·15 acres settled by tenants and landless people. |
| U.P. | 0·16 | Of this 55,000 acres distributed. |

In Assam, Bihar, Delhi, Gujarat, Madhya Pradesh, Maharashtra and parts of Tripura provisions of the Bill have been enforced and implementation is progressing.

## CONSOLIDATION

**(a) Size of Holding :** The average size of a holding for the whole of India is 7·5 acres, but this varies from State to State : Assam 5·3 acres, Bihar 4·1 acres, Bombay* 4·5 acres, M.P. 13·9 acres, Madras 9·7 acres, Orissa 5·6 acres, Punjab 11·8 acres, U.P. 5·3 acres, W. Bengal 4·7 acres.

Kashmir 3·8 acres, Kerala 2·4 acres, Mysore 7·2 acres, Rajasthan 16·9 acres.

The majority of the holdings will be less than 5 acres, a great majority indeed less than 2.

The proportion of households that held either no land or less than five acres was about three fourths, and the total share was about one-sixth of the whole area of cultivated land.

Legislation has been enacted in most of the States and in the Delhi and Himachal Pradesh Territories for prevention of holdings and consolidation of fragmented holdings. Consolidation was completed over 29·5 million acres by the end of the Second Plan. 31 million acres have been targeted in the Third Plan. During the first three years of the Third Plan about 20.4 million acres have been consolidated and during 1964-65 about 4.6 million acres were likely to be consolidated.

**(b) Prevention of Fragmentation :** Legislation disallowing fragmentation has either been enacted or in the process of enactment in fifteen States. It has not been implemented in Bengal, Orissa & Punjab. Bills are under consideration in non-Hyderabad portion of Andhra Pradesh. U.P. below 6¼ acres ; former Hyderabad below a basic holding ranging from 2–24 acres ; Rajasthan below a size to be determined by the State Government ; Delhi below 8 standard acres ; Madhya Pradesh below 5 acres of irrigated or 10 acres of dry land.

## CO-OPERATIVE FARMING

Co-operative farming is an organization "in which each cultivator would retain his right in his own land, but the cultivation operations would be carried on jointly. The expenditure would be met from a common fund and deducted from the gross income. The net income would be distributed among the cultivators in the proportion of the land belonging to each".

The main features of co-operative farming are thus : that land is formed into a single unit ; proprietorship rests with the individuals ; management is carried on jointly, the members are paid for their work ; and the net profits distributed among the members after setting aside money for building reserves.

The main purpose of such type of farming is to secure economy in the use of machinery, and the advantages of large-scale farming.

The societies formed for co-operative farming get State assistance in the form of lower assessment, loans for the purchase of seeds, supply of manure and other implements at concessional rates, and contribution towards share capital without sharing in profits. The money along with the interest is repayable in instalments.

The co-operative farming societies have been classified into four kinds :—

**(i) Co-operative Better Farming Society :** This is organised for the purpose of introducing improved methods of agriculture. It helps to promote the use of improved seeds, implements and manures. It can undertake bunding, irrigation, joint harvest and marketing of produce. In this system each member is responsible for the cultivation of his own land except for the specific purpose for which he joins the society. Land is not pooled.

**(ii) Co-operative Joint Farming Society :** The objects are : to purchase or take on lease lands for cultivation ; to purchase, erect and repair residential buildings, cattle-sheds and godowns to facilitate joint farming ; to purchase farming requirements, to sell and process the farm produce ; to raise funds on the security of lands, crops and other assets for the purpose of giving loans to the members ; to undertake cattle breeding, dairy farming, vegetable growing and fruit gardening ; to arrange for expert advice and the spread of agricultural education among the members of the society. This type of society is particularly suited for solving the problem for fragmentation and sub-division of holdings.

**(iii) Co-operative Tenant Farming Society :** This type of society is suitable where large areas of land are available on lease from landlords or the Government. If the society owns land on free-hold or lease-hold, and its holding is divided into smaller holdings or plots, each of which is leased to individual tenants, who are members of the society for the purpose of cultivation, then it is called a co-operative tenant farming society.

**(iv) Co-operative Collective Farming Society :** Such a society undertakes joint cultivation. Lands are cultivated jointly, and the produce is raised collectively and distributed among the workers in proportion to the labour and other resources contributed by them. The co-operative collective farming society has all the features of a joint co-operative farming society except that in the former, the lands belong to the society as free-hold or lease-hold, whereas in the latter, the lands are held by the members as owners or tenants.

The programme for Cooperative farming in the Third Plan envisages acquisition of 320 planned pilot projects at a rate of one per district in selected C.D. blocks where Panchayati Raj institutes and cooperatives have made progress. Each of these pilot projects will consider a minimum of 10 Coop. farming societies demonstrating its advantages. Till the end of 1963, 180 such pilot projects were started and 1,200 Coop. farming societies with a membership of 24,000 covering an area of 1,51,000 acres were acquired.

For more details on farming societies see article entitled Co-operative Movement.

## AGRICULTURAL LABOUR

(*See under main article on "Labour".*)

## AGRICULTURAL PRODUCTION BOARD

As a result of the recommendation of the National Development Council in Nov. 1963, an Agricultural Production Board has been constituted with a view to ensuring an integrated approach in matters of agricultural policies and programmes on behalf of the Central Government.

* Bilingual.

The Board will have seven members with the Central Minister for Food and Agriculture as Chairman.

The main function of the Board will be to bring about expeditious implementation of the programmes for the development of agriculture including animal husbandry, forestry and fisheries.

## FIVE-YEAR PLANS

The outlay for agricultural programmes from First, Second and Third Plan respectively were Rs. 5,700 mill., 9,440 million and 19,150 million.

In the Second Plan agricultural programmes were intended to provide adequate food to support the increased population and the raw materials needed for a growing industrial economy and also to make available larger exportable surpluses of agricultural commodities. The basic objective of the Third Five Year Plan is to achieve self-sufficiency in foodgrains and increase the production of other agricultural and commercial crops to meet the requirements of the industry and the export trade.

Th efollowing table shows the estimates of agricultural production at the end of Third Plan period.

| Commodity | Unit | Base level of production 1960–61 | Target of additional production | Estimated production 1965–66 | Percentage increase |
|---|---|---|---|---|---|
| Foodgrains | Million tons | 76·0 | 24·0 | 100·0 | 31·6 |
| Oilseeds | ,, | 7·1 | 9·8 | 38·0 | 2·7 |
| Sugarcane (Gur) | ,, | 8·0 | 2·0 | 10·0 | 25·0 |
| Cotton | Million bales | 5·1 | 1·9 | 7·0 | 37·2 |
| Jute | ,, | 4·0 | 2·2 | 6·2 | 55·0 |
| Coconut | Million nuts | 4,500 | 775 | 5,275 | 17·2 |
| Arecanut | Thousand tons | 93 | 7 | 100 | 7·5 |
| Cashewnut | ,, | 73 | 77 | 150 | 105·5 |
| Pepper | ,, | 26 | 1 | 27 | 3·9 |
| Cardamom | ,, | 2·26 | 0·36 | 2·62 | 15·9 |
| Lac | ,, | 50 | 12 | 62 | 24·0 |
| Tobacco | ,, | 300 | 25 | 325 | 8·3 |
| Rubber | ,, | 26·4 | 18·6 | 45 | 70·5 |
| Coffee | ,, | 48·0 | 32 | 80 | 67·7 |
| Tea | Million lb. | 725 | 175 | 900 | 24·7 |

(For more details see 1959-60 and 1960-61 Directories).

### CLASSIFICATION OF AREA

(thousand acres)

| States and Territories | Forests | | Area not available for cultivation | | Uncultivated land excluding fallow | | Fallow land | | Total cropped area | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1961-62 | 1962-63 | 1961-62 | 1962-63 | 1961-62 | 1962-63 | 1961-62 | 1962-63 | 1961-62 | 1962-63 |
| Andhra Pradesh | 14,711 | 15,116 | 10,186 | 9,950 | 7,539 | 6,983 | 7,558 | 7,070 | 31,413 | 31,734 |
| Assam* | 12,042 | 12,042 | 14,077 | 14,077 | 3,638 | 3,638 | 354 | 247 | 6,643 | 6,794 |
| Bengal (West) | 2,723 | 2,723 | 3,194 | 3,194 | 1,580 | 1,580 | 945 | 945 | 15,701 | 15,701 |
| Bihar | 9,165 | 9,165 | 5,574 | 5,583 | 2,410 | 2,403 | 5,041 | 5,056 | 27,511 | 27,384 |
| Gujarat | 2,743 | 2,743 | 12,658 | 12,658 | 4,459 | 4,459 | 1,767 | 1,767 | 20,025 | 20,025 |
| Jammu & Kashmir | 7,747 | 7,747 | 1,322 | 1,322 | 966 | 960 | 306 | 306 | 2,048 | 2,048 |
| Kerala | 2,610 | 2,610 | 879 | 829 | 958 | 916 | 314 | 215 | 5,785 | 6,046 |
| Madhya Pradesh | 33 945 | 35,456 | 10,385 | 10,112 | 17,900 | 17,931 | 5,638 | 4,982 | 45,731 | 45,484 |
| Madras | 4,653 | 4,653 | 5,415 | 5,415 | 3,244 | 3,244 | 3,980 | 3,980 | 17,964 | 17,964 |
| Maharashtra | 13,389 | 13,412 | 6,157 | 6,228 | 6,261 | 6,152 | 5,592 | 5,735 | 47,183 | 46,860 |
| Mysore | 6.674 | 6,646 | 4,323 | 4.373 | 6,771 | 6,669 | 3,288 | 3,105 | 26,299 | 26,592 |
| Orissa | 8,908 | 8,908 | 7,174 | 7,174 | 5,359 | 5,359 | 1,935 | 1,935 | 15,973 | 15,973 |
| Punjab | 915 | 914 | 8,126 | 8,106 | 1,397 | 1,387 | 1,249 | 1,144 | 24,059 | 24,784 |
| Rajasthan | 2.172 | 2,106 | 15,601 | 15,720 | 20,837 | 20,436 | 11,430 | 1,567 | 37,197 | 36,654 |
| Uttar Pradesh | 9,167 | 9,204 | 11,732 | 11,106 | 6,196 | 6,135 | 3,424 | 3,558 | 54,727 | 54,274 |
| Delhi | 4 | 4 | 81 | 86 | 44 | 44 | 16 | 16 | 297 | 272 |
| Himachal Pradesh | 1.904 | 1,903 | 1,321 | 1,323 | 13,019 | 3,012 | 45 | 42 | 1,087 | 1,094 |
| Manipur | 1,488 | 1,488 | 3,481 | 3,481 | 49 | 53 | (a) | 1 | 429 | 421 |
| Tripura | 1,571 | 1,570 | 106 | 107 | 369 | 369 | 28 | 27 | 657 | 659 |
| Andaman & Nicobar Islands | 1,600 | 1,600 | 17 | 17 | 24 | 24 | 4 | 4 | 24 | 24 |
| Laccadive, Minicoy and Amindivi Islands | — | — | (a) | (a) | (a) | (a) | (a) | — | 7 | 7 |
| TOTAL INDIA | 138,131 | 140,013 | 121,214 | 120,861 | 93,013 | 91,756 | 52,314 | 51,702 | 385,740 | 385,774 |

* Including NEFA.

(a) Below 500 acres.

## ACREAGE AND PRODUCTION OF FOOD GRAINS I

Figures for 1962-63 are partially revised and for 1963-64 are final estimates and hence subject to corrections.

Acres/metric tons (in thousands)

| States & Territories | Rice | | | | Wheat | | | | Barley | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Area | | Production | | Area | | Production | | Area | | Production | |
| | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 |
| Andhra | 7,532 | 8,304 | 3,501 | 4,256 | 48 | 48 | 4 | 4 | — | — | — | — |
| Assam | 4,449 | 4,557 | 1,525 | 1,848 | 10 | 10 | 3 | 3 | — | — | — | — |
| Bengal | 10,984 | 11,196 | 4,410 | 5,331 | 121 | 121 | 31 | 31 | 120 | 120 | 28 | 28 |
| Bihar | 12,843 | 13,134 | 4,281 | 4,534 | 1,768 | 1,685 | 529 | 372 | 1,005 | 911 | 235 | 161 |
| Gujarat | 1,303 | 1,284 | 378 | 485 | 1,007 | 1,028 | 303 | 367 | 19 | 14 | 4 | 3 |
| Jammu & Kashmir | 563 | 558 | 246 | 253 | 425 | 427 | 111 | 114 | 42 | 44 | 11 | 13 |
| Kerala | 1,983 | 1,988 | 1,093 | 1,120 | — | — | — | — | — | — | — | — |
| Madhya Pradesh | 10,527 | 10,410 | 2,356 | 3,181 | 8,019 | 7,957 | 2,154 | 1,875 | 435 | 440 | 130 | 108 |
| Madras | 6,340 | 6,473 | 3,861 | 3,917 | 3 | 3 | 1 | 1 | 1 | 1 | (*b*) | (*b*) |
| Maharashtra | 3,182 | 3,271 | 1,098 | 1,518 | 2,263 | 2,210 | 463 | 343 | 8 | 8 | 1 | 1 |
| Mysore | 2,481 | 2,501 | 1,350 | 1,314 | 730 | 740 | 81 | 88 | 5 | 5 | 1 | 1 |
| Orissa | 10,962 | 10,641 | 3,593 | 3,663 | 23 | 23 | 4 | 4 | 1 | 1 | (*b*) | (*b*) |
| Punjab | 1,163 | 1,177 | 462 | 550 | 5,740 | 5,740 | 2,719 | 2,782 | 426 | 253 | 140 | 112 |
| Rajasthan | 286 | 280 | 99 | 106 | 3,082 | 2,773 | 1,089 | 861 | 1,184 | 1,032 | 525 | 442 |
| Uttar Pradesh | 10,571 | 10,720 | 3,135 | 3,273 | 9,981 | 9,677 | 3,186 | 4,089 | 4,143 | 3,897 | 1,333 | 1,103 |
| Delhi | 2 | 2 | 1 | (*b*) | 71 | 80 | 29 | 31 | 8 | 7 | 1 | (*b*) |
| Himachal Pradesh | 114 | 115 | 35 | 37 | 357 | 356 | 97 | 97 | 71 | 71 | 14 | 13 |
| Manipur | 400 | 397 | 108 | 109 | — | — | — | — | — | — | — | — |
| Tripura | 446 | 454 | 174 | 174 | — | — | — | — | — | — | — | — |
| Andaman and Nicobar Islands. | 17 | 17 | 6 | 9 | — | — | — | — | — | — | — | — |
| Laccadive, Minicoy & Amindivi Islands | — | — | — | — | — | — | — | — | — | — | — | — |
| Nagaland | 177 | 180 | 70 | 71 | — | — | — | — | — | — | — | — |
| TOTAL | 86,325 | 87,659 | 31,914 | 36,489 | 33,748 | 32,878 | 10,829 | 19,708 | 7,468 | 6,904 | 2,423 | 1,985 |

(*b*) Below 500 tons.

## AREA AND PRODUCTION OF FOODGRAINS II

Acres/metric tons (in thousands)

| States & Territories | Jowar | | | | Bajra | | | | Ragi | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Area | | Production | | Area | | Production | | Area | | Production | |
| | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 |
| Andhra | 5,904 | 6,563 | 1,363 | 1,465 | 1,459 | 1,482 | 341 | 344 | 744 | 791 | 26 | 259 |
| Assam | — | — | — | — | — | — | — | — | — | — | — | — |
| Bengal | 4 | 4 | 1 | 1 | 1 | 1 | (*b*) | (*b*) | 27 | 27 | | 3 |
| Bihar | 20 | 20 | 4 | 4 | 46 | 43 | 9 | 9 | 463 | 456 | 102 | 111 |
| Gujarat | 3,266 | 3,324 | 449 | 408 | 3,232 | 2,950 | 508 | 650 | 155 | 160 | 60 | 55 |
| Jammu & Kashmir | 1 | 1 | (*b*) | (*b*) | 61 | 61 | 12 | 12 | — | — | — | — |
| Kerala | 4 | 4 | 1 | 1 | — | — | — | — | 13 | 13 | | 7 |
| Madhya Pradesh | 5,187 | 5,170 | 1,524 | 1,377 | 479 | 469 | 135 | 138 | 41 | 33 | | 4 |
| Madras | 1,878 | 1,859 | 603 | 582 | 1,200 | 1,208 | 309 | 316 | 821 | 832 | 335 | 334 |
| Maharashtra | 15,125 | 15,318 | 3,271 | 3,315 | 4,063 | 4,156 | 551 | 451 | 534 | 539 | 152 | 154 |
| Mysore | 7,193 | 7,124 | 1,332 | 1,246 | 1,221 | 1,204 | 120 | 130 | 2,337 | 2,383 | 790 | 765 |
| Orissa | 18 | 18 | 7 | 7 | 14 | 14 | 2 | 2 | 136 | 136 | 26 | 26 |
| Punjab | 792 | 769 | 52 | 50 | 2,054 | 2,066 | 326 | 318 | 6 | 6 | 1 | 1 |
| Rajasthan | 2,921 | 2,545 | 418 | 273 | 10,285 | 10,689 | 956 | 822 | — | — | — | — |
| Uttar Pradesh | 2,186 | 2,192 | 592 | 494 | 2,528 | 2,493 | 614 | 537 | 410 | 428 | 144 | 126 |
| Delhi | 33 | 39 | 4 | 4 | 46 | 37 | 9 | 7 | — | — | — | — |
| Himachal Pradesh | — | — | — | — | (*a*) | (*a*) | (*b*) | (*b*) | 37 | 37 | 7 | 7 |
| Manipur | — | — | — | — | — | — | — | — | — | — | — | — |
| Tripura | — | — | — | — | — | — | — | — | — | — | — | — |
| Andaman and Nicobar Islands | — | — | — | — | — | — | — | — | — | — | — | — |
| Laccadive, Minicoy & Amindivi Islands | — | — | — | — | — | — | — | — | — | — | — | — |
| Nagaland | — | — | — | — | — | — | — | — | — | — | — | — |
| TOTAL | 44,532 | 44,910 | 9,621 | 9,227 | 26,689 | 26,713 | 3,892 | 3,736 | 5,786 | 5,841 | 1,891 | 1,852 |

(*a*) Below 500 acres. (*b*) Below 500 tons.

## AREA AND PRODUCTION OF FOODGRAINS II—(*Contd.*)

Acres/metric tons (in thousands)

| States and Territories | Maize | | | | Small Millets | | | | Total Cereals | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Area | | Production | | Area | | Production | | Area | | Production | |
| | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 |
| Andhra | 445 | 483 | 138 | 174 | 2,588 | 2,549 | 421 | 439 | 18,720 | 20,126 | 6,055 | 6,896 |
| Assam | 42 | 37 | 8 | 7 | 17 | 16 | 3 | 3 | 4,518 | 4,633 | 1,539 | 1,863 |
| Bengal | 136 | 136 | 36 | 36 | 15 | 15 | 3 | 3 | 11,408 | 11,620 | 4,512 | 5,433 |
| Bihar | 2,066 | 1,961 | 885 | 912 | 575 | 534 | 104 | 99 | 18,786 | 18,744 | 6,149 | 6,202 |
| Gujarat | 552 | 551 | 271 | 240 | 354 | 333 | 123 | 118 | 9,888 | 9,644 | 2,096 | 2,326 |
| Jammu & Kashmir | 618 | 593 | 275 | 190 | 61 | 61 | 16 | 16 | 1,771 | 1,745 | 641 | 598 |
| Kerala | — | — | — | — | 17 | 17 | 3 | 3 | 2,017 | 2,022 | 1,104 | 1,131 |
| Madhya Pradesh | 1,219 | 1,226 | 466 | 608 | 3,434 | 3,433 | 255 | 348 | 29,341 | 29,138 | 7,024 | 7,639 |
| Madras | 14 | 15 | 6 | 6 | 1,331 | 1,310 | 424 | 418 | 11,588 | 11,701 | 5,539 | 5,574 |
| Maharashtra | 65 | 69 | 18 | 19 | 508 | 497 | 80 | 89 | 25,748 | 25,968 | 5,634 | 5,882 |
| Mysore | 31 | 32 | 9 | 9 | 932 | 927 | 125 | 129 | 14,930 | 14,916 | 3,856 | 3,779 |
| Orissa | 77 | 77 | 13 | 13 | 88 | 88 | 31 | 31 | 11,319 | 10,998 | 3,760 | 4,389 |
| Punjab | 1,439 | 1,432 | 531 | 796 | 10 | 7 | 2 | 1 | 11,730 | 11,490 | 4,233 | 4,610 |
| Rajasthan | 1,734 | 1,656 | 769 | 610 | 168 | 171 | 26 | 26 | 19,660 | 19,146 | 3,882 | 3,140 |
| Uttar Pradesh | 2,656 | 2,703 | 998 | 778 | 1,437 | 1,383 | 234 | 306 | 33,912 | 33,494 | 10,261 | 9,352 |
| Delhi | 2 | 3 | (*b*) | (*b*) | — | — | — | — | 162 | 168 | 44 | 42 |
| Himachal Pradesh | 289 | 301 | 158 | 172 | 61 | 61 | 10 | 10 | 929 | 941 | 321 | 336 |
| Manipur | — | — | — | — | — | — | — | — | 400 | 397 | 108 | 109 |
| Tripura | — | — | — | — | — | — | — | — | 446 | 454 | 174 | 174 |
| Andaman and Nicobar Islands | — | — | — | — | — | — | — | — | 17 | 17 | 6 | 9 |
| Laccadive, Minicoy & Amindivi Islands | — | — | — | — | — | — | — | — | — | — | — | — |
| Nagaland | — | — | — | — | — | — | — | — | 177 | 180 | 70 | 71 |
| TOTAL | 11,385 | 11,234 | 4,578 | 4,527 | 11,596 | 11,402 | 1,860 | 2,031 | 227,467 | 227,541 | 67,008 | 69,555 |

(*b*) Below 500 tons.

## AREA AND PRODUCTION OF FOODGRAINS III

Acres/metric tons (in thousands)

| States and Territories | Gram | | | | Tur | | | | Other Pulses | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Area | | Production | | Area | | Production | | Area | | Production | |
| | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 |
| Andhra | 212 | 215 | 25 | 26 | 428 | 392 | 46 | 51 | 3,076 | 2,888 | 234 | 222 |
| Assam | 4 | 4 | 1 | 1 | 6 | 6 | 2 | 2 | 183 | 196 | 28 | 33 |
| Bengal | 401 | 401 | 89 | 89 | 98 | 98 | 27 | 27 | 1,311 | 1,379 | 240 | 260 |
| Bihar | 1,226 | 1,247 | 284 | 243 | 397 | 436 | 129 | 114 | 3,769 | 3,684 | 741 | 847 |
| Gujarat | 240 | 252 | 47 | 46 | 217 | 207 | 47 | 46 | 877 | 871 | 104 | 97 |
| Jammu & Kashmir | 10 | 8 | 2 | 1 | — | — | — | — | 109 | 113 | 18 | 19 |
| Kerala | — | — | — | — | 22 | 22 | 4 | 4 | 87 | 86 | 13 | 13 |
| Madhya Pradesh | 3,584 | 3,687 | 874 | 786 | 975 | 947 | 230 | 225 | 4,391 | 4,428 | 513 | 513 |
| Madras | 4 | 5 | 1 | 1 | 146 | 135 | 21 | 19 | 887 | 890 | 78 | 78 |
| Maharashtra | 987 | 935 | 157 | 111 | 1,336 | 1,366 | 330 | 368 | 3,436 | 3,401 | 402 | 388 |
| Mysore | 359 | 356 | 42 | 45 | 616 | 615 | 74 | 77 | 1,994 | 2,006 | 193 | 191 |
| Orissa | 120 | 120 | 22 | 22 | 83 | 83 | 20 | 20 | 1,941 | 1,941 | 388 | 388 |
| Punjab | 5,555 | 5,399 | 1,474 | 1,117 | 8 | 6 | 1 | 1 | 465 | 339 | 96 | 62 |
| Rajasthan | 3,774 | 3,717 | 766 | 528 | 60 | 60 | 10 | 9 | 4,299 | 4,052 | 389 | 284 |
| Uttar Pradesh | 6,099 | 6,412 | 1,547 | 41 | 1,584 | 1,566 | 651 | 329 | 3,651 | 3,638 | 1,059 | 701 |
| Delhi | 44 | 64 | 10 | 10 | (*a*) | (*a*) | (*b*) | (*b*) | 9 | 10 | 1 | 1 |
| Himachal Pradesh | 17 | 16 | 2 | 2 | — | — | — | — | 54 | 55 | 7 | 7 |
| Manipur | — | — | — | — | — | — | — | — | — | — | — | — |
| Tripura | — | — | — | — | — | — | — | — | 4 | 4 | 1 | 1 |
| Andaman and Nicobar Islands | — | — | — | — | — | — | — | — | — | — | — | — |
| L. M. & A. Islands | — | — | — | — | — | — | — | — | — | — | — | — |
| Nagaland | — | — | — | — | — | — | — | — | — | — | — | — |
| Pondicherry | — | — | — | — | — | — | — | — | — | — | — | — |
| All India TOTAL | 22,678 | 22,838 | 5,343 | 4,478 | 5,796 | 5,974 | 1,592 | 1,292 | 30,553 | 29,910 | 4,505 | 4,105 |

(*a*) Below 500 acres. (*b*) Below 500 tons.

## AREA AND PRODUCTION OF FOODGRAINS III—(*Contd.*)

Acres/metric tons (in thousands)

| States and Territories | Total Pulses | | | | Total Foodgrains | | | |
|---|---|---|---|---|---|---|---|---|
| | Area | | Production | | Area | | Production | |
| | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 |
| Andhra | 3,716 | 3,470 | 305 | 299 | 22,436 | 23,596 | 6,300 | 7,195 |
| Assam | 193 | 206 | 31 | 36 | 4,711 | 4,839 | 1,570 | 1,599 |
| Bengal | 1,810 | 1,878 | 356 | 376 | 13,218 | 13,498 | 4,868 | 5,009 |
| Bihar | 5,432 | 5,367 | 1,154 | 1,204 | 24,218 | 24,111 | 7,303 | 7,406 |
| Gujarat | 1,334 | 1,330 | 198 | 198 | 11,222 | 10,874 | 2,294 | 2,324 |
| Jammu & Kashmir | 119 | 121 | 20 | 20 | 1,890 | 1,866 | 661 | 615 |
| Kerala | 109 | 108 | 17 | 17 | 2,126 | 2,130 | 1,121 | 1,148 |
| Madhya Pradesh | 8,950 | 9,062 | 1,617 | 1,524 | 38,291 | 38,200 | 8,641 | 9,163 |
| Madras | 1,037 | 1,030 | 100 | 98 | 12,625 | 12,731 | 5,639 | 5,672 |
| Maharashtra | 5,769 | 5,702 | 889 | 867 | 31,517 | 31,670 | 6,523 | 6,749 |
| Mysore | 2,969 | 2,977 | 309 | 313 | 17,899 | 17,893 | 4,165 | 4,092 |
| Orissa | 2,146 | 2,144 | 430 | 430 | 13,463 | 13,142 | 4,190 | 4,219 |
| Punjab | 6,028 | 5,792 | 1,571 | 1,180 | 17,753 | 17,232 | 5,804 | 5,790 |
| Rajasthan | 8,133 | 7,829 | 1,165 | 821 | 27,193 | 26,975 | 5,047 | 3,961 |
| Uttar Pradesh | 11,334 | 11,616 | 3,257 | 2,471 | 45,246 | 45,109 | 13,518 | 11,825 |
| Delhi | 55 | 74 | 11 | 11 | 217 | 242 | 55 | 53 |
| Himachal Pradesh | 71 | 71 | 9 | 9 | 1,000 | 1,012 | 330 | 345 |
| Manipur | — | — | — | — | 400 | 397 | 108 | 109 |
| Tripura | 4 | 4 | 1 | 1 | 450 | 458 | 175 | 175 |
| Andaman and Nicobar Islands | — | — | — | — | 17 | 17 | 6 | 9 |
| L. M. & A. Islands | — | — | — | — | — | — | — | — |
| Nagaland | — | — | — | — | 177 | 180 | 70 | 71 |
| Pondicherry | — | — | — | — | — | — | — | — |
| All India TOTAL | 59,207 | 58,731 | 11,440 | 9,875 | 2,86,674 | 2,86,272 | 78,448 | 79,430 |

## AREA AND PRODUCTION OF OIL SEEDS

(Acres/tons in thousands)

| States and Territories | Groundnut (Nuts in Shell) | | | | Sesamum | | | | Rape and Mustard | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Area | | Production | | Area | | Production | | Area | | Production | |
| | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1962-63 | 1962-63 | 1963-64 |
| Andhra | 2,322 | 2,219 | 740 | 745 | 567 | 563 | 47 | 46 | 6 | 6 | (*b*) | (*b*) |
| Assam | — | — | — | — | 21 | 22 | 4 | 4 | 294 | 294 | 44 | 50 |
| Bengal | — | — | — | — | 12 | 14 | 2 | 2 | 235 | 215 | 37 | 28 |
| Bihar | — | — | — | — | 68 | 80 | 8 | 9 | 263 | 229 | 56 | 27 |
| Gujarat | 5,074 | 4,560 | 1,055 | 1,271 | 241 | 283 | 19 | 21 | 71 | 75 | 18 | 18 |
| Jammu & Kashmir | — | — | — | — | — | — | — | — | 14 | 39 | 3 | 9 |
| Kerala | 40 | 36 | 13 | 20 | 29 | 30 | 3 | 3 | — | — | — | — |
| Madhya Pradesh | 1,217 | 1,154 | 271 | 303 | 827 | 838 | 60 | 55 | 350 | 385 | 43 | 51 |
| Madras | 2,078 | 2,282 | 1,015 | 1,112 | 305 | 309 | 40 | 40 | 2 | 2 | (*b*) | (*b*) |
| Maharashtra | 2,657 | 2,732 | 729 | 731 | 317 | 323 | 31 | 33 | 9 | 9 | 1 | 1 |
| Mysore | 2,095 | 2,153 | 402 | 569 | 145 | 142 | 21 | 19 | 8 | 8 | 1 | 1 |
| Orissa | 145 | 145 | 54 | 54 | 242 | 242 | 20 | 20 | 130 | 130 | 28 | 28 |
| Punjab | 213 | 300 | 77 | 106 | 61 | 50 | 8 | 7 | 870 | 778 | 205 | 66 |
| Rajasthan | 448 | 476 | 121 | 94 | 1,546 | 1,193 | 82 | 29 | 792 | 776 | 182 | 45 |
| Uttar Pradesh | 673 | 757 | 264 | 281 | 1,728 | 1,700 | 118 | 119 | 4,586 | 4,457 | 728 | 587 |
| Delhi | — | — | — | — | — | — | — | — | 3 | 3 | (*b*) | (*b*) |
| Himachal Pradesh | — | — | — | — | 2 | 2 | (*b*) | (*b*) | 8 | 8 | 1 | 1 |
| Manipur | — | — | — | — | — | — | — | — | — | — | — | — |
| Tripura | — | — | — | — | 9 | 8 | 1 | 1 | 10 | 10 | 2 | 2 |
| Andaman and Nicobar Islands | — | — | — | — | — | — | — | — | — | — | — | — |
| L. M. & A. Islands | — | — | — | — | — | — | — | — | — | — | — | — |
| Nagaland | — | — | — | — | — | — | — | — | — | — | — | — |
| ALL INDIA TOTAL | 16,962 | 16,814 | 4,821 | 5,291 | 6,147 | 5,789 | 464 | 410 | 7,681 | 7,424 | 1,294 | 909 |

(*b*) Below 500 tons.

## AREA AND PRODUCTION OF OIL SEEDS—(*Contd.*)

(Acres/tons in thousands)

| States and Territories | Linseed | | | | Castor Seed | | | | Total Oil Seeds | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Area | | Production | | Area | | Production | | Area | | Production | |
| | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 |
| Andhra | 76 | 75 | 5 | 5 | 691 | 725 | 47 | 50 | 3,662 | 3,588 | 836 | 846 |
| Assam | 3 | 3 | 1 | (*b*) | 5 | 5 | 1 | 1 | 323 | 324 | 50 | 56 |
| Bengal | 113 | 105 | 12 | 10 | — | — | — | — | 360 | 334 | 51 | 40 |
| Bihar | 265 | 280 | 35 | 35 | 23 | 23 | 5 | 6 | 619 | 612 | 104 | 73 |
| Gujarat | — | — | — | — | 171 | 162 | 23 | 20 | 5,557 | 5,050 | 1,110 | 1,325 |
| Jammu & Kashmir | 24 | 26 | 5 | 5 | — | — | — | — | 65 | 85 | 11 | 16 |
| Kerala | — | — | — | — | — | — | — | — | 69 | 66 | 16 | 23 |
| Madhya Pradesh | 1,516 | 1,548 | 140 | 115 | 12 | 12 | 2 | 2 | 3,952 | 3,937 | 516 | 531 |
| Madras | (*a*) | (*a*) | (*b*) | (*b*) | 30 | 31 | 5 | 5 | 2,415 | 2,629 | 1,060 | 1,157 |
| Maharashtra | 544 | 536 | 51 | 40 | 12 | 13 | 1 | 1 | 3,539 | 3,613 | 813 | 815 |
| Mysore | 119 | 118 | 10 | 8 | 93 | 96 | 11 | 11 | 2,460 | 2,517 | 525 | 608 |
| Orissa | 57 | 57 | 16 | 16 | 34 | 34 | 4 | 4 | 608 | 608 | 122 | 122 |
| Punjab | 28 | 27 | 5 | 2 | — | — | — | — | 1,172 | 1,155 | 295 | 181 |
| Rajasthan | 274 | 299 | 28 | 29 | 5 | 3 | 1 | (*b*) | 3,065 | 2,747 | 364 | 197 |
| Uttar Pradesh | 1,671 | 1,752 | 125 | 114 | 5 | 5 | 1 | 1 | 8,663 | 8,671 | 1,236 | 1,102 |
| Delhi | — | — | — | — | — | — | — | — | 3 | 3 | (*b*) | (*b*) |
| Himachal Pradesh | 2 | 3 | (*b*) | (*b*) | — | — | — | — | 12 | 12 | 1 | 1 |
| Manipur | — | — | — | — | — | — | — | — | — | — | — | — |
| Tripura | — | — | — | — | — | — | — | — | 19 | 18 | 3 | 3 |
| Andaman and Nicobar Islands | — | — | — | — | — | — | — | — | — | — | — | — |
| L. M. & A. Islands | — | — | — | — | — | — | — | — | — | — | — | — |
| Nagaland | — | — | — | — | — | — | — | — | — | — | — | — |
| ALL INDIA TOTAL | 4,692 | 4,829 | 433 | 385 | 1,081 | 1,109 | 101 | 101 | 36,563 | 35,965 | 7,113 | 7,096 |

(*a*) Below 500 acres. (*b*) Below 500 tons.

## AREA AND PRODUCTION UNDER SUGARCANE AND SPICES

(Acres/tons in thousands)

| States & Territories | Sugarcane | | | | Potato | | | | Ginger | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Acreage | | Production (Gur) | | Acreage | | Production | | Acreage | | Production | |
| | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 |
| Andhra | 225 | 237 | 813 | 847 | 2 | 2 | 3 | 4 | 5·2 | 5·2 | 1·7 | 1·7 |
| Assam | 70 | 70 | 112 | 112 | 86 | 87 | 134 | 104 | — | — | — | — |
| Bengal | 77 | 77 | 135 | 135 | 163 | 159 | 786 | 516 | 2·6 | 2·6 | 1·6 | 1·6 |
| Bihar | 400 | 348 | 488 | 517 | 201 | 203 | 592 | 528 | — | — | — | — |
| Gujarat | 50 | 55 | 105 | 134 | 8 | 10 | 84 | 62 | 1·0 | 1·1 | 0·4 | 0·5 |
| Jammu and Kashmir | 3 | 3 | 2 | 2 | — | — | — | — | — | — | — | — |
| Kerala | 23 | 23 | 42 | 44 | — | — | 2·5 | — | 29·8 | 29·6 | 11·3 | 11·1 |
| Madhya Pradesh | 139 | 138 | 144 | 134 | 31 | 33 | 121 | 125 | 2·6 | 2·6 | 0·9 | 0·9 |
| Madras | 180 | 201 | 623 | 678 | 25 | 23 | 66 | 61 | 0·9 | 1·0 | 0·3 | 0·4 |
| Maharashtra | 349 | 361 | 1,095 | 1,149 | 60 | 33 | 137 | 56 | 0·4 | 0·5 | 0·1 | 0·1 |
| Mysore | 177 | 187 | 580 | 628 | 15 | 14 | 30 | 28 | 2·8 | 2·8 | 1·4 | 1·4 |
| Orissa | 79 | 79 | 158 | 158 | 45 | 44 | 50 | 50 | 1·2 | 1·2 | 0·4 | 0·4 |
| Punjab | 644 | 569 | 844 | 885 | 39 | 30 | 245 | 187 | 0·7 | 0·7 | 0·2 | 0·3 |
| Rajasthan | 86 | 73 | 82 | 64 | 5 | 4 | 6 | 5 | 0·3 | 0·2 | 0·2 | 0·1 |
| Uttar Pradesh | 3,118 | 3,036 | 4,320 | 4,758 | 308 | 304 | 783 | 558 | — | — | — | — |
| Delhi | 9 | 8 | 2 | 2 | 1 | 1 | 2 | 2 | — | — | — | — |
| Himachal Pradesh | 4 | 4 | 2 | 2 | 31 | 31 | 30 | 28 | 3·2 | 3·3 | 0·5 | 0·6 |
| Manipur | — | — | — | — | — | — | — | — | — | — | — | — |
| Tripura | 7 | 7 | 9 | 9 | 5 | 6 | 12 | 15 | 0·5 | 0·5 | 0·2 | 0·2 |
| Andaman and Nicobar Islands | — | — | — | — | — | — | — | — | — | — | — | — |
| L. M. & A. Islands | — | — | — | — | — | — | — | — | — | — | — | — |
| Nagaland | — | — | — | — | — | — | — | — | — | — | — | — |
| Pondicherry | — | — | — | — | — | — | — | — | — | — | — | — |
| TOTAL | 5,635 | 5,471 | 9,544 | 10,258 | 1,025 | 984 | 3,081 | 2,429 | 51·2 | 51·2 | 19·2 | 19·3 |

## AREA AND PRODUCTION UNDER SUGARCANE AND SPICES—*Contd.*

(Acres/tons in thousands)

| States and Territories | Dry Pepper | | | | Dry Chillies | | | |
|---|---|---|---|---|---|---|---|---|
| | Acreage | | Production | | Acreage | | Production | |
| | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 |
| Andhra | — | — | — | — | 278 | 273 | 87 | 79 |
| Assam | — | — | — | — | 18 | 18 | 4 | 4 |
| Bengal | — | — | — | — | 19 | 19 | 8 | 8 |
| Bihar | — | — | — | — | 80 | 74 | 20 | 18 |
| Gujarat | — | — | — | — | 46 | 46 | 12 | 12 |
| Jammu and Kashmir | — | — | — | — | 3 | 3 | 2 | 2 |
| Kerala | 245·23 | 245·48 | 24·08 | 22·07 | 8 | 8 | 2 | 2 |
| Madhya Pradesh | — | — | — | — | 98 | 98 | 7 | 10 |
| Madras | 0·72 | 0·74 | 0·06 | 0·06 | 179 | 181 | 94 | 97 |
| Maharashtra | — | — | — | — | 383 | 400 | 94 | 63 |
| Mysore | 6·37 | 6·35 | 1·56 | 1·90 | 242 | 237 | 32 | 31 |
| Orissa | — | — | — | — | 20 | 20 | 3 | 3 |
| Punjab | — | — | — | — | 81 | 71 | 27 | 23 |
| Rajasthan | — | — | — | — | 60 | 77 | 15 | 16 |
| Uttar Pradesh | — | — | — | — | 35 | 50 | 5 | 7 |
| Delhi | — | — | — | — | 1 | 1 | 1 | 1 |
| Himachal Pradesh | — | — | — | — | 1 | 1 | (*b*) | (*b*) |
| Manipur | — | — | — | — | — | — | — | — |
| Tripura | — | — | — | — | 3 | 3 | (*b*) | (*b*) |
| Andaman and Nicobar Islands | — | — | — | — | — | — | — | — |
| L. M. & A. Islands | — | — | — | — | — | — | — | — |
| Nagaland | — | — | — | — | — | — | — | — |
| Pondicherry | — | — | — | — | — | — | — | — |
| TOTAL | 252·32 | 252·67 | 25·7 | 24·03 | 1,555 | 1,580 | 413 | 406 |

(*a*) Below 500 acres. (*b*) Below 500 metric tons.

## AREA & YIELD OF CASH CROPS

(Acres/metric tons in thousands)

| States and Territories | Cotton | | | | Jute | | | | Mesta | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Area | | Production | | Area | | Production | | Area | | Production | |
| | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 |
| Andhra | 912 | 916 | 174 | 189 | — | — | — | — | 189 | 202 | 402 | 430 |
| Assam | 40 | 41 | 7 | 7 | 335 | 334 | 28,702 | 1,028 | 17 | 20 | 25 | 28 |
| Bengal | (*a*) | (*a*) | (*c*) | (*c*) | 1,074 | 1,144 | 3,153 | 3,352 | 328 | 340 | 710 | 715 |
| Bihar | 5 | 5 | 1 | 1 | 490 | 482 | 1,052 | 949 | 129 | 160 | 218 | 320 |
| Gujarat | 4,249 | 4,101 | 1,582 | 1,255 | — | — | — | — | 1 | 1 | 1 | 1 |
| Jammu & Kashmir | 3 | 3 | 2 | 2 | — | — | — | — | — | — | — | — |
| Kerala | 19 | 20 | 8 | 8 | — | — | — | — | — | — | — | — |
| Madhya Pradesh | 1,695 | 1,825 | 299 | 402 | — | — | — | — | 20 | 19 | 16 | 15 |
| Madras | 1,005 | 1,036 | 397 | 405 | — | — | — | — | 1 | 1 | 1 | 1 |
| Maharashtra | 6,720 | 6,589 | 1,261 | 1,373 | — | — | — | — | 128 | 126 | 105 | 105 |
| Mysore | 2,578 | 2,590 | 424 | 431 | — | — | — | — | 56 | 59 | 59 | 60 |
| Orissa | 21 | 21 | 5 | 5 | 121 | 135 | 312 | 471 | 33 | 38 | 66 | 75 |
| Punjab | 1,460 | 1,658 | 925 | 1,118 | — | — | — | — | 1 | 1 | 2 | 2 |
| Rajasthan | 479 | 578 | 158 | 182 | — | — | — | — | — | — | — | — |
| Uttar Pradesh | 189 | 237 | 58 | 2 | 53 | 48 | 154 | 141 | — | — | — | — |
| Delhi | 1 | 1 | (*c*) | (*c*) | — | — | — | — | — | — | — | — |
| Himachal Pradesh | 1 | 1 | (*c*) | (*c*) | — | — | — | — | — | — | — | — |
| Manipur | — | — | — | — | — | — | — | — | — | — | — | — |
| Tripura | 18 | 17 | 8 | 6 | 30 | 29 | 91 | 72 | 34 | 29 | 86 | 66 |
| Andaman and Nicobar Islands | — | — | — | — | — | — | — | — | — | — | — | — |
| L. M. & A. Islands | — | — | — | — | — | — | — | — | — | — | — | — |
| Nagaland | — | — | — | — | — | — | — | — | — | — | — | — |
| TOTAL | 19,385 | 19,569 | 5,309 | 5,426 | 2,103 | 2,130 | 5,449 | 5,957 | 937 | 952 | 1,697 | 1,819 |

## AREA & YIELD OF CASH CROPS—(*Contd.*)

(Acres/metric tons in thousands)

| States and Territories | Sunn-hemp | | | | Tobacco | | | |
|---|---|---|---|---|---|---|---|---|
| | Area | | Production | | Area | | Production | |
| | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 | 1962-63 | 1963-64 |
| Andhra | 55 (129) | 82 (89) | 6 | 6 | 405 | 415 | 134 | 150 |
| Assam | — | — | — | — | 26 | 24 | 8 | 7 |
| Bengal | 10 | 10 | 3 | 3 | 38 | 37 | 11 | 11 |
| Bihar | 27 | 25 | 5 | 5 | 42 | 36 | 15 | 11 |
| Gujarat | 2 (2) | 2 (2) | (*b*) | (*b*) | 229 | 188 | 95 | 69 |
| Jammu & Kashmir | 3 | 3 | 1 | 1 | (*a*) | 2 | (*b*) | 1 |
| Kerala | — | — | — | — | 2 | 2 | 1 | 1 |
| Madhya Pradesh | 81 | 76 (*a*) | 9 | 13 | 10 | 9 | 2 | 2 |
| Madras | 2 | 2 | (*b*) | 1 | 47 | 47 | 28 | 27 |
| Maharashtra | 50 | 48 | | | 68 | 50 | 15 | 10 |
| Mysore | 10 (2) | 10 (2) | 6 | 6 | 95 | 91 | 23 | 22 |
| Orissa | 16 | 16 | 1 | 1 | 38 | 18 | 11 | 5 |
| Punjab | 22 | 22 | 4 | 4 | 4 | 4 | 1 | 1 |
| Rajasthan | 41 | 53 | 4 7 | 4 4 | 12 | 12 | 4 | 4 |
| Uttar Pradesh | 166 | 179 | 26 | 27 | 40 | 40 | 13 | 10 |
| Delhi | — | — | — | — | 1 | (*a*) | (*b*) | (*b*) |
| Himachal Pradesh | (*a*) (*a*) | (*a*) (*a*) | (*b*) | (*b*) | 2 | 2 | (*b*) | (*b*) |
| Manipur | — | — | — | — | — | — | — | — |
| Tripura | — | — | — | — | 3 | 3 | (*b*) | (*b*) |
| Andaman and Nicobar Islands | — | — | — | — | — | — | — | — |
| L. M. & A. Islands | — | — | — | — | — | — | — | — |
| Nagaland | — | — | — | — | — | — | — | — |
| TOTAL | 485 (134) | 528 (93) | 75 | 85 | 1,062 | 980 | 361 | 331 |

Cotton lint. Jute & Mesta as dry fibre in thousand bales (of 180 Kg.), figure in brackets under area of Sunn-hemp relates to acreage under fodder while production relates only to fabric.

(*a*) Below 500 acres.

(*b*) Below 500 metric tons.

## AREA SOWN UNDER ALL CROPS

(Thousand acres)

| States & Union Territories | Net area sown | | Area sown more than once | | Total area sown | |
|---|---|---|---|---|---|---|
| | 1961-62 | 1962-63 | 1961-62 | 1962-63 | 1961-62 | 1962-63 |
| Andhra Pradesh | 27,899 | 28,774 | 3,514 | 2,960 | 31,413 | 31,734 |
| Assam* | 5,653 | 5,760 | 990 | 1,034 | 6,643 | 6,794 |
| Bengal (West) | 3,432 | 13,432 | 2,269 | 2,269 | 15,701 | 15,701 |
| Bihar | 20,633 | 20,618 | 6,878 | 6,766 | 27,511 | 27,381 |
| Gujarat | 23,632 | 23,632 | 1,393 | 1,393 | 25,025 | 25,025 |
| Jammu & Kashmir | 1,702 | 1,702 | 346 | 346 | 2,048 | 2,048 |
| Kerala | 4,774 | 4,965 | 1,011 | 1,081 | 5,785 | 6,046 |
| Madhya Pradesh | 40,158 | 40,410 | 5,573 | 5,074 | 45,731 | 45,484 |
| Madras | 14,868 | 14,868 | 3,096 | 3,096 | 17,964 | 17,964 |
| Maharashtra | 44,611 | 40,509 | 2,512 | 2,351 | 47,183 | 46,860 |
| Mysore | 25,364 | 25,690 | 935 | 902 | 26,299 | 26,592 |
| Orissa | 4,787 | 14,787 | 1,186 | 1,186 | 15,973 | 15,973 |
| Punjab | 18,604 | 18,741 | 5,455 | 6,043 | 24,059 | 24,784 |
| Rajasthan | 33,959 | 34,153 | 3,218 | 2,501 | 37,177 | 36,654 |
| Uttar Pradesh | 42,724 | 42,510 | 12,003 | 11,604 | 54,727 | 54,274 |
| Delhi | 216 | 216 | 81 | 56 | 294 | 272 |
| Himachal Pradesh | 677 | 681 | 410 | 413 | 1,087 | 1,094 |
| Manipur (*a*) | 414 | 410 | 15 | 11 | 429 | 421 |
| Tripura | 561 | 561 | 96 | 98 | 657 | 659 |
| Andaman & Nicobar Islands | 23 | 23 | 1 | 1 | 24 | 24 |
| Laccadive, Minicoy & Amindivi Islands | 7 | 7 | — | — | 7 | 7 |
| TOTAL INDIA | 3,34,698 | 3,36,609 | 51,042 | 49,185 | 3,85,740 | 3,85,794 |

* Including NEFA.

(*a*) Below 500 acres.

# LABOUR

THE achievement of Independence and the emergence of India as a Republic wedded to the idea of a welfare State has made the welfare of the working classes a prime responsibility of the State. Several administrative and legislative measures of far-reaching significance have already been introduced in the country. Health, education, housing and social welfare for the masses found a prominent place in the First and Second Five Year Plans.

The general position in 1961-62 was as follows :—

**Total Labour Force (1961 census) : 18,84,10,000**

No. employed in factories coming under the Factories Act of 1948 .. .. 41,97,360

No. of trade unions on register .. 11,476

No. of trade unions which submitted returns of membership .. .. .. 7,044

No. of members of trade unions submitting returns .. .. .. .. 37,28,000

The Central co-ordinating authority in India for questions connected with labour legislation is the Ministry of Labour and Employment of the Government of India with the Labour Minister in charge. The administration of matters, connected with the English and Indian Merchant Shipping Acts, the Mercantile Marine Department and Indian Seamen is with the Ministry of Transport. In respect of all the Railways, the Labour Minister is responsible for the administration of the Payment of Wages Act, 1936, trade disputes, hours of work for employees not covered by the Factories Act and regulation of employment of children. He is also responsible for regulation of labour and safety in respect of mines and oilfields ; trade disputes in industries, businesses or undertakings carried on by the Central Government, and inter-State migration.

Among the more important Acts that govern labour conditions and relations in India are the following : 1. Indian Factories Act, 1948 ; 2. Indian Mines Act ; 3. Payment of Wages Act ; 4. Minimum Wages Act ; 5. Workmen's Compensation Act ; 6. Maternity Benefit Acts (States) ; 7. Indian Trades Union Act ; 8. Industrial Disputes Act ; 9. Industrial Disputes (Appellate Tribunal) Act ; 10. Tea Districts Emigrant Labour Act ; 11. Shop Assistants Acts (States) ; 12. Employees' State Insurance Act ; 13. Collection of Statistics Act ; 14. Employees Provident Funds Act.

## FACTORIES ACT, 1948

The Act covers all industrial establishments employing 10 or more workers and using power and establishments employing 20 or more workers and not using power. The State Governments have been empowered to apply the provisions of the Act to any premises, irrespective of the number of persons employed, where a manufacturing process is carried on with or without the aid of power, except where the work is done by the worker solely with the aid of his family.

The Act prescribes that every factory should be kept clean and free from effluvia arising from drains, privies, etc., and lays down stipulations regarding sweeping, cleaning, disinfecting, whitewashing, ventilation, temperature, drinking water, latrines, etc.

In existing factories 350 cubic feet of space should be provided for every workman. In new factories to be built the space for each workman should be 500 cubic feet.

Elaborate provision regarding safety such as fencing of machinery, etc., has been laid down. Women and children are prohibited from employment on certain types of machinery.

Washing facilities for the workers, appliances for first-aid, rest shelters, creches, canteens, etc., are prescribed under the Act. In every factory where 500 or more workers are employed the occupier shall employ Welfare Officers.

Weekly hours of work have been fixed at 48 and daily hours at 9. The maximum spread-over allowed is 10½ hours. No worker shall work for more than 5 hours before he has had an interval for rest of at least half an hour.

Payment for overtime has been prescribed at double ordinary rate of wages.

No woman or child shall be employed in any factory except between the hours of 6 a.m. and 7 p.m.

A weekly day of rest has also been prescribed.

No child who has not completed his fourteenth year shall be required or allowed to work in any factory. A child who has completed his fourteenth year or an adolescent (a person who has not completed his eighteenth year) shall not be allowed to work in a factory unless a certificate of fitness by a certifying surgeon is in the custody of the manager of the factory and he carries while at work a token giving reference to such certificate. No 'child' shall be employed or permitted to work in any factory for more than 4½ hours in a day or between the hours of 7 p.m. and 6 a.m.

Every adult worker who has completed a period of 12 months' continuous service in a factory (later amended, see below) shall be allowed during the subsequent period of 12 months leave with wages including dearness allowance for a period calculated at the rate of one day for every 20 days of work performed by him during the previous 12 months, subject to a minimum of 10 days. In the case of children the leave should be at the rate of one day for every 15 days of work subject to a minimum of 14 days.

It may be added here that the recent tendency for many units particularly in south India has been to allow holidays with pay in excess of the minimum stipulated.

In many awards given by Adjudicators leave with pay upto 14 days has been granted.

Where any worker in a factory contracts any disease specified in the schedule appended to the Act, the manager of the factory shall send notice thereof to such authorities, and in such form and within such time, as may be prescribed.

The administration of the Act is left to the State Governments. The Central Government have set up an advisory organisation, namely the Office of the Chief Adviser, Factories.

The Act was amended in 1954. Under this amendment eligibility for leave with pay would be 240 days' service during a calendar year. Proportionate leave will be granted to those whose service starts after the beginning of the calendar year.

The annual leave with wages will be exclusive of holidays during or immediately before or after the period of leave.

The leave can be carried forward from one calendar year to another provided the maximum does not exceed 30 days in the case of an adult and 40 days in the case of a child.

No prior notice will be necessary when a worker requires leave to cover a period of illness.

The Act permits six hours' work at a stretch without any interval when the total number of hours to be worked on any day in a shift does not exceed six.

It also permits newspaper printing presses to work their entire night shift of six hours at a stretch.

It allows a worker a maximum of 50 overtime hours in a quarter year which is deemed to have begun on the first day of January, April, July or October.

It enables continuous employment of workers in case some of the subsequent shift workers do not turn up in time.

For the purpose of computing the rate of wages of a person who takes advantage of the concessional sale of foodgrains and other articles the basis will be the maximum ration admissible to a standard family of a specific number of consumption units.

Women and children are also prohibited from cleaning, lubricating or adjusting any prime mover of transmission machinery while it is in motion if such work exposes them to risk of injury.

## FACTORY STATISTICS

Under the provisions of the Factories Act, 1948, registered factories submit annual and half yearly returns on employment to the Chief Inspectors of Factories in the various States. All-India figures are compiled by the Labour Bureau and are published in the *Indian Labour Journal*.

The number of factories on registers in the areas covered by the States during 1962 and 1963 were 51,186 and 54,682 respectively.

The following table sets out the statistics of the average daily numbers of persons employed in factories during the half year ending 30th June 1963.

WORKERS EMPLOYED (1963 First-half)

| Industry | Average Number of Workers Employed Daily |
|---|---|
| Processes allied to agriculture .. | 1,54,929 |
| Food except beverages .. .. | 5,48,378 |
| Beverages .. .. .. .. | 9,015 |
| Tobacco .. .. .. .. | 1,73,776 |
| Textiles .. .. .. .. | 12,38,698 |
| Footwear, other wearing apparels and made up textile goods .. .. | 31,771 |
| Wood and Cork except furniture .. | 60,505 |
| Furniture and fixtures .. .. | 18,166 |
| Paper and paper products .. .. | 48,289 |
| Printing, publishing and allied industries .. .. .. .. | 1,14,531 |
| Leather and leather products (except footwear) .. .. .. .. | 24,279 |
| Rubber and rubber products .. | 47,117 |
| Chemicals and Chemical products .. | 1,66,793 |
| Products of petroleum and coal .. | 16,685 |
| Non-metallic mineral products (except products of petroleum and coal) .. .. .. .. | 2,08,483 |
| Basic metal industries .. .. | 2,13,557 |
| Metal products (except machinery and transport equipment) .. | 1,67,296 |
| Machinery (except electrical machinery) .. .. .. | 2,84,572 |
| Electrical machinery, apparatus, appliances and supplies .. .. | 1,13,689 |
| Transport equipment .. .. | 3,87,041 |
| Miscellaneous industries .. .. | 1,36,954 |
| Electricity, gas and steam .. .. | 50,381 |
| Water and sanitary services .. | 8,415 |
| Recreation services .. .. .. | 4,012 |
| Personal services (Laundries, Dyeing and cleaning) .. .. .. | 6,078 |
| Total .. | 41,97,360 |

### State-wise Figures

The following para. shows the average daily employment in factories in the first half of 1963 by State :—

Andhra Pradesh 2,27,467; Assam 64,713; Bihar 2,05,966; Gujarat 3,84,106; Kerala 1,77,315; Madhya Pradesh 1,86,140; Madras 3,48,598; Maharashtra 8,70,489; Mysore 1,99,467; Orissa 51,119; Punjab 1,45,990; Rajasthan 68,947; Uttar Pradesh 3,60,072; West Bengal 8,25,870; Andaman & Nicobar Islands 2,143; Delhi 74,815; Himachal Pradesh 2,175; Manipur 505; Tripura 1,463; Total 41,97,360.

## MINES ACT

With a view to amending and consolidating the law relating to the regulation of labour and safety in mines, the Mines Act, 1952 was passed and brought into force from July 1952. The Act extends to the whole of India except Jammu and Kashmir. The main features of the Act are given in the 1960-61 Directory.

The Mines Amendment Act, 1959, received the assent of the President on 27th December 1959 and came into force from Dec. 16, 1960. Some of the important features of the Amendment Act are as follows :—The definition of the term "mine" has been made clear so as to include quarries, open cast workings, private railways, aerial ropeways and conveyors etc. The Act provides for the maintenance of first-aid rooms in mines where more than 150 persons are employed instead of 500 persons as under the original Act. The Act prohibits the employment of persons in a mine when its owner fails to comply with the notice of the Mines Inspectorate for remedying any matter connected with a mine which is dangerous to human life, limb or safety. The Act provides also for the payment of over-time at a uniform rate of twice the ordinary rate of wages for persons employed both above and below ground whereas in the original Act the rates were 1¼ times and twice for persons employed above, and below ground respectively. Under the Amendment Act, workers employed below ground are entitled to annual leave with wage at the rate of one day for every 16 days of work and in any other case one day for every 20 days of work. The workers can accumulate the leave period upto a maximum of 30 days. The chapter on leave with wages was revised so as to be in line with similar provisions of Factories Act, which is considered to be more liberal. The present Act enhances the penalty for contravention of the different provisions of the Act by raising the scales of fines and also provides for imprisonment with fine for contravening orders under section 22 of the Act.

### Wage Boards

The Govt. of India has set up two wage boards —one for the iron-ore mining industry and the other for the limestone and dolomite mining industries—with headquarters in Calcutta.

The boards will determine the categories of employees who should be brought within the scope of the proposed wage fixation and work out a wage structure based on the principles of fair wages as set forth in respect of the Committee on Fair Wages.

### MINING STATISTICS

The average daily number of workers employed in mines in 1939, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958 and 1962 was 298,650; 549,048; 559,196; 593,868; 568,254; 590,776; 428,581; 651,321, 649,360 and 684,226 respectively. The available figures are given in the following table :—

**EMPLOYMENT IN MINES BY STATE 1963 AND 1962**

| States | Underground Males | | Opencast Workings | | | | Surface | | | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1963 | | 1962 | | 1963 | | 1962 | | | |
| | 1963 | 1962 | Males | Females | Males | Females | Males | Females | Males | Females | 1963 | 1962 |
| Andhra Pradesh | 20,132 | 17,521 | 5,995 | 1,928 | 4,939 | 1,982 | 5,804 | 2,419 | 5,340 | 2,470 | 36,278 | 32,252 |
| Assam .. .. | 2,423 | 2,624 | 888 | 32 | 915 | 35 | 4,309 | 87 | 4,673 | 82 | 7,739 | 8,329 |
| Bihar .. .. | 128,497 | 123,268 | 48,867 | 18,629 | 52,442 | 20,627 | 61,597 | 15,770 | 60,036 | 16,129 | 273,360 | 272,502 |
| Delhi .. .. | .. | .. | 184 | .. | 126 | .. | 1 | .. | 3 | .. | 185 | 129 |
| Gujarat .. .. | 18 | 49 | 4,380 | 1,679 | 3,897 | 1,602 | 1,577 | 186 | 1,246 | 222 | 7,840 | 7,016 |
| Himachal Pradesh | 64 | 46 | 15 | .. | 2 | .. | 55 | 14 | 65 | 5 | 148 | 118 |
| Kerala .. .. | .. | 15 | 325 | 214 | 260 | 241 | 246 | 54 | 265 | 29 | 839 | 810 |
| Madhya Pradesh | 31,018 | 29,334 | 18,628 | 10,433 | 14,844 | 8,196 | 19,671 | 3,177 | 18,310 | 3,392 | 82,927 | 74,076 |
| Madras .. .. | 76 | 84 | 9,255 | 3,651 | 10,173 | 3,695 | 1,359 | 514 | 1,162 | 1,839 | 14,855 | 16,953 |
| Maharashtra .. | 4,902 | 4,564 | 6,246 | 3,418 | 4,571 | 2,880 | 3,379 | 682 | 3,126 | 879 | 18,627 | 16,020 |
| Mysore .. .. | 9,193 | 10,291 | 12,559 | 6,154 | 13,604 | 7,705 | 7,833 | 1,297 | 8,162 | 1,471 | 37,036 | 41,233 |
| Orissa .. .. | 4,366 | 4,133 | 23,396 | 15,146 | 22,402 | 13,765 | 12,564 | 3,257 | 12,181 | 3,689 | 58,729 | 56,170 |
| Punjab .. .. | .. | 42 | 1,536 | 10 | 1,264 | .. | 439 | 7 | 498 | 6 | 1,992 | 1,810 |
| Rajasthan .. | 3,748 | 3,856 | 9,676 | 2,251 | 9,315 | 2,303 | 4,651 | 502 | 3,638 | 482 | 20,828 | 19,594 |
| Uttar Pradesh .. | .. | .. | 2,461 | 69 | 2,294 | .. | 333 | .. | 137 | .. | 2,863 | 2,431 |
| West Bengal .. | 85,465 | 81,041 | 11,532 | 2,322 | 12,310 | 1,874 | 33,219 | 6,876 | 32,369 | 7,189 | 1,39,414 | 134,783 |
| Total .. .. | 289,902 | 276,868 | 155,943 | 65,936 | 153,358 | 64,905 | 157,037 | 34,842 | 151,211 | 37,884 | 703,660 | 684,226 |

**EMPLOYMENT IN MINES BY TYPE OF MINING 1963 AND 1962**

Average daily number of persons.

| Minerals | Underground Males | | Opencast Workings | | | | Surface | | | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1963 | | 1962 | | 1963 | | 1962 | | | |
| | 1963 | 1962 | Males | Females | Males | Females | Males | Females | Males | Females | 1963 | 1962 |
| Coal .. .. | 2,61,120 | 244,977 | 47,213 | 15,984 | 48,150 | 15,732 | 1,04,742 | 21,620 | 101,336 | 22,714 | 4,50,679 | 432,909 |
| Mica .. .. | 14,105 | 16,112 | 1,925 | 162 | 1,817 | 198 | 5,273 | 1,738 | 5,974 | 1,991 | 23,248 | 26,092 |
| Manganese .. | 1,025 | 842 | 15,584 | 12,280 | 16,749 | 12,445 | 5,370 | 2,364 | 5,934 | 3,171 | 36,623 | 39,141 |
| Iron Ore .. | 8 | 264 | 22,626 | 9,270 | 25,696 | 11,134 | 10,550 | 2,376 | 10,735 | 2,295 | 44,830 | 50,124 |
| Gold .. .. | 9,119 | 9,964 | .. | .. | .. | .. | 5,718 | 602 | 5,809 | 642 | 15,439 | 16,397 |
| Limestone .. | .. | 107 | 36,381 | 15,701 | 32,323 | 13,643 | 9,735 | 1,585 | 7,150 | 1,276 | 63,402 | 54,499 |
| Others .. .. | 4,480 | 4,620 | 32,214 | 12,339 | 28,623 | 11,753 | 15,649 | 4,557 | 14,273 | 5,795 | 69,439 | 65,064 |
| Total .. .. | 2,89,902 | 276,868 | 1,55,943 | 65,936 | 153,358 | 64,905 | 1,57,037 | 34,842 | 151,211 | 37,884 | 7,03,660 | 684,226 |

*Collieries :* During the month of Jan. 1965 the number of collieries working was 827 and the workers employed in them were 4,20,316. The average cash earnings of the workers per week for the whole of India was Rs. 28·95 and the number of working hours was 48.

## DOCK WORKERS' ACT

The Dock Workers' (Regulation of Employment) Act, 1948 passed in March 1948 has in view the elimination of hardship caused to workers on account of the casual nature of the work. It enables the Central and State Governments to frame schemes for the registration of dock workers to ensure greater regularity of employment and to regulate the employment of workers whether registered or not and the terms and conditions of such employment.

It provides for registration, rates of wages, hours of work, holidays with pay, prohibits, restricts or controls the employment of workers to whom the scheme does not apply, training and welfare, health and safety measures, minimum payment for the period of unemployment. It also provides for the setting up of an Advisory Committee consisting of Government, labour and employers, and for the employment of Inspectors.

## PAYMENT OF WAGES ACT

The Act applies only to wages and salaries which average below Rs. 400 per month.

For the purpose of the Act "wages" means all remuneration capable of being expressed in terms of money and includes any sum payable

under an award or settlement, any remuneration for overtime work or holidays and bonus but does not include the value of housing, employer's contributions to pension or provident funds or travelling allowance.

No wage period is to exceed one month and wages are to be paid within a prescribed time not exceeding 10 days from the end of the wage period. All wages are to be paid in coin and, or currency notes. Fines are not to exceed half anna in the rupee. Permissible deductions from wages have also been specified.

The administration of the Act, as far as factories are concerned, has been entrusted to the Inspectors of Factories in the States. In regard to persons employed in mines and in railways the responsibility of administering the Act rests upon the Chief Labour Commissioner (Central).

The Act was amended in Dec. 1964 with a view to removing difficulties experienced in the working of the Act.

## MINIMUM WAGES ACT, 1948

The Act covers the following industries or types of establishments. Woollen carpet making or shawl weaving; rice, flour or dal mills; tobacco manufactories (including bidi making); plantations; oil mills; employment under any local authority; road construction or building operations; stone breaking or stone crushing; lac manufactories; mica works; public motor transport; tanneries and leather manufactories; tanneries, and agriculture. The appropriate Governments can extend the application of the Act to any industry wherein, in their opinion, minimum wages should statutorily be fixed.

The Act requires the Central or State Governments, as the case may be, to fix minimum rates of wages payable to persons employed in the industries mentioned above.

The Act provides for the fixation of minimum time rates, minimum piece rates, guaranteed time rates and overtime rates appropriate to different occupations, or localities and for adults, adolescents, children and apprentices. The minimum rate may consist of a basic rate and a cost of living allowance and or cash value of concessions or it may be an all-inclusive rate.

The Act authorises the appropriate Governments to appoint Committees and Sub-Committees to hold inquiries and advise them to fix minimum rates of wages in respect of any scheduled employment or for the revision of these rates. They may also appoint an Advisory Board for co-ordinating the work of various Committees and also to advise Government generally in the matter of fixing or revising minimum rates of wages.

The Central Government have set up a Central Advisory Board for advising the Central and State Governments and for co-ordinating the work of State Advisory Boards. The Committees and Sub-Committees as well as the Central and State Advisory Boards are to consist of equal number of representatives of employers and employees, and of independent persons not exceeding a third of the total number of members.

The Central or the State Governments, as the case may be, can fix the number of hours of work per day, provide for a weekly holiday, etc., in regard to any employment in which minimum wages have been fixed under the Act.

## WORKMEN'S COMPENSATION ACT

Under the Act payment of compensation has been made obligatory on all employers whose employees come within its scope, and injured workmen or the dependents of those killed can obtain compensation in all cases where personal injury has been caused by accident *arising out of and in the course of employment* and where, except in the case of injury resulting in death, the accident is not directly attributable to the workman having been at the time of the accident under the influence of drink or drugs or to wilful disobedience of rules or orders or wilful disregard of safety devices.

Besides bodily injuries the contracting of certain occupational diseases such as anthrax and mercury, lead and phosphorus poisoning were deemed and treated for the purposes of compensation, as injuries caused by accident, provided however, that the worker concerned was in the service of the same employer for more than six months.

The main provisions of the Workmen's Compensation Act as it stands today are as follows:

In all cases persons employed in an administrative or clerical capacity and those whose monthly earnings exceed Rs. 400 (except Railway Servants) are excluded.

As far as seamen are concerned, those employed on ships registered in India are covered. But if accidents take place within the three mile limit of the territorial waters the Act applies even to those employed on ships not registered in India.

Not only workmen employed within the precincts of a factory or a mine but also men engaged in any kind of work incidental to or connected with a factory or any mining operation are entitled to the benefits of the Act.

Any person who is covered by the Employees' State Insurance Act, 1948, and who is entitled to receive disablement or dependent's benefit from the Employees' State Insurance Corporation is not entitled to claim any compensation from the employer under this Act.

The amount of compensation payable depends, in the case of death, on the average monthly wages of the deceased workman and in the case of an injured workman both on the average monthly wages and the extent of disablement. The term 'wages' includes overtime pay and the value of any concessions or benefits in the form of food, clothing, free quarters, etc.

The amounts of compensation payable in the case of an injured workman whose monthly wages are not more than Rs. 10 are Rs. 500 for death, Rs. 700 for permanent total, and half the monthly wages for temporary disablement. For a workman whose monthly wages are between Rs. 50 and Rs. 60, the corresponding figures are Rs. 1,800, Rs. 2,520 and Rs 15 p.m. respectively. The maxima for persons earning over Rs. 300 per month are Rs. 4,500, Rs. 6,300 and Rs. 30 per month respectively. In the case of minors the amounts of compensation for death and for permanent total disablement are at the uniform rate of Rs. 200 and Rs. 1,200 respectively, and half the monthly wage for temporary disablement.

The interests of dependents in cases of fatal accidents have been safeguarded by ensuring that (1) all cases of fatal accidents should be brought to the notice of the Commissioner; (2) in all cases where an employer admits liability the amount of compensation payable is to be promptly deposited with the Commissioner; and (3) in cases where the employer disclaims liability and there are good grounds for believing compensation to be payable, the dependents get the information necessary to enable them to judge if they should make a claim or not.

An employer is permitted to make to any dependent advances on account of compensation not exceeding an aggregate of one hundred rupees.

The Act is administered by Commissioners appointed by State Governments. In areas in which the Employees' State Insurance Scheme has been implemented, the payment of workmen's compensation is the responsibility of the E.S.I. Corporation.

The Workmen's Compensation Act was first enacted as already mentioned in 1923 and has since undergone a number of important amendments. The basic structure of the Act, however, has remained more or less the same.

An Amendment Bill—Workmen's Compensation Amendment Bill 1958—was passed by Parliament in Feb. 1959.

The Amendment aims broadly speaking at the following:

The removal of distinction between adult and minor in the matter of compensation; the waiting period during which the worker is not entitled to compensation would be reduced from seven to five; if the disablement lasts 28 days or more there would be no waiting period; if payment of compensation is delayed more than one month from the due date an interest of 6 per cent would be levied on the employer; there would be a penal compensation of 50 per cent if the delay in payment was not justified; the time limit for filing claims would be raised from one year to two years, delays in this might also be condoned; in case of transfer of assets of factory compensation would be the first charge; failure to carry out provisions of the Act would entail a penalty of Rs. 500 as against Rs. 100; factory inspectors and mine inspectors could be authorized to file claims; the number of injuries mentioned in the schedule would be raised from 14 to 54; the definition of workman would be enlarged; the definition of establishments to which the Act refers would also be enlarged; the schedule relating to occupational diseases would also be amended

The basic points relating to another amendment were: a revision of the current rates of compensation and extension of its coverage by raising the present wage limit from Rs. 400 to Rs. 500.

These two important matters were before an Actuarial Committee, which went into the question of the financial burden any such proposal would impose on the industry. The Sub-Committee constituted to examine the report of the Actuarial Committee had recommended that the system of payments of compensation should be replaced by a system of periodical payments which should be disbursed through the agency of the Employees' State Insurance Corporation and the rates of compensation should be raised in accordance with the recommendations of the Study Group on Social Security. The Sub-Committee had also supported the proposal to increase the wage limit for coverage from Rs. 400 to Rs. 500 p.m.

The Act has accordingly been amended since 19th Dec. 1962 to raise the applicability of the Act to persons getting Rs. 500 per month.

### STATISTICS

An annual note on the working of the Act is published regularly in the *Indian Labour Gazette*.

The latest available statistics on the subject will be found in the following table:—

| Year | Total number of cases | Total compensation paid |
|---|---|---|
| | | Rs. |
| 1950 .. .. | 61,958 | 57,37,278 |
| 1951 .. .. | 63,123 | 58,98,253 |
| 1952 .. .. | 58,734 | 56,37,368 |
| 1953 .. .. | 61,742 | 61,38,389 |
| 1954 .. .. | 66,118 | 64,25,062 |
| 1955 .. .. | 75,793 | 59,67,194 |
| 1956 .. .. | 61,610 | 51,83,057 |
| 1957 .. .. | 71,908 | 61,86,746 |
| 1958 .. .. | 83,338 | 84,87,795 |
| 1959 .. .. | 76,227 | 71,43,684 |
| 1960 .. .. | 88,955 | 94,93,304 |
| 1961 .. .. | 93,738 | 79,98,996 |
| 1962 .. .. | 89,356 | 74,37,147 |

Facilities for accident insurance are now being provided by a number of leading insurance companies in the country and the most important of these are the Claims Bureau in Calcutta and Madras.

The table below shows the accident rate per thousand workers and the average compensation paid in the main industry groups during 1962.

| INDUSTRY | 1962 | |
|---|---|---|
| | Accident Rate per thousand. | Average compensation paid per case. |
| | | Rs. |
| Factories .. .. | 16·41 | 64 |
| Plantations .. | 2·87 | 80 |
| Mines .. .. | — | 61 |
| Railways .. .. | 19·09 | 104 |
| Docks and Ports .. | 42·98 | 169 |
| Tramways .. .. | — | 45 |
| Posts & Telegraphs | 1·12 | 288 |
| C.P.W.D. .. .. | — | — |
| Buildings & Construction .. | — | 332 |
| Municipalities .. | 2·01 | 367 |
| Miscellaneous .. | 27·00 | 101 |
| Average . | 19·53 | 83 |

## MATERNITY BENEFIT ACT

The first Maternity Benefit Act in India was passed by the Government of the former Bombay State in 1929. After that, Maternity Benefit Acts were passed by the Governments of all the States.

The West Bengal Legislature passed a separate Act in 1948 for women employed in tea-plantations under the title of the West Bengal Maternity Benefit (Tea Estates) Act, 1948.

The Government of India passed the Mines Maternity Benefit Act in 1941.

The scope, qualifying conditions and rate of benefit are not uniform under the various State Acts.

The qualifying period of service is generally 9 months.

The rate of benefit is annas eight per day in Madras and Andhra under the Acts. In the Hyderabad Act and the Mines Benefit Act the rate is As. 12 or average daily earnings whichever is more. In Orissa, it is the actual daily wage or salary subject to a maximum of As. 12 per day. The Travancore-Cochin and West Bengal (Tea Estates) Acts provide for Rs. 5-4-0 per week. Women workers on plantations in Assam receive under the Act As. 11 Pies 6 per day in addition to the usual food concessions and women in other industries in the State get their average weekly earnings subject to a minimum of Rs. 2. Although maternity benefit legislation does not apply to plantations in other parts of South India, the employers' associations have recommended payment of benefit on a voluntary basis at the rate of As. 12 per day for a period of 8 weeks.

The Mines Maternity Benefit Act and the Assam, Bihar and U.P. Acts provide for some additional benefits which take the form of free medical treatment, maternity bonus, provision of creches, additional rest intervals for nursing mothers, etc. In the Central Act for women employed in mines and in the U.P. and Bihar Acts, an additional bonus of Rs. 3 and in Rajasthan Rs. 5 is paid if the women avail themselves of the services of a qualified midwife. But if such assistance is provided by or in an institution of an employer, the bonus is not paid.

The U.P. and Bihar Acts lay down that factories employing 50 or more women or where women employed form 25 per cent. or more of the workers, should maintain creches, and appoint female attendants to look after the children.

The administration of the Acts in the States is the responsibility of the Factory Inspectorates. The enforcement of the Mines Maternity Benefit Act in the coal mines is the responsibility of the Coal Mines Welfare Commissioner. In other mines, it is administered by the Chief Inspector of Mines.

MATERNITY BENEFIT PAID IN VARIOUS STATES, PLANTATIONS AND MINE DURING 1962

| States. | Average No. of women employed in establishments submitting returns. | No. of women who claimed maternity benefit. | No. of women who were paid maternity benefit in full or in part. | No. of cases in which bonuses were paid. | Total amount paid. |
|---|---|---|---|---|---|
| | | | | | Rs. |
| Andhra Pradesh .. | 79,678 | 468 | 448 | 12 | 16,649 |
| Assam .. .. .. | — | — | — | — | — |
| Bihar .. .. .. | 10,035 | 461 | 452 | — | 89,552 |
| Gujarat .. .. .. | 33,503 | 1,187 | 1,006 | 21 | 35,662 |
| Kerala .. .. .. | 51,108 | 1,506 | 1,137 | 3,659 | 4,73,025 |
| Madhya Pradesh .. | 8,350 | 153 | 152 | — | 9,644 |
| Madras .. .. .. | 43,326 | 1,003 | 796 | 266 | 92,488 |
| Maharashtra .. .. | 34,170 | 250 | 251 | 37 | 20,276 |
| Mysore .. .. .. | 15,314 | 1,471 | 1,448 | 700 | 1,20,655 |
| Orissa .. .. .. | 4,144 | 84 | 64 | — | 12,581 |
| Punjab .. .. .. | 3,219 | 13 | 13 | — | 1,978 |
| Rajasthan .. .. | — | — | — | — | — |
| Uttar Pradesh .. .. | 3,075 | 23 | 23 | — | 3,013 |
| West Bengal .. .. | 27,628 | 624 | 620 | 19 | 96,120 |
| Total .. .. .. | 3,13,550 | 13,243 | 12,410 | 4,714 | 9,71,643 |
| *Plantations*— | | | | | |
| Assam .. .. | 2,32,575 | 45,137 | 44,054 | — | 40,22,886 |
| Kerala .. .. | 34,863 | 6,277 | 6,277 | 6,277 | 5,13,782 |
| West Bengal .. .. | 71,417 | 19,472 | 18,935 | — | 13,76,237 |
| Total .. .. .. | 3,38,855 | 70,886 | 69,266 | 6,277 | 59,12,905 |
| Mines— | | | | | |
| Coal .. .. .. | 23,194 | 2,571 | 2,651 | — | 5,14,042 |
| Others .. .. | 34,404 | 4,218 | 4,295 | 4,207 | 1,67,141 |
| Total .. .. .. | 57,598 | 6,789 | 6,946 | 4,207 | 6,81,183 |

AMOUNT OF MATERNITY BENEFIT PAID UNDER EMPLOYEES' STATE INSURANCE ACT, 1948 DURING THE YEAR 1962

| States | No. of claims accepted and paid either fully or partially. | Amount of benefit paid. |
|---|---|---|
| | | Rs. |
| Andhra Pradesh .. .. .. .. .. .. .. | 1,320 | 1,00,859 |
| Assam .. .. .. .. .. .. .. .. | — | — |
| Bihar .. .. .. .. .. .. .. .. | 237 | 53,096 |
| Gujarat .. .. .. .. .. .. .. .. | — | — |
| Kerala .. .. .. .. .. .. .. .. | 2,323 | 3,75,539 |
| Madhya Pradesh .. .. .. .. .. .. | 413 | 1,00,756 |
| Madras .. .. .. .. .. .. .. .. | 1,803 | 5,90,003 |
| Maharashtra .. .. .. .. .. .. .. | 1,404 | 5,71,462 |
| Mysore .. .. .. .. .. .. .. .. | 257 | 83,977 |
| Orissa .. .. .. .. .. .. .. .. | 22 | 6,073 |
| Punjab .. .. .. .. .. .. .. .. | 14 | 3,508 |
| Rajasthan .. .. .. .. .. .. .. | 235 | 29,616 |
| Uttar Pradesh .. .. .. .. .. .. .. | 91 | 6,073 |
| West Bengal .. .. .. .. .. .. .. | 266 | 54,326 |
| Delhi .. .. .. .. .. .. .. .. | 111 | 11,396 |
| Total .. | 8,496 | 19,86,684 |

The average amount of maternity benefit paid per case was about Rs. 234 taking all States together.

## STATISTICS OF TRADE UNIONS

REGISTERED TRADE UNIONS AND MEMBERSHIP—MARCH 1961

| State | Number of unions | | Membership of unions submitting returns | | |
|---|---|---|---|---|---|
| | on registers | submitting returns | Men | Women | Total |
| *Central Unions* | | | | | |
| Andhra Pradesh | 1 | 1 | 533 | — | 533 |
| Gujarat | 3 | 3 | 1,001 | 3 | 1,004 |
| Maharashtra | 43 | 29 | 1,10,722 | 4,972 | 1,15,694 |
| Madras | 53 | 41 | 62,057 | 392 | 63,449 |
| Orissa | 29 | 21 | 23,035 | 10,726 | 33,761 |
| Punjab | 60 | 31 | 6,913 | 153 | 7,066 |
| Uttar Pradesh | 13 | 13 | 83,023 | 228 | 83,251 |
| West Bengal | 17 | 8 | 5,291 | — | 5,291 |
| Delhi | 36 | 25 | 1,29,857 | 360 | 1,30,217 |
| Total | 255 | 172 | 4,23,432 | 16,834 | 4,40,266 |
| *State Unions* | | | | | |
| Andhra Pradesh | 603 | 167 | 82,049 | 42,734 | 1,24,783 |
| Assam | 147 | 81 | 1,76,501 | 50,786 | 2,27,287 |
| Bihar | 642 | 483 | 3,41,326 | 30,004 | 3,71,330 |
| Gujarat | 474 | 353 | 1,88,594 | 13,232 | 2,01,826 |
| Kerala | 1,823 | 841 | 1,82,476 | 74,420 | 2,56,896 |
| Madhya Pradesh | 330 | 92 | 28,056 | 3,141 | 31,197 |
| Maharashtra | 1,359 | 804 | 4,21,893 | 40,486 | 4,62,379 |
| Madras | 1,061 | 823 | 3,17,529 | 27,282 | 3,44,811 |
| Mysore | 447 | 186 | 78,151 | 11,807 | 89,958 |
| Orissa | 76 | 40 | 19,168 | 823 | 18,991 |
| Punjab | 512 | 222 | 55,615 | 590 | 56,205 |
| Rajasthan | 191 | 169 | 40,214 | 2,820 | 43,034 |
| Uttar Pradesh | 1,036 | 851 | 2,43,875 | 3,932 | 247,807 |
| West Bengal | 1,999 | 1,254 | 9,30,118 | 72,847 | 10,02,965 |
| Andaman and Nicobar Islands | 12 | 9 | 2,441 | 29 | 2,470 |
| Delhi | 293 | 239 | 80,838 | 612 | 81,450 |
| Himachal Pradesh | 13 | 13 | 2,051 | 26 | 2,077 |
| Tripura | 39 | 14 | 4,525 | 2,376 | 6,901 |
| Total | 11,057 | 6,641 | 31,94,420 | 3,77,947 | 35,72,367 |
| and Total of State & Central Unions | 11,312 | 6,813 | 36,17,852 | 3,94,781 | 40,12,633 |

The membership of the four Central Trade Union Organisations recognised by the Central Government, *viz.* the Indian National Trade Union Congress, the All-India Trade Union Congress, the Hind Mazdoor Sabha and the United Trade Union Congress, was as follows :

| Name of Organisation. | No. of Affiliated Unions | | Membership | |
|---|---|---|---|---|
| | 1963-64 | 1962-63 | 1963-64 | 1962-63 |
| Indian National Trade Union Congress | 1,957* | 1,659 | 17,87,378* | 18,51,600 |
| All-India Trade Union Congress | 1,697* | 1,668 | 11,59,395* | 10,73,534 |
| Hind Mazdoor Sabha | 423 | 375 | 6,59,703 | 5,86,179 |
| United Trade Union Congress | 346 | 338 | 1,94,089 | 1,83,813 |

## TRADE UNIONS ACT, 1926

This Act was brought into operation with effect from 1st June 1927 and was slightly amended in 1928.

Apart from the necessary provisions for administration and penalties, the Indian Trade Unions Act, 1926, makes provision for three matters : (1) conditions governing the registration of trade unions ; (2) the obligations to which a trade union is subject after registration ; and (3) the rights and privileges accorded to registered unions. 'Trade Union' has been defined in such a way as to cover both combinations of workers and of employers but not of workers and employers. Persons under the age of 15 are debarred from membership of any registered union.

The administration of the Act is entirely on a State basis and each State Government is required to appoint a Registrar of Trade Unions. Any seven or more members of a union can apply for registration but no union can be registered unless at least fifty per cent of the executive consist of members actually engaged in the unit or group of units which the union proposes to cover.

The general funds of registered trade unions cannot be spent on objects other than those specified in Section 15 of the Act nor on political objects ; but the Act makes provision for the creation of a separate political fund, subscription to which may be collected from such members as voluntarily desire to contribute to it. All registered unions are required to submit annually to the Registrar duly audited statements of accounts in prescribed forms together with changes in officers and the executive and a copy of the rules corrected up to date.

A registered trade union is immune from prosecution for criminal conspiracy in respect of an agreement, unless it is one to commit an offence, made between its members for the furtherance of a trade dispute or for restraint of trade and from any legal difficulties arising therefrom.

## INDUSTRIAL DISPUTES ACT

The Act provides for the setting up of two types of organisations, namely, (1) Works Committees and (2) Industrial Tribunals for the prevention or settlement of disputes. It makes conciliation compulsory in all disputes in public utility services and optional in other cases.

Section 22 of the Act declares any strike or lock-out in a public utility service to be illegal if it is commenced or declared (i) without giving to the employer or employees, as the case may be, a notice of strike or lock-out in a prescribed manner, within six weeks before striking or declaring a lock-out, or (ii) within 14 days of giving such notice, or (iii) before the expiry of the date of strike specified in any such notice ; or (iv) during the pendency of any conciliation proceedings before a conciliation officer and 7 days after the conclusion of such proceedings, etc. The Act also prohibits certain other strikes and lock-outs and declares them illegal if commenced or declared during the pendency of (i) conciliation proceedings before a Board and 7 days after the conclusion of such proceedings ; (ii) proceedings before a Tribunal and 2 months after the conclusion of such proceedings, or (iii) during any period in which a settlement or award is in operation, in respect of any of the matters covered by the settlement or award.

The Act was amended once in 1953 and twice in 1956. It now provides that no workman, who has been in continuous employment for more than a year, shall be retrenched unless he has been given a month's notice or wages in lieu thereof and also compensation calculated at the rate of 15 days' average pay for every completed year of service. If a workman who has put in more than a year's continuous service is laid off, he is required to be paid compensation which should be equal to 50 per cent. of the total of basic wages and dearness allowance for a maximum of 45 days in a year unless periods of lay-off after the first 45 days are of the duration of one week or more on each occasion.

According to a decision of the Supreme Court in November 1956 on retrenchment compensation, workers cannot, under the Act, claim compensation for retrenchment in case of *bona fide* closure of business or termination of their services by the employer on the business being sold to another employer.

The definition of the term "workman" has been extended to cover technical personnel and supervisory staff drawing upto Rs. 500 per month.

The machinery for adjudication of disputes has been recast and a three-tier machinery consisting of National Tribunals, Industrial Tribunals and Labour Courts is brought into being. Functions of these tribunals are demarcated and the importance of the dispute will determine which tribunal should adjudicate upon it. The tribunals are authorised to appoint experts having special knowledge as assessors to advise them. Schedules covering subjects which should go before each tribunal are attached to the Act.

Every employer who proposes to effect any change in the conditions of service of his workmen in respect of wages, hours of work, rationalisation, shift-working, increase or reduction in complement, etc. is required to give 3 weeks' prior notice to the workmen concerned.

The Act also provides for voluntary reference of disputes to arbitration by agreement between the employer and the workmen. Such a reference may be made to the Tribunals constituted under the Act.

All State Acts relating to the settlement or adjudication of disputes are expressly saved and the Industrial Disputes Act will not override them

The Act was further amended in Dec., 1964. The following are some of the important changes effected by the amended Act : (*a*) Provision for appointment of a serving or a retired district judge or additional district judge of not less than three years standing as a Presiding Officer

* Figures as on March 31, 1965.

of the Tribunal; (*b*) Provision for the appointment of Umpires in case of differences of opinion between an even number of arbitrators; (*c*) Prohibition of strikes and lock-outs during arbitration proceedings; (*d*) Only a majority of workmen shall have the right to terminate a settlement or an award; (*e*) Provision that every application for recovery of money due from an employer shall be made within one year.

During Nov. 1962 to May 1964, officers of the industrial relations machinery were able to persuade representatives of employers and employees to settle 215 cases of industrial disputes through voluntary arbitration.

## STATISTICS

Statistics presented in this section relate to industrial disputes which have resulted in work-stoppages involving 10 or more workers and exclude sympathetic and political strikes.

The time-loss due to industrial disputes was 7·8 million man-days in 1958, it was 5·6 million in 1959, 6·5 million in 1960, 4·9 million in 1961, 6·1 million in 1962 and 3·3 million in 1963.

There were 1,471 industrial disputes during 1963 as compared with 1,491 during 1962.

As compared with 1962, there was a decrease of 45·9 per cent in time-loss due to industrial disputes in 1963. While the time-loss was generally low in the first five months of the year, the highest time-loss was recorded in Dec., 1963.

Analysis of the statistics by industries shows that the manufacturing sector accounted for 77·2 per cent of the total time-loss. Among other sectors, electricity, gas, water and sanitary services accounted for 7·2 per cent, agriculture, forestry, fishing etc. for 4·1 per cent, mining and quarrying for 3·0 per cent, transport and communications (other than workshops) for 2·5 per cent, services for 2·5 per cent, activities not adequately described for 1·6 per cent, construction for 1·4 per cent and commerce for 0·5 per cent. In the manufacturing sector, the highest time-loss was recorded by the group "textiles" (51·3 per cent). As compared to the preceding year, the time-loss decreased in all the groups except electricity, gas, water and sanitary services, construction and commerce.

Classifying the disputes by causes, wages and allowances accounted for the highest number (408) of disputes followed by "personnel" 369 cases. Both these groups constituted together 53 per cent of the total number of disputes and accounted for 46·2 per cent of workers involved and 47 per cent of the total time-loss.

From the point of view of the employees 23·4 per cent of the total number of disputes were successful, 17·9 per cent were partially successful and 41 per cent were unsuccessful. In case of 17·7 per cent of the disputes, work was resumed without any final decision having been reached.

Distribution of the disputes according to their duration shows that 71·7 per cent lasted upto 5 days, 13·6 per cent lasted for more than 5 days upto 10 days, 6·2 per cent lasted for more than 10 days upto 20 days, 3·8 per cent for more than 20 days upto 30 days and 4·7 per cent for more than 30 days.

Of the 1,422 terminated disputes, during 1963, 610 were terminated as a result of Government intervention, 287 by mutual settlement and 453 by voluntary resumption.

The following table sets out the number of disputes in some of the years since 1953, the number of workers involved in these disputes and the total time lost in man-days:

| Year | Number of disputes | Number of workpeople involved | Number of man-days lost |
|---|---|---|---|
| 1953 .. | 772 | 466,607 | 3,382,608 |
| 1954 .. | 840 | 477,138 | 3,372,630 |
| 1955 .. | 1,166 | 527,767 | 5,697,848 |
| 1956 .. | 1,203 | 715,130 | 6,992,040 |
| 1957 .. | 1,630 | 889,371 | 6,429,319 |
| 1958 .. | 1,524 | 928,566 | 7,797,585 |
| 1959 .. | 1,531 | 693,616 | 5,633,148 |
| 1960 .. | 1,583 | 986,268 | 6,536,517 |
| 1961 .. | 1,357 | 511,860 | 4,918,755 |
| 1962 .. | 1,491 | 7,05,059 | 6,120,576 |
| 1963 .. | 1,471 | 5,63,121 | 3,268,524 |

An analysis of the disputes for the year 1963 by State is given in the following table:—

| State | No. of disputes | No. of workers involved | No. of man-days lost | No. of man-days lost per dispute |
|---|---|---|---|---|
| Andhra Pradesh .. .. .. .. | 92 | 31,061 | 1,44,629 | 1,572 |
| Assam .. .. .. .. .. | 18 | 8,448 | 10,603 | 589 |
| Bihar .. .. .. .. .. | 62 | 23,191 | 80,289 | 1,295 |
| Gujarat .. .. .. .. .. | 65 | 25,792 | 1,69,900 | 2,614 |
| Goa .. .. .. .. .. .. | 5 | 3,545 | 17,530 | 3,506 |
| Jammu & Kashmir .. .. .. | 1 | 65 | 195 | 195 |
| Kerala .. .. .. .. .. | 145 | 34,421 | 1,71,961 | 1,186 |
| Madhya Pradesh .. .. .. .. | 48 | 11,691 | 1,03,286 | 2,152 |
| Madras .. .. .. .. .. | 191 | 52,015 | 4,34,756 | 2,276 |
| Maharashtra .. .. .. .. | 443 | 2,10,731 | 9,18,364 | 2,073 |
| Mysore .. .. .. .. .. | 68 | 25,644 | 74,703 | 1,099 |
| Orissa .. .. .. .. .. | 6 | 4,570 | 18,209 | 3,035 |
| Punjab .. .. .. .. .. | 13 | 3,527 | 29,849 | 2,296 |
| Rajasthan .. .. .. .. .. | 12 | 2,451 | 18,691 | 1,558 |
| Uttar Pradesh .. .. .. .. | 95 | 41,144 | 1,23,623 | 1,301 |
| West Bengal .. .. .. .. | 172 | 81,326 | 9,30,822 | 5,412 |
| Andaman & Nicobar Islands .. .. | 2 | 98 | 430 | 215 |
| Delhi .. .. .. .. .. | 26 | 2,739 | 13,754 | 529 |
| Himachal Pradesh .. .. .. | — | — | — | — |
| Tripura .. .. .. .. .. | 7 | 662 | 6,930 | 990 |
| Total .. .. .. .. .. | 1,471 | 5,63,121 | 32,68,524 | 2,222 |

Average time-loss per dispute was 2,222 man-days.

## LABOUR APPELLATE TRIBUNAL

The Tribunal was abolished on May 31, 1959. The Law Commission has recommended that the Tribunal should be revived. This proposal is now under the active consideration of the Government of India.

The Industrial Disputes Amendments and Miscellaneous Provisions Act, 1956 abolished the Tribunal with effect from 1st September 1956. After that date no appeals were to be entertained. Pending appeals were however, to be disposed of by the Tribunal as if the Act had not been repealed.

## WORKING JOURNALISTS' ACT

*(See under article on the Press)*

## THE EMPLOYEES' PROVIDENT FUNDS ACT, 1952

The Employees' Provident Funds Scheme, 1952 framed under section 5(1) of the Employees' Provident Funds Act, 1952 came into force in its entirety with effect from 1st November, 1952.

The Act initially applied to factories engaged in any of the following six industries:—Cement; Cigarettes; Electrical; Mechanical or general engineering products; Iron and Steel; Paper; Textiles.

The Act has since then been extended to the following additional industries/classes of establishments raising the total number of industries covered to 97:—Edible oils and fats; Sugar; Rubber and rubber products; Electricity including generation, transmission and distribution thereof; Tea (except in the State of Assam where the Government of Assam have instituted a separate Provident Funds Scheme for the industry including plantations); Printing including the process of composing types for printing, printing of letter-press, lithography, photogravure or other similar process or book-binding, but excluding printing presses, covered under "newspaper establishments" to which the Employees' Provident Funds Act has separately been extended under section 15 of the Working Journalists (Conditions or Service) and Miscellaneous Provisions Act, 1955; Stoneware pipes; Sanitarywares; Electrical porcelain insulators of high and low tension; Refractories; Tiles; Matches; Glass; Heavy and fine chemicals, including fertilizers, turpentine, rosin, medical and pharmaceutical preparations, toilet preparations, soaps, inks, intermediates, dyes, colour lakes and toners, fatty acids, and oxygen, acetylene and carbon dioxide gases; Indigo; Lac including shellac; Non-edible vegetable and animal oils and fats; Newspaper establishments; Mineral oil refining; Tea plantations (other than the tea plantations in the State of Assam); Coffee plantations; Rubber plantations; Cardamom plantations; Pepper plantations; Iron-ore mines; Lime-stone mines; Manganese mines; Gold mines; Industrial and power alcohol; Asbestos cement sheets; Coffee curing establishments; Biscuit making industry including composite units making biscuits and products such as bread, confectionery and milk and milk powder; Road motor transport establishments; Mica factories; Mica mines; Plywood; Automobile servicing and repairing; Rice milling; Dal milling; Flour milling; Starch; Hotels; Restaurants; Establishments engaged in the storage or transport or distribution of petroleum or natural gas or products of either petroleum or natural gas; Petroleum or natural gas exploration, prospecting, drilling or production; Petroleum or natural gas refining; Cinemas including preview theatres; Film studios; Film production concerns; Distribution concerns dealing with exposed films; Film processing laboratories; Leather and leather products; Stone-ware jars; Crockery; Every cane farm owned by the owner or occupier of a sugar factory or cultivated by such owner or occupier or any person on his behalf; Every trading and commercial establishment engaged in the purchase, sale or storage of any goods, including establishments of exporters, importers, advertisers, commission agents and brokers and commodity and stock exchanges, but not including banks or warehouses established under any Central or State Act; Fruit and vegetable preservation; Cashewnut; Establishments engaged in the processing or treatment of wood including manufacture of hard-board or chip-board or jute or textile, wooden accessories, cork products, wooden furniture, wooden sports goods, cane or bamboo products, wooden battery separators; Saw mills; wood seasoning kilns; Wood preservation plants; Wood workshops; Bauxite mines; Confectionery; Laundry and laundry services; Buttons; Brushes; Plastic and plastic products; Stationery products; Theatres where dramatic performances or other forms of entertainment are held and where payment is required to be made for admission as audience or spectators; Societies, clubs or

associations which provide board or lodging or both or facility for amusement or any other service to any of their members or to any of their guests on payment; Companies, societies, associations, clubs or troupes which give any exhibition of acrobatic or other performances or both, in any arena circular or otherwise or perform or permit any other form of entertainment in any place, other than a theatre, and require payment for admission into such exhibition or entertainment as spectators or audience; Canteens; Aerated water, soft drinks or carbonated water; Distilling and rectifying of spirits (not falling under industrial and power alcohol) and blending of spirits; Paint and varnish; Bone crushing Pickers; China clay Mines; Attorneys as defined in the Advocates Act (25 of 1961); Chartered or registered accountants as defined in the Chartered Accountants Act (23 of 1959); Engineers and engineering contractors, not being exclusively engaged in building and construction industry; Architects; Medical Practitioners and medical specialists; Milk and milk Products; Travel Agencies engaged in (1) booking of international air and sea passages and other travel arrangements, (2) booking of internal air and mail passages and other travel arrangements, (3) forwarding and clearing of cargo from and to overseas and within India; Forwarding agencies engaged in the collection, packing, forwarding or delivery of any goods including car-loading, break-bulk service and foreign freight service; Non-ferrous metals and alloys in the form of ingots; and Bread. Extension of the Act to several other industries/classes of establishment is under active consideration.

The Act applies to all establishments employing 20 or more persons. The Act, however, does not apply to: (*a*) any establishment registered under the Co-operative Societies Act, 1912 or under any other law relating to co-operative societies employing less than 50 persons and working without the aid of power, (*b*) to any other establishment employing 50 or more persons or between 20 and 49 persons until the expiry of three years in the former case and five years in the latter, from the date of their establishment, (*c*) The State of Jammu & Kashmir (The State Government has instituted a separate provident fund scheme on the lines of Employees' Provident Funds Scheme with effect from 1st June, 1961).

The rate of contribution is 6¼ per cent of pay *i.e.*, basic wages plus dearness allowance including cash value of food concession and retaining allowance (if any). The statutory rate of provident fund contribution has been enhanced to 8 per cent of pay in respect of the establishments employing 50 or more persons and engaged in any of the following industries with effect from the date noted against them :—

From Jan. 1, 1963: Cigarettes; Iron and Steel; Electrical, mechanical or general engineering products; and Paper other than hand made paper.

From April 1, 1963: Cement.

From Nov. 1, 1963: Textiles (made wholly or in part of artificial silk and wool); Matches; Edible oils and fats other than vanaspati; Rubber and rubber products; Electricity including generation, transmission and distribution thereof; Tea; Printing (other than printing industry relating to newspaper establishments as defined in the working Journalists (Conditions of Service) and Miscellaneous Provisions Act 1955) including the process of composing types for printing, printing by letter press, lithography, photogravure or other similar process or book binding; Glass; Stoneware pipes; Sanitaryware; Electrical porcelain insulators of high and low tension; Refractories; Tiles; Heavy and fine chemicals excluding fertilizers but including turpentine rosin, medical and pharmaceutical preparations; Toilet preparations; Soaps; Inks; Intermediates; Dyes; Colour lakes and toners; Fatty acids; Oxygen; Acetylene and carbon-dioxide gases; Indigo; Non-edible vegetable and animal oils and fats; Mineral oil refining; and Newspaper establishments.

From Dec. 1, 1963: Textiles (made wholly or in part of cotton).

From Feb. 1, 1965: Tea plantations (other than the tea plantations in the State of Assam); Rubber plantations; Cardamom plantations; Limestone mines; Industrial and power alcohol; Asbestos cement sheets.

The members and employers are allowed to contribute at any higher rate if desired by them.

Qualifications for membership :—Basic wage, dearness allowance and cash value of food concession and retaining allowance (if any) not to exceed Rs. 1,000 per month; and one year's continuous service or 240 days' actual work during a period of 12 months or less.

Employees working outside the precincts of a covered establishment in connection with its work and also those with emoluments exceeding Rs. 1,000 per month, if they apply for membership of the Fund with the consent of their employers, have now been brought within the ambit of the Scheme.

Where an establishment has its own Provident Fund, gratuity or pension scheme and if the total quantum of benefits is not less than that under the statutory Scheme, either such an establishment could apply for exemption under section 17(1) of the Act from the provisions of the Scheme or any person or a class of persons employed in such an establishment can opt out under section 17(2) of the Act read with para. 27-A of the Scheme.

Full accumulations with interest are refunded in the event of death, permanent disability, superannuation, retrenchment or migration from India for permanent settlement abroad and also on leaving service for any reason after 15 years' membership, or ceasing to subscribe to the Fund consequent on the employer ceasing to give effect to the provisions of the Act in pursuance of the provisions of the proviso to section 1(5) of the Act. In other cases, the member's own share of contribution together with the interest thereon is refunded along with a portion of the employer's contribution depending upon the length of membership.

The Central Government have also authorised full refund of employer's contribution in the following contingencies :—Where a factory establishment is closed, the employees who are not retrenched but transferred by the employer to other establishments not covered under the Employees' Provident Funds Act; Where a member is transferred from a covered establishment to another under the same employer but not covered under the Act; Where employees are discharged and are given retrenchment compensation under the Industrial Disputes Act; where members cease to subscribe to the Fund as a result of an establishment going out of the purview of the Act under section 16(1)(a)thereof.

Non-refundable advances from the Fund can be made for payment towards a policy of life insurance of the member; for purchase of a dwelling house, a dwelling site or for construction of dwelling house privately or under the subsidised housing schemes for industrial workers, or for construction of a house under the Low Income Group Housing Scheme, or for purchasing shares of Consumers' Cooperative Societies, or in special cases to members who are thrown out of employment due to temporary closure of any factory or establishment, or in cases of (*a*) hospitalisation lasting one month or more or (*b*) major surgical operation in a hospital or (*c*) members suffering from T.B., leprosy, paralysis, cancer, or asthma for the treatment of which leave has been granted by the employer or in the case of an individual retrenchment pending final withdrawal of provident fund.

The Fund vests in the tripartite Central Board of Trustees. The Central Provident Fund Commissioner is the Chief Executive Officer. He is appointed by the Central Government and is subject to its general control and superintendence. He is assisted by fifteen Regional Provident Fund Commissioners one in each region.

In the following regions tripartite Regional Committees have been constituted to advise the Central Board of Trustees on matters referred to them :—Maharashtra, Bihar, Madhya Pradesh, Madras, Uttar Pradesh and West Bengal.

A special reserve fund has been created to pay the provident fund accumulations to outgoing members or their heirs, where the employers have failed to pay the whole or a part of the provident fund contributions to the fund and which were deducted from the wages of the members. A sum of Rs. 75 lakhs has been transferred to this fund from the reserve and forfeiture account of the fund. A sum of Rs. 50·06 lakhs has been paid out from this Fund till the end of Dec. 1964 and a sum of Rs. 7·70 lakhs was recovered from the employers towards the arrears against which payment was made from this Fund.

A Death Relief Fund has been set up for affording financial assistance to nominees/heirs of deceased members whose pay (*i.e.* basic wages, dearness allowance, etc.) does not exceed Rs. 500 per month. A sum of Rs. 10 lakhs has been transferred to this fund from the Reserve and Forfeiture Account of the Fund. This fund has been constituted on a trial basis for one year with effect from 1st January, 1964 and is being continued for a further period of one year more with effect from Jan., 1, 1965. Relief from this fund would be given in respect of deaths which take place on or after 1st January, 1964. The quantum of the benefits from this fund, will be the difference by which the amount standing to the credit of the deceased member falls short of Rs.500 so that a minimum of Rs.500 is assured to the nominee(s)/heir(s). The amount standing to the credit of the deceased member will comprise the sum actually credited to the member's account in the ledger card; any sum payable out of the Special Reserve Fund; the sum of non-refundable advance(s) taken by members; outstanding balance of any refundable advance and interest.

No. of industries covered : 97 (upto 31-3-1965).

No. of covered establishments (both exempted and unexempted) : 28,325 (as on 31-12-1964).

No. of subscribers : Over 41·30 lakhs (as on 30-12-1964).

Amount of Provident Fund contributions as on 31-12-1964 :

(*i*) Provident Fund Contributions collected : Rs. 602·47 crores.

(*ii*) Amount paid as loans, advances, in final settlement of claims, etc. : Rs. 181·84 crores.

(*iii*) Amount invested in Government Securities : Rs. 422·34 crores.

No. of unexempted establishments covered under the Act up to the end of December 1964 : 26,511; No. of subscribers in such establishments : Over 25·68 lakhs; total accumulations of provident fund in such establishments : Rs. 264·95 crores; Amount of provident fund invested in respect of such establishments : Rs. 204·24 crores.

Rate of interest paid at present on members' accumulations : 4·25 per cent (for 1964-65).

The Central Government has accepted the recommendation of the Central Board of Trustees of the Employees' Provident Fund to raise the rate of interest from 4·25 per cent to 4·5 per cent for the year 1965-66.

The provident fund contributions are invested in defence certificates and Government of India securities. The interest received on investments during 1964-65 amounted to Rs. 6·03 crores.

The number of establishments covered on a voluntary basis rose from 499 to 637 upto 31-12-1964.

## TEA DISTRICTS EMIGRANT LABOUR ACT

The Tea Districts Emigrant Labour Act, 1932, was brought into effect from the 1st of October 1933.

The forwarding of recruits to Assam must be made through the prescribed routes where arrangements for feeding, rest and medical treatment have been made and by authorised forwarding agents. It is made unlawful to assist persons under 16 to migrate unless they are accompanied by their parents or guardians. A married woman who is living with her husband may only be assisted to emigrate with the consent of the husband.

To start with, power was vested in the State Governments, subject to Central control, over recruitment as well as over the forwarding of assisted emigrants. Now this power is vested in the Central Government alone.

**Repatriation.**—It is provided that where an employer fails to make all the necessary arrangements for the repatriation of a worker within fifteen days from the date on which a right of repatriation arises to an emigrant labourer, the Controller may direct the employer to despatch such labourer and his family or to pay him such compensation as may be prescribed within such period as the Controller may fix (sections 13 and 15).

Section 3 of the Act makes provision for the appointment of a Controller of Emigrant Labour with some staff and possibly one or more Deputy Controllers for supervising the general administration of the system which the Act seeks to establish.

The cess is collected by the Controller by the sale of certificates of emigration. Every assisted emigrant has to be provided by the employing interest on whose behalf he was recruited with such a certificate. All particulars about the emigrant together with a running record of the details of his employment in Assam are given on it. Failure to provide a certificate is punishable with a fine which may extend to Rs. 500. The rate of the cess is fixed at Rs. 9.

According to the statistics collected under the Act the labour force in Assam in 1962 consisted of 1,68,074 men, 1,55,166 women and 3,58,210 minors representing 204 gardens out of 603.

There has been a fall in recruitment since 1953. This fall is largely attributable to illicit recruitment as is evident from the fact that by occasional checks on the forwarding route 4,562 such cases were detected in 1962 and 640 cases were regularised.

During 1962 the number of emigrants and their dependents repatriated was 16,397. In 1962 there was no recruitment of assisted emigrant labourers as envisaged in the Act due to the winding up of the recruiting organisation, the Tea Districts Labour Association, employing interests within the meaning of Section 2(J) of the Act.

## PLANTATION LABOUR ACT, 1951

The Plantation Labour Act was passed by the Government of India in 1951 with a view to ameliorating the working and living conditions of about 12 lakhs of workers employed in plantations. The Act applies to tea, coffee, rubber, cinchona and cardamom plantations and the State Governments have been empowered to extend it to any other class of plantations.

Though the Act came into force on April 1, 1954 only such provisions as could be given effect to without framing rules became operative on that date. Only eight States and two Union Territories have (April 1965) so far framed the Plantation Labour Rules: Assam, Bihar, Kerala, Madras, Mysore, Punjab, U.P., W. Bengal, Himachal Pradesh and Tripura.

The Act fixes the maximum weekly hours of work for adults at 54 and for adolescents and children at 40. The daily hours of work are so arranged that they do not spread over including rest intervals and the time spent in waiting 12 hours a day. Grant of leave with wages at the rate of one day for every 20 days of work for adults and for every 15 days of work for young persons has been provided.

The more important provisions of the Act in respect of health and welfare relate to supply of drinking water, provision of housing and medical facilities, establishment of canteens, maintenance of creches and appointment of Welfare Officers.

The Act applies to plantations of 10·117 hectares (25 acres) or more or where 30 or more persons are employed or were employed on any day during the preceding twelve months.

In the Second Plan Rs. 2 crores were allotted for welfare schemes.

The following table shows the total No. of estates/plantations covered by the Act and average daily labour employed in various States/Union Territories.

| State/Union Territory | No. of Estates/ Plantations | Average daily labour employed |
|---|---|---|
| Assam .. .. | 665 | 4,92,793 |
| Bihar .. .. .. | 13 | 579 |
| Kerala .. .. | 450 | 2,00,000 |
| Madras .. .. | 289 | 74,738 |
| Mysore .. .. | 274 | 27,229 |
| Punjab .. .. | 18 | 1,528 |
| Uttar Pradesh .. | 17 | 1,532 |
| West Bengal .. .. | 281 | 1,64,454 |
| Himachal Pradesh .. | 1 | 81 |
| Tripura .. .. | 57 | 1,808 |

## SHOPS AND COMMERCIAL ESTABLISHMENTS ACTS

Subject to certain exceptions the Acts apply to shops, commercial establishments, restaurants and places of amusement in certain selected urban centres. Some employees such as those employed in a confidential capacity and those whose work is of an intermittent character are excluded from the scope of the Acts.

The Bombay, Madhya Pradesh and Assam Acts have fixed daily hours of work at nine. In the U.P. and Madras Acts the daily hours are eight while in the West Bengal and the Punjab Acts a ten-hour day has been prescribed. Rest intervals, of half an hour are prescribed in the West Bengal, U.P. and the Punjab Acts while an hour's interval has been granted in the Assam, Bombay*, U.P. and Madras Acts. Opening and closing hours have also been fixed by the Acts. The Assam and West Bengal Acts, however, prescribe only closing hours. Most of the Acts also fix the maximum overtime work that can be taken from the employees. In some cases slightly different hours of work have been fixed for employees of commercial establishments, restaurants and places of amusement.

Provision has been made in all the Acts for weekly closure of shops and establishments although in some Acts, for example the Bombay and Assam Acts, theatres, hotels, etc. are exempted from this provision. In addition to the weekly holiday, provision for privilege leave of 12 to 15 days in a year has been made in all the Acts. The Assam, West Bengal, Madras and U.P. Acts make further provision for casual leave and sick leave of 10 to 12 days and 12 to 30 days respectively.

All the Acts, except the Bengal Act, have made provision for the regulation of employment of children and young persons. The minimum age for the employment of children in the Assam, and Madhya Pradesh Acts is 12 while in the Madras and U.P. Acts it is 14. The hours of work for children and young persons are 7 per day in the Punjab, Madras and Madhya Pradesh Acts and 6 in the Bombay* and U.P. Acts. Children cannot work after 7 p.m. according to the Bombay*, Madras and the Punjab Acts and after 9 p.m. according to the Madhya Pradesh Act.

By the Madras and U.P. Acts the wage period should not exceed one month and by the Punjab Act it should not exceed a fortnight. The Assam Act fixes the wage period at one month. After they become due wages should be paid within 10 days in Assam and West Bengal, 7 days in U.P. and 5 days in Madras. In the area covered by the Punjab Act wages should be paid on demand at the expiry of the wage period. Overtime wages are payable at twice the ordinary rates in Madras, U.P. and the Punjab, at one and a half times in Bombay* and the area covered by the Madhya Pradesh Act and at one and a quarter times the ordinary rate in West Bengal. Hotels, restaurants and other eating places in Bombay* are, however, required to pay overtime wages at twice the ordinary rate. Fines and deductions are regulated under the Madras and U.P. Acts.

One month's previous notice or one month's wages in lieu of notice before discharge is stipulated in the U.P., Punjab, Madras and Madhya Pradesh Acts. The Bombay* Act provides for only 14 days' notice or pay in lieu thereof. The Madras and Bombay* Acts make provisions relating to cleanliness, ventilation, lighting and precautions against fire in establishments covered by the Acts.

The Weekly Holidays Act, 1942 provides for a weekly closure of shops and for the grant of a weekly holiday to employees. The Act has been in force in the Bihar, Ajmer, Coorg, Orissa, Rajasthan, Vindhya Pradesh and Hyderabad areas.

The number of establishments and the number of persons employed by States for 1962 are given below.

| State/Union Territory | No. of Establishments | No. of persons employed |
|---|---|---|
| Andhra Pradesh .. | 1,36,054 | 1,17,668 |
| Assam .. .. | 7,853 | 12,093 |
| Bihar .. .. .. | 31,989 | 39,716 |
| Gujarat .. .. | 1,38,725 | 1,39,710 |
| Jammu & Kashmir .. | 19,702 | 6,905 |
| Kerala .. .. | 39,592 | 72,100 |
| Madhya Pradesh .. | 77,102 | 53,021 |
| Madras .. .. | 1,70,353 | 2,05,814 |
| Maharashtra .. .. | 2,53,813 | 5,14,241 |
| Mysore .. .. | 89,071 | 95,988 |
| Orissa .. .. .. | 4,555 | 21,176 |
| Punjab .. .. | 1,91,775 | 1,08,903 |
| Rajasthan .. .. | 1,07,158 | 65,933 |
| Uttar Pradesh .. | — | — |
| West Bengal .. .. | 2,17,068 | 4,28,711 |
| Andaman & Nicobar Islands .. .. | 254 | 305 |
| Delhi .. .. .. | 77,938 | 1,44,141 |
| Himachal Pradesh .. | 2,507 | 910 |
| Manipur .. .. | 1,033 | 2,250 |
| Tripura .. .. | 1,436 | 2,236 |
| Total .. | 15,67,978 | 20,31,821 |

## INDUSTRIAL EMPLOYMENT (STANDING ORDERS) ACT, 1946

The Industrial Employment (Standing Orders) Act, 1946 which applies to industrial establishments employing 100 or more workers provides for the framing of Standing Orders laying down the conditions of employment of workers employed in the establishments.

The Act extends to the whole of India except the State of Jammu and Kashmir, and is administered both by the Central and State Governments.

So far as the Central Government is concerned it is responsible for administering the Act on railways, major ports, mines, oil-fields and other establishments under its control. Both the Central and the State Governments have been empowered to extend the scope of the Act to establishments in any industry employing less than 100 workers or to any other class or classes of establishments or to exempt any establishment from any of the provisions of the Act.

The total number of establishments coming within the purview of the Act at the end of 1963 was 13,886 of which 12,242 establishments with 35·18 lakh workers belonged to the State sphere and 1,644 with 9·70 lakh workers, to the Central

* Bilingual.

sphere. The employment strength of all these establishments was about 44·89 lakhs.

The number of establishments which had certified Standing Orders in both the spheres at the beginning of 1962 was 9,533 which formed 68·7 per cent of the total covered. Of these 8,219 were in the State sphere and 1,334 in the Central sphere.

The percentage of workers having certified Standing Orders to the total number of employees came to 79·6.

## COLLECTION OF STATISTICS ACT, 1953

This Act which replaces and embodies the main provisions of the Industrial Statistics Act is designed to facilitate the collection of statistics of certain kinds relating to industries, trade and commerce. It empowers the Central and the State Governments to direct that statistics shall be collected about—

(*a*) any matter relating to any industry or class of industries,

(*b*) any matter relating to any commercial or industrial concern or class of commercial or industrial concerns and in particular any matter relating to factories, and

(*c*) any of the following matters, so far as they relate to the welfare of labour and the conditions of labour, namely, (1) price of commodities, (2) attendance, (3) living conditions including housing, water supply and sanitation, (4) indebtedness, (5) rents of dwelling houses, (6) wages and other earnings, (7) provident fund and other funds, (8) benefits and amenities provided for labour, (9) hours of work, (10) employment and unemployment, (11) industrial and labour disputes, (12) labour turnover, and (13) trade unions.

The Central or State Government can appoint an officer to be the Statistics Authority for the purpose of collecting any statistics and such authority has the power to call upon the owner of an industrial or commercial concern to furnish the necessary information. He has also the right of access to any relevant records or documents in the possession of any person required to furnish the information and can enter any premises where he believes such records or documents are kept for the purpose of inspecting them or taking copies. The Act prescribes penalties for improper disclosure of information or returns or for wilfully furnishing false information.

## MOTOR TRANSPORT WORKERS ACT, 1961

The Act seeks to regulate hours and limitations of employment (8 hours in a day and 48 hours in a week) with daily intervals for rest, weekly rest, provision for medical facilities, canteens, rest rooms, wages and leave of workers employed in motor transport undertakings. The Act is now in force in all States except Jammu and Kashmir. The Rules under the Act have been framed and enforcement machinery has been set up in the States of Bihar, Maharashtra, Rajasthan and Uttar Pradesh.

## THE APPRENTICES ACT, 1961

The Apprentices Act, 1961, received the assent of the President on 12th December 1961. The Act provides for the regulation and control of training of apprentices in trades and for matters connected therewith.

The main provisions of the Act relate to the rules governing the qualifications for being engaged as apprentices, contract of apprenticeship, novation of contract of apprenticeship, period of apprenticeship training and termination of apprenticeship contract. The Central Government have been empowered to determine the ratio of apprentices to workers other than unskilled workers in each trade. Where the employer employs in his establishment less than 500 workers the basic training shall be imparted to the apprentices at the cost of the Government in training institutes set up by the Government; but the employer shall, when so required, afford all facilities for imparting such instructions.

The Act also provides for the hours of work, overtime, leave and holidays of apprentices and for their health, safety and welfare.

In addition to the Government, there will be the National Council, the Central Apprenticeship Council, the State Councils, the State Apprenticeship Adviser for administering the Act.

The industries covered by the Act are (1) Food Stuffs, (2) Jute and Cotton Textiles, (3) Manufacture of wood and wood products, (4) Rubber, petroleum and coal products, (5) Chemicals and chemical products, (6) Non-metallic mineral products other than petroleum and coal, (7) Basic metals and their products except machinery and transport equipment, (8) Machinery and electrical equipment, (9) Transport equipment, (10) Miscellaneous manufacturing industries, (11) Electricity and Gas and (12) Transport.

The Rules framed under this Act provide for the constitution of a Central Apprenticeship Councils, which, besides a Chairman shall consist of not more than 9 representatives of employers each from the public and private sectors, 10 of the Central Government, 15 of State Governments and 6 persons having special knowledge and experience on matters relating to industry and labour. The Council shall be constituted for a period of 3 years and thereafter to be reconstituted at the end of every 3 years. The Council has been empowered to appoint such Standing or Special Committees as may be considered expedient to assist it in the discharge of its functions. The Rules also provide filling of vacancies and cessation of membership, time and place of meetings, fees and allowances to members and authentication of the Acts and proceedings of the Council.

## WAGES

Central Wage Boards were set up for eight industries—cotton, cement, jute, coffee plantations, tea plantations, rubber plantations, sugar, iron-ore, limestone and dolomite mining industries. All the eight Boards have made their reports. (See under individual industry.)

The function of a Wage Board is to fix a wage structure on the principle of fair wages.

A steering group consisting of representatives of Government, employers and workers is engaged in drawing up a wage map of India both industry-wise and region-wise to serve as a guide for authorities who have to fix wages.

AVERAGE ANNUAL EARNINGS IN STATES OF FACTORY EMPLOYEES DRAWING LESS THAN Rs. 200 PER MONTH. Figures in Rs. for 1961 and 1962 respectively: Andhra Pradesh 1,080; 1,077; Assam 1,234; 1,055; Bihar 1,484; 1,385; Gujarat 1,617; 1,666; Kerala 1,118; 1,126; Madras 1,411; 1, 488; Maharashtra 1,609; 1,699; Mysore 1,278; 1,210; Orissa 1,154; 1,311; Punjab 1,100; 1,179; Rajasthan 730; 1,310; Uttar Pradesh 1,201; 1,277; West Bengal 1,310; 1,325; Andaman & Nicobar Islands 1,149; 1,244; Delhi 1,531; 1,678; Himachal Pradesh—; 1,292; Average 1,414; 1,459.

MINIMUM WAGES AND DEARNESS ALLOWANCE IN THE COTTON MILL INDUSTRY FOR A STANDARD MONTH OF 26 WORKING DAYS.

| Period | Bombay | Ahmedabad | Sholapur | Baroda | Indore | Nagpur | Madras | Kanpur | West Bengal |
|---|---|---|---|---|---|---|---|---|---|
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| Min. Basic wages | 40·00 | 38·00 | 34·00 | 36·00 | 38·00 | 32·00 | 36·00 | 38·00 | 36·17 |
| D.A. Monthly Average 1958 .. | 81·58 | 75·31 | 44·01 | 67·78 | 55·17 | 54·99 | 55·84 | 58·48 | 31·25 |
| ,, 1959 .. | 86·42 | 88·69 | 46·73 | 80·21 | 60·61 | 63·18 | 61·40 | 59·59 | 32·50 |
| ,, 1960 .. | 89·25 | 87·81 | 59·52 | 78·91 | 63·70 | 67·01 | 67·68 | 59·49 | 32·50 |
| ,, 1961 .. | 91·79 | 86·95 | 66·59 | 78·25 | 63·65 | 64·77 | 75·85 | 59·94 | 35·79 |
| ,, 1962 .. | 95·76 | 88·52 | 73·02 | 78·99 | 65·67 | 64·69 | 79·09 | 65·43 | 44·01 |
| ,, 1963 .. | 96·08 | 85·15 | 72·84 | 76·63 | 66·98 | 67·36 | 83·05 | 66·40 | 50·53 |
| ,, 1964 .. | 114·79 | 103·44 | 92·23 | 92·30 | 76·45 | 80·72 | 96·68 | 86·36 | 55·38 |
| 1964 January .. | 107·00 | 99·22 | — | 89·30 | 69·56 | 71·77 | 88·68 | 73·55 | 52·98 |
| February .. | 107·55 | 99·98 | 81·64 | 89·99 | 69·56 | 73·40 | 88·68 | 73·41 | 55·38 |
| March .. | 108·70 | 99·98 | 81·64 | 89·99 | 69·56 | 74·48 | 88·16 | 76·14 | 55·38 |
| April .. | 110·65 | 99·98 | 82·68 | 89·99 | 74·81 | 77·05 | 89·46 | — | 55·38 |
| May .. | 110·95 | 105·27 | 89·18 | 89·99 | 74·81 | 78·95 | 90·24 | 77·43 | 51·98 |
| June .. | 111·50 | 105·27 | 92·30 | 89·99 | 74·81 | 80·28 | 93·36 | 77·58 | 51·98 |
| July .. | 114·90 | 105·27 | 93·08 | 94·74 | 78·75 | 80·98 | 98·56 | 79·44 | 51·98 |
| August .. | 119·15 | 105·27 | 94·12 | 94·74 | 78·75 | 82·94 | 102·46 | 85·66 | 55·58 |
| Sept. .. | 120·00 | 105·27 | 97·76 | 94·74 | 78·75 | 85·54 | 102·98 | 95·74 | 55·58 |
| Oct. .. | 120·55 | 105·27 | 101·40 | 94·74 | 82·69 | 89·44 | 102·98 | 105·81 | 55·58 |
| Nov. .. | 122·55 | 105·27 | 100·36 | 94·74 | 82·69 | 93·08 | 105·06 | 104·29 | 61·38 |
| Dec. .. | 123·95 | 105·27 | 100·36 | 94·74 | 82·69 | 97·76 | 109·48 | 100·87 | 61·38 |

The Chief Inspector of Mines in his Monthly Coal Bulletin publishes figures of average weekly cash earnings† of certain categories of workers in different coalfields. The position in Dec. 1964 is given in the table below:

AVERAGE WEEKLY CASH EARNINGS† OF WORKERS IN COAL MINES DURING THE MONTH OF DECEMBER, 1964

| | Andhra Pradesh | Assam | Bihar | | Madhya Pradesh | Maharashtra | Orissa | Rajasthan | West Bengal | Indian Union |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Jharia | Raniganj | | | | | Raniganj | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| *Below ground:* | | | | | | | | | | |
| Overmen and Sirdars .. | 40·80 | 49·21 | 44·79 | 43·47 | 46·56 | 42·15 | 49·48 | 34·20 | 46·06 | 45·18 |
| Miners and Loaders .. .. | 29·55 | 30·34 | 26·19 | 26·87 | 26·31 | 26·56 | 25·28 | .. | 26·89 | 26·79 |
| Others .. .. .. | 26·77 | 25·81 | 25·54 | 24·83 | 25·18 | 23·67 | 24·27 | 23·18 | 25·78 | 25·57 |
| *Opencast-workings:* | | | | | | | | | | |
| Overmen and Sirdars .. | 35·33 | 43·13 | 44·15 | 38·57 | 45·68 | 78·75 | .. | .. | 40·98 | 42·80 |
| Miners and Loaders .. .. | .. | 21·61 | 23·65 | 24·29 | 22·66 | .. | .. | .. | 26·81 | 24·58 |
| Others { Men .. .. | 24·04 | 21·64 | 22·16 | 22·32 | 23·31 | 39·55 | 29·45 | .. | 22·81 | 22·98 |
| Others { Women .. .. | .. | .. | 21·68 | 20·53 | 21·28 | .. | .. | .. | 21·57 | 21·56 |
| *Above ground:* | | | | | | | | | | |
| Clerical and Supervisory Staff | 43·48 | 45·94 | 45·47 | 39·41 | 51·40 | 44·45 | 41·76 | 20·24 | 44·66 | 45·32 |
| Men .. .. .. | 27·53 | 23·81 | 25·53 | 22·30 | 23·52 | 25·26 | 20·44 | 19·20 | 25·84 | 25·10 |
| Women .. .. .. | 23·45 | 22·53 | 24·27 | 21·40 | 22·22 | 23·49 | 23·48 | 17·06 | 21·50 | 22·92 |
| OVERALL .. .. .. | 28·77 | 27·85 | 26·54 | 25·69 | 25·92 | 26·47 | 24·59 | 20·51 | 27·01 | 26·71 |

† Obtained by dividing the total cash earnings for the week by the daily employment during the week.

## SHARE OF LABOUR

The Study Group on Wages appointed by the Central Government has prepared a paper on the share of labour in factory output. The available data covers the period 1948 to 1953 beyond which year it was not possible to carry forward the estimates.

The percentage share of workers' earnings in net value of factory output (29 major industries) was as under for different States:

PERCENTAGE SHARE OF WORKERS' EARNINGS IN NET VALUE OF FACTORY OUTPUT (29 MAJOR INDUSTRIES)

| | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
|---|---|---|---|---|---|---|
| All India .. .. | 42·43 | 54·27 | 49·20 | 45·14 | 52·87 | 50·64 |
| Assam .. .. .. | 39·34 | 43·09 | 60·46 | 56·44 | 64·13 | 53·45 |
| Bihar .. .. .. | 41·32 | 41·81 | 37·51 | 44·81 | 37·89 | 41·60 |
| Bombay* .. .. | 44·52 | 57·72 | 47·30 | 47·24 | 59·51 | 59·05 |
| Madhya Pradesh .. | 47·83 | 72·72 | 59·31 | 53·23 | 50·94 | 54·60 |
| Madras .. .. .. | 39·42 | 43·04 | 49·55 | 42·32 | 49·74 | 47·96 |
| Orissa .. .. .. | 41·81 | 49·22 | 39·64 | 32·89 | 35·15 | 29·09 |
| Punjab .. .. .. | 43·35 | 49·73 | 46·48 | 41·02 | 48·08 | 45·13 |
| Uttar Pradesh .. .. | 38·56 | 52·25 | 44·25 | 44·32 | 47·87 | 48·06 |
| West Bengal .. .. | 48·69 | 58·68 | 45·05 | 44·42 | 47·59 | 49·83 |
| Delhi .. .. .. | 37·41 | 58·26 | 56·48 | 42·16 | 51·69 | 46·05 |

* Bilingual.

This table shows that Bombay had the highest percentage for workers' share and Orissa the lowest.

The following table shows the percentage share of workers' earnings in net value of factory output for 7 major industries:

PERCENTAGE SHARE OF WORKERS' EARNINGS IN NET VALUE OF FACTORY OUTPUT (7 MAJOR INDUSTRIES)

| | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
|---|---|---|---|---|---|---|
| Sugar .. .. .. | 26·96 | 18·44 | 24·11 | 29·81 | 27·59 | 28·73 |
| Paper and Paper Products | 39·11 | 38·08 | 38·58 | 30·13 | 30·60 | 30·26 |
| Jute Textiles .. .. | 55·86 | 60·20 | 52·01 | 42·68 | 57·57 | 29·47 |
| Iron and Steel .. .. | 39·72 | 34·01 | 38·42 | 46·56 | 42·23 | 35·64 |
| General & Electrical Engineering .. .. | 50·07 | 53·04 | 50·52 | 45·68 | 50·01 | 53·05 |
| Cement .. .. .. | 27·38 | 29·64 | 25·78 | 26·31 | 21·32 | 23·31 |
| Cotton Textiles .. .. | 46·22 | 64·68 | 64·97 | 53·84 | 66·45 | 62·42 |

The State-wise distribution of the above figures shows that for the Cement Industry the share was highest for Uttar Pradesh and lowest for Bombay.

In the Paper Industry the figures for Bombay and West Bengal were comparatively stable while in Uttar Pradesh and Madras they were not. The share in the jute industry was generally highest but Madras was an exception. As regards the Iron and Steel Industry workers in the Punjab fared the best, those in Bihar the worst. In the Cotton Textile Industry no consistent trend in the inter-State variations was noticeable but Bombay,* Madhya Pradesh and Uttar Pradesh were generally in the vanguard.

* Bilingual.

An interesting departure from normal practice was suggested by the Ministry of Labour.

The Union Ministry of Labour and Employment has recommended that all State-owned industrial undertakings should try to increase productivity by introducing the system of payment by results as recommended by the Planning Commission.

The Labour Ministry circulated a memorandum in November 1957 directing those Ministries of the Government of India employing industrial labour to investigate the possibilities of bipartite agreements at the unit level in all industrial undertakings under their control to give effect to this system of payment of wages.

The Planning Commission had recommended that in addition to a basic minimum wage, all extra earnings of the workers should be based on a piece-rate system to step up productivity.

The Commission added, however, that adequate measures should be taken to avoid fatigue and undue speed-up of production.

A piece-rate scheme has been functioning for some years with success in Bombay port and has been extended to Madras. The private sector has made a beginning, notably at the Tata Steel Works, Jamshedpur.

At Jamshedpur, where the piece-rate scheme was introduced after the 1958 strike, it was made clear that wages could be stepped up only in line with increasing production.

## DEARNESS ALLOWANCE

The scale of the allowance varies not only from centre to centre and industry to industry, but also, except where these matters are adjudicated upon, from unit to unit in the same industry at the same centre.

Several Adjudicators have granted dearness allowance either at the Bombay Millowners' Association scale which was Rs. 127·65 in Aug. 1965 or at a percentage, varying from 66⅔ per cent to 85 per cent, of that scale. The rate of dearness allowance payable to Bombay City cotton mill workers itself was increased by a decision of the Labour Appellate Tribunal by 5 per cent when the Bombay Cost of Living Index Number is between 326 and 335; by 7½ per cent when it is between 336 and 350; and by 10 per cent when it is above 350. The enhanced rate was given retrospective effect from May 1953; the average dearness allowance for a month of 26 working days comes to Rs. 114·79 for 1964.

**INDEX OF EARNINGS (1939 = 100)***

| Year | All India Consumer Price Index | Factory workers | | Miners | |
|---|---|---|---|---|---|
| | | Index of money earnings | Index of real earnings | Index of money earnings | Index of real earnings |
| 1953 | 385 | 384·3 | 99·8 | 437·4 | 113·6 |
| 1954 | 371 | 384·3 | 103·6 | 441·9 | 119·1 |
| 1955 | 356 | 403·5 | 113·3 | 451·5 | 126·8 |
| 1956 | 390 | 411·7 | 105·6 | 593·0 | 152·1 |
| 1957 | 412 | 431·0 | 104·6 | 660·8 | 160·2 |
| 1958 | 431 | 423·9 | 98·6 | 704·6 | 163·9 |
| 1959 | 449 | 434·2 | 96 7 | 756·2 | 168·4 |
| 1960 | 460 | 464·2 | 100·9 | 783·0 | 170·2 |
| 1961 | 468 | 494·4 | 105·7 | 817·7 | 175·1 |
| 1962 | 482 | 513·8 | 106·6 | 846·2 | 175·6 |
| 1963 | 497 | 496·0@ | 99·8@ | 903·2 | 181·7 |

* The figures exclude those for Railway Workshops and groups of industries seasonal in character consisting of Food, Beverages, Tobacco and Presses. The indices for 1958 and 1959 do not include figures for Madras (including Andhra Pradesh), that for 1960 does not include figures from Madras (including Andhra Pradesh) and Madhya Pradesh and that for 1963 do not include those from Andhra Pradesh as figures are not available. Estimated all-India figures after inclusion of estimated figures from these States are 436·6, 451·0, 479·5, and 517·7 (Money earnings) and 101·3, 100·4, 104·2 and 104·1 (real earnings) respectively for years 1958, 1959, 1960, and 1963. @ Provisional.

## CENTRAL PAY COMMISSION

See article "Public Services."

## COST OF LIVING

It was recommended in the Second Five Year Plan that steps should be taken to institute family living surveys for the revision of the present series of consumer price indices at different centres. Accordingly, fresh family living surveys among working class population were conducted at the following 50 important factory, mining and plantation centres of the country during the period September 1958 to August 1959. These surveys were conducted on a uniform basis at all the centres under the technical guidance of the Technical Advisory Committee on Cost of Living Index Numbers set up by the Government of India. On the basis of the results of these surveys, new series of consumer price index numbers for industrial workers are now being compiled by the Labour Bureau. It was decided by the Technical Advisory Committee to adopt the Calendar year 1960 as the base period for all these new series of index numbers.

Labour Bureau, Simla has published new series of Consumer Price Index for industrial workers in all the centres except the following :

| State | Factory Centres | Mining Centres | Plantation Centres |
|---|---|---|---|
| Andhra Pradesh .. | Guntur | Gudur | |
| Bihar .. .. .. | Jamshedpur | | |
| Madhya Pradesh .. | Gwalior | | |
| Madras .. .. .. | Madras | | Coonoor |
| | Madurai | | |
| | Coimbatore | | |
| Maharashtra .. .. | Bombay | | |
| | Sholapur | | |
| | Nagpur | | |
| Punjab .. .. .. | Yamunagar | | |
| Rajasthan .. .. | Jaipur | | |
| | Ajmer | | |

## EMPLOYMENT AND TRAINING

Many of the larger and more progressive concerns have Labour Officers who are directly responsible for all new recruitment.

The Millowners' Association, Bombay conducts special classes for the training of Mill Labour Officers and actively supervises and controls the work done by all such Officers where they have been appointed through the Association. Following the example of the Millowners' Association, Bombay, the University of Calcutta, in co-operation with the Indian Jute Mills Association, has a special course of social work for giving suitable training to Labour Welfare Officers engaged in jute mills. Among other institutions imparting training for Labour Officers mention may be made of the Tata Institute of Social Sciences, Bombay ; Institute for Training of Welfare Workers, Bombay ; Delhi School of Social Work, Delhi ; Institute of Social Sciences, Banaras ; Xavier Labour Relations Institute, Jamshedpur ; Department of Labour and Social Welfare, Patna University ; J. K. Institute of Sociology and Human Relations, Lucknow University ; and the training course conducted by the Madhya Bharat Millowners' Association, Indore.

### Employment Service Techniques

The Directorate-General of Employment and Training, Government of India have set up the Central Institute for Research in Employment and Training in Oct. 1964, which conducts training course for Employment Officers. Intensive training is given during such courses in employment exchange work and procedure as well as in the techniques of collection of employment market information and administration of Vocational Guidance and Adult Counselling.

### Employment Exchanges

The number of Exchanges functioning in Dec. 1964 was 391 which includes 26 University Employment Bureaux and eight Special Exchanges for the handicapped.

The Third Plan provided for the opening of 65 Employment Exchanges and 33 University Employment Bureaux.

Under the existing rules recruitment to all Central Government posts and services except those falling within the purview of the Union Public Service Commission or those for which special methods are prescribed is made through the exchanges. With the employment Exchanges (Compulsory Notification of Vacancies) Act coming into force on May 1, 1960 all employers, including those in the private sector have to notify certain categories of vacancies and furnish staff strength returns at regular intervals to Employment Exchanges.

### Employment Information

Government has also devised a scheme for the collection of employment market information so as to be in a better position to advise on future manpower requirements. The collection of employment market information in respect of the private sector (establishments employing 25 or more persons) has commenced in 271 selected employment market areas in different States. Complete information in respect of the public sector is, however, being collected from all over the country.

### Occupational Training

Directorate General of Employment and Training have, in fact, as one item on the programme, the collection and dissemination of occupational information. A National classification of occupations containing standard definition and description of all occupations in the country has been published under this programme. Information useful for young persons and school-leavers on various careers are also being prepared as a part of this programme. 101 pamphlets on careers have been published in English and 82 in Hindi and are available for sale at a nominal price of 5 Paise per pamphlet at all Employment Exchanges and establishments selling Government publications. Another publication issued by the D.G.E.T. is the handbook which contains information relating to training facilities, both inplant and institutional, available throughout the country. Separate State volumes giving training facilities in each State have also been brought out.

The number of registered applicants with the Employment Exchanges was 24,92,874 at the end of Dec. 1964. During the period Jan.-Dec. 1964 on an average 45,402 persons were placed in employment each month. The monthly average number of vacancies notified during the period was 76,381. Of the placements, 10,494 were under the Central Government, 20,285 under the State Governments, 7,827 under quasi-Government establishments and local bodies and 6,670 under private establishments.

In 1964 on an average 26,538 women were registered with the exchanges every month. On an average 3,980 women were provided jobs every month.

WORKING OF THE EMPLOYMENT EXCHANGES* IN INDIA

| | No. of exchanges at the end of the month | No. of registrations during the month | No. of applicants placed in employment during the month | No. of applicants on the live registers at the end of the month | No. of employers using the exchanges | No. of vacancies notified during the month |
|---|---|---|---|---|---|---|
| Average for 1963 | 353 | 3,45,982 | 44,690 | 25,18,463 | 12,475 | 75,748 |
| 1964 | | | | | | |
| January | 355 | 3,01,969 | 41,864 | 24,94,543 | 13,075 | 68,620 |
| February | 356 | 2,50,306 | 40,683 | 24,64,229 | 12,343 | 70,404 |
| March | 356 | 3,21,229 | 45,078 | 24,52,853 | 13,317 | 75,785 |
| April | 356 | 3,26,329 | 42,782 | 24,57,806 | 13,406 | 76,835 |
| May | 356 | 3,00,013 | 40,217 | 24,73,020 | 13,701 | 79,272 |
| June | 363 | 3,85,906 | 45,442 | 25,42,283 | 14,503 | 87,362 |
| July | 363 | 4,26,531 | 46,481 | 26,36,974 | 14,630 | 82,800 |
| August | 365 | 3,49,545 | 47,312 | 26,80,805 | 14,652 | 77,906 |
| September | 365 | 3,34,815 | 50,573 | 26,71,633 | 14,234 | 77,372 |
| October | 365 | 2,61,148 | 46,314 | 25,99,626 | 13,746 | 73,361 |
| November | 365 | 2,60,936 | 49,318 | 25,35,633 | 13,391 | 73,969 |
| December | 365 | 3,13,177 | 48,754 | 24,92,874 | 13,903 | 72,886 |

There is a Working Group of the National Employment Service consisting of representatives of the Government of India and representatives of Governments of States. This meets periodically to review Employment Exchange procedures and to effect such changes as are warranted by the experience gained in the working of the Employment Exchanges in all the States.

### Rural Employment Bureau

The scheme for setting up employment information and assistance bureau in selected community development blocks was put into operation in Nov. 1960. These bureaux disseminate information regarding employment opportunities and acts as a link between the rural employment seekers and the employment exchanges in the districts.

### Training of Craftsmen

Before the beginning of the Second Five Year Plan there were 59 I.T.Is. in the country and training was imparted in 29 engineering and 22 non-engineering trades. The total number of training places was about 10,500. At the end of the Second Five Year Plan the number of Institutes was increased to 167 and the total training places to 43,000.

The programme for the Third Five Year Plan envisages the introduction of about 58,000 additional training places thereby raising the total training places to a little over one lakh. The total additional institutes likely to be established during the Third Five Year Plan will be 156 thus bringing the number of institutes to 323 by the end of the Third Five Year Plan.

During 1964, 15 new Industrial Training Institutes were established and 12,294 additional seats introduced, bringing the total number of Institutes to 298 and the total training capacity to 90,494 at the end of 1964.

*Scheme of Part-time Classes for Industrial Workers :*

In order to improve the theoretical knowledge of industrial workers, a scheme of Part-time Classes for Industrial Workers has been started during the Second Five Year Plan. The classes are held in technical institutes or within the factory premises of an industrial establishment at convenient localities. The duration of the course is two years and the classes are held thrice a week. The course consists of instructions in workshop mathematics, reading of blueprints and elementary trade theory and use of precision instruments. At the end of 1964, 3,490 seats had been introduced under the scheme and 2,325 trainees were undergoing training in 31 centres where theory classes are being conducted.

### Training of Craft Instructors

The scheme for the training of Craft Instructors has been designed to improve the efficiency of the Instructors both in the public and private institutions with a view to meeting the increasing demands of the country. The Government of India in the Ministry of Labour and Employment have set up 7 Central Training Institutes for Instructors, one of which meant exclusively for women, is functioning in New Delhi while the other 6 are located at Calcutta, Bombay, Kanpur, Madras, Hyderabad and Ludhiana. The total training places at these Institutes is 1,820 at present, which is proposed to be raised to 1,932 before the end of the Third Five Year Plan. Training is imparted in 16 engineering and 4 non-engineering trades and the duration of training is 9 months. These Institutes provide instruction in the theoretical aspects of the various trades and also impart practical instruction in the latest techniques of workshop practice. Instruction is not restricted to the main trades chosen by the candidates but is extended to training in some allied trades as well. To each Central Training Institute is attached an Industrial Training Institute so as to give ample opportunities to the instructor trainees to obtain practice in the methods of instruction under expert guidance.

These Institutes are among the most modern Craft Instructors Training Institutes in the country. Their workshops are equipped with up to date machines. Latest technique in teaching is employed. The Institute at Bombay is receiving technical assistance in the form of expert and equipment from the United States AID while the other 5 Institutes are receiving similar assistance from the United Nations Special Fund.

### Apprenticeship Training Act, 1961 :

In accordance with the recommendations of the Shiva Rao Committee, after the voluntary measures to training apprentices in the industry failed, the Apprentices Act, 1961 was enacted in December, 1961 with a view to achieving the following dual purposes :—

(*i*) To regularise the programmes of practical training in industry in such a way as to conform to standards, syllabi, period of training etc.

(*ii*) To utilise fully the facilities available in industry for imparting practical training. The Act was brought into force w.e.f. 1-3-62 and has been implemented w.e.f. 1-1-63. 26 trades have so far been designated under the Act and it has so far been extended to 127 industries. About 14,500 apprentices have either so far already been trained or are receiving training under the Act (Dec. 1964).

The Central Apprenticeship Council and the State Apprenticeship Councils have already been set up under the Act to advise the Central and State Governments respectively regarding the implementation of the Act and also to propose other statutory functions assigned to them under the Act.

### Training of Supervisors

Pilot programmes for the training of supervisors have been arranged in some industrial establishments. In order to spread this activity further, it has been decided to run a special course for the training of the Deputy State Apprenticeship Advisers on the techniques of organising and running supervisory training courses so that they, in their turn, can implement this activity in their respective States.

Employment during 1961-65 rose by 29·1 lakhs from 120·9 lakhs to 150 lakhs, indicating an increase of 24·1 per cent.

Of the total rise, the public sector accounted for 19·1 lakhs, while establishments in the non-agricultural private sector employing 25 or more persons showed an increase of 10 lakhs.

## EMPLOYMENT IN FOREIGN COMPANIES

The position in regard to employment of Indians and non-Indians on salaries of Rs. 1,000 and above in foreign-owned/controlled concerns on the 1st of January each year was as follows :—

| Year | Indians | Foreigners* | Total |
|---|---|---|---|
| 1954 | 3,455 | 7,008 | 10,463 |
| 1955 | 4,139 | 6,810 | 10,949 |
| 1956 | 4,862 | 6,566 | 11,428 |
| 1957 | 5,906 | 6,025 | 11,921 |
| 1958 | 6,959 | 5,652 | 12,611 |
| 1959 | 7,916 | 5,304 | 13,220 |
| 1960 | 9,113 | 4,809 | 13,922 |
| 1961 | 10,229 | 4,364 | 14,593 |
| 1962 | 11,535 | 4,001 | 15,536 |
| 1963 | 12,434 | 3,570 | 16,004 |
| 1964 | 13,824 | 3,135 | 16,959 |

* Excluding short-term foreign technicians.

Salary-group Rs.1,000–Rs. 2,000 : The number of Indians increased from 9,273 in 1963 to 10,088 in 1964.

Salary-group Rs. 2,001 to Rs. 3,000: The number of Indians increased from 2,185 in 1963 to 2,510 in 1964.

Salary-group Rs. 3,001 and above : The number of Indians increased from 972 in 1963 to 1,226 in 1964.

* Exclude University Employment Bureaux.

### ABSENTEEISM

One of the commoner complaints of Indian industrialists has been the high percentage of absenteeism and the large labour turnover in Indian factories, mines, etc.

ABSENTEEISM IN MANUFACTURING INDUSTRIES IN INDIA
(Percentage of man-shifts lost to man-shifts scheduled to work)

| Period | Cotton Mill Industry | | | | | | | Woollen Industry | |
|---|---|---|---|---|---|---|---|---|---|
| | Bombay | Ahmedabad | Sholapur | Madras | Madura | Coimbatore | Kanpur | Kanpur | Dhariwal |
| 1955 .. .. | 8·2 | 6·8 | 18·0 | 6·6 | 12·2 | 9·9 | 12·8 | 10·6 | 5·0 |
| 1956 .. .. | 8·3 | 6·5 | 18·4 | 6·2 | 13·0 | 11·4 | 11·1 | 7·3 | 5·2 |
| 1957 .. .. | 7·1 | 6·8 | 16·0 | 7·0 | 13·2 | 11·3 | 13·0 | 8·5 | 4·8 |
| 1958 .. .. | 7·0 | 7·1 | 13·6 | 7·4 | 18·5 | 12·3 | 13·1 | 8·5 | 6·1 |
| 1959 .. .. | 7·3 | 6·6 | 13·4 | 7·7 | 13·4 | 11·3 | 10·7 | 6·9 | 7·8 |
| 1960 .. .. | 10·4 | 7·3 | 17·1 | 8·3 | 13·3 | 11·9 | 14·2 | 10·1 | 9·0 |
| 1961 .. .. | 11·9 | .. | 14·7 | 7·7 | 13·8 | 12·0 | 15·1 | 8·6 | 10·6 |
| 1962 .. .. | 11·3 | 8·3 | 15 3 | 8·0 | 13·7 | 12·8 | 27·4 | 8·1 | 11·9 |
| 1963 .. .. | 11·8 | 8·0 | 18·3 | 8·0 | .. | .. | 15·3 | 8·8 | .. |

ABSENTEEISM IN MANUFACTURING INDUSTRIES IN INDIA—*Contd.*
(Percentage of man-shifts lost to man-shifts scheduled to work)

| Period | Engineering Industry | | Telegraph Workshops | Tramway Workshops | Iron and Steel Industry | Ordnance Factories | Cement Factories | Match Factories | Leather Industry |
|---|---|---|---|---|---|---|---|---|---|
| | Bombay | West Bengal | All India | All India | All India | All India | All India | All India | Kanpur |
| 1955 .. .. | 15·6 | 12·8 | 12·1 | 7·2 | 11·4 | 12·4 | 11·7 | 10·6 | 10·1 |
| 1956 .. .. | 14·6 | 12·5 | 12·9 | 8·1 | 11·6 | 12·4 | 12·2 | 10·1 | 11·2 |
| 1957 .. .. | 14·6 | 12·5 | 12·9 | 7·8 | 12·7 | 12·1 | 12·5 | 11·8 | 10·0 |
| 1958 .. .. | 14·5 | 12·2 | 12·3 | 8·0 | 14·0 | 11·6 | 11·9 | 11·7 | 9·4 |
| 1959 .. .. | 14·5 | 12·3 | 13·3 | 7·4 | 12·2 | 11·4 | 13·7 | 11·6 | 8·9 |
| 1960 .. .. | 13·9 | 10·3 | 12·8 | 8·3 | 12·0 | 10·9 | 13·4 | 12·1 | 9·6 |
| 1961 .. .. | 12·7 | 13·3 | 13·8 | 9·0 | 12·5 | 10·9 | 13·1 | 12·9 | .. |
| 1962 .. .. | 13·9 | 13·2 | 13·4 | 10·4 | 12·3 | 9·7 | 13·4 | 12·5 | .. |
| 1963 .. .. | 13·4 | 12·9 | 12·1 | 9·4 | 11·5 | 9·5 | 11·5 | 12·2 | .. |

## EMPLOYEES' STATE INSURANCE CORPORATION

Head Office: E.S.I.C. Bldg., Kotla Road, New Delhi.

*Regions:*

Delhi: E.S.I.C. Bldg., Kotla Road, New Delhi.

Kanpur: 7-202, Swarup Nagar.

Bombay: E.S.I.C. Building, Colaba Causeway, Bombay 5.

Madras: 136, Peters Road, Royapettah, Madras 14.

Calcutta: 64, Ganesh Chandra Avenue, Calcutta 13.

Indore: 5, New Palasia, Indore.

Jaipur: Hathi Babu Ka Bagh, Station Road, Jaipur.

Hyderabad: 5-9-23, Hill Fort Road, Hyderabad 22.

Trichur: E.S.I.C. Bldg., North Swaraj Round, Trichur.

Amritsar: 1016A-XIII, Circular Road, Amritsar.

Bangalore: 13, Kumara Park East Extension, Bangalore 1.

Patna: Lakhmir Bhawan, Budh Marg, Gaya Road, Patna-1.

Gauhati: Dr. Bhubaneshwar Barooah Road, Morakhali, Gauhati.

Cuttack: 10, Cantonment Road, Cuttack 1.

Ahmedabad: Ashram Road, Ahmedabad-9.

The Employees' State Insurance Corporation came into existence as an autonomous body with the passing of the Employees' State Insurance Act in 1948, which applies to all non-seasonal factories using power wherein 20 or more persons work. All employees employed directly or through an immediate employer on any work of the factory whether in a manual or non-manual capacity, on a remuneration not exceeding Rs. 400 per month, are covered by this Act. The Corporation is entrusted with the administration of the Act, whereas a Standing Committee acts as the executive of the Corporation. On matters concerning administration of medical benefit, certification and the like, the Corporation is advised by a Medical Benefit Council. All these bodies are tripartite in character *i.e.* they include representatives of industrial workers, employers and the Government. The Scheme is contributory.

The Scheme at present provides for medical care for the insured persons and in some areas for their families also and sickness, maternity, disablement and dependents' benefit in cash.

The year 1964 saw implementation of the Scheme in Masulipatnam, Tanuku, Chittoor, (Andhra Pradesh), Jiwatpur, Nizamat, Bhuli (Bihar), Ahmedabad (Gujarat), Chathannur, Kalluvathukal, Kottarakara, Kundara, Chittariparamba; Thiruvangad (Kerala), Nagapattinam, Vellore-Katpadi, Suburbs of Coimbatore Tirunagar (Madras), Gulbarga, Gokak (Mysore), Barbil (Orissa), Sitapur, Churk, Ghazipur (U.P.) and 24-Parganas (West Bengal).

During the quarter ending March, 1965, the Scheme has been extended to Chalakudy, Kallettumkara, Karuvannur (Kerala) Abohar, Dadri, Bahadurgarh, Surajpur, Pinjore, Mathura Road (Punjab), Mohannagar (Ghaziabad Suburbs), Sasni, Balwali, Ujhani, Pipri, Kheria (U.P.); thus 24,900 more employees have been covered. The revised total number of insured persons, as on March 31, 1965 was 29,60,550 (26,89,200 employees).

The Scheme covered an additional number of about 3,52,900 employees and about 82,200 family (I.P.) units during 1963-64. A sum of Rs. 5,34,54,191 was disbursed by way of cash benefit during 1963-64.

Upto 31st Dec. 1964 the Act was extended to cover 26,64,300 employees, in 206 centres. 24,58,550 family (I.P.) units have been covered for medical benefit upto 31st Dec. 1964.

The Employees' State Insurance Scheme today (31-3-1965) covers about 29,60,550 insured persons working in 219 centres.

The total number of beneficiaries entitled to medical benefit is estimated at about 1,07,03,400 including the members of families of workers (as on 31-3-1965).

The Corporation hopes to provide medical care to well over 100 lakh persons by the end of the Third Plan period.

With this, the sceme is in force in all States.

#### New Hospitals and Dispensaries

It is proposed to set up hospitals under the E.S.I. Scheme at Adoni, Warangal, Vijayawada and Visakhapatnam in Andhra Pardesh; Maithon and Dalmianagar in Bihar; Delhi; Ahmedabad in Gujarat; Mulakunnathukavu, Asaraman, Alleppey, Udyogamandal, Trichur, Parippally, Paroorkada and Kottayam in Kerala; Indore and Ujjain in Madhya Pradesh; Madras, Madura, and Coimbatore in Madras State; Dandeli in Mysore; Amritsar, Yamunanagar, Ludhiana, Jullundur and Faridabad in Punjab; Kanpur (one T.B. and one W and C Hospital) and Modinagar in Uttar Pradesh and at Kumarhati, Bally, Serampur, Uluberai, Bankara-Kalyani, Kancharapara in West Bengal; plans and estimates in respect of these hospitals have already been approved and construction of most of these hospitals is in progress.

These hospitals will be in addition to the eleven hospitals already established under the Employees' State Insurance Scheme viz., (*i*) a 200-bed hospital at Madras, (*ii*) a 170-bed hospital at Bangalore, (*iii*) the 612-bed M.G.M. Hospital at Bombay, (*iv*) a 112-bed E.S.I. Hospital at Kanpur and (*v*) a 30-bed hospital at Monghyr, (*vi*) 120-bed Hospital at Worli, Bombay, (*vii*) 100-bed Hospital at Kamarhatti, West Bengal, (*viii*) 150-bed Hospital at Hyderabad, (*ix*) 50-bed

Hospital at Sirpur, (x) 100-bed Hospital at Sealdah, (xi) 50-bed Hospital and 12-bed T.B. ward at Choudwar.

It has further been decided to construct hospitals at Salem in Madras; Mulund (Bombay), Nagpur and Aundh in Maharashtra; Mangalore in Mysore; Jaipur in Rajasthan; Bundel, Manicktolla (Calcutta), Budge-Budge, Gouhatti, Kanyapur and Dullya in West Bengal.

*Dispensaries :* Dispensary buildings have been constructed at Delhi (6 buildings), Hyderabad and Sirpur-Kagaznagar in A.P.; Ahmedabad (29 dispensaries) in Gujarat; Nandanagar, Indore, Industrial Estate-Indore, Nagda, Ujjain, Gwalior and Dewas in Madhya Pradesh; Perambur in Madras; Choudwary and Brajrajnagar in Orissa; Bhilwara, Jodhpur, Beawar, Pali, Sriganganagar in Rajasthan; Dalelpurwa, Kanpur in U.P.

Construction work is in progress in respect of State Insurance Dispensary buildings in various centres. Besides these, plans and estimates have been approved for the construction of various other State Insurance Dispensary buildings in different centres all over India.

Specialists have been appointed to provide treatment to persons, insured under the Employees' State Insurance Scheme.

The Employees' State Insurance Corporation was maintaining 5,162 beds in hospitals. Out of these, 3,402 were in general and maternity hospitals and the balance of 1,760 were T.B. beds.

During the Third Plan, it is proposed to implement the Scheme in all the areas with an insurable population of 500 and above. It would cover a total of 33·6 lakh employees with their families by the end of the Plan.

Total receipts of Corporation for 1963-64: Rs.15,55,86,393. Total benefits: Rs.10,84,70,407. Administrative expenses: Rs. 1,50,85,724. Employees' Contribution: Rs. 6,64,13,980. Employers' Contribution: Rs. 8,10,90,051.

Budget estimates for 1964-65: Receipts Rs. 17,23,30,300; expenditure Rs. 15,14,51,000. Surplus Rs. 2,08,79,000.

During 1964-65, the Corporation sanctioned a sum of Rs. 512·08 lakhs for construction of hospitals, annexes and dispensaries under the E.S.I.S. in various States. This includes sanction for construction of 50-bed E.S.I.S. hospital at Warangal, Vijayawada and Adoni at an estimated cost of Rs. 14·50 lakhs each (Andhra Pradesh); a 620-bed general hospital and 304-bed T.B. hospital with staff quarters at Delhi at a total estimated cost of Rs. 2·31 crores; a 500-bed hospital at Ahmedabad at an estimated cost of Rs. 75 lakhs; a 60-bed hospital at Trichur at an estimated cost of Rs. 13 lakhs; a 100-bed hospital at Parippally at an estimated cost of Rs. 16 lakhs; a 50-bed hospital at Peroorkada at an estimated cost of Rs. 9·71 lakhs; an 80-bed hospital at Ludhiana at an estimated cost of Rs. 12 lakhs and a 60-bed hospital at Jullundur at an estimated cost of Rs. 10·45 lakhs.

By the end of the Third Plan period, the Corporation expects to have about 9,150-beds in hospitals of its own.

Today, there are about 5,167-beds under the scheme. The Corporation has so far sanctioned about Rs. 23·30 crores for the construction of hospitals, annexes and dispensaries throughout the country.

Eleven full-fledged E.S.I. hospitals have already been constructed and put into use.

The rates of contribution payable in respect of an employee have been fixed as follows :—

| Group of employees | Employees' contribution (recoverable from employees) | | Employers' contribution | | Total contribution (employees' and employers') | |
|---|---|---|---|---|---|---|
| | Rs. | nP. | Rs. | nP. | Rs. | nP. |
| 1. Employees whose average daily wages are below Re. 1 | *Nil* | | 0 | 44 | 0 | 44 |
| 2. Employees whose average daily wages are Re. 1 and above but below Rs. 1-50 | 0 | 12 | 0 | 44 | 0 | 56 |
| 3. Employees whose average daily wages are Rs. 1-50 and above but below Rs. 2 | 0 | 25 | 0 | 50 | 0 | 75 |
| 4. Employees whose average daily wages are Rs. 2 and above but below Rs. 3 | 0 | 37 | 0 | 75 | 1 | 12 |
| 5. Employees whose average daily wages are Rs. 3 and above but below Rs. 4 | 0 | 50 | 1 | 00 | 1 | 50 |
| 6. Employees whose average daily wages are Rs. 4 and above but below Rs. 6 | 0 | 69 | 1 | 37 | 2 | 06 |
| 7. Employees whose average daily wages are Rs. 6 and above but below Rs. 8 | 0 | 94 | 1 | 87 | 2 | 81 |
| 8. Employees whose average daily wages are Rs. 8 and above | 1 | 25 | 2 | 50 | 3 | 75 |

The insured persons are entitled to the following benefits :

(*i*) sickness benefit, (*ii*) maternity benefit, (*iii*) disablement benefit, (*iv*) dependents benefit and (*v*) medical benefit.

Amounts (Rs.) distributed under some heads for 1963-64 are as follows :—

| State | Maternity Benefit | Disablement | | Sickness (including extended sickness) | Dependent Benefit (Capitalise value) |
|---|---|---|---|---|---|
| | | T.D.B. (Actual payment) | Capitalise value of P.P.D. | | |
| Andhra Pradesh | 92,067 | 3,07,023 | 1,53,900 | 14,21,847 | 58,300 |
| Assam | 98 | 7,223 | 11,600 | 55,159 | — |
| Bihar | 57,313 | 53,266 | 99,500 | 5,15,302 | 84,800 |
| Delhi | 15,785 | 2,01,154 | 4,36,400 | 14,13,152 | 34,800 |
| Gujarat | — | — | — | — | — |
| Kerala | 3,62,460 | 1,13,698 | 1,69,400 | 17,39,198 | 52,200 |
| M.P. | 1,14,474 | 2,29,690 | 2,95,300 | 21,25,013 | 1,05,000 |
| Madras | 5,68,369 | 4,02,330 | 2,89,400 | 57,57,976 | 1,07,800 |
| Maharashtra | 6,15,951 | 12,49,686 | 18,10,500 | 1,56,32,497 | 8,60,700 |
| Mysore | 1,28,097 | 1,49,642 | 2,08,100 | 14,78,393 | 40,800 |
| Orissa | 7,950 | 39,270 | 1,26,100 | 2,61,109 | 8,100 |
| Punjab | 7,156 | 1,32,311 | 2,78,400 | 5,42,744 | 31,500 |
| Rajasthan | 30,445 | 41,947 | 1,01,100 | 2,95,591 | 16,600 |
| U.P. | 7,896 | 2,92,599 | 3,19,300 | 30,16,393 | 1,05,500 |
| W. Bengal | 60,240 | 8,22,510 | 12,21,700 | 58,76,167 | 1,86,200 |
| Total | 20,68,301 | 40,42,349 | 55,20,700 | 4,01,30,541 | 16,92,300 |

The employers' special contribution to the Scheme has gone up from 1·25 per cent to 2·50 per cent of the wages where the Scheme has been implemented with effect from April 1, 1962.

Total number of employees covered by E.S.I.S. in each State is given below: Andhra 79,200; Assam 8,750; Bihar 49,900; Delhi 75,000; Gujarat (figures not available); Kerala 1,13,300; M.P. 87,300; Madras 2,45,500; Maharashtra 6,93,200; Mysore 1,22,400; Orissa 23,900; Punjab 1,13,950; Rajasthan 37,000; U.P. 2,18,250; West Bengal 6,10,800.

Total number of employees covered in the country: 26,89,200.

## SOCIAL SECURITY REPORT

There is a report by a Study Group on Social Security published in Dec. 1958.

A summary of this is given in the 1959-60 edition of the *Directory*.

## ACCIDENTS

The Indian Factories Act requires the manager to report all accidents which cause death or bodily injury whereby the person injured is prevented from returning to his work in the factory during the 48 hours next after the occurrence of the accident.

It is the duty of the Inspector of Factories to make an investigation as soon as possible into the causes of and the responsibility for a fatal or serious accident, and to take steps for the prosecution of the person concerned if it is found that the death or serious injury resulted from any infringement of the provisions of the Act or of the rules framed under the Act.

The Department of Mines has been strengthened to facilitate more frequent inspection of mines. As an emergency measure, the Coal Mines (Temporary) Regulations, 1955 have been promulgated for the prevention of apprehended danger and for the speedy remedy of the conditions likely to cause danger. The entire codes of coal and non-coal mines regulations are being revised to provide for more comprehensive measures for safety in mines.

Figures for the years 1956 to 1962 are given in the table below.

| Year | FACTORIES | | | MINES | | |
|---|---|---|---|---|---|---|
| | Fatal | Non-Fatal | Total | Fatal | Non-Fatal | Total |
| 1956 | 278 | 1,28,177 | 1,28,455 | 335 | 4,281 | 4,616 |
| 1957 | 346 | 1,31.149 | 1,31,495 | 261 | 3,732 | 3,993 |
| 1958 | 357 | 1,30,913 | 1.31 270 | 504* | 3,925 | 4,429 |
| 1959 | 341 | 1,41,675 | 1,42,016 | 288 | 4,084 | 4,372 |
| 1960 | 454 | 1,44,549 | 1,45,003 | 317 | 4,661 | 4.978 |
| 1961 | 474 | 1,59.271 | 1,59.745 | 344 | 5.173 | 5.517 |
| 1962 | 407 | 1,24,935 | 1,25,345 | 368 | 4,881 | 5,249 |

* Includes those killed in two disasters (Chinakuri 173 and Central Bhowra 26).

## WELFARE ACTIVITIES

Welfare work is undertaken by the Central Government, the State Government, private employers and trade unions.

### HOUSING

See under article "Housing".

### OTHER AMENITIES

Section 47 of the Factories Act, 1948 makes it obligatory for all factories employing more than 150 workers to provide adequate shelters and a suitable lunch room for the use of workers during periods of rest. Almost all large industrial establishments had provided tiffin rooms and rest shelters for their workmen. Most concerns had also permitted the establishment of tea stalls on the premises but apart from this, little effort had been made to run co-operative canteens on the lines of those which are associated with most of the large factories in the West.

The Act of 1948 provides for the setting up of creches in factories that employ more than 50 women.

Except for the Ahmedabad Textile Labour Association, the Railwaymen's Unions, and the Mazdoor Sabha of Indore, labour unions have not done much by way of labour welfare. This has been due largely to lack of funds. Some of the Railwaymen's Unions have organised co-operative societies, and various kinds of funds for the provision of specific benefits, such as, legal defence, death and retirement benefits, unemployment and sickness benefits and life insurance, etc.

Labour welfare centres exist in most States.

Other types of welfare work done by factories relate to the provision of recreational facilities, amenities for the education of workers and their children, the provision of cost price grain shops, the establishment of co-operative societies, etc.

On railways there are educational facilities for the children of the employees mostly free of charge. Staff Benefit Funds have also been created which give monetary help to the children and widows of the deceased employees.

Medical facilities provided by employers range from first-aid posts and dispensaries to first-class hospitals.

### WORKERS' EDUCATION SCHEME

The Scheme of Workers' Education, which is run by an autonomous Central Board, consisting of representatives of workers, employers, educational institutions and the Government comprises three stages of training. The first stage consists of training of top level instructors known as Teacher-Administrators who are post-graduates in one of the social sciences. After successfully completing the course they conduct whole-time training courses for selected workers who are called Worker-Teachers. This course is open to whole-time trade union officials also. This is the second stage of the scheme. The workers so trained revert to their places of employment and conduct programmes at the unit level for the rank and file of workers. This constitutes the third and final stage. The medium of instruction at the regional and unit level is the regional language and the syllabi are also adjusted to suit local conditions.

The object of the Scheme is to create over a period of time, despite lack of general education, a well-informed, constructive and responsible minded industrial labour force capable of organizing and running trade unions on sound lines without leaning heavily on outsiders and without lending themselves to exploitation by extraneous interests.

By the end of April 1965, 5,767 worker-teachers were trained in 164 sessions at the various regional and sub-regional centres under the Board while 3,300 worker-teachers were under training during the month ; and 2,12,836 workers were trained while 34,052 were under training.

A number of seminars on various subjects were organised at various places during April 1965 and a symposium on "Grants-in-aid" was organised by the Nagpur Regional Centre. Nearly 50 renowned trade unions participated in it.

Trade Union Organisations which are receiving grants-in-aid from the Board trained 2,153 workers including 68 worker-teachers. By the end of April 1965, a total number of 2,20,756 workers were trained under "Workers Education". at the various institutions under the Workers' Education Programme.

By the end of April 1965, 43 booklets in English and 324 in regional languages were published by the Board.

The new sub-regional centres were started at Bhiwandi and Sontikoppa under Bombay and Bangalore regional centres on 2nd and 6th Jan. 1964 respectively.

### COAL MINES WELFARE FUND

This Fund was constituted under the Coal Mines Labour Welfare Fund Act of 1947 for financing measures for promoting the welfare of labour employed in the coal mining industry. The principal objects for which this fund is to be utilised are : (1) the improvement of standard of living including housing and nutrition, the amelioration of social conditions and the provision of recreational facilities for the benefit of the labour employed in the coal mining industry; (2) the provision of transport to and from work; (3) the improvement of educational facilities; (4) the provision and improvement of supplies of water ; and (5) the improvement of public health and sanitation, the prevention of disease, the provision of medical facilities and the improvement of existing facilities. The Fund is administered by the Central Govt. on the advice of an Advisory Committee consisting of Government Officers and an equal number of members representing colliery owners and workers employed in the coal mining industry with at least one woman.

Miners in about 900 collieries derive benefit from the Fund.

The main source of income to the Fund is a cess levied on all coal and coke despatched from collieries by rail and road. The cess is being levied at the rate of 49·21 Paise per metric tonne. The income of the Fund which was Rs. 303·78 lakhs during 1962-63 was expected to be Rs. 357·61 lakhs during 1963-64.

The Fund is maintained under two accounts, *viz.*, Housing Account and General Welfare Account. The money in the former account is utilised for providing housing accommodation to colliery workers and that in the latter on other general welfare measures.

Two modern well-equipped hospitals of 250 beds each for specialised treatment one in Bihar and the other in West Bengal are functioning. The hospitals being inadequate to cope up with the rush of patients, are being expanded to 300 beds each. A deep X-ray Therapy Section and a Blood Bank have been provided at the Central Hospital, Asansol. A Blood Bank has also been provided at each of the hospitals at Asansol and Dhanbad. A network of Regional Hospitals—with facilities for maternity treatment has been provided at Katras and Tisra in the Jharia Coalfields, Chora and Searsole in Raniganj Coalfields, Naisarai and Phusro in the Hazaribagh Coalfields and Jamai and Dhanpuri in Madhya Pradesh Coalfields. Establishment of 12 more Regional hospitals and expansion of five hospitals from 30 to 50 beds were taken up and in some of these cases the work is already under way.

Besides the maternity and child welfare facilities provided in the hospitals, about 60 centres are also run through Mines Boards in Bihar and West Bengal in addition to 8 centres run by the Fund in Madhya Pradesh, Andhra Pradesh and Orissa Coalfields. A few more centres are to be provided in Madhya Pradesh and Assam Coalfields.

Facilities provided for the treatment of T.B. include 162 beds maintained by the Fund in a 100 bedded hospital attached to the Central Hospital, Dhanbad and a clinic at Katras and a hospital at Searsole and 86 beds reserved in various Sanatoria in Bihar, Madhya Pradesh, Andhra Pradesh and Assam. A scheme of domiciliary treatment has been introduced in all the Coalfields in India with provision for treatment of 1,255 patients at a time. A network of Chemotherapy Centre has been set up, throughout the coalfields for treatment of patients under this scheme.

In addition to free treatment the Fund gives grants-in-aid for special diet up to a maximum of Rs. 50 per month per patient for a maximum period of 6 months. Subsistence allowance up to Rs. 50 is also paid to dependents of each T.B. patient under treatment for a maximum period of 6 months. Two 100 bedded T.B. blocks as adjuncts to the two Central Hospitals are almost completed. The out-patient wing of the 100 bedded T.B. block attached to the Central Hospital, Dhanbad started functioning in full swing from 11th June, 1963.

Two allopathic and 17 ayurvedic dispensaries are run in various coalfields. A Central Ayurvedic Pharmacy has been established at Patherdih, Dhanbad for supplying genuine medicines to all Ayurvedic Dispensaries established by the Coal Mines Labour Welfare Fund and Mica Mines Labour Welfare Fund of Bihar. Three mobile medical units have also been provided by the Fund. Colliery owners are paid annual grants-in-aid for maintaining dispensary services of the prescribed standard and interest-free loan is also given to them for building and equipping dispensaries.

Fifty-four beds are maintained for the treatment of leprosy cases at three Leprosy Hospitals run by voluntary organisations in Bihar and West Bengal. A scheme of payment of diet and subsistence allowance to patients suffering from leprosy has been sanctioned. Supply of X-ray plants to colliery hospitals and of artificial limbs, dentures and spectacles free of cost to miners are also made by the Fund.

Free advice on family planning is given and contraceptives supplied free of cost at the Funds hospitals. Two model family planning clinics are run at the central hospitals and an urban clinic

is run at each regional hospital. Some urban and rural clinics have also been opened. A scheme for payment of grants-in-aid to colliery owners for family planning work has been introduced.

The Malaria Control Operations of the Organisations have been switched over to eradication programme. Filaria survey is being carried out in all the coalfields.

Miners' Institutes each comprising a Welfare Centre for women and children and an Adult Education Centre for miners are maintained—25 in Bihar, 11 in West Bengal, 10 in Madhya Pradesh, 7 in Andhra Pradesh, 2 each in Chanda and Orissa and 1 in Assam. One hundred and sixty-seven Feeder Adult Education Centres are also being run. Five Mobile Cinema Units have been provided, 2 in Bihar and one each in Raniganj and Madhya Pradesh coalfields and one in Korea Coalfields in Madhya Pradesh.

Award of scholarships to the children of colliery workers at rates from Rs. 20 to Rs. 50 per month per scholar for higher general education and Rs. 50 per month per scholar for technical education, grants-in-aid to educational institutions, in different coalfields are some of the other welfare measures on the education and recreational side.

A little over 2,153 houses for miners were constructed by the Fund in the beginning under its township scheme. Under the subsidised housing schemes introduced later, about 3,698 more houses have been constructed. Under the new housing scheme envisaging the construction of about 30,000 houses direct by the Fund, 21,433 houses have been completed and most of the remaining houses are at various stages of construction (March 1965).

A low cost housing scheme envisaging construction of one lakh cheap houses at a cost of Rs. 1,600 each has been approved for the Third Plan, against which 25,000 houses and 417 barracks have been sanctioned for construction during 1961-62. Under the scheme 5,762 houses and 33 barracks have been constructed.

A scheme "Build your House Scheme" has been introduced. Under this scheme a sum of Rs. 325 would be paid as subsidy in the shape of materials in each case to the colliery workers who intend to build their own houses on land owned by them, in the neighbouring villages. 35 houses were sanctioned for construction under the scheme (March 1965).

Other welfare measures include a scheme of financial assistance to the wives and school-going children of those colliery workers who die of accidents in mines, provision of a Holiday Home for miners at Rajgir, running of a Special Train for Bharat Darshan, provision of rehabilitation centres for disabled colliery workers and cured T.B. patients, for imparting training in physical education, leadership and discipline, mass physical efficiency test for coal miners, etc.

The Fund Organization is also responsible for enforcement of Coal Mines Pithead Bath Rules, 1959 and Mines Creche Rules, 1961, which require provision of pithead baths and creches at collieries by their owners.

The Organisation pays grants in aid to colliery managements and other bodies for implementation of water supply scheme in the coalfield areas.

The drive launched by the Organisation in the year 1958 for organising Co-operatives in the Coalfields has gained considerable momentum. Already 461 Co-operative Credit Societies/Stores have been organised in the various coalfields. Nine wholesale/Central Co-operative Stores have been opned.

**Mica Mines Labour Welfare Fund.**—The Mica Mines Labour Welfare Fund Act, 1946, which was designed to constitute a similar fund for the benefit of mica workers, provides for the levy of an *ad valorem* duty not exceeding 6¼ per cent on all mica exported from India. The Govt. of India apportions the cess so realised annually among Bihar, Andhra Pradesh, Rajasthan and other States. Under the Act Advisory Committees for Bihar, Madras, and Rajasthan were constituted.

In Bihar, the Fund has provided the following facilities for the Welfare of mica miners:—

*Medical Facilities :* A 100 bedded Central Hospital, attached with a T.B. Ward of 50 beds; a 30 bedded Regional Hospital, 5 Static Dispensaries; 3 Mobile Medical Units; 5 Maternity and Child Welfare Centres; 7 Ayurvedic dispensaries; 10 beds for the Mica miners and their family members suffering from T.B. at the Mahadevi Birla T.B. Sanatorium, Ranchi. A scheme of domiciliary T.B. treatment has been introduced with provision for treatment of 150 patients.

*Educational and Recreational Facilities :* 6 Primary Schools; 2 Middle Schools; 8 Miners' Institutes; 8 Feeder Centres; 7 Community Centres; 2 Mobile Cinema Units; Provision of 22 Radio Sets at different mines; Provision of Scholarships to miners children for technical and general education; Excursion-cum-Study tour of mica miners; grant of tuition fees to 50 mica miners' children.

*Departmental Wells :* 37 wells have been sunk departmentally and three under subsidy scheme. Construction of 13 more wells is in hand (Dec. 1964).

*Other Welfare Activities :* Payment of financial assistance to dependents of mica miners who die from accidents in mines; Payment of subsistence allowance to mica miners suffering from T.B. and undergoing treatment at the Funds Clinic or at the Sanatorium. A Rehabilitation-cum-Convalescent Home has been started for providing training to disabled workers and discharged T.B. patients after cure.

*Andhra Pradesh :* The percentage share of cess is 18·5. The income and expenditure of the Mica Mines Labour Welfare Fund in Andhra Pradesh in 1964-65 was Rs. 5,97,693 and Rs. 5,87,191 respectively.

*Facilities provided by the Fund :* A 14 bedded hospital at Kalichedu, four allopathic dispensaries at Sydapuram, Utukur, Talupur and Mobile dispensary with headquarters at Kalichedu are run by this Organisation. Four Maternity Centres are also run by this Organisation. An in-patient ward of 10 beds at Talupur is under construction (May 1965).

There are 11 beds reserved for the exclusive use of the Mica Mine labourers who suffer from T.B. in the T.B. Hospital at Nellore. A T.B. ward of 16 beds at Kalichedu at an estimated cost of Rs. 1,36,000 is under construction. (May 1965). There are two Ayurvedic Dispensaries, one at Kalichedu and the other at Marupur. Subsistence allowance at the rate of Rs. 50 per month for six months is being sanctioned to Mica Mine T.B. Patients undergoing treatment in the T.B. Hospital, Nellore in case there happens to be no earning members in the family of the patient and possesses no property.

Under the Fatal Accident Benefit Scheme, the dependents of the deceased mica miners who die or become totally or permanently incapacitated due to mica accident, will get Rs. 100 in lump sum and Rs. 10 per month for a period of 3 years and a monthly scholarship of Rs. 5 for each school going son or daughter till the child attains the age of 15 or in the case of a daughter till she is married whichever is earlier.

*Educational and Recreational Facilities :* One full-fledged High School, at Kalichedu, one Middle School, at Talupur and six elementary Schools at the Mining areas are run by this Organisation for the benefit of the children of the Mica Mine labourers and the general public as well. One Night School is also functioning. Besides the service of midday meals, there are two Boarding Homes, at Kalichedu and Sydapuram run by this Organisation for the children of the Mica Mine labourers who come from a distance of more than two miles. Free supply of books and slates was made to the children of the Mica Mine labourers. Supply of free clothes, grant of scholarships etc., are also awarded for the benefit of the children of labourers studying in the schools. Free dresses were provided to all the labour children studying in elementary and secondary schools.

There are three Community Centres, one Carpentry Centre at Kalichedu, two Sewing Centres at Kalichedu and Utukur (for men and women separately) run by this Organisation.

There are 12 recreation clubs, 6 Bhajana Mandalies and 19 radio sets working under this Organisation. Proposals for installation of radio sets at 9 other places have been finalised. There is one cine projector under the Fund to exhibit film shows on family planning and safety in Mines etc.

*Wells :* The five wells sunk entirely at the cost of the Fund and 8 wells sunk on subsidy basis are being used by the Mica Mine labourers.

*Accommodation :* Two schemes, one costing about Rs. 4,23,430 and the other costing about Rs. 4,76,260 have been submitted to the Government of India for approval, with a view to providing residential accommodation to the medical staff and 80 per cent of the non-medical staff under the Fund.

*Cooperative Stores :* Four consumers cooperative stores have been started under the Fund. There is a proposal to start a Central cooperative stores soon after some more primary stores are started under the Fund.

## AGRICULTURAL LABOUR

Two All-India Enquiries have been conducted by the Government of India in regard to agricultural labour. The First Enquiry was conducted in 1950-51 and the Second in 1956-57. The reports on both the Enquiries have been published.

As the Report states, one of the main objects of the Second Enquiry was broadly to assess the impact of developmental schemes undertaken under the First Plan on the conditions of agricultural labourers as between 1950-51 and 1956-57.

The results thrown up by the Second Enquiry as compared to those of the First Enquiry are briefly given in the 1962-63 Directory. The findings of the first enquiry are given in the 1960-61 Directory.

During the Third Plan period, it was originally decided to conduct a comprehensive survey of the socio-economic conditions of rural labourers in the country. In view of the National Emergency, it was, however, later decided to curtail the scope of the proposed enquiry and restrict it to the collection of data only on Income and Consumer Expenditure of rural households including agricultural labour households.

The enquiry was conducted in about 8,472 villages comprising 15 States and four Union Territories selected on the principle of stratified random sampling and staggered evenly over a period of 12 months. In all, about 8,472 rural labour households were expected to be covered. This enquiry was integrated with the 18th round of the National Sample Survey which commenced in Feb., 1963 and was completed in the middle of Feb., 1964.

The Ministry of Labour and Employment has decided to collect data on employment, unemployment, earnings and indebtedness of rural households including agricultural labour households. The 19th round of the N.S.S. was launched in July, 1964 and was expected to be completed by July, 1965.

### MINIMUM WAGES

One of the protective measures to improve incomes of agricultural labourers is the Minimum Wages Act, 1948, which *inter alia* applies to employments in agriculture. The Act envisages the fixation of wage minima before Dec. 31, 1959. Section 3 of the Act has been amended in 1961 by which this time limit has been removed. In so far as agricultural employments are concerned section 3(1)(*d*) of the Act lays down that the appropriate Government may, instead

of fixing minimum rates of wages for the whole State, fix such rates for a part of the State or for any specified class or classes of such employment in the whole State or part thereof.

Minimum wages for agricultural workers have been fixed for the whole State in Andhra Pradesh, Kerala, Orissa, Punjab, Rajasthan, Bihar, Madhya Pradesh, Madras, Uttar Pradesh, Mysore, West Bengal, Himachal Pradesh, Delhi and Tripura and for part of the State, *i.e.* for specified areas in Assam, Maharashtra and Gujarat. Wages have also been fixed by the Central Govt. in certain agricultural farms/research institutes under the Ministry of Food and Agriculture, military farms and depots under the Ministry of Defence and archaeological gardens at Delhi, Agra, Lucknow, Deeg and Khajuraho.

The Minimum Wages Act also envisages that minimum rates of wages fixed or revised under the Act in respect of scheduled employments may consist of a basic rate of wages and special allowance to be adjusted periodically according to variation in the cost of living index to the practicable extent; it may be a basic rate of wages with or without the cost of living allowance and the cash value of concessions allowed; or it may be an all-inclusive rate allowing for the basic rate, the cost of living allowance and cash value of concessions, if any.

Consumer Price Index numbers for agricultural Labour on base 1960-61 (July-June) = 100 onwards are being published by the Labour Bureau, Govt. of India for 13 States, together with all India figures, regularly every month in *the Indian Labour Journal* with effect from Nov. 1964 issue. The weighting diagram thrown up by the Second Agricultural Labour Enquiry, 1956-57, is being used for these series which have replaced the interim series of the Agricultural Labour Consumer Price Index Numbers published earlier with base 1950-51=100.

## WORKERS' EDUCATION

The Government of India in co-operation with the Ford Foundation appointed an International Team to suggest steps to be taken for (*a*) education of trade union representatives in the techniques of trade union organisation, management and financing, (*b*) education of union members for intelligent participation in union affairs and (*c*) education of union representatives in responsible and effective participation in management.

The Team submitted its report in June 1957.

The main recommendations of the Team are given in the 1960-61 edition of the *Directory*.

A sum of Rs. 2 crores has been provided for expanding the workers' education scheme during the Third Five Year Plan. The Central Board for Workers' Education has opened 27 Regional and 38 sub-regional Workers' Education Centres in different parts of the country. Five top level instructor courses for its education officers have been conducted. About 150 education officers are now available. The sixth training course of education officers for employment under the Central Board for Workers' Education was expected to start in May, 1965. In the education officer courses 87 trade union nominees have also been trained for helping trade unions to organize their own Workers' Education Programmes. Upto the end of March, 1965, 5,686 worker-teachers have been trained. More than 2,56,880 workers were trained upto the end of Sept. 1965. as against the Third Plan target of 2,50,000 fixed under the scheme.

Other training schemes are:—

(1) Craftsmen Training Scheme; (2) Evening Classes for Industrial Workers; (3) Training of craft Instructors; (4) Refresher Course for Supervisory Staff; (5) Mill-wright & Surveyor Courses; (6) Training of Principals & Inspecting Officers; (7) National Council for Training in Vocational Trades; and (8) Apprenticeship Training.

### Training-cum-Orientation Course

The scheme "Work and Orientation Centres" aimed at assisting the educated unemployed persons to equip themselves for employment in vocations other than white-collared jobs, has since been revised and a new scheme called "Training-cum-Orientation Course" at the "Industrial Training Institute" has been introduced. Under the revised scheme, special instructions in business management are given to the selected trainees during the last 9 months of the 18th months' institutional training under the Craftsmen Training Scheme. So far (May 1965), these revised courses have been sanctioned in Assam, Gujarat, Kerala, Madhya Pradesh, Madras, Mysore and Punjab.

**Small Scale Industries:** Two production centres were sanctioned by the Ministry of Commerce and Industry (now Ministry of Industry) to be established in Kerala and the Ministry of Labour and Employment arranged for training for about 344 persons.

Of the 344 candidates whose training was arranged, 48 did not turn up for in-plant training. Twelve of those who had their in plant training either resigned or died. Of the rest, only 273 accepted offers of appointment and they have all been employed in the Small Scale Industries Organisation.

**Goods Transport Co-operatives:** A pilot scheme for the establishment of five Goods Transport Co-operatives one each in West Bengal, Bombay,* Madras, Kerala and Delhi was prepared by the Ministry of Transport and circulated to States. The Governments of Madras, West Bengal and Kerala have already agreed to implement the scheme. Proposals from the Government of Orissa and Tripura Administration for allotment of one unit each to them have been received. These requests are under consideration by the Ministry of Transport.

**Trade Union Methods:** Over 2,13,000 Industrial workers have received training in trade union methods—and philosophy under the three-tier country-wide scheme of workers' education. Nearly 34,865 workers are undergoing training at various centres (March, 1965).

## CODE OF DISCIPLINE

The Code of Discipline adopted by the Indian Labour Conference in May 1958 came into force from June 1, 1958. It lays down certain do's and don'ts both for managements and unions with a view to ensuring better discipline in industry. Managements have undertaken not to increase work-loads unless agreed upon, not to support or encourage unfair labour practices, to take prompt action for the settlement of grievances and to recognise the unions which fulfil certain agreed conditions. Unions on the other hand have undertaken not to engage in physical duress, non-peaceful and rowdy demonstrations, to discourage unfair labour practices. Both the managements and unions have also agreed not to take any unilateral action in an industrial matter but to settle disputes at appropriate levels, not to resort to strike or lock-out without notice or to coercion, intimidation, victimisation or go-slow and to establish a mutually agreed grievance procedure for the speedy settlement of disputes and to take prompt action to implement awards, agreements and settlements. The Code applies to both the public and the private sectors.

The implementation of the Code is entrusted to the Evaluation and Implementation Division at the Centre. An Implementation Committee comprising 4 representatives each from the Central Employers' and Workers' organisations and one representative of the Public sector has been set up under the chairmanship of the Union Labour Minister. The main functions of the E. & I. Division include implementation of the Code of Discipline, Code of Conduct, labour enactments, awards, agreements, preventive action to avert strikes, lock-outs, etc., out-of-court settlement of disputes pending in High Courts and the Supreme Court, evaluation of major strikes, lock-outs and disputes to fix responsibility for them and of the working of important labour enactments, awards, policy etc. and to assess the results achieved by them.

For similar purposes, the State Governments have also set up Implementation Units in their Labour Departments and Tripartite Implementation Committees. The Central Implementation & Evaluation Division co-ordinates the activities of the State Implementation Machinery to ensure uniform action.

All public undertakings working as Companies, and Corporations are already covered by the Code. The State Bank of India, the L.I.C. and the Central Insurance Companies and their employees' organisations have also accepted the Code with some clarifications. The Port Trusts, the private banks and their employees' organisations have accepted the Code with clarifications except those on Criteria for Recognition of Unions. The Code will apply to these sectors after an agreement is reached on the criteria.

During 1964 the Central Implementation and Evaluation Division received 1,710 complaints about breaches of the Code of Discipline in the Central sphere. Of these, 168 did not require action as these were reported to other organisations and referred to the Division only for information or pertained to cases which were sub-judice. Of the remaining cases, 9 per cent were not substantiated on enquiry, in 37 per cent breaches were either set right or the parties advised to avoid them in future and the rest of the cases have been taken up with the parties concerned for rectification.

One of the positive steps under the Code of Discipline to reduce litigation has been the setting up of Screening Committees by the Central Organisations of employers and workers to screen cases of industrial disputes before appeals are filed in higher courts.

Similarly, a procedure for screening of appeals by public sector undertakings against awards of Tribunals etc. was evolved during 1964.

*Industrial Truce Resolution:* In view of the National Emergency created by the Chinese invasion a meeting of the Central organisations of employers and workers was convened on Nov. 3, 1962 under the chairmanship of the Union Labour Minister wherein the resolution on Industrial Truce was adopted. The Truce aims at total elimination of work stoppages, improvement in production and productivity, reduction of costs to the maximum possible extent, ensuring price stability through organisation of Consumers' Cooperatives for industrial workers, increasing savings etc.

In pursuance of the decision of the Indian Labour Conference in July 1963, a high level Standing Committee on Industrial Truce Resolution comprising the representatives of all Central Employers' and Workers' Organisations was set up under the chairmanship of the Union Minister for Labour and Employment to review the implementation of the industrial Truce Resolution in all its aspects. The Committee considered a number of important issues such as industrial relations in the country and the opening of fair price shops and consumers' co-operative stores. This committee has since been amalgamated with the Central Implementation & Evaluation Committee.

*Voluntary Arbitration:* Voluntary arbitration which the Code of Discipline advocates as a means of settling disputes has been further stressed in the Industrial Truce Resolution. In particular the Truce Resolution enjoins on management to settle all complaints pertaining to dismissals, discharges, victimisation and retrenchment of individual workmen through arbitration if they are not settled mutually. Of the 651 cases in the Central sphere, in which conciliation failed during 1964, voluntary arbitration was agreed to in 185 cases.

## WORKERS' PARTICIPATION IN MANAGEMENT

The scheme of Workers' Participation in Management, being a voluntary one and having the promise of yielding results both in terms of

* Billingual.

better relations and higher productivity, the Third Five Year Plan reiterated the Government policy in this regard as follows: "For the successful and peaceful evolution of the economic system into a socialistic frame of work, it is essential that workers' participation in management should be accepted as a fundamental principle and an urgent need, so that progressively, in the course of a few years, it may become a normal feature of the industrial system".

The scheme of establishing Joint Management Councils envisages joint consultation through councils in which workers and employers are equally represented and have a free forum for discussion and exchange of ideas on subjects of mutual interest. Consultation, administration and sharing of information on specified items are the basic ingredients of an effective working of the Joint Management Council. The scheme in its present form does not encroach upon the executive authorities constituting the management structure nor does it usurp the position of a forum for collective bargaining are outside the scope of Joint Management Councils.

The Government of India took various steps in the shape of seminars, conferences, meetings, a special cell both at the Centre and State level and a Tripartite Committee at the Centre, public talk, issue of handouts and pamphlets, circulation of assessment reports, personal contact and on the spot discussion etc., to ensure sound and solid industrial relations.

The scheme of workers' participation in management is at present (May 1965) functioning in 97 industrial establishments. Besides these, the State Bank of India has also constituted a Central Consultative Committee at each of its local head office.

## TRIPARTITE LABOUR MACHINERY

The Tripartite Labour Machinery at the Centre consists of (*a*) Indian Labour Conference, (*b*) Standing Labour Committee and (*c*) Industrial and other Committees. There is also the Labour Ministers' Conference, which though not tripartite in character, is closely associated with the tripartite labour machinery.

The Indian Labour Conference was set up in 1942 with the following main aims and objects:—(*i*) Promotion of uniformity in labour legislation; (*ii*) Laying down of a procedure for the settlement of industrial disputes; and (*iii*) The discussion of matters of all-India importance arising between employers and employees.

The Conference advises the Government of India on all labour matters referred to it and is at present composed of 54 members — 36 members representing the Central and State Governments and 9 members each representing the employers and workers nominated by the Government of India in consultation with the all-India organisations of employers and workers.

The Standing Labour Committee, though originally intended to be a Standing Committee of the Indian Labour Conference and was to examine such questions as might be referred to it by the Conference or the Government, now functions as an independent body. The only difference between the Conference and the Committee is that the Committee is a smaller body composed at present (March 1965) of 28 members 18 representing the Government and 5 each of the employers and workers.

There are also the following Industrial Committees set up to consider the problems peculiar to individual industries and make suitable recommendations:—(*i*) Industrial Committee on Plantations; (*ii*) Industrial Committee on Coal Mining; (*iii*) Industrial Committee on Cement; (*iv*) Industrial Committee on Tanneries and Leather Goods Manufactories; (*v*) Industrial Committee on Cotton Textiles; (*vi*) Industrial Committee on Jute; (*vii*) Industrial Committee on Building and Construction Industry; (*viii*) Industrial Committee on Mines other than Coal Mines; and (*ix*) Industrial Committee on Iron and Steel.

Of these, committees like Coal Mining, Plantations, Cement, Jute and Mines other than Coal have been found effective and useful and frequent meetings of these Committees are being held. Others would meet as and when considered necessary. There is also a Standing Three-man Tripartite Committee on Conventions which reviews the ILO Conventions and recommendations from time to time and explores the possibilities of ratifying the Conventions and implementing the recommendations.

## LABOUR ADMINISTRATION

Apart from the main Secretariat of the Ministry of Labour it has several attached and subordinate offices. The activities of some of these have been described in the relevant sections, such as Miners' Welfare Fund, and notes on some others are briefly given below.

**Labour Bureau.**—To meet the ever growing needs of Government, industry and labour for accurate and reliable information relating to labour conditions, labour legislation, etc., the Central Government established on 1st October 1946, a Labour Bureau.

Among other things the Bureau edits the *Indian Labour Journal* and the *Year Book.*

**Chief Labour Commissioner.**—The Central Government, in the Ministry of Labour and Employment, have also appointed a Chief Labour Commissioner who is responsible for prevention and settlement of industrial disputes, enforcement of labour laws, promotion of labour welfare and maintenance of healthy relations in the undertakings falling in the Central sphere and verification of membership of trade unions affiliated to four All India Central Trade Unions. A Central Institute for Training in Industrial Relations has also been set up under him for imparting in service training of the industrial relations machinery at the Centre and in the States. There are two Deputy Chief Labour Commissioners and nine Regional Labour Commissioners working under him.

**Chief Adviser, Factories.**—The organisation functions in an advisory capacity to co-ordinate and ensure uniformity in the administration of the Factories Act and the rules framed thereunder relating to safety, health and welfare of workers in factories. It is also responsible for the administration of the Indian Dock Labourers Act 1934, the Indian Dock Labourers' Regulations Act 1948 framed thereunder and also the Dock Workers (safety, health and welfare) Scheme 1961. The organisation has under its control the Central Labour Institute at Bombay and the three Regional Labour Institutes at Calcutta, Madras and Kanpur which provide a comprehensive service to industry in the country as a whole on labour and allied problems relating to the human factor.

The organisation has been entrusted with the work of implementation of the Schemes for Shram-Vir National Awards and National Safety Awards and preparation of a scheme for the setting up of a National Safety Council to ensure the fullest participation of all the parties concerned in creating safety consciousness in industry.

## EMPLOYMENT FOR HANDICAPPED

Special Employment offices for the physically handicapped are at present functioning at Bombay, Delhi, Madras, Hyderabad, Calcutta, Kanpur, Bangalore, Ahmedabad and Chandigarh.

The Govt. of India has set up one additional employment office for the physically handicapped during 1964-65 bringing the total number to 9.

It is proposed to open three more such offices during 1965-66.

## CENTRAL LABOUR INSTITUTE

As a step towards meeting the need for an agency designed to afford facilities for the scientific study of the various aspects of industrial development as relating to the human factor, the Planning Commission, as part of the First Five Year Plan, recommended the establishment of a National Museum of Industrial Safety, Health and Welfare to serve as a nucleus of an Insitute for conducting specialised courses of training and education in labour and allied problems. Later on it was felt desirable to consider the problem of training, education and research in matters concerning the well-being of industry and labour as a comprehensive whole and it was therefore recommended as part of the Second Five-Year Plan to set up a composite institute to be named as "Central Labour Institute".

The Institute comprises the following sections: (1) Industrial Safety, Health and Welfare Centre, (2) Industrial Hygiene Laboratory, (3) Productivity Centre, (4) Training-Within-Industry Centre, (5) Industrial Physiology Section, (6) Industrial Psychology Section, (7) Library-cum-Information Centre, (8) Training Centre, and (9) Industrial Medicine Section.

The Government of Maharashtra has made available free of cost an 18-acre plot of land near Sion in Bombay and the building for housing the Institute has been constructed at a cost of about Rs. 30 lakhs.

The following paragraphs briefly describe the functions of the various sections which comprise the Central Labour Institute:—

*Industrial Safety, Health and Welfare Centre:* This Centre has been planned on the lines of Industrial Health & Safety Centre of the Ministry of Labour and National Service U.K., located at Horseferry Road, London. The Centre has a good collection of exhibits on safety, health and welfare which explain and illustrate the dangers to life and limb and health incidental to industrial processes and educates employers, supervisors, foremen and workers in the application of the techniques of industrial safety and health and promoting welfare. During 1964 a number of groups of workers and management personnel from industry and training centres run by the Central Board of Workers' Education and other institutions visited the Centre. The parties were explained by demonstration and otherwise safety devices and other exhibits displayed. The Council of Industrial Safety, Bombay, has been conducting regular training courses on industrial safety at the Centre.

*Industrial Hygiene Laboratory (including Industrial Medicine):* This laboratory has been planned more or less on the lines of the Industrial Hygiene Laboratories in U.S.A. which function under the State Departments of Health or Labour for providing service to industry in promoting industrial health. The laboratory has already carried out a number of investigations on health and environmental problems. It has made available considerable amount of basic information on hazards associated with variety of industries and occupations. A number of technical reports have been published based on the studies and investigations carried out by the Laboratory.

*Productivity Centre:* The Centre was set up in Bombay in 1955 with the technical assistance from the I.L.O. with the object of creating among the general public, employers and workers attitude receptive to higher productivity and to further the application of modern industrial engineering techniques for raising productivity and workers' earnings and improving conditions of work. During the 10 years of its existence the Centre has conducted a number of productivity projects, advanced work study and other training courses and field investigations pertaining to specific problems in industry concerning layout and material handling, methods improvements, work load studies, wage administration, Operational Research etc. In the recent years, the emphasis has been mainly on conducting organisation training in which participants are selected for training because of the role they play in improving the productivity of the enterprise from various angles.

*Training-Within-Industry Centre:* The Centre was set up in Bombay in 1955 with the technical assistance from the I.L.O. It carries out training programmes for trainees in T.W.I. comprising

Job Instruction, Job Relations and Job Methods on a project basis. A large number of training officers have been trained in these projects. The Centre has also developed other types of training programmes for supervisory development including Discussion Leading, Programme Development, Union Job Relations, Human Problems at Work. The Centre also issues a quarterly T.W.I. "*Newsletter*".

*Industrial Physiology Section:* This section seeks to improve human comfort and efficiency by studying the influence of environmental factors such as climate, noise and illumination, and by design of tools, plant and equipment to suit human requirements and physiological limitations. A number of studies have been undertaken by this section since it was set up in 1961 and reports on some of them have also been issued.

*Industrial Psychology Section:* This section aims at discovering the best possible human conditions in occupational work whether they relate to the best choice of vocation, the selection of the most suitable workers, the most effective means of avoiding fatigue and boredom, the study and provision of most valuable incentives to work, the causes and remedies for irritation, discontent and unrest or the best methods of work and training. The section started functioning since 1962 and has to its credit a number of psychological studies including the Attitude Surveys in some large public and private enterprises.

*Library-cum-Information Centre:* The Centre provides facilities for study and research and at the same time supplies up-to-date and authentic information on problems concerning efficiency and well-being of industry and labour.

*Training Centre:* Besides the training programmes that are being conducted by the various sections of the Institute in their own field of specialisation, an important function of the Training Centre is to organise courses with the help of experts of outstanding merit drawn from outside.

*Regional Labour Institutes:* As part of a co-ordinated plan for education, research and training in problems concerning efficiency and well-being of industry and labour, and to meet the specific needs of the various regions which cannot be effectively served from one single centre, three Regional Labour Institutes have been set up at Calcutta, Mardas and Kanpur. (Regional Labour Institute, Lake Town, Calcutta-28; Regional Labour Institute, Guindy Road, Madras-20; Regional Labour Institute, Sarvodayanagar, Kanpur-2). These projects formed part of the Second Five-Year Plan and have been extended to the Third Five-Year Plan.

The Institutes are modelled on the pattern of the Central Labour Institute although on a smaller scale and consist of only the following four sections:

(1) Industrial Safety, Health and Welfare Centre; (2) Industrial Hygiene Laboratory; (3) Library-cum-Information Centre; (4) Training Centre.

The Training Centre is in fact the base of operation for all the training activities where the Institutes conduct training programmes with the assistance provided by the specialist staff of the Central Labour Institute.

## INDIA AND THE I.L.O.

India joined this organisation at the very start and since 1922 has been one of the ten countries of chief industrial importance and as such has been allotted a permanent seat on the Governing Body of the Organization. India also contributes liberally towards the finances of the Organisation. For 1965 India's contribution amounts to U.S. $5,43,715 which is 2·91 per cent of the total contribution of all member States, as against U.S. $ 4,85,108 for 1964 which is 2·96 per cent. of the total contribution of all member States. India's share in the appointments of the office is, however, somewhat inadequate.

At the headquarters in Geneva the number of Indian nationals employed in 1963 as Pl and above is 17. The entire staff of the Indian Branch in New Delhi is Indian.

India has been the venue of two Asian Regional Conferences, the first in 1947 and the fourth in 1957. Both these were presided over by India's Labour Ministers.

India has been receiving technical assistance from the I.L.O. in the spheres of manpower, vocational training, rural employment promotion, Productivity, and so on and experts from India have been recruited by the I.L.O. for assignments in other underdeveloped countries in such subjects as cooperation, cottage industries and employment information.

Whether in following international standards, or participating in the work of the International Labour Conference, Industrial Committees and Regional Conferences, and so on, India has been one of the keenest members of the I.L.O. Out of 122 Conventions adopted by the International Labour Conference, India has so far ratified 30 Conventions. She has in addition incorporated into her national legislation the essential features of many other Conventions.

The following is a list of Conventions ratified by India together with the dates of ratification within brackets:—

*1. No. 1 Hours of Work (Industry), 1919 (14-7-1921).
†2. No. 2 Unemployment, 1919 (14-7-1921).
3. No. 4 Night Work (Women), 1919 (14-7-1921).
4. No. 5 Minimum Age (Industry), 1919 (9-9-1955).
5. No. 6 Night Work of Young Persons (Industry), 1919 (14-7-1921).
6. No. 11 Right of Association (Agriculture). 1921 (11-5-1923).
7. No. 14 Weekly Rest (Industry), 1921 (11-5-1923).
8. No. 15 Minimim Age (Trimmers & Stokers), 1929 (10-12-1922).
9. No. 16 Medical Examination of Young Persons (Sea), 1921 (20-11-1922).
10. No. 18 Workmen's Compensation (Occupational Diseases), 1925 (30-9-1927).
11. No. 19 Equality of Treatment (Accident Compensation), 1925 (30-9-1927).
12. No. 21 Inspection of Emigrants, 1926 (14-1-1928).
13. No. 22 Seamen's Articles of Agreement, 1928 (31-10-1932).
14. No. 26 Minimum Wage-Fixing Machinery, 1928 (10-1-1955).
15. No. 27 Marking of Weight (Packages Transported by Vessels), 1929 (7-9-1931).
16. No. 29 Forced Labour, 1930 (30-11-1954).
17. No. 32 Protection Against Accidents (Dockers) (Revised), 1932 (10-2-1947).
†18. No. 41 Night work (Women) (Revised), 1934 (21-11-1935).
19. No. 45 Underground Work (Women), 1935 (25-3-1938).
20 No. 80 Final Articles Revision, 1946 (17-11-1947).
21. No. 81 Labour Inspection, 1947 (8-4-1949).
22. No. 89 Night Work (Women) (Revised). 1948 (27-2-1950).
23. No. 90 Night Work of Young Persons (Industry) (Revised). 1948 (27-2-1950).
24. No. 100 Equal Remuneration for Men and Women Workers (25–9–58).
25. No. 107 Indigenous and Tribal Population, protection and integration (29–9–1958).
26. No. 88 Employment Service Convention (24-6-1959).
27. Discrimination (Employment and Occupation) Convention, 1958 (No. 111) (3–6–1960).
28. Final Articles Revision Convention, 1961 (21-6-1962).
29. No. 42 Workmen's Compensation (Occupational Diseases) (Revised).
30. No. 118 Equality of Treatment (Social Security).

## BONUS COMMISSION

The Commission was appointed on Dec. 6, 1961. It comprised Mr. M. R. Meher (Chairman), Mr. S. R. Vasavada, Dr. B. N. Ganguli, Mr. N. Dandekar, Mr. M. Govinda Reddy, Mr. D. Sandilya, Mr. S. A. Dange and Mr. K. R. Wazkar (Secretary).

The Commission submitted its report to the Government in January 1964. According to the report, every worker should be guaranteed a minimum bonus of four per cent of his consolidated wage whether his employer makes a profit or not, or Rs. 40 whichever is higher, and a maximum limit of bonus at 20 per cent of the total annual earnings (basic and dearness allowance).

On March 3, 1964, the Labour Minister presented the report of the Commission to the Parliament.

### Modification

The Govt. of India has accepted the Bonus Commission's recommendations, subject to certain modifications relating to prior charges on gross profits before amounts available for distribution are computed. Such prior charges include direct taxes and fixed percentages of return on capital as well as provision for reserves.

The commission's formula is applicable also to public undertakings which compete with the private sector.

Existing agreements between managements and their employees providing for a larger amount of bonus will not be disturbed, but whenever a dispute arises, the commission's formula will prevail.

The modifications introduced by the Government are:

(1) In computing the "available surplus," all direct taxes for the time being in force will be deducted as prior charges. Tax concessions given to the industry to provide resources for development will also be accepted as prior charges. Steps are to be taken to ensure by law that the amounts involved in such concessions are used for the purposes for which they are given.

(2) The rate of return on capital to be allowed as a prior charge deductible before calculating available surpluses should be: (A) The actual rate payable on preference share capital, (B) eight per cent., taxable, on paid-up equity capital, and in the case of banks 7·5 per cent; and (C) six per cent. on reserves, in the case of banks five per cent.

(3) The Government considered it desirable that beyond a certain limit, bonus should be paid in the form of securities or investment, instead of in cash. This matter is to be discussed and decided by negotiations with the parties concerned, including labour organisations, and, if necessary, by tripartite discussions.

The President issued an ordinance embodying the Government's decision on the recommendations of the Bonus Commission on May 31, 1965.

The Bill was passed in the Lok Sabha and Rajya Sabha on Sept. 9, 1965 and Sept. 22, 1965 respectively.

The Payment of Bonus Act received the assent of the President on Sept. 25, 1965.

Subject to the maximum of 20 per cent which an employee is entitled by way of bonus, the Act protects the benefits which the employees got in the previous accounting year, as given in Section 34 of the Act. The Section reads as follows:

If in respect of any accounting year the total bonus payable to all the employees in any establishment under this Act is less than the total bonus paid or payable to all the employees in that establishment in respect of the base year under any award, agreement, settlement or contract of service, then, the employees in the establishment shall be paid bonus in respect of that accounting year as if the allocable surplus for that accounting year were an amount which bears the same ratio to the gross profits of the said accounting year as the total bonus paid or payable in respect of the base year bears to the gross profits of the base year.

* Conventions containing special provisions applicable to India.

† Ratification denounced.

# STATE BUDGETS (1965-66)

**Revenue Receipts (major heads)**

**TABLE 1**

(In lakhs of rupees)

| States/Territories | Union Excise Duties | Taxes on Income | Estate Duty | Land Revenue (net) | State Excise Duties | Stamps & Re-gistration (*a*) | Forests | Taxes on Motor Vehicles | General Sales Tax | Entertain-ment Tax |
|---|---|---|---|---|---|---|---|---|---|---|
| Andhra Pradesh .. .. | 11,14 | 9,48 | 35 | 15.40 | 13,12 | 5,19 | 2,34 | 6,70 | 20,05 | 1,33 |
| Assam .. .. .. | 5,65 | 7,57 | 20 | 5,48 | 2,27 | 1,07 | 1,65 | 1,45 | 3,90 | 43 |
| Bihar .. .. .. | 14,70 | 12,05 | 45 | 11,92 | 7,01 | 4,96 | 1,46 | 1,45 | 17,11 | 1,22 |
| Gujarat .. .. .. | 10,03 | 5,87 | 20 | 6,03 | 43 | 3,22 | 1,08 | 3,54 | 21,26 | 1,46 |
| Jammu & Kashmir .. | 2,61 | 84 | 3 | 87 | 75 | 26 | 2,62 | 33 | 52 | 7 |
| Kerala .. .. .. | 6,66 | 6,52 | 19 | 3,55 | 4,30 | 3,26 | 3,41 | 4,30 | 16,00 | 29 |
| Madhya Pradesh .. .. | 11,00 | 8,07 | 55 | 9,15 | 8,23 | 3,05 | 8,67 | 3,18 | 17,59 | 1,40 |
| Madras .. .. .. | 10,90 | 11,28 | 63 | 4,80 | 40 | 8,81 | 1,35 | 13,01 | 31,41 | 4,66 |
| Maharashtra .. .. | 13,28 | 16,72 | 39 | 7,50 | 2,57 | 8,91 | 3,18 | 7,12 | 55,61 | 4,80 |
| Mysore .. .. .. | 7,25 | 7,03 | 40 | 5,68 | 3,85 | 4,15 | 3,75 | 5,75 | 15,65 | 1,32 |
| Orissa .. .. .. | 8,13 | 4,27 | 30 | 3,40 | 2,09 | 2,09 | 2,59 | 1,82 | 7,62 | 25 |
| Punjab .. .. .. | 8,78 | 5,90 | 34 | 4,87 | 1,48 | 6,87 | —1,00 | 1,14 | 15,84 | 1,45 |
| Rajasthan .. .. .. | 7,50 | 4,91 | 30 | 9,40 | 6,45 | 1,68 | —25 | 1,75 | 11,67* | 56 |
| Uttar Pradesh .. .. | 17,93 | 17,97 | 1,14 | 21,83 | 11,41 | 7,22 | 5,34 | 4,03 | 22,57* | 2,61 |
| West Bengal .. .. | 8,76 | 15,06 | 56 | 6,76 | 9,27 | 7,16 | 2 | 5,29 | 32,54 | 2,75 |
| Andaman & Nicobar Islands .. .. .. | .. | .. | .. | 5·01 | 0·01 | 0·47 | 154 | 0·16 | .. | .. |
| Delhi .. .. .. | .. | .. | .. | 14·54 | 148·15 | 143·56 | 0·14 | 1,50 | .. | .. |
| Goa, Daman & Diu .. | .. | .. | .. | 9·86 | 50 | 17·09 | 10 | 28·25 | .. | .. |
| Himachal Pradesh .. .. | .. | .. | .. | 30·68 | 36·65 | 5·88 | 4,00 | 3·50 | .. | .. |
| Manipur .. .. .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Pondicherry .. .. | .. | .. | .. | 4·60 | 60·38 | 9 | .. | 1 | .. | .. |
| Tripura .. .. .. | .. | 1 | .. | 16·95 | 4·25 | 11 | .. | 4·25 | .. | .. |

* Includes Sales Tax on Motor spirit.

**TABLE 1—*Contd.***

**Revenue Receipts (major heads)**

(In lakhs of rupees)

| States/Territories | Sales Tax on Motor Spirit | Electri-city Duties | Other Taxes & Duties (*b*) | Admini-strative Re-ceipts (*c*) | Irriga-tion (*d*) | Electri-city Schemes | Road & Water Transport | Indus-tries & Others | Other Revenues (*e*) | Grants in aid and other contri-butions (*f*) | Total Revenue |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Andhra Pradesh .. .. | 1,95 | 2 | 1,22 (*g*) | 6,84 | 1,57 | 95 | — | 1 | 19,97 | 31,66 | 1,49,29 |
| Assam .. .. .. | 3,46 | 1 | 2,23 (*h*) | 1,82 | 2 | — | 35 | — | 96 | 29,63 | 68,25 |
| Bihar .. .. .. | 1,45 | 1,97 | 2,63 (*i*) | 8,81 | —19 | — | 3 | — | 9,98 | 19,27 | 1,16,28 |
| Gujarat .. .. .. | 1,12 | 3,57 | 3,19 (*j*) | 9,89 | 5 | — | — | — | 9,60 | 19,16 | 99,71 |
| Jammu & Kashmir .. | 33 | — | 22 | 3,12 | 18 | —46 | 53 | — | 1,59 | 10,42 | 24,86 |
| Kerala .. .. .. | 1,45 | 66 | 1,00 (*k*) | 5,84 | 18 | — | 50 | 13 | 4,86 | 15,54 | 78,64 |
| Madhya Pradesh .. .. | 1,20 | 1,75 | 3,51 (*l*) | 6,38 | 1,27 | — | — | — | 8,71 | 21,64 | 1,17,24 |
| Madras .. .. .. | 3,40 | 3,59 | 88 (*m*) | 13,94 | 2,97 | — | 63 | —5 | 17,95 | 23,08 | 1,53,64 |
| Maharashtra .. .. | 5,25 | 8,73 | 9,74 (*n*) | 13,86 | 1,78 | 3,96 | — | — | 16,71 | 30,22 | 2,10,57 |
| Mysore .. .. .. | 1,60 | 2,72 | 1,57 (*o*) | 8,89 | 38 | — | — | 58 | 9,98 | 23 62 | 1,04.17 |
| Orissa .. .. .. | 70 | 1,17 | 24 (*p*) | 3,98 | 15 | 75 | 54 | —1 | 11,20 | 27,15 | 77,82 |
| Punjab .. .. .. | 1,16 | 2,47 | 4,72 (*q*) | 7,65 | 1,96 | — | 1,33 | — | 26,58 | 17,80 | 1,18,94 |
| Rajasthan .. .. .. | 11,67† | 27 | 1,95 (*r*) | 5,45 | 77 | — | — | — | 9,07 | 16,85 | 80,06 |
| Uttar Pradesh .. .. | 22,57† | 73 | 12,12 (*s*) | 11,30 | 2,13 | — | 1,91 | 45 | 25,92 | 44,15 | 2,10,76 |
| West Bengal .. .. | 3,15 | 6,82 | 3,79 (*t*) | 10,69 | 32 | — | 3 | —5 | 11,63 | 24,86 | 1,48,91 |
| Andaman & Nicobar Islands .. .. .. | .. | .. | 0·21 | .. | .. | 7 | .. | .. | .. | .. | 2,19·95 |
| Delhi .. .. .. | .. | .. | 366·98 | .. | 0·04 | — | .. | .. | .. | .. | 22,50·26 |
| Goa, Daman & Diu .. | .. | .. | 5·15 | .. | .. | — | .. | .. | .. | .. | 7,57·20 |
| Himachal Pradesh .. | .. | .. | 8·57 | .. | .. | 27·05 | .. | .. | .. | .. | 15,66·96 |
| Manipur .. .. .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Pondicherry .. .. | .. | .. | 2·76 | .. | .. | .. | .. | .. | .. | .. | 3,37·35 |
| Tripura .. .. .. | .. | .. | 13 | .. | .. | .. | .. | .. | .. | .. | 9,28·04 |

† Includes General Sales Tax.

*Note :* Figures given here would differ from those in the budget papers as certain adjustments have been made to ensure uniformity in presentation.

(*a*) Includes receipts from forward contracts tax in the case of Punjab. (*b*) Comprises purchase tax on sugar, sugarcane cess, tax on passengers and goods, tobacco duties, taxes on prize competitions and betting, cinematograph tax, tax on raw jute etc. (*c*) Including receipts from civil works ; this item comprises receipts from various departments such as education, medical and public health, etc. (*d*) Irrigation receipts for which capital accounts are not kept are taken on a gross basis. (*e*) Comprises debt services, stationery and printing and miscellaneous receipts ; excludes transfers from reserve funds. (*f*) Comprise Statutory grants-in-aid, miscellaneous adjustment between the Centre and the States, grants in lieu of tax on Railway passenger fare and other grants. (*g*) Sugarcane cess, betting tax, passengers and goods tax and cinematograph tax. (*h*) Tax on goods carried by roads and waterways and tax on passengers. (*i*) Sugarcane cess, and passengers and goods transport, tax. (*j*) Prize competition, betting and luxury taxes, education cess, passenger tax, carriage of goods tax and sugarcane cess. (*k*) Tobacco duties tax on building and taxes on goods and passengers carried by road or on inland waterways. (*l*) Tobacco duties and taxes on goods and passengers carried by road and inland waterways. (*m*) Passengers and goods tax, betting tax and tax on prize competition, newspaper and advertisement tax, taxes on goods and passengers and education cess. (*n*) Sugarcane cess, betting and luxury taxes, tobacco duties, purchase tax on sugarcane, prize competition, newspaper and advertisement tax, tax on goods and passengers and education cess. (*o*) Sugarcane cess, betting and luxury taxes, cinematograph tax, receipts under Coorg Land Cess and Taxes Act, tobacco duties, tax on goods and passengers carried by road and Mysore building tax. (*p*) Passengers and goods transport tax. (*q*) Passengers and goods tax, tobacco duties and cinematograph tax. (*r*) Inter-State transit duties and taxes on goods and passengers carried by road and waterways. (*s*) Cess and purchase tax on sugarcane, betting tax, motor vehicle passengers tax and tax on land and buildings in urban areas. (*t*) Tax on raw jute, betting tax and tax on entry of goods in local areas.

## TABLE 2

(Development Expenditure*)

(In lakhs of rupees)

| States | Education | Medical & Public Health | Agriculture Veterinary & Cooperation | Irrigation † | Electricity Schemes † | Rural & Community Development Projects | Civil Works | Industries & Supplies |
|---|---|---|---|---|---|---|---|---|
| Andhra Pradesh .. .. .. | 31,14 | 12,66 | 13,70 | 8,75 | 3,19 | 6,80 | 12,02 | 1,58 |
| Assam .. .. .. .. | 12,07 | 5,09 | 5,02 | 1,61 | 2 | 2,83 | 12,90 | 1,21 |
| Bihar .. .. .. .. | 19,57 | 9,97 | 10,09 | 68 | 12 | 10,17 | 2,56 | 3,07 |
| Gujarat .. .. .. .. | 18,67 | 8,21 | 6,86 | 5,86 | — | 4,99 | 6,97 | 1,65 |
| Jammu and Kashmir .. .. | 4,41 | 2,61 | 1,94 | 53 | — | 1,04 | 4,45 | 57 |
| Kerala .. .. .. .. | 28,74 | 8,73 | 6,16 | 1,56 | — | 2,95 | 5,28 | 72 |
| Madhya Pradesh .. .. .. | 30,81 | 9,24 | 8,24 | 1,11 | — | 8,50 | 7,34 | 1,34 |
| Madras .. .. .. .. | 36,93 | 13,21 | 13,16 | 5,52 | — | 6,72 | 9,96 | 6,43 |
| Maharashtra .. .. .. | 37,16 | 16,51 | 15,91 | 7,38 | 1 | 10,56 | 12,86 | 1,82 |
| Mysore .. .. .. .. | 24,99 | 8,26 | 8,71 | 6,20 | — | 4,31 | 12,30 | 1,37 |
| Orissa .. .. .. .. | 16,16 | 6,67 | 9,71 | 1,18 | 88 | 7,34 | 5,04 | 1,14 |
| Punjab .. .. .. .. | 20,11 | 8,38 | 9,62 | 4,06 | — | 3,87 | 7,62 | 2,57 |
| Rajasthan .. .. .. .. | 17,92 | 9,37 | 6,39 | 1,21 | — | 3,45 | 4,66 | 51 |
| Uttar Pradesh .. .. .. | 43,36 | 18,11 | 15,53 | 8,09 | — | 12,61 | 12,12 | 3,34 |
| West Bengal .. .. .. | 28,83 | 14,72 | 15,68 | 2,67 | — | 4,36 | 11,76 | 4,59 |
| Andaman & Nicobar Islands .. | 21·72 | 21·70 | 18·40 | .. | 10·53 | 7·66 | .. | .. |
| Delhi .. .. .. .. | 751·92 | 138·02 | 43·40 | .. | .. | 12·29 | .. | .. |
| Goa, Daman & Diu .. .. | 119·19 | 98·37 | 63·84 | .. | .. | 16·07 | .. | .. |
| Himachal Pradesh .. .. | 246·29 | 116·72 | 159·74 | .. | 50·85 | 97·38 | .. | 38·07 |
| Manipur .. .. .. .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Pondicherry .. .. .. | 69·14 | 57·28 | 21·60 | .. | .. | 6·52 | .. | 2·83 |
| Tripura .. .. .. .. | 245·48 | 87·29 | 62·36 | .. | .. | 30·61 | .. | 21·03 |
| Total .. .. .. | | | | | | | | |

* The classification of development and non-development expenditure has been done on the basis of broad budget heads.

† Including interest on capital outlay; consequently figures shown under debt services are under-estimates.

## TABLE 2—*Contd.*

(Non-Development Expenditure*)

(In lakhs of rupees)

| States | Other Development expenditure (*a*) | Collection of Taxes, Duties & Other principal Revenues | Debt Services (*b*) | Civil Administration (*c*) | Miscellaneous (*d*) | Famine | Other non-Development Expenditure (*e*) | Total Expenditure |
|---|---|---|---|---|---|---|---|---|
| Andhra Pradesh .. .. .. | 11,30 | 3,53 | 17,32 | 20,86 | 7,97 | 75 | 4,42 | 1,55,99 |
| Assam .. .. .. .. | 1,65 | 1,58 | 6,51 | 11,02 | 4,76 | 51 | 1,11 | 67,87 |
| Bihar .. .. .. .. | 8,62 | 5,86 | 21,26 | 13,85 | 2,26 | 74 | 1,99 | 1,10,57 |
| Gujarat .. .. .. .. | 5,91 | 5,13 | 18,22 | 11,86 | 11,14 | 32 | 2,87 | 1,08,66 |
| Jammu & Kashmir .. .. | 80 | 78 | 3,45 | 3,57 | 5,64 | 10 | 74 | 30,63 |
| Kerala .. .. .. .. | 2,97 | 2,70 | 7,74 | 8,10 | 1,24 | 20 | 3,74 | 80,83 |
| Madhya Pradesh .. .. .. | 5,80 | 4,60 | 15,22 | 15,41 | 5,03 | 24 | 2,93 | 1,15,81 |
| Madras .. .. .. .. | 7,31 | 3,17 | 16,79 | 21,22 | 13,18 | 56 | 6,45 | 1,60,61 |
| Maharashtra .. .. .. | 9,80 | 16,51 | 26,27 | 31,78 | 26,13 | 78 | 6,44 | 2,19,92 |
| Mysore .. .. .. .. | 3,53 | 3,46 | 13,74 | 11,79 | 4,96 | 40 | 4,06 | 1,08,08 |
| Orissa .. .. .. .. | 9,77 | 4,27 | 16 23 | 9,50 | 3,00 | 55 | 1,41 | 87,85 |
| Punjab .. .. .. .. | 9,11 | 3,24 | 22,49 | 16,58 | 3,47 | 2,08 | 3,42 | 1,16,62 |
| Rajasthan .. .. .. .. | 5,95 | 3,97 | 15,21 | 11,11 | 2,25 | 40 | 2,39 | 84,79 |
| Uttar Pradesh .. .. .. | 14,14 | 13,71 | 33,68 | 34,01 | 7,04 | 96 | 8,97 | 2,25,67 |
| West Bengal .. .. .. | 9,80 | 6,93 | 22,22 | 26,36 | 8,54 | 5,20 | 5,08 | 1,66,74 |
| Andaman & Nicobar Islands .. | .. | .. | .. | .. | 24,87 | .. | .. | 3,74,90 |
| Delhi .. .. .. .. | .. | .. | .. | .. | 780,81 | .. | .. | 23,7«,13 |
| Goa, Daman & Diu .. .. | .. | .. | .. | .. | 190,10 | .. | .. | 7,63,02 |
| Himachal Pradesh .. .. | .. | .. | .. | .. | 217,49 | .. | .. | 15,66,96 |
| Manipur .. .. .. .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Pondicherry .. .. .. | .. | .. | 5,85 | .. | 31,39 | .. | .. | 3,37,35 |
| Tripura .. .. .. .. | .. | .. | 25,03 | .. | 100,55 | .. | .. | 11,04,59 |

*Note :* Figures given here would differ from those in the budget papers as certain adjustments have been made to ensure uniformity in presentation.

*The classification of development and non-development expenditure has been done on the basis of broad budget heads.

(*a*) Includes expenditure on scientific and miscellaneous departments, labour and employment, aviation ports and pilotage and expenditure on road and water transport (excluding working expenses).

(*b*) Include appropriation for reduction and avoidance of debt.

(*c*) Comprises general administration, administration of justice, jails and convict settlements, police, etc.

(*d*) Covers expenditure on displaced persons, grants and other contributions to local bodies and private parties irrecoverable loans and advances, advanced for technical training, scholarships, etc.

(*e*) Includes pension, stationery and printing, extraordinary charges, expenditure connected with national emergency, etc.

# REFUGEES AND REHABILITATION

MIGRATION to India of members of the minority community in Pakistan which began in 1946 continued unabated till 1956.

In May 1956, a Ministers' conference between India and Pakistan was held in Dacca to discuss the problem of exodus of the minorities. As a result of this conference the influx of the migrants has been regulated. The steps taken by both the Governments (India & Pakistan) proved effective, by which the exodus of the refugees was brought down to manageable dimensions.

In November 1957, another conference of State Ministers of Rehabilitation was held under the chairmanship of the Union Minister for Rehabilitation. The recommendations of the conference were accepted by the Government of India and the implementation of the recommendations had the effect of further reducing the number of migrants from Pakistan to India after 1958. According to the decision the eligibility for relief and rehabilitation was suspended to those migrated after April 1, 1958.

Consequent upon the communal disturbances in East Pakistan in Jan. 1964, the Govt. of India has decided on humanitarian ground to ease the existing regulations and started giving relief and rehabilitation benefits to those migrated from East Pakistan, after Jan. 1, 1964.

The total number of migrants who came to India from East Pakistan from January 1964 to January 1965 was 8,94,137. Out of 6,09,999 migrants who came to West Bengal 2,04,382 had applied for rehabilitation benefits. They have been admitted in the camps. 1,20,000 migrants who came to Assam were also given admission in the camps.

Out of the new influx 2,61,899 came with migration certificates, 1,76,602 with Pakistani passports and Indian visas, while 4,55,636 persons came without any travel documents.

Displaced persons from West Pakistan 47·40 lakhs; from East Pakistan 50·11 lakhs; (including the latest migration of 1964-65); total 97·51 lakhs.

The table below shows particulars of the expenditure incurred till the end of 1964-65 on displaced personnel :—

(in crores of rupees)

| | Displaced persons from | |
|---|---|---|
| | West Pakistan | East Pakistan |
| Grants .. .. .. | 96·46 | 101·02 |
| Dandakaranya Scheme | .. | 29·62 |
| Loans .. .. .. | 26·49 | 44·78 |
| Housing .. .. | 64·65 | 45·15 |
| Establishment .. .. | 3·52 | 0·86 |
| Loans paid by Rehabilitation Finance Administration upto 31st December 1960 .. | 7·28 | 3·94 |
| Miscellaneous .. .. | 0·01 | 0·57 |
| TOTAL .. | 198·41 | 225·94 |

The total expenditure to the end of the financial year 1964-65 is expected to be Rs. 424·35 crores. This does not include expenditure on payment of compensation out of the compensation pool to displaced persons from West Pakistan nor the ex-gratia payments to migrants from the Pakistan held area of Jammu and Kashmir.

## DISPLACED PERSONS FROM E. PAKISTAN

As the problem of migration of the minority community in East Pakistan is assuming gigantic proportions, the Governments of Madhya Pradesh, Orissa, Maharashtra, Andhra Pradesh, Mysore, Bihar, Uttar Pradesh, Gujarat and Madras have been approached to accept a quota of migrants for resettlement in their States. In response to this request, the Governments of Maharashtra, Madhya Pradesh, Orissa, Andhra Pradesh, Bihar and Madras have already agreed to take 69,000 families as indicated below :—

Maharashtra 10,000 families; Madhya Pradesh 25,000 families; Orissa 30,000 families; Andhra Pradesh 2,000 families; Bihar 1,000 families; Madras 1,000 families.

The Governments of Uttar Pradesh, Mysore and Gujarat were also expected to co-operate in the matter of the rehabilitation of the new migrants.

### Relief Arrangements

To provide accommodation to the migrant families a number of transit/relief camps have been set up. In Feb. 1965, 85 such camps were functioning. Eight of these camps having a population of 80,390 persons (18,500 families) are run by the Central Govt. and the balance 77 camps with a population of 1,88,732 (44,628 families) are under the control of the State Governments concerned.

In West Bengal, reception centres/interception centres have been set up near the border at Banpur, Petrapole and Hasnabad. The migrants are received in the above centres. Those who seek relief and rehabilitation assistance from Government and who are willing to go outside West Bengal for settlement are given Relief Elegibility Certificates. Those who prefer to stay in West Bengal are not eligible for assistance from the centre. At the reception centres they are provided with meals and medical facilities and are taken by special trains to transit camps in other States. Each migrant is given a dry meal in addition to cash to meet the expenses for food and other purchases, before the commencement of the journey.

For those migrants who enter into Assam reception camps have been maintained at Dalu in the Garo Hills, Demagiri in Mizo, Karimgunj in Cachar, Dhubri and two camps at Sela and Balat (Khasi Hill District). From the reception camps migrants are taken to the main camps in various districts.

In Tripura the migrants are taken to the camps where they are provided cash doles and clothing etc. It was decided in the case of Tripura to take the migrants to the camps outside Tripura as there is little scope of rehabilitating new migrants there.

Scales of relief assistance admissible to the migrants in West Bengal prior to their movement to transit camps are given below.—Daily allowance : 50 paise per head in cash or kind ; clothing : a pair of dothi or sari to every adult man or woman, one pair shirt and shorts or pants and frock to every boy or girl, subject to a ceiling of Rs. 16 per adult and Rs. 8 per child, and a blanket (woollen) to an adult subject to a maximum of three per family. Utensils to each family : mug 1, mats 2, karai 1, plate 1, bucket 1, and glass 1.

*Cash doles :* The migrants are also provided with cash doles in advance before their departure to the camps with a view to saving them from hardship immediately on their arrival at their destination. The rate of cash dole for a month is as follows :—

Family with one member Rs. 30 ; family with two members Rs. 40 ; family with three Rs. 50 ; family with four Rs. 57; family with five Rs. 65 ; family with more than five members Rs. 70.

*Marriage Grant :* A marriage grant of Rs. 200 is given subject to certain terms and conditions.

### Rehabilitation

About 6,58,000 displaced families from East Pakistan have been given rehabilitation benefits in one form or another, excluding families settled down in Dandakaranya. The total amount so far sanctioned for relief and rehabilitation comes to over Rs. 202 crores for the displaced persons from East Pakistan. The residuary problem relating to rehabilitation of the old migrants from East Pakistan has been practically completed in all States except West Bengal. The estimated expenditure for the residuary work in West Bengal comes to about Rs. 22 crores, out of which schemes to the extent of Rs. 9·8 crores have been sanctioned.

Towards the end of 1963, the position regarding loans granted in the past to the displaced persons from East Pakistan was reviewed and orders were issued in May 1964, authorising remission of loans as follows :—

(1) Loans advanced to displaced persons from East Pakistan for their rehabilitation will be remitted upto the extent of Rs. 1,000 in each case ; (2) If after remission, there is any balance left, the amount in excess of Rs. 2,000 only will be remitted; (3) No interest will be charged on the amount remitted.

The above rules are not applicable to contributory house building loans, professional loans granted by the State Governments of Assam, Bihar, Orissa and West Bengal, Tripura Administration loans advanced on the recommendation of the Refugee Businessmen's Rehabilitation Board in West Bengal, loans advanced by the Rehabilitation Finance Administration, loans granted to displaced families in Dandakaranya, loans granted to displaced persons from East Pakistan after March 31, 1964, and loans given to persons migrated from East Pakistan after Dec. 31, 1963. Out of the outstanding loans of Rs. 80 crores, it is estimated, about Rs. 50 crores would have to be remitted under the above orders.

*Resettlement on land :*—Upto Jan. 31, 1965 offers of land have been received from the State Governments to the extent of 1,86,000 acres (exclusive of land offered for Dandakaranya by the Govt. of Madhya Pradesh and Orissa) for resettlement of the new migrants from East Pakistan. Statewise acreage of land offered is as follows :—

A. N. Islands 4,000 ; Andhra Pradesh 23,500 ; Assam 12,000 ; Madhya Pradesh 45,000 ; Maharashtra 75,000 ; NEFA 3,000 ; Uttar Pradesh 9,700 ; Bihar 12,400 ; Manipur 700 ; Tripura 350.

*Rehabilitation Reclamation Organisation :*—As large areas of land have to be reclaimed in Dandakaranya area as well as in various States for rehabilitation of new migrants, the Reclamation Organisation of the Dandakaranya Development Authority has been constituted into a separate office, known as Rehabilitation Reclamation Organisation under the Ministry of Rehabilitation with effect from Nov. 1, 1964. The organisation has at present (March 1965) under its control 12 fully mechanised units of tractors, each unit consisting of about 15 tractors and other ancillary equipment.

Two units are engaged in reclamation operations in Chanda District in Maharashtra State, two in Betul in Madhya Pradesh, one in Adilabad in Andhra Pradesh and six units are in Dandakaranya. In Chanda District 33,000 acres for settlement of about 5,500 families and in Betul (M.P.) about 20,000 acres for the settlement of 3,000 families, respectively are proposed to be reclaimed.

It is expected that during the year 1965 the total acreage of land reclaimed would be about 25,000 acres.

Total area of land available for resettlement of displaced persons in agriculture is 1,10,000 acres.

*Industries :*—Fourteen schemes of small-scale industries have been sanctioned upto 31st Jan. 1965, at a total estimated cost of Rs. 17·19 lakhs.

The details of these schemes are given below :—

| Name of Scheme | No. of families covered | Amount sanctioned |
|---|---|---|
| *Assam :* | | Rs. |
| Weaving schemes in camps .. .. .. .. .. | 540 | 3,26,000 |
| Jack Board Factory at Tinsukia .. .. .. .. | 50 | 15,000 |
| *Andhra :* | | |
| Training-cum-production centre in cotton weaving in Nagarjunasagar .. .. .. .. .. .. .. | 50 | 1,43,000 |
| *Orissa :* | | |
| Carpentry unit, saw mill and wood seasoning plant .. .. | 125 | 6,45,250 |
| Light Engineering Unit .. .. .. .. .. .. | 22 | 95,500 |
| Tile factory .. .. .. .. .. .. | 32 | 1,17,500 |
| Manufacture of wooden electrical accessories .. .. | 26 | 61,300 |
| Bidi Manufacturing Unit .. .. .. .. .. | 143 | 64,300 |
| Brick Kiln .. .. .. .. .. .. .. | 80 | 38,500 |
| Manufacture of Buckets .. .. .. .. .. .. | 38 | 1,00,500 |
| *Uttar Pradesh :* | | |
| Rehabilitation of Fisherman families .. .. .. .. | 40 | 1,11,460 |
| Total .. .. .. .. .. .. .. .. | 1,146 | 17,18,860 |

In addition to the schemes given above various other schemes for the setting up of small scale and agro industries are under consideration. These include a fishing scheme in Chanda District for 100 migrant families, a fishery scheme at Govind Sagar (Bhakra Dam) for 50 families, a fishery scheme in U.P. for 160 families and some small-scale industries in Orissa.

The Khadi and Village Industries Commission has agreed to set up village industries in M.P., Maharashtra and Assam, in the refugee camps and colonies. The village industries which the Commission proposes to set up at Mana near Raipur are soap making, fibre rope making, leather works etc. Schemes for setting up village and small industries in Chanda Dist. in Maharashtra are also under the consideration of the Commission.

In Nov. 1964, a team of officers visited Kandla-Gandhidam area and reported that there is scope for settlement of 2,500 migrants in non-agricultural occupations like small-scale and medium industries, dairy farming, poultry etc.

In the Dandakaranya area, an extensive programme of industrial development is under comtemplation.

**Rehabilitation Industries Corporation, Calcutta**

The Rehabilitation Industries Corporation was set up in April 1959, by the Ministry of Rehabilitation with the object of creating employment opportunities through industries for the displaced persons from East Pakistan.

Authorised Capital: Rs. 5,00,00,000; Paid-up Capital: Rs. 1,50,00,000. Govt. loan: Rs. 111 lakhs (on Jan. 31, 1965); Loan sanctioned to the industrialists: 1,06,07,000.

The Corporation has provided employment to 6,000 displaced persons from East Pakistan. It runs 23 industrial units, most of them in West Bengal and 2 industrial estates in Calcutta. A spinning mill consisting of 25,000 spindles in Dandakaranya at a cost of Rs. 2 crores is proposed to be established to provide employment to 1,000 migrants.

**Claims (upto March 1964)**

*Movable properties :* Work under the Indo-Pakistan Movable Property Agreement for restoration of personal and household effects, jewellery, firearms and buried treasure has been almost completed. Certain matters pertaining to payment of compensation for the properties of non-evacuee joint stock companies, transfer of lockers and safe deposits, and of jewellery in gold loan accounts are still pending settlement with the Government of Pakistan. The present position of pending items is as follows :—

In the matter of non-evacuee joint stock companies, there has been no further progress in payment of compensation for movable and immovable properties left in Pakistan by 17 such companies. The Government of Pakistan has also to pay compensation for the movable assets of 159 joint stock companies which have been treated by them as evacuee concerns. At the last meeting of the Implementation Committee in March 1963, Pakistan agreed that payment of compensation would be expedited but the matter has made no further headway.

Jewellery pertaining to 6 Gold Loan Accounts has not yet been released by Pakistan nor has the amount of Rs. 1·30 lakhs representing proceeds of jewellery sold in Pakistan been paid to India so far.

**Claims of Displaced Government servants :** So far the Government of Pakistan have settled 14,071 claims involving an amount of Rs. 62·80 lakhs (non-recurring) and Rs. 19·82 lakhs (recurring) per annum, leaving a balance of 10,328 claims still to be verified by them. Because of the slow pace of verification of these claims by the Government of Pakistan, the decision was taken in 1957 to give *ad hoc* relief to claimants on the basis of documentary or collateral evidence in their possession. A committee was appointed for this purpose which received 3,780 cases, of which 3,774 cases have been disposed off. Payment to the extent of Rs. 5·22 lakhs (non-recurring) and Rs. 1·44 lakhs (recurring) per annum have been made under the *ad hoc* payment scheme.

**Claims of contractors and other evacuee dues :** Up to December, 1964, the Government of Pakistan disposed of 7,710 claims of contractors involving an amount of Rs. 4·89 crores. The remaining 4,473 claims, involving a sum of Rs. 3·58 crores, have still to be verified by them.

The total number of claims by Indian nationals in these two categories was about 37,200. Of this, the Government of Pakistan have settled only about 22,000 claims.

**Central Claims Organisation :** The Central Claims Organisation registered 3,335 cases out of which 3,011 have been decided. The last date fixed for entertaining claims of this nature was Sept. 30, 1964.

**Transfer of Insurance Policies :** 524 claims in respect of insurance policies of displaced Government servants which were financed from Provident Funds were sent to the Government of Pakistan. 431 policies duly reassigned in favour of the insured persons have been received and delivered to the claimants, leaving 93 claims still pending with the Government of Pakistan.

**Court Deposits :** Under the Transfer of Evacuee Deposits Act, 1954, India has referred 1,973 claims of the value of Rs. 160·80 lakhs to the Govt. of Pakistan, out of which 669 claims of the value of Rs. 37·63 lakhs (claimed value Rs. 76·35 lakhs) have been admitted by Pakistan Government. They have rejected 795 claims of the value of Rs. 52·78 lakhs. 509 claims of the value of Rs. 31·67 lakhs are still pending with them.

So far 616 deposits of the value of Rs. 22·32 lakhs have been received from Pakistan, out of which 315 deposits of the value of Rs. 20·50 lakhs have been claimed. Out of the claimed deposits, 235 deposits of the value of Rs. 18·96 lakhs have been disposed off.

Apart from the above, there are 3,132 cash deposits of the value of Rs. 20·71 lakhs of displaced persons lying in Punjab (Pak) courts, and in courts in centrally administered areas of Pakistan for which actual deposits are not to be transferred by Pakistan, but adjustments are to be affected in interprovincial and central balance sheets. Of these, 564 deposits of the value of Rs. 14·14 lakhs have been claimed, and claims in respect of 282 deposits of the value of Rs. 5·94 lakhs have been disposed off.

To mitigate hardship caused to the displaced persons whose deposits had been verified, but not actually transferred from Pakistan, a scheme of *ad hoc* payment upto 25 per cent of the verified amount has been sanctioned. Under this scheme, payment to the extent of Rs. 3·85 lakhs to 155 claimants has been made.

## DANDAKARANYA SCHEME

**The Dandakaranya scheme, which was started in 1958 with the object of resettling displaced persons from East Pakistan and simultaneously developing the area, made good progress.** At the beginning of 1964, there were 7,603 families in the project area of which 733 families were in the transit camps. At the end of Dec. 1964 the number of families rose upto 10,452.

Nearly 40,000 persons were rehabilitated in Dandakaranya during the last working season, according to the latest project report (Sept. 1965). During this season, nearly 11,000 persons were moved to rehabilitation sites. 35 new villages were opened mainly in the Malkangiri and Paralkote zones. The total number of villages opened from the inception of the project is 180.

*Water Supply, Medical and Educational Facilities for Settlers :* To provide drinking water supply 629 tube wells, 125 masonry wells and 99 tanks have been dug. Nine primary health centres, three dispensaries, five mobile medical units and four hospitals have been established for giving medical aid to the settlers and also to the local tribal people. Malaria has been eradicated from the settlement. So far (March 1965), the number of patients treated by the above medical units and hospitals is 23,17,283 (10,705 indoor patients and 23,06,578 outdoor patients).

**One pre-primary school, 190 primary schools,** 5 middle schools and one high school have been opened. They have in all about 13,118 students. 39 primary schools, two middle schools and a high school were under construction at the end of Aug. 1965.

*Agricultural and Allied Activities :* The total number of agriculturist families settled in Dandakaranya area is 9,864.

Names of the zones and the area cultivated in acres respectively are: Umerkote (Mixed farm) 712·50; Umerkote Villages 14,917; Paralkote (Mixed farm) 560; Paralkote Villages 14,024; Malkangiri 11,489; Kondagaon 793.

Certain crop patterns were suggested to the agriculturists by the Project Administration. As a result of that they have brought out encouraging result by their shift from paddy cultivation to other hybrid maize, mesta and ragi cultivations. Among other schemes introduced in agriculture, substantial progress has been made in bunding, terracing and sinking homestead wells. So far 6,000 acres have been bunded and 1,000 wells have been dug. A loan of Rs. 150 per family is given for the homestead well. The quantum of loan for seeds and fertilizers has

been increased. The major irrigation schemes with commandable area and estimated cost respectively are :—Umerkote Dam 13,750 acres, Rs. 1 crore ; Malkangiri Dam 37,500 acres, Rs. 2·02 crores ; Paralkote Dam 39,000 acres, Rs. 1·78 crores ; Pakhanjore Dam 1,300 acres, Rs. 0·8 crore.

The work on the Umerkote Dam was expected to be completed by June 1965. The work relating to Malkangiri Dam is in progress. About Paralkote Dam, though the scheme has been technically approved by the Central Water & Power Commission, the question of giving administrative approval and financial sanction is under consideration. In the case of Pakhanjore Dam, the work has been completed and the canals are under construction.

### Tribal Schemes

The position of the tribal schemes being implemented by the State Governments of Orissa and Madhya Pradesh respectively with the assistance of the authority for Dandakaranya Scheme upto Dec. 31, 1964 is given below :—Land released after reclamation by the authority (acres) 13,248 — 5,066 ; Extent of land distributed (acres) 8,443 — 4,966 ; Number of families resettled 1,350 — 495 ; and number of houses constructed 926 — 343 ; Pairs of bullocks supplied 1,149 — 257.

*Expenditure :* The expenditure incurred by the Dandakaranya Development Authority since inception upto 31st Dec. 1964 is as follows :—Gross expenditure : Capital Outlay Rs. 26,65,16,468 ; 'P' Loans and advances Rs. 91,57,453 ; Less receipts and recoveries Rs. 3,73,80,281 ; Net expenditure Rs. 23,82,93,640.

### Payment of Compensation

Out of a total number of 5·05 lakh compensation and rehabilitation grant applications filed by displaced persons, 4·91 lakh applications have been disposed off, involving a payment of Rs. 184·93 crores upto Dec. 31, 1964. In addition statements of account issued in respect of 13,039 cases involving a further liability of about Rs. 1·51 crores await finalization by the claimants as on Dec. 31, 1964. Out of 4·28 lakh urban evacuee and Government-built properties in the Compensation Pool, only 9,000 remained to be disposed off at the end of 1964–65.

### Migrants from J. & K.

Of about 31,790 applications for rehabilitation assistance from migrants from the Pakistan occupied area of Jammu and Kashmir, payments including adjustment of public dues were made in about 12,962 cases upto Dec. 31, 1964 involving a sum of Rs. 2·79 crores.

### Rural Rehabilitation

4,77,000 displaced families were allotted evacuee agricultural land under the quasi-permanent scheme in the Punjab. The figure included 1,14,824 displaced mortgagees who were given possession of the land allotted in the name of the displaced mortgagees. Out of 3·62 lakh allottees, permanent rights have been conferred on 2·80 lakh allottees over an area of 20,08,646 std. acres upto Dec. 31, 1964. The number of houses transferred on permanent ownership to the allottees was 1,97,122.

58,000 displaced agriculturist families were settled outside the Punjab on 5·63 lakh acres of evacuee and Government owned lands. They were advanced loan totalling Rs. 4·64 crores for purchase of agricultural equipment, bullocks and seeds.

### Summary of Budget Allocation

A statement showing the budget estimate and revised estimate for 1964-65 and the budget estimate for 1965-66 is given below :—

(In thousands of Rs.)

| Heads | B.E. 1964–65 | R.E. 1964–65 | B.E. 1965–66 |
|---|---|---|---|
| Establishment (Secretariat and Pay & Account Offices) | 19,90 | 29,83 | 38,64 |
| Expenditure on Displaced Persons .. .. .. | 846,01 | 1,386,90 | 1,117,85 |
| Grants to States and Union Territories .. .. .. | 207,43 | 799,22 | 575,06 |
| Loans and Advances† .. .. .. .. .. | 269,00 | 283,90 | 475,43 |
| Dandakaranya Development Scheme .. .. .. | 505,00 | 475,00 | 571,86 |
| Rehabilitation Reclamation Scheme .. .. .. | .. | 30,00 | 256,18 |
| Special Areas Development Programme .. .. | .. | .. | 10,00 |
| Investment in Rehabilitation Corporation .. .. | .. | .. | 50,00 |
| Public Works‡ .. .. .. .. .. .. | 34,79 | 130,60 | 28,70 |
| Payment of Compensation & Rehabilitation Grants to D.P.S. from W. Pakistan .. .. .. .. | 150,30 | 155,30 | 125,20 |
| Payment to Migrants from Pakistan held areas of Jammu & Kashmir .. .. .. .. .. | 90,00 | 78,00 | 90,00 |
| Total .. .. .. .. .. .. .. | 2,122,54 | 3,368,75 | 3,338,92 |

† Provision made in the Demands for Grants of the Ministry of Finance.

‡ Provision made in the Demands for Grants of the Ministry of Works and Housing.

### Industrial Training Institute

*Industrial Centres :* Nine industrial centres have been set up for giving training to displaced persons and providing with off season employment to the agriculturists. These centres are now being remodelled with a view to specialisation in particular products and more centres are being opened to provide full-time employment to displaced persons. The centres are : Boregaon Industrial Centre, Jagdalpur Industrial Centre, Ambaguda Industrial Centre, Umarkote Industrial Centre, Murthama Weaving Centre, Govindpatn Industrial Centre, Malkangiri Industrial Centre, Paralkote Industrial Centre and Weaving Centre, Boregaon.

# BULLION

The following table gives details about the trend of silver production from 1959 to 1963 :—

(In millions of ounces)

| Countries | 1959 | 1960 | 1961 | 1962 | 1963 |
|---|---|---|---|---|---|
| United States of America .. .. .. .. .. .. .. .. .. | 23·0 | 36·8 | 34·9 | 36·3 | 37·0 |
| Mexico .. .. .. .. .. .. .. .. .. .. .. | 44·1 | 44·5 | 40·3 | 41·3 | 43·0 |
| Canada .. .. .. .. .. .. .. .. .. .. .. | 31·9 | 34·0 | 31·4 | 30·7 | 30·0 |
| Peru .. .. .. .. .. .. .. .. .. .. .. | 27·2 | 30·8 | 34·1 | 36·0 | 38·0 |
| Bolivia .. .. .. .. .. .. .. .. .. .. .. | 4·5 | 4·9 | 3·9 | 3·8 | 3·8 |
| Other South and Central American Countries .. .. .. .. .. .. | 7·8 | 7·8 | 8·6 | 7·1 | 7·7 |
| Total Western Hemisphere .. .. .. .. .. .. .. | 128·5 | 158·8 | 153·2 | 155·2 | 159·5 |
| Outside the Western Hemisphere .. .. .. .. .. .. .. | 56·0 | 48·0 | 49·0 | 51·0 | 51·0 |
| World Production .. .. .. .. .. .. .. .. .. | 188·5 | 206·8 | 202·2 | 206·2 | 210·5 |
| India .. .. .. .. .. .. .. .. .. .. .. | 0·125 | *N.A.* | *N.A.* | *N.A.* | *N.A.* |

*N.A.* Not available.

The recent trend of silver consumption (partial data) is given in the following table :—

(In millions of ounces)

| | 1959 | 1960 | 1961 | 1962 | 1963 |
|---|---|---|---|---|---|
| ARTS AND INDUSTRIES | | | | | |
| United States .. .. .. | 103·0 | 100·0 | 105·0 | 110·0 | 110·0 |
| Germany .. .. .. .. | 33·3 | 40·2 | 43·5 | 41·8 | 40·5 |
| Great Britain .. .. .. | 17·5 | 16·5 | 20·0 | 20·0 | 20·0 |
| Canada .. .. .. .. | 4·4 | 4·2 | 4·5 | 4·6 | 4·4 |
| Japan .. .. .. .. | 13·6 | 21·6 | 19·1 | 19·6 | 20·0 |
| France .. .. .. .. | 10·6 | 13·0 | 14·0 | 13·5 | 13·9 |
| India .. .. .. .. | 2·0 | 1·5 | 1·5 | 1·5 | *N.A.* |
| Mexico .. .. .. .. | 5·4 | 4·0 | 3·4 | 3·3 | 3·2 |
| Other Countries .. .. .. | 25·0 | 25·0 | 28·5 | 33·5 | 35·0 |
| Total .. .. | 214·8 | 226·0 | 239·5 | 247·8 | 247·0 |
| COINAGE | | | | | |
| United States .. .. .. | 40·6 | 46·0 | 54·2 | 77·4 | 111·3 |
| France .. .. .. .. | 6·4 | 12·2 | 23·8 | 13·2 | 12·0 |
| Mexico .. .. .. .. | 1·4 | 2·6 | *N.A.* | *N.A.* | *N.A.* |
| Canada .. .. .. .. | 5·7 | 7·5 | 5·0 | 10·9 | 13·4 |
| Other Countries .. .. .. | 30·0 | 25·0 | 22·0 | 34·7 | 35·5 |
| Total Coinage .. | 84·2 | 93·3 | 111·9 | 136·4 | 172·2 |
| Total Consumption .. | 299·0 | 319·3 | 376·6 | 384·2 | 419·2 |

*Note :* The consumption estimates are by Handy and Harman.

During 1963, the price of silver reached a new ceiling beyond which it is not expected to go for a long time. The United States treasury holds a large stock of approximately 1,500,000,000 ounces of silver as backing for silver certificates, and the cost of silver obtained by redeeming these certificates is 129·3 cents an ounce for New York delivery. This establishes the basic maximum cost of silver to commercial uses.

The price of silver in New York during 1963 fluctuated within a range of 8·3 cents an ounce. This compared with a spread of over 20 cents an ounce in 1962 and about 13 cents an ounce in 1961.

## SILVER IN INTERNATIONAL MARKETS

According to the estimates made by Handy & Harman, consumption of silver outside the United States during 1963 amounted to about 197,500,000 ounces, virtually unchanged from the previous year. Silver used for industrial purposes declined slightly, but this decline was offset by an increase in consumption for coinage.

**London :**

Prices for prompt silver in London ranged from a low of 103⅞d on January 2 to a high of 111⅛d on October 21. These prices are equivalent to 121·343 cents and 130·3 cents respectively. Consumption of silver in the United Kingdom for industrial purposes remained at about 20,000,000 ounces unchanged since 1960. Total imports into the United Kingdom during the first eleven months of 1963 amounted to about 19,400,000 ounces. An estimated 13,800,000 ounces were received from Western Hemisphere countries and about 5,600,000 ounces from all other countries combined. Silver exported during the first eleven months of 1963 amounted to about 27,200,000 ounces. France was the largest overseas buyer taking 7,800,000 ounces. About 6,800,000 ounces were shipped to Italy ; 3,300,000 ounces to Switzerland ; and 3,000,000 ounces to West Germany. A total of 4,900,000 ounces went to other West European countries, and 1,400,000 ounces to miscellaneous countries of the world. Sales by the Bank of England during 1963 amounted to about 2,900,000 ounces, and approximately 2,300,000 ounces were recovered from demonetised British coin. Silver coinage executed by the Royal Mint for foreign governments is estimated to have required only about 100,000 ounces.

**West Germany :**

Silver consumption in West Germany for industrial purposes amounted to about 40,500,000 ounces a slight decline from the previous year. Domestic mine production of silver in Germany is small, and therefore nearly all of its requirements must be imported. Imports amounted to about 39,400,000 ounces, of which 17,000,000 ounces originated from Mexico ; 4,700,000 ounces from Peru ; 4,200,000 ounces from Belgium ; and 13,500,000 ounces from all other countries combined. West German silver exports in 1963 amounted to approximately 19,600,000 ounces, most of which was delivered to Italy, Belgium, Austria, Switzerland, and France. The West German Government bought approximately 1,600,000 ounces of silver for use in minting 5 Deutsche Mark coins.

**France :**

The French coinage programme, which began in 1959, continues to be important. The French Mint purchased an estimated 13,800,000 ounces of silver during 1963. It used 12,000,000 ounces for French coinage and 1,500,000 ounces for coinage orders received from foreign governments. Stocks on hand at the end of 1963 amounted to about 6,600,000 ounces, virtually unchanged from the end of 1962. It is estimated that the Mint will use about 10,000,000 ounces in 1964.

Industrial consumption in France was slightly higher in 1963 than in 1962 and is estimated at about 13,900,000 ounces. Imports totalled about 26,400,000 ounces, of which 8,700,000 ounces were received from the United Kingdom ; 7,600,000 ounces from the United States ; 2,300,000 ounces from West Germany ; and 7,800,000 ounces from various other countries; Exports to various destinations totalled about 2,900,000 ounces.

**Italy :**

The Italian coinage programmes for the minting of 500 Lire silver coins authorised in 1958 and 1961 declined in significance. According to our information only a small amount of silver was used for this purpose in 1963, probably not exceeding 500,000 ounces, and further silver coinage appears to be suspended for the time being. Handy and Harman have estimated that Italy used about 15,000,000 to 20,000,000 ounces for industrial purposes. Complete information on imports is lacking, but we understand that about 6,800,000 ounces were shipped from the United Kingdom ; 3,000,000 ounces from the United States, and various amounts from France, West Germany and other countries.

**Canada :**

We estimate that silver used for industrial purposes in Canada during 1963 amounted to about 4,400,000 ounces, which was a small decline from the previous year. The Royal Canadian Mint used about 13,400,000 ounces of silver for coinage in 1963, an increase of 23 per cent. over 1962, and purchased approximately 12,000,000 ounces. Presumably the difference came from stocks already on hand.

Canadian production again declined slightly and is estimated at 30,000,000 ounces, for 1963. A total of 18,400,000 ounces were exported to the United States, about 24 per cent. less than the previous year, and imports are estimated at 8,100,000 ounces, all of which came from the United States.

**Mexico :**

Production of silver in Mexico during 1963 amounted to about 43,000,000 ounces, an increase of about 1,700,000 ounces over 1962. Consumption for industrial uses declined slightly to approximately 3,200,000 ounces, and about 1,400,000 ounces were used in the minting of one-peso 10 per cent silver alloy coins. Exports for the year amounted to about 44,000,000 ounces, most of which was shipped to European countries. Demonetised coins withdrawn from circulation and purchased by the government produced about 2,700,000 ounces. If our estimates are correct, about 65,000,000 to 70,000,000 ounces of silver in such coins are still in the hands of the public.

**Japan :**

Consumption of silver for industrial uses in Japan is estimated at about 20,000,000 ounces, an increase of about 400,000 ounces over 1962. Japanese coinage consumed about 5,000,000 ounces, substantially more than the 1,400,000 ounces used in the previous year. Silver for coinage purposes came from government stocks which at the end of 1963 totalled about 32,000,000 ounces. Silver production is estimated at 14,900,000 ounces, a slight increase over 1962. Based on the information available to us it appears that imports into Japan in 1963 may have been somewhat lower than the 3,500,000 ounces received in 1962.

**India :**

The silver market in India continues to be an internal one, and it has virtually no influence on other world centres. In view of the shortage of foreign exchange it seems unlikely that import and export restrictions will be relaxed in the foreseeable future. Of interest was the fact that by government order all forward dealings in silver were suspended on January 9, 1963. This has further restricted the operations of the Bombay market.

Consumption of silver was higher and is estimated at about 2,500,000 ounces, an increase of about 1,000,000 ounces over 1962. With the recent ban on dealings in gold, silver appears to have provided a substitute for investors, and this may have accounted in part for the increased demand for manufactured silver articles. With a rapidly growing demand and depleted supplies, the price for prompt delivery increased from Rs. 210 per kilo on January 11, to Rs. 250·50, an all time high, at the close of the year. These prices are equivalent to about $1·37 an ounce and $1·64 an ounce respectively. A further rise in consumption in the coming year is expected, and even higher prices could result.

—(Reproduced from The Silver Market in 1963 by Handy and Harman).

The following table gives the average silver quotations in New York and London from 1955 to 1963 :

| | New York Average* | London Spot |
|---|---|---|
| | Cents | Pence |
| 1955 .. .. | 89·10 | 77·51 |
| 1956 .. .. | 90·83 | 79·13 |
| 1957 .. .. | 90·82 | 78·93 |
| 1958 .. .. | 89·04 | 76·21 |
| 1959 .. .. | 91·20 | 78·82 |
| 1960 .. .. | 91·38 | 79·38 |
| 1961 .. .. | 92·45 | 80·23 |
| 1962 .. .. | 108·52 | 91·51 |
| 1963 .. .. | 127·91 | 110·13 |

* The prices for and before 1961 are for silver in unrefined form.

## GOLD AND SILVER

The domestic output of gold, which had declined by 775 kgs. to 4,305 kgs. in 1963, increased to 4,603 kgs.* in 1964. Silver production also increased from 3,991 kgs. in 1963 to 4,734 kgs.* in 1964.

Trading in the Bombay bullion market was confined to spot as the ban on forward trading in both gold and silver continued during 1964-65. As the Central Government received reports that some persons were conducting forward trading in silver coins on a party-to-party basis, forward dealings in silver coins, which were no longer legal tender, were also banned from March 12, 1965 under Section 17 of the Forward Contracts (Regulation) Act 1952. Simultaneously, forward trading in non-transferable specific delivery contracts in silver coins was also banned.

But gold and silver ruled firm during the greater part of the year, silver in particular scaling an all time peak. The firmness in gold was attributed to the continued rise in the general price level, boom in commodity markets and persistent demand from goldsmiths and industrial users. Reports of seizures of sizeable quantity of contraband gold by the Customs authorities also imparted strength to the market. As a result, the price of gold moved up consistently upto end-August. There was a reaction during September, which was attributed to the steps taken by Government to unearth unaccounted money and also to reports of increased arrivals of the smuggled gold, with the close of monsoon. The price tended to move up again particularly since early December. The passage of the Gold Control Bill in the Lok Sabha towards the close of December, did not have any perceptible impact on the market. Reports of gold purchases for the purpose of conversion of unaccounted money into the new Gold Bonds issued in March 1965 further aided the sentiment.

The price of 14-carat gold, which ruled at Rs. 63·25 (per 10 grammes) at end-March 1964, moved up by stages to reach Rs. 72·75 by August 27, 1964. But subsequently, following the raids by the Enforcement Directorate in September prices slumped to a low of Rs. 64·50. The uptrend reasserted itself thereafter and the price of gold moved up further to Rs. 72 by February 15, 1965 reflecting a broadening of seasonal demand with the progress of marriage season. On March 31, 1965, it was quoted at Rs. 71·75, showing a net gain of Rs. 8·50 over the year.

Silver prices ruled buoyant for the greater part of the year and reached an all-time peak of Rs. 281·50. During the first two months and a half, silver was more or less easy, mainly on selling pressure in the face of larger arrivals, the price moving down from Rs. 260 (per kg.) at end-March 1964 to Rs. 244 on June 9. However, persistent demand for silver and the bullish trend on international silver markets tended to push up the price thereafter ; the price reached Rs. 261 by the first week of August. For the next two months, silver remained subdued on up-country offerings but since Diwali with the progress of the marriage season the trend was again upward and silver soared to an all time high of Rs. 281·50 by March 25, 1965. At end-March the price was quoted at Rs. 280·50 representing a sizeable rise of Rs. 20·50 over the year.

The average price of silver in India in 1964-65 was higher by Rs. 20·85 over 1963-64. The gap between the internal and external price of silver, which was around Rs. 70 (per kg.) at end-January 1964 when the last year's peak was touched, widened further. On March 25, 1965, when silver scaled a new peak of Rs. 281·50, the Indian price was higher by about Rs. 81 over the international price.

* Provisional.

**World Gold Production**
**(In thousands of fine ounces)**

| Countries | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961* |
|---|---|---|---|---|---|---|---|
| I. Commonwealth | 21,926 | 22,994 | 24,331 | 25,187 | 27,574* | 28,991 | — |
| (a) Australia | 1,049 | 1,030 | 1,084 | 1,104 | 1,085 | 1,100 | 1,071 |
| (b) Canada | 4,542 | 4,384 | 4,434 | 4,571 | 4,483 | 4,602 | 4,443 |
| (c) Ghana | 687 | 638 | 790 | 853 | 913 | 893 | 971 |
| (d) India | 211 | 209 | 179 | 170 | 165 | 161 | 162 |
| (e) New Zealand | 26 | 26 | 30 | 25 | 37 | 35 | — |
| (f) Southern Rhodesia | 525 | 536 | 537 | 555 | 567 | 560 | 574 |
| (g) Union of South Africa | 14,601 | 15,897 | 17,031 | 17,656 | 20,066 | 21,386 | 22,946 |
| (h) Others | 285 | 274 | 246 | 253 | 258* | 254 | — |
| II. Latin American Countries | | | | | | | |
| (a) Brazil | 145 | 162 | 150 | 140 | 125* | 120 | 125 |
| (b) Chile | 123 | 94 | 104 | 111 | 76 | 60 | — |
| (c) Colombia | 381 | 438 | 325 | 372 | 398 | 450 | 400 |
| (d) Mexico | 383 | 350 | 346 | 332 | 314 | 320 | 269 |
| (e) Peru | 171 | 159 | 165 | 159 | 150 | 150 | — |
| III. United States of America | 1,877 | 1,865 | 1,800 | 1,759 | 1,635 | 1,500 | 1,566 |
| IV. All Countries† | 27,200 | 28,300 | 29,400 | 30,300 | 32,500* | 33,900 | 34,857 |
| Commonwealth percentage | 80·6 | 81·3 | 82·8 | 83·1 | 84·8 | 85·5 | — |
| Union of South Africa percentage | 53·7 | 56·2 | 57·9 | 58·3 | 61·7 | 63·1 | — |

* Provisional figures. † Excluding U.S.S.R.

**Assaying and Refining of Gold and Silver**

Some relevant statistical data are given below :— (Kilograms)

| Year | Melting and Assaying | | Refining | |
|---|---|---|---|---|
| | Gold | Silver | Gold | Silver |
| 1957–58 | 1,41 | 1,524,51 | 112,28 | 76 |
| 1958–59 | 89 | 983,41 | 157,79 | 2,25 |
| 1959–60 | 97 | 774,30 | 97,41 | — |
| 1960–61 | 1,39 | 623,33 | 99,70 | 1,37 |
| 1961–62 | 1,56 | 379,12 | 147,14 | 1,66 |
| 1962–63 | 147,68(a) | 345,91 | 51,55 | — |
| 1963–64 | 88,97(b) | 20,11 | 46,68 | — |
| 1964–65 | 1,66 | 11,33 | 68,41 | — |

(a) Includes 86,88,685 grams of gold received against Gold Bonds. (b) Relates to the total of 66,23,535 grams and 22,73,837 grams received against Gold Bonds and National Defence Fund respectively.

The following statement gives the highest and lowest spot prices of gold and silver in Bombay with import duties from 1957–58 to 1964–65 :

| Year. | Gold (per 10 grams) | | | | Silver (per kilogram). | | | |
|---|---|---|---|---|---|---|---|---|
| | Highest. | Lowest. | Average. | Import Duty. | Highest. | Lowest. | Average. | Import Duty. |
| | Rs. P. | Rs. P. | Rs. P. | Rs. P. | Rs. P. | Rs. P. | Rs. P. | Rs. P. |
| 1957–58 | 98·06 | 89·59 | 92·99 | — | 168·09 | 151·91 | 158·32 | 16·88 |
| 1958–59 | 103·31 | 89·33 | 96·09 | 12·86 | 173·19 | 152·99 | 162·95 | 16·08 |
| 1959–60 | 107·98 | 99·98 | 103·71 | | 187·12 | 164·50 | 176·08 | |
| 1960–61 | 124·40 | 107·12 | 114·91 | 12·86 | 209·30 | 181·00 | 193·64 | 16·08 |
| 1961–62 | 126·00 | 115·85 | 121·25 | 12·86 | 219·65 | 196·95 | 206·49 | 16·08 |
| 1962–63 | 129 90 | 86·00 | 117·71 | — | 242·00 | 187·80 | 218·69 | 16·08 |
| 1963–64 | 118·00 | 97·00 | 111·98 | — | 269·00 | 222·50 | 240·32 | 16·08 |
| | 69·75(a) | 58·00(a) | 61·85(a) | | | | | |
| 1964–65 | 72·75 | 63·25 | 68·84 | — | 281·50 | 244·00 | 261·17 | 16·08 |

(a) Relates to the price of 14 carat gold.

*Note :* For a note on Gold Control, see 1964-65 Directory.

# FOREIGN EXCHANGE CONTROLS

The par value is Indian Rupees 4·76190=US$1. All transactions in foreign exchange must be conducted through authorized dealers, whose dealings with the general public must be effected as follows: in sterling, at rates fixed by the Foreign Exchange Dealers' Association; in other currencies, at rates based on the fixed rates for sterling and the London market rates for sterling against the other currency concerned. Authorised dealers are permitted to cover their requirements of foreign currencies in the London market, and to cover their permitted transactions in certain currencies against sterling, rupees, or any one of these currencies, either spot or forward for periods not exceeding six months, with authorised banks in any country outside the Bilateral Account group.

## ADMINISTRATION OF CONTROL

Exchange control is administered by the Reserve Bank of India, in accordance with the general policy laid down by the Indian Government in consultation with the Reserve Bank. Much of the routine work of exchange control is delegated to certain commercial banks, which act as authorised dealers permitted to buy and sell foreign exchange for specified purposes under regulations laid down by the Reserve Bank.

## PRESCRIPTION OF CURRENCY

India is a member of the Sterling Area, and has an exchange control system similar to that of the United Kingdom but adapted to suit local requirements. For prescription of currency purposes, countries are divided into three groups: Sterling Area countries, Bilateral Account countries, and the Convertible Account group (all other countries).

Payments to and from Sterling Area countries may be made in sterling or any Sterling Area currency, except Indian rupees, through the account of a resident of any Sterling Area country except India, or in Indian rupees through the account of a bank in any Sterling Area country except India. Payments to and from Bilateral Account countries must be settled in Indian rupees through the appropriate clearing account. Payments to countries in the Convertible Account group may be made in rupees or sterling to the credit of the account of a resident of any country in this group or in any listed currency. The currencies listed for this purpose are those of Austria, Belgian Monetary Area, Canada, Denmark and the Faroe Islands, Federal Republic of Germany, French Franc Area, French Somali Coast, Iraq, Italy, Japan, Netherlands Monetary Area, Norway, Panama, Philippines, Portuguese Monetary Area, Sweden, Switzerland and Liechtenstein, United Arab Republic, and United States and territories under U.S. sovereignty. Receipts from the Convertible Account group may be obtained in any listed currency, in rupees from the account of a bank in any country in this group, or in sterling from an External Account in the United Kingdom.

## NON-RESIDENT ACCOUNTS

The accounts of residents of Bhutan and Nepal are treated as resident accounts. Accounts related to all other foreign countries are treated as non-resident accounts. The treatment of these accounts distinguishes between those of banks and of others.

The accounts of banks are classified in three groups corresponding to the division of countries for prescription of currency purposes, *i.e.*, Sterling Area Accounts, Bilateral Accounts, and Convertible Accounts. These accounts may be credited with payments for imports, interest and dividends, and other authorised payments, with authorised transfers from the non-resident accounts of private firms or persons in the same country as the account holder, with proceeds of sales of the currency of the country or monetary area of the account holder, and with proceeds of sales of sterling from the appropriate non-resident sterling account in the United Kingdom. They may be debited for payments for exports, and for other payments not exceeding Rs. 20,000, to residents of India. These accounts may also be debited for remittances exceeding Rs. 20,000 made by Indian nationals resident in the Sterling Area for credit to their accounts in India or for payment to Indian nationals resident in India. Transfers may be made from Convertible Accounts to other Convertible Accounts or to Sterling Area Accounts, and between Sterling Area Accounts. All other entries on Sterling Area Accounts, Bilateral Accounts, and Convertible Accounts require the prior approval of the Reserve Bank.

Non-resident accounts of private individuals or firms may be credited, without prior approval, for payment of dividends and interest on securities and proceeds of small cheques up to certain limits. They may be debited for such items as payments for insurance premiums, income taxes, and remittances to relatives, subject to a limit of Rs. 1,000 for each transaction. All other credits and debits require the prior approval of the Reserve Bank. Transfers normally are not permitted from non-resident accounts of individuals or firms to non-resident accounts of banks belonging to the same country or monetary area, unless the amounts originally credited to such accounts could have been transferred abroad.

There are also blocked accounts, to which are credited capital proceeds that are due to non-residents and may not be remitted abroad. Balances on blocked accounts may be placed on fixed deposit or invested in approved Indian rupee securities; the income derived from such investments may normally be remitted to the owner's country, with the approval of the Reserve Bank.

Practically all imports require individual licences. Individual licences may be issued *ad hoc*, or on the basis of quotas allocated to established importers in accordance with their imports in a base period and to actual users on the basis of their current requirements. Licences may be used to import from any country except South Africa. At the beginning of each financial year an announcement on import control policy is made in the form of a Red Book, which gives in detail the policy for established importers and actual users. Licensing is in most cases on an annual basis, subject to the condition that only the first half of the annual licence can be used in the first six months of the licensing year and the second half of the licence will, subject to such change as may be decided upon, be endorsed for use in the second six months. In other cases, licences are issued for the first six months and a supplementary licence is issued later for the second six months. There are special procedures applicable to imports of capital goods, of heavy electrical plant, and of goods imported to fulfill government contracts and for irrigation projects. In licensing imports of a capital nature, their essentiality, their potential for earning or saving foreign exchange, and the availability of medium-term or long-term credits for financing such imports are taken into account.

Where a valid import licence is held, the required exchange is released by an authorised bank on presentation of the exchange control copy of the licence. Licence holders may make payments by opening letters of credit or by remitting against sight drafts. Advance remittances before shipping documents can be submitted are not normally allowed; but in special cases, *e.g.*, imports of machinery and capital goods, where deposits have to be made with overseas manufacturers, the Reserve Bank grants special authorisation for advance payment for a part of the value of the import.

## PAYMENTS FOR INVISIBLES

In general, payments abroad for invisibles require approval. Except for travel, insurance, and a few other items, foreign exchange is granted freely for such payments, especially for expenses incidental to trade transactions and transfers of recurring contractual obligations.

Premiums on insurance policies issued in foreign currency to residents may be paid in rupees or in the currency in which the policy is issued; but Indian residents are prohibited from taking out life insurance policies in foreign currencies.

There are no restrictions on the remittance of profits, dividends, and interest to non-resident beneficiaries, provided that all current tax and other liabilities in India have been cleared.

## EXPORTS AND EXPORT PROCEEDS

Export licensing is now not necessary in respect of most items. For items subject to export licence, the procedure varies according to the type of exporter, of which there are three categories: established shippers, newcomers, and producers (*e.g.*, manufacturers, mine owners, and growers). All applicants for export licences must submit income tax verification certificates. There are three open general licences, which permit exports of certain commodities without the need for an individual export licence. Exports of some commodities are subject to quota limitations and those of a few items are not normally permitted. Exports to South Africa are prohibited.

Exchange control is exercised over the proceeds of exports to countries other than Bhutan and Nepal. An exporter must declare that the full export proceeds will be received and dealt with in accordance with the prescription of currency regulations.

Foreign exchange holdings, including the proceeds of exports, in most currencies must be offered for sale against rupees to an authorised dealer, unless the holder has been authorised by the Reserve Bank to retain them, or in the case of sterling, he held a sterling account prior to July 8, 1947, or he is not domiciled in India and the funds do not represent the proceeds of an export.

## CAPITAL

The inward movement of capital is practically free, except when it is to form part of an investment requiring the prior approval of the Indian Government. Foreign investments once admitted are eligible for the same treatment as Indian enterprises receive. Repatriation of capital owned by persons residing in Sterling Area countries other than Pakistan, and by residents of Denmark, Norway, or Sweden, is authorised freely. Capital invested in approved projects after January 1, 1950 by residents of other countries, including capital appreciation on the original investment, may be repatriated at any time. The proceeds from liquidated foreign investments not eligible for repatriation are blocked (see section on Non-resident Accounts, above).

## TRAVEL & STUDIES

A comprehensive statement issued recently by the Exchange Control Department of the Reserve Bank of India prescribed the current policy for release of foreign exchange or issue of permits as under :

Applications for release of exchange for the following types of travel only are considered by the Bank.

1. Business travel specially for promotion of exports, if a personal visit is shown to be necessary.

2. Medical treatment, if a certificate in the prescribed form from the Surgeon-General or the Chief Administrative Medical Officer of the State in which the applicant is residing is produced to the Bank ;

3. Travelling salesmen when their visit is calculated to increase exports ;

4. Business/Technical/Scientific/Medical Conferences — Exchange for a small number of delegates is released for conferences, participation in which is approved.

5. Studies/Training in approved subjects.

(*a*) *Technical Courses :* Exchange is released for (*i*) Degree courses in technical subjects ; (*ii*) Diploma courses in technical subjects provided the student is a graduate or has secured not less than 50 per cent. marks in Matriculation, Higher Secondary, Intermediate or equivalent examination.

(*b*) *Non-Technical Courses :* Exchange is released for post-graduate degree courses in a limited number of subjects such as Economics, Political Science, Statistics, Industrial Management, Philosophy, Psychology, etc. at foreign universities as may be selected from time to time having regard to their international repute in respective fields, provided the student has secured either 60 per cent. marks in Bachelor's degree or 50 per cent. marks in Master's degree examinations.

(*c*) *Apprenticeship Training :* Exchange facilities for apprenticeship training in technical subjects will be granted subject to the following conditions :

(*i*) Provided the trainee has secured 50 per cent. marks in the Matriculation, Higher Secondary, Intermediate or equivalent examination.

(*ii*) The requirement of the minimum marks as in (*i*) above may be waived provided (1) the trainee is a graduate ; (2) he has secured a stipend from the institution/firm training him, in which case exchange up to 50 per cent. of the trainee's scale may be released ; (3) the trainee is sent abroad for training by his employers who are foreign controlled companies or the training is on the basis of any approved collaboration agreement between the employer and a foreign company.

Except in the following cases all passages for destinations outside India require the prior approval of the Reserve Bank :

(*i*) Where the traveller has been granted exchange by the Reserve Bank to undertake the journey.

(*ii*) Where the traveller is a foreign national temporarily resident in India.

(*iii*) Where a transit passenger or a foreign national temporarily resident in India holds open dated tickets (including return tickets).

(*iv*) Where persons are travelling as deck passengers from/to India to/from Burma, Ceylon, Malaysia, Singapore, Pakistan, Persian Gulf Ports, or East Africa.

(*v*) Where a traveller between India and Pakistan holds a restricted travel document issued by the High Commissioner for Pakistan in India or holds an India-Pakistan passport.

(*vi*) Where a person is travelling between Madras/Tiruchirapalli and Colombo (but not for travel from/to any other place in India/Ceylon).

In the following cases the Reserve Bank would consider approving application for booking of passages on a "no-exchange" basis :

(*i*) Where a person wishes to go abroad to meet his/her parents/children who are engaged in a gainful occupation abroad (not on a course of training) and are earning sufficient income to act as hosts to the invitees.

(*ii*) Where a person wishes to go abroad on invitation by other near relations, *viz.* father-in-law, mother-in-law, brother and sisters (including their children), uncles and aunts living abroad and evidence is produced to show that the host is engaged in a gainful occupation abroad (not on a course of training) and is financially in a position to meet all the expenses and has invited him/her to visit the foreign country ; PROVIDED either of the following two conditions is satisfied :

(*a*) The persons have not met each other for four years or (*b*) The relative living abroad is seriously ill and evidence to that effect is produced.

(*iii*) Where the applicant wishes to join her/his husband/wife or fiance/fiancee abroad — (*a*) is not on a short course of training, (*b*) is earning sufficient income abroad for the maintenance of both and (*c*) is not receiving any remittances from India.

(*iv*) Where a person has an invitation from a foreign Government and the entire expense of the stay abroad of the invitee will be thus met.

(*v*) Persons with Indian passports returning to their places of business after a visit to India on production of entry permits or other documentary evidence to show that they are employed or are in business in that country.

(*vi*) Persons proceeding abroad for taking up a definitely secured employment. In their cases limited exchange is released to defray the first month's expense subject to the condition that the amount is repatriated to India within one year.

(*vii*) *Emigration* : Exchange facilities are not granted to Indian nationals (including persons domiciled in India) wishing to emigrate except in the following cases to a limited extent :

(*a*) Persons who can establish that they had intended to emigrate and settle overseas and for this purpose they have either resigned their jobs in India or disposed of their property, house, etc. before the 1st of June 1962.

(*b*) Other members of the family such as husband/wife/sons/unmarried daughters/parents have preceded the emigrant before 1st June 1962 and the applicant had always intended to join them after his retirement.

As regards other emigrants, whose immigration has been permitted by a foreign country and evidence to that effect is produced, exchange will be released to the extent of any amount required by the regulation of the country of immigration for purposes of entry subject to its repatriation to India within one year.

## DEVELOPMENTS IN EXCHANGE CONTROL

The measures taken in the previous years for conserving foreign exchange were continued during the year and there were no major developments in the sphere of exchange control. However, a few changes, comprising mostly of modifications of existing arrangements, introduced during the year are referred to below :

All bank accounts in India of Chinese nationals who had left the country, irrespective of their whereabouts, were blocked with effect from May 15, 1964 and no operations on these accounts are now permitted without the prior approval of the Reserve Bank.

The policy followed for release of foreign exchange for travel abroad and for approval of passage clearance was reviewed by the Government on May 21, 1964 and a few changes were introduced. Under the revised policy (i) the scales for release of exchange for business travel, study tours and for attending conferences abroad were enhanced so as to meet the increased cost of living in most of the foreign countries and (ii) the limited exchange facilities for meeting incidental expenses were extended to persons going abroad against invitations with offer of full hospitality. The categories of persons eligible for passage clearance were revised to include (i) directors/executives of branches of foreign companies/wholly owned subsidiaries of foreign companies proceeding abroad for attending Board meetings against invitations from the companies concerned with offer of full hospitality, (ii) persons proceeding abroad for taking up definitely secured employment (initially for a period of three months) and (iii) students with scholarships from universities or recognised international institutions covering maintenance and fees. Students sponsored by their close relatives abroad (*i.e.* brother, sister or uncle) who have adequate and independent income to meet the needs of the beneficiary were also made eligible for passage clearance with effect from March 8, 1965. Except for meeting parents, sons and daughters, passage clearance is not granted against offer of private hospitality.

The ban on certain non-technical arts and science courses imposed earlier was lifted on July 13, 1964 and the condition regarding minimum qualifications prescribed for non-technical courses was relaxed and exchange was released to students for taking up Honours degree courses at certain universities/institutions in certain approved subjects provided they satisfied certain prescribed conditions.

Beginning with July 17, 1964, debits to private non-resident accounts with banks in India, without prior approval of the Reserve Bank, were restricted to Rs. 1,000 per week. Debits by way of payment of premia on life insurance policies of the account holder or his dependents as well as his income tax dues, however, were exempted from this ceiling.

The list of approved securities for investing funds in blocked accounts was amended to include from September 10, 1964, units issued by the Unit Trust of India, provided the units were held in safe custody with the authorised dealer and not disposed of without the prior approval of the Reserve Bank.

With a view to removing the inconvenience of restrictive endorsements regarding negotiability of travellers' cheques, the authorised dealers were advised on September 30, 1964 that travellers' cheques and travellers' letters of credit issued by them (with the exception of those issued for travel to countries with which India had entered into bilateral payment arrangements) should be made valid and negotiable all over the world.

Short-term borrowings, comprising loans and overdrafts, by authorised dealers from their branches and correspondents, which were hitherto made freely, were restricted upto a limit of Rs. 20 lakhs irrespective of whether the branches and correspondents were in or outside the sterling area. Similarly, a ceiling of Rs. 20 lakhs was placed on outstanding amounts in respect of short-term loans and overdrafts extended by the authorised dealers to these branches and correspondents in or outside the sterling area. Borrowings/lendings in excess of the ceiling limits were not to be made without the prior approval of the Reserve Bank. These measures were introduced on October 8, 1964 but were enforced from December 1, 1964.

With effect from October 21, 1964, exports of units of the Unit Trust of India and shares of rupee companies purchased by Indian nationals or persons of Indian origin permanently resident abroad out of their earnings from abroad were permitted freely in order to encourage investment by such persons.

The restrictions imposed in March 1964 (referred to in the last Report) on remittances by Iranian nationals to Iran were removed on November 2, 1964 and they were permitted to make private remittances on the same basis as in the case of other non-sterling area nationals.

With the termination of the special rupee payments arrangement between India and North Korea, the latter ceased to be a bilateral account country from December 18, 1964.

The special booklets introduced in April 1963 for use by foreign tourists for declaring their foreign currency notes and travellers' cheques were abolished and from January 1, 1965 they were required to declare in the currency declaration from the foreign currency notes (including special rupee notes issued for use in the Persian Gulf area) brought by them.

The follow-up arrangements in respect of realisation of exports were tightened on January 14, 1965 and it was decided that extensions beyond the prescribed period of six months would be granted for a period not exceeding three months at a time for a total period of six months. However, exports of capital goods and engineering goods as well as those under deferred credit arrangements still continued to have the benefit of reasonable extension beyond the usual period of six months. All authorised dealers were also advised on February 18, 1965 to vigorously pursue cases of outstanding export bills and to report to the Reserve Bank cases where satisfactory response was not forthcoming from the exporters concerned so that, where necessary, action could be taken against them under the Foreign Exchange Regulation Act.

Emigration facilities which were hitherto being granted on the basis of pre-June 1962 intentions were discontinued from March 4, 1965 and limited exchange facilities were granted to Anglo-Indians wishing to emigrate to the U.K. or any country irrespective of whether they held British or Indian passport. It was decided that British and other foreign nationals, who were treated as Indian domiciled, would be eligible for retirement facilities as foreign nationals temporarily resident in India when they desired to retire provided they were purely of foreign parentage and the entire family was leaving for permanent settlement abroad.

With a view to strengthening the enforcement machinery and plugging certain loopholes in the Foreign Exchange Regulation Act, the Act was amended and the new Act known as the Foreign Exchange Regulation (Amendment) Act, 1964 came into force with effect from April 1, 1965. The amending Act requires, among other things (1) obtaining a licence from the Reserve Bank by steamer and air line companies operating through India, and travel agents, for conducting the business of booking passages for travel abroad and (2) prior approval of the Union Government/the Reserve Bank of India (*a*) for appointment of foreign controlled companies and firms operating in India as agent/technical adviser/-management adviser of any persons/firms/company in India, (*b*) for issue of guarantee by a resident in favour of a non-resident and (*c*) for settlement of property in favour of a non-resident. The Act provides for delegation of powers of the Director of Enforcement to any officers of the Enforcement Directorate and to such officers of the Customs, Central Excise, Police and other departments as the Central Government may authorise. Officers of the Enforcement Directorate are empowered to arrest/search/summon and examine/interrogate persons and to search premises/conveyances. Lastly, Government is also empowered to publish the names of persons convicted under the Act.

# NATIONAL INCOME

ACCORDING to preliminary estimates, national income of India (at 1948-49 prices) for the year 1963-64 showed a rise of 4·5 per cent over the previous year. At constant (1948-49) prices, the preliminary estimate of national income, that is, net national output at factor cost, for 1963-64 is placed at Rs. 13,910 crores, compared with Rs. 13,310 crores (revised) for 1962-63. In 1961-62, national income had risen by 2·6 per cent as compared to a rise of 7·3 per cent in 1960-61. At constant prices, the national income rose by about 57 per cent between 1950-51 and 1963-64.

The *per capita* national income (at constant prices) recorded a rise of 2·2 per cent from Rs. 293·4 in 1962-63 to Rs. 299·8 in 1963-64.

At current prices, the national income rose from Rs. 15,400 crores in 1962-63 to Rs. 17,200 in 1963-64, a rise of Rs. 1,800 crores. This increase was brought about largely by the agricultural sector, accounting for Rs. 1,100 crores. In the non-agricultural sector, mining, manufacturing and small enterprises showed a rise of Rs. 310 crores; other services (comprising professions, Government services, domestic services and house property) of Rs. 260 crores, and commerce, transport and communication of Rs. 140 crores —an aggregate rise of Rs. 710 crores.

*Per capita* income at current prices rose from Rs. 339·4 in 1962-63 to Rs. 370·7 in 1963-64 the rise being due almost entirely to the rise in price.

The Table below indicates the trend of national income at 1948-49 prices, since 1950-51:

| Year | National Income at 1948-49 prices | | *Per capita* National Income at 1948-49 prices | |
|---|---|---|---|---|
| | (Rs. abja)* | Percentage rise over previous year | (Rs.) | Percentage rise over previous year |
| 1950-51 | 88·5 | 0·3 | 247·5 | — 1·2 |
| *First Plan* | | | | |
| 1951-52 | 91·0 | 2·8 | 250·3 | 1·1 |
| 1952-53 | 94·6 | 4·0 | 255·7 | 2·2 |
| 1953-54 | 100·3 | 6·0 | 266·2 | 4·1 |
| 1954-55 | 102·8 | 2·5 | 267·8 | 0·6 |
| 1955-56 | 104·8 | 1·9 | 267·8 | Nil |
| *Second Plan* | | | | |
| 1956-57 | 110·0 | 5·0 | 275·6 | 2·9 |
| 1957-58 | 108·9 | — 1·0 | 267·3 | — 3·0 |
| 1958-59 | 116·5 | 7·0 | 280·1 | 4·8 |
| 1959-60 | 118·6 | 1·8 | 279·2 | — 0·3 |
| 1960-61 | 127·3 | 7·3 | 293·2 | 5·0 |
| *Third Plan* | | | | |
| 1961-62 | 130·6 | 2·6 | 294·3 | 0·4 |
| 1962-63 | 133·1 | 1·9 | 293·4 | — 0·3 |
| 1963-64 | 139·1 | 4·5 | 299·8 | 2·2 |

* abja = 100 crores = $10^9$

During the First Plan period, in real terms the national income rose by 18·4 per cent as against the original Plan target of 11 per cent. The corresponding rise in the *per capita* income was 8·2 per cent. During the Second Plan period in real terms, the national income increased by 21·5 per cent as against the original Plan target of 25 per cent. The corresponding rise in *per capita* income was 9·5 per cent. During the Third Plan, the increase in national income in real terms was 2·6 per cent in 1961-62, 1·9 per cent in 1962-63 and 4·5 per cent in 1963-64 as against the average annual target of 5 to 6 per cent.

## STRUCTURE OF NATIONAL INCOME

The following Table indicates the structure of national income by industrial origin during the years 1950-51 and 1963-64:

| | 1963-64 | | 1950-51 | |
|---|---|---|---|---|
| | Rs. Abja | Percentage to total | Rs. Abja | Percentage to total |
| | (1) | (2) | (3) | (4) |
| AGRICULTURE | | | | |
| 1. Agriculture, animal husbandry & ancillary activities | 78·7 | 45·8 | 47·8 | 50·2 |
| 2. Forestry | 1·4 | 0·8 | 0·7 | 0·7 |
| 3. Fishery | 0·9 | 0·5 | 0·4 | 0·4 |
| 4. *Total of agriculture* | 81·0 | 47·1 | 48·9 | 51·3 |
| MINING, MANUFACTURING AND SMALL ENTERPRISES | | | | |
| 5. Mining | 2·2 | 1·3 | 0·7 | 0·7 |
| 6. Factory establishments | 19·1 | 11·1 | 5·5 | 5·8 |
| 7. Small enterprises | 12·6 | 7·3 | 9·1 | 9·6 |
| 8. *Total mining, manufacturing and small enterprises* | 33·9 | 19·7 | 15·3 | 16·1 |
| COMMERCE, TRANSPORT & COMMUNICATIONS | | | | |
| 9. Communications (post, telegraph and telephone) | 0·9 | 0·5 | 0·4 | 0·4 |
| 10. Railways | 4·9 | 2·9 | 1·8 | 1·9 |
| 11. Organised banking and insurance | 2·3 | 1·3 | 0·7 | 0·7 |
| 12. Other commerce and transport | 19·8 | 11·5 | 14·0 | 14·7 |
| 13. *Total of commerce, transport and communications* | 27·9 | 16·2 | 16·9 | 17·7 |
| OTHER SERVICES | | | | |
| 14. Professions and liberal arts | 9·0 | 5·2 | 4·7 | 4·9 |
| 15. Government services (administration) | 13·0 | 7·6 | 4·3 | 4·5 |
| 16. Domestic service | 2·4 | 1·4 | 1·3 | 1·4 |
| 17. House property | 5·7 | 3·3 | 4·1 | 4·3 |
| 18. *Total of other services* | 30·1 | 17·5 | 14·4 | 15·1 |
| 19. *Net domestic product at factor cost* | 172·9 | 100·5 | 95·5 | 100·2 |
| 20 *Net earned income from abroad* | — 0·9 | — 0·5 | — 0·2 | — 0·2 |
| 21. *NET NATIONAL OUTPUT AT FACTOR COST = NATIONAL INCOME* | 172·0 | 100·0 | 95·3 | 100·0 |

According to the quick estimates of national income for 1964-65 recently released by the Central Statistical Organisation, the national income in India in real terms is estimated to have recorded a rise of 7·3 per cent as against 4·5 per cent in 1963-64.

The C.S.O. quick estimates are based on partial data. Of the overall rise, about 3·7 per cent is contributed by the agriculture sector of the economy.

The growth of the economy during 1964-65 is the highest in the first four years of the Third Plan and is almost the same as that of 1960-61, which was the highest since 1948-49.

On the basis of the C.S.O. estimate, the average annual increase in national income during the first four years of the Plan was 4·1 per cent and during this period the average annual increase was 2·3 per cent in agriculture 7·4 per cent in mining and factory establishments, 4·5 per cent in transport and communications, and at 6 per cent in the remaining sectors.

The growth of per capita income in real terms is estimated in the C.S.O. study at 4·9 per cent for 1964-65. The average annual increase during the first four years of the Third Plan is of the order of 1·8 per cent, according to the C.S.O. estimates.

The contributions of individual sectors to overall percentage change in real income during 1964-65 is shown in the Table below:

| Sector | Percentage contribution to total national income in 1963-64 | Percentage 1964-65 over 1963-64 | Contribution to the overall percentage change in 1964-65 over 1963-64 |
|---|---|---|---|
| Agriculture (proper) | 35·9 | 10·2 | 3·7 |
| Mining and factory establishments | 10·5 | 5·9 | 0·6 |
| Communications | 0·6 | 13·0 | 0·1 |
| Railways | 2·7 | 2·9 | 0·1 |
| Organised banking and insurance | 1·2 | 7·4 | 0·1 |
| Other commerce and transport | 15·4 | 5·9 | 0·9 |
| Others | 33·7 | 5·6 | 1·9 |
| All sectors | 100·0 | 7·3 | 7·3 |

## INDEX NUMBERS

The index numbers of national and *per capita* incomes, both at current and constant prices, are given below (Base: 1948-49 = 100):

| | Net national output | | Per capita net output | |
|---|---|---|---|---|
| | At current prices | At 1948-49 prices | At current prices | At 1948-49 prices |
| 1950-51 | 110·2 | 102·3 | 106·8 | 99·2 |
| *First Plan* | | | | |
| 1951-52 | 115·3 | 105·2 | 109·9 | 100·3 |
| 1952-53 | 113·5 | 109·4 | 106·3 | 102·4 |
| 1953-54 | 121·2 | 116·0 | 111·4 | 106·7 |
| 1954-55 | 111·1 | 118·8 | 100·3 | 107·3 |
| 1955-56 | 115·4 | 121·2 | 102·2 | 107·3 |
| *Second Plan* | | | | |
| 1956-57 | 130·8 | 127·2 | 113·5 | 110·4 |
| 1957-58 | 131·7 | 125·9 | 112·3 | 107·1 |
| 1958-59 | 145·7 | 134·7 | 121·4 | 112·2 |
| 1959-60 | 149·7 | 137·1 | 122·1 | 111·9 |
| 1960-61 | 163·5 | 147·2 | 130·5 | 117·5 |
| *Third Plan* | | | | |
| 1961-62 | 171·1 | 151·0 | 133·7 | 117·9 |
| 1962-63 | 178·0 | 153·9 | 136·0 | 117·6 |
| 1963-64 (Preliminary) | 198·8 | 160·8 | 148·5 | 120·1 |

## CHANGES SINCE 1950-51

Changes in the contributions of various sectors and sub-sectors of the economy to the total national income (at current prices) are depicted in the table below :

(Rs. Abjas)

| | 1950-51 | 1955-56 | 1960-61 | 1961-62 | 1962-63 | 1963-64 (Provisional) |
|---|---|---|---|---|---|---|
| AGRICULTURE | | | | | | |
| 1. Agriculture, animal husbandry and ancillary activities | 47·8 | 43·9 | 66·8 | 67·7 | 67·9 | 78·7 |
| 2. Forestry | 0·7 | 0·7 | 1·1 | 1·2 | 1·3 | 1·4 |
| 3. Fishery | 0·4 | 0·6 | 1·0 | 0·7 | 0·8 | 0·9 |
| 4. *Total of agriculture* | 48·9 | 45·2 | 68·9 | 69·6 | 70·0 | 81·0 |
| MINING, MANUFACTURING AND SMALL ENTERPRISES | | | | | | |
| 5. Mining | 0·7 | 1·0 | 1·6 | 1·7 | 1·9 | 2·2 |
| 6. Factory establishments | 5·5 | 7·8 | 13·2 | 15·4 | 16·8 | 19·1 |
| 7. Small enterprises | 9·1 | 9·7 | 11·2 | 11·7 | 12·1 | 12·6 |
| 8. *Total of mining, manufacturing and small enterprises* | 15·3 | 18 5 | 26·0 | 28·8 | 30·8 | 33·9 |
| COMMERCE, TRANSPORT & COMMUNICATIONS | | | | | | |
| 9. Communications (post, telegraph and telephone) | 0·4 | 0·5 | 0·6 | 0·7 | 0·8 | 0·9 |
| 10. Railways | 1·8 | 2·5 | 3·6 | 3·8 | 4·6 | 4·9 |
| 11. Organised banking and insurance | 0·7 | 0·9 | 1·6 | 1·9 | 2·1 | 2·3 |
| 12. Other commerce and transport | 14·0 | 14·9 | 17·6 | 18·4 | 19·0 | 19·8 |
| 13. *Total of commerce, transport and communications* | 16·9 | 18·8 | 23·4 | 24·8 | 26·5 | 27·9 |
| OTHER SERVICES | | | | | | |
| 14. Professions and liberal arts | 4·7 | 5·6 | 7·4 | 7·9 | 8·4 | 9·0 |
| 15. Government services (administration) | 4·3 | 5·7 | 9·0 | 10·0 | 11·3 | 13·0 |
| 16. Domestic service | 1·3 | 1·4 | 1·9 | 2·1 | 2·2 | 2·4 |
| 17. House property | 4·1 | 4·6 | 5·3 | 5·5 | 5·6 | 5·7 |
| 18. *Total of other services* | 14·4 | 17·3 | 23·6 | 25·5 | 27·5 | 30·1 |
| 19. *Net domestic product* | 95·5 | 99·8 | 141·9 | 148·7 | 154·8 | 172·9 |
| 20. Net earned income from abroad | − 0·2 | 0·0 | − 0·5 | − 0·7 | − 0·8 | − 0·9 |
| 21. *NET NATIONAL OUTPUT AT FACTOR COST = NATIONAL INCOME* | 95·3 | 99·8 | 141·4 | 148·0 | 154·0 | 172·0 |

## ROLE OF THE GOVERNMENT

The share of the public authorities (Central, State and local authorities) in the income and expenditure in the economy has been rising in recent years. Nevertheless, its share in both is comparatively small, when compared to either the advanced countries or some of the under-developed countries.

| | 1955-56 | | 1960-61 | | 1961-62 | | 1962-63 | |
|---|---|---|---|---|---|---|---|---|
| | Rs. Abjas | Per cent | Rs. Abjas | Per cent | Rs. Abjas | Per cent | Rs. Abjas | Per cent |
| GOVERNMENT SHARE IN GENERATION OF NET DOMESTIC PRODUCT | | | | | | | | |
| 1. Net output of Government enterprises | 4·2 | 4·2 | 5·7 | 4·0 | 6·0 | 4·0 | 6·7 | 4·3 |
| 2. Net output of Government administration | 5·7 | 5·7 | 9·0 | 6·4 | 10·0 | 6·7 | 11·7 | 7·6 |
| 3. Net output of the private sector | 89·9 | 90·1 | 127·2 | 89·6 | 132·7 | 89·3 | 136·4 | 88·1 |
| 4. Net domestic product | 99·8 | 100·0 | 141·9 | 100·0 | 148·7 | 100·0 | 154·8 | 100·0 |
| GOVERNMENT SHARE IN NATIONAL EXPENDITURE | | | | | | | | |
| 5. Government current expenditure on commodities and services (Government administration) | 7·2 | 6·8 | 11·4 | 7·4 | 12·6 | 7·9 | 15·7 | 9·3 |
| 6. Government administrative capital expenditure | 2·2 | 2·1 | 3·5 | 2·3 | 3·8 | 2·4 | 4·6 | 2·7 |
| 7. Government enterprises capital expenditure | 3·5 | 3·3 | 4·3 | 2·8 | 5·7 | 3·6 | 7·5 | 4·5 |
| 8. Net National expenditure at market price | 106·6 | 100·0 | 153·3 | 100·0 | 161·4 | 100·0 | 168·4 | 100·0 |
| GOVERNMENT DRAFT ON PRIVATE INCOME | | | | | | | | |
| 9. Direct taxes | 2·6 | 2·6 | 3·9 | 2·7 | 4·3 | 2·9 | 4·8 | 3·1 |
| 10. Indirect taxes | 5·6 | 5·5 | 10·5 | 7·3 | 12·0 | 8·0 | 13·3 | 8·5 |
| 11. Miscellaneous fees etc. | 1·4 | 1·4 | 2·0 | 1·4 | 2·1 | 1·4 | 2·1 | 1·3 |
| 12. Private income | 101·3 | 100·0 | 143·7 | 100·0 | 150·8 | 100·0 | 157·0 | 100·0 |
| GOVERNMENT CAPITAL FORMATION AND FINANCE | | | | | | | | |
| 13. Surplus on current account and maintenance provision | 1·9 | | 3·2 | | 3·8 | | 2·1 | |
| 14. Government borrowing at home | 3·1 | | 4·6 | | 4·9 | | 6·8 | |
| 15. Government borrowing abroad | 0·1 | | 2·5 | | 2·5 | | 3·3 | |
| 16. Extra-budgetary receipts and adjustment for cash balances | 0·6 | | − 2·5 | | − 1·7 | | − 0·1 | |
| 17. Gross capital formation on Government account | 5·7 | | 7·8 | | 9·5 | | 12·1 | |

Abja = 100 crores = $10^9$

## INCOME DISTRIBUTION COMMITTEE

The Planning Commission has constituted a Committee on Income Distribution and Levels of Living. The Committee's terms of reference are : To review changes in levels of living during the First and Second Five Year Plans ; To study recent trends in the distribution of income and wealth and in particular, to ascertain the extent to which the operation of the economic system has resulted in concentration of wealth and means of production.

The Committee consists of :

Professor P. C. Mahalanobis (Honorary Statistical Adviser to the Government of India), Dr. V. K. R. V. Rao (Director, Institute of Economic Growth, Delhi), Dr. P. S. Lokanathan (Director-General, National Council of Applied Economic Research), Dr B. N. Ganguli (Director, Delhi School of Economics), Vishnu Sahay (Member, Planning Commission), D. L. Mazumdar (Secretary, Department of Company Law Administration), Dr B. K. Madan (Dy. Governer, Reserve Bank of India) and B. N. Datar (Adviser, Ministry of Labour and Employment), P. C. Mathew (Member-Secretary, Fourth Finance Commission) and Dr. K. R. Nair (Director, Central Statistical Organisation) (Member-Secretary).

The Committee's enquiry is being conducted at the expert level, its primary object being to ascertain such statistical and economic data as may be gathered at present, to identify the gaps in the existing information and to suggest steps for removing these deficiencies in the future. Part I of the Committee's report has already been published and Part II is expected to be published shortly.

# BANKING

## SEASONAL BANKING TRENDS*

In the 1964 slack season, covering broadly the first half of the year, scheduled bank credit contracted by Rs. 139 crores, or by 37 per cent of the record expansion of Rs. 376 crores in the preceding busy season. In comparison, the contraction of Rs. 121 crores in 1963 slack season worked out at 60 per cent of the 1962-63 busy season expansion. Seasonal advances declined in May-October 1964 by Rs. 194 crores, nearly the amount of expansion in the 1963-64 busy season. Advances against almost all the major commodity groups in respect of which the busy seasonal expansion was significant recorded declines. Non-seasonal advances, however, expanded very sharply by Rs. 54 crores, or by six times the expansion in the 1963 slack season. Manufactures and minerals (excluding sugar and gur) rose by Rs. 46 crores as compared to Rs. 26 crores in the 1963 slack season and Rs. 78 crores in the 1963-64 busy season. Unsecured advances increased by Rs. 12 crores as compared to Rs. 31 crores in the 1963 slack season and Rs. 23 crores in the 1963–64 busy season. The smaller increase in unsecured advances may be attributed to the Governor's request to banks in March 1964 to review their portfolios of such advances and bring down their level.

While the credit contraction in the 1964 slack season was smaller in relation to the preceding busy season expansion, the growth in deposits at Rs. 211 crores was substantial; during the 1963 slack season, the accretion to deposits had amounted to Rs. 148 crores. The large deposit accretion enabled banks to reduce their credit-deposits ratio from 79·5 per cent at the end of April 1964 to 67·4 per cent at the end of October, 1964 as compared to the fall from 76·1 per cent to 65·7 per cent in the 1963 slack season. The corollary to the sizeable growth in deposits and the credit contraction was a rise in investment portfolio of banks. The raising of the minimum liquidity ratio under the Banking Companies Act, 1949 from 20 to 28 per cent with effect from September 16, 1964 also obliged some of the larger banks to add to their investments in Government and other approved securities. As a result the investments — deposits ratio rose from 26·5 per cent to 34·5 per cent over the 1964 slack season. The banks also reduced their borrowings from the Reserve Bank by Rs. 43·3 crores to Rs. 1·7 crores at the end of October, 1964.

Reflecting the comfortable resources position of the banking system, the money market ruled generally easy. The inter-bank call rate slipped to 1 per cent in Bombay and 1·7 per cent in Calcutta at the end of the slack season, as compared to 1·9 per cent and 1·5 per cent respectively, at the end of the 1963 slack season.

On the eve of the 1964-65 busy season, there was a further tightening of the credit policy on September 25, 1964. The Bank Rate was raised by ½ per cent to 5 per cent and the quota-cum-slab rate system of the Reserve Bank accommodation to scheduled banks was replaced by a system of lending under which the rate charged by the Reserve Bank was related to the borrowing bank's net liquidity position. On February 17, 1965, the Bank Rate was further raised by a full one per cent to 6 per cent and the cost of borrowing from the Reserve Bank was put up still further. Yet the seasonal credit expansion in the 1964-65 busy season, at Rs. 407 crores, was Rs. 31 crores higher than the expansion in the 1963-64 busy season. It may, however, be added that the pace of expansion was slower till the end of March, 1965, when the seasonal rise amounted to Rs. 329 crores, as compared to that of Rs. 348 crores in the corresponding period of the 1963-64 busy season. The expansion in seasonal advances in the 1964–65 busy season at Rs. 235 crores was larger by Rs. 34 crores than that in the 1963-64 busy season. In terms of percentages, seasonal advances accounted for 64 per cent of the overall expansion as against 57 per cent during the previous busy season. The commodities, advances against the security of which accounted for the major part of the increased expansion, were sugar (Rs. 26 crores), raw cotton (Rs. 3 crores) and other oilseeds (Rs. 4 crores). Non-seasonal advances expanded by Rs. 17 crores less than in the 1963–64 busy season. The rise in advances against cotton textiles and iron and steel was higher than the expansion in the previous busy season by Rs. 8 crores and Rs. 7 crores, respectively; but this was more than offset by a much smaller expansion in advances against the security of other non-seasonal commodities. Unsecured advances also showed a smaller expansion than in the previous busy season.

The growth in scheduled banks' deposits during the 1964–65 busy season amounted to Rs. 107 crores or Rs. 22 crores more than in the 1963–64. busy season. But along with extending larger credit, banks also added to their cash balances to the tune of Rs. 13 crores. They, therefore, had to liquidate their investments in Government securities by Rs. 154 crores, and borrow substantially larger amounts from the Reserve Bank, the outstanding touching the peak of Rs. 163 crores on April 2, 1965 (as on May 7, 1965 the outstanding level was still higher at Rs. 164 crores) as against that of Rs. 107 crores recorded on March 6, 1964. Money market turned tight gradually over the season. The inter-bank call rate which stood at 1 per cent and 1·7 per cent in Bombay and Calcutta, respectively, at the end of the 1964 slack season, firmed up to 8·5 per cent during the week ended April 9, 1965; the rate was 6·5 per cent in Bombay and 6·6 per cent in Calcutta during the first week of April 1964.

**Scheduled Bank Data—Slack Season**

(Crores of Rupees)

| Item | 1962 | 1963 | 1964 |
|---|---|---|---|
| 1. Aggregate Deposits | + 84·1 | + 148·0 | + 210·7 |
| (*a*) Demand | + 14·0 | + 84·5 | + 119·8 |
| (*b*) Time | + 70·1 | + 63·5 | + 90·9 |
| 2. Borrowings from R.B.I. | − 3·3 | − 29·4 | − 43·3 |
| 3. Borrowing from S.B.I. and/or notified banks | + 0·5 | + 8·1 | + 18·5 |
| 4. Bank Credit | − 42·1 | − 120·9 | − 138·8 |
| 5. Investment in Government Securities | + 111·9 | + 145·6 | + 258·5 |
| 6. Cash reserves | − 6·9 | + 43·0 | + 11·9 |

**Scheduled Bank Data—Busy Season**

(Crores of Rupees)

| Item | 1962–63 | 1963–64 | 1964–65* |
|---|---|---|---|
| 1. Aggregate Deposits | + 35·6 | + 84·5 | + 106·5 |
| (*a*) Demand | + 87·0 | + 100·3 | + 43·8 |
| (*b*) Time | − 51·4 | − 15·8 | + 62·7 |
| 2. Borrowings from R.B.I. | + 21·8 | + 43·3 | + 124·5 |
| 3. Borrowings from S.B.I. and/or notified banks | − 3·9 | − 0·5 | + 8·6 |
| 4. Bank Credit | + 203·3 | + 376·2 | + 407·1 |
| 5. Investments in Government Securities | − 97·7 | − 145·4 | − 153·9 |
| 6. Cash Reserves | + 4·2 | − 29·4 | + 12·5 |

* Revised.

## OVERALL BANKING TRENDS

On a financial year basis, the expansion in bank credit was lower in 1964–65 than in 1963–64, while the growth in deposits was somewhat larger, whereas both bank deposits and credit rose by larger amounts in 1963–64 than in 1962–63. Bank credit expanded by Rs. 218·2 crores or 12·0 per cent in 1964–65, the comparable figures for 1963-64 being Rs. 228·5 crores or 14·4 per cent. Aggregate deposits of scheduled banks increased by Rs. 298 crores or by 13·0 per cent during 1964–65 as against Rs. 243 crores or by 11·9 per cent during 1963–64. The growth in demand deposits was lower at Rs. 168 crores as compared to Rs. 204 crores in 1963–64, while the growth in time deposits was substantially higher at Rs. 130 crores as compared to Rs. 39 crores. On the other hand, banks added to their investments to a substantially larger extent mainly to fulfil the higher liquidity requirements under Section 24 of the Banking Companies Act, which came into force on September 16, 1964. Banks increased their holdings of Government securities by Rs. 79 crores as compared to Rs. 47 crores in 1963–64. Other investments and miscellaneous assets also recorded a significant rise. In the result, the banks resorted to the Reserve Bank accommodation to a much larger extent; borrowings from the Bank increased by more than five times the increase in 1963–64.

* Figures based on returns submitted under section 42 of the Reserve Bank of India Act and the Fortnightly Survey of Advances.

**Schedule Bank Data—Financial Year**

(Crores of Rupees)

| Item | 1962–63 | 1963–64 | 1964–65 |
|---|---|---|---|
| 1. Aggregate Deposits | + 125·4 | + 242·8 | + 298·1 |
| (*a*) Demand | + 81·5 | + 204·0 | + 168·1 |
| (*b*) Time | + 43·9 | + 38·8 | + 130·0 |
| 2. Borrowings from R.B.I. | + 18·2 | + 12·9 | + 68·9 |
| 3. Borrowings from S.B.I. and/or notified banks | + 4·9 | + 4·4 | + 30·9 |
| 4. Bank Credit | + 180·4 | + 228·5 | + 218·2 |
| 5. Investments in Government Securities | − 8·6 | + 46·9 | + 78·5 |
| 6. Cash Reserves | + 2·3 | + 21·9 | + 14·9 |

## CREDIT POLICY

Against the background of renewed inflationary pressures and a marked deterioration in the foreign exchange position, a major revision in the Reserve Bank's credit policy was effected during the year under review. Along with the intensification of selective credit controls, greater emphasis was laid on the regulation of cost of Reserve Bank accommodation to scheduled banks. Increasing use was also made of the mechanism of interest rates so as to promote savings in the economy and to induce a more economic turnover of funds by the banking system.

Following the inadequate contraction of credit and the continuance of the upward trend in prices, it appeared by the middle of September 1964 that the ensuing busy season would experience a significant expansion in bank credit. On September 25, 1964 therefore, the Reserve Bank raised the Bank rate from 4·5 per cent to 5 per cent and changed the system of interest rates in substitution of the quota-cum-slab rate system. Under the new system, the rate charged on the borrowings of a scheduled bank varied with its net liquidity position defined as a ratio of net liquid assets to aggregate demand and time liabilities (Net liquid assets were defined on September 25, 1964 as the total of a bank's cash balances with the Reserve Bank balances in curreet account with other banks and investments in Government securities LESS its total borrowings from the Reserve Bank and the State Bank. This definition was amended on December 4 thus: total of cash and balances with the Reserve Bank, current account balances with other banks and investments in Government and other approved securities LESS the borrowings from the Reserve Bank, the State Bank and the Industrial Development Bank of India). Borrowings by a bank with a net liquidity ratio equal to or more than 28 per cent were charged at the Bank rate and for every percentage point decline in the net liquidity ratio below 28 per cent the rate on the ENTIRE amount of borrowings rose by ½ per cent. Two additional measures were adopted to reinforce the new policy. One was the placing of a ceiling of 9 per cent which foreign banks and larger Indian banks with aggregate demand and time liabilities of Rs. 50 crores and above could charge on their advances/overdrafts/discounts, so that these banks did not expand credit by borrowing from the Bank even at progressively higher rates. The other was the regulation of the inflow of banking funds from abroad which added to the borrowing bank's liquid resources offsetting the Reserve Bank's restrictive credit policy. A limit of Rs. 20 lakhs was placed on the amount a banking company could borrow from abroad without prior approval from the Reserve Bank. Borrowings in excess of this limit could be secured only with the prior approval of the Bank to be given on the merits of each case but generally only when the borrowing was for a period of not less than 30 days. At the same time, with a view to widening the spread between very short-term and longer-term deposits, the Bank imposed ceilings of 2·5 per cent and 1·25 per cent on interest rates payable on deposits for 46 to 90 and 15 to 45 days, respectively. The maximum rate payable on deposits for periods upto 14 days was pegged at the rate payable on current account. Banks were also advised to pay a minimum of 4 per cent per annum on deposits of 91 days with adequate spread for deposits of longer periods, with a view to encouraging further deposits mobilisation.

Even while these measures were having a restrictive influence on the level of credit expansion in the 1964–65 slack season, the price situation continued to be difficult and the foreign exchange situation remained critical. A further tightening of the restrictive measures was, therefore, indicated and on February 17, 1965 the Bank rate was raised by a full one per cent. to 6 per cent and the system of progressively rising interest rates on accommodation to scheduled banks was amended to stiffen the cost of Reserve Bank accommodation still further. Accommodation at the Bank rate was made available to a scheduled bank with a net liquidity ratio equal to or above 30 per cent. instead of 28 per cent previously; and for every fall of 1 per cent or a fraction thereof in the net liquidity ratio, the rate of interest on the ENTIRE amount borrowed by the bank went up by half a per cent. Simultaneously, the ceiling of 9 per cent imposed in September, 1964 on the rate for advances/overdrafts/discounts of larger Indian and foreign banks was raised to 10 per cent. At the same time, to adjust deposit rates suitably to the other changes, maximum interest payable on deposits for 15 to 45 days and 46 to 90 days were raised by a quarter per cent and half per cent respectively, and minimum rates were prescribed for deposits for 91 days, six months and one year and for savings bank deposits at 5, 5½, 6 and 4 per cent respectively.

Selective credit controls continued to be administered during the year to dampen the rising tendency of prices of certain individual commodities of common use. With the inadequate contraction in bank credit in the 1964 slack season on the wake of shortages in the supply of food grains and edible oils, the minimum margins required to be maintained in respect of bank advances against oilseeds other than groundnuts and cotton seeds were raised in July 1964 from 40 to 50 per cent which was almost prescribed for advances against vegetable oils including vanaspati, the minimum margin for advances against groundnuts having earlier been raised to that level in March, 1964. In August, 1964, the minimum margin on advances against all food grains was raised from 35 per cent to 50 per cent and the ceiling limits on advances against food grains other than rice and wheat were reduced from 100 to 90 per cent of the level reached in 1962, ceiling limits on advances against rice and wheat having been already prescribed in February and April, respectively. The only relaxation effected during the year was in respect of advances against stocks held by vanaspati manufactures of soya bean oil imported under the P.L. 480 agreement. It was notified on December 31, 1964, that no margin applied to such advances since soya bean oil imports were undertaken to reduce the demand pressure on domestic vegetable oil supplies.

## MONEY RATES

In 1964–65, while the money market was easy during the slack season, the busy season witnessed a hardening of the rates, reflecting the sustained pressure on funds. During the first week of April, 1964 the call rate among selected major scheduled banks reached the peak levels for the 1963–64 busy season, 6·53 per cent in Bombay and 6.62 per cent in Calcutta, which were higher than the peaks reached during the 1962–63 busy season. The rates eased to the slack season low of 0.50 per cent in Bombay and 1.23 per cent in Calcutta in July to close the 1964 slack season at 1 per cent and 1.7 per cent respectively. The high demand for funds during the busy season of 1964–65, the increase in bank rate by one per cent in February 1965 on top of a half per cent rise in September, 1964, and the directives of the Bank regarding minimum and maximum rates to be paid and charged by banks which brought about an upward adjustment of the interest rate structure — all these factors resulted in a tightening of the inter-bank call money market, the rate reaching 8.48 per cent in Bombay during the first week of April 1965 and closing for the month at 7.28 per cent. In Calcutta, the rate rose to 8.31 per cent during the second week of April and closed for the month at 7.04 per cent. The average discount rate on Treasury bills, which was 2.75 per cent by end-March, 1964, declined to 2.36 per cent by end-November, but in keeping with the general upward movement referred to earlier, moved up to 3.50 per cent in March, 1965.

Pursuant to the Reserve Bank's interest rate directives and the increases in the Bank rate, the deposit rates of the State Bank of India, and other scheduled banks (which are members of the All-India Inter-Bank Agreement on Maximum Rates on Deposits) underwent upward revisions twice — first in September, 1964 and again in February, 1965. The State Bank of India put up its advances rate from 6 per cent to 6½ per cent on October 1, 1964 and further to 7 per cent on February 18, 1965. The minimum advances rate under the All-India Inter-Bank Agreement was raised from 6½ per cent to 7 per cent on September 26, 1964 and then to 8 per cent on February 17, 1965. The hundi rate of the State Bank of India was put up thrice during the year, from 7½ per cent to 7¾ per cent on October 1, 1964 to 8¼ per cent on January 1, 1965 and to 9¼ per cent on February 18, 1965.

## CREDIT CONTROLS

The revisions effected in the Reserve Bank's general credit controls on September 25, 1964 and February 17, 1965 have been referred to earlier.

Selective credit controls, as already stated are aimed at restraining the rising tendency of prices of particular commodities. Early in the year, in view of the decline in the wheat crop and the rise in prices the Bank issued a directive on April 21, 1964 reimposing in respect of advances against wheat the margin and ceiling restrictions which had been withdrawn in May, 1961. The banks were directed to maintain a minimum margin of 35 per cent on advances against wheat. The ceiling limits for each two-month period commencing from May–June, 1964 (excluding all exempted categories) were fixed separately, (1) in the State of Punjab and (2) in all the other States taken together, at levels equivalent to 80 per cent of such levels maintained in the corresponding two-month period in 1962. Advances against warehouse receipts issued by warehouses established by the Central and State Warehousing Corporations were exempted from the ceiling limits and were subject to a lower minimum margin requirement of 25 per cent while advances to roller-flour mills and those given to co-operative marketing and/or processing societies were exempted from the ceiling limits as well as the margin requirements.

The Bank imposed on July 7, 1964 a minimum margin of 50 per cent on advances by scheduled banks against the security of vegetable oils including vanaspati, as prices of vegetable oils and oilseeds showed a markedly rising tendency and also because scheduled bank advances against these commodities recorded a considerable expansion. Simultaneously, the minimum margin required to be maintained on bank advances against 'other oilseeds' (i.e. oilseeds

other than groundnut and cottonseeds) was raised from 40 per cent to 50 per cent. At the end of 1964, however, an exemption from those restrictions was granted in respect of bank advances to vanaspati manufacturers against stocks of soya bean oil imported under the P.L. 480 agreement in view of the fact that these imports were bunched together in relation to their expected utilisation by the manufacturers.

The sharp rise in the prices of food grains during the 1964 slack season months led the Bank in the middle of August 1964 to tighten up the existing controls on advances by banks against all food grains, with a view to checking possible speculative hoarding of stocks of food grains with the help of bank advances. The minimum margin required to be maintained by banks on advances against all food grains was raised from 35 per cent to 50 per cent and those against warehouse receipts covering food grains from 25 per cent to 40 per cent. Also, the ceiling limits required to be maintained with regard to bank advances against 'other food grains' commencing from September–October, 1964 were reduced from 100 per cent to 90 per cent of the levels of such advances maintained in the corresponding period in 1962, thus bringing the position in respect of these on par with that of advances against paddy and rice.

### BANKING LEGISLATION

Consequent upon the establishment of the Industrial Development Bank of India on July 1, 1964 the Reserve Bank of India Act, 1934 was amended to empower the Reserve Bank to make loans and advances to the Industrial Development Bank and purchase its bonds and debentures, and also to provide for the establishment of National Industrial Credit (Long Term Operations) Fund and to lay down the objects for which the Fund would be utilised.

In order that balances maintained by banking companies with the subsidiaries of the State Bank of India may be treated as eligible assets for the purpose of liquidity requirements under the Banking Companies Act, the Government of India notified the subsidiaries to that effect.

In terms of the notification issued by Government on October 12, 1964, borrowings of scheduled banks from the Industrial Development Bank of India (which took over the Refinance Corporation for Industry Ltd.) are to be treated as those from a notified bank, with the result that they are not to be included for purposes of their liquidity requirements.

Following the closure of the London Office of the Reserve Bank of India in September 1963, banking companies incorporated outside India but having offices in India were permitted to deposit sterling securities with the London Office of the State Bank of India in fulfilment of the obligations under Section 11 (2) of the Banking Companies Act, 1949. This facility was withdrawn by the notification issued by the Government on May 20, 1964, bringing into force the relative amendment to Rules 6, 8 and 10 of the Banking Companies Rules 1949 effective May 30, 1964.

On August 17, 1964, the Government of India notified certain draft amendments to the Rules governing Form IV (Statement of unsecured loans and advances) to be submitted under Section 20 and Form XII (return on unclaimed deposits) to be submitted under Section 26 of the Banking Companies Act. This notification also seeks to amend certain other rules and forms with a view to simplifying the returns required to be submitted by banking companies. These amendments were brought into force by a Government notification dated July 3, 1965.

In the last Report, mention was made of the legislation passed on December 30, 1963, viz. the Banking Laws (Miscellaneous Provisions) Act, 1963, which provides for control over companies or institutions which though they are not treated as banks, accept deposits from the general public or carry on other business allied to banking. In exercise of the powers thus conferred on the Reserve Bank by Sections 45 K and 45 L of the above mentioned Act, the Reserve Bank issued three Orders on May 14, 1964, requiring non-banking companies and financial institutions to furnish, in prescribed forms, information relating to or connecting with receipt of deposits from the public and other business allied to banking. The returns from the affected companies covering each of the first five half years ending March, 1964 have been analysed and a study is being made with a view to framing an appropriate policy to regulate the activities of these institutions so as to ensure adequate protection to depositors.

The three Orders dated May 14, 1964 have since been revised and three fresh Orders have been issued on May 7, 1965, mainly with a view to removing doubts as to whether companies accepting deposits from their share-holders only and from none else are covered by the Orders. The fresh Orders make it clear that companies should file the returns, whether the deposits have been received from their shareholders or from any other person or party; the effect of this is that companies accepting deposits from shareholders only, shall also now submit returns.

# CIVIL AVIATION

ALLOTMENT: Second Five-Year Plan, Rs. 2,444·30 lakhs including special allotment of Rs. 663 lakhs. The actual expenditure incurred during the Second Plan was Rs. 17·96 crores. Third Plan: Rs. 25·5 crores (Provisional).

The budget estimates for 1963-64 for the Civil Aviation Department were: Revenue Expenditure: Rs. 5·51 crores (gross); Capital Expenditure: Rs. 3·66 crores including charged expenditure and meteorological equipment; Revenue from landing, etc. at civil aerodromes: Rs. 1·17 crores.

The internal air services and services to neighbouring countries are managed by a corporation called Indian Airlines Corporation, and the external services by another Corporation called Air India. According to the Air Corporations Act, 1953, the number of members of a Corporation cannot be less than five and not more than nine. Each of the Corporations has a general manager.

The Central Government has authority to give the Corporations directions about opening a new transport service, closing an existing service, or other changes in schedule. At the end of a financial year the Corporations must present a report to the Central Government which will be laid before Parliament.

Private agencies can use aircraft for purposes of instruction, rescue or relief, air survey, fire-fighting, crop dusting, locust control or for providing joy rides.

A Labour Relations Committee for each Corporation consisting of representatives of the Corporation and of employees has been functioning since 1956. This Committee will give advice to the Corporation on matters of labour.

In addition to the two Corporations, there were 16 flying clubs and nine transport companies holding permits for non-scheduled services on 31st December, 1964.

Approximately 1,345,000 passengers and about 69,312,000 kilograms of cargo and mail were carried by scheduled and non-scheduled air transport services in 1964.

The scheduled air transport services flew approximately 47,392,000 km. in 1964. The number of passengers carried increased from 1,176,330 in 1963 to 1,345,000 in 1964. The quantity of freight and mail carried during 1964 was 42,560,000 kgs. as against 46,846,763 kgs. in 1963.

During 1964, approximately 24,600 hours and 6,685,000 kilometres were flown on non-scheduled operations against the previous year's figures of 26,084 hours and 6,829,003 kilometres. The number of passengers and cargo carried were approximately 106,800 and 26,752,000 kgs. respectively as against the previous year's figures of 83,846 passengers and 31,346,288 kgs. of freight.

There are three Government gliding centres, four private gliding clubs and 18 subsidised flying clubs in India.

The Civil Aviation Training Centre, Allahabad continues to conduct courses for various ground jobs connected with aircraft.

### ACCIDENTS

During the period (April to Dec. 31, 1964) there were 19 major accidents in India involving 18 Indian registered aircraft and one glider. Four of these accidents were fatal resulting in the death of 6 persons (five members of crew and one passenger).

Three of the aircraft involved in major accidents were engaged on scheduled passenger services, one aircraft was engaged on non-scheduled passenger services and two aircraft were engaged on non-scheduled freighter services Of the remaining 12 aircraft involved in major accidents, 11 were engaged on instructional flights and one on private flight. The only glider involved in a major accident was engaged on instructional flight.

Thirteen accidents have already been investigated and the remaining ones are being investigated by the departmental inspectors.

A brief description of fatal accidents is given below :—

Chipmunk aircraft VT/CVL belonging to the Government of India and operated by the Bihar flying Club, crashed in the river Ganges near Patna on April 7, 1964. The aircraft was engaged on a local training flight and was being flown solo by a student pilot. The wreckage of the totally destroyed aircraft was salvaged. The body of the pilot was recovered on April 8, 1964.

Chipmunk aircraft VT-CXC operated by the Hind Provincial Flying Club and engaged on a training flight, crashed and caught fire when landing at Kanpur aerodrome on April 28, 1964. Both the occupants of the aircraft — the pilot instructor and the trainee—were seriously injured and later died in the hospital. The aircraft was destroyed.

Sentinel L-5 aircraft VT-DMG belonging to the Madhya Pradesh Flying Club and piloted solo on a local night training flight crashed in a playground near Bhopal aerodrome on July 15, 1964. The student pilot sustained fatal injuries and the aircraft was destroyed.

Pipe Club aircraft VT/DFU belonging to the Bombay Flying Club crashed and fell in the Sea at Maroli in Bulsar District on Sept. 25, 1964. The aircraft was engaged on a cross-country flight from Bombay to Ahmedabad. Both the occupants—the pilot and a passenger—were killed.

## INDIAN AIRLINES CORPORATION

(Airlines House, 113, Gurdwara Rakabganj Road, New Delhi).

INDIAN AIRLINES CORPORATION was formed on 1st August, 1953, as a State Corporation under the provisions of the Air Corporations Act, 1953.

The present fleet consists of 4 Caravelles; 10 Fokker Friendships; 12 Viscounts; 36 DC-3's and 3 DC-4's.

The operations of the Corporation have been divided into three Areas, namely, Delhi, Bombay and Calcutta. Each Area is under the charge of a Manager who is responsible to the General Manager for the proper administration and co-ordination between different departments in the area. The Headquarters Office of the Corporation has, besides the Chairman, Departmental Heads.

The total number of staff employed by the Corporation was 10,908 as on 1st Jan. 1965. The Corporation's services extend over the entire sub-continent, including Afghanistan, West Pakistan, Nepal, East Pakistan, Burma and Ceylon. The crew strength consists of 330 pilots.

*Members of the Board :*

V. Shankar (Chairman), J. R. D. Tata, J. S. Parikh, S. R. Vasavada, M. L. Khaitan, G. L. Mehta, M. A. Chidambaram, V. T. Dehejia, Air Marshal Arjan Singh.

*General Manager :* A. S. Bam.

*Area Managers :* Delhi, Capt. R. G. Patwardhan; Bombay, Capt. D. A. Samant; Calcutta, A. H. Mehta.

*Secretary :* D. R. Kohli.

Indian Airlines Corporation is now a full member of the International Air Transport Association. Indian Airlines Corporation has set up training establishments for its Flying, Engineering and Traffic personnel. Besides regular passenger and freight services, I.A.C. operates a Night Airmail Service linking Bombay, Delhi, Calcutta and Madras.

During July-December 1964, the Indian Airlines Corporation, on its scheduled services, flew approximately 16,480,282 kilometres, carrying 589,098 passengers, 11,900,213 kg. of cargo and 4,526,096 kg. of mail against 15,585,096 kilometres flown with 478,830 passengers, 15,381,024 kg. of cargo and 4,083,211 kg. of mail during the corresponding period of the previous year.

The capacity ton kilometres operated during the period under review were 71,282,414, against 64,422,872 during the corresponding period of 1963.

### BUDGET

The revised and budget estimates respectively for 1964–65 and 1965–66 are given below: (Rs. lakhs).

| | 1964–65 (Revised) | 1965–66 (Budget) |
|---|---|---|
| Total operating revenue | 2,254·00 | 2,527·00 |
| Non-operating revenue | 55·00 | 60·00 |
| Total revenue .. | 2,309·00 | 2,582·00 |
| Total operating expenditure .. .. | 2,132·35 | 2,403·35 |
| Non-operating expenditure .. .. | 62·55 | 61·25 |
| Total expenditure .. | 2,195·90 | 2,464·60 |
| Profit .. .. | 65·10 | 117·40 |

## AIR-INDIA

Third Floor, New India Assurance Building, Mahatma Gandhi Road, Bombay 1.

Air-India International Limited now known as Air India, inaugurated its first International service to London on June 8, 1948. The initial frequency of one flight a week was gradually stepped up to 7 Super Constellation services a week with alternative stops at Rome, Paris, Prague, Dusseldorf, Zurich, Geneva, Cairo, Beirut and Damascus.

Air-India International Corporation was formed on August 1, 1953, as a wholly Government-owned Corporation under the Air Corporations Act of 1953.

The scale of operations and the route system of Air-India have expanded continuously since 1953, when it took over the predecessor company's Bombay-London and the Bombay-Nairobi services. To these, the Corporation added services to Singapore in July 1954, to Hong Kong in August 1954, to Tokyo in May 1955, to Sydney in October 1956, to Moscow in August 1958, to Jakarta in Oct. 1958, to New York in May 1960, to Kuwait in October 1960 and to Nadi (Fiji) in Aug. 1964.

In April 1960, Air-India celebrated its entry into the jet age by starting Boeing 707 services to London and later in May to New York—thus becoming the first Asian carrier to operate over the Atlantic.

From a total of three stations serviced in June 1948, Air-India now serves 26 cities in 21 countries, covering 5 Continents.

### FLEET

Air-India's present fleet consists of eight Boeing 707s—six Boeing 707-420s and two Boeing 707-320Bs.

With a fleet of eight Boeing 707s, Air-India operates a daily service to New York, nine services a week to London—two of which are routed via Moscow—two services a week to Tokyo and Nairobi, and one flight a week to Jakarta and Nadi (Fiji) via Sydney.

During 1963-64 Air-India flew 16,065,000,000 revenue kilometres carrying 190,969 revenue passengers, 1,148 tonnes of mail and 6,574 tonnes of cargo. Comparable figures for 1962-63 were 13,894,000,000 revenue kilometres, 165,736 revenue passengers, 1,274 tonnes of mail and 5,118 tonnes of cargo.

The Tripartite pool of Air-India, BOAC and Qantas came into being on April 1, 1960. This arrangement makes Air-India a partner in a giant international airline system which is in a better position to meet the increasing competition on international routes.

Air-India operates in pool with the Soviet airline, Aeroflot, on the Delhi/Moscow sector with the Czechoslovak airlines, CAS, on the Bombay/Prague sector and with East-African Airways on Bombay/Nairobi sector.

*Executive Officers :* J. R. D. Tata, *Chairman;* B. R. Patel, *Vice-Chairman and General Manager;* S. K. Kooka, *Commercial Director;* N. J. Pavri, *Financial Controller;* K. K. Unni, *Asst. General Manager;* K. Vishvanath, *Director of Operations;* K. G. Appusamy, *Director of Engineering;* V. G. Gadgil, *Controller of Stores & Purchases;* A. S. Banavalikar, *Personnel Manager;* A. F. Dubash, *Director of Planning & International Relations* and R. N. Gundil, *Secretary.*

*Members of the Board :* J. R.D. Tata, *Chairman;* B. R. Patel, *Vice-Chairman;* V. Shankar; S. R. Vasavada; M. A. Chidambaram; and B. L. Jalan; V. T. Dehejia; A. S. Bam; Air Marshal Arjan Singh.

*Commercial Headquarters :* Fourth Floor, Bank of India Building, Mahatma Gandhi Road, Bombay.

Other Departments: Santa Cruz Airport, Bombay 29. Tel: 535491.

Information/Booking: New India Assurance Building, Mahatma Gandhi Road, Fort, Bombay 1. Tel: 259191.

*Geneva Office*—7, Rue de Chantepoulet; *London Office*—17/18 New Bond Street; *New York Office*—410 Park Avenue, New York 22; *Nairobi Office*—Lugard House, Government Road; *Tokyo Office*—Hibiya Mitsui Building; *Sydney Office*—P & O Bldg., 3 Elizabeth St.

Net profit for the year ending March 31, 1964: Rs. 3·04 crores.

Operating Revenue: Rs. 26·81 crores.

Operating expenses: Rs. 22·97 crores.

Total number of persons employed by Air-India: 6,239 (31-3-1964).

Unduplicated route kilometres: 49,321 (31-3-1964).

## AIRCRAFT

There were 554 aircraft holding current certificates of registration in India at the end of Oct. 1964 of which 212 held current Certificates of Airworthiness. From April, 1964 to Oct. 31, 1964, 29 new aircraft were registered and the registration of 12 aircraft was cancelled. During the same period 128 aircraft were inspected for issue or renewal of Certificates of airworthiness of which seven aircraft were of foreign nationality.

## AERODROMES

Eighty-two aerodromes were controlled and operated by the Civil Aviation Department at the end of Oct. 1964. Three of these, *viz.*, Bombay (Santa Cruz), Calcutta (Dum Dum), Delhi (Palam) are international airports. The aerodromes at Ahmedabad, Patna, Bombay (Santa Cruz), Calcutta (Dum Dum), Delhi (Palam), Delhi (Safdarjung), Madras (St. Thomas Mt.), Tiruchirapalli, Varanasi, Jodhpur, Bhuj and Amritsar have been declared customs aerodromes.

**Aerodromes by Categories:** *International Aerodromes* (3): Bombay (Santa Cruz); Calcutta (Dum Dum); Delhi (Palam).

*Major Aerodromes* (8): Agartala; Ahmedabad; Begumpet; Delhi (Safdarjung); Gauhati; Madras (St. Thomas Mount); Nagpur; Tiruchirapalli.

*Intermediate Aerodromes* (44): Amritsar; Aurangabad; Baghdogra; Balurghat; Baroda; Belgaum; Bhavnagar; Bhopal; Bhubaneswar (Cuttack); Bhuj; Bhuntar (Kulu); Bombay (Juhu); Coimbatore; Cooch-Behar; Gaya; Indore; Jaipur; Junagadh (Keshod); Kailashahar; Kamalpur; Kandla; Khowai; Kumbhirgram; Lucknow (Amausi); Madurai; Mangalore (Bajpe); Mohanbari; North Lakhimpur (Lilabari); Panna; Pashighat; Patna; Phoolbagh; Porbandar; Port Blair; Raipur; Rajkot; Ranchi; Rupsi; Trivandrum; Tulihal. Udaipur; Varanasi; Vijayawada; Visakhapatnam.

*Minor Aerodromes* (27): Akola; Behala; Bilaspur; Chakulia; Cuddappah; Donakonda; Jhansi; Jharsuguda; Jabalpur; Kanpur (Civil); Khandwa; Kolhapur; Kotah; Lalitpur; Malda; Muzaffarpur (Rewaghat); Mysore; Palanpur (Deesa); Panagarh; Rajahmundry; Ramnad; Satna; Shella; Sholapur; Tanjore; Vellore; Vijayawada; Warangal.

The new aerodromes at Raxaul (Bihar) was complete except the terminal building. Land was acquired for the construction of an aerodrome at Jogbani and the work was expected to commence (March 1965).

Work in progress includes extension of 14-32 runway at Bombay (Santa Cruz) airport; construction of new terminal building, construction of permanent hangar for inter-continental aircraft and extension of apron and strengthening of apron and taxi track at Calcutta (Dum Dum) airport; extension and strengthening of the main runway at Lucknow aerodrome; construction of a terminal building at Cochin aerodrome; carpeting, extension and widening of the runway at Udaipur aerodrome; extension and strengthening of the runway at Patna aerodrome, construction of a fair weather

aerodrome at Khajuraho ; additions and alterations to the existing terminal buildings at Delhi (Palam) and Bombay (Santacruz) airports ; strengthening the runway at Madurai aerodrome; strengthening of the runway at Ahmedabad aerodrome and strengthening and regarding of the main runway at Bhubaneswar aerodrome.

One 36" diametre aerodrome beacon flashing alternately green and white has been installed at Raipur aerodrome. Runway lighting has been installed at Rajkot aerodrome. Work in connection with the installation of runway lighting was in progress at Bhubaneswar, Kumbhirgram, Rupsi, Varanasi, Baroda and Kandla aerodromes.

## AIR TRAINING

At the end of December 1964, there were 18 subsidised flying Clubs in India with their headquarters at Delhi, Calcutta, Bombay, Madras, Patna, Nagpur, Jullundur Cantt., Jaipur, Lucknow (with Satellite centres at Allahabad, Kanpur and Varanasi : the Allahabad centre has since shifted to Kanpur), Indore (with a satellite centre at Bhopal), Bangalore, Bhubaneswar, Hyderabad, Coimbatore, Trivandrum, Baroda, Patiala and Amritsar. During 1963-64 an amount of Rs. 30,28,282 has been paid to the flying club as subsidies.

During the year 1964, 29 private pilots' licences and four commercial pilots' licences were issued to the trainees at the various flying clubs.

Flying training scheme for IAF Cadets training at the flying Clubs at Madras, Kanpur, Delhi, Nagpur and Patiala and scheme for creation of potential reserve through flying clubs for recruitment to the IAF were in progress. Since the introduction of the IAF cadet training scheme 1,003 cadets have already completed flying training and at the close of the year (1964) 241 cadets were receiving training at the clubs.

During the period July to December 1964, eleven officers of the Civil Aviation Department proceeded to U.S.A., U.K. and Australia for training.

### Civil Aviation Training Centre, Allahabad

The Civil Aviation Training Centre, Allahabad comprising Flying, Aerodrome, and Communication Schools, with an allied repair and overhaul organisation, continued to provide training facilities for various categories of aviation personnel.

During the period from 1st January to 31st October 1964, 43 candidates were trained in the Assistant Aerodrome Officers' *ab initio* courses and 39 candidates received training in the Aerodrome Operators' Advanced Refresher Course at the Aerodrome School. At the Communication School, 48 Radio Technicians received training in the Refresher Course, 48 Radio operators were trained for the Long Range Telephony for Radio Teletype and Refresher Courses and 14 Technical Assistants and Radio Technicians were trained for the specialist course. At the end of Dec. 1964 there were 43 trainees in the rolls of the Civil Aviation Training Centre, Allahabad undergoing training in different courses.

*Gliding Centres :* At the end of December 1964, there were three Government Gliding Centres at Poona, Lucknow and Bangalore and three subsidised Gliding Clubs at New Delhi, Deolali and Ahmedabad. Twenty-five Glider pilots received training from the above centres and clubs during the year 1964. In addition, a private Gliding club (Birla Gliding Club) was also functioning at Palam.

875 aircrew licences of various categories were issued during 1964.

## AERONAUTICAL COMMUNICATION SERVICE

During 1964-65, the fourth year of the Third Five Year Plan, the work of modernisation, improvement and reorganisation of the Aeronautical Telecommunication Service, begun during the first year of the Plan, was continued. Improvements of Radio Aids to Navigation, installation of very high frequency Omni-Directional Radio Ranges, commissioning of Reporting Beacons, provision of enroute RTF facilities at a number of stations, commissioning of extended range RHF, introduction of Radio Teletype circuits and provision of Automatic Speed Recorders were some of the important features. There are at present 87 Aeronautical Communication Stations providing 158 radio aids to navigation and 581 Aeronautical Communication channels.

The following are some of the more important activities of the Aeronautical Telecommunication Service during the year under review :—

(1) The ILS facility at Palam was shifted to the 10/28 runway.

(2) Installation of Very High Frequency Omni-Directional Radio Ranges was completed at Bhubaneswar and Palam.

(3) The Pilot to Controller, extended range VHF R/T Air/Ground communication facility on 118·5 Mc/S was commissioned at Delhi for providing air traffic advisory service on PDR4 in the Delhi FIR.

(4) The enroute RTF General purpose VHF frequency 126·9, 127·8, 127·1 and 124·1 Mc/S was introduced at Bombay, Calcutta, Delhi and Madras respectively, replacing the frequency 12·1 Mc/S.

(5) The VDF Approach frequency 119·7 Mc/S was replaced by 127·9 Mc/S at Bombay and Calcutta.

(6) The aerodrome control VHF R/T and Inter Tower R/T facilities were commissioned at Bakshi-ka-Talab (near Lucknow) and Bhita (near Patna) on a temporary basis to facilitate operations as the aerodromes at Lucknow and Patna are temporarily unusable due to the construction works in progress on the runways.

(7) The aerodrome control VHF R/T on 118·1 Mc/S was provided at Kulu (Bhuntar).

(8) A non-directional M/F Radio beacon—Reporting Beacon was commissioned at Katihar.

(9) The existing Non-Directional M/F Radio Beacons at Ahmedabad and Gauhati were replaced by high power 3-kw beacons.

(10) In accordance with the recommendation of the ICAO Ltd. South East Asia Regional Air Navigation Meeting, Bangkok (Sept. Oct. 1963) the MID Network I and MID Network II Enroute RTF frequencies were withdrawn from Calcutta and Madras respectively.

(11) The MWARA frequencies 3446 and 6627 Kc/S were withdrawn from Bangalore, Begumpet and Trivandrum and RDARA frequencies 2973 and 5514 Kc/S were introduced at Ahmedabad, Agartala, Baghdogra, Gauhati, Lucknow, Mohanbari, Nagpur, Patna and Varanasi replacing the MWARA frequencies 3404·5 and 5604 Kc/S.

(12) RDARA enroute RTF frequencies 2973 and 5514 Kc/S were introduced at Bombay, Calcutta, Delhi and Madras.

(13) The RDARA enroute RTF frequency 8939 Kc/S was introduced at Patna.

(14) The enroute RTF channels were bifurcated into two operating positions at Delhi and Bombay.

(15) On commissioning of the Bombay Beyrouth RTT circuit on a regular basis, the Bombay-Beyrouth MAS was closed down.

(16) The Volmet Radio Telephony broadcast on frequencies 2924, 6929·5 and 10048 Kc/S were introduced at Bombay.

(17) Operation of the aeronautical communication facilities at Pathankot was handed over to the Indian Air Force.

(18) For catering to the Indian Airlines Corporation the Delhi Phoolbagh schedule service, Aerodrome Control R/T, M/F Non-Directional Radio Beacon and Inter Tower R/T facilities were commissioned into service at Phoolbagh during the months of May to July and Sept.-Oct. 1964.

(19) For catering to the Indian Airlines Corporation Delhi-Chandigarh-Kulu schedule service, Aerodrome Control R/T and M/F Non-Directional Radio Beacon were commissioned at Kulu (Bhuntar) during the months of April to July and Oct.-Nov. 1964.

(20) Bombay and Karachi were inducted as correspondents on the existing inter-centre ATS speech circuit between Delhi and Lahore.

(21) A seven-channel Thermionic recorder was installed at Gauhati replacing a smaller recorder.

## RESEARCH

Research and development for civil aviation are undertaken by The Research and Development Organization of the Civil Aviation Department at the Technical Centre, New Delhi.

Since its inception, this organisation has made significant contribution to the development of Civil Aviation in India. This includes two types certification of indigenously developed HT-2 and Pushpak aircraft, Dakota batteries and safety harnesses for gliders; assisting the Ministry of Defence in Military acceptance of indigenously developed Krishak and Kanpur-I aircraft ; design and development of Ashvini and Rohini gliders ; development testing and drafting of standards for aircraft quality materials, tendering advice to the Government on selection of aircraft like Viscount, Fokker Friendship and Boeing 707 for the Indian Airlines and Air-India International Corporations, collection of gust data on the Indian air-routes for mapping of the Indian skies ; scientific investigation of accidents and other technical problems referred from time to time.

Design of the 'Bharani' sailplane was successfully completed and the first prototype made its maiden test flight in April 1962. The design of the Single-Seater High Performance Sailplane 'Kartik' was successfully test-flown on March 18, 1963. The third prototye 'Rohini' glider incorporating certain improvements and modifications was successfully completed and test-flown. Procedure of issue of type Certificate for Civil Aircraft' was prepared to serve as a guide to designers and manufacturers in the country. Work has been undertaken on the design and construction of lowspeed wind tunnel for testing of gliders and light aircraft models. Development tests on aircraft quality materials like steel, tubes, wood, plywood, glue, inclinometres, passenger seats etc. were undertaken to determine their suitability for aeronautical purposes. Work on the design and development of a two/three seater light aircraft intended for club and private uses is progressing satisfactorily. The construction work on the prototype aircraft is under way.

The first prototype Kartik, Mark I sail plane has been loaned to the Delhi Gliding club for intensive utilisation as an experimental glider. During the year 1964, a scond prototype Kartik-Mk I sail plane, with improvements and modifications was constructed and satisfactorily test flown. A third prototype of the Kartik sailplane, designated Mark II, incorporating further improvements is under design and development.

The third prototype winch model Arjun III, incorporating surveilling mechanism for cable lead-out unit has been completed. Field trials on their performance and serviceability are under way.

Work has been started on a comparative study of the influence of different methods for improving fatigue life of joints in principal aircraft structures, typically like the centre-outer wing joint in DC-3 aircraft.

Work on the collection and analysis of data on the frequencies and magnitudes of gusts encountered on certain selected track routes and on the regional routes in the Assam and Bengal regions by means of strain range recorders on Viscount aircraft and fatigue metres on Friendship aircraft have been continued.

*Technical Studies :* Problems involved in the use of selected aircraft for civil operations in the modern mountainous region under high altitude and difficult terrain conditions were studied. During the year 1964, considerable additional data on the strength properties of indigenous Himalayan spruce were obtained as a result of test made on consignments procured for construction of gliders and aircraft prototypes. Physical and chemical tests are regularly carried out on samples of aviation turbine fuel (also aviation gasoline) drawn from suppliers' storage tanks at various airfields in India as well as on selected samples collected from foreign stations on routes operated by Air India. During the year, a total of 331 such samples were tested. Quality control tests on a number of samples of aviation fuel were also carried out.

### AIR AGREEMENTS

**India is a member of the International Civil Aviation Organization and has been elected to its Council.**

**India has entered into bilateral air agreements with the following 19 countries on the dates shown against each :—**

**France, 16-7-1947 ; Sweden, 21-5-1948 ; Pakistan, 23-6-1948 ; Ceylon, 21-12-1948; Switzerland, 4-6-1949 ; Australia, 11-7-1949 ; The Philippines, 20-10-1949 ; Netherlands, 24-5-1951 ; U.K., 1-12-1951 ; Afghanistan, 26-1-1952 ; Egypt, 14-6-1952 ; Iraq, 27-7-1955 ; Japan, 26-11-1955 ; U.S.A., 3-2-1956 ; Thailand, 12-6-1956 ; Russia, 2-6-1958 ; Italy, 16-7-1959 ; Czechoslovakia, 19-9-1960; West Germany, 31-5-1963.**

Other agreements signed during 1964 :— India-Kuwait (Feb., 24, 1964) ; India-Nepal (Aug. 1, 1964) ; India-Lebanon (Sept. 19, 1964); India-U.K. (Sept. 28, 1964) and India-U.S.A. (Oct. 26, 1964).

**Airlines of the following countries operate air services to and/or across India under temporary authorisation granted by the Govt. of India :—**

**Norway, Denmark, Sweden (jointly under one authorisation), Iran, Lebanon, Kuwait, Nepal, Burma.**

Indian Airlines and Air India operate to and/or across the following countries under temporary authorisation :

Burma, Nepal, Lebanon, Italy, Indonesia, Kuwait.

# ALCOHOL INDUSTRY

INDUSTRIAL alcohol is a very valuable material in the manufacture of acetone, acetic acid, ether, chloroform, ethyl acetate, polyethylene, styrene, polystyrene, etc. It is also necessary as a solvent in the manufacture of fine chemicals, medical preparations, toilets, etc. Since the last war, its importance has increased. It is now essential in the manufacture of ammunition and of artificial rubber.

In 1964 there were as many as 62 distilleries capable of producing over 17·71 million gallons of rectified spirit alcohol. The trend of production has been as follows :

'000 gals*

| Year | Rectified spirit | Denatured spirit |
|---|---|---|
| 1956 .. .. .. | 4,209·6 | 3,382·8 |
| 1957 .. .. .. | 5,095·2 | 3,458·4 |
| 1958 .. .. .. | 6,152·4 | 3,932·4 |
| 1959 .. .. .. | 7,994·4 | 4,719·6 |
| 1960 .. .. .. | 41,176·8 | 29,391·6 |
| 1961 .. .. .. | 51,710·8 | 42,129·6 |
| 1962 .. .. .. | 61,615·2 | 49,206·0 |
| 1963 .. .. .. | 87,000·0 | 56,400·0 |
| 1964 .. .. .. | 152,400·0 | — |

* Figures from 1960 onwards are in thousand litres. One litre is equal to 0·22 gallon.

The undivided Government of India's Panel on Fine Chemicals, Drugs and Pharmaceuticals estimated that the medical requirements of the sub-continent were a million gallons annually and industrial requirements 10 millions, a target which they said ought to be reached in 15 years time.

Consumption of industrial alcohol is estimated to have gone up from 3·4 million gallons in 1950 to 5·2 million gallons by 1955. In addition about a million gallons of alcohol are at present used in the manufacture of acetate rayon and are met from the production of power alcohol grade spirits.

Consumption of power alcohol in 1960 was assessed at 49·05 million litres and of industrial alcohol at 40·50 million litres. The actual production of alcohol was below the target fixed for the Second Plan.

### ALCOHOL INDUSTRY

The distillery attached to the Mysore Sugar Co. at Mandya took up the manufacture of power alcohol in 1939. Another unit came into existence in 1940, at Shakarnagar, Andhra Pradesh, with the help of the then Government of Hyderabad. In the following years several other units started producing power alcohol, with Uttar Pradesh leading the way in 1942. The scarcity of petrol during the last World War stimulated the use of alcohol as a motor fuel, even without admixture with petrol. The increased consumption of power alcohol during the War years provided an avenue for the utilisation of molasses. Several new distilleries acquired dehydration plants to produce 99·5 per cent alcohol. The rate of growth of the power alcohol industry, however, slowed down after the War.

At the beginning of the First Five Year Plan in 1951, there were 19 units engaged in the distillation of power alcohol and commercial spirit, and 25 other distilleries engaged in the production of potable and industrial alcohol in the different parts of the country. The annual rated production capacity of these units at the beginning of the First Plan was 12·87 million bulk gallons of power alcohol, 12·65 million bulk gallons of commercial spirit and 8·69 million bulk gallons of potable and industrial alcohol per annum.

Production of power alcohol was 5·67 million bulk gallons, rectified spirit 5·00 million bulk gallons and denatured spirit 1·63 million bulk gallons in 1951. The actual production was far below the installed capacity owing to the shortage of molasses in some areas, transport difficulties and low off-take of power alcohol. Consumption of power alcohol in the country in 1950–51 was 4·7 million gallons. Considering the anticipated increase in the consumption of alcohol in different industries, the targets of annual production capacity and actual production of power alcohol by 1955–56 were fixed at 21·12 million gallons and 18·00 million gallons, respectively.

At the beginning of Second Five Year Plan, it was expected that domestic requirements for power alcohol and industrial alcohol would rise to 81·0 million litres and 54·0 million litres respectively, per annum, by 1960–61. The Second Plan target of combined annual capacity of the alcohol industry as a whole which stood at 180·5 million litres per annum at the end of the Second Plan, exceeded the target. The increase in the capacity during the Second Plan was achieved through the establishment of 11 new distilleries with an annual capacity of 30·2 million litres and expansion of 10 existing distilleries with an annual capacity of 30·2 million litres and expansion of 10 existing distilleries by 29·7 million litres per annum.

At the beginning of the Third Five Year Plan, the overall position of the industry in respect of the potential capacity, existing capacity, production and consumption of alcohol was assessed. In view of the sugar production target of 3·5 million tonnes by 1965–66, the corresponding output of alcohol was estimated at 263·25 million litres on the basis of 90 per cent utilisation of by-product molasses. Taking into account another 4·5 million litres of alcohol produced annually from *Mahua* the total annual production of alcohol by 1965-66 has been visualised at about 270 million litres. Potable spirits and denatured spirits are expected to account for 45 million litres leaving a balance of 225 million litres of alcohol for utilisation as raw material in the various alcohol-based industries. During the current Plan period, the manufacture of acetic acid, acetate rayon, butyl alcohol, acetone, acetic anhydride, cellulose acetate, styrene, polystyrene and polyethylene, and synthetic rubber is to be handled by 13 units (4 in Andhra Pradesh, 4 in Maharashtra, 3 in Uttar Pradesh, 1 in West Bengal and 1 in Mysore) some of which have already gone into production. To meet the entire requirements of the major consuming industries provision for alternative feedstocks from other resources such as petroleum resources may have to be made. The targets of annual production capacity and actual production of alcohol have been fixed at 324 million litres and 270 million litres, respectively, for the Third Plan. In order to bring about additional capacity, licences have been granted to 12 new units three each in Maharashtra and Uttar Pradesh, and one each in Andhra Pradesh, Bihar, Madras, Mysore, Madhya Pradesh and the Punjab, and for expansion of 12 existing units : in Uttar Pradesh (9), Gujarat (1), Maharashtra (1) and Bihar (1). Implementation of these schemes will increase the existing annual capacity by 108 million litres. In order to reach the target envisaged, further licensing of additional capacity may be necessary.

Imports of ethyl alcohol, including denatured, was negligible during 1964-65 while the other forms of alcohol were valued at Rs. 170 lakhs in 1964-65.

Exports of ethyl alcohol were valued at Rs. 2,55,000 in 1964-65.

The total capital invested in the alcohol industry in 1951 was estimated at Rs. 1·58 crores which rose to Rs. 2·47 crores in 1953. During the Second Plan period, additional investment of Rs. 2 crores was made on new units and expansion of existing units. It is estimated that during the Third Plan, Rs. 4·0 crores might be invested for attaining a capacity target of 324 million litres of alcohol by 1965-66. The imported component is likely to be about Rs. 40 lakhs.

The installed capacity and actual production in thousand bulk gallons of power alcohol are given below :

'000 gals.*

| Year | Installed capacity | Production |
|---|---|---|
| 1956 .. .. .. | 14,352·0 | 10,270·8 |
| 1957 .. .. .. | 13,800·0 | 10,137·6 |
| 1958 .. .. .. | 15,189·6 | 8,826·0 |
| 1959 .. .. .. | 16,447·2 | 8,073·6 |
| 1960 .. .. .. | 74,766·0 | 49,327·2 |
| 1961 .. .. .. | 74,766·0 | 53,667·6 |
| 1962 .. .. .. | 74,772·0 | 50,216·4 |
| 1963 .. .. .. | 75,972·0 | 25,320·0 |
| 1964 .. .. .. | ,, | 1,464 |
| 1965 Jan. to May .. | ,, | 4,38 |

* Figures from 1960 onwards are in thousand litres.

Imports of alcohol are banned, but small quantities are imported along with drugs and perfumed spirits or in the form of liquors. Exports of alcohol are confined to despatches of denatured spirit to Burma and Ceylon and small quantities of rum.

The possibility of importing some alcohol for industrial purposes is being considered to meet the shortage in the country. Efforts are also being made to import some quantities of polythelene to meet the needs of industries.

Difficulties in the supply of molasses and offtake and the unremunerative price of power alcohol have kept production at a low level compared to the installed capacity. With a view to overcoming these difficulties and ensuring a steady growth of the industry, a Committee was set up by the Ministry of Commerce and Industry in October 1955.

The Committee submitted its report in December 1956. Its main recommendations have been given in the 1959–60 edition of the Directory.

The report of the Committee, together with the Government of India's decisions, was released to the public in March 1958.

In April 1959, the Government of India announced their decisions on the remaining recommendations of the Committee.

(*See* 1960–61 *edition of the Directory*).

Three notable suggestions of the Committee have been accepted by the Government of India, first, the minimum annual capacity for a distillery (power alcohol or industrial alcohol) should be one million gallons, although units of smaller capacities can be permitted in certain circumstances. Secondly, an adequate number of tank wagons for transport of both alcohol and molasses must be made available. Thirdly, a standing advisory committee on denaturants should be constituted and entrusted with the task of enlarging or altering the list of special denaturants for alcohol intended for different industrial uses. On the question of freight rates on alcohol the Government have extended uniformly reduced freight only to ethyl alcohol meant for large-scale industrial uses. In its opinion, such a concession need not be given to pure forms of ethyl alcohol meant primarily for potable purposes.

The fuel requirements of the industry is estimated at 2,50,000 tons of coal per annum in the final year of the Plan.

The additional fixed investment is estimated at Rs. 4 crores, its foreign exchange component being about Rs. 40 lakhs.

The additional employment during the Third Plan is estimated at 5,000. During 1963, the production of power and industrial alcohol recorded a slight increase despite the shortage of coal.

Tentative 1970-71 Estimates of Demand Versus supply of Traditional raw materials. (Alcohol from Molasses).

| (1) *Alcohol* Demand | Alcohol requirement (tonnes per year) |
|---|---|
| Polythylene .. .. .. .. | 24,000 |
| S B R .. .. .. .. .. | 80,000 |
| Acetic Acid .. .. .. .. | 40,000 |
| Butanol .. .. .. .. | 13,000 |
| Styrene (excluding SBR) .. .. | 15,000 |
| PVC/Ethylene Dichloride .. .. | 10,000 |
| Butanol /Acetic Acid/Zethyl .. | 20,000 |
| Hexacol .. .. .. .. | 4,000 |
| DDT .. .. .. .. .. | 2,06,000 |
| Miscellaneous and Potable .. .. | 1,50,000 |
| | 3,56,000 |

# HIDES, SKINS AND LEATHER

INDIA possesses abundant resources of raw hides and skins, fully adequate to meet the requirements of the domestic tanning industry leaving a sizable surplus which is exported abroad. On an average, India exports every year about Rs. 24–25 crores worth of raw skins, tanned or dressed hides and skins, and unwrought leather. It is estimated that normally it produces 16·2 million cow hides, 5·5 million buffalo hides, 23·2 million goat and 15·1 million sheep skins a year. Only a portion of the cattle and buffalo hides is obtained from slaughtered animals and the bulk, about 75 to 80 per cent. is derived from animals that die a natural death.

The bulk of the production is carried on in small towns and villages.

The tanning industry comprises four sections, *viz.*, 1. organised tanneries producing finished vegetable tanned buffalo leather and chrome tanned upper leather ; 2. tanneries producing vegetable tanned leather known to the trade as E. I. kips and E. I. tanned skins ; 3. small-scale chrome tanneries producing chrome tanned upper leather ; and 4. village tanneries producing vegetable tanned cow and buffalo leather and vegetable tanned leather from goat and sheep skins.

There are altogether 50 units producing hides, skins and leather — chrome tanned hides (12), vegetable tanned buffalo and cow hides (32) and leather cloth (6).

The annual installed capacity and production of each of these items is as follows :

| Year | Chrome Tanned Hides | | Vegetable Tanned Buffalo and Cow Hides | | Leather Cloth | |
|---|---|---|---|---|---|---|
| | Capacity (Thousands) | Production (Thousands) | Capacity (Thousands) | Production (Thousands) | Capacity (Thousand yards) | Production (Thousand yards) |
| 1957 .. .. .. | 1,644·0 | 630·0 | 3,180·0 | 1,791·6 | 8,700·0 | 3,656·4 |
| 1958 .. .. .. | 1,580·4 | 678·0 | 3,856·8 | 2,067·6 | 8,700·0 | 4,243·2 |
| 1959 .. .. .. | 1,580·4 | 650·4 | 4,422·0 | 2,467·2 | 8,700·0 | 5,420·4 |
| 1960 .. .. .. | 1,550·4 | 794·4 | 4,422·0 | 2,691·6 | 8,262·0* | 5,846·4* |
| 1961 .. .. .. | 1,550·4 | 786·0 | 4,422·0 | 2,704·8 | 8,262·0* | 7,010·4* |
| 1962 .. .. .. | 1,550·4 | 812·4 | 4,422·0 | 3,015·6 | 8,262·0* | 6,620·4* |
| Jan. to Sept. 1963 .. | 1,123·2 | 853·2 | 2,944·8 | 2,507·8 | 6,196·5* | 4,875·0* |
| 1964 May to 1965 May .. | 1,317·0 | 955·4 | 3,900·0 | 3,693·9 | 6,885·0* | 10,036·6* |

* Metres.

According to the Annual Survey of Industries 1962, the total productive capital in tanneries and leather finishing plants was about Rs. 4 crores and total employment came to 8,148. The gross ex-factory value of output was Rs. 14·12 crores.

The trend of the value of imports and exports of hides and skins, furskins dressed and undressed and leather since 1959 is given below :

(Rs. lakhs)

| | Hides and skins (except furskins) undressed | | Furskins undressed | | Furs dressed or dressed and dyed | | Leather | | Manufactures of leather | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports |
| 1959 .. .. | 173·4 | 1,070·2 | 0·8 | 30·3 | — | — | 5·0 | 2,857·2 | 36·2 | 14·9 |
| 1960 .. .. | 255·8 | 1,013·3 | 2·4 | 52·4 | — | — | 3·7 | 2,563·4 | 26·2 | 13·3 |
| 1961 .. .. | 218·7 | 808·5 | 0·2 | 48·3 | — | — | 8·4 | 2,597·1 | 19·7 | 11·9 |
| 1962 .. .. | 248·3 | 1,003·2 | 0·8 | 35·9 | — | — | 4·1 | 2,259·7 | 2·6 | 15·3 |
| 1962–63 .. | 276·3 | 1,084·4 | 0·7 | 16·8 | — | — | 5·4 | 2,257·8 | 5·1 | 17·4 |
| 1963–64 (April to Dec.). | 250·8 | 744·3 | 0·7 | 35·8 | — | — | 2·4 | 1,947·8 | 0·8 | 13·8 |
| 1964-65 .. | 312·2 | 907·2 | 1·3 | 6·4 | — | — | 5·4 | 2,723·9 | 1·8 | 18·9 |

The main problems about raw material relate to the supply of hides and skins and wattle bark. Supplies of hides have to be arranged from Pakistan. The indigenously available *Karada* bark is stated to be a potential substitute for wattle bark.

For the development of indigenous tanning industry and for increasing exports of tanned skins, the Government of India decided from June 15, 1959, to regulate export of raw goat skins on quota basis through established shippers.

India imports about 15,000 tons of wattle extract and bark per year. By the end of the Second Plan the total area under wattle cultivation had reached about 27,000 acres. During the Third Plan period there are programmes to extend the area under wattle plantations in the States of Madras, Kerala and Assam.

The additional requirements of tanned hides and skins in the country in the final year of the Third Plan have been estimated at 2·5 million pieces and 1·9 million pieces respectively, the demand in 1965-66 estimated at about 22 million hides and 30 million skins. To achieve this the industry will require following quantities of principal raw materials.

Raw hides 22 million pieces
Raw skins 30 „ „
Lime 30,000—35,000 tons
Wattle bark and—
Wattle extract 35,000 tons
Other barks 35,000 „
Myrobalans 30,000 — 35,000 tons.

A number of schemes had been launched by the Centre and States for the development of the tanning and leather industries during the Second Five-Year Plan and in the Third Five-Year Plan it is proposed to set up one large and 14 small hide flaying, curing and carcass utilisation centres. Some of these provided for setting up production-cum-training centres, re-tanning and finishing centres, organization of co-operative societies of tanners and leather workers. A beginning has been made by the Co-operative Mutual Insurance Company, Bombay, to insure milch animals and draught cattle in the States of Maharashtra and Gujarat. A Development Council for Leather, Leather Goods and Pickers industries was constituted in January 1960.

## FOOTWEAR INDUSTRY

The larger units manufacturing leather and leather goods employ about 10,000 persons and the total investment is more than Rs. 10 crores. The small-scale industry employs about 7,63,000 persons.

The principal use of leather is for the production of footwear. The leading towns manufacturing footwear are Agra, Kanpur, Bombay and Calcutta.

At the end of the Second Five Year Plan period, there were 12 units with an annual capacity of seven million pairs of Western type of footwear.

The Statewise distribution of these units and their annual installed capacity is indicated below :

| State | Number of units | Annual capacity ('000 pairs) |
|---|---|---|
| Uttar Pradesh .. .. | 5 | 2,127 |
| West Bengal .. .. | 1 | 4,524 |
| Bihar .. .. .. | 1 | * |
| Maharashtra .. .. | 1 | 300 |
| Madhya Pradesh .. | 1 | 36 |
| Madras .. .. .. | 1 | 15 |
| Punjab .. .. .. | 1 | 8·4 |
| Mysore .. .. .. | 1 | 1·2 |
| TOTAL .. .. | 12 | 7,011·6 |

The capacity for the Indian type of footwear which are hand-made fluctuates with demand and data are not available for Statewise figures.

The output by the large-scale factories of all types of footwear made of leather since 1957 is shown as follows :

| | Western type (Million pairs) | Indian type (Million pairs) |
|---|---|---|
| 1957 .. .. .. | 4·37 | 3·04 |
| 1958 .. .. .. | 4·28 | 3·29 |
| 1959 .. .. .. | 4·14 | 4·10 |
| 1960 .. .. .. | 5·42 | 3·78 |
| 1961 .. .. .. | 6·22 | 4·41 |
| 1962 .. .. .. | 6·51 | 5·28 |
| 1963 (Jan. to Dec.) .. | 6·50 | 4·13 |

Reliable production statistics for small and cottage units which are responsible for manufacturing over 90 per cent of the total output are not available.

The Development Council for Leather and Leather Goods Industries has estimated the total requirements of leather footwear in 1965-66 at 140 million pairs.

Our import of leather footwear is insignificant. Our exports on the other hand are sizable as is shown below :

| | Quantity ('000 pairs) | Value (Rs. lakhs) |
|---|---|---|
| 1958 .. .. .. | 1,613 | 151 |
| 1959 .. .. .. | 1,807 | 210 |
| 1960 .. .. .. | 1,447 | 217 |
| 1961 .. .. .. | 1,090 | 150 |
| 1962 .. .. .. | 1,738 | 168 |
| 1963-64 .. .. .. | 3,935 | 264 |
| 1964-65 .. .. .. | 1,780 | 205 |

In 1964-65 India exported leather footwear valued at Rs. 2·1 crores. The total export including all kinds *i.e.* rubber, leather and of textile material amounted to Rs. 4·3 crores.

The budget of 1965-66 has removed an excise duty of 10 per cent *ad valorem* which was imposed since March 1, 1954.

### ESTIMATED REQUIREMENTS

The Development Council for Leather and Leather Goods Industries has estimated the requirements of leather footwear in 1965–66 at 140 million pairs, of which 4 to 5 million pairs are expected to be exported. These estimates have been adopted subject to a review some time in 1963.

In view of the fact that the leather footwear industry can be organised on a labour intensive basis and a substantial expansion in employment opportunities is one of the principal aims of the Third Plan, no expansion of capacity in the large-scale sector of the industry is envisaged during the five-year period. The additional demand for footwear is expected to be met by a fuller utilisation of the existing capacity in the large-scale sector and by developments in the cottage and small-scale sectors.

According to the estimates of the Development Wing, the leather footwear industry will require the following quantities of the principal raw materials for achieving a production of 140 million pairs in 1965–66 :

*Leather*—14·5 million tanned hides and 6·5 million tanned skins ; *Thread*—7·5 million reels for uppers and 495 tons for bottom stitching ; *Eyelets*—390 million pieces.

The table below summarises the development programme for the tanning and footwear industry in the Third Plan :

| | Production 1960–61 | Production 1965–66 |
|---|---|---|
| Tanned hides and skins (million pieces) .. | 47·6 | 52·0 |
| Leather footwear (million pairs) .. .. | 102·0 | 140·0 |

*Although equipped to manufacture Western type footwear, this factory is at present manufacturing Indian type only.

# TEA INDUSTRY

TEA ranks as the largest item in India's export trade. The present export amounts to 220,000 tonnes, accounting for two-thirds of the production, and the foreign exchange earned totals Rs. 130 crores.

The State Governments also derive considerable revenue from the agricultural income-tax on tea grown within their jurisdiction as well as from the sales tax, carriage tax, octroi, etc. on the commodity.

The industry as a whole gives employment to a labour force of almost one million. The daily average number of persons actually employed in 1958 was 980,237.

Unlike China, which consumes all its tea, India exports a substantial portion of tea produced in the country. Out of the total production of 716·4 million lbs. in 1960, as many as 430·1 million lbs. were sold abroad. India meets nearly 45 per cent of the world demand for tea.

In 1963, India produced 763 million lbs. of tea. India exported 487 million lbs. and earned Rs. 132.4 crores. This was the highest export performance in the last five years. In 1964-65 India exported 217·8 mill. kgs. valued at Rs. 128.2 cores.

There are about 8,934 registered gardens with a total area of nearly 818,132·28 acres under tea. Of these, 605,269 acres are in Assam and West Bengal, while Madras, Mysore and Kerala account for nearly 183,598 acres, and the rest are in Bihar, U.P., Tripura, Punjab and Himachal Pradesh.

There are over 700 joint stock companies engaged in the tea industry. The total paid-up capital in the industry as a whole is about Rs. 74 crores. The number of Indian companies is about 540 with a paid-up capital of about Rs. 25 crores. (Latest available.)

The peak of the boom in tea was reached in 1954, but prices began to decline from 1955 and touched their lowest level in May-June 1955. Thereafter, prices slowly recovered and reached more satisfactory levels, though they never touched the 1954 peak. As a matter of fact, the decline in prices continued by a slow and gradual process, owing to the excess of world total supply of tea over actual requirements. Tea prices during the years 1956, 1957 and 1958 were more or less steady, despite several ups and downs, because of seasonal and other influences operating from time to time. Prices obtained at Calcutta auctions during 1960 were generally higher than in 1959 whereas prices at Cochin auctions were slightly lower during 1960 than the previous year. On the whole, however, prices were very satisfactory at all auction centres.

Revised targets of production and export of tea for the Third Plan were additional 376·5 million kg. and 240·4 million kg. respectively. The Fourth Plan targets are additional 453·6 million kg. and 294·8 to 303·9 million kg. respectively. These targets had been fixed by the working group of the Planning Commission, which revised the original Third Plan targets of 408·2 million and 276·7 million kg. for production and export considering that it was difficult to achieve these in the light of actual performance so far.

The total quantity of leaf and dust teas sold at Calcutta auctions during 1964/65 season were 108·8 million kg. and 56·3 million kg. respectively against 95·7 million kg. and 49·0 million kg. in the previous year. The average auction price of leaf teas here in the season was lower by 21 paise per kg. while that for dust teas was lower by 5 paise compared with prices fetched during 1963/64 season.

## EXPORTS

The following table shows the quantity and the value of tea exported from India from 1956 to 1964-65 :

| | Quantity of Tea exported (millions lb.) | Value of Tea exported (Rs. lakhs) |
|---|---|---|
| 1956 .. .. | 511 | 142,82 |
| 1957 .. .. | 439 | 123,39 |
| 1958 .. .. | 503 | 136,54 |
| 1959 .. .. | 469 | 126,01 |
| 1960 .. .. | 425 | 119,99 |
| 1961 .. .. | 452 | 124,25 |
| 1962 .. .. | 461 | 124,92 |
| 1963 .. .. | 487 | 132,37 |
| 1964 .. .. | 463 | 124,90 |
| 1964-65 .. | 217.8* | 128,20 |

* Million Kgs.

From March 1955, export duty on tea was levied on a slab system according to which the duty was announced at the beginning of every month on the basis of the weighted average prices obtained by Indian teas at the London auctions during the previous month. This system was abolished and the Government decided, in September 1958, that the export duty on tea should be reduced to 26 P. per lb. and further reduced to 24 P. per lb. with effect from March 1959 and again reduced to 20 P. per lb. (44 P. per Kg.) from 1st March 1961. In 1963–64, the export duty was completely abolished.

Excise duty on tea is now levied at different rates for different zones. There are four zones at Present—Zone I, II and Zone III A and Zone III B. These zones have been demarcated on the basis of the average price which teas from those areas fetch at the internal and export auctions in Calcutta and Cochin.

As an export promotion step, the excise duty was enhanced from 10–35 P. range to 15-45 P. range per Kg. and 15 P. rebate on export quantity per Kg.

In 1963–64 the rebate of excise duty on the exported quantity was discontinued and a 20 per cent surcharge on the excise duty was imposed on tea. The export duty was completely abolished in 1963–64 budget. In 1964–65 budget no change has been effected.

An export promotion drive for tea has been launched by the Indian Tea Board through the establishment of Tea Councils and frequent participation in trade exhibitions. At present Tea Councils, set up in collaboration with local tea interests, are functioning in U.S.A., Canada, West Germany, Eire and Netherlands. During 1957-58, the Tea Board participated in as many as eight major international trade exhibitions.

The Tea Board has already opened Tea Promotion Councils at Cairo, Sydney, New York and London and has appointed Tea Advisers there. There is also a proposal to open two similar units at Frankfurt and Baghdad.

To ensure quality control over exported tea, the Government of India promulgated the Tea (Distribution and Export) Control Order vesting the Tea Board with powers to take appropriate action in such cases. The provisions of the Order have been brought into force with effect from the 1st of April, 1958.

The following table shows the growth of the industry from 1947 to 1963 :—

| Year | Area under tea in thousands of acres (*a*) | Production in millions of lbs. (*b*) |
|---|---|---|
| 1947* .. .. | 771 | 561 |
| 1948 .. .. | 772 | 568 |
| 1949 .. .. | 780 | 585 |
| 1950 .. .. | 783 | 613 |
| 1951 .. .. | 786 | 629 |
| 1952 .. .. | 787 | 614 |
| 1953 .. .. | 789 | 615 |
| 1954 .. .. | 791 | 652 |
| 1955 .. .. | 792 | 678 |
| 1956 .. .. | 799 | 681 |
| 1957 .. .. | 804 | 685 |
| 1958 .. .. | 807 | 717 |
| 1959 .. .. | 817 | 719 |
| 1960 .. .. | 818 | 708 |
| 1961 .. .. | 819 | 781 |
| 1962 .. .. | 823 | 759 |
| 1963 .. .. | 815 | 763 |
| 1964 .. .. | N.A. | 372.1† |

(*a*) 31st March of the following year.

(*b*) Calendar year.

* Figures relate to India from 1947 onwards.

† Million kgs. N.A. Not available.

Source : International Tea Committee.

The following table gives the number of estates, area and production of tea in India by State during 1961 and 1962.

| States | 1961 | | | 1962 | | |
|---|---|---|---|---|---|---|
| | No. of estates | Area in acres | Production in '000 lbs. | No. of estates | Area in acres | Production in '000 lbs. |
| Assam .. .. .. | 744 | 401,31,732 | 401,923 | 746 | 404,50,501 | 383,062 |
| West Bengal .. .. | 301 | 204,39,514 | 190,164 | 299 | 2,04,89,950 | 185,696 |
| Bihar .. .. .. | 3 | 1,31,866 | 121 | 3 | 1,31,816 | 112 |
| Tripura .. .. .. | 55 | 12,49,264 | 5,928 | 55 | 12,78,257 | 4,987 |
| U. P. .. .. .. | 33 | 5,14,961 | 1,773 | 33 | 5,12,678 | 1,757 |
| Punjab (Kangra) .. | 1,159 | 9,29,899 | 2,368 | 1,159 | 9,29,899 | 2,368 |
| H. P. (Mandi) .. .. | 226 | 1,03,787 | 251 | 226 | 1,03,787 | 251 |
| Madras .. .. .. | 4,989 | 80,85,936 | 87,673 | 5,078 | 80,91,674 | 87,470 |
| Mysore .. .. .. | 13 | 4,43,330 | 3,922 | 13 | 4,38,949 | 4,045 |
| Kerala .. .. .. | 1,976 | 98,30,835 | 87,181 | 2,041 | 98,49,171 | 89,615 |
| Total (India) .. | 9,499 | 818,61,127 | 781,304 | 9,653 | 822,76,732 | 759,863 |

### CALCUTTA MARKET
*(Leaf and Brokens)*

| Season | Export Auction | | Internal Sale | |
|---|---|---|---|---|
| | Chests | Average Price | Chests | Average Price |
| | | Rs. a. p. | | Rs. a. p. |
| 1953–54 | 1,635,429 | 1 15 10 | 101,775 | 1 12 5 |
| 1954–55 | 1,590,410 | 3 1 6 | 437,863 | 2 3 7 |
| 1955–56 | 2,277,550 | 2 0 4 | 138,410 | 1 3 3 |
| 1956–57 | 2,137,758 | 2·37 nP. | 94,941 | 1·57 nP. |
| 1957–58 | 2,128,529 | 2·62 nP. | 108,072 | 1·42 nP. |
| 1958–59 | 2,197,117 | 2·15 nP. | 75,689 | 1·55 nP. |
| 1959–60 | 2,205,077 | 2·29 nP. | 45,777 | 1·80 nP. |
| 1960–61 | 2,055,469 | 2·42 nP. | 27,079 | 1·95 nP. |
| 1961–62 | 2,275,247 | 2·11 nP. | 1,270,789 | 2·09 nP. |
| 1962–63 | 2,105,353 | 2·39 nP. | 1,256,889 | 2·23 nP. |

**Source :** Tea Board.

Quantity and value of tea exported from India to different countries of the world during 1962, 1963 and 1964.

| Countries of destination | 1962 | | 1963 | | 1964* | |
|---|---|---|---|---|---|---|
| | Quantity Tonnes | Value ('000 Rs.) | Quantity Tonnes | Value ('000 Rs.) | Quantity Tonnes | Value ('000 Rs.) |
| United Kingdom | 1,17,704 | 70,60,80 | 1,34,576 | 81,26,21 | 1,20,424 | 72,06,40 |
| Irish Republic | 7,216 | 4,44,35 | 7,258 | 4,61,21 | 4,964 | 3,13,87 |
| Netherlands | 3,017 | 1,63,59 | 2,887 | 1,80,66 | 3,572 | 1,91,16 |
| West Germany | 1,700 | 1,38,25 | 1,476 | 1,14,27 | 1,919 | 1,63,68 |
| U.S.S.R. | 12,625 | 9,59,51 | 16,788 | 11,05,26 | 20,810 | 13,69,44 |
| Turkey | 1,766 | 1,04,70 | 1,237 | 66,60 | 43 | 2,37 |
| Iran | 4,353 | 3,48,35 | 3,176 | 2,67,48 | 2,380 | 1,99,98 |
| Iraq | 2,672 | 1,33,08 | 2,511 | 1,34,24 | 1,799 | 1,01,78 |
| U.A.R. (Egypt) | 18,673 | 9,11,80 | 16,776 | 8,66,80 | 15,768 | 8,02,32 |
| Sudan | 5,398 | 2,24,48 | 3,610 | 1,71,22 | 3,559 | 1,68,72 |
| U.S.A. | 11,220 | 6,53,39 | 9,954 | 5,80,14 | 9,346 | 5,27,10 |
| Canada | 6,104 | 3,65,32 | 5,219 | 3,17,53 | 5,441 | 3,40,52 |
| Australia | 5,150 | 2,43,03 | 3,580 | 1,78,03 | 5,359 | 2,74,11 |
| New Zealand | 561 | 29,83 | 412 | 23,08 | 382 | 21,05 |
| Other countries | 11,007 | 7,11,53 | 11,722 | 6,44,37 | 13,782 | 8,07,62 |
| Total | 2,09,166 | 1,24,92,00 | 2,21,182 | 1,32,37,10 | 2,09,548 | 1,24,90,12 |

* Provisional.

### ESTIMATED ABSORPTION OF TEA IN INDIA
(Crop less export)

(In metric tons)

| | North India | | | South India | | | Balance left |
|---|---|---|---|---|---|---|---|
| | Crop | Export | Balance | Crop | Export | Balance | in India |
| 1960–61 | 2,43,302 | 1,63,205 | 80,097 | 77,775 | 35,889 | 41,886 | 1,21,983 |
| 1961–62 | 2,73,305 | 1,70,941 | 1,02,364 | 81,092 | 35,362 | 45,730 | 1,48,094 |
| 1962–63 | 2,62,831 | 1,69,659 | 93,172 | 83,904 | 44,747 | 39,157 | 1,32,329 |
| 1963–64 | 2,57,323 | 1,65,620 | 91,703 | 88,968 | 42,764 | 46,204 | 1,37,907 |
| 1964–65* | 2,88,730 | 1,75,000† | 1,13,730 | 82,169 | 38,878 | 43,291 | 1,57,021 |

* Provisional. † Estimated.

# VEGETABLE OIL INDUSTRY

INDIA is one of the most important producers of oilseeds in the world and is consequently a large producer of vegetable oils as well as an exporter of oils and oilseeds.

The following figures show the average production of different varieties of oilseeds in recent years along with their share in world production :—

| — | Average Indian Production (lakh tons) | As percentage of world Production |
|---|---|---|
| Groundnut | 43·54 | 34 |
| Castor seed | 0·98 | 15 |
| Linseed | 4·10 | 13 |
| Sesamum | 2·88 | 34 |
| Rape and mustard | 13·80 | 12 |

The following table gives the actual production —in thousand metric tons—of oilseeds during the seasons 1960-61, 1961-62, 1962-63 and 1963-64.

| | 1960-61 | 1961-62 | 1962-63 | 1963-64 |
|---|---|---|---|---|
| Groundnut | 4,462 | 4,685 | 4,821 | 5,291 |
| Castorseed | 90 | 101 | 101 | 101 |
| Linseed | 395 | 456 | 433 | 385 |
| Sesamum | 321 | 379 | 464 | 410 |
| Rapeseed and Mustard | 1,356 | 1,337 | 1,294 | 909 |
| Total | 6,624 | 6,958 | 7,113 | 7,096 |

The groundnut crop of 1964-65 is reported to have surpassed the record level of 53 lakh tonnes reached in 1963-64 by as much as 14 per cent and production is estimated to reach a level of 60 lakh tonnes.

The All-India Second Estimate of Groundnut for 1964-65 has put the area under the groundnut crop for 1964-65 at 15,958,000 acres.

According to the Directorate of Economics and Statistics, Union Ministry of Food and Agriculture, this shows an increase of 704,000 acres or 4.6 per cent as compared with the corresponding adjusted estimate of 15,254,000 acres for the year 1963-64.

The increase in the area under groundnut during the current year has been mainly in Gujarat, Uttar Pradesh, Rajasthan and Punjab and is attributed to favourable climatic conditions at the sowing time. This increase in area has, however, been offset to some extent by a a small decline reported from Mysore and Madhya Pradesh.

The yield per acre during 1963-64 worked out to 694 lbs., an increase of 10·7 per cent over the yield of 627 lbs. per acre in 1962-63.

The All-India final estimate of sesamum, 1964-65 puts the year's area and production at 2,501,100 hectares (6,185,000 acres) and 466,200 tonnes respectively. These estimates show an increase of 107,900 hectares or 4.5 per cent in area and 26,900 tonnes or 6.1 per cent in production.

The All-India first estimate of linseed for 1964-65 has put the area under linseed crop at 3,231,000 acres showing an increase of 205,000 acres or 6.8 per cent as compared with the corresponding adjusted estimate of 3,026,000 acres for 1963-64.

The All-India first estimate of rape-seed and mustard for 1964-65 has put the year's area at 3,362,000 acres. This shows an increase of 192,000 acres or 6.1 per cent as compared with the corresponding adjusted estimate of 3,170,000 acres for the year 1963-64.

**The actual production of oil from the five major oilseeds has been estimated as follows:**

('000 Tons).

| | Groundnut | Castor | Sesamum | Rape and Mustard | Linseed | Total |
|---|---|---|---|---|---|---|
| 1956-57 .. | 954 | 39 | 138 | 293 | 123 | 1,547 |
| 1957-58 .. | 1,007 | 28 | 111 | 264 | 79 | 1,489 |
| 1958-59 .. | 1,092 | 36 | 160 | 293 | 142 | 1,723 |
| 1959-60 .. | 895 | 35 | 112 | 299 | 136 | 1,477 |
| 1960-61 .. | 989 | 32 | 128 | 394 | 129 | 1,672 |

**In March 1956, there were 2,097 oil mills registered under the Factories Act. The total crushing capacity of the mills in the country was estimated at 56 lakh tons per annum in terms of oilseeds.**

**There were, besides, about four lakh village *ghanis* in the country with an annual crushing capacity of about seven lakh tons of oilseeds. Thus the total crushing capacity was estimated at 63 lakh tons in terms of oilseeds. The total output of oilseeds in recent years has been of the order of 65 to 70 lakh tons.**

**The capital invested in the organised industry is estimated at Rs. 24·4 crores and the number of workers at 43,580. The most important oilseeds consumed in large quantities for the production of oils are groundnut, linseed, rape and mustard, castor seed and sesamum seed. Small quantities of cottonseed mohwa, and copra are also crushed.**

**The Third Plan envisages a target for oilseeds output in 1965-66 of 9·8 million tons, as against the Second Plan target of 7·5 millon tons and the actual output of 6·53 million tons in 1960-61.**

## IMPORTS AND EXPORTS

**The following table shows the total value imports and exports of oil of some varieties:**

(Rs. lakhs).

| | 1961-62 | 1962-63 | 1963-64 | 1964-65 |
|---|---|---|---|---|
| IMPORTS | | | | |
| Palm Oil .. .. .. .. | 451 | 290 | 385 | 344 |
| Coconut Oil .. .. .. .. | Nil | 60 | 21 | 3 |
| Other Sorts .. .. .. .. | 78 | 44 | 13 | 13 |
| EXPORTS | | | | |
| Groundnut Oil .. .. .. .. | 103 | 783 | 1,345 | 116 |
| Liuseed Oil .. .. .. .. | 8 | 13 | 9 | 10 |
| Castor Oil .. .. .. .. | 400 | 429 | 480 | 348 |

**On the basis of the minimum *per capita* consumption of fats in this country, the total consumption of fats of the entire population would work out at 7 million tons, as against the present estimated consumption of 1·2 million tons.**

**In 1954-55, about 1·14 million tons of vegetable oils (including coconut oil) and about 255,000 tons of vanaspati were estimated to have been consumed for edible purposes in the country. This means a *per capita* consumption of 8·2 lb. (6·7 lb. of edible oils and 1·5 lb. of vanaspati). It was said to have gone up during the Second Plan. Assuming the higher consumption at 8·8 lb. the total requirements of vegetable oils and vanaspati for 400 million people had touched about 1·62 million tons by 1960-61.**

**The development of soap, paints and varnish industries has stimulated the consumption of non-edible oils. Castor oil consumption as a lubricant has also registered considerable expansion. During the decade following the outbreak of the war, consumption of vegetable oils by the soap industry has doubled from 30,000 tons to 63,000 tons, and that of paints and varnish industry and lubricant has risen from 15,000 tons each to 30,000 tons and 25,000 tons respectively. By 1960-61, the total requirements of vegetable oils for all the industrial and miscellaneous purposes were estimated at 278,000 tons. Thus internal consumption requirements were of the order of only 1·9 million tons.**

***Pine Oil:*** **The first pine oil factory in the country has been started at Hoshiarpur in the Punjab. It produces pine oil, dipentine and pine tar. The factory was inaugurated by the Union Industries Minister on July 16, 1960. This factory is claimed to have resulted in the saving of foreign exchange to the tune of Rs. 30 to 40 lakhs annually.**

***Palmarosa Oil :*** **India ranks first among nations producing Palmarosa oil, and is the chief supplier of this important raw material for perfumery manufacture, earning foreign exchange worth Rs. 25 lakhs annually by way of its export alone.**

**To ensure quality control, Government have established a special laboratory at Bombay for AGMARK grading and have banned the export of ungraded Palmarosa oil.**

## COTTONSEED

**Special efforts are being made to develop the cotton seed oil industry on modern lines. From eight units equipped with delinting and dehulling machines in 1955, the number has grown to 20 units in 1965 with an annual installed capacity of 3 lakhs metric tons in terms of seeds. The production in 1964 was 25,000 metric tons in terms of extracted oil. Among the steps taken to increase the consumption of cotton seed oil by vanaspati factories is a reduction of excise duty. Export of cotton seed oil as well as decorticated cotton seed oil cake was licensed freely. The policy of not licensing new mills or expansion of existing oil mills has been continued. The services of a T. C. M. expert were made available to the crushing industry to advise the crushers on the production and grading of cotton seed linters. A rebate on the excise duty payable on vegetable product has been announced for the use of cotton seed oil at 5 per cent and 10 per cent for the manufacture of vegetable product.**

**In regard to solvent extraction of oilcakes, there are at present 32 units, with an annual capacity of 547,500 tons in terms of oil cakes.**

**Production of oil by solvent extraction of oil-cakes during 1960 was 23,440 tons. The rise in output was due to the commencement of operations by three more units. Considerable foreign exchange is already being earned by this industry by export of deoiled meal to U.K. and other countries. Three more units were expected to go into production by the end of 1961-62. During the year 1960-61, licences for 100 units of a capacity of 20 lakh tons per annum in terms of oil cakes, had been issued.**

**The development programme for the vegetable oil industry in the Third Plan is indicated in the following table:**

('000 Tons)

| | 1950-51 Production | 1955-56 Production | 1960-61 Estimated Capacity | 1960-61 Estimated Production | Targets for 1965-66 Capacity | Targets for 1965-66 Production |
|---|---|---|---|---|---|---|
| *Vegetable oils :* | | | | | | |
| *a*) Solvent extraction of oil cakes .. .. | — | — | 550 (Cake) | 25 (Oil) | 2,000 (Cake) | 169 (Oil) |
| *b*) Cotton seed oil .. | — | — | 180 (Seed) | 15 (Oil) | 850 (Seed) | 100 (Oil) |

### VANASPATI

The Vanaspati Industry though a minor branch of the Vegetable Oil Industry is one of the most highly organised and efficient industries. Its history is interesting. It started on a small scale in 1930.

In March 1956, there were 51 vanaspati factories with a rated capacity of about 412,100 tons. In 1959, there were 58 factories with an annual production capacity of about 446,220 tons. Out of these, one is the Government Hydrogenation Factory at Kozhikode having an installed capacity of 3,000 tons per annum. Besides, there are seven factories with an annual rated capacity of 33,000 tons. It is the Government's policy not to permit any further expansion of the industry as the present capacity is adequate to meet all the requirements of 4 lakh tons.

The aggregate installed capacity of the industry was stepped up from 521 thousand tons in 1960 to 557 thousand tons in 1962. Production during these years rose from 337 thousand tons to 363 thousand tons and consumption from 337 thousand tons to 363 thousand tons.

**Installed Capacity, Production and Consumption**

('000 tonnes)

| | Capacity | Production | Consumption |
|---|---|---|---|
| 1960 .. | 521 | 337 | 337 |
| 1961 .. | 560 | 340 | 337 |
| 1962 .. | 557 | 370 | 363 |
| 1963 .. | 467 | 320 | — |
| 1964 .. | 576 | 360 | — |

**Exports of Hydrogenated Oil**

| | Quantity (Tonnes) | Value (Rs. lakhs) |
|---|---|---|
| 1960-61 .. .. | 66 | 103 |
| 1961-62 .. .. | 33 | 56 |
| 1962-63 .. .. | 30 | 45 |
| 1963-64 .. .. | 41 | 62 |
| 1964-65 .. .. | — | 19 |

The net capital invested in the industry is about Rs. 22 crores. Besides 10,000 workers directly employed, the industry provides indirect employment for nearly 60,000 workers.

Edible oils constitute the chief raw material of the industry.

The table below summarises the programme of development in the Second and Third Plans:

(Tons)

| | 1955–56 | 1960–61 | 1960-61 Estimated | 1965-66 Target |
|---|---|---|---|---|
| Installed Capacity .. .. .. .. .. .. | 445,000 | 445,000 | 434,000 | 550,000 |
| Production .. .. .. .. .. .. | 276,000 | 330,000 | 350,000 | 500,000 |
| Internal Consumption .. .. .. .. .. | 255,000 | 375,000 to 380,000 | —— | —— |
| Exports .. .. .. .. .. .. .. | 15,000 | 20,000 to 25,000 | —— | —— |

A total of Rs. 30 lakhs may be available for vegetable oil research during the Third Plan.

Exports of vegetable oils had made considerable headway recently. Shipments increased from Rs. 540 lakhs to Rs. 1,093 lakhs during the eleven months of 1962-63. From April 1962 to Feb. 1963 exports of oil cakes and meal went up by more than Rs. 13 crores—from Rs. 15·4 crores to Rs. 28·4 crores.

**Lemongrass Oil:** Lemongrass is chiefly grown in Kerala. India exports about Rs. 2 crores worth of lemongrass oil annually to countries like the U.K., West Germany, U.S.A., Switzerland, Japan and Italy. Lemongrass oil is mainly used for the manufacture of synthetic vitamin 'A' and as a base for some perfumes for the soap-making industry.

# MISCELLANEOUS INDUSTRIES

**Agricultural Implements:** There were 60 factories engaged in the manufacture of Agricultural Implements at the end of the Second Five Year Plan with an assessed annual capacity of 30,900 tons in terms of steel. The Tata (Agrico), Jamshedpur is the largest unit with an annual capacity of 14,400 tons. They also include two units in the public sector, *viz.*, the Nahan Foundry and the Mysore Implements Factory. Altogether more than 60 units are working in the organised sector at present.

Actual production by the organised sector of the industry, in terms of steel, has been as follows:—

| Year | Production (tons) |
|---|---|
| 1956 .. .. .. .. | 16,815 |
| 1957 .. .. .. .. | 15,224 |
| 1958 .. .. .. .. | 14,000 |
| 1959 .. .. .. .. | 16,108 |
| 1960 .. .. .. .. | 17,400 |
| 1961 .. .. .. .. | 22,895 |

The value of imports of agricultural implements in 1960 was Rs. 38·99 lakhs and that of exports Rs. 0.73 lakh. In 1961–62, agricultural implements worth Rs. 10.7 lakhs were imported. In 1960, the Government of India appointed a committee to assess the Plan needs of agricultural implements.

The steel requirements for the production of agricultural implements during the Third Plan period is estimated to be about 3 million tons, the requirement for 1965-66 being about 0·8 million tons.

**Agricultural Machinery:** In 1964 there were 26 units manufacturing power-driven pumps worth Rs. 226·68 lakhs per annum. At the end of the Second Plan there were 48 units engaged in the manufacture with a licensed capacity of 127,846 pumps per annum. This is inclusive of 5 units manufacturing deep well turbine pumps with a capacity of 2,000 pumps per annum.

The number of power driven pumps produced increased from 85,000 in 1959-60 to 105,000 in 1960–61. During the calendar years 1961 and 1962 the production was 127,200 and 124,800 respectively. During 1963, 150,000 pumps were produced and in 1964 162,000 pumps were produced.

The imports and exports of centrifugal pumps including turbine pumps since 1957 are given below:—

| Year | Imports | | Exports | |
|---|---|---|---|---|
| | No. | Value (Rs. lakhs) | No. | Value (Rs. lakhs) |
| 1957 | 6,173 | 123·84 | 289 | 1·09 |
| 1958 | 3,044 | 94·13 | 695 | 2·17 |
| 1959 | 3,200 | 102·40 | 1,173 | 2·87 |
| 1960 | 2,732 | 126·38 | 1,036 | 5·06 |

During the years 1960–61, 1961–62 and 1962–63, pumps and their parts together valued at Rs. 189.2 lakhs, Rs. 195.2 lakhs and Rs. 175 lakhs were imported. Imports of these items during the period April 1963 to Jan. 1964 were valued at Rs. 165.4 lakhs.

The export of these items during the last three financial years did not improve much and during April 1963 to Jan. 1964 the total export of these items and their parts amounted only to Rs. 9 lakhs.

Total demand in 1955-56 was about 40,000 pumps, and it was expected to rise from 85,000 to 86,000 pumps by 1960-61. To meet this increased demand, some schemes had been recommended under the Second Five-Year Plan. With their implementation, the capacity was expected to increase to 74,700 pumps per annum. During the 3rd Plan period it is proposed to increase production of the power driven pumps to 150,000 and the capacity to 184,000.

All the raw materials, both ferrous and non-ferrous, required are available from indigenous sources. Certain components like ball bearings, bolts with nuts, strainers, packing gland etc. are also required. But it is hoped that the country will be self-sufficient shortly in these things also which are partly imported at present. The number of persons employed in the manufacture of centrifugal pumps is about 9,000 to 10,000 at the end of Second Plan.

**Diesel Engines:** At the beginning of the First Plan there were five units engaged in the manufacture of diesel engines with a combined annual rated capacity of 6,320 engines. By the end of the Plan, the number increased to 16 with a capacity of 19,769 engines per annum. This number rose to 17 at the end of 1956 with a total annual installed capacity of 22,169 engines. Actual production during 1957 aggregated 19,997 engines. In addition, three more firms with a capacity of 10,000 engines for the manufacture of road vehicular type of diesel engines were established to meet the automobile requirements.

At the end of the Second Plan there were 23 units in production with a licensed capacity of 47,680 numbers per annum of which 9 units are in Maharashtra. The production of 43,215 stationary type of diesel engines during 1960-61 was more than double the target for the year.

The position of diesel engines manufacturing industry in 1962 and 1963 was as follows :—

| Unit | 1962 | | 1963 | |
|---|---|---|---|---|
| | Installed capacity | Production | Installed capacity | Production |
| Diesel Engines (vehicular types) .. .. .. No. | 9,000 | 8,364 | 9,000 | 8,832 |
| Diesel Engines (stationary type) .. .. .. No. | 41,292 | 42,648 | 43,692 | 55,692 |

The total demand by 1960-61 was estimated at between 20,000 and 21,000 engines upto 50 H.P. capacity and production targets envisaged in the Second Five-Year Plan were 220,000 H.P. and 205,000 H.P. respectively. During the 3rd Plan, the capacity is expected to reach 72,000 while the production will touch 66,000 numbers.

The value of imports of stationary type of diesel engines in 1961–62 was about Rs. 1.5 crores and the import of parts of the stationary diesel engines amounted to Rs. 2.5 crores. The total import of all kinds of diesel engines and their parts in 1961–62 was valued at about Rs. 13 crores. During the ten months ended Jan. 1963–64, the total import of diesel engines and their parts was valued at Rs. 6.01 crores. During the ten months ended Jan. 1963–64 export amounted to Rs. 71 lakhs (both complete engines and their parts). There is a potential demand for Indian manufactured diesel engines in Middle East and Far East countries.

The following data about export figures show that exports have been steadily rising.

| Year | Value (Rs. lakhs) |
|---|---|
| 1958 .. .. .. .. | 8·0 |
| 1959 .. .. .. .. | 13·0 |
| 1960 .. .. .. .. | 23·0 |
| 1961 .. .. .. .. | 30·0 |
| 1962 .. .. .. .. | 44·0 |
| 1963 .. .. .. .. | 53·0 |

The production of diesel engines to drive agricultural pumps rose to 27,165 in 1958, substantially higher than the target of 20,500 engines per year scheduled to be achieved by the end of the Second Plan. The value of the production in 1958 was about Rs. 5·43 crores.

The progress and plan of the industry can be summarised as follows :—

| | No. of stationary type of diesel engines (in '000) |
|---|---|
| 1950–51 production .. | 5·5 |
| 1955–56 production .. | 10·0 |
| 1960–61 capacity .. .. | 47·7 |
| 1960–61 production .. | 43·2 |
| 1965–66 (installed capacity) .. | 72·0 |
| (targets) production .. | 66·0 |

The quantities of principal raw materials required for the production of 66,000 diesel engines are approximately as follows :

Pig iron 42,000 tons, steel 45,000 tons and bronze 1,600 tons.

The total licensed capacity at the end of 1961 was 69,985 numbers per year.

**Agricultural Tractors :** At the beginning of the Second Plan, there was no regular tractor manufacturing plant. The requirements were met by imports.

The import of tractors was as follows :—

| | Quantity No. | Value (Rs. lakhs) |
|---|---|---|
| 1959 .. .. | 2,652 | 143·44 |
| 1960 .. .. | 3,843 | 333·11 |
| 1960–61 .. .. | 7,114 | 578·00 |
| 1961–62 .. .. | 8,292 | 492·00 |
| 1962–63 .. .. | 6,797 | 462·00 |

The import during 1963–64 (April to Jan.) was valued at Rs. 3.354 crores.

Indigenous manufacture of tractors doubled in 1964 from 1,600 to 3,000.

The average number of tractors added annually by way of imports was about 3,900. The shortfall is due to the import policy during the Second Plan. At the end of the Second Plan about 35,000 tractors were in use against 20,000 at the beginning. About Rs. 20 lakhs were invested during the Second Plan in this industry.

Under the 3rd Plan the capacity of the tractor industry is to be raised from 1,050 in 1960-61 to 12,000 and the production from 600 to 10,000. With the execution of the schemes so far licensed, a total annual capacity of 14,500 numbers of tractors on single shift basis will eventually be installed. During the 4th Plan, about 3 to 4 lakh tillers will be needed.

**Machine Tools :** At present Sept. 1965 there are 90 organised units manufacturing machine tools in India, of which six are large ones. The capital investment (private) is about Rs. 90 lakhs and the total number of persons employed exceeds 2,000.

The position in respect of actual production for 1961, 1962 & 1963 is given below :

| Article | 1961 | | 1962 | | 1963 | |
|---|---|---|---|---|---|---|
| | No. | Value Rs. | No. | Value Rs. | No. | Value Rs. |
| Complete tools .. | 732 | 7,32,70,800 | N.A. | 10,40,08,000 | N.A. | 16,20,00,000 |
| Accessories .. | 24,692 | 28,72,800 | N.A. | 33,28,000 | N.A. | 42,00,000 |

N.A. = Not available.

The production of lathes at the Jalahalli Works of Hindustan Machine Tools was worth Rs. 1.5 crores in 1960–61. The production in the private sector is currently worth about Rs. 75 lakhs per annum.

It was proposed to reorganise the Praga Tools Corporation as mainly a machine tool manufacturing unit under the expansion programme. With the technical collaboration of the following three British firms, its present production figure of Rs. 19 lakhs worth of machine tools per annum is planned to be increased by about Rs. 50 lakhs :

(*i*) Messrs. Kearney & Treaker—CVA Ltd. of Hore Sussex, for the manufacture of drill chucks.

(*ii*) Messrs. A. A. Jones & Shipman Ltd. of Leicester, for the manufacture of cutters & tool grinders.

(*iii*) Messrs. F. Pratt & Co. of Halifax, for the manufacture of lathe chucks.

The capacity of the machine tool industry in terms of value was Rs. 4·78 crores in 1960 as against Rs. 4·36 crores in 1959 and Rs. 4·02 crores in 1958. Production of machine tools which was expected to be about Rs. 10 crores in 1960 is to be stepped up to over Rs. 38 crores by 1965 —Rs. 23 crores for machine tools and Rs. 15 crores for small tools.

Scottish Indian Machine Tool Ltd. and Pricimax Ltd. in Gujarat are the two new entities in this field. Anjani Kumar Pvt. Ltd. has been given a licence to manufacture hand tools.

At the present rate of progress the annual production at the end of the Third Plan will be only Rs. 25 crores worth of machine tools against the Third Plan target of Rs. 30 crores.

The Govt. has decided to set up two new large machine tool factories during the Fourth Plan with technical & financial assistance from Czechoslovakia. This will be apart from the Fourth Plan expansion programmes. It is estimated that requirements of machine tools under the Fourth Plan would be around Rs. 449 crores. The production target to be achieved at the end of 1970-71 is placed at Rs. 131 crores.

**Cotton Textile Machinery :** The principal items are carding engines, spinning ring frames and looms. The target capacity and production in the First Plan for carding engines was 600 and in the Second Plan 1,692.

The following table gives the production data :

| Year | Looms | | Complete Ring Spinning Frames | | Carding Engines | |
|---|---|---|---|---|---|---|
| | Capacity | Production | Capacity | Production | Capacity | Production |
| 1956 .. | 4,980 | 2,868 | 1,596 | 1,116 | 792 | 732 |
| 1957 .. | 4,980 | 2,868 | 1,896 | 1,368 | 1,692 | 1,020 |
| 1958 .. | 5,700 | 3,192 | 2,784 | 876 | 3,000 | 1,152 |
| 1959 .. | 5,700 | 4,224 | 2,784 | 1,080 | 3,000 | 768 |
| 1960 .. | 10,560 | 5,565 | 2,040 | 1,128 | 2,640 | 1,080 |
| 1961 .. | 10,560 | 7,596 | 2,040 | 1,404 | 2,640 | 1,320 |
| 1962 .. | 10,560 | 5,856 | 2,040 | 1,572 | 2,400 | 1,500 |
| 1963 .. | 10,560 | 4,372 | 2,040 | 1,980 | 2,400 | 1,596 |
| 1964 .. | 13,224 | 4,272 | 3,756 | 2,136 | 3,756 | 1,944 |
| 1965 .. (4 month) | 4,964 | 605 | 1,252 | 632 | 852 | 484 |

The total value of the textile machinery produced in 1961-62 was Rs. 12·5 crores. The estimate by 1965-66 based on schemes already approved is expected to be about Rs. 20 crores. The total average annual requirement by value of cotton textile machinery during the 3rd Plan period has been estimated at Rs. 25 to 30 crores. The licensed capacity at present (May 1965)

covered by the major textile machinery manufacturers is about Rs. 47 crores in terms of value.

Protection to the industry has been extended upto the end of 1966 at the protective duty of 10 per cent *ad valorem* for complete ring frames.

Cotton textiles machinery worth Rs. 429·7 lakhs was imported during the year ended March 1965.

**Ball Bearings :** There is one unit with an annual rated capacity of 900,000 ball bearings on a single shift basis.

The range of sizes produced during the year 1960, was 159 in ball bearings and 27 in roller bearings.

The trend in output of ball bearings is evident below:

| Year | Installed capacity (000's) | Production (000's) |
|---|---|---|
| 1956 .. .. | 600 | 1,040 |
| 1957 .. .. | 600 | 1,577 |
| 1958 .. .. | 600 | 2,126 |
| 1959 .. .. | 900 | 1,699 |
| 1960 .. .. | 900 | 2,698 |
| 1961 .. .. | 912 | 3,216 |
| 1962 .. .. | 3,136 | 3,906 |
| 1963 .. .. | 5,706 | 4,954 |

The demand for ball bearings is now estimated at 20 million by 1966 (including roller bearings) and 36 million by 1972.

The number of units in the small-scale sector is 14 in the Punjab and one in Maharashtra.

Protection had been extended upto the end of 1965, at the protective duty of 95 per cent *ad valorem*.

The 'Associated Bearing' and the 'P.S. Ball Bearing' are the two major projects which have been licensed with authorized capital of Rs. 7.5 crores and Rs. 2 crores respectively.

It is hoped that self-sufficiency in the manufacture of ball bearings will be achieved during the Fourth Plan.

**Bicycles :** In April 1962 there were 20 units manufacturing complete bicycles. The aggregate annual capacity was 1,065,500 in 1960 and 1,117,500 on April 1961. The actual production in the calendar year 1960 was 1,050,096. Production in 1961 was slightly lower at 1,046,832. 1,184,000 complete cycles were manufactured during 1962. In 1963 production rose to 1,418,580 cycles. A target of 2·5 million bicyles has been set at the end of 1965-66.

At present (1965) the production is 1·25 million bicycles per annum.

The table below gives the data for production.

| Year | Complete Cycles | |
|---|---|---|
| | Installed capacity | Production |
| 1956 .. .. | 6,27,600 | 6,63,972 |
| 1957 .. .. | 7,47,492 | 7,90,524 |
| 1958 .. .. | 9,25,500 | 9,12,050 |
| 1959 .. .. | 10,50,504 | 9,90,744 |
| 1960 .. .. | 10,65,504 | 10,50,096 |
| 1961 .. .. | 12,17,496 | 10,48,944 |
| 1962 .. .. | 14,43,996 | 11,14,916 |
| 1963 .. .. | 14,43,996 | 11,84,364 |

The production of bicycles in the small sector which started only towards the end of March 1956, was about 109,000 bicycles in 1957 as against about 22,000 in 1956. In 1960-61 the production reached the record figure of 250,000. Production has since gone down considerably.

There are 78 units in the small sector; of these 22 are in the Punjab, 14 in Delhi, 10 in West Bengal, nine in Uttar Pradesh, eight in Bombay,* four in Madhya Pradesh and two in Madras. Five units in Rajasthan, two in Mysore and one each in Andhra Pradesh and Orissa are to go into production soon.

The internal demand for bicycles has been estimated to rise from 1.3 million at the end of the Second Plan to 2.3 million at the end of the Third Plan and the export target is put at Rs. 2 lakhs.

The target for the production of bicycle tyres and tubes under the Second Plan was twenty million per year.

The industry can practically meet all internal requirements. It is one industry where cent per cent of components are indigenously produced and no imports are permitted.

Indian capital invested in the bicycle industry in India was Rs. 3.75 crores in the Second Plan.

A Standing Liaison Committee has been formed by the Development Council for the bicycle industry to assist the Export Promotion Council.

Provision has been made to enable manufacturers of bicycles to obtain a 133 per cent replacement quota of iron and steel used in producing the bicycles exported.

Indian cycles have been successfully introduced, on a commercial scale, in six foreign countries.

The value of bicycles exported in 1963-64 was Rs. 51·2 lakhs, against Rs.1 0·2 lakhs in 1962-63.

The importing countries were Pakistan, Burma, Ceylon, Malaysia, Afghanistan, Mozambique and Nigeria.

Apart from bicycles, an overseas market on a small scale for Indian tricycles has also been built up.

In the bicycle industry cent per cent of components is being produced indigenously and no imports are being permitted.

An "Export Pool Scheme" has been introduced to facilitate sales abroad at a price lower than the domestic price. The scheme is being operated by the Cycle Manufacturers' Association of India.

With about 40 countries importing Indian bicycles, the figure of Indian exports has registered a five-fold rise during 1963-64 over the previous year.

Constituting a little over one third of the value of total exports of transport equipment, the total Indian bicycle exports, in the last financial year, amounted to Rs. 5·1 million compared with Rs. 1 million in the preceding year.

Protection granted to the industry has been withdrawn with effect from January 1, 1964.

**Sewing Machines :** At the end of the First Plan there were three organised units engaged in the manufacture of complete domestic sewing machines with a total capacity of 46,500 machines per annum. This has since gone up to seven units with a total annual capacity of 81,200 machines. During 1959 the installed capacity was 91,700 per annum and in 1960 it stood at 133,704. Actual production in 1958 was 210,900 as against 167,478 in 1957 and 130,388 in 1956. It was estimated that the demand for the domestic and industrial types of machines of 130,000 to 160,000 machines per year might go up to 300,000 by 1960-61. At the end of 1964, the installed capacity rose to 4,44,996 and production to 2,55,324. This can be met by the production from the small-scale sector as well as from the organised sector with its expanded capacity.

There are 35 manufacturers of sewing machines in the small-scale sector besides seven firms in the large-scale sector. Of the 35 small units, 14 are in the Punjab, nine in Delhi, four in Rajasthan, three in Uttar Pradesh, two in Jammu and Kashmir and one each in Bombay,* Madhya Pradesh and Andhra Pradesh. Of the seven big manufacturing firms, West Bengal and Punjab have three each and the seventh is in Delhi.

Special steps are being taken by Government to increase the output, particularly in the small-scale sector.

Moreover, about 150,000 sewing machines are expected to be produced in the small sector during the Third Plan period. It is envisaged that the rate of increase of demand during the Second Plan period will be maintained during the Third Plan as well. On this basis, it can be projected that the demand for domestic and industrial sewing machines will increase from 322,000 numbers in 1960-61 to 725,000 numbers by the end of the Third Plan.

The following table gives a bird's-eye view of the progress and programme of development during the 'Plans'.

(In '000 Nos.)

| 1950-51 Production | 1955-56 Production | 1960-61 | | 1965-66 | |
|---|---|---|---|---|---|
| | | Capacity | Production | Capacity | Production |
| 33 | 111 | 268 | 297 | 700 | 700 |

Imported components account for only Rs. 8 to 10 per machine.

In 1960-61 the export of sewing machines (all kinds) and the parts together amounted to Rs. 52 lakhs. The corresponding figures for 1961-62 and 1962-63 were Rs. 43·5 lakhs and Rs. 47.6 lakhs respectively. During the 10 months ended Jan. 1964, the export was Rs. 27·8 lakhs. During the year ended March 1965, exports amounted to Rs. 45·1 lakhs.

During 1959 the number of sewing machines exported was 22,702. During 1960-61 the number stood at 22,118 and during April-Oct. 1961 the number was 19,591. During March-December 1962, 37,756 sewing machines (both industrial and household) worth Rs. 27·73 lakhs were exported. This number is expected to increase to 125,000 by the end of the IIIrd Plan.

The countries to which Indian sewing machines are exported include British Guiana, Afghanistan, Thailand, Ceylon, Malaysia, Singapore, the U.S., Kenya, Jordan, Madagascar, Tanganyika, the Sudan, Pakistan, Uganda, Iraq, Sierra Leone, Rhodesia, Saudi Arabia, Zanzibar, Mauritius, Burma, Nepal and Viet Nam.

The protection granted to the industry has been withdrawn since January 1, 1955.

**Hurricane Lanterns :** There are 11 units with a capacity of 4,596,036 lanterns a year. The Second Plan target was 6 million.

In 1960, 5,088,380 lanterns, in 1961, 5,520,000 lanterns, in 1962, 6,216,000 lanterns and in 1963 6,564,000 lanterns were produced and in 1964 52,92,000 were produced.

During the last three years actual exports (including hurricane lanterns and their parts) were valued at only Rs. one lakh per year.

Protection has been withdrawn since January 1, 1955.

**Grinding Wheels :** There are seven units with a rated capacity of 3,180,000 Kgs. Production—1950-51 : 231 tons ; 1951-52 : 352 tons ; 1952-53: 390 tons ; 1953-54 : 395 tons ; 1954-55 : 525 tons; calendar year 1955 : 681 tons ; 1956 : 1,112 tons: 1957 : 1,452 tons; 1958 : 1,186 tons; 1959: 1,198 tons ; 1960 : 1,853,040 Kgs. In 1962 the production of grinding wheels in terms of weight was 2,556 metric tons. In 1963 it was 2,791,413 Kgs and in 1964 it was 3,035,276 Kgs.

Protection has been discontinued with effect from 1st January 1960.

**Dry Batteries :** There are five units with a capacity for producing 296·5 million dry cells

* Bilingual.

a year. The Second Plan target was 225 million. The targets of Capacity and Production at the end of the Third Five Year Plan are 400 and 350 million dry batteries respectively. About 198·24 million cells were produced in 1960, as against 187·28 million cells in 1959, 168·18 million cells in 1958, and 166·54 million cells in 1957. During the financial year 1960-61, 214·2 million cells were produced. In 1962, the production of dry batteries rose to 240 millions. The production during the year 1963 was 306 millions and in 1964 was 307 millions.

The export of dry cell batteries was valued at Rs.7.2 lakhs in 1960–61, Rs.16.7 lakhs in 1961-62 and Rs. 16·0 lakhs in 1962-63. During 1965 (April–July) exports amounted to Rs. 19·8 lakhs.

Attempts are being made to manufacture the raw material in this country—manganese dioxide, sealing compound, carbon electrodes.

During the Third Plan the capacity of the dry batteries will be raised from 224·50 million to 400 million and production will be stepped up from 200 million to 350 million numbers.

There has been no protection since January 1954.

**Storage Batteries:** There are 12 units with an annual rated capacity of 660,300. The anticipated demand in 1960-61 was 420,000. Production—1951-52: 212,836; 1952-53: 136,000; 1953-54: 179,000; 1954-55: 210,100; 1955-56: 258,086; Calendar year 1956: 314,199; 1957: 324,513; 1958: 343,400; 1959: 442,236; 1960: 509,000; 1961: 528,000; 1962: 564,000; 1963: 684,000; 1964: 768,000.

There is progress in the diversification of products and a greater degree of self-sufficiency about raw materials. Among the different products are aircraft batteries and railway requirements. Schemes for the manufacture of dry-charged batteries, iron-clad batteries, heavy duty and traction batteries have been approved. Raw material manufacture includes refined lead and microporous rubber separators.

At the end of Third Plan the capacity of storage batteries is expected to touch 900,000 and production 800,000 numbers.

Protection to the industry has been withdrawn since January 1, 1956.

**Electric Cables and Wires:** Actual production of 1. bare copper conductors, 2. winding wires, 3. rubber and plastic insulated cables and flexibles, 4. A.C.S.R. cables is as follows:

| | in tons (1) | in tons (2) | in mil. metres (3) | in tons (4) |
|---|---|---|---|---|
| 1959 | 6,732 | 2,880 | 152·4 | 14,352 |
| 1960 | 9,948 | 4,212 | 208·8 | 23,028 |
| 1961 | 7,632 | 5,664 | 210·0 | 22,392 |
| 1962 | 4,944 | 6,804 | 276·0 | 28,656 |
| 1963 | 4,392 | 7,932 | 314.4 | 32,412 |
| 1964 | 5,736 | 8,940 | 333.6 | 45,456 |

The major schemes of the First Plan were the Hindustan Cable Factory in the public sector for producing different kinds of cables, (this started regular production on Sept. 1, 1954), the expansion of the Indian Cable Company at an estimated cost of Rs. 2·8 crores, the expansion of capacity for A.C.S.R. cables from 2,500 tons to 5,000 tons per annum, the creation of producing facilities for 500 tons of insulated aluminium conductors per annum.

Rs. 32·7 lakhs worth of goods were exported in 1964-65 and Rs. 11,72 lakhs goods were imported.

**Electric Fans:** There are 24 units with an installed capacity of 871,750 fans per year.

Under the Third Plan it has been envisaged to increase the capacity from 1·8 million numbers to 2·8 million and the production from 0·98 million to 2·5 million numbers.

**Growth of Fan Industry**

| Year | Installed capacity ('000) | Production ('000) |
|---|---|---|
| 1954 .. .. | 303·6 | 238·4 |
| 1956 .. .. | 402·0 | 338·4 |
| 1958 .. .. | 765·6 | 636·0 |
| 1960 .. .. | 866·4 | 1,012·8 |
| 1962 .. .. | 1,048·8 | 1,133·5 |
| 1963 .. .. | 1,479·6 | 1,143·6 |

**Exports of electric fans were expected to reach** about 40,000 per year by 1960-61. The exports were 1958: 21,379 valued at Rs. 22·31 lakhs; 1959: 39,446 valued at Rs. 39·70 lakhs; 1960-61: 89,438 valued at Rs. 81·03 lakhs; 1961-62: Rs. 68·05 lakhs: 1962-63; Rs. 92 lakhs April–July 1965: Rs. 33 lakhs.

The export target fixed has been as below:—

| Year | Export target Rs. lakhs. |
|---|---|
| 1961–62 .. .. .. | 110 |
| 1962–63 .. .. .. | 140 |
| 1963–64 .. .. .. | 180 |
| 1964–65 .. .. .. | 230 |
| 1965–66 .. .. .. | 300 |

The physical target of export has been fixed at 2,50,000 fans by 1965-66.

The industry employs annually 8,000 persons. Investment during the Second Plan: Rs. 75 lakhs. Additional investment of Rs. 375 lakhs to be made in Third Plan.

**Thirty different countries bought Indian fans, the main buyers being Ceylon, Burma, Malaya, Singapore, Kuwait and Thailand.**

**Electric Lamps:** There are 13 units manufacturing general lighting service lamps with an installed capacity of 65·30 million lamps per year. The target was 50 million by 1960-61. The Third Plan target of production is 6·0 million fluorescent tubes and 68·0 million G.L.S. and other lamps.

Production was, 1956: 29.9 million; 1957: 32.13 million; 1958: 29.50 million; 1959: 33.73 million; 1960: 38.05 million; 1961: 46.89 million; 1962: 58.54 million; 1963: 66.51 million; 1964: 70-00 million.

There are two units with an installed capacity of 1,200,000 units to produce fluorescent lamps. Production in 1956 was 880,891; in 1957: 1.018,964; in 1958: 1,010,000; in 1959: 1,114,991; 1960: 1.460,000; 1961: 1.894,800; 1962: 5.536,680; 1963 (Jan. to Nov.): 6,049,810. 1964: 70,00,000; 1965: 74,00,000.

**Electric Motors:** There are at present 66 units in the large-scale sector with a total annual capacity of 732,520 H.P. of these, only 41 had installed their capacities so far. In addition, there are several small units which are not registered but which assemble electric motors and manufacture parts. There are 130 units in Small Scale Sector with a production capacity of 0·416 millions H.P.

Eleven out of the fifteen large units have schemes for expanding their capacities and 16 new units have also been licensed.

This will raise the total capacity in the large sector to 1,134,290 H.P.

Actual production was, 1953-54: 161,000 H.P.; 1954-55: 201,000 H.P.; 1955-56: 272,000 H.P.; 1956-57: 388,000 H.P.; 1957-58: 507,000 H.P.; 1958-59: 636,000 H.P.; 1959-60: 575,000 H.P.; 1960-61: 734.000 H.P.; 1962: 984,000 H.P.; 1963: 11,83,901 H.P.; 1964: 13,18,200 H.P.

The total production by the large units in 1959 was 581,512 H.P. (91,752 motors). In 1960 the production was 691,300 H.P. (129,150 motors). The production is confined mainly to the manufacture of electric motors of one to 30 H.P. ratings. A few units also manufacture motors of large ratings.

Under the Third Plan, the production of electric motors is expected to be 2·5 million H.P.

A.C. 3 phase induction motors upto 225 H.P. and motors of the slip-ring type of up to 125 H.P. are now being produced in the country.

In 1963-64 the value of exports amounted to Rs. 2·4 lakhs. In the next year it went up to Rs. 6·75 lakhs, where the target for 1960-61 is fined at Rs. 10 lakhs and for 1970-71 at Rs. 100 lakhs.

The Government had accepted the Tariff Commission's recommendations that the existing protective duties of 15 per cent *ad valorem* on electric motors and 20 per cent *ad valorem* on component parts of electric motors, excluding control gear, should be continued for a further period of three years ending December 31, 1961. Protection was first granted to the electric motor industry in 1948.

**Electric Transformers:** There are 19 units with an annual rated capacity of 1,404,000 KVA. against the Second Plan target of 1.5 million KVA by 1960–61. During 1964, the estimated capacity was 20,77,000 KVA, while production was 31,26,000 KVA. By the end of the Third Plan the capasity is expected to be of the rate of 4·0 million KVA with production target of 3·5 million KVA. The industry has been enjoying protection since last 12 years.

In 1959 the production was 1,052,629 KVA, in 1960 it was 1,103.470 KVA in 1961 it was 1,774,800; 1962: 2,356,800 KVA; 1963: 26,29,010 KVA.

Imports were valued at Rs. 157.35 lakhs in 1958; Rs. 280.53 lakhs in 1959; Rs. 404.46 lakhs in 1960–61; Rs. 790 lakhs in 1961–62; Rs. 390 lakhs in 1962–63. During the ten months in 1963–64 India imported Rs. 267 lakhs worth of transformers and their parts.

**Soap:** The organised sector contains some 59 units with an installed capacity of 229,042 tons per annum, though not all of these are actually in production, while the cottage sector contains over 3,000 units, scattered throughout the length and breadth of India. Naturally there is a concentration of these small factories in those areas where oil-seeds are most plentiful. For example, the Punjab, U.P., and Gujarat each has an annual production of over 40,000 tons of soap, while Andhra, another large State, produces just 8,000 to 10,000 tons per year. The production in 1959: organised sector only: 130,000 tons. In 1960: 136,400 tons, in 1961: 147,240 metric tonnes; 1962: 150,276 tonnes. In 1963, the production was 1·64 lakh tonnes and in 1964 it was 1·68 lakh tonnes.

With total soap production in 1958 at about 390,000 tons, the amount of oil consumed was about 190,000 tons. The oils are of various kinds, of which groundnut oil, coconut oil and palm oil are the most important. All the groundnut oil is produced in India, but it is necessary to import the palm oil and some of the coconut oil (which is, of course, used for many other products besides soap). It is estimated that the tonnage of oil required for soap alone will grow by 40 per cent every five years and that, twenty years from now, the total annual requirement of oils and fats for all products will have increased from about 1·8 million tons to 6·3 million tons.

The total demand for soap is likely to be 629,000 tons in 1966, 870,000 tons in 1971 and 1,220,000 tons in 1976.

The capacity of the industry is expected to be raised to 254,000 tons and production to 500,000 tons during the Third Plan period.

Exports were 1959: 498 tons valued at Rs. 16.29 lakhs and April to Sept. 1960: 227 tons valued at Rs. 5.98 lakhs; 1960–61: Rs. 17.3 lakhs; 1961–62: Rs. 15 lakhs; 1962–63: Rs. 18.6 lakhs; 1963–64 (April to Jan. end): Rs. 16 lakhs. During April–July 1965 exports amounted to Rs. 11·5 lakhs.

**Matches:** There are 439 units with a rated capacity of 45.3 million gross boxes. The Second Plan target was 35·3 million gross boxes.

Actual production in millions of gross boxes, was: 1955-56: 34·1; 1956-57: 35·9; 1957-58: 32.2; 1958-59: 34.9; 1959-60: 37.3; 1960-61: 37.5; 1962: 28.5; 1963 (Jan.-Sept.): 21.7. In 1963, production was 4,128 million boxes. During 1964 production amounted to 4,088 million boxes of 50 sticks.

The demand is envisaged to be about 42 million gross boxes by 1965-66.

**Plywood:** The number of units on the approved list of DWCI is 72 with an annual installed capacity of over 13·40 million sq. meter on single shift. Besides, there are a large number of unapproved factories with an estimated capacity of about nine million sq. ft. Actual production of tea-chest plywood in million sq. ft. was 1959-60: 98.8; 1960-61: 98.2. In 1962 the total installed capacity of the plywood industry was 130 million sq. metres and production 143.5 million sq. metres. In 1963 (Jan.-Aug.) production reached 128.7 million sq. metres. In 1964, the production touched 197·8 million sq. meters and during 1965 (Jan.–June) it reached 112·0 million sq. meters.

Plywood sheets and chests valued at Rs. 2.67 crores were exported, the highest in the past few years. Import was negligible.

During the year 1963–64 there was a spurt in production and the commercial varieties of plywood increased by 30 million sq. feet over the previous year. Now the industry meets the entire demand of the country.

Protection has been withdrawn from 1st January 1961.

**Razor Blades:** At present there are seven organised units in this industry. The acutal production of razor blades in 1959 was 433 million. In 1960 it was 568 million. in 1961 it was 768 million and in 1962, 671 million. 1963: 840 million and 1964: 892 million. This has exceeded th Third Plan target of 600 million blades.

The production or razor blades in the large-scale sector in 1963 amounted to 822.2 million. Apart from meeting internal requirements, a sizable quantity of razor blades is being exported to Asian, African countries. The industry exported razor blades worth Rs. 3,24,269 and Rs. 5,97,061 during 1961–62 and 1962–63 respectively. The exports during the six-month period ended June 1964 amounted to Rs. 6·2 lakhs.

**Thermos Flasks:** The production of thermos flasks in India, which was just a little over 6,900 dozens in 1951, increased to 53,368 dozens in 1957, 65,000 dozens in 1958, 1,24,093 dozens in 1959, 1,21,320 dozens in 1960 1,23,600 dozens in 1961 and in 1962: 1,512,000; 1963 19,44,000 pieces; 1964: 19,44,000 pieces.

There are now six units in the country manufacturing thermos flasks with a total installed capacity of 37,80,000 a year.

Three units are engaged in the manufacture of ampules by automatic machines. The total capacity of these three units is over 35 lakh ampules per month. Besides these there are a number of small-scale units manufacturing ampules by the table-blowing process.

**Printing Machines:** As against an annual production of Rs. 5 lakhs in the country the 3rd Plan target is Rs. 3.5 crores. Domestic demand during the 3rd Plan is estimated to be Rs. 5 crores.

Nine new schemes, with a production capacity of about Rs. 5.9 crores per year, have been approved for the manufacture of printing machinery. This is in addition to the existing installed capacity, in terms of value for about Rs. 84 lakhs a year.

The Government has decided to set up a standing panel for the industry, with representatives of industry, Government and technical experts, on it, to foster rapid development of the industry.

**Typewriters:** Production figures are as below: 1960: 23,556; 1961: 31,104; 1962: 36,324; 1963: 42,396; 1964: 44,064.

During 1964-65, typewriters worth Rs. 3·98 lakhs were exported. Typewriters are in seven languages: English, Hindi, Bengali, Marathi, Gujarati, Assamese, Tamil. The demand for typewriters during the Fourth Plan is likely to rise by over a lakh units. The gap between requirement and production, will come to about 42,000 units at the end of 1965-66.

**Watches:** A number of new schemes has been sanctioned and is under implementation for the production of time-pieces, clocks and watches. Two units are already producing electric clocks. Two schemes for manufacture of lever clocks are now under implementation. For time-pieces, two schemes with a total capacity of 1·8 lakhs have already been sanctioned and more proposals are under consideration. As regards watches, a scheme in the private sector in collaboration with a group of French firms has been put through. The collaborators are the consortium of watch manufacturers known as S.E.D.I.M. The venture is known as Indo-French Pione Industries Private Ltd. and is situated at Goregaon, a suburb of Bombay. It has an initial capacity to produce 90,000 watches annually, on a single shift basis. This capacity will progressively be stepped up to 310,000 by the fifth year of production. The price range of the watches is given as Rs. 50 to Rs. 100. The unit went into production by the end of 1961. A second scheme for setting up a factory in the public sector with the assistance of a Japanese firm has also materialised. The public sector factory is situated in the vicinity of Hindustan Machine Tools at Bangalore. The foundation stone was laid on Jan. 28, 1961. This factory, which is in collaboration with Messrs. Citizen Watch Co., Ltd., Japan, will produce 240,000 watches on a single shift basis. It went into production in 1962. It has a licened capacity of 3·5 lakhs annually. (See 'Hindustan Machine Tools Ltd.' under "Government Industrial Undertakings" for more details.) The capacity of these two schemes would be seven lakh watches every year.

A new enterprise the Hindustan Equipment Suppliers Ltd. has been set up at Jogeshwari in Bombay in the private sector by the firm of Patel Engineering Co. Ltd. in collaboration with Chronotechna of Czechoslovakia. The factory, which went into production in July 1963, produces three models of alarm timepieces.

A correct assessment of the demand for clocks, timepieces and watches is difficult as in the case of other similar durable consumer goods. A panel set up in 1959 made a broad assessment of the present and future requirements as follows:—

Estimate of Effective Demand.

| | Present requirements (Nos.) | Requirements by 1965-66. |
|---|---|---|
| Clocks .. | 100,000 | 200,000 |
| Timepieces .. | 600,000 | 1,200,000 |
| Watches .. | 1,000,000 | 1,200,000 |

Under the Third Plan the capacity of the public sector watch factories is placed at 360,000 watches per annum while the production is expected to reach 240,000 watches at the end of the Plan.

In 1962 the total production of clocks was 65,700 pieces and at the end of 1964, the production was 1,51,000 pieces.

**New Lines of Production:** Production of a number of new items like sewing machine needles, hand-sewing needles, hypodermic needles, heaving industrial sewing machines, hand-model addressing machines, staples and pressure cookers has already started in the country. Schemes have also been sanctioned to manufacture, for the first time in the country, items like self-lubricating porous borings, electric addressing machines, bicycle tube walls and metallic safety razors, besides timepieces and watches. Exports of engineering goods in general during 1964-65 amounted to Rs. 13·33 crores against Rs. 9·09 crores in 1963-64.

**Refractories:** There are 54 refractory factories with a total capacity of about 9·6 lakh tons per annum. About 20 of these have expansion programmes involving a total additional capacity of 3·44 lakhs tons annually. Twenty-two new factories with a total capacity of 11·93 lakh tons per annum have also been licensed. The target fixed under Second Plan for refractories was Rs. 12·5 lakh tons as compared with a demand of 10 lakh tons. Production during the years 1960 to 1964 is given below.

| Year | Production (000 tons) |
|---|---|
| 1960 .. .. .. .. | 550·8* |
| 1961 .. .. .. .. | 597·6* |
| 1962 .. .. .. .. | 650·4* |
| 1963 .. .. .. .. | 653·2* |
| 1964 .. .. .. .. | 693·3* |

* 1,000 metric tons. The latest figures relate to 54 units.

A large factory of 66,000 tons annual capacity came into production in Orissa with W. German collaboration during 1964. This plant is expected to cater to the needs of the steel industry. It is also proposed to take up, for the first time in India, manufacture of chemically bonded refractories in collaboration with an American firm and production of this is expected to be taken up at three factories. Plans for the world's largest aglomeration and. refractory materials shop at the Bokaro Iron & Steel mill were completed by Leningrad specialists. This will supply Indian metallurgists annually with 6 million tons of crushed ore.

The development programme for refractories during the Plan periods is given below.

(In million tons)

| 1955-56 Production | 1960-61 Estimated | | Targets for 1965-66 | |
|---|---|---|---|---|
| | Capacity | Production | Capacity | Production |
| 0·29 | 0·82 | 0·55 | 2·0 | 1·5 |

**Clinical Thermometers:** The chief production centre will be the National Instruments Factory (see separate note in 'Government Industrial Undertakings') which in collaboration with Japan was expected to produce 6,00,000 thermometers in 1962–63. There are 3 units in this industry. As at the end of 1964, the installed capacity was 19,08,000 while the production was 13,31,640.

**Fountain Pens:** The number of pens manufactured during 1959 was 11 to 12 million in the large-scale sector. The small-scale sector, it is estimated, manufactured over 10 million pieces.

**Paper Making Machinery:** As many as 15 schemes have been approved by the Government. It is expected that within the next three years or so, nearly Rs. 10 crores worth of paper making machinery both of large scale type or small-scale

type, would be manufactured. Since the per capita consumption of paper is only 3 lbs in India, against 233 lb in U.K., 453 lb in U.S.A. and 36 lb in U.S.S.R. several of world's major paper machinery manufacturers, have established workshops in India and have supplied a fairly wide range of equipment to the existing paper plants.

**Tea Machinery :** The country is almost self-sufficient. The proposed annual capacity by 1965 is Rs. 1·75 crores. In 1962 the total production amounted to Rs. 142-64 lakhs. In 1958 there were only 2 units, which increased to 7 in 1960. India's tea processing machinery has also found a good market in Ceylon, Kenya, Iran, Pakistan and Mauritius. The export of tea machinery stood at Rs. 21·1 lakhs in 1963.

**Jute Mill Machinery :** The production target for the Third Five Year Plan is Rs. 2·5 crores per annum.

The growth of the industry has been as under :

| Year | Production (Rs. lakhs) |
|---|---|
| 1956-57 .. .. .. | 37·83 |
| 1957-58.. .. .. .. | 70·81 |
| 1958-59 .. .. .. | 90·21 |
| 1959-60 .. .. .. | 178·43 |
| 1960-61 .. .. .. | 174·04 |
| 1961-62 .. .. .. | 211·54 |
| 1962-63 .. .. .. | 308·70 |
| 1963-64 .. .. .. | 375·00 |

**Woodworking Machines :** Woodworking is one of the major old industries in our country. So far, we have been importing woodworking machines into this country and recently about four manufacturing units have been licensed for production of woodworking machines to meet the requirements in the country. At the end of 1964, there were 3 units engaged in this work.

Festo Elgi Private Limited has a programme of manufacturing woodworking machines in Coimbatore with the collaboration of Festo Maschinenfabrik, Esslingen—West Germany. The factory of Festo Elgi Private Limited, was expected to commence production by the middle of 1964.

Festo Elgi Private Limited has a programme of manufacturing 1,700 machines per annum and they have a further programme of expansion during the next year.

# PROHIBITION

THE real impetus to the prohibition movement was given by the Indian National Congress which considered prohibition as one of the items of their programme. At the Karachi session when the Bill of Rights was passed, it laid down that even when the Congress would be called upon to frame the Constitution it would include total prohibition in the whole country except for medical purposes as one of the articles of the Constitution.

Madras was the first State to introduce prohibition though only in certain districts.

In the early days in 1937 and 1938, partial prohibition was introduced. Of course, it was an amendment of the Excise Act.

A Prohibition Enquiry Committee was appointed by the Planning Commission on December 16, 1954. The Committee recommended total prohibition in India from 1958.

In the middle of 1963, a study team on prohibition was appointed by the Planning Commission with Mr. Tek Chand as chairman. The report was placed in Parliament on May 6, 1964. It outlines a four-phased programme to accomplish complete prohibition by 1975-76 and recommends strict social, legal and penal measures to curb the drink evil.

The measures suggested to curb drinking appear fairly harsh. These include summary trial of those charged with prohibition offences which should also be declared non-bailable, a jail sentence for habitual offenders, shifting of the onus of proof to the accused, institution of collective fines, externment, forfeiture of property and disqualification from elections and government service.

The law of evidence is sought to be suitably amended as also the provisions relating to civil damage.

As far as enforcement is concerned, the committee has stressed that the present system of entrusting it to the police should continue unchanged. Two main modifications are suggested : the strength of the area police force should be marginally increased and the personnel, especially those entrusted with the prohibition drive, should be carefully chosen for their faith in the programme.

The measures suggested by the committee are aimed at containing and eliminating illicit distillers and other law-breakers and slashing their profit margins.

### 7-Point Suggestion

The committee has made a seven-point suggestion for more successfully resisting the "onslaught" of illicit distillers and smugglers.

The suggestions are : legal solution ; containment of medical and toilet preparations ; control of molasses and other raw materials ; mass education and systematic publicity ; effective enforcement through improved administration ; economic containment of illicit distillation ; and use of modern scientific appliances for detection of inebriety.

The committee finds that, generally, between ten and 25 per cent of families report drinking in wet areas and about the same proportion of adult males are given to drink. Fewer factory workers than plantation and mine workers indulge in drinking.

The liquor expenses of working class drinking families average about ten per cent of their incomes. But the statewise averages vary between five and 22 per cent of expenses. In numerous cases, as much as one-fourth of the family expenditure is on liquor. A one per cent increase in income is generally found to be associated with a ·6 per cent increase in drinking.

Dealing with the financial aspect of prohibition, the committee has come to the conclusion that the loss to the fiscal authority will be more than offset by the gain to the community and the total welfare will have increased.

The team finds that the total drinking bill of the country may be about Rs. 146 crores, of which a sum of Rs. 52 crores is the value of illicit liquor — Rs. 43 crores spent in the dry areas and Rs. 9 crores in the wet areas.

The excise revenue loss in the dry areas has been estimated at Rs. 40·1 crores, while the expenditure arising out of the enforcement of prohibition may be Rs. 5·4 crores, making a total loss of slightly less than Rs. 46 crores.

This loss has been offset only to the extent of nearly Rs. 31 crores owing to a reduction in the drinking bill of the dry areas. Thus, the net loss incurred by the Government and the rest of the society together seems to be Rs. 15 crores.

If prohibition were enforced in the wet areas by 1975-76, the total revenue loss may be Rs. 80 crores. But the impact can be minimised through a phased programme and the loss can be easily made good through receipts from sales tax, Central excise duties, etc. which may be expected to grow by Rs. 382 crores over the existing base.

In order to contain illicit distillation and allied crimes, the team recommends the availability, under a permit system, of mild alcoholic beverages with less than five per cent alcohol in volume such as ciders, beers and other wines.

Mild liquor is to be made available only to persons above 30, so that the young, the impressionable and economically and socially vulnerable population is kept out of the purview of liquor. The maximum liquor permitted per month to an individual is three units, a unit having been defined as equivalent to 12 quart bottles of bear or five per cent alcohol in bulk.

The team recommends the sale of toddy under controlled conditions for meeting the challenge of illicit distillation.

### CONDITIONS SPECIFIED

Some of these conditions are : A ceiling of five per cent. alcohol in bulk ; production and sale under Government control ; bottling and refrigeration wherever possible ; the drink to be consumed only at the place of sale ; the quantity of toddy served to an individual to be limited ; drinking hours to be regulated ; and toddy not to be served for those below 21.

The liberalisation of toddy, however, is not recommended for Gujarat and Madras, where prohibition has by and large been found to be successful.

A reduction in the tax rates and liquor prices has been called for to shift illicit drinkers to the licit market. Reduced prices, the Committee believes, will not increase the aggregate drinking so much as shift drinkers to licit varieties and hamper the business of illicit distillers. It has recommended the abolition of the binding system and its substitution by a system of tenders and if need be, by the public sector taking over the responsibility for production and distribution of liquor.

### DISAGREEMENT

The team has examined the new liquor policy announced in Maharashtra. While appreciating the broad strategy, it finds itself in disagreement on some points. The issue of permits for hard liquor to age groups below 40 years will cause fresh addiction and habituation to drink. The issue of permits on medical grounds, according to the team, is illogical as the medical profession does not attach curative properties to alcohol, the only grounds for permits being addiction and habituation. But as this requires a long history of drinking, there is no reason for issuing permits to persons below 40 years.

While the liberalisation of mild alcoholic drink is seen to be necessary, the team finds an uncontrolled liberalisation fraught with evil consequences. The age group 21 to 30 includes students and a large proportion of the industrial and other workers. These persons are either not earning for themselves or are earning rather little and not yet settled firmly in life. This is particularly true of the age group 21 to 25.

The team feels that permission to consume alcoholic beverages irrespective of age and economic and social circumstances can be calamitous. In the absence of education, publicity and persuasive measures, the team refused to accept the alleged magnitude of illicit activity in Maharashtra at its face value and finds a certain amount of defeatism in the new Maharashtra policy. The issue of permit on the basis of a certificate by any medical practitioner is shown to be full of hazards.

The team has noted the widespread prevalence of illicit activities in dry areas and has recommended various measures which will restrict the

availability of both modern medicinal and Ayurvedic products that go into illicit liquor. It has suggested that production of items of higher alcoholic content should be in the hands of the public sector.

## PERMIT SYSTEM

The Committee's scheme of permit system is based on grounds of addiction and habituation together with some other considerations such as the number of dependents and family circumstances.

The minimum income which would qualify for a permit to a person with an average family of 5 including himself ought to be Rs. 500 per mensem and this should be raised by Rs. 100 with each addition to the number of dependents.

Above the minimum qualifying income levels, the quantity of liquor permitted may be raised from 1 to 4 units and could go upto 6 units only in exceptional circumstances. A unit is to be defined as one quart bottle of spirit or 4 quart bottles of wine or 12 quart bottles of fermented liquor. The board which issues permits should consist of a nominee of the executive authority, a social worker and a representative of the medical department. Not every registered medical practitioner should be allowed to issue a certificate.

## PROHIBITION IN STATES

Some facts and figures about prohibition in some of the States for which details are available are given below. Figures within brackets indicate the date of introduction of prohibition.

**Andhra :** Prohibition has been introduced in the Andhra region comprising eleven districts namely Chittoor (1938), Cuddapah (1938), Kurnool (1946), Guntur (1947), Nellore (1947), Srikakulam (1948), Visakhapatnam (1948), East Godavari (1948), West Godavari (1948), Krishna (1948) and Banganapalli of Kurnool District (1948).

Prohibition is not being enforced in the Telangana area of the State.

**Assam :** The policy of the Assam Government has been to extend "dry laws" all over the State, in a phased manner.

Prohibition was first introduced in Barpeta subdivision, Kamrup District, on March 1, 1953, and extended to the northern portion of Gauhati subdivision from October 2, 1954. The entire Kamrup District was declared dry from January 26, 1956.

The entire Nowgong District was declared dry from April 1, 1960 and the entire Goalpara District from April 1, 1962.

Four more districts in the Plains region and all the four autonomous hill districts are yet to be covered by prohibition.

The budget allotment for enforcing prohibition was Rs. 2,56,750 during the year 1964–65 and Rs. 2,47,945 for the year 1965–66.

**Bihar :** There is no prohibition at present in the State.

**Delhi :** Is committed to introduce prohibition gradually and with this aim and view, the following steps have been taken from time to time towards prohibition :—

1) Reduction in country liquor shops from 7 to 2 and decrease in the alcoholic strength of country liquor from 80 degrees under proof to 50 degrees under proof ; 2) Increase in the number of dry days to 134. On these days liquor and bhang shops are closed for sale and service of liquor and bhang ; 3) Increase in the rates of duty and assessment fee ; 4) Prohibition of import of country liquor in any quantity within the radius of five miles inside Delhi border ; 5) Enhancement of the punishment under the penal provisions of Excise Act and also prescribing a minimum sentence of imprisonment for the offence of illicit distillation ; 6) Regulating the sale and possession of spirituous preparations by a licence and prescription ; 7) Increase in the strength of preventive staff and re-organization thereof on zonal basis.

The budget allotment for the enforcement of above prohibitory measures and also for other expenses is Rs. 2,56,000 for the year 1965–66.

**Gujarat :** There is total prohibition throughout the State. Prohibition was first introduced in the industrial area of Ahmedabad city, Bardoli taluka of Surat District and two talukas of Broach District, in 1938. In 1939, it was extended to Dascroi taluka, Valod Mahal and whole of Broach District. Excluding Kutch, total prohibition was introduced in Gujarat in 1950. In Kutch it was introduced on Jan. 7, 1956.

The implementation of the prohibition policy of the State through various agencies is looked after by the Directorate of Prohibition and Excise and the enforcement part of it has been entrusted to the Police Department in the State.

Neera and palmgur centres with their allied industries have been started in several parts of the State so as to popularise neera as a nutritious drink and utilize the trees and the former tappers for productive and constructive purposes.

As a future programme, it has been decided to launch intensive prohibition drive in selected areas of the State.

With the introduction of Panchayat Raj in the State from April 1, 1963, prohibition propaganda work in the areas covered by panchayats has been handed over to the panchayats to eradicate the evils of drinks and drugs.

The prohibition study team appointed by the Government of India under the chairmanship of Mr. Justice Tekchand has appreciated the relative success of prohibition in Gujarat.

Tourist permits for consumption of foreign liquor are issued on presentation of tourist card. Liquor shops operate for such permit holders in selected cities like Ahmedabad, Surat and Rajkot.

**Kerala :** At present prohibition is in force in Kozhikode (1947), Cannanore (1947), Palghat (1947), and Trivandrum Districts (1948 & 1949), Talappilly (1949), and part of Cranganore Taluks (1950) of Trichur District, Kottarakkara (1955) and Pathanapuram taluks of Quilon District, (1950), Fort Cochin area of Ernakulam District (1947) and some enclaves of Alleppey District (1947). Area under prohibition is 8,779·05 sq. miles.

Budget allotment for 1965-66 : Rs. 5,27,000.

**Madhya Pradesh :** At present prohibition is in force in ten districts. Names of districts showing within brackets area under prohibition and date of enforcement respectively : Khandwa (whole district ; 1946) ; Saugor (whole ; 1938) ; Bamoh (whole ; 1938); Narsingpur (whole ; 1938); Hoshangabad (whole ; 1942 & 1946) ; Vidisha (whole excluding Sironj Sub-Divn. ; 1948) ; Sironj (Sub-Divn. ; 1957) ; Durg (Durg Tehsil ; 1946) ; Bilaspur (Tehsil Janjgar ; 1946) ; Raipur (Tehsil Raipur ; Dhamtari area ; Baloda Bazar area ; Mahasamud area and Gariaband area ; all 1940) ; Jabalpur (Katni town ; 1946 ; Rest of Katni & Murwara Tehsil ; 1953).

**Madras** was the first State to introduce prohibition in the whole country.

Salem District went dry on 1st October 1937. But the scheme had been scrapped with effect from January 1, 1944, on the ground that excise offences had gone on increasing and as it was considered by the then Government that public enthusiasm which greeted the enactment the Prohibition Act had waned.

Prohibition in the composite State of Madras was introduced area-wise in three stages. Eight districts were made dry with effect from 1st October 1946, eight more in 1947 and in the last stage, prohibition was extended to the remaining nine districts from 2nd October 1948.

Prohibition continues to be in force throughout the State. The Inspector-General of Police is in charge of the enforcement of prohibition throughout the State. Since no separate head has been allotted for implementation the expenditure has been covered by the allocation in the Police Budget.

**Maharashtra :** Total prohibition was introduced in 1950 in all districts of Western Maharashtra forming part of erstwhile Bombay State. In other regions of the State, namely Vidarbha and Marathwada, prohibition had to be introduced at different times since then.

There is no separate budget allotment for enforcing prohibition.

Changes in the 14-year old prohibition policy of Maharashtra was announced by the Chief Minister on the 31st of December 1963. All the changes except the removal of the ban on the manufacture and sale of beverages with an alcoholic content up to 3·5 per cent and toddy of equal strength took effect from April 1, 1964. A liberalisation in the procedure for liquor permits has been introduced. Persons above the age of 40 are eligible for permits on straightforward declaration that they need alcoholic drinks for maintaining their health. A certificate to this effect from the applicant's medical adviser would suffice for this purpose. The rest will have to get permits under the existing system. While the maximum quota for persons above the age of 40 has been fixed at four units, it is three in the case of those between 30 and 40 years of age, and two units for those below 30. One unit would fetch either four bottles of wine or 18 bottles of beer. The permit availability period will be two years in the case of those above 40 and one year for the rest.

During 1964-65, 56,994 health permits were issued. Of these 50,793 were to those above the age of 40.

**Mysore :** Prohibition made a beginning in Old Mysore in 1938, when it was introduced in Rural Welfare and Health Centres in the talukas of Ramanagaram and Channapatna in Bangalore District on an experimental basis.

Further, as a measure of co-operation with the Madras Government, Molakalmuru taluka of Chitradurga District and Pavagada taluka of Tumkur District were declared dry in January 1947. In the middle of the same year, Ramanagaram and Channapatna in Bangalore District were declared completely dry.

Prohibition was formally introduced in five districts, out of the total of nine districts of Old Mysore, in 1948.

There was an enlargement of the dry zone in the State with the merger in 1956 of Bellary District. After the reorganisation of the State in 1956, there was again a big addition to the dry area. Bijapur, Belgaum, North Kanara and Dharwar Districts of Bombay, South Kanara and Kollegal of Madras, and Coorg, which were already dry, were integrated to form the new State of Mysore.

Since 1956, prohibition has been extended only in a small way.

At present (1965), with the exception of Bangalore City and certain talukas of Bangalore District, Gulburga and Raichur Districts, the entire State is dry. The prohibition zone covers about 81 per cent of the area and 75 per cent of the population of the State.

There is no special provision in the Budget for enforcing prohibition since implementation of this policy forms part of the functions of the Police, who are required to attend to the detection of prohibition offences in addition to other duties.

The State adopted a uniform prohibition law in 1962, replacing divergent laws in force in various areas till then. The new law also makes provision for deterrent punishment.

The Tek Chand Committee report is under the consideration of the Government (May 1965).

The Mysore Government has decided in Nov. 1965, to liberalise the prohibition laws on the pattern followed more or less by the Maharashtra Government.

Permits on the basis of medical certificates will be issued to all persons over the age of 30 years. The fee fixed for getting permits would be Rs. 20 per year against the present fee of Rs. 100.

Another phase of liberalisation was likely to be announced in Jan. 1966.

**Orissa:** Prohibition was first introduced in the districts of Puri, Cuttack, Balasore, Ganjam and Koraput with effect from 1st April 1956. Since status quo is maintained in prohibition policy of the State, prohibition is now in force only in the above districts excluding Kashipur P.S. area which was previously a part of Kalahandi district. Prohibition is enforced under the provisions of the Bihar and Orissa Excise Act, 1915 but not under Orissa Prohibition Act, 1956 as the latter has not yet come into force. No specific budget allotment is made by the Excise Department for enforcement of prohibition as no separate staff exist for the purpose.

Future programme will be settled after receipt of Government of India's decision on the recommendations of Prohibition Study Team set up by the Planning Commission, Government of India. Recommendations of the Team have been received by the Government of India and will be discussed in a conference of Chief Ministers of States and then a final decision is expected to be given by the Government of India for implementation of prohibition on an all-India basis.

**Rajasthan:** From 1956, drinks in hotels, restaurants, clubs, cinemas, bars, messes have been stopped. A few specified hotels serving foreign visitors and tourists have been allowed to serve foreign liquor to such persons in special rooms.

Following days are observed as dry days in the year: Republic Day; Harijan Day; Independence Day; Mahavir Jayanti; Budh Purnima; Guru Nanak birthday; Birthday of Prophet Mohmmad; Krishna Janmasthmi; Mahatma Gandhi's birthday.

Liquor shops are closed once in a week as they are exempted from the operation of section 11(1) and 12(1) of the Rajasthan Shops and Commercial Establishment Act, 1958.

The former Abu area in Bombay which was integrated in Rajasthan in 1956, has been kept dry.

### STATE-WISE FIGURES

(*Latest available*)

Comparative statewise statistics of consumption and revenue for 1961-62 with 1957-58 figures in brackets: Andhra Pradesh (447,893) 1,480,759 gallons and (Rs. 1,44,68,580) Rs. 2,28,45,869; Assam (678,524) 838,649 gallons and (Rs. 1,91,08,397) Rs. 1,94,95,656; Bihar (1,880,000) 2,275,000 gallons and (Rs. 3,99,39,000) Rs. 5,01,08,000; Gujarat (4,103) 8,885 gallons and (Rs. 1,44,230) Rs. 2,39,844; Jammu and Kashmir (99,190) 214,375 gallons and (Rs. 25,30,801) Rs. 48,35,184; Kerala (1,176,961) 1,204,920 gallons and (Rs. 1,93,61,748) Rs. 2,88,60,335; Madhya Pradesh (1,161,735) 1,190,909 gallons and (Rs. 3,92,00,345) Rs. 4,84,95,619; Madras (86,317) 124,908 gallons and (Rs. 12,31,577) Rs. 7,41,361; Maharashtra (1,196,779) 647,316 gallons and (Rs. 93,91,432) Rs. 40,52,154; Mysore (10,346,329) 6,028,677 gallons and (Rs. 2,66,11,622) Rs. 2,74,65,174; Punjab (810,593) 864,115 gallons and (Rs. 4,17,44,193) Rs. 5,35,54,660; Rajasthan (891,059) 953,675 gallons and (Rs. 2,34,13,325) Rs. 3,53,39,950; Uttar Pradesh (1,134,679) 1,648,329 gallons and (Rs. 4,33,08,797) Rs. 6,95,34,709; West Bengal (1,143,215) 1,599,940 gallons and (Rs. 4,43,00,000) Rs. 5,88,78,813; Delhi (353,904) 481,288 gallons and (Rs. 94,30,540) Rs. 1,11,17,804; Himachal Pradesh (29,112) 38,293 gallons and (Rs. 25,72,925) Rs. 21,58,933; Manipur (2,734) 781 gallons and (Rs. 16,752) Rs. 25,250; and Tripura (7,128) 24,971 gallons and (Rs. 62,268) Rs. 78,409.

# SPORTS

The sports come within the purview of the Ministry of Education.

An advisory body, called the All India Council of Sports, composed of 20 persons eminent in the field of sports and games advises the Ministry in all matters relating to development of Sports in the country.

The All India Council of Sports has been reconstituted for a period of 2 years with effect from 16-7-1965 with Gen. K. M. Cariappa as President and B. P. Bagchi, Jt. Secretary, Ministry of Education, as Secretary.

The Government of India have set up a National Institute of Sports at Patiala to provide adequate facilities for the training of coaches of the highest calibre in various games and sports.

The total budget provision for sports and games in the Third Five Year Plan is Rs. 1·35 crores.

### TOURNAMENTS

Below we give the results of the national tournaments and principal sporting events of the year 1964-65:

#### Athletics

*Men's Events*

100 metres: K. L. Powell (Mysore); 200 metres: K. L. Powell (Mysore); 400 metres: Y. Muniyellappa (Mysore); 800 metres: Dayal Singh (Punjab); 1,500 metres: Edward Sequeira (Maharashtra); 3,000 metres Steeplechase: Chuni Lal (Punjab); 5,000 metres: Nawab Singh (Punjab); 10,000 metres: Mangheram (Delhi); 110 metres hurdles: Gurbachan Singh (Delhi); 400 metres hurdles: B. S. Barua (Andhra); Long Jump: B. V. Satyanarayana (Bihar); High Jump: Ajit Singh (Andhra); Hop, Step and Jump: Lab Singh (Punjab); Pole Vault: Ajaib Singh (Delhi); Javelin Throw: A. P. S. Oberoi (Delhi); Shot Put: Joginder Singh (Andhra); Hammer Throw: Ajmer Singh (Punjab); 4 × 100 metres relay: Bihar; 4 × 400 metres relay: Punjab; Decathlon: Amarjit Singh (Rajasthan); 20 kilometre walk: Padam Singh (Rajasthan); 50 kilometre walk: Ram Narain (Rajasthan); Marathon: Dhanna Singh; Discus Throw: Baldev Singh (Punjab).

*Women's Events*

100 metres: Sandesh Sodhi (Delhi); 200 metres: Sandesh Sodhi (Delhi); 400 metres: Chitra Palit (U.P.); 800 metres: Deenna Syme (Mysore); 80 metres hurdles: Violet Peters (Maharashtra); Long Jump: Sheila Paul (Mysore); High Jump: Christine Forage (Maharashtra); Shot Put: Kamlesh Chatwal (Delhi); Discus Throw: Kamlesh Chatwal (Delhi); 4 × 100 metres relay: Delhi; Javelin Throw: Kamlesh Chatwal (Delhi); Pentathlon: Christine Forage (Maharashtra).

#### Aquatics

Men: 100 metres freestyle: Abdul Mutlib (Railways); 100 metres backstroke: Ranjit Bannerjee (Railways); 100 metres butterfly: Arun Shaw (Railways); 100 metres breaststroke: Babu Bhai Rana (Gujarat); 200 metres freestyle: Nimai Das (Bengal); 200 metres breaststroke: B. B. Rana (Gujarat); 200 metres butterfly: M. Saha (Railways); 4 × 100 metres relay: Railways; 4 × 200 metres relay: Railways; Spring Board Diving: Danti Datta (Railways); Water Polo: Railways; Team Championship: Railways.

Women: 100 metres freestyle: Antica Milos (Bombay); 100 metres breaststroke: Dorothy Solanki (Bombay); 100 metres backstroke: Rima Dutta (Rajasthan); 200 metres freestyle: Margaret Turnbull (Delhi); 400 metres freestyle: Margaret Turnbull (Delhi); 4 × 100 metres relay: Bombay; Team Championship: Bombay.

#### Badminton

Men's Singles: Suresh Goel (Railways); Men's Doubles: C. Deoras and M. N. Natekar (Maharashtra); Women's Singles: Meena Shah (Railways); Women's Doubles: Meena Shah and Sunila Apte (Railways); Mixed Doubles: C. Deoras and Meena Shah (Railways); Junior Boys' Singles: G. K. Thakkar (Maharashtra); Junior Girls' Singles: Miss J. Philips (Kerala); Team Championship: Railways.

#### Basketball

Men: Services.
Women: West Bengal.

#### Billiards

Billiards: Wilson Jones.
Snooker: Shyam Sbroff (Bombay).

#### Boxing

Light-flyweight: J. Thomas (Railways); Flyweight: L/Nk. P. Jadhav (Services); Bantam: R/Nk. N. More (Services); Feather: L/Hav. D. Saradana Singh (Services); Light-weight: J/K. G. Rajan (Services); Welter: A. Sequeira (Railways); Middle: Jem. S. N. Sarkar (Services); Light-middle: B. D'Souza (Services); Light-heavy: Hav. Sardara Singh (Services); Heavy: Hav. Hawa Singh (Services); Team Championship: Services.

#### Bridge

Team-of-four duplicate: Calcutta Bridge Club; Master's Pairs: B. J. Shivdasani and G. Hemnahi (Bombay); Progressive Duplicate: J. P. Mehta's Team, Bombay.

#### Cricket

The series between India and the touring Australian team resulted in a draw; each side winning one Test and third resulted in a draw.

First Test at Madras, second at Bombay and the third at Calcutta.

India beat Ceylon by two "Tests" to one in the unofficial series during the year.

India won one Test to win the series against New Zealand. Three other Tests were drawn.

First Test at Madras, second at Calcutta, third at Bombay and the fourth at New Delhi.

Ranji Trophy: Bombay.
Duleep Trophy: West Zone.
Rohintan Baria Trophy (Collegiate): Bombay.
Cooch-Behar Trophy (Schools): North Zone.

#### Cycling

Men: 1,000 metres time trial: Dalbir Singh (Punjab); 1,000 metres sprint: Sucha Singh (Services); 4,000 metres team pursuit: Punjab.

Women: 2,000 metres lap race: Miss Shirin Malcolm (Maharashtra); Team Trial Road Race: Punjab; Team Championship: Punjab.

#### Football

National Championship: Bengal; Rover's Cup: B. N. Railway; I.F.A. Shield: East Bengal; Durand Cup: Mohun Bagan.

#### Golf

Men: R. Panday.
Women: Mrs. Duncan.

#### Hockey

National: Punjab; Bombay Gold Cup: B. N. Railway; Aga Khan: Punjab Police; Beighton: Customs Athletic Club and Mohan Bagan shared the trophy after a drawn final.

### Kabbaddi

Men : Maharashtra.
Women : Maharashtra.

### Kho Kho

Men : Bombay.
Women : Baroda.

### National Chess

Tournament not held.

### National Wrestling

Mosquito weight : Maruti Adkar (Maharashtra); Flyweight : Shamrao Sable (Maharashtra); Bantam : Roshan Lal (Punjab); Feather : Randhwa (Punjab); Lightweight : Bharat Singh (Services); Welter : Hukum Singh (Punjab); Middle : Jit Singh (Services); Light-heavy : Harbans Singh (Services); Heavyweight : Bishwanath Singh (Services).

### Weight-lifting

Flyweight : Burman (Railways); Feather : A. K. Das (Railways); Middle : N. A. Rao (Railways); Light-heavy : A. N. Ghosh (Railways); Middle-heavy : Manuel Selveria (Maharashtra); Light : L. K. Das (Railways); Heavy : Balbir Singh (Delhi); Team Championship : Railways ; Mr. India : Omkar Banerjee (West Bengal).

### Table Tennis

Men's Singles : Gautam Divan (Maharashtra); Men's Doubles : P. P. Haldankar and A. Rangoonwalla (Railways); Mixed Doubles : G. R. Divan and Sunanda Karandikar (Maharashtra).

Women's Singles : Usha Sunderraj (Mysore); Women's Doubles : Shirin Panveliwala and Sulabha Karnik (Maharashtra).

Boys' Singles : Shaukat Hayat Khan (Andhra); Boys' Doubles : U. S. Gurjar and V. R. Mantri (Maharashtra); Team Championship : Men — Maharashtra "A" (Bombay); Women — Maharashtra "B" (Poona); Juniors — Andhra.

### Tennis

Asian Tennis : Men's Singles : R. Krishnan ; Men's Doubles : B. Hewitt and M. Mulligan (Australia); Mixed Doubles : Mrs. Hewitt and Hewitt (Australia); Women's Singles : Miss Nirupa Vasant; Women's Doubles : Rita Suraya and Mrs. Schlamberger.

National Tennis : R. Krishnan ; Men's Doubles : R. Krishnan and M. Sangster (Australia); Mixed Doubles : R. Venkatesh and Lakshmi Mahadevan ; Women's Singles : Mrs. Marion (Australia); Women's Doubles : Mrs. Marion and Begum Khan.

### Volleyball

Men : Hyderabad.
Women : Punjab.

### Races

*Bombay Races*

1,000 Guineas : Maharaja of Gwalior's "Rose Royal" ; 2,000 Guineas : T. G. Gaokar's "Sun Deep" ; Indian St. Leger : M. D. Mehta's "Blue Heaven".

Oaks : Maharaja of Gwalior's "Rose Royal."
Derby : Maharaja of Gwalior's "Rose Royal."

*Poona Races*

Trial Stakes: Mrs. Talib, Choria and Chaubal's "Chief Ruler."

*Calcutta Races*

Calcutta Derby : S. Hill's "Robert Bruce."
Gold Vase : B. K. Sinha's "Golden Sceptre."

*Madras Races*

South India Derby : V. G. Saravana's "Om Shakthi."
Indian Turf Invitation Cup : A. V. Thomas' "Esquire."

### Rugby

Tournament not held.

# MILITARY ASSISTANCE TO INDIA

It was the Chinese aggression against India, which made India approach friendly countries for military assistance to defend the country. Countries like Australia, Canada and Yugoslavia had readily come to India's help at the time of the Chinese aggression. The United States and the United Kingdom helped India in a sizeable manner.

## AID FROM THE U.S.

The first review at Nassau by the U.S. and Great Britain of the military aid to India revealed $120 million worth of military aid to India, the burden being equally shared by the U.S. and Britain. The second review to meet the requirements of the year 1963-64 took place when the late President Kennedy visited London. The total amount of aid remained almost the same except that there was some change in the way of sharing. The third review at Washington between the British Prime Minister and President Johnson in February, 1964 was to place military assistance to India on a more permanent and planned basis. The U.S. Defence Secretary, Mr. McNamara, told the House Foreign Affairs Committee in March that for 1964-65, $745 million were earmarked for aid to 11 countries including India, that made up the "forward defence of the free world."

The Defence Minister, Mr. Y. B. Chavan had talks with the U.S. Government in May 1964 on long-term military aid for India's defence effort. The important aid which India asked for was three squadrons of F-104 supersonic helicopters. On May 22, Mr. Chavan submitted to the U.S. Government a $550 million list of defence requirements for the next five years. The list involved $60 million in grants and $50 million in credits a year for air, ground and navy needs and equipment to help India produce its own military hardware. The American estimates contemplated $50 to 60 million annually thus leaving a gap of $50 million.

A general agreement was reached during Mr. Chavan's visit to Washington as to the military grant which the United States plans to provide with respect to the fiscal year 1965 subject to Congressional approval. The assistance during the fiscal year 1965—from July 1 to June 30, 1965—would be at about the same level as that during the fiscal year 1964. The assistance given during 1963-64 period was more or less equal to the $60 million Nassau aid given after the Chinese attack in October 1962.

The aid during 1965 would include such items as continued support for Indian division, air defence communications equipment, transport aircraft support and road building equipment for India's border roads.

The U.S. Government had also agreed to make available in credit before the end of June 1964 the unutilised portion of the fiscal year 1964 grants to enable India to purchase vehicles and communications equipment and machinery for the modernisation of the Indian ordnance factories. The U.S. has assured that necessary assistance would be provided for the remaining three years of India's five year defence plan on an year to year basis. The U.S. has also offered assistance in the development of HF-24 to help India build her own supersonic aircraft. The final draft of the communique was approved at a meeting between Mr. Chavan and Mr. Chester Bowles on June 6, 1964.

The Defence Minister Mr. Chavan said in a written answer in the Parliament on Nov. 29, 1965 that out of the military aid of Rs. 76 crores promised so far by the U.S.A. from October 1962, approximately 45 per cent had been received by September 1965 when the U.S. Government suspended further aid shipments. The American aid had been utilised for providing limited support for a number of mountain divisions of the army, transport aircraft, signal equipment and spares for IAF and earthmoving equipment for the border roads organisation. In addition, one ammunition plant had been received as also equipment for static radars from the U.S.

## AID FROM GREAT BRITAIN

Britain is to give India special defence credit of £4·7 million for building three "Leander" class frigates. At the Nassau review, it was revealed that Great Britain had given military aid to the tune of $60 million and at the second review at London, the U.K. was found to have given aid worth £7,327,000 for requirements during 1963-64. With a view to seeking British help for India's five year defence plan, Mr. Chavan, Defence Minister had talks with British Government officials from November 12 1964. The plan covers the period April 1964 to March 1969 and envisages the creation of a well-equipped army with a strength of 825,000 men, a 45-squadron Air Force with latest radar and communications facilities, a phased programme of modernisation of the Navy, an adequate network of border roads and supply lines and the establishment of a proper defence production base in the country eventually to meet most of the requirements of the armed forces.

India's defence plan now envisages a total foreign expenditure of nearly Rs. 650 crores. The U.S. and the Soviet Union, it is learnt, have so far committed Rs. 250 crores and Rs. 140 crores respectively towards the plan over the next three years.

India's requirements from Britain for the period are estimated at Rs. 65 crores.

## AID FROM THE SOVIET UNION

The Defence Minister, Mr. Chavan, went to Moscow in September 1964 and had discussions with the Soviet Government for military assistance. India and the Soviet Union signed an agreement on Sept. 11 for the supply of Soviet Defence equipment for India. The Soviet Government has agreed to provide part of the plant and machinery for the M.I.G. complex, sell a certain number of MIG-21s to help India raise about three supersonic squadrons and supply some light tanks as well as 24 helicopters. The payment would be made in rupees with which the Soviet Union could buy Indian goods and articles under the existing trade agreements between the two countries.

It is understood that the total of Soviet aid given and promised can be priced around $400 million (Rs. 190 crores) against the U.S. aid given and promised of about $670 million. The break-up of the Soviet aid is understood to be as follows : $125 million for a complex of three MIG factories; $140 million for 50 ready-to-fly MIGs to be supplied before the factories come up ; $80 million for ground-to-air missiles

$30 million for transport aircraft; $16 million for overhaul programmes of transport planes and nine million dollars for light tanks. There is no way of vouching for the accuracy of these figures except that the Soviet assistance is sizable.

The Soviet authorities have assured the Government of India that the delivery of MIGs will commence in 1965. Russia has informed India that MIG complex will be set up by the end of 1965 and that the delivery schedule of light tanks accelerated. The Soviet Union has also agreed to give 70 light tanks to India.

The Soviet Union had been keeping up its arms supply to India throughout the recent fighting with Pakistan. India has signed a contract for the purchase of submarines and other naval aircraft from the Soviet Union.

MIG-21 aircraft, of which the Soviet Union had agreed to supply three squadrons to equip the Indian Air Force, started arriving in a dismantled form from June 1965. They will be assembled at Nasik by Soviet technicians to give Indian engineers the requisite experience in their manufacturing programme. Before the end of 1965, all the three squadrons were expected to be assembled at Nasik.

The production programme of MIGs by Hindustan Aeronautics Ltd. is said to be well under way. The first airframe made at Nasik is expected to come out of the factory by the middle of 1966.

The Soviet Union has supplied military equipment to India on suitable credit terms both before and after 1962.

### ASSISTANCE FROM THE UNITED ARAB REPUBLIC

India and the U.A.R. signed an agreement on September 28, 1964 for mutual collaboration in producing supersonic Mach-2 combat aircraft. In pursuance of this, the two countries would exchange technical missions at an early date for further study and consultations.

### AID FROM VARIOUS COUNTRIES

Of the military aid promised in the form of grant by various countries since the Chinese aggression in 1962 and the amount received so far (end Nov. 1965), the Defence Minister gave the following details in the parliament: The U.S. promised Rs. 76 crores, received so far Rs. 35·13 crores; the United Kingdom promised Rs. 36 crores, received Rs. 22·41 crores; Australia promised Rs. 2·12 crores, received Rs. 1·98 crores; Canada promised Rs. 2 crores, received Rs. 1·97 crores. From France Rs. 2 crores worth spares for Toofani aircraft, received so far; Italy Rs. 40,000 worth woollen blankets received, New Zealand Rs. 1 lakh worth butter, fat and woollen blankets; West Germany Rs. 40 lakh worth winter clothing items.

# EDUCATIONAL STATISTICS (1962-63) †

## 1. INSTITUTIONS, ENROLMENT, EXPENDITURE

| States/Territories | Number of Institutions for | | Enrolment in Institutions for | | Expenditure (in Rs.) on Institutions for | | Teachers | |
|---|---|---|---|---|---|---|---|---|
| | Boys | Girls | Boys | Girls | Boys | Girls | Men | Women |
| Andhra | 41,962 | 885 | 28,22,222 | 16,12,166 | 27,87,05,473 | 2,24,23,909 | 1,09,853 | 25,465 |
| Assam | 20,687 | 1,096 | 11,74,712 | 6,21,247 | 10,78,03,314 | 90,80,178 | 47,245 | 7,369 |
| Bihar | 49,602 | 6,038 | 39,44,072 | 9,66,231 | 24,63,84,133 | 2,00,02,472 | 1,17,631 | 10,720 |
| Gujarat | 22,179 | 2,037 | 21,62,009 | 11,21,107 | 23,66,59,410 | 2,66,79,177 | 71,304 | 24,109 |
| Jammu & Kashmir | 3,889 | 990 | 2,93,504 | 95,332 | 2,60,27,648 | 60,37,845 | 11,253 | 2,660 |
| Kerala | 10,334 | 305 | 20,26,874 | 16,83,717 | 22,13,89,193 | 34,36,101 | 70,854 | 49,851 |
| Madhya Pradesh | 34,128 | 3,086 | 23,80,996 | 6,94,254 | 24,52,18,231 | 3,01,39,347 | 1,00,031 | 15,993 |
| Madras | 32,269 | 447 | 33,43,621 | 20,00,249 | 40,89,72,492 | 3,07,17,282 | 1,16,597 | 57,076 |
| Maharashtra | 1,64,555 | 1,05,165 | 45,56,682 | 26,33,879 | 51,19,57,888 | 5,67,58,832 | 1,39,483 | 43,958 |
| Mysore | 34,429 | 1,834 | 23,11,738 | 13,50,604 | 22,13,04,514 | 1,86,57,976 | 85,752 | 18,921 |
| Orissa * | 30,815 | 1,388 | 13,72,667 | 5,71,144 | 10,08,99,581 | 52,90,925 | 62,735 | 3,287 |
| Punjab | 13,144 | 4,649 | 19,74,628 | 9,37,670 | 18,81,16,773 | 4,18,21,655 | 58,377 | 22,297 |
| Rajasthan | 26,421 | 1,139 | 15,61,070 | 3,36,053 | 14,71,85,453 | 1,31,37,806 | 58,603 | 8,189 |
| Uttar Pradesh | 49,550 | 8,917 | 56,79,715 | 16,19,431 | 45,14,41,308 | 5,26,40,943 | 1,77,732 | 30,835 |
| West Bengal | 40,126 | 3,145 | 31,99,582 | 15,53,298 | 36,89,61,382 | 5,16,26,275 | 1,37,149 | 22,207 |
| Goa, Daman & Diu | 682 | 24 | 52,857 | 32,272 | 62,91,072 | 3,79,497 | 1,581 | 1,150 |
| A. & N. Islands | 138 | 1 | 5,392 | 3,121 | 16,29,970 | 1,44,298 | 272 | 83 |
| Dadra & Nagar Haveli | 74 | — | 4,122 | 1,279 | 3,84,963 | — | 114 | 31 |
| Delhi | 1,109 | 732 | 3,65,407 | 2,53,792 | 9,93,64,513 | 3,63,64,459 | 13,249 | 10,094 |
| Himachal Pradesh | 2,184 | 57 | 1,16,570 | 36,058 | 1,52,71,023 | 6,84,187 | 6,075 | 1,093 |
| I. M. & A. Islands | 29 | 9 | 3,658 | 1,667 | 8,19,460 | 97,991 | 145 | 46 |
| Manipur | 2,672 | 301 | 1,26,663 | 69,818 | 1,32,99,085 | 13,58,766 | 8,881 | 538 |
| Nagaland | 651 | — | 37,724 | 20,942 | 15,60,249 | — | 2,055 | 164 |
| N.E.F.A. | 190 | — | 8,035 | 1,161 | 29,59,776 | — | 469 | 51 |
| Pondicherry | 371 | 90 | 35,835 | 21,999 | 1,22,15,866 | 11,01,429 | 1,378 | 670 |
| Tripura | 2,169 | 201 | 1,14,293 | 60,881 | 1,57,88,755 | 15,18,871 | 4,804 | 1,207 |
| Total (All India) | 5,84,359 | 1,42,596 | 3,96,74,648 | 1,82,99,372 | 393,56,23,065 | 43,01,00,221 | 14,03,622 | 3,58,064 |

† Figures are provisional.

A. & N. Islands — Andaman & Nicobar Islands, L. M. & A. Islands — Laccadive, Minicoy and Amindivi Islands.

* Figures for 1961-62.

## 2. PRIMARY EDUCATION

| States/Territories | Number of Institutions for | | Enrolment of | | Expenditure in Rs. on | | Teachers | |
|---|---|---|---|---|---|---|---|---|
| | Boys | Girls | Boys | Girls | Schools for Boys | Schools for Girls | Men | Women |
| Andhra .. .. .. | 37,169 | 457 | 18,74,766 | 12,87,266 | 8,43,17,049 | 22,26,983 | 64,058 | 15,349 |
| Assam .. .. .. | 17,266 | 730 | 7,55,645 | 4,60,763 | 2,97,62,741 | 16,88,310 | 15,202 | 4,479 |
| Bihar .. .. .. .. | 36,331 | 4,568 | 27,00,620 | 8,27,513 | 4,86,83,133 | 50,22,981 | 60,008 | 6,059 |
| Gujarat .. .. .. | 11,930 | 250 | 13,73,514 | 8,14,318 | 3,15,44,063 | 22,97,630 | 15,864 | 5,113 |
| Jammu & Kashmir .. .. | 2,856 | 730 | 2,06,713 | 67,946 | 35,26,863 | 9,75,380 | 3,948 | 926 |
| Kerala .. .. .. | 6,990 | 40 | 11,62,953 | 10,30,499 | 6,60,33,478 | — | 27,266 | 11,082 |
| Madhya Pradesh .. .. | 28,342 | 2,324 | 18,05,761 | 5,80,961 | 7,62,48,241 | 88,85,927 | 55,807 | 8,068 |
| Madras .. .. .. | 23,605 | 39 | 23,93,598 | 16,10,964 | 8,97,17,090 | 3,83,918 | 50,032 | 23,928 |
| Maharashtra .. .. .. | 26,296 | 832 | 24,20,937 | 14,80,775 | 7,24,51,510 | 1,00,95,829 | 31,707 | 13,347 |
| Mysore .. .. .. | 21,582 | 821 | 14,86,723 | 10,57,937 | 4,25,19,679 | 91,10,811 | 23,036 | 6,505 |
| Orissa * .. .. .. | 23,802 | 251 | 10,79,577 | 5,25,947 | 3,79,31,412 | 5,68,612 | 43,667 | 1,319 |
| Punjab .. .. .. | 10,483 | 2,966 | 13,44,845 | 7,29,036 | 3,50,70,308 | 92,17,377 | 24,098 | 8,826 |
| Rajasthan .. .. .. | 17,714 | 759 | 11,26,772 | 2,77,219 | 3,97,58,854 | 28,60,490 | 30,610 | 3,533 |
| Uttar Pradesh .. .. | 42,012 | 7,609 | 40,85,226 | 13,59,675 | 9,26,25,975 | 1,29,48,017 | 1,06,878 | 16,826 |
| West Bengal .. .. .. | 31,221 | 1,007 | 21,97,367 | 12,26,016 | 9,14,83,123 | 63,69,394 | 85,042 | 9,951 |
| Goa, Daman & Diu .. .. | 564 | 1 | 41,344 | 25,902 | 21,85,042 | 240 | 922 | 549 |
| A. & N. Islands† .. .. | 105 | — | 4,101 | 2,674 | 5,39,133 | — | 156 | 63 |
| Dadra & Nagar Haveli .. | 40 | — | 3,293 | 1,056 | — | — | 37 | 5 |
| Delhi .. .. .. .. | 572 | 332 | 2,01,290 | 1,51,678 | 1,04,32,684 | 59,98,398 | 3,409 | 2,039 |
| Himachal Pradesh .. .. | 1,573 | 9 | 82,796 | 27,812 | 47,13,756 | 51,160 | 2,853 | 443 |
| L. M. & A. Island‡ .. .. | 7 | 7 | 2,052 | 1,525 | 80,355 | 96,983 | 21 | 35 |
| Manipur .. .. .. | 1,901 | 278 | 74,772 | 50,415 | 45,47,108 | 7,00,878 | 5,623 | 360 |
| Nagaland .. .. .. | 540 | — | 26,728 | 15,811 | 20,87,257 | — | 1,316 | 74 |
| N.E.F.A. .. .. .. | 163 | — | 5,513 | 591 | 6,50,891 | — | 273 | 19 |
| Pondicherry .. .. .. | 244 | 25 | 24,974 | 17,006 | 6,04,330 | 49,506 | 376 | 80 |
| Tripura .. .. .. | 1,641 | — | 64,902 | 44,185 | 48,08,788 | — | 2,756 | 663 |
| Total (All India) .. | 3,45,051 | 24,035 | 2,68,41,059 | 1,38,49,704 | 86,29,22,690 | 6,86,38,431 | 6,85,560 | 1,51,816 |

* Relates to 1961-62.
† Andaman and Nicobar Islands.
‡ Laccadive, Minicoy and Amindivi Islands.

## 3. HIGHER SECONDARY SCHOOLS

| States/Territories | Number of Institutions for | | Enrolment of | | Expenditure in Rs. on | |
|---|---|---|---|---|---|---|
| | Boys | Girls | Boys | Girls | Schools for Boys | Schools for Girls |
| Andhra Pradesh .. .. .. | 201 | 33 | 1,60,885 | 44,053 | 1,81,49,457 | 29,12,387 |
| Assam .. .. .. .. | 39 | 6 | 25,479 | 6,164 | 35,80,431 | 5,98,665 |
| Bihar .. .. .. .. | 306 | 26 | 1,81,566 | 17,729 | 1,36,95,557 | 17,87,811 |
| Gujarat .. .. .. .. | — | — | — | — | — | — |
| Jammu and Kashmir .. .. | 42 | 4 | 15,840 | 2,251 | 22,16,826 | 3,60,203 |
| Kerala .. .. .. .. | — | — | — | — | — | — |
| Madhya Pradesh .. .. .. | 891 | 174 | 2,92,594 | 79,834 | 3,96,25,840 | 90,25,847 |
| Madras .. .. .. .. | — | — | — | — | — | — |
| Maharashtra .. .. .. | 94 | 18 | 70,527 | 19,901 | 92,32,293 | 13,89,018 |
| Mysore .. .. .. .. | 169 | 49 | 1,00,787 | 37,055 | 1,11,09,502 | 24,85,485 |
| Orissa * .. .. .. .. | 11 | 2 | 4,558 | 1,433 | 9,45,782 | 1,21,222 |
| Punjab .. .. .. .. | 339 | 127 | 2,84,841 | 1,13,313 | 1,95,55,235 | 70,31,455 |
| Rajasthan .. .. .. | 288 | 32 | 1,05,448 | 15,523 | 1,87,90,533 | 21,26,063 |
| Uttar Pradesh .. .. .. | 874 | 183 | 6,65,683 | 1,32,187 | 7,29,73,894 | 1,33,56,936 |
| West Bengal .. .. .. | 943 | 204 | 4,66,280 | 1,28,848 | 5,50,81,063 | 1,36,92,506 |
| Goa, Daman & Diu .. .. | 1 | — | 234 | 133 | 3,14,920 | — |
| A. & N. Islands † .. .. | 2 | 1 | 663 | 380 | 1,98,452 | 1,03,806 |
| Dadra & Nagar Haveli .. .. | — | — | — | — | — | — |
| Delhi .. .. .. .. | 211 | 126 | 1,45,414 | 92,222 | 3,03,24,809 | 1,40,93,112 |
| Himachal Pradesh .. .. | 32 | 8 | 11,991 | 5,393 | 13,88,754 | 4,36,646 |
| L. M. & A. Islands ‡ .. .. | — | — | — | — | — | — |
| Manipur .. .. .. .. | — | — | — | — | — | — |
| Nagaland .. .. .. .. | — | — | — | — | — | — |
| N. E. F. A. .. .. .. | — | — | — | — | — | — |
| Pondicherry .. .. .. | — | — | — | — | — | — |
| Tripura .. .. .. .. | 18 | 1 | 7,851 | 2,368 | 11,89,677 | 1,33,683 |
| India Total .. | 4,461 | 994 | 25,40,641 | 6,98,787 | 34,27,32,648 | 6,96,61,845 |

† Andaman and Nicobar Islands.
‡ Laccadive, Minicoy and Amindivi Islands.
* Figures for 1961-62.

## 4. HIGH SCHOOLS

| States/Territories | Number of Institutions for | | Enrolment of | | Expenditure in Rs. on | |
|---|---|---|---|---|---|---|
| | Boys | Girls | Boys | Girls | Boys | Girls |
| Andhra Pradesh | 1,275 | 145 | 3,95,190 | 1,24,204 | 4,08,21,455 | 56,16,322 |
| Assam | 621 | 88 | 1,77,727 | 63,427 | 1,81,10,105 | 27,71,000 |
| Bihar | 1,362 | 87 | 3,91,874 | 30,797 | 2,27,88,297 | 18,59,151 |
| Gujarat | 1,199 | 116 | 3,39,230 | 1,25,120 | 5,03,21,508 | 69,07,379 |
| Jammu & Kashmir | 261 | 58 | 69,570 | 25,507 | 50,25,312 | 18,36,748 |
| Kerala | 851 | 161 | 4,64,258 | 3,47,195 | 4,43,59,623 | — |
| Madhya Pradesh | 6 | — | 638 | — | 7,95,053 | — |
| Madras | 1,449 | 277 | 5,97,901 | 2,49,126 | 6,56,60,111 | 1,43,08,291 |
| Maharashtra | 2,503 | 238 | 6,93,448 | 2,69,920 | 9,83,13,021 | 1,61,97,446 |
| Mysore | 709 | 98 | 1,28,256 | 42,048 | 1,62,92,426 | 25,15,535 |
| Orissa | 602 | 53 | 1,10,907 | 14,701 | 1,31,62,848 | 11,47,081 |
| Punjab | 854 | 240 | 3,68,957 | 1,39,971 | 2,46,06,707 | 66,70,301 |
| Rajasthan | 289 | 51 | 1,14,320 | 19,945 | 1,12,70,976 | 18,19,572 |
| Uttar Pradesh | 782 | 149 | 2,51,627 | 68,051 | 2,31,06,298 | 65,40,452 |
| West Bengal | 820 | 301 | 2,31,714 | 1,23,316 | 2,05,57,979 | 76,08,395 |
| Goa, Daman & Diu | 36 | 12 | 11,234 | 6,881 | 9,08,234 | 2,90,149 |
| A. & N. Islands † | — | — | — | — | — | — |
| Dadra & Nagar Haveli | 2 | — | 185 | 49 | 41,740 | — |
| Delhi | — | — | — | — | — | — |
| Himachal Pradesh | 64 | 2 | 22,291 | 4,353 | 24,17,301 | 72,512 |
| L., M. & A. Islands ‡ | 2 | — | 908 | 42 | 1,29,316 | — |
| Manipur | 100 | 15 | 24,936 | 8,410 | 20,27,495 | 3,33,173 |
| Nagaland | 18 | — | 4,144 | 1,708 | 9,49,356 | — |
| N.E.F.A. | 6 | — | 957 | 248 | 2,89,393 | — |
| Pondicherry | 26 | 8 | 9,490 | 4,758 | 8,39,216 | 3,67,796 |
| Tripura | 18 | 7 | 5,630 | 3,772 | 6,72,719 | 3,67,062 |
| All India | 13,855 | 2,106 | 44,15,392 | 16,73,549 | 31,91,06,866 | 7,72,29,274 |

† Andaman & Nicobar Islands. ‡ Laccadive, Minicoy & Amindivi Islands.

## 5. MIDDLE SCHOOLS

| States/Territories | No. of Institutions for | | Enrolment of | | Expenditure in Rs. on | | Teachers | |
|---|---|---|---|---|---|---|---|---|
| | Boys | Girls | Boys | Girls | Boys | Girls | Male | Famale |
| Andhra Pradesh | 1,624 | 128 | 2,62,253 | 1,33,102 | 1,74,11,164 | 21,00,392 | 11,294 | 3,412 |
| Assam | 1,973 | 178 | 1,58,631 | 79,375 | 1,26,24,165 | 13,00,386 | 9,450 | 1,312 |
| Bihar | 5,130 | 377 | 8,46,702 | 1,97,423 | 2,98,59,073 | 27,61,401 | 27,727 | 2,829 |
| Gujarat | 6,672 | 742 | 11,78,153 | 6,86,536 | 4,59,23,759 | 94,19,562 | 32,956 | 14,735 |
| Jammu & Kashmir | 685 | 187 | 77,560 | 22,512 | 33,05,361 | 8,95,295 | 2,786 | 681 |
| Kerala | 2,243 | 42 | 5,27,124 | 4,12,119 | 3,74,84,429 | .. | 19,117 | 15,257 |
| Madhya Pradesh | 3,025 | 362 | 4,89,373 | 1,21,633 | 3,30,33,424 | 46,93,024 | 23,543 | 3,643 |
| Madras | 6,048 | 10 | 10,26,620 | 6,60,658 | 6,48,78,486 | 2,31,707 | 31,264 | 22,020 |
| Maharashtra | 9,940 | 703 | 17,67,201 | 8,74,906 | 9,68,75,688 | 91,45,963 | 54,141 | 17,595 |
| Mysore | 6,747 | 693 | 9,79,834 | 5,93,993 | 4,51,10,762 | 67,23,243 | 32,510 | 9,249 |
| Orissa* | 1,903 | 170 | 1,23,064 | 26,591 | 1,05,77,360 | 11,16,531 | 6,964 | 550 |
| Punjab | 1,155 | 407 | 2,87,077 | 1,46,345 | 1,54,68,860 | 50,19,764 | 9,374 | 4,243 |
| Rajasthan | 1,395 | 229 | 3,07,106 | 87,149 | 2,16,50,903 | 33,00,787 | 13,388 | 2,668 |
| Uttar Pradesh | 4,128 | 828 | 5,51,820 | 1,17,277 | 2,72,98,222 | 64,92,275 | 21,767 | 4,704 |
| W. Bengal | 2,035 | 436 | 1,77,914 | 80,809 | 1,47,70,167 | 35,34,045 | 9,708 | 2,020 |
| Goa, Daman & Diu | .. | .. | .. | .. | .. | .. | .. | .. |
| A. & N. Islands † | 8 | .. | 701 | 328 | 1,21,285 | .. | 34 | 13 |
| Dadra & Nagar Haveli | 26 | .. | 2,318 | 761 | 1,73,303 | .. | 61 | 24 |
| Delhi | 158 | 136 | 63,271 | 51,309 | 62,35,226 | 46,25,829 | 2,208 | 1,930 |
| Himachal Pradesh | 205 | 11 | 20,655 | 6,562 | 21,71,879 | 1,21,895 | 1,509 | 223 |
| L., M. & A. Islands ‡ | 7 | .. | 1,503 | 434 | 2,38,794 | .. | 78 | 6 |
| Manipur | 294 | 14 | 17,514 | 6,849 | 14,66,208 | 70,296 | 1,289 | 68 |
| Nagaland | 84 | .. | 10,976 | 5,535 | 17,02,363 | .. | 516 | 55 |
| N.E.F.A. | 20 | .. | 1,524 | 322 | 2,99,693 | .. | 108 | 11 |
| Pondicherry | 63 | 22 | 11,957 | 8,356 | 8,53,365 | 3,67,796 | 379 | 284 |
| Tripura | 103 | 3 | 9,307 | 4,163 | 12,72,045 | 59,899 | 622 | 168 |
| All India | 55,719 | 5,687 | 69,06,612 | 44,29,575 | 49,11,82,703 | 6,19,37,656 | 3,12,978 | 1,07,937 |

* Figures for 1961-62. † Andaman & Nicobar Islands. ‡ Laccadive, Minicoy & Amindivi Islands.

## 6. UNIVERSITY EDUCATION

| States/Territories | Number of Universities | | Number of Arts and Science Colleges | | Number of Technical, and Professional Colleges | | Colleges for Special Education | |
|---|---|---|---|---|---|---|---|---|
| | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| Andhra Pradesh | 3 | .. | 56 | 10 | 34 | 1 | 25 | 3 |
| Assam | 1 | .. | 35 | 4 | 13 | .. | 1 | .. |
| Bihar | 6 | .. | 104 | 13 | 34 | 1 | 27 | .. |
| Gujarat | 3 | .. | 52 | 8 | 50 | 1 | 7 | 1 |
| Jammu and Kashmir | 1 | .. | 13 | 3 | 7 | .. | 5 | 6 |
| Kerala | 1 | .. | 38 | 10 | 31 | 2 | 7 | .. |
| Madhya Pradesh | 4 | .. | 81 | 9 | 151 | 11 | 33 | 4 |
| Madras | 2 | .. | 45 | 18 | 111 | 57 | 19 | .. |
| Maharashtra | 5 | 1 | 109 | 10 | 223 | 7 | 11 | 3 |
| Mysore | 3 | .. | 53 | 4 | 90 | 17 | 8 | 1 |
| Orissa* | 1 | .. | 30 | 6 | 25 | 2 | 6 | .. |
| Punjab | 4 | .. | 80 | 21 | 41 | 5 | 4 | 2 |
| Rajasthan | 3 | .. | 47 | 9 | 24 | 1 | 23 | .. |
| Uttar Pradesh | 9 | .. | 125 | 23 | 47 | 9 | 12 | .. |
| West Bengal | 7 | .. | 102 | 34 | 50 | 6 | 6 | 4 |
| Goa, Daman & Diu | .. | .. | 2 | .. | 1 | .. | .. | .. |
| A. & N. Islands † | .. | .. | .. | .. | .. | .. | .. | .. |
| Dadra & Nagar Haveli | .. | .. | .. | .. | .. | .. | .. | .. |
| Delhi | 1 | .. | 21 | 5 | 9 | 2 | 1 | 1 |
| Himachal Pradesh | .. | .. | 5 | .. | 2 | .. | 3 | .. |
| L. M. & A. Islands ‡ | .. | .. | .. | .. | .. | .. | .. | .. |
| Manipur | .. | .. | 2 | .. | 1 | .. | 31 | .. |
| Nagaland | .. | .. | 2 | .. | .. | .. | .. | .. |
| N.E.F.A. | .. | .. | .. | .. | .. | .. | .. | .. |
| Pondicherry | .. | .. | 3 | .. | 3 | .. | .. | .. |
| Tripura | .. | .. | 2 | .. | 5 | .. | .. | .. |
| India Total | 54 | 1 | 1,011 | 189 | 955 | 122 | 231 | 26 |

* Figures for 1961-62. † Andaman & Nicobar Islands. ‡ Laccadive, Minicoy & Amindivi Islands.

## 7. UNIVERSITY EDUCATION (ENROLMENT)

| States/Territories | Universities | | Research Institutions | | Arts and Science Colleges | | Professional and Technical Colleges | | Special Education Colleges | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| Andhra Pradesh | 3,649 | 304 | .. | .. | 40,878 | 7,573 | 12,081 | 1,700 | 1,052 | 267 |
| Assam | 1,393 | 186 | .. | .. | 24,264 | 4,645 | 3,656 | 181 | 22 | .. |
| Bihar | 5,382 | 652 | 150 | 2 | 78,505 | 6,466 | 15,727 | 633 | 1,696 | 53 |
| Gujarat | 638 | 127 | 287 | 87 | 29,796 | 9,720 | 18,272 | 1,364 | 691 | 773 |
| Jammu and Kashmir | .. | .. | .. | .. | 5,890 | 2,197 | 1,410 | 200 | 302 | 714 |
| Kerala | 232 | 79 | .. | .. | 30,592 | 15,541 | 7,543 | 1,966 | 358 | 179 |
| Madhya Pradesh | 2,546 | 286 | .. | .. | 35,930 | 5,209 | 23,059 | 3,018 | 1,904 | 2,726 |
| Madras | 3,882 | 314 | .. | .. | 36,290 | 10,837 | 27,151 | 10,413 | 1,404 | 357 |
| Maharashtra | 2,783 | 647 | 243 | 97 | 72,185 | 23,823 | 36,409 | 6,894 | 1,343 | 1,062 |
| Mysore | 2,076 | 258 | 92 | 1 | 30,883 | 7,975 | 20,015 | 2,335 | 2,243 | 1,062 |
| Orissa* | 271 | 50 | .. | .. | 13,251 | 1,792 | 4,289 | 424 | 268 | 210 |
| Punjab | 1,677 | 574 | .. | .. | 38,806 | 11,608 | 9,361 | 3,369 | 567 | 428 |
| Rajasthan | 4,809 | 763 | .. | .. | 19,783 | 3,936 | 5,940 | 439 | 2,759 | 246 |
| Uttar Pradesh | 29,963 | 4,659 | 523 | 3 | 63,287 | 11,454 | 7,537 | 1,267 | 1,386 | 835 |
| West Bengal | 11,054 | 2,892 | 395 | 44 | 86,663 | 32,983 | 20,764 | 1,476 | 1,916 | 1,349 |
| Goa, Daman & Diu | .. | .. | .. | .. | 611 | 222 | 274 | 30 | .. | .. |
| A. & N. Islands† | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Dadra & Nagar Haveli | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Delhi | 1,846 | 372 | 1,373 | 19 | 12,207 | 6,948 | 4,371 | 1,008 | 53 | 553 |
| Himachal Pradesh | .. | .. | .. | .. | 748 | 198 | 70 | 27 | 86 | 27 |
| L., M. & A. Islands‡ | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Manipur | .. | .. | .. | .. | 2,245 | 350 | 87 | 12 | 275 | 129 |
| Nagaland | .. | .. | .. | .. | 135 | 11 | .. | .. | .. | .. |
| N.E.F.A. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Pondicherry | .. | .. | .. | .. | 804 | 143 | 354 | 146 | .. | .. |
| Tripura | .. | .. | .. | .. | 1,261 | 353 | 804 | 87 | 21 | 35 |
| India Total | 72,201 | 12,163 | 3,063 | 253 | 25,004 | 1,63,986 | 2,18,674 | 36,908 | 18,346 | 11,005 |

* Figures for 1961-62. † Andaman & Nicobar Islands. ‡ Laccadive, Minicoy & Amindivi Islands.

## 8. UNIVERSITY EDUCATION (DIRECT EXPENDITURE)

(in Rs.)

| States/Territories | Universities | Boards of Secondary and/or Intermediate Education | Research Institutions | Arts and Science Colleges | Colleges for Professional and Technical Education | Colleges for Special Education |
|---|---|---|---|---|---|---|
| Andhra Pradesh | 1,51,39,542 | 12,68,068 | .. | 1,91,78,074 | 1,34,76,717 | 7,51,880 |
| Assam | 45,36,558 | .. | .. | 61,85,534 | 47,41,766 | 10,515 |
| Bihar | 83,59,582 | .. | 2,44,330 | 1,99,73,112 | 1,16,07,699 | 5,22,870 |
| Gujarat | 1,35,42,000 | 10,66,830 | 31,36,471 | 1,29,38,760 | 1,08,73,849 | 9,22,054 |
| Jammu and Kashmir | .. | .. | .. | 29,30,681 | 16,57,616 | 1,89,875 |
| Kerala | 78,23,004 | .. | .. | 1,35,27,856 | 70,86,158 | 1,14,407 |
| Madhya Pradesh | 42,85,872 | 28,11,352 | .. | 1,66,78,440 | 2,37,44,062 | 13,01,455 |
| Madras | 1,02,22,493 | 19,17,877 | .. | 1,73,60,342 | 2,10,93,757 | 7,91,628 |
| Maharashtra | 1,71,47,735 | 42,69,836 | 17,22,782 | 3,44,40,743 | 3,22,66,397 | 14,05,487 |
| Mysore | 1,00,82,059 | .. | 6,44,855 | 1,10,73,377 | 1,43,85,439 | 6,76,672 |
| Orissa* | 16,14,963 | 4,43,323 | .. | 55,32,788 | 39,34,201 | 2,36,692 |
| Punjab | 1,45,67,816 | .. | .. | 1,69,58,199 | 1,01,19,337 | 1,87,048 |
| Rajasthan | 52,05,139 | 21,36,178 | .. | 1,19,12,897 | 76,43,790 | 8,75,251 |
| Uttar Pradesh | 6,51,69,816 | 92,53,510 | 1,16,85,072 | 2,36,55,117 | 1,29,53,502 | 9,04,478 |
| West Bengal | 1,87,55,675 | 31,53,951 | 40,62,721 | 3,22,25,727 | 2,41,03,992 | 7,24,174 |
| Goa, Daman & Diu | .. | .. | .. | 2,38,064 | 2,62,517 | .. |
| A. & N. Islands† | .. | .. | .. | .. | .. | .. |
| Dadra & Nagar Haveli | .. | .. | .. | .. | .. | .. |
| Delhi | 50,04,589 | .. | 13,55,458 | 1,05,20,490 | 1,84,11,451 | 6,22,213 |
| Himachal Pradesh | .. | .. | .. | 7,18,568 | 2,17,581 | 1,53,606 |
| L., M. & A. Islands‡ | .. | .. | .. | .. | .. | .. |
| Manipur | .. | .. | .. | 5,99,019 | 42,425 | 75,152 |
| Nagaland | .. | .. | .. | 2,20,304 | .. | .. |
| N.E.F.A. | .. | .. | .. | .. | .. | .. |
| Pondicherry | .. | .. | .. | 8,19,341 | 15,00,370 | .. |
| Tripura | .. | .. | .. | 6,87,094 | 3,47,814 | 14,854 |
| India Total | 20,14,56,843 | 2,63,20,915 | 2,28,51,689 | 25,83,72,527 | 22,04,70,440 | 1,05,28,311 |

* Relates to 1961-62. † Andaman & Nicobar Islands. ‡ Laccadive, Minicoy & Amindivi Islands.

## 9. TECHNICAL AND VOCATIONAL EDUCATION (SCHOOLS)

| States/Territories | Number of Schools for | | Enrolment of | | Expenditure in Rs. on Institutions for | | Number of Teachers | |
|---|---|---|---|---|---|---|---|---|
| | Boys | Girls | Boys | Girls | Boys | Girls | Men | Women |
| Andhra Pradesh | 166 | 56 | 25,830 | 6,642 | 98,72,409 | 10,86,326 | 2,097 | 347 |
| Assam | 74 | 21 | 8,884 | 1,055 | 28,97,046 | 1,71,164 | 660 | 42 |
| Bihar | 173 | 47 | 29,901 | 3,980 | 96,18,631 | 11,51,847 | 1,824 | 215 |
| Gujarat | 253 | 123 | 27,699 | 9,605 | 78,06,296 | 16,99,287 | 2,378 | 499 |
| Jammu & Kashmir | 17 | 2 | 1,375 | 225 | 21,62,651 | 1,56,564 | 186 | 20 |
| Kerala | 151 | 49 | 14,878 | 6,746 | 45,06,320 | .. | 1,049 | 320 |
| Madhya Pradesh | 77 | 20 | 5,884 | 1,045 | 55,85,941 | 1,80,471 | 647 | 47 |
| Madras | 542 | 36 | 37,869 | 10,336 | 84,15,875 | 4,34,058 | 2,159 | 198 |
| Maharashtra | 437 | 260 | 51,873 | 18,831 | 1,84,51,635 | 40,58,588 | 4,344 | 1,151 |
| Mysore | 265 | 19 | 33,009 | 7,620 | 74,67,458 | 2,96,950 | 1,818 | 104 |
| Orissa* | 115 | 20 | 10,047 | 682 | 30,07,497 | 1,55,078 | 756 | 37 |
| Punjab | 89 | 96 | 15,763 | 6,094 | 67,72,041 | 12,96,602 | 1,511 | 423 |
| Rajasthan | 64 | 7 | 7,976 | 1,007 | 53,70,217 | 3,61,282 | 863 | 51 |
| Uttar Pradesh | 180 | 35 | 23,662 | 2,913 | 90,04,978 | 14,78,513 | 2,150 | 372 |
| West Bengal | 244 | 121 | 38,912 | 11,360 | 1,15,75,852 | 12,06,546 | 2,199 | 454 |
| Goa, Daman & Diu | 13 | 2 | 994 | 574 | 5,67,251 | 2,745 | 54 | 20 |
| A. & N. Islands † | 1 | .. | 15 | 9 | 29,945 | .. | 6 | .. |
| Dadra & Nagar Haveli | .. | .. | .. | .. | .. | .. | .. | .. |
| Delhi | 12 | 4 | 4,810 | 941 | 16,56,468 | 5,34,087 | 422 | 58 |
| Himachal Pradesh | 8 | .. | 780 | 105 | 5,58,138 | .. | .. | .. |
| L., M. & A. Islands ‡ | .. | .. | .. | .. | .. | .. | .. | .. |
| Manipur | 30 | 2 | 809 | 231 | 4,35,836 | 21,537 | 132 | 12 |
| Nagaland | 3 | .. | 100 | .. | 51,078 | .. | 16 | .. |
| N.E.F.A. | 1 | .. | 46 | 16 | 67,903 | .. | 8 | 3 |
| Pondicherry | 2 | 1 | 263 | 55 | 1,47,616 | 23,768 | 25 | 6 |
| Tripura | 5 | 1 | 745 | 158 | 4,07,953 | 2,910 | 64 | 2 |
| India Total | 2,922 | 922 | 3,60,394 | 1,02,494 | 11,64,37,035 | 1,43,18,323 | 25,368 | 4,381 |

* Figures for 1961-62. † Andaman & Nicobar Islands. ‡ Laccadive, Minicoy & Amindivi Islands.

## 10. PROFESSIONAL AND TECHNICAL EDUCATION

| Type | COLLEGES | | | SCHOOLS | | |
|---|---|---|---|---|---|---|
| | Number of Institutions | Enrolment | | Number of Institutions | Enrolment | |
| | | Boys | Girls | | Boys | Girls |
| Agriculture .. .. .. | 42 | 22,111 | 179 | 111 | 8,729 | 223 |
| Applied Arts and Architecture .. | 5 | .. | .. | .. | .. | .. |
| Commerce .. .. .. .. | 55 | 96,075 | 1,172 | 889 | 77,574 | 17,356 |
| Engineering .. .. .. | 77 | 55,166 | 527 | 306† | 85,337† | 1,502† |
| Forestry .. .. .. .. | 3 | 878 | 109 | 5 | 268 | .. |
| Law .. .. .. .. | 52 | 26,921 | 897 | .. | .. | .. |
| Medicine .. .. .. .. | 149 | 40,726 | 11,183 | 180 | 5,065 | 9,006 |
| Physical Education .. .. | 18 | 769 | 137 | 46 | 3,448 | 629 |
| Teachers' Training ‡ .. .. | 636 | 42,157 | 19,896 | 1,103@ | 1,06,542@ | 43,705@ |
| Technology .. .. .. | 12 | 5,926 | 27 | 1,175* | 69,442* | 30,025* |
| Veterinary Science .. .. | 18 | 5,298 | 23 | 6 | 666 | .. |
| Others .. .. .. .. | 10 | 2,309 | 251 | 23 | 3,323 | 48 |
| India Total .. .. .. | 1,077 | 2,98,336 | 34,401 | 3,844 | 3,60,394 | 1,02,494 |

† Includes polytechnic.

* Includes technical, industrial, arts and crafts.

‡ Includes post-graduates and under-graduates under basic and non-basic categories.

@ Includes nursery.

## 11. TECHNICAL AND PROFESSIONAL EDUCATION (COLLEGIATE)

| States/Territories | Number of Colleges for | | Enrolment of | | Expenditure in Rs. on Institutions for | |
|---|---|---|---|---|---|---|
| | Boys | Girls | Boys | Girls | Boys | Girls |
| Andhra Pradesh .. .. .. | 34 | 1 | 18,273 | 1,862 | 1,34,29,342 | 47,375 |
| Assam .. .. .. .. | 13 | .. | 3,656 | 181 | 47,41,766 | .. |
| Bihar .. .. .. .. .. | 34 | 1 | 15,727 | 633 | 1,15,54,802 | 52,897 |
| Gujarat .. .. .. .. | 50 | 1 | 18,272 | 1,364 | 1,08,65,624 | 8,225 |
| Jammu & Kashmir .. .. .. | 5 | 0 | 1,410 | 200 | 16,57,616 | .. |
| Kerala .. .. .. .. | 31 | 2 | 7,543 | 1,966 | 69,93,279 | 92,879 |
| Madhya Pradesh .. .. .. | 151 | 11 | 23,059 | 3,018 | 2,27,66,359 | 9,77,703 |
| Madras .. .. .. .. | 111 | 57 | 27,151 | 10,413 | 1,92,76,430 | 18,17,327 |
| Maharashtra .. .. .. .. | 223 | 7 | 36,409 | 6,894 | 3,20,35,190 | 2,31,207 |
| Mysore .. .. .. .. | 90 | 17 | 20,015 | 2,335 | 1,38,61,211 | 5,24,228 |
| Orissa* .. .. .. .. | 25 | 2 | 4,289 | 424 | 39,08,179 | 20,022 |
| Punjab .. .. .. .. | 41 | 5 | 9,361 | 3,369 | 98,42,274 | 2,77,063 |
| Rajasthan .. .. .. .. | 24 | 1 | 5,940 | 439 | 76,28,204 | 15,586 |
| Uttar Pradesh .. .. .. .. | 47 | 9 | 7,537 | 1,267 | 1,24,48,163 | 5,05,339 |
| West Bengal .. .. .. .. | 50 | 6 | 20,764 | 1,476 | 2,37,08,712 | 3,95,280 |
| Goa, Daman & Diu .. .. .. | 3 | .. | 274 | 30 | 2,62,517 | .. |
| A. & N. Islands † .. .. .. | .. | .. | .. | .. | .. | .. |
| Dadra & Nagar Haveli .. .. | .. | .. | .. | .. | .. | .. |
| Delhi .. .. .. .. .. | 9 | 2 | 4,371 | 1,008 | 1,37,72,169 | 46,39,282 |
| Himachal Pradesh .. .. .. | 2 | .. | 86 | 27 | 2,17,581 | .. |
| L., M. & A. Islands ‡ .. .. | .. | .. | .. | .. | .. | .. |
| Manipur .. .. .. .. | 2 | .. | 87 | 12 | 42,425 | .. |
| Nagaland .. .. .. .. | .. | .. | .. | .. | .. | .. |
| N.E.F.A. .. .. .. .. | .. | .. | .. | .. | .. | .. |
| Pondicherry .. .. .. .. | 3 | .. | 354 | 146 | 15,00,370 | .. |
| Tripura .. .. .. .. | 5 | .. | 304 | 87 | 3,47,814 | .. |
| India Total .. .. .. | 955 | 122 | 2,18,674 | 36,998 | 21,08,60,027 | 96,10,413 |

* Figures are for 1961-62.

† Andaman & Nicobar Islands.

‡ Laccadive, Minicoy & Amindivi Islands.

## 12. TEACHER TRAINING INSTITUTIONS AND NURSERIES

| States/Territories | Colleges | | | | Schools | | | |
|---|---|---|---|---|---|---|---|---|
| | Basic | | Non-basic | | Basic | | Non-basic | |
| | Men | Women | Men | Women | Men | Women | Men | Women |
| Andhra Pradesh | .. | .. | 6 | 1 | 74 | 17 | 22 | 24 |
| Assam | 1 | .. | 1 | .. | 23 | 2 | 10 | 3 |
| Bihar | 6 | 1 | .. | .. | 85 | 17 | 11 | 9 |
| Gujarat | 2 | .. | 6 | 1 | 45 | 22 | 7 | .. |
| Jammu & Kashmir | .. | .. | 2 | .. | 3 | 2 | .. | .. |
| Kerala | .. | .. | 17 | 2 | 67 | 13 | .. | .. |
| Madhya Pradesh | 106 | 10 | 1 | .. | .. | .. | .. | .. |
| Madras | 72 | 40 | 18 | 17 | 1 | 7 | .. | 4 |
| Maharashtra | 3 | .. | 147 | 6 | 100 | 37 | 31 | 3 |
| Mysore | 32 | 10 | 22 | 7 | 6 | .. | 4 | 3 |
| Orissa* | 8 | .. | 8 | 2 | .. | .. | 74 | 6 |
| Punjab | 11 | 2 | 7 | 2 | 16 | 9 | .. | .. |
| Rajasthan | 5 | 1 | .. | .. | 44 | 7 | .. | .. |
| Uttar Pradesh | 5 | .. | 7 | 8 | 142 | 32 | .. | .. |
| West Bengal | 6 | 2 | 8 | 4 | 29 | 2 | 29 | 10 |
| Goa, Daman & Diu | .. | .. | .. | .. | .. | .. | 1 | .. |
| A. & N. Islands† | .. | .. | .. | .. | 1 | .. | .. | .. |
| Dadra & Nagar Haveli | .. | .. | .. | .. | .. | .. | .. | .. |
| Delhi | .. | .. | 1 | .. | 1 | .. | .. | .. |
| Himachal Pradesh | 1 | .. | .. | .. | 4 | .. | .. | .. |
| L. M. & A. Islands ‡ | .. | .. | .. | .. | .. | .. | .. | .. |
| Manipur | 1 | .. | .. | .. | 4 | .. | 1 | .. |
| Nagaland | .. | .. | .. | .. | 2 | .. | .. | .. |
| N.E.F.A. | .. | .. | .. | .. | 1 | .. | .. | .. |
| Pondicherry | 1 | .. | 1 | .. | .. | .. | .. | .. |
| Tripura | 3 | .. | 2 | .. | .. | .. | .. | .. |
| India | 262 | 65 | 257 | 52 | 653 | 167 | 190 | 62 |

* Figures for 1961-62. † Andaman & Nicobar Islands. ‡ Laccadive, Minicoy & Amindivi Islands.

## 13. TEACHER TRAINING INSTITUTIONS (ENROLMENT)

| States/Territories | Colleges | | | | Schools | | | |
|---|---|---|---|---|---|---|---|---|
| | Basic | | Non-basic | | Basic | | Non-basic | |
| | Men | Women | Men | Women | Men | Women | Men | Women |
| Andhra Pradesh | — | — | 1,065 | 363 | 10,745 | 2,793 | 1,680 | 2,247 |
| Assam | 24 | — | 176 | 59 | 2,263 | 237 | 685 | 106 |
| Bihar | 672 | 55 | 156 | 105 | 16,074 | 2,548 | 324 | 403 |
| Gujarat | 48 | 18 | 684 | 301 | 6,383 | 2,903 | 179 | 34 |
| Jammu & Kashmir | 199 | 111 | — | — | 428 | 225 | — | — |
| Kerala | — | — | 1,328 | 895 | 4,404 | 3,999 | — | — |
| Madhya Pradesh | 10,814 | 2,285 | 53 | 8 | — | — | — | — |
| Madras | 6,442 | 3,897 | 1,978 | 1,461 | 6,398 | 4,122 | 1,124 | 1,429 |
| Maharashtra | 100 | 11 | 4,606 | 4,041 | 14,374 | 5,057 | 916 | 572 |
| Mysore | 2,012 | 502 | 2,060 | 683 | 1,158 | 278 | 544 | 131 |
| Orissa | 402 | — | 747 | 147 | — | — | 6,381 | 252 |
| Punjab | 946 | 1,140 | 1,194 | 673 | 9,156 | 9,658 | — | 185 |
| Rajasthan | 627 | 125 | — | — | 5,160 | 977 | — | — |
| Uttar Pradesh | 424 | 18 | 3,118 | 1,658 | 14,383 | 2,213 | — | — |
| West Bengal | 338 | 169 | 1,251 | 814 | 2,077 | 490 | 673 | 485 |
| Goa, Daman & Diu | — | — | — | — | — | — | — | 18 |
| A. & N. Islands † | — | — | — | — | 15 | 9 | — | — |
| Dadra & Nagar Haveli | — | — | — | — | — | — | — | — |
| Delhi | 50 | 28 | 67 | 117 | 124 | 147 | 43 | 28 |
| Himachal Pradesh | 46 | 27 | — | — | 257 | 87 | — | — |
| L. M. & A. Islands ‡ | — | — | — | — | — | — | — | — |
| Manipur | 62 | 12 | 25 | 5 | 321 | 32 | 42 | 4 |
| Nagaland | — | — | — | — | 55 | — | — | — |
| N.E.F.A. | — | — | — | — | 41 | — | — | — |
| Pondicherry | 57 | 28 | 88 | 53 | — | — | — | — |
| Tripura | 218 | 30 | 86 | 57 | — | — | — | — |
| India | 23,481 | 8,456 | 18,676 | 11,440 | 93,816 | 35,775 | 12,591 | 5,894 |

† Andaman & Nicobar Islands. ‡ Laccadive, Minicoy & Amindivi Islands.

## 14. COLLEGES FOR SPECIAL EDUCATION

| States/Territories | Music, Dancing and other Fine Arts | | Oriental Studies | | Sociology | | Others | |
|---|---|---|---|---|---|---|---|---|
| | No. of Institutions | Enrolment | No. of Institutions | Enrolment | No. of Institutions | Enrolment | No. of Institutions | Enrolment |
| Andhra Pradesh | 2 | 304 | 25 | 943 | — | 63 | 1 | 321 |
| Assam | — | — | 1 | 22 | — | — | — | — |
| Bihar | 1 | 72 | 25 | 3,125 | — | — | 1 | 140 |
| Gujarat | 3 | 532 | 2 | 115 | 1 | 73 | 2 | 590 |
| Jammu & Kashmir | — | — | 11 | 514 | — | — | — | — |
| Kerala | — | — | 7 | 472 | — | 81 | — | 65 |
| Madhya Pradesh | 25 | 1,808 | 9 | 468 | — | — | 3 | 240 |
| Madras | 2 | 327 | 14 | 1,133 | 1 | 477 | 2 | 721 |
| Maharashtra | 1 | 844 | 4 | 702 | 2 | 230 | 7 | 1,258 |
| Mysore | — | — | 7 | 355 | — | — | 2 | 829 |
| Orissa | 2 | 298 | 4 | 180 | — | — | — | — |
| Punjab | — | — | 5 | 187 | — | — | 1 | 135 |
| Rajasthan | 1 | 12 | 20 | 368 | 1 | 34 | 1 | 91 |
| Uttar Pradesh | 6 | 693 | 4 | 1,688 | 1 | 195 | 1 | 711 |
| West Bengal | 8 | 1,621 | 1 | 300 | 1 | 151 | — | 235 |
| Nagaland | — | — | — | — | — | — | — | — |
| A. & N. Islands† | — | — | — | — | — | — | — | — |
| Dadra & Nagar Haveli | — | — | — | — | — | — | — | — |
| Delhi | — | 266 | — | — | 1 | 79 | 1 | 1,218 |
| Goa, Daman & Diu | — | — | — | — | — | — | — | — |
| Himachal Pradesh | 1 | 36 | 2 | 77 | — | — | — | — |
| L. M. & A. Islands‡ | — | — | — | — | — | — | — | — |
| Manipur | 1 | 7 | 1 | 9 | — | — | 31 | 86 |
| N.E.F.A. | — | — | — | — | — | — | — | — |
| Pondicherry | — | — | — | — | — | — | — | — |
| Tripura | 1 | 56 | — | — | — | — | — | — |
| Total | 54 | 6,866 | 142 | 10,065 | 8 | 1,320 | 53 | 6,640 |

† Andaman & Nicobar Islands. ‡ Laccadive, Minicoy & Amindivi Islands.

## 15. SCHOOLS FOR SPECIAL EDUCATION

| States/Territories | Music, Dancing & other Fine Arts | | | | Oriental Studies | | | | For Social Work | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. of Institutes | | Enrolment | | No. of Institutes | | Enrolment | | No. of Institutes | | Enrolment | |
| | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| Andhra Pradesh | 8 | 8 | 385 | 1,007 | 58 | 8 | 5,430 | 2,783 | 9 | 1 | 1,184 | 99 |
| Assam | 9 | 6 | 39 | 44 | 119 | .. | 3,511 | 458 | .. | .. | .. | .. |
| Bihar | 3 | .. | 197 | 79 | 675 | 2 | 32,845 | 5,763 | 5 | 1 | 464 | 32 |
| Gujarat | 13 | 4 | 814 | 901 | 27 | .. | 1,021 | 99 | 1 | 1 | 19 | 25 |
| Jammu & Kashmir | .. | .. | .. | .. | .. | .. | 45 | 224 | .. | .. | .. | .. |
| Kerala | 10 | 1 | 251 | 594 | .. | .. | 35 | 30 | .. | .. | .. | .. |
| Madhya Pradesh | 2 | .. | 570 | 752 | 110 | .. | 3,886 | 374 | 1 | .. | 19 | .. |
| Madras | 3 | 1 | 336 | 85 | 11 | 1 | 535 | 273 | 1 | 1 | 182 | 37 |
| Maharashtra | 36 | 4 | 1,033 | 1,166 | 38 | .. | 2,167 | 634 | 1 | 1 | 59 | 22 |
| Mysore | 22 | 6 | 999 | 1,288 | 185 | .. | 9,864 | 3,224 | 5 | .. | 150 | .. |
| Orissa | 12 | 9 | 372 | 491 | 144 | 1 | 8,024 | 183 | 4 | 1 | 376 | 24 |
| Punjab | 1 | .. | 145 | 5 | .. | .. | 30 | 21 | 1 | .. | 22 | .. |
| Rajasthan | 5 | 1 | 189 | 270 | 98 | .. | 10,798 | 1,877 | 1 | .. | 93 | .. |
| Uttar Pradesh | 3 | 7 | 232 | 868 | 1,004 | 9 | 52,500 | 3,588 | .. | .. | .. | .. |
| West Bengal | 16 | 16 | 957 | 3,041 | 1,021 | 5 | 19,577 | 2,384 | 5 | .. | 126 | 66 |
| Goa, Daman & Diu | 2 | .. | 58 | 54 | .. | .. | .. | .. | .. | .. | .. | .. |
| A. & N. Islands † | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Dadra & Nagar Haveli | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Delhi | 1 | 1 | 65 | 166 | .. | .. | .. | .. | 1 | 1 | 43 | 80 |
| Himachal Pradesh | .. | .. | .. | .. | .. | .. | 25 | 6 | .. | .. | .. | .. |
| L. M. & A. Islands ‡ | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Manipur | 1 | .. | 87 | 83 | 1 | .. | 34 | 1 | .. | .. | .. | .. |
| Nagaland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| N.E.F.A. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Pondicherry | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Tripura | 2 | .. | 8 | 21 | 26 | .. | 169 | 48 | 1 | .. | 134 | .. |
| All India | 149 | 64 | 6,737 | 10,915 | 3,517 | 26 | 1,45,496 | 21,970 | 36 | 6 | 2,871 | 385 |

† Andaman & Nicobar Islands. ‡ Laccadive, Minicoy & Amindivi Islands.

## 15. SCHOOLS FOR SPECIAL EDUCATION—*Contd.*

| States/Territories | Social (Adult) Education | | | | Others | | | | Total No. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | No. of Institutions | | Enrolment | | No. of Institutions | | Enrolment | | Total No. of students | |
| | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| Andhra Pradesh | 1,317 | 32 | 37,839 | 2,716 | .. | 2 | 558 | 86 | 45,816 | 6,807 |
| Assam | 528 | 63 | 15,267 | 4,596 | 6 | .. | 164 | .. | 19,041 | 5,486 |
| Bihar | 5,419 | 916 | 1,85,691 | 27,116 | 2 | .. | 218 | 2 | 2,19,738 | 33,040 |
| Gujarat | 1,930 | 788 | 38,826 | 8,710 | 4 | 2 | 1,141 | 568 | 41,821 | 10,303 |
| Jammu & Kashmir | .. | .. | .. | .. | .. | .. | .. | .. | 77 | 224 |
| Kerala | .. | .. | .. | .. | 3 | .. | 900 | 360 | 1,186 | 984 |
| Madhya Pradesh | 1,393 | 179 | 24,667 | 3,663 | 6 | 3 | 487 | 812 | 29,629 | 5,601 |
| Madras | 396 | .. | 8,194 | 1,679 | 15 | 6 | 4,279 | 1,170 | 13,526 | 3,244 |
| Maharashtra | 1,24,798 | 1,03,074 | 6,06,129 | 5,94,624 | 47 | 14 | 3,502 | 1,764 | 6,12,890 | 5,98,210 |
| Mysore | 4,582 | 126 | 70,683 | 7,270 | 7 | .. | 716 | 95 | 82,412 | 11,877 |
| Orissa | 4,056 | 873 | 66,762 | 13,683 | 1 | .. | 100 | 4 | 70,634 | 14,385 |
| Punjab | 81 | 783 | 2,541 | 11,012 | 10 | .. | 567 | 39 | 3,105 | 11,077 |
| Rajasthan | 6,465 | 50 | 63,868 | 1,052 | 3 | .. | 140 | 7 | 75,088 | 3,206 |
| Uttar Pradesh | 341 | 64 | 10,626 | 2,175 | 25 | 1 | 1,485 | 533 | 64,843 | 7,164 |
| West Bengal | 3,595 | 995 | 1,63,693 | 35,488 | 54 | 16 | 2,602 | 1,874 | 1,86,955 | 4,28,853 |
| Nagaland | 4 | .. | 47 | 100 | .. | .. | .. | .. | 47 | 100 |
| A. & N. Islands † | 22 | .. | 388 | 8 | .. | .. | .. | .. | 388 | 8 |
| Dadra & Nagar Haveli | 6 | .. | 167 | 8 | .. | .. | .. | .. | 167 | 8 |
| Delhi | 104 | 117 | 4,932 | 6,413 | 13 | 7 | 1,550 | 728 | 6,590 | 7,387 |
| Goa, Daman & Diu | .. | .. | .. | .. | .. | .. | .. | 31 | 58 | 85 |
| Himachal Pradesh | 287 | 27 | 4,552 | 2,276 | .. | .. | .. | .. | 4,577 | 2,282 |
| L. M. & A. Islands ‡ | 13 | 2 | 764 | 28 | .. | .. | .. | .. | 764 | 28 |
| Manipur | 144 | 52 | 2,329 | 1,618 | 164 | .. | 690 | 251 | 3,140 | 1,953 |
| N.E.F.A. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Pondicherry | 48 | 33 | 1,271 | 995 | .. | 1 | .. | 88 | 1,271 | 1,083 |
| Tripura | 320 | 188 | 13,043 | 5,467 | 28 | 1 | 478 | 224 | 13,832 | 5,760 |
| All India | 1,55,858 | 1,08,362 | 13,22,079 | 7,31,057 | 633 | 53 | 20,412 | 8,828 | 14,97,595 | 7,73,155 |

† Andaman & Nicobar Islands. ‡ Laccadive, Minicoy & Amindivi Islands.

## 16. BASIC SCHOOLS

| States/Territories | Post Basic | | | Basic (Middle) | | | Basic (Primary) | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of Institutions | Enrolment | Expenditure (in Rs.) | No. of Institutions | Enrolment | Expenditure (in Rs.) | No. of Institutions | Enrolment | Expenditure (in Rs.) |
| Andhra Pradesh | 2 | 145 | 38,912 | 358 | 90,937 | 39,02,571 | 2,673 | 3,48,659 | 96,19,524 |
| Assam | .. | .. | .. | 231 | 41,821 | 19,99,831 | 2,642 | 2,45,624 | 70,42,102 |
| Bihar | 9 | 1,674 | 84,281 | 842 | 1,67,792 | 75,28,034 | 2,856 | 2,10,293 | 37,16,314 |
| Gujarat | .. | .. | .. | 3,609 | 9,90,928 | 3,31,72,442 | 1,638 | 1,56,965 | 61,81,395 |
| Jammu & Kashmir | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Kerala | 3* | .. | .. | 83 | 2,32,213 | 3,74,84,429 | 417 | 9,39,243 | 6,58,47,044 |
| Madhya Pradesh | .. | .. | .. | 464 | 1,04,172 | 49,32,113 | 2,435 | 2,04,253 | 78,82,027 |
| Madras | 4 | 273 | 95,474 | 1,164 | 3,67,696 | 1,30,17,643 | 3,307 | 4,80,545 | 1,56,91,252 |
| Maharashtra | .. | .. | .. | 2,972 | 9,58,152 | 3,23,90,216 | 1,929 | 2,00,915 | 69,43,727 |
| Mysore | .. | .. | .. | 1,225 | 3,37,697 | 1,00,44,398 | 2,089 | 2,73,917 | 83,24,380 |
| Orissa | 2 | 82 | 25,095 | 25 | 6,052 | 3,14,760 | 358 | 33,245 | 10,94,550 |
| Punjab | 4 | 3,336 | 2,12,468 | 72 | 26,844 | 11,12,610 | 2,130 | 2,78,994 | 86,30,619 |
| Rajasthan | .. | .. | .. | 56 | 16,119 | 12,99,572 | 1,947 | 2,08,869 | 70,87,715 |
| Uttar Pradesh | .. | .. | .. | 4,956 | 6,69,097 | 3,37,90,497 | 49,506 | 52,81,694 | 10,44,43,251 |
| West Bengal | .. | .. | .. | 283 | 27,187 | 21,25,866 | 1,740 | 2,09,152 | 78,73,164 |
| Nagaland | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| A. & N. Islands † | .. | .. | .. | .. | .. | .. | 52 | 3,774 | 3,16,572 |
| Dadra & Nagar Haveli | .. | .. | .. | 25 | 3,056 | 1,73,303 | 38 | 1,883 | .. |
| Delhi | .. | .. | .. | 294 | 1,14,580 | 1,08,61,055 | 869 | 2,16,945 | 1,61,90,610 |
| Goa, Daman & Diu | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Himachal Pradesh | .. | .. | .. | 5 | 1,457 | 74,538 | 1,313 | 55,895 | 37,73,658 |
| L. M. & A. Islands ‡ | .. | .. | .. | 7 | 1,937 | 2,38,794 | 14 | 1,646 | 1,57,338 |
| Manipur | .. | .. | .. | .. | .. | .. | 265 | 20,356 | 10,74,772 |
| N.E.F.A. | .. | .. | .. | .. | .. | .. | 135 | 5,110 | 5,41,711 |
| Pondicherry | .. | .. | .. | 2 | 340 | 10,814 | 20 | 1,566 | 57,359 |
| Tripura | .. | .. | .. | 72 | 8,163 | 10,39,063 | 564 | 60,001 | 26,45,894 |
| Total India | 24 | 5,510 | 4,56,230 | 16,745 | 39,34,027 | 19,55,12,549 | 78,937 | 1,03,71,622 | 28,51,34,978 |

* No. of students on rolls and expenditure included in the figures given for High School in respect of Post-basic students.

† Andaman & Nicobar Islands. ‡ Laccadive, Minicoy & Amindivi Islands.

## 16. EXPENDITURE (By Sources)

| Particulars | Boys | Girls |
|---|---|---|
| Govt. Funds (Central) | 28,22,56,559 | 1,36,35,159 |
| ,, ,, (State) | 2,42,62,83,615 | 25,21,37,200 |
| District Boards Funds | 14,04,22,388 | 87,12,261 |
| Municipal Boards Funds | 12,09,00,971 | 2,65,49,570 |
| Fees | 64,71,29,825 | 8,73,54,496 |
| Endowments etc. | 8,56,03,459 | 1,60,04,942 |
| Other Sources | 23,30,26,248 | 2,57,06,593 |
| **Direct Expenditure by Types of Institutions** | | |
| Universities | 20,01,93,127 | 12,63,716 |
| Boards of Secondary and/or Intermediate Education | 2,63,20,915 | .. |
| Research Institutions | 2,28,51,689 | .. |
| Arts and Science Colleges | 22,79,41,860 | 3,04,30,667 |
| Colleges for Professional and Technical Education | 21,08,60,027 | 96,10,413 |
| Colleges for Special Education | 84,55,282 | 20,73,029 |
| Post-Basic School | 3,88,803 | 67,427 |
| Higher Secondary Schools | 34,27,32,648 | 6,96,61,845 |
| High Schools | 31,91,06,866 | 7,72,29,274 |
| Middle Schools (Basic) | 17,52,56,373 | 2,02,56,176 |
| ,, ,, (Non-basic) | 31,59,26,330 | 4,16,81,480 |
| Primary Schools (Basic) | 26,12,14,978 | 2,39,20,000 |
| ,, ,, (Non-basic) | 60,45,56,915 | 4,31,63,768 |
| Pre-primary Schools | 71,50,797 | 15,54,663 |
| Vocational and Tech. Schools | 11,64,37,035 | 1,43,18,323 |
| Special Education Schools | 2,96,68,116 | 41,42,648 |
| Total (Direct) | 2,96,90,61,761 | 33,93,73,429 |
| **Indirect Expenditure** | | |
| Directions and Inspections | 8,25,21,057 | 38,21,382 |
| Buildings | 43,77,55,558 | 3,74,87,763 |
| Scholarships | 23,51,49,453 | 3,28,35,038 |
| Hostels | 4,64,58,709 | 88,86,634 |
| Other Miscellaneous Items | 16,46,76,527 | 76,95,975 |
| Total (Indirect) | 96,65,61,304 | 9,07,26,792 |
| Grand Total | 3,93,56,23,065 | 43,01,00,221 |

## 17. SCHOOLS FOR THE HANDICAPPED

| States/Territories | Schools | | Enrolment | |
|---|---|---|---|---|
| | Boys | Girls | Boys | Girls |
| Andhra Pradesh | 10 | .. | 420 | 116 |
| Assam | 2 | .. | 60 | 28 |
| Bihar | 5 | .. | 323 | 48 |
| Gujarat | 20 | 1 | 775 | 167 |
| Jammu & Kashmir | 2 | .. | 32 | .. |
| Kerala | 6 | .. | 307 | 78 |
| Madhya Pradesh | 5 | .. | 168 | 40 |
| Madras | 18 | .. | 328 | 167 |
| Maharashtra | 32 | 2 | 2,182 | 886 |
| Mysore | 4 | .. | 239 | 50 |
| Orissa | 1 | .. | 100 | 4 |
| Punjab | 8 | .. | 276 | 39 |
| Rajasthan | 3 | .. | 140 | 7 |
| Uttar Pradesh | 22 | 1 | 764 | 233 |
| West Bengal | 12 | .. | 522 | 253 |
| Nagaland | .. | .. | .. | .. |
| A. & N. Islands† | .. | .. | .. | .. |
| Dadra & Nagar Haveli | .. | .. | .. | .. |
| Delhi | 9 | 2 | 678 | 392 |
| Goa, Daman & Diu | .. | .. | .. | .. |
| Himachal Pradesh | .. | .. | .. | .. |
| L. M. & A. Islands* | .. | .. | .. | .. |
| Manipur | .. | .. | .. | .. |
| N. E. F. A. | .. | .. | .. | .. |
| Pondicherry | .. | .. | .. | .. |
| Tripura | .. | .. | .. | .. |
| India Total | 165 | 6 | 7,314 | 2,508 |

† Andaman & Nicobar Islands.

* Laccadive, Minicoy & Amindivi Islands.

## 18. STUDENTS BY STAGE OF EDUCATION

| By Stages/Subjects | Boys | Girls | Total |
|---|---|---|---|
| **General Education (University Standard)** | | | |
| Research | 4,402 | 877 | 5,279 |
| Post-Graduate Diploma | 312 | 18 | 330 |
| M.A. & M.Sc. | 41,304 | 11,921 | 53,225 |
| B.A. & B.Sc. (Pass & Hons.) | 3,19,049 | 96,432 | 4,15,481 |
| Intermediate/Pre-University (Arts & Science) | 3,80,803 | 84,584 | 4,65,387 |
| Total | 7,45,870 | 1,93,832 | 9,39,702 |
| **Professional Education (University Standard)** | | | |
| Agriculture | 22,111 | 179 | 22,290 |
| Commerce | 96,075 | 1,172 | 97,247 |
| Engineering | 55,166 | 527 | 55,693 |
| Forestry | 878 | 109 | 987 |
| Law | 26,921 | 897 | 27,818 |
| Medicine | 40,726 | 11,183 | 51,909 |
| Physical Education | 769 | 137 | 906 |
| Teachers' Training (Basic) | 23,481 | 8,456 | 31,937 |
| ,, ,, (Non-basic) | 18,676 | 11,440 | 30,116 |
| Technology | 5,920 | 27 | 5,953 |
| Veterinary Science | 5,298 | 23 | 5,321 |
| Other Subjects | 2,309 | 251 | 2,560 |
| Total | 2,98,336 | 34,401 | 3,32,737 |
| **General Education (School Standard)** | | | |
| High & Higher Secondary | 33,82,351 | 2,73,795 | 43,56,146 |
| Middle | 65,32,241 | 23,63,902 | 88,96,143 |
| Primary | 2,67,25,448 | 1,37,53,648 | 4,04,79,096 |
| Pre-Primary | 1,15,611 | 96,056 | 2,11,667 |
| Total | 3,67,55,651 | 1,71,87,401 | 5,39,43,052 |
| **Vocational Educational (School Standard)** | | | |
| Agriculture | 8,729 | 223 | 8,952 |
| Commerce | 77,574 | 17,356 | 94,930 |
| Engineering Technology | 85,337 | 1,502 | 86,839 |
| Forestry | 268 | .. | 268 |
| Medicine | 5,065 | 9,006 | 14,071 |
| Physical Education | 3,448 | 629 | 4,077 |
| Teachers' Training (Basic) | 93,816 | 35,775 | 1,29,591 |
| ,, ,, (Non-basic) | 12,591 | 5,894 | 18,485 |
| Technical/Industrial/Arts & Crafts | 69,442 | 30,025 | 99,467 |
| Veterinary Science | 666 | .. | 666 |
| Other Subjects | 3,323 | 48 | 3,371 |
| Total | 3,60,394 | 1,02,494 | 4,62,888 |

**18. STUDENTS BY AGE-GROUPS**

| States/Territories | Age-group 6-11 | | Age-group 11-14 | | Age-group 14-17 | |
|---|---|---|---|---|---|---|
| | Students | Percentage* | Students | Percentage* | Students | Percentage* |
| Andhra | 35,18,366 | 73·3 | 5,10,799 | 21·4 | 2,44,355 | 11·0 |
| Assam | 13,00,503 | 73·5 | 2,60,230 | 33·6 | 1,63,327 | 24·1 |
| Bihar | 35,25,889 | 57·6 | 5,93,396 | 19·6 | 3,91,116 | 14·8 |
| Gujarat | 24,11,452 | 84·8 | 4,71,420 | 43·2 | 2,17,773 | 17·1 |
| Jammu & Kashmir | 2,50,298 | 48·8 | 73,337 | 28·8 | 28,799 | 12·7 |
| Kerala | 25,57,239 | 99·8 | 8,14,013 | 71·5 | 2,51,749 | 23·3 |
| Madhya Pradesh | 23,69,949 | 54·3 | 4,03,928 | 19·3 | 1,70,615 | 9·0 |
| Madras | 40,00,113 | 100·0 | 8,39,525 | 75·1 | 3,42,795 | 19·8 |
| Maharashtra | 43,59,115 | 79·9 | 9,27,613 | 34·8 | 4,44,336 | 18·2 |
| Mysore | 27,72,587 | 85·2 | 4,51,566 | 28·2 | 2,16,969 | 14·7 |
| Orissa | 16,05,495 | 68·9 | 1,59,908 | 14·2 | 62,067 | 6·2 |
| Punjab | 20,73,305 | 74·1 | 5,24,625 | 37·9 | 1,99,865 | 15·8 |
| Rajasthan | 14,00,734 | 49·9 | 2,63,959 | 19·3 | 1,05,886 | 8·7 |
| Uttar Pradesh | 54,32,964 | 54·7 | 10,49,424 | 21·7 | 4,13,501 | 9·4 |
| West Bengal | 34,10,123 | 76·6 | 6,31,077 | 26·9 | 2,59,979 | 11·7 |
| Nagaland | 46,909 | 97·9 | 8,666 | 39·1 | 2,698 | 14·3 |
| A. & N. Islands | 6,775 | 84·7 | 997 | 24·9 | 321 | 10·7 |
| Dadra & Nagar Haveli | 4,527 | 50·3 | 462 | 11·5 | 157 | 3·9 |
| Delhi | 3,47,057 | 100·0 | 1,42,186 | 81·0 | 77,462 | 46·1 |
| Goa, Daman & Diu | 66,087 | 80·5 | 9,950 | 25·6 | 5,063 | 14·3 |
| Himachal Pradesh | 1,10,367 | 69·0 | 25,092 | 31·8 | 8,028 | 11·0 |
| L. M. Islands | 3,908 | 97·7 | 516 | 25·8 | 109 | 5·5 |
| Manipur | 1,38,246 | 100·0 | 28,044 | 55·0 | 21,227 | 47·2 |
| N.E.F.A. | 5,988 | 11·3 | 1,846 | 7·1 | 1,205 | 5·0 |
| Pondicherry | 40,066 | 85·2 | 8,691 | 32·2 | 3,719 | 14·3 |
| Tripura | 1,11,390 | 66·5 | 20,230 | 26·3 | 7,273 | 10·4 |
| India Total | 4,18,69,452 | 70·6 | 82,21,500 | 29·3 | 36,40,394 | 13·7 |

* Percentage of enrolment in classes to the population of corresponding age-groups.

# ANDAMAN AND NICOBAR ISLANDS

Capital: Port Blair.

Area: 3,215 sq. miles (8,327 sq. km.). Pop. 63,548 (1961). Density: 20. Literacy: 33·6%.

The Andamans are a group of islands of various sizes, large and small, lying between the 6th and 14th Parallels in the Bay of Bengal. The northernmost 'Landfall Island' is 560 miles from the mouth of Hooghly River. The headquarters Port Blair is about 780 and 740 miles from Calcutta and Madras respectively. The main part of the group is composed of five large islands, *viz.* North Andaman, Middle Andaman, South Andaman, Baratang and Rutland Islands generally known as the Great Andaman. To the south of the Great Andaman is the island of Little Andaman. These Islands consist mostly of a mass of hills covered with dense tropical forests and separated by three straits and several creeks. These Islands have several very good harbours—Port Blair, Port Cornwallis, Mayabander and Port Elphinstone.

The Nicobar Islands from Car Nicobar in the north to Great Nicobar in the south intervene between Little Andaman and Sumatra. The southern island of Great Nicobar is about 100 miles from Pulo Brasse off Achin Head in Sumatra and the northern island of Car Nicobar 75 miles from Little Andaman. These islands are partly hilly and partly flat. The most important harbour in the area is Nancowry reputed to be the finest harbour in the east.

The climate of the islands can be generally described as tropical; warm but tempered by pleasant sea breezes. The islands are exposed to both monsoons with north-easterly gale from November to January and south-westerly gale from May to October. The weather is smooth only from January to April and to some extent in October. The average rainfall is 123 inches. The temperature varies between 23·9°c to 30·5°c throughout the year. The scenery of the islands is everywhere strikingly beautiful.

## POPULATION

63,548 (1961 census).

(*a*) *Aboriginals:* The aboriginals of the Andaman are supposed to be the earliest people to inhabit South East Asia. Essentially there are two main species *Erimtaga*, that is the forest dwellers who comprise the Jarawas and Sentenelese, and *Aryoto* the coast dwellers to which the Onge and the Andamanese belong. The Andamanese were originally the most numerous of all the tribes but their decadence has been the worst. They now number 23 in all. The Onge number 130 according to the 1961 Census. The information regarding the Jarawas and Sentenelese is wholly scanty as the tribes are hostile and avoid all contact with civilisation.

(*b*) *Andaman Indians:* From 1858 to October 1945, the Andaman Islands were a Penal Settlement, and except for the aboriginals, almost the entire population consisted of convicts and of people who were in these Islands in connection with these convicts—administrative personnel, merchants catering to them etc. After the issue of the Proclamation abolishing the Penal Settlement, declaration of amnesty and repatriation of convicts at Government expense, the population sunk to a little under 14,000 in 1947. This population has been recorded as "Andaman Indians" during the 1951 census.

(*c*) *Neo Settlers:* When the need for more manpower was felt, several families of displaced agriculturists from East Bengal were brought to South Andaman during 1949 for settlement under the Pilot Scheme of Rehabilitation. From 1949 to 1961, 3,281 families had been settled in these areas.

(*d*) *Nicobarese:* The Nicobarese belong to a completely different race group from the aboriginals of the Andamans. Their number according to the 1961 census is approximately 14,500 spread all over the Nicobar group of Islands.

## FORESTS

Forests cover an area of 2,500 sq. miles in the Andamans and the Nicobars. Out of this 72 per cent is under evergreen and deciduous forests.

The forests are rich in commercial timber and are suppliers of timber to the plywood and matchwood industries.

The species of timber found in the forest region are mainly padauk, Andaman redwood, Gurjan—a plywood species and Papita—a matchwood species. Annually the Forest department exports approximately 30,000 tons of timber to the mainland worth about Rs. 1 crore.

Since 1954 teak plantations are being raised in Andaman Islands with great success. Large areas have been brought under matchwood and cane plantations under the Five Year Plan schemes.

A Wild Life Sanctuary is being established at Ross Island which is at a distance of about one mile from Aberdeen Jetty (Port Blair).

## AGRICULTURE

The total revenue area is in the vicinity of 24,000 acres. The principal crops are rice, coconut and arecanut. The estimated area under paddy cultivation is about 17,000 acres. The average yield of paddy in 1963–64 was 20 maunds per acre. Commercial prospects of cultivation of rubber, coffee, and lac in these islands are considered to be bright by the experts.

**Animal Husbandry:** There are at present 5 veterinary dispensaries and 11 veterinary outposts functioning in the various parts of these islands. A poultry farm and a goat breeding farm have also been established at Port Blair.

## COLONISATION

Displaced persons including agriculturists from East Pakistan were readily available for settlement and the idea of colonisation of the Islands caught on. Sporadic efforts were made from time to time between 1949 and 1951 to rehabilitate the East Bengal refugees. In 1952-53 a long term plan for colonisation was put into operation. As a Grow More Food measure and with a view to achieving self-sufficiency in the matter of food it became imperative to import

manpower into these Islands. It envisaged settlement of 4,000 agriculturist families over 20,000 acres of flat land at the rate of 5 acres of cleared paddy land and 5 acres of uncleared land for homestead and horticultural operations, per family. Each family receives an ex-gratia grant of Rs. 1,050 and a recoverable loan of Rs. 1,730 for house-building, plough, animal, utensils, seed etc. By the close of the year 1955-56 about 1,406 families had been settled on land and the rest of the programme was incorporated under the Second Five Year Plan for achieving the target. From the commencement of the process in 1949 to March 1962, 3,281 families had been settled, who have come from West Bengal, Kerala, Bihar and Madras.

The Ministry of Rehabilitation, Govt. of India, has been made responsible for the development of Special Areas which includes Andaman and Nicobar Islands.

Under Rehabilitation Ministry's Programme, 182 Sahkaris and their families totalling 465 persons, in addition to some of the staff of the Rashtriya Vikas Dal, arrived in Betapur, Middle Andamans, in March, 1965.

Ancillary services like schools, hospitals and dispensaries have been provided in the colonisation area.

## INDUSTRY

Saw milling is the main important industrial activity in the Territory and provides employment to 1,209 workers corresponding to 56 per cent of total industrial employment. The other industries include Government Dockyard, transport workshop, a printing press at Port Blair, tractor repair shop and boat building yards at Long Island. Besides, a number of training-cum-production centres have been started by the Government.

**Power :** Port Blair had a 450 kW power station established in 1950. An additional generating set of 300 kW has been installed (1963). The Third Plan envisages installation of a new power house in replacement of the old one at Car Nicobar with distribution system and electrification of Diglipur, Mayabunder, Rangat and Nancowrie.

## ROADS

Construction of Great Andaman Trunk Road is in progress (Nov. 1965). At present the Territory has a total length of 287 km. of black top road as against 172 km. in 1960-61.

**Transport :** Port Blair has a city and rural Transport Service comprising 13 passenger buses.

**Minor Ports :** Under a central plan scheme jetties for inter island communications are being constructed. Installation of navigational aids in Andaman and Nicobar waters has been entrusted to the Director-General of Lighthouses and Lightships. Construction of a 1,100 ft. deep water wharf at Port Blair at a cost of about Rs. 1·20 crores has also been subsequently included in this scheme (Nov. 1965).

**Shipping :** The Administration runs its own passenger-cum-cargo service between the island and the mainland with two motor vessels M.V. "Andamans" and M.V. "Nicobar". The former is an 8,000 ton class ship and was built by the Hindustan Shipyard. Between these two vessels, 36 round trips are made to the mainland giving an average of one round voyage every tenth day.

The Administration also possesses two ships s.s. "Cholunga" and T.S.S. "Merewa" for inter-island coastal communication.

There is a weekly air service between Calcutta and Port Blair (Fridays) between Oct. and May. An amount of about Rs. 18 lakhs has been sanctioned for carrying out extension and strengthening of the existing runway (first phase).

## EDUCATION

This is an educationally backward territory and education up to higher secondary stage is free. There are 109 primary/junior basic schools, 8 middle/senior basic schools, 2 higher secondary schools—one for boys and girls at Car Nicobar and the other for girls at Port Blair, one higher secondary M.P. school and one junior basic teachers training school. There is at present (1965), no College in this Territory. However, students belonging to these Islands are granted scholarships for prosecution of studies on the mainland.

**Tourism :** The scenery of Andaman and Nicobar Islands is everywhere strikingly beautiful and as such these Islands offer very attractive prospects of being developed as a popular tourist resort.

As a first step towards development of tourism in these islands, one tourists' home at Corbyns Cove and the other at Port Blair have been constructed.

**Medical :** All treatment, medical or surgical including the ambulance transport is completely free. For specialised treatment patients are sent to the mainland at Government cost.

A new General Hospital (Gobind Ballabh Pant Hospital) has been constructed at Port Blair. There is also a 20-bedded T.B. Hospital at Port Blair. Besides, there are hospitals at Car Nicobar, Nancowrie, Bamboo Flat, Mayabunder, Long Island, Rangat and Diglipur. The total strength of the beds is 481 including the bed strength of the T.B. Hospital. There are 36 dispensaries all over the Islands.

A Malaria and Filaria Survey Control Unit under the National Health Scheme operates in the central group of Nicobar Islands.

A V.D. Unit has been set up in Car Nicobar. The incidence of diseases in these islands is remarkably low compared to that of the mainland.

## COMMUNITY DEVELOPMENT

Five C.D. Blocks have been established covering the entire Territory of Andaman and Nicobar Islands.

**Panchayats :** Thirty-two Gram Panchayats and 32 Nyaya Panchayats have been established in the Andaman group of Islands. In the Nicobar group, the traditional Panchayats continue.

## CO-OPERATION

The number of co-operative societies in the Andaman and Nicobar Islands has increased from 85 in 1960–61 to 143 in 1964–65.

The membership increased from about 6,600 in 1960–61 to about 9,458 in 1964–65. Share capital of the societies rose from about Rs. 3·9 lakhs to Rs. 8·69 lakhs during the same period. Working capital of the societies in 1964–65 was about Rs. 25 lakhs as against Rs. 15·6 lakhs in 1960–61. A co-operative farming society and several co-operatve plantation societies have started functioning.

## BANKS

A branch of the State Bank of India was opened at Port Blair in 1957 which also conducts Government Treasury business. It has four sub-treasuries, one each at Mayabunder, Car Nicobar, Diglipur and Nancowrie.

## FIVE-YEAR PLANS

There was no integrated First Year Plan in this Territory. Only two schemes were taken up, *viz.* the Colonisation Scheme and the Road Scheme. Under the Colonisation Scheme 1,006 families were settled up to the end of the First Five Year Plan. Under the Road Scheme, 49 miles were surveyed and work was in progress on 2½ miles of road.

The Third Five Year Plan of these islands entails an outlay of Rs. 979·320 lakhs. The main items of expenditure are, Agricultural-programmes Rs. 253·79 lakhs ; Community Development and Co-operation Rs. 31·98 lakhs; Power Rs. 14·35 lakhs ; Industries Rs. 14·76 lakhs ; Transport and Communications Rs. 514·00 lakhs ; Social services Rs. 132·89 lakhs and Miscellaneous Rs. 17·55 lakhs. In addition, the Ministry of Transport have provided Rs. 42 lakhs in the Central Plan for the development of Minor Ports in these islands.

The Agricultural development schemes include multiplication and distribution of improved seeds, intensive cultivation of agricultural crops, development and extension of plantation crops like coconut and arecanut, establishment of progeny orchards-cum-nurseries, intensive cultivation of horticultural crops, development of cashewnut and pineapple plantations and rubber plantations and exploratory trials on coffee and lac cultivation. The land development schemes include soil conservation and reclamation of saline affected areas for cultivation. The programmes under the animal husbandry include extension and improvement of veterinary services, extension of poultry farm and development of poultry in these islands. The programme under fisheries envisages exploitation of the fisheries resources of these islands for meeting the local requirement of fish. Forestry schemes include raising of industrial plantation of matchwood and teak, and cultural operations in the hitherto untapped areas. The transport and communications schemes relate to construction of Great Andaman Trunk Road, acquisition of additional passenger-cum-cargo ship and ferry vessels for both the mainland service and inter-island service. Social service schemes include universal free and compulsory education and promotion of female education. Welfare of backward classes also receives prominent consideration.

## ADMINISTRATION

The Islands are administered by the Central Government through a Chief Commissioner. With effect from 1961, an Advisory Committee has been constituted to be associated with the Minister of Home Affairs on policy matters relating to the administration of these Islands. The Advisory Committee consists of the Chief Commissioner, the Member of the Parliament representing this Territory, the Senior Vice-Chairman of the Port Blair Municipal Board and five other non-official members nominated by the Central Government. An Advisory Committee to be associated with the Chief Commissioner in matters relating to general questions of policy has also been constituted with effect from 1963. For purposes of revenue, the entire territory constitutes one District under the Deputy Commissioner. The Chief Commissioner is assisted in the administration of the Forests by a Chief Conservator of Forests who also functions as ex-officio Secretary to the Chief Commissioner and in the Public Works Department by the Principal Engineer. The Chief Commissioner is assisted by a Secretary and Financial Adviser and a Development Secretary, Secretary (Finance) and Secretary (Judicial). The budget estimates for 1965-66 are as follows :—

Revenue Rs. 2,19,95,000 ; Expenditure Rs. 3,74,90,000.

*Chief Commissioner*, B. L. Chak, I.A.S.

*Advisory Committee* :—Niranjanlal, M.P., Manoranjan Bhakta, K. R. Ganesh, A. C. Hawaldar, Durga Pershad, K. Aravindakshan, Rani Chauga of Katchal, Fred, Chief Headman of Car Nicobar.

*Chief Secretary :* Sardar Gurbachan Singh ; *Development Commissioner-cum-Development Secretary :* P. B. Mathur, I.A.S. ; *Chief Conservator of Forests :* J. C. Varmah ; *Secretary (Finance)* : Prem Lal ; *Secretary (Judicial)* : S. Chakravarty.

# ANDHRA PRADESH

Capital: Hyderabad.

Area: 1,06,286 sq. miles; Population: 3,59,83,447 (Males 1,81,61,671; females 1,78,21,776 (1961 census).

Sex ratio 98·1 females for every 100 males. Highest sex ratio in Srikakulam—104 females for 100 males. Lowest in Anantapur—94·6 females for 100 males.

No. of Districts: 20. No. of Towns: 212.

Density 339 per sq. mile. Literacy 21·2 per cent.

No. of talukas: 189.

The number of Municipal Corporations: 1. The number of Town Municipalities in Telangana: 79; Number of Municipalities in Andhra: 47; Number of Panchayats in the State: 14,552; Number of Panchayat Samities: 271; Zilla Parishads: 20; Number of inhabited villages in the State: 27,084.

The State income stood at Rs. 1,323·20 crores and the per capita income at Rs. 354·31 during 1963-64.

Strength of Legislative Assembly: 301.

The strength of the Legislative Council: 90.

No. of members from Andhra Pradesh to the Rajya Sabha: 18.

No. of members from Andhra Pradesh to the Lok Sabha: 43.

*Regional Committee:* A Regional Committee for the Telangana area called the Andhra Pradesh Regional Committee was constituted at Hyderabad on March 31, 1958 in accordance with the provisions in the States Reorganization Act by an order of the President of the Indian Union in February 1958. All the 105 members elected from the Telangana region to the State Legislative Assembly are members of the Regional Committee.

The Committee advises the State Government on all matters pertaining to the Telangana region. The Government is normally expected to undertake measures or introduce reforms and other legislative measures in consultation with this committee. The Telangana region comprises nine districts of the former Hyderabad State, namely Adilabad, Nizamabad, Karimnagar, Medak, Warangal, Hyderabad, Nalgonda, Khammam and Mahbubnagar.

## DISTRICTS

Districts with District headquarters in brackets:

Anantapur (Anantapur), Chittoor (Chittoor), Cuddappah (Cuddappah), East Godavari (Kakinada), Guntur (Guntur), Krishna (Masulipatnam), Kurnool (Kurnool), Nellore (Nellore), Srikakulam (Srikakulam), Vishakapatnam (Vishakapatnam), West Godavari (Eluru), Hyderabad (Hyderabad), Mahboobnagar (Mahboobnagar), Waranga! (Warangal), Khammam (Khammam), Karimnagar (Karimnagar), Adilabad (Adilabad), Nizamabad (Nizamabad), Medak (Sangareddy), Nalgonda (Nalgonda).

## POPULATION

For area and population of districts according to 1961 Census see under "Population".

## GEOGRAPHY

The shape of Andhra Pradesh is rather curious. A short neck with protruding belly would be an apt description. It has a chain of mountains, the Eastern Ghats, running over its entire length on the eastern and northern borders.

In the far north too the country is hilly.

There are huge forest areas in Srikakulam, Visakhapatnam, Godavari, Kurnool, Warangal and Adilabad Districts.

The landscape is varied and rich.

The climate is warm and humid or hot and humid according to the season.

The average annual rainfall is highest in the north varying between 45 inches and 50 inches. It gradually decreases to the south and south-west down to about 20 inches.

Two-thirds of the rain is from the south-west monsoon.

Srikakulam, Visakhapatnam, parts of Godavari and Nellore suffer from periodic floods and droughts, while the others are more liable to suffer from droughts.

There are hills and table-lands scattered throughout the State. Some of the hills are high and are covered with useful forest, some carry scrub jungle, while many are quite bare.

The soil in the area covered by the former Andhra State consists of the alluvi of the deltas and littoral tracts, red, black and brown soils.

The average yield of rice per acre in Andhra region is 1,321 lbs. while in Telangana area it is 917 lbs. The State average is 1,143 lbs. (The all-India average is 729 lbs.).

There are two major rivers in the area of the former Andhra State, the Godavari and the Krishna, three medium rivers with a large number of tributaries, and twenty-nine minor and small rivers. It is estimated that together they carry annually 150 million acre ft. of water into the Bay of Bengal.

The Godavari flows for the major part through the State before it falls into the Bay of Bengal. Its main tributaries are the Manjira, the Pranhita, the Indravati, and the Sabari, some of which flow partly in the Telangana area.

The main tributaries of the Krishna are Tungabhadra, Yerla, Warna and Dudhganga.

The medium rivers are the Pennar, the Nagavalli, the Vamsadhara.

The river system of Telangana consists of two great basins, that of the Godavary and the Krishna. The former with a length of more than 600 miles in the area has a number of tributaries, the chief of which are the Painganga, the Wardha and the Pranhita from the north, and the Manjira and the Maner from the south. Among its tributaries the most important are the Bhima, the Musi on which the capital stands, and the Tungabhadra, which forms the southern boundary of the Raichur-Mudgal Doab. The Telangana region, abounds in tanks and artificial lakes constructed mainly for the purpose of irrigation.

Telangana is the land of rice and jowar. The rivers dry up in hot weather necessitating the storage of water in tanks and artificial lakes for purposes of irrigation.

## AGRICULTURE

The total geographical area of the State is 67,451,693 acres (1960-61).

Net area sown was 11,290,000 hectares (1961-62).

Barren and uncultivable land: 2,353,000 hectares (1961-62).

Land put to non-agricultural uses: 1,769,000 hectares (1961-62).

Cultivable waste: 1,570,000 hectares (1961-62).

Permanent pastures and other grazing lands: 1,191,000 hectares (1961-62).

Land under miscellaneous crops, trees and groves not included in the net area sown: 290,000 hectares (1961-62).

Current fallows: 2,178,000 hectares (1961-62).

Other fallow lands: 880,000 hectares (1961-62).

Forests: 5,954,000 hectares (1961-62).

Total cropped area: 1,422,000 hectares (1961-62).

## LAND REFORMS

The State Government in consultation with the Government of India enacted the Andhra Pradesh Ceiling on Agricultural Holdings Act, 1960 which prescribed the minimum extent of land that a person may hold. The Bill was passed by the Assembly on July 9, 1960.

The Act fixes ceilings on existing holdings as well as on future acquisition of agricultural lands. Under the Act, the ceiling area in respect of every person or every family consisting of not more than five members has been prescribed to be an extent of land equal to four and a half times the family holding, and an additional extent of one family holding is allowed for every member in excess of five. The extent of land which constitutes a family holding for the category of wet lands bearing settlement Tarams or Annawari classification ranges from 6 to 24 acres depending on the classification of the land and for dry lands the extent of family holding ranges from 36 to 72 acres.

As regards future acquisition the Act provides that no person on or after the notified date should purchase or take on usufructuary mortgage or otherwise voluntarily acquire any land, if in consequence of such purchase, mortgage or acquisition, the total land held by him would exceed three family holdings. When a person comes to hold land in excess of the ceiling area in any manner, he should furnish a declaration to the Revenue Divisional Officer.

The ceiling will not apply to the Central or State Government, religious, charitable and educational institutions, cooperative farming societies, cattle breeding, dairying, wool raising, sugarcane farms operated by sugar factories and efficiently managed farms consisting of compact blocks.

## LIVESTOCK (1961)

The quinquennial livestock census in 1961 placed the total cattle in 1961 at 1,23,45,460 showing an increase of 9 per cent in five years.

Cattle, 1,23,45,460.

Buffaloes, 69,48,952.

Sheep, 83,63,148.

Goats, 42,46,717.

Horses and ponies, 62,689.

Others, 6,76,021.

Total livestock, 3,26,42,987.

Total poultry 1,02,48,132.

## INDUSTRY

The revised total 3rd Plan provision for the entire industrial sector is Rs. 1,672 lakhs, of which large and medium industries claim Rs. 728 lakhs.

| Head of Development | Total provision for 3rd Plan 1961-66 (Rs. in lakhs) |
|---|---|
| Large and Medium Industries .. .. .. | 728·00 |
| Small-scale Industries .. | 572·87 |
| Mineral Development .. | 40·10 |
| Handlooms .. .. | 331·21 |
| Total .. | 1,672·18 |

"Industries and Mining" claimed Rs. 10·15 crores or 5·4 per cent of the total Second Plan expenditure of Rs. 188·60 crores while in the Third Plan, it stood at Rs. 15·62 crores.

In the first instance ground was prepared to hold out more attractive incentives to entrepreneurs with the constitution of the Andhra Pradesh Industrial Development Corporation, the Small Scale Industries Development Corporation and the Andhra Pradesh State Financial Corporation. The Industrial Development Corporation, was constituted to offer financial aid to industries and also to take up worthwhile ones for direct promotion with financial collaboration from the private sector wherever necessary.

The Corporation has on hand the following five ambitious ventures at the moment for direct promotion: (1) Rs. 1 crore High Tension and Low Tension Insulators Project, (2) Rs. 3 crore Integrated Glass Project, (3) Rs. 4·5 crore Ball Bearings Project. (4) Rs. 7 crore Pig Iron Project and (5) Rs. 1 crore Power Cables Project.

In respect of the High Tension and Low Tension Insulators Project, the Government of India have granted licence for the establishment of a company for the manufacture of 2,400 tons H.T. and L.T. Insulators per annum. The unit is expected to cost a crore of rupees. The Government Porcelain Factory Bangalore will render technical assistance through their Japanese collaborators and, simultaneously, the Corporation is negotiating with Messrs. Kamani Engineering Corporation for promoting the project as a joint venture.

Regarding Integrated Glass Project, the Government of India have granted an industrial licence for the manufacture of various kinds of glass products. The project is expected to cost Rs. 3 crores, out of which Corporation would invest Rs. 50 lakhs towards equity capital, while private participation would be to a similar extent. The balance of the share capital would be raised through public issue. The Andhra Pradesh Industrial Development Corporation has concluded a technical collaboration agreement with Messrs. Komplex of Hungary for establishing the factory.

In respect of the Ball Bearings Project, the Government of India have granted a licence for the manufacture of ball, roller, tapered and journal bearings with a capacity of 3·72 million numbers per annum. The project is expected to cost Rs. 4·50 crores out of which the share capital would be Rs. 2·7 crores. The Andhra Pradesh Industrial Development Corporation has concluded a technical collaboration agreement with Japan for setting up the project and a public limited company in the name of Indo-Nippon Precision Bearings Ltd. has been registered.

For the manufacture of one lakh tons of pig iron per annum the Government of India have issued a letter of intent. The total cost of the project is estimated to be Rs. 7 crores while the share capital part of it would be Rs. 4·2 crores.

The Government of India have issued a letter of intent for the manufacture of 600 miles of PILC paper insulated power cables per annum. The project is expected to cost Rs. 1 crore.

The Andhra Pradesh Small Scale Industrial Development Corporation was established for promoting the rapid industrialisation of the State in the small scale sector by assisting, financing and promoting the growth of small scale industries.

The Third Plan outlay and the proposed provision for the Fourth Plan for large and medium industries respectively are Rs. 6·13 crores and 21·65 crores.

## INDUSTRIAL ESTATES

Several steps have been taken by the State and Union Governments to assist in the development of small-scale industries, such as the setting up of production-cum-training centres, research units, model industrial units, giving loans under the State Aid Act — the establishment of Small Industries Service Institutes, supplying machinery on hire purchase basis and provision of marketing facilities. Another step of far-reaching importance taken by the Government is to set up industrial estates to locate small-scale industrial units.

A large variety of products such as cycles and cycle accessories, steel furniture, scientific instruments, wire nails, radios, tape recorders, electric measuring instruments, cycle dynamo lights, automobile springs, air-conditioners, safety razor blades, PVC cables, transformers, switch-gear, electric accessories, plastic goods, builders' hardware, storage batteries, stainless steel vessels, agriculture implements etc., are being manufactured on these Estates.

During the Second Five-Year Plan period, 6 Industrial Estates one each at Sanatnagar (Hyderabad), Visakhapatnam, Vijayawada, Warangal, Samalkot and Nandyal were set up. Two more Estates one at Cuddapah and another at Chandulal Baradari (Hyderabad) were nearing completion at the end of the Second Plan period. A sum of Rs. 138·34 lakhs was spent on the Industrial Estates during the Second Five-Year Plan and 150 factory buildings were completed and 18 were nearing completion.

During the Third Five-Year Plan period, an amount of Rs. 220 lakhs had been provided for Industrial Estates and it is proposed to establish 14 Assisted Private Industrial Estates, 10 conventional type estates, 5 Rural Industrial Estates and one Cooperative Industrial Estate in addition to the expansion of the existing four Industrial Estates at Sanatnagar, Visakhapatnam, Vijayawada and Warangal.

## INDUSTRIAL COOPERATIVE SOCIETIES

Village and small scale industries—now mostly covered by industrial cooperatives—have made a significant contribution in the First and the Second Five-Year Plans.

### Board for Andhra Pradesh

A notable development during the Second Plan was the establishment of a statutory Khadi and Village Industries Commission with more extensive executive powers than those enjoyed by the Khadi and Village Industries Board which, however, continued as an advisory body closely associated with the Commission.

Industrial cooperative societies deal with a large variety of trades such as handlooms, palm jaggery and neera manufacture, leather works, carpentry, scientific engineering works etc., covering a wide field in the village and small scale industrial sector. There are as many as 1,970 industrial cooperative societies other than handloom neera and palm jaggery cooperatives in Andhra Pradesh as in Oct 1964 Of these 990 societies are in Telangana region and 977 in Andhra region. Hyderabad district has the largest number of them with 246 societies or 12·5 per cent of the total number of societies in the State. Chittoor district comes next with 125 societies or 6·3 per cent and Guntur ranks third with 120 or 6·1 per cent. There are also 1,016 palm jaggery manufacturing cooperatives and neera cooperatives having about 0·9 lakh members with a paid up share capital of about Rs. 3·3 lakhs. This category of societies endeavour to provide employment to ex-tappers in the eleven "dry" districts of the State.

Number of Industrial Cooperatives other than Handloom, Neera, Palm Jaggery Cooperative Societies in Andhra Pradesh as in March 1964:

*Andhra Region:* Srikakulam 61; Visakhapatnam 84; East Godavari 117; West Godavari 66; Krishna 85; Guntur 120; Nellore 77; Cuddapah 107; Anantapur 47; Chittoor 125; Kurnool 88; Total 977.

*Telangana Region:* Hyderabad 246; Nizamabad 68; Warangal 108; Medak 111; Khammam 52; Adilabad 73; Karimnagar 106; Mahbubnagar 111; Nalgonda 115; Total 990.

The amount spent and allocated for the development of industrial cooperative societies during the Second and Third Plan periods respectively are Rs. 7·02 lakhs and Rs. 10 lakhs.

## MINERALS

The chief minerals produced in the State are coal, iron ore, limestone, manganese and asbestos. The coal industry is situated at Kothagudem, Tandur, Yellandu and Sasti in Telangana region. Other minerals are widely distributed. According to the Geological Survey of India, two large deposits of iron ore containing an estimated reserve of nearly 389 million tons of ore have been located in Guntur and Nellore districts.

Production figures for 1961–62 are as follows:—Iron Ore 2,17,000 tonnes; Limestone 12,11,000 tonnes; Asbestos 121 tonnes; Graphite 344 tonnes; Ochre 4,234 tonnes (1960); Barytes 36,000 tonnes; China Clay 5,000 tonnes; Fire Clay 5,000 tonnes; Slate 7,000 tonnes; Quartz 5,000 tonnes.

Figures for 1962-63: Coal 3·2 million tonnes; Manganese ore 35,000 tonnes; Mica 8,334 tonnes; Steatite and talc 8,610 tonnes.

District-wise annual mineral out-put in tonnes under each category for the year 1961-62 is given below: *Adilabad:* Coal 11,99,656·5; Fire Clay 4,494·0; Limestone 3,18,240·0; *Anantpur:* Barytes 12,663·4; Calcite 4,224·7; China Clay 5,080·0; Iron Ore 5,614·4; Limestone 5,588·0; Steatite 5,029·2; *Chittoor:* China Clay 305·0; Iron Ore 10,803·1, Steatite 6,059·4; *Cuddapah:* Asbestos 124·9; Barytes 21,848·0; Iron ore 17,883·6; White Clay 3,341·6; *Godavari* (East): Graphite 20·3; *Godavari* (West): Nil; *Guntur:* Limestone 7,20,153·0; *Hyderabad:* Fireclay 340·0; Limestone 1,14,783·1; Quartz 5,050·0; *Karimnagar:* Coal 32,117·5; *Khammam:* Barytes 367·8; Chromite 648·7, Coal 16,18,667·8, Graphite 249·9; Iron Ore 20,797·7; Mica 3·1; *Krishna.* Iron Ore 70,651·1; *Kurnool:* Barytes 1,014·0; Iron Ore 86,729·0; Limestone 52,062·0, Slate N.A.; Steatite 3,735·8, White Clay 2,953·5; *Mahbubnagar:* Steatite 214·3; *Medak:* Fire Clay 30·51, Ochre (red) 42·1; Ochre (yellow) Nil; *Nellore:* Barytes 546·6; China Clay nil; Gypsum 152·4; Iron Ore 4,168·6; Lime-shell 531·3; Mica 6,043·1; Vermienlite 617·7; Slate 6,905·8; *Srikakulam:* Manganese Ore 56,674·5; *Visakhapatnam:* Apatite 590·2; Graphite 74·1; Manganese Ore 988·6.

The Andhra Pradesh Mining Corporation has investigated occurrences of barytes in Cuddapah District, clays in East Godavari District and asbestos in Cuddapah District. It is proposed to investigate during 1964-65, iron ore in Krishna District and graphite and manganese in Srikakulam District. The Corporation has taken up the work of iron ore reserves in Gandrayi area in Krishna District and a total quantity of 2,88,613 tonnes has been exported so far. The Corporation is also engaged in raising iron ore in Kurnool District besides barytes and limestone. A pilot mining project for asbestos and China clay, quartz mining and lime calcination projects are

also proposed to be implemented by the Corporation. In collaboration with the private secor, the Corporation proposes to establish a cement factory near Bonakallu and a company has been formed for that purpose.

Total mineral revenue (in rupees) for 1961-62: 35,21,124·48.

## COTTAGE INDUSTRIES

The most important industry is that of handloom. There are about 4 lakh handlooms in the State ; besides, there are 14,000 looms for woollen fabrics. The State has thus the largest number of looms in India and this industry provides employment for about 323,000 persons and livelihood for 1,615,000 persons. Assuming that the overall production per month per weaver is 100 yards, the annual output of handloom cloth per annum works out to about 39 crore yards of cloth.

Other important cottage industries are Kambli-weaving which employs about 39,000 persons, coir making employing about 12,000 persons and basket making which employs about 40,000 persons.

Certain handicrafts of Andhra Pradesh are world famous. Notable among these are the silver filigree articles of Karimnagar, the exquisite toys of Nirmal, Kondapalli, Nakkapalli and Tirupathi, the carpets of Warangal and Eluru and the lace goods of Narsapur.

## TRANSPORT

The total railway route kilometrage open for traffic in Andhra Pradesh as on March 31, 1961 was 4,544·1 out of which 2,648·1 were Broad Gauge, 1,858·77 Metre Gauge and 36·93 Narrow Gauge. The total road mileage including National Highways and State Highways 13,053.

The City of Secunderabad is the headquarters of the Secunderabad Division of the Central Railway and is the junction of the Broad Gauge and Metre Gauge systems. From here lines radiate east, south, west and north. The total mileage open for traffic which now constitutes the Secunderabad Division of the Central Railway is 1,461.

The Andhra Pradesh Road Transport Corporation as in March 1964: No. of routes 366 ; route mileage 7,101 ; mileage covered by vehicles (Lakhs) 617·00 ; expedition on passenger amenities Rs. 8,36.991·81 . expenditure on operative improvements Rs. 87,132·46 ; Gross earnings Rs. 964·95 lakhs.

*Other particulars as in Feb.* 1965 : Fleet strength 2,076 buses , No. of depots 36 ; effective mileage per day (in miles) 1,78,206 ; passengers carried per day (in lakhs) 6·01 ; Number of staff 13,480.

The number of registered goods vehicles in the State as on March 31. 1962 was as follows : State carriages 4,465 ; goods vehicles 8,458 ; cars 16,101 ; motor cycles 5,379 ; taxis 505 ; others 1,870.

There is a well-developed airport at Begumpet in Hyderabad city ; there are landing grounds near Vijayawada and Visakhapatnam.

Hyderabad City is connected by air with Bombay, Nagpur, Madras, Visakhapatnam and Bangalore. Hyderabad City is served by Begumpet aerodrome. Hyderabad is also linked by air to Delhi and Calcutta.

*Posts & Telegraphs :* The number of Post Offices in the State is 10,369 ; Telegraph Offices 531 ; Telephones 17,127 ; Telephone Exchanges 153.

## POWER PROJECTS

The aggregate power demand in Andhra Pradesh which was 180 M.W. at the beginning of the Third Plan is expected to rise to about 500 M.W. by the end of the Third Plan period. The installed capacity, however, is only 213 M.W. of which the firm and dependable capacity is 140·2 M.W. To fill this huge gap between supply and demand, the power generation programme has been stepped up, and additional funds have been made available to this sector. An outlay of Rs. 64·94 crores which was originally provided for power has since been enhanced to Rs. 87·47 crores. The following are the power schemes in Andhra Pradesh.

### Machkund Hydro-Electric Scheme (Stage I and Stage II)

The Machkund Hydro-Electric Scheme is a joint venture of the States of Andhra Pradesh and Orissa. The two States share the capital outlay and power benefits in the ratio of 70 : 30 respectively. An ultimate installed capacity of 1,14,750 kW of which 70 per cent is Andhra Pradesh's share is available under this scheme.

It was proposed to instal five generating units three of 17,000 kW each, and two of 21,250 K.W. each in the first stage. The installation of two generating units of 17,000 kW was completed during the First Five Year Plan period. During the Second Plan period, the balance works namely installation of the third unit of 17,000 kW and two units of 21,250 kW as also the second stage works involving installation of the third 21,250 kW unit were taken up and completed. All the six units under this scheme are generating power now (June 1965). By the end of 1960-61, the total installed capacity of 1,14,750 kW envisaged was achieved. A sum of Rs. 813·59 lakhs was spent on this scheme during the Second Plan period as against the revised provision of Rs. 617·25 lakhs.

Certain balance civil works such as main spillway works of the main reservoir and appurtenant works are, however, to be executed and they are in progress. The contour channel has been recently commissioned, thereby increasing the generating capacity of the project by about 15 M.W.

### Tungabhadra Hydro-Electric Scheme

The scheme is a joint venture of Andhra Pradesh and Mysore State, the capital cost and benefits being shared by the two Governments in the ratio of 80 : 20 respectively. The scheme provided for the development of power from waters let out into the irrigation canals at two places, one at the foot of the Tungabhadra dam and another at Hampi ruins, 14 miles below the Tungabhadra dam, where a drop of 110 feet is available.

This scheme comprises the installation of 8 hydro-sets of 9 MW each—4 sets of the Tungabhadra Dam Power House and 4 sets at the canal power house. The installation of all these units is now complete.

### Tungabhadra Nellore Hydro-Thermal Scheme

The scheme envisages the installation of one 30-MW thermal set at Nellore. The plant has been commissioned already.

### Upper Sileru Hydro-Electric Scheme

The scheme envisages the installation of two sets of 60 MW each by utilising the tail race waters of Machkund power house. One unit of 60 MW is expected to be commissioned by March 1966 and the other by June 1966.

### Telangana Hydro-Thermal Scheme

The scheme envisages the integrated development of power generated at Hussainsagar, Ramagundam Thermal station and at Nizamsagar Hydel stations in Telangana region. The scheme is making good progress and the additional power generated will be of the order of 14 MW.

### Srisailam Hydro-Electric Scheme

The Srisailam Hydro-Electric Project in conjunction with Nagarjunasagar Hydro-Electric Station is a new power project proposed for execution in the Third Five Year Plan period for which the preliminary works were taken up in the Second Five Year Plan. It envisages an integrated development of power of 430 M.W. on lower Krishna Basin, with two power stations, one at Srisailam and the other at Nagarjunasagar with a net work of 220 kV and 132 kV transmission lines and connected sub-stations. The Power Station at Srisailam is designed to accommodate a total of 7 units of 110 M.W. each but initially 4 units alone will be installed.

The project is estimated to cost Rs. 45·75 crores. The dam and power house are programmed to be completed by 1970-71 and one unit of 110 MW is expected to be commissioned before the end of the Fourth Plan. The remaining units will be commissioned in 1971-72. The expenditure incurred on the project is about Rs. 4 crores.

### Balimela Dam

This is a joint scheme of Andhra Pradesh and Orissa Governments under execution by the Balimela Control Board. The total storage capacity of the Dam is 135 T.M. Cft., and 100·25 T.M. Cft. will be the live or effective capacity. There will be a power house erected at the toe of the Balimela Dam. The power generated here, *i.e.*, 40 M.W. will be exclusively for the use of Andhra Pradesh. Andhra's share of the cost of the project is about Rs. 12 crores.

### Kothagudem Thermal Scheme (Stage I)

This new scheme envisages the installation of 2 × 60 M.W. sets. The preliminary civil works have been completed.

### Ramagundam Thermal Extension Scheme (Stage I)

This new Scheme envisages the installation of one 60 M.W. set at Ramagundam. Equipment is being procured under bulk purchases by the Central Water and Power Commission.

It is expected to be commissioned by April 1967. The Ramagundam Thermal Extension Scheme II Stage comprises erection of three units of 66 MW each at Ramagundam under special terms offered by Dr. Jayanti Dharma Teja. An agreement has since been concluded and work will start in the near future.

### Gas Turbo Sets at Hyderabad

This scheme envisages the installation of 2 × 10 M.W. Gas Turbo sets at Erragedda to relieve to some extent the power shortage in the twin cities of Hyderabad and Secunderabad, particularly during the peak load hours. The sets have been installed and commissioned into service.

### Lower Sileru Hydro-Electric Scheme (I Stage)

This scheme envisages the installation of 3 × 100 M.W. Sets at Donkarai village on the river Sileru as the first stage of the project at an estimated cost of Rs. 25·34 crores. The preliminary works are programmed to be taken up during the Third Plan period. The power generated under this scheme will be exclusively for the benefit of Andhra Pradesh. Preliminary works have been taken up.

## IRRIGATION

In the First Five Year Plan, irrigation schemes claimed Rs. 21·18 crores or 21·9 per cent of the total outlay of Rs. 96·97 crores. In the Second Five Year Plan, they claimed about Rs. 57·43 crores or 30·9 per cent of the total expenditure of Rs. 188·60 crores, while in the Third Plan irrigation projects including flood control schemes accounted for Rs. 90·99 crores forming 26·4 per cent of the total revised outlay of Rs. 344·97 crores. In the draft Fourth Plan of the size of Rs. 700 crores, a provision of Rs. 75 crores is earmarked for major and medium irrigation schemes excluding Nagarjunasagar Project.

## IRRIGATION SCHEME

Against the irrigation potential of 8·73 lakh acres created in the first Three Plans, an additional irrigation potential of 25·13 lakh acres will be created in the Fourth Plan alone under all major and medium irrigation projects including Nagarjunasagar. The area expected to be brought under irrigation at the end of the Third and Fourth Plans are 8·23 lakh acres and 18·73 lakh acres respectively.

### Major Irrigation Schemes

*Prakasam Barrage:* The total ayacut under this scheme is 12·25 lakh acres and it is estimated to cost Rs. 2·84 crores; *Bhairavunitippa Project:* It commands an ayacut of 12,000 acres and is estimated to cost Rs. 144·75 lakhs; *Upper Pennar Project:* Proposed to feed an ayacut of 12,000 acres and is estimated to cost Rs. 158 lakhs; *Rallapadu Project:* Intended to irrigate 7,600 acres and is estimated to cost Rs. 104 lakhs; *Pomperu Drainage Scheme.* 8,196 acres are benefited and is estimated to cost Rs. 128·44 lakhs; *Tungabhadra Project Low Level Canal :* The Canal is designed to irrigate about 92,000 acres in Mysore State and about 1,57,000 acres in Andhra Pradesh. Total estimated cost of the scheme is Rs. 1,244 lakhs; *Tungabhadra Project High Level Conal :* Expected to irigate 1·19 lakh acres in Andhra Pradesh and 70,300 acres in Mysore State. Estimated to cost Rs. 1,180 lakhs. *Rajolibanda Diversion Scheme :* The canal irrigates an ayacut of about 5,900 acres in Mysore State and about 87,900 acres in Andhra. Estimated cost is Rs. 352 lakhs; *Kadam Project:* Total utilization of the ayacut will be 40,000 acres. Estimated cost is Rs. 601 lakhs; *Pochampad Reservoir Project :* Designed to irrigate 5·7 lakh acres and is estimated to cost Rs. 40·10 crores.

Nagarjunasagar Project, Tungabhadra Project High level canal, Pochampad Project, Vamsadhara Project, Rajolibanda Diversion Scheme and Kadam Project are the major projects in Andhra Pradesh that are, at the moment, at various stages of progress. In respect of Nagarjunasagar Project every effort is being made to complete all works necessary to create irrigation potential of 5·79 lakh acres and to let out water into canals by June 1966.

## CO-OPERATION

(See article on *Co-operative Movement*)

## COMMUNITY DEVELOPMENT

Andhra Pradesh was the first State in India to introduce Panchayati Raj. In July 1958, twenty *ad hoc* Panchayat Samitis one in each district were constituted. On Nov. 1, 1959, after the enactment of the Andhra Pradesh Panchayat Samitis and Zilla Parishads Act, the first batch of Statutory Panchayat Samitis was formed. There are now (April 1965) 321 Blocks in operation, covering the entire State with Community Development Programme.

## LABOUR

During 1964, 109 strikes were reported resulting in a loss of approximately 5,20,250 mandays. 85 disputes were referred to adjudication. 160 industrial disputes were settled in conciliation by the industrial relations machinery. 603 trade unions were operating in the beginning of the financial year 1964-65. 92 trade unions were registered between April 1964 and Jan. 1965. The total number of factories as on Jan. 1, 1965 was 5,773 in the State.

### Employment

During 1963-64 the employment exchanges in the State registered as many as 2,31,844 persons. The total number of vacancies received from various employers was 40.388. During April to Dec. 1964, 1,76.637 persons have been registered and 28,244 have been placed. There were 1,32.070 persons of various categories awaiting employment assistance on the live register of the exchanges as on March 1, 1964.

## PUBLIC HEALTH

During the Second Five-Year Plan, a total expenditure of Rs. 1,108·06 lakhs was incurred on medical services and public health schemes, including water supply and sanitation and this expenditure constituted 33·5 per cent of the total expenditure of Rs. 3,305·29 lakhs on social services.

In the Third Five-Year Plan Rs. 1,994 42 lakhs were provided for medical and public health schemes including water supply and sanitation and this constituted about 42·5 per cent to the total Plan provision of Rs. 4,666·94 lakhs under social services.

PRIMARY HEALTH CENTRES: A Primary Health Centre with three sub-centres was established in every C.D. Block. Basic health services provided at the Centres are: Medical relief; Maternity and child health care including family planning; School Health Services; Health Education; Environmental Sanitation; Control of communicable diseases and collection of vital statistics.

In Andhra Pradesh, at the end of 1963-64, there were 255 Primary Health Centres. It is proposed to open 44 additional Primary Health Centres during the remaining two years of the Third Plan at the rate of 22 a year.

There are also as many as 237 subsidised rural dispensaries functioning in Andhra Pradesh, besides the Primary Health Centres.

Preventive Health Service forms two major national programmes namely the National Malaria Eradication Programme and the National Smal-pox Eradication Programme. Other programmes include prevention of tuberculosis by a systematic campaign of BCG vaccination, expansion of school health, nutrition activities in coordination with other departments, and international agencies by way of implementing the expanded Nutrition Programme and school feeding programme. The National Malaria Eradication Programme and the National Smal-pox Eradication Programme are Centrally aided schemes.

By the end of the Second Plan, 390 malaria eradication units were in operation. The Third Five-Year Plan contemplated the continuance of the National Malaria Eradication Programme during the Plan period. The incidence of Malaria has been brought down to the minimum level in the State.

So far (upto March 1965), 40 per cent of the population has been vaccinated under the small-pox control programme.

*National Filaria Programme :* By the end of the First Plan, surveys were conducted in 41 panchayats and all the municipalities in the districts of East Godavari and West Godavari and control operations were in progress in the community project areas. During the Second Plan period, these schemes were continued and an expenditure of Rs. 4·47 lakhs was incurred on this scheme. The Government of India have also established a research-cum-training centre at Rajahmundry recently in order to evolve suitable technical procedures for the control of filariasis. As an interim palliative measure, Government is also assisting the Municipalities and the Panchayats by giving them one third of the expenditure as a grant for schemes implemented by them for the control of mosquito nuisance and filariasis. So far, 31 Municipalities and 24 Panchayats have taken advantage of the scheme in Andhra Pradesh.

*T. B. Control*. There are at present 12 T.B. Sanatoria in Andhra Pradesh. In addition to this, nine Tuberculosis Domiciliary Centres are functioning in the cities of Hyderabad and Secunderabad. The Centres are providing medical facilities and treatment at the residence of the patients. Besides, 32 T.B. Clinics are also functioning in the State to provide medical aid for T.B. patients.

There is an Institute for Diseases of Chest and T.B. at Irrumnuma in Hyderabad which imparts training in T.B. for doctors and other para-medical personnel.

## LEPROSY CONTROL

Andhra Pradesh is endemic with a high percentage of incidence of leprosy. In order to combat this, in the First Five Year Plan two Leprosy subsidiary centres, in the Second Plan eight leprosy sub-centres and four subsidiary centres were opened in the State. In the Third Plan three more leprosy subsidiary centres were opened. In all now (March 1965) 18 centres are functioning in the State, one in each district where the incidence of leprosy is about 3 per 1,000 of population.

The Leprosy Advisory Committee set up in 1958 made a number of recommendations for intensifying the leprosy control work through such aids as special allowance, free residential accommodation, improvement in service conditions and centralised training programmes for workers in the field.

Leprosy is sought to be brought under control by intensive and extensive mass scale treatment with modern drugs, specially the sulphones.

## FAMILY PLANNING

In Andhra area during the Second Plan period 33 Family Planning Clinics and 3 Family Planning Centres were established. Against the Plan provision of Rs. 1·90 lakhs, an amount of Rs. 2·87 lakhs was spent on this scheme. In Telangana area during the Second Plan period sixteen Family Planning Clinics were opened.

Towards the end of March 1964, there were 237 rural family planning clinics attached to the Primary Health Centres and 62 Urban Family Planning clinics attached to Government hospitals functioning. The scheme will be further extended to the new Primary Health Centres. To facilitate easy vasectomy operations in rural areas 5 mobile surgical units have been established with headquarters at Visakhapatnam, Guntur, Kurnool, Hyderabad and Warangal. For 1964-65, a sum of Rs. 12·44 lakhs had been provided for the programme with 100 per cent grant for the various other items of the programme for augmenting the family planning services.

### Hospitals, Beds, Staff etc. 1963-64.

*Allopathic :*

Hospitals 360; Hospitals for spl. treatment 32; Dispensaries 913; Beds 21,346; Doctors 2,741.

*Ayurvedic :*

Hospitals 2; Dispensaries 755; Doctors and Vaids 769.

*Unani :*

Hospitals 1; Dispensaries 74; Doctors and Hakims 100.

## EDUCATION

There are four Universities in the State: The Andhra University at Waltair, the Osmania University at Hyderabad, the Sri Venkateswara University at Tirupati and the Andhra Pradesh Agricultural University, Hyderabad.

Total no. of educational institutions in the State in 1963-64 was 57.632. No. of students in these institutions: 57,41,091.

The total number of annual admissions in the eight Medical Colleges is 1090. Due to the National Emergency, the number of admissions has been increased by 190. The College of Nursing, Hyderabad, was established in 1959 offering a four-year degree course of B.Sc. (Nursing).

All possible and necessary measures are being taken for encouraging and improving the Indian systems of medicine viz. Ayurveda, Unani, Homeopathy and Naturopathy on scientific lines.

There are six colleges for general education in the State in addition to two agricultural colleges, five engineering colleges, two law colleges, one college for physical education, two colleges for veterinary science and one college of commerce.

(For more statistical information see "Education Tables" under "Late Particulars").

## THE THIRD FIVE-YEAR PLAN

(See under Third Five Year Plan in "Late Particulars".)

## BUDGET FOR 1965-66

(See under "Late Particulars".)

## ANDHRA PRADESH AGRICULTURAL UNIVERSITY

Dilkusha, Hyderabad 4.

The Andhra Pradesh Agricultural University was constituted by an Act of Andhra Pradesh State Legislature, passed in 1963. It is patterned on the Land grant colleges system of the United States and came into existence from 12th June 1964. A common campus for all colleges and the establishment of the College of Basic Sciences and Humanities are significant features of this University. The course system, modelled on the U.S. Land grant colleges pattern has been adopted which, besides permitting specialisation, entails frequent examinations both during, and at the end of each course, thus ensuring regular work by the students, throughout the period of their stay at the University.

The University has six constituent Colleges, three in the faculty of Agriculture, two in the faculty of Veterinary Science and one in the faculty of Home Science. The three Agricultural Colleges are functioning at Rajendranagar (Hyderabad), Bapatla and Tirupati. The three colleges coach students for B.Sc. degree in Agriculture. The one at Rajendranagar has also instituted courses leading to the M.Sc. degree in nine different branches of Agricultural Science.

Of the two Veterinary Colleges, one is located at Hyderabad and the other is at Tirupati. The Home Science College is located at Hyderabad.

The total No. of seats available in each faculty is as follows : (1) Agriculture 320 ; (2) Veterinary Science 140 ; (3) Home Science 60.

The duration of the integrated courses is as follows :

(1) B.Sc. (Agri.) 4 years ; (2) B.V.Sc. 5 years ; (3) Home Science 3 years.

The medium of instruction and examination in the University is English.

*Chancellor :* The Governor of Andhra Pradesh.
*Vice-Chancellor :* O. Pulla Reddy, I.C.S. (Retd.).
*Registrar :* M. Sriramulu.

## ANDHRA UNIVERSITY

(Waltair)

*Chancellor :* Pattom A. Thanu Pillai, Governor of Andhra Pradesh.

*Pro-Chancellor :* Minister for Education, Govt. of Andhra Pradesh.

*Vice-Chancellor :* Dr. A. L. Narayana, M.A., D.Sc., F.I.P.

*Registrar:* P. V. V. Seshagiri, M.Sc., F.B.S.

*Deputy Registrar:* M. G. Reddi, M.A. (Hons.), B.L.

*The Professors are as follows :*

K. Rangadhama Rao, M.A., D.Sc. (Madras), D.Sc. (Lond.) (*Emeritus Professor*).

Dr. B. Ramachandra Rao, M.Sc., D.Sc. (*Professor and Head of the Department of Physics*).

S. Meenakshisundaram, M.A., D.Sc. (*Professor and Head of the Department of Mathematics*).

K. R. Srinivasa Iyengar, M.A., D.Litt. (*Professor and Head of the Department of English*).

K. V. Sivayya, M.B.A., Ph.D. (*Professor and Head of the Department of Commerce*).

T. Venkataravudu, M.A., Ph.D. (*Professor and Head of the Department of Mathematical Physics*).

B. Sundararama Rao, M.Sc. (Hons.), D.Sc., D.I.C. (Lond.), Ph.D. (Lond.) (*Professor and Head of the Department of Geo-Physics*).

V. Subba Rao, M.Sc., D.Sc. (*Professor and Head of the Department of Pharmacy*).

G. Gopala Rao, M.Sc., D.Sc. (*Professor and Head of the Department of Chemistry*).

K. V. R. Narasimham, M.A., Ph.D. (*Professor and Head of the Department of Telugu*).

O. Ramachandraiya, M.A., Ph.D. (*Professor and Head of the Department of History*).

B. S. Murthy, M.A., L.L.M., J.S.D. (*Professor and Head of the Department of Law*).

V. Subba Rao, M.A., Ph.D. (*Professor and Head of the Department of Sanskrit*).

R. Ramanatham, M.Sc., M.I.R.E., Ph.D. (Lond.), D.I.C. (Lond.) (*Professor of Meteorology and Oceanography*).

C. Venkata Rao, M.Sc. (Hons.), D.I.C. (Lond.), Ph.D. (Del.), M.I.I.Ch.E., M.Pi.MW. Eppstok (*Professor and Head of the Department of Technology*).

K. Nagabhushanam, M.A., Fil.Lic., D.Fil. (Stockholm) (*Professor and Head of the Department of Statistics*).

Dr. P. N. Ganapathy, M.A., M.Sc., D.Sc., F.A.S.C., F.Z.S.I. (*Professor and Head of the Department of Zoology*).

J. Venkateswarlu, M.Sc., D.Sc., Ph.D. (Cantab.), F.A.Sc., F.B.S. (*Professor and Head of the Department of Botany*).

B. Sarveswara Rao, M.A., Ph.D. (Lond.) (*Professor and Head of the Department of Economics*).

Dr. D. V. Ramana, B.A. (Hons.), Ph.D. (*Professor in Economics, Dept. of Rural Development & Co-operation*).

D. Seetapathi Rao, B.A., B.Sc. (Engg.), M.Sc. (Engg.) (Lond.), D.I.C. (Lond.) (*Professor and Head of the Department of Engineering*).

K. Krishnamacharyulu, B.E.C.E. (Hons.), M.Sc. (Lond.), D.I.C. (Lond.), A.M.I.C. (*Professor of Civil Engineering*).

P. V. B. Bhooshana Rao, B.E., M.M.E. (*Professor of Mechanical Engineering*).

K. Sachidanandamurty, B.A. (Hons.) (*Professor and Head of the Department of Philosophy*).

Dr. M. V. Moorthy, Ph.D. (*Professor and Head of the Dept. of Sociology and Social Work*).

A. Sriramdas, M.Sc., Ph.D. (*Professor and Head of the Dept. of Geology*).

### List of Colleges in the University Area (59)

#### University Colleges (5)

University College of Arts and Commerce, Waltair.
Jeypore Vikramadeo College of Science and Technology, Waltair.
Erskine College of Natural Sciences, Waltair.
University College of Law, Waltair.
University College of Engineering, Waltair.

#### Professional Colleges (7)

College of Engineering, Kakinada.
St. Joseph's Training College for Women, Guntur.
Medical College, Guntur
Rangaraya Medical College, Kakinada.
Government Training College, Rajahmundry.
Andhra Medical College, Visakhapatnam.
A. C. Training College, Guntur.

#### Affiliated Colleges (32)

S. K. B. Ramars College, Amalapuram, East Godavari Dist
A. M. A. L. College, Anakapalle.
Bapatla College of Arts & Science, Bapatla, Guntur Dist.
West Godavari Bhimavaram College, Bhimavaram, West Godavari Dist
Rajah R. S. R. K. Ranga Rao College, Bobbili.
V.R.S.E.Y.R.N. College, Chirala, Guntur Dist.
Sir C. Ramalinga Reddy College, Eluru.
Chintalapati Satyavati Devi St. Theresa's College for Women, Eluru
A.N.R. College, Gudivada, Krishna Dist.
Government College for Women, Guntur.
Andhra Christian College, Guntur.
Hindu College, Guntur.
Pithapuram Rajah's Govt. College, Kakinada.
Annavaram Satyavati Devi College for Women, Kakinada.
Andhra Jatheeya Kalasala, Masulipatam.
Hindu College, Masulipatam.
S.S.N. College, Narasaraopet, Guntur Dist.
The Narsapur College, Narsapur, West Godavary Dist.
P. B. N. College, Nidubrolu, Guntur Dist.
C. S. R. Sarma College, Ongole, Guntur Dist.
Government Arts College, Rajahmundry.
Government Arts College, Srikakulam.
V.S.R. College, Tenali, Guntur Dist.
J. M. J. College for Women, Tenali, Guntur Dist.
Andhra Loyola College, Gunadala Post, Vijayawada.
Stella College for Women, Vijayawada.
S.R.R. and C.V.R. Government College, Vijayawada.
Mrs. A.V.N. College, Visakhapatnam.
M.R. College, Vizianagaram.
M. R. Women's College, Vizianagaram.
St. Joseph's College for Women, Waltair R.S.
Kakarapal Bhavanarayana College, Vijayawada.

#### Oriental Colleges (17)

Sri Markandeya Sanskrit College, Aukiripalli, Kistna Dist.
Oriental College, Bhimavaram.
Dr. K.V.K. Sanskrit College, Arundalpet, Guntur.
Sri Sarada Niketanam, Guntur.
S.V.J.V. Sanskrit College, Kovvur, West Godavari Dist.
Narasimha Sanskrit College, Chittigudur, Masulipatam.
Chalapalli Rajeswari Sanskrit College, Modekurru, Kothapet Taluk, E.G. Dist.
Sri Bhavanarayanaswami Sanskrit College, Ponur, Guntur Dist.
Andhra Women's Sanskrit College, Rajahmundry.
Sree Gouthami Vidya Peetham Oriental College, Rajahmundry.
Kota Lakshmiah Naidu Sanskrit College, Tenali, Guntur Dist.
Smt. Appana Venkatarathnamma Oriental College, Eluru.
Government College of Music, Vijayawada.
Oriental College, Vijayawada.
Maharajah's Sanskrit College, Vizianagaram.
Maharajah's Music College, Vizianagaram.

### 1963-64 Budget

| | | |
|---|---|---|
| Income | .. .. .. | Rs. 79,46,366 |
| Expenditure | .. .. .. | Rs. 78,80,202 |

Grants :

| | | |
|---|---|---|
| (*a*) | From State Govt. .. | Recurring Rs. 15,75,600 Non-recurring Rs. 4,90,000 |
| (*b*) | From University Grants Commission .. | Recurring Rs. 3,03,160 Non-recurring Rs. 3,64,994 |

Total No. of students at the University Colleges, in 1963-64 : 2,743.

This university is teaching as well as affiliating. English is the medium of instruction.

## OSMANIA UNIVERSITY

Hyderabad 7.

The Osmania University is a residential, teaching and affiliating university. It comprises eight Faculties, namely, Arts, Science, Commerce, Medicine, Engineering, Education, Law and Technology. There are five University Colleges, nine constituent Degree Colleges (including one exclusively Women's College and three Evening Colleges for Degree Courses for those in employment).

35 Affiliated Colleges including 3 Medical' 1 Physical Education, 1 Engineering, 2 Training Colleges, 1 Nursing, 23 Degree Colleges of Arts, Science & Commerce (including 3 meant exclusively for women) and 4 P.U.C. Colleges. Four Colleges, Vivek Vardhini College, Hyderabad, Agarwal Evening College, New Science College and Badruka College of Commerce and Arts, run evening sessions for P.U.C., B.A. and P.U.C. (Commerce), P.U.C. (Science), P.U.C. (Humanities) respectively, for those who are in employment. One evening college with Urdu medium was affiliated. (The Evening Sessions of all these colleges are treated as separate colleges and included in the figure 35 shown above).

In the Arts and Science Faculties, the medium of instruction is primarily English. But there is one Arts College which has Urdu as medium of instruction upto B.A. stage, one college with

Hindi as medium of instruction upto B.A. stage. In all professional courses English is the only medium of instruction. The courses of study in Oriental learning in Sanskrit for entrance test, Dip. O. L. and B. O. L., have been framed. Twenty private Oriental Institutions have been recognised to coach students for these courses.

*Courses of Study :—*

I. ARTS :

P.U.C. (Humanities), B.A., B.A. (Special), M.A., Ph.D., Dip in Lib. Science, Dip. in Phy. Edn., Dip. in French/German/Russian, Sr. Dip. in French/German/Russian, Entrance in Oriental Learning, Dip. O. L., B. O. L., Bachelor of Journalism, Dip. Pub. Adm., Dip. in Co-operation.

II. SCIENCE :

P.U.C. (Science), B.Sc., B.Sc. (Special), M.Sc., Ph.D., M.Sc. (Tech.) (Applied Geology), Dip. Course for Trained Teachers of Education Department.

III. COMMERCE :

B.Com., B.Com. (Special), M.Com., Master's Degree in Business Adm., Ph.D., Dip. Course in Business Management.

IV. EDUCATION :

Shortened B.Ed. Course, B.Ed., M.Ed., Ph.D.

V. ENGINEERING :

B.D. (Civil) (Electrical) (Mechanical) (Mining) (Tele. Com.) (Chemical Engg.), M.E. (Hydraulic) (Control Engg.) (Soil Mechanic) (Foundation & Heat Power Engg.), B.E. for B.Sc.'s, Part-time Degree Course in Engg. for Diploma holders.

VI. TECHNOLOGY :

B.Tech., M.Tech., Ph.D.

VII. MEDICINE :

M.B.B.S., B.Sc. (Nursing), B.D.S., B.Sc. (Pub. Health), M.D. (General Medicine) (Physiology) (Pharmacology) (Paediatrics) (Pathology) (Bacteriology) (Obstetrics & Gynaecology) (Forensic-Medicine) & (Anaesthesiology), M.S. (General Surgery) (Opthalmology) (ENT), M.Sc. (Anatomy) (Physiology) (Bio-Chemistry) (Nutrition).

Diplomas :—D.A., D.O., D.G.O., D.C.M., D.C.P., D.L.O., D.P.H., D.M.R., D.F.M., D.H.M., T.D.D.

VIII. LAW :

LL.B., LL.M.

New courses introduced in 1964-65 :—Ph.D in Psychology & Geo-Physics (Dip. course in Tuberculosis Diseases), T.D.D. (under Faculty of Medicine), M.D. in Anaesthesiology, Master's Degree in Business Admn., One Year Dip. Course in Pub. Admn., One Year Dip. Course in Cooperation, One Year Dip. Course for Trained Teachers of Education Dept., Matriculation.

The University is completely autonomous though it is wholly financed by the Government. The University Syndicate, consisting of 14 members is the governing body. The Vice-Chancellor is the chief administrative officer The other bodies of the University are the Finance Committee, Academic Council, Senate, Library Committee, Committee of Exams., Faculties and Boards of Studies and the Standing Committee.

Admission : The qualification necessary for entrance to the Pre-university Course is the Matriculation Examination or Higher Secondary Certificate or equivalent certificate.

Enrolment (1963-64) : 26,821 (Arts and Science: Boys 13,582 ; Girls 3,892 ; Professional : Boys 8,410 ; Girls 937).

During 1964-65, 4 Colleges were affiliated to the University, one with P.U.C. (Humanities and one with P.U.C. Humanities & Science. Also three colleges were disaffiliated. They are Univ. College of Vet. Sc. & A.H., with P.U.C. Science.

CHANCELLOR

Pattom A. Thanu Pillai, Governor.

PRO-CHANCELLOR

Prince Mukarram Jah Bahadur, M.A. (Cantab.).

VICE-CHANCELLOR

Dr. D. S. Reddi, M.A. (Oxon.).

REGISTRAR

L. B. Deshpande, B.Sc.

DEANS OF FACULTIES

*Arts*, Prof. M. Abdul Qadir.
*Science*, Dr. N. V. Subbarao.
*Commerce*, Dr. V. V. Ramnadhan.
*Law*, Prof. G. C. V. Subba Rao.
*Education*, Shrimati Syeda Zohra Begum.
*Engineering*, Prof. Abid Ali.
*Technology*, Abde Ali I/c.
*Medicine*, Dr. M. Y. Ansari.

UNIVERSITY COLLEGES

University College of Arts & Commerce, Osmania University, Hyderabad 7.
University College of Education, Osmania University, Hyderabad 7.
University College of Engineering, Osmania University, Hyderabad 7.
University College of Science, Osmania University, Hyderabad 7.
University College of Law, Osmania University, Hyderabad 7.

CONSTITUENT COLLEGES

Nizam College, Gunfoundry, Hyderabad.
Women's College, Sultan Bazar, Hyderabad.
College of Law, Abid Road, Hyderabad.
Saifabad Science College, Hyderabad.
Evening College of Arts & Commerce, Hyderabad.
Evening College of Arts & Commerce, Secunderabad.
Secunderabad College of Arts & Science, Secunderabad.
Arts & Science College, Warangal (Day Session).
Arts and Science College, Warangal (Evg. Session).

AFFILIATED COLLEGES

PRIVATE COLLEGES :—

Vivek Vardhini College, Day Session (Hyd.)
Vivek Vardhini College, Even. Session (Hyd.)
Badruka College of Arts & Commerce (Hyd.) Day Session.
Badruka College of Arts & Commerce (Hyd.) Even. Session.
Anwar-ul-Uloom College, Hyderabad.
Raja Bahadur Venkat Ramareddy Women's Col. Hyd.
Nankram Bhagwandas Science College (Day) Hyderabad.
Agarwal Science College (Evening) Hyderabad.
New Science College (Day) Hyderabad.
New Science College (Evening) Hyderabad.
Mumtaz College (Hyderabad).
St. Francis College for Women (Sec'bad).
Kakatiya Medical College (Warangal).
Hindi Mahavidyalaya (Hyderabad).
Vanita Mahavidyalaya (Hyderabad).
Urdu Arts College (Hyderabad).
Sri Venkateshwara Arts & Science College (Palam).
Arts & Science College (Jadcherla).
Sri Ramchandra Arts & Science College (Kothagudam).
Arts & Science College (Kammareddy).

GOVERNMENT COLLEGES

Institute of Medical Sciences, O.M.C. (Hyd.).
Gandhi Medical College, Hyderabad.
College of Nursing, Hyderabad.
Regional Engineering College (Warangal).
S.R.R. Government College (Karimnagar).
S.R. & B.G.N.R. Government College (Khammam).
Nagarjuna Govt. College (Nalgonda).
Garraj Govt. College (Nizamabad).
Govt. Arts & Science College (Siddipet).
Govt. City Science College (Hyderabad).
Govt. Training College (Hyderabad).
Govt. Training College (Warangal).
Govt. College of Physical Education (Hyd.).
M.A.D. Govt. Arts College (Gadwal).
Govt. Arts & Science College (Adilabad).

Total number of Arts and Science Colleges : Arts Colleges 10 ; Science Colleges 7 ; Arts and Science 20 and Professional 12.

Total number of Women's Colleges : Five.

Total enrolment in Arts and Science Colleges : Boys 16,370 ; Girls 4,004.

Total number of Professors : 91 ; Other teachers 1,882.

Total number of Professional Colleges : 12 (Education, three ; Engineering, two ; Law, two ; Medical, three ; Physical Education, one ; Nursing, one). Total enrolment in Professional Colleges : Boys 5,622 ; Girls 825.

**Budget (1964-65)**

Receipts: Rs. 1,32,59,018. Expenditure : Rs. 1,31,33,242.

Contribution by State Government : Rs. 82,83,605 ; Central Govt.: Rs. 1,44,708.

## SRI VENKATESWARA UNIVERSITY

Tirupati

A Residential, teaching and affiliating University having jurisdiction extending over the districts of Anantapur, Chittoor, Cuddappah, Kurnool and Nellore in Andhra Pradesh.

Instruction is being provided for Pass and Post-Graduate Degree courses of study in the teaching departments of English, Telugu, Sanskrit, Hindi, Arabic, Persian, Urdu, Philosophy, Psychology, Economics, History, Mathematics, Statistics, Physics, Chemistry, Botany, Zoology and Geology in the University College (Arts & Sciences). Research work leading to the Ph.D. Degree is also permissible in all these departments except in the Statistics Department. M.Sc. Degree course in Home Science has been started in the academic year 1963-64.

The University College of Engineering provides instruction for the Five Year Integrated Course in Engineering, Civil, Electrical and Mechanical branches.

Pre-University course of study came into operation in the academic year 1957-'58 and was followed by the Three Year Degree courses in the next academic year, 1958-'59. These two courses replaced the old two-year Intermediate and Degree courses of study respectively.

Consequent on the abolition of Three Year Honours courses, two year Masterate courses have been started in the University College with effect from the academic year 1959-'60. Provision has also been made for doing research leading to D.Sc. and D.Litt. degrees.

The medium of instruction and examination in the University is English excepting Modern Indian Languages and the languages for the Oriental Titles.

AFFILIATED COLLEGES

*First Grade Arts & Science Colleges* (13).
Government Arts College, Cuddappah.
Government Arts College, Anantapur.
Adoni Arts & Science College, Adoni.
Besant Theosophical College, Madanapalle.
Sri Venkateswara College, Tirupati.
Sri Padmavati College for Women, Tirupati.
Sri Venkateswara College for Music and Dance, Tirupati.
Osmania College, Kurnool.
V. R. College, Nellore.
Kavali College, Kavali.

Govt. K. V. Reddy College for Women, Kurnool.
Govt. Arts & Science College, Chittoor.
D. K. Govt. College for Women, Nellore.

*Professional Colleges* (4).
College of Engineering, Anantapur.
Government Training College, Kurnool.
Government Training College, Nellore.
Kurnool Medical College, Kurnool.
Sri Venkateswara Medical College, Tirupati.

*Oriental Colleges* (4).
Sri Venkateswara Oriental College, Tirupati.
Islamia Arabic College, Kurnool.
Jamia Mahammadia Arabic College, Rayadrug, Anantapur District.
Veda & Sanskrit College, Nellore.

**Personnel**

*Chancellor:* The Governor of Andhra Pradesh.

*Pro-Chancellor:* K. Brahmananda Reddy, Chief Minister, Andhra Pradesh.

*Vice-Chancellor:* Dr. V. C. Vaman Rao, M.A. Ph.D. (Dublin).

*Registrar:* B. Subba Rau, B.A.

*Dy. Registrar:* K. V. Sambasiva Rao, M.Sc.

*Asst. Registrar:* M. Kutumba Rao, M.A. (Texas).

*Principal, University College:* K. Pampapathi Rao, M.A., Ph.D., Dip. in German.

*Special Officer and Professor of Mechanical Engineering, University College of Engineering,* Prof. G. Ramakrishnan, B.E. (Hons.), M.Sc. (Mich.). Mem.A.S.T.E.

*Heads of Departments:* Dr. M. V. Rama Sarma, M.A., Ph.D. (Wales) (*English*); Prof. P. Lakshmikantham, M.A. (*Telugu*); Dr. E. R. Srikrishna Sarma, M.A., Ph.D. (*Sanskrit*); Dr. Vijay Pal Singh, M.A., Ph.D. (*Hindi*); Major S. Parthasarathy, M.A., Dip. in Anthropology (*Psychology and Philosophy*); Dr. D. L. Narayana, M.A., Ph.D. (*Economics*); Dr. M. Rama Rao, M.A., Ph.D., B.Ed. (*History*); Dr. D. P. Bannerjee, M.A., D.Sc. (*Mathematics*); Dr. J. Bhimasenachar, M.Sc., D.Sc (*Physics*), Dr. K. Neelakantam, M.A., Ph.D., D.I.C (Lond.), F.A.Sc. (*Chemistry*); Dr. I. M. Rao, M Sc., D.Sc. Dip. in German (*Botany*); Dr. K. Pampapathi Rao, M.A., Ph.D., Dip. in German (*Zoology, Arabic, Persian and Urdu*); Dr. M. G. Chakrapani Naidu, M.Sc., Ph.D. (*Geology*); Dr. B. Mohan Rao, B.E., Ph.D. (Lond.), D.I.E. (Lond.) (*Civil Engineering*); Prof. Dorothy M. Pearson, M.A. (Toronto), (*Home Science*).

Total number of students in the University Colleges at the beginning of the academic year 1964-65 : Boys 998 ; Girls 110. Total 1,108.

The total strength of the University (including University College) in 1964-65 was 12,557.

**1963-64 BUDGET**

| | | |
|---|---|---|
| Opening Balance .. .. | Rs. | 60,13,985 |
| Receipts .. .. | Rs. | 1,60,31,694 |
| Expenditure .. .. | Rs. | 1,71,47,510 |
| Closing Balance .. .. | Rs. | 48,98,169 |

## MUNICIPAL CORPORATION OF HYDERABAD

*Mayor*, Mrs. Sarojini Devi.

*Deputy Mayor*, Syed Rahmat Ali.

Municipal Councillors elected during the Municipal General Election of 1964, with the names of their respective constituencies are as follows :

R. R. Swamy (*Afzal Gunj*); Syed Rahmath Ali (*Aghapura*); Ananth Ram Reddy (*Amberpet*); P. Balaram (*Amberpet*); Ramaswamy (*Ameerpet*); Dwaraka Dass (*Asafnagar*); Hari Narayan (*Avalamanda Rangras Bazar*); Khaja Abu Sayeed (*Azampura*); A. Dharam Pal (*Balagunj*); T. Ramulu (*Bansilapet*); J. Venkatesham (*Bansilapet*); Smt. B. Sarojini Devi (*Bathkammakunta*); Ram Rao Doke (*Begum Bazar*); J. Ram Rao (*Begumpet*); Karre Narsimha (*Bhoiguda-Old*); B. M. Raj (*Chanchalguda*); Khadija Banu (*Chanchalguda*); Naziruddin Ahmed (*Chelapura*); Mir Akbar Ali Nasri (*Char Mahal*); S. Yadagiri (*Chikadpally*); N. Laxmi Narayan (*Chudi Bazar*); Mohd Khamruddin (*Dabeerpura*); Khambiah (*Dabeerpura*); Srinivas Rao (*Darushafa*); Ganesh Singh (*Dhoolpet*); K. V. V. Narsimha Charyulu (*Domalguda*) Smt. C. Asha Devi (*Doodh Bowli*); Kashir Ram (*Doodh Bowli*); Jadish Pershad Jaiswal (*Esamian Bazar*); Dayanand (*Gandhi Bhavan*); Siviah (*Golkonda*); A. Rangiah (*Golkonda*); V. Nagamallappa (*Goshamahal*); Dr. G. Vithl Rao (*Goliguda*); Smt. Kumud Naik (*Gulbagh*); Radha Kishan Jaiswal (*Gunfoundry*); Sathanarayan (*High Court*); K. Konda Reddy (*Himathnagar*); E. V. Padmanabhan (*Himayathnagar*); A. Sarvesh (*Hiassmgunj Mondha*); Ahmed Hussain (*Gussaini Alan*); Boddu Veeraswamy (*Iddi Bazar*); A. Balraj (*Jam Bagh*); M. Balliah (*Gangammet*); Sankar Rao (*Jeera*); D. Yadeav Rao (*Jubilee Hills*); Devendrapuri Goswami (*Jumerat Bazar*); A. Raj Lingiah (*Karwan*); A. Muthamiah Gond (*Kavadiguda*); H. R. Harish Chander (*Khairtabad*); M. R. Sham Rao (*Khairtabad*); G. Narasimha Rao (*Khalasiguda*); Sree Ramulu (*Kotiah Street*); B. Sathanarayan (*Kumeeriguda*); K. R. Abbiah (*Lallapet & Tukaram Gate*); Ranganayakulu (*Lallapet & Tukaram Gate*); Jagjeevan Pershad (*Lingampally*); Laxshmi Narayan (*Machali Bowli*); Abu Baker Bin Ali (*Maisram*); Sultan Salahuddin Owaisi (*Mallapally*); T. Govind Singh (*Mangalhot*); M. Ramchanderiah (*Maruthi Veedhi*); M. A. Bashir (*Mettuguda & Chilkalguda*); Baliah (*Mettuguda & Chilkalguda*); Ghulam Ghous Khan (*Moghalpura*); A. Shankar Rao (*Musheerabad*); P. Surya Narayan Reddy (*Mustaidpura*); Jagdish Pershad (*Namapally*); Smt. Susheela Varma (*Narayanguda*); V. S. Ashoka (*Nehrunagar*); N. B. Kumar (*Padmarao Nagar*); Mohd Abdul Shnkoor (*Pathergatti*); Mohammed Isehaq (*Paul Dass Maternity Home*); Ram Das (*Pavan Bazar*); Khaja Nizamuddin (*Pazipura*); Sarwar Khan (*Quthbiguda*); Y. Venkiah (*Ramgopalpet*); Ranjeet Singh (*Razdarkhan Pet*); K. R. Krishnaswami (*Salzimandi*); E. Mahankali (*Sarojini Devi Road*); Balakrishnan (*Satyanarayanapuram*); M. Sambamurthy (*Satyanarayanapuram*); Veera Malla Reddy (*Saveedabad*); E. Rajiah (*Secunderabad Railway Station*); N. Bashrathji (*Seethaphalmandi*); B. Mahikyam (*Shahali Banda*); Movya Hanmantn Rao (*Siddiamber Bazar*); Smt. Kunwar Rani (*Somajiguda*); Venkateswar Rao (*Sultan Bazar*); Gulam Mohammed (*Umda Bazar*); P. Srinivasa Rao (*Yakutpura*); P. Swamy (*Zamistanpura*); N. Yalliah (*Zamistanpura*).

PRINCIPAL OFFICIALS

**Hyderabad Division :**

*Commissioner* Ajit Singh, I.A.S.
*City Engineer*. D. Gopal Reddy.
*Medical Officer of Health*, Dr. B. Ramchandran, M.B.B.S., B.S.Sc.
*Executive Engineer, Drainage*, B. Venkatratnam, B.E., M.E. (P.H.) IMIE.
*Town Planner:* R. Somasundara Rao, A.M.T.P.I., Dip. T.P., A.I.T.P.
*Secretary*, B. R. Kapoor, B.A.
*Public Relations Officer*, T. Rajagopalachari, B.A., LL.B., L.S.G.D.

**Secunderabad Division**

*Addl. Commissioner*, M. Dharmaraj Mathur, B.A.
*Addl. City Engineer*, Waheed Ahmed, B E.
*Addl. Medical Officer of Health*, Dr. Govindaraman, L.M.P.

BUDGET FOR 1965-66

| | | |
|---|---|---|
| Income .. .. .. | Rs. | 5,56,17,993 |
| Expenditure .. .. .. | Rs. | 5,56,17,993 |

## ASSOCIATIONS, INSTITUTIONS, ETC.

ADMINISTRATIVE STAFF COLLEGE OF INDIA

Bella Vista, Hyderabad 4.

Gives training to senior executives from different spheres of administration and fields of activity—public and private. Provides opportunity for self-development and for the study of the skills and techniques of higher management and leadership.

*Principal:* R. L. Gupta.

ALL-INDIA CROCHET LACE EXPORTERS ASSOCIATION

Narsapur (W. G. Dist.).

ALL-INDIA GRAPHITE, CRUCIBLE MANUFACTURERS ASSOCIATION (Regd.)

Rajahmundry.

ANDHRA CHAMBER OF COMMERCE

Andhra Chamber Building, 272/73, Angappa Naick Street, Madras 1.

Also at 68-B, Rashtrapati Road, Secunderabad.

THE ANDHRA FILM CHAMBER OF COMMERCE

Andhraratna Road, Gandhinagaram, Vijayawada 3.

*President:* Jagarlamudi Krishna Moorthy Babu ; *Vice-Presidents* : P. Chandrasekhara Rao, D. Satyanarayana, G. Kamaraj ; *Secretaries* : M. S. Raju, T. Adinarayana, A. K. Cheluvaraj ; *Treasurer:* P Subba Rao.

ANDHRA HISTORICAL RESEARCH SOCIETY

Rajahmundry.

Publishes yearly journal of historical research. Maintains free reading room, public library and museum. Membership : 200

*President*, N. Kameswara Rao. *General Secretary*, R. Subba Rao.

ANDHRA PRADESH AGRICULTURAL MACHINERY & APPLIANCES ASSOCIATION

148, Rashtrapati Road, Secunderabad.

ANDHRA PRADESH CHEMISTS & DRUGGISTS ASSOCIATION

Metropolitan Club, Hanuman Tekdi, Hyderabad.

ANDHRA PRADESH GRAIN & SEEDS MERCHANTS ASSOCIATION

Pahade Niwas, Osmangunj, Hyderabad.

ANDHRA PRADESH HOTELS ASSOCIATION

93, Sarojini Devi Road, Secunderabad.

ANDHRA PRADESH PAPER MERCHANTS ASSOCIATION

335, Gowliguda, Hyderabad.

ANDHRA PRADESH PRINTERS' ASSOCIATION

3-4-649 (Upstairs), Narayanguda, Hyderabad.

ANDHRA PRADESH SANGEETA NATAKA AKADEMI

Kala Bhavan, Saifabad, Hyderabad 4.

*President* : Pasala Suryachandra Rao ; *Vice-Pres.*, R. A. Sarma ; *Hon. Secretary* : Dr. P. S. R. Appa Rao ; *Hon. Treasurer:* T. R. Doss.

ANDHRA PRADESH SMALL INDUSTRIES ASSOCIATION

Industrial Estate, Vijayawada 7.

ANDHRA PRADESH STATE COUNCIL FOR CHILD WELFARE

6-3-1186, Begumpet, Hyderabad 16.

ANDHRA SAHITYA PARISHAT

(Estd. 1911)

(Telugu Academy)

Kakinada.

*President*, Vimarsakagresara Aithihasika Samrat Bandaru Thammayya. *Secretary*, Dantu Bhaskararao, M.L.A. *Jt. Secretary*, Duvvuri Suryanarayana Sastry.

ANDHRA STATE EXPORTERS' & IMPORTERS' ASSOCIATION
Ellore Bazar, Guntur.

ANDHRA STATE GUNNY TRADERS ASSOCIATION (Regd.)
Pulipativari St., Vijayawada 1.

THE AUTOMOBILE ASSOCIATION OF SOUTHERN INDIA
60, Mahatma Gandhi Road, Secunderabad.

THE BHARAT SCOUTS AND GUIDES
Domalguda, Hyderabad.

*State Chief Commissioner*, M. P. Pai, I.C.S.; *State Commissioners—(Scouts)*, S. M. H. Naqvi, *(Guides)*, Z. R. Ranji; *State Secy.*, D. S. Raja Rao; *State Treasurer*, N. Narayan Doss.

THE BHIMAVARAM CHAMBER OF COMMERCE
Bhimavaram (Dt. W. Godavari).

*President:* B. Bangarraju, B.A., B.Ed.; *Vice-Press.:* K. Sriramamurty, G. Nagessararao; *General Secy.:* M. Nageswara Rao; *Treasurer*. Sanka Manikyalarao.

BUILDERS' ASSOCIATION OF INDIA
Red Hills, Hyderabad 4.

CENTRAL INSTITUTE OF ENGLISH
Hyderabad 7.

*Chairman:* Dr. P. E. Dustoor; *Director:* Prof. V. K. Gokak; *Director of Studies:* Dr. B. M. Lott.

CENTRAL TRAINING INSTITUTE OF INSTRUCTORS
I.T.I. Bldg., Mallepalley, Hyderabad.

THE CHAMBER OF COMMERCE, ATTILI
Tadepalligudem (Dt. W. Godavari).

CHITTOOR DISTRICT SMALL SCALE INDUSTRIES ASSOCIATION
205, Town Planning Area, Tirupati.

THE COCANADA CHAMBER OF COMMERCE
Commercial Road, Kakinada 1.
*Chairman:* S. Sibgathullah.
*Secretary:* M. Nagabushanam.

COUNCIL OF SANSKRIT EDUCATION
King Koti Road, Hyderabad.

FAMILY PLANNING ASSOCIATION
5-1-227, Jambagh, Hyderabad.

FEDERATION OF ANDHRA PRADESH CHAMBERS OF COMMERCE AND INDUSTRY
8573, Rashtrapati Road, Secunderabad 3.
*President:* M. Sudarsanam; *Secretary:* C. A. Rebello.

FEDERATION OF ANDHRA PRADESH SMALL INDUSTRIES ASSOCIATIONS
128, M. Gandhi Road North, Secunderabad.

FRUIT COMMISSION AGENTS' ASSOCIATION
Jaribag Road, Hyderabad.

THE GODAVARI CHAMBER OF COMMERCE LTD.
Vallabhai Street, Kakinada, East Godavari Dist.
*President:* R. Satyanarayanamurty; *Vice-Pres.* A. Subbiah; *Secy.:* N. Rajah.

GOUTHAMI CHAMBER OF COMMERCE
Main Road, Rajahmundry.

HYDERABAD AGRICULTURAL CO-OPERATIVE ASSOCIATION LTD.
Opp. Public Gardens, Hyderabad.

HYDERABAD ART SOCIETY
C/o Govt. College of Fine Arts & Architecture, Hyderguda, Hyderabad.

HYDERABAD CHILDREN'S AID SOCIETY
3-6-438, Hardikarbagh, Himayatnagar, Hyderabad 1.
*President*, Dr. N. Sanjeeva Reddy. *Hon. Secretary*, V. K. Dhage. *Jt. Hon. Secretaries*, Smt. Tehminabai Dhage, Dr. A. K. Shah.

THE HYDERABAD CLOTH MERCHANTS' ASSOCIATION (Regd.)
No. 15-9-312, First Floor, P.O. Afzulgunj, Hyderabad.

HYDERABAD DAL MILLS AND MERCHANTS ASSOCIATION
Mukhtiar Gunj, Hyderabad.

HYDERABAD EDUCATIONAL CONFERENCE
No. 19, Bachelors Quarters,
Jawaharlal Nehru Road, Hyderabad 1.
*President:* Mehdi Nawaz Jung Bahadur; *Vice-President:* Mohd. Azamuddin; *Hon. Secy.:* V. Narayan Karan Reddy; *Joint Secy.:* Burhanuddin Hussain; *Treasurer:* Faqruddin Mohd.

HYDERABAD KIRANA MERCHANTS ASSOCIATION
Begum Bazar, Hyderabad.
*President*, Chaganlal Vijayvargia; *Vice-Presidents*, Ramkishan Darak, Ganesh Lal Baheli; *Hon. Gen. Secretary*, Satyanarayan Agarwal.

HYDERABAD SCIENCE SOCIETY
12-2-460, Malkapur, Asifnagar, Hyderabad.

HYDERABAD SECUNDERABAD IRON & HARDWARE CONTROL STOCKISTS' ASSOCIATION
3364, Rashtrapati Road, Secunderabad 3.
*President:* Darga Durgiah *Vice-President:* J. V. Suresh; *Hony. Secretary:* R. M. Trivedi.

THE HYDERABAD STATE FILM CHAMBER OF COMMERCE
30, Ghasmandy Road, Secunderabad.
*President:* S. A. Sheth; *Vice-Presidents:* B. J. Barja, C. V. V. R. Prasad; *Hon. Secy.:* T. C. Sanghi; *Jt. Hon. Secy.:* K. N. Ramoo; *Hon. Treasurer:* Ramesh Chandra Lahoti.

HYDERABAD STATE MOTOR MERCHANTS' ASSOCIATION
Mahatma Gandhi Road, Secunderabad.

HYDERABAD STOCK EXCHANGE LTD.
Bank Street, Hyderabad.
*President:* Mukundas Malani; *Vice-President:* P. B. Afzulpurkar; *Secretary:* M. V. Bharatia.

HYDERABAD TRADE ASSOCIATION
Singhvee Bhavan, Tilak Road, Hyderabad.
*President:* Banarsilal Gupta; *Vice-President:* R. Amolakchand; *Hon.Secretary:* M. E. Haroon.

THE INDIAN CHAMBER OF COMMERCE
P. Box 67, Guntur.
*President:* J. K. Bhuwalka; *Vice-Presidents:* P. Subrahmanyam, Tellakula Koteswararao, M. P. Sudarsanam, B.A.; *Hon. Secretaries:* P. Mrutyunjaya Row, V. Gurunadham.

INDIAN CONFERENCE OF SOCIAL WORK
Red Hills, Hyderabad 4.

INDO-GERMAN CULTURAL SOCIETY
208, Bibi Alawa, Hyderabad-24.
Established: 1958.

INDO-IRAQ CULTURAL SOCIETY
17-6-674, Chawrasta, Buglow Beni, Hyderabad 24.

INDUSTRIAL ESTATE MANUFACTURERS' ASSOCIATION
B-17, Sanatnagar, Hyderabad 18.
*President:* V. R. Reddy; *Gen. Secy.:* V. K. Jain; *Treasurer:* Hanumandas Darak.

INDUSTRIAL TRAINING INSTITUTE
Malapally, Hyderabad.

THE INSTITUTION OF ENGINEERS (INDIA) A. P. CENTRE
Khairatabad, Hyderabad 4.

KALAKSHETRAM
Eluru (W. G. Dist.).
Cultural organisation for promoting Kuchipudi dance, drama and music.
*Chief Director:* B. Kanakalingeswara Rao, B.A., B.L. Dip. *President:* V. Jagannatha Rao, B.A., B.L. *Secretaries:* M. Rama Rao, N. V. S. Rama Sarma, B.A., B.Ed.

THE KRISHNA DISTRICT CHAMBER OF COMMERCE
Fort Road, Masulipatam.

MADRAS MICA ASSOCIATION
Gudur (Nellore Dist.).

THE METAL MERCHANTS' & MANUFACTURERS' ASSOCIATION
Gunduvari Street, Rajahmundry.

THE NELLORE CHAMBER OF COMMERCE
Tobacco Field, Nellore 1.
*Hon. Secretary and Treasurer*, Kalahasti Ramanatham, M.A., B.Ed.

NUTRITION RESEARCH LABORATORIES
(Indian Council of Medical Research).
Tarnaka, Hyderabad 7.
*Director*, Dr. C. Gopalan, M.D., Ph.D., F.A.Sc., F.A.M.S.

OIL TECHNOLOGICAL RESEARCH INSTITUTE
Anantapur.

PALASA CASHEW MANUFACTURERS' ASSOCIATION
Palasa. (Dt. Srikakulam).

RAJAHMUNDRY CHAMBER OF COMMERCE LTD.
Rajahmundry 1.
*President:* Kotha Seetaramaswami; *Vice-Presidents:* Kovvuri Nagireddy, B.A.B.Sc, Ghanta Rapaiah; *Hon. Secretary:* Srikakolapu Satyanandam, B.A.; *Hon. Joint Secretary:* Dasari Subba Rao, B. Com.; *Treasurer:* Balabhadra Venkatraju.

REGIONAL RESEARCH LABORATORY
(Council of Scientific & Industrial Research), Hyderabad 9.
*Dy. Director in Charge:* Dr. G. S. Sidhu.

SECUNDERABAD TRADES ASSOCIATION
151, Sappers Lines, Secunderabad.

SECUNDERABAD YARN MERCHANTS' ASSOCIATION
1725, Gunj Bazar, Secunderabad.

SHREE GOUTHAMI VIDYA PEETHAM
Kambam Choultry Street, Seethampeta, Rajahmundry.
A literary body having ten branches. Traditional Courses—Pareeksha Kendram (Dakshina Kasi), Oriental Research, Publications, College and High School Section, Astronomy Section, Music Section (Carnatic music and kuchipudy dance) Free Boarding and Lodging, Hostel for poor students, and the Saraswathy Bhavanam Library.
*President*, A. Rama Rao. *Founder Secretary and Treasurer*, K. Jagannadha Rao Gopal Rao.

SOCIETY FOR CULTURAL RELATIONS WITH FOREIGN COUNTRIES
156, Dewdi Nawab Ikram Yakhootpura, Hyderabad 23.

SRI VENKATESWARA UNIVERSITY ORIENTAL RESEARCH INSTITUTE
Tirupati, Chittoor District.

*Director :* Dr. K. Neelakantam, M.A., PhD., D.I.C. (Lond.), F.A.Sc.

ST. JOHN AMBULANCE ASSOCIATION
St. Mary's Road, Secunderabad.

*President.* The Governor of Andhra Pradesh. *Chairman,* Smt. Ponnamma Thanu Pillai, *Hon. Secretary,* Dr. R. K. Bhandari

TELUGU BHASHA SAMITI

*Head Office :* Osmania Univ. Campus, Hyderabad. *Regd. Office :* 71 University Buildings, Madras 5.

A non-profit making cultural institution engaged in the publication of an Encyclopaedia in Telugu in 16 volumes.

Ten volumes of the Encyclopaedia series were published by March 1965 and other volumes are in various stages of execution.

*President :* Dr. B. Gopala Reddi ; *Vice-Presidents:* P. V. G. Raju ; Dr. S. B. P. Pattabhirama Rao ; *Secretaries :* Moturi Satyanarayana, Padma Bhushan, M.P. ; Dr. D. V. Subba Reddi, M.Sc., M.B., B.S.

TRAINING CENTRE FOR THE ADULT DEAF
(Ministry of Education)
Malakpet, Hyderabad.

The Centre is now under the control of Department of Social Security, Government of India. The first batch of 29 trainees successfully completed 2 years training in Sheet Metal Work, Electrical Wiremanship and Fitting trades, in Oct. '64. Most of the trainees have been employed in Industrial concerns on a wage/pay range of Rs. 40 to Rs. 90 per month, through the efforts of Special Employment Exchanges for the Physically Handicapped. A follow up programme is evolved to know about the subsequent employment or other activities of the successful trainees.

The present strength has been increased to 60 trainees representing eleven States with the starting of 3 more trades *viz.*, Gas Welding, Cutting & Tailoring and Carpentry.

*Director :* J. Kishtappa.

VISAKHAPATNAM STEVEDORES ASSOCIATION
"Port View", Visakhapatnam.

VIZAGAPATAM CHAMBER OF COMMERCE
16/9, Main Road, Visakhapatnam 1.

VIZIANAGARAM CHAMBER OF COMMERCE
Main Road, Vizianagaram.

YOUNG MEN'S CHRISTIAN ASSOCIATION
Sardar Patel Road, Secunderabad.

YOUNG WOMEN'S CHRISTIAN ASSOCIATION
King Koti Road, Hyderabad.

## COMMERCIAL FIRMS

Agents & Distributors P. Ltd., 67-A, Rashtrapati Road, Secunderabad.

Ali Brothers P. Ltd., 25-A, St. John Road, Secunderabad.

Allied Industries, Azamabad, Hyderabad.

Analysers P. Ltd., 18/3, Azamabad, Hyderabad 20.

Andhra Pradesh Company, Durga Bhavan, Rashtrapati Road, Secunderabad 3.

Andhra Sugars Ltd., 28, Sarojini Devi Road, Secunderabad 26.

Argus & Co., 171, Chapel Road, Hyderabad.

Arvi Ltd., Pan Bazar, Secunderabad 3.

Aryan Industries P. Ltd., 108, Walker Town, Secunderabad.

Associated Engg. Co., 137, Rashtrapati Road, Secunderabad.

Associated Industrial & Engg. Corpn. Ltd., F-1-30, Begumpet, Hyderabad.

Associated Traders of India, 1-4-924, Bakaram. Hyderabad.

Automotive Manufacturers Private Ltd., 8571, Rashtrapati Road, Secunderabad.

Badshah & Sons, Standard Works, Station Road, Hyderabad.

bajaj

**BAJAJ ELECTRICALS LTD.,** Electrical Engineers, Manufacturers & Contractors.

Lakdi ka Pul Road, Hyderabad, A.P.

Telephone : 33335.

Telegrams : "SOFTLITE".

*For details please see* Commercial Firms Section BOMBAY.

Barman Brothers, Barman Building, Gunfoundry, Hyderabad.

Batliboi & Co., Props. : Bhogilal Leherchand P. Ltd., Rashtrapati Road, Secunderabad.

Belde Engineering Co., Rashtrapati Road, Secunderabad.

Best & Co. P. Ltd., Post Box 41, Secunderabad 3.

Bharat Metal Box Co., Muktarganj, Hyderabad.

Bharath Engineering Co., 7939, Rani Ganj, Secunderabad.

Biological Products Private Ltd., 18/3, Azamabad, Hyderabad 20.

Bombay Cycle and Motor Agency of Secunderabad Ltd., 52–53, Mahatma Gandhi Road, Secunderabad.

British India General Ins. Co. Ltd., Gunfoundry, Hyderabad.

Bulchand & Co., Abid Road, P.O. Box No. 227, Hyderabad, A.P.

Burmah-Shell Oil Co., 32, Sarojini Devi Road, Secunderabad.

Canadian & Continental Steel Agencies, 41, Sarojini Devi Road, Secunderabad 3.

Cement Marketing Co. of India Ltd., 66-A, Rashtrapati Road, Secunderabad.

Central Trading Co., Rashtrapati Road, Secunderabad.

Ch. Yegnaiah & Sons, 1/A, Rashtrapati Road, Secunderabad.

Chinoy Challani & Co., Abid Road, Hyderabad.

Commercial Corpn. Ltd., Tobacco Bazar, Secunderabad.

Commercial Industries of India Ltd., Bulletin Bldg., Secunderabad.

Commercial Trading Corporation, Raniganj, Secunderabad 3.

Co-operative General Insurance Society Ltd., H.O. Mahatma Gandhi Road, Hyderabad ; Phone : 33535.

D. Eamajee & Sons, Sardar Patel Road, Hyderabad.

Dastoor & Sons, Sarojini Devi Road, Secunderabad 3.

Dayal Industries, A-10/363, Bashir Bagh Road, Hyderabad.

Deccan Agencies, 35, Ghasmandy Road, Secunderabad.

*Deccan Chronicle,* 147, Sardar Patel Road, Secunderabad.

Deccan Engineering and Refrigeration Co., 13, Rashtrapati Road, Secunderabad.

Deccan Porcelain & Enamel Works Ltd., 2707, Bakaram, Hyderabad-DN. Phone : 2395 ; Grams : "ENAMEL".

Deccan Tyre Trading Co., Raniganj, Secunderabad 3.

Diesel Corpn. (Secunderabad) Ltd., 148, Rashtrapati Road, Secunderabad.

Diesel Spares Corporation, 144, Rashtrapati Road, Secunderabad.

Dominion Engineering Corpn., Rashtrapati Road, Secunderabad.

Dorabji Bros., Park Lane, Secunderabad.

Douglas Bros., 6692, Kingsway, Secunderabad.

Eastern Federal Union Insurance Co., Bashir Bagh Road, Hyderabad.

Electronic & Industrial Instruments Co. Private Ltd., B-17, Industrial Estate, Hyderabad-18 (A.P.).

Ellora Industries, Sanantnagar, Hyderabad 18.

Emson Engineering Corporation, Rashtrapati Road, Secunderabad.

Eskay Engineering Corporation, 6, Rashtrapati Road, Secunderabad.

Esso Standard Eastern Inc., Rashtrapati Road, Secunderabad.

E. V. Rajiah & N. Swamidass, A-52, Mahatma Gandhi Road, Secunderabad.

Eximps Private Ltd., 3–6–735, Himayatnagar, Hyderabad.

Fazal Water Meter Works, Ghoshamal Road, Hyderabad.

Felt & Tarrant India Co., 8062-A, Kingsway, Secunderabad.

Friends & Co., Shahrah-e-Osmani, Hyderabad.

Frizair Corporation, B-23, Industrial Estate, Hyderabad 18.

General Engg. Co., 15–5–18, Afzalganj, Hyderabad.

General Radio & Appliances P. Ltd., Rashtrapati Road, Secunderabad.

Haji Ahmed Alladin & Sons P. Ltd., Sarojini Devi Road, Secunderabad.

Hindustan Corporation (Hyderabad) Ltd., Gaganmahal Road, Hyderabad.

Hyderabad Agencies P. Ltd., 6-3-656 Sanajiguda, Hyderabad.

Hyderabad Allwyn Metal Works Ltd., Sanatnagar, Hyderabad 18.

Hyderabad Asbestos Cement Products Ltd., Sanatnagar, Hyderabad 18.

Hyderabad Commercial Corporation Ltd., 3-4-317, Cloth Market, Secunderabad.

Hyderabad Co-operative Central Trading Society Ltd., The, B/17/655, Station Road, Hyderabad.

Hyderabad Dn. Engineering Co. P. Ltd., Rashtrapati Road, Secunderabad.

Hyderabad Industrial Corporation P. Ltd., 89, Sarojini Devi Road, Secunderabad.

Hyderabad Investment Syndicate Ltd., Sultan Bazar, Hyderabad.

Hyderabad Iron & Steel Works Ltd., Azamabad P.O., Hyderabad.

Hyderabad Laminated Products Ltd., 183–184, Rashtrapati Road, Secunderabad.

Hyderabad Potteries Ltd., 95, Park Lane, Secunderabad.

Hyderabad Roller Flour Mills Co. Ltd., Abid Road, Hyderabad.

Hyderabad Steel Industries, Osmanganj, Hyderabad.

Indian Cable Co., 144, McIntyre Road, Secunderabad.

Indian Commerce & Industries Co. P. Ltd., 10, Padmanagar, Secunderabad.

Indo-Swing P. Ltd., A-4, Industrial Estate, Hyderabad 18.

Industrial & Agricultural Engineering Co. (Hyderabad) Ltd., Gunfoundry, Hyderabad.

Industrial Engineering Corporation, 7953, Raniganj, Secunderabad.

International Equipment Corpn. P. Ltd., 16, Durga Bhavan, Rashtrapati Road, Secunderabad.

International Ore & Fertilizer (India) Private Ltd., 66, Rashtrapati Road, Secunderabad

Jay Engineering Works Ltd., Balanagar, Hyderabad.

J. B. Mangaram & Co., Tank Bunder Road, Hyderabad.

J. C. Pinto & Co., 113/1, Sarojinidevi Road, Secunderabad. Branch : Abid Road, Hyderabad.

J. F. Baria & Sons, "Roze Castle", Sarojini Devi Street, Secunderabad.

**J. & J. DECHANE,** Residency Road, Hyderabad (Deccan); Manufacturers of Herbo-Mineral Medicines; Phone: 42298; Grams: "HERBOMINO".

Jairamdas & Sons, 7937, Raniganj, Secunderabad (A.P.); Phone: 72283; Grams: "JAIRAMSONS"; Tools Manufacturers and Merchants.

John & Co., Abid Road, Hyderabad.

John Burton Ltd., Sardar Patel Road, Secunderabad.

Khan Bahadur Ahmed Allaudin & Co., Oxford St., Secunderabad.

Kilburn & Co. P. Ltd., Market Street, Secunderabad.

Kirloskar Bros. Ltd., Rashtrapati Road, Secunderabad.

Kranj Engineering Mechanical Works, Sultan Bazar, Hyderabad.

Liberty Industries, Liberty Building, Hyderabad 1.

Madan Mohan Metal Industries, 108, Walker Town, Secunderabad.

Madhav Surendra & Co., 45-45A, Mahatma Gandhi Road, Secunderabad.

Madras Circle Pipe Dealers Assen. Ltd., Dundoo Bldg., Rashtrapati Road, Secunderabad.

M. Manikyam & Sons, Siddiamber Bazar, Hyderabad.

Modern Packaging Corporation, B-42, Industrial Estate, Sanatnagar, Hyderabad 18.

Mohamed Ibrahim Co. P. Ltd., Abid Road, Hyderabad.

Mohamed Younus & Sons, Abid Road, Hyderabad.

Mohan Brothers, Moazam Jahi Market Road, Hyderabad.

Morinaga Traders, 15-1-553, Siddiambar Bazar, Hyderabad.

Mukyala Mechanical Works, 5/1/774, Sultan Bazar, Hyderabad.

National Traders Corpn., 40, Sarojini Devi Road, Secunderabad.

National Trading Agencies, M. Gandhi Road, Secunderabad.

National Tyre & Rubber Co. of India Ltd., C-1-559, Old Feelkhana, Hyderabad 1.

Newland Metal Works, 14-2-179, Dhanrajgirji Bals. Sha-I-Nayat Gunj, Hyderabad.

Nirmala Industries, Khairatabad, Hyderabad.

Nizam Sugar Factory Ltd., Abid Road, Hyderabad.

Oriental Mercantile Distributors P. Ltd., 4-3-297, Bank St., Hyderabad.

Oriental Rubber Trading Co., 153, Kingsway, Secunderabad.

Pantagon Steel Industries, 108, Walker Town, Secunderabad.

Patel Industries, 1/11/226, Begumpet, Hyderabad.

Peer Mohamed & Co., Shahrah-e-Osmani, Hyderabad.

Peer Mohamed & Co., Oxford Street, Secunderabad.

Premier Hardware Corpn., 3396, Rashtrapati Road, Secunderabad.

**PURANDAS RANCHHODDAS & SONS,** Gulzar House, Hyderabad 2. Dealers in Perfumery.

Pushp Trading Co., Rashtrapati Road, Secunderabad.

R. Subbaraman & Co. P. Ltd., 141, Rashtrapati Road, Secunderabad.

Radiant Engineering Co. P. Ltd., B-2, Industrial Estate, Hyderabad 18.

Raja Deen Dayal & Sons, Sardar Patel Road, Secunderabad.

Raja Industries, Abid Road, Hyderabad.

Ram Prasad Ltd., 8/501, Jubilee Hills, Hyderabad.

Rashid Mehta & Co., Rashtrapati Road, Secunderabad.

Republic Forge Co., Moula Ali, Hyderabad.

Republican Traders, 45-B, Old Lancer Lines, Secunderabad.

Richard & Co., Sardar Patel Road, Secunderabad.

Royal Hotel, Opp. Nampally Rly. Station, Hyderabad-A.P.; Phones: 34462 & 34469. Grams : " PASSENGER ".

Sahayak Finance & Investment Corporation Ltd., Andhra Bank Building, Sultan Bazar, Hyderabad.

Sanathnagar Polythene Industries, Osmangunj, Hyderabad (A.P.).

Shettys' Pharmaceuticals & Biologicals Ltd., A. 7–12, Musheerabad, Hyderabad 20 (A.P.).

Singareni Collieries Co. Ltd., Meher Manzil, Red Hills, Hyderabad.

Sirpur Paper Mills Ltd., Ali Villa, Somajiguda, Hyderabad 4.

Sirsilk Ltd., Ali Villa, Somajiguda, Hyderabad 4.

South India Commercial Corporation, 85-71, Rashtrapati Road, Secunderabad.

Super Traders, Opp. General Bazar, Secunderabad.

Surana Industries, 4284, Sajjanlal Street, Secunderabad.

Surna Industries, C-4, Industrial Estate, Hyderabad 18.

Swastik Bobbin Mfg. Co. Ltd., 32, Sarojini Devi Road, Secunderabad

Swastik Manufacturers Ltd., Azamabad, Hyderabad.

Swastik Manufacturing Ltd., 128 B, M. Gandhi Road, Secunderabad.

Synchrotric Engineering Works, 8091, Rashtrapati Road, Secunderabad.

Taj Clay Works Ltd., Husain Sagar, Tank Road, Hyderabad

Tata Iron and Steel Co. Ltd., 2, Rashtrapathi Road, Secunderabad.

Tokarshi Lalji & Co., 4 S 336, Residency Road, Hyderabad.

**TOTARAM SAGARLAL & SONS,** Jewellers, Importers–Exporters, Handlooms, Handicrafts and Curios, Abid Road, Hyderabad A.P. (India).

Tottaram Murarilal & Sons, Abid Road, Hyderabad.

Trade Wings (Travel Agency), P. Box No. 175, Hyderabad.

Trivedi & Co., 149, Rashtrapati Road, Secunderabad.

Tungabhadra Industries Ltd., Ali Villa, Somajiguda, Hyderabad.

U-Foam (P) Ltd., B-15/16, Industrial Estate, Hyderabad 18.

United Engineering Corpn., 147, Rashtrapati Road, Secunderabad.

Universal Trading Agency, 91, Sarojini Devi Road, Secunderabad.

Usha Refrigeration Industries, 183/184, Rashtrapati Road, Secunderabad.

Usha Sales Private Ltd., 67/3, Rashtrapathi Road, Secunderabad (A.P.).

Utility Metal Works, 85 & 6, Industrial Estate, Sanatnagar, Hyderabad 18.

Vasi Shums & Co. Private Ltd., Station Road, Hyderabad.

Vidya Sewing Machine Co., Opp. Dewan Devdi, Hyderabad.

Voltas Limited, 87 D, Rashtrapati Road, Secunderabad.

Warangal Industries Ltd., 248, Sultan Bazar, Hyderabad.

William Jacks & Co. Ltd., Station Road, Hyderabad.

Yousuf Company, Nizamshahi Road, Hyderabad.

# CLASSIFIED LIST OF TRADES & PROFESSIONS

## ADVERTISING AND PUBLICITY AGENTS

Allied Publicity.—Chatta Bazar, Hyderabad.
Associated Advertisers.—'Kamad Kunj', Sultan Bazar, Hyderabad.
Edin & Co.—Troop Bazar, Hyderabad.
Hyderabad Publicity.—Afzulgunj, Hyderabad.
Kamal Publicities.—Sarojini Devi Road, Secunderabad.
Khan & Sons.—Opp. Muzamjahi Road, Sultan Bazar, Hyderabad.
OJO Publicity.—638, Hindustani Galli, Hyderabad.
Paras Publicity.—Opp. Nishat Talkies, Hyderabad.
Saba & Co. (Estd. 1930).—171, Chapel Road, Hyderabad.
Standard Publicity.—115, Sarojini Devi Road, Secunderabad.

## AERATED WATER MANUFACTURERS

HYDERABAD

Dalton & Sons' Aerated Water Factory.—Troop Bazar, Hyderabad.
Deccan Gas Corporation.—20/3, Industrial Area, Azamabad, Hyderabad.
Taj Soda Factory.—Nampally, Hyderabad.

SECUNDERABAD

Gulab Aerated Water Factory.—139, Park Lane, Secunderabad.
Ideal Aerated Water Factory.—Rashtrapathi Road, Secunderabad.
Imperial Aerated Water Factory.—Sarojini Devi Road, Secunderabad.

## AGRICULTURAL MACHINERY AND IMPLEMENTS

Agricultural & General Engineering Works.—1-1-75, Mushirabad Road, Hyderabad.
Belde Engineering Company.—144, Rashtrapathi Road, Secunderabad.
Crushic & Co.—Boorugu Mansions, 62, Mahatma Gandhi Road, Secunderabad (A.P.); Manufacturers and Suppliers to all Government departments and Manufacturers' representatives.
Deccan Metal Works.—Mahatma Gandhi Road, Secunderabad.
**GUNTI & CO. PRIVATE LTD.—128, Mahatma Gandhi Road North, Secunderabad 3 (A.P.); Agents & distributors for Diesel Oil Engines, Plant Protection Equipment, Agricultural Chemicals, Soil Testing Kits, Animal Drawn Vehicle Equipment, etc.**
Industrial Stores Co.—11, Durga Bhavan, Rashtrapathi Road, Secunderabad.
Patalay Commercial Corporation.—Basheerbagh, Hyderabad.
Pratap Trading Co.—Rashtrapathi Road, Secunderabad.
Rayyat Commercial Corporation Ltd.—141, Rashtrapati Road, Secunderabad.
Secunderabad Agricultural Machinery Co.—130, Rashtrapati Road, Secunderabad.
**SWASTIK MANUFACTURERS LTD.—128, Mahatma Gandhi Road, Secunderabad (A.P.); Manufacturers of improved Agricultural Implements, etc.**
Voltas Limited.—87/D, Rashtrapathi Road, Secunderabad.

## AIR-CONDITIONING AND REFRIGERATION

**EMSON ENGINEERING CORPORATION.—142, Rashtrapati Road. Post Box 73. Secunderabad 3. Phone : 72232.**
Frizair Corporation, B-23, Industrial Estate, Sanatnagar, Hyderabad 18.

## ASBESTOS CEMENT

**HYDERABAD ASBESTOS CEMENT PRODUCTS LTD.—Manufacturers of "CHARMINAR" Brand Asbestos Cement Sheets, Sanathnagar, Hyderabad-18.**

## AUTOMOBILES AND AUTOMOBILE PARTS AND ACCESSORIES

HYDERABAD

Afzul Motor Stores.—Afzul Gunj, Hyderabad.
Andhra Automobiles.—Siddiamber Bazar, Hyderabad.
Apex Motors.—87, Rashtrapathi Road, Behind General Post Office, Secunderabad.
Auto Supplies.—Caltex Service Station, Bashir Bagh Road, Hyderabad (A.P.); Managed by Ex-army Officers; Phone : 24277.
Associated Automobiles.—Siddiamber Bazar, Hyderabad.
Auto Emergency Service.—Opp. Leg. Assembly, Hyderabad.
Auto Service.—Public Garden Road, Hyderabad.
Auto Supplies.—Caltex Service Station, Bashir Bagh Road, Hyderabad.
Azad Motor Transport Co.—Karbala, Maidan Road, Hyderabad.
Bharat Automobiles.—Afzalgunj, Hyderabad.
Bombay Hyderabad Motor Service.—Nizamshahi Road, Hyderabad.
Bombay Motor & Motor Cycle Co.—Afzul Ganj, Hyderabad.
Dayal Automobiles.—Basheer Bagh Road, Hyderabad.
Deccan Automobiles.—Siddiamber Bazar, Hyderabad.
Frizair Corporation, B-23, Industrial Estate, Hyderabad 18.
Hindustan Automobiles.—Afzul Gunj, Hyderabad.
Hyderabad Automobiles Co.—15-9-448, Afzalganj, Hyderabad.
India Leaf Spring Mfg. Co. P. Ltd.—B-33, Industrial Estate, Hyderabad 18.
Jayant Automobiles.—Siddiamber Bazar, Hyderabad.
Kishore & Co.—Mozam Jahi Market, Hyderabad.
Madurai Motors.—Bashirbagh,—P. Box 176, Hyderabad.
Mulki Old & New Motor Parts Co.—Afzul Gunj, Hyderabad.
Patalay Automobiles.—Bashir Bagh, Hyderabad.
Pioneer Automobiles.—Siddiamber Bazar, Hyderabad.
Prabhat Automobiles.—Siddiamber Bazar, Hyderabad.
Raj Automobiles.—Siddiamber Bazar, Hyderabad.
Reliable Corporation P. Ltd.—15-2-419, Siddiamber Bazar, Hyderabad.
Reliance Automobiles.—Siddiamber Bazar, Hyderabad.
Reliance Automobiles.—Fateh Maidan, Hyderabad.
Saibaba Automobiles.—Putli Bavdi, Hyderabad.
Sevaka Automobiles.—Gouliguda Chaman, Hyderabad.
Sri Ramdas Transport P. Ltd.—Begum Bazar, Hyderabad.
State Automobiles.—Nizamshahi Road, Hyderabad.
Supreme Automobiles.—Siddiamber Bazar, Hyderabad.
Zenith Automobiles.—Siddiamber Bazar, Hyderabad.

SECUNDERABAD

Afzul Cycle & Motor Stores.—Mahatma Gandhi Road, Secunderabad.
Arun Automobiles.—103, Sardar Patel Road, Secunderabad.
Associated Trades.—Rashtrapati Road, Secunderabad.
**AUTO CHENOY.—62-D, Sarojini Devi Road, Secunderabad (Dn.); Phone : 74836; Grams : "AUTOCHENOY." Sole Distributors in old Hyderabad State, STANDARD & TRIUMPH Cars; Repairing of Cars of all makes undertaken.**
Autofins Ltd., 8573, Rashtrapati Road, Secunderabad.
Automotive Mfrs. P. Ltd.—8571, Rashtrapathi Road, Secunderabad.
Bharat Motor Stores.—Ranigunj, Secunderabad.
Bombay Cycle & Motor Agencies.—Mahatma Gandhi Road, Secunderabad.
Decent Automobiles.—Ranigunj, Secunderabad.
Defiance Automobiles.—Mehta Mahal, 49, M.G. Road, Secunderabad.
Hind Auto Engineering Co., Rashtrapati Road, Secunderabad.
Hyderabad Auto Service, 49, M. G. Road, Secunderabad.
Indian Commercial Co. P. Ltd.—Mahatma Gandhi Road, Secunderabad.
Lakshmi Automobiles, Ranigunj, Secunderabad.
Madras Cycle & Motor Mart.—7936, Mahatma Gandhi Road, Secunderabad 3.
Modern Automobiles.—38, Sarojini Devi Road, Secunderabad.
Motor House.—Ranigunj, Secunderabad.
M. S. Kalyan Setti.—Mahatma Gandhi Road, Secunderabad.
National Automobiles.—296, Ranigunj, Secunderabad.
Prabhat Automobiles.—Mahatma Gandhi Road, Secunderabad.
Reliance Automobiles.—Rashtrapati Road, Secunderabad.
Supreme Automobiles.—Ranigunj, Secunderabad.
United Motor Parts Co.—Ranigunj, Secunderabad.

## AUTOMOBILE ENGINEERS

**AUTO CHENOY.—62-D, Sarojini Devi Road, Secunderabad (Dn.). Phone : 74836. Grams : "AUTOCHENOY". Sole Distributors in old Hyderabad State; STANDARD & TRIUMPH Cars; Repairing of Cars of all makes undertaken.**

## BATTERY MANUFACTURERS & DEALERS

HYDERABAD

Balaji Battery Service.—Jambagh, Hyderabad.
Char Minar Battery Products.—Nizamshahi Road, Hyderabad.
Eshwar Battery Service.—Sultan Bazar, Hyderabad.
M. S. Products.—906, Himayatnagar, Hyderabad.
Reliable Corporation P. Ltd.—15-2-419, Siddiamber Bazar, Hyderabad.

SECUNDERABAD

Auto Electric Co.—Ranigunj, Secunderabad.
Jagadamba Battery Charging.—Near Karbala Maidan, Secunderabad.
Krishna Electric Works.—Ranigunj, Secunderabad.
Satyanarayana Electric Works.—Rashtrapathi Road, Secunderabad.
Sunrise Electric Works.—Ghasmandi, Secunderabad.

## BOLTS & NUTS MFRS.

**JAIRAMDAS & SONS.—7937, Raniganj, Secunderabad (A.P.). Phone : 72283. Grams : "JAIRAMSONS." Manufacturers of M. S. Hex Bolts and Nuts. Factory : Industrial Area, Hyderabad.**

## BOOKSELLERS AND PUBLISHERS

HYDERABAD

Andhra Book House.—Sultan Bazaar, Hyderabad.
Dachepalli Kistaiah & Sons.—516, Siddiamber Bazaar, Hyderabad.
Hyderabad Book Depot.—Abid Road, Hyderabad.
Hyderabad Publicity.—Afzal Gunj, Hyderabad.
Midland Book Depot.—801, Kothi, Sultan Bazar, Hyderabad.
Joshi Bros.—Gowliguda, Hyderabad.
J. C. Pinto & Co.—Abid Road, Hyderabad.
Kotari Book Depot.—Bashir Bagh, Hyderabad.
Nava Hind Publications.—Begum Bazaar, Hyderabad.
Orient Longmans P. Ltd.—Gunfoundry Road, Hyderabad.
Oriental Publishing Co.—Nampally, Hyderabad.
Peoples Book Centre.—Nizamshahi Road, Hyderabad.
Purohit & Co.—Gunfoundry, Hyderabad.
Venkataramana Publishers.—Sultan Bazaar, Hyderabad.
Visalaandra Publishing House, P. Ltd.—Sultan Bazar, Hyderabad.

SECUNDERABAD

Ajanta Publications & Book Sellers.—7112, Mahankali Street, Secunderabad.
Bible House.—Rashtrapathi Road, Secunderabad.
Chanda Narayana Chetty.—General Bazar, Secunderabad.
Christian Book Shop.—Rashtrapathi Road, Secunderabad.
Cosmopolitan Book House.—Rashtrapathi Road, Secunderabad.
Dachepalli Kistaiah & Sons.—General Bazaar, Secunderabad.
Good News Literature Centre.—94E, Sarojini Devi Road, Secunderabad.
Hari, B. L. & Bros.—Trimulgherry, Secunderabad.
Hindustan Diary Publishers.—3997, Market Street, Secunderabad.
J. C. Pinto & Co.—Sarojini Devi Road, Secunderabad.
Kadambi News Agents & Book Sellers.—75, Sarojini Devi Road, Secunderabad.
Kavijara Publishers.—Rashtrapathi Road, Secunderabad.
Konda Veeriah.—Mahankali Street, Secunderabad.
K. V. Ramakrishna.—Market Street, Secunderabad.
Majestic Book Depot.—Sarojini Devi Road, Secunderabad.

**MIDLAND BOOK DEPOT.—Premier Dealers in new and second-hand books ; 801, Kothi, Sultan Bazar, Hyderabad (A.P.). Phone : 41250.**

Oxford Book Depot.—Sarojini Devi Road, Secunderabad.
Rashtrapathi Book Depot & News Agents.—Rashtrapathi Road, Secunderabad.
Readers Corner & Co.—Sarojini Devi Road, Secunderabad.
Sree Rama Book Depot.—Market Street, Secunderabad.
Venkatarama & Co.—Rashtrapathi Road, Secunderabad.

## BUILDERS & CONTRACTORS

HYDERABAD

Ahmed Ali Sajanlal, Red Hills, Hyderabad 4.
B. Papaiah, A-18-453, Chikkadpalli, Hyderabad.
B. Veeraswamy, 17-1-80, Edi Bazar, Hyderabad.
Dhanya Construction Co., Bharat Bldgs., Kachiguda Station Road, Hyderabad.
D. L. Sriramulu & Co., A-10-690, Himayatnagar, Hyderabad.
Durgaram Prasad, 501, Jubilee Hills, Hyderabad 4.
D. Venkatanarasiya, 807, Gun Foundry, Hyderabad 1.
Ganesh Singh, B-5-832, Sultan Bazar, Hyderabad.
General Construction Transport Syndicate, Abid Road, Hyderabad.
G. S. Bhashyam, 230-10, Chikkapadpalli, Hyderabad.
G. Upendra Reddy, Jubipura, Khammameti, Hyderabad 4.
G. Venkata Reddy, 3-5-926/15, Himayatnagar, Hyderabad 1.
Hyderabad Construction Co. Ltd., Abid Road, Hyderabad.
Indian Construction Syndicate, Zenith House, Saifabad, Hyderabad.
K. Papa Rao, 99, Shaheedyar Jung Lane, Hyderabad.
K. V. Ranga Reddy & Co., 3-6-692. Himavatnagar, Hyderabad.
Lakshmi Construction Co. Ltd., Gaganmahal Colony, Hyderabad.
M. Anantaswamy, 14-6-259, Chudi Bazar, Hyderabad.
M. L. Reddy, 3-5-926. Himayatnagar, Hyderabad.
Master Construction Co. P. Ltd., 185, Marredpalli Road, Hyderabad.
P. S. Thakore, 15/3/5, Gowliguda, Hyderabad.
Siva Reddy & Sons, Lingampalli Market, Crosslane, Hyderabad.
S. K. Imarti, 3-5-44/1, Eden Garden Road, Hyderabad 1.
S. Rajeswara Rao, Kavadiguda, Hyderabad.
Syed Hussain, A/4-523, Bholukpur, Musheerabad, Hyderabad.
Udani Engineering Co., 3-6-698, Himayatnagar, Hyderabad.
Yadgiriswamy Patel, Musaram Baug, Hyderabad.
Y. Govindoo, New Lane, Chirag Ali Lane, Hyderabad 1.
Y. Parthasarathy, Red Hills, Hyderabad 4.
Y. Ramiah, Mehboob Manzil, Panjagutta, Hyderabad 4.
Y. Sathiyanarayan Yakoob Ali Sajanlal & Co., Hyderabad 4.

SECUNDERABAD

Amarchand Sharma, 18, Jeera, Secunderabad.
B. V. Muthanna & Sons, St. John Road, Secunderabad.
Ch. Yegnaiah & Sons, 1/A, Rashtrapati Road, Secunderabad.
D. S. Rathnaiah, 4893, Musakhana Bazar, Secunderabad.
Hyderabad Deccan Engg. Co., 145/155, Marredpally, Secunderabad.
Jai Narayan Misra, 28-A, Sardar Patel Road, Secunderabad.
K. Anjaiah, Avalamanda, Secunderabad.
K. Ramaswamy, 21/13, St. John Road, Secunderabad.
Manicklal M. Parekh, No. 9, Jeera Compound, Secunderabad.
M. Narayan & Sons, Oxford St., Secunderabad.
Pritamlal Parekh, 4, Jeera Compound, Secunderabad.
S. Krishnaiay, 6549, Rashtrapati Road, Secunderabad.
V. Hanumantha Rao, 32/19, Old Jain Road, Secunderabad.

## CHEMICAL & PHARMACEUTICAL PRODUCTS MANUFACTURERS

Ajanta Chemical Works (India), G-2/577, Jubilee Hills, Hyderabad.
Asiatic Chemical Co.—Hyderabad ; Offices at : Masjid Siding Road, Opp. Prince's Docks, Bombay 9 ; 26/46, Birhana Road, Post Box 189, Kanpur ; 18/B, Sukeas Lane, Post Box 2101, Calcutta 1.
Biochemical & Synthetic Products Ltd., Sanatnagar, Hyderabad 18.
Bright Chemicals and Pharmaceuticals, 1-A.23, Begumpet, Hyderabad.
Commercial Chemical Co., B-4, Sanatnagar, Hyderabad 18.
Crushic & Co.—Boorugu Mansions, 62, Mahatma Gandhi Road, Secunderabad (A.P.) ; Manufacturers and Suppliers to all Government departments and Manufacturers' representatives.
Dalphin Laboratories P. Ltd., 4-1-895-2, Tilak Road, Hyderabad.
Hyderabad Chemical & Pharmaceutical Works Ltd.—Azamabad, Industrial Area, Hyderabad 20.
Hyderabad Chemical Supplies Ltd.—Opp. Central Bank, Sultan Bazar, Hyderabad.
Hyderabad Chemicals & Fertilizers Ltd.—Bashir Bagh, Hyderabad.
Indian Chemical and Pharmaceutical Works, Azamabad, Hyderabad 20.
Indo Colour Trading Co. P. Ltd., 1980, Pan Bazar, Secunderabad.
J. & J. DeChane.—Residency Road, Hyderabad.
Pancha Pharma Corporation.—1102. Narayanguda, Hyderabad 29.
Pankaj Chemical and Pharmaceutical Works, 1-8-453, Chikadpalli, Hyderabad.

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Andhra Chemical Supplies, Nampalli Station Road.
Andhra Medical Hall, Abid Road.
Arsthu Pharmacy, Red Hill.
Ashok Medical Hall, Chikad Palli.
Ayurdham Medical Hall, Sultan Bazar.
Balaji Medical Hall, Sultan Bazar.
Bharat Medical Hall, Afzul Gunj.
Chemical & Surgical Bureau, Reddi Hostel Lane.
City Medical Hall, Charkaman.
Deccan Drug Agency, Abid Road.
Desai Chemical Co., Troop Bazar.
Dhootpapeshwar Sales Corporation Private Ltd., Sultan Bazar.
D. J. Parekh & Co., Sultan Bazar.
D. R. Desai & Co., Excelsior Building, Abid Road.
Drug Stores, Nampally Station Road.
Elpee Medical Stores Chikad Palli.
Fair Deal Chemists, Nampalli.
G. Paul & Co., Gulzar House, Char Minar.
G. R. Agencies, Sultan Bazar.
G. Rohit Bros., Sultan Bazar.
Gujrat Stores, Sultan Bazar.
Gupta & Sons, Abid Road.
Gupta Medical Hall, Abid Road.
Isola Industries, Gaganmahal, Domalguda.
Jagdish Medical Hall, Siddiamber Bazar.
J. Shamdas & Co., Post Office Lane.
Jatan Jain Medical Hall, Siddiamber Bazar.
John & Co., Gunfoundry.
Jyoti Medical Hall, Sultan Bazar.
Kanodias, Afzulganj.
Krishna Medical Hal, Afzul Gunj.
L. Chimanlal & Co., Gowliguda.
L. Fernandez & Co., Abid Road.
Lesliegay & Co., Nampalli Station Road.

Modern Pharmacy, Siddiamber Bazar.
Nagar Medical Hall, Sultan Bazar.
Nath Laboratories, Yusuf Guda.
National General Store, Sultan Bazar.
Nehadi & Co., Afzulgunj.
Om Medical Hall, Gulzar House, Char Minar.
Popular Pharmacy, Narayan Guda.
Prince Pharmacy, Mohjamjai Market.
Reliable Medical Stores, Hyderguda.
Rex & Co., Nampalli Station Road.
Royal Medical Hall, Sultan Bazar.
Royal Medical Hall & Agency, Wholesales Dept., Afzulgunj.
Sai Agencies, Nampally Stn. Road, Hyderabad.
Sanghi Medical Hall, Gulzar House, Char Minar.
Scientific Chemist, Nampalli Station Road.
Shabeer Medical Hall, Afzul Gunj.
Shiv Scientific Co., Station Road, Nampalli.
Sripada Ramayya & Co., Opp. Nampalli Station.
Sultan & Co., Afzul Gunj.
Swamy & Sons, Abid Road.
Swaroop & Sons, Abid Road.
Vijaya Medical Hall, Abid Road.
Vishnu Medical Hall, Charkaman.
Vithal Medical Store, Sultan Bazar.

SECUNDERABAD

Amar Medical Hall.—Station Road.
Amrat Medical Stores.—Mahankali Street.
Ananth Medical Store.—Sarojini Devi Road.
Bhagwan Medical Store.—Station Road.
C. Moolchand & Sons.—Station Road.
D. J. Parekh & Co.—Mahankali Street.
G. Venkat Swamy & Co.—James Street.
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J. Faust & Co.—Oxford Street.
Jyoti Medical Hall.—James Street.
Kathiawar Stores.—Barbars Bridge.
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M. Toprani & Sons.—Station Road.
Manik Medical Stores.—Station Road.
P. Laxmi Chand & Co.—Station Road.
Rajeshwar Trading Co.—Mahankali Street.
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S. Mohan Lal & Sons.—Market Road.
Shanti Agencies.—Kingsway.
Shanti & Co.—Kingsway
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Spencer & Co.—Oxford Street.
V. D. Rajaratnam & Sons.—Kingsway.

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Deccan Cycle and Allied Industries Co., Sanatnagar, Hyderabad 18.
Deccan Motor & Cycle Stores.—Afzalgunj, Hyderabad.
Deccan Sewing Machine and Cycle Co., 44/142, Sultan Bazar, Hyderabad.
Hyderabad Cycle Stores.—Abid Road, Hyderabad.
Krishna Cycle Stores.—Abid Road, Hyderabad.
Madina Cycle and Motor Stores.—Madina Bldg., Hyderabad.
Prakash Cycle Stores.—Sultan Bazar, Hyderabad.
The Radio Cycles.—Siddiamber Bazar, Hyderabad.
Weldon Cycle Co.—Sayeed Jung Lane, Troop Bazar, Hyderabad.

SECUNDERABAD

Bombay Cycle & Motor Agency Ltd.—Ginwalla Bldgs., Mahatma Gandhi Road, Secunderabad.
Duxin Bharati Cycle and Clock Mfg. Co., 8551, Raniganj, Secunderabad.
Fram & Co., 123, James Street, Secunderabad.
Gauam Cycle & Motors.—James Street, Secunderabad.
Gujrat Cycle Stores.—Sanders Road, Secunderabad.
Kathiawar Cycle Co.—Opp. Jumma Masjid, Secunderabad.
Krishna Cycle Stores.—Mahatma Gandhi Road, Secunderabad.
Madras Cycle & Motor Mart.—Rashtrapathi Road, Secunderabad.
Pushp Trading Co.—James Street, Secunderabad.
Royal Agencies.—James Street, Secunderabad.
Supreme Cycle Stores.—James Street, Secunderabad.
T. I. Cycles of India Ltd.—Rashtrapathi Road, Secunderabad.

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M. K. Mudaliar & Sons.—8059, Rashtrapathi Road, Secunderabad.
Nathoo Laljee.—Gunfoundry Road, Hyderabad.
Shanker Electric Stores.—Shanker Mahal, 31, Mahatma Gandhi Road, Secunderabad.
Standard Radio Electronics.—Sultan Bazar, Hyderabad.

## ELECTRICAL & ENGINEERING GOODS MFRS. AND DEALERS

Andhra Pradesh Co., The.—Durga Bhavan, Rashtrapathi Road, Secunderabad 3.
Belde Engineering Company.—6549, Rashtrapathi Road, Secunderabad.
Bombay Electric Stores.—121, James Street, Secunderabad.
The Central Trading Co.—Rashtrapathi Road, Secunderabad.
Chandra Electrics.—3121, Kingsway, Secunderabad.
Crusbic & Co.—Boorugu Mansions, 62, Mahatma Gandhi Road, Secunderabad (A.P); Manufacturers and Suppliers to all Government departments and Manufacturers' representatives.
Deccan Electric Stores.—10, Sultan Bazar. Hyderabad.
Eastern Electric and Engineering Co. Ltd.—3/8, Rashtrapati Road, Secunderabad.
Elektra Products.—C-17, Sanatnagar, Hyderabad 18.
Electric Transformer & Equipment Co.—5-9-19/15, Saifabad, Hyderabad 22.
**EMSON ENGINEERING CORPORATION.—142, Rashtrapathi Road, Post Box 73, Secunderabad 3. Phone: 72232.**
Hindustan Corporation Ltd.—Domalguda, Hyderabad.
Prabhu Electric Co.—Rashtrapati Road, Secunderabad.
Scientific Electricals.—Shalibanda, Hyderabad.
Shanker Electrics.—205, Yousuf Building, Abid Road, Hyderabad.
Speedwell Electricals P. Ltd.—B-1, Sanatnagar, Hyderabad 18.
Sun Electric & Motor Stores.—3153. Kingsway, Secunderabad.
Switchgear Mfg. Co.—C-5, Industrial Estate, Sanatnagar, Hyderabad 18.
Vijay Radio & Electric Service.—King's Corner, Abid Road, Hyderabad.
V-X-L Agency.—138, Rashtrapathi Road, Secunderabad.

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HYDERABAD

Ayboob Boot House.—Pathergatti, Hyderabad.
Bata Shoe Co.—Abid Road, Hyderabad.
Bhalla Footwear.—Abid Road, Hyderabad.
Deccan Shoe & Leather Works Ltd.—Bakaram, Hyderabad.
Hollywood Footwear.—Bakaram, Hyderabad.

SECUNDERABAD

Bata Shoe Co.—Mahatma Gandhi Road, Secunderabad.
Flex Footwear Co.—Opp. Chitra Talkies, Secunderabad.
Modern Footwear Mart.—Rashtrapathi Road, Secunderabad.
Western Footwear Mart.—Rashtrapathi Road, Secunderabad.

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Belde Engineering Co.—6549, Rashtrapathi Road, Secunderabad.
B. Shankerlal & Co. P. Ltd.—Abid Road, Hyderabad.
Deccan Safe Co.—Shahrah-e-Osmani, Hyderabad.
Hyderabad Wood Works.—8552, Mahatma Gandhi Road, Secunderabad.
Sharda Stores.—3106, Kingsway, Secunderabad.
Siddheshwar & Co.—Abid Road, Hyderabad.

## GENERAL MERCHANTS

Bulchand & Co.—(Silk Palace), Abid Road, Hyderabad.
Hindustan Corporation (Hyderabad) Ltd.—Domalguda, Post Box No. 121, Hyderabad.
John & Co.—Abid Road, Hyderabad.
Motilal Jajir & Co.—Mahatma Gandhi Road, Secunderabad.
Pushp Trading Co.—Rashtrapathi Road, Secunderabad.
Ramsingh Aggarwal & Co.—68, Rashtrapathi Road, Secunderabad.
Trivedi, R. M., & Sons.—3364, Kingsway, Secunderabad.

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Deccan Porcelain & Enamel Works Ltd.—Bakaram, Hyderabad.
Glass Corpn. P. Ltd.—Abid Road, Hyderabad.
Kohinoor Glass Factory Private Ltd.—Sanatnagar, Hyderabad 18. (A.P.).
Taj Glass Works Ltd.—Sanatnagar, Hyderabad.

SECUNDERABAD

Abdul Hussain.—Rashtrapathi Road, Secunderabad.
Gupta & Co.,—Rashtrapathi Road, Secunderabad.
Kathiawar Stores.—Mahatma Gandhi Road, Secunderabad.

## HOSIERY MILLS

Fire Hosiery Mills Ltd.—Azamabad, Hyderabad.
Hyderabad Hosiery Ltd.—Industrial Area, Hyderabad.

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Grand Hotel.—Abid Road, Hyderabad.
Madina Hotel,—Pathergatti, Hyderabad.
Montgomery's Hotel.—Sarojini Devi Road, Secunderabad 3.
New Kashmir Hotel.—Osmanganj, Hyderabad.
New Rajkamal Hotel.—1063, Narayanguda, Hyderabad.
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Royal Hotel.—Nampalli, Hyderabad.
Taj Mahal Hotel.—King Kothi Road, Hyderabad.
Taj Mahal Hotel.—Sarojinidevi Rd., Secunderabad.
Welcome Hotel.—Opp. Rly. Station, Secunderabad.
Whitehall Hotel.—Sardar Patel Road, Secunderabad 3.

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Bhide Bros.—Gowliguda, Hyderabad.
Model Ink Manufacturing Co.—706, Sultan Bazar, Hyderabad—A.P.

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Hyderabad Allwyn Metal Works Ltd.—Sanatnagar, Hyderabad 18.
Tata Iron & Steel Co. Ltd.—2, Rashtrapati Road, Secunderabad.

## IRON AND STEEL MERCHANTS

HYDERABAD

Baile Lachmiah & Sons.—Siddiamber Bazar.
Darga Tuliah.—Siddiamber Bazar.
Darga Pandurangam Durgiah.—Siddiamber Bazar.
Dhatrika Ramiah.—Afzal Gunj.
D. Eamajee & Sons.—Sardar Patel Road.
Hyderabad Building Material House.—Afzal Gunj.
H. M. Jalal Miya.—Afzal Gunj.
K. Veeriah.—Afzal Gunj.
Lalji Meghji.—Mukramjahi Road.
Mohamed Abdul Gafoor. Afzal Gunj.
Mohamed Nurulla Peddi Sivarajia.—Siddiamber Bazar.
M. Manikyam.—Siddiamber Bazar.
N. Ramakrishniah.—Sardar Patel Road.
Vellore Lingayya Gari Buchayya.—Afzal Gunj.

SECUNDERABAD

Abdul Karim Mohmed Sardargadhwala.—Market, Hissam Gunj.
Baile Lachmiah.—Pan Bazar.
Haji Moosa Mohmed Sardargadhwala.—Hissam Gunj.
Indian Iron & Steel Corporation.—8571, Rashtrapathi Road.
J. V Suresh.—57-A, Mahatma Gandhi Road.
Lalji Meghji & Sons.—8568, Mahatma Gandhi Road.
Masetty Venkanna Nalla Hanumiah.—Kanchar Bazar.
Pannalal Narayanaswamy.—Tobacco Bazar.
R. M. Trivedi & Sons.—3364, Rashtrapathi Road.
Secunderabad Iron & Steel Co.—60-A, James Street.
Secunderabad Trading Company.—59, Mahatma Gandhi Road.
Trivedi & Co.—149, Rashtrapathi Road.
Vuppalanchi Elliah & Sons.—1672, Mahakali Street.

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Andhra Pradesh Machinery Supply Corporation.—M. G. Road, Secunderabad.
Andhra Machine Tools Corporation.—Nizam Shahi Road, Hyderabad.
Batliboi & Co. (Props. Bhogilal Leherchand P. Ltd.).—New Mody Building, Rashtrapati Road, Secunderabad.
Belde Engineering Co.—6549, Rashtrapathi Road, Secunderabad.
C. P. Shah & Brothers.—Ranigunj, P.O. Box 103, Secunderabad.
Commercial Trading Corporation.—Ranigunj, Secunderabad.
Crushic & Co.—Booruu Mansions, 62, Mahatma Gandhi Road, Secunderabad (A.P.); Manufacturers and Suppliers to all Governments and Manufacturers' representatives.
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Electronic & Engineering Instruments Mfrs. Corporation.—C-11, Industrial Estate, Hyderabad 18.
Ganesh Machinery Traders.—Rashtrapati Road, Secunderabad.
Hyderabad Engineering Corporation.—5-4-561, Narayanguda, Hyderabad.
Industrial Stores Co. Hyderabad Ltd.—11, Durga Bhavan, Rashtrapathi Road. Secunderabad.
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Kirloskar Brothers Ltd.—Rashtrapati Road, Secunderabad.
Krishi Engines Pvt. Ltd.—A-7, Unit, Industrial Estate, Hyderabad 18.

Krishna Engineering Workshop.—Industrial Area, Azamabad, Hyderabad 20.
Murutza Mechanical Works.—350, Goal Bungalow, Hyderabad.
Praga Tools Corp. Ltd.—15, Saifabad, Hyderabad.
Radiant Engineering Co., P. Ltd.—Industrial Estate, Hyderabad 18.
Raghaveer Engineering Works.—7799, Balaram Nagar, Secunderabad.
Rahimonia Machinery Factory.—Industrial Area, Azamabad, Hyderabad 20.
Rayyat Commercial Corporation Ltd.—141, Kingsway, Secunderabad.
Sadanand Engineering Works.—19-1, Azamabad, Hyderabad 20.
Sagar Engineering Co.—145/9, Rashtrapati Road, Secunderabad.
Southern Engineering Works.—Station Road, Kachiguda, Hyderabad.
Sree Vishwakarma Mechanical & Engineering Works.—8555, M. G. Road, Secunderabad.
Standard Engineering Co.—138, Kingsway, Secunderabad.
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Commercial Trading Corporation.—Ranigunj, Secunderabad.
Deccan Mill Stores.—7936/A, Mahatma Gandhi Road, Secunderabad.
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Md. Abdul Jabbar & Sons.—Troop Bazar, Opp. Masjid, Ahmedabad.
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Fidali Mohd. Ali.— 22-7-7, Osmania Bazar, Hyderabad.
G. Amritlal & Sons.—Gowliguda, Hyderabad.
G. Balkrishnan—19-1-982, Bhorakirki, Hussaini Alam, Hyderabad.
G. Motilal & Sons.—Gowliguda Chaman, Hyderabad.
Govind Venkatesh.—Gowliguda, Hyderabad.
Hyderabad Paper Syndicate.—1144, Osmania Bazar, Hyderabad.
Kagaz Ghar.—Abid Road, Hyderabad.
Kushalchand Pvt. Ltd., Singhvee Bhavan, Tilak Road, Hyderabad.
Lucky Paper Mart.—Siddiamber Bazar, Hyderabad.
Rajeswar Trading Co.—Nizamshahi Road, Hyderabad.

SECUNDERABAD

Batchu Lingiah & Sons.—6, General Bazar, Secunderabad 3.
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Dachepalli Kistiah & Sons.—General Bazar, Secunderabad.
Goli Eswariah.—General Bazar, Secunderabad
India Paper Mart.—General Bazar, Secunderabad.
Komma Veeriah & Sons.—Tobacco Bazar, Secunderabad.
Mysore Paper Corporation.—6938/3-A, General Bazar, Secunderabad.
Osmania General Agency.—Rashtrapathi Road, Secunderabad.
Prabath Paper & General Stores.—Rashtrapathi Road, Secunderabad.
R. M. Trivedi & Sons.—3364, Kingsway, Secunderabad 3.
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Ajanta Art Press.—Chatta Bazar, Hyderabad.
Anand Power Press.—Gowliguda, Hyderabad.
Andhra Law Times.—Near Kamal Talkies, Hyderabad.
Andhra Printing Press.—Gowliguda, Hyderabad.
Arun Printing Press.—Sultan Bazar, Hyderabad.
Bhagyanagar Press.—Isamiah Bazar, Hyderabad.
Chandragupta Printing Press.—Afzalgunj, Hyderabad.
City Printing Press.—Sultan Bazar, Hyderabad.
Commercial Printing Press.—Begum Bazar, Hyderabad.
Cooperative Printing Press Ltd.—Gunfoundry, Hyderabad.
Durga Printing Press.—Charminar, Hyderabad.
Gangadhar Press.—Afzalgunj, Hyderabad.
Gita Press.—Near Y.M.C.A., Hyderabad.
Hasham Printing Press.—Chatta Bazar, Hyderabad.
Hindi Prachar Press.—Nampalli, Hyderabad.
Hindusthan Printing Press.—Begum Bazar, Hyderabad.
Hyderabad City Ptg. Press.—Chatta Bazar, Hyderabad.
Hyderabad Printing Works.—Abid Road, Hyderabad.
Jain Printing Press.—Narayanguda, Hyderabad.
J. M. Printing Press.—Abid Chourasta, Hyderabad.
Jyothi Printers.—Sultan Bazar, Hyderabad.
Jyothi Printing Press.—Mozamjahi Road, Hyderabad.
Kashinath Printing Press.—Afzalgunj Road, Hyderabad.
Kisan Press.—Afzalgunj, Hyderabad.
Lok Vijaya Press.—Gowliguda, Hyderabad.
Manohar Press.—Afzalgunj, Hyderabad.
Marwari Printing Press.—Afzalgunj, Hyderabad.
Modern Printing House.—Opp. Ashok Talkies, Hyderabad.
Nagarjun Printing Press.—Kacheguda Road, Hyderabad.
Narendra Printing Press.—Kasargatta, Hyderabad.
National Fine Art Press.—Charminar, Hyderabad.
Sadhana Printery.—Narayanguda, Hyderabad.
Sai Art Press.—Gowliguda, Hyderabad.
Sarojini Printing Press.—Opp. Dilshad Talkies, Hyderabad.
Shanti Printing Press.—Afzalgunj Road, Hyderabad.
Sree Press.—Troop Bazar, Hyderabad.
Sree Ramanuja Press.—Afzalgunj, Hyderabad.
Sri Balaji Press.—Gowliguda, Hyderabad.
Sri Ganesh Press.—Tilak Road, Hyderabad.
Sri Gowd Press.—Afzalgunj, Hyderabad.
Sri Krishna Printing Press.—Afzalgunj, Hyderabad.
Sri Krishna Nivasa International Printing Press.—Kothi Road, Hyderabad.
Sri Kripa Press.—Gowliguda, Hyderabad.
Sri Laxmi Art Press.—Gowliguda, Hyderabad.
Sri Satyanarayana Press.—Gowliguda, Hyderabad.
Sri Sharada Press.—Afzalgunj Road, Hyderabad.
Syam Printing Works.—Gunfoundry, Hyderabad.
Sudarshan Printing Press.—Isamiah Bazar, Hyderabad.
Sunder Printing Works.—Near Ashok Talkies, Hyderabad.
Swadeshi Press.—Afzalgunj, Hyderabad.
Uma Printing Press.—Gowliguda, Hyderabad.
Vani Printing Press.—Sultan Bazar, Hyderabad.
Veer Milap Press.—Mozamjahi Road, Hyderabad.
Yuva Press.—Opp. Public Gardens, Hyderabad.

SECUNDERABAD.

Ajanta Printers.—Mahakali Street, Secunderabad.
Balatripurasundari Press.—General Bazar, Secunderabad.
Bharat Printing Press.—Nala Bazar, Secunderabad.
B. V. R. Balreddy & Co.—Park Lane, Secunderabad.
Chhekoti Veeranna & Sons.—Kalsiguda, Secunderabad.
Citizen Press.—Park Lane, Secunderabad.
Commercial Printing Press.—Rashtrapathi Road, Secunderabad.
Dalton & Co.—Rashtrapathi Road, Secunderabad.
Deccan Literature Printers.—Sarojini Devi Road, Secunderabad.
Excelsior Power Press.—Park Lane, Secunderabad.
Gaurishankar Printing Press.—Tobacco Bazar, Secunderabad.
Hyderabad Bulletin Press.—Bolarum Road, Secunderabad.
Karuna Sree Printers.—Tobacco Bazar, Secunderabad.
Minar Press.—Kanchara Bazar, Secunderabad.
Moses & Co.—Rashtrapathi Road, Secunderabad.
Mulki Press.—Bhoiguda, Secunderabad.
Nagendra Printing Press.—Mahakali Street, Secunderabad.
Omkara Press.—Subhas Road, Secunderabad.
Osmania Printing Works.—Rashtrapathi Road, Secunderabad.
Pearl Press.—Mahakali Street, Secunderabad.
Pioneer Press.—Rashtrapathi Road, Secunderabad.
Prabhakar Press.—Opp. Chitra Talkies, Secunderabad.
Premier Press.—Gunj Bazar, Secunderabad.
Sarvodaya Press.—Hill Street, Secunderabad.
Secunderabad Printers.—General Bazar, Secunderabad.
Shivaji Press.—Gunj Bazar, Secunderabad.
Sree Rama Power Press.—Subhas Road, Secunderabad.
Sri Bharathi Press.—Mahakali Gunj, Secunderabad.
Sri Krishna Printing Works.—Imambavdi, Secunderabad.
Srinivasa Printing Press.—Imambavdi, Secunderabad.
Sri Rajarajeswari Litho Art Press.—Opp. Chitra Talkies, Secunderabad.
Sri Vani Press.—Kanchara Bazar, Secunderabad.
Tharani Press.—Mahakali Street, Secunderabad.
Vahini Press.—Rashtrapathi Road, Secunderabad.
Vedic Press.—Nala Bazar, Secunderabad.
Venkateswara Printers.—General Bazar, Secunderabad.

## PUMPS & PUMPING MACHINERY

**WATER SUPPLY SPECIALISTS PRIVATE LTD.—2670-74, Ghasmandi Road, Secunderabad (A.P.). Phone : 73889, Grams : " PUMPMEN "; H.O. : 8, Hamam Street, Bombay-1; Branches : Calcutta, Madras & New Delhi; Sole Agents for Myers Pump, Manufacturers of ' WASP ' Pumping sets etc.**

## RADIO, ELECTRONIC & RADIO PARTS MFRS. & DEALERS

HYDERABAD

Bharat Radio Service.—Sultan Bazar, Hyderabad.
Chimalgi Radios.—4-1-978, Abid Road, Hyderabad.
Hyderabad Radio House.—Abid Road, Hyderabad.
Kalidas Radios.—Sultan Bazar, Hyderabad.
Mahomed Ebrahim & Co. P. Ltd.—5-8-522, Abid Road, Hyderabad.
Modern Radio Electric House Ltd.—Sharah-e-Osmani, Hyderabad.
National Radio Co.—Sultan Bazar, Hyderabad.
Parsram & Co.—B-22, Industrial Estate, Hyderabad 18.
Radio Instruments Associates Private Ltd.—1-10-84, Begumpet, Hyderabad-16.
Radio Waves.—4-5-433, Sultan Bazar, Hyderabad 17.
S. V. J.'s Radio and Electrical.—Abid Road, Hyderabad.
Universal Trading & Radio Co.—1240, Abid Road, Hyderabad.

SECUNDERABAD

Bharat Trading & Radio House.—Rashtrapathi Road, Secunderabad.
Cine Traders.—Ghasmandi Road, Secunderabad.
Eastern Electric & Trading Co.—2538, Rashtrapathi Road, Secunderabad.

**EMSON ENGINEERING CORPORATION.—142, Rashtrapathi Road, Post Box 73, Secunderabad 3. Phone : 72232.**

General Electric Co. (India) Ltd.—Ghasmandi Road, Secunderabad.
General Radio & Appliances Pvt. Ltd.—8092/1-2, Rashtrapati Road, Secunderabad.
Karnatak Music House.—Rashtrapathi Road, Secunderabad.
Lunar Radio Co.—6605, Rashtrapati Road, Secunderabad.
Radio Corner (Sales & Service).—Rashtrapathi Road, Secunderabad.
Sebastian & Sons.—Sarojini Devi Road, Secunderabad.
Secunderabad General Radio Service.—Rashtrapathi Road, Secunderabad.
Vijaya Electronics.—6549-B, Rashtrapati Road, Secunderabad.

## REFRIGERATORS (DOMESTIC)

Belde Engineering Co.—6549, Rashtrapati Road, Secunderabad.
Deccan Engineering & Refrigeration Co.—133, Kingsway, Secunderabad.

**EMSON ENGINEERING CORPORATION.—142, Rashtrapathi Road, Post Box 73 Secunderabad. Phone : 6232**

Hyderabad Allwyn Metal Works Ltd.—Sanatnagar, Hyderabad 18.
Universal Trading & Radio House.—1240, Abid Road, Hyderabad.
Usha Refrigeration Industries.—183/184, Rashtrapati Road, Secunderabad.

## ROOF WATER PROOFING

**GLADSTONE LYALL & CO., LTD.—5/9/220, Mukerab Jung Lane, Hyderabad (Dn.) ; Local Representative : Mir Ashraf Ali. Phone : Office : 35788. Grams : "GHAT."**

## RUBBER GOODS MFRS.

**U-FOAM PRIVATE LTD.,**

Sanathnagar, Hyderabad-18 (A.P.)

Phone : 39071. Grams : "URETHANE"

Manufacturers of Polyurethane (Plastic) foam, U-Foam Products include mattresses, Pillows, quilts, Bamlina sets and Toys, Portable beach mats ond Travelling Kits, Cushions, Sponges and numerous other items for Upholstery and cushioning material.

## SANITARY ENGINEERS AND DEALERS IN SANITARY GOODS

Anand Sanitary Engineering Co.—4-3-91, Rashtrapati Road, Secundrabad.

Aurora Sanitary Engineering Co.—1-D, Rashtrapathi Road, Secunderabad.

Barman Brothers.—Barman Building, Gunfoundry, Hyderabad.

D. Balaram & Sons.—Shahrah-e-Osmani, Hyderabad.

**ITALIA MEHTA & CO.—Bashir Bagh Road, Hyderabad (Dn.). Sanitary Engineers and Dealers in Sanitary ware. Phone : 35127. Grams : "PLUMBERS."**

K. Karunakar & Sons.—Reddy Hospital Bldgs., Tilak Road, Hyderabad.

M. K. Mudaliar & Sons.—8059, Rashtrapathi Road, Secunderabad.

National Sanitary Engineering Co.—149, United Mansion, Rashtrapathi Road, Secunderabad.

Pallonjee Eduljee & Sons.—Gunfoundry, Hyderabad.

R. R. & Sons.—Shahrah-e-Osmani, Hyderabad.

## SANITARYWARE MFRS.

**HYDERABAD POTTERIES LTD.—95/A, Park Lane, Secunderabad (A.P.); Manufacturers of Stoneware Pipes and Specials, Sanitaryware, C. I. Materials, Fire Bricks etc.**

## SCIENTIFIC INSTRUMENTS

Electronic & Industrial Instruments Co. Private Ltd.—B-17, Industrial Estate, Hyderabad-18 (A.P.).

Scientific Engineering House Ltd.—A-10-335, Bashir Bagh, Hyderabad.

Scientific Instrument Co.—30, Sultan Bazar, Hyderabad.

Vijaya Scientific Equipments.—Rashtrapathi Road, Secunderabad.

Zodiac Scientific Works.—Anilweld Mesh Compound, Sanatnagar, Hyderabad 18.

## SOAP MAKERS

HYDERABAD

Akbar Soap Factory.—Mushirabad, Hyderabad.
Godrej Boyce Mfg. Co. Ltd.—Abid Road, Hyderabad.
Hyderabad Soap & Oil Works Ltd.—Mushirabad, Hyderabad.
Kumar Soap Factory.—Chikadpally, Hyderabad.
Moti Soap Factory.—Gowliguda, Hyderabad.
Popular Soap Factory.—Mushirabad, Hyderabad.
Rabbit Soap Factory.—Chaderghat, Hyderabad.
Ramakrishna Soap Factory.—Azamabad, Hyderabad.
Santosh Soap Factory.—Azamabad, Hyderabad.
Sunder Soap Factory.—Chikkadpally, Hyderabad.
Tiger Soap Factory.—Kalikaman, Hyderabad.
Vatan Soap Factory.—Nizamshahi Mohalla, Hyderabad.
Wattan Soap Factory.—Joaphkona Masjid, Hyderabad.

SECUNDERABAD

Aryan Industries P. Ltd.—108, Walker Town, Secunderabad.
National Soap Factory.—Bhoiguda, Secunderabad.
Prabhat Soap Factory.—Gorakshansala, Secunderabad.
Ramakrishna Soap Factory.—3452, Old Bhoiguda, Secunderabad.

## SPINNING AND WEAVING MILLS

Azam Jahi Mills, Ltd.—Warangal.
Dewan Bahadur Rungopal Mills, Ltd.—Secunderabad.
Mahaboob Shahi Kulburga Mills Co., Ltd.—Gulbarga.
Osmanshahi Mills, Ltd.—Nanded. 159, Gunfoundry Road, Hyderabad.

## SPORTS GOODS DEALERS

Asiad Sports.—Abid Circle, Hyderabad.
Cambridge Sports & Trading Co. (India).—2-B, Mahatma Gandhi Road, Secunderabad.
Deccan Sports.—Abid Road, Hyderabad.
Indiana Sports.—138, Park Lane, Secunderabad.
Janjua Sports Co.—Jam Bagh, Hyderabad.
Pioneer Sports Ltd.—Mahatma Gandhi Road, Secunderabad.
Regal Sports.—127, Mahatma Gandhi Road, Secunderabad.
Sachdev & Co.—Mahatma Gandhi Road, Secunderabad.
Saighal Sports Co.—Abid Road, Hyderabad.

## STATIONERS & GOVT. CONTRACTORS

HYDERABAD

Ashok Traders.—Opp. Grammar School, Abid Road, Hyderabad.
Deccan Envelope Mfg. Co.—Jam Bagh Road, Hyderabad.
Bombay Pen Stores.—Gowliguda, Hyderabad.
Deccan Pen Stores.—Shahrah Osmani, Hyderabad.
V. Perumal Chetty & Sons.—5-9-275, Abid Road, Hyderabad.

SECUNDERABAD

Burhani Stationery Mart.—1388, General Bazaar, Secunderabad.
Crushic & Co.—Boomugu Mansions, 62, Mahatma Gandhi Road, Secunderabad (A.P.); Manufacturers and Suppliers to all Government departments and Manufacturers' representatives.
Deccan Pen Stores.—Rashtrapathi Road, Secunderabad.
Prakash Pen Stores.—General Bazaar, Secunderabad.

## STONEWARE PIPES

**HYDERABAD POTTERIES LTD.—95/A, Park Lane, Secunderabad (A.P.) ; Manufacturers of Stoneware Pipes and Specials, Sanitaryware, C. I. Materials, Fire Bricks etc.**

## STRUCTURAL WATERPROOFING

**GLADSTONE LYALL & CO., LTD.—5/9/220, Mukerab Jung Lane, Hyderabad (Dn.). Local Representative : Mir Ashraf Ali; Phone : Office : 35788. Grams : "GHAT."**

## THERMAL INSULATION

**GLADSTONE LYALL & CO., LTD.—5/9/220, Mukerab Jung Lane, Hyderabad (Dn.). Local Representative : Mir Ashraf Ali. Phone : Office : 35788. Grams : "GHAT."**

## TOOLS MANUFACTURERS

**JAIRAMDAS & SONS, 7937, Raniganj, Secunderabad (A.P.). Phone : 42233; Grams : "JAIRAMSONS"; Importers & Stockists of all sorts of Engineers' Hand Tools, Precision Measuring Instruments etc.; Manufacturers of C.I. Surface Plates, Angle Plates, Straight Edges, V. Blocks etc.**

## TRANSPORT COMPANIES

Azad Motor Transport Co.—Karbala Maidan, Secunderabad 3.
Bombay Hyderabad Motor Service.—116, General Bazar, Secunderabad 3.
Deccan Transport Co.,—Opp. Rly. Station, Secunderabad.
General Construction and Transport Syndicate.—Abid Road Hyderabad.
Madras Bangalore Transport Co.—8006, Ghasmandi, Secunderabad.
Savani Transport.—403, Nizamshahi Road, Hyderabad.
United Transport Co.—Mukhtarganj, Hyderabad.

## WATCHES AND CLOCKS DEALERS

HYDERABAD

Asha Watch Co.—Abid Road.
Bharat Watch Co.—4, Malipalli.
Indo Swiss Watch Co.—Abid Road.
Jalal & Sons.—Abid Road.
Palace Watch Co.—22-1-179, Pathergatti.
Prince Watch Co.—Abid Road.
Rasheed & Co.—Salar Jung Bldg., Hyderabad.
United Watch Co.—Abid Road.
Wheemi Watch Co.—340, Abid Road.

SECUNDERABAD

Asha Watch Co.—Park Lane.
Bombay Watch Co.—Mahatma Gandhi Road.
Edulji Sorabji & Sons.—Park Lane
Kacharani Stores.—General Bazar.
Nathumal Bros.—Park Lane.
Ramesh Watch Co.—Park Lane.

## WATERPROOFING SPECIALISTS

**GLADSTONE LYALL & CO., LTD.—5/9/220, Mukerab Jung Lane, Hyderabad (Dn.). Local Representative : Mir Ashraf Ali. Phone : Office : 35788. Grams : "GHAT."**

# ASSAM STATE

Area: 47,290 sq. miles (122,481 sq. km.) according to Assam Survey. Geographical area 30·1 million acres.

Population (1961 census): 11,872,772. Density 252 per sq. mile (97 per sq. km.). Literacy 27·4 per cent.

Capital: Shillong.

Nearly one half of the area of Assam State is covered by hills. Plains: 24,557·96 sq. miles; Hills 22,732·00 sq. miles. Besides, a total area of 32,914 sq. miles, mostly hilly, has been transferred to Assam State from N.E.F.A. The hill areas are sparsely populated and inhabited by the hill tribes.

## DISTRICTS

Names of Districts showing within brackets the headquarters of each District and the area in square miles of each District followed by the names and areas in sq. miles of the talukas in the particular District respectively are as follows:—

Cachar (Silchar; 2,680): Hailakandi 512; Karimganj 709; Silchar 1,459.

Darrang (Tezpur; 3,367): Mangaldai, 1,272; Tezpur 2,095; Garo Hills (Tura 3,149).

Goalpara (Dhubri; 3,979): Dhubri 1,054; Goalpara 1,098; Kokrajhar 1,827.

Kamrup (Gauhati; 3,844): Barpeta 1,254; Gauhati 1,617·318; Nalbari 972·682.

Lakhimpur (Dibrugarh; 5,012): Dibrugarh 3,667; North Lakhimpur 1,345.

Mizo District (Aijal; 8,089): Aijal 4,861; Lungleh 3,228.

Nowgong (Nowgong; 2,167).

Sibsagar (Jorhat; 3,476): Golaghat 1,363; Jorhat 1,094; Sibsagar 1,019.

United Khasi and Jaintia Hills (Shillong; 5,554): Jowai 1,515; Shillong 4,039.

United Mikir and North Cachar Hills (Diphu: 5,883); Mikir Hills, 3,995; North Cachar 1,888.

Three Administrative Units have recently been created, namely, (1) Nalbari with headquarters at Nalbari in Kamrup District, (2) Dhemaji with headquarters at Dhemaji in Lakhimpur District and (3) Pawi-Lakher with headquarters at Saiha in Mizo Dist. As regards area Lungleh Subdivision has been split almost equally for creation of Pawi-Lakher Administrative Unit.

The hill districts have been given, under the Constitution of India, a large measure of self-governing rights according to their respective tribal traditions and customs, exercised through Autonomous District Councils under the supervision of the Government of Assam.

For purposes of Autonomous District Councils, United North Cachar and Mikir Hills are two Districts: North Cachar Hills (Haflong); Mikir Hills (Diphu).

The administration of land vests in the District Councils. All the District Councils have framed their own laws for the purpose and are now levying and collecting Land Revenue, House tax etc.

Anchalik Panchayats at the anchal level and Gaon Panchayats at the Gaon level have been formed in the place of Mahkuma Parishads at the Subdivisional level, under the Assam Panchayat Act, 1959. Accordingly, there are now 16 Mahkuma Parishads, 120 Anchalik Panchayats and 2,570 Gaon Panchayats in the Plains Districts of the State. These Panchayats have covered 11,085 villages.

Number of Circles: In Assam Tahsils are termed as Circles: 67.

Number of Municipalities: 17.

Number of Town Committees: 29.

## GEOGRAPHY

Assam has three distinct natural divisions: Brahmaputra or Assam Valley, Surma or Barak Valley and the hills.

The river basins are naturally fertile and present in the main few difficulties to the cultivator. Rainfall being high the problem in general is to dispose of the surplus water and to control the action of floods rather than irrigation in the usual sense.

Rice is the staple food crop. Tea and jute are the most important crops grown for export. Besides, potatoes are also cultivated in Assam. A good deal of short staple cotton and fruits like oranges and pineapples are grown in the hills.

Rainfall is everywhere abundant, and ranges from 50 to 258 inches a year leaving aside the highest recorded rainfall in this part of India with the maximum reached at Cherrapunji in the Khasi Hills 32 miles south of Shillong (905 inches in 1861: record precipitation for one day is 41 inches). This is reputed to be the wettest place in the world. Temperatures are moderate.

Earthquakes of considerable severity have taken place. By far the worst in recent times was that which occurred on August 15, 1950, one of the world's five biggest recorded tremors. According to old records the Assam earthquake of 1897 is regarded as the severest in human history.

## COTTAGE INDUSTRIES

Main cottage industries: Sericulture and Weaving. Principal areas for Sericulture: Sibsagar, Nowgong, Goalpara, United Khasi-Jaintia Hills and United Mikir, North Cachar Hills Districts and Lakhimpur.

Handloom weaving is done in most of the families in Assam. There are professional weavers in Cachar District and Sualkuchi area in Kamrup District.

Number of fly and throw-shuttle looms in the State: 500,000 (approximately).

Value of total production: Rs. 8,88,00,000.

Value of production of individual industries: Weaving products (Rs. 8,00,00,000); Muga raw silk (Rs. 54,00,000); Mulberry raw silk (Rs. 9,30,000); Open Eri Cocoon (Rs. 15,00,000)

Production of individual industries: Cloth—54,000,000 yards; Mulberry raw silk—31,000 lb.; Muga raw silk—180,000 lb.; Open Eri Cocoon—500,000 lbs.

Total number of workers in Cottage industries: 12,50.000 (inclusive of part-time and whole time workers in sericulture and weaving). Average workers per establishment 2.

Number of workers in individual industries: Handloom Weaving (850,000); Sericulture (400,000).

## AGRICULTURE

*Latest available:*

Main food crops of the State: Rice, Rape, Mustard, Sugar-cane, Potato, Pulses, Maize and Oranges.

Main cash crops of the State: Tea, Jute, Cotton and Tobacco.

Production of food crops in '000 metric tons (figures are for 1963-64):

Autum Rice 331; Winter Rice 1,504; Spring Rice 13; Maize 10; Wheat 3; Gram 1; Tur 2; Rabi pulses 33; Sesamum 1; Rape and Mustard 54; Linseed 5; Castor 1; Other cereals and small millets 3; Cotton 0; Jute 1,027 (in '000 bales each bale weighing 400 lbs.); Mesta 28 (in '000 bales each bale weighing 400 lbs.); Sugarcane 1,117; Tobacco 5; Potato 114; Sweet Potato 29 and Chillies 3.

The cultivation of oranges, which is a principal crop is mainly confined to the Khasi-Jaintia Hills.

(The latest data are not available).

Veterinary: Total Number of Cattle; 64,88,487 (male—24,40,636; female—19,96,688; Young stocks—20,51,163); Buffaloes—5,83,002. Horses and Ponies—16,803; Sheep—53,683; Goats—18,85,346; Other livestock—4,51,978; Total poultry—99,07,052. Total livestock—94,79,299 (This information relates to 1961 census).

## PLANTATIONS

*Latest available data:*

Plantation in the State: Tea.

Area under Plantation: 1,66,429 hectares in 1964.

Number of Tea Plantations: 726 (covered under the Plantation Labour Act).

Production of Tea: 192,831, 000 kg. (1964).

Average daily number of workers: Engaged in plantation 492,793 (1963); Engaged in factories 57,516 (1964). (As covered under the Assam Factories Act, 1948.

Fisheries: *Variety of fish produced:* Rabs, Katla, Mrigal, Mali, etc.

Assam State has met the fish seed demands from their own resources. Culture of mirror carps, scale carps etc. has become popular in the Hill Districts of the State.

## FORESTS

Forests area: Approximately 17,264 Sq. miles including unclassed state forests.(1963-64).

Main types of forest with some species of trees of economic importance occurring in them:

Evergreen forests, mixed deciduous forests, deciduous and dry deciduous forests, riverain forests, Savannah forests, swamp forests, bamboos and temperate forests containing sal, teak, hollock, holong, bansam, amari, gamari, ajhar, sissoo, simul, cane, bamboos, reeds and various species of medicinal importance.

A large area under forests falls in the hill districts which are sparsely populated and covered with vegetation.

Assam possesses one of the richest fauna in Asia and it is claimed that outside Africa, there is no part in the world with so many varieties of animals, birds, reptiles and insects. Rhinoceroses, elephants, wild buffaloes, bisons and Mithuns, swamp deer, sambhar, spotted deer, barking deer, tiger, leopards, black panther, King Cobra, pink-headed duck and Giant Hornbill are some of the well-known specimens of wild life.

Five sanctuaries and two game reserves with a total area of about 580 sq. miles, are maintained by the Government Forest Department for the protection of the interesting and in some cases the numerically dwindling species. Kaziranga and Manas are the two most famous sanctuaries, both nearly the same size, 166 and 105 sq. miles respectively. Kaziranga, in the heart of Assam and situated on the South Trunk Road, is easily accessible and affords every facility to the visitor to see the famous one-horned rhinoceros from elephant back at close range. The sanctuary at Manas at the foot of Bhutan Hills is more attractive from the scenic point of view.

Main forest produce: Timber, firewood, bamboo, cane, lac, elephant tusks, thatch, stone, sand, drugs, incense and perfumes, fibres and flosses. Assam has probably the biggest bamboo and reed reserves, contributing 42 per cent of India's total output.

(For further particulars see under Forests.)

## LAND TENURE SYSTEM

There are two classes of land tenure system in the State—the permanently settled estates and the temporarily settled estates.

*Permanently settled estates :* These are found in Goalpara District and Karimganj Sub-division of the Cachar District. In Goalpara district the permanently settled estates held by the proprietors and the rights of most of the intermediaries under them have been acquired under the Assam State Acquisition of Zamindaris Act and the tenants holding lands under them have come into direct relationship with the Government. In Karimganj Sub-division of Cachar district there are permanently settled estates and the acquisition of estates in Karimganj Sub-division has since been completed leaving some pattani tenures proposed to be acquired by the ensuring agricultural year (1373 BS.). The tenants who hold either directly under the Zamindars or intermediaries pay rent in cash or kind. There are crop-shares too. There is also a small number of people in Karimganj who hold land under landlords on condition of rendering service. An amount of Rs. 86,49,553 has been paid both as ad-interim and final compensation upto Feb. 28, 1965, for acquisition of estates and tenures under the Assam State Acquisition Zamindaris Act.

*Temporary settlement system :* Also known as the Ryotwari system prevails in the other plains districts of the State and also in portions of Goalpara District and Karimganj which are not permanently settled. These lands are assessed to full revenue and are called Khiraj lands.

The peculiarity of this system is that generally the cultivators hold lands directly under the Government unlike the lands in permanently settled estates.

The Khiraj lands are again divided into two categories, periodic and annual. The periodic landowner has a heritable and transferable right whereas the annual landowner (technically called "settlement holder") has a right of user only and has no right of transfer or subletting. Subject to the payment of the land revenue the owners of annual lands get renewal of the lease from year to year. The owners of annual lease can get their lease converted into periodic after satisfying certain conditions on payment of a prescribed premium.

Besides these, there are some La-Khiraj (full revenue free) and nisf-Khiraj (half revenue free) grants in Assam and also a number of Fee Simple grants. These Fee Simple grants are for cultivation of tea. These grants are initially revenue-free, but subsequently they have been assessed at full rate of revenue under Assam Revenue Free Waste Land Grants Act, 1948. There are other Waste Lands Settlement Rules for special cultivation.

There are three tenancy Acts in Assam, *viz.* The Goalpara Tenancy Act, The Sylhet Tenancy Act and The Assam (Temporarily Settled Districts) Tenancy Act. The former two Acts apply to the Districts of Goalpara and Cachar (those portions of former Sylhet District which have remained in Assam after partition) respectively. The last Act applies to the plains districts of Assam. These Acts confer rights of occupancy, determine the rent payable by the tenants and regulate the relationship between the landlords and the tenants. The Assam Adhiars Protection and Regulation Act, 1948, governs the conditions regarding crop-rent payable by the crop-sharing tenants and prescribes the conditions on which the landlord can resume possession for personal cultivation. Government has also passed a law called the Assam Fixation of Ceiling on Land Holdings Act (1956), whereby the holding of agricultural lands has generally been limited to a maximum of 150 bighas (about 50 acres) per family.

**Hill Districts :** In the hill districts of Assam, land administration is carried on by the Autonomous District Regional Councils under the provisions of the Sixth Schedule to the Constitution of India. They have framed their own regulations relating to the levy and collection of taxes on lands by necessary adaptations to the Assam Land and Revenue Regulation, 1886. The Mizo District Council has, however, made its own self-contained regulation for the purpose.

## MINES, INDUSTRIES

The only minerals in Assam worked on a commercial scale are coal, limestone and petroleum oil. Petroleum output about 116,703,702 gallons (1961); coal output 774,834 tons (1962); limestone output 78,045 tons (1962); and sillimanite 8,095 tons (1962). The most extensive coal measures hitherto worked are in the Sibsagar District, Mikir Hills, Lakhimpur District and Khasi-Jaintia Hills. Important deposits also exist in the Garo Hills; but those are yet to be exploited. Limestone is quarried in the Khasi-Jaintia Hills. Petroleum is worked only in Lakhimpur and refined there. An oilfield has been found at Nahorkatiya.

An oil refinery has already been set up in the State at Gauhati and was commissioned on the first of January, 1962.

Silk is manufactured in the Assam valley; also cotton weaving prevails as a cottage industry, women playing a predominant part. In this valley there are no caste weavers. In the Surma Valley or Cachar weavers carry on a brisk manufacture on a commercial scale. These handloom products find a ready market on account of the great scarcity of mill made cloth. There is no textile mill in Assam and the entire requirement of mill-made cloth has to be imported from other States.

Tea is the main industry, but there is a large petroleum mining concern with Digboi in Upper Assam as the centre and also some coal-mines. There is a big match manufacturing concern at Dhubri. Boat-building, brass and metal and earthenware, limestone burning, cane and bamboo work, furniture making, sola hat, smithy, brick making, mustard oil pressing, rice and saw mills are other industries. But agriculture employs about 80 per cent of the population. Assam carries on a considerable trade with the adjoining hill tribes and countries.

## POWER

The Gauhati thermal project at Narangi, near Gauhati the first major power project in Assam, was inaugurated on December 17, 1964 by the Union Minister for Information and Broadcasting, Mrs. Indira Gandhi.

Costing Rs. 1·22 crores, the project will generate 12·5 mw power for defence and industrial uses in and around Gauhati. The project will utilise the surplus light diesel oil produced by the Gauhati refinery.

**Power Projects :** Planned power development made a beginning in the State with the commissioning of Umtru Hydel Project near Gauhati. The Umtru Hydel Project benefits Kamrup and K. and J. Hills. The power project based on natural gas from Nahorkatiya oil fields with an installed capacity of 69,000 kW has been commissioned. Another hydro-electric projecct at Umiam in Khasi-Jaintia Hills, expected to generate 36,000 kW in the first phase, has been completed. The second phase, with a further capacity of 2 × 7·5 M.W. is intended to be taken up and completed by the end of 1965.

The Kopili project, a large multi-purpose project is likely to be taken up in the near future.

In the field of major and medium industries the Second Plan period saw the establishment of a sugar factory in the co-operative sector, a cane and bamboo mill in the public sector and a re-rolling mill and various smaller units in the private sector. The Spun Silk Mill at Jagiroad (Public Sector) has gone into production. The Cement factory at Cherrapunji with a capacity of 250 tons daily, (State participation Scheme) was expected to go into production soon. A jute mill was proposed to be set up in the co-operative sector and was expected to be completed early in 1962. Licences have been issued for the establishment and expansion of a number of other industries such as four large paper and pulp industries, hard board, chip board, commercial plywood, timber seasoning units, steel fabrication and light engineering manufacture, galvanised wire, etc., flour mills, caffeine manufacture and the like, which are in various stages of implementation.

**Gas-based Industries :** The two projects which have been decided to be taken up as part of the first-phase natural gas utilisation programme are (1) a power project, with an installed capacity of about 50,000 kW near Nahorkatiya and (2) a fertiliser plant at Namrup near Nahorkatiya with production pattern of 50,000 tons of urea and 50,000 tons of ammonium sulphate annually. Both these projects would be in the public sector.

For manufacture of hard board a large unit has been licensed.

Two cotton spinning mills with a total spindlage of 50,000 have been licensed in the State.

**Sugar :** A mill has been set up in the co-operative sector with a capacity of 800 tons per day.

**Fruit Preservation :** There are a number of small fruit canning units in the State.

**Processing and Light Engineering Industries :** A re-rolling mill and a foundry have been set up together with a number of fabrication workshop and light engineering industries.

## HANDLOOM INDUSTRY

Handloom industry is an age-old cottage industry of Assam.

It is the largest and the most important cottage industry next to Agriculture, both in hills and plain districts. Most of the weavers of the State are women and they generally weave cloth for their domestic use in leisure time.

**Cess Fund :** In order to develop khadi and handloom industries and to promote the sale of khadi and other handloom cloth, the Government of India decided to levy additional excise duty on mill made cloth. Created out of the proceeds of the cess, the Act is known as Cess Fund. Since its creation, financial assistance by way of loans and grants for the development of the industry is forthcoming.

In Assam, the handloom development schemes had been implemented since 1953-54. At the end of 1961, the number of co-operative societies had increased from 317 to 1,340 and looms and weavers from 3,541 to 33,970 and from 8,322 to 38,364 respectively. Upto the end of 1963-64 share capital loans amounting to Rs. 6·15 lakhs (S/C) and working capital loans to the tune of Rs. 21·53 lakhs (W/C) have been given. Improved looms and other weaving accessories are supplied to the weavers' co-operative societies from the financial assistance received from the All India Handloom Board. In order to relieve the weavers of Assam from the high cost of transport, the Board also grants a subsidy at Rs. 20 per bale of yarn procured.

**Powerlooms :** So far 192 powerlooms have been purchased. Out of these looms, 30 have been installed at the Industrial Estate, Gauhati and the remaining 162 powerlooms have been allotted among powerloom co-operative societies of Golaghat, Nowgong, Gauhati and Nalbari. Steps have already been taken to install two preparatory and processing plants in the State, as operation of powerlooms will not be helpful without such plants. Attempts are also being made to install two calendering plants.

The Assam Apex Weavers' Co-operative Society started functioning from July, 1959 and now sells yarn to the primary weavers' societies at moderate prices.

Out of the total number of handlooms in Assam, only about 7 per cent are now in the co-operative fold.

## TRADE

Assam has to import almost every article of daily necessity. Unlike in previous years the State has now to supplement the local production of rice—the staple food—by imports from the rest of India. The State's requirement of wheat was also met by the Central Government with imported wheat.

Assam's trade for the most part, was with areas now included in East Pakistan, but after partition it has dried up to a great extent and the traffic is maintained only by exports of fruits and vegetables and imports of fish, eggs and poultry.

## TRANSPORT

Much of the trade of Assam is carried by river. Steamer companies maintain fleets of vessels which ply to and from Neamati, Tezpur, Gauhati, Goalpara, Dhubri, Karimganj, Silchar and many other smaller stations.

During the dry season the formation of *chars* and sandbanks restricts the volume of riverine traffic and after the 1950 earthquake, Upper Assam has been forced to rely more on road and rail transport.

From January 1958, the entire railway system in Assam has been made part of a new Zone of the Indian Railways—the North East Frontier Railway. Pandu (Maligaon) near Gauhati has been made the headquarters of N.E.F. Railway.

The railway system enters Assam by the north bank of the Brahmaputra and continues on the more important south bank after crossing the river by a ferry between Amingaon and Pandu. From Pandu the line stretches eastward to Tinsukia, 313 miles away. Short branch lines connect the important towns of Dibrugarh, Nowgong, Jorhat, Sibsagar and Tezpur to the main line.

The construction of a road-rail bridge to link the two banks of the Brahmaputra has been completed.

Because of the slender surface link between Assam and the rest of India, air services are of great value to the State. The first direct link by air between Calcutta and Gauhati was established in 1947. This air service was originally on a non-scheduled basis but very soon it became a daily service and now there is more than one service a day. Almost all the big towns—Tezpur, Jorhat, Dibrugarh, North Lakhimpur, Silchar, Dhubri and Gauhati are served by daily scheduled flights. Pasighat and Along in NEFA have also been placed on the airmap.

The total length of motorable roads as on March 31, 1962, stood at 8,681 miles including 741 miles of National Highway. Of these 6,921 miles were in the plains and 1,760 in the hills. Besides, there were on this date 921 miles of bridle roads.

Nationalisation of motor transport in the State was started in 1948, and till March 31, 1965, 1,624 miles were covered.

January 1, 1965 :

Number of vehicles operated by the Department: 645.

Number of passenger buses : 444.

Number of 1st Class service cars : 24.

Number of Goods Vehicles : 155.

Number of other vehicles (ambulance, staff car, etc.) : 26

Number of passengers carried in a day : 25,112.

Goods carried in a day : 10,323 maunds.

Service mileage daily operated by the Nationalised Transport: Nearly 26,000 (approximately).

The State Transport organisation provides employment to 4,000 persons. Capital invested till March 31, 1964 is Rs. 342·25 lakhs. Net profit derived upto March 31, 1964 is Rs. 285·76 lakhs. The State Transport is under the administrative management of a Board, with the Minister for Transport as Chairman.

Shillong is reached by a 63-mile nationalised motor route from Gauhati, the nearest railhead, steamer ghat and air station. Assam Government's State Transport carries both passengers and goods on a monopolistic basis on this National Highway.

The programme of road-making has its special significance in that it is designed to make Assam self-sufficient in ensuring quick transport of its exports to and imports from other parts of the Indian Republic without having to pass through Pakistan. At the same time communications within the State are being improved by provision of necessary feeder roads from and to the arterial road system of the State so that local surplus produce may find good markets.

## CIVIL SUPPLIES

*Latest figures :*

The approximate monthly import requirements in tons of food-stuffs and other essential commodities are as follows :—Wheat—5,000 ; Salt—7,600 ; Sugar—5,500 ; Gur—2,000 ; Mustard Oil—3,000 ; Pulses—6,000 ; Paper—150 ; Cloth—10,000 bales ; Yarn—2,500 bales ; Iron & Steel—4,500 ; Cement—10,000 ; Misc. goods—15,000 ; Rice—42,000.

## CO-OPERATION

For statistical information see the main article on Co-operation. Some specific types of co-operative societies and their number, not dealt with in the article on Co-operation, are given below.

Large sized Credit Societies (225) ; Small-sized Credit Societies (5,019) ; Consumers' and Trading Societies (683) ; Wholesale Stores (8) ; Weavers' Co-op. Societies (1,655) ; Urban and Salary Earners Societies (172); Farming Societies (269) ; Industrial Societies (353) ; Multipurpose Societies (205) ; Fishery Societies (231) ; Primary Marketing Societies (192) ; District Marketing Societies (3) ; Milk Unions (1) ; Primary Milk Societies (22) ; Co-operative Unions (16) ; Housing Societies (2) ; Cotton Ginning Mills (2) ; Jute Mill (1) ; Sugar Mill (1) ; Rice Mills (3) ; Other agricultural processing societies (427) ; Other types of societies (88) ; Apex Weavers (1) ; Apex Marketing (1) ; Apex Bank (1) (till 30th June, 1964).

Number of Co-operative Central Banks : 9.

Apex Banks : 1 with 16 branches.

Number of Co-operative Central Land Mortgage Bank : 1.

Number of Co-operative Primary Land Mortgage Banks : 14.

*Budget allotment for the Department for the year* 1965-66. *Co-operation :* General : Rs. 65,32,000 ; Sixth Schedule : Rs. 7,31,200. *Capital Outlay etc. :* General : Rs. 17,77,500 : Sixth Schedule : Rs. Nil. *Loans to Co-operative Societies :* General : Rs. 15,69,000 ; Sixth Schedule : Rs. 4,500.

## HEALTH SERVICES

*Latest figures available :*

Commonest diseases in State and mortality from each disease during 1963 : Malaria—78 ; Kala-Azar—216 ; Total of all fevers—14,428 ; Small-pox—100 ; Dysentery and Diarrhoea—2,586 ; Respiratory diseases—2,967 ; Injuries—871 ; Cholera—9 ; Enteric fever—288 ; Beriberi—12 ; Diptheria—71 ; other causes 7,868.

The general aim of health programme is to expand facilities for health services to cover as much population as possible and to promote a progressive improvement in the matter of health in the State. Achievements in figures till the end of 1964 are as follows : *Hospitals :* Government T.B. Hospitals 4 (387 beds) ; Private T.B. Hospitals 4 (256 beds) ; Government Mental Hospital 1 (886 beds) ; Leprosy Colonies 16 ; Leprosy Treatment Centres 227 ; Kala-Azar Hospitals 2 ; Kala-Azar Ward 10.

General Hospitals and dispensaries: (Allopathic and Ayurvedic) 716.

Total Number of pharmacists 4,127.

Total number of registered Doctors 3,937.

Total number of Government Doctors 803.

Total number of outdoor patients treated 46,01,917.

Total number of registered nurses 1,562 ; Total number of Auxiliary Nurse Midwives 872 ; Total number of registered Dentals 1,254.

Total number of Medical Colleges : Allopathic 2 ; Ayurvedic 1.

Total Number of Students : Allopathic N.A. ; Ayurbedic N.A.

Special medical Research Institutes: 2 (Pasteur Institute, Shillong and Malaria Institute, Shillong).

General Nursing Training: Training Schools : 14 (Govt. 4, Private—10) ; School for Auxiliary Nursing Midwives : 17 (Govt. 11, Private—6) ; Nurse Midwive's Schools : 14 (Govt. 4, Private—10).

Budget allotment (1962-63) : (A) for Public Health : General (Normal) Rs. 65,25,265 (for the sixth Scheduled Areas Rs. 8,39,914) ; Third Plan General Rs. 51,93,000 (for the sixth Scheduled Areas Rs. 20,87,000). (B) for Medical : General (Normal) Rs. 1,44,04,700 (for the 6th Scheduled Areas Rs. 23,34,700 ; Third Plan General Rs. 58,69,500 (for the 6th Scheduled Areas Rs. 5,12,500).

## EDUCATION

(For particulars about general education see under Educational Tables in 'Late Particulars'.)

*Social Educaton :* The scheme for social education was first launched in the State in the year 1949-50. Till 1963-64 a total number of 3,28,487 adults were made literate. The number of social education centres during 1963-64 was 649 and 22,469 students (males 16,995 and females 5,474) were admitted in these centres. There were 649 teachers (males 552 ; females 97). Number of persons educated during the year was 16,190. Five Social Education Worker's Training Camps were organised in 1963-64 where 215 workers were trained. In order to cater to the needs of the post—literacy courses 1,125 village libraries were given grants-in-aid besides free distribution of books. The above figures exclude the libraries sponsored by the development blocks

*Hindi in the Education System :*

Hindi has been introduced as a compulsory subject from class IV to class VIII in secondary schools, from class IV to X in higher secondary and multi-purpose schools and as optional in class XI.

There are five Training (Normal) schools in the State where Hindi is compulsory. In the special schools i.e in Madrassa it is a compulsory subject. The subject is being introduced in the Government and non-Government Colleges gradually both as mother tongue and as alternative language.

*Basic Education :*

With the introduction of the Basic Education Act of 1954 and establishment of State Advisory Board for Basic Education, a large number of Primary and the Middle Vernacular Schools were converted to Junior Basic Schools and Senior Basic Schools respectively to cope with the scheme of Educational Development in the new line of imparting education with the help of selected craft, i.e. learning by doing. The Basic Education Act of 1954 has, however, been repealed by the Assam Elementary Education Act of 1962.

There are 42 Senior Government Basic Schools and 347 Junior Government Basic Schools in the State. Besides, there are 656 Middle Vernacular and Senior Basic Schools and 17,947 Lower Primary and Junior Basic Schools under the State Elementary Education Board.

There are 28 Government Basic Training Centres in the State for giving training to junior teachers. There is also a Basic Training College for imparting training to senior teachers. Each training centre has the intake capacity of 130 to 200 students with a teaching staff of six per centre.

### LABOUR

Total number of registered population in tea industry 11,45,425; Total number of registered Trade unions 146; Total number of Trade Union Members 2,90,012; Total number of Industrial Disputes in 1963: 18; Total number of workers involved in it 10,416; Man-days lost 10,571; Total number of Community Labour Welfare Centres 12.

### COMMUNITY PROJECTS

(See under article, Community Development Projects.)

### HOUSING

Housing authority: Director of Housing, Shillong.

Finance available for housing: Schemes are entirely financed by loans and subsidies from the Government of India, Ministry of Works and Housing except that for slum clearance schemes a matching subsidy is given by the State Government. Allotment by Government of India for the Third Five-Year Plan period: Rs. 199 lakhs excluding staff expenses of the order of Rs. 15 lakhs.

The Schemes are: (1) Subsidised Industrial Housing for industrial workers—Rs. 45,00,000; (2) Plantation Labour Housing for tea estate workers—Rs. 30,00,000; (3) Low Income Group Housing—Rs. 60,00,000, under which two types of loans are granted: (*a*) for tenements for municipal sweepers at a ceiling loan of Rs. 2,800 per tenement, and for residential houses by private individuals, with a maximum loan of Rs. 10,000 per house; (4) Rural Housing for improving housing condition in villages—Rs. 20,00,000; (5) Slum Clearance—Rs. 16,00,000 and (6) Land Acquisition and Development Scheme—Rs. 28,00,000.

Types of houses built: Tenements for municipal sweepers at a ceiling cost of Rs. 2,800 per tenement, residential houses by private individuals at a ceiling cost of Rs. 10,000 and tenements for industrial workers at sponsored cost of Rs. 3,650 per house etc.

Another scheme called the Middle-Income Group Housing Scheme is in operation outside the Plan, under which loan upto Rs. 20,000 is sanctioned to individuals.

Progress of implementation of the schemes till March 31, 1965: (1) Construction of 303 tenements under Subsidised Industrial Housing Scheme—Rs. 9,90,000; (2) Implementation of Plantation Labour Housing Scheme—Rs. 1,17,600; (3) Sanctions to local bodies for construction of tenements for sweepers up to the amount of Rs. 7,89,320 and to private individuals for residential houses to the tune of Rs. 138,02,370; (4) Preliminaries undertaken for Rural Housing; (5) Construction of 272 tenements undertaken under the Slum Clearance Scheme at a cost of Rs. 11,94,564 and (6) Middle-Income Group Housing Scheme—Rs. 12,48,300.

**Retirement Age:** The Assam Government have decided to extend the retirement age of Government servants from 55 to 58. The extension of the term of service, however, depends on certain conditions.

### BUDGET (1965-66)

See under 'Late Particulars'.

### THE ASSAM FINANCIAL CORPORATION

(See under State Corporations.)

## UNIVERSITY OF GAUHATI

Gauhati, Assam.

VICE-CHANCELLOR

Dr. M. N. Goswami.

REGISTRAR

C. Das, M.A., B.L.

**Teaching, Affiliating and Residential.**

**Subjects where provision exists for post-graduate and research:**

Assamese, Philosophy, Economics, History, Education, Mathematics, Statistics, Botany, Commerce, English, Physics, Chemistry, Geology, Anthropology, Agricultural Botany, Sanskrit, Political Science, Bengali, Geography, Zoology.

Number of colleges affiliated: 97 (Permanently affiliated 25; Temporarily or provisionally 72 including one constituent college).

Number of students: Affiliated Colleges: 41,553; University Departments: 1,734; Constituent College (Law College): 633.

Grant from State Government:

Annual recurring grant of Rs. 15,50,000 (1963-64).

Receipts: Rs. 76,23,100·75 (1963-64).

Expenditure: Rs. 87,19,C04·63 (1963-64).

Budget Estimates (1965-66): Income Rs. 44·63 lakhs; Expenditure Rs. 64·01 lakhs.

#### LIST OF PERMANENTLY AFFILIATED COLLEGES

Assam Agricultural College, Jorhat.
Assam Engineering College, Jalukbari.
Assam Medical College, Dibrugarh.
Assam Veterinary College, Khanapara.
B. Barooah College, Gauhati.
B.N. College, Dhubri.
Cotton College, Gauhati.
Darrang College, Tezpur.
D.M. College, Imphal (Manipur).
Dibrugarh H.S. Kanoi College, Dibrugarh.
Gauhati Medical College, Gauhati.
Gurucharan College, Silchar.
Handiqui Girls' College, Gauhati.
J.B. College, Jorhat.
Jorhat Engineering College, Jorhat.
Karimganj College, Karimganj.
Lady Keane Girls' College, Shillong.
M.C. College, Barpeta.
Nalbari College, Nalbari.
Nowgong College, Nowgong.
Post-Graduate Training College, Jorhat.
Sibsagar College, Sibsagar.
St. Anthony's College, Shillong.
St. Edmund's College, Shillong.
St. Mary's College, Shillong.

#### PROVISIONALLY OR TEMPORARILY AFFILIATED COLLEGES

Abhayapuri College, Abhayapuri.
Anandaram Dhekial Phukan College, Nowgong.
Arya Vidyapith College, Gauhati.
Bajali College, Pathsala.
Barnagar College, Sarbhog.
Biswanath College, Charali.
Bongaigaon College, Bongaigaon.
Cachar College, Silchar.
Chirang College, Gossaigaon.
C. K. Bezborua College, Teok.
D. C. Baruah Girls' College, Jorhat.
Dakshin Kamrup College, Palashbari.
Dergaon Kamal Dowarah College, Dergaon.
Dibru College, Dibrugarh.
Dibrugarh H. S. K. Commerce College, Dibrugarh.
D. R. College, Golaghat.
Fazl Ali College, Mokokchung.
Gargaon College, Simaliguri.
Gauhati College, Chandmari.
Gauhati Commerce College, Gauhati.
Goalpara College, Goalpara.
Haflong College, Haflong.
Hojai College, Hojai.
Imphal College, Imphal.
Jamuguri College, Jamugurihat.
Janata College, Kaburanj.
Jawaharlal College, Boko.
Jawaharlal Nehru College, Pasighat.
Jhanji College, Jhanji.
Jorhat College, Jorhat.
Kohima College, Kohima.
Kokrajhar College, Kokrajhar.
Lahe Rural College, Lahe.
Lungleh College, Lungleh.
L. C. Todi Girl's College, Nowgong.
L. M. S. Law College, Imphal.
Majuli College, Kamalabari, Sibsagar.
Mangaldoi College, Mangaldoi.
Manipur College, Imphal.
Manohari Devi Kanoi Girls' College, Dibrugarh.
Marigaon College, Marigaon.
Modern College, Imphal.
Moirang College, Imphal.
Moran College, Moran.
M. L. Girls' College Dibrugarh.
N harkatia College, Naharkatia.
New Jorhat College, Jorhat.
N. N. College, Bilasipara.
N.N.S iki. College, Tinsukia.
North Bank College, Ghilmara.
North Gauhati College, North Gauhati.
North Lakhimpur College, North Lakhimpur.
Oriental College, Imphal.
Pachhunga Memorial College, Aijal.
Pandu College, Pandu.
Pragjyotish College, Gauhati.
Rabindra Sadhan Girls' College, Karimganj.
Raha College, Raha.
Ramkrishnanagar College, Ramkrishnanagar.
Rangia College, Rangia.
S. S. College, Hailakandi.
Shankardev College, Shillong.
Shillong College, Shillong.
Sibsagar Girls' College, Sibsagar.
Sielmat Christian College, Churachandpur.
Sualkuchi B.M.S. College, Sualkuchi.
Teachers' Training College, Silchar.
Thoubal College, Thoubal.
Tihu College, Tihu.
Tinsukia College, Tinsukia.
Tura College, Tura.
Union Christian College, Shillong.
Women's College, Silchar.

## ASSOCIATIONS, ETC.

### ASAM SANGEET NATAK ACADEMY

Kismet, Upland Road, Shillong.

*President:* Governor of Assam; *Chairman:* Education Minister, Assam State; *Vice-Chairman:* Dv. Minister of Education; *Gen. Secy.:* Parag Chaliha; *Treasurer:* B. Sastri.

### ASSAM CHAMBER OF COMMERCE

Keatings Road, Shillong.

*President:* Md. Umruddin; *Vice-Presidents:* M. M. Obhrai, R. Singhania; *Hon. Gen. Secy.*, D. P. Agarwala.

### ASSAM CHAMBER OF COMMERCE & INDUSTRY

Morello Bldg., Shillong.

### THE ASSAM CO-OPERATIVE TRAINING INSTITUTE

P.O. Joysagar.

### ASSAM ENGINEERING INSTITUTE

Chandmari, Gauhati.

*Principal:* H. N. Barua, B.Sc. (Min. B.H.U.), A.M.I.E. (Ind.).

### ASSAM NATIONAL CHAMBER OF COMMERCE

P.O. Ulubari, Gauhati.

### ASSAM SAHITYA SABHA

Chandrakanta Handique Bhawan, Jorhat.

*President:* D. Neog; *Vice-President:* B. Barua; *General Secretary:* Prof. H. P. Neog; *Editor, Patrika:* Prof. J. Das.

### ASSAM SEVA SAMITI

Gauhati.

### ASSAM TEA PLANTERS' ASSOCIATION

Jorhat.

*Chairman:* M. A. Rahman; *Secretary:* S. N. Phukan.

### ASSAM TEXTILE INSTITUTE

Gauhati.

Three years' Diploma Course in Textile Technology. Two years' Certificate Course in Weaving. One year Artisan Course.

H.R.H. THE PRINCE OF WALES INSTITUTE OF ENGINEERING AND TECHNOLOGY
Jorhat.

INDIAN MEDICAL ASSOCIATION, (ASSAM STATE BRANCH)
Chowkidinghee
P. O. Rehabari (Dibrugarh)

*President :* Dr. P. Das ; *Hon. Secretary :* Dr. S. C. Barooah ; *Hon. Treasurer :* Dr. R. Goswami.

KAMARUPA ANUSANDHAN SAMITY
Gauhati.

*President :* P. D. Chaudhury ; *Jt. Secretaries :* Dr. P. Goswami, M. C. Das.

NARAYANI HANDIQUI HISTORICAL INSTITUTE

Department of Historical and Antiquarian Studies in Assam. Gauhati.

*Director of the Department :* Dr. Pratap Chandra Choudhury, M.A. (B.H.U.), Ph.D. (Lond.).

PASTEUR INSTITUTE & MEDICAL RESEARCH INSTITUTE
Shillong.

*Director :* Dr. N. G. Banerjee, M.B.B.S., Ph.D. (Leeds).

TOCKLAI EXPERIMENTAL STATION
Cinnamara P.O.

*Director :* D. H. Laycock, M.Sc. (Leeds).

## NORTH-EAST FRONTIER AGENCY

Area : 31,438 sq. miles (81,425·9 sq. kilometres).

Headquarters : Shillong, Assam.

The population of NEFA after the separation of one of its former Frontier Divisions to the Naga Unit is 3,36,558.

The North-East Frontier Agency, geographically and constitutionally a part of Assam is situated on the borders of Bhutan, Tibet region and Sikiang province of China and Burma. The Agency's international border is about 800 miles.

A proposal to take over the administration of the Agency from the External Affairs Ministry, by the Union Home Ministry from August 1, 1965, with a view to bringing this area on par with the rest of the country from the point of view of administration, has not been finalised.

For some time the present set-up of the North-East Frontier tract with the Governor of Assam as its head will continue. Changes will be considered later.

The Agency Secretariat is situated in Shillong, capital of Assam.

Divisions in the Agency with headquarters in brackets: Kameng Frontier Division (Bomdila); Subansiri Frontier Division (Ziro); Siang Frontier Division (Along); Lohit Frontier Division (Tezu); Tirap Frontier Division (Khonsa).

Each Division is under the charge of a Political Officer. In addition, five territorial areas are entrusted to Additional Political Officers with headquarters at Tawang, Changlang, Dapo Rjio, Pasighat and Anini. Within these jurisdictions Sub-Divisions are in charge of Assistant Political Officers, and Circles, of Base or Area Superintendents. The system of administration has been organised on a single line. At the headquarters in Shillong the heads of various departments are integrated and function as ex-officio Secretaries of their Departments, while in the Divisions the Political Officers are assisted by technical advisers like District Medical and Agricultural Officers and Inspectors of Schools. Senior officers of the Agency are drawn from a newly created speci. l cadre—the Indian Frontier Administrative Service (I.F.A.S.).

### CHINESE AGGRESSION

In September 1962, the Chinese started their major incursions into the four northern Divisions of NEFA, reaching as far south as Bomdi La, Headquarters of the Kameng Frontier Division. Apart from Kameng Division, however, the Civil Administration continued to function in all but the extreme northern regions of the remaining Divisions of NEFA. The civil administration has now been functioning normally throughout the Agency.

### GEOGRAPHY

The North-East Frontier Agency is a wild mountainous country and presents a remarkable topographical variety. The northern regions bounded by the Himalayas are snowbound in the winter. On the east, the hill ranges bordering on Burma also present a formidable barrier. Near Assam State areas the Agency has some plains.

The entire area is intersected by rivers. The main river artery of Assam, the Brahmaputra, known during its course in Tibet as the Tsangpo enters the Siang Frontier Division of the North-East Frontier Agency cutting the main Himalayas southwards near Gelling. It is known by the Adis as the Siang and receives many tributaries the most important being the Syom before debouching into the plains at Pasighat.

Other major rivers are the Subansiri and the Kameng (Bhoreli), the first of which also breaks through the main Himalayan range and takes its source from the table lands of Tibet. Similarly the Lohit river enters the NEFA as one of the main tributaries of the Brahmaputra between Rima and Kibithoo and after flowing through Lohit Frontier Division joins the other main river of the Division, the Dibang and later the Siang at a major confluence above Dibrugarh.

### FORESTS

The reserve forests constitute 203 sq. miles and proposed reserve forest 3,300 sq. miles as per record available with the Government. In the year 1960-61, 20·34 lakh c. ft. timber was extracted and a total revenue of Rs. 25·45 lakhs earned. The revenue for 1962-63 was Rs. 36·65 lakhs and for 1963-64 it was Rs. 44·93 lakhs.

The fauna and flora of the Agency are rich. Wild elephants, buffaloes, tigers, various kinds of deer, leopards, bisons, mithuns, bears, pigs, wild goats, and many kinds of cats are found. To the people of the Agency the mithun is most important as it serves apart from its religious and sacrificial significance as a barter currency and medium of exchange.

The monsoon sets in from the month of May and continues till the end of September. The average annual rainfall at Bomdi La is 40·12″; Pasighat—229·05″; Tezu—160·03″ and Changlang—78·22″.

### TRIBES

The Agency is inhabited exclusively by Hill Tribes. A broad list of the main tribes division-wise is given below :—

*Kameng Frontier Division :*—Monpa, Sherdukpens Bangnis (Yanoo and Khrodeng), Aka or Hrusso, Khoa or Bugun, Miji or Dammao, Khamba, Sulung, Bangro.

*Subansiri Frontier Division :*—Tagin or Moya, Dafla or Nussu and Nishang, Apatani, Bangro Mikir, Hill Miri, Sulung.

*Siang Frontier Division :*—Adi (It has some 20 sub-tribes, some of them are almost treated as main Tribes), Khamba, Memba, Hill Miri, Idu.

*Lohit Frontier Division :*—Padam, Hill Miri, Mishmi L. C. Digaru or Taraon, Idu or Chulikata, Miji or Kaman, Singhs, Khampti.

*Tirap Frontier Division :*—Nocte, Singpho, Tangsa Wancho, Yobin.

Just as a large variety of tribes is found in the Agency, so also a large number of distinct languages and dialects are spoken. The number of languages is about 30 and the dialects about 42.

Very few of these languages have a script and it is one of the objectives of the Agency Administration in the sphere of education, to provide the people with the Devanagri script for writing in their languages.

### EDUCATION

Education in the Agency is of the Basic type with due emphasis on crafts and agriculture. 167 schools have already been converted to Basic pattern.

Upto the end of the primary stage, the mother tongue of the students is the medium of instruction in schools, and text books in various tribal languages have already been prepared upto Class I. Assamese will be the medium of instruction from Class IV onwards and it will also be introduced as a subject of study early in the primary stage. Hindi and English are also taught as compulsory languages from Classes III and IV respectively.

In 1947, when the Department of Education was set up, there were only two lower primary schools in the entire Agency. At the end of 1963-64 the situation was :—Number of Institutions : Lower Primary 175, Middle English 25, High English 5, Higher Secondary 2, Nursery 4, Technical Institutions 3, Total Institutions 214.

During 1964-65 there were 268 institutions distributed as follows : Higher Secondary 4 ; Higher English 4 ; Middle English 19 ; Lower Primary 233 ; Nursery 4 ; Technical Institutions 3 ; College 1.

The Buniadi Shiksha Bhawan (Teachers Training Basic and non-Basic) at Changlang (Tirap Frontier Division) runs re-orientation courses for the Teachers.

During 1963-64 there were 593 teachers (excluding techhical institutions) in 211 schools with a total enrolment of 10,773 students.

The most important aspect of the educational programme in NEFA has been the establishment and reorganisation of schools in the border areas.

### COTTAGE INDUSTRIES

The people of the Agency have a great tradition of artistic and cultural self-reliance. The Administration aims at assisting them to develop their capabilities and to improve their standard of living by adopting better technique without interference in the pattern of native art.

Regular Cottage Industries Training Centres have been opened at 11 places to impart training in weaving, spinning, tailoring, carpet-making, carpentry, wood-carving, cane and bamboo work, smithy painting, sawing, soap-making and pottery. Rearing of silk and *endi* is demonstrated at sericultural farms at Pasighat, Bordumsa and Namsang. There are also 12 irregular centres.

Up to 1963-64 a total number of 2,531 persons was trained in the various craft centres of the Agency. As on March 1965, the total number of persons trained was 2,650. Expenditure during 1963-64 was Rs. 10·66 lakhs.

### PUBLIC HEALTH

Figures for 1964-65 : Those within brackets are for the year 1962 : The number of patients treated throughout the Agency 236,000 (202,000) ; Number of hospitals, dispensaries health units 91 (84) ; Number of doctors 88 (85) ; Number of compounders 88 (99) ; Number of nurses 78 (29). There was one doctor for every 3,825 persons (3,959 persons), a nurse for every 4,315 persons (11,605 persons) ; one hospital dispensary for every 3,698 persons.

Thirty-five teams have been raised under the national small-pox eradication programme.

B.C.G. teams are touring the Agency area specially in Siang Frontier Division where the incidence of tuberculosis has given rise to concern. A 50-bedded T.B. hospital, the first of its kind, was opened at Margherita.

A Health Training and Research Centre has started to train Junior Nurses and Rural Health Workers drawn from the tribal people themselves.

## AGRICULTURE

Agriculture is the mainstay of the people of the Agency. Generally, the *jhum* system (shifting) of cultivation is followed as in the hills of Assam and the yield is not enough to meet the requirements. The year 1961-62 saw a record food production of 66,500.

The people of NEFA have since recognised the advantages of permanent cultivation and have already taken it up along with *jhum* cultivation.

State help towards agriculturists consists of:

(*i*) Subsidy towards land reclamation, minor irrigation, purchase of tools, purchase of seeds, purchase of plough bullock, agricultural education and training and purchase of improved cattle, pigs and poultry;

(*ii*) Technical advice and guidance along with free services with necessary equipment for plant protection, organisation of marketing facilities, organisation of exhibitions, organisation of study tours, organisation of crop competitions, organisation of demonstration of improved crops, veterinary aid and livestock upgrading.

There is no regular land settlement system in NEFA as in other settled areas and no cadastral survey has been conducted. The ownership of land in NEFA varies from tribe to tribe, though generally speaking, it can be considered under the three categories, (1) land owned by individuals, (2) land owned by the clan and (3) common village land. Government attitude to land in NEFA is formulated in the three Jhum Land Regulations which were promulgated in 1947-48. These regulations give the tribal population absolute rights over their Jhum Land which is defined as all lands which any member or members of a village or a community have a customary right to cultivate by means of shifting cultivation or to utilize by clearing jungle or grazing livestock provided, that such village or community is in permanent location. In actual practice, however, the local customs and traditions are respected, and take precedence over these regulations.

So far (March 1965), 36,000 acres of land have been reclaimed and developed for permanent cultivation, mostly for paddy and 18,000 acres of land have been brought under irrigation. The anticipated increase in food production is estimated at 13,000 tons. Tools and implements worth Rs. 4,72,000 have been distributed to the cultivators at subsidised rates. Nine agricultural and livestock farms have been established in various parts of NEFA for providing improved seeds, training farmers, and giving demonstration of improved methods of production.

Animal husbandry has been put on a scientific basis. There are at present (June 1965), 21 veterinary dispensaries and 42 veterinary aid centres. As on March 31, 1964, there were 12 cattle farms and 38 cattle up-grading centres in various parts of the Agency to help the farmer look after the cattle.

## CO-OPERATIVE MOVEMENT

Most of NEFA tribes have a very strong social sense, and every village is in its own way a Co-operative Society. The first Co-operative Society was started at Pasighat in December, 1955. There were on June 30, 1963, 60 Primary Co-operative Societies which included 43 Consumers' Co-operatives, 3 Multi-purpose Co-operatives, two Industrial Co-operative Societies, one Dairy Co-operative Farm, 6 School Co-operatives, two Labour Co-operatives and 4 Transport Co-operatives. There is a Central Co-operative Store and Union Limited, at Monanbari performing the functions of a supervising union with a working capital of Rs. 0·70 lakh. The NEFA Administration has been specially exempted by the working group constituted by the Reserve Bank of India, from the purview of the national policy, as co-operation is inherent in tribal life, land, culture and in spirit. Although the individual and tenure system is very strong, co-operative farming in NEFA has been in existence from time immemorial.

## COMMUNITY PROJECTS

Thirty-one Community Development and National Extension Blocks in the Agency cover 22,839 sq. miles with a total population of 2·86 lakhs. A special NEFA type block has been evolved by the Administration with the approval of the Government of India to meet the specific needs of the tribal people. The main emphasis is laid on self-sufficiency in food, better roads, water supply and sanitation.

## COMMUNICATIONS

In the Second Five-Year Plan in NEFA priority had been assigned to communications. Rapid progress has been made in the building of roads. A road now connects Bomdi La, the headquarters of Kameng Frontier Division at a height of 9,000 feet above sea level; Ziro, the headquarters of Subansiri Frontier Division; Along, the headquarters of Siang Frontier Division; Tezu, the headquarters of Lohit Frontier Division and Khonsa, the headquarters of Tirap Frontier Division, and Pasighat and Koing, the Sub-Divisional headquarters of Siang Frontier Division and the Lohit Frontier Division respectively.

Physical achievements from 1951 to 1963 consist of roads (jeepable) 713 miles, mule paths 399·50 miles, porter track 2,129·50 miles, bride paths 131 miles, improvement to roads 176·50 miles, improvement to porter tracks 391·75 miles. Total 3,941·25 miles.

For the development of the interior, carriage of mail and cash and the evacuation of casualties, the Administration depends greatly on Otter aircraft, while Dakotas are used for landing or dropping supplies all over the Agency.

A wireless network has been set up to provide quick connection among the various administrative centres and outposts.

## SUPPLY

Air supply in the interior areas of NEFA commenced in January 1951. The chartered companies fly regular sorties to land or air-drop supplies. The total tonnage air-lifted during 1962 was 14,344 tonnes.

Under a State Trading Scheme, ration and stores for the interior localities depend on air supply and are procured centrally at Jorhat, NEFA's air base and dropped or air-landed in the interior.

## SECOND PLAN

Plan outlay : Rs. 509·56 lakhs.

Actual expenditure : Rs. 356·64 lakhs.

Percentage of expenditure during the Plan : 69·99.

## THIRD PLAN

The Planning Commission has allotted a sum of Rs. 715 lakhs for the Third Plan period (1961-66). For the year 1961-62 a sum of Rs. 106·20 lakhs had been provided in the revised budget as against Rs. 114·87 lakhs earmarked by the Planning Commission for the period.

For the fiscal year 1962-63 the budget estimate for NEFA's development was Rs. 138·20 lakhs.

The Planning Commission approved the Plan provision for NEFA for 1963-64 with a capital outlay of Rs. 184·72 lakhs. There is special stress on communications, education, agricultural production and health in NEFA's development plans. The target for 1964-65 is of the order of Rs. 246·38 lakhs.

In the Third Five Year Plan, the largest amount—Rs. 2·65 crores—goes earmarked for transport and communications. Priority has been given to agriculture for which Rs. 63·48 lakhs have been spent including Rs. 20 lakhs for animal husbandry and Rs. 5 lakhs on fisheries.

During the first two Plans, 780 miles of roads, 654 miles of mule and bridle paths, and 3,389 miles of porter tracks were constructed in NEFA. With the Third Plan targets of 419 miles of roads, 153 miles of mule paths and 521 miles of porter tracks, it is expected that every village in the area will be linked with a road.

More airstrips are to be built; others improved; and the carry-overs from the Second Plan are to be completed — all during the Third Plan period.

Irrigation from hill streams will be extended to some 5,000 acres of land.

The main emphasis in the development progamme of NEFA in 1963-64 had been on the improvement of communications and agriculture. The administration proposes to encourage the formation of transport co-operatives to run passenger and cargo services in the region.

# BIHAR

(*See Late Particulars*)

# DELHI

**Area: 573 sq. miles; Pop. 2·66 million (1961 census).**

Under the Constitution of India, Delhi is a Union Territory.

Parliament administers the areas directly through the Union Home Minister. The chief executive official of the Territory is the Chief Commissioner.

Delhi has an Advisory Council which is associated with the Home Minister.

The Council comprises (1) all members of Parliament representing Delhi, (2) the Mayor, (3) the Vice-Chancellor of Delhi University, (4) the President of the New Delhi Municipal Committee, (5) the Inspector-General of Police, and (6) two Advisers (Chairman, Public Relations Committee and Chairman, Industrial Advisory Board, Delhi Administration).

The Council is consulted in regard to the (1) general question of policy relating to the administration of the Territory, (2) all legislative proposals concerning the Territory, including proposals to extend any State Acts, (3) general matters relating to the annual financial statement of the Union in so far as it concerns the Territory and such other financial questions as may be specified by the President and (4) any other matter about which it may be considered necessary or desirable by the Home Minister that the Committee should be consulted.

Subject to the discretion of the Home Minister, members of the Council have the right in regard to interpellations analogous to and under similar limitations as those of members of a State legislature.

The meetings of the Council are presided over by the Home Minister.

Besides, there are two Advisory Boards to advise the Chief Commissioner in regard to industrial matters and public relations. They are presided over by two paid Chairmen.

The highest Court of Appeal in Delhi is the Punjab High Court—a circuit bench sits in Delhi.

## NEW ADMINISTRATIVE SET-UP

The Union Government gave its final approval to the scheme of a new administrative set-up for Delhi on June 7, 1965. It will function soon after the necessary legislation is adopted by Parliament.

The scheme provides for a Lieut.-Governor who will be the Administrator of the Union Territory of Delhi. He will be assisted by an Executive Council consisting of not more than four councillors who will be appointed by the President from amongst the members of the proposed Metropolitan Council.

The council will consist of 40 elected and five nominated members. For the interim period up to the next general election in 1967, the 40 members will be chosen by indirect election by the electoral college consisting of the present municipal councillors, members of Parliament representing Delhi and ten members of the Cantonment Board.

### Law and Order

Members of the Metropolitan Executive Council will be in charge of various departments which may be allotted to them under the rules made by the President. The Lieut.-Governor will be the president of the council and will be directly responsible for certain subjects like law and order and Government property including lands and buildings.

The Metropolitan Council will have no legislative powers but can initiate legislation. It will also consider the annual financial statements of the Union Government relating to the Delhi Territory but cannot vote on them.

The entire Territory of Delhi, including New Delhi and the Cantonment, will have representation on the Metropolitan Council which will be a privileged body and consider the general question of policy relating to the administration of the Territory in the State field.

The Delhi Municipal Corporation will continue as at present, but its executive functions will vest in the Mayor-in-Council which will consist of the Mayor and not more than four councillors. The Mayor-in-Council will be collectively responsible to the Corporation.

The Standing Committee of the Corporation will be dissolved and the Commissioner will cease to be a statutory authority. He will act under the direction of the Mayor-in-Council.

There will be a provision for the constitution of zonal committees consisting of members of the Corporation elected from different zones which will be in charge of civic functions of a local nature.

Water supply and sewage disposal will continue with the Corporation as at present. There will be a separate general manager for this.

The rural areas in Delhi while continuing to be within the limits of the Corporation will have a panchayat raj system at the village and block levels. There will be a Rural Advisory Committee with the executive councillor in charge of the rural areas or his nominee as its chairman.

The Lieut.-Governor's actions can neither be questioned nor criticised in the Metropolitan Council, but questions can be raised on the subjects handled by him.

## GREATER DELHI

Delhi is really the size of a district. The majority of its population lives in the urban areas of Delhi.

Development work is being carried out by the panchayats under the supervision of the Development Department which is advised by a Rural Development Committee.

The Master Plan for Delhi drafted after requisite surveys and investigations, has been approved by the Government of India. The Plan makes proposals for Delhi's development upto 1981.

The main railway station is the junction at Old Delhi, from where radiate the railway lines to the Punjab, U.P., Bombay, Calcutta and Madras. The headquarters of the Northern Railway are located here.

### Average Quota of Monthly Essential Articles

The following are the estimated quantities of certain selected commodities imported into Delhi Territory (monthly average in tonnes) for the calendar year 1963:

Wheat 48,709; Gram 7,153; Rice 2,617; Pulses 583; Refined sugar 6,788; Tea 159; Ghee Cream and Butter 1,327; Dried fruits & nuts 4,381; Provisions 1,108; Spices 2,979; Steam Coal, Soft Coke & Hard Coke 50,425; Kerosene oil 16,418; Hides and skins 308; Agra stone 9,242; Cement 17,940; Chemicals 6,412; Face cream Powder and tooth paste 151; Hair oil and perfumed oil 70; English medicine 1,066; Soaps 2,939; Shoes and apparel 361; Hardware and cutlery 11,385; Photo goods 193; Betel leaf 80.

### Employment

According to 1963 figures there were 11,158 registrations (monthly averages) at the Regional Employment Exchange and 1,742 placings against 2,631 vacancies notified. The number of registrations on the live register at the close of 1963 was 87,133. The number of registrations for March '64 was 10,058 and placement during the same period 2,247.

## INDUSTRY

Second Plan provision for industries: Rs. 181·45 lakhs, of which Rs. 117·75 lakhs could only be spent.

A sum of Rs. 1·65 crores has been allocated under the Third Plan for the development of industries in Delhi.

The main industries are: cotton mills; hand and powerloom weaving; hosiery; pottery; flour mills; vegetable oil mills and expellers; paints and varnishes; rubber goods; imitation jewellery; copper and brass utensils; wire netting; sola hats; leather goods, sports goods, tanning and fibre industry.

The total number of registered factories at the end of December 1961 was 1,082.

The number of registered trade unions at the end of 1963 was 415.

Delhi was a great centre of artistic textile fabrics till the end of the Moghul era, and retained some importance till the advent of the modern textile mills. A revival is, however, now taking place under the Handicrafts and Handloom Promotion programmes.

In recent years the handloom industry has grown rapidly owing chiefly to the efforts of the Industries and Co-operative Societies Department, which helped in the promotion of weavers' co-operatives.

In 1959 there were 56 societies and 529 looms. There were 533 weavers and the production in 1959 was estimated at 6,21,500 yards. The target for the Second Plan was 4 lakh yds. a year.

The total number of handlooms in Delhi by 31st March 1963 was 800. By the end of 1959 there were 846 handlooms in Delhi out of which 589 were in working order. The actual number may be in the neighbourhood of 1,000. The capital invested was between Rs. 3 and 4 lakhs. The industry provides livelihood for about 3,000 persons, and the total production is estimated at 5 lakh yds.

The prototype production-cum-training centre at Okhla Industrial Estate, about 5 miles from Delhi was inaugurated on March 2, 1961. This is an Indo-German venture which will manufacture prototypes of machines and machine tools and train about 500 workers every year.

The Co-operative Department has opened emporia in Delhi to help marketing. A dye-house has been set up under the control of the Indian Co-operative Union with an expert dyer-cum-printer attached. The Handloom Sales Depot at Jan Path, New Delhi is a centre of all varieties of handloom cloth.

There is also a very flourishing grain market, serving local needs.

As in all towns, different parts of Delhi specialize in different trades. The area round about Chandni Chowk for instance is the centre for textiles and general merchandise. The trade in copper and brass utensils is located in Chawri Bazar, which in addition has a market for hardware. Khari Bawli is the granary of Delhi with the adjoining streets specializing in condiments, spices, pickles, dry fruit, etc. Lal-Kuan Bazar is noted for building material, while Sadar Bazar deals in wholesale hosiery, glass and china-ware and general merchandise. Silver-ware is retailed in Dariba Kalan, while the bullion market is localized in Chandni Chowk

Almost all the banks have their branches in Connaught Place and Chandni Chowk which are the Chief shopping centres of New Delhi and Delhi respectively.

Tourist traffic has grown into a regular new trade. Almost all the Indian and foreign air companies and travel agencies have offices in New Delhi.

## INDUSTRIAL ESTATES

The Okhla Industrial Estate, seven miles south of Delhi and one of the biggest of its kind in India, was built by the National Small Industries Corporation. It was declared open by the Prime Minister in April 1958.

There are 45 factories in the Estate all humming with activity. Forty more units have already been constructed and allotted to small-scale industrialists.

The items manufactured by the units in the Estate include amplifiers, radio parts, electric motors, room coolers, power presses, automobile accessories, bicycle parts, lathes, drilling machines, machine tools, safety razor blades, insulated wires and household and utility articles.

The Regional Small Industries Service Institute has set up a technical guidance and training centre in the Estate.

Nearly Rs. 16 lakh worth of goods are produced by these units every month. There are now over 1,800 workers in the various factories in the Estate.

The Estate was handed over to the Delhi Administration in April 1959.

A sum of Rs. 33 lakhs has been provided in the Third Plan to complete construction of 45 units at Okhla Industrial Estate. A sum of Rs. 15 lakhs shall be provided for the development of land meant for these 45 industrial units from the Revolving Fund.

Under the third phase of expansion programme of the estate, the construction of 41 factories for the manufacture of sports goods were taken up.

At the instance of the Government of India it has been proposed to construct a small industrial estate in the Pilot Project Area of Alipur. A site near Badli Railway Station has been acquired and construction work started. Seven industrial sheds were constructed at Badli as part of a rural industrial estate to be established at a cost of Rs. 4·5 lakhs. Besides, five more Rural Estates are proposed to be set up in various rural areas of Delhi costing about Rs. 150 lakhs.

## AGRICULTURE

Figures given below are for 1963-64 :

Total land : 365.598 acres; area under forests : 3.497 acres ; area not available for cultivation : 85,241 acres ; other uncultivated land excluding fallow land : 44,820 acres ; fallow land : 16,652 acres; net area sown ; 2,15,388 acres; total irrigated area : 82.696 acres.

Area in acres and production in tonnes respectively of each crop for the year 1963-64 are given below. Figures in brackets show production.

Rice 1,776 (635); Jowar 39,202 (4,284); Bajra 36,922 (9,407); Maize 2,545 (412); Wheat 80.327 (32,000); Barley 7,595 (585); Gram 63.919 (11,000); Sugarcane 8,103 (1,711); Chillies 700 (1,078); Oilseeds 3,234 (163); Cotton 1,250 (213); Potatoes 555 (1,772); Tobacco 288 (257); Fruits 2,711 (N.A.); Vegetables 6,606 (N.A.); Pulses 9,896 (1,362).

The scheme for desilting of Najafgarh drain has been completed and an area of 6,000 acres, previously blocked, has been made available for cultivation.

Important fruits grown in Delhi are bananas, pears, mangoes, pomegranate, lokats, figs, papais, castor-fruit and plums. Efforts are now being made to promote the growing of orchards. A separate Horticultural Department has been set up for this purpose in the Delhi Administration.

The total area under fruits and vegetables during 1962-63 was 3.479 acres and 6,275 acres respectively. Important vegetables grown in Delhi are cauliflower, tomato, peas, potato, radish, brinjal and bhindi.

Delhi now imports most of its fruits. But on large areas—a total of 9,754 acres—in and around the city vegetables are grown.

### Land Reform

The Delhi Land Reforms Act, 1954 came into effect on July 20, 1954. The Land Revenue Act provides for a uniform system of Land Revenue administration. Previously, part of the land was under the Punjabi aws and part under the U.P. laws.

The Act provides for the abolition of proprietary rights and conferment of ownership on all tenants and sub-tenants from whom compensation would be recovered and paid to owners. The rate of compensation varies from 4 to 40 times the land revenue, according to the nature of tenancy. A stay order passed by the High Court was vacated in April 1956 and implementation of the law is now in progress. Over 8,000 tenants of various categories have acquired Bhumidari rights in an area of about 38,000 acres.

The Delhi Land Reforms Act was amended in October 1956 to exclude areas controlled, notified, held, occupied or owned by the Delhi Improvement Trust from the purview of the Act.

The Delhi Land Reforms (Amendment) Act, 1959 removes some difficulties in the working of the Act and includes Improvement Trust areas excluded by the 1956 Act. Out of 306 villages, the work of consolidation has been done in 268 villages. Under the Delhi Panchayat Raj (Amendment) Act, 1959, 215 Gaon Panchayats and 23 Circle Panchayats covering all the 305 villages in Delhi, have been established.

The Delhi Landholders (ceiling) Bill passed in Aug. 1960, fixes the ceiling on land holdings at 30 standard acres for a family of five.

Leases in future have been prohibited except by small owners holding less than eight standard acres and persons suffering from a disability. Future tenants will have a minimum term of five years.

The maximum rent has been fixed at one-fifth of the gross produce.

A ceiling has been placed on future acquisition of land holdings at 30 standard acres.

### Dairy, Poultry

It is estimated that there is one milch animal for every three or four persons. The average yield of a cow and buffalo comes to 2 seers and 4·2 seers respectively.

The annual average daily production of milk is estimated at 7,000 maunds.

*Delhi milk supply :* The Central Dairy at Delhi started functioning in November 1959. About 400 mds. of milk is collected from surrounding villages where milk collection, processing and storage arrangements are set up and automatically bottled and sealed.

When in full operation, the dairy will handle about 12,000 mds. of milk daily. To meet the present requirement 7,000 mds. of milk are needed. At present about 4,500 maunds of milk is distributed daily. Pasteurised whole buffalo and cows' milk in sealed half litre bottles at 62 P. per litre and toned milk, at about half this cost are supplied through 576 booths. It is a State Trading Scheme. The outlay on this during 1959-60 was Rs. 4·39 million and 1960-61 Rs. 29·5 million. The profits were expected to go up from Rs. 65,000 in 1959-60 to 3·26 million rupees in 1960-61. The Scheme now manufactures butter, ghee, milk powder and ice-cream. It was expected to manufacture cheese also.

*Poultry* 1964 : No. of poultry farms 120 ; No. of chicks produced during the year 54,451 ; No. of eggs produced 4,69,600.

Targets for the year for eggs were 3,00,000 and for Chicks, 45,000 respectively.

A disease control unit was contemplated to provide necessary medical facilities for poultry.

## TRANSPORT

Delhi occupies a pivotal point in the network of national railways, highways and airways.

It is one of the biggest railway junctions in the country handling about 23 mail, 30 express trains besides several goods and passenger trains every day.

All the principal inter-State roads of significance converge on Delhi.

It is also linked with important cities and foreign countries by air through its two air ports, Willingdon and Palam.

There are in Delhi 25,629 motor cycles, 4,892 motor rickshaws, 2,016 taxis, 23,724 cars, 1,500 buses and 5,129 trucks. The following figures are for the quarter ending March 1964 : Cycle rickshaws 825, bicycles over 2,25,000, hand carts 5,583, animal-driven carts 1,803, tongas 2,952 and bullock carts 1,799.

Bus transport in the urban area is provided by the Delhi Transport Undertaking of the Delhi Municipal Corporation. There are a few private buses operating in suburban areas. The Transport Service has 880 buses operating on 56 routes. Total distance covered per day : 1,38,000 kilometres.

*General Manager*, J. A. Dave ; *Dy. Genl. Mgr.*, Khurshid Alam Khan ; *Traffic Manager*, A. K. Dutt.

## HEALTH

(Monthly Average 1963)

Birth rate 31·6 ; death rate 7·9 ; infant mortality per thousand live births 76·5.

*Deaths* : Caused by Small-pox 11 ; Dysentery and Diarrhoea 62; Respiratory diseases 351 and Injuries and suicides 50.

Live births 7,557, still births 65.

There are 35 hospitals and 87 dispensaries of the modern system of medicine, two Ayurvedic and Unani hospitals and 15 dispensaries and six Homœopathic dispensaries. The total bed strength is about 5,000.

Some leading hospitals are :

Mrs. Girdhari Lal Maternity Hospital, Circular Road, outside Ajmeri Gate ; Hindu Rao Civil Hospital, The Ridge, Sabzi Mandi ; Infectious Diseases Hospital, Kingsway ; Irwin Hospital, Circular Road ; Jeewan General Hospital, Panchkuin Road ; Lady Hardinge Hospital, Panchkuin Road ; St. Stephen's Missionary Maternity Hospital, Tis Hazari ; Safdarjang Annexe Hospital, New Delhi ; Shroff Charity Eye Hospital, Daryaganj ; Silver Jubilee T. B. Hospital, Kingsway ; Victoria Zenana Hospital, Machhliwalan, Daryaganj ; Willingdon Hospital, Irwin Road and G. B. Pant Hospital, near Lady Irwin Hospital, Circular Road, New Delhi.

Money allotted under the Third Five-Year Plan for medical development schemes : Rs. 1·55 crores.

## EDUCATION

The number of recognised educational institutions increased from 1,508 to 1,581 during 1963-64 ; out of these 206 are Govt. schools and 1,375 run by non-Govt. agencies including local bodies. The total enrolment also showed an increase of 37,688 pupils and the number on roll stood at 6,10,200.

There is one University in Delhi known as Delhi University and three institutions namely Jamia Millia Islamia, Indian School of International Studies and Indian Agricultural Research Institute for higher learning are deemed to be Universities under Section 3 of the University Grants Commission Act. Two novel types of institutions called Janata Colleges one for men and the other for women are being run in Delhi's rural areas to impart community training to the villagers. Literacy percentage in Delhi : 53 (1961).

One engineering college at Kashmere Gate and five polytechnics including one for girls, and seven industrial training institutes have been set up during 1963-64.

The expenditure on education during 1963-64 amounted to Rs. 5,35,04,903 thus showing an increase of Rs. 64,58,480 over the previous year. Education upto Class VIII for students reading at Govt. and aided schools was made free during 1961-62. A television scheme was introduced in Delhi schools and during 1961-62, 152 schools were equipped with television sets.

During 1963-64, 18 new higher secondary schools were opened and 150 additional sections were started in the existing higher secondary schools adding the seating capacity to 15,000 more. The total number of recognised Higher Secondary Schools increased from 325 to 344 and the enrolment stood at 2,42,000.

## COMMUNITY DEVELOPMENT

The village development scheme covers all the 305 villages. A sum of Rs. 31 lakhs was spent during the Second Five Year Plan on the Community Development and Panchayat Raj in the rural areas of Delhi.

The expenditure during Third Plan on Community Development and Panchayat Raj is Rs. 8·612 lakhs upto Dec. 1964 out of an actual allocation of Rs. 12·61 lakhs.

Five development blocks are being run under the Community Development Programme covering the entire rural area of Delhi. The blocks are—Alipur, Najafgarh, Mehrauli, Shahdara and Kanjhawla. The villagers contributed more than Rs. 23 lakhs in cash, kind and labour towards local works such as construction of village schools, panchayat ghars, community centres and pavement of streets during the Second Plan period.

The entire rural area of Delhi is now covered by the Panchayat Raj system. There are about 215 Gaon Sabhas with equal number of Gaon Panchayats. In all about 2,700 representatives of the people were elected as members of Gaon Panchayats and Circle Panchayats in Dec. 1962. Panchayat Raj in rural Delhi was inaugurated by the Union Home Minister on November 8, 1959.

The Community Development Blocks presently comprise 300 villages, a population of 328,968, a total area of 1,500 sq. kilometres.

The total number of co-operative societies on March 31, 1964 stood at 2,186 with a membership of 2,48,458 as against 2,009 societies with a membership of 2,03,345 during the previous year.

## HOUSING

The Govt. of India has approved the scheme for remodelling of Dujana House near Jama Masjid in Delhi. The estimated cost of the scheme is about Rs. 10·90 lakhs of which Rs. 6 lakhs are for construction of two room multistoreyed tenements. This scheme is part of a programme for slum clearance in Delhi.

The Government of India has approved a scheme for construction of 48 two-storeyed blocks of prefabricated buildings, to be located in the Ramakrishnapuram — about 6 miles from the Central Secretariat, for accommodating offices, providing 4·77 lakh square feet of office accommodation, in the Capital. The estimated cost of the buildings is Rs. 81·14 lakhs. The first lot of blocks was expected to be ready by the end of 1962, and all the blocks by the end of the financial year 1963–64.

An area of about 8,000 acres was selected for acquisition and development. After detailed scrutiny, 10 development schemes—six residential and four industrial—covering altogether an area of about 2,000 acres and costing nearly Rs. 8 crores have been approved.

During 1963-64 about 16,000 acres of land has been acquired and taken possession of and a sum of about Rs. 10 crores offered as compensation. Steps were taken to develop 15,500 acres of land for residential and industrial use. An additional area of about 3,500 acres has also been covered by notifications under Section 6 of the Land Acquisition Act.

Three schemes for providing housing loans are currently being implemented by the Delhi Administration for the benefit of low income group, middle income group and the rural people.

Similarly slum clearance and jhuggi jhonpri removal schemes have been prepared for the benefit of slum dwellers.

## DELHI MUNICIPAL CORPORATION

The Delhi Municipal Corporation, replacing all local bodies, except the New Delhi Municipal Committee and the Delhi Cantonment Board and constituted under the Delhi Municipal Corporation Act, 1957, came into being on April 7, 1958. The Corporation is patterned on the Bombay model. It has 86 members, including six aldermen.

The Corporation assumed charge of the responsibilities in regard to medical and public health, primary and basic education, roads, water supply, transport, electric supply, fire services, etc. which were hitherto being discharged by the Delhi Administration. About 4,000 officials who were dealing with these matters in the Delhi Administration were transferred to the Corporation.

The Corporation is now also responsible for the improvement and clearance of slums and katras and removal of jhuggies and jhonpries in the Union Territory of Delhi.

An estimate of the party position including the six aldermen is as follows : Congress 73, Jan Sangh 8, Communists 2, Independents 3.

### Members

The following are the members of the Corporation. The number in the brackets shows the number of the ward the member represents.

*Mayor*, Nur-uddin-Ahmed.

*Deputy Mayor*, H. K. L. Bhagat.

*Members :* H. K. L. Bhagat (1); Ram Lal (2); Gian Chand (3); Brij Lal (4); Pran Nath (5); Des Raj (6); Tulsi Ram (7); Des Raj Chaudhary (8); Sumer Chand (9); Lal Chand (10); Madan Lal (11); Akhlaq Hussain (12); Hakim Mohd. Sharif Khan (13); Ishwar Dass (14); Ram Charan Aggarwal (15) ; Sri Kishan Khanna (16); Vacant (17) ; Girdhari Lal (18); Daroga Mal (19); Abdul Sattar (20); Ram Babu (21); Vasu Dev (22); Sheila Khanna (23); V. P. Nanda (24); Mittar Sain (25); Kalu Ram (26); Narain Singh (27); Sain Dass Lamba (28); Chandu Lal (29); Dalip Singh (30); Tulsi Nath (31); Rattan Singh (32); Krishan Lall (33); Mangat Ram (34); Ganesh Dass (35); Vijay Kumar Malhotra (36); Bal Raj Khanna (37); Dhani Ram (38); Prem Sagar Gupta (39); Laxmi Narain (40); Kaushlya Malik (41); Rattan Lal Sharda (42); Khub Ram Jajoria (43); Devki Nandan (44); Manohar Lal (45); Ganga Persad (46); Dalbir Singh (47); Mansa Ram Shukla (48); Devi Dass (49); Amar Nath Chawla (50); Mushtaq Rai (51); Dhanpat Rai (52); Roshan Lal (53); Bansi Lal (54); Om Perkash (55); Bhiku Ram (56); R. K. Bhardwaj (57); Makhan Lal (58); Radha Kishan (59); Kashmiri Lal (60); Kula Nand (61); Sunder Dass (62); Chuni Lal (63); Pyare Lal (64); Kishori Lal (65); B. D. Wadhwa (66); Kidar Nath (67); Jia Lal Kardam (68); Fateh Singh (69); Mam Chand (70); Ram Dev (71); Karan Singh (72); Ram Singh (73); Raghbir Singh (74); Chander Singh (75); Balbir Singh (76) ; Brahma Nand (77); Kishan Chand (78); Girdhari (79); Prem Singh (80).

*Aldermen :* Nur-u-ddin Ahmed ; Brij Mohan : Smt. Memo Bai ; T. C. Kundrom ; Raghavendra Singh.

### *Officials*

*Commissioner*, Bhagwan Singh, I.A.S.
*Deputy Commissioners*, D. D. Joshi, I.A.S. ; Parmatma Saroop ; N. N. Tondon, I.A.S.
*Health Officer*, Lt. Col. R. R. Rao.
*Chief Engineer, Water*, Chaudhary Balwant Singh.
*Drainage Engineer*, J. D'Cruz.
*Municipal Engineer*, M. M. Patel.
*Education Officer*, D. L. Sharma.
*Chief Accountant*, D. D. Bhatia.
*Chief Fire Officer*, A. B. Advani.
*Chief Auditor*, N. K. Bhatacharya.
*Officiating Director, Urban Community Development*, M. L. Kaul.
*Liaison Officer*, G. D. Rampal.
*Gen. Manager, Electricity Undertaking*, J. M. Raina, I.A.S.
*Secretary*, Hem Raj Sharma.

*Chairmen of Committees*

*Standing Committeee*, Des Raj Chaudhary.
*Electricity Supply Committee*, Amar Nath Chawla.
*Water Supply and Sewage Disposal Committee*, Dr. Roshan Lal.
*Education Committee*, Bansi Lal Chauhan.
*D.T.U.*, I. Vasudev.

**New Delhi Municipal Committee :** A whole-time president for the New Delhi Municipal Committee was appointed in 1959.

Apart from its normal functions, the New Delhi Municipal Committee serves as the electricity distributing agency in its area. There are now 15,200 street lighting points in New Delhi area. Automatic traffic control signals have been installed at the junctions of Janpath, Connaught Circus, Parliament Street which were formerly hand operated.

## EDUCATIONAL INSTITUTIONS

### DELHI UNIVERSITY

**The University of Delhi was established at Delhi in May 1922, to function as unitary teaching and residential university, but it became a Federal University by an Amendment Act No. XXIV of 1943, to the Delhi University Act VIII of 1922. The University Act was further amended by Act V of 1952. The University has now been made a teaching and affiliating University.**

The University confers the following Degrees and Diplomas on students on passing the appropriate examinations :

Degrees : Ph.D. (Arts, Science, Law, Education, Medical Sciences and Social Sciences), M.A., M.Lib. Sc., M.Com., M.Sc., LL.M., B.C.L., LL.B., M.Ed., B.A. (Hons.), B.Ed., B.A. (Pass), B.Sc. (Hons.), B.Sc. (Pass), B.Com., M.Sc. (Home Science) in Rural Community Extension, B.Sc. (Home Science), M. Nursing., B.Sc. (Nursing) Hons., B.Sc. (Elect., Mech., Civil.), Engg. B.Arch., M.B.B.S., M.Sc. in Medical Biochemistry (for non-medical students. M.D. (Physiology, Pharmacology, Bacteriology, Medical Biochemistry, Pathology, Anaesthesia, Paediatrics, Medicine, Obstetrics, and Gynaecology), M.S. (Anatomy, Surgery, Opthalmology, E.N.T.R., Orthopaedics), D.Sc., D.C.L., D.Litt., M. Litt. (Buddhist Studies and Linguistics).

Diplomas : D.T.C.D., Anaesthesia, Child Health, Radiation Med., Otolaryngology, Dermatology, Venercology, Med. Radio Diagnosis, Med. Radio Therapy, Obstetrics & Gynaecology, Dip. Lib. Sc., Dip. in Russian Language, Dip. in Hindi, Urdu, Panjabi, Modern Persian, Bengali, Arabic, Business Management & Industrial Administration, Post M.A. Dip. in Linguistics, Dip. in Hindustani and Karnatak Music, Dip. in French, German and Italian, Dip. in Geography (Eve.).

Certificates : Cert. of Proficiency in (Russian language. Cert. in German, Italian, Spanish, Swahili, Hausa, Tamil, Telugu, Kannada, Malayalam, Marathi, Gujarati, Hindi, Urdu, Bengali, Cert. in Translation (English-Hindi). Post-Diploma Translation Cert. in Russian.

**Medium of instruction : English.**

No. of students (Aug. 1964) : 29,732 (including 11,701 women) ; Income (1963-64) : Rs. 72,44,515 ; Expenditure (1963-64) : Rs. 68,14,601.

*Chancellor*, Dr. Zakir Hussain.
*Pro-Chancellor*, B. P. Sinha.
*Vice-Chancellor*, Dr. C. D. Deshmukh.
*Pro-Vice-Chancellor*, Dr. B. N. Ganguli.
*Registrar*, L. N. Welingkar.

## ASSOCIATIONS, SOCIETIES, ETC.

### AERONAUTICAL SOCIETY OF INDIA

13B, Indraprastha Estate, New Delhi-1.

*President :* R. N. Kathju ; *Vice-Presidents :* P. R. Krishna Rao, Air Vice-Marshal M. S. Chaturvedi, Capt. L. M. Manilal, Capt. K. Vishvanath ; *Honorary Secretary :* S. Ramamritham ; *Honorary Treasurer :* Gp. Capt. K. N. Chawla.

### AGRICULTURE MACHINERY DEALERS & MANUFACTURERS ASSOCIATION OF INDIA

(Pratap Building, Connaught Circus, New Delhi 1.)

*Chairman :* H. P. Nanda. *Secretary :* Rana Jang Bahadur Singh.

### AIR-CONDITIONING AND REFRIGERATION COUNCIL OF INDIA

P. Box No. 93, New Delhi 1.

*President :* V. P. Punj ; *Vice-Presidents :* R. D. Malani, N. K. Jain, R. N. Seth, R. Ramachandran.

### AKHIL BHARATIYA SHAREERIK SHIKSHA PARISHAD

Post Box No. 234, New Delhi-1

*Regd Office* : A 11/99, Lajpat Nagar, New Delhi-14.

*Chairman :* Dr. Dharam Prakash, M.P. *Hony. Director :* Dr. Shyam Sunder Joshi, D.P. Ed., H.M.D.S. ; *Founder :* Brahmachari Madhavanand.

### THE ALL-INDIA ANGLO-INDIAN ASSOCIATION

Bombay Life Building, Connaught Circus, New Delhi.

### ALL INDIA AYURVEDIC CONGRESS

Mahalakshmi Market, Chandni Chowk, Delhi 6.

### ALL INDIA BLIND RELIEF SOCIETY

2F, Lajpatnagar, New Delhi 14.

### ALL-INDIA BOY SCOUTS ASSOCIATION

(General Headquarters.)

**7, Jangpura B Extension, Mathura Road, New Delhi 14.**

*Patron*, Dr. Zakir Hussain (Vice-President of India).

OFFICE-BEARERS.—*Chief Scout for India*, Col. Nawab Sir Muhammad Ahmad Said Khan of Chhatari, M.P., G.B.E., K.C.S.I., K.C.I.E., M.B.B., LL.D. *Chief Commissioner for India*, Vyas Dev Misra, M.A. (Eng.), M.A. (Econ.), B.Sc., LL.B., Barrister-at-Law. *Deputy Chief Commissioner for India*, Nawab Syed Kaiser Hussain Rizvi, B.A. (Hons.), M.A., LL.B. *Chairman, Funds Ctee.*, Col. B. H. Zaidi, M.P. *International Commissioner*, B. L. Sahney, Bar-at-Law. *National Commissioner*, Dr. P. D. Dhameja, M.B.B.S., L.R.C.P. (Lond.), M.R.C.S. (Eng.), D.A. *Director, World Health Celebrations :* Dr. Miss Snehlata Misra, M.B.B.S. D.G.O. *General Secretary for India*, S. H. A. Jaffri, B.Com. D.C.C., Ak.L. *Editor (Indian Scouter) :* Prof. V. M. Misra, M.Sc., B.Sc. (Hons.), D.C.C. *National Secretary*, Prof. Om Prakash, M.A., Dip-in-S.Ed. (Wales). *Public Relations Officer*, Amar C. Sharma, B.A., L.S.M., D.C.C.

### ALL INDIA BRICK & TILE MANUFACTURERS' FEDERATION

Delhi Brick Kiln Owners' Association

1-B/21, Jhandewalan, New Delhi 1.

*President :* S. D. Contractor (P. Bag No. 1143, Ahmedabad 2). *Secretary :* A. N. Kapahi.

### ALL INDIA COUNCIL OF SPORTS

C/o Ministry of Education, New Delhi-2.

### ALL INDIA DISTILLERS' ASSOCIATION

H-37, Connaught Circus, New Delhi.

*President :* Bansi Dhar ; *Secretary :* O. N. Chandoke.

### ALL INDIA FINE ARTS AND CRAFTS SOCIETY

Old Mill Road (Rafi Marg), New Delhi.

*President :* Dr. M. S. Randhawa, I.C.S. ; *Chairman :* Barada Ukil ; *Hon. Treasurer :* Sardar Gurcharan Singh ; *Secretary :* B. K. Bhowmik ; *Jt. Hon. Secretaries :* K. K. Nair, Biswanath Mukerji.

Publishes—Illustrated biannual art journal "Roopa-Lekha" and monthly bulletin "Art News".

### ALL-INDIA GLASS MANUFACTURERS' FEDERATION

7/7, Deshbandu Gupta Road, New Delhi.

*President :* S. N. Agarwal ; *Vice-Presidents :* B. B. Sarkar (*Sr.*), P. C. Varshnei (*Jr.*) ; *Hony. General Secretary:* H. C. Gupta ; *Secretary :* S. Jaswant Singh Sodhi.

### ALL INDIA HARIJAN SEVAK SANGH

Kingsway, Delhi 9.

Founded by Mahatma Gandhi after his fast in Yeravda Jail in 1932 over the Communal Award.

The object is the eradication of untouchability by truthful and non-violent means. In furtherance of its object, the Sangh seeks to establish contact with caste Hindus and show them that untouchability as it is practised, is repugnant to the fundamental principles of Hinduism. It also seeks to serve Harijans so as to promote their moral, social and material welfare.

*President :* Shrimati Rameshwari Nehru ; *Vice-Presidents :* Viyogi Hari, R. S. Dhotre ; *Secretary :* Jivanlal Jairamdas.

The Sangh spent during the year 1963-64 Rs. 25,50,608·62 on the removal of untouchability, Bhangi Kasht Mukti, and other welfare activities through its 20 State Branches and 150 District Committees. It conducted 113 hostels with 4,921 Harijan and 1,205 Non-Harijan boys and girls besides 3 Industrial training centres, 435 co-operative societies and 141 Balwadis, 'Sanskar Kendras', Ashram Schools and creches. During 1963-64 it secured the opening of 1,394 temples, 1,727 wells and tanks, 1,188 barber saloons, 2,059 hotels and restaurants to Harijans. Where there was opposition it reported to the police 181 cases under the Untouchability (Offences) Act, out of which 10 were convicted, 106 were compromised and the remaining 65 were still pending.

### ALL INDIA HINDI PUBLISHERS' ASSOCIATION
'Chandralok', Jawaharnagar, Delhi-6.

*President's Office :* Rajkamal Prakashan Pvt. Ltd., Netaji Subhash Road, Daryaganj, Delhi-6.

*President :* Om Prakash ; *Vice-Presidents :* Ram Lal Puri, Krishna Chandra Beri, Dinesh Khare, Martand Upadhaya, Dina Nath Malhotra ; *General Secretary :* K. L. Malik; *Treasurer:* Dayanand Verma.

### ALL INDIA INSTITUTE OF MEDICAL SCIENCES
Ansari Nagar, New Delhi 16.

*Director :* Dr. K. L. Wig ; *Dy. Director (Adm.):* N. B. Chatterji ; *Medical Supdt. & Prof. of Hosp. Admn. :* Dr. R. L. Mehra.

### ALL INDIA MANAGEMENT ASSOCIATION
12-A, Nizam-ud-Din West, New Delhi 13.

*President :* Dr. K. S. Basu ; *Executive Director :* J. M. Shrinagesh.

### ALL INDIA MANUFACTURERS' ORGANISATION
(Delhi State Board),
30, Ferozeshah Road, New Delhi.

*President :* B. N. Bhaskar ; *Vice-Presidents :* Sarvashree, M. M. Kaul and Dr. Gurbax Singh ; *Honrary Secretaries :* Sarvashree M. L. Seth and P. Sharan Gupta ; *Hon. Treasurer :* S. K. Modi ; *Secretary :* S. P. Jaura.

### ALL INDIA MOTOR UNIONS CONGRESS
16-A, Asaf Ali Road, New Delhi.

### ALL-INDIA NEWSPAPER EDITORS' CONFERENCE
50, Theatre Communication Bldgs., New Delhi.

### ALL INDIA NEWSPAPER EMPLOYEES' FEDERATION
Flat No. 29, New Central Market, Connaught Place, New Delhi.

*President :* Mrs. Subhadra Joshi, M.P.

*Vice-Presidents :* K. L. Das Gupta (Calcutta); K. N. Malaviya (Delhi), P. C. Batra (Delhi), M. P. More (Bombay), Deen Dayalu (Madras) ; *General Secretary :* K. L. Kapur ; *Treasurer :* R. N. Kapur.

### ALL-INDIA ORGANISATION OF INDUSTRIAL EMPLOYERS
Federation House, New Delhi 1.

The objects of the Organisation are to promote and protect the industrial development of India by studying various problems relating to trade, industry and labour and advising the Central and State Governments suitably ; to study questions coming up at the International Labour Organisation and other international and national conferences from the point of view of Indian industry and to enable the Indian representatives at these conferences to take an appropriate stand ; and to promote harmonious relations between the management and labour.

*President :* G. M. Modi ; *Secretary-General :* G. L. Bansal ; *Secretary :* P. Chentsal Rao.

### ALL-INDIA PEACE COUNCIL
14, Munshi Niketan, Asaf Ali Road, New Delhi.

*Chairmen.—Pres. Committee :* Diwan Chaman Lall M.P. ; *Cultural Commission :* Dr. Mulk Raj Anand ; *Economic Commission :* Arjun Arora M.P ; *Publicity & Publication Commn. :* Rana Jang Bahadur Singh ; *Orgn. & Liaison Commn. :* Romesh Chandra ; *General Secretary :* Chitta Biswas.

### ALL INDIA RADIO MERCHANTS' ASSOCIATION
(Delhi Zone)
1681/28, Mangal Market, Delhi 6.

### ALL INDIA SAFETY GLASS TRADE ASSOCIATION
6511, Fatehpuri, Delhi 6.

### ALL-INDIA TRADE UNION CONGRESS
5, Jhandewalan, Rani Jhansi Road, New Delhi.

*President :* S. S. Mirajkar ; *Vice-Presidents :* Dr. Ranen Sen, M.P., P. Ramamurthi, M.P., S. S. Yusuf, M.L.A., Parvati Krishnan ; *General Secretary :* S. A. Dange.

### ALL INDIA VOTERS' ASSOCIATION
Flat 44, Bhagat Singh Market, Lady Hardinge Road, New Delhi 1.

*President :* Ishar Singh Grover ; *Secretary :* Dwarka Nath Bhasin.

### ALL INDIA WOMEN HOCKEY ASSOCIATION
57, Kaka Nagar, New Delhi.

*President :* Begum Aizaz Rasul, M.L.C. ; *Vice-Presidents :* Mrs. Reena Mukerjee, Mrs. Gool D. Tarapore, Mrs. Vishakha Dixit, Mrs. Sonia John ; *Hon. Secretary :* Mrs. G. N. Singh ; *Hony. Treasurer :* Kartar Singh.

### AMATEUR ATHLETIC FEDERATION OF INDIA
99, Panch Kuin Road, New Delhi.

*President :* Raja Bhalinder Singh ; *Hon. Secretary :* P. K. Mathur ; *Hon. Treasurer :* N. Dattatraya.

### ASSOCIATION FOR MORAL AND SOCIAL HYGIENE IN INDIA
4, Rouse Avenue, New Delhi.

*Aims and Objects :*—To secure eradication of all aspects of prostitution. To promote understanding and education in respect of sex relations, to raise the standard of character and to encourage healthy family relations. To secure equal ethical standards of living for men and women. To establish and run Protective Homes and other institutions for the rehabilitation of women and children, health clinics, Family Life Institutes and to organise training programmes for the workers in the field and to publish journals and other literature.

*President :* Smt. Rameshwari Nehru ; *Vice-Presidents :* Smt. Mohinder Kaur (Maharani of Patiala), Maj. Gen. C. K. Lakshmanan, Smt. Vijaya Raje Scindia (Maharani of Gwalior) ; *Hon. Gen. Secretary :* Smt. Shakuntala Lall ; *Hon. Treasurer :* Sardar Mohan Singh.

### ASSOCIATION OF ELECTRICAL CONTRACTORS
H-35/10, Connaught Place, New Delhi.

### AUTOMOBILE ASSOCIATION OF INDIA
N-43, Connaught Circus, New Delhi.

### AUTOMOBILE ASSOCIATION OF UPPER INDIA
Lilaram Bldgs., 14F, Connaught Place,
P.O. Box No. 28, New Delhi.

*President :* V. Shankar, I.C.S. ; *Vice-Presidents :* Bhai Mohan Singh, S. L. Puri ; *Hony. Genl. Secretary :* P. L. Vohra.

### BADLI INDUSTRIAL ESTATE ASSOCIATION
Opposite Badli Railway Station, Delhi-6.

*President :* N. K. Jain ; *Secretary :* T. R. Arora.

### BAR COUNCIL OF INDIA
Supreme Court Bldg., New Delhi.

### BHARAT KRISHAK SAMAJ (FARMERS' FORUM, INDIA)
1-A, Nizamuddin West, New Delhi 13.

*President :* A. M. Thomas ; *Vice-Presidents :* Maharani Mohinder Kaur of Patiala, Brahm Perkash, S. M. Wahi ; *Secretary :* R. B. Deshpande.

### BHARAT SADHU SAMAJ
Chanakyapuri, New Delhi 11.
An All-India Organisation of Ascetic Orders.

*President :* Mahamandeshwar Swami Sukhdevanand Saraswati; *Working President :* M. M. Swami Gurucharan Dass; *General Secretary :* M. Swami Harinarayanand ; *Secretary :* Swami Ananda ; *Chairman, Central Advisory Committee :* G. L. Nanda.

### BHARAT SCOUTS AND GUIDES
16, Ring Road, Indraprastha Estate, New Delhi.

*President :* B. P. Sinha. *National Commissioner :* Mrs. L. Mazumdar. *Chief Commissioner (Scouts) :* P. Siva Shankar. *Chief Commissioner (Guides) :* Dr.(Miss) P. Das. *National Organising Commissioner :* V. P. Dhawan. *National Secretary :* S. K. Das.

### BHARAT SEWAK SAMAJ
16, 17, Theatre Communications Bldg., Connaught Circus, New Delhi 1.

A national organization, non-political and non-official in character, devoted to the task of economic and social reconstruction of India by mobilising people's participation in the Five Year Plans.

Sponsored by the Planning Commission in 1952, as a result of a recommendation of the National Advisory Committee on Public Co-operation, the Bharat Sevak Samaj has, within a period of thirteen years, grown into a country-wide organisation with branches not only in all the States and in about 300 Districts but also in a number of tehsils, taluks and development blocks.

The Samaj has carried the message of the Plan to the people through about 200 District Information Committees and 3,800 Village Committees, 75 District Information Organisers and an equal number of Plan Information Centres. It conducts seminars, group discussions, symposia at different levels, arranges exhibitions, film shows and cultural programmes to educate people in various aspects of planning and development and to secure their support and participation. Yojana Yatras and Youth Plan Project Camps are also organised. The Samaj organised 11 State level, 4 Regional level, 19 District level and 183 Block level Plan Publicity Seminars and study camps during the year 1964-65. It publishes bulletins in 10 regional languages besides a monthly each in Hindi and English devoted to the aforesaid cause.

The Samaj runs 28 Welfare Extension Projects (Urban) in big industrial towns and cities allotted by the Central Social Welfare Board. The Samaj is also running 38 Night-shelters for the pavement dwellers all over the country. Besides the Samaj runs a large number of pre-primary and Nursery Schools, Women's Craft Centres, Maternity and Child Health Centres, Harijan Welfare Centres, Adult Education Centres for both men and women, ante-natal and post-natal Centres, Ambar Charkha Centres, Milk Centres, Ladies and Children's Clubs, Libraries, Medical aid Centres or dispensaries and Co-operative Societies. With the assistance of the Planning Commission the Samaj also runs 51 urban Lok Karya Kshetras for mobilising public co-operation and participation in socio-economic welfare work in the slums covering 10 States.

The Samaj holds Work Camps as part of its programme of youth activity. The Samaj has been accepted as one of the members of the Co-ordination Committee for International Voluntary Work Camps (UNESCO, 6 Rue Franklin, Paris, 16 France) because of its achievements in the field of organising Work Camps.

The Construction Service of the Samaj is created to bring about honest dealings in construction work to cut down construction costs and to plough back the savings for welfare schemes. The Service ensures fair wage to the labour and in addition provides amenities like medical aid, drinking water, recreation centres, etc.

The Samaj has since organised various construction units and taken up construction of multi-storeyed buildings, aerodromes, barrages and steel structures. The Samaj has also entered the important field of supply of materials like stone ballast, bricks and sand with a view to bringing down rates which have already come down substantially in the Delhi market.

To help slum clearance work, the Samaj helped in the speedy construction of pucca houses to displaced persons in Delhi area. An economic design was produced and construction carried out at Rs. 5·5 per square foot as against Rs. 10·00 per square foot for pucca construction as per standard designs.

The Samaj has undertaken works of the value of over Rs. 18 crores, saving about three crores to the Public Exchequer and contributed substantial sums towards welfare schemes.

The Lok Karya Kshetra scheme is the most important public co-operation programme evolved by the Planning Commission and implemented by the Bharat Sevak Samaj for mobilising manpower and resources of rural people with a view to increasing food production, cottage industries etc., and thereby improve their social and economic conditions.

The Samaj has given very high priority to Health and Sanitation Work and has been carrying out educational propaganda in this respect through Lok Karya Kshetras, Welfare Extension projects, Regional Camp Committees and Students' Labour & Social Service Camps all over the country. Recently the Samaj has taken up Family Planning Work, especially after the population explosion revealed by 1961 Census.

In the year 1962-63 one all India and two regional Family Planning Training Camps were organised and about 140 organisers were trained, who subsequently organised 183 Family Planning Orientation Camps for village leaders, community project staff, school teachers and social workers which were attended by 10,837 persons.

In the year 1963-64 one All India Family Planning Extension-cum-Training Camp was organised and 70 persons were trained who subsequently organised 13 State level Orientation Training Camps and about 700 persons were given orientation training, who subsequently organised 517 family Planning Orientation Camps of 3 days' duration which were attended by about 30,000 persons. In addition to this 23 Half Day Urban Slum Camps of six days' duration have also been organised.

During the year 1964-65, Bharat Sevak Samaj organised 732 Family Planning Orientation Training Camps sanctioned by the Ministry of Health. These Camps were held in rural, urban and slum areas and about 43,200 persons (including 4,120 women) were oriented.

Immediately after the Chinese aggression at India's Northern borders, an organisation called "Non-Official Price Intelligence Service" was sponsored by the Planning Commission of the Government of India with the object of keeping in touch with the consumer's version of the prices for essential commodities, to ensure that the prices did not rise as they did during the last Wars. Following the success achieved by the efforts of this pilot project in Delhi, the Planning Commission decided to enlarge the scope and re-named it National Consumer Service, from the beginning of the year 1964.

The service is working with the collaboration of All-India Voluntary organisations and the leading role is played by the Bharat Sevak Samaj with its branches scattered all over India.

*Chairman :* Brij Krishan Chandiwala ; *Vice-Chairmen :* Swami Harinarayanananda, Radha Raman ; *General Secretary :* Major T. Ramchandra, (*Acting*).

### BHARATIYA ADIMJATI SEVAK SANGH

New Link Road, Jhandewalan, New Delhi 1.

*Aims and Objects :*—To work for the development of the tribal communities in India socially, economically, culturally and educationally.

*Office-Bearers :—President :* Morarji Desai : *Vice-Presidents :* U. N. Dhebar, Dr. H. N. Kunzru, L. M. Shrikant ; *Hon. Secretaries,* Dharamdev Shastri, N. M. Wadiwa and D. J. Naik

### BHARATIYA KALA KENDRA

2, Mata Sundri Road, New Delhi.

*Chairman :* S. K. Patil ; *General Secy. :* Maheshwar Dayal ; *Adm. Secy. :* Thakur Harnarain Singh.

### BHARATIYA NATYA SANGH

(Theatre Centre, India—Affiliated to the International Theatre Institute of the UNESCO)

Flat No. 34, New Central Market, Connaught Circus, New Delhi.

An All India organization set up in 1950. It reaches more than 350 groups all over the country through 24 regional centres in Delhi, Calcutta, Jaipur, Udaipur, Baroda, Rajkot, Kanpur, Ahmedabad, Patna, Imphal, Cuttack, Bombay, Poona, Secunderabad, Madras and Bangalore.

It is devoted to the promotion of theatre-arts in the country and is working on several research and survey projects of all India character. It organizes seminars and exhibitions on a specific theatrical themes.

Some of the important projects of the organization are :

1. *Collection of Traditional Theatre Properties and allied Arts :*— 2. *Fact finding survey of Theatre organizations in India :*— 3. *Documentation of Folk-theatre Forms :*— 4. *Revival of Folk Theatrical Forms :*— 5. *Natya Ballet Centre :*— 6. *Seminars :*— 7. *Bibliography of Stageable Plays in Indian Languages :*— 8. *Theatre Crafts Workshop :*— 9. *Prachee Pratichee :*— 10. *Natya Forum :*— 11. *Natya Institute of Choreography :*— 12. *Sursangam :*— 13. *Publications :*— *Natya*, Quarterly Theatre-journal and the organ of Bharatiya Natya Sangh ; subscription : Rs. 10 per year for three ordinary and one bumper number. Previous special numbers : International Theatre Number : Theatre Architecture Number : Puppet Theatre Around the World ; Tagore Number ; India Folk Theatre Number ; Dance-drama and Ballet Number.

*Office-Bearers :*

*President :* Dr. B. Gopala Reddi ; *Vice-Presidents :* Dr. V. Raghavan, I. L. Dass, Tarun Roy, Prof. C. C. Mehta ; *General Secretary :* Dev Raj Vadera.

### BLOOD BANK ORGANISATION

4, Pusa Road, New Delhi 5.

*Chief Director :* Dr. V. B. Lal, M.D. (Laus.), D.Sc. Hons. Paris, Zeug (Vienna).

### BRIHAN MAHARASHTRA MANDAL

5/20, W. E. A., New Delhi 5.

*President :* Y. B. Chavan : *Working President :* B. W. Gadgil ; *General Secretary :* N. R. Tikekar.

### CENTRE FOR INTERNATIONAL STUDIES

(Massachusetts Institute of Technology),
161/48, Chanakyapuri, New Delhi 21.

### CENTRAL BUILDERS' ASSOCIATION

44, Regal Building, Connaught Place, New Delhi.

*President,* L. Hazari Lal Marwah ; *Hon. Secy.,* C. Amarjit Singh ; *Hon. Treasurer,* D. C. Kapoor.

### CHILDREN'S FILM SOCIETY—INDIA

Sapru House, New Delhi.

*Chairman :* Dr. B. Gopala Reddi.

The following States and Union Territories are members :

Andaman & Nicobar Islands, Bihar, Goa, Daman & Diu, Gujarat, Laccadive, Minicoy Islands, Madras, M.P., Manipur, Mysore, Nagaland, Pondicherry, Rajasthan, Tripura, U.P., and West Bengal.

### COMMITTEE ON RELIEF AND GIFT SUPPLIES, NATIONAL CHRISTIAN COUNCIL OF INDIA

4, Mathura Road, Jangpura, New Delhi 14.

*Chairman :* M. G. Dharamraj ; *Director,* A. Jethro ; *Associate Director and Representative, Church World Services and Lutheran World Federation, U.S.A.,* Douglas W. Cook.

### CONVENTION OF THE TEACHERS OF THE DEAF IN INDIA
C/o Govt. Lady Noyce School for Deaf & Dumb, Kotla Feroze Shah, Delhi Gate, New Delhi 1.

Publications: *The Deaf in India.*

*President :* F. X. D'Silva ; *Hony. Secretary :* A. C. Sen ; *Hony. Treasurer :* S. N. Prasad ; *Hony. Editors :* G. K. Kulshetra, S. N. Srivastava.

### CO-OPERATIVE FOR AMERICAN RELIEF EVERYWHERE INC.
Post Box No. 3064. 18 Jorbagh (First Floor), New Delhi 3.

*Director of CARE in India :* George D. Taylor.

*Deputy Director of CARE in India :* Jerome S. Lewis.

*Regional Offices :* Old College Compound, College Road, Madras 6, Telephone : 84917, Telegrams : CAREIND (O), Madras ; Office of the Director of Public Instruction, Thycaud, Trivandrum 1, Kerala, Telephone : 4026, Telegrams : CAREIND, Trivandrum : 6H Sector 18A, Chandigarh, Punjab, Telephone : 1240, Telegrams : CAREIND, Chandigarh ; Office of the Director of Public Instruction, Hyderabad 22, Andhra Pradesh, Telephone : 32832, Telegrams : CAREIND, Hyderabad ; Rambagh Palace Annex, Jaipur, Rajasthan, Telephone : 74975. Telegrams : CAREIND, Jaipur, 'Corinthian', E-5 Fourth Floor, 17 Off Arthur Bunder Road, Bombay 5, Telephone : 213948, Telegrams : CAREIND, Bombay ; 1 Langford Gardens, Bangalore 25, Mysore, Telephone : 70017, Telegrams : CAREIND, Bangalore ; 46, Park Street, Calcutta 16. West Bengal, Telephone : 447499, Telegrams : CAREIND, Calcutta.

### CULTURAL FILM SOCIETY
(Sapru House, Barakhamba Road, New Delhi.)

### DELHI BRICK KILN OWNERS' ASSOCIATION
1-E/21, Jhandewalan Extension, New Delhi-1.

*President :* Sardar B. S. Gurbakhsh Singh.

*Secretary :* Dharam Paul Chadha.

### DELHI BUILDING MATERIAL MERCHANTS' ASSOCIATION
C/o Buildwell Stores, Outside Ajmeri Gate, Delhi.

### DELHI CALENDAR MANUFACTURERS' ASSOCIATION
P.Box No. 1727, Delhi.

### DELHI CHAMBER OF COMMERCE
Dilbar Building, Paharganj, Desh Bandhu Gupta Road, New Delhi 1.

*President :* S. Harnam Singh Mehta. *Senior Vice-President :* G. S. Shroff. *Junior Vice-President :* N. C. Malik. *Honorary Secretary :* Sirdar P. S. Sodhbans, F.C.A., F.A.C.C.A. (Lond.).

### DELHI CHEMICAL IMPORTERS & DEALERS' ASSOCIATION
2nd Floor, Gopinath Bldg., Khari Baoli, Delhi 6.

*President :* Madan Lal ; *Hon. Gen. Secy. :* Ram S. Rastogi ; *Hon. Secy.:* Rishi Ram Gupta.

### DELHI ELECTRICAL TRADERS' ASSOCIATION
Behind State Bank of India, Chandni Chowk, Delhi.

### DELHI FACTORY OWNERS' FEDERATION
Phelps Bldg., 9-A, Connaught Place, New Delhi 1.

### DELHI GLASSWARE MERCHANTS' ASSOCIATION
Fatehpuri, Delhi 6.

### DELHI HINDUSTANI MERCANTILE ASSOCIATION
641/1213, Chandni Chowk, Delhi 6.

OFFICE-BEARERS : B. B. Sharan (*President*) ; Murli Dhar Singhania (*Sr. Vice-President*) ; B. R. Groter (*Jr. Vice-President*) ; Ganpat Rai (*Hon. Secretary*).

### DELHI HOSIERY MANUFACTURERS' ASSOCIATION
88, Model Basti, New Delhi 5.

### DELHI IRON FOUNDERS & WORKSHOPS ASSOCIATION
4782, Hauz Qazi, Delhi.

*President :* L. Harish Chandra ; *Hon. Secy. :* Govind Saran Gupta.

### DELHI JEWELLERS' ASSOCIATION
19-E, Connaught Place, New Delhi.

### DELHI LIBRARY ASSOCIATION (Regd.)
P.B. No. 1270, C/o Hardinge Public Library, Queen's Garden, Delhi-6.

Publishes "Library Herald" and conducts Certificate Course in Library Science besides holding Lectures, Seminars and Conferences.

*President :* Miss Shanta Vasisht, M.P. ; *Director, School of Library Science :* N. M. Ketkar ; *Editor, Library Herald :* N. K. Goil ; *General Secretary :* C. S. Krishnamurti.

### DELHI METAL MERCHANTS' ASSOCIATION
Sadar Bazar, Delhi 6.

### DELHI MOTOR TRADERS' ASSOCIATION
Post Box 1098, Kashmere Gate, Delhi 6.

*President :* S. Sajjan Singh Sethi ; *Vice-President :* Mangal Dass Beri ; *Honorary Secretary :* Rattan Lal Kohli ; *Honorary Joint Secretary :* Harbans Lal Sarna ; *Honorary Treasurer :* Mohinder Singh Sahni.

### DELHI OPTICIANS' ASSOCIATION
C/o Imperial Optical Works, Katra Barien, Delhi.

### DELHI PAINT MERCHANTS' ASSOCIATION
C/o Lalit & Co.
Fatehpuri, Delhi.

### DELHI PAPER MERCHANTS' ASSOCIATION
Chawri Bazar, Delhi 6.

### DELHI PLASTIC CABLE MANUFACTURERS' ASSOCIATION
Amar Bhawan, Behind State Bank, Delhi 6.

*President :* L. Har Sarup Gupta ; *Hon. Gen. Secy. :* R. L. Gupta ; *Treasurer :* L. Tarachand.

### DELHI PRINTERS' ASSOCIATION
26-A, New Central (Shankar) Market, Connaught Circus, New Delhi.
*President :* S. Joginder Singh, *Vice-Presidents :* D. N. Aneja, C. A. Baluja ; *Hony. Gen. Secy. :* V. K. Makhija ; *Treasurer :* R. D. Kanwar.

### DELHI PRODUCTIVITY COUNCIL
III/L-20, Lajpatnagar, New Delhi 14.

*President :* B. N. Bhaskar ; *Vice-Presidents :* A. C. Nanda, N. K. Bhatt ; *Member-Secy. :* O. N. Sharma ; *Treasurer :* Ganpatrai.

### THE DELHI PROVINCIAL TEXTILE RETAILERS' ASSOCIATION
"Vastrilok", 1, Queen's Garden, Delhi 6.

*President,* B. M. Ahuja ; *Hony. General Secretary,* Trilokinath Garg.

### DELHI PUBLIC LIBRARY
(S. P. Mukerji Marg, Delhi 6.)

On March 31, 1965 there were in all 1,01,230 members. The number of books in stock was 2,71,568 (Hindi 1,64,456 ; English 58,143 ; Urdu 36,060 and Punjabi 12,909).

The Library has 4 branches, 7 community libraries, 18 Deposit Stations, 4 Mobile Library Vans and a Braille Section.

*Director :* D. R. Kalia.

### DELHI PUBLISHERS' ASSOCIATION
Chawri Bazar, Delhi 6.

### DELHI SCHOOL OF SOCIAL WORK
(3, University of Delhi, Delhi 6.)

Delhi School of Social Work is a post-graduate institution maintained by the University of Delhi and trains students for M.A. in Social work.

The College imparts training in Social Work to young men and women who are graduates and have the aptitude for Social Work. The College occasionally offers courses of Orientation and In-Service training for specific fields of Social Work.

Limited hostel accommodation is available for both men and women.

*Principal,* S. N. Ranade, M.A., M.S. (Columbia), Dip. S.S.A.

### DELHI SILPI CHAKRA
Flat No. 10, Shankar Market, Connaught Circus, New Delhi 1.
Assocn. of Working Artists.

*Chairman :* Miss Jaya Appasamy ; *Hon. Secy :* Nand K. Katyal ; *Hon. Treasurer :* S. S. Vohra.

### THE DELHI SMALL-SCALE SOAP MAKERS' ASSOCIATION
25, Guru-ki-Mandi, Delhi-6.

### DELHI STATE CHEMISTS' ASSOCIATION
Surgical & Medicine Market, Bhagirath Palace, Chandni Chowk, Delhi 6.

### DELHI STATE NYLON HOSIERY MANUFACTURERS' ASSOCIATION (Regd.)

5509, Basti Harphool Singh, Sadar Thana Road, Delhi-6.

*President :* K. M. Jain; *Secretary :* R. L. Kohli ; *Treasurer :* R. K. Jain.

### DELHI STATIONERY MANUFACTURERS' ASSOCIATION

C/o Royal Khalsa Stationery Mart, Nai Sarak, Delhi.

### DELHI TUBERCULOSIS ASSOCIATION

Mpl. T. B. Clinic, S. P. Mukerji Marg, Delhi 6.

*President :* Radha Raman ; *Vice-President :* Col. R. R. Rao ; *Hon. Secretary :* Dr. M. M. Singh ; *Hon. Treasurer :* R. S. Krishnan.

### THE DELHI WATCH TRADERS' SYNDICATE

Post Box No. 1751, Delhi.

*President :* H. S. Mutreja ; *Vice-President :* Jagdish Lal ; *Hony. General Secretary :* B. D. Goela.

### DENTAL COUNCIL OF INDIA

Temple Lane, Kotla Road, New Delhi 1.

*President :* Col. N. N. Bery, D.D.S. D.E.D.P., Z.D.S., F.D.S.R.C.S., M.I.C.D., F.A.C.D. ; Padma Shri *Vice-President :* Dr. U. S. Malik, M.B.B.S., L.D.S.R.C.S., F.I.C.D. : *Secretary :* Capt. S. Bratt, L.D.Sc., M.I.C.D. ; *Asstt. Secy. :* D. N. Chauhan, B.A.

### ENGINEERING ASSOCIATION OF INDIA

(Northern Regional Office)

A-26, N. D. South Extension, Part II, New Delhi-16.

*Chairman :* Stya Paul ; *Regional Secretary :* T. N. Srivastava.

### ENTOMOLOGICAL SOCIETY OF INDIA

Indian Agricultural Research Institute, New Delhi 12.

*President :* Dr. S. Pradhan ; *Chief Editor (Indian Journal of Entomology),* Dr. S. K. Prasad ; *General Secretary :* Dr. M. G. Jotwani.

### THE FAMILY PLANNING ASSOCIATION

15, Alipur Road, Delhi 6.

### FEDERATION OF ALL INDIA AUTOMOBILE SPARE PARTS DEALERS' ASSOCIATIONS

3620/21 Netaji Subhas Marg, Daryaganj ,(Faizbazar) Delhi 6.

*President :* T. S. Krishnamurthi ; *Vice-President :* R. N. Das ; *Hony. Secretary :* K. R. Ragavan ; *Hony. Treasurer :* A. K. Patel.

### FEDERATION OF ALL INDIA FOOD GRAIN DEALERS' ASSOCIATIONS

3979, Naya Bazar, Delhi 6.

### FEDERATION OF ASSOCIATIONS OF SMALL INDUSTRIES OF INDIA

"Laghoodyog Kutee,"

23-B/2, Rohtak Road, Karol Baug, New Delhi 5.

Promoted by Small Scale Industries Board, Government of India, in September 1959, the Federation is recognised by it as the representative organisation of Small Scale Industry in the country. Its Head Office is situated in New Delhi, and branches at Bombay and Calcutta. It has 137 Associations of Small Industries all over India affiliated to it besides 1,333 Individual and 30 Associate Members. It is represented on most of the important Advisory Bodies of Government dealing with subjects having a bearing on development of small scale industry. The Federation publishes a monthly bulletin "FASII Bulletin for Small Industry" giving comments and information on topics of interest to small industry.

*President :* A. R. Bhat, Peona ; *Vice-Presidents :* T. Ghose, D. C. Khanna, R. Ganesan, Jagjit Singh ; *Treasurer :* J. P. Agarwal ; *Honorary Secretaries :* K. C. Jain, J. M. L. Tambi, M. L. Goel ; *Secretary :* S. G. Gupte ; *Jt. Secretary :* N. Pal ; *Regional Secretary (Bombay) :* S. N. Wavde.

### FEDERATION OF BISCUIT MANUFACTURERS OF INDIA

17, Alipur Road, Delhi 6.

*President :* A. C. Khanna ; *Vice-President :* P. Mohanlal.

### FEDERATION OF HOTEL AND RESTAURANT ASSOCIATIONS OF INDIA

15-A, Nizamuddin West, New Delhi 13.

*President :* Ram Pershad, M.H.I.C. ; *Vice-President :* C. Green, M.H.C.I. Maneck S. Shaw, M.H.C.L. ; *Honorary Secretary :* P. Ananda Rau, B.A., M.H.C.I. ; *Jt. Hon. Secretary :* Ramnath Kapur, M.H.C.I. , M.C.F.A.

### FEDERATION OF INDIAN CHAMBERS OF COMMERCE AND INDUSTRY

(Estd. 1927)

Federation House, Tansen Marg, New Delhi.

The Federation is recognised by the Central Government as the premier organisation representing commercial and industrial interests in the country. The headquarters of the Federation are situated in New Delhi.

The Federation has on its roll 171 Chambers of Commerce and Trade and Industrial Associations and 358 Associate Members, comprising leading business houses in the country. The Federation, through its constituents, covers almost the whole of the organized Indian industry and trade. It is represented on almost all important Consultative Bodies of Government. The Central Advisory Council of Industries, the Export Advisory Council, Capital Issues Advisory Committee, are some of the important Bodies on which the Federation is represented.

The membership of the Federation is of four classes Ordinary, Honorary, Overseas and Associate.

The Federation issues a bulletin *Fortnightly Review* containing information and comments on current economic events in India and abroad.

The Federation has been instrumental in the establishment of two allied organisations—All India Organization of Industrial Employers and the Indian National Committee of the International Chamber of Commerce.

*President :* S. L. Kirloskar ; *Vice-President :* Ramanbhai B. Amin ; *Secretary-General :* G. L. Bansal ; *Secretary :* P. Chentsal Rao.

### THE FEDERATION OF PLYWOOD INDUSTRY

4E/13, Jhandewalan Extension, New Delhi 1.

(Reg. Office—26, Chhittaranjan Avenue, Calcutta 12)

*President :* G. L. Kedia ; *Vice-Presidents :* K. B. Parekh, P. D. Chitlangia ; *Asstt. Secy. :* G. B. Deshpande.

### THE FORD FOUNDATION

32, Ferozshah Road, New Delhi.

Assistance made available by the Foundation is in the form of grants for a broad range of India's development projects. All programmes receiving aid are closely related to India's Five Year Plans. Up to mid-1965, since 1951, the Foundation's technical and financial assistance to India's programmes has amounted to $80,507,999·09*. Programmes assisted have included those in rural development, intensive agricultural improvement, family planning, industrial training and development, management training, education, economic and social research, urban planning, and others.

*Representative in India :* Dr. Douglas Ensminger.

### FURNITURE MERCHANTS' ASSOCIATION

C/o Oriental Furnishing & Bldg. Co., Connaught Circus, New Delhi.

### GANDHI SMARAK NIDHI

Central Office :

Rajghat, New Delhi 1.

Total money collected : Rs. 10·97 Crores, Interest accrued till the end of 1964 : 4·25 Crores; Spent till end of 1964 : about Rs. 8·06 Crores ; budget for 1965 : Rs. 85,02,950.

OFFICE-BEARERS :—*Chairman,* R. R. Diwakar ; *Vice-Chairman,* Smt. Sucheta Kripalani ; *Ag. Secy. :* Nandlal Parekh.

### GENERAL MACHINERY MERCHANTS' ASSOCIATION

76, G. B. Road, Delhi 6.

*President :* C. L. Kapur ; *Hon. Gen. Secy. :* S. P. Bhatia ; *Treasurer .* M. K. Malhotra.

### GERMAN CULTURAL INSTITUTE

(Max Mueller Bhavan)

*Library :* E-Block, Con. Place, New Delhi.

*Office :* 3-Curzon Road, New Delhi.

*Director :* Dr. H. Rau ; *Dy. Director :* B. Dobiess.

### GOVERNMENT CO-EDUCATIONAL TEACHERS' TRAINING INSTITUTE

Daryaganj, Delhi.

### HANDICRAFTS EXPORTERS' ASSOCIATION

32, Park Area, Karol Bagh, New Delhi 5.

*Chairman :* V. N. Behal ; *Hon. Gen. Secy. :* A. L. Sarna ; *Hon. Treasurer :* T. N. Pahawa.

* *Break-up :* Rural Village Development $25,016,111·44 ; Industrial and Business Development $17,239,309·72 ; Education and Vocational Training $13,275,209·59 ; Special Projects $9,744,994·11 ; Economic and Social Research $8,582,976·25 . Public Administration $6,649,397·98 . Total : $80,507,999·09. The above figures do not include Ford Foundation administrative costs, and individual travel and study awards made to Indian nationals.

### THE HIMALAYAN SOCIETY
Regal Hotel, Delhi.

*Bombay Address :* Shreeniwas House, Waudby Road, Fort, Bombay.
*Training Camp :* Badalu (Kumaon Hills).

### INDIA INTERNATIONAL CENTRE
40, Lodi Estate Road No. 2, New Delhi 3.

*President :* Dr. C. D. Deshmukh ; *Director :* D. L. Mazumdar ; *Secretary :* V. V. Sastri.

### THE INDIAN ACADEMY OF PHOTOGRAPHY
AIFACS Bldg., Old Mill Road, New Delhi.

### INDIAN ADULT EDUCATION ASSOCIATION
17—B, Indraprastha Marg, New Delhi.

It is the only national organisation of adult education workers and agencies in this country, having 104 affiliated institutions spread all over India in addition to a large number of individual members.

The Association publishes a monthly journal called *The Indian Journal of Adult Education*, and a two-monthly magazine in Hindi called *Praudh Shiksha*, and publishes pamphlets and tracts on adult education techniques and methods as well as on important experiments in India and other countries. It also organises annual conferences and seminars for adult education workers. It undertakes research and evaluation and organises pilot training courses and institutes for professional as well as voluntary workers.

OFFICE BEARERS :—*President :* Dr. Mohan Sinha Mehta, Jaipur ; *Hon. General Secretary :* S. C. Dutta, Delhi ; *Treasurer :* Prof. M. Mujeeb, New Delhi.

### INDIAN AND EASTERN NEWSPAPER SOCIETY
P. O. Box 69, I.E.N.S. Building, Rafi Marg,
New Delhi 1.

*Membership :* 189.—

*President :* G. N. Sahi ; *Deputy President :* C. G. K. Reddy ; *Vice-President :* J. M. D'Souza ; *Hony. Treasurer :* Yunus Dehlvi ; *Secretary :* R. D. Seth.

### INDIAN ASSOCIATION FOR AFRO-ASIAN SOLIDARITY
14B, Janpath Barracks, New Delhi.

### INDIAN ASSOCIATION FOR CHEST DISEASES
Vallabhbhai Patel Chest Institute, University Campus, Delhi 6.

### INDIAN BOARD FOR WILD LIFE
Ministry of Food & Agriculture, Department of Agriculture, New Delhi.

*Chairman :* Major General His Highness the Maharaja Sri Jaya Chamaraja Wadiyar Bahadur, Governor of Madras ; *Pro-Chairman :* Shah Nawaz Khan ; *Vice-Chairmen :* B. Sivaraman, K. S. Dharmakumarsinhji ; *Secretary :* M. Subramanian.

### INDIAN BUDDHIST SOCIETY
7, Ferozshah Road, New Delhi.
(*Branch :* 207, Ghorpadepeth, Poona 2)

### THE INDIAN BUREAU OF PARLIAMENTARY STUDIES
16, Golf Link Road, New Delhi.

*Aims :* To promote the objective assessment of such political trends and events in India and abroad as have a bearing on democracy and democratic institutions in general. Organizes Seminars, Symposia, group discussions etc. Publishes a monthly journal "Parliamentary Studies". Membership includes M.P.s. and leading public men.

*President :* Sohan Lal ; *Vice-Presidents :* S. V. Krishnamoorthy Rao M.P., Mrs. Violet Alva, M.P. ; *Secretary-General :* M. S. Gurupadaswamy, M.P.

### INDIAN COOPERATIVE UNION LTD.
AIFACS Bldg., Rafi Marg, New Delhi.

*President :* Shrimati Kamaladevi Chattopadhyay ; *General Secretary :* L. C. Jain.

### INDIAN COUNCIL FOR CHILD WELFARE
4, Rouse Avenue, New Delhi 1.

*President :* Radha Raman ; *Vice-Presidents :* Smt. Achamma Matthai, Smt. Pushpa Mehta, Smt. Tara Ali Baig ; *General Secretary :* Smt. Shyam Kumari Khan ; *General Treasurer :* M. S. Bhatnagar.

### INDIAN COUNCIL FOR CULTURAL RELATIONS
Azad Bhavan, Indraprastha Estate, New Delhi 1.

The Council is an autonomous organization entirely financed by the Government of India ; established in April 1950 in order to promote cultural relations with other countries.

The General Assembly of the Council consists of eminent scholars and artists nominated by the President for their distinguished service to the cause of Indian culture, representatives of Parliament, universities and educational, scientific and cultural organizations in India.

The Council brings to India distinguished scholars, scientists, statesmen and artists from other countries for an exchange of views with their Indian counterparts and also to learn something of our way of life. It sponsors visits of Indian scholars to other countries on study and lecture tours ; it establishes Chairs and Lecturerships of Indian studies abroad ; it arranges exhibitions, talks, film shows and lectures in different parts of the country. The Azad Memorial Lectures which the Council has been organizing since 1959 have become an important part of the cultural life of the country, having been delivered by such distinguished scholars as the late Jawaharlal Nehru, Dr. Arnold Toynbee, Lord Attlee, Prof. C. V. Raman, Dr. Walter Hallstein, President Carlos P. Romulo and Dr. Rene Maheu. The Council looks after the welfare of overseas students in India and provides them with extensive facilities. The Council has its own International Students' Houses at Bombay, Calcutta and Delhi and an International Centre at Madras. The publications programme of the Council includes two quarterly review 'Indo-Asian Culture' in English and 'Thaqafatul Hind' in Arabic, one bi-monthly bulletin 'Cultural News from India', one quarterly *News Letter* for Overseas students, a series of books and brochures relating to various aspects of life in India and translation of Indian works into foreign languages.

The Council will also provide the Secretariat for the Jawaharlal Nehru Memorial Award for International understanding recently constituted by the Government of India and the first award was expected to be announced on November 14, 1965.

*President :* M. C. Chagla ; *Vice-Presidents :* Dr. C. D. Deshmukh, S. R. Das ; *Secretary :* Inam Rahman.

### INDIAN COUNCIL OF HUMAN RELATIONS
71, Pandara Road, New Delhi, 14 ; Radha Bazar Lane, Calcutta-1.

### THE INDIAN COUNCIL OF MEDICAL RESEARCH
Medical Enclave, Near Safdarjung Hospital, P.B. 494, New Delhi 16.

The Indian Council of Medical Research was formerly known as the Indian Research Fund Association and was constituted in 1911 by the Government of India with a sum of Rs. 5,00,000 set aside as an endowment.

The control and management of the Council is vested in a Governing Body, the President of which is the Health Minister of the Government of India. This body is assisted in scientific and technical matters by a Scientific Advisory Board of which the Chairman is the Director-General of Health Services. The Board, in its turn, is advised by a number of committees on specific subjects.

The Council annually publishes a report describing the research done by the various enquiries carried out under the auspices of the Council during each calendar year. The Council publishes the *Indian Journal of Medical Research* and its *Memoirs*. In addition, a number of special reports, dealing with important subjects of medical research, are also published from time to time. So far, fifty-two such reports have been published.

The Council maintains the Nutrition Research Laboratories at Hyderabad, which is the premier institution in India entirely devoted to research in nutrition and allied sciences.

Besides financing a large number of enquiries, the Council has set up nutrition research unit at the University College of Science and Technology, Calcutta, a Neuropathological Unit at the Tata Memorial Hospital, Bombay, a Clinical Research Unit and a Haematological Research Unit at the School of Tropical Medicine, Calcutta, a Polio Research Unit at the Grant Medical College, Bombay, a Liver Diseases Research Unit at the S. N. Medical College, Agra, and Industrial Wastes Disposal and Water Pollution Research Units at Lucknow and Patna. A Virus Research Centre has also been set up by the Council at Poona in collaboration with the Rockefeller Foundation of the U.S.A. A Blood Group Reference Centre has been set up in Bombay and a Cholera Research Centre has been set up in Calcutta.

Besides, the Council maintains two Chairs, the Chair of the Professor of Bacteriology and Pathology and the Chair of the Professor of Protozoology at the School of Tropical Medicine, Calcutta.

The Council awards a number of research fellowships to deserving medical and science graduates with a view to training teachers and research workers for medical college staffs and aiding the development of certain departments in medical colleges as post-graduate training centres.

The Council maintains a library at the Central Research Institute, Kasauli. The Council has also established Micro film and Photocopy Service Units at the Central Research Institute, Kasauli, and at the Tata Memorial Hospital, Bombay.

*President :* Dr. Sushila Nayar ; *Chairman, Scientific Advisory Board :* Dr. K. N. Rao ; *Director :* Col. B. L. Taneja.

## INDIAN COUNCIL OF WORLD AFFAIRS

Sapru House, Barakhamba Road, New Delhi 1.

*President :* Hriday Nath Kunzru ; *Treasurer :* Charat Ram ; *Chairman, Research Board :* Asoka Mehta ; *Secretary-General :* S. L. Poplai ; *Research Secy. :* Sisir Gupta ; *Asstt. Secretary :* N. N. Pichai ; *Librarian :* Girja Kumar.

The Council enjoys consultative status with the United Nations Economic and Social Council and UNESCO. A Research Board plans and supervises the Council's research programmes. The Council publishes *India Quarterly* and *Foreign Affairs Reports*. The Council has so far published about 50 monographs and a large number of pamphlets. Apart from occasional publications, the Council publishes two series of biennial volumes entitled *India in World Affairs*. The Council maintains a research library on international affairs, containing about 39,994 volumes, 1,36,476 documents, 1,446 periodicals and 4,22,000 press clippings. It is rapidly building up special collections in foreign languages like Russian, Japanese, etc. Current acquisitions lay special stress upon the countries of Asia. As on 31st December 1964, the Council had 23 branches in most of the leading cities of India and 1,457 members.

## INDIAN FEDERATION OF WORKING JOURNALISTS

Flat No. 29, New Central Market, Connaught Circus, New Delhi 1.

## INDIAN INSTITUTE OF PUBLIC ADMINISTRATION

(Indraprastha Estate, Ring Road, New Delhi.)

*President :* Lal Bahadur Shastri : *Vice-Presidents :* G. L. Nanda, C. Subramaniam, Gurumukh Nihal Singh, P. B. Gajendragadkar, H. N. Kunzru, Dr. G. S. Mahajani ; *Chairman :* Asoka Mehta ; *Director :* J. N. Khosla : *Hony. Treasurer :* S. Ranganathan.

## INDIAN INVESTMENT CENTRE

Jeevan Vihar, Parliament Street, New Delhi 1.

The Indian Investment Centre established in February 1961, is a non-profit making semi-Government organisation. Its management is entrusted to a Governing Body composed of 10 prominent representatives of Industry, Finance and Government.

The basic objective of the Centre is to stimulate the flow of foreign private capital, technological skills and know-how into India. With this end in view, the Centre undertakes (*a*) to promote among the capital exporting countries a wider knowledge and understanding of the Indian economy, Government's economic policies and the 'investment climate' of the country, (*b*) to assist Indian entrepreneurs in their efforts to set up joint ventures, (*c*) to help foreign industrial entrepreneurs in concluding collaboration agreements and in securing government approvals.

The Centre has its branch offices in New York at 708 Third Avenue, New York, N. Y. 10017, U.S.A. and in Dusseldorf at Karlstrasse 76, Dusseldorf-4, Federal Republic of Germany. It has made arrangements with Indian Embassies in other capital exporting countries where enquiries emanating from Indian entrepreneurs and those from foreign businessmen receive prompt attention.

The Indian Investment Centre maintains a close liaison with the economic Ministries of the Government of India. It has brought out 7 publications, (*i*) Objects and Functions, (*ii*) Exchange Control, (*iii*) Basic Facts of the Indian Economy, (*iv*) Taxation, (*v*) Company Law, (*vi*) India Welcomes Foreign Investments and (*vii*) Survey of Demand for Measuring Tools, Gauges and Instruments. The Fact Sheets published by the Centre include : Steel Castings, Ball & Roller Bearings, Steel Forgings, High Tension and Low Tension Insulators, Industrial Furnaces, Printing Machinery, Cranes, Malleable Iron Castings, Rolls, Boilers. The monthly *News Letter* giving latest information regarding Government's economic policies, financial conditions and 'investment climate' has been regularly published by the Centre since December 1963.

The Centre has, upto the end of June 1965, processed and forwarded to capital exporting countries 129 industrial proposals from Indian parties seeking collaboration with foreign entrepreneurs. Similarly, the Centre had received nearly 500 enquiries from foreign enterprises interested in establishing joint ventures in India. With the active assistance of the Centre, 107 proposals for setting up joint ventures in India have come to fruition.

*Chairman :* G. L. Mehta ; *Executive Director :* R. V. Subrahmanian ; *Secretary :* A. C. Banerjee.

## THE INDIAN LAW INSTITUTE

Opp. Supreme Court Bldg., Tilak Marg, New Delhi.

*President (Ex-Officio) :* P. B. Gajendragadkar, Chief Justice of India ; *Hon. Executive Chairman :* K. N. Wanchoo, Judge Supreme Court of India ; *Director :* G. S. Sharma.

## INDIAN MATHEMATICAL SOCIETY

Hans Raj College, Delhi-7.

f. 1907 ; 800 mems. ; 2,000 vols. ;

*President :* Prof. P. L. Bhatnagar; *Secy. :* Principal Shanti Narayan. *Editors :* Prof. M. Venkataraman & Prof. T. P. Srinivasan ; *Librarian :* Prof. C. T. Rajgopal ; publishes Journal of the Indian Mathematical Society and Mathematics Student.

## THE INDIAN MEDICAL ASSOCIATION

Hqrs. :

I.M.A. House, Indraprastha Marg, New Delhi 1.

Established in 1928.

*President :* Dr. A. P. Mittra, New Delhi ; *Vice-Presidents :* Dr. C. L. Jhaveri, Bombay ; Dr. N. K. Munsi, Calcutta ; Dr. C. Nathamuni Naidu, Ambur ; *Hony. General Secretary :* Dr. Ved Prakash, New Delhi ; *Hony. Treasurer :* Dr. P. C. Dhanda, New Delhi ; *Hony. Editor, Journal, I.M.A. :* Dr. N. Banerjee, Calcutta.

## INDIAN NATIONAL TRADE UNION CONGRESS

17, Janpath, New Delhi 1.

Founded in May 1947, the INTUC today is the biggest and most representative trade union organisation in the country. More than 1,900 trade unions with a membership of over 17,50,000 workers from all trades and industries throughout the country are affiliated to it. It has 16 Pradesh Branches and 16 Industrial Federations to co-ordinate the work of trade unions. The INTUC aims at eliminating social, political or economic exploitation of workers, organising the workers under trade unions, securing speedy improvement of conditions of work and life and raising the status of workers in industry and society. The INTUC believes in adopting constitutional and peaceful methods for securing the redressal of grievances of workers according to the Gandhian Ideology.

The INTUC is a founder-member of the International Confederation of Free Trade Unions, which was formed in 1949, at a World Labour Congress held in London. The INTUC also participates in Conferences and Committees convened by the I.L.O. The INTUC is also an "Associate Member" of Indian National Commission for UNESCO.

The INTUC is an independent organisation of workers believing in the aims and objects as laid down in its Constitution. The INTUC has faith in truth and non-violence and believes that industrial disputes should be resolved as far as possible by consultation, negotiation, conciliation, voluntary arbitration or adjudication. If there are Congressmen in the INTUC this is because the ideals of the Congress and the INTUC are identical.

During its 18 years of existence the INTUC has played an important role in championing the just demands of the workers, in resisting threats to their security of employment, in bringing about the progressive reorientation in the economic policy of the Government and in ensuring active co-operation of the workers in realising the national objectives in the economic field. The INTUC is steadily marching towards the goal of establishment of a democratic socialist society.

*President :* Dr. G. S. Melkote, M.P. ; *General Secretary :* G. Ramanujam ; *Treasurer :* A. N. Buch ; *Assistant Secretary :* N. K. Bhatt.

Weekly Journal (English) *The Indian Worker. Managing Editor :* S. R. Vasavada ; *Editor :* H. D. Mukerji. *Manager :* J. C. Pathak.

(See also under 'Labour').

## INDIAN NURSING COUNCIL

Kotla Road, Temple Lane, New Delhi.

Statutory body constituted under the Indian Nursing Council Act, 1947, in order to establish a uniform standard of training for nurses, midwives and health visitors.

*President :* Dr. K. N. Rao, Director-General of Health Services ; *Vice-President :* Mrs. A. Gupta, Principal, College of Nursing, New Delhi ; *Member-Secretary :* Miss T. K. Adranvala, Nursing Adviser, Directorate General of Health Services, New Delhi.

## INDIAN PHYTOPATHOLOGICAL SOCIETY

Indian Agricultural Research Institute, New Delhi 12.

*President :* Dr. M. J. Thirumalachar ; *Vice-President :* Dr. K. S. Thind ; *Secretary-Treasurer :* Dr. S. P. Raychaudhuri ; *Joint Secretary :* Dr. M. M. Payak ; *Editor-in-Chief :* Dr. R. Prasada.

## INDIAN RED CROSS SOCIETY

Red Cross Road, New Delhi 1.

*President :* Dr. S. Radhakrishnan (President of the Republic of India). *Chairman, Managing Body :* Lt. (Miss) Sushila Nayar ; *Hon. Treasurer :* S. Ratnam ; *Secretary-General :* Maj. Gen. C. K. Lakshmanan.

*Constitution.*—The Managing Body consists of a Chairman and 27 members, of whom 16 are the Vice-Presidents, elected by the Branch Committees, 6 elected by the Managing Body at its meeting preceding the Annual General Meeting from among the members of the Society, and 5 nominated by the President.

*Junior Red Cross.*—Junior Red Cross which was started in 1926 is an integral part of the Indian Red Cross Society and is its youth section. The movement functions all over India in over 35,379 schools and colleges with a membership of about 42 lakhs and aims at inculcating the ideals of health, service and international fellowship in the younger generation.

*Services To Armed Forces :*—In times of conflict, the Society undertakes various services for the Prisoners of War including repatriation, supply of gift parcels etc.

The Society runs a Red Cross Home in Bangalore well-equipped for 75 patients for giving expert medical aid and nursing care to permanently disabled ex-servicemen. It provides various amenities and comforts including newspapers, magazines and books to patients in all military hospitals. Diversional Therapy is provided to patients in these hospitals by 56 Red Cross Welfare Officers posted at different hospitals.

*After-Care of Ex-Servicemen :*—The Medical After-Care Fund provides financial assistance to ex-servicemen for medical treatment etc. A total of over 10,422 cases have so far been assisted from this Fund since its inception. Grants are also given to deserving ex-servicemen for purchase of typewriters, sewing machines, etc. to enable them to earn their livelihood.

*Bureau of Maternity and Child Welfare :*—The Maternity and Child Welfare Bureau of the Society was established in 1931.

The Bureau administers the Lady Chelmsford League Fund for maternity and child welfare, the Victoria Memorial Scholarships Fund for the training of dais, and the Army Child Welfare Funds. The Bureau also acts as a Central office for information and offers technical assistance.

Under the Five Year Plan its activity has also been extended to the hilly and backward areas of Tehri-Garhwal District and Jaunsar-Bawar Tehsil Chakrata, District Dehra Dun, where two maternity hospitals and a few multipurpose welfare centres are being run with the aid given by the Government.

*Relief Activities :*—Emergency relief forms an important aspect of Red Cross work in India and it comprises two categories : assistance with cash grants, medical and other supplies and provision of trained field workers for first aid, ambulance service, nursing and incidental duties for sudden emergencies.

Two quarterly Journals are published, namely, the Indian Red Cross Journal and the Indian Junior.

*Finances :*—The investments of the Society at the end of 1964 stood at Rs. 1,73,24,200 and the cash balance at Rs. 71,700. From the total income of Rs. 5,89,570 derived from investments of the Society, a sum of Rs. 1,58,160 is distributed under the Act to the State Branches in proportion to their contributions to the Central "OUR DAY" Fund raised in the First World War.

### INDIAN ROADS CONGRESS

**Jamnagar House, Mansingh Road, New Delhi 11.**

*President :* Jagdish Prasad ; *Vice-Presidents :* S. N. Gupta, B. D. Mathur, Z. S. Shah ; *Hony. Treasurer :* H. P. Sinha ; *Tech. Secy. :* Hukam Singh ; *Hony. Secy. :* P. T. Shera.

### INDIAN SCHOOL OF INTERNATIONAL STUDIES

(Sapru House, Barakhamba Road, New Delhi.)

*Director of the School,* Dr. M. S. Rajan ; *Registrar,* T. V. Raghavan.

### INDIAN SOCIAL INSTITUTE

N. D. South Extension II, D-25-D, New Delhi 16.

*Purpose :* Research publications ; social study courses ; training in cooperation ; promotion and organization of socio-economic projects ; family life education.

Its diploma in Social Science is recognized by Government.

*Director :* J. B. Moyersoen, S.J.

### THE INDIAN SCHOOL OF PUBLIC ADMINISTRATION

(Indraprastha Estate, Ring Road, New Delhi 1.)

*Director of the Institute and Principal of the School :* Dr. J. N. Khosla, B.Sc. (Econ.), (Lond.), Ph.D. (Econ.), (Lond.), Barrister-at-Law.

The School provides :—

(1) A Master's Diploma Course in Public Administration meant for those who desire to enter public services university teaching, or public life. The duration of the course is one year. Admission is limited to those who hold a Master's degree in Political Science, Public Administration, Economics, or Sociology and those who hold at least a Bachelor's Degree and have served for a minimum period of *three* years under Government or with a public enterprise or a local authority in an administrative capacity.

(2) Short-term courses on specific aspects of public administration for public servants, university teachers, and others engaged in or interested in public administration.

### INDIAN SOCIETY OF GENETICS & PLANT BREEDING

**Botany Dn., Indian Agricultural Research Institute, New Delhi 12.**

*Editor :* S. Ramanujam ; *President :* Professor J. Venkateswarlu ; *Secretary :* Dr. H. K. Jain ; *Treasurer :* Dr. B. R. Murty.

### INDIAN SOCIETY OF GASTROENTEROLOGY

D/3, Ansari Nagar, New Delhi 16.

### INDIAN SOCIETY OF SOIL SCIENCE

Indian Agricultural Research Institute, Delhi 12.

*President :* Dr. R. V. Tamhane ; *Hon. Secretary :* A. B. Ghosh ; *Hon. Jt. Secy. :* A. S. Gowaikar ; *Hon. Treasurer :* Dr. N. P. Datta.

### INDIAN STANDARDS INSTITUTION

**Manak Bhavan, 9, Bahadur Shah Zafar Marg, New Delhi 1.**

*President :* Minister of Industry, Government of India. ; *Vice-Presidents :* J. J. Ghandy, Prabhu V. Mehta ; *Director :* Dr. Lal C. Verman.

The Indian Standards Institution (ISI)—or Bharatiya Manaksanstha—was set up in 1947 by a Resolution of the Government of India.

The aims and objects of the Institution include the preparation of standards, on national and international basis, relating to structures, commodities, materials, practices, operations, promotion of standardization, quality control and simplification in industry and commerce ; co-ordination of efforts of producers and users for the improvement of products, appliances, processes and methods ; provision for the registration of standardization marks applicable to products, commodities, etc. ; and collection and circulation of statistics and other information related to standardization in all its branches.

ISI is the joint venture of Government and Industry and its affairs are administered by a General Council representative of Government departments ; industrial and commercial houses ; professional, technological and scientific organizations ; consumer and purchase bodies ; and the Institution's subscribing members. The day-to-day affairs of the Institution are managed by an Executive Committee(EC).

In the preparation of Indian Standards—specifications, codes of practice, methods of tests, etc.—ISI functions through a large number of technical committees, consisting of scientists, technologists and experts drawn from diverse interests concerned with the subject. These committees are appointed by the eight Divisional Councils which are looking after different industries, namely, Agricultural and Food Products, Building, Chemical, Consumer Products, Engineering, Electrotechnical, Structural and Metals and Textile.

Under the authority vested in it by the ISI Certification Marks Act 1952, the Institution is operating ISI Certification Marks Scheme under which licences are issued by it to manufacturers to mark their products with ISI Certification Mark as a third-party guarantee to the purchaser that the products bearing the mark conform to the requirements laid down in the relevant Indian Standards.

For promotion of international trade, the Institution collaborates closely with International Organization for Standardization and International Electrotechnical Commission, the two international organizations dealing with standardization.

The sources of income of the Institution include (*a*) Central Government grant, (*b*) Membership Subscription from industry and other interested public bodies, (*c*) Sale of ISI publications, and (*d*) Certification Marking fees.

For keeping close liaison and rendering efficient service to industry, trade and commerce in different regions in the country, the Institution has opened its Branch Offices in Calcutta, Bombay, Kanpur and Madras.

*Important Statistics as on 31st March 1965 :*

| | |
|---|---|
| Number of standards published | 2,959 |
| Number of licences issued for ISI Mark | 1,050 |
| Number of products carrying ISI Mark | 266 |
| Number of Subscribing Members | 3,520 |
| Number of standardization committees | 1,486 |
| Committee membership | 17,494 |

### INDO-GERMAN CHAMBER OF COMMERCE

**"E" Block, Sixth Radial Road, Connaught Place, New Delhi.**

*Secretary :* J. Pflug.

### INSTITUTE FOR THE ADVANCEMENT OF SCIENCE AND CULTURE

Hauz Khas Enclave, New Delhi-16.

*President :* Dr. Mrs. Sharada Rani, M.A., D.Litt. ; *Secretary :* Dr. Lokesh Chandra, M.A., D.Litt.

### INSTITUTE FOR SOCIAL GUIDANCE

2-F, Lajpatnagar, New Delhi 14.

*Chairman & Director :* Dr. Kumar Pal Agrawal ; *Secretary :* Smt. Dayawati Agrawal.

### INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA
Post Box 268, Indraprastha Marg, New Delhi 1.

The Institute of Chartered Accountants of India which is an autonomous body with perpetual succession was established on the 1st of July, 1949.

The Institute had on its Register 2,166 Fellows and 4,655 Associate members as on 1st April 1965. Out of these, 2,024 Fellow members and 2,574 Associate members were in practice.

The Institute is governed by a Council consisting of 26 members, 20 of whom are elected from the various regions and six nominated by the Government of India.

*Council of the Institute :—President :* Raghunath Rai; *Vice-President :* M. P. Chitale; *Secretary to the Council :* C. Balakrishnan; *Asstt. Secretary :* A. A. Maru; *Registrar :* N. Subramanian.

### INSTITUTE OF ECONOMIC GROWTH
University Enclave, Delhi 7.

*Chairman, Board of Governors :* Dr. V. K. R. V. Rao; *Director and Sr. Fellow :* Prof. P. N. Dhar.

### INSTITUTE OF FOREIGN LANGUAGES INTERNATIONAL CULTURAL CENTRE
44/3, Regal Buildings, Connaught Circus, New Delhi.

### INSTITUTE OF INDOLOGY
(Bharatiya Vidya Samsthana)
88, Lucknow Road, Delhi.

*Objects :* To promote, organise and facilitate study of and research in Indology in all its branches including history, religion, philosophy, art, literature and culture. The Institute is a recognised research Centre for Ph.D. Degree.

### THE INSTITUTE OF NUCLEAR MEDICINE & ALLIED SCIENCES
(Research & Development Organisation)
Probyn Road, Delhi 7.

Diseases like hyper-thyroidism, heart ailments, leukaemia and polycythemia are treated by radiomedicines. Radiotracers are used for investigation of blood diseases, liver diseases and electrolyte disturbances. The Institute has a well organised Health Physics Department oriented to Radiation Protection. Recognised by Delhi University for post graduate education in Radiation Medicine.

### INSTITUTE OF OFFICE MANAGEMENT—INDIA
N-34, Jangpura Extension, New Delhi-14.

*Aims and objects :* (1) The Institute will have liaison with National Office Management Association of U.S.A., Institute of Office Management of U.K. and NIPPON Office Management of Tokyo. (2) It will disseminate knowledge about modern techniques of Office Management to its members. (3) It will render assistance to its members in designing forms for internal use and in the case of industrial associations. It will design forms prescribed by State Government and Central Government for submission to them in a manner which is least expensive to the industry and most useful to the Government. (4) It will represent the views of industry to the Government in the matter of submission of information in prescribed forms and its periodicity, so as to avoid duplication and waste of clerical efforts. (5) It will conduct surveys in various fields of office work such as clerical salary, status and training. (6) It will conduct examination of Diploma in Office Management of the Institute of Office Management of U.K. (7) It will publish a monthly Bulletin to inform its members of the improvements and developments in office procedures. (8) It will seek the support of Indian Standards Institution for determining national standards for office stationery and equipment.

*President :* R. L. Tuli; *Vice-President :* T. A. Pai; *Hony. Secretary :* J. Prasad.

### INSTITUTION OF CATERING TECHNOLOGY & APPLIED NUTRITION (DELHI) SOCIETY
Pusa, New Delhi 12.

### INSTITUTION OF ENGINEERS (INDIA)
(Delhi Centre)
Bahadur Shah Zafar Marg, Near Tilak Bridge, New Delhi.

*Chairman :* Maj.-Gen. R. A. Loomba, M.I.E.; *Hon. Secy. :* Dr. S. P. Luthra, M.I.E.; *Hon. Jt. Secretary :* Dr. H. C. Visvesvaraya, M.I.E.

### THE INSTITUTION OF SURVEYORS
Kashmir House, King George's Avenue, New Delhi 11.

*President :* P. N. Gadi, B.A., C.E. (Hons.) (Roorkee), M.I.S.; *Vice-Presidents :* S. Datta, B.E., C.E., M.I.S., M.I.E., M.R.S.H. (Lond.), Brig. Gambhir Singh, M.I.S.; *Secretary :* R. L. Kumar, B.A., C.E. (Roorkee), A.M.I.E., A.R.I.C.S., M.I.S. (India); *Treasurer :* Colonel O. P. Anand, M.I.S. (Ind.).

### THE INSTITUTION OF TELECOMMUNICATION ENGINEERS
P. Box 3012, New Delhi.

*President :* C. P. Vasudevan.

*Vice-Presidents :* Prof. S. P. Chakravarty, S. K. Kanjilal, Dr. P. K. Kapre; *Honorary Treasurer :* S. N. Ranganathan; *Secretary :* A. C. Ramchandani.

Journal of the Institution of Telecommunication Engineers.

*Editor :* Council of the Institution of Telecommunication Engineers. Frequency: monthly. Language: English. Annual Subscription: Rs. 50.

### INSTITUTION OF WORK STUDY (INDIA)
Kashmir House, New Delhi 11.

*President :* Maj. Gen. Harkirat Singh; *Chairman :* Brig. K. Pennathur; *Hon. General Secretary :* J. S. Kohli.

*Activities :*—Publication of quarterly journal — 'The Work Study Quarterly'. Conducts Appreciation Courses on Work Study for Senior Management and Trade Union Officials (26 such have been conducted upto 31 March 1964). Conducts courses for practitioners (one completed on 14 March 1964). Assists Industry in practical project work and case-studies (2 projects completed as on 31st March 1964).

### INTERNATIONAL ACADEMY OF INDIAN CULTURE
J-22, Hauzkhas Enclave, New Delhi 16.

*Director :* Dr. Lokesh Chandra; *Secretary :* Dr. Mrs. Sharada Rani.

### INTERNATIONAL CHAMBER OF COMMERCE, INDIAN NATIONAL COMMITTEE
Federation House, New Delhi 1.

The Indian National Committee of the International Chamber of Commerce was established *inter alia* for the following purposes in the year 1929 :—

(i) To facilitate the commercial intercourse of countries.

(ii) To encourage progress and to promote peace and cordial relations among countries and their citizens by the co-operation of business men and organisations devoted to the development of commerce and industry.

*President :* S. L. Kirloskar; *Vice-President :* R. B. Amin; *Secretary-General :* G. L. Bansal; *Secretary :* P. Chentsal Rao.

### INTERNATIONAL COMMISSION ON IRRIGATION AND DRAINAGE
48, Nyaya Marg, Chanakyapuri, New Delhi-11

*President :* Pierre Danel (France); *Vice-Presidents :* Yadava Mohan (India), R. J. Tipton (U.S.A.), M. L. Xujati Kambhu (Thailand), M. Salim (U.A.R.), M. M. Gadien (Sudan), Prof. E. Mosonyi (Hungary), G. Papadopoulos (Greece); *Secretary-General :* K. K. Framji (India).

### INTERNATIONAL CONFEDERATION OF FREE TRADE UNIONS—ASIAN REGIONAL ORGANISATION (ICFTU-ARO)
P-20, Green Park Extn., New Delhi 16.

International workers' organisation composed of free and democratic trade unions, independent of all external domination and pledged to the task of promoting the interests of the working people throughout the free world and assuring the dignity of labour, has its Asian headquarters in Delhi. Twenty trade union organisations in fourteen Asian countries with more than 6½ million members are affiliated to it.

An Asian Trade Union College was established in November 1952 in Calcutta by the organisation to train the Asian workers on the lines of democratic trade unionism.

*Chairman :* H. Wada; *Asian Regional Secretary :* V. S. Mathur.

### INTERNATIONAL CULTURAL CENTRE
16, Hailey Road, New Delhi.

(Estd. 1957)

The Centre works in co-operation with non-governmental and semi-governmental groups to serve as a channel of communication between India and other countries in the field of arts and humanities. Its main objective is to help understanding and appreciation of the world's art forms and movements through cultural exchange and thus enrich and influence the development of the arts in India itself.

The main activities include holding of exhibitions of Indian painters in India and abroad, giving assistance to organise one-man exhibitions, assisting Indian dancers to tour abroad and foreign dancers to tour in India, maintaining a library and publishing art books on different Indian art. The Centre also runs a Film Club where outstanding Indian films are shown for the benefit of foreign visitors to India and the members of the club.

*Chairman:* P. A. Narielwala; *Executive Director :* Mrs. Rekha Menon.

### INTERNATIONAL CULTURAL FORUM

2653, Roshanpura, Naisarak, Delhi 6.

*U.K. Office :* 127, Neville Ave. Hove 4, Sussex, England.

*Chairman :* T. R. Rishi ; *Secretary-General :* S. P. Jain Nasim.

### INTERNATIONAL SOCIETY OF PLANT MORPHOLOGISTS

Dept. of Botany, Univ. of Delhi, Delhi 6.

*President :* Prof. P. Maheshwari ; *Vice-Presidents :* Prof. B. M. Johri, Prof. Katherine Esau ; *Secretary-Treasurer :* Dr. H. Y. Mohan Ram.

### IRON HARDWARE MERCHANTS' & MANUFACTURERS ASSOCIATION

Bazar Sirkiwalan, Delhi 6.

### JAIN SOCIETY FOR THE PROTECTION OF ORPHANS IN INDIA

Daryaganj, Delhi.

### JAMIA RURAL INSTITUTE

Jamia Millia, New Delhi 25.

The Institute prepares students for Diploma Examinations conducted by the National Council of the Rural Higher Education for Rural Services and Rural Engineering. The first of these is accepted by State Governments as equivalent to first degree and the second as equivalent to the National Diploma in Engineering.

*Ag. Director :* Mir Najabat Ali.

### KALAKENDRA RESEARCH AND INFORMATION ORGANIZATION

25E/6, East Patel Nagar, New Delhi 12.

### LALIT KALA AKADAMI

(National Academy of Art, Rabindra Bhavan, New Delhi 1).

The Lalit Kala Akadami was set up in August 1954 by the Govt. of India. Its aim is to promote the study of and research in painting, sculpture, architecture and applied arts. There are a General Council and Executive Board, a Finance Committee and other Standing Committees.

*Chairman, Executive Board :* Mehdi Nawaz Jung ; *Vice-Chairman :* N. S. Bendre ; *Secretary :* B. C. Sanyal.

### LIME MANUFACTURERS ASSOCIATION OF INDIA

10, Alipur Road, Delhi 6.

### THE LITTLE THEATRE GROUP

Flat 10, Shanker Market, Connaught Circus, New Delhi.

*Arts Director :* Inder Dass ; *Chairman :* Prof. N. R. Malkani ; *Hony. General Secretary :* Y. P. Tandan.

The Group is the most active one in Delhi and has produced approximately 70 plays since 1947, the year of establishment in Delhi. In addition, a number of dance and drama programmes have been organised on behalf of artists from different parts of the country on no profit basis.

The Group has a Co-operative Wing. The Wing consists of 12 artists and the object is to produce plays on Co-operative basis.

### MACHINERY MERCHANTS' ASSOCIATION

Burn Bastion Road, Delhi.

### MADAN MOHAN LALL AYURVEDIC RESEARCH SOCIETY

Bara Hindu Rao, Delhi 6.

### MEDICAL COUNCIL OF INDIA

Temple Lane, Kotla Road, New Delhi.

Is a Statutory Body constituted under the Indian Medical Council Act, 1933, now superseded by the Indian Medical Council Act, 1956. The main functions of the Council are :—(*a*) establishment of a uniform standard of higher qualifications in medicine for all States ; (*b*) furtherance of the recognition of Indian medical qualifications in States and countries outside India with its corollary the recognition in this country of approved qualifications of such States and countries ; (*c*) to prescribe standards of Post-graduate Medical Education for the guidance of Universities ; (*d*) maintenance of a Medical Register for India and matters connected therewith.

*President :* Dr. C. S. Patel, F.R.C.S. (Eng.) ; *Vice-President :* Dr. Tulsi Das, M.B.B.S., F.R.C.S., D.O.M.S. ; *Secretary :* Dr. V. V. Puri, M.B., D.P.H., D.T.M.

### MOTION PICTURES ASSOCIATION

52/55, Mangal Market, Chandni Chowk, Delhi.

*President :* C. V. Desai ; *Senior Vice-President :* U. S. Mehta ; *Junior Vice-President :* J. N. Prasad ; *Hony. General Secretary :* D. N. Pancholi.

### NATIONAL AGRICULTURAL CO-OPERATIVE MARKETING FEDERATION LTD.

34, South Patel Nagar, New Delhi 12.

*Chairman :* B. Majumdar ; *Secretary :* Veda P. Sethi.

### NATIONAL BOOK TRUST, INDIA

23, Nizamuddin East, New Delhi 13.

An autonomous body set up by the Govt. of India in the Ministry of Education. *Aims and objects :* To produce and encourage the production of good literature and to make such literature available at moderate prices to the public ; to bring out booklists, arrange exhibitions and seminars and take all necessary steps to make the people book-minded. With these objectives in view the Trust has planned a series "India—the Land and People" which will give information about every aspect of this country. Other series planned are "Popular Science" ; "National Biographies" ; translations of "Outstanding Books of the World" etc. The Trust is also organising national and regional book exhibitions.

*Chairman :* Dr. B. V. Keskar ; *Secretary :* M. C. Minocha.

### NATIONAL CO-OPERATIVE UNION OF INDIA

72, Jorbagh Nursery, New Delhi 3.

*President :* Prof. D. R. Gadgil ; *Vice-Presidents :* R. Kankasabai, M.P. ; V. C. Parashar, M.P. ; *Gen. Secretary :* Brahm Perkash, M.P.

### NATIONAL COUNCIL FOR WOMEN'S EDUCATION

Room No. 30, "M" Block Hutments, New Delhi.

### NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH

Parisila Bhawan, 11, Indraprasta Estate, New Delhi 1.

The National Council started functioning from 1st August, 1956, as an independent research organisation to study current important economic problems on an objective basis on its own initiative or at the instance of Government, business concerns, associations or individuals and to help in analysing and finding solutions to specific problems in the planning and management of industrial and other undertakings. The Council has been established with the active support and encouragement of the Government of India and the business community and on its Governing Body are represented officials of the Central Government, leading business men and other eminent persons. The Council is largely self-financing. Its sources of income include grants from the Government of India and the Ford Foundation, project fees charged from the sponsors and membership fees. The organisation provides for a broad base of membership including Life, Ordinary and Corporate members.

The Council has already completed 86 studies on behalf of the Ministries of the Govt. of India, the State Governments, and the business community, 78 of which have also been published.

The Council is currently engaged in a number of studies *e.g.* Estimates of State Incomes, Industrial Programming for 4th Plan of Andhra Pradesh, Orissa, Rajasthan and Bihar, Demand Studies for Special Alloy Steel castings, Air Compressors, and Automobile Industry ; Consumer Expenditure Survey in developmental and non-developmental areas, Study of Maintenance Imports, Survey of Kerala and Mysore, Export possibilities of Vegetable oil seeds, Fish and Fish Products, Study of Cropping Pattern, Factors affecting demand for fertilizers, Strategy and approach to the 4th Plan, etc., etc.

There are several publications some of which are : *Contribution of Road Transport to the Public Exchequer, Demand for Energy in India 1960-75, Economically Weak Tea Gardens in North-East India, Foreign Exchange Crisis and the Plan, Managing Agency System, Replacement Cost in Industry, Some Aspects of Economic Growth of Underdeveloped Areas, Taxation and Foreign Investment, Taxation and Private Investment, Techno-Economic Surveys of Bihar, Madhya Pradesh, Orissa, Punjab, W. Bengal, Andhra Pradesh, Maharashtra, Gujarat, Rajasthan, U.P., Goa, Daman, Diu, H. P., Manipur and Tripura, Urban Saving Survey-Method and Techniques, Current Problems of Planned Economy, Energy Production and Consumption in India, Looking Ahead, Long Term Projections of Demand for and supply of Selected Agricultural Commodities in India, Measurement and analysis of Saving Economic Implications of Present Emergency, Indian Economy 1961-63, Contractual Saving in Urban India, Socio-Economic Conditions of Primitive Tribes in Madhya Pradesh, Development for Dandakaranya, Reappraisal of Steel Demand Vol. I & II, Demand of Energy in Eastern India, Foreign Investor and Tax Reforms, Indian Economy 1962-64, Rural Household Saving Survey—A Summary, Strategy for the Fourth Plan ; Growth Without Inflation, Price Policy and Economic Growth ; Demand for energy in S. India, W. India and N. India ; Saving in India ; Factors affecting Fertilizer consumptions ; Saving in structural steel through standardisation ; Management of Public Debt in India.*

*President,* Asoka Mehta.

*Director-General,* Dr. P. S. Lokanathan.

*Secretary and Registrar :* B. M. Pal.

### NATIONAL CULTURAL ORGANISATION

C-2/169, Lodi Road, New Delhi-3.

An All India Cultural Body inaugurated by the late Prime Minister of India in 1950 in the Capital of India.

Tel. Address: "ENSEEO". Tel. No. 611681.

*Chairman:* Dr. Harekrushna Mahtab; *Gen. Secy. and Treasurer:* N. P. Seshadri; *Joint Secy.:* N. P. Jagannathan; *Members:* S. Shakuntala, Chandra Dhar, H. S. Duggal and Tarlok Singh.

*Subscription:* Patrons: Rs. 1,000; Life members: Rs. 500; Members: Rs. 24 per annum plus an admission fee of Re. 1.

### NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

5, West Patel Nagar, Patel Road, New Delhi 12.

### NATIONAL FEDERATION OF CO-OPERATIVE SUGAR FACTORIES LIMITED

51/1, (First Floor), New Market, Western Extension Area, Karolbagh, New Delhi 5.

The National Federation was set up in Dec. 1960, with the object of co-ordinating and facilitating the working of co-op. sugar factories, State and Zonal Federation and to assist in the promotion of organisation of new co-op. sugar factories.

There are 57 co-op. sugar factories licensed so far, of which 41 were in production in 1962-63, 48 in 1963-64, and 50 in 1964-65. Othersare in various stages of formation and five of these are expected to go into production in 1965-66.

Out of a total licensed capacity of 33·6 lakh tonnes for the sugar industry, the co-op. sector accounts for 8·25 lakh tonnes i.e., nearly 24·5 per cent. Recently the Government of India sanctioned expansion of 22 existing units in the Co-op. Sector accounting for 1·66 lakh tonnes capacity. In 1964-65 season the installed capacity of the co-operative Sector was 7·25 lakh tonnes against 7 lakh tonnes in 1963-64.

Co-op. sugar factories produced in 1962-63, 21·5 per cent and in 1963-64, 23·3 per cent of the total production of sugar in the country. In 1964-65 the Co-op. Sugar Factories produced upto May '65 about 7·60 lakh tonnes of sugar, which is 24·5 per cent of the total production and 30 per cent more than that in 1963-64 and 10 per cent more than their own estimated production.

There are nearly 2·40 lakh members as shareholders in the 57 Co-op. Sugar Factories with a total share contribution of Rs. 2,365·99 lakhs of which Rs. 913·99 lakhs are contributed by the State Governments. The Industrial Finance Corporation of India has sanctioned loans to the 57 co-op. sugar factories to the extent of Rs. 3,699·50 lakhs upto 31st Dec. '64.

The National Federation has undertaken many useful activities during the last four years of its existence and has made its presence felt. It is now recognised as the main spokesman of the Co-op. Sector in the Sugar Industry.

*President:* Prof. D. R. Gadgil, Poona; *Vice-President:* P. S. Rajagopal Naidu, B.Sc., B.L., *Secretary:* A. L. N. Moorthy, M.Sc. Hons. (Tech.), M.I.I.Chem.E., New Delhi.

### THE NATIONAL FEDERATION OF P & T EMPLOYEES

9, Pusa Road, New Delhi.

*President:* Mahesh Dutt Misra, M.P.; *Secretary-General:* D. Gnaniah; *Secretary:* P. N. Mathur.

### NATIONAL INSTITUTE OF SCIENCES OF INDIA

Bahadur Shah Zafar Marg, New Delhi 1.

*Objects:*—Founded in 1935 for the promotion of natural knowledge in the country including its practical application to problems of national welfare. Recognised by Government as the premier scientific organisation representing all branches of Science in India. Has three co-operating Academies, *viz.*, Asiatic Society (Calcutta), Indian Academy of Sciences (Bangalore) and National Academy of Sciences, India (Allahabad). Annual Subscription Rs. 36.

Publications: *Proceedings, Transactions, Bullain, Progress of Science in India, Monographs.*

*President:* Dr. V. R. Khanolkar; *Treasurer:* Prof. R. C. Majumdar; *Foreign Secy.:* Prof. B. R. Seshachar; *Secretaries:* Prof. N. C. Anluck, Prof. N. K. Panikkar; *Editor of Publications:* Prof. P. Maheshwari.

### NATIONAL PRODUCTIVITY COUNCIL

38, Golf Links, New Delhi 3.

The National Productivity Council was established in 1958 by the Government of India as an autonomous organisation to help increase productivity in every sector of the national economy. It is organised on the ILO tripartite pattern representing Government, employers and workers. As it has grown, it has also taken within its organisation specialised institutions and the Local Productivity Councils, established practically all over the country and working as the spearhead of the Productivity Movement.

During the last eight years that NPC has been working, Productivity consciousness has been created practically throughout the whole structure of industry through training programmes (local and foreign), Productivity Survey and Implementation Service, publication of productivity literature, audio-visual activities, etc. NPC has also organised a Fuel Efficiency Service, centred at Bombay but spreading to other areas either directly or through collaboration with such institutions as the South India Steam Users' Association. A decision in principle has been taken to enter the area of Agriculture with a view to making available to farmers NPC experience in the application of Productivity Techniques.

NPC has 6 Regional Directorates (Ludhiana, Kanpur, Calcutta, Madras, Bangalore and Bombay) covering all the principal industrial areas of the country. NPC Specialists are located at these regional centres and their services are available to Local Productivity Councils, which are themselves autonomous organisations organised on the same tripartite pattern.

*President:* T. N. Singh, Union Minister for Industry; *Chairman:* Dr. P. S. Lokanathan; *Executive Director:* N. K. Bhojwani.

### NATIONAL RIFLE ASSOCIATION OF INDIA

82-83, Theatre Communications Building, Connaught Circus, New Delhi.

*President:* Lal Bahadur Shastri.

*Vice-Presidents:* S. Surjit Singh Majithia, H. H. Maharaja Karni Singhji of Bikaner, M.P., Maj.-Gen. K. R. Bhagwati Singhji, B. B. Banerjee, H. N. Sircar, M. K. Kaul, K. G. Prabhu.

*Hon. General Secretary:* Sardar Jogendra Singh; *Hon. Jt. Secretary:* Sardar Daya Singh; *Hon. Treasurer:* Raja Dinesh Pratap Singh of Kasmanda.

### NATIONAL SCHOOL OF DRAMA & ASIAN THEATRE INSTITUTE

Rabindra Bhavan, Ferozeshah Road, New Delhi 1.

*Director:* E. Alkazi.

### NEW DELHI TRADERS' ASSOCIATION

19-E, Connaught Place, New Delhi.

*President:* L. Girdhari Lal; *Sr. Vice-Pres.:* J. C. Kapur; *Jr. Vice-Pres.:* M. M. Agarwal; *Gen. Secretary:* S. S. Backliwal.

### NORTHERN INDIA REGIONAL COUNCIL OF THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA

G-8, Central Revenue Buildings, New Delhi.

The Regional Council represents the States of Punjab, Delhi and Himachal Pradesh and has a total membership of 550 as on 1st April, 1964. The number of members inpractice and those in service are 50 per cent each.

The Council organises seminars, study workshops on topics of interest to Auditors, Accountants, Income Tax Practitioners and those concerned with industrial finance, etc.; organises coaching classes fo the students preparing for Chartered Accountants' Examinations and gives expert opinion on problems relating to accounts on companies and others on appropriate reference.

*Publications:* (*i*) Report on the Regional Council Seminar on Management Accounting, October 1961; (*ii*) Income Tax Act, 1961—Proceedings of the Symposium held, March 1962; (*iii*) Periodic publication of Council's *News Letter* which contains useful information about the Chartered Accountants' profession, matters relating to income-tax, company law, industrial and economic progress, investment situations, etc. (*iv*) Report on Accounting Profession—Next Twenty Years of Development: April 1964.

*Chairman:* P. L. Jaitly; *Vice-Chairman:* T. R. Chadha; *Secretary and Treasurer:* B. R. Maheshwari; *Nominees of the Central Government in the Regional Council:* S. D. Nargolwala, B. P. Roy, G. S. Srivastava and N. K. Bhattacharya.

### OPERATIONAL RESEARCH SOCIETY OF INDIA

Defence Science Laboratory, Metcalfe House, Delhi 6.

### PHARMACY COUNCIL OF INDIA

2nd Floor, Combined Councils' Building, Temple Lane, Kotla Road, New Delhi.

A Statutory Body constituted under the Pharmacy Act, 1948 to regulate the profession and practice of Pharmacy.

*President:* Dr. S. Rohatgi; *Vice-President:* Dr. P. K. Sanyal; *Asstt. Secretary:* Devinder K. Jain.

### PUNJAB & DELHI CHAMBER OF COMMERCE & INDUSTRY

(Phelps Bldg., 9-A, Connaught Place, Post Box No. 130, New Delhi 1.)

*Office-Bearers:* W. D. C. Erskine Crum (*Chairman*); R. L. Tuli (*Dy. Chairman*); Santosh Nath (*Secretary*).

### PUNJAB MERCHANTS' CHAMBER (Regd.)

45, Khurshid Market, Sadar Bazar, Delhi.

*President :* Bhagwan Das Chopra ; *Vice-President,* Dharam Chand Malhotra ; *Hony. Secretary,* S. Kartar Singh.

### QUAKER INTERNATIONAL CENTRE

27, Raipur Road, Delhi 6.

The Religious Society of Friends (Quakers) carries out its overseas work through the Friends Service Council, Friends House, Euston Road, London NW1, England ; the American Friends Service Committee, 160 North 15th Street, Philadelphia 2, USA, and through a number of other bodies.

International centres at 27 Rajpur Road, Delhi 6, and 211 Park Street, Calcutta 17. The Quaker Centre in D. cca is now closed, but a Centre may shortly be opened in West Pakistan. There is a Friends Rural Settlement at Rasulia, Hoshangabad, M.P.

*Directors :* Paul Miller and Ruth Miller.

### RAJDHANI CYCLE BEOPAR MANDAL

6, Esplanade Road, Delhi 6.

### RAMAKRISHNA MISSION

Ramakrishna Ashrama Marg, New Delhi 1.

*Secretary :* Swami Swahananda.

### THE ROCKEFELLER FOUNDATION

17, Kautilya Marg, Chanakyapuri, New Delhi 21.

Since its inception in 1920 valuable assistance has been provided by the Foundation to several institutions in such fields as medical education, public health, agriculture, humanities and social sciences. The total amount of grants including fellowships and travel grants made by the foundation upto Dec. 31, 1964 was reported to be $15,953,315.

For the first quarter of 1965, the Rockefeller Foundation had announced several grants to Indian institutions and individuals, amounting to $32,525.

*Officer-in-Charge & Field Director, Indian Agricultural Programme :* Dr. Ralph W. Cummings ; *Asstt. Field Director :* Dr. Guy B. Baird ; *Rep. in India for Medical and Natural Sciences :* Dr. LeRoy R. Allen.

### THE ROLLER FLOUR MILLERS' FEDERATION OF INDIA

41-L, Connaught Circus, P. Box No. 637, New Delhi 1.

*Chairman :* P. Maruthai Pillai ; *Vice-Chairman :* S. P. Virmani ; *Secretaries :* Walker, Chandiok & Co., Chartered Accountants ; *Executive Secretary :* A. V. Srinivasan.

### SAHITYA AKADEMI (NATIONAL ACADEMY OF LETTERS)

Rabindra Bhavan, New Delhi.

The Akademi is a national organization to work for the development and co-ordination of Indian letters, and to set high literary standards. It was inaugurated on March 12, 1954.

There is a General Council of 70 members and an Executive Board of 21.

Among the more concrete projects that are before the Akademi are a bibliography of Indian literature, critical edition of Kalidasa's works, selections from Sanskrit and Pali literatures, a series of periodical volumes entitled, 'Bharatiya Kavita' containing select poems from major Indian languages transliterated into devanagari and translated into Hindi, collected works of the late Maulana Azad, a series of volumes containing translations of select Indian stories into English, standard works in English and Indian languages on the histories of modern Indian literatures, anthologies covering poetry, one-act plays.essays and short stories in Indian languages, translation of select classics from one Indian language into another, translations of select writings of Tagore from Bengali into other Indian languages, translation of foreign classics into Indian languages, a series of short volumes on significant Indian authors, etc.

The Akademi has already published a *Who's Who of Indian Writers* containing bibliographical and biographical data about 5,500 writers in major Indian languages.

Every year since its inauguration in 1954, the Sahitya Akademi has been awarding prizes of Rs. 5,000 each to some outstanding books published in Indian languages. Books are eligible for prizes in 16 languages : the 14 major languages enumerated in the Indian Constitution and Sindhi and English (as written by Indian authors). Eleven books in 1963 and thirteen books in 1964 were adjudged worthy of Award. The total number of Awards given for books published upto 1964 is one hundred. The Akademi publishes two half-yearly journals, *Indian Literature* (in English) and *Sanskrita Pratibha* (in Sanskrit), besides a Monthly News Bulletin in English.

*President :* Dr. S. Radhakrishnan.

*Vice-President :* Dr. Zakir Husain.

*Secretary :* Krishna Kripalani.

### SANGEET NATAK AKADEMI

(National Academy of Dance, Drama & Music)

Rabindra Bhavan, Ferozeshah Road, New Delhi 1.

The Akademi was established on January 28, 1953. The chief objective of the Akademi is to foster and develop, Indian dance, drama and music and to promote through them the cultural unity of the country. Also, the Akademi co-ordinates the activities of regional organisations, promotes research, sets up training institution and sponsors festivals and cultural exchanges in the field of dance, drama and music.

*Organisational Set-up :* The Akademi functions through a General Council, Executive Board, a Finance Committee and other Standing or *ad hoc* Committees which the General Council or the Executive Board may appoint. The General Council consists of a Chairman, a Financial Adviser, five persons to be nominated by the Government of India, one nominee each from the 15 State Governments, one representative of the Union Ministry of Education, one representative of the Union Ministry of Information and Broadcasting, two representatives each of Sahitya Akademi and Lalit Kala Akademi, 12 representatives chosen in consultation with organisations in the field of dance, drama and music recognised by the Akademi and eight eminent persons in the field of dance, drama and music, from different regions of India.

*General Programme :* The main task which the Sangeet Natak Akademi has set itself for the present, is to conduct survey and research in the existing art-forms found in various parts of the country to record them in order to preserve them as part of our cultural heritage, and to publish, or to encourage publication of material about them. The Akademi also aims at developing and popularising these arts by organising and sponsoring seminars and festivals, play competition, etc. by establishing new institutes or taking over the existing ones whenever possible or desirable, for imparting higher training. For all these purposes the Akademi has given grants.

The Akademi's programme also includes Awards to eminent artistes, for music, folk and classical dance and drama.

*Chairman :* H.H. Maharaja Jaya Chamaraja Wadiyar Bahadur; *Vice-Chairman :* S. N. Mozumdar ; *Financial Adviser :* K. N. Channa ; *Secretary :* Prof. Mohan Khokar.

### SANT NIRANKARI MANDAL (Regd.)

Sant Nirankari Colony, Delhi 9.

*Aims and Objects* . to promote the feelings of Universal Brotherhood and equality amongst all human beings without caste, creed and colour through realisation of God and to develop equal respect for all the prophets and their holy scripts. Under the kind patronage of His Holiness Baba Gurbachan Singh Jee Maharaj.

*President :* S. Labh Singh ; *Secretary :* Ram Saran.

### SANT PARMANAND BLIND RELIEF MISSION

18, Alipore Road, Delhi 8.

*Object :* Eradication of blindness in India.

*Office-Bearers :*—Seth Jugal Kishore Ji Birla (*President*) ; R. B. Gaya Prasad (*Honorary Secretary*).

### SANYUKTA SADACHAR SAMITI

20, 'L' Block, North Block Secretariat, New Delhi 3.

The objects of the Samiti are :—(*i*) to create a social and moral climate which will foster moral values and ethical living and discourage anti-social attitudes and corrupt practices ; and with this end in view, to launch an intensive and widespread campaign in the country for moral awakening and social enlightenment ; (*ii*) to develop the will and capacity of the people to fight and eradicate corruption in all forms ; (*iii*) to mobilise the strength and resources of social and religious organisations of the country for eradication of corruption in all forms ; and (*iv*) to assist in the redress of people's grievances relating to all forms of corruption and set up a suitable machinery for this purpose.

The functions of the Samiti are :—(*i*) to set up similar Samities at State, District, Zonal and lower levels ; (*ii*) to develop moral and social sanctions for counteracting corrupt tendencies and dishonest dealings ; (*iii*) to make arrangements for study and research of the problems connected with the eradication of corruption, with particular reference to the sources of and reasons therefor ; (*iv*) to publish suitable literature and carry on propaganda for eliminating corruption ; (*v*) to secure the cooperation of social and religious organisations in suitable fields of activity ; (*vi*) to enlist and train a large force of active workers to realize the objectives of the Samiti ; (*vii*) to arrange for the direction and coordination of the work of the movement ; and (*viii*) to organise the community and take other necessary steps for the realisation of the aforesaid aims.

### SCIENCE APPARATUS DEALERS' ASSOCIATION

C/o Sindsagar Industries, Inside Sultansingh Bldg., Kashmere Gate Delhi.

### SERVANTS OF THE PEOPLE SOCIETY
(Lok Sevak Mandal)
Lajpat Bhawan, Lajpat Nagar, New Delhi 14.

*President :* Lal Bahadur Shastri; *Vice-President :* Mohan Lal; *Secretary :* Sevakram.

### SHRI RAM INSTITUTE FOR INDUSTRIAL RESEARCH
19, University Road, Civil Lines, Delhi 7.

Shri Ram Institute for Industrial Research is a registered Society whose objective is to assist National Industrial Growth through Research for the Textile, High Polymer and Chemical Industries. It undertakes Contract Research for Government and for Private Industry on a no profit no loss basis.

*Chairman :* Dr. C. D. Deshmukh.
*Director :* Dr. V. B. Chipalkatti.

### SMALL-SCALE INDUSTRIES ASSOCIATION
33, Deputy Ganj, Delhi.

*President :* Bishambarnath ; *Secretary :* K. C. Jain.

### SOCIETY OF INCORPORATED ACCOUNTANTS AND AUDITORS OF INDIA
Daryaganj, Delhi.

*President :* Dr. L. N. Mehra, D.Sc. (Com.), LL.B., F.S.A.A. (India); *Vice-President :* Dr. Jawanda Ram Bhatia, Ph.D., M.A., LL.B., F.S.A.A. (I.), F.S.I.S., etc. ; *Secretary :* Dr. F. C. Soni, D.Sc. (Com.), M.Com., F.C.I. (Lond.), F.S.A.A. (India), etc.

### SPORTS GOODS EXPORT PROMOTION COUNCIL
5, Rani Jhansi Road, New Delhi 1.

### ST. JOHN AMBULANCE ASSOCIATION (INDIA) AND ST. JOHN AMBULANCE BRIGADE (INDIA)
(Estd. 1912)
1, Red Cross Road, New Delhi 1.

*Objects :* Instruction in First Aid, Home Nursing and allied subjects and relief of suffering of the sick and injured in peace and war.

The association has five grades of members, namely, patrons, honorary councillors, life members, annual members and annual associates. Their respective subscriptions are Rs. 1,000, Rs. 500, Rs. 100, Rs. 5 and Re. one.

The President of the Republic of India is the President of the Association. Its general business is conducted by an executive committee.

The St. John Ambulance Brigade is a uniformed, disciplined body of men with First Aid Certificates and women with Home Nursing Certificates. They meet together regularly for practice, are inspected and re-examined annually and undertake to turn out for public duty whenever required.

The Brigade in India is commanded by Dr. (Miss) Sushila Nayar as Chief Commissioner. Under her are 22 Districts covering almost all the States and major railways in India with headquarters at Ahmedabad, Bangalore, Bhubaneshwar, Bombay, Calcutta, Chandigarh, New Delhi, Gorakhpur, Hyderabad, Indore, Jaipur, Lucknow, Madras, Pandu, Patna and Shillong.

*Surgeon-in-Chief* and *Secretary-General :* Maj.-General C. K. Lakshmanan.

### SUPREME COURT BAR ASSOCIATION
Supreme Court Bldgs., Hardinge Avenue, New Delhi.

### TABLE TENNIS FEDERATION OF INDIA
National Stadium, Post Box No. 282, New Delhi 1.

### TRAINED NURSES' ASSOCIATION OF INDIA
L-16, Green Park, New Delhi 16.

The Association has an associate consisting of Student Nurses' Association, Health Visitors' League, and Midwives' and Auxiliary Midwives' Association. The number of registered members is 7,122 and student members 16,084 totalling 23,206. The official organ of the Association is *The Nursing Journal of India.*

*President :* Miss A. Jacob ; *Vice-Presidents :* Miss G. Kapadia; Miss Edith Paul ; M. A. Ahad ; *General Secretary :* Miss I. Dorabji ; *Secretary, Student Nurses' Assocn. :* Miss M. Philip ; *Hon. Treasurer :* Miss B. Dawson ; *Editor :* Miss I. Dorabji.

*Hon. Secretaries :* Health Visitors' League : Miss D. S. Elisha ; Midwives' Association : Mrs. H. Chabook.

### TUBERCULOSIS ASSOCIATION OF INDIA
*Office :*—3, Red Cross Road, New Delhi 2.

Twenty State Tuberculosis Associations are affiliated to this Association. It runs model T.B. institutions, namely, the Lady Linlithgow Sanatorium, Kasauli (Simla Hills) with which is annexed the King Edward Sanatorium, Dharampore ; the New Delhi Tuberculosis Centre, New Delhi and Tuberculosis Hospital, Mehrauli (Delhi). Publishes the *Indian Journal of Tuberculosis* quarterly and brings out *Directory of Tuberculosis Institutions in India.* Conducts annually the T.B. Seal Sale Campaign, trains doctors and health visitors and organises every year conferences of T.B. workers in Tuberculosis and Chest Disease.

*Chairman :* Dr. K. N. Rao, Director-General of Health Services, Government of India ; *Hon. Treasurer :* S. Ratnam ; *Hon. Tech. Adviser :* Dr. N. L. Bordia ; *Secretary :* B. M. Cariappa.

### UNITED CHAMBER OF TRADE ASSOCIATIONS
Nai Sarak (Katra Rathi), Delhi.

*President :* Maheshwar Dayal ; *Hon. Genl. Secy. :* P. R. Mittal ; *Secretary :* O. P. Agrawal.

### UNITED COUNCIL FOR RELIEF AND WELFARE
C/o Rashtrapati Bhavan, New Delhi.

### UNITED STATES EDUCATIONAL FOUNDATION IN INDIA
Fulbright House, 12, Hailey Road, New Delhi 1.

*Chairman, Board of Directors :* Dr. Robert R. R. Brooks ; *Director :* Dr. Olive I. Reddick.

### VALLABHBHAI PATEL CHEST INSTITUTE
Univ. of Delhi, Patel Marg, Delhi 7.

*Director :* Prof. A. S. Paintal, M.D., Ph.D., D.Sc.

### WIRENETTING MANUFACTURERS' ORGANISATION
C/o Shukla Netting Works, Hauz Kazi, Delhi.

### YOGA INSTITUTE OF PSYCHO-PHYSICAL THERAPY
2-F, Lajpatnagar, New Delhi 14.

### YOUNG FARMERS' ASSOCIATION, INDIA
32, Jorbagh, New Delhi 3.

*President :* Utsavbhai Parikh ; *Secretary :* Nirmalendu Basu.

The Association is a specialised educational enterprise devoted to social and economic advancement of the rural youth. It aims to train rural boys and girls in better methods of farming and homemaking.

### YOUTH HOSTELS ASSOCIATION OF INDIA
No. 2, East Park Road, Karol Bagh, New Delhi 5.

*President :* Smt. Shanti Kabir ; *National Secy. :* R. G. Padki ; *Treasurer :* Sardar Mohan Singh.

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Gupta & Co., R. N., 18/4, Asaf Ali Road, New Delhi 1.

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Howrah Motor Co. Ltd., Kashmere Gate, Delhi.

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India Insulation Co., 10, Daryaganj, Delhi 7.

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India Trading Co. P. Ltd., 1903, Chandni Chowk, Delhi 6.

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India Tyre Retreading Co., 21-A, Najafgarh Road, New Delhi 15.

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**INDIAN ENGINEERING CO.**, 18, Pusa Road, New Delhi; Phone: 52876. Grams: "ARGIKE". Also at Bombay, Calcutta and Madras); Manufacturers and Dealers of Electrical Equipment, Components and raw materials for the Electric Industry.

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Kishan Chand Gupta & Co., Mehrauli, New Delhi 16.

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Lloyds Leatherites & Exporters, 90-E, Kamlanagar, Delhi.

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Lyall Finance Co., Connaught House, Connaught Place, New Delhi.

**M. C. ENGINEERING CO.,** Electronic & Radio Parts Manufacturers, 36, Okhla Industrial Estate Delhi-20; Phone: 72838; Partners: C. L. Sharma and O. N. Sharma.

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Mahabir Pershad & Sons, Chawri Bazar, Delhi 6.

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Mahatta & Co., 59, M-Block, Connaught Circus, New Delhi-1.

**MAHINDRA & MAHINDRA LTD.,** 8, Parliament Street, New Delhi-1. Phone: 45918; Chairman: Keshub Mahindra, Manager: Brig. Dilip Chaudhri, Asst. Manager: Maj. A. S. Bedi.

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Singhal Industrial Corporation, 595, Sadar Bazar, Delhi 6.

Sirdar Carbonic Gas Co. Ltd., Ram Bagh Road, Delhi.

Sir Sobha Singh & Sons P. Ltd., 1-A, Janpath, New Delhi.

**SIYARAM, KUMAR ENGINEERING WORKS PVT. LTD.,** 20B, Najafgarh Road, New Delhi-15; Phone: 53931, Managing Partner: J. V. Gupta; Tech. Director: M. Kumar.

Skoda (India) Private Ltd., National Insurance Bldg., Parliament Street, New Delhi.

Skytone Electricals India, 2655, Sadar Thana Road, Delhi 6.

Smart's Private Ltd., Smarts Chit Funds, Reading Road, New Delhi; Phone: 43600

S. M. G. Beaty P. Ltd., Block D, 21-B, Connaught Place, New Delhi.

S. N. Kohli & Co. P. Ltd., Kashmere Gate, Delhi 6.

S. Nath Kakar & Son, 41, Hanuman Road, New Delhi 1.

Sodhbans & Co., Dilbar Bldg., Paharganj, New Delhi.

Soi Brothers & Co., 8/28, W.E.A., Karol Bagh, New Delhi.

South Asia Industries P. Ltd., 10, Daryaganj Delhi 6.

Spedding Dinga Singh & Co., Mathura Road, New Delhi.

Spencer & Co., Ltd., 19A, Alipore Road, Delhi.

Spraylac Paints Corporation, 9, Faiz Bazar, Delhi.

Spun Pipe & Construction Co. of India P. Ltd., 9A/41, W.E.A., New Delhi 1.

Standard Telephones & Cables Ltd., Connaught House, E-10, Connaught Place, New Delhi.

**STARKE & CO.** Mine Owners and Minerals Dealers, 138, Kamla Market, New Delhi-1; Phone: 271157, 271861; Partners: R. N. Sehgal, H. L. Beri.

Statesman Private Ltd., Connaught Circus, New Delhi.

Steelsons P. Ltd., 16-V, Pleasure Garden Market, Delhi 6.

**STERLING ADVERTISING (PVT.) LTD.,** Jeewan Roop Mans, L. Block, Connaught Circus, Delhi-1; Phone: 40676; Managing Director: Rayaz Ahmad; Secretary: I. Watson, Accts.: T. R. Bahl, Media: S. P. Singh.

Stone, J. & Co. (India) P. Ltd., Speedbird House, Connaught Circus, New Delhi 1.

Structural Fabricators P. Ltd., 67, Najafgarh Road. New Delhi 15.

**SUMITOMO SHOJI KAISHA LTD.,** (Japan), Phelps Bldg., 9-A, Connaught Place, Delhi-1; Phone: 45496, 46320; Ch. Rep.: S. Hanada.

Sunderson & Co., S. N., 1/1, Original Road, New Delhi.

Sunlight Chit Fund P. Ltd., 24, Beadonpura, Ajmalkhan Road, New Delhi 5.

Super Markets P. Ltd., 9A/3, Pusa Road, New Delhi 5

Surfrige Service Refrigerators India P. Ltd., 46, Janpath, New Delhi

Surya Trading Corpn. of India P. Ltd., 12/8, W.E.A., New Delhi 5.

Swan (India) P. Ltd., 20-F, Connaught Circus, New Delhi.

Sylvan Star Investment Co. P. Ltd., 1517, Kashmere Gate, Delhi.

Tara Industries, 13/20, W.E.A., New Delhi 5.

Tata Industries P. Ltd., United India Life Bldg., F. Block, Connaught Place, New Delhi.

Tata Iron & Steel Co. Ltd., Shyam Bhawan, 15/1, Asaf Ali Road, New Delhi.

Tayal Brothers P. Ltd., Outside Ajmeri Gate, Delhi 1.

Tej Daily Ltd., Post Box 112, Delhi.

T. Motandas & Co., Thana Saddar Road, Delhi 6.

**TIN CAN MANUFACTURING CO.,** 3539, Qutab Road, Delhi-6; Phone: 225774; Office & Factory: Qutab Road, Branch Factory: 6, D. L. F. Industrial Area, Najafgarh Road, New Delhi 15; Phone: 55439; Manufacturers of Plain & Decorated Tin Boxes of all sizes and shapes; Boot Polish and Ointment debbies, Varnish Containers and Pilfer Proof Caps.

Toyo Menka Kaisha Ltd., 10A, Indra Palace Annexe, Connaught Circus, New Delhi.

Trade Links P. Ltd., 46, Pusa Road, New Delhi 5.

Trave Aids (India), 21, Park Area, New Delhi 5.

Trilok Chand & Sons P. Ltd., Behind State Bank of India, Chandni Chowk, Delhi 6.

Tubewell Corpn., Opp. Chandni Chowk P.O., Delhi 6.

Turner Hoare & Co. P. Ltd., 10, Parliament Street, New Delhi.

Tyresoles Concessionaires P. Ltd., Najafgarh Road, New Delhi 15.

Uberoi Ltd., 14/E, Connaught Place, New Delhi

Union Carbide India Ltd., 3/1, Asaf Ali Road, New Delhi.

Union Commercial & Industrial Co. Ltd., 3/8, Asaf Ali Road, New Delhi.

Unisales Engineers P. Ltd., 9 N., Munshi Lal Bldg., Connaught Circus, New Delhi.

United Dairies Ltd., Connaught Circus, New Delhi.

United India General Finance P. Ltd., Bank St., Karol Bagh, New Delhi 5.

United Provinces Commercial Corpn. P. Ltd., Marshal House, Hanuman Road, New Delhi 1.

**UNITED SALES CORPORATION,** 3534, Hakim Baqa Street, Chawri Bazar, Delhi-6; Sole Distributors of BRP Haudraulic Door Closers and Water Sprinklers.

United Traders, Katra Neel, Chandni Chowk, Delhi

Universal Agencies, Pan Mandi, Sadar Bazar, Delhi 6.

Universal Engineering Ltd., 12/9, Munshi Lal Bldgs., Connaught Circus, New Delhi.

Universal Engineering Corpn., Najafgarh Road, New Delhi 15.

Universal Industries, 25, Industrial Estate, Okhla, New Delhi 19.

Universal Metal Industries, Rani Jhansi Road, New Delhi 1.

Universal Traders Ltd., 40, Golf Links, New Delhi 3.

Upper India Trading Co. Ltd., Kashmere, Gate, Delhi.

Urban Improvement Housing & Construction Co. Ltd., 32F, Connaught Place, New Delhi 1.

Usha Sewing Machines & Electric Fans, 13-14, Ajmere Gate Extension, Delhi 1.

Uttam Singh Dugal & Co. P. Ltd., 11, Marina Arcade, New Delhi.

V. D. Swami & Co. P. Ltd. 10-A, Nizamuddin West, New Delhi.

**VICKERS INDIA PRIVATE LTD.** 136, Sundar Nagar, New Delhi 11.

Vijaya Electronics P. Ltd., 131, Connaught Circus, New Delhi.

**VIRMANI REFRIGERATION & COLD STORAGE PRIVATE LTD.,** Cold Storage, Ice and Refrigeration Machinery manufacturers, E/2, Jhandewala, New Delhi 1.

Vita P. Ltd., 9, L. Castle Road, Delhi 6.

Voltas Limited, 7/1, Asaf Ali Road, New Delhi.

Vulcan Trading Co. Ltd., Indra Palace, Connaught Place, New Delhi 1.

**V. W. KATHALAY & SON,** 3/4107, Naya Bazar, Delhi-6.

Wakefield & Co. Ltd., C.C., 3 Block, Asaf Ali Road, New Delhi.

Walker Chandiok & Co., 41-L, Connaught Circus, New Delhi.

Wearwell Cycle Co. (India) Ltd., 46-M, Connaught Circus, New Delhi 1.

Western Mfg. Agency P. Ltd., Fountain, Delhi 6

Western Mfg. Co. Delhi P. Ltd., 57, Jorbagh, New Delhi 3.

Western India Match Co. Ltd., Indra Palace, New Delhi.

**WESTREX CO.**, (Prop.: Cinerama Pvt. Ltd.), Brampton Road, Kashmere Gate (Near Minerva Cinema), Delhi.

White Croft Mfg. Co. P. Ltd., Thapar House, 124, Janpath, New Delhi.

**WILLCOX BUCKWELL INDIA LTD.**, (Subsidiary of Lansen & Toubro Ltd.), *Regd. Office:* 32, Najafgarh Road, P.O. Box 289, New Delhi-15; Phone: 53171/5, Grams: "WILLBUZ", Telex: TLX. 327. Authorised dealer in Northern India and Rajasthan for Caterpiller Overseas S.A., British Crane Corporation Ltd., U.K., Priestman Brothers Ltd., U. K. and other well-known foreign manufacturing Companies. *Directors:* H. Holck-Larsen, N. M. Desai, P. G. Bhagat, B. I. Bhambhani.

William Jacks & Co. Ltd., Connaught House, Connaught Place, New Delhi 1.

Wright & Partners P. Ltd., R., L-11, Connaught Circus, New Delhi.

X. A. C. A. (India) P. Ltd., Film Colony, Chandni Chowk, Delhi 6.

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**CARBORUNDUM UNIVERSAL LTD.—Manufacturers of Bonded and Coated grains and Super Refractories, Laxman House, 2nd Floor, 9-10/3, Asaf Ali Road, P.O. Box No. 185, New Delhi 1.**

Grindwell Abrasives Ltd.—45, Indra Palace, Con. Place, New Delhi.

Hindustan Abrasives.—100, South Avenue, New Delhi.

## ACCOUNTING MACHINES

**INTERNATIONAL COMPUTERS AND TABULATORS (INDIA) PRIVATE LTD.,**

Hollerith X Powers-Samas Data Processing Equipment, Northern Zone, Jeevan Tara Bldg., 5, Parliament Street, New Delhi; Phone: 45807, 45808.

## ADDING AND CALCULATING MACHINES

**LATHAM ABERCROMBIE DIVISION OF FORBES FORBES CAMPBELL & CO. LTD.—9/10-3, Asaf Ali Road, New Delhi; Facit Calculatore, Adding and Listing Machines, Halda Typewriters etc. Phone: 272143.**

## ADDRESSING AND LISTING MACHINES

**BRADMA OF INDIA LTD.—Data Writing Machines and Business Systems, Lok Kalyan Bhavan, 11-A Rouse Avenue Lane, Post Box No. 315, New Delhi; Grams: "BRADMALT".**

## ADVERTISING AND PUBLICITY AGENTS

Asian Advertisers.—P.B.I. Press Bldg., Original Road, New Delhi.

Associated Advertisers & Printers.—Bharatiya Vidya Bhawan Bldg., Curzon Road, New Delhi 1.

Bharat Publicity Service.—Pataudi House, Daryaganj, Delhi.

Bomas Ltd.—1/25, Asaf Ali Road, New Delhi.

Clarion Advertising Service P. Ltd.—1, Jain Mandir Road, New Delhi 1.

Delhi Publicity Corp.—46, Janpath, New Delhi.

**DELUX PUBLICITY SERVICE.—1795, Sohan Ganj, Delux Bldg., Subzi Mandi, Delhi-7.**

**GAYWAYS PUBLICITY PRIVATE LTD.—18A/3, Rohtak Road, New Delhi 5; Mg. Director: S. S. Parvez; Director: Chander Mohan, B.Com., LL.B.; (Estd. 1944) Specialists in Press Advertising; A renowned House for Modern trends and ideas; Hoardings, Films, Slides, etc.; also undertaken I.E.N.S.**

**GRANT ADVERTISING, INC.—22-B, Pusa Road (Bazar Marg), New Delhi-5; Phone: 566259. Grams: "GRANTCHI"; Advertising Agents & Consultants; R. S. J. Davidson, President, West Asia Division, Denis M. Fernandes, Manager; Offices at Bombay, Calcutta, Madras (40 Branches all over the world).**

Hamdard Advertisers.—Hamdard Dawakhana, Lal Kuan, Delhi 6.

Hind Publicity Service.—270, Kamla Market, New Delhi.

**HINDUSTAN PUBLICITY CORPN.—21, Darya Gunj, Delhi 6; Phone: 273336; Hoarding and Neon Sign Sites in Delhi all over North and Central India, Designing, Press Layouts & creative ideas; Agents to Indian Railways and on the approved list of Government of India.**

India Advertising Service, 7/D, Rajouri Garden, Delhi.

Indian Abrasives.—113, Daryaganj, Delhi.

**J. WALTER THOMPSON COMPANY PRIVATE LTD.—142, Sunder Nagar, New Delhi 11.**

Jupiter Publicity Co.—G. B. Road, Delhi.

**LPE-AIYARS PRIVATE LTD.—M-138, Aggarwal Bldg., Connaught Circus, New Delhi; H.O. Bombay; Branches: Calcutta, Madras and London.**

Laurels Publicity Service Ltd.—32/M, Con. Circus, New Delhi.

Lintas Ltd.—D.A.G. Extension, New Delhi.

Marketing Advertising Associates P. Ltd.—25-1, Asaf Ali Road, New Delhi.

**NATIONAL ADVERTISING SERVICE PRIVATE LTD.—Estd.: 1931, Advertising, Market Research, Public Relations; 1st Floor, 127, Golf Links, New Delhi 3; Phone: 618230, Grams: "JEYENJEYN", Manager: D. B. Oswal. Head Office: Khorshed Bldg., Sir P. Mehta Road, Bombay 1; Branch Office at Calcutta; Associates all over the world.**

National Publicity Service.—A6, Connaught Place, New Delhi.

**NEWFIELDS ADVERTISING PRIVATE LTD.—3/4-A, Asaf Ali Road, New Delhi 1; Fully Accredited Advertising Agents and Publicity Consultants with Connections all over the World; Member A.B.C., A.A.A.I., I.E.N.S. and the Panel of Government of India.**

Paramount Publicity Service.—26/A, Bazar Road, New Delhi.

Partap Advertising Agency.—1/8-B, Asaf Ali Road, New Delhi 1.

Press Syndicate Ltd.—10, Parliament Street, New Delhi.

Prince Studio Advertising.—Hauz Qazi, Delhi 6.

Quality Publicity Service.—103, M. Block, Con. Circus, New Delhi.

**RAMA PUBLICITY SERVICE PRIVATE LTD.—Nai Wara Street, Delhi 6; Specialists in Press Advertising, Hoardings, Neon Signs, Cinema Slides and Films, Buses, Kiosks, Railway Advertisement on reverse of Match Boxes and are the Authorised Agents of Radio Ceylon in India; Managing Director: R. N. Chopra. Phone: 263385.**

Standard Publicity Service.—Chandni Chowk, Delhi.

S. K. Kahansons & Co.—N-41, Connaught Circus, New Delhi.

Surjit Advertising Service.—41, [illegible] Jhansi Road, New Delhi 5.

Universal Advertisers.—4, Jamna Bhavan, Asaf Ali Road, New Delhi.

## AERATED WATER MANUFACTURERS

Delhi (G.B.) Ice Factory.—Najafgarh Road, Delhi.

Ganesh Ice Factory.—Ajmere Gate, Delhi.

Imperial Ice Factory.—Punchkua Road, Delhi.

Inderaprastha Ice & Cold Storage.—Katra Chhajju Pandit, Shaidi pura, Delhi.

J. B. Soda Water Factory.—Original Road, Karol Bagh, Delhi.

Khanna Ice Factory.—Jhandewala, Near Durga Temple, Delhi.

Krishna Ice Factory.—Premnagar, Subzimandi, Delhi.

Kumar Ice Factory & General Mills.—14, Bela Road, Delhi.

Lakshmi Ice Factory.—Kauria Paul, Delhi.

Mahabir Ice Mills.—20, Upper Bela Road, Delhi.

Pratap Ice Factory.—Factory Road, Yusuf Sarai, Delhi.

Prag Distilled Water Ice Factory & Cold Storage.—Subzimandi, Delhi.

Rajendra Ice & Cold Storage Co.—Roshanara Road, Delhi.

Ramchand Lachman Dass Ice Factory.—Paharganj, Delhi.

Shanker Ice Factory.—Birla Lines, Subzimandi, Delhi.

Tapiltz Aerated Water Co.—Church Road, Kashmiri Gate, Delhi.

## AGRICULTURAL MACHINERY

**EICHER TRACTORS INDIA LTD. (Estd. 1959).—Manufacturers of renowned "Eicher" Air-cooled Diesel Tractors in technical and financial collaboration with Messrs. GEBR EICHER TRAKTO RENFABRIK, Fourteen/obb, West Germany; Factory & Works Office: New Industrial Town, Faridabad (Punjab); Regd. Office: 16-A, Asaf Ali Road, New Delhi 1; Phone: Faridabad: 192; New Delhi: 272273; Grams: "EICHERTRAC"; Managing Director: Shri M. M. Lal.**

Escorts (Agents) P. Ltd.—Pratap Bldg., Connaught Circus, New Delhi.

Gardners Corporation.—25/90, Connaught Circus, New Delhi 1.

**GHAZIABAD ENGINEERING CO. (P) LTD.—42, Janpath, New Delhi; Manufacturers 'Harsha' Agricultural Implements, Trailers & 'Harsha' House-hold Electrical Appliances; Distributors for Soviet Agricultural Tractors, Earth-moving Machinery, Mico & Bosch Fuel Injection Equipment, Czechoslovak Dumpers, Mobile Cranes, Fork Lift Trucks & Diesel/Electric Locomotives.**

Globe Motors Private Ltd.—1/1, Jhandewala, New Delhi.

**INDIAN LANDSBERG IMPLEMENTS CORPORATION PRIVATE LTD. (Estd. 1959).—Manufacturers of "Landsberg" Tractor Drawn Agricultural Implements in Technical and Financial Collaboration with Messrs. BAYERISCHE PFLUG FABRIK G.m.b.H. Landsberg/Lech., West Germany; Works: Faridabad (Punjab); Regd. Office: 16-A, Asaf Ali Road, New Delhi 1; Phones: Faridabad—192; New Delhi—272273; Grams: "IMPLEMENTS". Managing Director: M. M. Lal, Executive Director: Arun Joshi.**

Janata Steel & Metal Co-op. Industrial Society Ltd.—5948, Ballimaran, Delhi.

Larsen & Tourbro Ltd.—Express Bldg., Mathura Road, New Delhi.
Mohanwi Corporation P. Ltd.—26K, Connaught Circus, New Delhi.
Pashabhai Patel & Co. Ltd.—28, Indra Palace, Con. Circus, New Delhi.

Raj Engg. Works P. Ltd.—Ajmeri Gate, Delhi 6.
Saraf Industries.—Saraf Bhawan, 34, Pusa Road, New Delhi 5.
Tractor & Equipment Corpn. P. Ltd.—88, Secretary Line, New Delhi 3.
United Provincial Commercial Corporation P. Ltd.—Marshall House, Hanuman Square, New Delhi.
Verma Trading Co.—Queen's Road, Delhi 6.

## AIR COMPRESSORS

**Brady, W. H. & Co., Ltd.—Indra Palace, Connaught Place, New Delhi.**

**Consolidated Pneumatic Tool Co. Ltd.—8-A/29, W.E.A., New Delhi.**

DGL Private Ltd.—Connaught Circus, New Delhi-1.

**East Asiatic Co., India (Private) Ltd.—Delite Cinema Bldg., D.A.G. Extension, New Delhi.**

Eastern Commodities Private Ltd.—5-A/8, Ansari Road, Daryaganj, Delhi 6.

Khosla, K. G. & Co. Private Ltd.—1, Deshbandhu Gupta Road, New Delhi.

Manjeet Engineering Industries.—71/1, Najafgarh Road, New Delhi 15.

**Marshall Sons & Co. (India) Ltd.—Marshall House, Connaught Circus, New Delhi.**

**Tecalemit (India) Ltd.—L/13, Connaught Circus, New Delhi.**

## AIR-CONDITIONING AND REFRIGERATION

Ahuja (Refrigeration) Private Ltd.—Lakshmi Insurance Bldg., Asaf Ali Road, New Delhi 1.

Air Conditioning Corporation Ltd.—N. Block, Connaught Circus, New Delhi 1.

Airtemp Corporation.—12, J. Bagh, New Delhi 3.

American Refrigerator Co. P. Ltd.—4/2B, Asaf Ali Road, New Delhi.

Arya Refrigeration & Air Conditioning Co.—Nirula Bldgs., Con. Place, New Delhi.

Associated Electrical Industries (India) Private Ltd.—United India Life Bldg., Connaught Place, New Delhi.

Bansal Brothers.—Pili Kothi, Bazar Sita Ram, Delhi 6.

Best & Co.—Connaught Circus, New Delhi 1.

Bhagatjee & Co.—5, Daryaganj, Delhi.

Bharat Air Conditioning Corporation.—12/3B, Connaught Place, New Delhi 1.

Blue Star Engineering Co. P. Ltd.—1/23B, Asaf Ali Road, New Delhi 1.

Bombay Ammonia & Refg. Co. (Private) Ltd.—24, Asaf Ali Road, New Delhi 1.

Capital Refrigeration Co.—B-7, Asaf Ali Road, New Delhi 1.

Commercial Refrigeration Corpn.—3, Saran Bldg., Ram Nagar, Delhi 1.

Cooling Machinery Stores.—B16/7, Connaught Place, New Delhi 1.

Crystal Refrigeration Corpn.—Dufferin Bridge, M. Gate, Delhi 6.

Eastern Electric & Trading Co.—17E, Connaught Place, New Delhi 1.

Electronics Ltd.—A Block, Connaught Place, New Delhi.

Friends & Co.—959, Kucha Ruhalla Khan, Daryaganj, Delhi 6.

Frigsales (India).—9B, Jindal House, Asaf Ali Road, New Delhi 1.

Hindustan Airconditioning Corporation.—Asaf Ali Road, New Delhi.

Hindustan Cold Stores & Refrigeration P. Ltd.—1, Dufferin Bridge, Delhi 6.

Hindustan Refrigeration Stores.—2, Netaji Subhas Marg, Delhi 6.

**HYDERABAD ALLWYN METAL WORKS LTD., THE.—Asaf Ali Road, New Delhi-1; 'ALLWYN' AT-900 9 cft. Refrigerator, 'Allwyn Prestcold' AP-610, 6.10 cft. Refrigerator, 'Allwyn' AT-400, 4.4 cft. Refrigerator, 'Allwyn Coolette' AC-610 and AC-400 Refrigerators and 'Allwyn Medicold' AM-610 and AM-400 Refrigerators; Phone: 271326.**

Ice Machinery Co.—66/67, G. B. Road, Delhi 6.
Indian Refrigeration Industries.—51, Najafgarh Road, New Delhi 15.
Kamal & Co. (Jaipur) Private Ltd.—Post Box 1301, Kashmere Gate, Delhi 6.

Kanwar Refrigerators (India).—M-45/1, Connaught Circus, New Delhi 1.

Kapsons Refrigeration & Air Conditioning Engineers.—Asaf Ali Road, New Delhi 1.

Kalvinator of India Ltd.—19-A, Alipore Road, Delhi 6.

Kooler's Refrigeration & Air Conditioning Co.—1/21, Block, Connaught Circus, New Delhi 1.

Koolaire Private Ltd.—44, Janpath, New Delhi.

Litts' Refrigerations Corporation.—18-G, South Extension, Ring Road, New Delhi.

Lloyd Electric & Engineering Co.—Punj House, M-13, Connaught Circus, New Delhi 1.

Mittersons Refrigeration & Mfg. Co.—7/22, Daryaganj, Delhi 6.

Modern Air-Conditioning Co.—34, Sunder Nagar Market, New Delhi 11.

Modern Electro-Mechanical Works.—25/8, Prem House, Connaught Place, New Delhi 1.

National Refrigeration Works.—2, Netaji Subhas Marg, Daryaganj, Delhi 7.

New India Motors Ltd.—Connaught Circus, New Delhi 1.

Oriental Radio Corporation.—1214, Asaf Ali Road, New Delhi 1.

R. C. Durant & Co.—M Block, Connaught Circus, New Delhi.

Refrigerators (India) P. Ltd.—46, Janpath, New Delhi 1.

Refrigerator Service Corporation.—2, Regal Building, Connaught Circus, New Delhi 1.

Simplex Mfg. Co. Private Ltd.—23-25, Faiz Bazar, Daryaganj, Delhi 6.

Standard Radio & Electric Co.—Opp. Scindia House, New Delhi 1.

Surfrige Service Refrigerations P. Ltd.—46, Janpath, New Delhi.

Tranga Engineering Works.—349-A, Lajpat Rai Market, Delhi 6.

Upkari P. Ltd.—1/4, New Link Road, Jhandewalan Extn., New Delhi 1.

Veer Refrigerating & Air Conditioning Co.—X1/3485, Daryaganj, Delhi 7.

Veer Refrigerators India.—Paliwal Building, Ajmeri Gate, Delhi.

Voltas Ltd.—7/1, Ajmeri Gate Extn., New Delhi 1.

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Phone: 45866, 45867.

Pind Automobiles Corporation.—37, Inhustria Estate, Okhla, New Delhi 20.

**NATIONAL REFRIGERATION WORKS.—3, Netaji Subhas Marg, Delhi-6; Importers & Stockists of: Refrigeration and Air Conditioning Machinery, Copper Tubing, Sealed in-Compressors, Refrigerants and Spares, Manufacturers of Cold Storage, Coolers etc. Phone: 274636, 271398; Resi.: 74460.**

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## ARTS & CRAFTS MANUFACTURERS & DEALERS

**INDIAN ARTS & CRAFTS SYNDICATE.—2666, Ballimaran, Delhi 6; Exporters of Brassware including Plaques, Glass Lamps, Chandeliers, Kitchen and Tableware, antique and new Copper Ornamental ware, Woollen & Cotton Carpets, Carved Wooden articles including Screen panels/room dividers, tables, wall brackets, trivets and tiles, carving sets, costume jewellery, toys and dolls, musical instruments, woollen & zari embroidery and importers of zinc, tin, copper, wool-tops, dyes, artistic brushes, gasoline, paper and machinery (cottage machinery).**

## ASBESTOS PRODUCTS

**ASBESTOS MAGNESIA & FRICTION MATERIALS LTD.—(Incorporated with limited liability in England); New Delhi Sales Office : 65, Friends Colony, New Delhi 14; Phone : 274046/7; Grams : "ASMAFRIC"; Bombay Office : Bombay-Agra Road, Ghatkopar, Bombay 77; Phone : 51491; Grams : "ASMAFRIC"; Sales Offices at Calcutta & Madras.**

**HINDUSTAN FERODO LTD.—A member of the Turnen & Newall Group; New Delhi Sales Office : 65, Friends Colony, New Delhi 14; Phone : 274046/7; Grams : "FERODOSTAN." Head Office and Factory : Bombay-Agra Road, Ghatkopar, Bombay 77; Phone : 51491; Grams : "FERODOSTAN." Sales Offices : Calcutta & Madras; Manufacturers of "FIRE-FLY" Asbestos Textiles, Compressed Asbestos Fibre Jointings & "LIMPET" Asbestos Sheets.**

## AUTOMOBILES, AUTOMOBILE PARTS AND ACCESSORIES MFRS. & DEALERS

Acme Batteries Private Ltd.—G. T. Road, Delhi-Shadara.
Aggarwal Motor Co.—Gandhi Motor Market, Kashmere Gate, Delhi.
Aggarwala Automobiles.—Queen's Road, Delhi.
Aggarwal Motor Stores.—12/1, M. Connaught Circus, New Delhi 1.
Allied Auto Agencies.—28/M, Connaught Circus, New Delhi.
Allied Auto Stores.—Gandhi Motor Market, Kashmere Gate, Delhi.
Allied Engg. & Trading Co. Ltd.—Kashmere Gate, Delhi.
Allied Motors P. Ltd.—Scindia House, New Delhi.
American Automobiles.—Gandhi Motor Market, Kashmere Gate, Delhi.
American Radio & Automobile Co.—Queen's Road, Delhi.
Anand Motors.—Opp. Minerva Cinema, Kashmere Gate, Delhi.
Anand Automobiles.—Queen's Road, Delhi.
Anand Traders.—15, Hamilton Road, Kashmere Gate, Delhi.
Aryavarta Auto Supply Co.—698, Hamilton Road, Kashmere Gate, Delhi.

**ASBESTOS MAGNESIA & FRICTION MATERIALS LTD.—(Incorporated with limited liability in England); New Delhi Sales Office : 65, Friends Colony, New Delhi 14; Phone : 274046/7; Grams : "ASMAFRIC"; Bombay Office : Bombay-Agra Road, Ghatkopar, Bombay 77; Phone : 51491; Grams : "ASMAFRIC"; Sales Offices at Calcutta & Madras.**

Asiatic Automobiles.—859, Queen's Road, Delhi.
Asiatic Automotive Engg. Co.—23, Najafgarh Road, New Delhi 15.
Asiatic Traders.—Peareylal Motor Market, Kashmere Gate, Delhi.
Asoka Traders.—Peareylal Motor Market, Kashmere Gate, Delhi.
Associated Engg. Works.—Kashmere Gate, Delhi.
Asu Traders Pvt. Ltd.—P. Box No. 1130, Kashmere Gate, Delhi.
Attock Motors (India).—55, Gokhale Market, Delhi.
Auto Diesel Agency.—Hamilton Road, Kashmere Gate, Delhi 6.
Autodeals.—33H, Connaught Circus, New Delhi 1.
Auto Diesel House.—Nehru Motor Market, Kashmere Gate, Delhi.
Auto Distributors (India).—Gandhi Motor Market, Kashmere Gate Delhi.
Auto Electric Agency.—33, Gokhale Market, Delhi.
Auto Friends (India).—Kashmere Gate, Delhi.
Auto Importers.—Hamilton Road, Kashmere Gate, Delhi.
Auto Lamps Ltd.—P. Box 1741, New Delhi.
Auto Lines (India).—Pearey Lal Market, Kashmere Gate, Delhi 6.

**AUTOMOTIVE MANUFACTURERS' AGENCIES.—Automobiles, Automobile Parts & Accessories Dealers; 2610, Hamilton Road, Delhi 6. Head Office: Vandekar Mansion, 443, Lamington Road, P.O. Box 4061, Bombay 4 (BR). Branches: 6, Saklat Place, Calcutta-13, and 42-E, General Patters Road, Madras 2.**

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Auto Spares (India).—Kashmere Gate, Delhi.
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Automobile Traders.—3263, D. B. Gupta Road, Paharganj, New Delhi 1.
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Basant Trading Co.—13, Gokhale Market, Delhi.
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Dwarkadas Laxminarain.—Tobacco Katra, Delhi.
Fedco. P. Ltd.—3711-14, N. Subhas Marg, Delhi 6.
Gulabrai Keshoram & Co.—Katra Ishwar Bhawan, Delhi.
Harbhagwan Rangwala.—Tobacco Katra, Delhi.
Harjimal Ramdas.—Tilak Bazar, Delhi.
Harsnad & Co.—Katra Lachhusingh, Fountain, Delhi.
Hind Dyes Sales Corporation.—Tobacco Katra, Delhi.
Jagannath Rangwala.—Tilak Bazar, Delhi.
Jagdamba Industrial Corporation.—Tobacco Katra, Delhi.
Kanhyalal Omperkash.—Tilak Bazar, Delhi.
Khatau Vallabhdas & Co.—Tobacco Katra, Delhi.
Krishna Colour Co.—Tilak Bazar, Delhi.
Nathumal Desraj.—Tobacco Katra, Delhi.
National Colour Co.—Tilak Bazar, Delhi.

**NORTHERN INDIA COLOUR CO.—Selling Agents, The Atul Products Ltd., Bulsar for Northern India, 199/200, Cloth Market, Delhi; Branches: Amritsar, Kanpur, Ludhiana.**

Omperkash & Sons.—Tilak Bazar, Delhi.
Ramdhan & Sons.—Tilak Bazar, Delhi.
Ratilal Naraindas Gami.—Tobacco Katra, Delhi.
Salekchand Balak Ram.—Sadar Bazar, Delhi.
Shugauchand Murarilal.—Tobacco Katra, Delhi.
Sindh Colour Mart.—Sadar Bazar, Delhi.
S. S. Jain & Co. Pvt. Ltd.—Tilak Bazar, Delhi.

**TRIVEDI & CO.—Kashmiri Gate, Delhi 6; Dealers in German Dyes, heavy chemicals and Electrical goods.**

Union Products Corporation.—1704, Yogdhyan Colony, Chandni Chowk, Delhi 6.

V. W. Khatawaley & Sons.—Naya Bazar, Delhi.

## DYE-STUFF MANUFACTURERS

Anant Chemical Industries.—Tilak Bazar, Delhi 6.
Bhatia Industries.—Tilak Bazar, Delhi 6.
Ciba Dyes P. Ltd.—D.A.G. Extension, New Delhi.
Jagdamba Industrial Corporation.—Tobacco Katra, Delhi 6.
National Chemical Industries.—26, Najafgarh Road, New Delhi.
Sukhanand Shankerlal Jain & Co. P. Ltd.—Tilak Bazar, Delhi 6.

## EARTHMOVING & MATERIAL HANDLING EQUIPMENTS

**JAI BHARAT TRADING CO.—Naya Bazar & Mori Gate, Delhi 6. Phone: 224686. Grams: "ENGPURZA."**

**TRACTOR & EQUIPMENT CONSTRUCTION LTD.—32, Najafgarh Road, New Delhi.**

## EDUCATIONAL APPARATUS & TEACHING AIDS

**NURSERY SCHOOL & HOME EQUIPMENT CO., THE.—Gandhi Motor Market, Opp. Minerva Cinema, Kashmere Gate, P.O. Box No. 1419, Delhi 6.**

## ELECTRIC FANS

**BOMBAY ELECTRIC STORE.—Bhagirath Palace, Chandni Chowk, Delhi-6; Phone: 263900, Grams: "BOMBAYWALA"; Distributors for Usha and Ganesh-Delite Fans.**

Central India Electric Works.—Ajmalkhan Road, Karolbagh, New Delhi 5.

Ditz Electricals (India) Ltd.—Roopnagar, Subzimandi, Delhi.

**GANESH FLOUR MILLS CO. LTD.—(Unit: Ganesh Electricals), 64-65, Industrial Area, Najafgarh Road, New Delhi 15. Phone: 82181-84.**

Hansraj Gupta & Co. Pvt. Ltd.—69, Chawri Bazar, Delhi.
Hari Trading Corpn.—1369, Kashmere Gate, Delhi 6.
Himalaya Electric Fan Mfg. Co.—Mori Gate, Delhi.
Kassels Ltd.—Subzimandi, Delhi 6.
Matchwel Electricals (India) Ltd.—4/11, Asaf Ali Road, Post Box No. 156, New Delhi.
Raghu Engineering Works, Ltd.—5, Daryaganj, Delhi.
Rampur Engineering Works Ltd.—Ajmeri Gate, Delhi 6.

## ELECTRIC FURNACES

**BOMBAY ELECTRIC STORE.—Bhagirath Palace, Chandni Chowk, Delhi-6; Phone: 263900, Grams: "BOMBAYWALA"; Distributors for Escorts-Eltra Heating Elements, AIR Heating Elements and all sorts of industry.**

## ELECTRIC HEATING ELEMENTS

**BHARAT ELECTRICAL (SALES).—9, Faiz Bazar, Delhi-6; All India Distributors for 'Escorts' Tubular Heating Elements made in Collaboration with K. G. Elmar of Germany & Distributors for K-Street light fittings and Record Water Heaters; Phone: 274353, 272283.**

## ELECTRIC MOTORS

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.—Delite Cinema Bldg., New Delhi; Importers, Exporters, Engineers and Manufacturers.**

Gautam Electric Motors Private Ltd.—42, Okhla Industrial Estate, New Delhi 20.

**JAKSON & CO.—For Kirloskar Electric Motors, Pumps, Pumpingsets, M.E.I. Starters, Oil Circuit Breakers, Measuring Instruments, Reduction Worm Gears, Cable etc., 29, Kamla Market, (Opp. Circular Road, Petrol Pump), New Delhi; Phone: 271591.**

Kartar Singh & Co.—Paharganj Road, New Delhi.

**KAYCEE INDUSTRIES LTD.—Munshi Niketan, 10/1, Asaf Ali Road, New Delhi-1; Manufacturers of Multi-Circuit Rotary Switches, Ammeter selector Switches, Toggle Switches and Ceramic Base Cooker Switches; Phone: 272056.**

Pearey Lal & Sons (East Punjab) P. Ltd.—21-A, Windsor Place, Janpath, New Delhi 1.
Rampur Engineering Co., Ltd.—Ajmeri Gate, Delhi 6.

**WESTERN MFG. CO. (DELHI) PVT. LTD., THE.—No. 8, Desh Bandhu Gupta Road, New Delhi; Manufacturers of Electromagnetic Brake Motors and Electromagnetic Brakes, Gear Drives both fixed speed & variable speed.**

## ELECTRICAL AND MECHANICAL ENGINEERS AND DEALERS IN ELECTRIC GOODS

Acme Electric Co.—24, Prem House, Connaught Place, New Delhi.
A. N. Ramji Dass & Co.—7/36, Daryaganj, Delhi 6.
Agarwal Traders.—2304, Tram Terminus, Subzimandi, Delhi 6.
Aggarwal Electric Works.—3337, Bank St., Karol Bagh, Delhi 5.
Allianz Elec. & Radio Co.—Chandni Chowk, Delhi 6.
Arora Electric Co.—209, Dariba Kalan, Delhi 6.
Associated Electrical Industries India Pvt. Ltd.—United India Bldg., Connaught Place, New Delhi.
B. Datt & Sons.—4356, Main Bazar, Paharganj, New Delhi 1.
B. Pannalal P. Ltd.—13/14, Asaf Ali Road, New Delhi 1.

**BAJAJ ELECTRICALS LTD.—10/1, Asaf Ali Road, New Delhi; Electrical Engineers, Manufacturers and Contractors. Phone: 272056. Grams: "SOFTLITE". Head Office at Bombay.**

Balbir Bros., H. S.—A-14, Partap Bagh, Delhi 6.
Balmer Lawrie & Co. Ltd.—1/5-B, Asaf Ali Road, New Delhi.
Banarsi Dass Engg. Co.—4124, Naya Bazar, Delhi 6.
Basant Prau & Co.—6, East S. Thana Road, Delhi 6.
Best Electric Co.—Connaught Circus, New Delhi 1.
Bhagwan Singh & Sons.—Connaught Place, New Delhi 1.
Bhalla Electric Co.—Palvarganj, New Delhi.
Bhim Sain Sapra & Sons.—7728, New Market, Karol Bagh, Delhi 5.
Bhushan Brothers.—Krishna Niwas, S. Thana Road, Delhi 6.
Brady, W. H. & Co., Ltd.—Indra Palace, Connaught Circus, New Delhi.
C. R. E. Wood & Co. Ltd.—3/13B, Asaf Ali Road, New Delhi 1.
Central Electric Stores.—298, Dariba Kalan, Delhi 6.
Champion Electric Engg. Works.—Chandni Chowk, Delhi 6.
Commercial Electric Works—Chandni Chowk, Delhi.
Dass & Co.—Chandni Chowk, Delhi 6.
Eastern Electric & Trading Co.—17E, Connaught Place, New Delhi 1.
Electrical Equipment Co.—113, G. Links, New Delhi 3.
Electrical Machines Corpn. Ltd.—4/11, Asaf Ali Road, New Delhi 1.
Electric Trading Co. P. Ltd.—1831, Chandni Chowk, Delhi 6.
Expert Electric & Radio Co.—Chandni Chowk, Delhi 6.
F. & C. Osler (India) Ltd.—Scindia House, Queensway, New Delhi.
Friends & Co.—959 Kucha Ruhalla Khan, Daryaganj, Delhi 6.
G. E. C. (India) Pvt. Ltd.—Connaught House, Connaught Place, New Delhi.
G. D. Segell & Co. P. Ltd.—Church Road, Kashmere Gate, Delhi 6.
General Electric Works.—17, Faiz Bazar, Delhi 7.
Globe Engineering Corpn.—1697, A. Samaj Road, Karol Bagh, Delhi 5.
Gupta Electric Co.—4/1, Regal Bldgs., New Delhi 1.
Havell's Electrical (Sales) Corpn.—1/21, Asaf Ali Road, New Delhi.
Hindustan Electric Co., Ltd.—73, Sunder Nagar, New Delhi 1.
Indian Cable Co., Ltd.—9-A, Connaught Place, New Delhi.

**INDIAN ENGINEERING CO.—18, Pusa Road, New Delhi; Phone: 52876; Grams: "ARGIKE", also at Bombay, Calcutta & Madras.**

Indian Trading Co. P. Ltd.—1903, Chandni Chowk, Delhi 6.

**JAKSON & CO.—For Kirloskar Electric Motors, Pumps, Pumpingsets, M.E.I. Starters, Oil Circuit Breakers, Measuring Instruments, Reduction Worm Gears, Cables etc.,**

**29, Kamla Market (Opp. Circular Road Petrol Pump), New Delhi; Phone: 271591.**

Jindal & Sons P. Ltd.—9B, Asaf Ali Road, New Delhi.
Joti Sarup Goela & Son.—15-L, Connaught Circus, New Delhi.

**Kamanis in the Service of the Nation.**

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**KAMANI ENGINEERING CORPORATION LTD., JAIPUR METALS & ELECTRICALS LTD.,**

United India Bldg., F-Block, Connaught Place, New Delhi-1.

Phone: 45055.

Kanwar Refrigerators (India).—M45/1, Connaught Circus, New Delhi 1.

**KAYCEE INDUSTRIES LTD.—10/1, Asaf Ali Road, New Delhi; Agents for Hind Rectifiers Ltd., Mfrs. of Selenium and Silicon Semiconductors, Electroplating Rectifiers, Battery Chargers, Silicon Power Plants for Electro-chemical Industries; "Santon" Rotary Switches, "Kaycee" Toggle Switches, "Kaycee" Water Meters; H.O. Kamani Chambers, Nicol Road, Ballard Estate, Bombay, Phone: 263521, Grams: "TURNRITE"; Branches: Calcutta, Madras & Kanpur.**

**KAYDEE ELECTRIC TRADING CO.—Nicholson Road, Delhi 6. Phone: 227640; Grams: "KETCO-DELHI"; Approved Suppliers of all kinds of Electrical and Hardware goods; Specialists in Porcelain High Tension and Low Tension Insulators.**

Kehar Singh & Sons.—21-A, Connaught Place, New Delhi 1.
Matchwel Electricals (India) Ltd.—Ramjas Building, 4/11, Asaf Ali Road, P.O. Box No. 156, New Delhi.
Mechelec Suppliers.—A-14/3, Asaf Ali Road, New Delhi 1.
Metro Electric & Radio Corpn.—12-A, Khan Market, New Delhi 11.
Modi & Co.—Dariba Kalan, Delhi 6.
Moti Electric Industries.—15A, Najafgarh Road, New Delhi 15.
Motwane P. Ltd.—68, Janpath, New Delhi 1.
National Conduits P. Ltd.—Kashmere Gate, Delhi 6.
Paragon Electric Co.—6/90, Connaught Circus, New Delhi 1.
Parkash Electricals.—91H, Connaught Circus, New Delhi 1.
Partap Chand & Co.—14A/41, W.E.A., New Delhi 5.
Paul Radio & Electric Corporation.—132, Sadar Bazar, Delhi 6.
Prem Brothers.—73, G. B. Road, Delhi 6.
Prem Electric Co.—Chowk Multani Dhanda, Paharganj, Delhi 1.

**PRESTOLITE OF INDIA LTD.**

**in**

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Manufacturers of Prestolite Automotive Electrical Components

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Phones: 272924 & 271934.

Rampur Engg. Co. Ltd.—Ajmeri Gate, Delhi 6.
S. K. Singh & Co.—25/41A, Connaught, Place, New Delhi.
Sachdev Bros.—10L, Connaught Circus, New Delhi 1.
Shalamar Electric Co.—Chandni Chowk, Delhi 6.
Sharma Sharma & Sons.—Naya Bazar, Delhi 6.
Shree Nursingsahay Mudan Gopal Electric Co. P. Ltd.—Behind Kumar Talkies, Chandni Chowk, Delhi 6.
Sohanson Electric Co.—1072, Patharwala Kuan, Karol Bagh, Delhi 5.
Standard Electric Trading Co.—Chandni Chowk, Delhi 6.
Standard Radio & Elec. Co.—Opp. Scindia House, Connaught Circus, New Delhi 1.
Sterling Electrical Traders Corpn. P. Ltd.—1/8B, Jindal Trust Bldg., Asaf Ali Road, New Delhi 1.
Superior Electric Co.—17, Netaji Subhash Marg, Delhi 6.
Swastik Cables.—2645, Tiraha Behram Khan, Delhi 6.
Teleflute Radio Electronics.—4/19, E. Patel Nagar, New Delhi 12.
Television Radio Elec. Co.—Main Bazar, Paharganj, New Delhi 1.
Tranga Engg. Works.—K. 156, Lajpat Rai Market, Delhi 6.
United Electric & Radio Co.—Chandni Chowk, Delhi 6.
Ved Brothers.—5/67, W.E.A., New Delhi 5
Vishu Karma Elec. Co.—9, Tropical Bldgs., Connaught Circus, New Delhi 1.
Watta Electronics.—265, Kamal Market, Delhi 1.

## ELECTRICAL GOODS & APPLIANCES

**ADARSH ELECTRICALS.—1782, Electrical Market, Behind State Bank, Chandni Chowk, Delhi 6; Authorised Distributors: Henley's Paramite, Nicco, Devidayal's Usha Wires & Cables, Osram Lamps & Tubes, Sunlam Bakelite & P.V.C. Sheet, Orient-Hitachi Empire Cloth, Tape & Sleeving, Accessories, Appliances, Fancy Fittings and Fans, Rawl Plugs.**

Aerco.—Behind Khanna Talkies, Paharganj, New Delhi.

**AHUJA RADIOS.—3778, Netaji Subhas Marg, Darya Ganj, Delhi 6.**

Allianz Electric & Radio Co.—Chandni Chowk, Delhi 6.
Allied Agencies.—1339, Pahari Imli, Delhi.
Amar Singh & Co.—116, Bhagat Singh Market, New Delhi.
Ambassador Electric Co.—3911, Chowk Kasseroowala, Paharganj, New Delhi.
Ashoka Transformer Corporation.—30/9, Shakti Nagar, Delhi 6.
Associated Instruments Mfrs. (I) P. Ltd.—Sunlight Insurance Bldg., Asaf Ali Road, New Delhi.
Auto Lamps Ltd.—6, Alipur Road, Delhi 8.
Bajaj Electricals P. Ltd.—10/1, Asaf Ali Road, New Delhi
Bhagwan Singh & Sons.—20-C, Connaught Place, New Delhi.

**BOMBAY ELECTRIC STORE.—Bhagirath Palace, Chandni Chowk, Delhi-6; Phone: 263900, Grams: "BOMBAYWALA". Distributors for Harsha Hot-plates, Kettles, Cooking Range, Room Coolers, Water-boilers, Swadeep Brand Kettles, Sauce-pans, Frying Pans, Coffee-percolators etc. and Escorts-Eltra Heating Elements of all sorts.**

Boota Singh & Brothers.—31, Panchkuin Road, New Delhi.
British Insulated Callender's Cables Ltd.—Connaught Circus, New Delhi.
B. S. Virdhi Electric Works,—1, Ravi Nagar, New Delhi 18.
C. A. Sumair & Co.—G. T. Road, Azadpur, Delhi.
Central India Electric Works.—Ajmal Khan Road, New Delhi 5.
Chopra & Co.—Behind Reserve Bank, Chandni Chowk, Delhi 6.
Continental Electric & Radio House.—17, East Patel Nagar Market, New Delhi 12.

**D.C. KRISHNA & CO.—1563-A, Isvar Nivas, Electrical Market, Behind State Bank, Chandni Chowk, Delhi 6. Specialists in Winding Wires, Insulating Materials, Distributors: Henley's, G.E.C., I.C.C., Nicco., E.I.C., H.W.P., Devidayal's Products.**

Electrical & Mechanical Equipment Co.—5/1, Jhandewalan, New Delhi.
Electrical Mfg. Co. Ltd.—4/11, Asaf Ali Road, New Delhi.
Electro Equipments Corpn. Ltd.—Speedbird House, Con. Circus, New Delhi.
Empire Electric & Engineering Works.—73, Shanker Market, New Delhi.
Grandlay Electricals (I).—2656, Sadar Thana Road, Delhi.
Hardit Singh & Co.—152, Panchkuin Road, New Delhi.
Himalaya Electrical Industries (I) P. Ltd.—8711, Roshanara Road, Delhi 6.
Hitakri Bros. of Delhi.—9, Faiz Bazar, Delhi 7.
India Electric Industries.—1903, Chandni Chowk, Delhi 6.

**JAIN INDUSTRIES.—483, Bartan Market, Sadar Bazar, Delhi-6; Manufacturers of Electric Iron, Kettle, hot plates, Toasters, Coffee Percolators, Espresso Machine, Baking oven, Cooking Range and Kitchen Wares (Frying Pans & Turners). Phone: 227802.**

Janta Electric Works.—Mohalla Mantola, XV/978, Gali Kumharan, Paharganj, New Delhi.
J. M. A. Industries P. Ltd.—Kashmere Gate, Delhi 6.
Kundal Lal & Brothers.—Asaf Ali Road, New Delhi.
Laxma Engineering Industries.—15/1, Asaf Ali Road, New Delhi.
Laro Engineering Co.—6-A, Connaught Place, New Delhi.
Maha Maya Electric Co.—1681/33, Mangal Market, Chandni Chowk, Delhi 6.
Mapas & Co.—H/35, Connaught Circus, New Delhi.
Meters & Instruments P. Ltd.—4/90, Connaught Circus, New Delhi.
Metro Electric Co.—Paharganj Lane, Krishna Market, New Delhi.
Moti Electrical Industries.—15-A, Najafgarh Road, New Delhi 15.
M. T. Electric Co.—Chuna Mandi, Paharganj, Delhi.
Nagi Electric Works.—2690, Multani Danda, Paharganj, New Delhi.
National Electrical Industries P. Ltd.—United India Life Bldg., Con. Circus, New Delhi.
Oriental Radio & Electric Stores.—17C, Prem House, Connaught Circus, New Delhi.
Oriental Radio Corporation.—12/4, Asaf Ali Road, New Delhi.
Paragon Electric Co.—6/90, Connaught Circus, New Delhi.
Patni Electric Co.—Flat No. 27A, Shanker Market, New Delhi.
Popular Electric Works.—19, Municipal Market, Connaught Circus, New Delhi.
Ram Electric Works.—290, Jheel Kuranjia, Gandhinagar, Delhi.
Saney Electric Co.—984, Shivaji Street, Karolbagh, New Delhi.

Sardul Singh & Sons.—T-19, I. N. A. Colony, Meherauli Road, New Delhi 3.

**SHREE NURSINGSAHAY MUDUNGOPAL ELECTRIC CO. PVT. LTD.—Behind State Bank, Chandni Chowk, Delhi-6; Sole Agents: "NURMUD" Bakelite & Brass Accessories; "NURMUD" Watertight Fittings, Cables & Conduit Accessories; Phone: 265703.**

Sigma Electric Works.—Sadar Bazar, Delhi.
Skytone Electricals (I).—Sadar Thana Road, Delhi 6.
Sokhi Electric Works.—2691, Multani Dhanda, Paharganj, New Delhi.
S. S. Sodhey Electric Works.—13, Krishna Market, Paharganj, New Delhi.
S. Wahid Ali & Sons.—Bara Dara Dari, Ballimaran, Delhi.
Striplex Industries.—P. Box 599, New Delhi 1.

**TRICOLITE ELECTRICAL INDUSTRIES.—70, Najafgarh Road, New Delhi 15.**

Uday Electrical Equipment Co.—K Block, Connaught Circus, New Delhi.
Vir Bharat Electric Co.—Paharganj Lane, Krishna Market, New Delhi.
Virdi & Co.—1882, Chuna Mandi, Paharganj, New Delhi.
Western India Electrical Corporation.—36, Faiz Bazar, Delhi.

## ELECTRICAL TRADERS

*Electrical Market, Behind State Bank, Chandni Chowk, Delhi 6.*

Abinash Radio & Electric Corporation.
Amar Electric Company.
Ashoka Electricals.
Associated Radio & Electric Company.
Attar Chand & Co.
Avon Electric Company.
Balak Ram Banarsi Dass.
Basant Parkash Electric Company.

**BOMBAY ELECTRIC STORE.—Bhagirath Palace, Chandni Chowk, Delhi-6; Phone: 263900, Grams: "BOMBAYWALA"; Whole-sale dealers for all kinds of Electric Material, Usha and Ganesh Fans, Wires & Cables, Overhead line Material, Motors & Switchgear, Measuring Instruments, Heating & Cooking appliances; Distributors for Escorts-Eltra Heating Elements, Harsha & Swadeep Brand appliances.**

Bombay Electric & Radio Corporation.
Capital Electric Company.
Chopra & Company.
Chopra Electrical Sales Corporation.
C. H. Singh & Sons.
Commar Electric Company.
Commercial Sale Corporation.
D. C. Krishna & Company.
Delco Traders.
Delhi Electric Company.
Delite Electric Company.
Electrical Traders.
Electrocine Sale Corporation.
Everlight Electrical Industries.
Friends United Co.
Globe Trading Corporation.
Guptajee & Co.—Bhagirath Palace, Chandni Chowk, Delhi 6.
Gupta Trading Company.
Hansa Electricals.
Harbans Electric Trading Company.
Hind Electric Stores.
Indian Traders (P) Ltd.
Jain Electric Stores.
Karachi Electric & Trading Company.
K. B. Electric Agencies.
Krishna Electricals.
K. T. Rajan.
Lahore Electric Trading Company.
Lakshmi Cable Company.
Lakshmi Electric Company.
Midland Electric Corporation.
M. Lal & Company.
M. M. Sharma Electric Company.
M. P. Electric Company.
Nath Trading Corporation.
National Electric Trading Company.
Nav Bharat Electric Agencies.
Navin Agencies.
New India Electric Company.
Newton Electrical.
North India Trading Corporation.
Oriental Electric Company.
Oriental Electric Trading Company.
Paul & Kajriwal Electric Company.
Punjab Electric & Construction Company.

**PUSHAP TRADING COMPANY.—Behind State Bank of India, Chandni Chowk, Delhi-6.**

Raj Electric & Trading Company.
Raj Kamal Electricals.
Raja Electric Stores.
Rajendra Electric Company.
Ramjas & Sons.
Ravi Electric Company.
R. L. Kanhaya Lal.
Satya Paul & Company.
S. B. Electric Company.
Sehgal Trading Agencies.
Shree Ganesh Electric Company.
Shree Gopal Electric Stores.
Shree Nursing Electric Company.
Shree Nursing Sahay Madan Gopal Electric Co. Private Ltd.
Sunder Electric Stores.
Supreme Electric Company.
Supreme Radio & Electric Corporation.
Terra Trading Corporation.
Tirlok Chand & Sons P. Ltd.
Union Electric Company.
Upper India Electric Company.

## ELECTRODES

**INDUSTRIAL GASES LTD., THE.—3/12, D. B. Gupta Road, Pratap Bhawan, Post Box 622, New Delhi-1; Phone: 264728, Grams: "INDUSGASES"; Head Office: P.O. Box 853, Calcutta-1; Mild Steel, Cast Iron, Stainless and Alloy Steels, Non-ferrous Metals, Hand-facing Electrodes for Automatic Welding.**

## ELECTRONIC EQUIPMENT AND DEVICES

**PREM NATH DIESELS PRIVATE LTD.—8, Scindia House, New Delhi; Phone: 45891, Grams: "PREMDIESEL".**

## ELECTROPLATEDWARE AND ELECTROPLATING MATERIAL MANUFACTURERS AND DEALERS

Bharat Trading Co.—5262, Sadar Thana Road, Delhi.
Fancy Copper & Metal Works.—407, Chitla Darwaja, Chawri Bazar, Delhi 6.

**KAYCEE INDUSTRIES LTD.—New Delhi-1; Agents for Hind Rectifiers Ltd., Mfrs. of Silicon Rectifier Power Plants under Westinghouse Licence for all Electrolytic Processes such as Hydrogenation, Production of Caustic soda etc., Phone: 272056.**

Krishan C. Arora & Co.—Post Box 2570, New Delhi 5.
Oswal Metal Works.—G.T. Road, Delhi-Shahdara.
P. C. Girdharilal Jain.—9, Deputyganj Sadar Bazar, Delhi 6.

## EMBROIDERY MFRS. & MERCHANTS

**HINDUSTAN EMBROIDERY MILLS PRIVATE LTD.—A-14-3, Jamna Bhuvan, D.A.G. Extension, New Delhi.**

## ENAMELLED WARE MANUFACTURERS

Delhi Rajkot Enamel Works.—1187, Kucha Mahajani, Delhi 6.
Raj Enamel Works.—G.T. Road, Delhi-Shahdara.

## ENGINEERING EQUIPMENTS

**PREM NATH DIESELS PRIVATE LTD.—8, Scindia House, New Delhi. Phone: 45891, Grams: "PREMDIESEL".**

## ENGINEERS AND CONTRACTORS

Abrol & Co. P. Ltd.—E Block, Connaught Place, New Delhi 1.
A. E. I. (India) Private Ltd.—United India Bldg., Connaught Place, New Delhi.
Ahuja & Co.—D. B. Gupta Road, Paharganj, New Delhi 1.
Allied Engineering Co.—Kashmere Gate, Delhi 6.
Amar Nath Charanji Lal.—5/8, D. B. Gupta Road, Paharganj, New Delhi 1.
Amrit Lal Nayar & Co.—879, E. Park Road, New Delhi 5.
Arora Furnishers.—15A/3, E. Patel Nagar, New Delhi 12.
Asia Construction Co.—K-55, Connaught Circus, New Delhi 1.
Associated Engineering Works Ltd.—Kashmere Gate, Delhi 6.
Balmer Lawrie & Co., Ltd.—Sunlight Insurance Bldg., Ajmeri Gate Extn., New Delhi.
Banarsidass Engineering Co.—Naya Bazar, Delhi 6.
Bery Engineering Co.—Naya Bazar, Delhi.
Bhai Sunderdass Sardar Singh P. Ltd.—4/23, Asaf Ali Road, New Delhi.
Bhalla Engineering Corpn.—66, G. B. Road, Delhi 6.
Bharat Electrico.—22-E, Kamal Nagar, Delhi 6.
Bharat Engineering & Mfg. Co.—55/2, New Rohtak Road, New Delhi.
Brady, W. H. & Co., Ltd.—44, Indra Palace, Connaught Place, New Delhi.
B. R. Herman & Mohatta & Co., Ltd.—Connaught Place, New Delhi.
Civil Engineering Co.—Samaj Road, Karolbagh, New Delhi 5

Crompton Engineering Co. (Madras) Ltd.—P. B. No. 529, New Delhi.
Duggal Engineering Co.—33, Kabul Lines, Delhi Cantt.-10.
Empire Electric & Engineering Works.—73, New Central Market, New Delhi.
Engineering & Industrial Corpn. P. Ltd.—29, South Patel Nagar, New Delhi 12.
Hardayal & Brothers.—11-H, Connaught Circus, New Delhi.

**HAZARI LAL MARWAH & SON.—44, Regal Buildings, Connaught Place, New Delhi.**

H. Lall & Brothers.—8, D. B. Gupta Road, New Delhi 1.
Imperial Engineering Co.—B. B. Road, New Delhi.
Jain Engineering Works.—13, Sadar Thana Road, Delhi 6.
K. R. Gupta & Sons.—10, Beadon Pura, Karolbagh, Delhi 5.
Kumar Engineering Works.—3837, Daryaganj, Delhi 6.
Kundan Lal & Brothers.—Asaf Ali Road, New Delhi.
Lakshmi Ratan Engineering Works.—New Delhi.
Marshal Sons & Co. Ltd.—Regal Bldgs., New Delhi.
Mehta Teja Singh & Co.—63, Golf Links, New Delhi 3.
Modern Tiles Mfg. Co.—Sunlight Bldg., Asaf Ali Road, New Delhi.
National Tile Works.—39, G. B. Road, Delhi 6.
Nava Bharat Engineering Co.—110, Naya Bazar, Delhi.
Northern India Tiles Corporation.—Tilak Nagar, New Delhi 15.
O. P. Oberoi & Co.—1/9, E. Patel Nagar, New Delhi 12.
Oriental Engineering Works Ltd.—78, G. B. Road, Delhi 6.
Parkash Chandar P. Ltd.—T-20, Sanyat Lines, Delhi Cantt.
Partap & Co.—17, Netaji Subhas Marg, Daryaganj, Delhi.
Prakash & Co.—4/23, W.E.A., New Delhi 5.
Prem Raj & Sons.—Prem Bhavan, Pahari Dhiraj, Sadar Bazar, Delhi 6.
Protos Engineering Co., Ltd.—Connaught Circus, New Delhi.
Punjab Traders Syndicate.—A-17, Prahlad Market, New Delhi 5.
Punn Gurdial Singh.—6-5, S. Patel Nagar, New Delhi 12.
R. B. Basakha Singh & Sons.—5, Jantar Mantar Road, New Delhi 1.
Ram Nath Mehra & Sons.—W1/11, Patel Road, New Delhi 12.
Roxy Building & Furnishing Co.—6/5266, Krishan Nagar, New Pusa Road, New Delhi 5.
Sethi Shankar Dass & Sons.—R-563, Shankar Road, New Delhi 5.
Sharma Engineering Co.—G. B. Road, Delhi 6.
Shinghal Brothers.—Delhi Cantt.
Sudershan Engineering Works.—Motia Khan, Delhi 6.
Surat Singh & Sons.—4/5847, Dev Nagar, Delhi 5.
Uttam Singh Dugal & Co. P. Ltd.—11, Marina Arcade, New Delhi 1.
V. H. Shah & Brothers.—Chawri Bazar, Delhi 6.
Victory Engineering & Metal Works.—G. B. Road, Paharganj, New Delhi.
William Jacks & Co. Ltd.—Connaught Place, New Delhi.
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Gauri Prasad & Sons.—Chandni Chowk, Delhi.
Hind Toys.—841, Kucha Patiram, Delhi 6. Phone : 28684. Grams: "KALPURJA."
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Minimax Ltd.—3, Scindia House, Janpath, New Delhi.

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Bawa Fruit Products.—46, G. B. Road, Delhi.
Excelsior Food & Chemical Industries.—Paharganj Lane, New Delhi1.
Food Kings.—65/11, Rohtak Road, K. Bagh, New Delhi 5.
Healthways Food Products Co.—5-E, Sadar Thana Road, Delhi.
Hindustan Breakfast Food Mfg. Factory.—63-64, Industrial Area, Najafgarh Road, New Delhi 15.
Miller Food & Canning Industries.—Tis Hazari, Delhi 6.
Nestle's Products (I) Ltd.—Link House, Mathura Road, New Delhi.
Rela Food Products P. Ltd.—4/8, Asaf Ali Road, New Delhi.
Shamrock Food Products Ltd.—Seberwal Maniwala Bagh, Azadpur, Delhi.
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Friends Pen Stores.—Sadar Bazar, Delhi 6.
General Pen Agencies.—No. 4, Club Road, Delhi 8.
Jain Plastic Industries.—Jawaharnagar, Subzimandi, Delhi.
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Latham Abercrombie & Co., Private Ltd.—Ajmere Gate, Delhi.
Pilot Pen Co., Ltd.—D.A.G. Extension, New Delhi.
Radha Fancy Stores.—Near Moti Bazar, Chandni Chowk, Delhi.
Rajpal & Co.—3, Shivnagar, Karolbagh, New Delhi.
Royal Fountain Pen Co.—1458, Fountain, Chandni Chowk, Delhi 6.
Solar Pen Industries.—Delhi-Shahdara.
Sunview Industries.—Panmandi, Sadar Bazar, Delhi.
Violet Industries.—8210, Chimni Mill, Bara Hindu Rao, Delhi.

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Basant Ram & Sons.—Connaught Circus, New Delhi.
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Khanna & Co.—Kashmere Gate, Delhi
Khosla Bros.—Regal Building, Punchquin Road, New Delhi.
Kumar Furnishers.—785, East Tank Road, Karolbagh, New Delhi.
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Mohan Singh & Sons.—64, Rani Jhansi Road, New Delhi 1.
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Ramji Dass & Co., A. N.—17/36, Daryaganj, Delhi 6.
Rattan Furniture Store.—Kashmere Gate, Delhi 6.
Reliance Trading Co.—Kashmere Gate, Delhi 6.
Roxy Building & Furnishing Co.—6/5266, Krishan Nagar, New Pusa Road, New Delhi 5.
Sabharwals.—51, Punchkuin Road, New Delhi.
Seth Brothers.—Kashmere Gate, Delhi 6.
S. M. G. Beaty P. Ltd.—Connaught Place, New Delhi 1.
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Atmaram Munjal & Sons.—Naya Bazar, Delhi.
Baldevshai Rambhagat.—Naya Bazar, G. B. Road, Delhi.
Banarsidas & Co.—Naya Bazar, Delhi.
Bansidar Madan Lal.—Naya Bazar, G. B. Road, Delhi.
Basi Bros.—Pahargunj, Main Bazar, New Delhi.
B. D. Brothers.—Pahargunj, Main Bazar, New Delhi.
Bhagwandas & Sons.—Naya Bazar, Delhi.
Bhola Ram Rangulal Jain.—Sadar Bazar, Delhi 6.
Bhola Ram Rikhab Dass Jain.—Sadar Bazar, Delhi 6.
Chhaganlal Shyam Sunder.—Maliwara, back of Moti Bazar, Chandni Chowk Area, Delhi.
Desraj Bhagwandas.—Opp. Chartered Bank, Chandni Chowk, Delhi.
Dass Singh Shivdev Singh.—Naya Bazar, G. B. Road, Delhi.
Gianchand Dinanath Gujranwala.—Naya Bazar, G. B. Road, Delhi.
Goyal Bros.—Regal Building, Punchquin Road, New Delhi.
G. S. Rajpal & Sons.—Chandni Chowk, Delhi.
Harbanslal Kanhayalal.—Ballimaran, Chandni Chowk, Delhi.
Indian Traders Ltd.—Lahori Gate, G. B. Road, Delhi.
Jagjit Bros.—Pahargunj, Main Bazar, New Delhi.
Jankidas & Co.—23/F, Connaught Place, New Delhi.
Kapila Brothers.—Naya Bazar, Delhi.
Kapurchand & Brothers.—5805, Sadar Bazar, Delhi.
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Kedarnath Babulal Khemka.—Bhangi Katra, Chandni Chowk, Delhi.
Kesrichand Mohanlal.—Naya Bazar, Delhi.
K. Murari & Co.—Jogdhian Colony, Delhi.
K. S. Lakhonir Singh & Co.—Chandni Chowk, Delhi.
Milawa Ram Lakhmichand.—Sadar Bazar, Delhi.
Mongalal Bhooramal.—Naya Bazar, G. B. Road, Delhi.
Nayyar & Co.—16, Faiz Bazar, Daryaganj, Delhi.
Paliram Nanikchand.—771, Chandni Chowk, Delhi.
Prabhudayal Lachminarain.—Naya Bazar, G. B. Road, Delhi.
Punjab Business & Supply Co., Ltd.—Naya Bazar, Delhi.
Radhey Shiam Ram Gopal.—Maliwara, Back of Moti Bazar, Chandni Chowk Area, Delhi.
Ram Dallamal Dwarkadas.—Nagpuri Katara, Delhi.
Rama Fancy Store.—Pahargunj, Main Bazar, New Delhi.
Ratanlal & Co.—Naya Bazar, G. B. Road, Delhi.
R. S. Bholaram & Sons, Ltd.—Mori Gate, Delhi.
Shri Krishna & Co.—Ajij Building, Choona Mandi, Pahargunj, New Delhi.
S. K. Diwan & Co.—214, Irwin Road, P. B. No. 233, New Delhi 1.
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Teja Singh & Sons, S.—Naya Bazar, G. B. Road, Delhi.
The Art Museum.—1726, Burn Bastion Road, Delhi 6.
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Umurao Singh Bishan Sarup.—Behind Imperial Bank, Bissumal Colony, Chandni Chowk, Delhi.

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A. Dugal & Co.—Fatehpuri, Delhi.
Atul Glass Industries.—P. Box 1479, Delhi 6.
Baluja Glass Co.—Fatehpuri, Delhi.
Belgium Glass House.—Fatehpuri, Delhi.
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Bharat Glass Co.—Sadar Bazar, Delhi 6.
Delhi Glass House.—Chandni Chowk, Delhi.
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Himalaya Trading Co.—Fatehpuri, Chandni Chowk, Delhi.
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Hindustan Glass Agency.—Qutab Road, Delhi 6.
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Jawahar Glass Co.—Near Multani Bldg., Qutab Road, Delhi.
Jolly Glass Co.—Katra Barien, Delhi.
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## GLUE MANUFACTURERS

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Sunlight Glue Mfg. Co.—Chandni Chowk, Delhi 6.

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Eastern Linkers P. Ltd.—Odeon Bldg., Connaught Place, New Delhi.
Hira Lal & Sons.—20, E. P. Avenue, Karol Bagh, New Delhi.
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Narang & Co.—17, Sundernagar Market, New Delhi.

Nath Brothers.—50/2-3, Hanuman Road, New Delhi 1.
New India Trading Syndicate.—132, Kamal Market, New Delhi.
Oriental Syndicate of India.—24/2729, Beadonpura, New Delhi.
Oriental Trading Society.—1/11B, Asaf Ali Road, New Delhi.
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P. & S. (India) Corporation.—Jindal Trust Bldg., Asaf Ali Road, New Delhi 1 (India).
Pickwich Export P. Ltd.—4/9, Asaf Ali Road, New Delhi.
**R. D. RAMNATH & CO.—Jama Masjid, Delhi 6.**
Sarna Brothers.—5B-4, Poorvi Marg, New Delhi.
S. Nath Kakar & Sons.—41, Hanuman Road, New Delhi.
Surya Trading Corpn. of India P. Ltd.—12/8, W.E.A., Karol Bagh, New Delhi.
United Overseas Trading Corporation.—Asaf Ali Road, New Delhi.
Wellworth Trading Corporation.—Post Box 2528, New Delhi.
Yadav & Co.—2886, Tantwali Street, Daryaganj, Delhi 7.

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Associated Textile Engineers.—Chawri Bazar, Delhi 6.
Atma Ram & Sons.—1900, Sirkiwalan, Delhi.
A. Worah & Co.—Chawri Bazar, Delhi 6.
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Badri Das & Sons.—3602, Chawri Bazar, Delhi 6.
Bansil Brothers.—Chawri Bazar, Delhi 6.
Behari Lal & Co.—Hauz Qazi, Delhi.
Benarshi Shah & Co.—Hauz Qazi, Delhi.
Bhanamal Gulzarimal, P. Ltd.—Chawri Bazar, Delhi 6.
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Rameswar Dass Dwarkadass Private Ltd.—Chawri Bazar, Delhi 6.
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Arun Hosiery Mills.—12/8, W. E. A., Karolbagh, Delhi.
Ashok Hosiery Works.—4, Malik Bldgs., Chuna Mandi, Paharganj, New Delhi.
Azad Hosiery Factory.—41, Beadonpura, Karolbagh, Delhi.
Bhalla Hosiery Factory.—992, Pan Mandi, Sadar Bazar, Delhi.
Bharat Hosiery Factory.—Teliwara, Sadar Bazar, Delhi.
Caltek Hosiery.—Bara Hindu Rao, Ahata Kidara, Delhi.
Choudhry Hosiery.—2892, Qutab Road, Delhi.
Delhi Hosiery Mills.—4, Racquet Court Road, Delhi 8.
Dinbandhu Hosiery Mills, Ltd.—Joshi Road, Karolbagh, Delhi.
Duni Chand Gulati Hosiery Works.—867, Joshi Road, Karolbagh, Delhi.
Fairy Knitting Industries.—20/21, Basti Harphool Singh, Sadar Bazar, Delhi.
Garg Hosiery.—4294, Aryapura, Subzimandi, Delhi.
Golden Hosiery Mills.—Rui-ki-Mandi, Sadar Bazar, Delhi.
Gorakh Hosiery Factory.—Chandi Mahal, Daryaganj, Delhi 7.
Goyal Hosiery Factory.—108, Khurshid Market, Sadar Bazar, Delhi.
Haryana Hosiery and General Mills.—88, Model Basti, New Delhi 5.
Hero Knitting Works.—240, Post Office Street, Sadar Bazar, Delhi.
Indra Hosiery Industries.—3-4, Basti Harphool Singh, Sadar Bazar, Delhi.
Jainico Hosiery Mills.—5633, Qutab Road, New Delhi.
Jeewan Hosiery Industries.—70, Khurshid Market, Sadar Bazar, Delhi.
Jeydamba Hosiery Factory.—3620, East Park Road, New Delhi.
Kabir Hosiery Works.—Bazar Billimaran, Delhi.
Kailash Hosiery Factory.—4361/1, Gali Bahuji, Pahari Dhiraj, Delhi.
Kanodia Hosiery Mills.—Sadar Bazar, Delhi; Works at: 35, Basti Harphool Singh, Delhi.
Kapur Hosiery Factory.—B-15, Jhandewalan Road, Delhi.
Kapur Knitting and Woollen Hosiery Works.—Hauz Qazi, Delhi.
Kartaram Hosiery Factory.—85, Khurshid Market, Sadar Bazar, Delhi.
Kaushik Hosiery.—Gali Bagachi Abdul Karim, House Nos. 569-574, Teliwara, Delhi.
Lakshmi Knitting Co.—Deshbandhu Gupta Road, Karolbagh, Delhi.
Lion Industries.—55, Model Basti, New Delhi.
Madhav Hosiery Mills.—38, Naiwala, Karolbagh, Delhi.
Mahabir Hosiery Factory.—Katra Chajju Pandit, Delhi.
Midland Hosiery Works.—7440, Mohalla Kanhara, Ramnagar, New Delhi.
Modern Hosiery and General Mills.—11705/6, Sakti Nagar, Delhi.
Mohan Hosiery.—10/24, Katra Pandit Chajju, Shidipur, Delhi.
Narendra Hosiery Agency.—592, Sadar Bazar, Katra Mithan Lal Delhi.
National Hosiery Factory.—Manakpura, Mandir Wali Gali, Delhi.
New India Hosiery Factory.—Near Hamdard Dawakhana, Lal Kuan, Delhi.

**NEHRU HOSIERY MILLS.—Sadarthana Road (Basti Harphool Singh), Delhi 6.**

Neo Hosiery Mills.—155-D, Kamla Nagar, Delhi.
Olympic Hosiery Factory.—Matkewali Gali, Sadar Bazar, Delhi.
Om Parkash Jain Hosiery Factory.—10044-45, Manakpura, Delhi.
Padam Hosiery Mills.—Katra Chajju Pandit, Model Basti, Delhi.
Parkash Hosiery Mills.—1122, Gali Samosan, Lal Kuan, Delhi.
Popular Hosiery Factory.—10155, Katra Chajju Pandit, Delhi.
Popular Hosiery Mills.—Model Basti, New Delhi 5.
Prabhat Hosiery Works.—27, DLF, Industrial Area, Najafgarh Road, Delhi.
Prakash Industries.—10, Esplanade Road, Delhi 6.
Punjab Hosiery Works.—14-G, Jawahar Nagar, Delhi.
Puri Hosiery Factory.—800, Joshi Road, Karolbagh, Delhi.
Rajasthan Knitting Co.—Hamilton Road, Gali Moghlan, Delhi.
Rajpal Hosiery Factory.—8687, Model Basti, New Delhi 5.
Rath Brand Candle and Hosiery Works.—Gali Bahuji, Pahari Dhiraj, Delhi.
Ravindra Hosiery Factory.—60/6, Basti Harphool Singh, Sadar Bazar, Delhi.
Rawat Hosiery.—Gali No. 17, Ragharhpura, Karolbagh, Delhi.
Republic Hosiery Factory.—Aryapura, Subzimandi, Delhi.
Rakesh Hosiery Factory.—Prem Sadan, Chamelian Road, Bara Hindu Rao, Delhi.
Rita Hosiery Products.—1-C/47, Rohtak Road, New Delhi 5.
S. Bahadur & Bros.—4116, Roshanpura, Nai Sarak, Delhi.
Shikhar Hosiery Factory.—Gali Bahuji, Pahari Dhiraj, Delhi.
Shri Krishan Hosiery Mills.—1534, Gali Kasim Jan, Ballimaran, Delhi.
Shusheel Hosiery Mills.—Manakpura, Model Basti, New Delhi.
Standard Hosiery Works (Regd.).—309, Main Sadar Bazar, Delhi 6.
Subhas Hosiery Mills.—10125, Opp. Filmistan Cinema, Model Basti, Delhi.
Sudhir Hosiery Factory.—1064, Bahadurgarh Road, Delhi.
Surinder Hosiery Factory.—1055, Katra Pandit Chajju Ram, Model Basti, Delhi.
Swadeshi Hosiery Factory.—F. 14/14, Model Town, Delhi 9.
Universal Knitting.—Chamelian Road, Bara Hindu Rao, Delhi.
Usha Hosiery Works.—790, Chammarwala Peach, Sadar Bazar, Delhi.
Vimla Hosiery.—10154, Katra Chajju Pandit, Model Basti, Delhi.
Wilco Hosiery Works.—2, Basti Harphool Singh, Delhi.
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Metro.—Janpath, New Delhi 1.
New Empress Hotel.—Fatehpuri, Delhi.
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Batliboi & Co.—G. B. Road, Delhi 6.
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Bery Engineering Co.—Naya Bazar, Delhi.
Bhagwandas & Sons.—Naya Bazar, Delhi.
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Bharatiya Machines Corporation.—72, G. B. Road, Delhi 6.
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Hind Engineering Company.—57, G. B. Road, Delhi 6.
Hindustan Electric & Mill Store Co.—58, G. B. Road, Delhi 6.
Hindustan Engineering & Mfg. Co.—34, D. L. F.'s Industrial Area, Motinagar, New Delhi 15.
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Chitra (Weeekly).—Bhagirath Palace, Chandni Chowk, Delhi 6.
Commerce & Industry (Weekly).—Prabhudayal Bldg., Connaught Circus, New Delhi.
Congress Bulletin (Monthly).—7, Jantar Mantar Road, New Delhi.
Congress Sandesh (Weekly).—Jantar Mantar Road, New Delhi.
Daily Pratap (Daily).—Mathura Road, New Delhi.
Daily Watan (Daily).—Chandni Chowk, Delhi.
Eastern Economist (Weekly).—52, Queensway, New Delhi.
Food & Farming (Monthly).—D-24, Odeon Bldg., P.O. Box 540, New Delhi.
Hindustan (Daily).—Connaught Circus, New Delhi.
Hindustan Standard (Daily).—Qutab Road, Delhi.
Hindustan Saptahik (Weekly).—Connaught Circus, New Delhi.
Hindustan Times (Daily).—Connaught Circus, New Delhi.
Indian Express (Daily).—Mori Gate, Delhi.
Indian Farming (Monthly).—I.C.A.R., Queen Victoria Road, New Delhi.
Indian Labour Gazette (Monthly).—Civil Lines, Delhi.
Indian Listener (Weekly).—Curzon Road, New Delhi.
Jan Kalayan (Quarterly).—Lakshmi Insurance Bldg., New Delhi.
Journal of the United Service Institution of India (Quarterly).—Kashmir House, New Delhi.
Journal of Industry & Trade (Monthly).—Civil Lines, Delhi.
Kurukshetra (Monthly).—CPA., Rashtrapati Bhavan, New Delhi.
Medical Review of Reviews (Monthly).—Post Box 1160, Burn Bastion Road, Delhi.

**NAVBHARAT TIMES (Daily).—10, Daryaganj, Delhi.**

Overseas Hindustan Times (Weekly).—Connaught Circus, New Delhi.
People (Weekly).—19-C Block, Connaught Place, New Delhi.
Picturegoer (Monthly).—92, Daryaganj, Delhi.
Prasarika (Quarterly).—Post Box 2011, Delhi.

**RADIANCE VIEWSWEEKLY.—36, Katra Gokal Shah, Near Jama Masjid, Delhi-6. Phone: 264843, Grams: "KHULOGS" — Delhi.**

Sainik Samachar (Weekly).—F-Block, D.H.P.Q., New Delhi.
Statesman (Daily).—Connaught Circus, New Delhi.
Swarajya (Daily).—Dharam Nagar, Naiwara, Chawri Bazar, Delhi.
Tax & Commercial Reports (Monthly).—M-27, Connaught Circus, New Delhi.
Taxation.—8, Daryaganj, Delhi 7.

**TIMES OF INDIA (Daily).—10, Daryaganj, Delhi.**

## OFFICE EQUIPMENT

Adrema Ltd.—Lakshmi Insce. Bldg., Asaf Ali Road, New Delhi.
Bharat Carbon & Ribbon Mfg. Co. Ltd.—Bombay Life Bldg., Connaught Circus, New Delhi.
Blackwoods India Ltd.—D.A.G. Extension, New Delhi.
General Equipment Merchants Ltd.—2/90, Connaught Circus, New Delhi.
Gestetner Duplicators Pvt. Ltd.—9, Scindia House, New Delhi.
Godrej & Boyce Mfg. Co., Private Ltd.—Lakshmi Insurance Bldg., Asaf Ali Road, New Delhi.
Kilburn & Co., Private Ltd.—28, Barakhamba Road, New Delhi.
Kores (India) Pvt. Ltd.—22-A, Asaf Ali Road, New Delhi.

**LATHAM ABERCROMBIE DIVISION OF FORBES FORBES CAMPBELL & CO. LTD.—9/10-3, Asaf Ali Road, New Delhi; Facit Calculators, Adding & Listing Machines, Halda Typewriters, etc. Phone: 272749.**

**REMINGTON RAND OF INDIA LTD.—Manufacturers of Remington Rand Business Equipment; Jivan Vihar, 3, Parliament Street, New Delhi; Phone: 46419. Grams: "REMINGTONS."**

Roneo Ltd.—Bombay Life Bldg., Connaught Circus, New Delhi.

**SHOURIE DUPLICATORS PVT. LTD.—Industrial Area, Najafgarh Road, New Delhi-15; Phone: 51333, Grams: "SHOURIE"; Marketing a Complete range of hand and electrically operated duplicaters in F'Cap & Double F'Cap Sizes.**

## OIL WELL DRILLING & PRODUCTION EQUIPMENTS

**PREM NATH DIESELS PRIVATE LTD.—8, Scindia House, New Delhi. Phone: 45891, Grams: "PREMDIESEL".**

## OPTICIANS & OPTICAL GOODS MANUFACTURERS

Accurate Opticians.—67/1, Rohtak Road, New Delhi 5.
British Optical Co.—Ch. Chowk, Delhi 6.
C. N. Harison Ltd.—C. Block, Connaught Place, New Delhi 1.
Capital Optical Co.—1391, Chandni Chowk, Delhi 6.
Charandas Khanna & Sons.—1, Ch. Chowk, Delhi 6.
Combined Services P. Ltd.—4-C, Connaught Place, New Delhi.
Comrades Optical Co.—5245, Ballimaran St., Delhi 6.
Comrades Spectacles Mart.—102, Qutab Road, Delhi 6.
Delhi Optical Co.—Ch. Chowk, Delhi 6.
Dhawan Optical Industries.—19, Beadonpura, Karol Bagh, New Delhi 5.
Everest Optician.—Chowk Gurdwara Road, Karol Bagh, New Delhi 5.
Grover Sons.—Post Box 1665, Fountain, Delhi 6.
Imperial Optical Works.—K. Baryan, Fatehpuri, Delhi 6.
International Industries.—132, Park Road, Karol Bagh, New Delhi 5.
Karachi Optical Co.—Ch. Chowk, Delhi 6.
Kataria Optical Co.—Fatehpuri, Delhi 6.
Kay Kay Optical Industries.—Mehrauli P.O., Delhi.
Kirparam & Sons.—Connaught Circus, New Delhi.
Kumar & Co., M. M.—Fatehpuri, Delhi 6.
Lawrence & Mayo (India) Ltd.—76, Janpath, New Delhi 1.
Laxmi Opticians.—Hardhyan Singh Road. Delhi 5.
Marshal Optical Co.—Krishna Market, Karol Bagh, New Delhi 5.
Modern Optical Co. P. Ltd.—Ch. Chowk, Delhi 6.
Mumick Ltd.—12-B, Connaugnt Place, New Delhi.
Nagpal, G. R., & Sons.—Near Fountain, Ch. Chowk, Delhi 6.
Nagpal Optical Co.—Industrial Area, Najafgarh Road, New Delhi 15.
New Optical House.—124, M. Market, Connaught Circus, New Delhi 1.
Onilco Opticians.—112, Baird Road, Delhi 1.
Optical Corner of India.—D/26, Connaught Place, New Delhi 1.
Optiko Industries.—10980, Sat Nagar, Karol Bagh, New Delhi 5.
Punjab Optical House.—1816, Ch. Chowk, Delhi 6.
President Optical Co.—Fountain, Delhi 6.

**PUNJAB SPECTACLES CO.—1458, Fountain, Chandni Chowk, Delhi 6.**

Rama Opticians.—Gurdwara Road, Karol Bagh, New Delhi 5.
Rashtriya Optical Traders.—4, Daryaganj, Post Box 1154, Delhi 6.
Rup Basant Bros.—629, Chandni Chowk, Delhi 6.
Sabharwal Opticians.—Ajmal Khan Road, Delhi 5.
Shri Kishen & Sons P. Ltd.—7/90, Connaught Circus, New Delhi.
Sushil Opticians.—5/38, W.E.A., New Delhi 5.
Uberoi Opticians.—Opp. Marina Hotel, Connaught Circus, New Delhi.
Up-to-date Optical Works (Regd.).—21, Beadon Pura, Karol Bagh, New Delhi 5.

## PACKAGING

**PAPER PRODUCTS LTD., THE.—Head Office: 13-14, Ajmeri Gate Extension, New Delhi 1. Phone: 271324, Grams: "PRINTPAK." Delhi Office: Vohra House, 1/25, Asaf Ali Road, New Delhi. Phone: 273059.**

**(For details, please see Commercial Firms section).**

## PAINTS, ENAMELS AND VARNISHES

Abrol & Co. P. Ltd., R. C.—E. Block, Connaught Place, New Delhi.
Anand Brothers.—Pahar Ganj Road, New Delhi 1.
Bawa Paints (Private) Ltd.—Katra Barien, Delhi.
B. Harnam Singh & Sons.—Chandni Chowk, Delhi.
Bharat Chemical Works.—Katra Barien, Delhi.
B. Keser Singh & Sons.—Katra Barien, Delhi.
Blundell Eomite Paints Ltd.—9/1, Asaf Ali Road, Near Kamla Market, New Delhi 1.
Calcutta Paint Mart.—Katra Barien, Delhi.
Delhi Colour Paint Mart.—Fatehpuri, Delhi.
Dewan Chand & Sons.—41, G. B. Road, Delhi 6.
Duarka Dass & Sons.—Katra Barien, Delhi.
Duelac Paints Corporation.—Katra Barien, Delhi.
Ford Paint Co.—B, Lal Kuan, Delhi.
G. S. Harnam Singh.—Fatehpuri, Delhi.
Harish C. Khosla & Co.—Zinat Mahal, Lal Kuan, Delhi 6.
Himalaya Trading Co.—Fatehpuri, Delhi 6.

**HOYLES PAINTS LTD.**
**1-6 B, Asaf Ali Road, New Delhi-1.**
**Phone: 25484**
**Regd. Office: 7, Council House Street, Calcutta-1**
**Head Office: 11, Rabindra Sarani, Calcutta-1**
**Phone: 348551 (5 Lines), 348523 (Factory) Konnagar (W.B.)**
**Manufacturers of Paints, Enamels and Varnishes.**

India Trading House.—Fatehpuri, Delhi.
Jain Chemical Works.—Katra Barien, Delhi.
Kailash Bros. Ltd.—Chandni Chowk, Delhi 6.
Khalsa Bros.—Roshanara Road, Delhi 6.
Khurana Bros.—1742, Nai Baoli, Delhi 6.
Lakshmi Paint House.—Katra Barien, Delhi.
Lalit & Co.—Fatehpuri, Delhi.
Mehra Paint Mart.—B. Katra Barien, Delhi.

**N. S. SOBHA SINGH & SONS.—Fatehpuri, Chandni Chowk, Delhi. Head Office: Old Misri Bazar, Amritsar.**

Parkash Brothers.—Katra Barien, Delhi.
Punjab Colour Paint Mart Co.—B. Katra Barien, Delhi.
R. S. Chaudhry Ramjilal & Sons.—B. Katra Barien, Delhi.
Rabbi Paint Colour & Varnish Co.—Kabil Attar, Chandni Chowk, Delhi 6.
Ramakrishna Paint & Hardware Mart.—3404/8-H, Hauz Qazi Delhi 6.
Saluja & Co.—Katra Barien, Delhi.
Sant Ram Parmanand.—1/21, Asaf Ali Road, New Delhi.
Santram Nikkamal.—Fatehpuri, Delhi.
Shadi & Co.—Fatehpuri, Delhi.
Shakti Paint House.—Katra Barien, Delhi.
Suresh Brothers.—64, G. B. Road, Delhi 6.
Thakkar Trading Co.—7/2, Raj Nagar, Delhi 5.
United Building Stores.—Sidoiq Building, G. B. Road, Delhi 6.
United Commercial Syndicate.—Fatehpuri, Delhi.
W. S. Bhag Singh & Sons.—Katra Barien, Delhi.

## PAINT & VARNISH MANUFACTURERS

Anglo Dutch Paint Colour & Varnish Works (Pvt.) Ltd.—50, Najafgarh Road, New Delhi 15.
Ashoka Paint & Chemical Works.—4411, Nai Sarak, Delhi 6.
Asia Chemicals Ltd.—E. Park Road, Delhi 5.
Asian Oil Paints Co. (I) P. Ltd.—6/9, E. Patel Nagar, New Delhi 12.
Bhagsons Paint Industries.—Katra Barien, Fatehpuri, Delhi.
Bharat Paint House.—Chandni Chowk, Delhi.
Blundell Eomite Paints Ltd.—9/1, Asaf Ali Road, New Delhi.
British Paint (India) Ltd.—12/3, Asaf Ali Road, New Delhi.

**DELHI PAINTS CORPN.—M-51, Connaught Circus, New Delhi-1; Pencil Lacquers, Roller Coating Finishes & Spray Painting equipments; Phone: 45586; Resi.: 55708, Factory: 54786.**

Elephant Oil Mills P. Ltd.—9/1, Asaf Ali Road, New Delhi.
Fleming, John & Co. Pvt. Ltd.—Choudhury Bldg., Connaught Circus, New Delhi.

**GOODLASS NEROLAC PAINTS PRIVATE LTD.—9-10/3, Asafali Road, New Delhi.**

Hoyle Robson, Barnett & Co. Ltd.—1-6B, Ajmeri Gate Extn., New Delhi.
Imperial Paint & Varnish Works.—Motia Khan, Nawabganj, Delhi.
Jallo Subsidiary Industries Co. India Ltd.—7/33, Daryaganj, Delhi 6.
Jayana Fine Colour & General Works.—Raghunath Nagar, Bela Road, Delhi
Jenson & Nicholson India Ltd.—Kashmere Gate, Delhi.
Jessop & Co. Ltd.—Indra Palace, Connaught Circus, New Delhi.
Jumna Paint, Colour & Varnish Works.—Faiz Bazar, Delhi.
Kallash Brothers Pvt. Ltd.—Near Grindlay's Bank, Chandni Chowk, Delhi.

**KOHINOOR PAINT, COLOUR & VARNISH WORKS.—Head Office: 13, R. B. Rattan Chand Road, The Mall, Amritsar; Branch Office: 155, Katra Baryan, Delhi 6.**

Manohar Paint Co.—3011, G. B. Road, Delhi.

**MERA CHEMICALS.—Ajit Mansions, Outside Ajmere Gate, Delhi 6.**

Metro Paint Industries.—260, Kamla Market, New Delhi.
Nagarth Paints P. Ltd.—2, Keeling Road, New Delhi.
Northern India Paint, Colour & Varnish Co. Pvt. Ltd.—P.O. Box No. 379, New Delhi.
Ram Parkash & Sons.—6490, Fatehpuri, Delhi 6.

Ravi Paint, Colour & Varnish Works.—Choudhury Lodge, Illahibux Road, Karolbagh, New Delhi
Roshanara Paints & Varnish Works.—P.B. No. 1587, Roop Nagar, Subzi Mandi, Delhi 6.
Shalimar Paint, Colour & Varnish Co. Ltd.—9A, Connaught Place, New Delhi.
Spraylac Paint Corporation.—9, Faiz Bazar, Delhi.
Sunlight Paints Mfg. Co.—Fatehpuri, Delhi.
Swastik Colour & Paint Industries.—10, Sham Bhawan, Faiz Bazar, Delhi.

## PAINTING CONTRACTORS

**MAKHIJA & CO.—96, Kamla Market, New Delhi-1; Specialists in Plastic Emulsion Painting, Synthetic enamel painting, Distempering, Spray painting, Acid proof painting for Factories etc., Phone: 274820, Resi.: 53618.**

## PAPER MERCHANTS

A. C. Goel & Sons.—Chawri Bazar, Delhi.
Amar Singh Dhoomi Mal.—Chawri Bazar, Delhi.
Bansi Dhar Kapoor & Sons (Regd.).—Chawri Bazar, Delhi.
Behari Lal Madan Lal.—Mahalaxmi Market, Chandni Chowk, Delhi.
Bengal Paper Mills Co. Ltd.—Banerjee Bldg., Asaf Ali Road, New Delhi.
Bhagwat Parshad & Sons.—Chawri Bazar, Delhi.
Bhola Nath Rachho Mall.—Fatehpuri, Delhi.
Birdhi Chand Jain & Sons.—Chawri Bazar, Delhi.
Birdhi Chand Naunag Ram.—Khari Baoli, Delhi.
B. N. Mehra & Co.—Importers, 5198, Sadar Bazar, Delhi 6.
Dalmia Cement & Paper Marketing Co. Ltd.—Scindia House, Queensway, New Delhi.
Daswani Mal Kapoor & Sons.—Chawri Bazar, Delhi 6.
Eastern Paper Mart.—Chawri Bazar, Delhi.
Frank Bros. & Co.—Chandni Chowk, near Dariba, Delhi.
Friends Paper Co.—Chawri Bazar, Delhi 6.
Ganga Saran & Sons Ltd.—Chawri Bazar, Delhi.
Ghasita Mal Mela Ram.—Chawri Bazar, Delhi
Gopal Trading Co. P. Ltd.—4032, Charke Walan, Delhi 6.
Govil & Co.—207, Chawri Bazar, Delhi 6.
Hazarilal Shantilal.—Chawri Bazar, Delhi 6.
Import Export Sales Co.—Chawri Bazar, Delhi 6.
Inder Mohan & Co.—Chawri Bazar, Delhi.
India Paper Pulp Co. Ltd.—Nai Sarak, Delhi.
International Paper Co. P. Ltd.—Chawri Bazar, Delhi 6.
J. B. Advani & Co. Ltd.—Chawri Bazar, Delhi.
J. N. Singh & Co Ltd.—Esplanade Road, Delhi.
Jeoti Parshad Mahabir Pershad.—Bara Tooti, Sadar Bazar, Delhi.
Jhangli Mal Pearey Lal.—Chawri Bazar, Delhi.
J. S. Bhalla & Bros.—Behind Jama Masjid, Delhi 6.
J. Mahabir & Co. Ltd.—Near Jama Masjid, Dariba, Delhi.
Kalamazoo Parchment Paper Co.—37-G, Connaught Circus, New Delhi.
Karam Chand Thapar & Bros. Ltd.—Naya Bazar, Delhi.
K. C. Bhargava & Co.—Post Box No. 1247, Delhi.
Kishori Lal & Sons.—Chawri Bazar, Delhi 6.
K. N. Dawar & Co.—12-L, Connaught Circus, New Delhi.
Mohan Trading Co.—Chawri Bazar, Delhi 6.
Munshi Lal Parkash Chand.—Chawri Bazar, Delhi.
Munshi Lal & Sons.—Chawri Bazar, Delhi.
Nand Ram Suraj Mal.—Chawri Bazar, Delhi.
Nanu Mal & Sons.—Chawri Bazar, Delhi.
Narsing Dass & Co.—3980, Chawri Bazar, Delhi 6.
Naunag Ram Sumair Chand Jain.—Chawri Bazar, Delhi.
Nem Chand Rajender Kumar.—Chawri Bazar, Delhi.
New India Paper Mart.—Chawri Bazar, Delhi.
Paras Das Lalit Pershad.—Chawri Bazar, Delhi.
Premier Suppliers P. Ltd.—4021, Chawri Bazar, Delhi 6.
Premier Trades & Agencies.—Chawri Bazar, Delhi.
P. L. Bachu Mal.—Chawri Bazar, Delhi.
Raghbar Dayal Pannu Lal.—Chawri Bazar, Delhi.
Raja Lal & Sons.—Chawri Bazar, Delhi.
Ram Parshad Radhey Sham.—Charkhewalan, Chawri Bazar, Delhi.
Ram Chand Jugal Kishore.—Chawri Bazar, Delhi.
Ram Kishore Chaman Lal.—Khari Baoli, Delhi.
Ram Lal Kapoor & Sons.—Nai Sarak, Delhi.
Ram Nath & Sons.—Chawri Bazar, Delhi
R. K. Mahendra & Co.—4043A, Chawri Bazar, Delhi 6.
Saroop Chand Jain.—Chawri Bazar, Delhi.
Sehgal & Co.—Opp. Marina Hotel, Connaught Circus, New Delhi.
Sher Singh Kirpa Ram.—Chawri Bazar, Delhi.
Siddho Mal & Sons.—Chawri Bazar, Delhi 6.
Simbu Nath & Sons.—Chawri Bazar, Delhi.
S. S. Mian & Bros.—Chawri Bazar, Delhi.
Sri Pal & Co.—219, Chawri Bazar, Delhi 6.
Sumat Parshad & Sons.—Chawri Bazar, Delhi 6.
Sunder Lal Nathi Mal.—Chawri Bazar, Delhi.
Swastika Paper Mart Ltd.—Chawri Bazar, Delhi.
Titaghur Paper Mills Co. Ltd.—Shiv Narain Building, Chandni Chowk, Delhi.
U. P. Paper Corpn. P. Ltd.—902, Chawri Bazar, Delhi 6.
Upper India Paper Co.—Wholesale Paper Merchants, 4030, Chawri Bazar, Delhi.

## PENCIL MANUFACTURERS

**CAPITAL INDUSTRIES PRIVATE LTD.—Bhakar Bhavan, Sezai Rohilla, Delhi 6.**

Jupiter Industries.—5, Chamelion Road, Delhi.

**MOONLIGHT INDUSTRIES.—Manufacturers of quality pencils, 14-A, DLF Industrial Area, Najafgarh Road, New Delhi 15.**

Universal Lead Pencil Works.—857, Gali Berwali, Delhi.

## PERAMBULATORS

B. L. Ramrichpal.—Lothian Road, Kashmere Gate, Delhi.
Bestways & Co.—Outside Moti Cinema, Chandni Chowk, Delhi.
British Perambulator Manufacturing Co.—Qutab Road, Delhi.
Madan Brothers.—IV/86, Chandni Chowk, near Dariba, Delhi 6.
N. Kishore & Co.—Esplanade Road, Delhi 6.
Raja Lal & Sons.—1475-1, Chandni Chowk, Delhi 6.

## PEST CONTROL

**PEST CONTROL CORPORATION.—8/12, Rajpur Road, Delhi 6; Marine, Industrial & Domestic Pest Control Specialists; Head Office: 27, Bentick Street, Calcutta 1; Branches at Bombay, Madras, Hyderabad, Jaipur, Visakhapatnam, Jamshedpur & Kanpur.**

**PEST CONTROL (INDIA) PRIVATE LTD.—B/5, Defence Colony, New Delhi 3; Phone: 77016; Head Office: 36, Yusuf Bldg., Mahatma Gandhi Road, Fort, Bombay 1; Phone: 251546/7; Grams: "PESTCIL"; Consulting Entomologists, Termite Control, Disinfection & Fumigation Service; Member, National Pest Control Association, U.S.A. & Entomological Society of India, Branches: Calcutta, Ahmedabad, Madras, Coimbatore, Hyderabad & Ernakulam.**

## PHARMACEUTICALS

**BRITISH DRUG HOUSE (INDIA) PRIVATE LTD.—Harbans Singh Street, 24, Daryaganj, Delhi; H.O. 8, Graham Road, Bombay 1.**

**LEPETIT RANBAXY LABORATORIES LTD.—Okhla Industrial Area, New Delhi-20; Phone: 74971; Manufacturers and distributors of Drugs & Medicines of repute; Chairman: Bhai Mohan Singh; Director: Dr. G. Brahamsha; Branches: Bombay, Calcutta, Madras & Kanpur.**

**MECANICO.—15, Okhla Industrial Estate, New Delhi-20; Phone: 72815 & 262823, Grams: "RELIANCE".**

**NARANGS CORPORATION.—25/90, Connaught Circus, Below Madras Hotel, New Delhi.**

## PHOTOGRAPHERS, PHOTOGRAPHIC MATERIAL DEALERS & IMPORTERS

Ajanta Photo Studio.—72, Janpath, New Delhi 1.
Ama P. Ltd.—Plaza Bldg., New Delhi 1.
Anand Studio.—2212, Gurdwara Road, Karol Bagh, Delhi 5.
A. R. Dutt.—Alipore Road, near Ludlow Castle, Delhi.
Artland Studio.—Chawri Bazar, Delhi.
Asia Photo Studio.—J. Masjid, Delhi 6.
Associated Press Photos.—M. Gate, Delhi 6.
Awtar Studios.—Chandni Chowk, Delhi.

**BAKASHI BROS.—17, Netaji Subhas Marg, Delhi-6 & The Mall, Nainital; Up-to-date Studio for Life like Portraits, Group Photographs, Outdoor Photography and Cinematography in Colour; Complete Photo Services; Stockists—Cameras; Phone: 271558.**

Bashimber Dayal & Sons.—Dariba Kalan, Delhi.
Berry Studio.—Kashmere Gate, Delhi.
Capital Studio.—Connaught Place, New Delhi.
Dass & Sons.—Connaught Circus, New Delhi.

**DELHI PHOTO CO.—Prompt & Efficient Service for Amateurs; Views & Color Slides, Cine & 35 mm. Col. Films; Life-like Studio Portraits; Photostat Work; Movie Makers; Licensed Tourist Photogoods Importers; 78, Janpath, New Delhi-1; Phone; 48575.**

Desh Photo Studio.—Esplanade Road, Delhi.
Electric Photo Studio.—Chandni Chowk, Delhi.
Eurasia Trading Co.—Chawri Bazar, Delhi 6.
Foto-centre.—17, Faiz Bazar, Daryaganj, Delhi.
Gandhi Studio.—13/2, W. E. A., Ajmal Khan Road, Karol Bagh, Delhi 5.
Globe Studio.—Paharganj, New Delhi 1.
Gopal Chitra Kuteer.—73, Ansari Road, Daryaganj, Delhi.
G. S. Virdee Lal Chand—Kutab Road, Delhi.
Hora Art Studio.—Delite Cinema Bldg., New Delhi 1.
Imperial Photo Stores.—10, Ch. Chowk, Delhi 6.
Imperial Photo Studio.—Connaught Place, near Post Office, New Delhi.

Inder Jit Rallia Ram & Co.—Connaught Circus, New Delhi.
India Photos Camerartz.—53, Panchquin Road, New Delhi.
Indraprastha Photographics.—4/76, W.E.A., Delhi 5.
International Photo Product P. Ltd., Moti Cinema Compound, Chandni Chowk, Delhi 6.
Jain Photo Service.—Bazar Subzimandi, Delhi.
Jasbir & Co.—293, Azad Market, Delhi 6.
Kanwal Bros.—Esplanade Road, Delhi.
Karachi Photo House.—Subzimandi Tower, Delhi.

**KESHO RAM & SONS (INDIA) PRIVATE LTD., Chandni Chowk, Opp. Dariba, Delhi 6; Phone: 228818, Grams: "ZENOFLEX"; 314, Commerce House, Medows Street, Fort, Bombay; Grams: "PHOTOPAPER".**

Kinsey Bros.—Connaught Place, New Delhi.
K. L. Arora & Sons.—Baird Road, New Delhi.
Kumar Bros.—Esplanade Road, Delhi.
Lakshmi Photo Co.—Chandni Chowk, opp. Imperial Bank, Delhi.
L. Dass & Sons.—Connaught Place, New Delhi.

**MAHATTA & CO.—M-59, Connaught Circus, New Delhi-1; Photographers and Photogoods Dealers, Cinema Equipments & Film Suppliers, Importers of all makes of Cameras, Projectors, Radios & Tape Recorders, Elaborate Colour Laboratory; Phone: 44588.**

Mangal & Co.—Chandni Chowk, near Dewan Hall, Delhi.
Metro & Co.—Chandni Chowk, near Imperial Bank, Delhi.
Metro Studio.—Connaught Circus, New Delhi.
Mulk Raj & Son.—Nai Sarak, Delhi.
Nice Photo Studio.—Chandni Chowk, Delhi.
Oriental Art Studio.—Esplanade Road, Delhi.
Paperware (India) P. Ltd.—30, D. B. Gupta Road, New Delhi 1.

**PAUL STUDIO.—Photographers & Photographic Goods Dealers, Head Office: 117, Baird Road, New Delhi 1; Branch: 17-A/40, W.E.A., Ajmal Khan Road, New Delhi 5.**

Photo Service Co.—Connaught Place, New Delhi.

**PHOTO STUDIOS.—12-N, Connaught Circus, New Delhi 1, and 24, Lajpatrai Road, Simla-1.**

Prabhat Studio.—53/4, D. B. Gupta Road, Delhi 5.
Punjab Photo Service.—N. Central Market, Flat No. 5, Con. Circus, New Delhi 1.
Radha Fancy Stores.—Near Moti Bazar, Chandni Chowk, Delhi 6.

**RANGOON STUDIO (TALREJA BROS.).—58, Janpath, New Delhi-1; Estd. 1939, Importers, Exporters, Retailers and Wholesalers for Still and Movie Equipments, Developing & Printing Service and Studio Portraits; Phone: 47861.**

R. R. Gupta & Sons.—Baird Road, New Delhi.
Republic News Pictures.—14, Shankar Market, Connaught Circus, New Delhi 1.
Rup Basant Bros.—629, Ch. Chowk, Delhi 6.
Royal Photos Co.—Connaught Circus, New Delhi.
Roy Studios.—B-Block, Connaught Place, New Delhi.
Sagar Studio.—54, Sarojini Market, Delhi 3.
Simla Studios.—Regal Building, Connaught Circus, New Delhi.
Soni Studio.—Esplanade Road, Delhi.
Star Photo House.—Esplanade Road, Delhi.
Statfotos Photostat Department.—22A, Asaf Ali Road, New Delhi.
Studio India.—49G, Connaught Circus, New Delhi 1.
Studio Newlight.—4, Sundar Nagar Market, Delhi 1.
Talreja Bros. (Rangoon Studio).—56, Queensway, New Delhi.
United Photo Co.—Ch. Chowk, Delhi 6.
Ved & Co.—72, Janpath, New Delhi 1.

## PIPES AND FITTINGS MFRS. & MERCHANTS

**AMAR NATH BHASKAR SONS.—H.O., Ishwar Nagar, New Delhi-1; Works at Amar Nagar (Faridabad); Manufacturers of Stoneware, Pipes and Fittings, Fire Bricks, Fire cements, Insulating Bricks and Cements, Acid Resisting Bricks and Cements etc., Phone: 73345, 76243, 82221.**

Agiaram & Sons.—5102, Sirkiwalan, Delhi.
Anand Pump Water Supply Co.—4958, Hauz Kazi, Delhi.
A. S. Shamser Singh & Co.—15, Rupnagar, Subzimandi, Delhi.
A. Worah & Co.—Chawri Bazar, Delhi 6.
Banwari Lal Radha Kishan.—Chawri Bazar, Delhi 6.
Bhagat Singh & Son.—Sirkiwalan, Delhi.
Bhanamal Gulzarimal P. Ltd.—Chawri Bazar, Delhi 6.
Banarshi Shah & Co.—4921, Hauz Qazi, Delhi.
Behari Lal & Co.—Hauz Kazi, Delhi.
B. R. Bwasheswarnath.—452, Queen's Road, Delhi.
Chand & Co.—P.O. Bldg., Hauz Kazi, Delhi.
Crown Trading Co.—Hauz Kazi, Delhi.
Dakhanimal Melaram.—52/52, W.E.A., Karolbagh, New Delhi.
Dakhnimal Balmukand.—Inside Ajmeri Gate, Delhi 6.
Delhi Hardware Store.—Hauz Kazi, Delhi.
Delhi Pipe Stores.—2868, Sirkiwalan, Delhi.
Dunichand Kesho Ram.—Inside Ajmere Gate, Delhi 6.
Dunichand Ramnath.—Hauz Kazi, Delhi.
Fakirchand & Sons.—Hauz Qazi, P.O. Bldg., Delhi.
Gayfield & Co.—Chawri Bazar, Delhi.
Gobind Ram & Sons.—Bazar Sirkiwalan, Delhi 6.
Harbans Singh & Mehta & Co.—Maula Bux Bldg., Roshanara Road, Delhi.
Hindustan Trading Co.—4957, H. Kazi, Delhi.
Indian Hume Pipe Co., Ltd.—Sarai Rohilla, Delhi 6.
Iron Traders P. Ltd.—Sirkiwalan, Delhi.
Jain Brothers.—3272-73, Hauz Kazi, Delhi.
J. B. Norton & Sons, Ltd.—Kashmere Gate, Delhi.
John Tinson & Co. Pvt. Ltd.—Queensway, New Delhi.
Krishna Pipe Stores.—3369, Hauz Kazi, Delhi.
Krishna Water Supply Co.—Taj Bldgs., G. B. Road, Delhi 6.
Kuldip Singh & Bros.—Gali Hakim Baqa, Delhi 6.
Lall & Co.—Hauz Kazi, Delhi.
Madanlal Bajaj & Co.—3368, Hauz Kazi, Delhi.
Mahabir Pershad & Sons.—Chawri Bazar, Delhi 6.
Manilal & Bros.—Chawri Bazar, Delhi.
Meiraram Charandass.—Hauz Kazi Bldg., Delhi.

**METALITE INDUSTRIES.—Manufacturers & Engineers, 7, Darya Ganj, Delhi 6.**

Metal Tube & Allied Works.—18/90, Connaught Place, New Delhi.
Modern Machinery Traders.—Flat 9, Single Krishna Market, Lajpat Nagar, New Delhi.
Munni Lal Bajaj & Co.—2887, Sirkiwalan, Delhi.
Narinjan Das Anand & Sons.—4966, Hauz Kazi, Delhi.
P. Madanlal & Co.—Chawri Bazar, Delhi 6.
Prem Nath & Sons.—4904, Hauz Kazi, Delhi.
Prem Vijay & Co.—3594, Chawri Bazar, Delhi 6.
R. K. Anand & Co.—3535, Gali Hakim Baqa, Delhi.
Ratanji Bhagwanji & Co.—3760, Chawri Bazar, Delhi 6.
Raunaq & Co., Private Ltd.—Church Bldg., Hauz Qazi, Delhi 6.
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Anand Radio & Elect. Co.—Chowk Naya Bans (Katra Baryan), Delhi.
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# GOA, DAMAN AND DIU

Area: 1,431 sq. miles (Goa 1,394 sq. miles; Daman 22 sq. miles; Diu 15 sq. miles). Pop.: 6,34,584 (1960 Census); Capital: Panjim.

The Hindu population is estimated at 3,88,654; Catholics 2,30,997; Muslims 14,716.

All the three territories are situated practically within the area covered by Maharashtra and Gujarat States. Goa is on the Konkan Coast; Daman lies on the Gujarat coast at the entrance to the Gulf of Cambay; and Diu is a tiny islet and along with the isolated spots, Gogola and Simbor, lies on the southern fringe of the Kathiawad peninsula.

The Goa region constitutes one district under the charge of a Collector, with headquarters in Panjim. The district is divided into two subdivisions, namely the north sub-division comprising Goa, Pernem, Bardez, Bicholem and Satari and the south sub-division comprising Ponda, Sanguem, Quepem, Salcete, Vasco and Canacona. The Daman region is also under the charge of a Collector while Diu is in charge of an Administrator.

*Important towns:* Panjim (Capital: Pop. 34,634); Margao (Principal business centre: Pop. 15,257); Mapuca (Pop. 8,260); Vasco da Gama (Pop. 6,254).

*Other towns:* Ponda, Pernem, Canacona, Quepem.

*Rivers:* Mandovi, Zuari, Terekhol, Chapora, Baga, Talpona, Sal and Galgibaga.

*Ferries:* Panjim—Betim (over Mandovi); Agacaim—Cortalim (over Zuari); Panjim—Aldonam (over Mandovi); Dona Paula—Marmagoa (over Zuari).

### HISTORIC AND RELIGIOUS PLACES

In Old Goa, about eight miles from Panjim, there are several convents, the most important among them being the Basilica of Bom Jesus, popularly known as the Church of St. Francis Xavier. The body of Goa's patron saint, Ffancis Xavier is kept there. Not far from this Church are the Cathedral Sé Convent built between 1562 and 1619, the Convent of St. Francis Assisi, completed in 1667. At Pilar, five miles from Panjim, is located the noted Pilar Seminary. The exposition of the Body of St. Francis Xavier was held at Bom Jesus Basilica in December 1964.

Ponda taluka is well known for famous Hindu temples which house family deities of multitudes of Goans. Noted among these are the Mangesh Temple, a small but elegant structure situated on the side of a hill at Priol with a majestic tower at its entrance, and the Shantadurga temple at Quela, with a triple image of Vishnu, Shantadurga and Siva. At Bandora are located temples of Mahalakshmi and Nagesh.

### HISTORY

Goa was captured for the Portuguese by Alfonso de Albuquerque in 1510. Albuquerque promptly fortified the place and established Portuguese rule on a firm basis. From this time Goa rapidly rose in importance and became the metropolis of Portuguese power in the East. There was constant fighting with the armies of the Bijapur kingdom, but the Portuguese held their own and gained the surrounding territory now known as the Velhas Conquistas.

The subsequent history of the town is one of ostentation and decay. Goa reached its summit of prosperity at the end of the sixteenth century. The accounts of travellers show that the Goa of those days presented a scene of military, ecclesiastical and commercial magnificence which has had no parallel in the British capitals of India. Portugal, however, with its three millions of population, was too small to defend itself against Spain and maintain at the same time its immense Empire in the four Continents. Albuquerque tried to consolidate Portuguese rule in India by his policy of attracting the conquered Indians and granting them civil and religious liberties. His contemporaries, however, could not understand his far-seeing statesmanship and after his death they undid all his work basing their dominion on conquest by the sword and military force and they laboured to consolidate it by a proselytising organisation which threw all the missionary efforts of every other European power in India into the shade. Old Goa, as the ruins of the old capital are called today, had a hundred churches, many of them of magnificent proportions, and the Inquisition which was a power in the land. The sixty years' subjection to Spain in the 17th century completed the ruin of the Portuguese Empire in the East and though the Marquis of Pombal in the 18th century tried to stave off its decadence, his subordinates in far-off India either could not understand or would not carry out his orders and even his strong hand was unable to stop the decline. It was in the 19th century that the colonials began to enjoy full Portuguese citizenship and sent their representatives to the Parliament in Lisbon.

### MODERN TIMES

There was frequently recurring fighting and in 1741 the Marathas invaded the neighbourhood of Goa and threatened the city itself. An army of 12,000 men arrived from Portugal at the critical moment. The invaders were beaten off, and the Novas Conquistas were added to the Portuguese possessions. In 1844 the shelter given by Goa to fugitives from justice in British territory threatened to bring about a rupture with the British Government at Bombay. In 1852 the Ranes of Satari, in the Novas Conquistas, revolted. In 1871 the native army in Goa mutinied and the King's own brother came from Lisbon to deal with the trouble and having done so disbanded the native army, which has never been reconstituted. But another outbreak among the troops took place in 1895 and the Ranes joining them the trouble was again not quieted until the arrival of another special expedition from Lisbon. The Ranes again broke out in 1901 and again in 1912, troops being again imported to deal with the last outbreak, which was only reported concluded in the summer of 1913.

*Historic Dates:*

| | |
|---|---|
| Occupation of Goa by Alfonso de Albuquerque | 1510 |
| Occupation of Diu by Portuguese | 1534 |
| Establishment of Inquisition in Goa | 1546 |
| Occupation of Daman by Portuguese | 1561 |
| Naval Treaty between Shivaji, founder of the Maratha empire and the Portuguese | 1665 |
| Maratha war with Portuguese for conquest of Bassein | 1737–1739 |
| Proclamation of Portuguese Republic (in Portugal) | October 5, 1910 |
| Beginning of Salazarian dictatorship | May 28, 1926 |
| First satyagraha campaign for Goan liberation | June 18, 1946 |
| Liberation of Nagar Haveli | August 1954 |
| Decision of Hague Court regarding Portuguese right of passage from Daman to Nagar Haveli | April 20, 1960 |
| Liberation of Goa and appointment of Military Governor | Dec. 19, 1961 |
| Installation of civil administration | June 8, 1962 |
| First democratic elections on adult franchise | Dec. 9, 1963 |
| Installation of the first popular Ministry | Dec. 20, 1963 |
| Commissioning of I.N.S. "Gomantak," the first Indian Naval Shore establishment in Goa | March 7, 1964 |

## LIBERATION MOVEMENT

The long drawn-out freedom struggle of the people of Goa, Daman and Diu culminated, with the help of the Indian army, in their liberation from the 451-year-old Portuguese colonial rule on December 19, 1961.

On March 14 the Lok Sabha passed the Constitution 12th Amendment Bill declaring Goa, Daman and Diu as Union Territories. Subsequently two Goans, Dr. P. D. Gaitonde and Dr. Antonio Colaco were nominated to Lok Sabha by the President.

## COMMERCE, INDUSTRIES AND BANKS

The only Banco Nacional Ultramarino operating in the territory was closed after liberation. Now, the State Bank of India operates with branches in Panjim, Vasco, Margao and Mapuca, while a few other commercial Banks have opened their branches in Goa since March 1963.

The Life Insurance Corporation of India which had suspended its business in Goa and had limited its activity during the intervening years, resumed its operations after liberation and has registered fresh business.

The chief agricultural products of Goa are rice, coconuts, cashew-nuts, betel-nuts and mangoes Rice grown is not sufficient for local consumption for the whole year.

Free movement of trade between Goa and the rest of the country was restored after liberation in respect of products of Goan and Indian origin. But import of a large variety of luxury articles, motor cars and certain varieties of alcoholic beverages as also such of the products which are obtainable from other parts of the country, has been stopped.

During the Portuguese regime there was no major industry in Goa except the mining of iron and manganese ores. With the coming into force of the Industries (Development & Regulation) Act, 1951 in Goa, Government's approval for starting about 261 new small-scale industries in Goa, Daman and Diu has been obtained. These include units for production of a large variety of industrial and consumer goods.

Two industrial estates are being set up at Margao and Vasco da Gama to be run by co-operative societies. A rural industries project, with a capital outlay of Rs. 20 lakhs, has been sanctioned for encouraging small-scale and village industries.

## AGRICULTURE

Situated on the Malabar coast in the extreme southwestern part of Bijapur, Goa has a land surface of 1,537 square miles. Paddy fields cover 12·4 per cent of the cultivable area. The distribution of other areas is as follows : 5 per cent for coconut cultivation, 8·9 per cent for cashew-nut cultivation, 32·8 per cent under forests, 6·6 per cent for hill tract cultivation, 19·8 per cent uncultivated productive area. Cashew, arecanuts, mangoes and coconuts are exported.

The new Agricultural Tenancy Act gives security of tenure to the cultivator and also ensures efficient management of land for increase in agricultural production. It is expected that with the introduction of this Act, there will be more participation by cultivators in the benefits which are now being extended by the Agriculture Department through the Community Development Blocks for increase in agricultural production.

Annual production of rice is about 48,000 metric tons and the annual consumption is estimated to be about 73,000 metric tons. The pre-liberation deficit of 30,000 tonnes of rice has been reduced by about 10,000 tonnes and it is expected to be reduced by another 10,000 tonnes by the end of the current agricultural year. Main vegetables viz., jack fruit, sweet potatoes, brinjals, etc. valued at Rs. 30 lakhs are produced annually.

*Comunidades :* A large part of the cultivable lands belongs to village communities, popularly known as comunidades which are a type of agricultural cooperatives. There are a number of such communities in each of the 11 administrative divisions—31 in Ilhas, 37 in Salcete, 39 in Bardez, 14 in Mormugao, 28 in Ponda, 21 in Bicholim, 24 in Quepem, 12 in Pernem, 7 in Sanguem, 2 in Satari and 7 in Canacona. The Land Reforms Commission has suggested in its report that their administration be turned over to Block Development officers.

## MINERALS

Goa has vast mineral wealth and abounds in scenic beauty. It has great potentialities for development as a centre of tourist attraction. The people are marvellously adaptable and are found in different parts of the world notably in the Bombay region of India, East Africa, and U.K. Export of manganese and iron ores is the mainstay of Goa's economy and has been a valuable foreign exchange earner.

Mining operations to exploit and export Goa's rich mineral wealth started as recently as 1949. The main operational centres are Pailigao and Sirigao near Bicholim. There are as many as 445 mines producing manganese and ferromanganese ore and 353 producing iron ore. The mining method adopted in almost all the mines in Goa is open-cast and benching system. The usual percentage of iron content in these ores varies between 55 and 65. The high grade hematite ore containing about 68 per cent of iron and magnetite also occur in some places.

The manganese ores found in Goa are Pyrolusite and Psilomelane. Most of these deposits occur in pocket formation and are mainly located in southern parts of Sanguem and Quepem talukas.

The export of iron ore has steadily risen in the past few years. In 1959, 3,629,459 metric tons of iron ore was exported. It increased to 6,527,695 metric tons in the year 1961.

Exports in metric tons and value in Rs. crores respectively of iron ore etc. during 1963 : Iron ore 53,85,213 ; 16·03 ; manganese 18,155 ; 22·37 ; ferro-manganese 76,748 ; 29·24.

The mechanisation of some of the mines under private ownership began in 1951 with Japanese collaboration.

Mormugao harbour, one of the finest natural harbours in the country, is the main outlet for the ore and has a vast hinterland in Mysore and Maharashtra States, and plans are under way for extensive dredging of the harbour to develop into a first rate port.

## COTTAGE AND SMALL SCALE INDUSTRIES

Goa has very few cottage and small scale or even large industries. Some of these are : ornamented wood works (Cuncolim), cashewnut peeling-packing factory (Bicholim), match factory (Ponda), umbrella factories (Piedade and Margao), soap factories (Bicholim and Mapuca), handloom factory (Aldonam), candle factory (Margao) and pottery works (Bicholim). A Small Industries Service Institute has been set up in Margao and Department of Industries has been attached to the Secretariat in Panjim for promoting projects for rapid industrialisation of the Territory.

## PLANNING

A Planning Board appointed under the Chairmanship of Mr. W. X. Mascarenhas, an experienced Goan engineer, submitted in January 1963 a Rs. 29·04-crore draft plan with territory's development schemes for integration with India's Third Five-Year Plan. There is great scope for developing small-scale and cooperative industries. The power needs of the region are expected to be partially met from the Koyna Hydro-Electric projects in Maharashtra and Sharavathi projects in Mysore State. The possibility of drawing power supply from the waters of the Dudhsagar falls near Castle Rock in course of time is also under examination. Two towns Bicholim and Pernem were the first to receive electric supply from Koyna on Dec. 19, 1963.

Distribution of the Plan Outlay (in crores of rupees): Power 11·34 ; Transport, Communications and Buildings 5·75 ; Social Services 5·20 ; Agriculture and allied subjects 4 ; Industries and Minerals 1·5 ; Co-operation, Panchayat and Community Development 1·25. Total 29·04.

The Planning Commission has allotted a ceiling of Rs. 10 crores for development projects in Goa, Daman and Diu for 1965–66 as against the requirements of Rs. 13·2 crores.

A detailed scheme has been prepared to develop Goa as a tourist centre during the Third Plan period at an estimated cost of Rs. 39·20 lakhs.

A 20-room tourist bungalow with a restaurant at Calangute beach and a seven storeyed tourist hotel are nearing completion.

The Goa Planning Board has recommended a total outlay of Rs. 90 crores for the Fourth Plan of the Union Territory.

## EDUCATION

An Education Commission, with Dr. B. N. Jha as Chairman and Professor Armando Menezes and Mrs. Vijaya Mullay as member and member-secretary respectively, was appointed by the Government of India to examine the Goan educational system and modify it to fit into the pattern obtaining in the other parts of the country. Its main recommendations pertained to moulding of Goan education pattern to accord with the requirements of the Central Board of Education, Delhi. It suggested that the mother tongue of the child should be the medium of instruction at the primary stage, with an option to the parents to choose any of the languages mentioned in the Constitution.

Four Arts and Science Colleges have been opened, since liberation, by private societies. A polytechnic leading to diploma courses in engineering has been started from June 1963, while an engineering college providing for degree courses is proposed to be opened later. The Goa Medical School was up-graded into a medical college and First Year M.B.B.S. course introduced from July 1963.

There has been significant progress in the last two years in the sphere of education. Free and compulsory education has been introduced at the primary level. As against 17,000 students in 176 government schools before liberation, there are now 66,642 students in 716 Government primary schools, the enrolment at primary level including non-Government schools being 91,000.

In the field of secondary education, the Grant-in-Code has been introduced on the pattern prevailing in Maharashtra State. The number of secondary schools is 159 with an enrolment of 22,565 as against 78 schools with 8,000 students before liberation.

## TRANSPORT AND COMMUNICATIONS

Rail communication which was suspended in 1954 was restored after the liberation and a direct train service between Vasco da Gama and Poona has been introduced. There is a proposal to convert the metre gauge into broad gauge to facilitate increasing passenger and goods traffic.

Mormugao, the chief port described as the "Gateway of Goa," is one of the major harbours on the west coast of India. It permits of ocean-going vessels of various sizes from all parts of the world, but ships mainly from Japan, America and Europe call at the port to take cargo of iron and manganese ore. Coastal steamer services between Bombay and Panjim and Bombay and Mormugao were resumed in March 1962 after suspension for eight years before the liberation of the enclaves. Road transport services between Panjim and Belgaum *via* Anmod, to and from Savantwadi *via* Doddamarg and between Betim and Poona and between Hubli and Panjim have also been introduced. Goa is criss-crossed by as many as half a dozen rivers and rivulets, and internal waterways are being developed fully for transport of men and goods. Bridges across Mandovi and Zuari rivers at Panjim and Cortalim have also been planned. A bridge across the Diu creek at Tad, about three miles from Diu, which will link Diu with the mainland of India, is under construction.

The treacherous stretch of nearly 50 miles of road from Ponda to Anmod, including the treacherous ghat section, was repaired, widened and asphalted during the early part of 1963 in a record time of six months enabling speedier traffic on one of Goa's important road outlets connecting it with Belgaum.

Improvement of road communications is an integral part of the development plan formulated by Government for the new Union Territory of Goa, Daman and Diu. There are at present 1,730 kilometers of roads in this Territory of which 730 kilometers are Government roads and the remaining 1,000 kilometers are municipal roads. Nearly 50 per cent of the Government roads have black-topped surface.

Apart from the reconstruction of the bridges and roads destroyed by the Portuguese army, the Public Works Department has taken up a programme of construction of new roads forming part of the inter-State highways have been metalled and black topped.

The West Coast Highway, linking Bombay with Cape Comorin, is expected to be completed, as far as the Goa portion is concerned, to the extent of 87 kilometres by the end of the Third Plan.

Construction of a major bridge over Mandovi has been started. One bridge at Daman and another at Diu are also under construction.

*Postal and telegraphic facilities :* At present there are 80 post offices in Goa. All towns with more than 2,000 population are proposed to be covered with one post office each. At present, telegraphic facilities for filing telegraphs are provided at Panjim, Mapuca, Vasco da Gama, Margao and Ponda. A fully automatic telephone exchange was pressed into service on the liberation anniversary day — 19th Dec. 1962 — replacing the Magneto system in Panjim. A telephone exchange operating on C.B. (Central Battery) system replaced the obsolete magneto system in Vasco on Jan. 26, 1964.

Radio Goa broadcasts for a total of nine and half hours (9½) every day programmes in four languages, Konkani, Marathi, English and Portuguese. The transmitters are located at Bambolim, four miles from Panjim.

### PRESS

A stringent censorship controlled the freedom of the press during the Portuguese regime. One of the initial acts of the Administration after liberation was the abolition of pre-censorship of newspapers. At present there are one English daily, four Portuguese language dailies and two weeklies, four Marathi dailies, one weekly and one monthly, two English language weeklies, and Konkani weeklies and one fortnightly, one trilingual periodical in Hindi, Marathi and Konkani.

### ADMINISTRATION

The first popular government of Goa, Daman and Diu consisting of three Ministers headed by Mr. Dayanand Bandodkar was formed on Dec. 20, 1963 by the Maharashtra Gomantak party after the first general elections in Goa on Dec. 9, 1963 (for details about the elections, see under article on "General Elections".)

**Appeal Court for Goa :** President Radhakrishnan promulgated on Jan. 2, 1964 a regulation providing for the establishment of a judicial commissioner's court for Goa, Daman and Diu.

The judicial commissioner's court will be the highest civil and criminal court of appeal and revision in Goa, Daman and Diu, the regulation said.

Indian citizenship has been conferred on persons born or domiciled in the territories of Goa, Daman and Diu and Dadra and Nagar Haveli.

### DAMAN

Daman in Gujarat has a total area of 22 square miles and a population of 23,093 inhabitants, mostly of Gujarati extraction.

There are some very interesting historical relics here such as the old fort and a few surviving churches reminiscent of the old times.

### DIU

About 150 miles to the north-west of Daman lies the tiny islet of Diu off the southern coast of Kathiawad. It is a small town separated from the mainland by a narrow arm of the sea. Dependent on it and surrounded by the territory of Junagadh is the enclave of Gogola and also the island and fort of Pani Cota in the bay of Simbor.

Diu is reached from Bombay by the Western Railway *via* Viramgam and Delwada. Access by sea is easier and more rapid but there is no harbour. There is an excellent roadstead where ships can safely anchor in two fathoms of water.

Area : 15 sq. miles. The population is 15,922.

## DADRA AND NAGAR HAVELI

*Headquarters :* Silvassa.

Area 189 sq. miles ; Population 57,932 (males 29,517 ; females 28,415) (1961 census). 5,232 men and 1,110 women are literate.

The Goa Action Committee, composed of all Goan parties in Bombay, appointed an administrator till the Centre took over the administration. These enclaves are situated near Daman.

A Rs. 85-lakh development plan has been prepared for the 191-square-mile enclave of Nagar Haveli. Among the construction activities included in the plan are three bridges over the two rivers, costing Rs. 10 lakhs, 75 miles of roads, schools and village water system.

Handmade paper industry, catechu (Ratla used in pan) manufacture, tanneries and tile and brick factories, a public library and a maternity home have also been constructed. Over 3,000 students now attend schools, on which the administration spends about Rs. 88,000. Spinning and carpentry are taught in the schools.

Number of workshops registered in the area : 1,314.

A model cottage hospital, a veterinary dispensary and four dispensaries have started functioning.

The first elected Administrative-cum-Legislative Council of Dadra and Nagar Haveli unanimously voted on June 13, 1961, for merger with the Indian Union. The Government appointed Administrator told the Council that he had been authorised by the Government of India to inform it that it accepted the request for merger and that it would be administered Centrally. A Bill for merger of these areas was introduced in the Lok Sabha in August 1961. The Bill has already received the President's assent.

Dadra and Nagar Haveli are administered directly by the Centre and does not come under the Control of the Goa Government.

## TRADES & PROFESSIONS.

Ananta Narcinva Naik.—General Merchant, Morgao, Goa (India).

Anant Pandurang Walavalkar.—Steamship Agents, P.O. Box 27, Vasco Da Gama, Goa (India).

Armazem Pradip.—Electrical Materials, Vasco Da Gama, Goa (India).

Auto Service Ltd.—Automobile Dealers, Post Box 39, Vasco Da Gama, Goa (India).

Casa Commercial Goa.—Laboratory Supplies, Vasco Da Gama, Goa (India).

**DAMODAR MANGALJI & CO.**
(INDIA) LTD.,
Cunha Rivara Road,
Panjim Goa
Mine-Owners, Exporters & Importers
Phone : 434 and 435 Grams : "RANJANI"

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**HIRALAL & COMPANY,**
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Serving Shipowners, Attending Cleaning, Forwarding. Shipping work for over 30 years at Marma Goa Harbour.
Phone : 23. Res : 74 & 124 Grams : "THAKKER"

**M. S. B. CACULO (Suer : Sridorá Cacul-6)**
Panjim, Goa
Dealers in Ford Motor Parts, Millars' Mixers, Chandan Steel Furniture, Murphy Radios, Dunlop, Firestone and India Tyres & Tubes, Kelvinator Refrigerators ; Also accept Road and Building Contracts.

Narendra M. Kamat.—P.O. Box 16, Vasco Da Gama, Goa (India).

# GUJARAT

THE State of Gujarat came into being on May 1, 1960. Until its formation as a separate State it was part of the bilingual State of Bombay.

The State was formed through the enactment of a measure called the Bombay Reorganisation Act, 1960.

Capital : Ahmedabad.

Area : 71,056 sq. miles. Population : 20·63 million (1961 census). See *"Population"* for detailed 1961 census figures.

There are 19 Districts and 186 Talukas. The number of municipalities is 59 (including Ahmedabad Municipal Corporation).

Districts with headquarters in brackets are as follows :—

Ahmedabad (Ahmedabad), Baroda (Baroda), Banaskantha (Palanpur), Broach (Broach), Mehsana (Mehsana), Kaira (Kaira), Panch Mahals (Godhra), the Dangs (Ahwa), Surat (Surat), Sabarkantha (Himatnagar), Jamnagar (Jamnagar), Bhavnagar (Bhavnagar), Amreli (Amreli), Junagadh (Junagadh), Kutch (Bhuj), Rajkot (Rajkot), Surendranagar (Surendranagar), Bulsar (Bulsar), Gandhinagar (Ahmedabad).

(For names of talukas and their area and towns and their population see under *"Population"*.)

In Surat an existing Taluka, Songadh has been enlarged through the addition of 38 villages each from the Nawapur and Nandurbar Talukas of the Dhulia District. And a new Taluka called Umbergaon has been added which consists of 50 villages formerly in the Umbergaon Taluka of Thana District.

In Broach District the Sagbara Taluka has been enlarged through the addition of 80 villages from the Akkalkuwa and Taloda Talukas of Dhulia District.

Gujarat State has a unicameral legislature. The strength of the Legislative Assembly is 154. The State sends 11 members to the Rajya Sabha and 22 to the Lok Sabha.

Certain institutions located in Maharashtra, would continue to provide the same facilities to the people of Gujarat as they did before bifurcation.

Though the State has fertile land it is deficit in food to the extent of 1·8 million tons a year. Its resources of industry and power are at the present time low. There is also a surprisingly high percentage of backward and Scheduled Classes and Scheduled Tribes. They constitute 93 per cent of the population of Dangs, 53 per cent in Surat, 38 per cent in Panch Mahals, 47 per cent in Broach and 27 per cent in Baroda. One bright feature is the existence of mineral oil in the Ankleshwar, Kalol and Cambay region.

Gujarati is the language of administration. Acts of the former Bombay Government have been published in Gujarati. The former Baroda and Saurashtra States have had a long experience of Gujarati in the administration and the law courts. The Gujarat University has made Gujarati the medium of instruction and examination.

Two policy decisions are : Gujarati will be the language of administration, law courts and university, and Hindi for communication with the Union Government.

## GEOGRAPHY

Gujarat State is situated on the west coast of India between 20·1 and 24·7 degrees north latitude and 68·4 and 74·4 degrees east longitude. The State is bounded by the Arabian Sea on the west, Rajasthan in the north and east, Madhya Pradesh in the south-east and Maharashtra in the south.

The bigger rivers are Banas, Saraswati, Sabarmati, Mahi and of course, the Narmada and Tapti. The smaller rivers are Machhu, Bhadar, Shetrunji and Damanganga. The land slopes gradually from the east to the west. The soils are of two classes the black cotton soil which yields the famous Broach cottons, the finest in India and alluvial which under careful cultivation in Ahmedabad and Kaira make splendid garden land. The plains watered by the Narmada and Tapti are very rich. Their fertility is so marked that they are sometimes called the Garden of India.

On the basis of average rainfall the regional features can be summarised as follows :—

South Gujarat, where the rainfall varies between 30″ and 60″. The annual range in temperature is wide.

North Gujarat, where the rainfall varies between 20″ and 40″ but is mostly around 40″ in Godhra and 25″ in Viramgam. The area has lower winter temperatures.

Saurashtra, the area comprising the coastal regions of Jamnagar and Junagadh. This is dry, the rainfall being less than 25″.

South-central Saurashtra and the Cambay region : The rainfall is 25″ and over.

Kutch is semi-desert, the rainfall being very low.

The total geographical area of Gujarat is 4,52,17,500 acres. Of this, only 52·45 per cent is the net area sown. The percentage of barren and uncultivable land is 25·90.

The percentage of area under barren and unculturable land is very high. This is partly because of extensive barren lands in Kutch. The State is rich in permanent pastures and grazing lands.

The per capita income in 1961-62 was Rs. 355 compared with Rs. 330 for the Indian Union as a whole. The main source of income is agriculture. The figures in Rs. crores for 1961–62 are :—

State income : 741. Sector-wise distribution : Agriculture, animal husbandry, ancillary activities 343 ; mining, manufacturing and small enterprises 178 ; commerce, transport, communications 118 ; other services 102.

The main food grains are bajri, jawar, rice and wheat. Rice is grown chiefly in the south Gujarat districts of Kaira, Panch Mahals, Baroda and Surat ; cereals are grown in the north Gujarat and Saurashtra Districts. Wheat is grown more especially in north Gujarat and to some extent in Saurashtra. The district of Panch Mahals is also noted for maize. The total production of 22·56 lakh tons gives a per capita consumption of 11·45 oz. a day.

Among non-foodgrain crops, cotton, tobacco, groundnut and maize are important. More than one-fifth of the area under cotton in the Indian Union is in this State.

The State has limited forest resources. The area occupied is about 5·15 per cent of the total geographical area of the State. The forest areas are concentrated mainly in Dangs, Junagadh, Panch Mahals, Baroda, Broach, Surat and Banaskantha Districts and to some extent in Jamnagar and Kutch.

The major forest produce are teak, bamboos, yellow wood, red wood, black wood, sandalwood, Khar, Simal, Dhumda, Dudhia, etc. Minor forest produce is grass, honey, wax, colouring wood. Dangs has rich teak forests. The Gir forests in Saurashtra contain a lions' sanctuary, the only one in India.

The State has a total livestock population of 135 lakhs and poultry 20·48 lakhs. There is a high proportion of she-buffaloes over three years. The State is noted for its high yield of milk per head of cattle. Certain breeds like Kankrej and Gir are wellknown. The high milk yield generally contributes to the high production of milk and dairy products.

Banking facilities are better than elsewhere ; there is a bank for every 42,787. Of the different areas in the State Ahmedabad has the highest facilities.

The Gujarat State Cooperative Land Development Bank Ltd., established in 1951, functions in the State through its 145 branches and 4 Primary Banks. The bank has advanced long-term loans to the agriculturists exceeding Rs. 37 crores. It has a membership of 4·17 lakhs. The paid-up share capital is Rs. 2·5 crores and reserve and other funds exceed Rs. 52 lakhs.

*Board of Directors :* Udayabhansinhji Yuvraj of Porbandar (*Chairman*) ; M. R. Patel (*Vice-Chairman*) ; H. T. Trivedi (*Managing Director*).

Gujarat is rich in minerals like salt, limestone, manganese, gypsum, china clay, calcite, bauxite, etc. Kaira is rich in bauxite and limestone, while calcite and limestone are mined in Jamnagar. Manganese is mined in Baroda and Panch Mahals, while fireclay is mined in Surendranagar District. Gypsum is available in all the districts of Saurashtra. The Geological Survey of India has located fluorspar deposits in the Amba Dongar area of Baroda District.

Oil and natural gas have been found in Ankleshwar, Kalol and Cambay oil fields where drilling is in progress. A refinery is to be set up at Koyali in Baroda District.

The major industries of the State are textile (including ginning and pressing of cotton), general and electrical engineering, vegetable oils, chemicals (including salt), soda ash and cement. The concentration of industry is most striking in Ahmedabad, Baroda and Surat.

The distribution would roughly be as follows:—textiles and its ancillaries in Ahmedabad, silver thread in Surat, cement at Porbandar, Dwarka and Sikka, chemicals around Baroda.

There are six industrial estates in the State and more are to be started so that there may be one such estate in each district by the end of the Third Five-Year Plan. The Government has also decided to carry out pilot plant tests of certain minerals for industrial use.

Power development in Gujarat is higher than the average for India. About 53 per cent of the number of towns is electrified. A major thermal power station with an installed capacity of 200/254 MW has been constructed and was expected to be commissioned by the middle of 1964.

The implementation of the Ukai project may make a big difference to the industrialisation of southern Gujarat. The first stage of the Narmada Project costing Rs. 43 crores was inaugurated on April 5, 1961.

Road transport is not satisfactory for the State as a whole — 20·75 miles per 100 square miles of area or 93·7 miles per lakh of population. The position is good in Rajkot and south Gujarat and more especially in Dangs. It is poor in Jamnagar, Surendranagar, Banaskantha, Sabarkanta, Mehsana, Broach and Panch Mahals. It is poorest in Kutch.

Saurashtra has a net-work of railways. The Baroda area is also well-served. There is no railway communication in Dangs.

There are 51 ports in Gujarat (one major, eight medium, 42 minor). The bigger ports with their annual turnover :—Kandla (15,72,185 M. tons), Okha (6,76,591 tons), Bedi (3,47,683 tons), Bhavnagar (4,19,606 tons), Verawal (2,92,566 tons), Sikka (3,04,195 tons), Porbandar (2,25,776 tons).

About education nearly 13·34 per cent of the population attends school.

There are three universities in Gujarat — the Gujarat University in Ahmedabad, the Sayajirao University in Baroda and the Sardar Vallabhbhai Rural University in Anand. The establishment of two more universities is under consideration.

Each Government dispensary or hospital in the State serves about 18,000 of the population

and each bed about 2,400. On an average about 8,540 persons register every month for employment. Out of this about 847 are placed in employment.

The Third Plan total outlay is Rs. 235 crores and the expenditure during the first four years was Rs. 180·90 crores i.e. 76 per cent.

The size of the State's Fourth Plan has been tentatively fixed at Rs. 470 crores.

### NEW CAPITAL

The Government had decided to build the new capital of the State at Gandhinagar, 15 miles north of Ahmedabad City on the west bank of the Sabarmati river.

### PANCHAYATI RAJ

Panchayati Raj was introduced in Gujarat from April 1, 1963 to coincide with the start of the financial year (the formal inauguration taking place on April 2), with the maximum of popular representation.

The aim of Government is to organise Gram/Nagar Panchayats on a sound basis, to give them full responsibility for all-round development of the village and to impart understanding and education both to the people and their representatives.

There are in all 11,657 Gram Panchayats covering 18,370 villages and 42 Nagar Panchayats. In pursuance of the policy of Government to cover every village in the State by Gram Panchayat, all villages in the State Government are covered by Gram Panchayats except some villages in Kutch and Dangs District.

#### Th Gujarat Panchayat Act, 1961

The Gujarat Panchayats Act, 1961, aims at three tier system of rural administration. It is applicable to all Gram/Nagar Panchayats in the State. Under this Act, Taluka Panchayats and District Panchayats have been established for each taluka and each District and they have to exercise powers of supervision, guidance and control over Panchayats. In order that the representatives of Gram/Nagar Panchayats may have an effective voice in shaping the policy in regard to matters concerning Gram/Nagar Panchayats, the Sarpanchayats of Gram Panchayats and Chairman of Nagar Panchayats within the taluka are to be ex-officio members of Taluka Panchayats.

Important features of the Gujarat Panchayat Act, 1961, in respect of Gram Panchayats are reservation of two seats for women in every Gram Panchayat, constitution of Gram Sabha of all residents in the village who are entitled to vote, each Gram Panchayat to consist of elected members not less than 9 and not more than 15 as the District Panchayat may determine, one seat to be reserved for Scheduled Castes where there is population of Scheduled Castes, entrusting the work of collection of land revenue and of maintenance of land revenue records to Gram Panchayats, payment of land revenue grant to all Gram Panchayats on a uniform basis, constitution of a Nyaya Panchayat for a group of five villages or more and conciliation Panchayat for each Gram Panchayat.

The Panchayats have been given more powers and functions to execute sanitation & health, public works, education and culture, self-defence and village defence, planning and administration, agriculture, preservation of forests and pasture lands, community development, animal husbandry, village industries and collection of land revenue.

A provision has been made in the Act by which Gram Panchayats can entrust with the village any work on measures which are likely to promote the health, safety, education, comfort, convenience, social, economic or cultural well-being of the inhabitants of the village.

#### Village Volunteer Force

For the total mobilisation of both human and material resources for the defence effort the scheme of the Village Volunteer Force has been implemented throughout the State with effect from Jan. 26, 1963. The scheme has a three-fold programme of production, mass education and village defence. The panchayat organises and guides the Village Volunteer Force. For the effective organisation of the scheme in the District, a committee under the chairmanship of the president, District Panchayat has been constituted.

As an integral part of this scheme, Defence Labour Banks are being organised in every village. The bank is based on the donation of free labour at the minimum rate of one day per month from every able-bodied adult or monetary contribution in lieu.

The Gujarat Panchayats Act, 1961 has been brought into force in all the districts of Gujarat State except Dangs district.

Municipalities having a population not exceeding 10,000 have been converted into Gram Panchayats. Those having population exceeding 10,000 but not exceeding 20,000 have been converted into Nagar Panchayats.

Taluka Panchayats and District Panchayats were constituted in all the districts of the State, except the district of Dangs.

The State Council for Panchayats and the Gujarat Panchayats Service Selection Board have been constituted. Similarly, the District Panchayat Service Selection Committees and District Primary Education Staff Selection Committees have also been formed for each district Panchayat.

## BASIC FACTS AND FIGURES

No. of towns 181 ; no. of villages 19,017.

Land utilization in '000 acres :—Total area 45,259 ; area under forest 2,743 ; barren and uncultivable land 11,425 ; permanent pastures and grazing lands 2,550 ; net area sown 23,632 ; others 4,908.

**Area and Outturn of Principal Food and Non-food Crops**—area in '000 acres and outturn in '000 tons—for 1963-64 (first figure shows area, second production) :—

Rice 1,284 and 477 ; wheat 1,028 and 361 ; jowar 3,324 and 402 ; bajra 2,951 and 640 ; all cereals 9,643 and 2,282 ; tur 207 and 45 ; gram 252 and 54 ; all pulses 1,329 and 195 ; total food grains 10,973 and 2,484 ; cotton 4,169 and 1,313 (bales); groundnut 4,560 and 1,251.

**Area Irrigated :** by sources in 1961-62. The figures are in lakh acres :—

Government canals 2·29 ; private canals 0·32 ; wells 14·59 ; tanks 0·45 ; other sources 0·90 ; gross area irrigated 19·50.

Area irrigated by crops in 1961-62. The figures are in '00 acres :—

Rice 1,623 ; wheat 5,559 ; jowar 1,348 ; bajri 1,005 ; all food crops 12,668 ; cotton 2,782 ; groundnut 986 ; tobacco 377 ; total non-food crops 6,827 ; total gross area irrigated 19,495.

**Agricultural Implements** in 1961 :—Wooden ploughs 14,59,616 ; iron ploughs 1,05,868 ; carts 7,08,767 ; sugarcane crushers worked by power 2,009 ; sugarcane crushers worked by bullocks 4,307 ; oil engines with pumps for irrigation 44,992 ; electric pumps for irrigation 6,229 ; Government tractors 2,005 ; ghanis five seers and over 3,277 ; ghanis less than five seers 823.

**Livestock Position** in 1961 :—Cattle—male over three years 30,45,875 ; cattle—female over three years 18,37,655 ; young stock 16,73,025 ; total 65,56,555 ; buffaloes—male over three years 39,996 ; buffaloes—female over 3 years 17,02,377 ; young stock 11,74,208 ; total buffaloes 29,16,581 ; total bovine 94,73,136 ; sheep and goats 37,04,529 ; total livestock 1,34,54,395 ; total poultry 20,48,284.

**Co-operation** in 1962-63 (number of societies): — agricultural societies 9,627 ; non-agricultural societies 5,366 ; land mortgage banks (incl. State Banks) 5 ; central banks (incl. State Banks) 25 ; total 15,023.

Co-operation in 1962-63 (number of members): of agricultural societies 12·30 lakhs ; of non-agricultural societies 7·70 lakhs ; of land mortgage banks (incl. State Banks) 3·33 lakhs ; of central banks (incl. State Banks) 0·33 lakhs ; total 23·66 lakhs.

Co-operation in 1962-63 (share capital of societies in Rs. lakhs):—Agricultural 1,505 ; non-agricultural 809 ; land mortgage (incl. State Banks) 178 ; central banks (incl. State Banks) 840 ; total 3,332.

Co-operation in 1962-63 (working capital in Rs. lakhs):—Central banks and banking unions (incl. State Banks) 6,976 ; agricultural societies 6,378 ; non-agricultural societies 5,008 ; land mortgage banks (incl. State Banks) 2,181 ; total 20,533.

Population covered by cooperative movement (in lakhs) during the same period was 116.

**Joint-Stock Companies** as in March 1963—(Provisional). The first figure shows the number of Companies, the second authorised capital and third paid-up capital in '000 Rs. : — Commerce 252 ; 3,07,850 ; 1,20,295, Processing and manufacture of foodstuffs, textiles, leather and products thereof 217 ; 8,33,526 ; 3,85,208 ; Processing and manufacture of metals, Chemicals and products thereof 215 ; 7,53,904 ; 1,77,043 ; Other processing and manufactures 94 ; 2,22,901 ; 70,090 ; Construction and utilities 33 ; 49,013 15,798 ; Transport and Communications 19 ; 35,615 ; 11,589 ; Mining and quarrying 15 ; 8,295 ; 6,387 ; Personal and other services 12 ; 4,100 ; 1,471 ; Agriculture and allied activities 27 ; 1,882 ; 1,130 ; Community and business services 889 ; 22,19,487 ; total 7,90,499.

**Medical Statistics** for 1963 :—No. of hospitals and dispensaries 1,267 ; no. of beds 9,791 ; no. of indoor patients treated 3,08,705 ; no. of outdoor patients treated 74,12,285 ; no. of doctors 1,037 ; no. of nurses 1,488.

**Education Statistics** for 1963-64. The first figure shows the number of institutions, the second of pupils :—

Higher education 140 and 71,000 ; Secondary education 1,420 and 5,20,000 ; Primary education 19,500 and 27,50,000 ; others 4,000 and 1,32,000. Total 25,060 and 34,73,000.

No. of teachers as in 1963-64: Primary 73,000 ; Secondary 19,000 ; Higher 3,800 ; Total 1,03,000.

Statistics about **electric power** as in 1964; (figures in '000 K.W.H.):—

Power generated : 18,61,287.

Power consumed : domestic 86,995 ; commercial 47,474 ; industrial 11,06,638 ; others 91,488 ; total 13,32,595.

*Working Class* (1961) : The State has 84·75 lakh workers. Of the male population of 106·34 lakhs 53·47 per cent and that of the female population of 99·99 lakhs 27·89 per cent are workers. They could be classified as follows (figures in lakhs) : Cultivators 45·19 ; agricultural labourers 12·52 ; mining, quarrying etc. 1·05 ; household industry 5·36 ; construction 0·90 ; trade and commerce 4·11 ; transport, storage and communications 1·59; other services 8·47.

Statistics about **Industry** as in June 1964 :—

No. of factories 4,299 ; employment 4,08,104.

Information about number of factories and average number of workers employed therein daily respectively under each category is given below :—

Textile 919 ; 2,12,522 ; ginning and pressing 476 ; 46,774 ; food, beverages and tobacco 866 ; 38,425 ; engineering 818 ; 29,171 ; non-metallic mineral products 336 ; 24,066 ; chemicals and pharmaceuticals 115 ; 16,918 ; wood, furniture and fixtures 121 ; 4,564 ; electricity, gas and steam 75 ; 3,463 ; paper and paper products 29 ; 2,874 ; rubber and rubber products 16 ; 1,141 ; others 528 ; 28,186.

**Mineral production** as in Oct. 1963. First figure shows quantity in tonnes, second value in '000 Rs. :—

Bauxite 1,81,128 and 2,014; Calcite 3,925 and 24; china clay 50,030 and 413; Fire clay 62,679 and 316; Limestone 11,97,406 and 5,866; Manganese 24,479 and 1,116; Salt 24,54,200 and 66,411; Dolomite 30,830 and 244; Feldspar 271 and 1.

Production 1964: Rs. 13·80 crores; per capita production 1964: Rs. 6·5.

**Employment exchanges** as in 1964:

The number of persons seeking employment through the employment exchanges recorded decrease from 1,37,052 in 1963 to 1,32,696 in 1964. The number on the live register was 72,454 at the end of the year 1964 as against 75,685 in 1963.

**Transport** as on March 31, 1964: The Nationalised Motor Transport system in the State is operating 2,482 routes covering a length of 1,02,938 miles. It carries on an average 5·62 lakh passengers and earns Rs. 3·04 lakhs per day.

Other particulars are as follows:—No. of vehicles on road per day 1,518; capital invested Rs. 1,495·69 lakhs; total revenue in 1963-64 was Rs. 1,113·19 lakhs; total expenditure (including payment of interest to participating Govt. etc.) Rs. 1,112·78 lakhs.

No. of **Motor Vehicles** in operation as in 1963. Motor cycles 12,381; Motor cars 19,174; Taxis 1,060; Auto Rickshaws 1,950; State carriages 2,959; Lorries 2,988; Public carriers 11,333; Total 58,308.

Mileage of metalled and non-metalled **Roads** as in March 1962:—

Metalled 7,780 ; non-metalled 6,977; total 15,757.

Railway mileage as in 1963:—

Broad gauge 561·57; metre 2,036·32; narrow 717·98; total 3,315·87.

**Village Panchayats** (as on March 31, 1965)† :—

No. of Village Panchayats 11,657; no. of villages covered 18,370; population covered 1,79,20,986. Percentage of population covered 99.

**Community Development** Programme 1963-64:

Stage I blocks 97; Stage II blocks 105; Sp. M.D.P. blocks 2; T.D. blocks 14; Population covered 1,78,67,000.

Improved seeds distributed (B. Mds.) 4,55,863; fertilizers distributed (B. Mds.) 15,71,866; agricultural demonstrations held (Nos.) 18,670; additional area brought under irrigation (acres) 1,51,546; drinking water wells constructed (Nos.) 825; drinking water wells renovated (Nos.) 1,277; adult education centres started (Nos.) 758; adults made literate (Nos.) 11,689; youth and farmers' clubs started (Nos.) 1,634; reading rooms/libraries started (Nos.) 300; kacha roads constructed (kms.) 1,459; people's contribution (Rs.) 38,03,700.

**Small Savings** :—Figures for 1962-63: target Rs. 1,033 lakhs: net collection Rs. 228 lakhs. During 1963-64: target Rs. 721·60 lakhs; net collection Rs. 810·05 lakhs.

**Housing**: The total allocation for housing in Gujarat in the Third Plan is Rs. 1,039 lakhs. The allocation for the first three years was Rs. 391·07 lakhs, but the amount actually drawn was only Rs. 246·11 lakhs.

**Consumer Price Index** numbers (base average Aug. 1926 to July 1927 as 100):—(For Ahmedabad).

| | 1960 | 1961 | 1962 | 1963 |
|---|---|---|---|---|
| Food .. .. | 322 | 324 | 328 | 316 |
| Fuel, lighting .. | 337 | 342 | 331 | 349 |
| Clothing .. .. | 339 | 339 | 339 | 339 |
| House rent .. | 107 | 107 | 107 | 107 |
| Miscellaneous .. | 349 | 357 | 366 | 369 |
| Cost of living .. | 298 | 300 | 302 | 296 |

Index nos. of **wholesale prices** (base 1952-53 = 100):—

| | 1961 | 1962 | 1963 | 1964 |
|---|---|---|---|---|
| Food articles .. | 119·5 | 124·9 | 132·7 | 154·9 |
| Liquor and tobacco .. .. | 103·6 | 99·6 | 115·3 | 126·9 |
| Fuel, power, light and lubricants | 121·8 | 123·4 | 136·3 | 142·8 |
| Industrial raw material .. .. | 147·7 | 137·3 | 137·2 | 156·4 |
| Manufacture .. | 127·0 | 129·0 | 130·3 | 134·8 |

**Industrialisation**:—During 1964, 45 licences were issued against 85 in the preceding year for the manufacture of a wide variety of products in the fields of textile, engineering, chemical and miscellaneous industries which would create employment potential for about 9,505 persons. Out of these, 10 licences were for new units and 35 for expansion of existing units. Total investment envisaged during the year was Rs. 615·71 lakhs.

The total number of working factories registered under the Factories Act, recorded a rise from 4,181 at the end of 1963 to 4,299 at the end of June 1964.

**Small-Scale Industries**: The development of small scale industries continued to receive the special attention of the Govt. during 1963. So far, six industrial estates are functioning in the State, *viz.*, Ahmedabad, Baroda, Bhavnagar, Gandhidam, Rajkot and Surat. At these estates, 330 industrial units have been established giving employment to about 4,300 persons.

**Small-Industries Corporation**: This corporation was incorporated on March 26, 1962 and started functioning. The corporation is expected to give aid, counsel, assist and to promote the interest of small industries in the State by providing technical and managerial assistance, and procuring raw materials, machinery, equipment, tools etc. required by the small industries. During 1964 the corporation made purchases of goods to the tune of Rs. 1,29,46,211 and sold goods worth Rs. 1,27,14,816.

## ELECTRIC POWER PROJECTS

The position as at the end of 31st March, 1964 was as follows:—

Assets of the Electricity Board: Rs. 66·49 crores; Total Installed capacity: 1,67,375·1 Kw (Steam 1,20,500; Diesel 46,875·1); Amount spent on Electricity Scheme in 1963-64: Rs. 14·89 crores; Working Expenditure: Rs. 9·07 crores; Total No. of Towns and Villages electrified: 1,137; Total length trans. line 11 kV and above: 10,195·073 circuit kms.; Total No. of consumers: 2,50,698; Total connected load: 3,30,000; Total production including bulk purchase from other agencies (in million KWH): 812·574 (Steam 534·303; Oil 55·187; Bulk purchase 223·084); Total average max. demand in kW: 1,59,130; Total sales (in million units): 656·809; Total estimated cost of schemes under the 3rd Plan: Rs. 7,407 lakhs; Total Govt. provision for the 3rd Plan: Rs. 4,668 lakhs; Total estimated foreign exchange component in 3rd Five Year Plan: Rs. 3,166 lakhs.

**The following are the more outstanding projects with the installed capacity as on 31st March, 1964.**

**North Gujarat Electric grid scheme**: based on bulk purchase of power: of the order of 46,650 kW from A.E. Co.:—Utran Power Station of South Gujarat Electric Grid: 67,500 kW; Sikka Power House: 16,000 kW; Shahpur Thermal Station: 16,000 kW; Porbandar Thermal Station: 15,000 kW; Rajkot Diesel Station: 10,147 kW.

**North Gujarat Electric Scheme**:—The Scheme is based on bulk purchase from A.E. Co. power houses at Vallabh Vidyanagar and Himatnagar with a capacity of 1,120 kW and 160 kW connected with this system.

Energy purchased during 1963-64: 214·610 million KWH; Energy sold: 167·994 million KWH; No. of consumers: 54,925; Length of trans. line 11 kV and above: 3,107·637 circuit km.; No. of villages and towns electrified: 373.

**South Gujarat Electric Grid Scheme**:—The scheme is based on the central thermal power station at Utran with an installed capacity of 67,500 kW. Capacity of diesel power connected to this system is 705 kW.

Units generated during 1963-64: 353·652 million KWH; Units sold: 282·341 million KWH; No. of consumers: 46,998; No. of villages and towns electrified: 334; Length of trans. lines 11 kV and above: 2,165·676 circuit km.

**Shahpur Grid Scheme**:— This has a power station at Shahpur which is inter-connected with Veraval and a few other diesel stations in the area.

Installed capacity of Shahpur Thermal Station: 16,000 kW; Installed capacity of diesel power houses connected to Shahpur Grid: 4,826 kW; Units generated during 1963-64 (Thermal): 34·120 million KWH; Units generated (diesel): 5·454 million KWH; Units sold: 23·0 million KWH; No. of consumers: 33,150; Length of trans. line 11 kv and above: 1,183·197 circuit km.; No. of villages and towns electrified: 112..

**Rajkot Grid Scheme**:—Installed capacity of Rajkot Diesel Power House: 10,147 kW; Installed capacity of other diesel power houses connected to grid: 892 kW; Units generated by the Rajkot Power House during 1963-64: 23·36 million KWH; Units generated by otner P.Hs during 1963-64 connected to Rajkot Grid: 0·01 million KWH; Total units sold: 21·149 million KWH; No. of consumers 25,436; Length of trans. lines 11 kV and above: 661·403 circuit km. No. of villages and towns electrified: 57.

**Bhavnagar Grid System**:—Power is purchased from Bhavnagar Power House owned by licensee. Lathi, Palitana and Gadhada power houses are connected to this Bhavnagar grid system with a capacity of 1,576 mW.

Length of trans. lines 11 kV and above: 558·364 circuit km.; Units purchased during 1963-64: 7·762 million KWH; Units generated (diesel): 0·480 million KWH; Units sold: 6·211 million KWH; No. of consumers: 11,855; No. of towns and villages electrified: 55.

**Jamnagar-Sikka System**:—There are two power houses in this system *viz.* (*i*) Sikka power Station (Thermal), (*ii*) Jamnagar diesel station, (*iii*) besides, Jodiya power house is connected to this system.

Capacity of Sikka Power House (steam): 16,000 kW; Installed capacity of Jamnagar and Jodiya Power House: 2,666 kW; Units generated during 1963-64 by Sikka Power House: 68·680 million KWH; Units generated (diesel power house): 1·427 million KWH; Units sold: 60·180 million KWH; No of consumers: 18,120; Length of trans. lines 11 kV and above: 381·338 circuit km.; No. of villages and towns electrified: 37.

**Surendranagar Grid System**: This scheme which is based on bulk supply from North Gujarat Electric Grid System was commissioned during 1960-61. Only a few diesel power houses aggregating 992 kW capacity have been connected to grid system.

Length of trans. lines 11kV and above: 249·062 circuit km.; No. of consumers 7,252; No. of villages and towns electrified: 29; Units sold during 1963-64: 15·513 million KWH; Units generated by diesel connected to it: 0·039 million KWH.

**Porbandar System**:—A steam station with total installed capacity of 3 × 5,000 kW has been commissioned. Besides this, there is diesel power house at Porbandar with an installed capacity of 2,567 kW.

Units generated by steam stations: 63·76 million km.; Units generated by diesel during 1963-64: 0·60 million km.; Units sold: 52·643 million km.; No. of consumers: 7,463; Length of trans. lines 11 kV and above: 75·811 circuit km.; No. of villages and towns electrified: 5.

† For more details see under article on "Community Development & Panchayats".

**Morvi Area System :**—Installed capacity of Morvi P.H. 4,241 kW ; Units generated during 1963-64 : 4·876 million KWH ; Units sold : 3·569 million kWH ; No. of consumers : 5,145 ; Length of trans. lines 11 kV and above : 85·341 circuit km ; No. of villages and towns electrified : 10.

**Kandla Grid System :**—Capacity of diesel steam station at Kandla : 6,000 kW ; Capacity of diesel station connected to this station : 1,602 kW ; Units generated during 1963-64 : 15·910 million KWH.; Units generated (diesel) : 1·245 million KWH ; Units sold : 12·464 million KWH ; No. of consumers : 11,671 ; Length of trans. lines 11 kV and above : 488·259 circuit km.; No. of villages and towns electrified : 60.

**Minor Diesel Stations Unconnected to any Grid System :**—There are 26 diesel power houses unconnected to any grid system. The installed capacity of all such power houses is 1,200 kW.

Units generated during 1963-64 : 14·105 million KWH ; Units sold : 10·503 million KWH. ; No. of consumers : 27,932 ; Length of trans. lines 11 kV and above : 431·087 circuit km.; No. of villages and towns electrified : 66.

**Minor Systems Based on Bulk Purchase :**—Units purchased during 1963-64 : 0·712 million KWH. ; Units sold : 0·571 million KWH ; Length of Trans. lines 11 kV and above : 10·458 circuit km. ; No. of consumers : 751 ; No. of places electrified : 1.

## IRRIGATION PROJECTS

Below we give a table in which are shown irrigation projects under construction.

| Name of Project | Estimated cost (in lakhs of Rs.) | Area likely to be irrigated on completion (Acres) |
|---|---|---|
| 1 | 2 | 3 |
| 1. Ukai .. .. .. | 6,120·02 | 3,91,650<br>In addition it will assure irrigation to 5,62,250 acres of Kakrapar. |
| 2. Kadana .. .. .. | 1,686·00 | 40,905<br>In addition it assures irrigation to 4,60,000 acres under the command of Mahi Right Bank Canal Project Stage I. |
| 3. Narmada .. .. | 4,141·43 | 9,97,500 |
| 4. Kakrapar.. .. .. | 1,857·00 | 5,62,250 |
| 5. Mahi Right Bank Canal Project stage I .. | 2,492·75 | 4,60,000 |
| 6. Dantiwada .. .. | 1,068·00 | 1,10,000 |
| 7. Hathmati .. .. | 961·00 | 82,500<br>In addition it will assure irrigation to 34,400 acres of existing canal system. |
| 8. Meshwa .. .. .. | 209·82 | 46,900<br>In addition it will assure irrigation to 19,000 acres. |
| 9. Saraswati.. .. .. | 78·45 | 11,200 |
| 10. Shetrunji (Palitana) .. | 696·00 | 86,000 |
| 11. Bhadar .. .. .. | 453·00 | 44,000 |
| 12. Shetrunji (Khodiar) .. | 181·00 | 19,000 |
| 13. Machhu II .. .. | 186 33 | 19,000 |

*Flood control :* A provision of Rs. 66 lakhs has been made in the Third Plan for the execution of flood control works.

### UKAI PROJECT

The project envisages the construction of reservoir on river Tapi at Ukai in Surat district at an estimated cost of Rs. 6,120·02 lakhs to irrigate 3,91,650 acres of land in Surat and Broach districts, and in addition 5,62,250 acres at present under Kakrapar canals will get assured supply of water.

Besides, 27,800 acres under command of Ukai canal and 56,200 acres under Kakrapar system will receive perennial irrigation. It also provides for generation of installed power of 1,30,000 kW. in 75 per cent load factor in normal years and 50,000 kW. firm power in worst year at 60 *per cent* load factor. Thus, Ukai dam has great potentialities for the development of cheap and economical hydroelectric power. Partial flood control is an additional feature of this scheme. The Government has also appointed Ukai Control Board and Ukai Rehabilitation Committee.

### KADANA PROJECT

The project envisages the construction of a reservoir on the Mahi river near Kadana village of Santrampur taluka in the Panch Mahals District at an estimated cost of Rs. 1,686 lakhs. A direct canal from the reservoir will irrigate 40,905 acres of land in the Panch Mahals district and will besides provide assured water supply to the 4·6 lakh acres under the command of the Mahi Right Bank Canal Project Stage I. It is also proposed to have continuous power generation of 6,000 kW.

### NARMADA PROJECT

Narmada project is a part of multipurpose development of the Narmada Basin and is contemplated to be completed in two stages. The first stage sanctioned for Rs. 4,141·43 lakhs envisages construction of a dam across the river near the village Navagam in Rajpipla taluka of the Broach District with canal system to irrigate an area of 9,97,500 acres of the Broach and the Baroda districts. The second stage contemplates power generation of the order of 6,25,000 kW. at 60 *per cent* load factor.

**Koyali Refineries :** The shipments of machinery for the refinery plant have been received from the U.S.S.R. The Soviet oil experts were going ahead with the preparations of the designs for the two million ton refinery.

A fertilizer plant is being set up near the refinery site by the State Govt.

**Subsidised Industrial Housing Scheme :** The total number of tenements constructed so far under the S.O.H.S. in the state is 17,238 at a cost of Rs. 575·89 lakhs.

The programme for the year 1964–65 and 1965-66 was for 4,022 tenements.

**Low Income Group Housing Scheme :** The programme for the year 1962-63 and 1963-64 out of the Third Five Year Plan was about 4,100 tenements at a cost of Rs. 285 lakhs. 960 tenements were built under the "Industrial Housing Scheme" at Ahmedabad and Baroda. 1,621 more tenements will be built during the remaining period of the Third Plan.

The Gujarat Housing Board has constructed 420 tenements upto the end of 1963-64 at a cost of Rs. 46·13 lakhs. The programme for 1964-65 and 1965-66 is 1,790 tenements.

**Third Plan :** The following schemes relating "Housing" have been included :—

(1) Subsidised Industrial Housing ; (2) Low Income Group Housing ; (3) Slum Clearance Scheme ; (4) Village Housing Project Scheme ; (5) Town Planning and City Surveys ; (6) Contribution to the share capital of the Gujarat Co-operative Housing Finance Society, Ltd.

An amount of Rs. 884·75 lakhs has been provided in the State Plan in respect of the schemes mentioned above, which will enable 24,725 tenements to be constructed.

The State formulated its development plan for 1964-65 envisaging an outlay of Rs. 53·39 crores.

### THIRD FIVE-YEAR PLAN

The following is the detailed allocations of Rs. 235 crores under Gujarat Third Five-Year Plan Schemes after the sanction of the Planning Commission : (Rs. in lakhs) Agriculture 713·28 ; Land Development 124·29 ; Minor Irrigation 1,500·00 ; Animal Husbandry 233·00 ; Dairying and Milk Supply 185·20 ; Forests 223·95 ; Soil Conservation 825·51 ; Fisheries 129·14 ; Total Agriculture 3,934·37 ; Community Development & Panchayat 1,481·06 ; Co-operation 457·10 ; Total C. D. and Co-operation 1,938·16 ; Multi-purpose, Major and Medium Irrigation Projects 5,174·00 ; Power Projects 4,668·00 ; Total Irrigation and Power 9,842·00 ; Large and Medium Industries 318·47 ; Village and Small scale Industries 373·40 ; Mining 50·00 ; Total Industries and Mining 741·87 ; Road Development 1,670·00 ; Road Transport 300·00 ; Ports and Harbour 200·00 ; Total Transport and Communication 2,170·00 ; Education 1,736·84 ; Health 1,672·77 ; Housing 884·75 ; Labour and Labour Welfare 151·00 ; Welfare of Backward Classes 284·00 ; Social Welfare 43·36 ; Total Social Services 4,772·72 ; Publicity and Tourism 55·00 ; Statistics 10·82 ; Miscellaneous 35·06 ; Total Miscellaneous 100·88 ; Grand Total 23,500·00.

### PLANNING

Under planning the main effort will be to wipe out the State's food deficit estimated at 1·8 million tons. The State's requirements are estimated at 3·9 million tons a year, and the target is set at 2·9 million tons.

About Rs. 100 crores are expected to be spent on the increase of food production—for irrigation, fertilizers, seed farms, improved methods of agriculture.

The entire Third Plan provision of Rs. 5,174 lakhs is earmarked for the 52 spillover schmes of the Second Plan. Of these 52 schemes, 3 are multi-purpose, 4 major and the remaining are medium schemes.

The utilisation of river waters for irrigation in Gujarat is expected to be increased from 26·7 per cent. to nearly 38 per cent. by the end of the Third Plan.

Under the scheme called the package plan an intensive drive is undertaken to increase the yield per acre in Surat District.

Other points under planning are given below:

Free and compulsory primary education is to be extended to all areas in the new State for children in the 6–11 age-group. It will cost the Government about Rs. 7 crores. Special emphasis is to be laid on girls' education.

The establishment of additional polytechnics and industrial workshops is another feature of the education programme.

The Third Plan period includes a scheme for the eradication of malaria in the State. The scheme is worked out in co-operation with the World Health Organisation and the Union Government. It would cost Rs.1·88 crores.

The State Government plans to establish a Rs. 40-lakh vaccine laboratory at Baroda to supply anti-malarial, anti-tuberculosis and anti-small-pox vaccines.

Another feature of the State's Third Plan is said to be the allocation of Rs. 4·51 crores for the development of intermediate and minor ports.

**Gujarat State Financial Corporation:** *See State "Corporations".*

# AHMEDABAD DISTRICT*

*Headquarters :* Ahmedabad. (Provisional Capital of Gujarat).

*Talukas or Mahals :* Deskroi, Dhandhuka, Dholka, Dehgam, Viramgam, City Taluka, Sanand.

A district in Gujarat, it lies between North Latitude 28° 23′ and 23° 37′ and East Longitude 71° 21′ and 70° 28′. It is bounded on the north by Mehsana and Sabarkantha Districts, on the west by Surendranagar District, on the south by Bhavnagar District and on the east by Kaira. The total area of the District is 3,461 sq. miles. The language spoken is Gujarati.

In the extreme south of the District and also just beyond the northern boundary are a few rocky hills. But between these two points the whole District forms a level plain, gradually rising towards the north and east. The chief physical feature is the river Sabarmati which rises in the north-east, near the extremity of the Aravalli Range and flows towards the south-west falling finally into the Gulf of Cambay.

The District as a whole is open and poorly wooded. The chief trees are mango, rayan, mahua and nim. Many of the trees and shrubs supply food, medicines and material for dyeing and tanning.

The rainfall varies but slightly between the central portions of the District and the outlying tracts. The annual rainfall averages about 30 inches.

The principal towns in the District are besides Ahmedabad, Viramgam, Dholka, Daskroi, Dhandhuka, Dholera, Dehgam and Sanand. Dehgam taluka has been selected for development under the village extension services scheme.

The chief food crops are wheat, jowar and bajra and the chief money crop, cotton. The best rice is grown in Daskroi and the next best in Sanand and Dholka. The cotton which has a good staple is mainly grown in the Dhandhuka and Dholka Talukas. In Daskroi and Dholka many garden crops are also grown.

Ahmedabad city which is the second biggest textile centre in India is the only large industrial area in the District. The number of textile mills and factories is about 150 including 72 textile mills with a total number of 2,171,474 spindles and 42,828 looms and employing a daily average number of 130,094 workers, as on August 31, 1962. The approximate quantity of cotton consumed in 1961 was 735,534 bales of 3½ Cwts. per bale. The total invested capital is Rs. 110 crores. In 1957, Ahmedabad mills accounted for 57·25 per cent of the country's output and 38 per cent of superfine cloth. The Employees' State Insurance Scheme for workers and their families covering half a million people, is to be launched shortly. Ahmedabad is also a centre of railway communications. One line from Ahmedabad goes south-east to Baroda and Bombay; another goes south to Dholka; a third goes west to Viramgam where it joins the Saurashtra railway system; a fourth goes north-east through Parantij; and a fifth north through Palanpur and Ajmer. Ahmedabad has also a number of archaelogical landmarks and an international diversionary airport. Ahmedabad's 50-Kilo Watt Broadcasting station is equipped to reach even remote villages in Gujarat State.

With the establishment of the Gujarat University, Ahmedabad has become an important educational centre. It has over 30,000 alumni in Gujarat, Saurashtra and Kutch. The Ahmedabad Textile Industry's Research Association is the first institute of its kind in the whole of India. Ahmedabad is linked by air with Bombay, Jaipur, Delhi and Karachi.

The population of Ahmedabad City according to the 1961 census is 11·5 lakhs. Ahmedabad Corporation was established in 1950.

* See article on "Population" for population figures.

## AHMEDABAD MUNICIPAL CORPORATION

*Mayor :* Dr. Somabhai C. Desai.

*Dy. Mayor :* Dr. Vasudeo Natvarlal Tripathi.

CHAIRMEN OF THE COMMITTEES

*Standing Committee :* Manubhai Harilal Palkhiwala; *Public Works Committee :* Natvaralal Chunilal Patel; *Health Committee :* Dr. Hirabhai Mohanlal Parikh; *Recreational and Cultural Committee :* Gokaldas Somabhai Patel; *Refuse and Sewage Committee :* Nathusing Indrasingh Rathod; *Milk Committee :* Jayantilal Keshavlal Raval; *Town Planning Committee :* Manubhai Tribhovandas Patel; *Urban Community Development Committee :* Hanumansing Bajaransing; *Housing and Improvement Committee :* Ratilal Chandulal Shah; *Legal Committee :* Lalbhai Shanalal Vakil.

*List of Members : Ward No.* 1 : Dr. Ajitkumar Purushottamdas Patel; Dr. Sureshbhai Chimanlal Shah; Dr. Ochchhavlal S. Talati. *Ward No.* 2 : Martandray Gangashankar Shastri; Dr. Kumarpal Keshavlal Shah; Jayendra Trikamlal Pandit. *Ward No.* 3 : Bachubhai Chhakkadbhai Kapadia; Navnitlal Manilal Shah; Dr. Hiralal Mohanlal Parikh; Lalbhai Shanalal Vakil; Rajabbhai Chandbhai Mansuri. *Ward No.* 4 : Dr. Ashok Chandulal Maheta; Dr. Somabhai Chhakkaddas Desai; Gokaldas Somabhai Patel; Gulammustufa Abdulkarim Shaikh; Kantilal Pursottamdas Patel. *Ward No.* 5 : Manubhai Harilal Palakhiwala; Jayantilal Keshavlal Raval; Nashiruddin Pirmohmmed Shaikh; Gulvantbhai Trambaklal Patel; Popatbhai Kanjibhai Patel. *Ward No.* 6 : Parsottam Madhavji Parmar; Dr. Vasudeo Natvarlal Tripathi; Ratilal Chandulal Shah; Lilabhai Jugaji Rabari; Kacharalal Mangaldas Patel. *Ward No.* 7 : Ramanlal Somchand Shah; Chippa Mohamadsharif Alauddin; Sankalchand Chhotalal Modi; Vinodbhai Jivanlal Dakwala; Abdulrahim Tantuji Kundiwala *Ward No.* 8 : Chimanlal Jethalal Jadav; Nanduprasad Trikamlal Raval; Jashubhai Jethalal; Maheshchandra Jashwantlal Shah. *Ward No.* 9 : Nalin H. Patel; Ramanlal Davalbhai Patel; Jaymal Jayantilal Thakore. *Ward No.* 10 : Dr. Chunilal Dungarbhai Patel; Dahyabhai Kalidas Patel; Prof. Bababhai Somabhai Patel; Gordhanbhai Bakorbhai Patel. *Ward No.* 11 : Chimanlal Nagindas; Vadilal Ratilal Kamdar : Himatsinh Dhanjibhai Thakor;. *Ward No.* 12 : Mohanlal Dungarbhai Parmar; Dinkar Krishnalal Maheta; Soharabali Murtajhahusein; Baluram Giriraj Gupta. *Ward No.* 13 : Somchand Jashabhai; Manubhai Tribhovandas Patel; Gabhaji Mangaji; Chandulal Hathibhai Patel; Nathusing Indrasing Rathod; Hanmansing Bajaransing. *Ward No.* 14 : Ramanlal Manabhai Parmar; Natvarlal Chunilal; Nagajibhai Laxmanbhai Ramani; Pitambar Vitthal Patil; Vallabhbhai Dudhabhai Patel; Vinodbhai Jivanlal Patel. *Ward No.* 15 : Manubhai Muljibhai Parmar; Naliniben Dinkar Maheta; Abdulraheman Tabbasumkhan; Narayanbhai Pentaji. *Ward No.* 16 : Vasantilal Talasibhai Chauhan; Abdulrajak Shekhbiban Shekh; Ratilal Ishvarlal Patel; Nanakubhai Bhagvanbhai. *Ward No.* 17 : Chintaman Jagannath Pajankar; Praheladbhai Khodidas Patel; Bhimjibhai Kunvarjibhai Mistri; Jayakrishnabhai Harivallabhdas Patel. *Ward No.* 18 : Narsinhbhai Karsanbhai Makvana; Kunjbihari Somnath Trivedi; Alabaksha Nurbhai Shaikh; Nanubhai T. Rekh; Ramniklal Vitthalray Bhatt.

ADMINISTRATIVE PERSONNEL

*Municipal Commissioner :* S. K. Gangopadhayaya, I.A.S.

*Deputy Municipal Commissioners :* A. S. Thakore, B.A., N. H. Thacker, M.Com., LL.M.; M. A. Panchal, Bar-at-Law.

*Municipal Secretary :* N. M. Desai, B.A. LL.B., B.H.S.

*Chief Accountant :* N. V. Parikh, B.Com.

*Town Development Officer :* P. J. Patel, B.E. (Civil).

*Estate & City Improvement Officer :* J. P. Gandhi, D.C.E., L.S.G.D.

*City Engineer :* M. J. Kakkad, A.M.I.E.

*Special Engineer :* Manibhai M. Patel, B.E. (Civil), A.M.I.E.

*Medical Officer of Health :* Dr. A. P. Dikshit, M.B.B.S., D.Ph. (London).

*Superintendent, Sheth Lallubhai Gordhandas General Hospital :* Dr. J. T. Bhatt, M.D., D.T.M.

*Superintendent, Sheth Vadilal Sarabhai General Hospital :* Dr. Miss S. C. Pandya.

*Superintendent, Smt. S. C. L. Municipal General Hospital :* Dr. I. R. Joshi, M.S.

*Superintendent, Sheth Nagari Municipal Opthalmic Hospital :* Dr. R. L. Dudhia, M.B.B.S., D.O.M.S.

*Dean, Smt. N. H. L. Municipal Medical College:* Dr. M. D. Desai, M.D., F.R.C.S.

*Chief Officer, Fire Brigade :* S. M. Bharucha, A.F.I.C.D. (Lond.), A.M.I.E.T., (London).

*Assessor and Collector :* S. L. Shastri, M.A. LL.B.

*General Manager, Dairy Project :* G. M. Jhala, M.Sc. (Agr.) (New Zealand).

*Transport Manager :* J. H. Shukla, B.A., M.I.I.R.T.

*Director, Urban Community Development :* Dr. (Smt.) Leelaben Shah, B.A. (Hons.), B.T., M.A., PH.D. (Michigan University, U.S.A.).

BUDGET 1965-66.

| | |
|---|---|
| *Revenue Receipts :* | Rs. 6,53,89,584. |
| *Expenditure :* | Rs. 7,56,22,294. |
| *Outlay on works :* | Rs. 6,77,99,154. |

# EDUCATIONAL INSTITUTIONS

## GUJARAT UNIVERSITY
(Ahmedabad 9.)

The Gujarat University is a Teaching and Affiliating University established in 1949 under an Act of the then Bombay State Legislature and incorporated by the then Bombay Government in November 1950. Now it is under the jurisdiction of the State of Gujarat.

(Total Affiliated Colleges : 115)

*Arts Colleges :* Samaldas College, Bhavnagar; Maganlal Thakordas Balmukunddas Arts College, Athva Lines, Surat; Lalbhai Dalpatbhai Arts College, Navrangpura, Ahmedabad-9; C. B. Patel Arts Institute, Nadiad; Harivallabhdas Kalidas Arts College, Ashram Road, Ahmedabad-9; Prakash Arts College, Tilak Road, Ahmedabad-1; Rajni Parekh Arts College, (Arts & Commerce), Cambay; Sardar Vallabhbhai Arts College, Ahmedabad; Sharda Peeth Arts College, Dwarka (Saurashtra); Umiyashanker N. Mehta Arts College, Morvi; Kalol Municipal Arts College, Kalol (N.G.); Music College, 8, Kashivishvanath Plot, Chhabi Villa, Rajkot; National College, Near Water Tank, Saraspur, Ahmedabad; Arts College, Sankheda (Dist. Baroda); Gandhidham Arts College, Adipur (Kutch); Matushree Virbaima Mahila College, Trikon bagh, Rajkot; Jivanlal M. Shah College, Jambusar; Arts College, Bodeli; Arts College, Devgadh-Baria; Banaskantha Arts College, Palanpur; Ahmedabad Arts College, Ahmedabad.

*Arts & Education College :* Darbar Gopaldas Mahavidyalaya, Aliabada (Halar-Saurashtra).

*Arts & Science Colleges :* Gujarat College, Ellis Bridge, Ahmedabad-6; Bahauddin College, Junagadh (Saurashtra); Sorabji Barjorji Garda College and B. P. Baria Science Institute, Navsari; Maneklal Nanchand College, Visnagar (N.G.); Petlad College, Petlad; Ramji Ravji Lalan College, Bhuj (Kutch); Jayendrapuri Arts & Science College; Broach; St. Xavier's College, Ellis Bridge, Ahmedabad-6; Swaminarayan Arts & Science College, Behind Tolnaka, Gita Mandir Road, Ahmedabad-1; Balabhai Damodardas College, Sankadi Sheri, Ahmedabad-1; Doshi Kalidas Virji Arts & Science College, Jamnagar (Saurashtra); Meghji Pethraj Shah Arts & Science College, Surendranagar; Arts & Science College, Dabhoi; Patan Arts & Science College, Patan (N.G.); Sir Purushottamdas Thakurdas Science College and Somalal Kasturchand and Shri Krishna O. M. Arts College, Modasa; Lallubhai Hakamchand Science and Sankalchand Damodardas Arts College, Mansa (N.G.); Umedram Panchal Arts College and Sarvodaya Science College, Pilvai (N.G.); Sheth Hiralal Prabhuram Arts and Shrimati Shantaben Motilal Panchal Science College, Talod; Sheth Purushottamdas Thakurdas Arts & Science College, Godhra; Vithalbhai Shivabhai Patel College of Arts & Science, Bilimora; Parekh Brothers Science College and Shah Keshavlal Somabhai Arts College, Kapadwanj; Kamani Science College and Prataprai Arts College, Amreli; Maharaja Rajendrasinhji College, Rajpipla; Bhavan's College, Dakor; Arts and Science College, Bardoli; Arts & Science College, Chhota-Udepur; Arts & Science College, Bhadaran.

*Arts & Commerce Colleges :* Nootan Kelavani Mandal Arts & Commerce College, Tithal Road, Bulsar; Kalidas Haridas Madhvani Arts & Commerce College, Porbandar (Saurashtra); City Arts & Commerce College, Ahmedabad-1; Somnath College, Veraval; Saifee Jubilee Arts & Commerce College, Sidhpur (N.G.); Upleta Municipal Arts & Commerce College, Upleta (Saurashtra); Prabhudas Thakker Arts & Commerce College, Paldi, Ahmedabad-7; Navgujarat Arts & Commerce College, Ashram Road, Ahmedabad-13; Arts & Commerce College, Sindhi Gate, Dholka; C. N. Arts and B. D. Commerce College, Kadi (N.G.); Dhandhuka Arts & Commerce College, Dhandhuka; Arts & Commerce College, Karjan; Bhaktavallabh Dhola Arts & Commerce College, Ahmedabad; Sahu Shriyans Prasad Jain Arts & Commerce College, Dhrangadhra; Maharaja Bhagwatsinhji College of Arts & Commerce, Gondal; Desai Chandulal Manilal Arts & Commerce College, Viramgam; Arts & Commerce College, Borsad; Arts & Commerce College, Kaira; Arts & Commerce College, Dohad; Arts & Commerce College, Mehsana.

*Arts & Law Colleges :* Sir Lallubhai Asharam Shah Law College, Ellis Bridge, Ahmedabad-6; Dharmendrasinhji College and A. M. Parekh Law College, Rajkot.

*Education Colleges :* Acharatlal Girdharlal Teachers' College, Ahmedabad-9; Ramba Graduate Teachers' College, Porbandar (Saurashtra); Sarvajanik College of Education, Surat; Prakash College of Education, Tilak Road, Ahmedabad-1; P. D. Malaviya Graduate Teachers' College, Rajkot (Saurashtra); Secondary Teachers' Training College, Opp. Gujarat Vidyapeeth, Ashram Road, Ahmedabad-13; Madhyamik Shikshan Mahavidyalaya, Bhavnagar.

*Science Colleges :* Prabhashanker Pattani Institute of Science, Bhavnagar; Sarvajanik College of Science, Athva Lines, Surat; Kotak Institute of Science, Rajkot; Mafatlal Gagalbhai Science Institute, Navrangpura, Ahmedabad-9; Jethabhai Jhaverbhai College of Science, Nadiad; Nootan Kelavani Mandal Science College, Tithal Road, Bulsar; Maharaja Mahendrasinghji Science College, Morvi; Smt. Bhikhuben Chandulal Jalundhwala Science College, Cambay.

*Commerce Colleges :* Hargovinddas Lakhmichand College of Commerce, Navrangpura, Ahmedabad-9; Sir Kikabhai Premchand Commerce College, Surat; Mangaldas Jeshingbhai College of Commerce, Bhavnagar; Sheth Haridas Acharatlal College of Commerce, Ahmedabad-6; Popatlal Dhanjibhai Malaviya College of Commerce, Rajkot; I. V. Patel College of Commerce, Nadiad; Sardar Vallabhbhai Commerce College, Tilak Road, Ahmedabad-1; Sheth Gulab Jamnadas Commerce College, Morvi, M. P. Shah Commerce College, Surendranagar; V. M. Parekh Commerce College, Kapadwanj.

*Commerce & Law College :* M. P. Shah Municipal College of Commerce & Law, Jamnagar.

*Law Colleges :* Sarvajanik Law College, Surat; City Law College, Lal Darwaja, Ahmedabad-1; Mohanlal Sankalchand Bhagat and Chandulal Sankalchand Sonawala Law College, Nadiad; Motilal Nehru Law College, Tilak Road, Ahmedabad-1; New Law College, Near Polyclinic, Lal Darwaja, Ahmedabad-1; Seth H. T. Law College, Bhavnagar (Saurashtra).

*Engineering Colleges :* Lalbhai Dalpatbhai College of Engineering, Navrangpura, Ahmedabad-9; Lukhdhirji Engineering College, Morvi (Saurastra); Sardar Vallabhbhai Regional College of Engineering & Technology, Surat.

*Medical Colleges :* Behramji Jijibhai Medical College, Asarwa, Ahmedabad-16; Meghji Pethraj Shah Medical College, Jamnagar; Lallubhai Motilal College of Pharmacy, Navrangpura, Ahmedabad 9; Smt. Nathiba Hargovandas Lakhmichand Municipal Medical College, Ellis Bridge, Ahmedabad-6; Government Dental College and Hospital, Health and Medical Services, Government of Gujarat, Ahmedabad-11; Govt. Medical College, Surat.

*Ayurveda Colleges :* Gulabkunverba Ayurveda Mahavidyalaya, Jamnagar; O. H. Nazar Ayurveda Mahavidyalaya, Surat.

*Agriculture College :* Agriculture College, Sardarbag, Junagadh (Saurashtra).

*Recognised Institutions :* Sheth Bholabhai Jesingbhai Institute of Learning & Research, Ashram Road, Ahmedabad-6; Physical Research Laboratory, Navrangpura, Ahmedabad-9; Sheth Kanaiyalal Motilal School of Postgraduate Medicine & Research, Ellis Bridge, Ahmedabad-6; Ahmedabad Textile Industries Research Association, Navrangpura, Ahmedabad-9; Chunilal Gandhi Vidyabhavan, Surat; Shri Dwarkadhish Sanskrit Academy and Indological Research Institute, Dwarka; Shri Lalbhai Dalpatbhai Bhartiya Sanskriti Vidya Mandir, Navrangpura, Ahmedabad-9; B. M. Institute, Ashram Road, Ahmedabad; Central Salt and Marine Chemicals Research Institute, Bhavnagar.

*University Departments :* University School of Social Sciences, Navrangpura, Ahmedabad-9; University School of Language and Literature, Navrangpura, Ahmedabad-9; University School of Psychology, Philosophy and Education, Navrangpura, Ahmedabad-9; University School of Sciences, Navrangpura, Ahmedabad-9.

The Senate ordinarily meets once a year on a date fixed by the Chancellor and at such other times, as may be convened by the Vice-Chancellor. A meeting of the Senate must also be convened on a requisition by twenty-five members of the Senate.

There are eight Faculties, *viz.*, Arts including Education, Science, Technology including Engineering, Agriculture, Law, Medicine, Commerce and Ayurvedic Medicine. The executive powers vest in the Syndicate and the Academic Council is the chief Academic body of the University.

Ordinarily the period of the tenure of office of members of the Senate is five years, and that of the members of the Syndicate and the Academic Council is three years.

*Chancellor.*—Nityanand Kanungo.

*Vice-Chancellor.*—Lalbhai Ratanji Desai, B.A. B.T. (Bom.), T.D. (Lond.).

*Registrar.*—K. C. Parikh, M.A., LL.B.

*Chief Medical Officer.*—Dr. K. A. Shah, M.B.S.

*Director of Physical Education.*—V. P. Mehta, B.Sc., Dip. Phy.Ed.

*Director, University School of Social Sciences.*—B. R. Shenoy, M.A. (Banaras), M.Sc. (Econ.) (London).

*Director, University School of Languages and Literature.*—Umashanker J. Joshi, M.A.

*Director, University School of Psychology, Philosophy & Education.*—Dr. P. H. Prabhu, B.A. (Hons.), LL.B., Ph.D., F.A. (Psy.), A. (U.S.A.).

*Director, University School of Science :* Dr. J. J. Chinoy, M.Sc., Ph.D., D.I.C.F.N.A.Sc.

### SENATE

EX-OFFICIO MEMBERS

*Chancellor :* Nityanand Kanungo; *Vice-Chancellor :* Prin. Lalbhai Ratanji Desai, B.A., B.T. (Bom.), T.D. (London); *Ex-Vice-Chancellors ;* Harsiddhabhai Vajubhai Divatia, M.A., LL.B.; Maganbhai Prabhudas Desai; *Registrar :* Kanchanlal Chandulal Parikh, M.A., LL.B.; *Chief Justice :* Hon'ble Chief Justice Shri J. M. Shelat; *Minister for Education :* Indumatiben Chimanlal; *Vice-Chancellors of the State Universities :* Dr. C. S. Patel, B.A., M.Sc. (Bom.), Ph.D. (Leeds.); Vice-Chancellor, The M. S. University of Baroda, Ishvarbhai J. Patel, Vice-Chancellor, Sardar Vallabhbhai Vidyapith, Vallabh Vidyanagar; *Director of Education :* K. G. Badlani, M.A., LL.B. (Bom.), I.A.S.; *Director of Technical Education :* T. A. Desai, B.Sc., M.I.E., M.M. & A.; *Director of Medical Services :* Dr. T. B. Patel, M.B.B.S., M.Sc., B.Hy., D.P.H. (Lond.); *Director of Agriculture, Ahmedabad* 9 : Dr. G. A. Patel, M.S., P.H.D. (Cornell); *Director of Industries :* S. M. Ghosh M.A., *Chief Engineer :* K. M. Kantawala; *Chief, Conservator of Forests, Baroda :* R. D. Joshi, B.Sc., A.F.I.C.; *Vice-Chancellor of the Gujarat Vidyapeeth :* T. M. Desai.

*Heads of University Departments.*—Prof. B. R. Shenoy M.A. (Banaras), M.Sc. (Econ.) (Lond.) (*Director, University School of Social Sciences*).

Prof. Umashanker J. Joshi, M.A. (*Director, University School of Languages and Literature*).

Dr. P. H. Prabhu, B.A. (Hons.), LL-B., Ph.D., F.A. (Psy.), A. (U.S.A.) (*Director, University School of Psychology, Philosophy & Education*).

Dr. J. J. Chenoy, M.Sc., Ph.D., D.I.C., F.N.A.Sc. (*Offg. Director, Univ. School of Sciences*).

The Principals of affiliated colleges are also ex-officio.

*Heads of Recognised Institutions.*—R. C. Parikh, B.A. (Hons.); Dr. K. R. Ramanathan, M.A., D.Sc., F.N.I.; Dr. S. C. Pandya, M.B.B.S., M.D.; Dr. T. S. Subramaniam, D.Sc.; V. R. Trivedi, M.A.; Dr. T. N. Dave, M.A., B.T., Ph.D.; Pandit D. D. Malvaria; Dr. K. Mehra, M.A., Ph.D. (Chicago), Dr. D. S. Data, M.Sc., A.I.I.Sc. Ph.D., M.I.I. Chem.

## SYNDICATE

EX-OFFICIO

Lalbhai R. Desai, B.A., B.T. (Bom.), T.D. (Lond.) (*Vice-Chancellor*); (Vacant) (*Rector*); K. G. Badlani (*Director of Education*).

*Dean elected by the Deans of Faculties* (1), M. C. Shah; *Members elected by Senate* (10), Batubhai H. Desai, B.A., LL.B.; Maganbhai P. Desai; Indravadan M. Nabavati, B.Com., LL.B.; T. M. Desai; Dr. J. J. Desai, M.B.B.S.,; R. G. Shastri, B.Sc.; J. R. Desai; Dr. Vikram A. Sarabhai, Ph.D.; Dr. M. D. Patel, F.R.C.S. (Eng.), D.L.O. (Lond.); N. C. Shah, M.B.B.S., F.R.C.S.

*Elected by the Heads of the University Departments*, J. J. Chenoy, M.Sc., Ph.D. D.I.C.F.N.A.Sc.

*Principals Class II—Ordinary Members* (70). *Nominated by the Chancellor* (20). *elected by the Principals of Colleges in the Gujarat University Area* (4), C. J. Patel, M.A.; Prin. Y. G. Naik, M.Sc., Ph.D.; M. S. Pandit, B.A., LL.B.; Prin. M. C. Desai, B.A., LL.B. (Bom.), M.A. (Michigan).

## ACADEMIC COUNCIL

EX-OFFICIO

Lalbhai Ratanji Desai, B.A., B.T. (Bombay), T.D. (Lond.) (*Vice-Chancellor*); (Vacant) (*Rector*); K. C. Parikh, M.A., LL.B. (*Registrar*). *Deans of Faculties*: 8.

*Heads of University Departments*, 4.

*Chairmen of the Boards of Studies*, 46.

## BUDGET—1965-66

*Income*: Rs. 57,62,720 (Recurring)—Rs. 17,92,886 (Non-recurring).

*Expenditure*: Rs. 68,35,150 (Recurring), Rs. 19,42,500 (Non-recurring).

Total number of students on the rolls of the colleges and recognised institutions (1963-64): 49,291.

Number of External students registered (1963-64): 5,933.

# ASSOCIATIONS ETC.

### AHMEDABAD CO-OPERATIVE FRUIT AND VEGETABLE GROWERS' ASSOCIATION LIMITED

R.I.B. Bhagubhai Vanda, General Vegetable Market, Ahmedabad.

### AHMEDABAD CYCLE MERCHANTS' ASSOCIATION

Inside Panch Kuva, Ahmedabad 1.

*President*: A. A. Vyas; *Secretary*: M. V. Patel.

### AHMEDABAD EDUCATION SOCIETY

Lal Bhavan, Bhadra, Ahmedabad 1.

*President*: Amratlal Hargovandas; *Chairman*, Kasturbhai Lalbhai; *Hon. Secretary*: Chandrakant C. Gandhi.

### AHMEDABAD GLASS MERCHANTS' ASSOCIATION

C/o Chimanlal Chhotalal & Co., Near Fernandez Bridge, Kalupur Road, Ahmedabad 1.

*President*: Ambalal Tribhovandas Taktawala; *Vice-President*: Rasiklal Chimanlal Modi; *Secretary*: Chimanlal Chhotalal Kacheria.

### AHMEDABAD HOTEL OWNERS' ASSOCIATION

Outside Kalupur Gate, Ahmedabad.

### AHMEDABAD JUNIOR CHAMBER

C/o Himavan Samaj Kalyan Kendra, Near Shanti Kunj Society, Pritamrai Marg, Ahmedabad-7.

*President*: Kalyan Gandhi.

### AHMEDABAD MEDICAL SOCIETY

Opp. H. K. Arts College, Ashram Road, Ahmedabad.

*President*: Dr. R. A. Hakim; *Vice-Presidents*: Dr. I. G. Bhatt, Dr. H. G. Jhambhekar; *Hon. Secretary*: Dr. R. K. Nanavaty; *Hon. Treasurer*: Dr. S. C. Patel.

### AHMEDABAD METAL MERCHANTS' ASSOCIATION

Kansara Delha, Railwaypura, Ahmedabad 2.

### THE AHMEDABAD MILLS & GIN STORES MERCHANTS' ASSOCIATION

Reid Road, Railwaypura Post, Ahmedabad 2.

*President*: Manubhai L. Parik; *Vice-President*: Rasiklal D. Shah; *Hon. Secretary*: Popatlal C. Dani.

### AHMEDABAD MILLOWNERS' ASSOCIATION

Post Box No. 7, Navrangpura, Ahmedabad 9.

*President*: Harshavadan Mangaldas; *Vice-President*: Kantilal Kanaiyalal; *Secretary*: H. G. Acharya; *Asstt. Secretary*: R. G. Acharya.

### AHMEDABAD PIPE MERCHANTS' ASSOCIATION

675, Chinubhai Building, Sakar Bazar, Cross Lane, Ahmedabad.

### AHMEDABAD PRINTING PRESS, ASSOCIATION

Purohit Printing Press, Gheekanta Road, Ahmedabad 1.

*President*: Maganlal M. Purohit; *Vice-President*: M. D. Patel; *Hon. Secretary*: K. P. Thakkar.

### AHMEDABAD SEEDS MERCHANTS' ASSOCIATION LTD.

Ravat Vadi, Near Central Bank, Gandhi Road, Ahmedabad 1.

*President*: Jivrajbhai Khimchand Parikh; *Vice-President*: Thakershi Chunilal Parikh; *Secretary*: B. M. Sheth.

### THE AHMEDABAD SHARE & STOCK BROKERS' ASSOCIATION

Manekchowk, Ahmedabad,

*President*: Ratilal Nathalal; *Vice-President*: Kantilal P. Broker; *Hon. Treasurer*: Chinubhai Dalsukhram; *Secretary*: Dwarkadas Mohanlal Akruwala.

### AHMEDABAD TEXTILE INDUSTRY'S RESEARCH ASSOCIATION

Navrangpura, Ahmedabad 9.

Tel. Nos.: 7651-7652. Grams: "ATIRA".

*Registration*: 1947. Inauguration: 1954. Establishment of a Regional Centre at Indore: 1956. Membership: 114 textile mills and allied industrial concerns in Gujarat, Maharashtra, Madhya Pradesh, Madras, Rajasthan, North India and West Bengal.

*Aims and Objects*: 1. Research for improved materials, technology and human relations in industry. 2. Dissemination of scientific knowledge and consultation to member mills to solve current operational problems. 3. Training for specialised jobs such as laboratory-in-charges, quality control officers, supervisory and operative training officers, ; guidance to research students for post-graduate degrees of Gujarat University, M. S. Univ. of Baroda, Bombay Univ. and Madras Univ.

*Management*: Council of Administration: Navnitlal Shodhan (*Chairman*); *Members*: Representatives of the managements of member mills, the Council of Scientific & Industrial Research, Scientists and Directors of three Textile Research Associations.

*Director*: Dr. P. C. Mehta, B.Sc. (Tech.), M.A. Ph.D. (Princeton).

*Staff*: Technical Officers: 56 Technical Assistants: 65. Administrative & Services Officers: 5. Administrative & Services Assistants: 108.

### AHMEDABAD TIMBER MERCHANTS' ASSOCIATION

Sahakari Lati Bazar, Jagannathji Road, Ahmedabad 17.

*President*: Bhanuprasad Sankalchand; *Vice-President*: Shivabhai Haribhai; *Hon. Secretary*: Bhejendra Ishvarlal Patel.

### AHMEDABAD WHOLESALE CHARCOAL MERCHANTS' ASSOCIATION

Opp. Asarva Station, Ahmedabad 11.

### THE ALL INDIA PICKER & TEXTILE LEATHER MANUFACTURERS' ASSOCIATION

Post Box No. 156, Ahmedabad.

*President*: D. C. Karaka of Pickers Ltd.; *Hon. Secretary & Treasurer*: I. M. Mansuri, B.A. of Graduate Picker Works.

### BAKUBHAI MANSUKHBHAI INSTITUTE OF PSYCHOLOGY AND CHILD DEVELOPMENT

Ashram Road, Near Nehru Bridge, Ahmedabad 9.

*Chairman, Board of Trustees*: Gautam Sarabhai M.A. (Cantab.).

### CAMERA PICTORIALISTS OF AHMEDABAD

"Sarang", Tolak Nagar, Ellis Bridge, Ahmedabad 7.

*President*: C. N. Munshaw; *Vice-President*: C. J. Shah, F.R.P.S.; *Hon. Secretary*: D. C. Engineer, F.P.S.A.

### DARPANA

"Chidambaram", Usmanpura, Ahmedabad 13

Academy of Art, Dance, Drama & Music.

*Director*: Smt. Mrinalini Sarabhai.

### GUJARAT DYESTUFFS MANUFACTURERS' ASSOCIATION

Bansidhar House, Kankaria Road, Ahmedabad.

*President*: R. M. Patel; *Vice-President*: Babubhai N. Chokshi; *Secretary*: S. Mathur.

### GUJARAT HANDLOOM WOOLLEN INDUSTRIES ASSOCIATION

318/1, Ramanlal Jain Road, Astodia, Ahmedabad.

### GUJARAT INSTITUTE OF CIVIL ENGINEERS & ARCHITECTS

Law College Road, Ahmedabad 6.

*President*: G. S. Desai; *Vice-President*: J. P. Vora; *Secretaries*: P. A. Rawal, S. C. Rangwala, J. M. Patel.

### GUJARAT TEXTILE PROCESSORS' ASSOCIATION

Bansidhar House, Kankaria Road, Ahmedabad.

### GUJARAT VEPARI MAHAMANDAL
(Gujarat Chamber of Commerce)

Shri Ambica Mills—Gujarat Chamber Building, Ranchhodlal Road, Post Box No. 162, Ahmedabad.

*President :* Rohitbhai C. Mehta ; *Vice-President :* Hiralal H. Bhagwati; *Secretary :* L. V. Dani.

### GUJARAT VIDYAPITH
(National Univ. of Gujarat).

Ahmedabad 14.

Founded by Mahatma Gandhi in 1920. The Vidyapith works for spreading national education and particularly strives to make basic national education popular and was founded with the aim, among others, of providing university instruction in the mother tongue. It confers a degree of Bachelor of Social Science to its students who have undergone three years' course after matriculation. It has also provision for Post-graduate teaching for Master degree in Hindi, Gujarati, Rural Economics, Tribal Culture. It also conducts two courses for training Hindi teachers equivalent to T.D. and B.Ed. and another course equivalent to B.Ed. for Basic Education Teachers for Secondary Schools. The Vidyapith is now declared by Government of India as an institution deemed to be University under Section 3 of the U.G.C. Act.

*Chancellor :* Morarji Desai ; *Vice-Chancellor :* Thakorebhai Desai ; *Registrar :* Ramlal Parikh.

### HAROLD LASKI INSTITUTE OF POLITICAL SCIENCE

Mavalankar Haveli, Bhadra, Ahmedabad 1.

It is an educational and non-partisan body, founded on August 15, 1954, to encourage and facilitate the scientific study of political questions and problems. The Institute, as such, does not express an opinion on any aspect of political theory or practice. It maintains a Reference Library, Lending Libraries and Reading Rooms, holds monthly Seminars, and discussions, and arranges talks with a view to better understanding the various issues of past and current political and allied problems. In pursuance of these aims the Institute brings out publications from time to time and publishes since July 1961 the monthly "Laski Institute Bulletin" (supplied free to all members) and "Politics"—the occasional miscellany. The Institute is an Associate Member of the International Political Science Association, Paris. The Institute runs the Commonwealth, Asia and Africa Study Centres as well.

*Founder Director :* Prof. P. G. Mavalankar.

*Asstt. Director :* Vishnu G. Patel.

### INDIAN INSTITUTE OF MANAGEMENT

310, Camp Road, Shahibaug, Ahmedabad 4.

*Aims : (i)* To provide educational facilities for training young men and women for management careers, and for developing experienced administrators. *(ii)* To conduct research and to contribute to the growth of knowledge of business and administration. *(iii)* To provide for the development of teachers in business management and administration.

*(a)* A post-graduate course of two years, equivalent to an M.B.A. course, for young men and women preparing for executive positions, *(b)* Management development programmes for senior and middle level executives sponsored by their organisations for a period varying from 2 to 16 weeks. *(c)* A Doctoral Programme to encourage research and to advance knowledge in management. *(d)* Special Programmes—from time to time the Institute will attempt to organise special programmes such as, a programme for those interested in case writing, a programme for persons engaged in Industrial Relations, in Agriculture and Co-operatives etc.

*Chairman :* P. L. Tandon ; *Hon. Director :* Dr. Vikram A. Sarabhai ; *Director (Programmes) :* Dr. Kamla Chowdhry ; *Administrative Officer-cum-Secretary :* M. K. Subramaniam.

### INDIAN PHARMACEUTICAL ASSOCIATION
(Gujarat State Branch)

L. M. College of Pharmacy, Ahmedabad 9.

### INSTITUTION OF ENGINEERS (INDIA)

Law College Road, Ahmedabad 6.

*Chairman :* G. S. Desai ; *Hon. Secretary :* Prof. K. J. Bhatt.

### NATIONAL INSTITUTE FOR INDUSTRIAL DESIGN

Post Bag No. 191, Ahmedabad.

This Institute is an autonomous non-profit training, service and research centre in design and allied fields sponsored by the Government of India in cooperation with the Ford Foundation and the State of Gujarat.

*Chairman :* Gautam Sarabhai ; *Secretary :* N. V. L. Narasimhan.

### PANCHKUVA CLOTH MERCHANTS' ASSOCIATION

518, Panchkuva, Ahmedabad.

*President :* Anubhai Chimanlal Shah ; *Vice-President :* Lalbhai Girdharilal Shah ; *Hon. Secretary :* Chandulal Jamnadas Shah.

### PHYSICAL RESEARCH LABORATORY

Navrangpura, Ahmedabad 9.

*Chairman, Council of Management,* Kasturbhai Lalbhai.

*Director and Professor of Atmospheric Physics,* Dr. Vikram A. Sarabhai, Ph.D.

### THE RETAIL CLOTH MERCHANTS' ASSOCIATION

C/o. N. Mansukhram & Co., Opp. Maskati Market, Ahmedabad 2.

*President :* Nareshchandra M. Shah ; *Secretary :* Babubhai M. Shah.

### SCHOOL FOR DEAF-MUTES AND SCHOOL FOR THE BLIND

Ashram Road, Navrangpura, Ahmedabad 9.

*President :* Madanmohan Mangaldas ; *Secretaries,* P. P. Desai ; B. D. Lala.

Public charitable Institute, managed by a Committee. Education free. Tailoring, Printing, Carpentry & Cane Work taught. Also Kalpana Balmandir for such Children.

### SHETH BHOLABHAI JESINGBHAI INSTITUTE OF LEARNING AND RESEARCH

R. C. Marg, Ahmedabad 9.

*Director :* Prof. R. C. Parikh.

### T. K. POLIO CLINIC & PHYSIOTHERAPY INSTITUTION

Pritam Nagar, Ellis Bridge, Ahmedabad 6.

*Director :* Chandrakant Vyas, M.I.A.P.

Provides Physiotherapy and Electro-Therapy treatments.

### THE TEXTILE ASSOCIATION (INDIA)
(Ahmedabad Branch)

Toll Naka, Gandhi Bridge, Ahmedabad 9.

*Chairman :* K. M. Patel ; *President :* P. H. Rawal ; *Hon. Secretary :* B. A. Shah.

### TEXTILE LABOUR ASSOCIATION

'Gandhi Majur Sevalaya', P.B. No. 110, Bhadra, Ahmedabad.

*Membership :* 94,654.

*President :* Smt. Anasuyaben Sarabhai ; *Gen. Secretary :* Khandubhai K. Desai ; *Secretaries :* S. R. Vasavada, N. H. Shaikh.

### THE WEST INDIA COTTON ASSOCIATION LTD.

Cotton Hall, Maneckchowk, Ahmedabad.

*President :* Sheth Shantilal Mangaldas ; *Vice-Presidents :* Shakerchand Manilal Shah, Lalbhai Gatabhai Shah.

### OTHER ASSOCIATIONS

Ahmedabad Aerated Water Works Association, C/o Tajmahal Trading Co., Mirzapur Road, Ahmedabad.

The Ahmedabad Automobiles Dealers' Association, C/o Jayant Motor Stores, Railwaypura, Ahmedabad 2.

The Ahmedabad Bonafide Charcoal Merchants' Association, C/o D. K. Thaker, Khadia, Char Rasta, Ahmedabad.

Ahmedabad Booksellers' Association, Gandhi Road, Ahmedabad.

Ahmedabad Builders' Association, Gujarat Institute of Civil Engineers and Architects, Law College Road, Ahmedabad 6.

Ahmedabad Building Materials Suppliers' Association, Kadia Naka, Dariapur, Ahmedabad.

Ahmedabad Bullion Exchange Association Ltd., Manek Chowk, Ahmedabad.

The Ahmedabad Chemical Merchants' Association, Kapasia Bazar, Ahmedabad.

Ahmedabad Chemists' Association, 1891, 2nd Floor, Fuwara, Gandhi Road, Ahmedabad-1.

The Ahmedabad Clearing and Carting Contractors' Association, Kerosene Bazar, Ahmedabad 2.

Ahmedabad Coal Merchants' Association, C/o. Vasa Desai & Co., 744/3, Gandhi Road, Ahmedabad.

Ahmedabad Colour Merchants' Association, Astodia Road, Ahmedabad.

Ahmedabad Commercial Association, Chokha Bazar, Ahmedabad.

Ahmedabad Controlled Iron and Steel Registered Stock-holders' Association Private Ltd., 700, Revdi Bazar, Railwaypura, Ahmedabad 2.

Ahmedabad Cotton Brokers' Association, Richey Road, Ahmedabad,

Ahmedabad Cotton Mahajan, Sakar Bazar, Ahmedabad 2.

Ahmedabad Cotton Merchants' Association, Manek Chowk, Ahmedabad.

The Ahmedabad Cotton Waste Merchants' Association, Cotton Waste Bldg., Relief Road, Ahmedabad.

Ahmedabad Chamber of Commerce, Old Nagarseth Market, Ratanpole, Ahmedabad.

Ahmedabad Electrical Merchants & Contractors' Association, Kapadia Electric Works, Balahanuman, Gandhi Road, Ahmedabad.

Ahmedabad Factory Owners' Association, Gheekanta Road, Ahmedabad.

Ahmedabad Ghee and Oil Brokers' Association, Narottamdas Bldg., Kapasia Bazar, Ahmedabad 2.

Ahmedabad Grain Merchants' Association, Chokha Bazar, Railwaypura, Ahmedabad 2.

Ahmedabad Gramophone Dealers' Association, Gandhi Road, Ahmedabad.

Ahmedabad Glass & Frame Merchants' Association, Gandhi Road, Ahmedabad.

Ahmedabad Hand-Printers' Association, Rangali Cloth Bazar, Astodia, Ahmedabad 2.

Ahmedabad Hessian Association, Arenda Hall, Kapasia Bazar, Ahmedabad 2.

Ahmedabad Hosiery Factory Owners' Association, 449, Kankaria Road, Ahmedabad 1.

The Ahmedabad Iron, Hardware and Paint Merchants' Federation, Bala Hanuman, Kaveshwar's Pole, Ahmedabad.

Ahmedabad Jaggery & Sugar Merchants' Association, Choka Bazar, Ahmedabad 2.

Ahmedabad New Madhavpura Mahajan, Madhavpura, Ahmedabad.

Ahmedabad New Rangati Kapad Mahajan, Rangati Kapad Bazar, Astodia, Ahmedabad.

Ahmedabad Pan Merchants' Association, Opp. Vegetable Market, Manek Chowk, Ahmedabad.

The Ahmedabad Paper Merchants' Association, 995, Khadia, Char Rasta, Ahmedabad.

Ahmedabad Printing & Dyeing Association, New Cotton Mill No. 1 Compound, Outside Raipur Gate, Ahmedabad.

Ahmedabad Radio Merchants' Association, C/o. H. B. Trivedi & Co., Gandhi Road, Ahmedabad.

Ahmedabad Sanitaryware Merchants' Association, C/o Bharat Stationery Stores, Hawa Mansion, Relief Road, Ahmedabad.

Ahmedabad Shroff Mahajan, Manek Chowk, Opp. Share Bazar, Ahmedabad.

Ahmedabad Small Scale Non-ferrous Metal Industries Association, 595/12, Kansara Dehla, Railwaypura, Ahmedabad 2.

Ahmedabad Soap Manufacturers' Association, Jeshingbhai Wadi, Gheekanta Road, Ahmedabad.

Ahmedabad Thread Manufacturers' Association, Sakar Bazar, Ahmedabad.

Ahmedabad Tea Merchants' Association, Chokha Bazar, Kalupur, Ahmedabad.

The Ahmedabad Tobacco Merchants' Association, Hathipura, Ahmedabad.

Ahmedabad Trunk & Buckets Factory Owners' Association, 710, Revdi Bazar, Ahmedabad.

Ahmedabad Utensils Merchants' Association, Kansara Dehla, Railwaypura, Ahmedabad.

The Ahmedabad Watch Merchants' Association 723/3, Richey Road, Ahmedabad 1.

The Ahmedabad Wholesale Cattle food Merchants' Association, Chokha Bazar, Kalupur, Ahmedabad No. 2.

Ahmedabad Wholesale Hosiery Merchants' Association, C/o Amratlal Nagindas & Co., Shethia Bldg., Relief Road, Ahmedabad.

Ahmedabad Yarn Merchants' Association, Sakar Bazar, Ahmedabad.

All India Institute of Homeopath, 25, Shantisadan Society, Ahmedabad.

The Bharat Sadhu Samaj, Ellis Bridge, Sanyas Ashram, Ahmedabad 6.

Blind Men's Association, Maganbhai's Kandra, Kamashawar's Pole, Raipur, Ahmedabad 1.

Brick Merchants' Association, Nowroji N. Vakil & Co., Pottery Works, Naroda Road, Ahmedabad 2.

The Confectionery Mfg. Owners' Association, 155/156, Juna Madhavpura, Ahmedabad.

**Gujarat Cotton Brokers' Association, Maneck Chowk, Ahmedabad.**

The Gujarat State Hair Oil and Perfumery Traders' Association, Opp. Jumma Masjid, Gandhi Road, Ahmedabad.

The Machinery Merchants' Association, 661, Kanuga Mansion, Kapasia Bazar, Ahmedabad 2.

Maskati Cloth Market Association, Maskati Market, Railwaypura Post, Ahmedabad 2.

The Non-Power Soap Manufacturers' Association, C/o Coronation Soap Works, Jeshinghbhai's Wadi, Gheekanta Road, Ahmedabad.

Radio Television and Sound System Institute, Girdhar Chambers, Gandhi Road, Ahmedabad 1.

Ratanpol & Richey Road Gold & Silver Jewellery Ornament Merchants' Association, C/o. Royal Jewellery Mart, Gandhi Road, Ahmedabad.

Sangit Nivedak Mandal, 822, Hajira's Street, Sankadi Shery, Ahmedabad 1.

Sona Chandi & Jewellery Merchants' Mahajan, Gandhi Road, Ahmedabad.

Textile Leather Manufacturers' Association, Post Box 156, Ahmedabad.

Western India Automobile Association, The Cellar, Khanpur, Ahmedabad.

### HOTELS

Anand Nivas, Zaveriwad ; Ashok Nivas, Relief Road ; Cama's Hotel, Khanpur ; Capital Hotel, Khanpur ; Chandra Vilas, Gandhi Road ; Grand Hotel, Lal Darwaja ; Laxmi Vilas, Gandhi Road ; Ritz Hotel, Lal Darwaja; Roopali, Lal Darwaja.

### CLUBS

Gujarat Club ; Ahmedabad Gymkhana ; Parsi Gymkhana ; Reform Club ; Rajnagar Club ; Merchants' Club ; Lion's Club : Hindu Gymkhana ; Railwaymen's Institute ; Postal Union ; Orient Club ; Rotary Club ; Shahibag Club ; Ellis Bridge Gymkhana.

## NEWSPAPERS & PERIODICALS

| | | |
|---|---|---|
| "ARAM" .. .. .. .. | Weekly | Gujarati |
| "CHITRALOK" .. .. .. | Do. | Do. |
| "CHHAYA SANDESH" .. .. | Do. | Do. |
| "CONGRESS PATRIKA" .. | Do. | Do. |
| "GUJARAT SAMACHAR" .. | Daily | Do. |
| "HINDU" .. .. .. .. | Do. | Do. |
| "IMAN" .. .. .. .. | Monthly | Do. |
| "JAIN PRAVACHAN" .. .. | Weekly | Do. |
| "JANSATTA" .. .. .. | Daily | Do. |
| "JANTANTRA" .. .. .. | Do. | Do. |
| "JYOTIRDHAR" .. .. .. | Fortnightly | Do. |
| "KEDI" .. .. .. .. | Do. | Do. |
| "KUMAR" .. .. .. | Monthly | Do. |
| "MAHILA JAGAT" .. .. | Fortnightly | Do. |
| "MAJUR SANDESH" .. .. | Twice a week | Do. |
| "MODHENDU" .. .. .. | Monthly | Do. |
| "NAUSAURASHTRA" .. .. | Weekly | Do. |
| "NAVJIVAN" .. .. .. | Monthly | Do. |
| "NAYAGAMANA" .. .. | Weekly | Do. |
| "NUTAN PRAKASH" .. .. | Monthly | Do. |
| "PRABHAT" .. .. .. | Daily | Do. |
| "PRAGATI" .. .. .. | Fortnightly | Gujarati |
| "PRATHMIK SHIKSHAK" .. | Do. | Do. |
| "PREKSHAK" .. .. .. | Weekly | Do. |
| "SAMAJ PATRIKA" .. .. | Fortnightly | Marathi. |
| "SANDESH" .. .. .. | Daily | Gujarati. |
| "SANSKRUTI" .. .. .. | Monthly | Do. |
| "SEVAK" .. .. .. .. | Daily | Do. |
| "SHRIGAUD PRAKASH" .. | Monthly | Do. |
| "SHRI JAIN SATYA PRAKASH" | Do. | Do. |
| "SHRIMALI SHUBHECHHAK" | Do. | Do. |
| "SHRI TRIVEDI MEWADA VARTAMAN" .. .. .. | Do. | Do. |
| "STHANAKWASI JAIN" .. | Fortnightly | Do. |
| "STRI JIVAN" .. .. .. | Monthly | Do. |
| "TAMANNA" .. .. .. | Weekly | Do. |
| "VIDYARTHI" .. .. .. | Monthly | Do. |
| "VIKAS" .. .. .. .. | Fortnightly | Do. |
| "VIRSHASAN" .. .. .. | Weekly | Do. |
| "VISHWAVATSALYA" .. .. | Fortnightly | Do. |
| "YUVAK" .. .. .. .. | Monthly | Do. |

# COMMERCIAL FIRMS

Ahmedabad Manufacturing & Calico Printing Co., Ltd., The Post Box No. 12, Ahmedabad.

Ahmedabad Chrome Tanning Co., Peermohamedshah Road, Ahmedabad.

Ahmedabad Ice & Cold Storage P. Ltd., 42, Parmal Society, Ellis Bridge, Ahmedabad 6.

Ahmedabad Star Engineering Works P. Ltd., 1730, Haribhai Dehla, Outside Prem Darwaja, Ahmedabad 1.

Ahmedabad Victoria Iron Works Co., Ltd., Dudheshwar Road, Ahmedabad 1.

Alkemi Private Ltd., Opp. Potaliya Talao, Saraspur, Ahmedabad 2.

Anil P. Ltd., Manekchowk, Ahmedabad.

Anil Starch Products Ltd., Anil Road, Railwaypura P.O., Ahmedabad 2.

Aruna Traders, Vora's Bldg., Kapasia Bazar, Ahmedabad 2.

Avery Co. Ltd., 2069, Raikhad, Ahmedabad.

Bakubhai Ambalal P. Ltd., Bank of India Bldg., Bhadra, Ahmedabad.

Baldevdas Manilal & Co., Gandhi Road, opp. Mahavir Swami's Temple, Ahmedabad.

Bansidhar P. Ltd., Opp. City Mill, Kankaria Road, Ahmedabad.

Batliboi & Co., Reid Road, Ahmedabad.

Beltex Private Ltd., Ellis Bridge, Ahmedabad 6.

**BHALAKIA MILLS CO., LTD.,** Cotton Cloth Manufacturers, P. B. No. 29, Khokhra Mehmedabad Road, Ahmedabad 8. Phone : 52361 & 52362.

Bharat Metal Industries, Ramkrishna Colony Sarkhej Road, Ahmedabad 7.

Bharat Products Mfg. Co., Vallabhwad, Ellis Bridge, Ahmedabad.

Bharat Textile Industries, Ramkumar Mills Compound, Saraspur, Ahmedabad.

Bharat Traders, 572-A, Reid Road, Railwaypura, Ahmedabad 2.

Bhow & Co., S. P., Jumma Masjid, Pankore Naka, Ahmedabad.

Bhulabhai Narandas & Co., Danapith Lat, Kalupur, Ahmedabad 2.

**BOMBAY GARAGE (AHMEDABAD) LTD.,** Shahibag Road, Ahmedabad 4 (Gujarat State); Estd.: November 16, 1939; Phones: 24615, 24616 & 24213. Grams: "PARKCHIN". *Dealings :* Sales and Repairs in Motor Cars, Trucks, Scooters, Air Conditioners, Water Coolers, Refrigerators and Sales of relevant Spare Parts. *Gen. Manager :* Aziz R. Chinoy.

**BRADMA OF INDIA LTD.,** 9, Mill Officers Co. Housing Colony, opp. Mill Owners' Association Bldg., Ashram Road, Navrangpura, Ahmedabad 9; Grams: "BRADMALT" Data writing Machines and Business Systems.

Brady & Co., Ltd., W. H., Railwaypura Post, Reid Road, Ahmedabad.

Brooke Bond India P. Ltd., Bungalow No. 1054, Near Rly. Crossing, Shahibaug, Ahmedabad.

C. A. Galiakotwalla & Co. P. Ltd., Kapasia Bazar, Railwaypura, Ahmedabad.

Caltex (India) Ltd., Asarwa Station Yard, Ahmedabad.

**CAMA HOTELS LTD.,** Khanpur Road, Ahmedabad; Finest Hotel in Gujarat.

C. B. Sataria Bros., Cross Lane, opp. Railway Station, Ahmedabad.

**C. DOCTOR & CO. PRIVATE LTD.,** Industrial Air Conditioning Engineers, Bank of Baroda Bldg., Gandhi Road, Ahmedabad 1.

Cellulose Products of India Ltd., P.O. Kathwada Maize Products, Ahmedabad.

Cement Marketing Co. of India P. Ltd., Bombay Mutual Bldg., Tilak Road, Ahmedabad.

Cimco Traders, 1027, Totalajini Pole, Raja Mehta's Pole, Ahmedabad 1.

Comet Dye Stuff P. Ltd., Naroda Road, Ahmedabad 2.

Continental Trading Syndicate, 649-1, Kapasia Bazar, Ahmedabad.

Dashrathlal Chimanlal & Bros., 647/23, Motilal Mansion, Kapasia Bazar, Ahmedabad 2.

Diamond Silk & Rayon Mill, Opp. Thakkar Bapanagar, Nikol Road, Ahmedabad 2. Silk & Art Silk Cloth Manufacturers.

Dominant Textile and Industrial Co., 790, Ramji Mandir's Pole, Patel's Pole, Ahmedabad 1.

Dye Stuffs & Chemicals P. Ltd., Reid Road, Ahmedabad 2.

Eagle Engineering Enterprises, Naroda Road, Ahmedabad.

Embee Commercial Corpn., Jivan Nivas, Opp. Madhav Baug, Ahmedabad.

Express Traders P. Ltd., Vora's Bldg., Kapasia Bazar, Ahmedabad 2.

Fibrex P. Ltd., Bharatkhand Mill Compound, Asarva Road, Ahmedabad 11.

Firestone Tyre & Rubber Co., of India P. Ltd., P. O. Box 272, Ahmedabad.

Gajjar Industries, Near Potalia Talav, Saraspur, Ahmedabad.

Gannon Dunkerley & Co., Ltd., Railwaypura Post, Ahmedabad.

General Commercial Agency, Cross Lane, Railwaypura Post, Ahmedabad 2.

General Electric Co. of India Private Ltd., The, Magnet House, Tilak Road, P.O. Box No. 224, Ahmedabad.

General Industries, 2751, Tilak Road, Ahmedabad.

General Trading Co., Khodi Ambli, Near Chhipa Pole, Ahmedabad.

Girdharilal Damoderdas Ltd., 691, Reid Road, Railwaypura Post, Ahmedabad.

**GREAVES COTTON & CO., LTD.,** Mumtaz Mahal, Relief Road, Ahmedabad.

Gujarat Corporation (India) Ltd., Harisadan, Char Rasta, Ahmedabad.

Gujarat Electric Co. P. Ltd., Opp. Mahavir Jain's Temple, Gandhi Road, Ahmedabad.

Gujarat Nets Ltd., P. Box 243, Ahmedabad.

Gujarat Paper Mills Ltd., 653, Sakar, Bazar, Ahmedabad 2.

Gujarat Textile Co. P. Ltd., Manekchowk, Ahmedabad.

Gujarat Trading Corporation, Narottam Bldg., K. Bazar, Ahmedabad 2.

Gujarat Wood Works P. Ltd., Astodia, Lali Kagadapith, Ahmedabad.

Gujrat Automobiles, Motilal Hirabhai Market, Ahmedabad.

Gujrat Oil Mills and Manufacturing Co., Ltd., Asarva, Ahmedabad 11.

Gunvantray Graphic Industries, Near Railway Crossing, Naroda, Ahmedabad 2.

Hindustan Wired Glass Mfg. Co. Ltd., Ideal Motor Premises, Lal Darwaja, Ahmedabad.

H. Chokshi & Co., Kapasia Bazar, Ahmedabad 2.

H. K. (Investment) Co. P. Ltd., Shri Ambica Mills Premises, Ahmedabad 8.

Imperial Chemical Industries (India) Ltd., Dyes Dept., Girdharlal's Mangaldas Bungalow, Lal Darwaja, Ahmedabad.

Imperial Tobacco Co. of India Ltd., North End Hotel, Shahibaug, Ahmedabad 4.

Indequip P. Ltd., Reid Road, Ahmedabad.

Indian Cable Co. Ltd., Gandhi Road, Ahmedabad.

Indian Oxygen Ltd., Rakhial Road, Ahmedabad.

Indo Belga Engineering Co. Ltd., Dudheshwar Road, Ahmedabad.

Indo-British Chemical Co., Astodia Chakla, Ahmedabad.

Indo-Swiss Textile Machinery Mfg. Co., C/o Ideal Motors Ltd., Lal Darwaja, Ahmedabad.

**INDUSTRIAL HIRE PURCHASE CORPORATION PRIVATE LTD.,** Opp. Krishna Cinema, Anand Bhuvan, Relief Road, Ahmedabad. Financiers, Merchants & Agents. Phone : 22982; Grams: "PIAMINSON".

Industrial Spare Parts Co., Relief Road, Ahmedabad.

International Traders P. Ltd., Narottam Bldg., Kapasia Bazar, Ahmedabad.

J. K. Brothers, Eranda Hall, Kapasia Bazar, Ahmedabad. Phone : 2764.

Jaishree Traders P. Ltd., Hathika, Opp. Bagich, Rakhial Road, Ahmedabad 10.

Jayant Rasiwalla P. Ltd., Outside Prem Darwaja, Gujarat Ginning Mills Compound, Ahmedabad 11.

Jayems Engineering Co., Lal Darwaja, Ahmedabad.

Jones Textilaties Export Co., Ltd., Kapasia Bazar, Ahmedabad.

K. C. Mashruwala & Co., Reid Road, Ahmedabad.

K. Damodardas & Co., Singapurwalla Building, Khadia, Char Rasta, Ahmedabad.

Kilachand Devchand & Co., Ltd., Manek Chowk, Ahmedabad.

Kilburn & Co. P. Ltd., P.Box 1065, Ahmedabad.

Kumud Trading Co., Tagara Mill's Compound, Near Vora Roja, Kankaria Road, Ahmedabad.

Leophone Talking Machine Co., Gandhi Road, Ahmedabad.

L. N. Gadodia & Sons Ltd., opp. Maskati Market, Sakar Bazar, Ahmedabad.

Machine Products India P. Ltd,, Reid Road, Ahmedabad.

Machine Tools and Hardware Corporation, Reid Road, Railwaypura Post, Ahmedabad.

Maize Products Ltd., Kathwada, Ahmedabad 2.

Metal Moulders Ltd., Dudheshwar Road, Ahmedabad.

Metro Industries, Chhinkin Kuiwala Estate, Outside Gomtipur Darwaja, Ahmedabad 10.

Metro Wood & Engg. Works P. Ltd., Dudeshwar Road, Ahmedabad 1.

Mistry and Gajjar (India) Ltd., Sarkigarani Wadi, Outside Sarangpur Gate, Ahmedabad.

Model Machineries P. Ltd., Kapasia Bazar, Ahmedabad.

Modern Engineering & Moulding Co., Shahpur Mills Compound, Ahmedabad.

Morris Transport Service Ltd., Biradar Compound, Lal Darwaja, Ahmedabad.

Nanavati & Co., Ltd., Maskati Market, Ahmedabad.

Nanavaty Narendra P. Ltd., Sakar Bazar, Vakharia Dehla, Ahmedabad 2.

**NANIKRAM SOBHRAJ MILLS PRIVATE LTD.,** Madhowlal Ranchhodlal Colony, Railwaypura, Ahmedabad 2. Post Box No. 1041. Phone : 24266 & 20789; Grams : "KINCHICRAP." Silk, Rayon & Synthetic Fabrics Manufacturers.

New Make Industries, Opp. Arun Society, Ellis Bridge, Ahmedabad 7.
Newkem Products Corpn., 527/4, Panchkuva, Ahmedabad.
Nima Trading Company, Cross Lane, Ahmedabad 2.
N. Mansukhram & Co. (Estd. 1923), Opp. Maskati Market, Ahmedabad 2.
Pargans (I) P. Ltd., 571, Reid Road, Ahmedabad 2.
Pearl Cottage Industries, Patadi State Bldg., Bhadra, Ahmedabad 1.
Pest Control (I) P. Ltd., Anand Bhuvan, Relief Road, Ahmedabad.
**PIONEER ENGINEERING WORKS, THE,** Prop.: C. C. Ranchhodlal & Co., Manufacturers of Textile Machinery, C. I. Pipes & Specials, V. Grooved Pulleys, Cocks, Valves, Vacuum Pumps, Electric Hoist, Flooring Tiles making machines etc., Naroda Road, Ahmedabad 2. Phone: 22471 ; Grams: "MOULDING".
Pioneer Mfg. Co., Haripura Road, Asarwa, Ahmedabad 11.
Prakash Mill Stores Trading Co., Seeds Merchants' Association, Kapasia Bazar, Ahmedabad 2.
Ramnarayan Sons P. Ltd., 437, Manekchowk, Ahmedabad.
Ramvijay Iron Works, 664, Ghee Kanta Road, Shamal Bechar Chawl, Ahmedabad.
Regal Trading Co., Mehbub Society Bldg. Tilak Road, Ahmedabad 1.
R. J. Kama & Co. P. Ltd., Lal Darwaja, Ahmedabad.
Sales & Service Corpn., Motilal Mansion, Kapasia Bazar, Ahmedabad 2.
Sarvodaya Rolling Shutters & Engineering Works, Industrial Estate, Rakhial Ahmedabad 10.
Scientific Printers' Materials Manufacturing Co., Ltd., Mirzapur Road, Ahmedabad.
**SHRI VIVEKANAND MILLS LTD.,** Rakhial Road, P.O. Rajpur-Gomtipur, Ahmedabad 21. Phones: 51188 & 51189 ; Grams: "VIVEK".
Shubhdwar Rolling Shutters Engg. Co., 567-2, Reid Road, Ahmedabad.
Singer Sewing Machine Co., Relief Road, Ahmedabad 1.
Spencer & Co., Ltd., Relief Road, Next to Electricity House, Ahmedabad 1.
Steel-O-Style, Bansidhar House, Kankaria Road, Ahmedabad.
Swastik Textile Trading Co., Ltd., Motilal Hirabhai Market, Ahmedabad 2.
Tata Iron and Steel Co., Ltd. (Sales Branch Office), Relief Road, Ahmedabad 1.
Testeels Limited, The Commercial Ahmedabad Mills Premises, Near Idgah Gate, Asarwa, Ahmedabad 11.
Turner Hoare & Co. Ltd., Kapasia Bazar, Ahmedabad 2.
United Dyestuff Industries Ltd., Harisadan, Khadia Char Rasta, Ahmedabad.
United Textile Industries, H Achratla Market, K. Bazar, Ahmedabad 2
**VINIMA CORPORATION,** Nima House, Relief Road, Ahmedabad 1; Phone: 20086, Grams: "VINIMA"; Manufacturers' Representatives and Stockists for "Chandan" Steel Furniture, ASPW Agricultural and Plant Protection Equipments, I.C.I. Alkathene Pipe, Insecticides, "GULF" Lubricants, etc.
Voltas Limited, Navroz Villa, Ahmedabad 1.
Vrajesh P. Ltd., 696, Reid Road, Ahmedabad.
Weltex Industrial Trading Co., 633, Companywala Market, K. Bazar, Ahmedabad.
Western India Prospecting Syndicate P. Ltd., Calico Mills Premises, Ahmedabad.
Williamsons (I) P. Ltd., 670-22, M Hirabhai Market, Ahmedabad 2.

# CLASSIFIED LIST OF TRADES & PROFESSIONS

## ACID & ALKALI RESISTING CEMENTS MFRS.

**ARCOY INDUSTRIES,**

CORROSION ENGINEERS

137, New Cloth Market, Ahmedabad-2.

*Manufacturers of:* Acid & Alkali Resisting Cements, tanks & Vessels lining materials, Pipe Jointing Compounds used in Chemical Plants, Dairies, Refineries, Textile Mills, Canning Industries, Pharmaceutical firms, Pickling Plants etc.

*We also offer:* ARCONETE Concrete floor-hardener and water proofer to provide heavy wear and tear Resistance for industrial flooring. Ferrum Iron and Aluminium Cements for repair of defective Castings; REFCRETE heat resisting refractory motor for jointing fire-bricks etc. ARCOSET the quick Setting liquid for cement Concrete; ARCOY Water proofing Compound which guarantees safety against water seepage.

## ADDRESSING & LISTING MACHINES

**BRADMA OF INDIA LTD., Data Writing Machines and Business Systems, 9, Mill Officers Co. Housing Colony, Opp. Mill Owners Association Bldg., Ashram Road, Navrangpura, Ahmedabad-9; Grams: "BRADMALT."**

## ADVERTISING & PUBLICITY AGENTS

B. Shah & Co., Nisha Pole Naka, Relief Road, Ahmedabad 1.
**CHITRA PUBLICITY CO.—1916, Gandhi Road, Ahmedabad. Grams: "HOARDSITES." Leading Hoarding Publicity Agents in Gujarat and Rajasthan States. Phone: 22831.**
Dilip Advertisers, Behind Pushpkunj Society Kankaria, Ahmedabad.
General Agency & Exchange Co., Near Jain Temple, 45, Gandhi Road, Ahmedabad.
K. Shah & Co., 91, Ratan Pole, Ahmedabad, Phone: 3350.
Modern Publicity Co., 91, Ratan Pole, Ahmedabad.
Navnitlal & Co., 1161, Bhadra, opp. C.T.O., Ahmedabad.
New General Publicity P. Ltd., 1899/4, Gandhi Road, Ahmedabad.
Newway Publicity Co., Mirzapur Road Ahmedabad 1.
**PARAMOUNT PUBLICITY CO., Outdoor Advertising Agents & Hoarding Contractors. Jain Wadi, Manek Chowk, Ahmedabad. Phone: 52148.**
Publicity Parlour, Khadia Char Rasta, Ahmedabad.
Panch Advertisers, Near Model Talkies, Gandhi Road, Ahmedabad.
Siddharth Advertising Agency, 6, Siddharth Society, Paldi, Ahmedabad 7.
Two Sisters, 91, Ratan Pole, Ahmedabad.

## AERATED WATER

Emjee Soda Factory, Opp. R. C. High School, Mirzapur Road, Ahmedabad.
Ghandhi Soda Factory, Panchkuva, Navi Moholat, Ahmedabad.
J. P. Soda Factory, Kankaria, Opp. Ambica Mills, Ahmedabad.
M.G. Soda Factory, Mirzapur Road, Ahmedabad.
P. Dhanjibhoy & Sons, Badra, Ahmedabad 1.
Patel Soda Factory, Shahpur, Navi Pole, Ahmedabad.
Shahco Soda Factory, Potalia Talav, Saraspur, Ahmedabad.
Tajmahal Trading Co., Mirzapur, Ahmedabad 1.
Thakker Soda Factory, Danapith, Ahmedabad 1.

## AIR-CONDITIONING ENGINEERS

Bombay Garage (Ahmedabad) Ltd., Shahibaug Road, Ahmedabad 4.
**C. DOCTOR & CO. PRIVATE LTD., (Estd. 1915.—Bank of Baroda Bldg., Gandhi Road, Ahmedabad 1. Phone: 51238; Grams: "DOCTORCO"; Industrial Air Conditioning and Textile Engineers.**
Electro Airconditioning Corporation, 1754, Mirzapur Road, Ahmedabad.

## ALKATHENE PIPES

**VINIMA CORPORATION, Nima House, Relief Road, Ahmedabad-1; Phone: 20086, Grams: "VINIMA."**

## ATTAR & OIL MANUFACTURERS

Babu Chemical Works, Asarva, Ahmedabad.
C. P. M. Mohena, Dhanasutar Pole, Daropole, Ahmedabad.
Delhiwala Lala Bishandayal Dharamdas, Opp. Jumma Masjid, Ahmedabad.
Delhiwala Lala Parmanand & Sons, Opp. Jumma Masjid, Ahmedabad.
Delhiwala Lala Prahladdas Banarasidas, Opp. Jumma Masjid, Ahmedabad.
H. K. Dyer, Raipur, Badwa Pole, Ahmedabad.
Kanojwala Swadeshi Attar Bhandar, Three Gates, Ahmedabad.
K. Mehta & Co., Opp. Mansukhbhai's Pole, Kalupur, Ahmedabad.
M. M. Khambhatwala, Akashethkuwas Pole, Raipur, Ahmedabad.
Nerol Agency, Three Gates, Ahmedabad.
Parimal Perfumery Works, Near Khadia Gate, Ahmedabad.
Rohit Industries, Near Bala Hanuman, Gandhi Road, Ahmedabad.
Ruby Perfumery Works, Dandigara's Pole, Kalupur, Ahmedabad.

## AUTOMOBILE ENGINEERS

**BOMBAY GARAGE (AHMEDABAD) LTD., Shahibag Road, Ahmedabad 4. Grams : "PARKCHIN." Phone : 24615, 24616 & 24213.**

Gujarat Motor Repowering Service, Old Bombay Shop Bldg., Railwaypura, Ahmedabad.

**MODERN AUTOMOBILES (GUJARAT) PRIVATE LTD.—Automobile Engineers, Distributors of Standard Batteries, Dealers in Cars, Motor Parts and Automobile Accessories with a Service Station and Petrol Filling Station at Nehru Bridge Road, Lal Darwaja, Ahmedabad.**

## AUTOMOBILES, AUTOMOBILE PARTS AND ACCESSORIES

Ajit Automobiles, Station Road, Ahmedabad.
Alliance Motor Co., Mirzapur Road, Ahmedabad.
Ashok Automobiles, Station Road, Ahmedabad.
Associated Auto Parts Ltd., Relief Road, Kadia Kuin, Ahmedabad.

**ASSOCIATED MOTORS (PRIVATE) LTD.—Mirzapur Road, Ahmedabad; Dealers of Motor Car, Motor cycle and Scooter parts and accessories and allied automobiles; Sole distributors of Royal Enfield Motor cycles, Scooters and Three Wheeler chassis for Gujarat; Repairs of all kinds are undertaken; Phone : 22444; Grams : "DEMAND."**

Auto Service, Surkhej Road, Ahmedabad.
Battery Charging & Rep. Works, Station Road, Ahmedabad.

**BOMBAY GARAGE (AHMEDABAD) LTD., Shahibag Road, Ahmedabad 4. Grams: "PARKCHIN." Phone: 24615, 24616 & 24213.**

Bombay Motor Stores, Kapasia Bazar, Ahmedabad.
Eastern Automobiles, Reid Road, Ahmedabad.
Franklin Brothers, Mirzapur Road, Ahmedabad.

**GENERAL MOTOR AGENCY, THE, Proprietors : B. S. Shah & Co., Shantisadan, Mirzapur Road, Ahmedabad. Pioneer Dealers in Automobile Renowned Spare Tyres, Tubes, Batteries, Motor Oil. Stockists : Ferodo Brake and Clutch Linings. Phone: 22441. Grams: "AUTOMOBILE."**

G. M. Patel & Sons, Kapasia Bazar, Ahmedabad.
Gujarat Automobiles, Station Road, Ahmedabad.
Gujarat Motor Stores, Reid Road, Ahmedabad.
Hind Auto Service, Mirzapur Road, Ahmedabad.
Indo-American Trading Co., 159, Sindhi Market, Railwaypura, Ahmedabad.
Janta Motor Stores, Lal Darwaja, Ahmedabad.
Jashbhai Patel & Co., Shahpur Bridge Road, Ahmedabad.
Jaybharat Motor Stores, Bhadra Mission Road, Ahmedabad.
Jayhind Motor Stores, Kapasia Bazar, Ahmedabad.
Krishna Automobiles, Kapasia Bazar, Ahmedabad.
Lakhia Brothers, Lal Darwaja, Ahmedabad.
Mahendra & Bros., Near Relief Cinema, Salapose Road, Ahmedabad.
Maniar Automobiles, Relief Road, Kadia Kuin, Ahmedabad.
Metro Motors (Ahd.) Ltd., Mirzapur Road, Ahmedabad.

**MODERN AUTOMOBILES (GUJARAT) PRIVATE LTD., Automobile Engineers, Distributors of Standard Batteries, Dealers in Cars, Motor parts and Automobile Accessories with a Service Station and Petrol Filling Station at Nehru Bridge Road, Lal Darwaja, Ahmedabad.**

Mody Automobiles, Akhanand Road, Bhadra, Ahmedabad.
Motor Sales & Service, Lal Darwaja, Ahmedabad.
National Motor Accessories Agency, 1819, Three Gates, Ahmedabad 1.
Neon Motor Stores, Station Road, Ahmedabad.
New International Motors Ltd., Mirzapur Road & Station Road, Ahmedabad.
New Motor House, Station Road, Ahmedabad.
Nirupam Automobiles, Kapasia Bazar, Ahmedabad.
Patel Automobiles, Salapose Road, Ahmedabad.
Prabhat Motor Stores, Station Road, Ahmedabad.
Rama Automobiles, Outside Raipur Gate, Ahmedabad.
R. Ramanlal & Co., Station Road, Ahmedabad.

**S. D. PATEL & CO. Dealers in Automobile Spare Parts, Bhadra, Ahmedabad. Phone : 22473 ; Grams : "PERFECTION."**

Shantilal & Co., Kalupur Pachpatti, Near Navgajapir, Ahmedabad.
Sharma & Co., Sukhlalpura, Naroda Road, Ahmedabad.
Thakore Motors, Gujarat Samachar's Compound, Khanpur, Ahmedabad.

**UNITED ENGINEERING WORKS, Manufacturers of Cylinder Liners Valve guides, V. Seat Bars. P.O. Box No. 1023, Ramkumar Mills Compound, Saraspur, Ahmedabad 2.**

United Service Association, Relief Road, Ahmedabad.
Western Motor Repowering Service, Reid Road, Ahmedabad.

## BALL AND ROLLER BEARINGS

A. Raman & Co., Kapasia Bazar, Ahmedabad 2.
Babu & Co., Gheekanta Road, Ahmedabad.
Ball Bearing & Machinery Syndicate, Kapasia Bazar, Ahmedabad 2.
C. Das & Sons.—Near Central Telegraph Office, Bhadra, Ahmedabad 1.
Heeri Engineering Corporation, Danapith, Ahmedabad.
Hutheesing Engineering Co., Gheekanta Road, Ahmedabad.
Kant Engineering Co., Kapasia Bazar, Ahmedabad 2.
National Ball Bearing Stores, Kapasia Bazar, Ahmedabad 2.
Regal Trading Co., Mehboob Society Bldg., Khadia Kuin, Ahmedabad.
Shah Patel & Co., Kapasia Bazar, Ahmedabad 2.

On Approved List of Government & Railways
**SHETH STORES TRADING CO.,**
*Specialists in :* Ball & Roller Bearings
Authorised Stockists in SKF, NBC, NORMA Bearings.
*Distributors :* ARJUN & ASHOK Plumbers Blocks
*Ahmedabad Office :* Deepak Chambers, Station Rd., Ahmedabad
Phone : 23470 Grams : "LUCID"
*Bombay Office :* 238, Masjid Bunder Road, Bombay-3
Phone 322757 Grams : "TROLIEY"

Standard Materials, Narottam Building, Cross Lane, Ahmedabad.

## BATTERIES

**BOMBAY GARAGE (Ahmedabad) LTD.—Shahibag Road, Ahmedabad 4; Grams : "PARKCHIN"; Phones : 24615, 24616 and 24213.**

General Electric & Optical Stores, Khadia Char Rasta, Ahmedabad.
Hiralal & Sons, Near Pada Pole, Gandhi Road, Ahmedabad.

**N. DALICHAND & CO.—3119, Gandhi Road, Ahmedabad. Phone : 2293, Grams : "WIRE", Agents for Extrela Batteries, Plato Pens, Jintan and Physician Thermometers etc.**

Pathic Evans & Co., Gopalkrishna Flour Mills Compound, Outside Raipur Gate, Ahmedabad.
P. Liladhar & Co., Khadia Char Rasta, Ahmedabad.
P. Mangaldas & Co., Bala Hanuman, Ahmedabad.

## BOBBINS & SHUTTLES

Arun Textile Wood Works, Behind Vikram Mills, Saraspur, Ahmedabad.
Asarva Bobbin Works, Asarva Road, Ahmedabad 11.
Ashok Textile Industries, Road 3, East Potalia Lake, Saraspur, Ahmedabad.
Asian Textile Engg. Corpn., Opp. Madhav Baug, Ahmedabad.

**BHARAT BOBBINS PRIVATE LTD.**
Manufacturers of
All kinds of Bobbins from
Imported Timber
Office and Factory : Rakhial Road,
Gomtipur — Ahmedabad.
Phone : 51101 Grams : "MAYFAIR"

Diamond Bobbins Factory, Khanpur Road, Ahmedabad.
Frion & Co., Reid Road, Ahmedabad 2.
Gujarat Wood Works (P) Ltd., Astodia Rati, Kagdapith, Ahmedabad.
Hind Wood Works & Bobbin Factory, Bhau's Pole, Raipur, Ahmedabad.
Indian Bobbin Mfg. Co., Dahyabhai Colony, Anil Road, Ahmedabad 2.
Laxmi Vijay Bobbin Factory, Ramnagar, Sabarmati, Ahmedabad.
Mafatlal K. Patel & Co., 1234, Hanuman Street, Dariapur, Ahmedabad.
Metro Wood & Eng. Works (P) Ltd., Victoria Iron Works Compound, Dudheshwar Road, Ahmedabad.
National Bobbin Co., 456, Panch Kuva, Ahmedabad 2.
New Quality Bobbin Works, New Cotton Mills Compound, Kankaria Road, Ahmedabad.
Nutan Bobbin Works, Anil Road, Ahmedabad.

**RAJESH WOOD & ENGINEERING WORKS, THE.—Naroda Road, opp. Kalyan Mills, Near Electric grid Power Station, Ahmedabad-2; Manufacturers of Textile Wooden & Metal Requisites; Specialists : Auto-loom Pirns, Bobbins of all types, Dobby Lattices & Pegs; Bombay Representatives: Prakash Trading Co., 69, Mody Street, Bombay-1; Phone : 264639, 256054 & 573475.**

Rajnagar Bobbin Works, Gitamandir Road, Ahmedabad.

Rajnikant Bobbin Factory, Near Bechar Laskari Hospital, Aunsawad, Ahmedabad.
Shree Krishna Textile Works, Behind General Post Office, Salapose Road, Ahmedabad.
Shree Sharda Bobbin Works, Ambaji Mata's Mandir, Hathibhai Wadi, Ahmedabad.
Shree Swastik Textile Wood Works, Parmanand Chawl, Dudheshwar Road, Ahmedabad.
Shri Maheshwari Bobbin Factory, Anil Road, Ahmedabad.
Victory Wood Works, Khanpur Road, Ahmedabad.
Welspun Bobbin Company, Reid Road, Ahmedabad 2.

## BOLTS, NUTS & SCREWS

**MOHANLAL & CO.—1092-B, Lambeshwar Naka, Relief Road, Ahmedabad; 144, Diamond Bldg., Lohar Street, Bombay; Bolts, Nuts and Screws and everything hardware.**

**R. VADILAL & CO.—Kansara Belha, Railwaypura Post, Ahmedabad 2; Stockists of Semis of Stainless Steel, Non-Ferrous Metals and Alloys, Manufacturers of Nut, Bolts and Machinery Parts out of Stainless Steel, Non-Ferrous Metals and Alloys; Government & Railway Contractors.**

## BOOKSELLERS AND PUBLISHERS

Ahmedabad Book Depot, Near Bala Hanuman, Ahmedabad.
Ananda Book Depot, Near Bala Hanuman, Ahmedabad.
A. Arvind & Co., Opp. Chandravilas Hotel, Gandhi Road, Ahmedabad.
Ashok Book Depot, Fernandez Bridge, Ahmedabad.
Balgovind Kuberdas & Co., Fernandez Bridge, Gandhi Road, Ahmedabad.
Bharath Prakashan, 44, Kalyan Bhavan, Tilak Road, Ahmedabad.
Bharti Sahitya Sangh, Under Fernandez Bridge, Gandhi Road, Ahmedabad.
B. J. Brothers, Near Ratan Pole Naka, Ahmedabad.
B. S. Shah & Co., Near Ghanchi's Wadi, 1183, Pankore Naka, Ahmedabad.
Choksi Brothers, Near Bala Hanuman, Ahmedabad.
Education Book Depot, Near Ratan Pole Naka, Ahmedabad.
Ellis Bridge Book Depot, Pritamnagardhal. Ahmedabad.
Enka Company, Near Bala Hanuman, Ahmedabad.
General Book Depot, Under Fernandez Bridge, Gandhi Road, Ahmedabad.
Gujarat Publishers, Ratan Pole, Ahmedabad.
Gujarat Pustak Bhandar, Kalyan Bhuvan, Relief Road, Ahmedabad.
Gujarat Sahitya Mandir, Under Central Bank, Gandhi Road, Ahmedabad.
Gurjar Granth Ratna Karyalaya, Opp. Fuvara, Gandhi Road, Ahmedabad.
Janta Book Depot, Near Krishna Cinema, Ahmedabad.
Khadayata Book Depot, Near Bala Hanuman, Ahmedabad.
Kothari Book Depot, Near Dhana Suthar's Pole, Relief Road, Ahmedabad.
Laxmi Pustak Bhandar, Gandhi Road, Below Fernandes Bridge, Ahmedabad.
Mahajan Book Depot, Under Fernandez Bridge, Gandhi Road, Ahmedabad.
Mahavir Book Depot, Patasa Pole, Gandhi Road, Ahmedabad.
Mayank Book Depot, Opp. Gheekanta Police Chowky, Ahmedabad.
M. Javant & Co., Opp. Dhana Suthars' Pole, Relief Road, Ahmedabad.
Navchetan Sahitya Mandir, Near Zaveriwad Naka, Relief Road, Ahmedabad.
New Order Book Company, Ellis Bridge, Ahmedabad.
Navjivan Pustak Bhandar, Kalyan Bhuvan, Relief Road, Ahmedabad.
Navyug Book Depot, Near Bala Hanuman, Ahmedabad.
New Mahajan Book Depot, Fernandez Bridge, Gandhi Road, Ahmedabad.
New Prakash Stores, Near Gujarat College, Ahmedabad.
Oriental Trading Co., Fernandez Bridge, Gandhi Road, Ahmedabad.
Popular Book Depot, Opp. Dhanjibhai & Sons, Bhadra, Ahmedabad.
Rashtriya Prakashan Mandir, Near Ghanchi's Wadi, Pankore Naka, Ahmedabad.
Royal Book Depot, Under Fernandez Bridge, Gandhi Road, Ahmedabad.
S. B. Shah & Co., Near Ghanchi's Wadi, Pankore Naka, Ahmedabad.
Vidyarthi Book Depot, Under Fernandez Bridge, Gandhi Road, Ahmedabad.
Vijaya Book Depot, Under Fernandez Bridge, Gandhi Road, Ahmedabad.
Vikram Book Depot, Under Fernandez Bridge, Gandhi Road, Ahmedabad.

## BRUSH MANUFACTURERS AND DEALERS

Ahmedabad Brush Mfg. Co.—469/16, Opp. Maskati Market, Ahmedabad.
Ambica Vijaya Brush Works, Revdi Bazar, Ahmedabad.
Arunodaya Works, Kapasia Bazar, Ahmedabad 2.
Asian Brush Co., Reid Road, Ahmedabad 2.
Laxmi Vijaya Brush Factory.—Near Kakabatia's Pole, Mandvi Street, Ahmedabad 1.

## BUILDERS AND CONTRACTORS

Advance Construction Co., Dariapur, Ahmedabad.
Ahmedabad Construction Co., Moti Mansion, Kapasia Bazar, Ahmedabad.
Alcok Cement Pipes & Concrete Works, Khadia Char Rasta, Ahmedabad.
Alvin Concrete Blocks & Cement Tiles Mfg. Co., Astodia Lati, Ahmedabad.
Ambalal Motilal Mahadevia, Talia Pole, Sarangpur, Ahmedabad.
Arvind Hiralal, 571, Reid Road, Ahmedabad.
Arvind Kumar & Co., C/o Gajanan Pathak & Co., Char Rasta, Khadia, Ahmedabad.
Asiatic Development & Construction Corpn. P. Ltd., Khanpur Road, Ahmedabad.
Associated Construction & Engineering Co., Harisadan, Panch Kuva, Char Rasta, Ahmedabad.
B. Girdharlal & Co., Last Kathsheri Lunsawad, Ahmedabad.
Bharat Construction Co., Sheth Chunilal Girdhalal Bldg., Lal Darwaja, Ahmedabad.
Bharat Construction Co., Opp. Jumma Masjid, Pankore Naka, Ahmedabad.
Bhardwaj & Co. N., Near Zakaria Masjid, Relief Road, Ahmedabad.
Cama Construction Co., Amrut Bldg., Relief Road, Ahmedabad.
C. Gajar & Co., Gajar Bldg., Ambli Pole, Shahpur, Ahmedabad.
C. C. Patel, 7, Sardar Patel Colony, Navrangpura, Ahmedabad.
Chinubhai Manilal & Co., Mitha Khali, Ellis Bridge, Ahmedabad.
Chokshi Engineering Co., 1930, Gandhi Road, Ahmedabad.
Das & Co., 42, Pritamnagar, Ellis Bridge, Ahmedabad.
Desai Shah Construction Co., Maneckchowk, Ahmedabad.
Dharamsibhai Chaganlal Mistry, 12, Bharat Society, Kankaria, Ahmedabad.
Dhirubhai K. Shah, Deli Chakla, Ahmedabad.
Fadia Dalal & Co., Pankore Naka, Ahmedabad.
Free India Construction Co. P. Ltd., Hari Nivas Raipur Chakla, Ahmedabad.
Gajar & Co. Khadia, Sevka Wadi. Ahmedabad.
Gannon Dunkerley & Co. Ltd., Railwaypura, Ahmedabad 2.
Ghanshyam Construction Co., Maninagar, Ahmedabad.
Gokaldas & Sons, Bala Hanuman, Ahmedabad.
Govindlal H. Shah, Kotyark Society, Kankaria, Ahmedabad.
Gujarat Construction Co., Khadia Char Rasta, Ahmedabad.
Gujarat Wood Works (Pvt.) Ltd., Astodia Lati Bazar, Ahmedabad.
Harilal Jethlal Shah, Khadia Char Rasta, Ahmedabad.
Harilal Ranchodbhai, Swami Narayan Colony, Kankaria, Ahmedabad.
Hemendra R. Bhatt, Shanker Niwas, Got-Limda, Maninagar, Ahmedabad.
Hindustan Cement Pipes & Concrete Construction Co., Sewage Farm Road, Ahmedabad.
Ideal Housing Co. P. Ltd., Hari Nivas, Raipur Chakla, Ahmedabad.
Jariwalla & Co., 124-Makeriwad, Raipur, Ahmedabad.
J. M. Billimoria & Co., Lal Darwaja, New Bridge, Ahmedabad.
Joshi & Patel on the Staircase of Niroze. Lal Darwaja, Ahmedabad.
Kanayalal Ramanlal & Co., Near Fire Brigade, Panchkuva, Ahmedabad.
K. K. Gajar, Kalyan Bhuvan, Opp. Krishna Cine, Relief Road, Ahmedabad.
Keshavlal Haribhai Gajar, Jahangirpura, Ahmedabad.
Madhavlal & Co., Pankore Naka, Ahmedabad.
Mehta & Co., Mission Road, Bhadra, Ahmedabad.
Mehta Tiles Co., Near Verai Khada, Gandhi Road, Ahmedabad.
Mohanlal & Sons, 1100, Pankore Naka, Ahmedabad.
Nagjibhai R. Patel, Madalpur, Ellis Bridge, Ahmedabad.
National Construction Co., Cotyark Society, Kankaria Road, Ahmedabad.
Navin Construction Co., Gheekanta Road, Ahmedabad.
Navji Construction Co., Anath Ashram Bldg., Outside Raipur Darwaja, Ahmedabad.
N. B. Patel & Co., Dariyapur, Kadia Naka, Ahmedabad.
N. Bhardwaj & Co., Near Zakaria Masjid, Relief Road, Ahmedabad.
New Era Construction Co. & Transport Co. P. Ltd., Panchkuva, Ahmedabad.
New India Construction Co., Gandhi Road, Ahmedabad.
N. Madhusudan Oza, Kadia Naka, Daryapur, Ahmedabad.
Parikh Construction Co., Near Samartheswar Mahadev, Behind Law College, Ellis Bridge, Ahmedabad.
Parin al Trading Co., Panch Kuva, Char Rasta, Ahmedabad.
Patel & Co., Ramolia Bldg., Relief Road, Ahmedabad.
Patel & Co., Swastik Society, Navrangpura, Ahmedabad.
Patel & Shah, Near Gujarat College, Ellis Bridge, Ahmedabad.
Premjibhai J. Patel, Kalpana Society, Navrangpura, Ahmedabad.
Prakash Construction Co., 658, Kapasia Bazar, Ahmedabad.
Provincial Construction Co. Ltd., Kankaria Road, Ahmedabad.
Ramjibhai Hirjibhai & Sons, New Cotton Mill Compound, Outside Raipur Darwaja, Ahmedabad.
Rasiklal & Sons, Hajiras' Pole, Raipur, Ahmedabad.
R. B. Patel & Co., 19, Bharat Society, Near Vedmandir, Kankaria, Ahmedabad.
R. C. Thakar, Dariyapur, Kadia Naka, Ahmedabad.

R. G. Desai Shah & Co., 107, Sardar Patel Colony, Navjivan, Ahmedabad.
R. K. Mahadevia, Dhanji Kashi Khadki, Raja Mehta Pole, Ahmedabad.
R. Parmar & Co., 232, Salvis Khacha, Dhana Sutar's Pole, Ahmedabad.
R. R. Mehta & Co., 1269, Talia's Pole, Sarangpur, Ahmedabad 1.
Shah & Co., C/o Promodchandra S. Shah, Bavalia Kancha, Shamlas Pole, Raipur, Ahmedabad.
Shah Mehta & Co., Near Khamasa Gate, Opp. Pump, Ahmedabad.
Standard Construction Co., Opp. Municipal Corporation, Ahmedabad.
Sterling Construction Co., "Chansuraj", Khanpur Road, Ahmedabad.
Technical Engineering & Chemical Products Co., 21, Vishvakunj, Society, Near Rajnagar Society, Ellis Bridge, Ahmedabad.
United India Construction Co., 1930, Gandhi Road, Ahmedabad.
Universal Construction Co., Near Jains Temple, Dhalpole, Ahmedabad.
V. C. Brothers, Subhas Nagar, Shahibag, Ahmedabad.
Waghela Construction Co., Dariyapur, Kadia Naka, Ahmedabad.
Western India Engineering Co., Lakha Patel St., Sankdisheri, Ahmedabad.

## CABLES AND WIRES

**UNIPOL PLASTIC INDUSTRIES PRIVATE LTD.—Setalvad House, Mirzapur Road, Ahmedabad 1; Manufacturers of 'Unipack' Polythene Bags, rolls & tubings, 'Unilite' P.V.C. wires & Cables, 'Plastiglass' Acrylic Sheets, 'Uniplast' 'Polystyrene' Sheets, 'Jasud' P.V.C. Sheets and Injection Moulded articles.**

## CARD CLOTHING

**ENGLISH CARD CLOTHING CO. LTD., THE, opp. Railway Workshop, P.O. Maninagar, Ahmedabad-8; Branch Manager: Shri Kanaiyalal M. Shah.**

## CAST IRON PIPES

Neo, Engineering Works, Near Indian Air Lines Office, Mizapur Road, Ahmedabad 1.

**PIONEER ENGINEERING WORKS, THE, Prop.: C. C. Ranchhodlal & Co., Naroda Road, Ahmedabad 2; Phone: 22471, Grams: "MOULDING".**

**R. M. ENGINEERING WORKS, Ahmedabad 8; Manufacturers of 'R' Brand High grade Malleable Iron Castings and Pipe Fittings—A Rohit group Enterprise.**

**VENUS ENGINEERING CO., Kankaria Road, Ahmedabad; Manufacturers of Textile Processing Machinery, Cast Iron Pressure Pipes; Phone: 51575, Grams: "WATERFLOW."**

## CEMENT, CEMENT AND CONCRETE PRODUCTS MANUFACTURERS

Alcock Cement Pipes & Concrete Works, Khadia Char Rasta, Ahmedabad.
Bharat Cement Pipe Mills, Guptanagar, Ahmedabad 7.
Hindustan Cement Pipes & Concrete Construction Co., Next to Calico Mills, Ahmedabad.

## CHEMICAL & PHARMACEUTICAL PRODUCTS MANUFACTURERS

Advance Chemical and Pharmaceutical Works, Lambeswar, Ahmedabad 1.
Alchemic P. Ltd., Opp. Potalia Tank, Saraspur, Ahmedabad 2.
Amrit Chemical Works, Naroda Road, Ahmedabad.
Asiatic Chemical Co., Ahmedabad; H.O. 18/B, Sukeas Lane, Post Box 2101, Calcutta 1; other offices: Masjid Siding Road, opp. Prince's Docks, Bombay 9; 26/46, Birhana Road, Post Box 189, Kanpur.
Blue Star Pharmaceutical Laboratories, Jain Wadi, Manek Chowk, Ahmedabad 1.
Cadila Laboratories, Azad Society, Ahmedabad 6.
Chemical Textiles, Reid Road, Ahmedabad 2.
Chemico Textile Industries, Tagara Mill's Compound, Kankaria, Ahmedabad 1.
Commercial Chemical Industries, Gheekanta Road, Ahmedabad 1.
Davey Chemical & Pharmaceutical Works, Richey Road, Ahmedabad.
Gordon Mfg. Co., Mandvis Street, Lalbhai's Pole, Ahmedabad.
Gujarat Pharmaceutical & Chemical Works, Asarva, Ahmedabad.
Honest Dyes & Chemicals Ltd., People's Bank Bldg., Bhadra, Ahmedabad.
Hygienic Pharmaceutical Products Supply Co., Patherkuva, Salapore Road, Ahmedabad.
Indo Drug Chemical Works, 7, Patidar Society, Ellis Bridge, Ahmedabad.
International Traders Private Ltd., P.O. Box No. 1059, Narottam Bldg., Kapasia Bazar, Ahmedabad.
Prakash Chemical Industries, Girdhar Master's Compound, Ahmedabad 2.
Purgostone Products Co., Char Rasta, 653/2, Naya Darwaja, Ahmedabad.
Ramco Chemical Works, 661, Kanuga Mansion, Kapasia Bazar, Ahmedabad 2.
Santosh Chemical Works, Opp. Potalia Talav, Ahmedabad 2.
Swarajya Pharmaceutical Works, Jethabhai's Pole, Khadia, Ahmedabad.
Sweetolax Mfg. Co., 2223, Bena's Pole, Raipur, Ahmedabad.
Vishnu Chemical Works, Delhi Darwaja, Ahmedabad 1.

## CHEMICAL MERCHANTS

A. C. Brothers, Arjunlal Lal Road, 296, Near Tower, Road No. 8, Ahmedabad.
A. H. Rollwalla & Co., Kapasia Bazar, Ahmedabad.
A. Hasmukh & Co., L. K. Trust Bldg., Reid Road, Ahmedabad 2.
Ahmedabad Chemical Co., C/o Gokaldas & Sons, Bala Hanuman, Ahmedabad.
Ahmedabad Hardware Stores, Menit House, Relief Road, Ahmedabad.
A. J. Patel & Co., Narottam Bldg., Kapasia Bazar, Ahmedabad.
A. K Shah & Co., Revdi Bazar, Ahmedabad.
Allabeli Husenji, Gol Limda, Nariawad, Ahmedabad.
Ambalal Fulchand Parikh, New Cotton Mill No. 1 Compound, Outside Raipur Gate, Ahmedabad.
Anglo American Trading Corporation, Motilal Mansion, Kapasia Bazar, Ahmedabad.
A. Purshottamdas & Co., C/o Ambalal F. Patel, Kanuga Mansion, Kapasia Bazar, Ahmedabad.
A Ramesh & Co., 2317, Lunsawada, Ahmedabad.
A. Ratilal Nathalal & Co., 635, Companywala Market, Kapasia Bazar, Ahmedabad.
Ark Traders, Reid Road, Ahmedabad.
Aruna Traders, Vora's Bldg., Kapasia Bazar, Ahmedabad.
Arvind Panalal, Haveli Bldg., Fatasani Pole, Ahmedabad.
Arvind & Co., Kapasia Bazar, Ahmedabad.
Ashok Kumar & Co., Bharatkhand Textile Mills Compound, Ahmedabad.
Ashwin Traders, 1150, Laxminarayan Pole, Raja Mehta's Pole, Ahmedabad.
Associated Chemical Industries, Harisadan, Char Rasta, Ahmedabad.
Associated Stores, Panchkuva, Ahmedabad.
Atul Textile Stores, Kapasia Bazar, Ahmedabad.
Atul Traders, Kapasia Bazar, Ahmedabad.
Aurora Trading Co., Salapore Road, Near G. P.O., Ahmedabad.
A. V. Nawab & Co., 2988, Nagji Bhuder's Pole, Mandvi St., Ahmedabad.
A. Y. Brothers, Kapasia Bazar, Ahmedabad.
Babubhai N. Chokshi, 674, Manilal Mansion, Cross Lane, Ahmedabad.
Balabhai M. Shah & Co., 674/2, Sheth's Pole, Sankadisheri, Ahmedabad.
B. C. Shah & Co., Laxmi Narayan's Pole, Raja Mehta's Pole, Ahmedabad.
B. Das & Co., Kerosene Bazar, Railwaypura, Ahmedabad.
Bhagat Brothers, Aranda Hall, Kapasia Bazar, Ahmedabad.
Bhanuprasad M. Joshi, Kadia Kunj, Haji Bldg., Relief Road, Ahmedabad.
Bharat Chemical Agency, Vora's Bldg., Kapasia Bazar, Ahmedabad.
Bipinchandra A. Dave, 21, Bhulabhai Park, Gitamandir Road, Ahmedabad.
Bipinchandra Gautamkumar, Harkuvars Haveli, Opp. Patasani Pole, Ahmedabad.
Bipin & Co., Vora's Bldg., Kapasia Bazar, Ahmedabad.
Bitex Corporation, 2088, Nagji Bhuder's Pole, Mandvi Street, Ahmedabad.
B. Kantilal & Co., Haridas Achratlal Market, Kapasia Bazar, Ahmedabad.
B. M. Amin & Co., Ambavadi, Ellis Bridge, Ahmedabad 6.
B. M. & Son, 3388, Dolatkhana, Sarangpur, Ahmedabad.
B. S. Banker & Co., Kapasia Bazar, Ahmedabad.
B. Shah & Co., Companywala Market, Kapasia Bazar, Ahmedabad.
C. Bangdiwalla & Co., 665/12, Kapasia Bazar, Ahmedabad.
C. Bapalal & Co., Haridas Market, Kapasia Bazar, Ahmedabad.
C. C. Mashruwalla, Kapasia Bazar, Ahmedabad.
Central Trading Corporation, Vora's Bldg., Kapasia Bazar, Ahmedabad.
Champakal & Co., Kapasia Bazar, Ahmedabad.
Chandravadan Bros., 13671, Madan Gopal's Haveli, Near Deydi Pole, Ahmedabad.
Chandulal Nathalal Shah, Dhanasutar's Pole, Lallubhai Tarachand's Khadki, Ahmedabad.
Chandulal Vadilal & Co., Reid Road, Ahmedabad.
Chemical Agency, Grand Hotel Bldg., Lal Darwaja, Ahmedabad.
Chemists Products Co., Madhavlal Colony, Saraspur Road, Ahmedabad 2.
Chemitex Co., Usman Manzil, Relief Road, Ahmedabad 1.
Chemosize Agency, 566, Reid Road, Ahmedabad 2.
Chhotalal Balabhai & Brothers, Kapasia Bazar, Ahmedabad.

Chhotalal Nagindas & Co., 1209/1, Chokhavatini Pole, Dhana Sutar's Pole, Ahmedabad.
Chudgar & Co., 21, Shantinagar Society, Vadaj Road, Ahmedabad.
Chinu Vakil & Co., Cross Lane, Ahmedabad.
Cimco Traders, C/o Pranlal Chhotalal, 1027, Totalajini Pole, Raja Mehta's Pole, Ahmedabad.
C. M. Desai & Co., Haridas Market, Kapasia Bazar, Ahmedabad.
C. Revabhai & Co., Kapasia Bazar, Ahmedabad.
Dahyabhai Nanalal & Co., Kapasia Bazar, Ahmedabad.
Dalichand Amarchand Mehta, 47, Krishan Nagar, Saraspur, Ahmedabad.
Dashrathlal Chimanlal & Brothers, Motilal Mansion, Kapasia Bazar, Ahmedabad.
D. Hiralal & Co., Kapasia Bazar, Ahmedabad.
Dhuldhoya Sons & Co., 567, Reid Road, Ahmedabad.
D. J. & Sons, Kapasia Bazar, Ahmedabad.
D. N. Shah & Co., Kapasia Bazar, Ahmedabad.
Dominant Textile & Industrial Co., 790, Ramji Mandir's Pole, Haja Patel's Pole, Ahmedabad.
Dye Stuffs & Chemicals Private Ltd., Reid Road, Ahmedabad.
East & West Trading Co., Kapasia Bazar, Ahmedabad.
Eastern Textile Stores, C/o Shantilal M. Dalal, 1879, Chhipa Mavjini Pole, Mandvi's Street, Ahmedabad.
Eastern Traders, Motilal Mansion, K. Bazar, Ahmedabad 2.
Eastern Trading Agency, Haridas Market, Kapasia Bazar, Ahmedabad.
Emery Chemical Co., 328, Asarva Chakla, Ahmedabad 11.
Express Traders Private Ltd., Vora's Bldg., Kapasia Bazar, Ahmedabad.
General Trading Co., Khodi Ambli, Near Chhipa Pole, Ahmedabad.
Girdharlal Damodardas Private Ltd., 691, Reid Road, Ahmedabad.
Gokaldas & Sons, Kavishwar's Pole, Bala Hanuman, Ahmedabad.
Gokaldas Motilal, Vohra Building, Kapasia Bazar, Ahmedabad.
Gujarat Corporation (I) Private Ltd., Harisadan, Char Rasta, Ahmedabad.
Gujarat Trading Co., C/o Shantilal Bhurabhai Shah, Chhipa Pole, Ahmedabad.
Haridas Mulji Thakkar, Kapasia Bazar, Ahmedabad.
Harilal S. Doshi, Kapasia Bazar, Ahmedabad.
Hiraji Devaji Vachheta, Dudheshwar, Hanumanpura, Ahmedabad.
H. H. Corporation, Lakhia Bldg., Panch Kuva, Ahmedabad.
Ideal Mill Stores, Kapasia Bazar, Ahmedabad.
Imperial Trading Co., Kapasia Bazar, Ahmedabad.
India Mill Stores Co., 626/28, Vora's Bldg., Kapasia Bazar, Ahmedabad.
Indian Trading Co., Brahmapuri Pole, Raja Mehta's Pole, Ahmedabad.
Indravadan Chemical Works, C/o Vishnu Chemical Works, Outside Delhi Gate, Ahmedabad.
Industro (India) Traders, 706/2, Gandhi Road, Ahmedabad.
International Suppliers, Companywala Market, Kapasia Bazar, Ahmedabad.
International Traders Private Ltd., P.O. Box No. 1059, Narottam Bldg., Kapasia Bazar, Ahmedabad.
International Trading Co., Station Road, Deepak Chambers, Railwaypura, Ahmedabad.
Interseas Trading Co., Patdi State Bldg., Panch Kuva, Ahmedabad.
Janata Chemical Works, C/o Kapurchand Anraj Shah, Gomtipur Road, Cement's Chawli, Ahmedabad.
Jaswant H. Patwa & Co., Harisan, Khadia Char Rasta, Ahmedabad.
Jaswantlal Popatlal & Co., 656/4/4, Kapasia Bazar, Ahmedabad.
Jatinkumar Siddharathbhai Shah, Mangal Parekh Khancho, Shahpur, Ahmedabad.
Jayantilal Ambalal & Co., 675/29, Sir Chinubhai Bldg., Revdi Bazar, Ahmedabad.
Jayantilal S. Gandhi & Co., Opp. Madhav Bag, Ahmedabad.
J. Bhagat & Co., Deepak Chambers, Cross Lane, Ahmedabad.
J. M. Chokshi, Kapasia Bazar, Ahmedabad.
J. Mahendra & Co., 662, Kapasia Bazar, Ahmedabad.
J. Nanavati & Co., 626/32, Kapasia Bazar, Ahmedabad.
J. P. Pandya, Padipole, Mandvini Pole, Ahmedabad.
Kamal Traders, 12, Khambhatwala Bldg., Ideal Colony, Maninagar, Ahmedabad.
Kamlesh Corporation, 696/A/2, Reid Road, Ahmedabad.
Kantilal H. Mehta & Co., 211, Reid Road, Ahmedabad.
Kapil Traders, Kanuga Mansion, Kapasia Bazar, Ahmedabad.
Kashi Parekh Brothers, 564, Reid Road, Ahmedabad.
K. Bhatt & Co., Raipur, Havelini Pole, Ahmedabad.
Keshavlal Laljibhai Desai, Kapasia Bazar, Ahmedabad.
Kirtikant & Co., Navrangpura, Near Govt. Servant Society, Road No. 1, Ahmedabad.
Kishore & Co., Kapasia Bazar, Ahmedabad.
K. N. Mahadevia, Motilal Mansion, Kapasia Bazar, Ahmedabad.
K. Shah & Co., Panchkuva, Opp. English Cinema, Ahmedabad.
Kumud Trading Co., Outside Raipur Gate, Opp. Laxmi Cotton Mills, Tagara Mills Compound, Kankaria, Ahmedabad.
Liladhar Waghjibhai, Kapasia Bazar, Ahmedabad.
M. A. Valliulla, Kapasia Bazar, Ahmedabad.
Madhuram Textiltiles, Behind Khadayak Colony, Law College Road, Ahmedabad.
Mahendrakumar M. Patel, Kapasia Bazar, Ahmedabad.
Manilal Jamnadas & Sons, New Madhavpura, Ahmedabad.
Manmohandas & Co., 11, Pushpakunj Society, Maninagar, Ahmedabad.
Manubhai Ashbhai Patel, Haridas Market, Kapasia Bazar, Ahmedabad.
Master Traders, Kapasia Bazar, Ahmedabad.
Maxima Corporation, 566, Reid Road, Ahmedabad.
Mohanlal Mansukhram Pari, 1444, New Madhupura, Ahmedabad
Morlidhar Chandulal, C/o, Gokaldas & Sons, Balahanuman, Ahmedabad.
Nanavaty Narendra Private Ltd., Sakar Bazar, Vakharia Dehla, Ahmedabad.
Narendra & Co., Kapasia Bazar, Ahmedabad.
National Dental Supply Co., 283, Navtadni Pole, Gheekanta, Ahmedabad.
National Trading Co., C/o Muljibhai Keshavlal Joshi, Gauri Dwar, Gol Limbda, Maninagar, Ahmedabad.
Navinchandra & Co., Manilal Mansion, Cross Lane, Ahmedabad.
Navnitlal B. Chokshi, 656, Kapasia Bazar, Ahmedabad.
Navnitlal & Co., 485/3, Revdi Bazar, Ahmedabad.
Navnitlal M. Shah, Dhal's Pole, Jagabhai Pole, Ahmedabad.
Navinchandra C. Zaveri, Fanibanda Bldg., Railwaypura, Ahmedabad.
Nayna Trading Co., Kapasia Bazar, Ahmedabad.
New National Colour Chemical Co., Outside Raipur Gate, Ahmedabad.
Nima Trading Co., Cross Lane, Ahmedabad 2.
Niranjan R. Shah & Co., 627, Kapasia Bazar, Ahmedabad.
N. K. Fadia & Co., 622/7, Kapasia Bazar, Ahmedabad.
N. M. Shah & Co., 469/7/D, Maskati Market, Ahmedabad.
Noble Textile Trading Co., Sunder Niwas, Opp. Kothari Pole, Gandhi Road, Ahmedabad.
N. V. Desai & Co., 1241/B, Nava Darwaja, Char Rasta, Ahmedabad.
Ochhavlal Ishvarlal, Kapasia Bazar, Ahmedabad.
Ochhavlal K. Trivedi, Cross Lane, Ahmedabad.
Pandya & Co., Kapadia Bldg., Vadigam, Darispur, Ahmedabad.
Paramount Textile Agency, Haridas Market, Kapasia Bazar, Ahmedabad.
Parikh & Co., Motilal Mansion, K. Bazar, Ahmedabad 2.
Patel Surgical & Medical Store, 665, Girdhar Chamber, Gandhi Road, Ahmedabad.
P. Jayantilal & Co., C/o Atul Traders, Kapasia Bazar, Ahmedabad.
P. Narendra & Co., Kapasia Bazar, Ahmedabad.
Popatlal Amthalal Shah, Kapasia Bazar, Ahmedabad.
Popatlal Jeshing Bhai Shah, K. Bazar, Ahmedabad 2.
Popatlal Punjabhai & Co., Kapasia Bazar, Ahmedabad.
Prabhat Chemical Agency, Motilal Mansion, Kapasia Bazar, Ahmedabad.
Prabhat Soap Industries, Motilal Mansion, Kapasia Bazar, Ahmedabad.
Premroy Brothers, L. K. Trust Bldg., Revdi Bazar, Ahmedabad.
Prosperous Trading Syndicate, Deepak Chambers, Kapasia Bazar, Ahmedabad.
P. Sheth & Co., Kapasia Pharmacy Bldg., Opp. Patasani Pole, Gandhi Road, Ahmedabad.
Punamchand C. Shah, C/o New India Chemical Co., Kapasia Bazar, Ahmedabad.
Rajendrakumar Marutiprasad, L. K. Trust Bldg., Revdibazar, Ahmedabad.
Ramanlal Pitambardas Mashruwala, Rajamehta's Pole, Kalupur, Ahmedabad.
Ramanlal R. Sanghvi, Ratanpole, Hathikhana Nalca, Ahmedabad.
Ramanlal Vrijvallabhdas & Co., Manilal Mansion, Cross Lane, Ahmedabad.
Ramchandra & Co., 661, Kanuga Mansion, K. Bazar, Ahmedabad 2.
Ramesh Brothers, Patel Market, Kapasia Bazar, Ahmedabad.
Ramesh M. Patel & Co., 1597, Zatkan Pole, Raipur, Ahmedabad.
Ramniklal H. Parikh, 11, Gita baug Society, Ellis Bridge, Ahmedabad.
Ramprasad Bhagat & Co., Sakar Bazar, Ahmedabad.
Rashmi Trading Co., 696/7, Reid Road, Ahmedabad.
Ratanlal Manilal Shah, Dhal's Pole, Jagabhai Pole, Ahmedabad.
Ratilal C. Mehta, Shantikunj, Sarkhej Road, Ellis Bridge, Ahmedabad.
R. D. Shah & Co., Kapasia Bazar, Ahmedabad.
R. Kantilal & Co., 687, Bombay Shop Bldg., Reid Road, Ahmedabad.
R. N. Shah & Co., Haridas Market, Kapasia Bazar, Ahmedabad.
R. Rajnikant & Co., Opp. Model Cinema, 653, Janiwada, Richey Road, Ahmedabad.
Sales & Service Corpn., Motilal Mansion, Kapasia Bazar, Ahmedabad.
Sankalchand Chakubhai & Co., Kapasia Bazar, Ahmedabad.
Shalimar Traders, 690/2, Reid Road, Ahmedabad.
Shamaldas Kapadia & Co., 9, Bharti Society, Ellis Bridge, Ahmedabad.
Shobha Engineers, Kapasia Bazar, Ahmedabad 2.
S. Mehta & Co., Reid Road, State Bank of India, 1st Floor, Ahmedabad.
S. M. Shah & Co., Opp. Cotton Hall, Manekchowk, Ahmedabad.
S. R. Nanavaty & Co., 149, Patasani Pole, Gandhi Road, Ahmedabad.
Super Traders, Khadia Haranwali Pole, Ahmedabad.
Supreme Textile Traders, Kapasia Bazar, Ahmedabad.
Taherally Sultanally & Bros., 1475/76, New Madhavpura, Ahmedabad.
Texdyeokem, Near New Textile Mills Compound, Opp. Raipur Gate, Ahmedabad.
Textile Commercial Co., Kapasia Bazar, Ahmedabad.

Textile Corporation, 354, Sardar Vallabhbhai Patel Road, Ahmedabad.
Thakorlal Bhagat & Co., Kapasia Bazar, Ahmedabad.
Trikamlal Mahasukhram & Co., 20/1, Rangwala Market, Ahmedabad.
United Corporation, Harisadan, Char Rasta, Ahmedabad.
Vadilal Balabhai Vasa, Below new bridge, Asarwa, Ahmedabad.
Vasa Brothers, Vora's Bldg., Kapasia Bazar, Ahmedabad.
Vasant Corporation, Vasant Talkies Compound, Near Idga Gate, Ahmedabad.
Vinam Traders, Kapasia Bazar, Ahmedabad.
Vishnu Chemical Works, Outside Delhi Gate, Ahmedabad.
Vivekanand Mill Stores, Companywala Market, Kapasia Bazar, Ahmedabad.
Voltas Ltd., Mirzapur, Ahmedabad.
Vrajlal Dayalji Shukla, Kapasia Bazar, Ahmedabad.
Vrajesh (Private) Ltd., 696, Reid Road, Ahmedabad.
Yashvant & Co., Motilal Mansion, K. Bazar, Ahmedabad 2.

## CHEMISTS AND DRUGGISTS

Ahmedabad Alembic Depot, Lal Darwaja, Ahmedabad.
All Traders, Ellis Bridge, Ahmedabad.
Ashok Medical Stores, Opp. New Civil Hospital, Asarva, Ahmedabad.
B. C. Saraiya & Co., Three Gates, Ahmedabad.
Bhanuprasad & S. S. Co., Three Gates, Ahmedabad.
Bharat Medical Stores Gandhi Road, Ahmedabad.
Bhikhalal Chhaganlal Desai, Three Gates, Ahmedabad.
Bhogilal & Bros., Gandhi Road, Ahmedabad.
Chandulal Premchand, Three Gates, Ahmedabad.
Chimanlal Kuberdas Modi, Three Gates, Ahmedabad.
Chimanlal Sankalchand, Pankore Naka, Ahmedabad.
Chaturbhai S. Patel, Ramakada Market, Ahmedabad.
Chimanlal Madhavlal & Co., Three Gates, Ahmedabad.

**CHUNILAL MAYACHAND MEHTA (Chasmawala), Three Gates, Ahmedabad. Chemist, Druggist & Optician. Phone: 52863. Grams: 'EYEDROPS'. Wholesale Depot: Mehta Building, Biscuit Gally, Pankore Naka, Ahmedabad; Up-country wholesale Dept., Fakhri Building, opp. Noor Chawl, Biscuit Gally, Pankorenaka, Ahmedabad.**

Civil Chemists, Opp. New Civil Hosp., Asarva, Ahmedabad.
C. R. Balkrishna & Co., Three Gates, Ahmedabad.
C. S. Patel & Co., Three Gates, Ahmedabad.
Dahyabhai Nansa & Co., Three Gates, Ahmedabad.
Dahyabhai Sankalchand & Bros., Three Gates, Ahmedabad.
D. P. Dave & Co., Raipur Chakla, Ahmedabad.
Gujarat Medical Agencies, Biscuit Gally, Ahmedabad.
Hiralal Bhagwandas Saraiya, Three Gates, Ahmedabad.
H. Pandit & Co., Three Gates, Ahmedabad.
H. T. S. Attarwala, Three Gates, Ahmedabad.
Janta Medical Stores, Saraspur, Ahmedabad.
Jayant Medical Stores, Biscuit Gally, Ahmedabad.
J. B. Shah & Co., Pankore Naka, Ahmedabad.
Jiwanlal T. Bhatia, Dhikawa Choki, Ahmedabad.
J. J. Parikh & Brothers, Three Gates, Ahmedabad.
J. N. Patel & Co., Gandhi Road, Ahmedabad.
J. S. Brothers, Delhi Chakla, Ahmedabad.
Kantilal Jesinghbhai & Co., Three Gates, Ahmedabad.
K. Chimanlal & Co., Three Gates, Ahmedabad.
Krishna Medical Stores, Sarangpur Chakla, Ahmedabad.
Krishna Stores, Asarva Chakla, Asarva, Ahmedabad.
L. K. Trivedi & Sons, 4020/14, Astodia Road, Ahmedabad.
Mahesh Medical Stores, Raipur Chakla, Ahmedabad.
Manubhai & Co., Relief Road, Ahmedabad.
Mehta Medical Stores, Delhi Chakla, Ahmedabad.
M. Narandas & Co., Raipur Chakla, Ahmedabad.
Mohanlal & Co., Pankore Naka, Ahmedabad.
Mohanlal Shankerlal & Co., Three Gates, Ahmedabad.
Nagindas Dahyabhai & Co., Near Tankshal, Kalupur, Ahmedabad.
National Drug Agency, Gandhi Road, Ahmedabad.
Natverlal C. Desai, Near Pada Pole, Ahmedabad.
Nerol Agency, Three Gates, Ahmedabad.
New Medical Stores, Relief Road, Ahmedabad.
New National Medical Stores, Pankore Naka, Ahmedabad.
Orient Medical Agencies, Fuwara, Ahmedabad.
Pandit Shah & Co., Three Gates, Ahmedabad.
P. Chhotalal Shah & Co., Three Gates, Ahmedabad.
Panvel Pharmacy, Gandhi Road, Ahmedabad.
Paramand Sheth & Co., Gandhi Road, Ahmedabad.
Parekh Brothers, Gandhi Road, Ahmedabad.
Parekh Medical Stores, Gandhi Road, Ahmedabad.
Paresh Dinesh & Co., Three Gates, Ahmedabad.
Patel Brothers, Gandhi Road, Ahmedabad.
Patel Medical Stores, Relief Road, Ahmedabad.
Popatlal Manilal, Delhi Chakla, Ahmedabad.
Pramod Medical Stores, Maninagar, Char Rasta, Ahmedabad.
R. Amratlal & Co., Biscuit Gally, Ahmedabad.
Ramanlal Bhagat & Bros., Raipur Chakla, Ahmedabad.
Rasik Stores, Three Gates, Ahmedabad.
Rasiklal Mulshanker & Co., Chanla 01, Ahmedabad.
Reliable Chemists, Relief Road, Ahmedabad.
R. Vadilal & Co., Relief Road, Ahmedabad.
Sankalchand Chunilal Gandhi, Three Gates, Ahmedabad.
Saurashtra Medical Stores, Saraspur, Ahmedabad.
Shah & Kothari Brothers, Gandhi Road, Ahmedabad.
Shah Medical Stores, Relief Road, Ahmedabad.
Shantilal Ambalal, Gandhi Road, Ahmedabad.
Surendra Jayantilal & Bros., Three Gates, Ahmedabad.
Swaminarayan Medical Stores, Pankore Naka, Ahmedabad.
Thakore Stores, Khadia, Char Rasta, Ahmedabad.
Trikamlal Mohanlal & Co., Three Gates, Ahmedabad.
Union Traders, Three Gates, Ahmedabad.
Universal Pharmacy, Gandhi Road, Ahmedabad.
Vora Brothers, Relief Road, Ahmedabad.

## CLEARING & FORWARDING AGENTS

Bapalal Kilabhai, Kadaya Pole, Dariapur, Ahmedabad.
Chimanlal Chhaganlal Shah, Rajamehta's Pole, Ahmedabad.
Dadubhai Muljibhai Amin, Patel Society, Ellis Bridge, Ahmedabad.
Dhulji Champalal Shah, Opp. New Swadeshi Mills, Naroda Road, Ahmedabad.
Eastern Stores Co., Kerosene Bazar, Ahmedabad.
Fulchand Mulchand, Vasan Sheri, Saraspur, Ahmedabad.
Hiralal Hargovandas Desai, Opp. Municipal Corpn., Ahmedabad.
J. M. Rao & Co., Lodhvad, Mirzapur Road, Ahmedabad 1.
Kashinath Makanji Joshi, Maninagar, Ahmedabad.
Lallubhai Somnath & Bros., Kerosene Bazar, Ahmedabad 2.
M. F. Moonshi & Co., Opp. Madhav Bag, Ahmedabad 2.
Maneklal Keshavlal, Vinchhini Pole, Mandvi's Pole, Ahmedabad.
Nanalal Karsandas, Kapasia Bazar, Ahmedabad 2.
Narandas Mulchand, Kerosene Bazar, Ahmedabad 2.
Narrotamdas Lilachand, Kerosene Bazar, Ahmedabad 2.
Nathalal Ratnabhai, Maninagar, Ahmedabad.

**OTA INDIA.—Clearing, Shipping and Stevedoring Agents; Central Office: 159, Colaba Road, Bombay-5; Grams: "CENOTA". Phone: 212602. Branches: Bombay (Phone: 256592), Calcutta (Phone: 239009), Kandla (Phone: 2145-Gandhidham) & New Delhi (Phone: 43799).**

Ramanlal Lallubhai Shah, Chang Pole, Varai Pada, Ahmedabad.
Ratilal Vadilal & Bros., 482, Revdi Bazar, Ahmedabad 2.
S. K. Ghose & Co., Opp. Municipal Corporation, Ahmedabad.
Sankalchand Lilachand, Kerosene Bazar, Ahmedabad 2.
Shakarabhai Ramdas, Kerosene Bazar, Ahmedabad 2.
Sorabkhan Rustomkhan, Bhistiwad, Khanpur, Ahmedabad.
Thakorlal Vrijlal Chokshi, Opp. Sevaka's Vadi, Khadia, Ahmedabad.
Vadilal Chhaganlal, Kerosene Bazar, Ahmedabad 2.

## COCKS AND VALVES MFRS.

**ABDUL SAMAD ABDUL KADAR & SONS.—1839, Panchpatti, Kalupur, Ahmedabad 1; Phone: 24543; Grams: "FOOT-VALVE." Manufacturers of Gun-metal and Cast Iron Valves & Cocks for Water, Steam, Oil, Chemicals and Boiler Mountings, Pipes Fittings, Sanitary Fittings, Fire Fighting Appliances, Hose Fittings, Agricultural Implements and Textile Machinery Spares.**

**G. A. LATIF & SONS.—Revdi Bazar, Ahmedabad 2; Dealers in all sorts of Pipe-Fittings, Brass & Copper Tubes and Manufacturers of Gun-metal, Cast Iron and Stainless Steel Valves, etc.**

**NEO ENGINEERING WORKS.—Near Indian Air Lines Office, Mirzapur Road, Ahmedabad 1. Manufacturers of Gun-metal, Cast Iron and Stainless Steel Cocks & Valves pertaining to Oil, Water, Steam and Acid Appliances and other Pipe Fittings.**

**PIONEER ENGINEERING WORKS, THE, Prop.: C. C. Ranchhodlal & Co., Naroda Road, Ahmedabad 2; Phone: 22471; Grams: "MOULDING".**

Star Metal Industries, 1769-1, Kalupur Road, Ahmedabad 1.

## COLOUR MERCHANTS

Ahmedabad Colour Company, Astodia Road, Rang Bazar, Ahmedabad.
A. Hasmukh & Company, L. K. Trust Bldg., Ahmedabad.
Alarakha Isaji & Co., Panch Pipli, Opp. Post Office, Ahmedabad.
Bhagwanlal Tejaji Kharewala P. Ltd., Astodia Road, Ahmedabad.
Bombay Colour & Chemical Co., Panch Pipli; Near Gate, Ahmedabad.
C. Bapalal & Co., Kapasia Bazar, Haridas Achratlal Market, Ahmedabad.
Chandrakant & Company, Kasumbawad, Doshiwada's Pole, Ahmedabad.
Continental Trading Syndicate, Kapasia Bazar, Near Motilal Mansion, Ahmedabad.
C. N. Mehta & Co., Manek Chawk, Ahmedabad.
Dahyabhai & Co., Astodia Road, Rang Bazar, Ahmedabad.
D. V. Colour & Co., Astodia Road, Rang Bazar, Ahmedabad.
Eastern Traders, Kapasia Bazar, Motilal Mansion, Ahmedabad.
G. A. Hawkabaj & Co., Astodia Road, Rang Bazar, Ahmedabad.
G. Kishorilal & Sons, Astodia Road, Rang Bazar, Ahmedabad.

Haji Mahamad Yusuf & Co., Jamalpur, Kaji's Dhaba, Moti Vahorwad, Ahmedabad.
Harsadrai Trivedi & Co., Astodia Road, Rang Bazar, Ahmedabad.
Interseas Trading Co., Outside Panchkuva Cloth Market, Patdi State Bldg., Ahmedabad.
Kamlesh Corporation, 696/A/2, Reid Road, Ahmedabad.
Kaloomal Shorimal Sachdev Rangwala P. Ltd., Astodia Road, Rang Bazar, Ahmedabad.
Kasam Haji Karimbax Rangwala, Jamalpur, Kaji's Dhabe, Ahmedabad.
Laxmiprasad Koderlal Trivedi & Co., Astodia Road, Rang Bazar, Ahmedabad.
Laxmiprasad Trivedi & Co., Astodia Road, Rang Bazar, Ahmedabad.
Madhavlal Manilal & Co., Astodia Road, Rang Bazar, Ahmedabad.
Moolchand Jeykishandas & Co., Reid Road, Ahmedabad.
Nanalal & Co., Astodia Road, Rang Bazar, Ahmedabad.
Neodyes Products, Sardar Vallabhbhai Road, Ahmedabad.
New National Colour & Chemical Co., Outside Raipur Gate, Near Bansi Flour Mill, Ahmedabad.
Oriental Dyestuff Corporation, Astodia Road, Rang Bazar Ahmedabad.
P. G. Shah & Co., Astodia Road, Rang Bazar, Ahmedabad.
Phoenix Colour Co., Dalal Wada, Opp. Electricity House, Relief Road, Lal Darwaja, Ahmedabad.
Popular Dyestuff & Chemical Co., Astodia Road, Rang Bazar, Ahmedabad.
P. R. Dyeing & Printing Works, Astodia Road, Rang Bazar, Ahmedabad.
Ramesh Brothers, Sarangpur, Lati Bazar, Ahmedabad.
S. R. Jasani & Co., Astodia Road, Rang Bazar, Ahmedabad.
S. Vinod & Co., Raipur, Haveli's Pole, Ahmedabad.
Spectrum Dyes, Sankdi Sheri, Lakhapatel's Pole, Ahmedabad.
Texdyes Corporation, Rang Bazar, Astodia Road, Ahmedabad.
Textile Aniline & Co., C/o Anandlal N. Shah, Astodia Chakla, Ahmedabad.
Textile Dyechem Corporation, Astodia Road, Rang Bazar, Ahmedabad.
Union Colour & Chemical Co., Devkinandan Market, Railway Cross Lane, Ahmedabad.
Vega Dyestuff Corporation, Astodia Road, Ahmedabad.
Vibgyor Trading Corporation, Astodia Road, Rang Bazar, Ahmedabad.
Yashvant & Co., Kapasia Bazar, Motilal Mansion, Ahmedabad 2.

## CONFECTIONERY MANUFACTURERS

Arvind Food Products, Panch Patti, Kalupur, Ahmedabad.
Asian Food Industries, Kadaka Mills Compound, Gomtipur Ahmedabad.
Bhagdev Confectionery Works, Kanshara Wadi, Panch Kuva, Ahmedabad 1.
Bitco Confectionery Works, Juna Madhavpura, Ahmedabad 1.
Indian Food Industries, Kot ki Rang, Sarangpur, Ahmedabad 1.
Kashmir Confectionery Works, Kot ki Rang, Kalupur, Ahmedabad 1.
Krishna Confectionery Works, Sodagar Pole, Kalupur, Ahmedabad 1.
Mahadev Confectionery Works, Makeri Wad, Near Zakaria Mosque, Relief Road, Ahmedabad 1.
Nashir Confectionery Works, Navi Milat, Panch Kuva, Ahmedabad 1.
Punjab Confectionery Works, Opp. Maninagar Station, Maninagar, Ahmedabad 8.
Raj Confectionery Works, Krishkola Pole, Kalupur, Ahmedabad 1.
Rajan Confectionery Works, Sodagar Pole, Kalupur, Ahmedabad.
Rama Confectionery Works, Kalupur Chakla, Kalupur, Ahmedabad.

## COTTON TEXTILE MILLS

Ahmedabad Advance Mills Ltd., Mill at Shahibag Road, Outside Delhi Gate, Ahmedabad.

**AHMEDABAD COTTON MANUFACTURING CO. LTD., Outside Sarangpur Gate, Ahmedabad; Manufacturers of Long Cloth, Mulls, Sarees, Sushes, Mattes, Mattings etc., Grey Sarees, dhoties, takas, Long cloth, Voiles; Bleached—Sarees, Long cloth, Poplins, Shirtings, Mulls, Voiles, nettings; Dyed—Poplins, twills etc.; Also double and Single Yarns, medium, Fine & Superfine; Phone : 51181, 51182 & 51131.**

Ahmedabad Jaybharat Cotton Mills Ltd. (formerly Bharat Laxmi Cotton Mills Ltd.), Mill beyond Kankaria Railway Siding, Mithipur, Ahmedabad.

**AHMEDABAD JUPITER SPINNING, WEAVING & MANUFACTURING CO. LTD., THE, Dudheshwar Road, Ahmedabad. Products of Mill No. 1: Medium, Fine and Superfine cotton Textiles viz. Poplins, Twill and Long Cloth, Dobby Dropbox Sucis, Lawns and Dorias, Butta and Blouse cloth, Jacquard Table Cloth and Servettes, 2 x 2 Cambrics, Full Voiles and Lenos. 67 per cent TERYLENE/33 per cent Cotton Shirtings and Suitings. Available in Bleached, Dyed, Screen Printed, Mercerised and SANFORIZED varieties. (Their Bombay Unit Mill No. 2 is situated at Carroll Road, Parel, Bombay, 13, and Office at Indu House, 15, Dougall Road, Ballard Estate, Bombay-1). Managing Agents: Messrs. M. Parakh & Co. Private Ltd.**

Ahmedabad Kaiser-i-Hind Mills Co., Ltd., Outside Raipur Gate, Ahmedabad.
Ahmedabad Laxmi Cotton Mills Co., Ltd., Outside Raipur Gate, Ahmedabad.
Ahmedabad Manufacturing and Calico Printing Co., Ltd., Post Box No. 12, Ahmedabad.
Ahmedabad New Cotton Mills Co., Ltd., Khokhra Mehmedabad, Ahmedabad.
Ahmedabad New Textile Mills Co., Ltd., Nos. 1 & 2, Outside Raipur Gate, Ahmedabad.

**AHMEDABAD SARANGPUR MILLS CO., LTD., Outside Raipur Gate, Ahmedabad. Manufacturers of Grey and bleached dhoties, long cloth, Shirtings, Sarees, Jeans, over dyed poplins, sushis, Chaddars, Mulls, dosuties, twills, mosquito nettings, crepes, towels, napkins, fancy bedsheets and gauge, prints, voiles, disegarge Khadi & resist prints; Also bleaching, dyeing and Calendaring; Managing Agents: Himatlal Motilal & Co. Ltd.**

Ahmedabad Shri Rama Krishna Mills Co., Ltd., Gomtipur Road, Ahmedabad.
Ajit Mills Ltd., Rakhial Road, Ahmedabad.
Ananta Mills Ltd., Rakhial Road, Ahmedabad.
Aruna Mills Ltd., Naroda Road, Ahmedabad.
Arvind Mills Ltd., Naroda Road, Ahmedabad.

**ARYODAYA GINNING MILLS, Asarva, Post Box No. 175, Ahmedabad; Manufacturers of Sanforised and Trionised fabrics Screen and Machine Prints, fine & Superfine Poplins, dhoties, Sarees, dyed and bleached coatings, drill, Mulls, Long Cloth, Striped and check Shirtings, Sushis etc. Managing Agents: Mangaldas & Brother Prt. Ltd.**

Aryodaya Spinning and Weaving Co., Ltd. (Nos. 1 & 2), Asarwa Road, Ahmedabad.

**ASARWA MILLS LTD., Asarwa Road, Asarwa, Ahmedabad; Manufacturers of bleached Dhoties, Long Cloths, Mulls, Poplins, Coatings, Shirtings, Sarees, Dyed—(and Shrunk) Poplins, Sushis and dorias; Also all types of Printed cloths, bleaching, Dyeing, Calendaring, mercerising, Printing and Cloth Shrinking and yarn mercerising.**

Asoka Mills Ltd., Naroda Road, Ahmedabad.

**BECHARDAS SPINNING & WEAVING MILLS CO. LTD.,**

P.O. Box No. 22, Raikhad, Ahmedabad.

Manufacturers of Printed chhints, Striped Sushis and Shirtings; Yarn on Cones & Beams & 20s Staple Yarn on Cones.

Managing Directors : Sheth Suryakant D. Laskari, Sheth Jagdishprasad D. Laskari ; Phone : 52287, 53095.
Grams : " LASKARI ".

**BHALAKIA MILLS CO., LTD., Mg. Agents: Narottamdas Jethalal & Co. (Abd.) Private Ltd., Kankaria Road, Ahmedabad.**

Bharat Suryodaya Mills Co., Ltd., Post Box No. 125, Ahmedabad.
Bharatkhand Textile Mfg. Co., Ltd., Nos. 1 & 2, Post Box No. 30, Ahmedabad. Mills at Camp Road, Ahmedabad.
Bihari Mills Ltd., Mills near Khokra Mehmedabad, Ahmedabad.
City of Ahmedabad Spg. & Mfg. Co., Ltd., Kankaria Road, Ahmedabad.
Commercial Ahmedabad Mills Co., Ltd., Near Idgah Chowki, Asarwa, Ahmedabad.
Girdhardas Harivallabhdas Mills Ltd., near Idga Gate, Ahmedabad.
Harivallabhdas Mulchand Mills Co., Ltd., Outside Dariapur Gate, Ahmedabad.
Hathisingh Mfg. Co., Ltd., Near Saraspur Gate, Ahmedabad.
Himabhai Mfg. Co., Ltd., No. 1, Near Saraspur Gate, Ahmedabad.
Jehangir Vakil Mills Co., Ltd., Outside Delhi Gate, Ahmedabad.
Maheshwari Mills Ltd., Shahibaugh Road, Ahmedabad.

**MANEKLAL HARILAL SPINNING & MANUFACTURING CO. LTD., Saraspur Road, Railwaypura Post, Post Box No. 1047, Ahmedabad-18; Manufacturers of Mercerised, Sanforized, dyed and Printed Poplins, Coatings, Shirtings, Mercerised Lawn, Mulls and Voiles, Dhoties, Sarees and Long Cloth; Managing Agents: Messrs. Harilal Harivallabhadas & Co., Ltd., Ahmedabad; Managing Directors: Navanitlal Ranchhodlal; Chairman (ex-officio): Deepakbhai Navanitlal, B. Com. (ex-officio).**

Manekchowk & Ahmedabad Mfg. Co., Ltd., Nos. 1 & 2, Outside Dariapur Gate, Ahmedabad.
Marsden Spg. & Mfg Co., Ltd., Rakhial Road, Ahmedabad.
Monogram Mills Co., Ltd., Rakhial Road, Ahmedabad 10.

**NAGRI MILLS CO. LTD., Rajpur, Gomlipur Road, Ahmedabad; Manufacturers of grey long cloth, dhoties, Bleached dhoties, Long cloth, Mulls, Poplins, Sarees, Shirtings, Mercerised Shirtings and Mosquito nettings; Also bleaching, dyeing, mercerising, printing, Gassing & Calendering and yarn dyers. Managing Agents : Popatlal Chimanlal & Co.**

**NANIKRAM SOBHRAJ MILLS LTD., THE, Madhowlal Ranchhodlal Colony, Ahmedabad-2; Post Box No. 1041; Phone: 4266, Grams: "KINCHICRAP"; Silk, Rayon & Synthetic Fabric Manufacturers.**

New Asarwa Mills Private Ltd., P.O. Railwaypura, Ahmedabad 2.
New Commercial Mills Co. Ltd., No. 1, Naroda Road, Railwaypura Post, Ahmedabad-2.

**NEW GUJARAT COTTON MILLS LTD., Railwaypura Post, Naroda Road, Ahmedabad-2; Manufacturers of grey-dhoties, Sarees, Long Cloth, Shirtings, Gange cloth etc., Bleached coatings, Poplins etc., Also dyeing, bleaching, Printing, Calendering, Mercerising and yarn dyers. Managing Agents: Kanoria Co. Ltd., 9, Brabourne Road, Calcutta. Factory Manager: Ridhkaran Murarka, Asst. Factory Manager: Devi Prasad Tibrewalla.**

**NEW MANECKCHOCK SPINNING & WEAVING, CO. LTD., Post Asarwa, Near Idah Gate, Ahmedabad-16; Manufacturers of Grey-bleached and dyed crepes, dhoties, dorias, drills, Long cloth mulls, Sarees, Shirtings, twills, bleached and dyed poplins, Combed and uncombed Sushis, Printed voiles and Poplins. Also blacking, dyeing, Calendering, Printing etc. Managing Agents : Bharat Kumar Chimuchar.**

New National Mills Ltd., Rakhial Road, Ahmedabad.

**NEW RAJPUR MILLS CO. LTD., Gomtipur Road, Ahmedabad-21; Manufacturers of Resist and Blotch Printed and Dyed Poplins, Lones, Voiles, Grey, Bleached, Mercerised Sarees and Dhoties, Sanforized Shirtings and Poplins, Long Cloth, Coating etc. Managing Agents: Sheth Manubhai B. Patel; Manager: A. T. Pandya.**

**NEW SHORROCK SPINNING & MANUFACTURING CO. LTD., THE, Asarwa Road, Ahmedabad-16; Manufacturers of Bleached Dhoties, Long Cloth, Mulls, Voiles, Crepes, Poplins, fancy Shirtings, Dyed Poplins, Voils, Coatings, Long Cloth, also bleaching, dyeing and Calendering and yarn dyers; Managing Agents: Mafatlal Chandulal & Co. Ltd.; Chief Engineer & Manager: Shri C. G. Shah; Secretaries : Shri B. K. Joshi & Shri V. P. Bhagat; Spt. Supdt: Shri S. D. Patel. Wvg. Master: Shri H. D. Patel. Engineer: Shri D. B. Raval. Processing Master: Shri K. K. Parikh.**

**NEW SWADESHI MILLS OF AHMEDABAD, LTD., Naroda Road, Ahmedabad 2. Manufacturers of Dhoties, Mulls, Poplins, Crepes, Shirting, Chhintzs and various types of cloths for exports; Managing Director: S. N. Hada; Secretary: S. K. Agarwal.**

Nutan Mills Ltd., Anil Road, Railwaypura Post, Ahmedabad.
Patell Mills Co., Ltd., Gomtipur Road, Ahmedabad.
Raipur Mfg. Co., Ltd., Outside Saraspur Gate, Ahmedabad.

**RAJNAGAR SPG., WVG. & MFG. CO., LTD., Nos. 1 & 2, Mills near Idah Gate, Ahmedabad; Manufacturers of Cotton Piecegoods; 'Rajcorized' preshmunk cloth a speciality; Managing Agents: Mangaldas Ghirdardas Parekh Private Ltd., Manager: V. T. Modi.**

Rohit Mills Ltd., Khokhra Mehmedabad, Ahmedabad.
Rustom Jehangir Vakil Mills Co., Ltd., outside Delhi Gate, Ahmedabad.
The Sarangpur Cotton Mfg. Co., Ltd., No. 1 & No. 2 Mills—Ahmedabad.
Saraspur Mills, Ltd., Saraspur Road, Ahmedabad 2.
Shorrock Spg. & Mfg. Co., Ltd., Asarwa Road, Ahmedabad.
Shri Ambica Mills Ltd., Nos. 1 & 2, Kankaria Loco Siding, Ahmedabad.
Shri Arbuda Mills Ltd., Rakhial Road, Ahmedabad 10.
Silver Cotton Mills Co., Ltd., Kankaria Loco Siding, Ahmedabad.

**SRI VIVEKANAND MILLS LTD., Rakhial Road, Ahmedabad 21. Managing Agents: Nanubhai Maneklal & Sons, Spindles: 28,788 Looms: Ordinary 526, Automatic 52. Manager: I. S. Devashrayee.**


**THE TARUN COMMERCIAL MILLS LTD.,**

Outside Kalupur Gate,
Railwaypura Post, Ahmedabad-2.

Manufacturers of Cotton Piecegoods. Directors: Chairman: Seth Pranlal Bhikhbhai, Managing Directors: Seth Indravadan Pranlal, Seth Madhukant Pranlal; Secretary : R. C. Shah, B.A., LL.B.


Vijay Weaving Works (Vijay Fabrics), 676/12, Railwaypura, Ahmedabad.
Vijaya Mills Co., Ltd., Naroda Road, Ahmedabad.
Vikram Mills, Ltd., Outside Saraspur Gate, Post Railwaypura, Ahmedabad.

## COTTON AND CLOTH WASTE MERCHANTS

A. H. & Co., 697/13, Dhanlaxmi Market, Reid Road, Ahmedabad.
Ajanta Agencies, Pitamber Bhuvan, Raj Mahal Road, Ahmedabad.
Amratlal Babulal & Co., Kalupur, Rice Market, Ahmedabad.
Anjana & Co., C/o Somchand Vadilal, Kalusini Pole, Kalupur, Ahmedabad.
Arvindbhai & Co., Virchand Dipchand's Haveli, Ahmedabad.
Babubhai Bhagat & Co., C/o Babubhai Mangaldas Bhagat, on the side of Bhaduat Nagar Colony, Maninagar, Ahmedabad.
Barot Bros. & Co., Sani Sadan, Sarangpur, Ahmedabad.
Bhagat & Sons, Kalupur, Near Nava Darwaja, Ahmedabad.
B. P. Trading Co., 715/4, Sakar Bazar, Ahmedabad.
B. Shashikant & Co., Parabadini Pole, Raipur, Ahmedabad.
Chamanlal Sarabhai & Co., Tribhovan Market, Ahmedabad.
Chandulal & Sons, 40/3, Vidya Bhuvan, Manekchowk, Ahmedabad.
Chimanlal & Sons, Cross Lane, Railwaypura, Ahmedabad.
C. Damodardas & Co., Prabodh Mansion, Dana Bunder, P. O. Box No. 5050, Ahmedabad.
C. Doctor & Co. P. Ltd., Khokhra Mehemadabad, Ahmedabad 8.
C. Jeram & Co., 1685, Khadia Road, Ahmedabad.
C. Kalidas Co., 651/2, Patel Market, Sakar Bazar, Ahmedabad.
C. M. Shah & Co., Opposite Nava Dhakka, Ahmedabad.
C. Vadilal & Company, Raipur, Kameshwar's Pole, Ahmedabad.
Devico Traders, Inishat, Shahibagh, Ahmedabad.
Dhirajlal & Co., C/o Chhaganlal Jivabhai Lakumb, 519, Gangadhiani Pole, Sankadi Sheri, Ahmedabad.
Geeta Traders, 1685, Khadia Road, Opp. Pada Pole, Ahmedabad.
H. Patel Co., Lalavasa's Pole, Ahmedabad.
H. P. Bros., Opp. English Cinema, Panchkuwa, Ahmedabad.
H. Shantilal & Co., C/o Manubhai Narotamdas Co., Zaverivad, Ahmedabad.
H. Velshibhai & Sons, Kalupur, Baluchavad, Khoja's Haveli, Ahmedabad.
Haridas Kalyanji & Co., Kapasia Bazar, Ahmedabad.
Hiralal Maneklal & Co., Doshivada Street, Ahmedabad.
Indian Produce Export Co., Amblini Pole, Raipur, Ahmedabad.
Indian Waste Products, Central Hotel Bldg., Lal Darwaja, Ahmedabad.
J. Maganlal & Co., Zaverivad, Satbhaiya's Haveli, Ahmedabad.
Jyoti Trading Co., 1312, Havelini Pole, Raipur, Ahmedabad.
Jyotindra Ramanlal Co., Pushpakunj Society, Kankaria, Ahmedabad.
Kirankumar & Co., C/o Prataprai Keshavlal, Mandvi's Street, Sametshikhar's Pole, Ahmedabad.
Kiritkumar Gordhandas & Co., 699, Kothari Pole, Richey Road, Ahmedabad.
Kiritkumar Lalbhai, C/o Somchand Hirachand, Kuvavalo Khancho, Chippa Pole, Ahmedabad.
Lachhavani & Co., Kapasia Bazar, Ahmedabad.
Laxmichand Valabhai & Co., Rangwala Bldg., Kalupur, Ahmedabad.
M. Bhailal & Co., Near Idga Chowky, Ahmedabad No. 11.
M. Dashrathlal & Co., 488/22/2, Lallubhai Karsondas Trust Bldg., Revdi Bazar, Ahmedabad.
M. Mangaldas & Co., C/o Nanalal Mansukhram, Manekchowk, Ahmedabad.
M. Ranchhodlal & Co., C/o Haridas Kalyanji Co., Kapasia Bazar, Ahmedabad.
Manilal M. Shah & Co., C/o C. M. Shah, Kalupur, Ahmedabad.
Mansuri Mohomad Yusuff & Co., C/o Mansuri Pirbhai Rasulbhai, Dhalgarvad, Ahmedabad.
Manubhai & Co., Shantinath's Pole, Hajapatel's Pole, Ahmedabad.
Manubhai Narotamdas & Co., 2972, Ratan Pole, Zaverivad, Ahmedabad.
Manubhai Shantilal & Co., C/o Manubhai Somabhai, Chippa Pole, Ahmedabad.
M. A. Gandhi & Co., Railwaypura, Near Kansara's Dehla, Ahmedabad.
Mohanlal Lallubhai & Co., In Bazar, Visnagar, Ahmedabad.
Nanalal & Sons, Opp. Jumma Masjid, Ahmedabad.
N. Naranda & Company, Purshkarna's Pole, Near Bala Hanuman, Ahmedabad.
Narharilal Rajnikant & Co., Ratan Pole, Sheth's Pole, Ahmedabad.
Neptune Trading Co., 656/4/4, Kapasia Bazar, Ahmedabad.
P. Das & Sons, Outside Vagheshvari's Pole, Raipur, Ahmedabad.
Pankaj Trading Co., Raipur, Kameshwar's Pole, Ahmedabad
P. Navinchandra & Co., 142, Fatasani Pole, Hirabhai's Pole, Gandhi Road, Ahmedabad.
Pradipkumar & Co., C/o Balubhai Dahyabhai Mamunask's Pole, Kalupur, Ahmedabad.
Prashant Gauttam & Co., C/o Bharat Rope & Lace Mfg. Co., Kapasia Bazar, Ahmedabad.

Pravinchandra Ramanlal & Co., C/o S. R. Bros., 111/29, Ratan Pole, Ahmedabad.
Rajnikant Ramanlal & Co., 2002, Ashapuri Khancho, Dhalni Pole, Ahmedabad.
R. Kantilal Co., 1881, Padapole, Gandhi Road, Ahmedabad.
Ramchandra & Co., Kapasia Bazar, Ahmedabad.
Rameshchandra & Co., Rice Market, Kalupur, Ahmedabad.
Sapt Textile Products India Ltd., Near K. M. Shah's Hospital, Lal Darwaja, Ahmedabad.
Shah Banker & Co., 487/26, Revdi Bazar, Ahmedabad.
S. H. & Co., 790/1, Hajapatel's Pole, Kalupur, Ahmedabad.
Shantilal & Co., Kapasia Bazar, Kanuga Mansion, Ahmedabad.
Shantilal & Co., 1594, Dhanasutar Street, Ahmedabad.
Sheth Stores Trading Co., Deepak Chambers, Station Road, Ahmedabad.
Shodhan Bros., Panchvati, Ellis Bridge, Ahmedabad.
Subash Bros., C/o D. H. Yoddha, 962, Sankdi Sheri, Opp. Hajira Pole, Ahmedabad.
Surendra Manilal & Co., Panjara Pole, Ratan Pole, Ahmedabad.
Surendra Mayabhai Teli & Co., Sakar Bazar, Ahmedabad.
Textile Trades Agency, 2334, Makerivad, Relief Road, Ahmedabad.
Tulsudas Maneklal's Co., C/o Maneklal Jiotaram, Saraspur, Pipla Pole, Ahmedabad.
United Stores Trading Co., Station Road, Deepak Chambers, Ahmedabad.
United Trading Co., Doctor Motibai Road, Mulchand Asharam's Bungalow, Opp. Madhu Baugh, Ahmedabad.
Vanguard Traders, Jeshingbhai's Vadi, Gheekanta Road, Ahmedabad.
Vasantlal & Co., Bharatkhand Cotton Mill, Naroda Road, Ahmedabad.
Vinodchandra & Co., Sarangpur, Talia's Pole, Nanavati's Khancha, Ahmedabad.
Westport Agency, Shri Kunj Kalyan Society, Ellis Bridge, Ahmedabad.

## CUTLERY MERCHANTS

Brahmashatriya Trading Co., Ratanpol Naka, Ahmedabad.
C. Mehta & Sons, Ratanpol Naka, Ahmedabad.
Desai & Co., 5147, Gandhi Road, Ahmedabad.
Gujarat Cutlery Stores, Pankore Naka, Ahmedabad.
Indian Cutlery Mart, Ratanpol Naka, Ahmedabad.
Nyalchand Amratlal & Co., Ratanpol Naka, Ahmedabad.
P. Mangaldas & Co., Bala Hanuman, Ahmedabad.

## CYCLES AND CYCLE ACCESSORIES

Ahmedabad Cycle and Motor Trading Co., P. Ltd., Gandhi Road, Ahmedabad.
Allies Cycle & Motor Co., Inside Panchkuva, Ahmedabad.
All India Cycle & Motor Co., Inside Panchkuva, Ahmedabad.
Bhailal & Co., Khadia Char Rasta, Ahmedabad.
Bhagwati Cycle Stores, Inside Panchkuva, Ahmedabad.
Bharat Cycle & Motor Co., Richey Road, Ahmedabad.
Goodluck Cycle Co., Outside Panchkuva, Ahmedabad.
Gujarat Cycle & Motor Co., Richey Road, Ahmedabad.
H. Parikh & Co., Char Rasta, Ahmedabad.
Jain Brothers, Outside Panchkuva, Ahmedabad.
Jitendra Trading Co., Khadia Char Rasta, Near Jethabhai Pole, Ahmedabad.
K. B. Modi & Co., Khadia Char Rasta, Ahmedabad.
Krishna Cycle & Motor Co., Old Mahajanwada, Ahmedabad.
Manubhai Patel & Co., Inside Panchkuva, Ahmedabad.
Metro Cycle Co., Panchkuva, Ahmedabad.
Model Cycle Co., Khadia Char Rasta, Ahmedabad.
Modern Cycle Stores, Relief Road, Ahmedabad.
National Cycle & Motor Co., Khadia, Char Rasta, Ahmedabad.
Natwerlal B. Dave & Co., Ltd., Khadia, Char Rasta, Ahmedabad.
**NEW IMPERIAL CYCLE WORKS, Inside Panchkuwa, near English Cinema, Ahmedabad. Phone : 20633; Leading Wholesale and retail dealers in Cycles, Tricycles, Prams, Scpoters, Push chairs, Baby-cars & Parts thereof.**
Niranjan Cycle Co., Richey Road, Ahmedabad.
Popular Trading Co., Inside Panchkuva, Ahmedabad.
Rajnagar Cycle Stores, Reid Road, Ahmedabad.
Reliable Cycle & Motor Co., Khadia, Char Rasta, Ahmedabad.
R. M. Engineering Works, Khokra Mehmedabad, Maninagar, Ahmedabad 8.
Royal Cycle Importing Co., Pankore Naka, Ahmedabad.
Sarabhai & Co., Richey Road, Ahmedabad.
Sarabhai, C., & Co., Richey Road, Ahmedabad.
Senior Cycle Trading Co., Panchkuva, Ahmedabad.
Shah Brothers, Pankore Naka, Ramakada Market, Ahmedabad.
Shah Cycle Stores, Richey Road, Ahmedabad.
Shah Trading Co., Ltd., Khadia, Char Rasta, Ahmedabad.
Shilpi Cycle Agency, Panchkuva, Khadia, Char Rasta, Ahmedabad.
Sun Saddle Cover Works, Khadia Char Rasta, Ahmedabad.
United Cycle & Motor Co., 1962/1 & 4, Panchkuva Road, Ahmedabad 1.
Vijay Cycle Co., Richey Road, Ahmedabad.
Western India Cycle Agency, Near Pada Pole, Ahmedabad.

## DAMPCOURSING

**GLADSTONE LYALL & CO., LTD.—Agency Office, Textile & General Engineering Stores, Prajapati Laladas Bldg., Khadia, Char Rasta, Ahmedabad. Bombay Manager: Cmdr. J. B. Simmons. Head Office: 4, Fairlie Place, Calcutta.**

## DIESEL ENGINES

**FEROZE P. CHAHEWALLA, Kastoorbhai Blocks, Lal Darwaja, Ahmedabad. Phone: 3082; Distributors for Gujarat for Genuine Spare Parts of Armstrong Siddeley Diesel Oil Engines.**
Gujarat Engineering Co., Saraspur, Ahmedabad.
Hind Hardware Stores, Kadia Building, Relief Road, Ahmedabad.
Modern Engineering & Moulding Co., Near Kalyan Mills, Naroda Road, Ahmedabad 2.
Moulding Engineering Co., Shahpur Mills Compound, Ahmedabad.
Nagardas Bechardas & Brothers, Naroda Road, Ahmedabad.
Nima Trading Co., Cross Lane, Ahmedabad.
Ranjit Electric and Engineering Corporation, Madina House, Near Jakaria Masjid, Relief Road, Ahmedabad.
S. Kumar & Co., Kutub Manzil, Relief Road, Ahmedabad.
S. Sutaria & Co., 697/32-6, Reid Road, Ahmedabad.
Voltas Limited, Mirzapur, Ahmedabad 1.

## DYEING AND PRINTING COMPANIES

Ahmedabad Dyeing and Printing Ltd., Dudeshwar Road, Ahmedabad.
Ahmedabad Textile Engraving Works, New Cotton Mills Compound, Ahmedabad.
Hindustan Calico Engraving Works, 1832, Tajpur, Nadiawad, Ahmedabad.
Honesty Calico Printers, New Cotton Mills No. 1, Kankaria Road, Ahmedabad.
Mehta Dyeing & Printing Works, New Cotton Mills No. 1, Raipur Gali, Ahmedabad.
P. R. Dyeing and Printing Works, Dasha Disha Wadi, Astodia Chakla, Ahmedabad.
Rajendra Dyeing and Printing Mills, Madhubhai Colony, Saraspur, Ahmedabad.
Shree Laxmi Vijay Dye Works, 196, Galiar's Street, Raipur, Ahmedabad.
Shri Arunodaya Dyeing Works, Dudeshwar Road, Ahmedabad.

## ELECTRIC HOIST

**PIONEER ENGINEERING WORKS, THE, Prop.: C. C. Ranchhodlal & Co., Naroda Road, Ahmedabad 2; Phone: 22471; Grams: "MOULDING".**

## ELECTRICAL ENGINEERS, CONTRACTORS AND ELECTRIC GOODS DEALERS

Ashara Electric Co., 5130, Gandhi Road, opp. Cinema De France, Ahmedabad 1.
A. B. H. Traders Agency, Bala Hanuman, Gandhi Road, Ahmedabad.
Ahmedabad Electric Stores, Patasa Pole, Gandhi Road, Ahmedabad.
Ambica Agency, Bala Hanuman, Khadia, Ahmedabad.
Amers Engineers, Relief Road, Zakaria Masjid, Ahmedabad.
A. Patel & Bros., Pada Pole, 1st Floor, Ahmedabad.
Arvind Electrical & Textile Stores, Bala Hanuman, Khadia, Ahmedabad.
Asha Electric Corpn., Pada Pole, Ahmedabad.
Asia Electrical Syndicate, Dipak Chambers, Cross Lane, Ahmedabad.
Asra Electric Co., Gandhi Road, Ahmedabad.
Austin Electric Works, Ratan Pole, Ahmedabad.
Bhagyodaya Electric Co., Gandhi Road, Ahmedabad.
Bharat Electric Co., Deepak Chambers Cross Lane, Ahmedabad 2.
Bharati Electric Stores, Mandvi's Pole, Ahmedabad.
Bhupendra Bros., Bala Hanuman, Khadia, Ahmedabad.
Bodiwalla Bros., Opp. Pada Pole, Ahmedabad.
British Insulated Callenders Cable Co. Ltd., Khadia, Char Rasta, Ahmedabad.
Chitra Electric Trading Co., Vasulaxmi Bharat Colony, Navjivan, Ahmedabad 14.
Choksi Electric Co., Khadia, Char Rasta, Ahmedabad.
Chokshi Trading Co., 2754/2, Relief Road, Near Pachhia's Pole, Ahmedabad.
Chotubhai Ibrahim Lightwalla, Ratan Pole, Junction Gandhi Road, Ahmedabad.
C. J. Patel & Co., Khadia, Char Rasta, Ahmedabad.
Dawn Trading Co., Panch Kuva, Kapad Bazar, Ahmedabad.
Electrical Syndicate, Opp. Model Talkies, Gandhi Nagar, Ahmedabad.
Electro Tactics & Engineering Co., Opp. Madhav Baugh, Ahmedabad.
Empire Electric Co., Pada Pole, Gandhi Road, Ahmedabad.
Empire Electric Stores, Model Cinema, Gandhi Road, Ahmedabad.
Electric Mechanical Industries, Opp. Model Talkies, Gandhi Road, Ahmedabad.
Expert Electric Co., Dhana Sutar Pole, Saraya Pole, Ahmedabad.
Fine Electric Co., Pada Pole, Gandhi Road, Ahmedabad.
Forin & Co., Reid Road, Ahmedabad 2.

Gujarat Electric Co. (Private) Ltd., Patasa Pole, Gandhi Road, Ahmedabad.
Gautam Electric Co., Khadiya, Sevakani Wadi, Ahmedabad.
G. E. C. India Ltd., Relief Road, Opp. Relief Cinema, Ahmedabad.
Gopani & Co., Char Rasta, Khadia, Abmedabad.
Hathisingh Engineering, Co., Laldarwaja, Ahmedabad.
Hind Engineering Co., Mamu Naik's Pole, Ahmedabad.
Hiralal & Sons, Pada Pole, Gandhi Road, Ahmedabad.
I. B. Lightwalla, Manek Chowk, Badshah Hajira, Ahmedabad.
Indian Cable Co., Ltd., P. Box 33, Industrial Assurance Bldg., Gandhi Road, Ahmedabad.
Indian Electric Co., Bala Hanuman, Gandhi Road, Ahmedabad.
Industrial Hire Purchase Corpn. (Private) Ltd., Relief Road, Anand Bhuvan, Ahmedabad.
I. K. Radio Elect. & Eng. Co., Jamalpur, Panchpipli, Ahmedabad.
International Electric Equipment Co., Reid Road, Opp. Police Chowky, Ahmedabad.
Jawahar Electric Stores, Kalupur, Dhikva Chouki, Ahmedabad.
Jayant Electric Machinery Co., Hajapatel's Pole, Ahmedabad.
Jaybharat Electric Syndicate, Relief Road, Opp. Krishna Cinema, Ahmedabad.
Jayhind Electric Stores, Manek Chowk, Mandvi Pole, Ahmedabad.
Jayendra Electric Stores, Gheekanta Road, Ahmedabad.
Jayshree Trading Co., Khadia, Char Rasta, Ahmedabad.
Jupiter Electric Mart, Bala Hanuman, 1st Floor, Ahmedabad.
Jyoti Electric Trading Co., Patasa Pole, Gandhi Road, Ahmedabad.
Kalpana Electric Stores, Gheekanta Road, Ahmedabad.
Kapadia Electric Works, Bala Hanuman, Gandhi Road, Ahmedabad.
Khosla Sales Corporation, Near Kothi Pole, 705/3, Gandhi Road, Ahmedabad.
K. M. Engineering Co., Fuwara, 1st Floor, Ahmedabad.
Krishna Electric Stores, Raipur Chakla, Ahmedabad.
Krishna Kumar & Co., 1092-2, Tilak Road, Gundi's Pole, Tarkas Bldg., Ahmedabad.
Kumar Trading Co., Dhudhia Buildings, 2nd Floor, Ahmedabad.
Lucent Traders, Anand Bhuvan, Relief Road, Ahmedabad.
Madan Electric Co., Gheekanta Road, Delhi Chakla, Ahmedabad.
Mahalaxmi Electric Stores, Sarangpur, Bukharas' Pole, Ahmedabad.
Mahalaxmi Electric Syndicate, Mamu Naik's Pole, Gandhi Road, Ahmedabad.
Manubhai Parikh & Co., Badshah Bhavan, Kadia Kui, Ahmedabad 1.
Mayur Electric & Radio Corporation, Opp. Shamla's Pole, Raipur, Ahmedabad 1.
Mehta Electric Co., Ratanpoli Junction, Gandhi Road, Ahmedabad.
Mira Electric Co., Cinema-D-France, Gandhi Road, Ahmedabad.
M. Sardar Electric Co., Opp. Model Talkies, Ahmedabad.
M. Sukal & Co., Jordan Road, Delhi Chakla, Ahmedabad.
Munjal Electrical Stores, Relief Road, Inside Ratanpole, Ahmedabad.
National Electric Stores, Patasa Pole, Gandhi Road, Ahmedabad.
National Electric Trading Co., Model Cinema, Gandhi Road, Ahmedabad.
Navin Electric Stores, Mandvi Pole, Nagji Bhunder Pole, Ahmedabad.
Navjivan Electric Stores, Tagia Mahajan, Panchkuva, Ahmedabad.
New India Electric Co., Bala Hanuman, Gandhi Road, Ahmedabad.
Nima Trading Co., Cross Lane, Revdi Bazar, Ahmedabad 2.
Noble Trading Agency, Patasa Pole, Gandhi Road, Ahmedabad.
Parekh Electric Co., Panch Kuva, Kapad Bazar, Ahmedabad.
Parikh Trading Co., Near Pada Pole, Gandhi Road, Ahmedabad.
Patel Bros., Opp. Burmah-Shell, Raikhad, Ahmedabad.
P. Patel & Sons, Pada Pole, 1st Floor, Ahmedabad.
Pradip Electric Stores, Pada Pole, Gandhi Road, Ahmedabad.
Prakash Electric Stores, Patasa Pole, Gandhi Road, Ahmedabad.
Premier Electric Agency, Patasa Pole, Gandhi Road, Ahmedabad.
Premier Trading Co., Gandhi Road, Opp. Nagina Pole, Ahmedabad.
Purnima Electric Stores, Near Jumma Masjid, Gandhi Road, Ahmedabad.
Radiant Electric & Machinery Co., 2750, Relief Road, Ahmedabad.
Rajendra Electric Stores, Panch Kuva, Near English Cinema, Ahmedabad.
Rajnagar Electric Co., Patasa Pole, Gandhi Road, Ahmedabad.
Regal Trading Co., Mahebub Society Bldg., Kadia Kui, Tilak Road, Ahmedabad.
Reliance Electric Co., Near Jumma Masjid, Gandhi Road, Ahmedabad.
R. G. Bhow & Co., Gandhi Road, Ahmedabad.
Royal Electric Co., Relief Road, Opp. Dhana Sutar Pole, Ahmedabad.
Shakti Electric Industries, Gita Mandir Road, Ahmedabad.
Sanghvi Electric Stores, Bala Hanuman, Khadia, Ahmedabad.
Shakti Electric Stores, Dariyapur, Chippa Pole, Ahmedabad.
Somchand D. Shah, Manek Chowk, Madangopal Haveli, Ahmedabad.
S. P. Bhow & Co., Near Jumma Masjid, Gandhi Road, Ahmedabad.
Standard Electric Co., Three Darwaja, Bawa Latiff Gully, Ahmedabad.
Star Radio Electric Co., Relief Road, Opp. Relief Cinema, Ahmedabad.
Star Electric Co., Patasa Pole, Gandhi Road, Ahmedabad.
Star Radio Electric Co., Star House, Relief Road, Ahmedabad.
Sun Electric & Motor Stores, Near Model Cinema, Ahmedabad.
Sun Electric Stores, Patasa Pole, Gandhi Road, Ahmedabad.
Suren & Co., Opp. Mahavir Temple, Gandhi Road, Ahmedabad.
Swastic Mfg. Co., Near English Cinema, Ahmedabad.
Swastik Electric Corporation, Opp. Gundi's Pole, Relief Road, Ahmedabad 1.
Swastik Engg. Co., Kanti Bhuvan, Inside Panchkuva, Ahmedabad.
Taroon Electric Industries, Pada Pole, Ahmedabad.
Thaker Electric Stores, Fuvara, Gandhi Road, Ahmedabad.
Uma Electric Co., Raja Mehta's Pole, 1068, Totlaji's Pole, Ahmedabad.
Union Electrical & Engineering Co., Ghee Kanta Road, Ahmedabad.
U. T. Gopani & Sons, Khadia Char Rasta, Modhwadi, Ahmed bad.
Vallabh Electric Stores, Cinema-D-France, Gandhi Road, Ahmedabad.
Venus Electric Co., Opp. Cinema-D-France, Gandhi Road, Ahmedabad.
Vijay Electric Co., Gandhi Road, Phatasapole, Ahmedabad.
Vinayak Electric Co., Mamu Naik's Pole, Gandhi Road, Ahmedabad.
Vinay Electric Company, Near Pada Pole, Gandhi Road, Ahmedabad.
V. Kantilal, Deepak Chambers, Cross Lane, Ahmedabad.
V. V. Shah & Co., Mamu Naik's Pole, Ahmedabad.

## ELECTRICAL AND MECHANICAL GOODS MERCHANTS

Hutheesing Engineering Co., Lal Darwaja, Ahmedabad.
Jai Hind Radio Corporation, Near Lighthouse, Gheekanta Road, Ahmedabad.
T. G. Mankodi, 1957, Mandvi St., Ahmedabad 1.

## ELECTRICAL INDUSTRIES

### THE AHMEDABAD ELECTRICITY COMPANY, LTD.

Managing Agents, Messrs. Killick Industries Ltd., Home Street, Fort, Bombay 1 (B.R.)
**Office: "Electricity House", Lal Darwaja, Post Box No. 37, Ahmedabad 1.**
J. C. Shah, B.Sc., M.S., Chief Executive.
D. C. Bhardwaj, B.Sc., (Eng.), M.I.E. (India), Administration & Personnel Superintendent.
V. B. Shah, B.Sc., D.I.I.Sc., A.M.I.E.E., Development & Control Superintendent.
B. S. G. Acharya, B.Sc., A.M.I.E.E., Mains Superintendent.
S. L. Sheth, D.F.H. (Lond.), A.M.I.E.E., A.M.I.E. (India), Power Station Superintendent.
G. V. Kamat, Chief Accounts Officer.
S. R. Vijayakar, B.E. (Hons.), Mech. & Elec. grad. I.E.E. (Lond.), Commercial Superintendent.
**Power House: Sabarmati, Ahmedabad 5.**
Head Office Administration Dept.: 5, Graham Rd. (4th floor), Ballard Estate, Post Box No. 109, Bombay 1 (B.R.)
Regd. Office: Killick House, Home Street, Fort, Bombay-1 (B.R.)

Baroda Electric Meters Ltd., 535, Tilak Road, Ahmedabad.
Patni Engineering Works, 5/15, Industrial Estate, Behind Vikram Mills, Ahmedabad.
Vinod Electrical Industries, Sahakari Lati Bazar No. 2, Jaganaath Road, Ahmedabad 1.

## ENGINEERS AND CONTRACTORS

**A. B. BROTHERS, 129, Gheekanta Road, Pitalia Bamba, Ahmedabad 1.**
C. B. Sutaria Brothers, Motilal Hirabhai Market, Cross Lane, Lal Darwaja, Ahmedabad.
Bhagavati Construction Co., Astodia Chakla, Ahmedabad.
G. S. Gupta & Sons, Raipur, Ahmedabad 1.
Jagdish Engineering Works, Behind Dariapur Tower, Ahmedabad 1.
Radiant Electric & Machinery Co., Mangal Bhavan, 2750, Relief Road, Ahmedabad.
Shri Mahalaxmi Engineering Works, Outside Delhi Gate, Opp. Painter Garden, Ahmedabad 1.
United Engineering Works, P. Box 1023, Ahmedabad 2.

## FIRE BRICKS & REFRACTORIES

### NOWROJI N. VAKIL & CO.,

Naroda Road, Ahmedabad.

Manufacturers of Stoneware Pipes, Drainage Pipes and Fittings, Fire Bricks and Clay and Rasching Rings; Bombay Office: Sharu Castle, Mohamedally Road, Bombay-3; Phone: 322803.

## FIRE FIGHTING EQUIPMENTS

**ABDUL SAMAD ABDUL KADAR & SONS, 1839, Panchpatti, Kalupur, Ahmedabad 1. Phone: 24543; Grams: "FOOTVALVE." Manufacturers of Gun-Metal and Cast Iron Valves & Cocks for Water, Steam, Oil, Chemicals & Boiler Mountings, Pipe Fittings, Sanitary Fittings, Fire Fighting Appliances, Hose Fittings, Agricultural Implements and Textile Machinery Spares.**

Star Metal Industries, 1769-1, Kalupur Road, Ahmedabad 1.

## FLOORING TILES & COMPOSITION MFRS.

**SOLANKI & SONS,**
Tagara Mill Compound,
Outside Raipur Gate,
Ahmedabad-17.

Manufacturers of Oxy-Chloride Flooring in Charming Shades.

## FOUNDERS AND ENGINEERS

**PIONEER ENGINEERING WORKS, THE, Prop.: C. C. Ranchhodlal & Co., Naroda Road, Ahmedabad 2. Phone: 22471, Grams: "MOULDING".**

## FOUNDRY EQUIPMENTS

**PIONEER ENGINEERING WORKS, THE, Prop.: C. C. Ranch hodlal & Co., Naroda Road, Ahmedabad 2. Phone: 22471, Grams: "MOULDING".**

## GLASS MANUFACTURERS & MERCHANTS

Abdulrahman Abdul Kadar, Gol Limda, Anjuman High School, Ahmedabad.
Abdul Rahman Amirkhan, Near Central Talkies, Ahmedabad.
Bawa Glass & Crockeries P. Ltd., Under Gandhi Road Bridge, Ahmedabad.
Bechardas Durlabhdas, Opp. Pitalia Bamba, Gheekanta, Ahmedabad.
Bharti & Co., Near Madan Gopal Haveli, Ahmedabad.
Bhavsar Baldevdas Ambalal, Delhi Darwaja Baher, Ahmedabad.
Bhavsar Somchand Khodidas, Under Central Bank, Gandhi Road, Ahmedabad.
Bhupat Prasad Narandas Frame Maker, Opp. Fuvara, Gandhi Road, Ahmedabad.
Bombay Picture House, Near Raja Mehta Pole, Ahmedabad.
Chhanalal Chunilal Bhavsar, Gandhi Road, Duthia Bldg., Ahmedabad.
Chimanlal Chhotalal & Co., Under Gandhi Road Bridge, Ahmedabad.
Chimanlal P. Brothers, Under Gandhi Road Bridge, Ahmedabad.
Chunilal Durlabhram, Opp. Bala Hanuman, Ahmedabad.
Chunilal Maganlal & Co., Patasapole, Gandhi Road, Ahmedabad.
Damodardas Narandas Kachwala, Delhi Chakla, Ahmedabad.
Eagle Glass Co., Saipole, Panchpatti, Kalupur Road, Ahmedabad.
Hargovinddas Sankarlal Patel, Opp. Nisa Pole, Relief Road, Ahmedabad.
Hiralal Kanji Bhai, Saraspur Vasan Seri No. 1268, Ahmedabad.
Indian Picture House, Under Gandhi Road Bridge, Ahmedabad.
Keshavlal Jethalal & Bros., Opp. Bala Hanuman, Gandhi Road, Ahmedabad.
K. G. Kachwala, Kalupur Road, Tank Sal, Ahmedabad.
Natvarlal Nagindas Shah, Khadia, Ahmedabad.
Novelty Framing, Opp. Relief Cinema, Ahmedabad.
N. Rasiklal & Co., Opp. Patasa Pole, Gandhi Road, Ahmedabad.
Patel Framing Mart, Dariapur, Khadia Naka, Shop No. 2136/2/3, Ahmedabad.
Patel Glass Traders, Ratan Pole, Suraj Mal Sheth Dehla, Ahmedabad.
P. Jayantilal & Co., Jardan Road, Ahmedabad.
Prabhat Framing Mart, Relief Road, Ahmedabad.
Premchandbhai Bhogilal Modi, Under Gandhi Road Bridge, Ahmedabad.
Ramanlal C. Kachwala, Under Gandhi Road Bridge, Ahmedabad.
Ratilal Ranchhoddas, Khadia Char Rasta, Near Veral Pada, Ahmedabad.
Sankar Looking Glass Works, Nagori Shala, Ahmedabad.
Shree Vallabh Glass Works Ltd., Taktawala House, Gandhi Road, Ahmedabad.
Thakar Glass Fittera, Raipur, Vageswar Pole, Ahmedabad.
Trambaklal Mulsankar Mehta, Dariapur, Khadia Naka, Vachli Kothseri, Ahmedabad.
Vinayak Glass House, Gandhi Road, Opp. Fuvara, Ahmedabad.
Vora Brothers, Tank Sal, Kalupur Road, Ahmedabad.

## GRAMOPHONE DEALERS

Gandhi & Sons, Pankore Naka, Ahmedabad.
Hiralal B. Trivedi & Co., Relief Road, Ahmedabad.
K. B. Vakil & Co., Gandhi Road. Ahmedabad.
Leophone Talking Machine Co., The, 46, Gandhi Road, Ahmedabad 1.
Mehta Phone Talking & Machine Co., Gandhi Road, Ahmedabad.
M. J. Vakil & Co., Gandhi Road, Ahmedabad.
New Bharat Phone Co., Pankore Naka, Ahmedabad.
Rajnagar Gramophone & Radio Co., Gandhi Road, Ahmedabad.
Royal Harmonium & Gramophone Co., Gandhi Road, Ahmedabad.
V. Bright & Co., Gandhi Road, Ahmedabad.

## HAIR OILS

**LOMA PRODUCTS (INDIA), 1134, Akaseth Kuva's Pole, Raipur, Ahmedabad-1; Manufacturers of Loma Hair Oil, Loma Hair Pomade in Tube Packing, Kesha, and, Dwa brahm hai Oil.**

**M. M. KHAMBHATWALA, Ahmedabad-1 (India); Manufacturers and Exporters of Agarbatis, Well-known Loma Hair Darkner and Loma Hair Pomade in Tube Packing, Hair oil Viz. Brahmi & Dudhi, Masala Pudies (Packets of Indian Herbs to prepare hair oil at loma) Viz. Amla, Brahmi etc. and perfumes.**

## HARDWARE & PAINT MERCHANTS

Abdul Rasul Mulla Lukmanji, 18, Lokhand Bazar, Ahmedabad.
A. Chokshi & Sons, 1587, Shri Ramji Sheri, Khadia, Ahmedabad.
Ahmedabad Iron & Hardware Mart, Under Fernandez Bridge, Lokhand Bazar, Ahmedabad.
Allied Engineers, Reid Road, Ahmedabad 2.
Ambica Traders, Revdi Bazar, By the side of Exchange Bank, Ahmedabad.
Anker Paint Mfg. Co., Nagar Bodys' Pole, Raipur, Ahmedabad.
Aswin Hardware Mart, Raipur, Opp. Revabai Hospital, Ahmedabad.
Babubhai & Co., Lathi Bazar, Sarangpur, Ahmedabad.
B. C. Mashruwalla & Bros., 657, Kapasia Bazar, Ahmedabad.
Bechardas Hargovandas Patel, 2724, Lokhand Bazar, Ahmedabad.
Bechardas Nathalal, 38, Lokhand Bazar, Ahmedabad.
Bhagwati Traders, 675, Cross Lane, Sakar Bazar, Ahmedabad.
Bharat Kumar Amrutlal Kanielwalla, C/o Arvind Kumar Amritlal, 1749, Fadia Chokatha, Dhal's Pole, Astodia, Ahmedabad.
B. Lalbhai & Co., 1118, Pankore Naka, Ahmedabad.
C. C. Tulsidas & Co., 38, Lokhand Bazar, Ahmedabad.
C. Govindlal & Co., Revdi Bazar, Kabir Panth Mandir, Ahmedabad.
C. Gordhandas & Co., 455, Panchkuva, Ahmedabad.
Chandulal Somabhai, Outside Kalupur Darwaja, Chokha Bazar, Ahmedabad.
Chimanlal & Co., 1936/2, Sarangpur Chakla, Ahmedabad.
Chotalal Ganpatram, Bungalow No. 89/2, Girdhar Nagar, Shahi Baug, Ahmedabad.
Chimanlal Chotalal, 2728, Lokhand Bazar, Ahmedabad.
Chimanlal Manilal Shah, Rajendra Chawl, Panchbhai Pole, Ghee Kanta, Ahmedabad.
C. K. Vohra Co., Revdi Bazar, Railwaypura Post, Ahmedabad.
C. Laxmichand & Co., Revdi Bazar, Ahmedabad.
C. S. Vahora Co., 1171, Pankore Naka, Ahmedabad.
Dahyabhai Nanalal Co., Kapasia Bazar, Ahmedabad.
Dineshchandra Chimanlal, 14-15, Lokhand Bazar, Ahmedabad.
D. Prajapathi & Co., Near Tarkas Bldg., Relief Road, Ahmedabad.
F. A. Baldiwalla, Near Jakaria Masjid, New Darwaja, Ahmedabad.
Gokaldas & Sons, 576, Bala Hanuman, Ahmedabad.
Gokaldas Maneckji Contractor, Dada Saheb's Pole, Ahmedabad.
Golwala Bros., Opp. Kapdiwad Bari, Talia Pole, Sarangpur, Ahmedabad.
Harjiwandas Hathibhai Patel, 2727, Lokhand Bazar, Ahmedabad.
Hasan Ali Alibhai Mansuri, 1037/2, Sarangpur Darwaja, Mansuri Dehla, Ahmedabad.
Hind Paint & Hardware Mart, Lokhand Bazar, Ahmedabad.
H. Rajanikant & Co., Near R. C. High School, Ghee Kanta Road, Ahmedabad.
Isufali Amirudin Rangwalla, 1857, Pankore Naka, Opp. Jumma Masjid, Ahmedabad
Jayantilal Pranlal & Co., Karnamukteshwar Mahadeo Compound, Near Bagicha Mill, Sarangpur, Ahmedabad.
Kachralal Mohanlal, 1169/1, Pankore Naka, Ahmedabad.
Kantilal Balabhai Katpitia, C-8, Sahakari Laiti Bazar, Jaganathji Road, Ahmedabad.
Kanubhai & Co., Shop No. 316/1/1, Bhatti Bari, Lokhand Bazar, Ahmedabad.
M. A. Tinwalla & Sons, Kalupur, New Darwaja, Opp. Nagina Pole, Ahmedabad.
Madhusudan Jayantilal & Co., C/o Jayantilal Pranlal & Co., Karnamaktesh Mahadeo Compound, Sarangpur, Ahmedabad.
Mansukhalal Nathubhai Mehta, C/o Mehta Bros., Lokhand Bazar, Ahmedabad.
Miyabhai Abdul Husen & Sons, 1841/42, Pankore Naka, Ahmedabad.
M. B. Patel & Co., Lokhand Bazar, Ahmedabad.
M. K. Patel & Co., 1169, Pankore Naka, Ahmedabad.
Madhavlal Ramdas Patel, 2729, Lokhand Bazar, Ahmedabad.

Mafatlal Dalsukhram, Opp. Dosiwada Pole, Shantilal Bhogilal Meda, Ahmedabad.
Maganbhai Amthabhai Patel, 1177, Pankore Naka, Ahmedabad.
Mansukhlal Keshavlal Shah, Ramesh Hardware Mart, Relief Road, Kadia Kuin, Ahmedabad.
Mahamadali Sultanali Rangwalla, 1890, Opp. Jumma Masjid, by the side of Central Talkies, Ahmedabad.
Mohandlal Prabhudas & Co., 696, Reid Road, Ahmedabad.
Nagori & Co., 701, Revdi Bazar, Ahmedabad.
Narayan Hardware Corporation, Lokhand Bazar, Ahmedabad.
National Hardware & Paint Mart, Pankore Naka, Ahmedabad.
N. G. Contractor, 2732, Lokhand Bazar, Ahmedabad.
N. M. Shah & Co., Pankore Naka, Opp. Jumma Masjid, Ahmedabad.
P. Das & Sons, 1041, Raipur, Opp. Wagheswar Pole, Ahmedabad.
Purshotamdas Amtharam Patel, 25, Lokhand Bazar, Ahmedabad.
Rahim Khanji Kikabhai, Lokhandwalla, 44, Lokhand Bazar, Ahmedabad.
Raipur Hardware & Sanitary Mart, Raipur Chakla, Ahmedabad.
Rajbali Nazarali & Sons, Jumma Masjid, Pankore Naka, Ahmedabad.
Rameshbhai Rambhai Patel, No. 1181, Sarangpur, Taliyapole, Ahmedabad.
Rasiklal & Co., Shop No. 2722, Lokhand Bazar, Ahmedabad.
Reliance Hardware Agency, Relief Road, Kadia Kuin, Ahmedabad.
Reliance Stores & Trading Co., 572/A, Reid Road, Ahmedabad.
R. Kantilal & Co., 238, Haripur, Asarva, Ahmedabad.
R. Nagindas & Co., Mirzapur Road, Opp. Navroji Bldg., Ahmedabad.
Royal Paint Mart, Pankore Naka, Biscuit Gully, Ahmedabad.
R. Vadilal Co., Opp. Station, Kansara Dehla, Ahmedabad.
Sarafali Amirudin Rangwalla, Pankore Naka, Opp. Jumma Masjid, Ahmedabad.
Sarafali Mulla Tayaballi Karkhanawalla, Outside Sarangpur Darwaja, Near Rly. Nala, Ahmedabad.
Shah Brothers, 1051, Companywalla Market, K. Bazar, Ahmedabad.
Shah Dalal & Co., 572/A, Reid Road, Ahmedabad.
Shakti Paint & Hardware Mart, 1704, Raipur Chakla, Ahmedabad.
Shah Patel & Co., Raipur Chakla, Opp. Gate, Ahmedabad.
Shah Prafulchand Babulal, 415, Kalupur, Chakla Bazar, Ahmedabad.
Shakti Iron Mart, Opp. Jekorebai Market, Revdi Bazar, Ahmedabad.
Shankarlal Amichanddas, 2730, Lokhand Bazar, Ahmedabad.
S. Shantilal & Co., Pankore Naka, Ahmedabad.
Shankerlal & Co., 2721/1, Lokhand Bazar, Ahmedabad.
Shankerlal Madhavlal Patel, 19, Lokhand Bazar, Ahmedabad.
Shantilal H. Kamdar, 487, 20, Revdi Bazar, Ahmedabad.
Shantilal Vadilal & Co., Astodia Chakla, Ahmedabad.
Sultanali Gulam Husen & Sons, 289, Beneath Fernandez Bridge, Ahmedabad.
Taberali Sadakali, 2733, Lokhand Bazar, Ahmedabad.
Tayaballi Jiwaji Lokhandwalla, Kalupur Darwaja, Opp. Bhanderi Pole, Ahmedabad.
T. U. Patel & Sons (Pvt.) Ltd., 2727/1, Lokhand Bazar, Ahmedabad.

## HOSIERY MANUFACTURERS

Ameer Hosiery Factory, Kalupur, Ahmedabad 1.
Ashok Hosiery Factory, 13A, Bharatkhand Cotton Mill's Compound, Naroda Road, Ahmedabad.
Fine Knitting Co. Ltd., Naroda Road, Ahmedabad.
Gujarat Hosiery Factory, Rakhial Road, Ahmedabad.
Ladhawala Hosiery Factory, 449, Kankaria Road, Ahmedabad.
Mehboob Knitting Works, Jotingshah Pir's Pole, Kalupur, Ahmedabad 1.
Munshi Hosiery Factory, Gitamandir, Ahmedabad.
Pankaj Hosiery Works, Naroda Road, Near Vora's Bazar, Ahmedabad 2.
Shanti Hosiery Works, New Cotton Mills Compound, Kankaria Road, Ahmedabad.
Shree Ambika Hosiery Works, New Cotton Mills No. 1 Compound, Kankaria Road, Ahmedabad.

## HOSIERY MFRS. & MERCHANTS

Ahmedabad Hosiery Mart, Maskati Market, Ahmedabad.
Amratlal Nagindas & Co., Relief Road, Shethia Bldg., Ahmedabad.
Bhagwandas Sons, Sindhi Market, Ahmedabad.
Bombay Hosiery Mart, Sindhi Market, Ahmedabad.
C. Chimanlal & Co., Maskati Market, Ahmedabad.
Chandulal Mafatlal & Co., Opp. Chinubhai Bldg., Ahmedabad.
Chhotalal Zaverbhai & Co., Panchkuva, Ahmedabad.
D. Mafatlal & Co., Relief Road, Ahmedabad.
Dilipkumar & Co., Maneckchowk, Ahmedabad.
Dwarkadas & Sons, Maneckchowk, Ahmedabad.
Gandhi Brothers, Ratanpole, Ahmedabad.
Girdharlal & Co., Sindhi Market, Ahmedabad.
Gohel & Co., Ratanpole, Limboo Pole, Ahmedabad.
Janta Hosiery House, 252, Laxmi Bazar, Panchkuva, Ahmedabad.
Jamumal Shamdas, Jakaria Masjid, Relief Road, Ahmedabad.
Jashvantlal & Co., Sakar Bazar, Ahmedabad.
Kalidas Virchand, Relief Road, Ahmedabad.
Kishanlal Ratilal, Outside Kalupur Gate, Ahmedabad.
Mafatlal Vadilal & Co., Panchkuva, Ahmedabad.
Mangaldas Nagindas, Ratanpole, Marchi Pole, Ahmedabad.
Mangaldas & Co., Jakaria Masjid, Relief Road, Ahmedabad.
Plaga Agency Corpn., Opp. Jumma Masjid, Ahmedabad.
Rama Hosiery, Sindhi Market, Ahmedabad.
R. M. Jain Hosiery, Mangal Bhuvan, Relief Road, Ahmedabad.
Sarabhai & Co., Sindhi Market, Ahmedabad.
Shri Ambica Hosiery Mart, Kacharia Pole, Ahmedabad.

## HOTELS & RESTAURANTS

Bombay Hotel, Shahibaug, Ahmedabad.

**CAMA HOTEL, Khanpur Road, Ahmedabad. Phones: 24281-82-83-85-86; Grams: "HOTEL CAMA". Managing Directors: R. J. Cama, J. R. J. Cama. Only Hotel of Recognised Western Standard with all modern amenities situated on river Sabarmati. (Rooms from Rs. 26 and onwards inclusive of all meals.)**

Capital Hotel, Khanpur, Ahmedabad.
Grand Hotel, Lal Darwaja, Ahmedabad.

WHEN IN AHMEDABAD VISIT
**HAVMOR RESTAURANT**
Near Krishna Cinema, Relief Road
and
Opp. Relief Cinema, Relief Road,
Air Conditioned

Ritz Hotel, Lal Darwaja, Ahmedabad.

## HUMIDIFICATION—VENTILATION

**C. DOCTOR & CO. PRIVATE LTD.—(Estd. 1915), Bank of Baroda Bldg., Gandhi Road, Ahmedabad 1. Phone: 51238; Grams: "DOCTORCO"; Industrial Air-Conditioning and Textile Engineers.**

## INJECTION MOULDED ARTICLES

**UNIPOL PLASTIC INDUSTRIES PRIVATE LTD.—Setalvad House, Mirzapur Road, Ahmedabad 1. Manufacturers of 'Unipack' Polythene bags, rolls and tubings, 'Unilite' P.V.C. Wires & Cables, 'Plastiglass' Acrylic Sheets, 'Uniplast' Polystyrene Sheets, 'Jasud' P.V.C. Sheets and Injection Moulded Articles.**

## INK MANUFACTURERS

Harihar Research Works, Mandvi's Street, Ahmedabad.
Navyug Book Depot, Balahanuman, Gandhi Road, Ahmedabad.
Ojas Corporation, New Cotton Mill Compound, Outside Raipur Gate, Ahmedabad.
Parikh & Parikh, Opp. Purnima Restaurant, Gandhi Road, Ahmedabad.

## IRON, STEEL AND BRASS WORKS

**MALHOTRA IRON & STEEL INDUSTRIES**
Near Odhav Village,
Ahmedabad.
Phone ; 53453 Grams ; " LONAMILL "
Re-rollers, Fabricators & Founders.

**PIONEER ENGINEERING WORKS, THE, Prop.: C. C. Ranchhodlal & Co., Naroda Road, Ahmedabad 2. Phone: 22471. Grams: "MOULDING".**

## IRON & STEEL MERCHANTS

Ahmedabad Iron & Hardware Mart, Below Fernandez Bridge, Ahmedabad.
Bechardas Hargovandas Patel, 2724, Lokhand Bazar, Ahmedabad.
C. K. Vohora & Co., Revdi Bazar, Ahmedabad.
C. Laxmichand & Co., Maskati Market, Ahmedabad.
C. Prabhudas & Co., Revdi Bazar, Ahmedabad.
Dahyabhai Nanalal & Co., Kapasia Bazar, Ahmedabad.
Eastern Iron & Steel Traders, Relief Road, Ahmedabad.
Eastern Trading Agency, Kapasia Bazar, Ahmedabad.
Gokaldas & Sons, Balahanuman, Kaveshwar's Pole, Ahmedabad.

Jayantilal Pranlal & Co., Sarangpur, Karnamukteshwar Mahadev, Ahmedabad.
Kashiparekh Bros., Reid Road, Ahmedabad.
K. S. Lokhandwala & Co., Outside Prem Gate, Ahmedabad 11.
M.A. Tinwala & Sons, Relief Road, Near Zakaria Masjid, Ahmedabad.
Mansukhlal Nathubhai Mehta, 529, Lokhand Bazar, Fernandez Bridge, Ahmedabad.
R. Nagindas & Co., Mirzapur Road, Near Sales Tax Office, Ahmedabad.

**SIRHIND STEEL ROLLING MILLS**
Near Odhav Village, Ahmedabad.
Phone : 52088, Grams : " BESTSTEEL "—
Kubernagar.
Specialists in Re-rolled Steel Section.
(Bars & Light Structurals)

Sorabji Hormasji Vakharia & Sons, Sahakari Lati Bazar, Ahmedabad.
S. Shantilal & Co., Pankore Naka, Ahmedabad.
Tata Iron & Steel Co. Ltd., Co-operative Bank Bldg., Near Relief Cinema, Ahmedabad.

## LACE MANUFACTURERS

Ahmedabad Lace Works, Madhubhai Mills Compound, Ahmedabad.
Ambalal Lallubhai Trimming & Lace Works, Hathibhai's Wadi, Ahmedabad.
Ambica Lace Works, Ghanchi's Wadi, Dabgharwada, Ahmedabad.
Bhagvandas Maneckchand Lace Factory, Kadva Pole, Dariapur, Ahmedabad.
Bharat Rope & Lace Mfg. Co., Kapasia Bazar, Ahmedabad.
Bipin Border Mfg. Co., Ramkumar Mill Compound, Saraspur, Ahmedabad.
Gujarat Trimming & Lace Works, Astodia Mill Compound, Ahmedabad.
Laxmi Trimming & Lace Works, Madhubhai Mills Compound, Ahmedabad.
Mahendra Lace Works, Jamalpur, Ahmedabad.
National Border Mfg. Co., Madhubhai Mills Compound, Ahmedabad.
Prabhat Lace Works, Dariapur Chakla, Ahmedabad.
Rajkamal Lace Industries, Swaminarayan's Godown, Outside Dariapur Gate, Ahmedabad.
Rajnagar Lace Factory, Next to Prem Darwaja Police Chowky, Ahmedabad.
Sabarmati Lace Works, Outside Dariapur Gate, Ahmedabad.
Sharda Lace Works, Ghanchi's Wadi, Dabgharwada, Ahmedabad.
Star Lace Works, Madhubhai Mills Compound, Ahmedabad.

## LEATHER GOODS

Beltex Pvt. Ltd., Ellis Bridge, Ahmedabad.
**Frion & Co., Reid Road, Ahmedabad 2.**
Goldfield Leather Works, 666/2, Chatra Bhuj Bhavan, Gandhi Road, Ahmedabad.
**H. Mansuri & Sons, Post Box 84, Ahmedabad.**
Jaihind Leather Industries Private Ltd., Reid Road, Railwaypura Post, Ahmedabad 2.
**Leather Textilities Ltd., Ellis Bridge, Ahmedabad.**
Manoj Kumar & Co., Opp. Oriental Bldg., Relief Road, Ahmedabad.

## LEATHER GOODS (TEXTILES)

Jayhind Leather Industries Private Ltd., Reid Road, Railwaypura Post, Ahmedabad 2.
**STANDARD LEATHER PRODUCTS, Dariapur, Dabgarwad, Ahmedabad 1. Manufacturers of Textile Leather Goods, Pickers and Buffers.**

## LUBRICATING OILS AND GREASES

Ahmedabad Hardware Stores, Relief Road, Ahmedabad.
American Oil and Trading Co., Revdi Bazar, Ahmedabad 2.
Bihari Bros., Outside Panchkuva, Ahmedabad.
Burmah-Shell Oil Co., Bhadra, Ahmedabad.
Caltex India Ltd., Lal Darwaja, Ahmedabad.
Girdharlal Damodardas & Co., P. Ltd., Opp. Shakerkotda Police Station, Ahmedabad.
Gulf Oil Co. Ltd., Co-operative Bank Bldg., Relief Road, Ahmedabad.
Karmali Janmohamed & Co., Kapasia Bazar, Ahmedabad 2.
National Oil & Trading Co., Kapasia Bazar, Ahmedabad 2.
Nima Trading Co., Cross Lane, Ahmedabad.
Shripat Gordhandas & Sons, Reid Road, Ahmedabad 2.
Standard Vacuum Oil Co., Oriental Bldg., Relief Road, Ahmedabad.

## MACHINERY MANUFACTURERS AND DEALERS

A. B. Engineers, Kapasia Bazar, Ahmedabad.
A. Bhuderbhai Kishor & Sons, Gheekanta Road, Ahmedabad.
Acme Agencies (Pencil Factory), Jagannath Road, Ahmedabad.
Ahmedabad Hardware Stores, Relief Road, Ahmedabad.
Ahmedabad Iron & Brass Factory, Bharatkhand Mills Compound, Ahmedabad.
Ahmedabad Victoria Iron Works & Co., Ltd., The, Dudheswar Road, Ahmedabad.
Allied Engineers, Reid Road, Ahmedabad.
A. Raman & Co., Kapasia Bazar, Ahmedabad.
A. R. Engineering Works, Near Munshi Soda Factory, Mirzapur, Ahmedabad.
Ashok Vijay Engineering Works, Delhi Darwaja, Ahmedabad.
Asiatic Bolt & Engineering Co., Lokhand Bazar, Ahmedabad.
A. Star Engineering Works P. Ltd., 1730, Haribhai's Dehla, Outside Prem Gate, Ahmedabad 11.
Baboo & Co., Gheekanta Road, Ahmedabad.
Ball Bearing & Machinery Syndicate, Kapasia Bazar, Ahmedabad.
Batliboi & Co., Reid Road, Ahmedabad.
**B. A. PANCHAL & CO.—Pittalia Bamba, Gheekanta, Dabadia Vanda, Ahmedabad 1; Specialists of all types of Complete Dobbies.**
Bharat Iron & Brass Factory, Sarva, Haripur Road, Ahmedabad.
Bihari Brothers, Panchkuva, Ahmedabad.
B. Kapasi & Co., Khodi Ambli, Harmanwali Pole, Ahmedabad.
B. M. Panchal & Co., Gheekanta Road, opp. Masjid, Ahmedabad.
B. P. Engineering Works, Gheekanta Road, Ahmedabad.
Brass & Iron Works, Sarangpur, Madhubhai Colony, Ahmedabad.
C. B. Sutaria Brothers, Motilal Hirabhai Market, Cross Lane, Ahmedabad 2.
C. C. Ranchhodlal & Co., Chamunda Road, Naroda, Ahmedabad.
C. Mehta & Co., Gandhi Road, Ahmedabad.
C. Vadilal & Co., Reid Road, Ahmedabad.
Dalpatram Girdharlal & Co., Lunsawad Nariawad, Ahmedabad.
D. Shantilal & Co., Gheekanta Road, Bhutni Ambli, Ahmedabad.
Eastern Hardware & Mill Stores Co., Reid Road, Ahmedabad.
Engineer & Sons, Dariapur, Char Rasta, Ahmedabad.
Forge & Blower Co., Under Sarangpur Bridge, Ahmedabad.
Frion & Co., Reid Road, Ahmedabad 2.
G. A. Latif & Sons, Latif Bldg., Revdi Bazar, Ahmedabad.
General Commercial Agency, Crosslane, Ahmedabad.
Gopaldas Khemchand Tijoriwala, Delhi Darwaja, P. G., Ahmedabad.
Govindlal Keshavlal, Gheekanta Road, Bhutni Ambli, Ahmedabad.
Gujarat Corpn. (1) P. Ltd., Khadia, Ahmedabad.
Gujarat Engineering Co., Jayabharat Ranghshala Compound, Saraspur, Ahmedabad.
Gujarat Iron Works, Gheekanta Road, Ahmedabad.
H. Chokshi & Co., Kapasia Bazar, Ahmedabad 2. Phone : 22919, Grams : " SANDOW ".
Harry Engineering Corporation, Danapith, Ahmedabad.
Harshad Iron & Brass Factory, Dariapur, Changi's Pole, Ahmedabad.
Herold Metal Corporation, Salapose Road, Near G.P.O., Ahmedabad.
Hind Hardware Stores, Kadia Bldg., Relief Road, Ahmedabad.
Hind Sewing Machine Works, Salapose Road, Corner Lane, Ahmedabad.
Honesty Engineering Works, Dariyapur, Char Rasta, Ahmedabad.
Hutheesing Engineering Co., Gheekanta Road, Ahmedabad.
India Metal Works, Mirzapur Road, near I.T.O., Ahmedabad.
Indian Engineering Works, Astodia, near Anjuman H. S., Ahmedabad.
Indian Iron & Brass Works, City Danapith, Ahmedabad.
Indian Textile Works, Sarangpur, Madhubhai Colony, Ahmedabad.
Industrial Engineering Works, The, Sarangpur, Madhubhai Colony, Ahmedabad.
Industrial Machinery Mfrs. Pvt. Ltd., Ahmedabad 8.
Industrial Spare Parts Co., Relief Road, Ahmedabad.
Jagdishchandra & Brothers, Delhi Chakla, Shak Market, Ahmedabad.
Jagdish Engineering Works, Dariapur, behind Tower, Ahmedabad.
Jagdish Industrial Works, outside D. G. Chhotalal's Chali, Ahmedabad.
Jagdish Iron & Brass Factory, Pankore Naka, Ahmedabad.
Janta Engineering Co., Cross Lane, Ahmedabad.
**JAYEMS ENGINEERING CO., Rangwalla Building, Relief Road, Ahmedabad, Engineers, Machinery Merchants and Manufacturers' Representatives, Direct Importers of Machine Tools, Wood Working Machinery, Welding Equipment, etc. Head Office : Warden House, Sir P. M. Road, Bombay 1; Branches at all important Centres.**
Jotaram Bechardas & Co., Saraspur, Ambliwada, Ahmedabad.
Jubilee Iron Works, Dariapur, Rupapari, Ahmedabad.
Kant Engineering Co., Kapasia Bazar, Ahmedabad.
Kantilal & Co., Gheekanta Road, Ahmedabad.
Karsandas Bechardas & Sons, Amdupura, Saraspur, Vora's Road, Ahmedabad.
Kashyap Brothers, Crosslane, Ahmedabad.
Kasturbhai Ramchand & Bros., Ghanchi's Wadi, Pankore Naka, Ahmedabad.

Keshavlal Ambaram & Brothers, Gosaiji's Wanda, Gheekanta Road, Ahmedabad.
Kirtilal Nanalal & Company, Reid Road, Railwaypura Post, Ahmedabad.
K. K. Engineering Works, Shahibaug Small Scale Industrial Society, Shahibaug, Ahmedabad 4.
Kohinoor Engineering Works, 39, Bharat-Khand Cotton Mills Compound, Naroda, Ahmedabad.
Kothari Brothers Syndicate, Reid Road, Ahmedabad 2.
Krishna Sahay Brass Factory, Delhi Chakla, Bhojwada, Ahmedabad.
Kumarpal Kantilal & Co., Kapasia Bazar, Ahmedabad.
K. Vadilal & Co., Near Haji Bldg., Mirzapur Road, Ahmedabad.
Large Engineering Corporation, Revdi Bazar, Ahmedabad.
Lavjibhai Mavjibhai & Sons, City Danapith, Ahmedabad.
Laxmandas Vithaldas, Mandvi's Pole, Ahmedabad.
Laxmi Moulding Works, Asarva, Haripur Road, Ahmedabad.
Laxminarayan Sharma & Co., Lunsawada, Kumbharwada, Ahmedabad.
Laxmi Vijay Iron & Brass Works, The, Gheekanta Road, Pitalia Bumba, Ahmedabad.
Machine Products (I) P. Ltd., Reid Road, Ahmedabad.
Machine Tools & Hardware Corporation, Reid Road, Ahmedabad.
Machinery Manufacturing Works, The, Khodi Amli, Ahmedabad.
Machinery Stores Traders, 661, Kapasia Bazar, Ahmedabad.
Machinery Supplying Co., The, Kankaria Road, Ahmedabad.
Machine Tools & Hardware Corporation, Reid Road, Railwaypura, Post Box No. 1002, Ahmedabad.
M. D. Shah & Co., 570/1, Reid Road, Railwaypura Post, Ahmedabad.
Mahavir Iron & Brass Factory, Dariapur, near Ghanchi's Wadi, Ahmedabad.
Mahendra & Co., Pittalia Bamba, Ghee-Kanta Road, Ahmedabad.
Manilal & Brothers, 626, Reid Road, Ahmedabad 2.
Manu Engineering Works, Ramkumar Mills Compound, Saraspur, Ahmedabad 2.
Metropolitan Engineering Works, Delhi Chakla, Gheekanta Road, Ahmedabad.
Mistry, Ambalal Jetharam, Gheekanta Road, Ahmedabad.
Mistry, Chhaganlal Govindlal, Lunsawada, Kumbharwada, Ahmedabad.
Mistry, Damodardas Himatlal & Co., Kalupur, Panchpati, Ahmedabad.
Mistry, Jivanlal Dhanjibhai, Gheekanta Road, opp. Masjid, Ahmedabad.
Mistry, Khodidas Motiram, Mirzapur, Rentiawadi, Ahmedabad.
Mistry, Mangaldas Jethabhai I. & B. F., Dariapur, Char Rasta, Ahmedabad.
Mistry, Mohanlal Veldas & Co., Sankadi Sheri, Dedka's Gali, Ahmedabad.
Mistry, Popatlal Narsibhai, Gheekanta Road, Bhutni Ambli, Ahmedabad.
Mistry, Shivram Ganesh & Sons, Astodia Chakla, Ahmedabad.
Mistry, Somnath Girdhardas, Tajpur, Tadni Sheri, Ahmedabad.
Mistry, Zaverbhai Rudabhai, Khadia, Wada Pole, Ahmedabad.
M. M. Panchal, City Danapith, Ahmedabad.
Model Machineries P. Ltd., Kapasia Bazar, Ahmedabad.
Modern Engineering & Moulding Co., Shahpur Mills Compound, Ahmedabad.
National Engineering Works, Ramkumar Mills Compound, Saraspur, Ahmedabad 2.
Natvar Engineering Works, Sarangpur, Ahmedabad.
Natverlal M. Fadia & Co., Kapasia Bazar, Ahmedabad.
Natverlal Shamaldas Shah, Sakar Bazar, Ahmedabad.
Nima Trading Co., Cross Lane, Ahmedabad.
N. K. Fadia & Co., Kapasia Bazar, Ahmedabad.
N. Mohanlal & Co., Pankore Naka, Ahmedabad.
Novatsing Rupram I. & B. F., opp. R. C. High School, Ahmedabad.
Omkar Iron & Brass Factory, Dariapur, Char Rasta, Ahmedabad.
Oriental Engineering Works, Sarangpur, Madhubhai Colony, Ahmedabad.
Oriental Mill Stores Agency, Relief Road, Ahmedabad.
Padshah Brothers, Khodi Ambli, Harmanwali Pole, Ahmedabad.
Pahelwan Rustamkhan Nawabkhan, Gheekanta Road, Bhutni Ambli, Ahmedabad.
Panchal Atmaram Ishwardas, Dariapur, Rupapari, Ahmedabad.
Panchal Atmaram Mohanlal, Mirzapur, Rentiawadi, Ahmedabad.
Panchal Banulal & Brothers, Dariapur, Rupapari, Ahmedabad.
Panchal Engineering Works, Dariapur, Char Rasta, Ahmedabad.
Panchal Fakirchand Hirachand, Gheekanta Road, opp. Masjid, Ahmedabad.
Panchal Hirachand Revandas, Gheekanta Road, Bhutni Ambli, Ahmedabad.
Panchal Iswardas Harjivandas, Dudheshwar Road, Ahmedabad.
Panchal Jivanlal Mepabhai, Gosaiji's Wanda, Gheekanta Road, Ahmedabad.
Panchal Kalidas Ranchhoddas, Gheekanta Road, Hargovan Keval Street, Ahmedabad.
Panchal Kalidas Rughnath, near Munshi Soda Factory, Mirzapur, Ahmedabad.
Panchal Keshavlal Laxmichand, Dariapur, Ghanchi's Wadi, Ahmedabad.
Panchal Lallubhai Hirabhai, Gheekanta Road, Bhutni Ambli, Ahmedabad.
Panchal, Manilal Maganlal, Rentiawadi, Mirzapur Road, Ahmedabad.
Panchal, Mathurdas Shankarlal & Bros., Gheekanta Road, Ahmedabad.
Panchal, Shivram Bhuderdas, Gheekanta Road, Dabhadia Kuva, Ahmedabad.
Panchal, Somnath Kalidas, Gheekanta Road, Ahmedabad.
Panchal, Somnath Ranchhoddas, Gheekanta Road, Bhutni Ambli, Ahmedabad.
Panchal, Trikamlal Maganlal, Gheekanta Road, Bhutni Ambli, Ahmedabad.
P. A. Panchal, Dariapur, Chagis Pole, Ahmedabad.
Patel, Ambalal Narottamdas, Shahpur, Nagoriwad, Ahmedabad.

**PIONEER ENGINEERING WORKS, THE, Prop.: C. C. Ranchhodlal & Co., Naroda Road, Ahmedabad 2. Phone: 22471. Grams: "MOULDING".**

Popular Textile Company, Bharatkhand Mills Compound, Ahmedabad.
Prabhudas & Co., Rentiawadi, Mirzapur Road, Ahmedabad.
Prem Roy Bros., L. K. Trust Bldg., Panchkuva, Ahmedabad 7.
Punjabhai Vanmalidas & Sons, Gheekanta Road, Mendi's Khancha, Ahmedabad.

**R. VADILAL & CO., Kansara Dehla, Railwaypura Post, Ahmedabad 2; Stockists of Semis of Stainless Steel, Non-ferrous Metals & Alloys, Manufacturers of Nut-Bolts and machinery parts out of Stainless Steel, Non-ferrous metals & Alloys; Government and Railway Contractors.**

Radiant Electric & Machinery Co., Mangal Bhavan, 2750, Relief Road, Ahmedabad.
Rally Metal Works, Patthar Kuva, Relief Road, Ahmedabad.
Ramanlal P. Shah, Relief Road, Ahmedabad.
Ramchandra Iron & Brass Works, Lunsawada, Golwad, Ahmedabad.
Ramvijay Iron Works, 664, Gheekanta Road, Ahmedabad.
Ranjeet Electric & Engineering Corporation, Relief Road, Near Jakaria Masjid, Ahmedabad.
Rastriya Iron Works, outside Dariapur Darwaja, Ahmedabad.
Regal Trading Co., Relief Road, Ahmedabad.
R. Keshavlal & Bros., Lunsawada, Kumbharwada, Ahmedabad.
R. M. Brothers, Kapasia Bazar, Ahmedabad.
R. Maganlal & Co., Kapasia Bazar, Ahmedabad.
Rohit Iron & Brass Factory, Delhi Chakla, Gheekanta Road, Ahmedabad.
Royal Iron Works, Kankaria Road, N. C. Mills, Ahmedabad.
Sabarmati Engineering Works, Sabarmati Railway Oil Mills, Sabarmati.
Sanchal Kalidas Ranchhodas, Gheekanta Road, Hargovan Keval Street, Ahmedabad.
Saraswati Moulding Works, Shahpur Darwaja, Marwadi Chal, Ahmedabad.
Sattle Trunk Workshop, outside Prem Darwaja, Ahmedabad.
Shah Patel & Co., Kapasia Bazar, Ahmedabad.
Shantilal & Co., Kalupur, Panchpati, Navgaja Pir, Ahmedabad.
Sheth Stores Trading Co., Deepak Chambers, Station Road, Ahmedabad 2.
Shetna Iron Works & Co., Kankaria Road, N. C. Mills, Ahmedabad.
Shivlal Virchand Contractor, Gheekanta Road, Ahmedabad.
Shree Ambika Vijay & Co., Gheekanta, Gosaiji's Ullada, Ahmedabad.
Shree Ambica Vijay Iron & Brass Factory, Opp. Dariakhan Ghumat, Shahibag, Ahmedabad 4.
Shree Hanumant Vijay Iron & Brass Factory, Dariapur, Ghanchi's Wadi, Ahmedabad.
Shree Jagdish Rajnagar Iron & Brass Factory, City Danapith, Ahmedabad.
Shree Krishna Iron & Brass Factory, Lunsawada, Kumbharwada, Ahmedabad.
Shree, Lokmanya Engineering Works, 26, Bharatkhand Cotton Mills Compound, Saraspur, Ahmedabad 2.
Shree Ramkrishna Engineering Works, Outside Dariapur Gate, Ahmedabad.
Shree Satyanarayan Iron & Brass Factory, Dariapur, Ahmedabad.
Shree Shakti Iron Works, Delhi Darwaja, Hathibhai's Wadi, Ahmedabad.
Shree Shakti Vijay Brass & Iron Works, Lunsawada, Kumbharwada, Ahmedabad.
Sitaram Iron & Brass Works, Lunsawada, Golwad, Ahmedabad.
S. Kumar & Co., Mandvi's Street, 1529, Gatrad's Pole, Ahmedabad.
Smith Engineering Works, Dariyapur Rupapari, Ahmedabad.
S. Sutaria & Co., Reid Road, Ahmedabad.
Standard Materials Co., Kapasia Bazar, Ahmedabad.
Star Engineering Works, outside Prem Darwaja, Ahmedabad.
Star Radio Electric Co., Relief Road, Ahmedabad.
Surendra Kumar & Bros., Relief Road, Ahmedabad.
Surendra & Co., Lunsawada, Harmanwali Pole, Ahmedabad.
Swastik Engineering Works, Gheekanta, near Dudhwali Pole, Ahmedabad.

Tankalchand Rughunath Iron & Brass Factory, Gheekanta Road, Ahmedabad.
U. D. Dave & Co., Chhotalal Building No. 1, Relief Road, Ahmedabad 1.
Umedram K. Mistry, City Danapith, Ahmedabad.
Unique Swastik Agency, Dhariapur, Ahmedabad.
Uno Engineering Works, Kankaria Road, Opp. Sarangpur Cotton Mills No. 1, Ahmedabad.
Vinus Engineering Co., Kankaria Road, opp. Laxmi C. Mills, Ahmedabad.
Zenith Engineering Works, Kulupur Tankshal, Ahmedabad.

## MANUFACTURERS' REPRESENTATIVES

**T. G. MANKODI.—456, Jethabhai's Street, Khadia, Ahmedabad 1.**

## MARBLE AND TILES MERCHANTS

Ahmedabad Stone Supplying Co., 995, Khadia, Char Rasta, Ahmedabad.
Gupta Tiles & Marble, Guptanagar, Ahmedabad.
Jayantilal & Co., Khadia, Char Rasta, Ahmedabad 7.
Ramanlal Motilal Shah, Inside Panchkuva, Ahmedabad.
Sompura & Co., 1955, Panchkuva Road, Ahmedabad.
Swastika Flooring Tiles Co., Panchkuva Road, Ahmedabad.

## MATERIALS HANDLING & CONVEYORS

**TEXTILE MACHINERY MFG. CO., Engineers and Merchants, Near Kamdar Maidan, Gomtipur Road, Ahmedabad 21. Phone : 52061; Grams : " TRUCKMAN."**

## METAL (NON-FERROUS) MANUFACTURERS

Madhusudan & Brothers, Ramkumar Mill Compound, Saraspur, Ahmedabad.
Mahendra Metal Industries, Jay Bharat, Rangshalla Compound, Saraspur, Ahmedabad.
Saraswati Metal Works, Outside Delhi Gate, Opp. Painter's Garden, Ahmedabad.
Satyanarayan Vijay Rolling Factory, Dariakhan Ghumat, Dudheswar Road, Ahmedabad.

## METAL MERCHANTS

Amarchand Parthiraj, Chotalal Chawl, Outside Delhi Darwaja, Ahmedabad.
Ambalal Keshavlal Patel, Kansara Bazar, Manek Chawk, Ahmedabad.
Ambica Metal Works, Sankdi Sheri, Manek Chawk, Ahmedabad.
Amir Metal Syndicate, Kansara Dehla, Railwaypura Post, Ahmedabad.
Amrit Metal Works, Wania Sheri, Bhanderi Pole, Kalupura, Ahmedabad.
Babulal Karsandas & Co., Mandvi Pole, Kansara Pole, Ahmedabad.
Bhartiya Wasan Bhandar, Kansara Bazar, Manek Chawk, Ahmedabad.
Bhogilal Chotalal & Co. Mandvi Pole, Kansara Pole, Ahmedabad.
Bhogilal Devchand, New Wasan Market, Manek Chawk, Ahmedabad.
Bhimaji Hansraj, Kalupura, Bhanderi Pole, Ahmedabad.
Chandulal Kalidas, Kansara Dehla, Railwaypura Post, Ahmedabad.
Chinubhai Dawoodji, Kansara Dehla, Railwaypura Post, Ahmedabad.
Chotalal Vithaldas, Gandhi Chawk, Saraspur, Ahmedabad.
Chunilal Kalidas & Co., Kansara Dehla, Railwaypura Post, Ahmedabad.
Dahyalal Chotalal, Madhupura Dhal, Outside Delhi Darwaja, Ahmedabad.
Dhanjibhai Kalidas, Kansara Bazar, Manek Chawk, Ahmedabad.
Ghanshyam Metal Rolling Works, Ghee Kanta, Ghanja Wadi, Ahmedabad.
Harichand Zaverdas, Kansara Dehla, Railwaypura Post, Ahmedabad.
Harilal Sunderji, Kansara Mandvi Pole, Ahmedabad.
Hasmukhlal Jayantilal, New Wasan Market, Manek Chawk, Ahmedabad.
Hiralal Raichand, Kansara Bazar, Manek Chawk, Ahmedabad.
Jayantilal Chimanlal, Kansara Bazar, Manek Chawk, Ahmedabad.
Jethabhai Shivchand, Kansara Bazar, Manek Chawk, Ahmedabad.
Jijibhai Jesinghbhai Patel, Tumba Pole, Near Swami Narayan Mandir, Ahmedabad.
Jivanlal Sankalchand Kansara, Mandvi Pole, Mahajanwadi, Ahmedabad.
Kajodimal Amarchand, Chotalal Chawl, Outside Delhi Darwaja, Ahmedabad.
Kanayalal Navnitlal Parikh, Kansara Dehla, Railwaypura Post, Ahmedabad.
Kantilal Panachand, Mandvi's Pole, Kansara Pole, Ahmedabad.
Keshavlal Devchand, Kansara Bazar, Manek Chawk, Ahmedabad.
Lalji Dayalji, Panchkuva, Kadiawadi, Ahmedabad.
Madhavlal & Co., Chotalal Chawl, Outside Delhi Darwaja, Ahmedabad.
Mahalaxmi Vijay Rolling Factory, Chotalal Chawl, Outside Delhi Darwaja, Ahmedabad.
Mahendra Metal Works Industries, Rangshala Compound, Saraspur, Ahmedabad.
Mansukhram Chaganlal & Co., Mandvi Pole, Kansara Pole, Ahmedabad.
Mohanlal Kajodimal, Lunsawada, Kumbhar Dehla, Ahmedabad.
Mohanlal Rambilas, Chotalal Chawl, Outside Delhi Darwaja, Ahmedabad.
Nagardas Motichand, Kansara Dehla, Railwaypura Post, Ahmedabad.
Nathalal Baxiram, Chotalal Chawl, Outside Delhi Darwaja, Ahmedabad.
New Malwa Metal Stores, Chotalal Chawl, Outside Delhi Darwaja, Ahmedabad.
Prabhulal Daulatram, Chotalal Chawl, Outside Delhi Darwaja, Ahmedabad.
Ramkunvar Jagdish Chandra, Ravalia Khancha, Mandvi Pole, Ahmedabad.
**R. VADILAL & CO., Kansara Delha, Railwaypura Post, Ahmedabad 2. Stockists of Semis of Stainless Steel, Non-ferrous Metals & Alloys. Manufacturers of Nut-bolts and Machinery parts out of stainless steel, Non-ferrous Metals & Alloys; Government & Railway Contractors.**
Shri Mahalaxi Wasan Mart, Kansara Bazar, Manek Chawk, Ahmedabad.
Shri Saraswat Metal Works, Opp. Painter Garden, Outside Delhi Darwaja, Ahmedabad.
Vadilal Devchand, Kansara Bazar, Manek Chawk, Ahmedabad.

## MILL GIN STORES SUPPLIERS

Agarwal Bros., Haridas Acharatlal Cloth Market, Kapasia Bazar, Ahmedabad-2.
A. H. & Co., Reid Road, Ahmedabad-2.
A. Hasmukh & Co., L. K. Trust Building, Revdi Bazar, Ahmedabad-2.
A. H. Rolwala & Co., Patel Market, Kapasia Bazar, Ahmedabad-2.
Ahmedabad Hardware Stores, Menit House, Relief Road, Ahmedabad-2.
Ahmedabad Wood Works, Haridas Acharatlal Cloth Market, Kapasia Bazar, Ahmedabad-2.
Akha Stores Trading Co., Gayatri Sadan, Audichya Nagar, Kankaria, Ahmedabad.
A. K. Shah & Co., Revdi Bazar, Ahmedabad-2.
Alliance Stores Trading Co., Private Ltd., Station Road, Ahmedabad-2.
Allied Engineers, Reid Road, Ahmedabad-2.
Altex Private Ltd., Ramolia Building, Relief Road, Ahmedabad-1.
Ambalal F. Patel, Devjisaraiya's Pole, Sankadi Sheri, Ahmedabad.
Ambalal Kothari & Co., 659/16, Kapasia Bazar, Ahmedabad-2.
Ambica Textile Traders, Opp. Aranda Hall, Kapasia Bazar, Ahmedabad-2.
A. M. Shaw & Co., Kapasia Bazar, Ahmedabad-2.
Anal Jitendra & Co., Amrat Park, Saurashtra Society, Ellis Bridge, Ahmedabad.
Anglo American Trading Corporation, Motilal Mansion, Kapasia Bazar, Ahmedabad-2.
nglo British Trading Co., 1393, Naniali Street, Ahmedabad.
nubhai & Co., Jeshingbhai's Wadi, Gheekanta Road, Ahmedabad.
Anjankumar & Co., 1279, Rajamehta's Pole, Kalupur, Ahmedabad-1.
Anilkant & Co., Jivan Nivas, Opp. Madhav Baug, Ahmedabad-2.
A. R. K. Traders, C/o K. P. Parikh, Devni Sheri, Mandvi's Pole, Ahmedabad.
A. Ratilal Nathalal & Co., 635, Companywala Market, Kapasia Bazar, Ahmedabad-2.
Arun Textile Wood Works, Saraspur, Behind Vikram Mill, Ahmedabad-2.
Arvind Gunvant & Co., Motilal Hirabhai Market, Kapasia Bazar, Ahmedabad-2.
Arvind Hiralal, Laxmi Villa, Opp. Mithakhali, Ahmedabad-6.
Asarva Bobbin Works, Asarva Road, Behind Nilkanth Mahadev, Ahmedabad-11.
Ashok Traders, Deepak Chambers, Station Road, Ahmedabad-2.
Ashwin & Co., 535, Relief Road, Ahmedabad-1.
Asian Textile Engineering Corporation, Opp. Madhav Baug, Ahmedabad-2.
Atul Trading Co., 66-Pritamnagar, Ellis Bridge, Ahmedabad-6.
A. V. Nawab & Co., 2088, Nagjibhudar's Pole, Mandvi Street, Ahmedabad.
Babu & Co., Gheekanta Road, Ahmedabad.
Babubhai Chunilal Shah, Laxminarayan Pole, Rajamehta Pole, Kalupur, Ahmedabad-1.
Bahechardas Hargovandas Patel, 2724, Lokhand Bazar, Ahmedabad.
Barrels & Machinery Supplying Co., Kapasia Bazar, Ahmedabad-2.
B. C. Mashruwala & Bros., Kapasia Bazar, Ahmedabad-2.
Bepco (India), Kapasia Bazar, Ahmedabad-2.
Bhagubhai M. Shah, Behind Parimal Soc., Tulsibag Colony, Ellis Bridge, Ahmedabad.
Bhagubhai Shambhunath Garekhan, Kapasia Bazar, Ahmedabad-2.
Bharat Chemical Agency, Vohra's Dehla, Kapasia Bazar, Ahmedabad-2.

Bharat Leather Co., 1680/1, Khiskola's Pole, Kalupur Road, Ahmedabad-1.
Bharat Rope & Lace Mfg. Co., Kapasia Bazar, Ahmedabad-2.
Bharat Traders, 572/A, Reid Road, Ahmedabad-2.
Bhogilal & Co., 673, Cross Lane, Ahmedabad-2.
Bhogilal K. Shah & Co., Cotton West Merchant Assoc. Building, Relief Road, Ahmedabad.
Bihari Brothers, Reid Road, Ahmedabad 2.
Bipin & Co., Kapasia Bazar, Ahmedabad-2.
Bitex Corporation, 2088, Nagjibhuder's Pole, Mandvi St., Ahmedabad.
Bombay Mill Gin Stores, Ashok Nivas Bldg., Relief Road, Ahmedabad 1.
B. S. Banker & Co., 656, Kapasia Bazar, Ahmedabad-2.
B. Trikamlal & Co., Gheekanta Road, Bhut's Ambli, Ahmedabad.
C. A. Galiakotwala & Co. Private Ltd., Kapasia Bazar, Ahmedabad-2.
Card Clothing & Comber Re-needling Works, Govind Bhuvan, Opp. Raman Nagar Society, Maninagar, Ahmedabad-8.
C. B. Mehta & Co., Reid Road, Ahmedabad-2.
C. B. Sutaria Bros., Cross Lane, Ahmedabad-2.
C. Bangadiwala & Co., Kapasia Bazar, Ahmedabad-2.
C. C. Mashruwala, Kapasia Bazar, Ahmedabad-2.
C. Doctor & Co., Private Ltd., Khokhra Mahemdabad, Maninagar, Ahmedabad-8.
Central Trading Corporation, Vohra's Dehla, Kapasia Bazar, Ahmedabad-2.
Chandabhai Brothers & Co., Dabgarwad, Dariapur, Ahmedabad.
Chandulal Vadilal & Co., Reid Road, Ahmedabad-2.
Chandravadan Lallubhai, Near Ration Shop, Mithakhali, Ahmedabad-6.
Chemico Textile Industries, Tagara Mill Compound, Outside Raipur Gate, Ahmedabad.
Chetna Textile Trading Corporation, Zaveriwad, Sodagar's Pole, Ahmedabad.
Chemosize Agency, 566, Reid Road, Ahmedabad-2.
Chhotalal Balabhai & Bros., Kapasia Bazar, Ahmedabad-2.
Chimanlal & Sons, Cross Lane, Revdi Bazar, Ahmedabad-2.
Chimanlal Vadilal & Co., Sankadi Sheri, Nanshajivan's Pole, Ahmedabad.
Chitaranjan Bros., 1766, Khadia, Dhobi's Pole, Ahmedabad.
Chimanlal J. Banker, Prabhu Sadan, Rambaug, Kankaria, Ahmedabad.
Chinu Vakil & Co., Railwaypura Post, No. 2, Cross Lane, Ahmedabad 2.
Chokshi Trading Co., 2754/2, Relief Road, Ahmedabad.
C. K. Vohora & Co., Revdi Bazar, Ahmedabad-2.
C. S. Thacker & Co., Khadia, Char Rasta, P.B. No. 123, Ahmedabad.
C. Vadilal & Co., Reid Road, Ahmedabad-2.
C. V. Mehta Private Ltd., Khokhara Mahemdabad, Maninagar, Ahmedabad-8.
C. U. Kapadia & Sons, Kapasia Bazar, Ahmedabad-2.
Dahyabhai Nanalal & Co., Kapasia Bazar, Ahmedabad-2.
Dashrathlal Chimanlal & Co., Sarangpur, Sarkiwad, Ahmedabad.
Dashrathlal Chimanlal & Bros., Motilal Mansion, Kapasia Bazar, Ahmedabad-2.
Das & Co., Revdi Bazar, Ahmedabad-2.
Desai Keshavlal Laljibhai, K. Bazar, Ahmedabad 2.
Dhuldhoya Sons & Co., Reid Road, Ahmedabad-2.
Dilip Electric Co., 63/H, Near Punit Ashram, Maninagar, Ahmedabad-8.
Dinubhai G. Desai & Co., Opp. Madhav Baug, Ahmedabad-2.
Dinker H. Desai & Co., Char Rasta, Khadia, Ahmedabad.
D. Lalbhai & Co., 1114, Gundi's Pole, Relief Road, Kalupur, Ahmedabad.
D. M. Patel & Co., A/8, Maskati Market, Ahmedabad-2.
Dwarkadas & Bros., Khadia Char Rasta, Ahmedabad.
Eastern Trading Agency, Haridas Acharatlal Cloth Market, Kapasia Bazar. Ahmedabad-2.
Eversharp Textile Corporation, 937, Gheekanta Road, Opp. R. C. High School, Ahmedabad.
Frion & Co. Reid Road, Ahmedabad-2.
Gauttam Textile Co., Deepak Chambers, Station Road, Ahmedabd-2.
General Commercial Agency, Cross Lane, Station Road, Ahmedabd-2.
General Engineering Stores, Kapasia Bazar, Ahmedabad-2.
General Trading Co., C/o National Trading Co., 456, Panchkuva, Ahmedabad-2.
Girdharlal Damodardas Private Ltd., Reid Road, Ahmedabad-2.
G. Narandas & Co., 442/A, Vachali Sheri, Raipur, Ahmedabad.
Gokaldas & Sons, Kaveshwar's Pole, Balahanuman, Khadia, Ahmedabad.
Gokaldas Motilal, Vohra's Dehla, Kapasia Bazar, Ahmedabad-2.
Gujarat Corporation (India) Private Ltd., Harisadan, Char Rasta, Khadia, Ahmedabad.
Haresh Chokshi & Co., 5, Arun Society, Ahmedabad-7.
H. B. Vakil & Co., Haridas Acharatlal Cloth Market, Kapasia Bazar, Ahmedabad.
Harshvadan Kalidas, 550, Doshiwada's Pole. Kalupur, Ahmedabad.
**H. CHOKSHI & CO., Kapasia Bazar, Ahmedabad 2; Phone:** 22919; Grams: "SANDOW"; **Dealers in Mill Stores and Machinery Parts, Ring Travellers, Transmission Steel Chains, Beam Flanges and Beam Pipes.**
H. Mansuri & Sons, Dariapur, Dabgarwad, Khodi Amli, Ahmedabad.
Hemant Bros., Mahalaxmi Bhavan, Dhanasutar's Pole, Relief Road, Ahmedabad.
Hind Hardware Stores, Kadiakuin, Relief Road, Ahmedabad-2.
Hirachand Ranchhoddas Dosi, Outside Panchkuva Gate, Ahmedabad-2.
Hiralal L. Shah, Deepak Chambers, Station Road, Ahmedabad-2.
H. Tribhovandas & Co., C/o Grand Wood Works, Reid Road, Ahmedabad-2.
I. A. Shah & Co., Kapasia Bazar, Ahmedabad-2.
Imperial Trading Co., Kapasia Bazar, Ahmedabad-2.
Indequip Private Ltd., Reid Road, Ahmedabad-2.
India Mill Stores Co., Vohora's Bldg., Kapasia Bazar, Ahmedabad-2.
Indravadan Maneklal & Co., Station Road, Ahmedabad-2.
Indulal & Co., Narotam Bldg., Kapasia Bazar, Ahmedabad-2.
Industrial Engineering Corp., 622, Kapasia Bazar, Ahmedabad.
Industrial Spare Parts Co., Kadiakui, Relief Rd., Ahmedabad.
International Tape Mfg. Co., C/o Messrs. Kumar Eng. Enterprize, New Cotton (No. 1) Mill Compound, Outside Raipur Gate, Ahmedabad.
International Textile Corporation, Reid Road, Ahmedabad-2.
International Traders Private Ltd., Narotam Building, Kapasia Bazar, Ahmedabad-2.
International Trading Co., Station Road, Ahmedabad-2.
Interseas Trading Co., Outside Panchkuva Gate, Ahmedabad-2.
International Suppliers, Companywala Market, Kapasia Bazar, Ahmedabad-2.
Iron & Hardware Import Trading Co., 267, Sarangpur Chakla, Sarangpur, Ahmedabad.
Jagdish Engineering Works, Dariapur, Behind Tower, Rupapari, Ahmedabad.
Jaswantlal Popatlal & Co., 656/4/4, Kapasia Bazar, Ahmedabad-2.
Jayantilal Ambalal & Co., 675/2/9, Sir Chinubhai Bldg., Cross Lane, Ahmedabad-2.
Jayantilal & Co., Reid Road, Ahmedabad.
Jayantilal Pranlal & Co., Outside Sarangpur Gate, Karanamukteshwar Mahadev Compound, Near Bagicha Mill, Ahmedabad.
Jayantilal S. Gandhi & Co., Opp. Madhav Baug, Ahmedabad-2.
Jayabharat Trading Co., Motilal Mansion, Kapasia Bazar, Ahmedabad.
Jayhind Leather Industries Private Ltd., Station Road, Ahmedabad-2.
Jayshree Traders, Motilal Mansion, Kapasia Bazar, Ahmedabad-2.
Jitendra & Co., Relief Road, Kadikui, Ahmedabad.
Jitendra Ramaniklal & Co., Maskati Market, Ahmedabad-2.
J. M. Chokshi. Kapasia Bazar. Ahmedabad-2.
J. Nanavati & Co., 626/32, K. Bazar, Ahmedabad 2.

Phone : 24044. Grams : "KAYVEEKO"

**K. VADILAL & CO.**

(Estd.: 1940)

Mirzapur Road, Haji Bldg., Ahmedabad-1.

Mill Gin Stores Merchants and Textile Machinery Spare Parts Suppliers, Specialists In Autoloom parts, Stockists for Draper X 2 Parts.

Kanaiyalal Navanitlal Parikh, Kansara's Dehla, Opp. Rly. Station, Ahmedabad-2.
Kantilal Chimanlal, Kapasia Bazar. Ahmedabad-2.
Kantilal H. Mehta & Co., Reid Road. Ahmedabad-2.
Kantilal Jiwanlal & Co., Reid Road, Ahmedabad-2.
Kashiparekh Bros., 564, Reid Road, Ahmedabad-2.
Kashyap Bros., Kadiakui, Relief Road, Ahmedabad.
K. C. Mashruwala & Co., Reid Road, Ahmedabad-2.
K. Damodardas & Co., L. K. Trust Building, Revdi Bazar, Ahmedabad-2.
K. H. Nawab & Co., Kapasia Bazar, Ahmedabad-2.
Kirtikant & Co., Near Government Servant Soc., Navarangpura Road No. 1, Ahmedabad-9.
Kirtilal & Co., Kadiakuin, Relief Road, Ahmedabad.
Kishore Trading Corporation, Revdi Bazar, Railwaypura, Ahmedabad-2.
Kohinoor Rope & Tape Works, Kapasia Bazar, Ahmedabad-2.
K. Rasiklal & Co., Cross Lane, Revdi Bazar, Ahmedabad-2.
Kumarpal Kantilal & Co., Companywala Market, Kapasia Bazar, Ahmedabad-2.
Laxmi Commercial Ltd., Reid Road, Ahmedabad-2.
Machine Products (India) Private Ltd., Reid Road, Ahmedabad-2.
Mafatlal K. Patel & Co., 1234, Hanuman's Pole, Dariapur, Ahmedabad.
Maganlal Manilal Seth, 1062/N/16, Sahkari Lati Bazar, Gitamandir Road, Ahmedabad.
Mangaldas Jeshingbhai & Co., Cross Lane, Revdi Bazar, Ahmedabad-2.
Manilal Jamnadas & Sons, Nava Madhupura, Ahmedabad.
Manubhai C. Shah, Motilal Mansion, Kapasia Bazar, Ahmedabad-2.

Manubhai Parikh & Co., Badshah Bhuvan, Kadiakui, Relief Road, Ahmedabad-2.
Master Traders, Aranda Hall, Kapasia Bazar, Ahmedabad-2.
Masturlal Chunilal & Co., Kapasia Bazar, Ahmedabad-2.
Mathurdas Odhavji & Co., Acharyaji's Bethak, Asarva Road, Ahmedabad.
M. D. Shah & Co., Reid Road, Ahmedabad-2.

**M. P. KAPADIA & CO., 957, Kapasia Bazar, Ahmedabad 2.**

Mehta & Co., C/o Messrs. R. Mehta & Co., Below Fernandez Bridge, Gandhi Road, Ahmedabad.
Mehta & Sons Private Ltd., Khokhara Mahemdabad, Maninagar, Ahmedabad-8.
Mehta Mill Supply Co., 696, Reid Road, Ahmedabad 2.
Mehta Parikh & Co., Private Ltd., Kapasia Bazar, Ahmedabad-2.
Mehta Trading Co., Near Dhikawa Choki, Mali's Pole, Kalupur, Ahmedabad.
Metal Moulders Private Ltd., Dudheswar Road, Ahmedabad.
Mill Stores Co. (Bombay) Private Ltd., Kadiakui, Relief Road, Ahmedabad.
M. M. Shah & Co., 2610/Devsa's Pada, Relief Road, Ahmedabad.
Mohanlal Jamnadas Patel, Revdi Bazar Ahmedabad-2.
Mohanlal Prabhudas & Co., Reid Road, Ahmedabad-2.
Motilal Harilal Jagabhaiwala, Bipinvilla, Ellis Bridge, Ahmedabad.
M. P. Kapadia & Co., 957, K. Bazar, Ahmedabad 2.
M. Sharma & Co., Post Box No. 71, Gandhi Road, Ahmedabad.
Mukulchandra Budhalal Teli, Devkinandan Market, Revdi Bazar, Ahmedabad-2.
Mulchand Jaikishandas & Co., Reid Road, Ahmedabad-2.
Nachmo Co., 433/17, Ashram Road, Ellis Bridge, Ahmedabad-9.
Nagindas Kilabhai, P. Ltd., Reid Road, Ahmedabad.
Nanavati & Co., Private Ltd., Kapasia Bazar, Ahmedabad 2.
Narottamdas Chunilal & Co., Kapasia Bazar, Ahmedabad 2.
National Bobbin Co., Outside Panchkuva Gate, Ahmedabad 2.
National Trading Co., Dhanlaxmi Market, Reid Road, Ahmedabad 2.
Natvarlal & Co., 656, Kapasia Bazar, Ahmedabad 2.
Natvarlal Govindlal & Co., Kapasia Bazar, Ahmedabad 2.
Natvarlal Hiralal, Kapasia Bazar, Ahmedabad 2.
Natvarlal Shamaldas Shah, C/o Jayabharat Trading Co., Motilal Mansion, Kapasia Bazar, Ahmedabad 2.
Natverlal P. Kinariwala, 148, Garden Area, Maninagar, Ahmedabad 8.
Navinchandra C. Zaveri & Co., Fanibanda Building, Reid Road, Ahmedabad 2.
Navanitlal B. Chokshi, 25, Chokshi Bhuvan, Jagabhai Park, Opp. Nagina Wadi, Kankaria, Ahmedabad.
N. C. Shah & Co., Pankore Naka, Gandhi Road, Ahmedabad.
Neo Engineering Works, Near Air India Office, Mirzapur Road, Ahmedabad 1.
New India Pickers Works, Khand Sheri, Jamalpur, Ahmedabad.
New India Trading Co., Vakil Building, Char Rasta, Khadia, Ahmedabad.
Nima Trading Co., Cross Lane, Revdi Bazar, Ahmedabad 2.
N. Mithabhai Lagowala, 570, Thengar Vado, Raipur, Ahmedabad.
Niranjan R. Shah & Co., Kapasia Bazar, Ahmedabad.
N. Kantilal & Co., 36, Ranchhodrai Market, Sakar Bazar, Ahmedabad 2.
Noble Textile Trading Co., Sundar Nivas, Opp. Kothari Pole, Gandhi Road, Ahmedabad.
Norman & Co., Motilal Mansion, Kapasia Bazar, Ahmedabad.
N. Parikh Sons, Opp. Madhav Baug, Ahmedabad 2.
Ochhavlal K. Trivedi, Cross Lane, Revdi Bazar, Ahmedabad 2.
Oriental Corporation Private Ltd., Khokhra Mahemdabad, Maninagar, Ahmedabad 8.
Oriental Textile Co., 637/2, Companywala Market, Kapasia Bazar, Ahmedabad 2.
Orient Traders (Ahmedabad) Taiyab Bldg., Relief Road, Ahmedabad.
Overseas Mill Stores Co. (Private) Ltd., Gandhi Road, Opp. Model Talkies, Ahmedabad.
Panalal Umabhai, Opp. Doshiwada's Pole, Kalupur, Ahmedabad.
Paradise Mill Stores Co., Kapasia Bazar, Ahmedabad 2.
Paramount Textile Agency, Haridas Acharatlal Cloth Market, Kapasia Bazar, Ahmedabad 2.
Pargans (India) Private Ltd., A/416/C, Opp. Mithakhali, Ahmedabad 9.
Parikh Trading Co., Seth Girdharlal Balabhai Market, Cross Lane, Ahmedabad 2.
Patel Harjivandas Hathibhai, 2727, Lokhand Bazar, Ahmedabad.
P. G. Gandhi & Co., Lalabhai's Pole, Mandvi's Pole, Ahmedabad.
P. G. Shah & Co., Astodia Road, Near Nagri Seth's Bungalow, Ahmedabad.

**PICKERS LIMITED, Ellis Bridge, Ahmedabad 6; Well reputed for Superb quality of all kinds of Pickers; Phones: Office: 7205; Works: 2755; Grams: "COWSIE".**

Pickmaco (India), 328/2, Revdi Bazar, Ahmedabad 2.
P. M. Hutheesing & Sons, Jesingbhai's Wadi, Gheekanta, Ahmedabad.
P. M. Shah & Co., Jani Wado, Gandhi Road, Ahmedabad.
Popatlal N. Parikh & Sons, 1295, Padi Pole, Dhanasuthar's Pole, Kalupur, Ahmedabad.
P. Prafulbhai & Co., Tribhovandas Market, Kapasia Bazar, Ahmedabad 2.
Prabhat Engineering Co., Motilal Mansion, Kapasia Bazar, Ahmedabad 2.
Prasant Gauttam & Co., Vohora Building, Kapasia Bazar, Ahmedabad 2.
Pravin M. Patel & Co., Moti Hamam, Gheekanta Road, Ahmedabad.
Premier Mill Stores Co., 496-A/6, Reid Road, Ahmedabad 2.
Prem Roy Bros., L. K. Trust Building, Revdi Bazar, Ahmedabad 2.
P. Vadan & Co., Lunsawad, Moti Pole, Dariapur, Ahmedabad.
Rajendra B. Shah, C/o Sri Bhagubhai M. Shah, Tulsibag Colony, Behind Parimal Society, Ellis Bridge, Ahmedabad.
Rajnagar Bobbin Works, Near Gita Mandir, Ahmedabad.
Rajnagar Paper Mart, Panch Pati, Kalupur, Bakarali's Pole, Ahmedabad.
Rajnikant Bobbin Factory, Lunsawad, Opp. Moti Pole, Dariapur, Ahmedabad.
Ramanlal Sankalchand & Co., Reid Road, Ahmedabad 2.
Ramanlal Vrijvallabhdas & Co., Cross Lane, Revdi Bazar, Ahmedabad 2.
Ranchhodlal Amratlal Vasa, 664/54/5, C/o Laxmanprasad Damodardas Vasa, Maskati Market, Ahmedabad 2.
Ramesh M. Patel & Co., 1597, Jatakan's Pole, Raipur, Ahmedabad.
Ramesh Brothers, 1062/N/16, Sahkari Lati Bazar, Gita Mandir Road, Ahmedabad.
Ramprasad Chandulal Contractor, 9, Shantinagar, Ahmedabad 13.
Rasiklal D. Gandhi & Co., Mangal Bhuvan, Relief Road, Ahmedabad.
Ratilal & Co., Cross Lane, Revdi Bazar, Ahmedabad 2.
Ratilal M. Shah & Co., Shamla's Pole, Raipur, Ahmedabad.
R. D. Shah & Co., Vohra's Dehla, Kapasia Bazar, Ahmedabad.
Regal Trading Co., Mahabub Bldg., Relief Road, Ahmedabad.
R. M. Bros., 1083/84, Chhotalal Harilal's Dehla, Kapasia Bazar, Ahmedabad.
R. M. Shaw & Co., Motilal Mansion, Kapasia Bazar, Ahmedabad.
R. N. Shah & Co., Haridas Acharatlal Cloth Market, Kapasia Bazar, Ahmedabad 2.
R. Vadilal & Co., Kansara's Dehla, Opp. Rly. Station, Ahmedabad 2.
Sales & Service Corporation, Motilal Mansion, Kapasia Bazar, Ahmedabad 2.
S. C. Majumdar & Co., Narottam Building, Kapasia Bazar, Ahmedabad.
Seth Ratilal Maganlal, 1062/N/57, Sahkari Lati Bazar, Gita Mandir Road, Ahmedabad.
Seth Stores Trading Co., Station Road, Ahmedabad 2.
Shah & Dalal Traders, C/o M/s. R. D. Shah & Co., Vohra's Dehla, Kapasia Bazar, Ahmedabad 8.
Shalimar Traders, 690/2, Reid Road, Ahmedabad 2.
Shah Nanavati & Co., Vohra's Dehla, Kapasia Bazar, Ahmedabad 2.
Shakti Mill Stores Co., Moti Hamam, Ghee-Kanta Road, Ahmedabad.
Shambhulal Ishwardas Panchal, Chang's Pole, Dariapur, Ahmedabad.
Shantilal Manilal Vakil, 37, Brahman Mitra Mandal Society, Ellis Bridge, Ahmedabad 6.
S. Kantilal & Co., Haridas Acharatlal Market, Kapasia Bazar, Ahmedabad 2.
Sri Krishna Textile Works, Salapas Cross Road, Ahmedabad.
Sri Swastik Textile Wood Works, Dudheswar Road, Parmanand Chawl, Ahmedabad.
S. Mehta & Co., Above State Bank of India, Reid Road, Ahmedabad 2.
S. N. Shah & Co., Hiralal Trikamlal Building, Bombay Shroff Galli, 3rd Floor, Station Road, Ahmedabad 2.
Spectrum Dyes, Luck-Nau Bldg., Seth's Pole, Sankadi Sheri, Ahmedabad.
S. Sutaria & Co., Reid Road, Ahmedabad 2.
Standard Materials Co., Narottam Building, Kapasia Bazar, Ahmedabad 2.
S. Thakore & Co., Modh Srimali's Wadi, Char Rasta, Khadia, Ahmedabad.
Sumatilal Popatlal & Co., 697/1, Dhanlaxmi Market, Reid Road, Ahmedabad 2.
Surendra & Co., 2244, Baua's Street, Raipur, Ahmedabad.
Surendrakumar & Bros., Reid Road, Ahmedabad 2.

**T. G. MANKODI.—456, Jethabhai's Street, Khadia, Ahmedabad 1.**

Taheralli Sultanalli & Bros., 1475/76, New Madhupura, Ahmedabad.
Tarkas Engineering Works, Haridas Acharatlal Cloth Market, Kapasia Bazar, Ahmedabad 2.
Texind Corporation Ltd., Reid Road, Ahmedabad 2.
Textile Commercial Co., Haridas Acharatlal Cloth Market, Ahmedabad 2.
Textile Corporation, 354, Sardar Vallabhbhai Patel Road, Ahmedabad.
Textile Engineering Co., 637, Companywala Market, Kapasia Bazar, Ahmedabad 2.
Textile Stores Co., C/o N. Desai & Co., Nava Darwaja, Char Rasta, Ahmedabad.
Textrade Syndicate, 412, Ashram Road, Ahmedabad 9.
Thakarshi Chunilal Parikh & Co., Madhupura, Ahmedabad.
Union Mill Stores Co., Dalal Bldg., Kapasia Bazar, Ahmedabad 2.
Universal Trading Corporation, A/8, Maskati Market, Ahmedabad 2.
Vaishwaner Trading Co., Hathipura, Opp. Nava Madhupura, Ahmedabad.
Vasa Bros., 626/5, Vohora's Dehla, Kapasia Bazar, Ahmedabad 2.
V. D. Shah & Bros., 29, Girdharnagar, Ahmedabad 4.

Vijay Traders, Pakhalini Pole, Mahadevwala's Khancha, Raipur, Ahmedabad.
Vithaldas Makanji & Sons, Vohra's Dehla, Kapasia Bazar, Ahmedabad.
Welspun Bobbin Co., Gujarat Hosiery Factory Compound, Rakhia Road, Ahmedabad 10.
Weltex Industrial Trading Co., Companywala Market, Kapasia Bazar, Ahmedabad 2.
Yashwant & Co., Motilal Mansion, Kapasia Bazar, Ahmedabad 2.

## MOSAIC TILE-MAKING MACHINERY

**PIONEER ENGINEERING WORKS, Prop.: C. C. Ranchhodlal & Co., Naroda Road, Ahmedabad 2; Phone: 22471, Grams: "MOULDING".**

## MOTOR PARTS MFRS.

**UNITED ENGINEERING WORKS, THE.—Manufacturers of Cylinder Liners, Valve guides, Valve Seat Bars; P.O. Box No. 1023, Ramkumar Mills Compound, Saraspur, Ahmedabad 2.**

## NEWSPAPERS & PERIODICALS

**INDIAN METAL NEWS.—(Anglo-Gujarati) Fortnightly, 456, Jethabhai's Pole, Khadia, Ahmedabad-1; Editor: T. G. Mankodi.**

## NON-FERROUS METALS

**T. G. MANKODI.—456, Jethabhai's Street, Khadia, Ahmedabad 1.**

## OPTICIANS

Anubhai & Co., Gandhi Marg, Ahmedabad.
Chandulal Premchand & Co., Three Gates, Ahmedabad.
C. M. & Co., Three Gates, Ahmedabad.
Dhirajlal & Co., Gandhi Road, Ahmedabad.
General Electric & Optical Stores, Khadia Char Rasta, Ahmedabad.
Jyoti Optical Co., Opp. Phatasa Pole, Gandhi Road, Ahmedabad.
Kantilal Jeshingbhai & Co., Three Gates, Ahmedabad.
Peshotan M. Dastur & Co., Three Gates, Ahmedabad.
Ramanlal & Co., Pankore Naka, Ahmedabad.
Rajnagar General Optical Stores, Khadia Char Rasta, Ahmedabad.
Ranjanlal M. Shah, Pankore Naka, Ahmedabad.
Sarabhai & Co., Pada Pole, Gandhi Road, Ahmedabad.
S. U. S. Davey & Sons, Pankore Naka, Ahmedabad.

## PAINTS, ENAMELS AND VARNISHES

Allied Engineers, Reid Road, Ahmedabad 2.
C. S. Vohra & Co., Pankore Naka, Ahmedabad 1.
D. Prajapati & Co., Near Tarkos Bldg., Relief Road, Ahmedabad 1.
L. G. Amin & Co., Menil House, Kadia-Kui, Relief Road, Ahmedabad.
N. M. Shah & Co., Opp. Jumma Masjid, Ahmedabad.
Sultanally Gulamhusein & Sons, 289, Fernandiz Bridge, Ahmedabad.
S. Shantilal & Co., Pankore Naka, Ahmedabad.
United Trading Co., 1843, Near Allahabad Bank, Pankore Naka, Ahmedabad.

## PAINT AND VARNISH MANUFACTURERS

Jayashree Industries, Bala Hanuman, Ahmedabad.
Mayor Paint Works, Reid Road, Railwaypura P.O., Ahmedabad 2.
Paradise Oil & Paints Products, Sankadisheri, Near Haribhakti's Pole, Ahmedabad.
Pioneer Mfg. Co., Haripura Road, Asarwa, Ahmedabad 11.
Scientific Printers Materials Mfg. Co., Mirzapur Road, Ahmedabad.
Shakti Paints Mfg. Co., Near High School, Saijpur Boga, Ahmedabad.
Swastik City Wall Distemper Mfg. Co., Bala Hanuman, Ahmedabad.
Valian Paints P. Ltd., 38, Madhubhai Mills Compound, Railwaypura, Ahmedabad 2.

## PAPER MERCHANTS

Ahmedabad Paper Mart, C/o Ahmedabad Type Foundry, Opp. Telephone Office, Shahpur, Ahmedabad.
Ahmedabad Paper Stores, Kagdi Bazar, Ahmedabad.
Ajit Paper Mart, Khadia, Char Rasta, Ahmedabad.
Balgovind Kuberdas & Co., Khadia, Char Rasta, Ahmedabad.
Central Paper Mart, Khadia, Char Rasta, Harnwali Pole, Ahmedabad.
Chandulal Umedchand Shah, Sankadi Sheri, Ahmedabad.
Chunilal Motichand Shah, Under Fernandiz Bridge, Dhinkavan Wadi, Ahmedabad.
Dahyabhai Nanalal & Co., Kapasia Bazar, Ahmedabad.
Dwarkadas & Bros., 995, Khadia, Char Rasta, Ahmedabad.
East India Paper Co., Navadarwaja Road, Ahmedabad.
F. Trivedi & Co., Near Balahanuman, Richey Road, Ahmedabad.
Ganesh Paper Mart, Sankadi Sheri, Ahmedabad.
Girdharlal Damodardas P. Ltd., 691, Reid Road, Ahmedabad.
G. M. Kakiwala, 981, Timba Pole, Panchpati, Ahmedabad.
Gokaldas & Sons, Balahanuman, Kavishwarni Pole, Ahmedabad.
Good Luck Paper Mart, Khadia, Char Rasta, Ahmedabad.
Gujarat Paper Stores, 1196, Karodani Pole, Panchpati, Ahmedabad.
Gunvantray & Co., Khadia, Char Rasta, Navadarwaja Road, Ahmedabad.
Habib Bhai Gulam Mohmad Hawawala, Timba Pole, Panchpati, Ahmedabad.
Harshad Kumar Bhogilal & Co., Cotton Waste Merchants' Assn. Bldg., 1st Floor, Relief Road, Ahmedabad 1.
Hawa Paper Stores, Timba Pole, Panchpati, Ahmedabad.
Hawawala Paper Mart, Panchpati, Timba Pole, Ahmedabad.
Hiralal & Co., Navadarwaja Road, Char Rasta, Ahmedabad.
Indulal & Co., Kapasia Bazar, Ahmedabad 2.
Jayant Paper Mart, Raipur, Ahmedabad.
Kalyan Paper Mart, 646, Char Rasta, Nava Darwaja Road, Ahmedabad 1.
Kantilal & Co., Gandhi Road, Ahmedabad.
Khandeker Bros., Navadarwaja Road, Ahmedabad.
K. N. Mehta & Co., 1956/2, Khadia, Char Rasta, Ahmedabad.
K. Sakhidas & Co., New Vasan Market, Manekchowk Ahmedabad.
Mehta Brothers, Under Fernandiz Bridge, Ahmedabad.
Miyamohmad Gulammohmad, 1086, Panchpati, Near Timba Pole, Ahmedabad.
Mukundlal H. Mehta, Ravpura Road, Baroda.
N. Desai & Co., Char Rasta, Navadarwaja Road, Ahmedabad.
Noble Paper Mart, Khadia, Char Rasta, Ahmedabad.
Patel & Co., Dabgarwad, Ahmedabad.
Pioneer Trading Co., 653, Sakar Bazar, Ahmedabad.
Pramod Paper Mart, Khadia Golerad, Ahmedabad.
Pravin Patel & Co., Moti Hamam, Ghee Kanta, Ahmedabad 1.
R. Ochhavlal & Co., Khadia Char Rasta, Nawa Darwaja Road, Ahmedabad.
Rajhans Paper Mart, 664, Khadia, Char Rasta, Ahmedabad.
Rajnagar Paper Mart, Kalupur. Panchpati. Bakarally Pole, Ahmedabad.
Rajnagar Paper Stationery Mart, Kagdi Bazar, Ahmedabad.
Ramesh Brothers, New Vasan Market, Ahmedabad.
Ramesh Paper Mart, Khadia, Char Rasta, Haranwali Pole, Ahmedabad.
R. Vadilal & Co., C/o Keshriaji P. Press, Gheekanta Road, Ahmedabad.
Shah Chimanlal Chhotalal, Khadia, Char Rasta, Haranwali Pole, Ahmedabad.
S. M. Bhavsar & Co., 718/4, Ghee Kanta Road, Ahmedabad.
Star Paper Mart, Khadia, Char Rasta, Ahmedabad.
Sudama Paper Mart, Haranwali Pole, Khadia, Char Rasta, Ahmedabad.
Swastik Paper Mart, Inside Panchkuva Darwaja, Ahmedabad.
Vadilal & Co., 1268, Rajamehtani Pole, Ahmedabad.
Vinod Paper Mart, 648, Navadarwaja Road, Ahmedabad.

## PENCIL MANUFACTURERS

Acme Agencies Pencil Factory, Near Gita Mandir, Char Rasta, Jagannath Road, Ahmedabad.
Gujarat Pencil Co., Saraspur, Ahmedabad 2.

## PERFUMERS AND OIL MANUFACTURERS

Bishandayal Dharamdas, Opp. Jumma Masjid, Ahmedabad 1.
Manilal & Sons, Gandhi Road, Opp. Jumma Masjid, Ahmedabad.
Loma Products (India), 1134, Akaseth Kuwas Pole, Raipur, Ahmedabad.
Mohamedbhai Usmanbhai Hakimji Attarwalla, Pir Mohamed Shah Manzil, Relief Road, Ahmedabad 1.

## PEST CONTROL

**PEST CONTROL (INDIA) PRIVATE LTD., Anand Bhuvan, Opp. Krishna Cinema, Tilak Road, Ahmedabad. H.O. 36, Yusuf Bldg., Mahatma Gandhi Road, Fort, Bombay 1; Phone: 251546-7; Grams: "PESTCIL"; Consulting Entomologists, Termite Control, Disinfection & Fumigation Service; Member, National Pest Control Association U.S.A. & Entomological Society of India; Branches at Calcutta, New Delhi, Madras, Coimbatore, Hyderabad and Ernakulam.**

## PHOTOGRAPHERS

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2489, Swami Akhandanand Marg, Ahmedabad
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Associates in Bombay
PHOTO-MASTERS, 23, Hamam Street, Bombay 1.

## PICKERS AND BUFFERS

Ahmedabad Picker Works, Near Railway Lane, Nava Vadaj, Ahmedabad 13.
Allied Textile Leather Industries, Outside Raipur Gate, Kot-ni-Dival, Ahmedabad.
Beltex P. Ltd., Ellis Bridge, Ahmedabad 6.
C. A. Galiakotwalla & Co., Kapasia Bazar, Railwaypura, Ahmedabad 2.
Chandabhai Bros. & Co., P.O. Box No. 34, Dabgarwad, Ahmedabad-1.
Graduate Picker Works, Dabgarwad, Ahmedabad 1.
Hides & Leather Products Ltd., Reid Road, Railwaypura Post, Ahmedabad.
Hides & Pickers Trading Co., Dabgarwad, Dariapur, Ahmedabad.
H. Mansuri & Sons, P.O. Box No. 84, Dabgarwad, Ahmedabad.
Indian Picker Mfg. Co., 328/2, Mansukhram Dharamshala, Revdi Bazar, Ahmedabad 2.
Jai Hind Leather Industries, Reid Road, Railwaypura Post, Ahmedabad.
J. Mansuri & Sons, P. O. Box No. 92, Dabgarwad, Ahmedabad-1.
Loom Leather Private Ltd., Arenda Hall, Kapasia Bazar, Railwaypura, Ahmedabad-2.
New India Picker Works, Near Khandni Sheri, Jamalpur, Ahmedabad.
Patel & Parmar Picker Works, Nava Vadaj, Ahmedabad-13.

**PICKERS LIMITED, Ellis Bridge, Ahmedabad 6. Well Reputed for Superb quality of all kinds of Pickers. Phones: Office—7205, Works—2755; Grams: "COWSIE".**

Swastika Industries, Opp. Talao, Amraiwadi, Ahmedabad.
Swastik Leather Mfg. Co. P. Ltd., Motilal Hirabhai Market, Railwaypura, Ahmedabad-2.

## PICKING BANDS AND BELTINGS

**BELTEX LIMITED, Ellis Bridge, Ahmedabad 6. Phone : 7205; Grams : "LEATEX"—Ahmedabad. Well reputed for superb quality of Picking Bands & Beltings.**

## PIPES AND FITTINGS MANUFACTURERS AND MERCHANTS

**ABDUL SAMAD ABDUL KADAR & SONS, 1839, Panchpatti, Kalupur, Ahmedabad 1. Phone: 24543. Grams: "FOOTVALVE." Manufacturers of Gun-metal & Cast Iron Valves & Cocks for water, steam, oil, chemicals & Boiler Mountings, Pipe Fittings, Sanitary Fittings, Fire Fighting Appliances, Hose Fittings, Agricultural Implements and Textile Machinery Spares.**

Austin Trading Co., Patel Market, K. Bazar, Ahmedabad 2.
B. C. Mashruwala & Bros., 657, Kapasia Bazar, Ahmedabad 2.
B. Lalbhai & Co., Pankore Naka, Ahmedabad.
C. K. Vohra & Co., Revdi Bazar, Ahmedabad.
C. Laxmichand & Co., Revdi Bazar, Ahmedabad.
C. S. Vohra & Co., Pankore Naka, Ahmedabad.
Dahyabhai Nanalal & Co., Kapasia Bazar, Ahmedabad.
Eastern Trading Agency, Kapasia Bazar, Ahmedabad.

**G. A. LATIF & SONS, Revdi Bazar, Ahmedabad 2; Dealers in all sorts of Pipe-Fittings, Packings, Brass and Copper Tubes and Manufacturers of Gun-metal, Cast Iron and Stainless Steel Valves, etc.**

Gokaldas & Sons, Kaveeshverni Pole, Ahmedabad.

**GUJARAT CEMENT PIPE CO., Shah Alam Road, Near Swaminarayan College, Ahmedabad 17; Phone : 51838; Grams : "GICIPI", Ahmedabad; Manufacturers of R.C.C. Pipes by Spun Process A.B.C.D. Class and I.R.S. Pipes according to I.S.I. Specification.**

Indian Hume Pipe Co. Ltd., Saraspur, Ahmedabad.
Kashiparekh Bros., 564, Reid Road, Ahmedabad.
K. C. Mashruwala & Co., Reid Road, Ahmedabad.
Madhavlal & Co., Pankore Naka, Ahmedabad.
Natwarlal & Co., Kapasia Bazar, Ahmedabad.
Navanitlal Manilal Shah, Dhalnipole, Jagabhai's Street, Ahmedabad.
Neo Engineering Works, Near Indian Air Lines Office, Mirzapur Road, Ahmedabad 1.
Pioneer Engineering Works, Sukhlal Para, Naroda Road, Ahmedabad 2.
Rajendrakumar Navanitlal & Co., Kapasia Bazar, Ahmedabad.

**R. M. ENGINEERING WORKS, Ahmedabad 8. Manufacturers of 'R' Brand High grade Malleable Iron Castings and Pipe Fittings—A Rohit group Enterprise.**

Shri Ambica Tubes Ltd., Ahmedabad 8.
Spun Pipe Co. of India Ltd., Gandhi Road, Ahmedabad.

**VENUS ENGINEERING CO., Kankaria Road, Ahmedabad; Manufacturers of Textile Processing Machinery, Cast Iron Pressure Pipes; Phone : 51575; Grams : "WATERFLOW."**

## PLASTIC MACHINERY MFRS.

**BASANT INDUSTRIAL PLASTIC CORPORATION, Sahijpur Bogha, Ahmedabad.**

## PLASTIC PRODUCTS

Basant Industrial Plastic Corporation, Sahijpur Bogha, Ahmedabad.
Bharat Plastic & Bakelite Industries, Saijpur Bhoga, Ahmedabad.
Elite Plastic Co., 12-A, Bharatkhand Mills' Compound, Ahmedabad 11.
Unipol Plastic Industries, 649, Nanavati Bldg., Gandhi Road, Ahmedabad 1.

## POLYTHENE GOODS

**UNIPOL PLASTIC INDUSTRIES PRIVATE LTD., Setalvad House, Mirzapur Road, Ahmedabad 1. Manufacturers of 'Unipack' Polythene Bags, rolls and tubings; 'Unilite' P.V.C. Wires & Cables, 'Plastiglass' Acrylic Sheets, 'Uniplast' Polystyrene Sheets, 'Jasud' P.V.C. Sheets and Injection Moulded Articles.**

## PRINTING PRESSES

Adarsh Printery, Relief Road, Padshah's Pole, Kalupur, Ahmedabad.
Aditya Mudranalaya, Near Prarthana Samaj, Raikhad Road, Ahmedabad.
Advance Printery, Panch Kuva, Railwaypura Post, Ahmedabad.
Ahmedabad Fine Art Printing Press, Astodia Road, Ahmedabad.
Ajay Printery, Naroda Road, P.O. Railwaypura, Ahmedabad.
Alliance Printery, Ambliwali Pole, Back Side, Shahpur, Ahmedabad.
Amrat Vijay Printing Press, Ganchi's Pole, Manek Chowk, Ahmedabad.
Anandmata Printing Press, Sakar Bazar, Ahmedabad.
Aroon Art Printery, The New High School Premises, Pirmasha, Ahmedabad.
Ashok Art Printery, Astodia Road, Ahmedabad.
Bhagvati Printery, Opp. Jeshingbhai's Wadi, Gheekanta, Ahmedabad.
Bharat Vijaya Printing Press, Opp. Municipal School No. 6, Astodia Road, Ahmedabad.
Bipin Printery, Mission Road, Ahmedabad.
Chandrika Printery, Mirzapur Road, Ahmedabad.
Dharati Mudranalaya, Raikhad Mill Compound, Ahmedabad.
Dharma Vijaya Press, Ratan Pole, Limbu Pole, Ahmedabad.
Diamond Jubilee Printing Press, Salapose Road, Ahmedabad.
Dinker Printery, Dhalgarwad, Ahmedabad.
Dipak Printery, Near Raipur Darwaja, Ahmedabad.
Gold Mohor Printing Press, Harisadan Nivas, 997, Khadia, Char Rasta, Ahmedabad.
Golibar Printing Press, Near Khamasa Choki, Ahmedabad.
Grand Printing Press, Relief Road, Ahmedabad.
Harihar Printing Works, Khadia, Char Rasta, Golwad, Ahmedabad.
Honest Printery, Ghee Kanta, Ahmedabad.
Imperial Printery, Near Novelty Talkies, Ghee Kanta Road, Ahmedabad.
Indian Art Printery, Richey Road, Opp. Fountain, Ahmedabad.
Ishwar Printing Press, 3012, Ratan Pole, Ahmedabad.
Jain Advocate Printing Press, Jesingbhai's Wadi, Ghee Kanta, Ahmedabad.
Jay Gujarat Press, Navi Pole, Gomtipur, Ahmedabad 10.
Jay Hind Printery, Navgaja Pir, Panchpati, Kalupur, Ahmedabad.
Jyoti Printery, Near Raipur Darwaja, Ahmedabad.
Kala Printery, Outside Kalupur Gate, Opp. Police Station, Ahmedabad.
Kalpana Printery, Outside Raipur Gate, Anath Ashram Bldg., Ahmedabad.
Kalyan Vijay Printing Press, Gandhi Road, Ahmedabad.
Kamodia Printing Press, 264, Madalpur, Ellis Bridge, Ahmedabad 6.
Khadayata Murran Kala Mindar, Ghee Kanta, Ahmedabad.
Krishna Printing Press, Jainwadi, Manek Chowk, Ahmedabad.
Kumar Printery, 1454, Raipur, Ahmedabad.
Kasoti Printing Press, Revdi Bazar, Ahmedabad.
Lordkin Printery, Khadia, Sir Chinubhai Road, Ahmedabad.
Mahavir Printing Press, Khadia, Char Rasta, Ahmedabad.
Mahendra Printing Press, Golwad, Ratan Pole, Ahmedabad.
Mahesh Mudranalaya, Shankar Bhuvan, Shahpur Bridge, Ahmedabad.
Mangal Mudranalaya, Ratan Pole, Ahmedabad.
Manhar Printing Press, Katpitia, Mahajan Wadi, Outside Kalupur, Ahmedabad.
Manorath Printery, Tankshal, Kalupur, Ahmedabad.
Monarch Printery, Reid Road, Ahmedabad.
Nagori Printing Press, Germansilverwala Market, Ratan Pole, Ahmedabad.
Narayan Printing Press, Jain Wadi, Near Central Bank, Gandhi Road, Ahmedabad.
Navajivan Mudranalaya, Navarangpura, Ahmedabad.
Nav Prabhat Printing Press, Gheekanta, Ahmedabad.
New City Printing Press, Dhalgarwad, Ahmedabad.
New Rasik Printing Press, L. K. Trust Bldg., Panchkuva, Ahmedabad.
Nil Kamal Printery, Ghee Kanta, Opp. Civil Hospital, Jesingbhai Kalidas Bldg., Ahmedabad.
N. M. Printing Press, Dabhgarvad, Dariapur, Ahmedabad.
Oriental Printing Press, Ghanchi's Wadi, Pankore Naka, Ahmedabad.
Phoenix Printing Works, Outside Delhi Gate, Opp. Painter Garden, Ahmedabad.

Praja Bhandhu Press, Gujarat Samachar Bldg., Khanpur, Ahmedabad.
Prakash Printing Press, Panch Khadki Pole, Panchpati, Kalupur, Ahmedabad.
Prashant Printery, Nagori Shala, Ratan Pole, Ahmedabad.
Purohit Printing Press, Gheekanta Road, Ahmedabad.
R. Ochhavlal & Co., 694, Khadia Char Rasta, Navadarwaja Road, Ahmedabad.
Radha Krishna Printing Press, Manek Chowk, Ahmedabad.
Rajni Printery, Shethia Bldg., Relief Road, Ahmedabad.
Ram Vijay Printing Press, Sakar Bazar, Ahmedabad.
Ramesh Printery, Khadia, Char Rasta, Ahmedabad.
Royal Printing Works, Kapasia Bazar, Ahmedabad.
Rasik Printery, Khadia, Golwad, Ahmedabad.
Sahitya Printing Works, Richey Road, Near Post Office, Ahmedabad.
Santi Vijay Printing Press, Dhinkwa Chowky, Kalupur, Ahmedabad.
Saraiya Art Printery, Patasa Pole, Richey Road, Ahmedabad.
Saraswati Printing Press, Sandesh Ltd., Gheekanta, Ahmedabad.
Sastu Sahitya Mudranalaya, Swami Akhandanand Road, Bhadra, Ahmedabad.
Shah Printing Press, Ratan Pole, Zaveri Wad, Ahmedabad.
Shakti Printing Press, Raipur, Bhow's Street, Ahmedabad.
Shanker Art Printery, Near Laxmi Vilas Hotel, Gandhi Road, Ahmedabad.
Shree Krishna Mudranalaya, Nava Darwaja Road, Char Rasta, Ahmedabad.
Shri Ambika Printing Press, Near Bala Hanuman, Gandhi Road, Ahmedabad.
Shri Jagdish Printing Press, No. 552/2, Railwaypura, Panchkuva, Ahmedabad.
Shri Kamlesh Printing Press, Gujarat Vaishya Sabha, Jamalpur, Ahmedabad.
Shri Kesariaji Printing Press, Ghee Kanta, Ahmedabad.
Shri Krishna Printing Press, Richey Road, Near Bala Hanuman, Ahmedabad.
Shri Narayan Litho Press, Near District Court, Bhadra, Ahmedabad.
Shri Narayan Printing Press, Bhadra, Ahmedabad.
Shri Ram Printing Press, Khanpur, Ahmedabad.
Shri Shakti Mudranalaya, Sarangpur, Sarkiwad, Ahmedabad.
Shri Sharda Mudranalaya, Opp. Jumma Masjid, Pankore Naka, Ahmedabad.
Shri Sharda Vijay Printing Press, Near Bala Hanuman, Richey Road, Ahmedabad.
Subhash Printery, Homestead Bldg., Dr. Tankaria Road, Shahpur, Ahmedabad.
Sun Rise Printing Press, Raikhad, Mission Road, Ahmedabad.
Swastik Printery, Raipur, Kotani Rang, Ahmedabad.
Taj Printing Press, Astodia Road, Ahmedabad.
Trivedi Printing Press, Sakar Bazar, Ahmedabad.
Utkrishna Mudranalaya, Near Fernandiz Bridge, Ahmedabad.
Vasant Printing Press, Ghelabhaini Wadi, Gheekanta, Ahmedabad.
Vatan Printing Press, Baluchwad, Kalupur, Ahmedabad.
Vijay Printery, Opp. Desai's Pole, Khadia, Ahmedabad.
Vikas Printers, Manek Chowk, Ahmedabad.
Vir Vijaya Printing Press, Salapose Cross Road, Ahmedabad.

## PRINTING PRESS MATERIALS

**GUNVANTRAY & CO., Khadia, Char Rasta, Nawa Darvaja Road, Ahmedabad and Crescent Chambers, 1st floor. Tamarind Lane, Fort, Bombay-1; Dealers in Printing Press Machinery & Material.**

## PULLEYS MANUFACTURERS

**PIONEER ENGINEERING WORKS, THE, Prop.: C. C. Ranchhodlal & Co., Naroda Road, Ahmedabad 2; Phone: 22471, Grams: "MOULDING".**

## PUMP MANUFACTURERS & DEALERS

Kirloskar Brothers, Opp. Navi Mohalat, Relief Road, Ahmedabad.
Manubhai Parikh & Co., Badshah Bhuvan, Near Kadia Kuin, Ahmedabad.
M. H. Brothers, Kalupur Road, Ahmedabad.
Myers Pumps, Near Ashok Nivas, Relief Road, Ahmedabad.
U. D. Dave & Co., Near Shetia Building, Relief Road, Ahmedabad.
Well-Known Brothers, Opp. Zakaria Masjid, Relief Road, Ahmedabad.

## RADIO MFRS., DEALERS AND PART SUPPLIERS

Ahmedabad Radio & Electric Corporation, Panchkuva, opp. School, Ahmedabad.
Amin Gramophone Mart, Near Bridge, Gandhi Road, Ahmedabad.
Arun Radio Electric Co., Near Dhana Suthar's Pole, Relief Road, Ahmedabad.
Atlas Radio & Electronic Industries, Ginwalla Solicitor's Compound, Khanpur, Ahmedabad 1.
Bharat R. Electric Co., Near Arun Society, Ellis Bridge, Ahmedabad.
**BOMBAY GARAGE (AHMEDABAD) LTD., Shahibag Road, Ahmedabad 4; Grams: "PARKCHIN", Phones: 24615, 24616 & 24213.**
Cine Radio Laboratory, Near Cinema, Panchkuva, Ahmedabad.
Dalal & Co., opp. School, Panchkuva, Ahmedabad.
Dave Radio Corporation, Near Town Hall, Ellis Bridge, Ahmedabad.
Deepak Radio Electric Co., Panchkuva, Ahmedabad.
Drapco Electronic Corporation, Nisha Pole Corner, Relief Road, Ahmedabad.
Eastern Radio Service, Panchkuva, Ahmedabad.
Emergency Radio House, Near Model Talkies, Gandhi Road, Ahmedabad.
Erose Sound, opp. Cinema-De-France, Gandhi Road, Ahmedabad.
Fadia Radio Crafts, opp. School, Panchkuva, Ahmedabad.
Gandhi & Sons, Pankore Naka, Ahmedabad.
Geeta Radio Corporation, Near Pada Pole, Gandhi Road, Ahmedabad.
Golden Radio Service, opp Kothari Pole, Gandhi Road, Ahmedabad.
Gupta Radio Service, opp. Noyri Mills, Rajpur, Ahmedabad.
Hillmens Stores, Near Pritamnagar Dhal, Ellis Bridge, Ahmedabad.
Hiralal B. Trivedi & Co., Near Bridge, Gandhi Road, Ahmedabad.
H. V. Kumar & Co., Opp. Doshiwada Street, Kalupur, Ahmedabad.
Imperial Radio House, opp. School, Panchkuva, Ahmedabad.
International Electric Equipment Company, opp. Police Station, Reid Road, Ahmedabad.
Jagdish & Co., opp. Khadia Post Office, Ahmedabad.
Janata Radio Co., Near Grand Hotel, Khanpur, Ahmedabad.
Jayant Radio Corporation, Bhadra, Ahmedabad.
Jayshree Trading Co., Prajapati Bldg., Khadia Char Rasta, Ahmedabad.
J. K Radio Electric & Engineering Co., Panch Pipli, Astodia, Ahmedabad.
J. K. Radio Electric Co., opp. Advance Cinema, Bhadra, Ahmedabad.
J. L. Kharidia & Co., Nagar Bordi's Street, Raipur, Ahmedabad.
Jyoti Radio & Electric House, Parabadini Pole, Raipur, Ahmedabad.
Kachwala Radio Co., Near Lighthouse, Gheekanta, Ahmedabad.
Kamal Radio House, Near City Mills, Kankaria Road, Ahmedabad.
K. B. Vakil & Co., Bala Hanuman, Gandhi Road, Ahmedabad.
Kiran Radio & Electric Stores, Opp. Bhow Pol, Raipur, Ahmedabad.
Kiran Radio Service, Near Khara Kuva's Pole, Relief Road, Ahmedabad.
K. M. Parghi & Co., opp. School, Panchkuva, Ahmedabad.
K. Purnima Sound Corporation, Opp. Dhanasutar Pole, Relief Road, Ahmedabad.
Krishna Kumar & Co., Near Dhanasutar Pole, Relief Road, Ahmedabad.
Listeners Radio Service, Raja Mehta's Pole Naka, Kalupur, Ahmedabad.
Lucky Radio Service, Astodia Chakla, Ahmedabad.
Manu Contractor, opp. Pada Pole, Gandhi Road, Ahmedabad.
Manubhai Parikh & Co., opp. Madhu Baug, Ahmedabad.
Mehta Radio Service, 1446, Sheth's Pole, Mandvi's Pole, Ahmedabad.
Model Radio Service, Piperdi's Pole Naka, Relief Road, Ahmedabad.
M. C. Trading Co., 141, Sindhi Cloth Market, Panchkuva, Ahmedabad.
Metro Sound Co., Nadavala Pole, Madangopal Haveli, Ahmedabad.
Misra Radio Corporation, 141, Sindhi Cloth Market, Panchkuva, Ahmedabad 2.
M. J. Vakil & Co., Near Bridge, Gandhi Road, Ahmedabad.
Mohan Radio Service, Bhadra, Ahmedabad.
Mukundrai Trivedi, Near Rly. Crossing, Ellis Bridge, Ahmedabad.
National Radio Co., Manekchowk, Ahmedabad.
Navdurga Radio Electric Co., Dudhia Bldg., Ahmedabad.
Navin Electric Stores, Nagjibhudar Pole, Mandvi St., Ahmedabad.
Orient Radio Electric Co., Rugnath-Bamb Street, Sankdisheri, Ahmedabad.
Paramount Radio Experts, Char Rasta, Khadia, Ahmedabad.
Popular Radio Electric Co., Near Town Hall, Ellis Bridge, Ahmedabad.
Quality Radio Service, Behind Parimal Society, Ellis Bridge, Ahmedabad 6.
Radio Television & Sound System Institute, opp. Model Cinema, Gandhi Road, Ahmedabad.
Ramesh Electric Co., Ganchini Vadi, Dariapur, Ahmedabad.
R. Tolat & Co., Manekchowk, Ahmedabad.
Regal Radio Service, opp. School, Panchkuva, Ahmedabad.
Reliable Radio House, Station Road, Ahmedabad.
Shahibaugh Electronics Corporation, 283-2/7, Shahibaug, Ahmedabad 4.
Shree Radio Service, Bhadra, Ahmedabad.
Star Radio Electric Co., Philips House, Relief Road, Ahmedabad.
Super Radio Service, Kharakuva Pole Naka, Relief Road, Ahmedabad.
Sweet Radio Service, Raipur Chakla, Ahmedabad.
Unique Radio Service, Bala Hanuman, Gandhi Road, Ahmedabad.
Vanguard Radio Corporation, Near Khadia Police Station, Ahmedabad.
Western Road Co., Char Rasta, Ahmedabad.

## REFRIGERATORS (DOMESTIC)

**BOMBAY GARAGE (AHMEDABAD) LTD., Shahibag Road, Ahmedabad 4; Grams: "PARKCHIN"; Phones: 24615, 24616 & 24213.**

## ROOF WATERPROOFING

**GLADSTONE LYALL & CO. LTD.—Agency Office: Textile & General Engineering Stores, Prajapati Laladas Bldg., Khadia, Char Rasta, Ahmedabad. Bombay Manager: Cmdr. J. B. Simmons. Head Office: 4, Fairlie Place, Calcutta.**

## ROOFING MATERIALS

**TECHNICAL ENGINEERING & CHEMICAL PRODUCTS CO., Anand Nagar, Ellis Bridge, Ahmedabad; Manufacturers of Structural Waterproofing and maintenance Products for Roofs, Walls, Floors etc.**

## ROPERIES

Bharat Rope & Lace Mfg. Co., Kapasia Bazar, Ahmedabad.
Frion & Co., Reid Road, Ahmedabad 2.
Nima Trading Co., Cross Lane, Ahmedabad.

## RUBBER GOODS MANUFACTURERS

Ahmedabad Hardware Stores, Relief Road, Ahmedabad.
Bharat Rubber Industries, Kankaria Road, Ahmedabad 1.
Dunlop Rubber Co. (India) Ltd., Mirzapur Road, Ahmedabad.
Firestone Tyre & Rubber Co. of India Ltd., Near Bagicha Mills, outside Sarangpur, Ahmedabad.
Free India Tyre Retreading Co., Merit House, Relief Road, Ahmedabad 1.
Frion & Co., Reid Road, Ahmedabad.
Goodyear Tyre & Rubber Co. of India P. Ltd., 19/20, Bharat Khand Mills Compound, Ahmedabad.
Gujarat Rubber Works Ltd., Station Road, Ahmedabad.
H. Chokshi & Company, Kapasia Bazar, Ahmedabad.
India Tyre & Rubber Co. (India) Ltd., "Patdi House", Ahmedabad.
Jaya Bharat Rubber Industries, Ramnagar, Sabarmati, Ahmedabad 5.
Rubber Products Ltd., Dudeshwar Road, Bhadra, Ahmedabad.

**S. THAKORE & CO., Khadia, Char Rasta, Ahmedabad-1, Phone: 52318; Specialised in Rubber Gloves, Rubber Threads and Dry Rubber articles for all types of Industries.**

## SANITARYWARE MFRS. & MERCHANTS

Ahmedabad Ceramic Industry, 710, Anil Road, Ahmedabad 2.
Ahmedabad Sanitary Stores, Khadia Char Rasta, Ahmedabad.
Ahmedabad Stone Supplying Co., Khadia Char Rasta, Ahmedabad.
Ambica Trading Corporation, Pankore Naka, Ahmedabad.
Ashwin & Co., Dariapur, Ahmedabad.
Bachubhai Chokshi & Co., 14, Ellis Bridge, Ahmedabad 6.
Bharat Sanitary Stores, Relief Road, Kadia Kui, Ahmedabad.
Baldevdas Chhaganlal, Astodia Chakla, Ahmedabad.
Chandulal & Co., Opp. Panchkuva Cinema, Ahmedabad.
Chimanlal Chhaganlal, Raipur, Ahmedabad.
Fadia Bros., 1099, Pankore Naka, Ahmedabad.
Gujarat Tube & Sanitary Stores, Khadia, Char Rasta, Ahmedabad.
H. Khericha & Co., Opp. Jumma Masjid, Ahmedabad.
Harilal Atmaram, Lokhand Bazar, Ahmedabad.
Hatim Brothers, Pankore Naka, Ahmedabad.
Hind Hardware & Paint Mart, Sarangpur Chakla, Ahmedabad.
Jayantilal & Co., Opp. Panchkuva Cinema, Ahmedabad.
Jayantilal Dayabhai, Saraspur Vasan Street, Ahmedabad.
Kantilal & Co., Pankore Naka, Ahmedabad.
L. G. Amin & Co., Relief Road, Kadia Kui, Ahmedabad.
Lachhawani & Co., Kapasia Bazar, Ahmedabad.
Madhavlal & Co., Pankore Naka, Ahmedabad.
Natvarlal Baldevdas, Dariapur, Ahmedabad.
Occhavlal Gordhandas Shah, Khadia Char Rasta, Ahmedabad.
Oghadlal Lallubhai Shah, Khadia Char Rasta, Ahmedabad.
Ramanlal Motilal Shah, Khadia Char Rasta, Ahmedabad.
R. C. Thakkar & Co., Dariapur, Ahmedabad.
Rupesh Trading Co., Prajapati Bldg., Khadia Char Rasta, Ahmedabad.
Sanitary Hardware Stores, Kapasia Bazar, Ahmedabad.
Shah Sanitary Stores, Kadia Char Rasta, Ahmedabad.
Shantilal Vadilal, Astodia Chakla, Ahmedabad.
Sumsh Trading Co., Pankore Naka, Ahmedabad.
Talib & Co., Pankore Naka, Ahmedabad.
Vamanbhai & Co., Khadia Char Rasta, Ahmedabad.

## SEWING MACHINES

Bombay Sewing Machine Co., Near Padshah Pole, Relief Road, Ahmedabad 1.
Hind Sewing Machine Works, Opp. Vijaya Mills, Naroda Road, Ahmedabad 2.
Singer Sewing Machine Co., Relief Road, Ahmedabad 1.

## SILK FACTORIES AND MILLS

The Crown Silk & Rayon Mill, Madhowlal Ranchhodlal Colony, Railwaypura, Ahmedabad 2.
The Diamond Silk & Rayon Mill, Madhowlal Ranchhodlal Colony, Railwaypura, Ahmedabad 2.
Patel Brothers Syndicate, opp. English Cinema, Panchkuva, Ahmedabad.
Vijay Weaving Works (Vijay Fabrics), 676/12, Railwaypura, Ahmedabad.

## SOAP MANUFACTURERS

Ajaya Chemical Corpn., Sarangpur Chakla, Ahmedabad.
Ahmedabad Soap Industry, Itwada Chawl, Opp. Kalupur Bridge, Ahmedabad.
Amar Soap Factory, Sankdi Sheri, Ahmedabad.
Anil Soap Works, Gheekanta Road, Ahmedabad.
Arvind Soap Factory, Sarangpur Chakla, Ahmedabad.
Azad Soap & Oil Industries, Azad Bldg., Kubernagar, Ahmedabad.
Babu Soap Works, Dhalgarwad, Ahmedabad.
Charbhuja Soap Works, Inside Raipur Darwaja, Ahmedabad.
Chatur Soap Works, Near Swaminarayan Temple, Khodi Amli, Ahmedabad.
Commercial Soap Works, Bukhara's Pole, Shahpur, Ahmedabad.
Coronation Soap Works, Jeshingbhai's Wadi, Gheekanta Road, Ahmedabad.
Everest Soap Works, Dhupelwali Pole, Kalupur, Ahmedabad.
Imperial Soap Factory, Dhalgarwad, Ahmedabad.
Indian Soap Product, Near I. N. C. Bus Stand, Kubernagar, Ahmedabad.
Janta Soap Works, Bhutni Amli, Raipur, Ahmedabad.
Jaswant Soap Industries, Khamasa Gate, Ahmedabad.
Kailas Soap Factory, Sarabhai's Wanda, Gheekanta Road, Ahmedabad.
Kamal Soap Industries, Dhalgarwad, Ahmedabad.
Kanaya Soap Factory, Dhalgarwad, Ahmedabad.
Kheda Soap Factory, Gheekanta Road, Ahmedabad.
Kohinoor Soap Factory, Dhalgarwad, Ahmedabad.
Kotiyark Soap Factory, C/o Kotiyark Society, Kankaria, Ahmedabad.
Maher Soap Factory, Jayabharat Rangshala Compound, Saraspur, Ahmedabad.
Makim Soap Factory, New Cotton Mill Compound, Outside Raipur Darwaja, Ahmedabad.
Naaz Soap Works, Dhalgarwad, Ahmedabad.
Naresh Chemical Industries, Medikuva, Outside Shahpur Gate, Ahmedabad.
Nimco Soap & Chemical Industries, Potalia Talao, Ahmedabad.
Ojas Corporation, New Manekchowk Mill Compound, Outside Raipur Darwaja, Ahmedabad.
Paramount Soap Factory, Potalia Talao, Behind Vikram Mill Compound, Saraspur, Ahmedabad.
Paras Soap Factory, Rughnathpurani Pith, Outside Raipur Gate, Ahmedabad.
Patel Trading Co., Cement Chawl, Gomtipur, Ahmedabad.
Prabhat Soap Works, Potalia Talao, Saraspur, Ahmedabad.
Prakash Soap & Chemical Industries, Girdhar Master's Compound, Saraspur, Ahmedabad.
Ranaji Soap Works, Dhalgarwad, Ahmedabad.
Ranjit Soap Factory, Opp. Khamasa Gate, Ahmedabad.
Ratilal Harjivandas Naik, Madhubhai Mill Compound, Ahmedabad.
Romesh Soap Industries, Opp. Premdarwaja, Ahmedabad.
Saraswati Products, Kapasia Bazar, Ahmedabad.
Sarvodava Soap Works, Madhubhai Mill Compound, Ahmedabad.
Scientific Soap Works, Madhubhai Mill Compound, Ahmedabad.
Shivshanker Soap Works, Kubernagar, Ahmedabad.
Shyamsunder Soap Works, Kubernagar, Ahmedabad.
Silver Soap Works, Kubernagar, Ahmedabad.
Sudh Soap Industries, Outside Raipur Gate, Ahmedabad.
Sunrise Soap & Chemical Industries, Vastaghelji's Pole, Shahpur, Ahmedabad.
Sunder Soap Works, Dhalgarwad, Ahmedabad.
Supreme Soap Works, Potalia Talao, Saraspur, Ahmedabad.
Teli Soap & Chemical Industries, Bhadra, Ahmedabad.
Universal Soap Factory, Dhalgarwad, Ahmedabad.
Vandematram Soap & Chemical Industries, Outside Sarangpur Gate, Ahmedabad.

## SPRAYERS & DUSTERS

**VINIMA CORPORATION, Nima House, Relief Road, Ahmedabad-1; Phone: 20086, Grams: "VINIMA".**

## SPORTS GOODS

Fortune & Co., Opp. Shaker Kotda Police Chowky, Gandhi Road, Ahmedabad.
Macwan Sports Co., Near Electricity House, Lal Darwaja, Ahmedabad.
New Gujarat Sports Co., Station Road, Ahmedabad.
Orient Sports Co., Near Vadilal Hospital, Ellis Bridge, Ahmedabad.
Vakil & Co., Three Gates, Ahmedabad.

## STATIONERY & OFFICE EQUIPMENT MFRS. & SUPPLIERS

Bombay Garage (Ahmedabad) Ltd., Shahibag, Ahmedabad.
C. Mehta & Co., Opp. Gandhi Road, Post Office, Ahmedabad.
C. M. Brothers, Near Fuvara, Ahmedabad.
C. S. Brothers, Dhal's Pol, Astodia, Ahmedabad.
Desai & Co., Gandhi Road, Ahmedabad.

General Book Depot, Below Gandhi Road Bridge, Ahmedabad.
Jalian Trading Co., Fuvara, Ahmedabad.
Jehangir Brothers, Oriental Bldgs., Relief Road, Ahmedabad.
Kant Desai & Co., Near Khadia Char Rasta, Ahmedabad.
Manubhai Lalbhai & Co., 3122, Gandhi Road, Ahmedabad.
Mody Brothers, Opp. Gujarat Hotel, Gandhi Road, Ahmedabad.
Mehta Brothers, Three Gates, Ahmedabad.
Navyug Book Depot, Gandhi Road, Balahanuman, Ahmedabad.
N. Dalinchand & Co., Gandhi Road, Ahmedabad.
Office Supplies Emporium, 401-1, Khadia, Ahmedabad.
Parekh & Co., Gandhi Road, Ahmedabad.
Parikh & Parikh, Gandhi Road, Ahmedabad.
Ravindra & Co., 3087, Gandhi Road, Ahmedabad.
Remington Rand Inc., Lal Darwaja Road, Ahmedabad.
R. Mehta & Co., Under Fernandez Bridge, Ahmedabad.
S. Sutaria & Co., Reid Road, Ahmedabad.

## STEEL FURNITURE MFRS.

Ahmedabad General Engineering Works, 522/1, Panchkuva Gate, Ahmedabad 2.

**VINIMA CORPORATION, Nima House, Relief Road, Ahmedabad-1 ; Phone : 20086, Grams : "VINIMA".**

## STEVEDORES & DUBASHES

**OTA INDIA, BBZ-N-50, Clearing, Shipping and Stevedoring Agents; Central Office : 159, Colaba Road, Bombay 5; Grams : "CENOTA," Phone : 212602; Branches : Bombay (Phone: 256592), Calcutta (Phone : 239009), Kandla (Phone : 2145, Gandhidham) & New Delhi (Phone : 43799).**

## STRUCTURAL WATERPROOFING

**GLADSTONE LYALL & CO. LTD.—Agency Office : Textile & General Engineering Stores, Prajapati Laladas Bldg., Khadia, Char Rasta, Ahmedabad. Bombay Manager: Cmdr. J. B. Simmons. Head Office : 4, Fairlie Place, Calcutta.**

**TECHNICAL ENGINEERING & CHEMICAL PRODUCTS CO., Anand Nagar, Ellis Bridge, Ahmedabad ; Manufacturers of Structural Waterproofing & Maintenance Products for Roofs, Walls, Floors etc.**

## SURGICAL INSTRUMENTS

Ahmedabad Surgical Co., Opp. Juma Masjid, Gandhi Road, Ahmedabad.
Jay Hind Surgical Agency, Dhalgarwad, Ahmedabad.
Patel Surgical & Medical Store, 665, Girdhar Chambers, Opp. Model Talkies, Ahmedabad.
Sudhir Labo, Surgical Depot, Opp. Bala Hanuman, Gandhi Road, Ahmedabad.

## TEXTILE AUXILIARIES MFRS. AND DEALERS

**C. DOCTOR & CO. PRIVATE LTD.—(Estd. 1915), Bank of Baroda Bldg., Gandhi Road, Ahmedabad 1; Phone : 51238; Grams: "DOCTORCO"; Industrial Air-conditioning and Textile Engineers.**

Chemical Textilaties Reid Road, Ahmedabad.
Chemical Textile, Industries, Tagra Mills Compound, Kankaria Road, Ahmedabad.
Graduate Picker Works, 91, Dabgarwad, Ahmedabad 1.

**PICKERS LIMITED, Ellis Bridge, Ahmedabad 6; well reputed for superb quality of all kinds of Pickers. Phones: Office: 7205, Works: 2755; Grams: "COWSIE".**

## TEXTILE MACHINERY AND SPARE PARTS MANUFACTURERS AND DEALERS

A. B. Brothers, 129, Gheekanta Road, Ahmedabad.
A. Bhudharbhai Kishor & Sons, Gheekanta Road, Ahmedabad.
Ahmedabad Iron & Brass Factory, Bharatkhand Cotton Mills Compound, Asarwa Road, Ahmedabad 11.
Ahmedabad Victoria Iron Works Co., Ltd., Doodhesar Road, Ahmedabad 1.
Altex Ltd., Ramolia Building, Relief Road, Ahmedabad.
Alliance Textile Agency, Near R. C. High School, Gheekanta Road, Ahmedabad 1.
Ashok Textile Industries, Road 3, East Potalia Lane, Saraspur, Ahmedabad.
Atmaram Mohanlal Panchal, Rantiwadi, Mirzapur, Ahmedabad.

**B. A. PANCHAL & CO., Pitalia Bamba, Gheekanta, Dabadia Vande, Ahmedabad-1; Specialists of all types of Complete Dobbies.**

**BHARAT TEXTILE TRADERS, Dariapur, 713, Lunsawada, Opp. Nariawad, Ahmedabad 1; Manufacturers & Stockists of Winding latest Machinery parts supplying to all Indian Mills; Phone : 20693; Grams : "LEESONIA."**

Bracewell, J., Ltd., Haribhai Market, Ahmedabad.
Brady & Co., Ltd., W. H., Railwaypura Post, Reid Road, Ahmedabad.
Card Clothing & Belting Ltd., Kapasia Bazar, Ahmedabad.
C. Doctor & Co., Khokra Mehmedabad, Maninagar, Ahmedabad.
Chemico Textile Industries, Tagara Mills Compound, Kankaria Road, Ahmedabad.

**DASHRATHLAL CHIMANLAL & BROS., 647/23, Motilal Mansion, Kapasia Bazar, Ahmedabad 2; Manufacturers of Textile Auxiliaries and Recoppering of Copper Printing Rolls.**

English Card Clothing Co. Ltd., Maninagar, Ahmedabad.
Frion & Co., Reid Road, Ahmedabad 2.
Gannon Dunkerley & Co., Ltd., Railwaypura Post, Ahmedabad.

**GARLICK & CO. PRIVATE LTD., Engineers and Iron Founders, Industrial Equipment Manufacturers & Machine Tool Dealers. Haines Road, Jacob Circle, Bombay 11. Estd. 1878 and Inc. 1949. Telephone : 75141 (4 lines). Also at Maskati Market, Kapasia Bazar, Ahmedabad; 42/1, Silver jubilee Park Road, Bangalore 2; 6/365, Trichy Road, Coimbatore 1; 5, Green Gates, Saifabad, Hyderabad (A.P.); 38/3, Mount Road, Madras 6; G-4, Nizamuddin West, New Delhi 13.**

Gokaldas Motilal, Vora Bldg., K. Bazar, Ahmedabad 2.
Indequip Engineering Ltd., Reid Road, Ahmedabad 2.
Indian Textile Engineers Ltd., 679/18, Station Road, Ahmedabad.
India Metal Works, 1758/1-2, Mirzapur Road, Ahmedabad.
Indo Swiss Textile Machinery Mfg. Co., C/o Ideal Motors Ltd., Lal Darwaja, Ahmedabad.
Industrial Spare-Parts Co., Relief Road, Kadia Kuin, Ahmedabad.
Jagdish Iron & Brass Factory, 1175, Pankore Naka, Ahmedabad.
Jaymes Engineering Co., Relief Road, Ahmedabad.
Mistry Ambalal Jetharam Iron & Brass Factory, Gheekanta Road, Ahmedabad.
Metal Moulders P. Ltd., Indheswar Road, Ahmedabad.
M. Kothari & Co., Kapasia Bazar, Ahmedabad 2.
National Machinery Mfg. Works, Gheekanta Road, 652-10, Panchal Blocks, Ahmedabad 1.
Nima Trading Co., Cross Lane, Ahmedabad.
Ormerods (India) Ltd., Kapasia Bazar, Ahmedabad.
Panchal Babulal & Brothers, Kashiniwas, Rupapari, Dariapur, Ahmedabad.

**PIONEER ENGINEERING WORKS, THE, Prop.: C. C. Ranchhodlal & Co., Naroda Road, Ahmedabad 2. Phone: 22471; Grams: "MOULDING".**

**POONJABHAI VANMALI & SONS**
(Estd.: 1916)
Gheekanta Road, Ahmedabad.
Manufacturers of Textile Machinery, Spare Parts and Gears of all types.
Phone : 2565. Grams : "TRUFIT."

Prakash Mill Stores Trading Co., Kapasia Bazar, Ahmedabad.
Sapt Textile Products (India) Ltd., Opp. Bombay Garage, Shahibaug, Ahmedabad.
Shivlal Virchand Contractor, Near Potalia Talav, Saraspur, Ahmedabad.
Smith Engineering Works, Rupapari Pol, Dariapur, Ahmedabad.
Shri Bansidhar P. Ltd., Kankaria Road, Ahmedabad 1.
T. Manekial Mfg. Co., Ltd., Reid Road, Ahmedabad.
Tex Maco, Chotiey Lal Building, Kadia Kui, Relief Road, Ahmedabad.
Textile Fabrics Corporation, Devkinandan Cloth Market, Crosslane, Ahmedabad.

**TEXTILE MACHINERY MANUFACTURING COMPANY, Engineers and Merchants, Near Kamdar Maidan, Gomtipur Road, Ahmedabad 21. Phone: 52061; Grams: "TRUCKMAN."**

Textile Works Ltd., Hawa Bldg., Kapasia Bazar, Ahmedabad 2.

**U. M. MISTRY & SONS, 2783, Pankore Naka, Ahmedabad; Office : Crescent Chambers, Tamarind Lane, Fort, Bombay. Manufacturers of Textile Machinery, Machine Spares; Specialists—Manufacturing of Stainless Steel Dyeing plant, Barbar Coleman Dye Sleeves & Carriers to Dye Cones, Tubes and Sleeves, Steel Furniture and Steel Structure.**

United Textile Industries, Haribhai Achratlal Market, Ahmedabad.

**VENUS ENGINEERING CO., Kankaria Road, Ahmedabad. Manufacturers of Textile Processing Machinery, Cast Iron Pressure Pipes. Phone: 51575; Grams: "WATERFLOW".**

Voltas Ltd., Mirzapur, Ahmedabad.
Williamsons (India) Ltd., 670/22, Motilal Hirabhai Market, Railwaypura, Ahmedabad.
Zach Rajguru Mfg. Co., Bechardas Lashkari Bldg., Victoria Garden Road, Ahmedabad.

## TEXTILE WOODEN ARTICLES

**RAJESH WOOD & ENGINEERING WORKS, THE, Naroda Road, opp. Kalyan Mills, Near Electric grid Power Station, Ahmedabad-2; Manufacturers of Textile Wooden & Metal requisites ; Specialists : Auto-Loom Pirns, Bobbins of all types, Dobby Lattices & Pegs; Bombay Representatives : Prakash Trading Co., 69, Mody Street, Bombay-1; Phone : 264639, 256054 & 573475.**

## THERMAL INSULATION ENGINEERS

**GLADSTONE LYALL & CO., LTD., Agency Office : Textile and General Engineering Stores, Prajapati Laladas Bldg., Khadia, Char Rasta, Ahmedabad. Bombay Manager: Cmdr. J. B. Simmons. Head Office : 4, Fairlie Place, Calcutta.**

## THERMOPLASTIC SHEETS

**UNIPOL PLASTIC INDUSTRIES PRIVATE LTD., Setalvad House, Mirzapur Road, Ahmedabad 1. Manufacturers of 'Unipack' Polythene bags, rolls and Tubings; 'Unilite' P.V.C. Wires & Cables, 'Plastiglass' Acrylic Sheets, 'Uniplast' Polystyrene Sheets, 'Jasud' P.V.C. Sheets and Injection Moulded articles.**

## TRANSPORT COMPANIES

Ahmedabad Carriers Ltd., Near Purushotham Mills, Kagadapith, Ahmedabad.
Bagdi Transport Co., Zakaria Pol, Relief Road, Ahmedabad.
Bharat Service Ltd., Patel Society, Khanpur, Ahmedabad.
Gujarat Roadway Carriers, Reid Road, Ahmedabad 2.
Gujarat Transport Service, Taj Bldg., Relief Road, Ahmedabad 1.
Gujarat Transport Services Ltd., Raikhad, Ahmedabad.
Kirti Transport Co., Outside Panchkuva Gate, Ahmedabad.
Mahagujarat Transport Co., Near Zakaria Masjid, Tilak Road, Ahmedabad.
Mehta Transport Co., 329, Lakhia Street, Khadia, Ahmedabad 1.
Morris Transport Service Ltd., Biradar Compound, Lal Darwaja, Ahmedabad.
Munshi & Co., Near Zakaria Masjid, Salapore Road, Ahmedabad.
New Era Construction & Transport Co. Ltd., Madhavbaug, Sarangpur, Ahmedabad.
Parikh Transport Co., Kalupur, Danapith Khancha, Ahmedabad.
Patel Automobiles, Near G.P.O., Salapore Road, Ahmedabad.
Rajkamal Transport Co., Relief Road, Ahmedabad.
Rajnagar Transport Co. Ltd., Near Kagdapith Police Station, Ahmedabad 1.
Satnam Transport Service, Near Kalupur Gate, Ahmedabad.
Savani Transport P. Ltd., 507, Panchkuva, Darwaja Bahar, Ahmedabad 2.
Shah Transport Service Co., Sheth's Pole, Ratan Pole, Ahmedabad.
Shree Laxmi Transport Service, Near Ashok Nivas, Relief Road, Ahmedabad.
Uttam Transport Co., Relief Road, Ahmedabad.

## VACUUM VESSELS AND PUMPS MFRS.

**PIONEER ENGINEERING WORKS, THE, Prop.: C. C. Ranchhodlal & Co., Naroda Road, Ahmedabad 2. Phone: 22471; Grams: "MOULDING".**

## WATCHES & CLOCKS

*Gandhi Road :*
Ajit Watch Co.
Asiatic Watch Co
Best Watch Co.
Bharati Watch Co.
Brahmbhat Watch Co.
C. Kumar & Co.
Coronation Watch Co.
Diamond Watch Co.
Doshi Watch Co.
E. M. M. Ghadiali & Sons.
Favourite Watch Co.
Gandhi Watch Co.
General Watch Co.
Germo-Swiss Watch Co
Honest Watch Co.
Janta Watch Co.
Jawahar Watch Co.
Jayhind Watch Co.
Krishna Watch Co.
Laxmi Watch Co.
Laxmishanker Rugnath.
Liberty Watch Co.
Lipson Watch Co.
Manhar Watch Co.
New Bharath Watch Co.
New Divan Watch Co.
New President Watch Co.
New Standard Watch Co.
Novelty Watch Co.
Parikh & Parikh.
Prabhat Watch Co.
Pratima Watch Co.
Rajnagar Watch Co.
Ramdas Watch Co.
Ramnagar Watch Co.

**ROYAL WATCH CO. PVT. LTD.,**
3123, Gandhi Road,
Ahmedabad. Phone : 52271.
Grams : "CLOCK."

Shah Watch Co.
Shaheri Watch Co.
Standard Watch Co
Super Watch Co.
Universal Watch Co.
Varma Watch Co.
V. Bright & Co.
Venus Watch Co.
Vimal Watch Co.
Vishnu Watch Co.
Warden Watch Co.

*Relief Road :*
Ambica Watch Co.
Bhawani Watch Co.
Cambay Watch Co.
Dinesh Watch Co.
Kalyan Watch Co.
Master Watch Co.
New Swiss Watch Co.
Prakash Watch Co.
Prataprai K. Parmar.
Sindh Watch Co.

*Kalupur :*
Best Swiss Watch Co.
Bharat Watch Co.
Burhani Watch Co.
Chohan Watch Co.
Jain Vijay Watch Co.
Moti Watch Co.
Nazar Watch Co.
Nizami Watch Co.
Rajan Watch Co.
Saify Watch Co.

*Delhi Chakla :*
Abdul Watch Co.
Bombay Watch Co.
Darbar Watch Co.
Faithful Paleja Watch Co.
Natver Watch Co.
New Krishna Watch Co.
Popatlal Jamnadas Paleja.
Premier Watch Co.
Pyarelal & Co.
Reliable Watch Co.
Roxi Watch Co.

*Raipur :*
Nay Bharat Watch Co.
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*Dariapur :*
Dilip Watch Co.
Nathalal Chaturdas Ghadiali
Parikh Watch Co.
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*Opp. Vikram Mills :*
Atmaram Shankerlal.
Kalyanji Keshavji.
Lalitchandra M. Thakkar.
Raman Watch Co.
Saurashtra Watch Co.
Udai Watch Co.

*Gheekanta Road :*
New Jawahar Watch Co.
Rashtriya Watch Co.
Time Shop.

*Other Places :*
Ambica Watch Co., Ellis Bridge.
Ambica Watch Co., Saraspur.
Ambica Watch Co., Prem Darwaja.
Anglo American Watch Co., Pitalia.
Anil Watch Co., Station Road.
Bajrang Watch Co., Khadia Gate.
Bansil Watch Co., Doshiwada Pol.
Bipro Trading Co., Khadia Gate.
Cambay Watch Co., Ratanpol.
Coronation Watch Co., Three Gates.
Happy Watch Co., Ratanpol.
Jupiter Watch Trading Co., Opp. Bala Hanuman.
Kiran Watch Co., Jamalpur.
Makwana Watch Co., Gita Mandir.
Mehta Brothers, Pankore Naka.
New Jawahar Watch Co., Gheekanta Road, Near P.O.
Patel Watch Co., Jamalpur.
Rajanlal M. Shah, Pankore Naka.
Record Watch Co., Bhadra.
Shri Watch Co., Dinkwa Gate.
Time Industries, Near Arun Society, Ahmedabad 7.

### WATERPROOFING PRODUCTS MFRS. & DEALERS

**GLADSTONE LYALL & CO., LTD., Agency Office : Textile & General Engineering Stores, Prajapati Laladas Bldg., Khadia, Char Rasta, Ahmedabad. Bombay Manager : CMDR. J. B. Simmons; Head Office : 4, Fairlie Place, Calcutta.**

# AMRELI DISTRICT*

***Headquarters :*** **Amreli.**

***Talukas and Mahals :*** **Amreli, Kodinar, Dhari, Khambha, Jafrabad, Rajula, Lilia, Lathi, Kunkavav, Vadia, Babra.**

**The area of Amreli District is 1,545 square miles.**

**The District is level country broken only by Gir Hills in the Dhari Taluka. The average yearly rainfall is between 23 to 25 inches.**

**The Okha Port in Amreli District is one of the best deep sea ports in India. In Okhamandal Taluka, Port Okha, Mithapur and Dwarka have become industrial centres. There are some big industries at these places namely Dwarka Cement Works, the Tata Chemicals Ltd. and the Burmah-Shell Oil Storage and Distributing Co. Dwarka is famous for Ranchhodrai temples. In Kodinar Taluka, there are a number of ports, which are chiefly used by the fishing industry and country craft.**

**Associations**

SHRI MATJI HARIBHAI PAREKH ANANDJI VITHALDAS DOSHI KAPOLI BOARDING SCHOOL AND SHETH PARAMANANDDAS TRIBHOVANDAS KAPOLI BALASHRAM

Amreli.

SHRI MAHILA VIKAS MANDIR

Jain Mahajanwadi, Dr. Jivaraj Mehta Road, Amreli.

**BALWANT SILK WEAVING WORKS**

Manufacturers and Exporters of Art Silk Linen, Cotton Shirtings and all kinds of Textiles.

Tarwadi Road, Amreli (Saurashtra).

Grams : "BALWANT". Phone : { Factory : 155. Office : 143.

**MOHANLAL KHIMJIBHAI & SONS, Oil Engine, Radio, Steel Furnitures and General Merchants; Tower Road, Amreli (Gujarat Statez).**

**MOHANLAL KHIMJIBHAI & SONS, Oil Engine, Radio, Paints, ADV Sets, Steel and Cements Merchants; Subhash Road, Chalala.**

**SHREE LAXMI SILK WEAVING FACTORY**

Manufacturers and Exporters of Art Silk Linen, Cotton Shirtings and all kinds of textiles made to order for buyers.
Mehta Wadi, Jaysinghpura, Amreli. "SHREE LAXMIFEB"
Trade Mark No. 195582
Grams : "LAXMISILK." Phone : 86.
*Sales Office (Bombay) :*—346, Kalbadevi Road, Bombay 2 (BR.). Phone : 39717.

# BANASKANTHA DISTRICT*

***Headquarters :*** **Palanpur.**

***Talukas and Mahals :*** **Palanpur, Deesa, Dhanera, Vadgam, Tharad, Wav, Deodar, Kankrej, Danta, Radhanpur, Santhalpur.**

**The area of the District is 4,037 square miles.**

# BARODA DISTRICT*

***Headquarters :*** **Baroda.**

***Talukas and Mahals :*—Baroda, Savli, Waghodia, Padra, Karjan, Sinor, Dabhoi, Sankheda, Naswadi, Chhota-Udepur, Jabugam, Tilakwada.**

**The area of the District is 2,961 sq. miles.**

**Geological experts of the Oil and Natural Gas Commission of the Govt. of India are prospecting for oil in Baroda and have announced oil find at one of the 12 experimental bores near Vadsar. Traces of oil have also been found at Sangma. Traces of oil and gas have also been found at Padra. Oil and Natural gas workshop has been located at Boroda at a cost of Rs. 2 crores. Gujarat Refinery with a capacity of 3 million tons is being set up in this District. The Refinery was expected to go into operation in Jan. 1966 processing a million tons of oil annually. A Fertilizer Factory is being set up, and Petro-chemical industries will follow suit.**

**The District as a whole has not less than 1,635 primary schools, 135 secondary schools, 800 libraries, 300 gymnasiums and welfare associations.**

**The annual rainfall averages about 30 inches and varies only slightly from one place to another. The chief food crops are wheat, jowar, bajra, pulses, kodra, bawta, maize. Rice is now grown extensively interspaced with cotton.**

**Baroda, the headquarters of the District is fully modernised. The District is also well advanced in industry. In recent years a number of factories, big and small have sprung up. The more important lines of development are textiles, chemicals, oil and soaps, engineering celluloid bangles, Nylon Socks, Steel Furniture, Colours & Paints stensile steel, wired glass spectacles, two rubber factories, metal works and foundries, rolling mills and manufacture of glassware, etc., providing employment to about 30,000 workmen. It is also the Headquarters of Oil & Natural Gas Commission Establishment in Gujarat.**

**An Industrial Estate has been established and the important industries started are those for the manufacture of cameras, tractors and steel furniture. Further new industries for the manufacture of Vitamins, Wired Glass, Oxygen, Electricals, Antibiotics, Chemical Pumps, etc., etc., are coming up.**

* See article on "Population" for population figures.

Among the larger medical institutions the most important is the Shri Sayajirao State General Hospital in Baroda city, which contains all special departments like pathology, surgery, radiology, dentistry, deep X-Ray therapy for cancer, opthalmology, midwifery, gynæcology and children's diseases. There is also the Shri Jamnabai Hospital run by the Government. A new Hospital at a cost of Rs. one crore is under construction.

The Shri Padmavatibai Tuberculosis Hospital and Sanatorium located some 8 miles from Baroda city is well-equipped with scientific appliances and a clinic provides treatment for people suffering from tuberculosis. Kalpana and Uma clinics are ranked among the largest private nursing homes in India.

The Baroda Municipality has a Master Plan for the City costing about Rupees six crores. The city limits have been extended to nearly 30 sq. miles. There is a toy railway for children.

## MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA

Baroda 2.

The Maharaja Sayajirao University is a teaching and residential University established in 1949 under an Act of the former Baroda State and incorporated in the Statute by the Bombay (Gujarat) Government following the merger of the State with Bombay (Gujarat). All the colleges and recognised institutions situated within the University area specified in the Act, became the constituent parts of the University and were with the exception of the Medical College, Museum and Picture Gallery managed by the University. These constituents include :—the Faculties of Arts, Science, Education and Psychology, Commerce, Medicine, Technology and Engineering, Fine Arts, Home Science, Social Work and Law, Preparatory Unit, College of Indian Music, Dance and Dramatics, Polytechnic, the Oriental Institute and the Baroda Sanskrit Mahavidyalaya.

The University confers the following Degrees and Diplomas on students on passing the appropriate examinations :

*Degree :* Ph.D. (Arts, Science, Education, Commerce), B.A., M.A., B.Sc., M.Sc., B.Ed., M.Ed , B.Com., M.Com., M.B.B.S., M.D., M.S., B. Arch., B. Text., B.E., (Civil, Mechanical, Electrical and Chemical Engineering), M.E. (Civil, Mechanical and Electrical), B.A. (Fine), M.A. (Fine), B.Sc. (Home), M.Sc. (Home), Master of Social Work, Bachelor of Music, Master of Music, Vachaspati (Equivalent to Ph.D.), Acharya (Equivalent to M.A.), Shastri (Equivalent to B.A.), LL.M., LL.B.

*Diplomas :* Teaching, Early Childhood Education, Co-operation, Civil, Mechanical and Electrical Engineering, Textile Chemistry and Textile Technology, Painting, Sculpture, Applied Arts ; Post-Graduate Diplomas in (1) Guidance and Counselling, (2) Educational Administration, (3) Applied Linguistics, (4) Banking, (5) Various medical subjects, (6) Library Science, (7) Museology, (8) Nursery School Education, (9) Co-operation, (10) Diploma in Labour Laws & Practice, (11) Diploma in Taxation Laws & Practice.

The University has introduced the three-year degree course in Arts, Science and Commerce from 1957. The preparatory Unit provides instruction to the students of Preparatory Arts, Science, and Commerce classes.

*Budget for the year* 1965-66 :

*Income :* Rs. 84,17,651 including Government of Gujarat grant of Rs. 35,95,582. *Expenditure :* Rs. 96,32,807.

*Chancellor*, His Highness Shrimant Fatesinh Gaekwad, Maharaja of Baroda.

*Vice-Chancellor*, Dr. C. S. Patel, B.A., M.Sc. (Bom.), Ph.D. (Leeds).

*Pro-Vice-Chancellor*, Prof. P. J. Madan, B.Sc. (Eng.) (Edin.) M.Sc (Eng.) ; (London), D.I.C. (London) M.Inst. H.E. (London) ; M.I.E. (India).

*Registrar*, B. K. Zutshi, M.A., LL.B. (Luck.).

*University Librarian*, Dr. C. P. Shukla, M.A., B.T. (Bom.), M.A. (L.S.), Ph.D. (Michigan).

*University Engineer*, B. B. Nanavaty, B.E. (Civil), A.M.I.C.E.

*Members of the Syndicate :*—Dr. C. S. Patel (*Vice-Chancellor*) ; Professor P. J. Madan, (*Pro-Vice-Chancellor*) ; K. G. Badiani (*Director of Education*) ; J. S. Parith, D. M. Parikh ; Shrimati Ansuya I. Amin ; N. D. Chokshi ; C. C. Mehta, Dr. T. V. Patel, Professor B. J. Sandesara ; Professor S. M. Sethna ; Dr. B. B. Yodh ; Professor N. S. Bendre ; P. C. Hathi.

*Deans of Faculties : Arts*—Prof. V. Y. Kantak, M.A., *Science:* Dr. S. M. Sethna, Ph.D., *Education and Psychology*—Dr. M. S. Patel, Ph.D., *Commerce*—Dr. K. N. Naik, Ph.D., *Medicine*—Dr. A. D. Joseph, M.D., F.C.P.S. (*Administrative*) ; Dr. T. V. Patel, M.D. (Academic), *Technology and Engineering*—Prof. L. B. Shah, B.Sc. (Engg.), M.Sc. (Tech. Manc.), A.M.I.E. Mech. (London), *Law*—Prof. H. C. Dholakia, M.A., LL.B., LL.M., (Cornell) *Fine Arts*—Prof. N. S. Bendre, B.A., G.D. Art, *Home Science*—Prof. (Smt.) Amita B. Verma, B.A., M.A. (Michi.) ; M.A. (Tennessee), *Social Work*—Prof. G. G. Dadiani, B.A., M.S.W., M.Sc. (U.S.A.).

*Principals : Preparatory Unit*, K. S. Yagnik, B.A., B.T. ; *College of Indian Music, Dance and Dramatics*, Prof. R. C. Mehta, B.A. ; *Polytechnic*, Prof. C. H. Khadilkar, B.E. (Civil), AMICE (Lond.), M.I.E. MIRSH, MRSH (Lond.) ; *Sanskrit Mahavidyalaya*, H. C. Mehta, M.A., B.T.

*Director, Oriental Institute*, Dr. B J. Sandesara, M.A., Ph.D. (Bom.).

## INSTITUTIONS

The Baroda Arts and Science College, Baroda ; The College of Engineering, Baroda ; The Pratapsinh College of Commerce and Economics, Baroda ; The Kalabhavan Technical Institute, Baroda ; The College of Indian Music, Baroda ; Vernacular Teachers' Training College ; Training College for Women Teachers ; Diamond Jubilee Cotton Industries Institute, Baroda ; Emporium of Arts and Crafts, Baroda ; Sanskrit Mahavidyalaya, Baroda ; The Women's College of Home Science, Baroda ; The College of Fine Arts, Baroda ; The School of Social Work, Baroda ; The Secondary Teachers' Training College, Baroda ; The Aryan University for Girls, Baroda ; Medical College, Baroda ; Railway Staff Training College, Baroda ; Polytechnic, Baroda ; State Home for Rescued Women.

### BARODA PAPER MERCHANTS' ASSOCIATION

C/o K. N. Mehta & Co., Mandvi Road, Baroda.

### BARODA GRAIN MERCHANTS' ASSOCIATION

Gendi Gate Road, Baroda.

### CENTRAL GUJARAT CHAMBER OF COMMERCE

Federation Bldg., Race Course Road, Baroda 5.

*President :* Ramanbhai B. Amin ; *Vice-President :* Lalitchandra M. Patel ; *Hon. Secretaries :* Sakarlal M. Shah ; Rajendra L. Thakor, *Secretary :* Chandrakant M. Shah, B.Com.

### ENGINEERING RESEARCH INSTITUTE

Race Course Road, Baroda 5.

*Director :* H. P. Oza ; *Dy. Director :* B. G. Shah ; *Research Officers:* T. R. Suthar, A. M. Jani F. H. Shaikh.

### THE FEDERATION OF GUJARAT MILLS & INDUSTRIES

Race Course Road, Baroda 5.

The present membership is 200. The membership is open to all industrial undertakings.

*President :* Nanubhai B. Amin ; *Vice-President :* Upendra M. Patel; *Hon. Secy. and Treasurer :* Dinesh Chimanlal.

### FEDERATION OF SMALL SCALE & COTTAGE INDUSTRIES

Dadasaheb Haveli, 3rd Floor, Mandvi, Baroda.

*President :* P. N. Thakkar ; *Treasurer :* S. C. Shah.

### GUJARAT OPTICAL MANUFACTURERS' ASSOCIATION

Mangal Bazar, Baroda.

*President :* P. N. Thakkar ; *Vice-President :* A. K. Patel ; *Gen. Secretary :* V. I. Patel ; *Treasurer :* B. U. Patel.

### GUJARAT SOAP MAKERS' ASSOCIATION

C/o Shree Krishna Industries, Pratapnagar Road, Baroda 4.

*President :* P. H. Shah ; *Hon. Secy.*, K. V. Dalal.

### ORIENTAL INSTITUTE

Smt. Hansa Mehta Library Building, Tilak Road, Baroda.

*Director :* Prof. B. J. Sandesara ; *Dy. Director & General Editor and Head of the Ramayana Department :* Dr. U. P. Shah.

### PARESH TECHNICAL INSTITUTE

Palace Road, Baroda, and Vayudevta Building, Bajwada, Baroda.

### TEXTILE & ALLIED INDUSTRIES RESEARCH ORGANISATION (TAIRO)

Kala-Bhavan Premises, Baroda.

*Hon. Director-Secretary ;* B. B. Joshi, F.T.I., F.T.A. ; *Assit. Director* Dr. S. J. Shah, B.E. (Mech. & Elec.). D.Sc. Tech. (Zurich) ; *Textile Engineer :* A. R. Naidu, B.E. (Mech.).

### LIBRARIES

Central Library ; Shri Jaisinhrao Public Library ; M. S. Univ. Library known as Smt. Hansa Mehta Library ; Information Centre ; Manekrao Vyayam Shala Library ; Pustakalaya Mandal Library.

# TRADES & PROFESSIONS

## ACME INDUSTRIES

*Manufacturers of :* Elastic Cords, Tapes, Healds, Cotton, Art Silk & Nylon Tapes, Twines Cordages etc.

*Address :* Old Rangshala Compound, Bahucharaji Road, Baroda.

*Prop. :*

**ACME MFG. AND AGENCIES (INDIA)**

P. O. Box No. 1732, **BOMBAY-1.**

Phone : **256311.**

Adyashakti Engineering Works, M. Gandhi Road, Baroda.
Agro & Electro Rythum Corporation, M. G. Road, Baroda.

## ALLIANCE CORPORATION

Dabhoi Road, Pratap Nagar,
Baroda

Head Office : Ahmedabad ; Branch : Bombay ; Sole Distributors of Moneded and Extruded Rubber; Products manufactured by Messrs. Gujarat Rubber Works Ltd.

Aims Oxygen Pvt. Ltd., Padra Road, Baroda 5.
Alembic Chemical Works Co. Ltd., Baroda 3.
Alembic Glass Industries Ltd., Baroda 3.
Allied Electrical Engineering Co., Madan Zampa, Baroda.
Allied Electrical Industries, Near Bharat Metal Industries, Juni Rangshala, Bhutdi Zampa, Baroda.
Allied Pharmaceutical Laboratories, Jombubet, Dandia Bazar, Baroda.
Alkha Steel Industrial Corporation, Bank Road, Baroda.
Ambica Iron Works, Nagarwada, Hakim Sahib's Wada, Baroda 1.
Ambica Mills No. 3, Padra Road, Baroda.
Anand Niwas Ltd., Opp. Jubilee Baug, Baroda.
Apollo Pharmaceutical Works, Pratapnagar, Baroda.
Aquapura Corporation, C/o Nutan Photo Studio, Opp. Ahmedabad, Pole, Baroda.
A. Sheth & Co., Lokmanya Tilak Road, Baroda.
Ashok Chemicals Ltd., Goyal Gate, Baroda.
Ashok Engineering Works, 2/6, Industrial Estate Baroda 3.
Ashwin Industries Ltd., Office : opp. Jubilee Baug, Baroda.
Asian Engineering Co., Pratapnagar, Baroda 4.
Atul Tiles & Marbles Pvt. Ltd., 3/16, Industrial Estate, Baroda 3.
Baroda Automobiles, Opp. Jubilee Baug, Baroda.
Baroda Box & Carton Mfg. Co., Behind Railway Station, Baroda.
Baroda Brush Co., Behind Rly. Station Distillery Compound Baroda 3.
Baroda Commercial Corporation, Bank Building, Mandvi, Baroda.
Baroda Crystal Glass Works Ltd., P.O. Box 87, Pratapnagar, Baroda.
Baroda Distillery Co., Behind Railway Station, Distillery Compound, Baroda 3.
Baroda Engineering and Moulding Works, Baranpura Naka, Pratapnagar, Baroda 4.
Baroda Hotel and Circus House, Race Course Road, Baroda.
Baroda Iron and Steel Industries, Pratapnagar Road, Baroda 4.
Baroda Industrial Mills Co. Ltd., Bhutdi Zampa, Baroda.
Baroda Oil & Mill Store Supplying Co., opp. Suryanarayan Baug, Raopura, Baroda.
Baroda Optical Industries, Hathikhana Road, Baroda.
Baroda Packagings, 3-8, Industrial Estate, Baroda 3.

## BARODA ROLLED GLASS CORPORATION

Dhanvantari, Sayaji Gunj Corner, Baroda-5.

Wholesale Distributors of ed Wired and Figured Glass
of
Hindustan Wired, Glass Mfg., Co., Ltd.

CAST IRON PIPES

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Chhani Road, Baroda-2.

Manufacturers of C.I.S/S and Flanged Pipes & Fittings and heavy duty C. I. Sluice Valves and Concrete Mixers.

Baroda Safe Co., Gandhi Gate, Baroda.
Baroda Spg. & Wvg. Co. Ltd., Post Box 57, Baroda.
Bharat Automobiles, Behind Nyaya Mandir, Baroda.

## BHARAT CASEMENTS PRIVATE LTD.,

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Manufacturers of top quality BANCO SPRING BEDS ; We manufacture Double Deakers and Baby Cots too.

Bharat Chemicals, Pratapnagar, Baroda.
Bharat Machinery Corporation, Kothi Pole, Raopura, Baroda.
Bharat Metal Industries, Pratapnagar Road, Baroda.
Bharat Pickers and Buffers Mfg. Co., Bank Road, Baroda.
Bharat U Staple Mfg. Works, Meera Niwas, Sayajiganj, Baroda.
Bicycle Manufacturing Industries Pvt. Ltd., Leedhar's House, Hath Pole, Baroda.
Bipin Fruit Products, A-2/1, Industrial Estate, Baroda 3.
Blitz Products, Burhanpur, Baroda.
British Radio Corporation P. Ltd., Palace Road, Baroda.
Cambay Saw Mill Textile Accessories Co., Madan Zampa, Baroda.
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Manufacturers of top grade Products that include BANCO-ROYAL Gaskets and "BANCO" Radiators.

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Chemicoat Ltd.—Lokmanya Tilk Road, Baroda 5.
Chemitex Industries, Bank Road, Baroda.
Chetan Industries.—Ramji Mandir Pole, Opp. Govt. Press, Baroda.
Chetan Press P. Ltd., Nava Bazar, Baroda.
Chimanlal Dalal & Sons, Padi Pole, Mandvi, Baroda.
Coronation Hotel, Sayajiganj, Baroda.
Desai Tin & Pencil Mfg. Co., 28, Alkapuri, Baroda.
Dhiraj Industries, Parikh Estate, Pratapnagar, Baroda 4.
Dinesh Mills Ltd., Padra, Baroda.
Dye-Azo P. Ltd., C-2/20, Industrial Estate, Gorwa Road, Baroda 3.
Electro Industries Ltd.—Industrial Area, Pratapnagar, Baroda 4.
Everest Industrial Corporation Private Ltd., Pratapnagar, Baroda 4.
Export Advertising Service, Sayajiganj, Baroda.

F. A. Chasmawala Optical Industries, Wadi, Opp. Masjid, Baroda.
G. R. Phadke & Co., Shivaji Road, Baroda.
Ganesh Foundry Works, Pratapnagar, Baroda 4.
Ganesh Machinery Traders, Laheripura, New Road, Baroda.
Gaskets & Oil Seals Pvt. Ltd., Post Box No. 89, Baroda.
General Electrical & Mechanical Corporation, Industrial Estate, Baroda 3.
General Mechanical & Engineering Works, Haribhakti's Wadi, Faizkhan Road, Baroda.
General Suppliers & Manufacturers, The, Post Box 50, Baroda.
G. N. Hakim & Sons, Raopura Tower, Baroda.
Good Luck Oil & Paint Co., Post Box 120, Baroda.
Graphite and Mineral Industries, Chhani Road Baroda.
Green Hotel, Race Course Road, Baroda.
Gujarat Automobiles, Jubilee Baug, Baroda.

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1-10, Industrial Estate, Baroda-3 ; Manufacturers of Drill Sleeves, Drill Jig Bushes, Dowel Pins & Precision Parts for Various Industries.

Phone : 8205. Grams : " MACKTOOLS '

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Gujarat Safe Co., Gendi Gate, Baroda.
Gujarat Trading Co., Mogulwada, Baroda.
Gujarat Woollen Felt Mills, Ranoli (Dist. Baroda).
Halifax Engineering Co., Anandpura, Baroda.
Harihar Industries, Nagarwad, Baroda.
Hari Om Agricultural Tools Mfg. Co., Koyli, Baroda.
Havmor, Opp. Baroda College, Baroda.
Hindustan Electric Motor Co. Ltd., Industrial Area, Baroda 3.
Hindustan Ophthalmic Lens Manufacturers, Opp. Kothi Bus Stop, Baroda.

**HINDUSTAN WIRED GLASS MFG. CO. LTD.—Redg. office & Factory : Near Lal Baug, Vishwamitri Road, Baroda; Manufacturers of Figured and Wired glass in seven pleasing patterns and thicknesses ranging from 3 mm. to 7 mm.**

Indian Export Trade Journal, Sayajiganj, Baroda.
Indian Hume Pipe Co. Ltd., Pratapnagar, Baroda.
Jasmann Machine Tool Corporation, Anandpura, Baroda.
Jawahar Hotel, Palace Road, Baroda.
Jalhind Optical Industries, Pratapnagar, Baroda 4.
Jay Hind Safe & Mechanical Works, Gendi Gate Road, Baroda.
Janata Optical Industries, Rajmahal Road, Baroda.
Jayendra Metal Industries Ltd., Sayajiganj, Baroda.
Jopcos Mfg. Co. Ltd., Sayajiganj, Baroda.
Joshi, Pandit & Co., Ltd., Sayajiganj, Baroda.
Kamala Soap Ltd., Sayajiganj, Baroda.
Krishna Niwas Hotel, Behind Nyayamandir, Baroda.
Laxmi Engineering & Mfg. Co., Bhutdi Zampa, Baroda.
Laxmi Optical Industries, Rang Mahal, Opp. Ramji Mandir, Baroda.
Laxmi Safe & Engineering Co., Sayajiganj, Baroda.
Laxmi Steel Industries, Opp. Baroda College, Sayajiganj, Baroda.
Laxmi Vijay Brass & Iron Works, Pratapnagar Road, Baroda 4.
Liberty Motors, Near Jubilee Baug, Baroda.
Liberty Optical Traders, Rajpura Street, Opp. Nazar Baug, Baroda.
M. Amin & Co., Distributors : Burshane Gas, Godrej Steel Products, Fans, Air Conditioners, Refrigerators, Baroda.
Mahagujarat Engineering Industries, Mahavirswamy's Pole, Raopura, Baroda.
Mahalaxmi Brass and Iron Foundry, Padi Pole, Mandvi, Baroda.
Mahalaxmi Iron & Engg. Works, Bahucharaji Road, Baroda.
Mahendrakumar & Co.—Laheripura New Road, Baroda.
M. C. Kothari, Booksellers, Publishers & Newspaper Agents (Times of India), Raopura Road, Baroda.
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Merit Oil & Trading Co., Ltd., Mehta Road, Baroda.
Mistry Engineering Works, Shankar Tekri, Kala Bhavan, Baroda.
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Registered Office : Bank Building, Mandvi, Baroda.
*Chairman :*— **Shri Tulsidas Kilachand**
*General Manager :*—**Shri M. G. Mody**
Business Transacted: Fire, Marine, Accident and Miscellaneous insurance.

**NEW INDIA INDUSTRIES LTD.,**

H.O. & Works : Jetalpur Road, Baroda ; Formost Manufacturers of 'INDIA ' Grand best Egyptian Cotton Healds, Steel Reeds, Brass Reeds, Striking Combs, Dobby Harness etc., CYCLE brand wire Healds, All Metal Reeds, Jute Combs, Jute Reeds ; SWAR brand Egyptian Cotton Yarn and Staple fibre yarn ; Bombay office : Industrial Assurance Bldg., 5th floor, Churchgate Bombay-1 ; Phone : 2436660, 243667.

Naz Box Mfg. Co., Vorwad, Gendi Gate, Baroda.
New Gujrat Trading Co., Raopura, Baroda.
New India Industries Ltd., Jetalpur Road, Baroda.
Olympic Chemical Industries Ltd., Nagarwada, Baroda.
Orient Chemical Co., Modikhana Road, Baroda.
Paramount Insurance Co., Ltd., Raopura, Baroda.
Parikh Transport Co., Behind Jubilee Baug, Baroda.
Patel Tacks Factory, Paramount Industrial Compound, Pratapnagar Road, Baroda.
People's Co-operative Industries Ltd., Madan Zampa, Baroda.
Pioneer Equipment Co. Pvt. Ltd., A 1-5/6, Industrial Estate, Baroda 3.
Poornima Industrial Works, Pratapnagar Road, Baroda 4.
Power Cables Pvt. Ltd., 40, Alkapuri, Baroda 5.
Prakash Food Industries, Behranpura, Baroda.
Progress Industries, Madan Zampa Road, Baroda.
Punjab Steel Rolling Mills, Baroda 2.
Quality Engineering Works, Behind Chokhandi Vegetable Market, Pratapnagar Road, Baroda 4.
Rainbow Texdyes Corporation, Goya Darwaja, Baroda.
Ramanco Pvt. Ltd., Bajwada, Baroda.
Ravi Engineering Works, Nagarwada, Baroda.
Royal India Industries, Mandvi Road, Zaverchand Laxmichand Street, Baroda.
Ruby General Insurance Co., Ltd., Diwali Bhuvan, Raopura, Baroda.
Sakti Files Co., Radhakrishna's Pole, Palace Road, Baroda.
Samrat Hotel, Near Railway Station, Baroda.
Sanitex Chemical Industries P. Ltd., Baroda 3.
Sarabhai Chemicals, Wadi Wadi, Baroda.

Machinery for Chemical, Pharmaceutical, Textile and Glass Industries. Manufacturers :

**SARABHAI MACHINERY**

(Karamchand Premchand Pr. Ltd.)
P.O. Box No. 72,
Baroda

Phone: 8389 Grams: "SARAYANTRA"

Sarabhai Merck Ltd., Post Box No. 80, Baroda 5.
Sarita Soap Works, Wadi Chokhandi, Baroda.
Satyadev Chemicals Private Ltd.—Post Box 101, Pratapnagar Road, Baroda.
Sayaji Iron and Engineering Co., Ltd., Chhani Road, Baroda.
Sayaji Mills Ltd., Baroda 3.
Shakti Engg. Works P. Ltd., New Khanderao Road, Baroda.
Shakti Packing Industries, Laheripura New Road, Baroda.
Shree Dinesh Tiles Factory, Alembic Road, Baroda 3.

Shree Krishna Industries, Chowkhandi, Sahid Market, Pratapnagar Road, Baroda 4.

Shree Ram Engineering & Mfg. Industries, Pratapnagar, Baroda 4.

Shree Shakti P. Ltd., Bapu Sadan, Sayajiganj, Baroda.

Shree Yamuna Mills Co. Ltd., Pratapnagar, Baroda 4.

Shree Uma Transport Co., near Baroda Talkies, Baroda.

**SHREYAS CHEMICALS.—Dandia Bazar, Baroda 1; Manufacturers of Acids Commercial, Pure and A.R. Grades.**

Shri Adyashakti Engineering Works, Mahatma Gandhi Road, Karoliapole, Baroda.

Shri Suryodaya Transport Co., Near Tarkeshwar, Baroda.

Shroff Chemical Works, The, Raopura Tower, Baroda.

Sigil India Service P. Ltd., New Laheripura Road, Baroda.

S. I. Works Pvt. Ltd., Chhani Road, Baroda.

Spunpipe & Construction Co. (Baroda) P. Ltd., Jamuna Bag, Behind Rly. Station, Baroda.

Radiator Manufacturers

**STANDARD RADIATORS**

Industrial Estate, Baroda-3.

Manufacturers of Radiators of British "Crusader Mark III" Plant In a factory equipped with Wind Tunnel Testing Facilities, used in Contractors Plants, Compressors, Automobile and Industrial Engines.

Star Chemical Works, Pratapnagar, Baroda.

Star Industries, Dandia Bazar, Baroda.

Sterling Surgical & Industrial Corporation, Keshav Bhuvan, Kothi Pole, Baroda.

**SUESSEN TEXTILE BEARINGS LTD.,**

Manufacturers of Ball-bearings & Components. Bombay-Ahmedabad National Highway, No. 8, Makarpure Road, Pratapnagar, P.O., Baroda.

Phones : 3869, 3749 Grams : "SUESSENTEX"

Suhrid Geigy Ltd., P. Box No. 48, Wadi Wadi, Baroda.

**SWASTIK ENGINEERING & MANUFACTURING CO. PRIVATE LTD., Bahucharaji Road, Baroda; Structural Engineers and Contractors, Engineering Workshop & Foundry; Manufacturers of Textile Machineries, viz., Double Folding & Plaiting Machines, Single Folding Machines, Double Folding, Rolling and Plaiting Machines, Single & Double Rolling Machines, Cloth Stamping Machines, Selvedge Printing Device, Cloth Inspecting Machines; Building Construction machinery; 'Harihar' Tilting and Non-Tilting Drum Type concrete Mixers, other machineries : Flour Mills, Industrial and Domestic, Rotary Oil Mill, Rice Mills, Rice Hullers, Sugarcane Crushers, Building Materials; Municipal Drainage & Water Works accessories; Engineering and Machinery spare parts etc. Phone : 4101; Grams : "SEMCO"—Baroda.**

Swastik Trading Co., Behind Jubilee Baug, Baroda.

Tarun Industrial Corporation, Pratapnagar Road, Baroda 3.

Tensile Steel Ltd., 60, Alkapuri, Baroda.

Textile Aniline & Chemical Co. P. Ltd., Pratapnagar Road, Baroda 4.

Textile Appliances & Instruments Co. P. Ltd., 81, Alkapuri, Baroda.

**TEXTILE MACHINERY MFRS.**

Phone : 8389. Grams : "SARAYANTRA".

**SARABHAI MACHINERY**

(Karamchand Premchand Pr. Ltd.)

Post Box No. 72, Baroda.

Manufacturers of Equipment for Textile Industry, *e.g.* Size Storage Vessels, Size Pressure Cooking Vessels, etc. Cloth Guiders—Mechanical and Electromagnetic (in Collaboration with Messrs. Erhardt & Leimer, West Germany).

United India Medical Stores, opp. Secretariat, Baroda.

Vajresh P. Ltd., Kantawalla Bldg., Limdapole, Baroda.

Vannit Industries, A-2/7, Industrial Estate, Baroda 3.

Vasant Engineering Ltd., Pratapnagar, Baroda 4.

Venus Texdyes Corporation, Nagarwada, Baroda.

Vishnu Engineering Works, Behind Jubilee Gardens, Kumbarwada, Baroda.

Vishnu Industrial Works, Pratapnagar, Baroda 4.

Vishwakarma Engineering Works, Nagarwada, Baroda.

Vishwakarma Pen Co., Kharivav Road, Baroda.

**VITHAL OIL MILLS**

(Estd.: 1922)

Chokhandi, Baroda

Manufacturers of Groundnut Oil, Castor Oil & Cakes.

Phone : 4570. Grams : "FREEDOM"

Western India Engineering Co., Padi Pole, Baroda.

Western India Motor Car Co., Salatwada, Baroda.

Zaverchand Gaekwad P. Ltd., Padra Road, Baroda.

# BHAVNAGAR DISTRICT*

*Area :* 4,652 sq. miles.

*Headquarters :* Bhavnagar.

*Talukas :* Bhavnagar, Botad, Gadhada, Kundla, Mahuva, Palitana, Sihor, Talaja, Datha, Umrala, Vallabhipur, Gariadhar, Gogho.

The port of Bhavnagar is well-equipped, and it is one of the main trading centres of the area.

The main crops are bajra, jawar, oilseeds, rice, cotton and wheat.

ASSOCIATIONS

BHAVNAGAR SMALL INDUSTRIES ASSOCIATION
Darbargadh, Bhavnagar.

SAURASHTRA CHAMBER OF COMMERCE

Old Darbargadh, Bhavnagar.

COTTON MILLS

KRISHNA KUMAR MILLS CO., LTD., Mahua, Bhavnagar.

MAHALAXMI MILLS LTD., Chavdi Gate, Bhavnagar.

NEW JEHANGIR VAKIL MILLS CO., LTD., Nilambag Road, Bhavnagar.

* See article on "Population" for population figures.

# BROACH DISTRICT*

*Headquarters :* Broach. *Sub-Division :* Rajpipla.

*Talukas and Mahals :* Broach, Vagra, Amod, Jambusar, Ankleshwar, Hansot, Nandod, Jhaghadia, Valia, Dediapada, Sagbara.

The area of the District is 2,986 sq. miles. The language spoken is Gujarati.

### MILLS

BROACH TEXTILE MILLS PRIVATE LTD., Mahatma Gandhi Road, Broach.

SHRI PRITHVI COTTON MILLS LTD., Mahatma Gandhi Road, Broach.

### ASSOCIATIONS

The Broach Bar Association, Court Road, Broach ; The Broach Red Cross Society, Near Tower, Broach ; The Broach Sanitary Museum Hall, Broach ; The Majoor Mahajan, Broach Branch, Near Sevashram, Broach ; The Broach Kamdar Union (Red Flag), Near Panch Fanas, Broach ; The Bharat Sevak Samaj, Jawahar Bazar, Broach ; The Broach Shtri Mandal, Jawahar Bazar, Broach ; The Broach Education Society, Jawahar Bazar, Broach ; The Broach Cine Circuit Society, Navadehra, Broach ; The Broach Sad Vidya Mandal, Jawahar Bazar, Broach ; The Broach Jilla Vidvarthi Sahayak Mandal, Lallubhai Chakla, Broach.

### LIBRARIES

Raychand Dipchand Library, near Tower, Broach.
Nrisinh Library, Jawahar Bazar, Broach.
Dadabhai Naorojji Library, Zadeswari Durwaja, Broach.

B. E. S. UNION HIGH SCHOOL MUSIC CIRCLE
Malji Road, Broach.

THE BROACH CHAMBER OF COMMERCE & INDUSTRIES
Sir Chunilal Vibhukhandas Mehta's Bldg., Bunder Road, Broach.

*President :* K. G. Sabu ; *Vice-Presidents :* L. B. Rungta, N. M. Shah, N. I. Narialwala ; *Hon. Secretary :* S. M. Munshi ; *Joint Secretary :* Sham B. Shethna.

THE BROACH DISTRICT ADIVASI SEVA SANGH
Station Road, Rajpipla.

THE BROACH MERCHANTS' ASSOCIATION
Furja Road, Broach.

BROACH EDUCATION SOCIETY
Jawahar Bazar, Broach.

LALIT KALA MANDAL
Station Road, Rajpipla.

THE RAJPIPLA RIFLE CLUB
Rajpipla.

# BULSAR DISTRICT

Population : 1,042,561. Headquarters at Bulsar. Bulsar City (35,063).

*Talukas :* Navsari (225,720) ; Chikhli (139,986) ; Bansda (92,352) ; Bulsar (169,899) ; Dharampur (152,669) ; Pardi (130,898) ; and Umbergaon (95,973).

*Mahals :* Gandevi Mahal (130,304).

The Offices of the Collector, the District Panchayat and allied bodies, the DSP, Employment Exchange, the District Information Office, the Sales-tax, the District Treasury and other District level offices have been located at Bulsar. However, in view of the importance attached to Navsari Town, Offices of the District Judge, Civil Surgeon, Executive Engineer, District Inspector of Land Records, etc. and local offices will continue as before at Navsari.

Bulsar is a "BAGAYAT" district famous for its fruit gardens especially as "Mango" producing centre. Its importance has increased due to the establishment of Atul Products at the foot of the Parnera Hills, near Bulsar. On the other side of the Town is situated 'Tilthal' on seashore a place for Holiday Home. The new district can also boast of having one sugar factory at Gandevi.

GUJARAT METAL INDUSTRIES ASSOCIATION
C/o Naran Lala Metal Works, Near Station, Navsari.

### SPINNING & WVG. MILLS

GAEKWAR MILLS LTD., Billimora.

MAFATLAL FINE SPG. & MANUFACTURING CO. LTD., Vejalpur Road, Navsari.

NAVSARI COTTON AND SILK MILLS LTD., Vejalpur Road, Navsari.

# DANGS DISTRICT*

*Headquarters :* Ahwa.

*Taluka :* Dangs.

Dangs District lies between north latitude 20° 33′ and 21° 3′, east longitude 73° 28′ and 73° 57′. The area is 689 square miles. The rail terminus for the District is Waghai on the Billimora-Waghai line on the Western Railway and is 171 miles from Bombay.

The language spoken by the Dangis is called Dangi.

The District contains some of the richest forests in Gujarat State, which form the principal source of revenue, Dangs teak being considered as one of the best varieties of Indian teak.

# JAMNAGAR DISTRICT*

*Area :* 3,944 sq. miles.
*Headquarters :* Jamnagar.
*Talukas :* Jamnagar ; Dhrol ; Kalavad ; Khambalia ; Jamjodhpur ; Bhanvad ; Jodia ; Kalyanpur ; Lalpur ; Okhamandal.

There are seven towns and 656 villages in the District.

People live mainly on agriculture. Including both cultivated and waste land the District has an area of 21,97,674 acres. The average rainfall is 20″ to 22″. Potato is cultivated on a large scale in the district.

The main small industries are the manufacture of agricultural implements, brass and copper vessels, the making of baskets, the manufacture of tiles, lime, oil crushing, handlooms, salt, the keeping of poultry.

Sikka, Bedi and Rosy are the three ports of the district. Sikka is known for its cement industry.

### ASSOCIATIONS

NAWANAGAR CHAMBER OF COMMERCE
Chamber Hall, Grain Market, Jamnagar.

*President :* F. P. Tamboli ; *Vice-Pres. :* V. G. Chotai ; *Hon. Secretaries :* D. P. Premani, H. M. Thacker ; *Treasurer :* H. D. Buddh ; *Editor :* G. D. Shah ; *Auditor :* J. R. Vadalia.

SHARDA PEETH
Dwarka.

A seat established for spiritual and cultural guidance and uplift in Western India, by the first Jagadguru Shankaracharya the Great.

Under its auspices an educational society called Shri Sharada Peeth Vidyasabha is established which runs an Arts College, Shri Dwarakadhish Sanskrit Academy, Indological (Oriental) Research Institute, Jnan Mandir, Museum and several cultural and philosophical institutions at Dwarka and other places.

*Head :* H. H. Jagadguru Shri Shankaracharya Shri Abhinava Sachchidananda Tirth Swamiji.

WOOL MERCHANTS' ASSOCIATION
Jamnagar.

SHREE DIGVIJAYSINGHJI SPG. & WVG. MILLS LTD., Bedeshwar, Jamnagar.

* See article on "Population" for population figures.

# JUNAGADH DISTRICT*

*Area :* 4,186 sq. miles.

*Headquarters :* Junagadh.

*Talukas and Petas :* Bhesan, Junagadh, Keshod, Kutiyana, Malia, Manavadar, Mangrol, Mendarda, Patan, Porbandar, Ranavav, Talala, Una, Vanthali, Visavadar.

Agricultural land under paddy, jawar, bajra, wheat, groundnut and cotton is 14,09,400 acres in extent.

Junagadh is well-known because of the lions in the Gir forests. This is the only place in Asia where lions are found.

Porbandar and Veraval are the two important ports in the district.

The main industries of the district consist of cement, ginning and pressing, oil, etc. New industries like soda-ash and rayon are coming up.

PORBANDAR CHAMBER OF COMMERCE

Manekchowk, Porbandar.

*President :* Dhirendra Nanjibhai Mehta ; *Vice-President :* Sarat K. Vakil ; *Hon. Secy. :* B. P. Makhecha ; *Jt. Hon. Secy. :* V. K. Amlani.

COTTON MILLS

MAHARANA MILLS PRIVATE LTD., Porbandar.

# KAIRA DISTRICT*

*Headquarters :* Kaira (Revenue), Nadiad (Judicial).

*Talukas and Mahals :* Matar, Mehmedabad, Nadiad, Kapadvanj, Anand, Borsad, Thasra, Balasinor, Cambay, Petlad.

The area of the district is 2,621 square miles. The language spoken is Gujarati.

Tobacco which is suitable for the manufacture of cigarettes is grown in Kaira District while at Sevalia in the Thasra Taluka the Associated Cement Co., Ltd. has a cement factory.

The Government of India have opened a tobacco research institute at Anand.

Nadiad is also the headquarters of the State Transport for Ahmedabad, Kaira and Panch Mahals.

Drilling is in progress at Cambay where a team of 25 Russians are working with 150 men of the Oil and Natural Gas Commission establishment. At Lunej village, six miles from Cambay, a Russian deep drilling rig was installed and drilling commenced on July 26, 1958. By October 1958, the tests confirmed the presence of oil and gas.

PRODUCTION OF INFANT FOOD

The inauguration of the first infant food and cheese plant by the Union Finance Minister, on October 31, 1960 at Anand constitutes an important development in the country's food industry. It is the result of collaborative efforts between scientists of the Central Food Technological Research Institute, Mysore, and the Kaira Milk Producers' Cooperative Union, Anand. The infant food will be manufactured under the name of Amul Infant food and the factory will produce 11 tons of the food per day.

It is expected that before the end of the Third Plan period, India will become largely self-sufficient in respect of this category of milk food products.

*Cheese Plant :* The Cheese plant at Anand also is an important achievement. The work, which has been undertaken in collaboration with an American expert, has already yielded useful results. The new plant will meet a fair portion of India's growing requirement for different types of cheese, both fresh and processed.

SARDAR VALLABHBHAI VIDYAPEETH

Vallabh Vidyanagar, W. Rly. (Gujarat).

The Sardar Vallabhbhai Vidyapeeth has been established under Bombay† Act No. XL of 1955 as a teaching and affiliating university in a rural setting with the object of accelerating the process of regeneration of villages by the application of modern Arts, Sciences and Technology to rural requirements. It provides courses in seven faculties *viz.* (*i*) Arts, (*ii*) Science, (*iii*) Commerce, (*iv*) Agriculture, (*v*) Technology including Engineering, (*vi*) Education and (*vii*) Law. The University prepares students for the award of the degrees of B.A., B.Ed. ; B.Com., B.E. (C.M.E.), B.Sc. (Agri.), B.Sc. (Dairy Tech.), M.A., M.Ed., M.Sc., M.Com., M.E., M.Sc. (Agri.) and Ph.D., LL.B.

*Constituent Colleges :* (A) Nalini & Arvind Arts College ; New Arts College ; Vithalbhai Patel Mahavidyalaya (Science College) ; Rajratna P. T. Patel (Science College) ; Bhikhabhai Jivabhai Vanijya Mahavidyalaya (Commerce College) ; Birla Vishvakarma Mahavidyalaya (Engineering College) and M. B. Patel College of Education, Vallabh Vidyanagar ; (B) B. A. College of Agriculture ; Dairy Science College; Veterinary Science College ; Anand Arts College and Anand Law College, Anand ; (C) Karamsad Arts College, Karamsad.

*Post graduate Departments of* (1) English (2) Gujarati (3) Sanskrit (4) Hindi (5) Economics (6) Political Science (7) Commerce (8) Sociology, Psychology & Philosophy (9) History (10) Physics (11) Chemistry (12) Botany and (13) Mathematics.

*Chancellor :* Nityanand Kanungo, Governor of Gujarat.

*Vice-Chancellor :* I. J. Patel, M.A., B.T.

*Registrar :* K. A. Amin, B.Com.

*List of Syndicate Members :* I. J. Patel, M.A., B.T., *Vice-Chancellor*, Sardar Vallabhbhai Vidyapeeth ; J. G. Chohan, M.Sc., *Principal*, V. P. Mahavidyalaya ; S. M. Amin, B.E., *Principal*, Birla Vishvakarma Mahavidyalaya ; B. M. Patel, M.A., LL.B. (Bom.), M.A. (Econ.) (U.S.A.), *Principal*, Nalini and Arvind Arts College ; Tribhovandas Kishibhai Patel, *President*, Gujarat Pradesh Congress Samiti ; H. M. Patel, I.C.S. (Retd.), *Chairman*, Charutar Vidya Mandal ; K. G. Badlani, I.A.S., Director of Education, Gujarat State ; Dr. R. M. Patel, M.Sc. (Wis.), Ph.D. (Wis.), *Principal*, B.A. College of Agriculture ; G. K. Bhatt, M.A., B.T., LL.B., *Principal*, B. J. Vanijya Mahavidyalaya ; R. S. Trivedi, M.A., M.Ed., *Principal*, M. B. Patel College of Education ; Smt. Lilavatiben Munshi, Bharatiya Vidya Bhavan, Bombay-7 ; B. C. Patel, *Secretary*, Charutar Vidya Mandal ; Babubhai Jashbhai Patel, B.A., LL.B., Maninagar. Ahmedabad-8 ; G. S. Patel, B.Sc., LL.B., Anand ; D. L. Munim, M.A., LL.B., *Principal*, Anand Arts College ; J. R. Patel, *Principal*, Dairy Science College. Anand ; Prof. R. K. Amin, M.A., M.Sc. (Econ.) (London), Sardar Vallabhbhai Vidyapeeth ; N. D. Desai, M.Sc. (London), *Principal*, R. P. T. P. Science College ; C. C. Trivedi, B.Com., LL.B., Anand Law College.

*Deans of Faculties : Arts :*—B. M. Patel, M.A., LL.B. (Bombay), M.A. (Econ.) (U.S.A.) ; *Science :* Prof. A. R. Patel, M.Sc. (Bom.), Ph.D. (London) ; *Commerce :* Prof. M. M. Shah. M.Com., M.Sc. (Econ.) (London) ; *Technology including Engineering :* S. M. Amin, B.E. ; *Agriculture :* Dr. R. M. Patel, M.Sc. (Wisc.), Ph.D. (Wisc.) ; *Education :* Prin. R. S. Trivedi, M.A., M.Ed. ; *Law :* Prin. C. C. Trivedi, B.Com., LL.B.

BUDGET ESTIMATES FOR 1965-66

| | Recurring | Non-Recurring |
|---|---|---|
| | Rs. | Rs. |
| 1. Total Income .. .. .. | 20,38,100 | 15,77,879 |
| 2. Total Expenditure .. .. | 24,46,900 | 8,98,350 |
| 3. Grants : | | |
| (*a*) State (Govt.) .. .. | 9,60,800 | 4,10,000 |
| (*b*) U.G.C. .. .. .. | 1,29,200 | 10,68,879 |

CHAROTAR EDUCATION SOCIETY, ANAND

The institutions conducted by the Society. *viz.* Dadabhai Naoroji High School (Boys' School with a Presidency) Kasturba Kanya Vidyalaya (Girls, School with a residency) Ambalal Balshala (a primary school) Shishuvihar (a pre-primary school) and Motibhai Amin Primary Teachers' Training College stand on their own premises at Anand. The Society conducts Sardar Vallabhbhai Patel High School at Institute of Agriculture, Anand. The Society runs 181 reading rooms and edits a monthly 'BALMITRA'.

*Secretary :* Ambalal C. Patel, B.Sc., Dip. Ed.

INSTITUTE OF AGRICULTURE, ANIMAL HUSBANDRY & DAIRYING

Anand.

*Chairman :* K. M. Munshi, B.A., LL.B. ; *Vice-Chairman :* Amritlal Hargovandas ; *Member-Secretary :* Dr. M. D. Patel, M.Sc. (Cornell), Ph.D. (Wisconsin).

THE KAIRA DISTRICT CO-OPERATIVE MILK PRODUCERS' UNION LTD.

Anand (W. Rly.).

This Co-operative Union daily collects 5,00,000 lbs. of milk in winter and 2,50,000 lbs. of milk in summer from its 467 affiliated village societies. Out of this 1,93,000 lbs. of milk are daily sent to the Aarey Milk Colony, Bombay and after meeting local requirements, the remaining quantity of milk is converted into Amul Butter, Whole

* See article on "Population" for population figures.

† Bilingual.

Milk Powder, Amul Sweetened Condensed Milk, Amul Ghee, Casein & Amul Cheese.

The Union has received financial assistance from the U.N. Children's Fund, Government of New Zealand under the Colombo Plan, the Government of India and the Government of Gujarat.

Total turnover of the Union in 1964-65 was Rs. 6,00,00,000 and it was expected to be Rs. 8,00,00,000 in 1965-66.

*Chairman :* T. K. Patel; *General Manager :* V. Kurien.

KAIRA DISTRICT TOBACCO MERCHANTS' ASSOCIATION
Station Road, Nadiad.

OTHER INSTITUTIONS

American Methodist Mission Hospital, Nadiad ; Bank of Baroda Ltd., Nadiad ; Central Bank of India Ltd., Nadiad ; Charotar Medical Relief Society & Ayurvedic College, Uttar Sauda, Nadiad ; Dahi Laxmi Library, Nadiad ; Dena Bank Ltd., Nadiad ; Dr. Jayant Shah Hospital, Nadiad ; Gokaldas Bapu Library, Nadiad ; Government Agriculture Institute, Anand ; Government Tobacco Research Institution, Anand ; The J. & J. College of Science and C. B. Arts Institute, Nadiad ; Kaira Dist. Cooperative Bank, Nadiad ; Kaira Dist. Central Cooperative Board, Nadiad ; The Kaira District Co-operative Milk Union Ltd., Anand ; Kaira Dist. Land Mortgage Bank Ltd., Nadiad ; The Maha Gujarat Ayurvedic Hospital, Nadiad ; Mahendra Electricals Ltd., Kamla, Nadiad ; Oil & Natural Gas Commission, Cambay ; The Polson Model Dairy, Anand ; Punjab National Bank Ltd., Nadiad ; Ranchhodrai Temple, Dakor ; Samjulaxmi Madhavlal Maternity Hospital, Nadiad : Santram Mandir, Nadiad ; The Sevalia Cement Manufacturing Factory, Sevalia, started by the Associated Cement Cos. Ltd. ; The Shankerbhai Jorabhai Mahagujarat Ayurvedic College, Nadiad ; State Bank of India, Nadiad ; The Turkey Red Dye Works Ltd., Petlad ; The Vallabh Vidyanagar, Anand ; C. B. Patel Arts College, Nadiad ; Sonawala Law College, Nadiad ; Petlad College, Petlad ; Bhawan's College, Dakor ; Parekh Arts & Science Colleges, Kapadwanj ; R. Parekh Arts College, Cambay ; I. U. Patel Commerce College, Nadiad ; Hindu Anathashram, Nadiad ; Santram Hospital, Nadiad ; Swaminarayan Temple, Vadtal ; Vithal Kanya Vidyalaya, Nadiad ; Dhuvaran Thermal Station, Dhuvaran.

SPINNING & WEAVING MILLS

KESHAV MILLS CO. LTD., Petlad, *via* Anand.

NEW SHORROCK SPINNING AND MANUFACTURING CO. LTD., Kapadwanj Road, Nadiad.

PETLAD BULAKHIDAS MILLS CO., LTD., Opp. Station, Petlad.

RAJRATNA NARANBHAI MILLS CO., LTD., Petlad.

SHREE SHUBHLAXMI MILLS LTD., Station Road, Cambay.

# KUTCH DISTRICT*

*Headquarters :* Bhuj.

*Talukas and Mahals :* Bhuj, Mandvi, Mundra, Anjar, Rapar, Bhachau, Nakhatrana, Lakhpat, Abdasa, Khavda and Khadir.

The District has a land area of 17,060 sq. miles including approx. 8,000 sq. miles of Rann.

Kutch is a semi-arid region. Rainfall is very irregular and scanty. Sub-soil waters in 70 per cent of the area are saline.

*Agriculture :* There is a fair proportion of good cultivable land in Kutch, the principal crops being bajra, jawar, wheat, barley, cotton and pulses. The cultivation of ground-nuts is also increasing day by day.

The Second Five-Year Plan of the district allotted for irrigation projects Rs. 227·05 lakhs. As against this, the expenditure was Rs. 155·32 lakhs. Till the end of the Second Plan, there have been 70 irrigation dams and tanks at the cost of Rs. 368·36 lakhs, bringing an area of 1,16,874 acres of land under irrigation.

The whole district is covered under the community development programme. During the Second Five-Year plan period a sum of Rs. 59·62 lakhs had been spent by March 1960. There are 415 co-operative societies covering 832 villages. The people's contribution was to the tune of Rs. 40·88 lakhs.

Position of road mileage at the end of the Second Five Year Plan : Total mileage 1,817, National Highway 31 miles, State Highway 300 miles, Major District Roads 383 miles, other District Roads 287 miles and Village Roads 73 miles. The classification would be 94 miles Tar Roads, 189 miles Black-topped Murrum and 798 miles of Murrum Surface Roads. 95 miles and 3 furlongs of Murrum Roads are under District Local Board. Amount spent during the 1st Five Year Plan was Rs. 40·60 lakhs, and that during the 2nd Plan Rs. 94·01 lakhs.

The District is rich in gypsum, clays and limestone, and has large deposits of lignite, bauxite and ochres.

The main occupations of the people apart from agriculture and cattle rearing are embroidery and silver work, which are well-known for their beauty.

Kutchis are an enterprising and seafaring people. Over six lakhs of Kutchis are distributed in principal cities of India and over 10,000 are abroad.

The main items of export are salt, cotton, wool, castor seeds, bones, hides, skins and fish. The main items of import are foodgrains, oil seeds, cloth, condiments, etc.

The land revenue system has been changed from crop sharing to *ad hoc* Vighoti, thus providing a rational basis for Government revenue. The Jagirdari system in Kutch Dist. has been abolished from 30th Dec. 1958.

*Education :* The Second Plan allotted for education Rs. 27·56 lakhs and the expenditure was Rs. 29·87 lakhs. There are 37 Secondary Schools including 21 High Schools and 587 primary schools, one agricultural, one technical, one industrial training, one for blind and one arts schools. There are also two Basic Training colleges for primary teachers and a school for the deaf and dumb. In addition, adult education centres are run by different agencies, *viz.* Education Department, Community Development Blocks, District Local Board and Social Welfare Department. There are 12 primary schools including two for girls run by the District Local Board. There is a degree college at Bhuj both for arts and science and a degree college for arts at Adipur. The post graduate courses in Gujarati, English, Sanskrit and Economics are also conducted in the former college. There are two centres of Secondary School Certificate Examination.

There is one senior division N.C.C. troop along with six junior division troops. There is also one junior division girls troop.

*Health :* Free Medical relief is available in the district. There are 14 hospitals, 28 dispensaries, 6 maternity homes, one T.B. sanatorium, 3 T.B. clinics, one mental hospital, one laboratory and two eye hospitals. There are 8 mobile dispensaries and 7 Primary Health Centres under the supervision of the Public Health Department. There are one hospital, 25 dispensaries and 9 sub-dispensaries under the supervision of the District Local Board in addition to 6 maternity homes and one mobile dispensary. There are also 21 private hospitals and dispensaries, 2 Railway dispensaries and 2 port dispensaries. Number of beds in the hospitals is 368.

*Transport :* 426 villages and towns are served by Road Transport Corporation on 84 different routes covering a route mileage of 2,700 miles a day. The chief means of communication with outside places is by rail and sea. Goods are carried by steamers, country craft and rail. The length of railway line passing through the district is 200·9 K. metres.

Kandla is a major port. It was due to the suitability of deep creek accommodating steamers, big vessels etc. and other aspects that Kandla was selected as a Major Port, an amount of Rs. 13·76 crores having been proposed to be spent for its development. There are oil berth' passenger berths, floating dock berth, cargo jetty works and oil lines, in addition to workshops, thermal installation, godowns and radar station. The port is likely to be connected with Ahmedabad by broad gauge railway and the scheme of free trade zone has been under the consideration of the Government of India. The work of the Tappar dam would provide additional supply of water to the port and the Gandhidham township.

Minor ports are Mandvi, Mundra, Jakhau, Lakhpat and Koteshwar.

Kutch is linked with the hinterland of North India and Rajasthan. The new townships of Gandhidham and Adipur have been established near Kandla to resettle the displaced persons from West Pakistan. Gandhidham has now its own municipality. One industrial Estate is also organised near Gandhidham.

*Banking :* There are branches of the following banks in the District: State Bank of India at Mandvi, Bhuj, Anjar and Gandhidham, Bank of India Ltd. at Bhuj and Gandhidham, Central Bank of India Ltd. at Anjar and Gandhidham, Gandhidham Co-operative Bank at Gandhidham, District Central Co-operative Bank Ltd. at Bhuj, Nalya, Bhachau and Rapar, Anjar, Mandvi, Nakhtrana Land Mortgage Co-operative Bank Ltd. at Bhuj and Mandvi, Mercantile Bank Ltd. at Gandhidham.

**Associations**

ANJAR MERCHANTS' ASSOCIATION
Anjar (Kutch).

*President :* Purshottam Shamji Varu : *Vice-Pres. :* M. A. Shah ; *Secretaries :* Dungarshi Purshottam Thakkar ; Odhavji Khimjee Thakkar.

SHRI GANDHIDHAM GRAIN, SEEDS & OIL MERCHANTS' ASSOCIATION
BBZ-N-41, Gandhidham.

THE CHAMBER OF COMMERCE
BBZ-N-41, Gandhidham.

*President :* R. C. Raval. *Vice-President :* J. G. Vaidya. *Hon. Secretary :* B. V. Jagani.

COTTON MILLS

SHAH SPINNING AND WEAVING MILLS, Anjar (Kutch).

* See article on "Population" for population figures.

# MEHSANA DISTRICT*

*Headquarters* : Mehsana.

*Talukas and Mahals* : Patan, Chanasma, Sidhpur, Mehsana, Kheralu, Visnagar, Kalol, Vijapur, Kadi, Sami, Harij.

The area of the District is 4,324 sq. miles.

COLLEGES

M. N. College, Visnagar (*Arts and Science*).

ISABGOL MANUFACTURERS' & EXPORTERS' ASSOCIATION
Bindu Sarowar Road, Sidhpur.

KALOL SMALL INDUSTRIES ASSOCIATION
Navjivan Road, Kalol.

NORTH GUJARAT BIDI AND TOBACCO MERCHANTS' ASSOCIATION
Hinglachar, Patan (N. G.)

PLACES OF PILGRIMAGE

Taranga Hill, Pansar, Sankeshwar, Kamboi and Bhoini (*For Jains*); Bahucharaji and Sidhpur (*For Hindus*); Delmal (*For S. Boras*); Unava (*For Muslims*).

MILLS

BHARAT VIJAYA MILLS, LTD. No. 1, Kalol.

BHARAT VIJAYA MILLS LTD. No. 2, Station Road, Kalol.

MAHENDRA MILLS LTD., No. 1 & 2, Kalol.

NAVJIVAN MILLS PRIVATE LTD., Kalol.

SHREE DURGA COTTON MILLS (Kadi) PRIVATE LTD., Kadi.

SHREE SAYAJI JUBILEE COTTON AND JUTE MILLS CO., LTD., Near Railway Station, Sidhpur.

SIDHPUR MILLS CO., LTD., Bindu Sarovar Road, Sidhpur.

# PANCH MAHALS DISTRICT*

*Headquarters :* Godhra.

*Talukas and Mahals :* Godhra, Dohad, Kalol, Halol, Jhalod, Deogadh-Baria, Limkheda, Santrampur, Lunavada and Shehera talukas and Jambughoda Mahal.

The Panch Mahals District lies between 23½° and 24½° North Latitude and 73¼° and 74¼° East Longitude, on the Eastern frontiers of Gujarat and is divided into three sub-divisions namely Godhra Sub-division covering Godhra, Kalol and Halol Talukas and Jambughoda Mahal, Dohad Sub-Division covering Dohad, Jhalod, Limkheda and Devgad-Baria Talukas, and Lunavada Sub-Division covering Lunavada, Shehera and Santrampur Talukas. The area of the district is 3,486 square miles and the population according to 1961 census is 14,68,946. The language spoken is Gujarati. The total area of land in the district is 21,85,774 acres.

The total area under agriculture is 14,53,571 acres yielding 421,150 tons of food grains including cereals, pulses, oilseeds and all edibles. Agricultural produce includes cereals of all sorts, pulses, oil-seeds including groundnuts and til, cotton, tobacco, Mahuwa and Kanji seeds. Larger areas are being progressively covered by fruit growing orchards and vegetation. Total acreage covered by cereals is 897,940 including 34,969 under paddy, 49,096 under Bajri (Millet), 331,963 under maize, 29,530 under Jowar, 21,813 under wheat, 29,800 under Ragi or Bawto, and 3,624 under Kodra. The total acreage under pulses is 122,614 including 44,892 under gram, 4,434 under mung, 20,225 under Tuver and 15,338 under Math. The total acreage covered by oilseeds is 199,448 including 183,745 under groundnuts, 15,620 under til (sesame), and 2,222 acres under non-edible seeds such as castor, Kanji Mahuda etc. The area covered by cash crops is cotton Digvijaya and Vijaya 47,798 acres, and Co-2 12,594 acres, and tobacco 2,861 acres. There is a Hybrid Maize Breeding Research Centre located in 25 acres of land at Vavdi-Dujarag on the outskirts of Godhra City. The centre is conducted by Agricultural Department of Gujarat State Government and is aided by Rockefeller Foundation.

The average rainfall of the district is 35 inches. The lowest temperature is 40 degrees F. heat and the highest 115 degrees.

The District has a forest area of 515,848 acres divided into two forest divisions — one being Godhra Division and the other Devgad Baria Division. The forests yield teakwood, hard-wood such as Mahuda, Sadad, Kher and Dhavda wood. These forests also produce Mhowra flowers exported as base material for distillation, Timru leaves for Bidi manufacture, hay-fodder, lac, gum, bamboos, Asotri-leaves for Bidi variety, Khakhra-leaves, Ghat-bor — the base material for leather tanning, Kanji, Ambla, honey and wax. The District exports large quantities of timber and firewood to various places in Gujarat. It also exports groundnut oil to Punjab, Uttar Pradesh, and Saurashtra in Gujarat. The Government forests are now scientifically exploited by Forest Labourers Co-operative Societies where in Gujarat Government has invested share-capital.

The Irrigation Projects in the district are the Pata-Dungri Dam south of Dohad, Suki dam north of Dohad in Jhalod Taluka, Titodo dam south of Jhalod, Karad Right Bank Dam in Devgad-Baria Taluka and Tanachhia Irrigation Project, 15 miles away from Dohad. All these projects are estimated to increase the yield of food grain by about 3,800 tons.

An irrigation project with Hydro-electric potentiality is under construction over Mahi river at Kadana in Santrampur Taluka. The reservoir when completed will contain 5,500 crore cubic feet water and will irrigate 640,000 acres in Kheda District, and 60,000 acres in Panchmahals. The estimated power output after completion of the first phase is about 6,000 kW. The total expenditure so far incurred is Rs. 74·66 lakhs and a provision of Rs. 300 lakhs has been made in the Third Five Year Plan.

Agriculture and mining, as also forest produce, are the main industries in the district. The District contains rich mineral deposits such as manganese ore, galena, copper, limestone, and as now indicated on preliminary investigation, uranium also. Big manganese mines are now being worked at Shivrajpur, Pani-Mines and Bamankuwa station which have developed into mining colonies. Saw Mills, Fertiliser mills, Oil mills are located in Godhra, Vejalpur, Derol, Piplod, Devgad-Baria and Dohad. The dry beds of Meshri river at Godhra, Panam River at Sant Road, Goma river at Kalol and Bakrol contain quality sand used for preparing china-wares, glass and building construction. There is a glass and china-ware factory at Sant Road and a Pottery at Derol station.

COMMUNICATIONS

Bombay-Delhi broad-guage main line of Western Railway passes through Panchmahals district. Godhra, Dohad, Limkheda, Devgad-Baria, Lunavada, Shehera, and Halol talukas are served by Western Railway. Gujarat State Road Transport Corporation also runs various bus services and operates numerous routes in the district.

Pavaghad Hill, about 2,600 feet in height, situated in Halol Taluka, and about 22 miles away from Godhra, has been developed as a Holiday Resort. It is also a pilgrim centre and about two lakhs of people from Gujarat visit this place annually. A metal road 3·25 miles in length is constructed upto midway height on the hill at a cost of Rs. 163,976 and programme of constructing buildings at a total cost of Rs. 462,200 is being carried out on the Hill. The famous Bhadrakal temple of goddess, is on the peak of this Hill, and there are ancient monuments preserved by Archaeological Department of the Central Government. Pavagadh is also developing as a tourist centre.

ASSOCIATIONS

The Panch Mahals District Bar Association, Civil Court, Godhra.
The Dohad Bar Association, Civil Court, Dohad.
The Panch Mahals Chamber of Commerce, Station Road, Godhra.
The Stuert District Library, Near Municipal Office, Godhra.
The Theosophical Society, Godhra Lodge, Parbha Road, Godhra.
The Sangit Kala Kendra, C/o K. J. Parikh, Station Road, Godhra.
The Panch Mahals District Development Board, (*Chairman*, Collector, Panch Mahals), Civil Lines Road, Godhra.
Godhra Medical Practitioners Association (Allopaths), Nava Bazar, Godhra.
Sir P. T. Arts & Science College Students' Union, Ankleshwar Mahadev Road, Godhra.
Panchmahals District Co-operative Board, Civil Lines Road, Godhra.
Rotary Club of Godhra, Godhra.
Panch Mahals Land Holders' Association, Godhra.
Shree Godhra Laxminarayan Temple Trust, 3868, Sheherabhagal, Godhra.
Godhra Grain & Oilseeds Merchants Association, Station Road, Godhra.
The Godhra Yuvak Mandal, Makan Kuwa, Godhra.
The Mahila Mandal (Women's Association), Civil Lines Road, Godhra.
The Blind Men's Association of India, Dohad Branch, Dohad.
Panchmahals District Revenue Subordinates Association, Headquarters, Godhra.
Panchmahals District Secondary Schools' Union, Godhra.
Bhil Seva Mandal, Dohad.
Bhagini Samaj, Kalol.
Panchmahals Shikshana Prachar Mandal, C/o Seth P. T. Arts and Science College, Godhra.

* See article on "Population" for population figures.

# RAJKOT DISTRICT*

*Area :* 4,588 sq. miles.

*Headquarters :* Rajkot.

Talukas :

Rajkot ; Jasdan ; Babra ; Morvi ; Wankaner ; Gondal ; Jetpur ; Dhoraji ; Kandorna ; Kotda-Sangani ; Lodhika ; Maliya Padadhari, Upleta.

Rajkot District has four sub-divisions, nine talukas, 5 Mahals and one Peta Mahal.

The area of the land under cultivation is about 21,38,678 acres. The main industries of Rajkot District consist of textiles, hosiery, handlooms, the production of hydrogenated oils, potteries, salt-making, engineering, etc.

MORVI CHAMBER OF COMMERCE & INDUSTRIES
Cotton Association Hall, Near Darbargadh, Morvi.
*Hon. Secys. :* C. M. Sanghvi, N. K. Vorah.

SANGEET NATYA BHARATI
Chhabi Villa, Kashi Vishwanath Plot 8, Rajkot.
*President :* Yuvraj Saheb Udaybhansinhji of Porbunder ; *Secretary :* Jaymall Parmar ; *Director :* A. V. Doshi.

SAURASHTRA KALA MANDAL
Rajkot.
*President*, Ravishanker M. Raval.
*Chairman :* Y. K. Shukla.
*Secretary :* M. D. Trivedi.

THE SAURASHTRA OIL & OILSEEDS ASSOCIATION LTD.
Commercial Chamber, Rajkot.

SAURASHTRA SAHITYA SANGAM
Post Box 44, Rajkot.

WATSON MUSEUM
Jubilee Garden, Rajkot.

COTTON MILLS

RAJKOT SPG. & WVG. MILLS, PRIVATE LTD., Karansinghji Cross Road, Rajkot.

SHREE RAMESH COTTON MILLS LTD., Morvi.

SHRI AMARSINHJI MILLS LTD., Wankaner.

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# SABARKANTHA DISTRICT*

*Headquarters :* Himatnagar.

*Talukas and Mahals :* Himatnagar, Prantij, Modasa, Bayad, Idar, Khedbrahma, Bhiloda, Meghraj, Vijaynagar, Malpur.

The area of Sabarkantha is about 2,843 sq. miles.

The average yearly rainfall is between 25 and 30 inches.

The principal crops are bajri, maize, paddy, jawar, cotton, wheat sesamum and groundnut, of which maize, bajri, groundnut and cotton cover the larger area under cultivation. About 30 per cent of the people consist of Bhils and other backward classes. The main occupation of the people is agriculture. The north and north-eastern parts of the District are hilly tracts and abound in jungle. Except for a few ginning factories and oil mills, the District is very backward in industry.

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# SURAT DISTRICT

*Headquarters :* Surat.

The former Surat District was bifurcated into two districts *viz.* Surat and Bulsar Districts with effect from June 1, 1964 for the administrative convenience as it was the biggest district with an area of about 4,900 square miles and a population of 2,451,624.

Population : About 1,427,019. Headquarters at Surat (Surat City) (288,167).

*Talukas :* Olpad (79,444) ; Chorasi (455,303) ; Mangrol (95,367), Kamrej (62,822) ; Mandvi (93,805) ; Bardoli (90,608) ; Songadh (76,870) ; Vyara (119,100) and Mahuva (65,533).

*Mahals :* Palsana (41,807) ; Valod (42,828); Uchhal (31,535) and Nizar (58,801).

Besides being noteworthy historically, Surat is the biggest jari production as well as artsilk powerloom centre. Surat can boast of over one-third of the total powerlooms weaving artsilk in the country. It is also one of the principal centres for handicrafts in the State of Gujarat. Nearly half the population of the city depends on handicrafts. Jari work, laces, silk and jari brocades, embroidery, ivory and sandalwood carving, inlay work of varakh-nakashi and ivory bangles are the major handicrafts for which Surat is famous not only throughout India but even abroad. Gold thread produced here is exported to many countries. Cotton and artsilk weaving is another major industry which received an impetus during the War. The taluka of Olpad is famous for its knives and nutcrackers, while Bulsar† is well-known for its silver engraving work. A co-operative industrial estate which has developed at Udhna, three miles from Surat, is stated to be the biggest industrial estate of its type in the country. There is one sugar factory at Bardoli.

### INSTITUTIONS

C.G.S. Mahila Vidhyalay Mandal, Gopipura.

Peoples' Education Society.

Sarvajanik Education Society.

Anath Mahajan Balashram, Katargam.

Union Education Society.

Shri Tapi Brahmacharyaashram Sabha, Laldarwaja.

AL-JAMEA-TUS-SAIFIA (SURAT)

A 150-year-old institution originally devoted to a study of and research in Arabic literature. It is not only a centre of Islamic Culture and learning but also of general education with courses in the arts and the sciences and awards degrees.

It is a residential institution and keeps in touch with the students even after they have left it.

JEEVAN BHARATI
Greenlands, Nanpara, Surat.

Founded in 1946, the Jeevan Bharati is an experimental educational institution under the management of Jeevan Bharati Mandal. It has been recognised by the Government of Gujarat as a multipurpose school. It provides special courses in (*i*) Technical subjects, (*ii*) Fine Arts—Indian Music & Painting, (*iii*) Woodwork Technology, (*iv*) Hand Spinning & Weaving and (*v*) Sewing & Embroidery Work, upto the S.S.C. Class. A residential unit has been attached to the school, accommodating 50 boarders in a newly constructed hostel building.

*President of the Mandal :* M. M. Pakvasa.

*Chairman, Board of Trustees :* Morarji R. Desai.

SARVAJANIK EDUCATION SOCIETY
Surat.

The Society manages five Colleges, one institute for higher learning and research, five High Schools, one Middle School and one Primary School.

*President :* Ramanlal Gokaldas Saraiya, B.A., B.Sc., Padma Shri ; *Chairman, Managing and Executive Committees :* Jashvantlal Chhaganlal Clerk, B.A., LL.B., Advocate ; *Vice-Chairman :* Khandubhai Dayalji Desai, B.A., LL.B., Advocate ; *Secretary :* Prof. Kunjvihari Chunilal Mehta, M.A.

THE SURAT CHAMBER OF COMMERCE
Safe Deposit Chambers, Surat.

The present strength is 1,950.

*President :* Morarbhai K. Jariwala ; *Vice-President :* Mansukhlal C. Kapadia ; *Secretary :* Dinkarrai B. Patel.

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* See article on "Population" for population figures.

† Now in Bulsar District.

THE SURAT JARI GOODS PRODUCERS' CO-OPERATIVE SOCIETY, LTD.

Taj Manzil, opp. Tower, Surat.

*Estd.:* 1944

*Prop.:* Sri Surat Rolling Mill (Industrial Estate, Udhana).

The society has a strength of 604 members. Seth Hiralal Ranchhoddas Jariwala, *President;* Nagindas Chunilal Jariwala, *Vice-President;* Dhirajlal N. Choksi, *Hon. Secretary;* H. M. Patel, *Manager. Telegraphic Address:* Jarigoods. Phone No. 837.

THE SURAT VANKAR SAHAKARI SANGH LTD.

Kinkhabwala Wadi, Begampura, Surat.

A co-operative society of weavers.

*President:* Mohanlal C. Dhamanwala; *Vice-President:* Pranlal H. Bachkaniwala; *Manager:* K. S. Shah.

THE SURAT WEAVING ASSOCIATION

Limda Chowk, Lokhandwala Bldg., Mahatma Gandhi Road, Surat.

SWADHYAYA MANDAL

P.O. Swadhyaya Mandal (Pardi), Dist. Surat.

A literary and social institute for the propagation of Bharatiya Culture.

Ayurvedic College, Laldarwaja; Surat Certified School, Katargam; Sir K. P. College of Commerce, Athwalines; Primary Teachers' Training College, Chawk Bazar; Female Training College, Vanita Vishram, Surat; V. T. Chokshi Sarvajanik Law College, Athwalines; Dr. S. & S. S. Gandhi Engineering College, Majura Gate, Surat; M. T. B. College, Athwalines; Zaal F. Wadia Women's College, Athwalines; Sardar Vallabhbhai Patel Regional College of Engg. & Technology; College of Education (B. T. College), Post Graduate Study Centre.

*High Schools & Institutes:*

F. S. Parekh Technical Institute, Sonifalia; Jeevan Bharati, Nanpura; Cambay Institute of Commerce, Kanpith; Popular School of Commerce, Main Road; Smart School of Commerce, Haripura; Shorthand and Commercial Institute, Beasant Road; T. & T. V. Sarvajanik High School, Nanpura; N. G. Zaveri Jain High School, Gopipura; Sarvajanik High School for Girls, Balaji Road; T. & T. V. Sarvajanik Middle School, Gopipura; Haripura Sarvajanik High School, Rampura; G. & G. V. Kadiwala Middle School, Katargam; Ratnasagarji Jain Vidhyashala, Gopipura; I. P. Mission High School for Girls, Muglisara; I. P. Mission High School for Boys, Muglisara; Anglo-Urdu High School, Sodagarwada; Diwan Bahadur N. M. Javeri Union High School, Ranitalao; Proprietary High School, Bundelawad; Sir J. J. English School, Shahpore; Pirojbai Patel Girls' High School, Machhlipith; Madresa Taiyabiya Girls' School, Zampabazar; Gujarat Co-operative School, Nanpura; Vanita Vishram, Athwalines; Chandagauri G. S. M. V. Mandal Girls' High School, Gopipura; Ambaba Haripura Mahila Vidhyalaya Girls' School, Haripura; Reception Centre for Women and Remand Home for Children; Narmad Sahitya Sabha, C/o Gandiva Sahitya Mandir, Hawadio Chaklo, Surat.

**HOTELS, REST HOUSES**

**Savoy Hotel**, Opp. Station.

**Jay Bharat Hindu Lodging and Boarding House, Main Road.**

**Ukadji Dharmashala for Parsis, Muglisara.**

**Government Rest House**, Nanpura.

**P.W.D. Guest House**, Nanpura.

**Evergreen Lodging and Boarding House, Burampuri Bhagal.**

**Rambharose Lodging and Boarding House, Chawk Bazar.**

**Central Hotel**, Station (Air Conditioned).

**SPINNING & WVG. MILLS**

**NIRANJAN MILLS PRIVATE LTD.**, Falsawadi, Surat.

**SURAT COTTON SPG. & WVG. MILLS PRIVATE LTD.**, Nawabwadi, Surat.

**SURAT TEXTILE MILLS LTD.**, Varachha Road, Surat.

**BARODA RAYON CORPORATION LTD.,**

P.O. Baroda Rayon, Udhna

(Surat)

Manufacturers of Rayon Yarn, Sulphuric Acid, Anhydrons Sodium Sulphate and Carbon-di-Sulphide.

**METAL PERFORATORS PRIVATE LTD.,**

**All Steel Motals Perforated on latest German Plant. Large Job orders Solicited**

**Udyognagar, Udhna,**

Dist. Surat.

*Bombay Office:* Annes Chambers, Carnac Road, Bombay 1.

**THE SURAT ELECTRICITY COMPANY, LTD.**

**Agents: Messrs. Killick Industries Ltd., Bombay.**

**Office & Power House: Tilak Maidan, P.O. Box 20, Surat. Tel. No. 34.**

**B. M. Desai, B.Sc., B.Sc. (Eng.), Resident Engineer.**

**J. T. Modi, B.Sc. (Eng.), Sr. M.I.E.E.E., M.I.E., A.M.I.E.E., Deputy Resident Engineer.**

**M. C. Desai, B.E., M.I.E.E.E., Mem. A.S.M.E., A.M.I.E., Assistant Resident Engineer.**

**G. B. Mankar, Station Superintendent.**

**R. P. Kinariwala, D.M.E., D.E.E., Commercial Engineer.**

**Central Administration Department: 5, Graham Road, 4th floor, Ballard Estate, P.O. Box No. 109, Bombay 1.**

Manufacturers, Wholesalers, & Exporters of Jewellery and Cash Boxes, Insecticide Spray Pumps, safety Wick Stoves etc.

*Trade Enquiries Solicited :—*

**UMRAO INDUSTRIES**

KIM, W. Rly., Dist. Surat, ujarat, India.

Phone : 7 Grams : "UMRAO"

# SURENDRANAGAR DISTRICT*

*Area :* 4,006 sq. miles.

*Headquarters :* Surendranagar.

*Tahsils :*—Wadhwan (Wadhwan) ; Chotila (Chotila) ; Muli (Muli) ; Dhrangadra (Dhrangadra) ; Halvad (Halvad) ; Dasda (Dasda) ; Limbdi (Limbdi) ; Lakhtar (Lakhtar) ; Sayla (Sayla).

There are about 12 towns with a population of over 5,000 and 672 villages.

About 70 per cent of the population lives in the rural areas. The main occupation of the people is agriculture, and the important crops are bajra, jawar, cotton, paddy, groundnut, wheat and gram.

The main industries of the district consist of textiles, salt, soda ash, potteries, ginning and pressing factories.

ASSOCIATIONS

SAURASHTRA GINNING AND PRESSING FACTORIES ASSOCIATION

C/o Dhrangadhra House, Surendranagar.

SAURASHTRA MILLOWNERS' ASSOCIATION

Dhrangadhra House, Surendranagar.

*President :* Chandulal Vardhaman Shah ; *Vice-President :* Dhirendra N. Mehta ; *Secretary :* A. P. Shah.

ZALAWAR CHAMBER OF COMMERCE

Main Bazar, Surendranagar.

*President :* J. R. Shah ; *Vice-President :* I. Jain ; *Secretary :* A. N. Bhimnathwala

COTTON MILLS

KANTI COTTON MILLS PRIVATE LTD.—Mill Road, Surendranagar.

SAURASHTRA CO-OPERATIVE SPG. MILLS LTD.—Limbdi.

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# HIMACHAL PRADESH*

Area 28,241 sq. Km. ; Population : 1·34 million (1961 census) ; Administration Headquarters : Simla ; Strength of Vidhan Sabha 43. Density of population : 370 ; Sex ratio : 946 females to 1,000 males. Literacy : 17·1 per cent.

The Centrally administered territory of Himachal Pradesh comprises 22 former Punjab Hill States and their 9 tributaries. The 22 States are Baghal, Baghat, Balsan, Bilaspur, Bushahr, Bhajl, Beja, Chamba, Darkoti, Dhami, Jubbal, Keonthal, Kumarsain, Kunihar, Kuthar, Mehlog, Mandi, Mangal, Sangri, Sirmur, Suket and Tharoch.

The 9 tributaries are Delath, Dhadi, Ghund, Khaneti, Koti, Madhan, Ratesh, Rawingarh and Theog.

The State came into being on April 15, 1948.

Bilaspur was merged into Himachal Pradesh on July 1, 1954.

Himachal Pradesh lies between North Latitude 30° 22′ 40″ to 33° 12′ 40″ and East Longitude 75° 47′ 55″ and 97° 4′ 20″. It is bounded on the north by the Jammu and Kashmir State, on the south by Tehri-Garhwal and Dehra Dun Districts of Uttar Pradesh and the Ambala District of Punjab ; on the west by Ambala, Hoshiarpur and Kangra and on the east by Tibet.

The Territory is divided into six administrative districts, Mahasu, Sirmur, Mandi, Chamba, Bilaspur and Kinnaur.

**Mahasu District** is divided into the following tehsils and sub-tehsils.

Tehsils : Rampur (Bushahr), Rohru, Chopal Jubbal, Theog, Arki, Solan and Kasumpti. Sub-Tehsils : Kumarsain, Suni and Kotkhai.

About 95 per cent of the total population is agriculturist.

**Kinnaur District** is divided into three subdivisions : Kalpa, Nichhar and Pooh which are administered by Sub-divisional Officers. The district is mainly inhabited by Kinner tribesmen. The district has been placed under single line administration for development purposes.

**Sirmur District** is divided into four Tehsils, Nahan, Pachhad, Rainka and Paonta. About 95 per cent the total population depends upon agriculture.

**Mandi District** contains the Tehsils of Mandi Sadar, Karsog, Sundernagar, Joginder nagar, Sarkaghat and Chachiot. A great majority of the total population depends upon agriculture.

**Chamba District** is divided into the Tehsils of Chamba, Churah Pangi and Bhattiyat and the Sub-tehsils of Bharmaur. Practically all persons are agriculturists.

**Bilaspur District** lies on both the banks of the Govind Sagar and is divided into two tehsils Bilaspur and Ghumarwin. Agriculture is the main occupation of the people.

Popular Ministry consisting of three Ministers has been formed in the Territory and it started functioning from July 1, 1963.

## ECONOMY

The main agricultural wealth of the Territory consists of fruits such as apple, apricot, peach and vegetables like seed potato, ginger, tomato, peas etc.

The climatic conditions of the Pradesh are suitable for the growing of a large variety of fruits including citrus, and dry fruits. Apples and pears are grown in the cooler regions. The superior varieties of apples which were restricted to Kotgarh and Kothaj are now being grown extensively in other parts of the Pradesh ranging between five thousand to eight thousand feet above sea level. With the new orchards rapidly coming up, the production of fruit will increase considerably during the 3rd Five Year Plan.

Salt is another important item ; while forests yield timber, fire-wood and charcoal. Handicrafts which include Pashmina shawls, wool of fine quality, resin, herbs and skins are another source of income.

Himachal Pradesh forests supply the largest quantities of coniferous timber in Northern India. They are the main source of revenue in the territory, the estimated revenue during 1964-65 being Rs. 3·57 crores including revenue from the sale of resin and turpentine. The entire Territory is divided into four forest circles which are further sub-divided into 16 territorial divisions. *Circles :* Chamba, Simla, Sirmur and Bilaspur. *Divisions :* Pangi, Chamba, Churah, Mandi, Kunihar, Simla, Pabar Valley, Kotgarh, Jubbal, Nahan, Rajgarh, Suket, Nachan, Bilaspur, Sirkhad Working Plan and Kinnaur. Besides, a Forest Utilization Division has been created to develop the resources of the Territory. Bilaspur Circle has been created under the Soil Conservation Scheme.

Seed potato is the chief cash crop in which the Territory has established itself as an important supplier to the plains of India. In 1962-63 alone, seed potatoes worth Rs. 2·20 crores were sold to other parts of India. The total acreage under potatoes, which was about 18,000 in 1950-51, stood at 30,783 in 1963-64.

One of the oldest foundries of the country is located at Nahan besides a resin and turpentine factory.

As against the original Second Plan allotment of Rs. 14·72 crores the total investment for the Plan was Rs. 16·71 crores.

Under the Rs. 27·93-crore Third Plan, roads and transport have been given top priority with 34·08 per cent of the entire allotment earmarked for their development. Agriculture, horticulture, minor irrigation, forests, animal husbandry etc. have been allotted 23·16 per cent of the allocation while social services (Education, Medical Welfare, Housing etc.) get 22·63 per cent. Rs. 1·11 crores have been earmarked for expansion of industrial undertakings. It is estimated Himachal Pradesh would be able to utilise about Rs. 36 crores during the Third Plan.

**Power.**—The Department of Multipurpose Projects & Power started functioning in April, 1964 to investigate the vast hydroelectric potential of H.P. Besides this, the Department is also required to deal with problems connected with soil conservation and flood control.

RURAL ELECTRIFICATION : As against the Third Plan target of 520 villages, 429 villages have been electrified.

## INSTITUTION

INDIAN INSTITUTE OF ADVANCED STUDY

Rashtrapati Niwas, Simla-5.

The Institute undertakes organisation, guides and promotes research of a high order in selected subjects in humanities, Indian culture, comparative religions, social sciences, natural sciences, etc. It also assists and associates itself with the efforts made by other academic and/or governmental bodies in the dissemination of knowledge.

*Director :* Dr. Niharranjan Ray ; *Registrar :* K. Venkataraman.

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* See article on "Population" for population figures.

# JAMMU AND KASHMIR STATE

**Capital : Srinagar.**

**Area : 86,023 sq. miles; Population : 35·61 lakhs (1961 census).**

Official language : Urdu ; Regional languages : Kashmiri, Dogri, Balti, Punjabi, Paheri, Ladakhi. There are three municipalities, six town area committees and 28 notified area committees in the State.

The State has now a Legislative Assembly (100 including 25 for occupied areas) and a Legislative Council (36).

For administrative purposes, the State is divided into two provinces : Kashmir (including the Frontier District Ladakh) and Jammu.

*Districts :* in Kashmir Province : Srinagar, Baramulla, Anantnag and the Frontier District of Ladakh ; in Jammu Province : Jammu, Kathua, Udhampur, Doda and Poonch-Rajouri.

For population of districts according to the 1961 Census see "Population."

**The Jammu and Kashmir, State constituting the extreme western section of the Himalayas, lies between 32°17′ and 36°58′ north latitude, and 73°26′ and 80°30′ east longitude.**

The rainfall in the State varies from 30 to 60 inches a year except in Ladakh District where it is four inches. In Kashmir Valley, the annual rainfall varies from 30 to 35 inches.

**About 16·7 per cent of the total population is urban. There are 2 cities, 41 towns and 6,971 villages in the whole State.**

**A low level tunnel called the Jawahar Tunnel constructed at a cost of Rs. three crores has provided an all-weather link between Kashmir Valley and the outside world.**

**Jammu and Kashmir, as an integral part of the country, is now firmly set on the road to development, ushering in an era of progress and prosperity.**

## AGRICULTURE

Agriculture is the main occupation of the people. Total area under cultivation is 17·03 lakh acres out of which 7·10 lakh acres receive irrigation and 9·93 lakh acres are rainfed. The average size of the holding for a rural family of five members is 2·86 acres. The main crops grown are rice and maize in temperate regions and wheat and maize in sub-tropical regions. All the cultivable area along the western and south western boundary line of Jammu province, which is also being since several years back brought under cultivation, and the area is being reclaimed by the Jammu Border Area Land Reclamation Unit.

The increase in production of paddy, wheat and maize as in 1964-65 has been more than 20 lakh maunds over and above the production of 1960-61. The quantity of fruits exported has increased from 3,06,297 maunds in 1950-51 to 6,90,364 maunds in 1962-63.

**Irrigation :**

The Kathua canal has been completed and it is expected to irrigate 28,000 acres of land. The Government have drawn up a Master Plan for flood-protection of the Valley. Work on outfall channel from Wular Lake to Baramulla is in progress. Two dredgers have been commissioned to work at Sopore for dredging work. The minimum output of each dredger is 120 cu. yards of solids per hour. A large number of protection bunds have been constructed in the Jammu Province at a cost of Rs. 14·70 lakhs. These measures are expected to protect the valley as well as Jammu region of the State, against floods.

## INDUSTRIAL DEVELOPMENT

**The Industries (Development and Regulation) Act of the Government of India was extended to the State of Jammu and Kashmir also to bring it within the ambit of the Industrial Policy Resolution of the Centre.**

Some of the important steps taken for development of industries are enumerated below :—

The following boards have been set up :— (*a*) Industrial Development Board, headed by the Chief Minister ; (*b*) Small-Scale Industries Advisory Board, headed by the Chief Minister ; (*c*) Industrial Planning Board, headed by the Planning Commissioner.

A Handicrafts Board is being set up to promote development of handicrafts in the State. This Board will be more or less on the pattern of the All India Handicrafts Board in its objectives.

A Khadi & Village Industries Board has been set up. This Board has set up 53 industrial units on co-operative pattern upto 31-3-64. The total investment in these units is Rs. 5·11 lakhs.

A Financial Corporation has been set up to finance enterprises in the State. The Corporation advanced over Rs. 21 lakhs upto November 1964. In addition to this, loans are advanced by the Directorate of Industries and Commerce under State Aid to Industries Act.

Two Raw Material Depots—one at Srinagar and the other at Jammu—have been set up. The depots supply scarce raw materials to Small-Scale Units on controlled prices. It is envisaged to set up a Raw Material Corporation in the near future. This Corporation will cater to the needs of Handicrafts industry also in addition to that of the small scale units.

To avoid inconvenience to the industrialists, the Chief Controller of Imports and Exports has set up a branch office in the State Capital.

Twenty industrial estates have been set up in important towns. The estates are set up in order to provide suitable accommodation, water and power supply to the prospective entrepreneurs. About 80 units have so far come up in these estates and more are being encouraged. Emphasis is being laid on industries based on local raw material.

Quality control has been imposed on Namdha Industry and is administered by the Directorate of Industries. This has enabled the industry to introduce an element of standardisation in quality and resorted to it its foreign market particulars in the U.S.A.

To render facilities to the Fruit Industry, three cold storage plants are being set up one each at Srinagar, Jammu and Delhi.

Kathua and Anantnag Districts have been covered by the Rural Industries Project Programme financed by the Central Govt. The Districts are being industrialised. The survey reports have been finalised and are under print.

Small-scale industrialists are being assisted by way of refund of toll tax etc.

A Directorate of Geology and Mining has been set up to explore the mineral potential of the State and a Mineral Corporation known as 'J & K Minerals Ltd.' created to extract and exploit the minerals. Among other things the Corporation has set up a cement factory at Wuyan.

A commercial organisation called 'J & K Industries Ltd.', has been set up to run practically all the public sector industrial undertakings. This has been done in order to ensure economic working of the undertakings.

A plyboard industry with an installed capacity of 40,000 Sq. feet a day of veneer and plyboard at Pampore and cotton spinning mill with 12,600 spindles, known as 'Chenab Textile Mills' at Kathua, have also been set up.

A wool spinning mill functioning at Amdakadal. The mill has a production capacity of 1·12 lakh lbs. of raffal yarn per annum and is being expanded by the addition of 4,800 spindles during the IV Plan.

The Government Woollen Mills is being renovated during the IV Plan.

The Directorate of Industries provides training facilities in Handicrafts, Wool Weaving, Leather Goods Making and Fruit Preservation.

Industrial Exhibitions are held every year at Srinagar and Jammu. Handicraft dealers have been concentrated in the Central Market, set up by the Directorate of Industries. The Directorate of Industries has been reorganised and every district is being provided with an officer to look to its industrial problems. The number of factories registered under Factories Act was 191 on 31-3-1965.

The Kashmir Government proposes to earmark Rs. 18 crores under its Fourth Plan for industrial and mineral projects.

Stress will be laid on the development of villages and small-scale industries during the Fourth Plan period for easing pressure on land by providing employment to landless labourers.

**Power Generation :**

| | |
|---|---|
| Installed capacity in 1947-48 | 4,000 kWs. |
| Installed capacity as on 31-3-1964 : | 27,910 kWs. |

**Following are some of the main power projects, besides eight small ones, under the Third Five Year Plan :—**

| | |
|---|---|
| (*i*) Salal Project .. .. | 6,60,000 kWs. |
| (*ii*) Chenani Project .. | 14,000 kWs. |
| (*iii*) Lower Jelhum Hydel Project .. .. | 92,000 kWs |
| (*iv*) Kalakot Thermal Project | 15,000 kWs. |

**Tourism in the State : Tourist traffic is one of the main sources of income both to the State and the people.**

**A sum of Rs. 124 lakhs would have been spent on the development of tourism in Kashmir by the end of the Second Five-Year Plan. The State proposes to spend about Rs. two crores for that purpose during the Third Plan. Numerous schemes for providing more facilities to tourists are envisaged.**

**No. of tourists during 1957 : 43,018 ; during 1958 : 60,557 ; during 1959 : 70,401 ; during 1960 : 74,560 ; During 1961 : 92,455 ; During 1962 : 93,015 ; Ending Aug. 1963 : about 75,000.**

## EDUCATION

Education is free from primary to post-graduate standard. There has been substantial increase in the provision of education opportunities during 1964-65. As many as 650 Activity Basic Schools were opened including 250 for girls, 784 additional teachers were provided in understaffed schools ; 6th to 8th classes were added to 240 schools ; 30 lower high schools were upgraded to high schools including 7 for girls ; 20 middle schools were raised to lower high schools ; and the teaching of science introduced in 20 high schools. The change-over to three-year degree pattern has been completed. The two Divisions of Jammu & Kashmir University—one at Srinagar and the other at Jammu—will start functioning from 1966. The Jammu campus of the University is being extended and additional blocks constructed. It is proposed to raise the present sub-Registry into a full-fledged Registry. It is contemplated to start 8 more post-graduate departments in Science and Humanities at the Jammu campus during the next five years. The total outlay of the phased development programme of the Jammu Division of the University for 1965-66 will be to the tune of Rs. 15 lakhs.

The educational budget which was Rs. 40 lakhs in 1947-48 has gone upto over Rs. 3 crores. The allocation for education during the Fourth Plan is Rs. 15 crores or just the double the allocation during the Third Plan. The number of educational institutions has increased by over 100 per cent.

There are two Polytechnics, one Engineering college, one Medical college, two Agricultural colleges, one Ayurvedic college and one Unani college in the State, besides a number of institutions where ancillary personnel are trained.

Under the social education scheme, education will be imparted to adults in their mother tongue in the three cultural units. e.g. Jammu, Kashmir and Ladakh. For this purpose books in Dogri, Kashmiri and Ladakhi are being prepared.

*(For more statistical information on education in the State, see Education Tables.*

## ROAD DEVELOPMENT

In respect of means of communication the State was very backward having a very poor road system. Before the Plan was taken in hand there were only 623 miles of roads including the national highway.

By the end of the First Five Year Plan, the road length increased to 998 miles (excluding bridle roads) and comprising 294 miles of black-topped, 250 miles of metal, 93 miles shingle, 283 miles fair weather and 98 miles jeepable.

Road building entered a distinct phase of development during the 2nd Plan period. The total length of the roads in Kashmir Province increased to 1,294 miles (excluding bridle roads). The road length at the close of the Third Five Year Plan is expected to increase by 1,700 miles approximately. The Leh-Kargil road, about 150 miles long, has been recently completed. During the Third Five Year Plan it is proposed to spend Rs. 831·59 lakhs on road development.

An important measure envisaged by the State Government to improve communications in the State is a plan to construct an alternate bridge over river Chenab at Rambau. The scheme is estimated to cost Rs. 30 lakhs.

## PUBLIC HEALTH

There are two central hospitals at Srinagar (650 beds) and Jammu (500 beds), two tuberculosis hospitals at Srinagar (320 beds) and Jammu (220 beds).

No. of District Hospitals : 7. Four of them have a bed strength of 30 each and the remaining three have a bed strength of 50 each with arrangements for anti-rabies treatment. Pathological, gynaecological, surgical, laboratory and dental treatment is also provided.

| Hospitals & Dispensaries | 1947-48 | 1964-65 |
|---|---|---|
| 1. Hospitals .. | 2 | 18 (including Nursing Home, Srinagar). |
| 2. Dispensaries .. | 87 | 499 (including health centre and health units). |
| 3. Bed strength .. | 600 | over 2,340 |

There are two central laboratories attached to the two central hospitals.

Under the B.C.G. campaign 25 lakh people had been tested and 13 lakhs vaccinated up to Nov. 1960. Between 1947 and 1962–63 the per capita expenditure on Public Health has increased from 27 P. to Rs. 4·80.

## CO-OPERATIVES

The figures relate to 1962-63 :

The total no. of societies : 1,454 ; no. of members : 283,712 ; working capital : Rs. 6,219·4 lakhs.

The table below gives the details :

| Name | Number of Societies | Members | Working Capital |
|---|---|---|---|
| | | | Rs. |
| Jammu and Kashmir State Cooperative Bank .. | 1 | 675 | 1,03,14,000 |
| Central Cooperative Banks .. .. .. | 3 | 1,746 | 1,20,83,000 |
| Agricultural Credit (Large Sized) Societies .. | 301 | 1,45,509 | 1,20,40,000 |
| Agricultural Credit (Small Sized) Societies .. | 867 | 1,02,055 | 70,68,000 |
| Non-Agricultural Credit Societies.. .. .. | 87 | 3,000 | 7,47,000 |
| Apex Marketing Society .. .. .. .. | 1 | 509 | 4,16,000 |
| Regional Marketing Society .. .. .. | 1 | 369 | 55,65,000 |
| Primary Marketing Societies .. .. .. | 46 | 10,599 | 1,12,05,000 |
| Milk Supply Societies .. .. .. .. | 4 | 327 | 60,000 |
| Farming Societies .. .. .. .. .. | 13 | 447 | — |
| Primary Consumer Stores .. .. .. .. | 12 | 9,457 | 10,32,000 |
| Wholesale Consumer Stores .. .. .. | 4 | 41 | 1,48,000 |
| Fishermen Society .. .. .. .. .. | 1 | 407 | 50,000 |
| Kashmir Arts Cooperatives .. .. .. | 1 | 7 | 1,57,000 |
| Other Non-Credit Societies .. .. .. | 8 | 1,817 | 4,45,000 |
| Industrial Cooperatives .. .. .. .. | 73 | 2,675 | 6,35,000 |
| Handloom (Including Spinners) .. .. .. | 29 | 3,594 | 3,12,000 |
| Cooperative Printing Press .. .. .. | 1 | 54 | 1,30,000 |
| J. K. Cooperative Union .. .. .. | 1 | 424 | 24,000 |
| | 1,454 | 2,83,712 | 6,24,19,000 |

## BUDGET ESTIMATES FOR 1965-66

(*See under 'State Budgets'*)

## HOUSING

The work of providing housing facilities to people in low and middle-income group was started in 1956. During the Second Plan, 1,143 houses were built. The scheme has now been extended to other district headquarters besides Srinagar and Jammu. During the first two years of the Third Plan, 394 houses were constructed under this scheme. The total amount spent by the end of March 1963 was about Rs. 1·35 crores.

## FIVE-YEAR PLANS

The expenditure on the First Five Year Plan was Rs. 11·52 crores and on the Second Plan was Rs. 25·95 crores.

The Third Plan is of the order of Rs. 75 crores.

## CONSTITUTION

A Constitution was finally approved and adopted unanimously on November 17, 1956. It came into effect on January 26, 1957.

The Constitution declares the State of Jammu and Kashmir to be "an integral part of the Union of India." This is irrevocable. Section 147 of the Constitution lays down that no amendment seeking a change in this can be moved in either House of the legislature.

With the adoption of the Constitution, the State has come much closer to the rest of the country. Having entered into financial arrangements with the Union Government in 1957, the State is on par with other States in respect of financial matters including proportionate allocation of funds from the Centre. The development schemes and projects under the Five Year Plans are being approved by the Planning Commission and expenditure on them is sanctioned on the recommendation of the Commission. Every major project is examined by various Central agencies like the Central Water and Power Commission and Working groups of Central Ministries and the Planning Commission to ascertain their technical and economic feasibility. Limitations governing the availability of foreign exchange apply equally to the State of Jammu and Kashmir.

A State cadre of IAS and IPS officers has been created. This has brought about the integration of services ensuring the sharing and pooling of experience and talent.

The State's participation in the Northern Zonal Council has widened the area of co-operation with other States leading to greater exchange of experience, technical know-how and pooling of administrative and other resources in various fields of development.

The Accounts and Audit department of the State is now under the Auditor-General of India. Thus the accounts of revenue and expenditure are under the direct scrutiny of the Auditor General

In 1959, the State Assembly unanimously decided to seek amendment of the State's Constitution to provide for the extension of the jurisdiction of the Election Commission and the Supreme Court over Jammu and Kashmir. The recommendations of the State Legislature have been incorporated in the Indian Constitution through a Presidential Order issued on January 26, 1960.

An Act passed by the Legislative Assembly of the State authorises the Government to permit those non-State subjects to purchase land and other immovable property in Jammu and Kashmir who intend to set up industries in the State. The Government of Jammu and Kashmir have also entered into agreement with some Indian firms to establish industrial enterprises in the State. There is no ban now on the investment of outside capital in Jammu and Kashmir. In addition to the Constitutional and economic integration, the Government of Jammu and Kashmir is also endeavouring to foster cultural and literary synthesis between Kashmir and the rest of the country.

## JAMMU & KASHMIR STATE FINANCIAL CORPORATION

See "State Corporations."

## THE UNIVERSITY OF JAMMU AND KASHMIR

*Chancellor :* Dr. Karan Singh Ji, Governor.
*Pro-Chancellor:* G. M. Sadiq, Chief Minister.
*Vice-Chancellor :* T. M. Advani.
*Registrar :* Abdul Aziz.

*Deans of Faculties :*

*Arts :* Prof. J. N. Tiwari ; *Sciences :* Dr. S. M. Dass ; *Social Science :* Dr. J. N. Bhan ; *Commerce :* G. P. Singh ; *Education :* S. Mohinder Singh; *Agriculture :* K. G. Bhandari ; *Medicine :* Dr. M. L. Gujral ; *Engineering :* Dr. Z. U. Ahmad; *Orient & Learning :* Vacant.

Number of affiliated colleges and oriental institutions : 34.

Number of students who appeared for the previous examinations in 1962-63 : Men 19,216 ; Women 5,397.

*Budget for* 1963-64 :

Actual Income : Rs. 18,84,299.
Actual Expenditure : Rs. 28,67,037·93.
State Govt. grant : Rs. 3,00 000·00.
Central Govt. grant and U. G. C. grant: Rs. 8,65,789·60.

### COLLEGES

Amar Singh College, Srinagar ; Sri Pratap College, Srinagar ; Govt. Women's College, Srinagar ; Gandhi Memorial College, Srinagar ; Maulana Azad Memorial College, Jammu ; Govt. Gandhi Memorial Science College Jammu ; Govt. Women's College, Jammu ; T. T College, Srinagar ; T.T College, Jammu ; Govt. Medical College, Srinagar ; S. P. M. Rajput Commerce

College, Jammu; Govt. College, Anantnag, Kashmir; Govt. College, Sopore, Kashmir; Govt. College, Baramulla, Kashmir; Govt. College, Bhadarwah; Govt. College, Poonch; Govt. Agriculture College, Sopore; Govt. Agriculture College, R. S. Pora; Govt. Regional Engineering College, Naseem Bagh; Islamia College; Govt. College for Women, Nawakadal; Govt. College, Kathua; Govt. College, Udhampur.

### ORIENTAL INSTITUTIONS

Jamia Madinatul Uloom, Hazratbal; Mahila Maha Vidyalaya, Srinagar; Government Oriental College, Srinagar; Shri Rugh Nath Sanskrit Mahavidyalaya, Jammu; Rupa Devi Shardha Peeth, Srinagar; Vishwa Bharti Girls' College, Rainawari, Srinagar; Hindu Kanya Maha Vidyalay, Chinkral Mohalla, Srinagar; Sanatan Dharm Kanya Vidyalaya, Jammu; Vidya Peeth Mahila Oriental College, Jammu; Nusrat-ul-Islam Oriental College, Srinagar; Madras Taimi-ul-Islam, Tral; Jamia Bab-ul-Ilam, Badgam, Kashmir.

The medium of instruction is English except in classical and modern Indian language classes, where the medium of instruction is the language concerned or an allied language.

### ASSOCIATIONS

ALL JAMMU & KASHMIR YOUTH CONFERENCE
H.O.: Hotel Road, Srinagar.

*General Secretary:* B. K. Vaishnair; *Jt. Secretaries:* P. N. Balhami; A. R. Dar; *Treasurer:* Muzzaffar Shafeeq.

BEOPAR MANDAL
Sri Runbir Gunj, Srinagar 2.

*President:* Haji Abdul Aziz Mir; *Vice-Presidents:* L. Girdhari Lal; Haji Noor-ud-Din; *Organiser:* Haji Akbar Joo; *General Secretary:* Om Prakash Kapur; *Jt. Secretary:* Baldev Raj Khanna.

KASHMIR CHAMBER OF COMMERCE & INDUSTRY
Srinagar.

*President:* G. R. Mattoo; *Vice-President:* D. S. Sawhney; *Secretary-General:* R. K. Sawhney; *Jt. Secretary-General:* P. N. Puri; *Treasurer:* D. S. Oberoi.

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# KERALA

**Area : 15,002 sq. miles.**

Coastal line : 360 miles.

Total population : 16,903,715 (1961 census).

Density of population (1961): 1,127. Sex ratio : 1,022 females per 1,000 males. Literacy per 1,000 : 468.

Figures for March 31, 1961 : Number of districts 9 ; taluks 55 ; villages 1,636 ; municipal towns 27 ; corporations 2 ; panchayats 922.

Capital : Trivandrum.

Names of Districts with names of District Headquarters within brackets: Trivandrum (Trivandrum); Quilon (Quilon); Kottayam (Kottayam); Alleppey (Alleppey); Trichur (Trichur); Cannanore (Cannanore); Kozhikode (Kozhikode); Palghat (Palghat); Ernakulam (Ernakulam).

For population of districts according to the 1961 census, see "Population."

*Geography :* The climate of the whole region is generally temperate and the rainfall heavy. Languages spoken in the State are Malayalam, Tamil and Kannada.

### ADMINISTRATION

A no-confidence motion against the Congress Ministry was passed by the Assembly on Sept. 8, 1964 and President's rule was promulgated on Sept. 10.

A new election was held on March 4, 1965. No party got absolute majority. Hence the continuance of President's rule was announced on March 24, 1965.

### BUDGET ESTIMATES FOR 1965-66

(*See 'State Budgets'*).

### INDUSTRIES

*Important industries of the State :* Coir, textiles, tea, rubber, manufacture of bricks and tiles, cashew nut processing, printing, saw milling including plywoods and manufacture of splints and veneers for matches, rice milling, handloom, handicrafts and extraction of oils.

*Main large-scale industries of State :* Rubber, Plywood, Fertilisers and Chemicals, Rayons, Glass, Paper, Aluminium, Sugar, Cement, Textiles, Titanium Dioxide, Soaps, Shark liver oil, Ceramics, Rare Earths and Engineering.

*Chief products of the large-scale industries of the State :* Chemicals, ammonium sulphate, ammonium chloride, ammonium phosphate, superphosphate, sulphuric acid, ammonia, caustic soda, chlorine, calcium carbide, copper sulphate, titanium dioxide, rare earth salts, cycle rims, crockery and sanitary wares, electric porcelain, fire-bricks etc.

*Miscellaneous :* Aluminium ingots, glassware, cement, rayon, transparent paper, vegetable oils and soaps, vanaspati, alcohol, pharmaceuticals, galenicals, plywood, ceramicware, rubber goods, paper, cotton textiles and engineering materials, agriculture implements, dyeing and printing, manufacture of jewellery, canning and preservation of fish, starch, cutlery, locks, etc.

*A note on industrial development with particular reference to Third Plan :*

The Third Plan Schemes for industrial development in Kerala are under two separate sectors, *viz.*, the Central Sector and the State Sector.

According to the latest available information it is seen that the Central Government have decided to locate five public sector projects in Kerala during the 3rd Plan period. They are: the second ship-building yard at Cochin at a cost of Rs. 20 crores; a Forme Press at Koratti; a Precision Instrument Factory in Palghat District; Hindustan Machine Tool Factory at Ernakulam at a cost of Rs. 7¼ crores; and Oil Refinery at Cochin, Ernakulam District, at a cost of Rs. 22·75 crores.

The industrial programme under State sector, entails a total estimated outlay of Rs. 1,719·50 lakhs in the Third Plan. The break-up between different industries in Rs. lakhs is as given below : Large and Medium Industries in Public Sector 174·50; Large and Medium Industries in Private Sector 280·00; Plantation Industries 465·00; Handloom Industries 165·00; Small Scale Industries 255·00; Industrial Estates 125·00; Handicrafts 35·00; Coir Industry 175·00; Sericulture 5·00; Khadi and Village Industries 40·00.

*Reorganisation of State Owned Firms :* The Kerala Government has decided to reorganise the 11 Govt. owned industrial concerns in the State as five joint-stock companies as recommended by the committee of the Kerala State Industrial Development Corporation.

The State Government has already regrouped the 11 industrial undertakings into five different joint-stock companies and the assets worked out have been treated as working capital and loan on 50–50 basis and the new companies have started working from 24-2-1964.

The five different companies are in the following order : (1) The Government Hydrogenation Factory, Calicut; Kerala Soap Institute, Calicut; Government Oil Factory, Calicut and Shark Liver Oil Factory, Trivandrum. (2) The Travancore Plywood Industries, Punalur. (3) Kerala Government Ceramics, Kundara and the Government Ceramic Concerns, Kundara. (4) Travancore Rubber Works, Trivandrum, Kerala Government Cycle Rim Factory, Trivandrum and Kerala Cycles, Pappenamcode (near Trivandrum). (5) Trivandrum Spinning Mills, Balaramapuram (near Trivandrum).

*Large and Medium Industries :* Preference has been given under the public sector to the expansion and modernisation of the existing industrial units. The reorganisation and expansion of (*i*) the Kerala Soap Institute, Calicut, (*ii*) the Government Oil Factory, Calicut, (*iii*) the Government Ceramic Concern, Kundara, (*iv*) the Travancore Rubber Works, Trivandrum, (*v*) the Cycle Rim Factory, Trivandrum, (*vi*) the Government Spinning Mill, Trivandrum, and (*vii*) the Electrical and Allied Industries Kundara are those included in the Plan.

A contract for the preparation of a detailed project report and working drawings for the establishment of a mechanical instrument plant in Palghat has been concluded between the Government of India and V/O "Prommashexport", a Soviet supply organisation in Jan. 1964.

The detailed project report of the plant will be prepared by a Soviet designing institute on the basis of the memorandum of instructions approved by the Government of India and will provide for the establishment of machine and assembly shops, auxiliary shops, designing department, special designing bureau and other services necessary for the running of the plant.

Under the Private Sector, the Kerala State Industrial Development Corporation (KIDC) has been organised to help capital formation in respect of deserving enterprises. The Corporation has undertaken to offer financial and technical services to industrialists for setting up industries.

Financial assistance by way of State participation in the capital structure has already been agreed to in the case of the Travancore Titanium Products, the Tracco Cables, the Premier Tyres, the Kerala Lakshmi Mills and Heavy Transformers.

Out of the 12 spinning mills licensed during 1962, three of them i.e., G.T.N. Textiles Ltd., Alwaye (Ernakulam District), Premier Cotton Spinning Mills Ltd., Palghat and Calicut Modern Spinning and Weaving Mills have commenced production. Other licences are under various stages of implementation and a few are expected to go into production shortly. Spindlage of the spinning mills has substantially been increased to 25,000.

*The following are the important industries for which Licences have been granted :* Cable Factory at Ernakulam — Investment being Rs. one crore and 51 lakhs; Aluminium Oxide Grains

Manufacturing at Edapally — Investment being Rs. 2 crores ; Transformer Factory at Angamaly — Investment being Rs. 3·3 crores; Zinc Smelter Plant at Alwaye; Steel Re-Rolling Mill at Kozhikode ; Tin-plate Manufacturing Factory at Ernakulam ; Veneer Factory, Rubber Factory and Paper Factory ; Machine Tool Factory at Palghat ; Wire-rope Factory at Alwaye ; Water Meter Factory at Palluruthy ; Pen-stock Factory at Palluruthy ; Gelatin and Ossein Plant at Alwaye ; Starch Factories ; Cashewnut Shell Liquid Factory at Quilon ; Rayon Grade Wood Pulp Factory at Calicut ; Premier Tyres, Alwaye ; Sugar Co-operatives at Chittoor and Pandalam ; Tracco-Cables, Tripunithura ; Co-operative Spinning Mill at Cannanore.

Following are the industries which started production during 1964 and 1965 :

Cannanore Co-operative Spinning Mills Ltd., Cannanore ; Tracco Cables Ltd., Ernakulam ; Mittal Steel Re-Rolling & Allied Industries (P) Ltd., Vadakkancherry, Trichur ; Kerala Wheat & Flour Roller Mills, Calicut ; Giovanola-Binny Ltd., Cochin ; Travancore Electro-Chemical Industries Ltd., Kottayam ; Seshasayee Wire Ropes Ltd., Alwaye ; West India Steel Co. Ltd., Calicut ; Mannam Sugar Mills Co-operatives Ltd., Pandalam ; G.T.N. Textiles Ltd., Alwaye ; Calicut Modern Spinning and Weaving Mills Ltd., Calicut ; Premier Cotton Spinning Mills, Ltd., Palghat ; Chittor Co-operative Sugars Ltd., Chittor ; British Physical Laboratories India (P) Ltd., Palghat ; H.M.T. Ltd. Kalamasserry.

*Plantation Industry :* With a view to reducing the import of rubber, an ambitious programme for the development of rubber plantation industry has been included in the Third Plan for the State. The programme of development comprises planting by Government and individuals and encouraging distribution of loans to auction purchasers of forest lands.

A trading and export corporation will also be established for the procurement and storage of ginger.

*Village and Small Industries :* To promote the growth of industries in the rural and underdeveloped areas, a scheme of giving subsidies to small scale industrialists starting industries in such areas, has been drawn up. A "Kerala State Small Industries Development Corporation" as a private limited Company of which the shares will be fully owned by the State Government has already been organised. This Corporation have taken up works in connection with setting up and managing of industrial estates, organising depots for supply of raw materials, running common service facility centres, and emporia and supplying indigenous machinery on hire purchase terms. Supply of power at subsidised rates, organisation of exhibitions for giving publicity to small industry products, providing mobile vans, starting of 8 rural workshops in N.E.S. Blocks, starting of tool rooms in the Industrial Estate at Trivandrum, are various other measures that will be taken up during the Third Plan period to develop the growth of small industries in the State. Some of these schemes have already been implemented. The development of Khadi and Village Industries is being implemented by the Kerala Khadi and Village Industries Board.

*Industrial Estates :* In order to provide factory accommodation to small scale industries nine units of Small Industrial Estates costing Rs. 5 lakhs each are being constructed in or near towns having a population between 5,000 to 20,000 and also a medium Industrial Estate costing Rs. 15·00 lakhs is under construction at Umayanellore in Quilon District. Further, action has been taken to establish a Marine Industrial Estate in Ernakulam District to establish a few Small Scale units with the collaboration of the Norwegian Agency for International Development. In addition to these programmes, 25 Nos. of workshed units are being implemented in the Community Development Blocks of the State where there are village artisans employed on traditional trades.

For the Development Plot in cities in Kozhikode District, acquisition steps have almost been completed and the Development Plot is located at West Hill adjacent to the existing industrial estate. A site situated in the Edakkad Village Mambaram Road (behind Chala Railway Station) in Cannanore District having an area of 57 acres is proposed to be acquired to establish a development plot.

Further to these, there is a programme to establish six Industrial Estates in the private sector assisted by the State.

In addition to the starting of 10 new Industrial Estates, it has been decided to expand and provide additional amenities to the existing eight Industrial Estates, already started during the Second Plan period. A total amount of Rs. 47·29 lakhs has been set apart for development area and development plots in cities for the assignment of suitable sites to the entrepreneurs with all facilities like water, transport, communications, etc. leaving the entrepreneurs to construct the factory sheds on their own subject to the minimum approved standards in the "development areas" covering about 450 acres in Alwaye, 109 acres in Trivandrum and 200 acres in Palghat.

*Handicrafts :* Brass and bell metal work, handloom furnishing fabrics and lace cloth, screwpine, kora grass and palmyrah leaf weaving, rattan work, kuft gari, bamboo and reed weaving, Kathakali costumes manufacture, traditional folk jewellery making, Aranmula Metal Mirror making, laminated wood work, toys and dolls making, lace and embroidery, lacquerware, ivory, horn, wood, coconut shell carvings, etc. are the important handicrafts of this State. There are about 15,000 persons employed in 3,000 establishments in these crafts. There are about 300 Handicraft Co-operatives in the State. It is proposed to organise 100 Co-operatives more during the Third Plan period and develop 30 societies on an intensive basis. A sum of Rs. 37 lakhs has been provided for development of handicrafts during the Third Plan period. The articles produced by these societies are sent to all parts of the world for sale through the agencies and India Handicrafts Corpn.

*Handloom Industries :* Total No. of looms in the State : 1,20,000 ; Total No. of looms in the Co-operative fold (Regd.) as on Dec. 31, 1964 : 45,401 ; Total No. of looms registered outside Cooperative fold as on Dec. 31, 1964 : 63,596 ; Total No. of societies in the State as on Dec. 31, 1964 : 404 ; Total No. of society members as on 30th June 1964 : 270 ; Total No. of individual members as on 30th June 1964 : 50,201 ; Total paid-up share capital as in June 1964 : Rs. 38,61,000 ; working capital as in June 1964 : Rs. 16,96,000 ; Total production in metre (July 1963-June 1964) : 21,240.941 (valued at Rs. 2,37,55,622) ; Total sales during 1961 : 21,250,690 mtrs.) (valued at Rs. 2,29,77,154) ; Financial target fixed for II Five Year Plan : Rs. 127·5 lakhs ; Financial target fixed for Third Five Year Plan : Rs. 1,65,00,000.

It is proposed to introduce 1,000 powerlooms in the Handloom sector during the Third Five Year Plan period, against 500 during the Second Plan, out of which 500 looms were proposed to be distributed to the weavers throughout Kerala State during the year 1962-63.

*Cashew Industry :* There are about 250 cashew processing factories in India of which nearly 75 per cent are in Kerala, employing more than a lakh workers.

From paltry 50 tons in 1925 production of cashew kernels has rapidly risen to over 55,000 tons in 1963. Export during 1963 reached an all time record of 53,000 tons yielding foreign exchange to a tune of Rs. 21¼ crores. Cashew nut shell liquid also contributes to India's foreign exchange earnings to the extent of over Rs. 1 crore.

*Coir Industry :* The important items in the programme will be the organisation of primary coir co-operatives, coir marketing societies, and societies for the manufacture of mats and mattings, ropes, bristle and mattress fibre. A model coir factory has already been organised at Beypore to modernise the manufacturing side of the coir industry. The provision for coir development for the Third Plan period is Rs. 175 lakhs.

*Sericulture :* The existing Sericulture Farm at Ambalavayal in Wynad area will be expanded during the Third Plan period. This will provide subsidiary occupation to the colonists numbering about 3,000 who have settled in Wynad. The Third Plan provision for this scheme is Rs. 5 lakhs.

*Khadi and Village Industries :* The Kerala Khadi and Village Industries Board was constituted in August 1957 so as to help the villagers in organising co-operatives and to give loans and grants and other technical assistance for the development of Village and Cottage Industries such as Khadi and Ambar, village oil, handpounding of paddy, village pottery, non-edible oil soap, handmade paper, gur khandsari, beekeeping, village leather, palm gur, fibre, carpentry, blacksmithy, etc. The implementation of Khadi and Village Industries schemes would provide employment to not less than 32,767 persons full time and 13,239 part time. About 820 co-operative societies have been registered for Khadi and Village Industries. To facilitate the marketing of the products of these industries a Central Marketing Society will also be organised. The total provision made during the Third Plan period is Rs. 40 lakhs.

*Chief minerals produced in the State :* The beach sands contain the much valued and strategic mineral monazite besides five others of great economic value namely ilmenite, rutile, sircon, sillimenite and garnet. The extensive white clay deposits contribute to the ceramic industry. Other minerals available are mica, graphite, limestone, quarts-sand and lignite.

According to an official assessment of mineral reserves of Kerala, made by the Geological Survey of India in 1962, substantial white sand reserves suitable for glass manufacture have been found in some places of Alleppey and Ernakulam Districts.

Deposits of Kaolin have been found in Kundara, Quilon District and several other places in the districts of Trichur and Cannanore.

## LABOUR

*Names of industries in which a minimum wage is fixed :* For the whole State : Rice mill, flour mill or dal mill, beedi making, cigar making, plantations (coffee, tea, rubber & cardamom), oil milling, local authorities (municipalities, Panchayats and Trivandrum Corporation), construction and maintenance of roads and buildings, stone breaking and crushing, public motor transport, tanneries & leather manufacture, match industry, shops and establishments including hotels and restaurants, cashew factory, tile industry, printing presses, timber industry, toddy tapping, agriculture, coir manufacture and plywood.

*Revision of minimum wages*—1964 : Agriculture (1-12-1964) ; Rice mill (1-5-1964) ; Tanneries and leather (1-12-1964) ; Cashew (1-2-1964) ; Coir (24-9-1964).

Number of registered factories in the State as on 31st December 1963 : 2,587 ; Number of working factories which submitted the annual returns : 1,475 ; Average daily employment in the working factories submitted returns : 101,178 ; Total average daily employment in all the registered working factories (estimated) 1,75,855.

Number of accidents in registered factories during 1963 (including fatal cases) : 1,439.

Number of fatal accidents : 3.

Number of registered Trade Unions as on 31st March 1964 : 1,639.

STATEMENT SHOWING INDUSTRIAL DISPUTES BY CAUSES (1963)

| Industry. | By Causes. | | | | | | Details of Work-stoppages. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total No. of disputes. | Wages. | Bonus. | Working Condition. | Retrenchment. | Others. | Total No. of workers Normally Employed. | Number of Workers affected. | Man-days lost. |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| Plantation .. .. | 22 | 4 | 5 | — | — | 13 | 22,947 | 7,972 | 62,352 |
| Cashewnut .. .. | 13 | 9 | — | — | 1 | 3 | 8,159 | 7,144 | 39,516 |
| Coir .. .. | 6 | 5 | — | — | 1 | — | 650 | 642 | 301 |
| Saw Mills .. .. | 13 | 7 | 2 | — | — | 4 | 516 | 494 | 3,276 |
| Textiles .. .. | 18 | 6 | 5 | — | — | 7 | 4,978 | 4,765 | 21,483 |
| Tile .. .. | 19 | 2 | 10 | 3 | 1 | 3 | 4,912 | 4,919 | 13,470 |
| Others .. .. | 41 | 18 | 5 | — | 1 | 17 | 7,103 | 6,005 | 29,267 |
| GRAND TOTAL .. | 132 | 51 | 27 | 3 | 4 | 47 | 49,265 | 32,641 | 1,69,665 |

STATEMENT SHOWING INDUSTRIAL DISPUTES BY CAUSES (1963)—(*Contd.*).

| Industry | Result. | | | | Method of settlement. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Successful | Partially Successful | Indefinite | Unsuccessful | Conciliation | Direct Negotiation | Adjudication | Mediation | Others | No. of token strikes | No. of Strikes continued to Jan. '64 |
| | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) |
| Plantation .. | 6 | 2 | 2 | 1 | 5 | 2 | 1 | 1 | 2 | 10 | 1 |
| Cashewnut .. | 5 | .. | 6 | 2 | 6 | .. | 1 | 5 | 1 | .. | .. |
| Coir .. .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | 5 | .. |
| Saw Mills .. | 2 | 1 | 8 | 1 | 9 | 2 | .. | 1 | .. | .. | 1 |
| Textiles .. | 5 | 2 | 8 | .. | 9 | 4 | .. | 2 | .. | 2 | 1 |
| Tile .. .. | 3 | 1 | 13 | .. | 14 | 1 | .. | 2 | .. | 2 | .. |
| Others .. | 18 | 1 | 10 | 4 | 11 | 11 | 1 | 5 | 5 | 6 | 2 |
| GRAND TOTAL | 39 | 7 | 48 | 8 | 55 | 20 | 3 | 16 | 8 | 25 | 5 |

*Kerala Labour Industrial Bureau:* The Government of Kerala has set-up a "Labour and Industrial Bureau" with the object of developing an industrial advisory service. The Bureau will promote and co-ordinate research in labour and industrial problems, including organisational and administrative aspects. It will also foster the application of research in the development of commerce, trade and industry and for the fruitful utilisation of natural resources in the Industrialisation of the State.

The Bureau will collect and supply information relating to industry feasibility, plant location, raw materials, requirements of resources for different industrial units, industrial productivity, marketing and sources of industrial finance. The bureau publishes a quarterly "Kerala Labour and Industries Review". A Director heads the Bureau, with headquarters at Trivandrum.

A bacon factory and a pig-breeding centre are to be established at Mannuthy near Trichur under the crash programme for developing animal husbandry.

The scheme, which will be financed by the Centre, is estimated to cost Rs. 25 lakhs and will be outside the Third Plan schemes.

The site for establishing the factory and the pig-breeding centre had been finalised by Dec. 1964 and estimates are being prepared.

The factory will commence production within 18 months.

An egg collection and marketing centre capable of handling six lakhs eggs a week in the initial stage is also proposed to be established at Chengannur.

*Equipment:* Ploughs (wooden : 562,281; iron : 6,441); carts : 21,037 ; sugar cane crushers (power 175 ; bullocks 1,071); oil engines : 3,372 ; electric pumps : 2,565 ; tractors : 276 ; Ghoris (more than 5 seers : 2,058 ; less than 5 seers : 2,164).

## LIVESTOCK 1961 (FINALISED)

*Cattle*—Males over 3 years : Breeding bulls 9,076 ; Working bulls 515,241 ; Not used for breeding or work 21,471 ; Total : 545,788.

*Cattle*—Females over 3 years—Breeding cows (in milk) 428,194 ; Dry cows and not calved 502,935 ; Working cows 11,274 ; Cows not used for breeding or work 12,306 ; Young stock 10,25,148 ; Total females and young stock 21,63,554 ; Total Cattle 27,53,165.

*Buffaloes*—Males over 3 years—(1) Breeding 2,009; (2) Working 2,68,200 ; (3) Not used for breeding or work 6,614 ; Total of males 2,85,112.

*Buffaloes*—Females over 3 years—(1) Breeding in milk 59,542 ; (2) Breeding dry and not calved 66,187; Used for work 7,266 ; Not used for work or breeding 2,118 ; Young stock 64,864 ; Total of females and Young stock 2,29,828 ; Total of buffaloes 4,29,805.

*Other livestock :* Sheep 24,241 ; Goats 13,12,262 ; Pigs 1,22,381.

Grand total of cattle, buffaloes, sheep, goats and pigs etc. 74,50,303.

*Poultry*—Fowls and ducks 90,95,736.

## AGRICULTURE

Of the total population 53·6 per cent depend upon agriculture, though the per capita extent of cultivated land is only 30 cent. The non-agricultural population is about 6·3 millions.

*Classification of area in acres* as on June 30, '64 : Forests : 2,606,395; land put to non-agricultural uses : 538,557 ; barren and un-cultivable land : 288,857 ; permanent pastures and other grazing land: 85,084 ; land under misc. (crops not incl. in the net area sown) : 512,380 ; cultivable waste : 308,721 ; fallow (other than current fallow) : 104,013 ; current fallow : 94,170 ; net area sown : 4,996,434 ; area sown more than once : 1,086,459 ; cropped area : 6,082,893 ; Total irrigated area : 1,208,090.

Total area under all crops : 53,82,400 acres. Total irrigated area : 8,79,458 acres.

*Foodcrops :* Rice, jowar, ragi, other cereals and millets, tur, other pulses, sugar cane, pepper, chillies, ginger, turmeric, cardamom, betelnut, mango, citrus fruits, banana (including plantain), cashewnut, tapioca, sweet potato and onion.

Production of rice which showed an unsatisfactory trend in the initial stages of the Third Plan registered an increase of 1·42 lakh tons in 1962-63. The prospects of the rice crop was good in 1963-64 and the anticipated total production of 12·30 lakh tons was expected to be achieved. The target fixed for 1964-65 is 13·61 lakh tons. Annual rice deficit in the State is 700,000 tons.

Quantity of rice required to meet the needs of the fair price shops : 10,000 to 12,000 tons a month.

Main cash crops of the State : Coconut, Arecanut, Tea, Coffee, Cardamom, Rubber, Pepper, Gingelly, Cotton, Turmeric, Sugarcane, Ginger, Lemon grass, Groundnut, Cashewnut.

AREA PRODUCTION AND AVERAGE YIELD OF IMPORTANT CROPS IN KERALA FOR 1963-64

| Name of Crops | 1963-64 | | | | 1962–63 | | |
|---|---|---|---|---|---|---|---|
| | Area (in acres) | Production (Tons) | Average yield per acre (lbs.) | Remarks | Area (in acres) | Production (Tons) | Average yield per acre (lbs.) |
| 1. Rice | 19,89,403 | 11,10,239 | 1,250 | .. | 19,83,414 | 10,75,994 | 1,215 |
| 2. Other cereals & Millets | 16,625 | 3,185 | .. | .. | 16,625 | 3,298 | .. |
| 3. Pulses | 1,08,360 | 16,857 | .. | .. | 1,08,680 | 16,992 | .. |
| 4. Sugarcane | 23,440 | 43,395 | 4,147 | (Gur) | 23,060 | 41,044 | 3,987 (Gur) |
| 5. Ginger (Dry) | 29,550 | 11,113 | 842 | (Dry) | 29,820 | 11,250 | 845 |
| 6. Turmeric (Dry) | 11,405 | 3,850 | 756 | (Cured) | 11,940 | 4,245 | 796 |
| 7. Bananas (including plantains) | 1,06,603 | 3,20,682 | 6,500† | (Raw) | 1,07,126 | 3,22,175 | 6,500† |
| | | | 6,813‡ | (Plantains) | | | 6,813‡ |
| 8. Tapioca | 5,18,688 | 24,83,833 | 10,726 | .. | 5,47,626 | 15,15,719 | 6,200 |
| 9. Sesamum | 29,630 | 2,555 | 193 | .. | 29,438 | 2,536 | 193 |
| 10. Groundnut | 35,860 | 20,447 | 1,277 | .. | 39,610 | 13,320 | 753 |
| 11. Black pepper | 2,45,578 | 22,070 | 201 | .. | 1,45,226 | 24,076 | 220 |
| 12. Cashewnut | 2,03,536 | 90,858 | 1,000 | .. | 2,02,941 | 90,592 | 1,000 |
| 13. Cardamom | 70,877 | 1,263 | 40 | (Cured) | 70,877 | 1,263 | 40 |
| 14. Cocoanut | 13,46,689 | 3,262* | 2,422 | (Nos.) | 13,32,535 | 3,305* | Nos. 2,480 |
| 15. Betelnut | 1,40,096 | 8,522* | 60,830 | (Nos.) | 1,36,648 | 8,312* | Nos. 60,830 |
| 16. Cotton | 19,675 | 8,030** | 160 | .. | 19,100 | 7,534* | lbs. 155 |
| 17. Tea | 94,901 | 40,393 | 953 | .. | 95,265 | 38,162* | 897 |
| 18. Coffee | 49,474 | 8,433 | 382 | .. | 47,372 | 8,347 | 395 |
| 19. Rubber | 3,53,129 | 33,258 | 211 | .. | 3,40,780 | 28,598 | 188 |
| 20. Tobacco | 1,740 | 905 | 1,165 | .. | 1,738 | 904 | 1,165 |

* Million nuts. ** Bales of 392 lbs. each. † Banana. ‡ Plantain.

Classification of area in acres (1960-61): Barren and unculturable waste 3,73,978; land put to non-agricultural uses 5,05,688; cultivable waste 3,54,371; permanent pastures and grazing lands 1,11,770; land under miscellaneous tree crops not included in net area sown 5,04,991; current fallows 1,65,868; other fallows 1,54,545; net area sown 47,53,616; area sown more than once 10,50,527; total cropped area 58,04,143.

No. of rubber, tea and coffee plantations (less than 25 acres each) as on 31st Dec., 1959) 972, 237 and 212 respectively.

About 21,000 tons of manufactured rubber, 40,000 tons of manufactured tea and about 7,000 tons of Coffee respectively were produced during the year.

## LAND REFORMS

See article on 'Agriculture'.

The Kerala Land Reforms Act has come into force.

*Foreign Aid:* The Swiss Government will grant 1,640,000 Swiss francs for carrying out the first stage of a farming development project in Kerala.

## FISHERIES

See article on 'Fisheries' for details.

## FORESTS

**The figures relate to 1963-64.**

Total forest area in State: 4,088 sq. miles 140 acres; Reserved forests 3,416 sq. miles 517 acres; reserved lands 58 sq. miles 295 acres; proposed for fuel and fodder reserves 288 acres; private forests 612 sq. miles 320 acres.

Location of forests: The main forest tract lies north to south, along the Western Ghats, forming the eastern boundary of the State.

Revenue from the forests: Rs. 4,83,77,211; expenditure: Rs. 1,25,13,541.

Main forest produce: Timber, firewood, bamboos, reeds and ivory.

Quantity of each variety: Timber (round logs) 2,71,601 cft.; Poles 1,52,755 nos.; Firewood 1,84,525 tons; Bamboos 99,66,168 Nos.; Charcoal 23,420 bags; Ivory 361 k.gms.

## TRANSPORT

**Total mileage of roads: 10,739.**

Metalled roads including special surfaced roads under P.W.D. control: 6,711 miles.

**National highways: 280 miles.**

Total mileage of waterways: 1,116 miles (Navigable length of rivers 521 miles; navigable length of canals and cross canals 595 miles).

**Total number of aerodromes: Two.**

*Particulars of Ports:* Major Ports: 1—Cochin; Intermediated ports: 2—Alleppey and Calicut; Minor Ports: 9—Trivandrum, Quilon, Koilthottam, Ponnani, Badagara, Tellicherry, Cannanore, Azhikkal and Kasargod.

**Number of ports and harbours: 11.**

*Railways* (March 31, 1964) Kilometreage: 886·73 (Broad gauge 553·26 and Metre gauge 333·47).

**Number of broadcasting stations: 2.**

Kerala State Road Transport Corporation, which came into being on April 1, 1965, took over the services run by the Kerala State Transport Dept. which ceased to exist from that day.

Capital invested: Rs. 4,94,37,598 (as on 31-3-1964).

**Figures for the following items are as on 30-9-1964:**

**Road mileage monopolised: N.A.**

**Road mileage over which services are operated along with private operators: N.A.**

Number of routes: 591.
Route kilometreage: 17,468.
Number of buses owned: 883.
Number of lorries owned: 45.
Number of other vehicles: 27.

Total number of employees (as on March 15, 1965): 7,326.

Passenger earnings (Sept. 1964): 38,82,268.

Kilometreage operated per day by buses (average): 1,63,311.

Kilometreage operated per day by lorries (average): 4,374.

Number of persons transported per day (average): 3,71,127.

Total amount of goods carried: about 20 lorries of 5 tons each a day.

## POWER PROJECTS

### Projects in Operation

*Pallivasal H.E. Project:* In the high ranges in Devicolam below Munnar. Started in 1940. Installed capacity 13,500 kW.

Installed capacity of the 1st stage increased to 37,500 kW at the 2nd stage. Actual production during 1963-64: 247·17 million units.

*Sengulam Hydro-Electric Scheme:* The power station is located at Vellathuval below Pallivasal and is a tail race development of Pallivasal scheme. The installed capacity is 48,000 kW. The project was commenced in 1947. The work was completed in May, 1957. The cost of the scheme is Rs. 364·73 lakhs. Production during 1963-64: 129·96 million units.

*Poringalkuthu Hydro-Electric Scheme:* The power station is located at Poringalkuthu on the Chalakudy river in Trichur District. The installed capacity now is 32,000 kW comprising four generating sets of 8,000 kW each. The fourth generating set was commissioned in Feb., 1960. The cost is Rs. 399·30 lakhs. Production during 1963-64: 161·10 million units.

*Neriamangalam Hydro-Electric Scheme:* The power station is located at Panamkutty on the right bank of the Periyar river. The installed capacity will be three units of 15,000 kW each. Work was started in January 1955. The project was inaugurated on April 12, 1961. Estimated cost is Rs. 360 lakhs. The production during 1963-64: 217·60 m. units.

*Panniar Hydro-Electric Scheme:* The power house will be located on the left bank of the Muthirapuzha river almost opposite to the Sengulam power house. The installed capacity 30,000 kW. comprising two sets of 15,000 kW. each. The estimated cost is Rs. 484 lakhs. The first unit was put into commercial operation on 29-12-63 and the second unit commissioned on 26-1-64. Production during 1963-64: 13·01 million units.

### Projects in Execution

*Sholayar Hydro-Electric Scheme:* This scheme is located on the bank of the Sholayar river, a tributary of the Chalakudy river in Trichur District. The generating station will have three sets each of 18,000 kW capacity. The estimated cost of the scheme is Rs. 432 lakhs.

*Sabarigiri (Pamba) Hydro-Electric Project:* This envisages development of power from the waters of the Pamba and Kakki rivers. The project works are in progress. The power station will have an installed capacity of 300,000 kW, consisting of six units of 50,000 kW each, involving an expenditure of Rs. 2,491 lakhs.

The project comprises the construction of a 171-ft. high dam across Pamba river, and a 360-ft. high dam across Kakki river, with a saddle dam and inter-connecting tunnel, 10,524 ft. long, between Pamba and Kakki reservoirs.

The head-race tunnel, about 18,000 ft. long having a capacity of 1,970 cusecs, will take off from Kakki reservoir. Work on the scheme is progressing. The project is being executed with loan from U.S. Aid.

The first two units of the Sabarigiri Power Station are expected to be commissioned by the end of the Third Five Year Plan.

The present installed capacity of the Hydro Electric Stations in the State rose to 192,500 kW. The energy output from the hydro electric station during the year 1963-64 was 762·88 million units.

**Projects of the Third Five Year Plan**

*Idikki H.E. Project:* This is the largest hydro electric scheme planned for execution in the State. The first stage of the scheme estimated to cost Rs. 4,923 lakhs will have an installed capacity of 500 MW, developing firm power of 355 MW at 60 per cent load factor. A provision of Rs. 300 lakhs has been made in the Third Plan for commencing work on the scheme. The scheme after completion will irrigate 115,000 acres in Thodupuzhe, Meenachil and Vaikam Taluks and will be located in the Kottayam and Ernakulam Districts across the Periyar River.

The preliminary works on the Idikki Project are in progress.

*Kuttiadi H.E. Project:* The project envisages power development from the Kuttiadi river in Malabar area of this State. The scheme estimated to cost Rs. 525 lakhs will contribute 245 million units to the energy potential of the grid. The power station will have an installed capacity of 75,000 kW. A provision of Rs. 300 lakhs has been made in the Third Plan for this project.

Civil works on the project are in progress. Orders for the supply of Generating Station equipment have been placed.

It is proposed to inter-connect the Kerala and Madras power systems through a 220 kV transmission line during the Third Five Year Plan.

Transmission lines have been constructed in the Malabar area of the State and part of the load in this area is being met from the Kerala grid. Supply is also being received from the Madras State Electricity Board for distribution in the Malabar area.

## IRRIGATION

*Major Irrigation Schemes:* The following are the major irrigation projects:

| Name of Scheme | Estimated cost in Rs. lakhs | Area to be served in acres |
|---|---|---|
| 1. Malampuzha .. | 545·00 | 50,000 |
| 2. Walayar .. .. | 131·66 | 8,000 |
| 3. Mangalam .. | 106·00 | 8,000 |
| 4. Vazhani .. .. | 107·57 | 8,810 |
| 5. Peechi .. .. | 235·00 | 46,000 |
| 6. Chalakudy | | |
| (1st stage) .. | 153·25 | 28,400 |
| (2nd stage) .. | 60·00 | 10,000 |
| 7. Neyyar | | |
| (1st stage) .. | 224·00 | 19,000 |
| (2nd stage) .. | 170·00 | 10,000 |
| 8. Gayathri .. .. | 220·00 | 13,500 |
| 9. Kallada .. .. | 1,290·00 | 1,30,000 |
| 10. Pamba .. .. | 384·00 | 33,000 |
| 11. Kuttiadi .. .. | 496·00 | 36,000 |
| 12. Kanjirapuzha .. | 365·10 | 24,000 |
| 13. Chittoorpuzha .. | 99·17 | 27,800 |
| 14. Pazhassi .. .. | 442·00 | 40,000 |
| 15. Pothundy .. | 234·25 | 11,000 |
| 16. Cheerakuzhy .. | 47·34 | 4,000 |
| 17. Periyar Valley .. | 640·00 | 63,300 |
| *Land Development Schemes:* | | |
| 1. Thannirmukkom Regulator .. | 150·00 | 121,000 |
| 2. Kattampally .. | 52·81 | 4,000 |

Of the above schemes Malampuzha, Walayar, Mangalam, Vazhani and Peechi Schemes and the 1st stages of Chalakudy and Neyyar schemes were started during the First Five Year Plan and all these schemes except Neyyar 1st stage had been fully commissioned by the end of Second Five Year Plan.

Besides these, the schemes *viz.*, Chalakudy second stage, Neyyar second stage, Gayathri (Meenkara including Chulliar), Pothundy, Cheerakuzhy and Periyar Valley were started during the Second Five Year Plan and the schemes Chalakudy second stage have been commissioned and Gayathri schemes first stage has been completed. The work in the Chulliar Dam (Gayathri second stage) are in progress. All other schemes are also in various stages of execution.

Six new projects have been taken up for execution during the Third Five Year Plan and they are Kallada, Pamba, Kuttiadi, Kanjirapuzha, Pazhassi and Chitturpuzha. The schemes are only in the initial stages of execution.

The regulator at Thannirmukkom, the Second stage of the Kuttanad Development Scheme and the Kattampally Projects are the two Land Development works which have been started during the Second Five Year Plan. The works relating to these projects are in progress. The first stage of Kuttanad development scheme *viz.*, the Spillway at Thottapally has been completed in all respects. When the Second stage is completed, an area of about 1,21,000 acres will be benefited in the Kuttanad area.

As regards the Major Irrigation Projects the total Third Plan provision is Rs. 1,142·00 lakhs. Apart from these major schemes a number of Medium and Minor Irrigation works are also in progress. Further, there are extensive paddy lands by the side of Chalakudy, Periyar, Muvattupuzha and Pamba rivers. As these isolated areas could not be brought under flow irrigation, a series of schemes have been started by Government whereby water is lifted from rivers by means of electric or diesel pumps and led on to the fields through channels. All these works are classified under 'Minor Irrigation' and a sum of Rs. 500·00 lakhs has been provided in the Third Five Year Plan.

The number of irrigation pumps electrified and area irrigated as on March 31, 1965 respectively was 3,840 and 600 acres.

*Anti-sea Erosion Works:*—The State has a coastline of about 360 miles. It has been estimated that a total length of 200 miles badly need protective measures. The only permanent method of preventing sea erosion is by constructing sea walls and groynes. Works on these lines had been taken up during the 1st Five Year Plan and this was continued in the 2nd Plan. Sea walls have been constructed only over 15 miles till the end of the Second Plan. During the Third Plan period sea walls extending over 25 miles in the affected area will be constructed.

*Shipyard:* The work on the second shipyard at Cochin would start during the Third Plan period.

The shipyard will take eight to nine years for completion. The Kerala Government has already acquired the land required for the purpose.

SEWING & EMBROIDERY THREADS MANUFACTURERS
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Koratti, Kerala (S. India)

The Union Government proposes to build at Cochin ocean-going steamers with 20,000-ton displacement.

*Kerala Engineering Research Institute:*—Research on various engineering problems including fundamental and basic research on the subjects allotted by the Central Board of Irrigation and Power are being conducted in the Research Station. The problems so far taken up for research studies have been completed.

*Land Tenure:* There are a number of land tenure systems in the State. Janmam lands, Pandaram, Kanapattam, Verumpattam, Adima, Anubhogam, etc., are some of these.

Edavagai Abolition Act abolished special tenancy rights of four ancient chieftains and conferred full rights on tenants. This bill was part of one of seven bills *viz.* Special Rights Abolition Bills.

Following the judgment of the Kerala High Court, declaring the Kerala Agrarian Relation Act, 1960 as unconstitutional in its application to the major portion of the lands in the State, the Government of Kerala suspended the Act and an ordinance was issued giving protection to the tenants. The ordinance was to be in force till December 1963. On Dec. 4, 1963 the Kerala Assembly passed the Kerala Land Reforms Bill 1963.

*Panchayati Raj:* Panchayat Raj has started taking concrete shape in Kerala and elected panchayats are now functioning all over the State. The newly elected Panches and Sarpanches have been enthusiastic in carrying out development programmes.

The draft Panchayat Bill has been finalised by the State Govt. The block-level body is to be known as the Panchayat Union and the district level body as the Zilla Parishad. The Collector is to be the Chairman of the Zilla Parishad and Members of Parliament and the State Legislature are to be associated with these institutions without the right to vote or to hold office.

So far, about one and a half lakh persons have been enrolled in the Village Volunteer Force in Kerala.

## EDUCATION

Particulars showing the number of schools under each category, and schools run by Government and private bodies respectively within brackets for 1963–64 were as follows :—

Number of students under instruction 38,18,436 (20,73,569 boys, 17,44,867 girls); Percentage of the total number of pupils under instruction to the total population: 22.

Percentage of literacy (1961 Census): 46·2.

19 lakhs of children participated in the CARE feeding programme and an amount of Rs. 25·71 lakhs has been spent during 1963-64.

Gross expenditure on General education during 1963-64 : Rs. 18,45,92,516·26.

### SPECIAL SCHOOLS

Strength of students in each category of Spl. Schools with classification of boys and girls respectively in brackets are as follows.

Nursery Schools 7,619 (3,920-3,699); Schools for the handicapped 403 (317-86); Training schools 10,728 (4,910-5,818).

### DISTRIBUTION OF INSTITUTIONS

Number of educational institutions under each category with number of Govt. institutions in brackets respectively are as follows :

Secondary High schools 1,004 (309); Post Basic Schools 3(—); Fishery High Schools 6(6); Anglo Indian High Schools 7(—); Upper Primary Schools 2,178 (659); Senior Basic Schools 82(21); Fishery Upper Primary Schools 21(21); Harijan Welfare Upper Primary Schools 4(4); Anglo-Indian Upper Primary Schools 1(—); Lower Primary School 6,277(2,489); Junior Basic Schools 383(186); Fishery Lower Primary Schools 28(28); Harijan Welfare Lower Primary Schools 231(225); Basic Training Schools 104(31); Anglo Indian Training Schools 1(—); Nursery Training Schools 3(3); Pre-Primary Schools 138(22); Fine Arts (Music & Dancing) 2(2); Technical Schools 1(—); Schools for the Handicapped 7(5); Drawing and Painting Schools 1(1);

Hindi Training College 1(1); Post Graduate B.T. College 1(1); Total 10,484 (4,014).

For educational statistics see under "Education".

Total number of arts and science colleges (Govt.) as in Dec. 1964: 10; Govt. Training Colleges 4; Govt. Physical Education Colleges 2; Govt. Sanskrit Colleges 3; Govt. Music College 1; Govt. Music Academies 2.

Technical institutes in Kerala State under the Directorate of Technical Education: *Public Sector:* College of Engineering, Trivandrum; College of Engineering, Trichur; Central Polytechnic, Trivandrum; Government Polytechnic, Kalamassery; Maharaja's Technological Institute, Trichur; Kerala Government Polytechnic, Calicut; Government Polytechnic, Cannanore; School of Arts, Trivandrum; Institute of Textile Technology, Trivandrum; Diploma Course in Shorthand and Typewriting, Fort, Trivandrum.

*Private Sector:* Thangal Kunju Musaliar College of Engineering, Quilon; S. N. Polytechnic, Quilon; Carmel Polytechnic, Alleppey; N.S.S. Polytechnic, Pandalam; S. R. Polytechnic, Valapad; Alagappanagar Polytechnic, Alagappanagar.

Craft education in various subjects such as bookbinding, cutting and tailoring, coir work, rattan work, gardening, spinning and weaving, fishing, wood work, etc., has been introduced in all the upper primary and secondary schools, the subjects chosen in each school being dependent upon the availability of raw materials and local conditions.

The compulsory primary area of Travancore, the entire Cochin area and a few towns in Malabar had a system of free noon-feeding for needy children of lower primary schools. The total expense on this noon-feeding rose to Rs. 72·8 lakhs in 1960-61.

## PUBLIC HEALTH

Figures as on 1-1-1965:

Number of medical institutions 474; Government hospitals 98; Govt. dispensaries 213; public health centres (including M. C. H. Centres) 146; grant-in-aid institutions 13; secondary health centres 1; beds (Govt.) 14,667†; Beds (grant-in-aid) 1,056; out-patients treated during 1963: 1,96,01,962; in-patients treated during 1962: 760,198; out-patients treated in grant-in-aid institutions 243,170.

**PEST CONTROL (INDIA) PRVT. LTD.,**

XXIII/13166-C, Mahatma Gandhi Road, Ernakulam-6.

Head Office: 36, Yusuf Bldg., Mahatma Gandhi Road, Fort, Bombay-1.

Consulting Entomologists, Termite Control, Disinfestation & Fumigation Service; Member, National Pest Control Association, U.S.A. & Entomological Society of India. Branches: Ahmedabad, Delhi, Calcutta, Madras, Coimbatore and Hyderabad.

Phone: 251546-7. Grams: "PESTCIL".

## THIRD FIVE-YEAR PLAN

Kerala has a Central Planning Advisory Board to advise the Government generally on matters connected with development and planning.

The gross outlay included in the budget for 1964-65 in respect of Plan schemes amounted to Rs. 50·14 crores of which Rs. 5·62 crores were the Central share of Centrally-sponsored schemes. The magnitude of the State's Five Year Plan is Rs. 170 crores.

The distribution of the Third Plan expenditure is as follows (Rs. lakhs):—

Agricultural programmes Rs. 3,238·80; Co-operation and Community Development Rs. 1,055·86; Irrigation and Power (including Flood control and anti-sea erosion) Rs. 5,919·00; Industry and Mining Rs. 1,719·50; Transport and Communications Rs. 1,088·00; Social Services Rs. 3,796·44 and Miscellaneous Schemes Rs. 182·40.

### Fourth Plan

The preliminary memorandum on the Fourth Plan for Kerala has been approved by the State Planning Advisory Board and submitted to the Planning Commission. The approved plan suggests a total outlay of Rs. 1,020 crores of which Rs. 442 crores is included under the head State Plan, Rs. 326 crores under the central sector and Rs. 252 crores under the private sector. The outlay proposed for the Fourth Plan in the state sector is two and a half times larger than in the Third. There is also greater emphasis on productive investment aimed at effecting a structural change in the economy. For example, industry, including power, which received 35·6 per cent of the Third Plan outlay, gets 45·2 per cent in the Fourth Plan.

## KERALA FINANCIAL CORPORATION

(*See State Corporations*).

## UNIVERSITY OF KERALA

Trivandrum.

**(The University of Travancore was reconstituted as the University of Kerala with effect from 30th August 1957).**

*Chancellor*, Ajit Prasad Jain, M.A., LL.B. (*Governor of Kerala*).

*Pro-Chancellor*, Vacant.

*Vice-Chancellor*, Samuel Mathai, M.A. (Oxon.).

*Registrar*, A. M. N. Chakiar, B.A.

**Type of University: Teaching and Federal.**

**Subjects in which there is provision for post-graduate teaching and or research courses leading to the** M.Sc., Ph.D. and D.Sc. **Degrees. English, History, Economics, Politics, Philosophy, Psychology, Social Work, Education, Mathematics, Physics, Applied Physics, Chemistry, Applied Chemistry, Analytical Chemistry, Botany, Zoology, Statistics, Geology, Demography, Malayalam, Sanskrit, Hindi, Marine Biology, Oceanography, Law, Engineering, Medicine, Commerce, Tamil, Agriculture and Veterinary Science.**

*University Teaching Departments:* **University Department of Education, Trivandrum; Department of Politics, Trivandrum; Department of Psychology, Trivandrum; Department of Mathematics and Statistics, Trivandrum; Institute of English, Trivandrum; Department of History, Guruvayoorappan College, Campus, Calicut; Department of Economics, Trivandrum; Department of Marine Biology and Oceanography, Ernakulam; Department of Chemistry, Trivandrum; Department of Library Science, University Library, Trivandrum; Department of Physics, Union Christian College, Alwaye; Department of Chemistry, Feroke College Campus, Feroke; Department of Botany, St. Joseph's College, Campus, Devagiri, Calicut 8; Department of Geology, Trivandrum; Department of Tamil, Trivandrum; Department of Hindi, Hospital Road, Ernakulam; Department of Linguistics, Trivandrum; Department of Law, Hospital Road, Ernakulam 1; Department of Zoology, St. Joseph's College Campus, Devagiri, Calicut 8; University School of Management Studies, Udyogamandal P.O., Alwaye.**

**Instruction for the Degree of Bachelor of Science (B. Lib. Sc.) is provided in the University Library, Trivandrum.**

**Number of colleges under the University: Arts and Science Colleges 49; Professional Colleges 34; Colleges under the Faculty of Oriental Studies 7; Junior Colleges 33.**

**Total number of students in the University during 1963-64: 66,387 (Men 44,157; Women 22,230).**

***List of Colleges under the University:***

**Agricultural College, Vellayani, Trivandrum.**
All Saints' College, Trivandrum.
Alphonsa College, Palai.
**Assumption College, Changanacherry.**
**Ayurveda College, Trivandrum.**
Baselius College, Kottayam.
**Bishop Chulaparambil Memorial College, Kottayam.**
Bishop Moore College, Mavelikara.
**Catholicate College, Pathanamthitta.**
**Christ College, Irinjalakuda.**
Christian College, Chengannur.
**College for Women, Trivandrum.**
College of Engineering, Trichur.
**College of Engineering, Trivandrum.**
C. M. S. College, Kottayam.
Deva Matha College, Kuravilangad.
Devaswom Board College, Sasthamkottah.
Farook College, Feroke.
Farook Training College, Feroke.
**Fatima Mata National College, Quilon.**
Government Arts and Science College, Calicut.
**Govt. Brennen College, Tellicherry.**
**Govt. College, Chittur-Cochin.**
**Govt. College, Kasaragod.**
**Govt. College, Madappally, *via* Badagara.**
Govt. Sanskrit College, Thrippunithura.
**Govt. Training College, Kozhikode.**
Govt. Training College, Tellicherry.
**Govt. Training College, Trichur.**
**Govt. Victoria College, Palghat.**
**Guruvayurappan College, Kozhikode.**
Iqbal College, Peringamala.
**Karmela Rani Training College, Quilon.**
Kuriakose Elias College, Mannanam.
**Law College, Ernakulam.**
**Law College, Trivandrum.**
**Little Flower College, Guruvayur.**
Loyola College, Kazhakootam.
Loyola College of Social Science, Cheruvikal, Trivandrum.
**Madeenathul Uloom Arabic College, Pulikkal P.O., Via Feroke.**
**Mahajana Sanskrit College, Perdalla.**
**Maharaja's College, Ernakulam.**
**Mahatma Gandhi College, Trivandrum.**
**Malabar Christian College, Kozhikode.**
Mar Athanasius College, Kothamangalam.
Mar Athanasius College of Engineering, Kothamangalam.
**Mar Ivanios College, Trivandrum.**
**Mar Theophilus Training College, Trivandrum.**
**Mar Thoma College, Tiruvalla.**
Medical College, Kottayam.
**Medical College, Kozhikode.**
**Medical College, Trivandrum.**
Mercy College, Palghat.
Milade Sherief Memorial College, Kayamkulam.
**Mount Carmel Training College, Kottayam.**
**Mt. Tabor Training College, Pathanapuram.**
New Man College, Thodupuzha.
**Nirmala College, Muvattupuzha.**
Nirmalagiri College, Kuthuparamba.
**Noorul Huda Arabic College, Kanjirappally.**
N.S.S. College, Ottappalam.
**N.S.S. College for Women, Trivandrum.**
**N.S.S. College of Engineering, Palghat.**
N.S.S. College, Pallipuram.
**N.S.S. College, Pandalam.**
**N.S.S. Hindu College, Changanacherry.**
**N.S.S. Training College, Changanacherry.**
**N.S.S. Training College, Ottappalam.**
**N.S.S. Training College, Pandalam.**
Pazhassi Raja N.S.S. College, Mattannur.
**Peet Memorial Training College, Mavelikkara.**
**Providence Women's College, Kozhikode.**
Regional Engineering College, Kozhikode.
**Rouzathul Uloom Arabic College, Feroke.**
**Sacred Heart College, Thevara, Ernakulam.**
**Sahitya Deepika Sanskrit College, Pavaratty.**
**Sanathana Dharma College, Alleppey.**
**Sanskrit College, Trivandrum.**
**S. N. M. Training College, Moothakunnam, N. Parur.**
**Sree Kerala Varma College, Trichur.**
Sree Krishna College, Guruvayoor.
Sree Narayana College, Chempazhanthi.
Sree Narayana College, Cannanore.
Sree Narayana College, Nedunganda.
**Sree Narayana College, Quilon.**
**Sree Narayana College for Women, Quilon.**
Sree Narayana College, Shertabai.
Sree Narayana College, Sivagiri.
**Sri Neelakanta Sanskrit College, Pattambi.**
**Sree Sankara College, Kalady.**

† Figures are for 1962.

St. Albert's College, Ernakulam.
St. Berchmans' College, Changanacherry.
St. Gregories College, Kottarakara.
St. Joseph's College for Women, Alleppey.
St. Joseph's College, Devagiri, Kozhikode.
St. Joseph's College, Irinjalakuda.
St. Joseph's Training College for Women, Ernakulam.
St. Joseph's Training College, Mannanam.
St. Mary's College, Trichur.
St. Peter's College, Kozhencherry.
St. Stephen's College, Pathanapuram.
St. Teresa's College, Ernakulam.
St. Thomas' College, Kozhencherry.
St. Thomas' College, Palai.
St. Thomas' College, Anchal.
St. Thomas' College, Ranni.
St. Thomas' College, Trichur.
St. Thomas' Training College, Palai.
St. Xavier's College, Alwaye.
Sulamassiam Arabic College, Areacode.
T. D. Medical College, Alleppey.
Thangal Kunju Musaliar College of Engineering, Karikode, Quilon.
Titus II Teachers' College, Tiruvalla.
Training College, Trivandrum.
Union Christian College, Alwaye.
University College, Trivandrum.
University Intermediate College, Trivandrum.
Velu Thampi Memorial N.S.S. College, Dhanuvachapuram.
Veterinary College, Mannuthy, Trichur.
*Medium of instruction :* English.

*Finance :*

The year 1963-64 opened with a balance of Rs. 52,08,947. The total receipts during the year, under Govt. grant, fees and miscellaneous accounts amounted to Rs. 1,15,50,078.

The total expenditure during the year under the various heads came to Rs. 1,24,26,672. The closing balance for the year came to Rs. 43,32,353.

## ADMINISTRATIVE PERSONNEL

(*See under States Administrative Personnel*)

## ASSOCIATIONS, ETC.

### ALL INDIA MANUFACTURERS' ORGANISATION
(Kerala State Board)
Mohan Vihar, Karikamuri Road, Ernakulam 1.

### ALLEPPEY OIL MILLERS' & MERCHANTS' ASSOCIATION
Naga Mahal Bldgs., Alleppey.

*President :* A. R. Sulaiman Sait ; *Vice-President :* Karamsee Morarji; *Secretary :* R. Padmanabhan.

### ALLEPPEY PRODUCE MERCHANTS' ASSOCIATION
Alleppey.

### ANANDA NRITYA KALALAYAM SCHOOL OF KATHAKALI DANCE
*Head Office :* Palace Ward, Thevalli, Quilon 1.
*Branch :* Kakkad, Kunnamkulam.

### ARYA VAIDYA SALA
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Ayurvedic institution with pharmacy and clinic.
Runs an Ayurvedic college and free hospital.
*Managing Trustee :* Aryavaidyan P. K. Warrier; *Chief Physician :* Aryavaidyan S. Warrier; *General Manager :* K. Govinda Warrier.

### AUTOMOBILE ASSOCIATION OF SOUTHERN INDIA
Pulical Bldgs., M. G. Road, Ernakulam.

### BADAGARA SHIPPERS' ASSOCIATION
Badagara.

*President :* Jekishandas Dahyabhai ; *Secretary & Treasurer :* Ramanlal Chunilal; *Jt. Secy. :* V. Achutan.

### THE CALICUT CHAMBER OF COMMERCE & INDUSTRY
Beach Road, Calicut 1.

*Chairman :* A. D. Bolland, M.B.E. ; *Hon. Secretary :* D. Balasubramaniam.

### THE CALICUT PIECEGOODS MERCHANTS' ASSOCIATION
Huzur Road, Calicut.

### THE CALICUT TOBACCO MERCHANTS' UNION
Big Bazaar, Kozhikode 1.

### THE CASHEW EXPORT PROMOTION COUNCIL
'World Trade Centre', Mahatma Gandhi Road, Ernakulam-6.

*Chairman :* M. K. K. Nayar, I.A.S. (Managing Director, The Fertilisers and Chemicals Travancore Ltd., Udyogamandal P.O., Kerala State); *Vice-Chairman :* T. S. Menon ; *Secretary :* R. K. Pillai.

### CENTRAL COCONUT RESEARCH STATION
Kayangulam, Ochira P. O.

*Director :* S. B. Lal.

### CENTRAL COCONUT RESEARCH STATION
Kasaragod.

### CENTRAL INSTITUTE OF FISHERIES TECHNOLOGY
P.B. No. 39, Chittoor Road, Ernakulam 1.
*Director :* Dr. A. N. Bose, M.Sc., Ph.D.

### THE CENTRAL KERALA TILE MANUFACTURERS' ASSOCIATION
Trichur 1.

### THE CENTRAL TRAVANCORE PLANTERS' ASSOCIATION
Munjamullay Estate, Vandiperiyar P.O.

*Chairman :* P. Congreve : *Hon. Secretary :* H. D. Dhunjeebhoy.

### CHAMBER OF COMMERCE
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*President :* K. M. Cherian ; *Treasurer :* V. C. Lukose ; *Secretary :* A. J. Abraham ; *Jt. Secy :* T. D. Mathew.

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### THE CHANGANACHERRY MERCHANTS' ASSOCIATION
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### CHRISTIAN LITERATURE SOCIETY
Malayalam Branch.
Tiruvalla P.O.

Also publishes a Magazine called "Grihadeepam".

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*Branch Secretary,* George Alexander, M.A. B.D. M.A. (N.Y.).
*Editorial Secretary,* Rev. E. J. Chacko, B.Sc.

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### DAIRY PRODUCTS IMPORTERS' ASSOCIATION
Jain Temple Trust Bldg., IV/47, New Road, Cochin 2.

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### ERNAKULAM PRESS OWNERS' ASSOCIATION
Deepam Press Bldgs., Basin Road, Ernakulam 1.

### FAMILY PLANNING ASSOCIATION OF INDIA
Shanthi Bhavan, Bhakthi Vilas Road, Trivandrum.

### GANDHI ASHRAM
Mayannur, *Via* Ottapalam.

*President :* M. P. Govinda Menon ; *Secretary :* K. N. Nambisan ; *Joint Secretary :* Smt. Kamala Nambisan.

The Gandhi Ashram does constructive work on sarvodaya lines. Besides Khadi—Ambar and traditional, most of the other village industries of the Khadi Commission, such as soap making, oil pressing, pottery, tanning and bone crushing, hand-pounding, bee-keeping, fibre industry, etc. are being worked at the Ashram. A Lok Karya Kshetra also works under the auspices of the Ashram. The Ashram is conducting a training unit in N-E oils Soap industry also.

### GANDHI SEVA SADAN
Gandhi Seva Sadan P.O., *Via* Lakkiti, Dist. Palghat.

*Activities :*—Pre-Basic School, Senior Basic School, Post Basic School and Basic Training School ; Gandhi Seva Sadan Kathakali and Classic Art Academy for Kathakali and Dance; Pottery, Khadi and Mat Weaving, Soap making, Ambar Charkha making, Goseva, Handmade Paper, Handpounding of Paddy etc. ; Harijan Hostel, Orphanage, Maternity & Child Welfare Centre, etc.

*Chairman :* M. Kannanunni Nair ; *Secretary :* K. Kumaran.

### HOMOEOPATHIC MEDICAL MISSION
Pattom Palace, Trivandrum 4.

### INDIA PEPPER AND SPICE TRADE ASSOCIATION
XI/118, Jew Town, Cochin 2.

*President :* V. M. Patel ; *Vice-President :* Shamji Narshi ; *Offg. Secy. :* S. Ramaier.

### INDIAN CHAMBER OF COMMERCE
P.O. Box No. 136,
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*President :* T. C. Varkey ; *Vice-President :* D. B. Khona ; *Secretary :* V. K. Raja.

### INDIAN CONFERENCE OF SOCIAL WORK
(Kerala State Branch)
Post Box No. 6, Ernakulam 1.

### INDIAN LEMONGRASS OIL EXPORTERS' ASSOCIATION
P. Box 52, Cochin 1.

*President :* T. D. Venkataraman ; *Vice-Pres. :* V. J. Joseph.

### INDIAN RED CROSS SOCIETY
(Kerala State Branch)
Near General Hospital, Trivandrum 1.

### INDO-NORWEGIAN PROJECT
P. Box 137, Ernakulam.

*Project Director :* Martin Tveit, Ph.D. ; *Chief Fisheries Project Officer :* A. I. George.

INDUSTRIAL & COMMERCIAL RESEARCH SOCIETY OF INDIA
Vallia Veedu, Kozhencheri.

*Editor :* G. V. Cheriyan.

Publishes, *Indian Hotels & Tourists, Industrial & Commercial Trend, Indian Blue Book, Industry & Commerce.*

INSTITUTION OF ENGINEERS (INDIA)
12/33B, Observatory Hill, Trivandrum 1.

INTERNATIONAL FELLOWSHIP
Mahilagiri, Thottumukkam P.O.
(Dt. Alwaye).
Also at 13, Venkatesapuram, Madras 23.

*Chairman,* Prof. P. A. Wadia ; *Hon. Gen. Secy.,* A. A Paul ; *Exec. Secy.,* S. V. V. Narasayya.

KERALA BLIND WELFARE ASSOCIATION
Mankadapallipuram P.O.
Angadipuram.

Conducts a blind school and an Industrial Centre, 'Kerala School for the Blind' and Kerala Industrial Home for the Blind, at Mankadapallipuram.

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(The Kerala State Academy of Arts).—An Academy of Arts imparting training on scientific lines in Kathakali, Koothu-koodiyattam, Panchavadhyam, Ottanthullal, Mohiniyattam and Bharathanatyam. It is managed by a General Council and an Executive Cttee. constituted by the Govt. of Kerala.

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*Secretary :* C. V. Subramania Iyer.

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*President :* Puthezhath Raman Memon ; *Vice-President :* K. M. Cherian ; *Treasurer :* District Collector, Trichur. *Secretary :* Director of Collegiate Education (Ex-Officio).

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Trichur 1.

*Chairman :* C. I. Parameswaran Pillai ; *Vice-Chairman :* P. Achutha Menon ; *Treasurer :* T. Achutha Menon ; *Secretary :* K. N. Panikkar.

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15/674, Bhaktivilas Road, Trivandrum 14.

*Hon. Secretary :* Dr. N. Krishnan Tampi ; *Hon. Treasurer :* C. Narayanan Nair.

THE KERALA STATE OIL MILLERS' ASSOCIATION (Regd.).
Ernakulam Mills Buildings, Ernakulam.

*President :* K. P. Madhavan Nair ; *Vice-President :* V. Ananthanarayana Iyer ; *Secretary :* T. O. Paul.

KERALA STATE SMALL INDUSTRIES ASSOCIATION
New Road, Cochin 2.

KERALEEYA AYURVEDA MAHAPATASHALA
C/o Keraleeya Ayurveda Samajam, Shoranur.

KOZHIKODE TIMBER EXPORTERS' ASSOCIATION
Mooriyad, Calicut-7.

THE MALABAR BUS OWNERS' ASSOCIATION
Oyitty Road, Kozhikode.

*President :* C. T. Raman Nambiar ; *Vice-President :* C. Koru ; *Treasurer :* K. P. Chandran.

THE MALABAR CHAMBER OF COMMERCE
Calicut 1.

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THE MALABAR MARKET COMMITTEE
8/80, Silk Street, Post Box No. 171,
Kozhikode 1.

A Quasi-Government institution constituted under the Madras Commercial Crops Markets Act 1933 for the regulation of buying and selling of commercial crops.

*Secretary,* M. Balaraman Nair, M.A.

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MALABAR SAW MILLS' ASSOCIATION
Kallai, Calicut-3.

THE MALABAR UMBRELLA STICKS MANUFACTURERS' ASSOCIATION
Kuttichira, Calicut 1.

MARINE PRODUCTS EXPORT PROMOTION COUNCIL
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*Chairman :* M. P. Alexander, Chairman, Coir Board, Ernakulam ; *Secretary :* M. P. Haran.

NAIR SERVICE SOCIETY
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NATANA NIKETANAM
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Founded in 1955. Only institution of its kind for imparting advanced and specialised training in the art of Kathakali and Bharat Natyam to girls.

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*President :* Wesley C. Aaron ; *Vice-President :* D. N. Gupta ; *Hon. Secy. :* S. Gopal Kamath.

NORTH TRAVANCORE CHAMBER OF COMMERCE
Bank of Alwaye Buildings, Alwaye.

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SAHITYA PRAVARTHAKA CO-OPERATIVE SOCIETY
Kottayam

A co-operative organisation of the authors of Kerala with branches in Trivandrum, Ernakulam and Trichur. Stabilising literary work as a profession is one of the major aims of the society and it gives a royalty of 30 per cent to authors, which is higher than the royalty given anywhere in the world.

SAMASTHA KERALA SAHITYA PARISHATH
Hospital Road, Ernakulam.

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Cochin Company Buildings, XIX/5, Kochangadi, Cochin 5.

*President :* R. Madhavan Nair ; *Secretary :* M. G. Mathew.

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Kallai, Calicut 3.

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*Chairman :* V. M. Sri Kumaran Nair, Jt. Chief Controller of Imports & Exports, (Madras) ; *Vice-Chairman :* M. S. P. Rajah ; *Secretary :* R. Krishnamurthy.

SRI MULA RAMA VARMA ASSOCIATION
Karamanai, Trivandrum 2.

TEA TRADE ASSOCIATION OF COCHIN
'Sebrof House', P. Box No. 36,
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Alleppey.

*Chairman :* V. J. Joseph ; *Vice-Chairman :* Revi Karunakaran ; *Secretary,* N. Venkitasubban

TRAVANCORE-COCHIN COIR YARN MERCHANTS' ASSOCIATION
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THE TRAVANCORE TILE MANUFACTURERS' ASSOCIATION
Quilon.

*Chairman :* C. P. Mammen ; *Hon. Secy. :* A. Karunakaran.

THE WEST COAST EMPLOYERS' FEDERATION
Cochin 3.

*President :* H. T. Clifton ; *Vice-President :* J. N. A. Hobbs ; *Secretary :* P. Sethuram.

THE WEST COAST INDUSTRIALISTS ASSOCIATION
Empress Hotel Road, Kozhikode 1.

*President :* V. J. Nedungadi.
*Hony. Secretary :* D. M. S. Rao.

# LACCADIVE, MINICOY AND AMINDIVI ISLANDS

*Administrator*, C. H. Naire, I.F.A.S. ; *Headquarters (temporary)* : Kozhikode.

*Secretary*, P. M. Joseph.

Area : 11 sq. miles; Pop. : 24,108 (1961 census). Sex ratio : 1,020 females per 1,000 males. Density: 2,192 per sq. mile. Literacy : 23·3 per cent.

| Island | Area | Population | Density per sq. mile. |
|---|---|---|---|
| Minicoy .. .. | 1·75 sq. miles .. .. .. .. | 4,138 | 2,360 |
| Kalpeni .. .. | 1·02 sq. miles .. .. .. .. | 2,613 | 3,393 |
| Androth .. .. | 1·67 sq. miles .. .. .. .. | 4,183 | 2,504 |
| Agathy .. .. | 1·08 sq. miles .. .. .. .. | 2,411 | 2,232 |
| Kavarathy .. .. | 1·35 sq. miles .. .. .. .. | 2,828 | 2,095 |
| Ameni .. .. | 0·97 sq. mile .. .. .. .. | 3,531 | 3,640 |
| Kadamath .. .. | 1·17 sq. miles .. .. .. .. | 1,851 | 1,582 |
| Chetlat .. .. | 0·39 sq. mile .. .. .. .. | 953 | 2,451 |
| Kiltan .. .. | 0·62 sq. mile .. .. .. .. | 1,520 | 2,443 |
| Bitra .. .. .. | 0·05 sq. mile .. .. .. .. | 80 | 1,600 |

With the reorganisation of States, in Nov. 1956 the Government of India took over the administration of the Laccadive, Minicoy and Amindivi group of Islands, a small sprawling group of coral islands in the Arabian Sea, lying between the latitudes of 8° and 12° north lat.

They now constitute a Union Territory under an Administrator.

Ten of the islands are inhabited out of a total number of 19. Minicoy, Kalpeni, Kavarathy, Agathy and Androth lie in the Laccadive group and Ameni, Kadamath, Kiltan, Chetlat and Bitra in the Amindivi group.

The islands lie from north to south, Minicoy being the southernmost and Chetlat the northernmost. They are within 20 to 114 miles away from one another except Ameni and Kadamath which are only six miles apart. They are 125 to 250 miles off the Kerala coast.

There is no scope for colonisation in the small satellite islands on any appreciable scale.

All the inhabitants of the Islands are Muslims. Originally Hindus, from Malabar* (except for Minicoites) the Islanders appear to have been converted to Islam sometime in the sixth century. In appearance, mode of dress, manners and customs, the Islanders, except those from Minicoy, are indistinguishable from the Moplahs of Malabar.* Their dialect is old Malayalam, with local variations peculiar to each island. The Minicoites are more akin to the inhabitants of the Maldives and their language, Mahl, is said to be allied to primitive Sinhalese. In appearance too they are strikingly different from the inhabitants of the Laccadives and the Amindivis. Their customs and manners are also different.

Mainly as a result of isolation, the Islanders have remained backward economically, though in point of intelligence and initiative they are in no way inferior to the Moplahs of Malabar.* They have been declared 'Scheduled Tribes' but in reality are far more advanced than tribes elsewhere.

In the islands formerly administered from South Kanara, a Tahsildar exercises the powers of a Second Class Magistrate, a Revenue Officer and a Port Officer in the Amindivis. He is also a Civil Judge without monetary limits operating under the customary laws of the islands and is assisted in his civil work by Panchayats known as Mukthesars in Ameni and by Moopans in the other Islands.

In the Malabar group the present system is based on Amins appointed from among competent and influential Islanders, assisted by clerks. Neither post is hereditary. In the place of Mukthesars or Moopans in the Amindivi group there are Karanavans or assessors to assist the Amins in the administration of civil and criminal justice, which is governed by the Island Regulation of 1912. The Amin is usually selected from Karanavans.

Appeals now lie to the Secretary to the Administrator who is a I Class Magistrate and to the Administrator who has been invested with powers of a District Magistrate. The Amindivi group of islands come under the jurisdiction of Tellicherry Sessions Division in Kerala State.

The Union Territory is now under the jurisdiction of the Kerala High Court.

There are three more Tahsildars now, one for Minicoy, one for Androth and Kalpeni and the other for Kavarathy and Agathy with a view to improving the existing administrative machinery. The Tahsildar for Laccadive group has been invested with the judicial power, designating him as Inspecting Officer.

There is no land tax on any of the islands of the Laccadive group but only a tree tax on Government land.

The total revenue from these sources can never be a large amount, because the occupied area of the islands is only about 9 sq. miles. The present average annual income from this source is only about Rs. 20,000.

There is no tax of any kind in the Amindivi group of islands except from two minor leases of Government Pandaram lands and also from court fees, search fee, copying fees, magisterial and customary fines.

The Minicoy Island, which deserves separate mention, pays a lease amount on Pandaram lands.

To set right the existing system of land ownership and collection of taxes it was proposed to conduct a survey of all islands for changing the basis of ownership from one of trees to one of land. The survey is now going on island by island.

One member is nominated to the Lok Sabha from the Islands.

## ECONOMY

The main industry on the islands is production of coir. Coir is taken to Mangalore and exchanged for rice under a monopoly system at the exchange rates fixed by the Government from time to time by reference to market rates for coir and rice on the mainland. The Government have coir depots in all the islands except Minicoy which is not subject to this monopoly. Islanders are prohibited from selling coir to the public with a view to ensuring the islander a regular supply of rice in exchange for coir, thereby minimising the chances of middlemen interfering in the coir trade. The scheme is worked in no-profit-no-loss basis.

During the Second Plan about 800 people were trained in improved methods of coir twisting on charkas at the Coir-cum-Training-cum-Production centres. The cooperative societies give them loan to buy fibre and the spun yarn is sold at the mainland markets. A handloom weaving centre was started at Agathi during 1960-61. A few islanders have been trained in weaving and they produce clothing to meet local needs. In Minicoy a unit for mat making from screwpine has been started.

## AGRICULTURE

The only agriculture on the island is coconut cultivation but no scientific approach to the question was ever made before. Cultivation of coconuts is now done scientifically with departmental advice and direction.

There are about 6,500 acres planted with coconut trees. About 20 to 30 per cent of the yield was estimated to be destroyed by rats. During the Second Plan a large-scale rat eradication programme was launched. To popularise quality seedlings, coconut nurseries were started on all the islands. Demonstration plots have been organised to show the islanders the usefulness of chemical fertilisers. Agricultural fieldmen recruited from the islands and specially trained, have been stationed on all the islands during the Third Plan.

## ANIMAL HUSBANDRY

Six poultry units and a model poultry farm were started during the IInd Plan. There is a farm and a veterinary hospital at Karvaratti. Good quality bucks are supplied to all islands to improve goat rearing.

## FISHERIES

Fisheries development has been taken on a fairly big scale. On Minicoy, the bonito or 'mas' fishing forms an important and valuable industry. This industry is being extended to Kawarathy and Agathy Islands.

During the Second Five Year Plan exploratory fishing was started with mechanised boats by the Fisheries Department. In 1964 it was discovered that tuna was available in plenty in the entire Laccadives. To encourage mechanised fishing, Pablo boats have been given to the islanders at subsidised rates during the Third Plan. Fishery requisites like nylon nets etc. are also given at subsidised rates.

A small unit for canning tuna was opened at Agatti Island. Another canning unit was expected to be opened at Minicoy during 1964-65.

## CO-OPERATION

At the end of 1961-62 three cooperative societies were formed at Androth, Amini and Kavaratti and during 1962-63 societies were formed in all the remaining islands. All consumer goods needed by the islanders are now supplied through these cooperative societies. They also market the island's products like copra on the mainland markets. During 1963-64 consumer goods worth Rs. 15 lakhs were supplied by the cooperative societies and the total value of copra marketed through them came to Rs. 23 lakhs.

Today (May 1965) the societies have a total membership of 3,836 with a total working capital of Rs. 3,27,525, the people's contribution being Rs. 92,525.

## PUBLIC HEALTH

The main health problems are the eradication of leprosy and filariasis.

Leprosy is on the increase in two islands, Minicoy and Androth. A leprosy colony started in 1952 at Androth with the aid of a local committee has been taken over by the Government.

In Minicoy too there is a leprosy colony. At Kadamath another colony was started on Sept. 22, 1960. The spread of this dire disease has been brought under control. The overall rate of filariasis has come down from 14·8 per cent in 1951 to 6·08 per cent.

One hospital at Minicoy, three Primary Health Centres at Androth, Agathy and Kalpeni and one dispensary at Kavarathy exist in the

* Kerala.

Laccadive group of Islands. In the Amindivis, apart from the Primary Health Centre already existing in Ameni, two new Primary Health Centres have been started at Kadamath and Chetlat Islands. There is also one dispensary at Kiltan. Each Island has a Medical Officer now. In addition to this, there is one Lady Medical Officer for Minicoy and another with headquarters at Kavarathy for the remaining Islands.

Nine Health Inspectors have been appointed to combat the spread of filariasis and other dire diseases.

Medical aid is free in all the islands. Acute cases which cannot be treated in the islands are brought to the mainland and the patient is provided facilities to get free medical aid and the expenses.

### EDUCATION

There are three high schools, 13 senior basic schools, eight junior basic schools, six feeder schools and one single teacher school in the islands at present (May 1965). Of these five senior basic schools and four junior basic schools are exclusively for girls. When the Administration took over in 1956 there were only nine incomplete elementary schools. From 1,521 students in 1956-57, the strength has increased to 5,200 in 1965-66. The number of teachers has increased from 14 to 232.

Education is free at all stages. For those going to colleges scholarships are given and free boarding and lodging facilities are provided. There are at present 24 scholarship holders for post-matriculate courses of which 11 are for M.B.B.S., two for engineering and two for agriculture.

It is proposed to start one more high school at Kavaratti in 1966.

### TRANSPORT AND COMMUNICATIONS

Lack of proper communication is however the biggest single handicap of the administration. The normal communication to the islands is by means of island sailing boats during the months of October to May when the islanders buy all their requirements from the mainland and sell their produce especially copra, coconuts, cadjan leaves, vinegar, palm gur, mass fish and coir in the mainland markets. For the rest of the year the islands are practically cut off from any contact with the mainland.

A steamer service has been introduced by chartering two power vessels for service to the islands during fair season. A small power launch has also been purchased by the Administration for inter-island communication of touring officials. It is proposed to buy a more powerful launch for this purpose.

In Minicoy there is a wireless station. New wireless stations were opened two years ago at Kavarathy, Androth and Ameni Islands. Wireless stations have now been opened at Kalpeni, Kadamath, Kiltan, Chetlat and Agathy Islands. With these, every inhabited Island has a wireless station except the tiny Island of Bitra where the population is less than 100. Inter-Island communication is also rare because the islanders have more contact with the mainland than among themselves.

There are post offices in all the islands and money order facilities have been provided.

### POWER

During the last two years electricity has been introduced in Minicoy, Amini and Kavarathy Islands. It is proposed to electrify all the islands by the end of the Fourth Five Year Plan while two would be electrified in 1966.

### FIVE-YEAR PLAN

As approved by the Planning Commission, the broad proposals for improvement of these islands under a Second Five-Year Plan were as below :

(Rs. lakhs): Agriculture and Community Development including Development of Fisheries 19·69; Transport and Communications 19·75; Industries 4·11; Education 12·40; Publicity 0·92; Public Health 15·40; Electricity 1·00; C.P.W.D. 0·58; Total 73·85. The actual expenditure come to Rs. 40·28 lakhs representing 54·5 per cent of the total outlay.

Under agriculture which on the islands consists mainly of coconut cultivation the plan target of 50 to 60 coconuts per tree per year had been nearly achieved.

Under industry, coir twisting was being developed through training-cum-production centres.

An Advisory Council had been constituted by the Ministry of Home Affairs with five Islanders to advise the Administrator.

#### Third Five-Year Plan

A provision of Rs. 97·96 lakhs was made for development schemes in Laccadive, Minicoy and Amindivi Islands during the Third Five Year Plan period. The broad outlines of the schemes and the amounts allocated are given below :—

1. Agriculture : Rs. 2·45 lakhs.

*Main Schemes :* Coconut development, subsidised sale of vegetable seeds, green manure seeds, agricultural implements and free supply of insecticides. Growing of casuarina plants and intercultivation of paddy and ragi wherever possible.

2. Animal Husbandry : Rs. 2·5 lakhs.

*Main Schemes :* Organisation of a model poultry farm and establishment of a veterinary dispensary.

3. Fisheries Development : Rs. 18 lakhs.

*Main Schemes :* Construction of 20 mechanised fishing boats and 'Mas' fishing boats for distribution to Islanders through Fishermen Co-operative Societies at subsidised rates, training of Islanders in modern methods of fishing and sale of modern requisites and gear at subsidised rates and establishment of a workshop at Kavarathy.

A marketing officer will also be appointed for marketing of fish catches from the islands.

4. Co-operation : Rs. 8 lakhs.

*Main-Schemes :* Formation of nine co-operative supply and marketing societies one in each inhabited island with an apex society with Government aid and participation, and training of Islanders in co-operation.

5. Industries : Rs. 7·22 lakhs.

*Main Schemes :* Continuance of Coir Training-cum-production Centres in each island, gur and vinegar making, oil pressing by Wardha Ghanies, handloom weaving, soap making and mat weaving and working to achieve better results.

*New Schemes :* Training of Islanders in blacksmithy and carpentry and introduction of metric system.

6. Transport & Communications : Rs. 17·50 lakhs.

*Main Schemes :* Purchase of a Cargo-cum-Passenger vessel for Laccadive mainland steamer service and purchase of a bigger motor launch than the one which the Administration has now for inter-island service.

7. Health : Rs. 10·36 lakhs.

*Main Schemes :* Implementation of recommendations of the leprosy specialist for eradication of leprosy, propaganda for family planning, sinking of wells with R.C.C. rings and latrines with W.S.S. Slabs, opening of a leprosy colony at Kadamat and conversion of existing dispensaries and maternity centres into Primary health centres.

8. Rural Housing Scheme : Rs. 2 lakhs.

(Low income housing scheme through grant of long-term loans).

The Union Govt. had sanctioned Rs. 12·5 lakhs for construction of houses, during 1962-63.

9. Welfare of backward classes : Rs. 5 lakhs.

*Scheme :* Grant of 75 per cent as subsidy and 25 per cent by way of loan for construction of houses.

10. Publicity : Rs. 0·72 lakh.

*Main Scheme:* Establishment of two field publicity units and promotion of drama and cultural activities.

11. L. D. Schemes : Rs. 0·12 lakh.

*Main Schemes:* Construction of footpaths, cleaning of dirty tanks, lagoons, etc. Half the expenditure will be met by Government and half by the islanders by way of labour etc.

12. Education : Rs. 18·83 lakhs.

*Main Schemes :* Primary Education : Conversion of all Schools into basic pattern. Upgrading of one primary school in each island into U.P. School. Opening of three more girls' primary schools. Upgrading of existing four primary girls' schools into U.P. Schools. Opening of a single teacher school at Bitra.

Secondary Education : Opening of a new high school at Kalpeni with hostel facilities as at Ameni, continuation of existing high school at Ameni with hostel facilities.

University Education : Grant of scholarships and stipends for academic and professional courses.

13. Electricity : Rs. 5·26 lakhs.

*Main Schemes :* Electrifying Minicoy, Kavarathy, Ameni and Androth Islands.

An expenditure of Rs. 47·6 lakhs is estimated to have been made during the first three years of the Third Five Year Plan out of the total outlay of Rs. 99·08 lakhs.

# MADHYA PRADESH

**Area : 171,217 square miles.**

Population (1961) : 32·37 million. Percentage of increase 1951-61 : 24·17; density 189; sex ratio 953 females for every 1,000 males; literacy 17·1 per cent. For district population see under "Population".

Main languages spoken in the State are : Hindi, Urdu, Marathi, Rajasthani, Gujarati, Sindhi.

### ADMINISTRATIVE SET-UP

For administrative purposes, the State has been split up into seven divisions with a Commissioner at the head of each. The headquarters of each of these are located at Bhopal, Bilaspur, Gwalior, Indore, Jabalpur, Raipur and Rewa. The following are the names in italics of the headquarters of the divisions with the area in sq. miles of each division and names of districts (headquarters in brackets) under their charge :—

1) *Bhopal* (22,233) : Raisen (Raisen) ; Hoshangabad (Hoshangabad) ; Betul (Betul) ; Rajgarh (Rajgarh) ; Shajapur (Shajapur).

2) *Bilaspur* (21,305) : Bilaspur (Bilaspur) ; Raigarh (Raigarh) ; Surguja (Ambikapur).

3) *Gwalior* (17,253) : Gwalior (Gwalior) ; Bhind (Bhind) ; Morena (Morena) ; Shivpuri (Shivpuri) ; Guna (Guna) ; Datia (Datia).

4) *Indore* (27,341) : Indore (Indore) ; Ratlam (Ratlam) ; Ujjain (Ujjain) ; Mandsaur (Mandsaur) ; Dewas (Dewas) ; Dhar (Dhar) ; Jhabua (Jhabua) ; West Nimar (Khargone) ; East Nimar (Khandwa).

5) *Jabalpur* (29,326) ; Jabalpur (Jabalpur) ; Balaghat (Balaghat) ; Chhindwara (Chhindwara) ; Seoni (Seoni) ; Sagar (Sagar) ; Mandla (Mandla) ; Damoh (Damoh) ; Narsimhapur (Narsimhapur).

6) *Raipur* (30,914): Raipur (Raipur); Bastar (Jagdalpur); Durg (Durg).

7) *Rewa* (22,845): Rewa (Rewa); Sidhi (Sidhi); Satna (Satna); Panna (Panna); Chhatarpur (Chhatarpur); Tikamgarh (Tikamgarh); Shahdol (Shahdol).

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|---|---|---|---|---|
| Number of Districts | .. | .. | .. | 43 |
| Number of Tahsils | .. | .. | .. | 190 |
| Number of Municipalities | .. | .. | .. | 160 |

## PANCHAYATS

The Madhya Pradesh Panchayat Act 1962 (No. 7) as amended by M.P. Panchayat Act 1962 (No. 18) came into force in sections as recommended by State Rural Self-Government Committee on to basis of the further recommendations of Select Committee of M. P. Legislative Assembly.

The three-tier system is being enforced viz. Gram Panchayats at village level, Janpada Panchayats at Block level and Zilla Panchayats at district level. The State has been divided into 12,809 Gram Sabhas comprising 1,91,448 wards. All the preliminaries have been completed and 12,809 Gram Panchayats have started functioning.

Time table for election to Janpada Panchayats is under the active consideration of the Government (July 1965). After the formation of Janpada Panchayats, District Panchayats will be formed. There will be 390 Janpada Panchayats and 43 District Panchayats. In the districts of Bastar and Jashpur tehsil of Raigarh district, 1,251 Adim Jatiya Panchayats and 57 Pargana Panchayats of old pattern are still in existence. Steps are going to be taken shortly to reorganise them in accordance with the M. P. Panchayats Act 1962.

### Department of Judiciary

As a major step towards separation of the Judiciary from the Executive in the remaining districts of Mahakoshal area, the State Government have introduced from Aug. 15, 1961, three new civil districts of Sagar, Bilaspur and Seoni. Thereafter the Judiciary has been separated from the Executive in the revenue districts of Raipur, Bilaspur, Mandla, Nimar (Khandwa), Hoshangabad, Narsimhapur, Seoni, Balaghat, Sagar, Damoh, Betul and Chhindwara. Now only 5 revenue districts in the Mahakoshal region of the State remain uncovered by the scheme and it is hoped that the process will be completed in the near future (July 1965).

## FOREST

About 2/5th of the State's Lands are classed as forest, out of which 66,000 sq. miles which is nearly ¼th of the total forest area of Indian Union, are in charge of the State Forest Department for management. Forest area per thousand persons works out to 1,660 acres compared to 150 in Uttar Pradesh, 170 in Madras and 370 in Bombay. These forests contain a variety of tree species varying in value. Roughly the State contains about 14,000 sq. miles of teak forest, another 16,000 sq. miles of 'Sal' forest and the remaining 36,000 sq. miles of mixed forest, the large area of which may grow teak. Other important species are Bija, Saj, Tinsa, Salai, Semal and Haldu. Though all forests are not tree clad, they are potentially productive. An amount of Rs. 191·57 lakhs was spent on forest development schemes during Second Five-Year Plan and Third Plan schemes involve an expenditure of Rs. 6·20 crores. An amount of Rs. 12·50 crores is expected to be spent on development schemes during the Fourth Plan period excluding Centrally sponsored schemes for which amount of Central subsidy has not yet been finalised. As a result of various improvements made during Second Plan period, the state forests yielded a revenue of Rs. 13·34 crores during the year 1964-65 as compared to Rs. 6·14 crores in the year 1956-57.

## MINERALS

Madhya Pradesh is a minerally rich State abundant in resources of coal, manganese, limestone, iron-ore, bauxite, clays, ochres, corundum, sillimanite, silica-sand, dolomite, steatite (Tale), red oxide of iron ore, mica, graphite, felspar, diamond and lepidolite. Nearly 22 various minerals at present are being exploited from 600 mines. The estimated value of the output of these mines was round about Rs. 19·96 crores in 1962.

Thirty per cent of the country's reserve on high grade iron-ore occurs in Durg, Jabalpur, Bastar and Gwalior districts. In Durg district the deposit is confined to the Dalli-Rajhara range of hills with an estimated resources of 114 million tons and is linked to Bhilai by a branch line for supplying the Steel Plant there. Iron-ore occurs in Bailadila range of Bastar district. Of the important deposits in this range, five are located on the west and nine on the east of the Bailadila range. The deposit is being prospected by Indian Bureau of Mines. The reserves of Bailadila range are estimated to be of the order of 3,600 million tons. At Rowghat there are 6 deposits with an estimated reserve of 740 million tons. Besides this, many million tons of iron-ore is reported to occur in Jabalpur and Gwalior districts (May 1964).

The State possesses 25 per cent of the total coal reserves of Indian Union. The estimated reserves for coal being 5,746 million tons.

Vast reserves of coal in the north-eastern part of the Singrauli coalfield have been found. The coalfield extends over an area of more than 800 sq. miles, lying mostly within Sidhi district of Madhya Pradesh. The total coal reserves proved in an area of about 57 sq. K.M. (22 miles) is over 2,300 million tonnes, whereas the reserve indicated in the field is many times more. These proving operations were necessitated by the proposed installation of a 400 MW thermal power station at Obra, in Mirzapur district.

Out of the proved reserves, about 900 million tonnes are available within quarriable depths. Almost the entire coal reserve is provided by three thick coal seams in the area.

Practically all the coal of the State is non-coking. Coal from Umaria Collieries has white ash and is very suitable for lime burning.

*Manganese :* Out of total estimated reserves of 55 million tons of manganese-ore in the State, 40 million tons occur in Balaghat district and 15 million tons in Chhindwara district. Besides this, occurrence of manganese ore in small quantities, is seen in Jabalpur and Jhabua districts. The rich deposit of manganese ore occurs in Balaghat and Chhindwara districts of the State.

*Bauxite :* The State possesses the largest reserves of bauxite in the country. The important bauxite bearing regions are in Balaghat, Mandla, Jabalpur, Surguja, Bilaspur, Bastar and Raigarh districts. The estimated reserves of high grade bauxite being 110 million tons.

*Limestone :* Steel and cement plants are the chief consumers of limestone. It is also used for lime-burning and road ballast (inferior grade). The State possesses vast reserves of limestone in Jabalpur, Satna, Morena, Raipur, Durg, Bilaspur, Bastar, Mandsaur, Dhar, Hoshangabad, Damoh, Panna, Raisen and Sehore districts.

*Dolomite :* Important occurrences of dolomite are found in Bilaspur district. Bhilai Steel Project have their mines at Hirri and dolomite from this mine is supplied to Bhilai and Rourkela Steel Projects.

*Fire-clay & China-clay :* Clays occur primarily in Jabalpur, Chhindwara, Durg, Bilaspur, Gwalior, Mandsaur, Satna, Shahdol, Narsinghpur, Sidhi, Bastar and Surguja districts.

*Talc and Soap-stone :* It occurs in marble rocks of Jabalpur district and also in Durg and Jhabua districts. It is utilised in making alkali bricks and also in pencil rubber, roofing and ceramic industries.

*Corundum :* Owing to its hardness, mineral corundum finds extensive use as a grinding and abrasive material. Corundum is found in Sidhi district.

*Asbestos :* Asbestos occurs in Jobat of Jhabua district. This tremolite asbestos is brittled and short-fibred.

*Diamond:* Diamond is found in Panna. The deposit is of two types (*i*) conglomerate and gravel and (*ii*) Pipe deposit. National Mineral Development Corporation is undertaking systematic mining of these deposits.

*Marble :* A quality grade marble deposit with estimated reserves of 17,00,000 tons occur at Sukma in Bastar district. Marble is also found at Gohra pahad in Morena and at Bhedaghat in Jabalpur district.

*Ochres :* Good quality red and yellow ochres occur in Jabalpur, Gwalior and Satna districts. Some minor deposits are also found in Panna and Raisen districts.

*Shale :* A deposit of white shale suitable for making slate pencils occurs in Mandsaur district. The deposit is being exploited for making slate pencils.

*Silica sand :* Silica-sand suitable for making glass occurs in Morena, Vidisha, Rewa and Jabalpur districts. The deposit in Morena and Jabalpur districts is being exploited at present (May 1964).

## TRANSPORT (End Dec. 1962)

2,766 private owned buses daily cover 2,67,984 miles on 1,962 routes and the Madhya Pradesh State Road Transport Corporation (Nationalised) with 708 buses operating on 427 routes cover 74,757 miles.

The Madhya Pradesh Government has prepared a scheme for nationalisation of road transport in three phases at a cost of Rs. 13·45 crores (June 8, 1965).

## LARGE-SCALE INDUSTRY

Main medium & large-scale industries of the State with location in brackets :—

Cotton Textiles (Indore 7, Gwalior 2, Ujjain 3, Mandsaur 1, Dewas 1, Ratlam 1, Bhopal 1, Burhanpur 1, Rajanandgaon 1, Jabalpur 1, Sanawad 1); News Print Paper Mill (Nepanagar); Cement (Banmore, Kymore, Satna); Sugar (Jaora, Dalauda, Mehidpur, Dabra, Sehore); Potteries (Gwalior, Ratlam, Jabalpur; Refractories (Jabalpur, Katnim, Niwar); Iron and Steel (Bhilai); Heavy Electrical equipment (Bhopal); Jute Mill (Raigarh); Art Silk Fabrics (Indore, Gwalior, Nagda); Staple Fibre yarn (Nagda); Viscose Staple Fibre (Nagda); Sulphuric Acid (Nagda, Kumhari); Superphosphate (Mukhari); Carbon-bi-Sulphide and Anhydrous Sodium Sulphate (Nagda); Glue (Bhopal); Asbestos Cement sheet (Katni) Roller Flour Mill (Ujjain, Indore, Bhopal, Ganj Basoda, Raipur); Biscuits (Indore, Gwalior); Textile Machinery (Gwalior); Welding Electrodes (Raipur); Power Driven Pumps (Dewal); Steel Casting (Indore); Re-rolling Mill (Kumhari; Raipur, Indore, Ujjain, Bagrod); vegetable Oil (Dewas, Khandwa, Ujjain, Ganj Basoda); Vanaspati (Indore); Alcohol (Ratlam); Valves (Bhopal); Densified Wood (Bhopal). Cables (Satna); Police Boots (Morar); Straw Board (Bhopal, Ratlam); Glass (Jabalpur); Starch (Mandsaur).

The cotton textile industry in the State has 12,539 looms and 5,28,080 spindles in 20 mills (17 composite, 3 spinning). There are 409 ginning and pressing factories in the State. An air conditioned composite Textile mill with 17,600 spindles and 380 looms is nearing completion at Ujjain. This unit will be one of the best in the country. Two model textile mills with 25,000 spindles and 500 automatic looms each are fast coming up at Dewas and Khandwa. The State-owned cotton spinning mill at Sanawad has recently commenced production. A licence has also been granted to expand its spindleage capacity to 25,000 spindles. A licence has also been given for a cooperative cotton spinning mill for 12,000 spindles. The unit is to be located at Burhanpur. Besides these 7 cotton spinning mills have also been sanctioned for Bhind, Rajnandgaon, Indore, Jabalpur, Shujalpur, Bilaspur, Datia. The total spindleage comes to 85,000. The existing cotton textile mills have also been permitted to expand their capacity to 8,51,060 spindles and 14,303 looms.

One of the biggest cement factories in the country is situated at Kymore near Katni. Other cement factories are at Banmore and Satna. The sanctioned capacity of all the three existing factories is 5·42 lakh tons. Cement factories at Damoh, Raipur, Neemuch, for which licence has been sanctioned with a total capacity of 7·30 lakh tons, are being set up.

The Country's only newsprint paper mill is situated at Nepanagar with a rated capacity of 30,000 tons per annum. A licence has been given to expand its capacity upto 75,000 tons of newsprint per year.

A new paper plant of 48,000 tons per annum capacity was to commence production in Shahdol District in 1964.

The Public Sector Steel Plant at Bhilai has also been licensed to expand the capacity upto 2·5 million tons per annum.

The State owned projects, spinning mill at Sanawad, solvement extraction plant at Ujjain, alcohol plant at Ratlam have commenced production.

A cable factory established at Satna with an investment of Rs. 175 lakhs also commenced production. The capacity of this unit is 624 miles of cables per annum.

An engine valves factory established at Bhopal with an investment of Rs. 25 lakhs has also commenced production in November, 1963.

A densified wood factory established at Bhopal in collaboration with Messrs. Permali has commenced production.

Two Steel castings factories with 3,000 tons capacity each have also commenced production at Indore and Kumhari (Durg).

A Gelatine factory having a production capacity of 1,200 tons per annum of Gelatine is ready to go into production at Jabalpur.

A mopeds (Scooters) unit has been established at Gwalior with German collaboration and is almost complete. The unit will produce 7,500 Nos. of mopeds per year.

The other important industries for which licences have been given under the Industries (Development and Regulation) Act for this State are :—

Cryolite Flourite (Raipur); Capacitors (Satna); Explosive (Durg); Staple Fibre manufacturing Plant (Nagda); Cast Iron Spun Pipes (Gwalior, Ujjain); Steel Casting (Gwalior); Commercial Plywood (Bastar); Steel Wires (Indore, Bhilai); Steel Forging (Bhopal); A.C.S.R. Conductors (Gwalior); Electric Motors (Indore); Welding electrodes (Indore); Transmission Towers (Indore); Skim Milk Powder (Indore); Oxygen Gas (Indore, Bhopal); Pump and Paper (Amlai, Schore, Bhopal, Rajgarh); Caustic Soda (Amlai).

## COTTAGE INDUSTRIES

The State is also famous for traditional village and home crafts. The Handloom Industry has earned a good reputation for its Chanderi and Maheshwari Saris, Kosa Silk and other traditional fabrics. The well-known Handicrafts are printing (Chunari, Handa), leather toys, papier mache, lacquerware articles, rag dolls, Sari, supari works, soft stone work, Bhopal zari purses, cow dung toys of Shoepur, stone carving at Gwalior, bell metal articles of Jagdalpur, leather crafts, screw pine articles, palm leaf articles, glass bead, lac ornaments and others.

Main Cottage Industries in the State with location in brackets:—Handloom (1,00,000 looms) spread all over the State but best developed at (Chanderi, Maheshwar, Burhanpur, Jabalpur, Raipur and Sausar); Kosa Tussar silk (Raisarh, Champa, Bilaspur, Surguja); Mulberry (Indore, Jhabua, Depalpur, Dhar); Fine sarees (Chanderi Maheshwar, Burhanpur); Wood work and lacquerware (Sheopur, Sabalgarh, Budhni, Rewa, Gwalior); Wooden toys (Rewa, Bhopal, Gwalior, Ratlam); Soft-stone (Jabalpur, Chhatarpur); Lac (Seoni, Raipur, Bilaspur, Umaria and Rewa); Saw Milling (Betul, Bhopal, Balaghat, Bilaspur, Raipur, Indore, Jabalpur, Sagar and Mandla); Brassware (Balaghat, Chhindwara, Indore, Gwalior, Raipur and Chhatarpur); Textile handprinting (Ujjain, Mandsaur, Morena, Indore, Hoshangabad); Diamond cutting and polishing (Panna); Papier Maché (Gwalior, Ujjain, Indore); Zari embroidery (Bhopal); Art metalware (Bastar, Betul, Hoshangabad, Satna, Mandla).

## LIVESTOCK (1962-63)

Cattle 2,27,07,574; Buffaloes 54,95,617; Sheep 9,46,346; Goats 47,19,949; Horses & Ponies 1,52,969; Other livestock 3,63,164; Total livestock 3,43,85,619.

Poultry 37,40,177.

## AGRICULTURE (1962-63)

*Total net area sown :* 4,04,10,026 acres; 1,63,53,372 hectares.

*Total area under food crops* (Actuals): 3,88,39,534 acres; 1,57,17,814 Hectares.

*Total net area irrigated :* 25,23,172 acres.

*Production in tonnes :* Rice 23,48,012; Wheat 21,50,171@; Jawar (Rabi) 20,873@; Jawar (Kharif) 14,99.333@; Maize 4,63,816@; Bajra 1,34,773@; Barley 1,29,671@; Gram 8,73,349@; Kodu-Kutki 1,89,406@; Tur 2,29,175@; Moong & Moth (Kharif) 39,710; Moong & Moth (Rabi) 10,097; Urad (Kharif) 76,480; Urad (Rabi) 43,445; Kulthi (Rabi) 1,103; Kulthi (Kharif) 39,957; Lac 1,90,761@; Masur 85,360.

### Cash Croups

*Production in tonnes :* Sugarcane (in terms of Gur) 14,44,527; Groundnut 2,70,446@; Linseed 1,40,218@; Rape & Mustard 41,909@; Castor 1,686; Tobacco 1,998; Nigar Seed 43,760; Cotton (in bales of 400 Lbs) 3,00,503.

## CEILING ON AGRICULTURAL HOLDINGS

With a view to providing for the imposition of ceiling on agricultural holdings, acquisition and disposal of surplus land, Madhya Pradesh Ceiling on Agricultural Holdings Act, 1960, has been enacted which has been brought into force with effect from 15-11-1961. The salient provisions of the Act are :—

(1) The provisions of the law will come into force after a period of two years from 15-11-1961.

(2) A person shall hold not more than 25 standard acres of land for himself and his wife. Such holder shall also be entitled to hold land in excess of 25 acres to the extent of 5 standard acres per each dependant not exceeding 50 standard acres in the aggregate.

'Standard acre' will mean 1 acre of perennially irrigated land or two acres of seasonally irrigated land, or three acres of dry land.

(3) *Exemptions :* Land held by a local authority or a University, a public trust for educational or charitable purpose; land held by industrial or commercial undertakings; land held for tea or coffee plantations; land used as sugarcane farms operated by sugar factories; land to the extent of thirty acres used for orchard or mango grove; land used for specialised farms engaged in cattle breeding, dairy farming, wool raising and other similar matters of animal husbandry as may be approved by government and land utilised by an efficiently managed farm etc. shall be exempt from the operation of the law.

(4) Certain transfers made from the date the Bill was published in the Gazette with a view to defeating the provisions of the Act shall be disregarded.

(5) *Transfer of land :* Holders may transfer land during the period of two years till the provisions of Act shall not come into force to persons of specified categories. The amount of sale money shall be equal to amount that would be payable by the State Government, eventually on vesting of land in State Government. The transferee may apply to a competent authority for determining the fair price of such land and the competent authority shall determine the fair price. The competent authority shall direct the transfer or to pay back to the transferee only the excess amount received by him.

(6) *Vesting of surplus land :* All surplus land shall vest in State Government with effect from the commencement of the agricultural year next following the date on which the surplus land is declared by the competent authority.

(7) *Ceiling on future acquisition :* Where any holder acquires land otherwise than by inheritance and the total land held by him including the land so acquired exceeds, all the provisions of the Law shall be applicable to such a land.

(8) *Payment of compensation :* Provision has been made for payment of compensation on a sliding scale as prescribed in Schedule II of the Act. The minimum compensation will be payable at 15 times the land revenue per acre subject to a minimum of Rs. 20 over the land the revenue of which does not exceed Re. 1 per acre. The maximum compensation will be Rs. 225 plus 20 times the amount by which the land revenue per acre exceeds six rupees. Additional compensation will be paid for improvement if any, in the land vested in the State. The compensation payable to small land holders, *i.e.* upto Rs. 1,000, will be paid in lump sum and to bigger ones in instalments not exceeding 19 but the first instalment will be paid of Rs. 1,000 even to them and the other instalment shall not be less than Rs. 100. Interest at 3 per cent per annum will also be paid from the date of vesting the land to the date of payment.

(9) *Determination and scaling of debts :* As surplus land would be acquired compulsorily, provisions have been made in the law for the determination and scaling down of the debts where higher rates of interest were charged.

(10) *Disposal of surplus land :* Surplus land vested in the State Government shall be allotted on payment of a premium equivalent to the compensation payable in respect of such land to persons in the following order of priority :

(*i*) joint farming society, the members of which are agricultural labourers, or landless persons whose main occupation is cultivation or manual labour on land, or a combination of such persons; (*ii*) better farming society, the members of which are agricultural labourers, landless persons whose main occupation is cultivation or manual labour on land or a combination of such persons; (*iii*) agricultural labourers; (*iv*) landless persons whose main occupation is cultivation or manual labour on land; (*v*) displaced tenants subject to the provisions of section 202 of the M.P. Land Revenue Code, 1959 (20 of 1959); (*vi*) holders holding contiguous land; (*vii*) joint farming society of agriculturists; (*viii*) better farming society of agriculturists; (*ix*) any other co-operative farming society subject to the condition that land (including the land as owner or tenant individually by members) shall not exceed the area equal to the number of members multiplied by the ceiling area; (*x*) an agriculturist holding land less than the ceiling area.

(11) *Temporary lease of land :* Where the land vesting in the State Government cannot be allotted immediately, the Collector may lease the land for cultivation to any agriculturist who had land under personal cultivation less than the ceiling area subject to certain conditions.

## ELECTRICITY

The total provision for power projects in Madhya Pradesh during the Third Five-Year Plan is Rs. 76·00 crores. Out of this Rs. 23·09 crores are required for the continuing works of the Second Plan (including Chambal Project) and Rs. 52·91 crores for the new schemes. Names of the projects under continuing schemes and new schemes with Third Plan provisions in Rs. lakhs are as follows :

**Continuing Schemes :** Chambal Hydel Scheme (stage 1 and 2) 782; Tawa Hydro-electric Project 50; Korba Thermal Station (stage I) 60; Chandni Thermal Station Extension 62; Power supply to Central India Coal Fields

@ Based on crop cutting surveys and by random sampling methods.

175 ; Amarkantak Thermal Station Scheme 955 ; Indore-Chandni Inter-connection Scheme 123 ; Rural electrification 102.

**New Schemes :** 5th Generating Unit at Gandhisagar 20·00 ; Kotah Dam Project 100·00 ; Korba Thermal Station—Stage II 1900·00 ; Satpura Thermal Station 1400·00 Transmission System 950 ; Sub-transmission & Rural Electrification etc. 736·00 ; Survey & Investigation 90·00 ; Micro Hydels 10·00 ; Loan to licensees & acquisition 30·00 ; Purchase of testing equipment 5·00 ; Punasa Hydro-Electric Projects 50·00. (Total : 7,600·00 lakhs.)

A brief description of the major schemes to be taken up new or continuing during the Third Plan is as follows :—

**Tawa Hydro-Electric Project (Power Part)**

The scheme provides for two Hydel Power Stations of capacity 3 × 10,000 kW and 2 × 6,000 kW capable of generating 20,000 kW of firm power at 60 per cent load factor, and 70 miles of 132 kW transmission line from Tawa to Bhopal and allied step-down sub-stations. The construction of transmission line is expected to be completed in the Third Plan, but the construction of Hydel power station will be taken up in the Fifth Plan to match with the completion of the dam.

**Korba Thermal Station**

During the Second Plan period 3 × 30,000 kW sets were installed. One more boiler and one 10,000 kW set with boilers has been added in July, 1963.

In the Third Plan, 200 MW extension is in hand. The station is being erected under Russian aid. Four turbo generator sets each of 50 MW capacity will be installed. The Power Station site is close to the existing station and will use the system of direct circulation for its cooling system. For this purpose, water from Darri Weir on Hasdeo River will be diverted to the Power House. The station was expected to commence generation in Sept., 1965.

**Amarkantak (Birsinghpur) Thermal Station**

Two sets of 30 MW each for the Thermal Power Station at Amlai near Burhar and associated transmission line etc. are provided for under this scheme. The station has been commissioned in Jan. 1965 and catering to the load demands of industries of Sarguja, Satna, Rewa, Jabalpur, Katni besides rural areas. The station has been interconnected with Korba power house.

**Satpura Thermal Station**

This Thermal Station is being constructed in the Pathakheda Coal area of Betul district. The site is 12 miles from Ghoda Dongri Railway Station on Itarsi-Nagpur section of Central Railway. A suitable all-weather road has already been constructed. The major loads to be fed from this station are the collieries in the Pench Valley Area, Heavy Electricals Ltd., Bhopal, Nepa Mills and other industries. It provides for 3 × 60,000 kW Thermal Power Station complete with 220 kV step-up sub-station. An amount of Rs. 14·00 crores has been provided in the 3rd Plan. It has now been decided to install on behalf of Rajasthan 2 × 60,000 kW sets for power supply to Rajasthan from the Chambal-Satpura-Grid. The project is included for aid under D.L.F. of U.S. The total cost of project with 5 × 60,000 kW will be Rs. 3,600 lakhs. The station will commence generation from Sept. 1966.

**Gandhisagar (Stage I)**

Under Stage I, three generating sets of 23,000 kW each have already been installed at Gandhisagar power station and the installation of fourth set of 23,000 kW has been added in Aug., 1963. A sum of Rs. 20·00 lakhs has been provided for installing the 5th 23,000 kW generating unit at this Power House which will be completed by the end of the Third Plan.

**Ranapratap Sagar Dam Project (Stage II)**

In Ranapratap Sagar Power House four sets of 43,000 kW will be installed at a cost of Rs. 1,424 lakhs. The scheme is being executed by Rajasthan State but Madhya Pradesh and Rajasthan are equal partners in costs and benefits. The scheme will be completed in the Fourth Plan. A provision of Rs. 270 lakhs has been made in the Third Plan.

**Kotah Hydel Project (Stage III)**

The scheme provides for the installation of 3 units each of 33,000 kW and associated transmission system. The work on the power station would be executed by Rajasthan State. A sum of Rs. 100·00 lakhs is available for the Project during the Third Five-Year Plan. Madhya Pradesh is an equal partner in the cost and benefits of the scheme.

**Chandni-Indore Interconnection**

In order to meet the additional power requirement of Nepa Mills 132 kV line has been constructed from Indore to Nepanagar interconnecting Chambal system with Chandni power house. This arrangement has enabled Chandni Power house to generate power upto its full installed capacity.

**Power Supply to Central India Coal Fields**

This scheme envisages laying of 132 kV transmission lines from Korba Thermal Station to Cental India Coal Fields of Chirimiri, Bisrampur and Jhilimili for supplying power to enable them to increase coal production. The scheme provides for the laying of 120 miles of 132 kV transmission lines. The scheme has been completed.

**Transmission System**

During the Third Plan, 1,240 kM of 220 KV, 1,540 KM of 132 KV and 48·4 kM of 66 kV lines will be constructed to form an integrated "Grid" covering a large part of the State and load centres. An amount of Rs. 1,510·46 lakhs has been provided. These lines include interstate 132 kV lines to interconnect Madhya Pradesh system with those of Maharashtra, U.P. and Orissa. Interconnection with Rajasthan already exists.

**Rural Electrification & Sub-Transmission Lines**

During the Third Plan most of the villages having a population of 2,000 and above will be electrified except those which are far away from the existing and proposed lines. Villages *en route* which have smaller population but are otherwise economically justifiable for electrification will also be electrified. During the Third Plan, the number of electrified places will rise from 538 to 1,153.

It is also proposed to supply power to 2,000 pumps for lift irrigation.

The amount available in the Third Plan is :— Sub-transmission & Rural Electrification Rs. 600 lakhs ; Sub-transmission & Rural Electrification continuing schemes Rs. 102 lakhs ; Lift Irrigation Scheme Rs. 50 lakhs; Normal Development Rs. 86 lakhs ; Total Rs. 838 lakhs.

**Micro Hydel Projects**

There are many small waterfalls in the State which can be considered for power generation. The scheme provides for putting up small hydel sets at suitable sites. An amount of Rs. 10·00 lakhs has been provided in the 3rd Plan. Two such schemes of installation of micro hydel sets at Kapildhara falls at Amarkantak and Bhedaghat on Narbada River have been approved.

**Survey and Investigation**

The State has a large potential of hydro-electric power. Detailed investigation of hydro-electric sites is necessary. An amount of Rs. 90·00 lakhs has been provided in the 3rd Plan for this work. Survey of sites at Chitrakot (116,000 kW), Bodhghat (295,000 kW), Gundra (190,500 kW) on Indravati River is in hand. There are other smaller potential sites which are also under investigation.

The progress of development of electricity in the State is as indicated below :—

| Particulars | Commencement of First Plan | End of First Plan | End of Second Plan | Targets for Third Plan |
|---|---|---|---|---|
| Installed capacity in mW .. | 39·00 | 64·50 | 206 | 743 |
| Transmission lines in route kM (over 66 kV) .. | 26·00 | 200 | 1,116 | 4,031 |
| Yearly generation in (M.K. kWh).. .. .. | 76 | 106 | 436 | 1,385 |
| No. of consumers in thousand | 42 | 51·30 | 121·50 | 250 |
| Per capita consumption .. | 2·92 | 6·15 | 16 | 30 |
| No. of towns/villages electrified | 69 | 142 | 535 | 1,153 |

**Tawa Multi-Purpose Project**

The Tawa River Multi-purpose Project is located in the Hoshangabad district. The project envisages construction of a composite dam 5,433 ft. long across the Tawa river, a tributary of Narmada River. Out of a length of 5,433 ft., 15·5 ft. will be of masonry and the rest earth dam. Besides, there are two saddles on left, 771 ft. and 781 ft. long respectively with earth dams. The dam will have two canal systems on the right and left bank of Tawa river stretching 48 miles and 90 miles respectively. The estimated cost of the project is Rs. 48·05 crores. The project after completion is designed to irrigate 7·65 lakh (6 lakhs acres on the left and 1·65 lakh acres on the right side) acres of land and generate 20,000 kW of power at 60 per cent load factor.

## CO-OPERATION

*(See under article on Co-operation.)*

## EDUCATION

The figures relate to 1963 :

Total No. of Degree Colleges : 123 (Govt. colleges 67, Private 56).

Total No. of Teacher Training Colleges : 120 (108 B.T. Institution, 11 P.G.B.T. Colleges, 1 non-P.G.B.T. College).

Total No. of Professional Colleges : 23.

(Medical 6, Engineering 6, Agriculture 6, Veterinary 2, Ayurvedic 3).

Polytechnics : 19 (14 Govt., 5 non-Govt.).

Number of Universities : 4.

Names of the Universities with location in brackets :—

University of Sagar (Sagar); Jabalpur University (Jabalpur); Vikram University (Ujjain); Indira Kala Sangeet Vishwavidyalaya (Khairagarh).

The Jawaharlal Nehru Krishi Vishwa Vidyalaya, a new university of education and training in agriculture and allied sciences, was inaugurated at Jabalpur on 2nd October 1964.

The university, the sixth of its kind in the country, aims at getting farmers to accept and implement the findings of research and improved agricultural practices.

The university will start with 2,500 students and 500 teachers and instructors.

## PUBLIC HEALTH

**Figures for 1964-65 :**

**Common diseases in the State:** Malaria, Filaria and Tuberculosis, Veneral diseases, Dysenteries, Diarrhoea, Gastro-enteritis and Leprosy.

Total No. of Patients treated in the State: 2,53,407 (Indoor); 99,02,302 (Outdoor).

T.B. Patients treated during 1963 : 92,330.

Number of Medical Institutions and beds (upto 31st Dec. 1964) :

| | |
|---|---|
| Number of Hospitals & Dispensaries: | 968 |
| **Number of beds** | 14,424 |
| **Number of Medical Colleges** | 6 |
| No. of allopathic hospitals | 81 |
| No. of Primary Health Centres .. | 371 |
| No. of T.B. Hospital & T.B. Sanatoria | 8 |
| No. of Leprosy Homes .. .. | 13 |
| No. of Mental Hospitals .. .. | 2 |
| No. of Dispensaries .. .. .. | 452 |
| *Other Services :* | |
| No. of T.B. clinics .. .. .. | 27 |
| No. of Leprosy clinics .. .. | 183 |
| No. of Leprosy Control units .. | 6 |
| No. of Leprosy S. E. T. Centres .. | 35 |
| No. of M. C. W. Centres .. .. | 60 |
| No. of V. D. clinics .. .. | 15 |
| No. of Dental clinics .. .. .. | 15 |
| No. of Planning clinics (including Teaching Centres) .. .. .. | 781 |
| No. of Matru-grihas .. .. .. | 871 |

## LABOUR

**Position as on 31st Dec. 1963 :**

Number of registered factories (excluding 15 defence factories) : 2,487.

Number of workers employed in registered factories: 1,61,020.

Important industries with the number of units (employing more than 100 workers), and workers employed respectively in each industry within brackets:

Textile (including cotton, silk, art silk, staple fibre, jute, carpet) 23 (46,818) ; Iron and steel 2 (2,808) ; Electric machinery apparatus, appliances and supplies 4 (9,003) ; sugar 5 (3,372) ; Rice mills 3 (764) ; oil mills 1 (158) ; Cement 2 (2,621) ; Electricity, gas and steam 10 (2,989) ; Potteries 4 (2,954) ; Printing presses 4 (1,058) ; Paper and straw boards 3 (1,694) ; Asbestos products 2 (1,583) ; Lime stone 4 (1,125) ; Motor transport 4 (1,060) ; Machinery except electrical machinery 10 (6,157) ; starch 1 (250) ; Manufacture of bakery products 1 (750).

On March 31, 1964, the number of registered trade unions was 380 (excluding cancelled unions) out of which 231 unions had submitted their returns for 1963-64. After scrutiny 135 returns had been accepted by the Registrar of Trade Unions, membership of which came to 81,566.

Total number of employments covered under the Minimum Wages Act : 15 (1964).

Approximate number of workers employed in the above employments : 3,31,586 (1964).

Important categories of employments under the Minimum Wages Act and the approximate number of workers employed in each category :

Rice, flour and dal mill 13,330 ; Tobacco (including Bidi making) manufacturing 2,29,471 ; oil mill 4,072 ; Local authority 28,289 ; Construction or maintenance of roads or in building operation 42,084 ; Stone breaking or in stone crushing 3,084 ; Public motor transport 7,431 ; Lac manufacturing 371 ; Tanneries and leather manufacturing 158 ; Potteries 2,212 ; Cotton, ginning and pressing 138 ; Printing Press 946.

The Madhya Pradesh Shops & Establishments Act, 1958 was in force in 45 towns in the State on December, 31, 1964.

On Dec., 31, 1964 there were 1,13,746 registered establishments out of which 31,811 were found closed and 81,935 live establishments left at the end of 1964. 72,441 employees were employed in the 81,935 registered establishments.

Provident Fund Scheme (March 31, 1964)—

Number of factories covered by the Employees' Provident Fund Scheme (March 31, 1964)—704. Number of factories exempted—35. Number of factories partially exempted 8, total number of workers contributing under the Scheme—1,41,426.

Number of family units (one family unit assumed to be comprised of three adults and one minor) covered by the Employees' State Insurance Scheme (December 31, 1964)—1.28,942. The Scheme was in operation in Banmore, Bhopal, Burhanpur, Dewas, Gwalior, Indore, Jabalpur, Mandsaur, Nagda, Raigarh, Raipur, Rajnandgaon, Ratlam, Satna, and Ujjain.

The following new Acts and rules were passed during the calendar year 1964.

1. Maternity Benefit Act, 1961.
2. Payment of Wages (M.P. Amendment) Act.

## IRRIGATION SCHEMES

| Serial No. | Name of Project | Location District | When started | When to be completed | Capacity M. Cft. | Area proposed for irrigation (Acres) | Total cost (Rs. lakhs) | Estimated rise in output after completion (Tons) | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1. | Tawa .. .. | Hoshangabad | 1962 | V Plan | 98.316 | 7,87,500 | 4,700 | 1,96,875 | |
| 2. | Barna .. .. | Raisen | 1961 | IV Plan | 14,371 | 1,64,000 | 555·70 | 41,000 | |
| 3. | Hasdeo .. .. | Bilaspur | 1962 | V Plan | 217·8 | 3,00,000 | 900 | 75,000 | |
| 4. | Nahlesara .. | Balaghat | 1957 | 1967 | 740 | 11,300 | 194·20 | 2,825 | |
| 5. | Beniganj .. .. | Chhatarpur | 1958 | 1966 | 803·65 | 10,000 | 45·5 | 2,500 | |
| 6. | Chandrakeshar .. | Dewas | 1958 | 1969 | 1,062 | 12,000 | 97·37 | 3,000 | |
| 7. | Devendra Nagar .. | Panna | 1958 | 1967 | 390 | 5,700 | 38·06 | 1,425 | |
| 8. | Kedarnala .. | Raigarh | 1958 | 1968 | 590 | 11,500 | 63·80 | 2,875 | |
| 9. | Bilanadi .. .. | Sagar | 1956 | 1970 | 1,577 | 32,000 | 235 | 8,000 | |
| 10. | Chillar .. .. | Shajapur | 1960 | 1968 | 1.229 | 13.000 | 80 | 3.250 | |
| 11. | Gopalpura .. | Mandsaur | 1952 | 1966 | 185·9 | 2,000 | 21·05 | 500 | |
| 12. | Nagdanala .. | Tikamgarh | 1962 | 1967 | 566 | 7,500 | 42·95 | 1,875 | |
| 13. | Kulgarhi .. .. | Satna | 1959 | 1966 | 270·8 | 4,500 | 25·50 | 1,125 | |
| *Projects in operation:* | | | | | | | | | |
| 1. | Ari .. .. | Seoni | 1946 | 1951 | 455·2 | 10,500 | 33·7 | 2,625 | |
| 2. | Gangulpara .. | Balaghat | 1954 | 1961 | 387·5 | 8,525 | 51 87 | 2,131 | |
| 3. | Dukrikheda .. | Hoshangabad | 1953 | 1961 | 407 | 6,600 | 43 8 | 1,650 | |
| 4. | Gondli .. .. | Durg | 1953 | 1958 | 308·7 | 7,614 | 89·2 | 1,904 | |
| 5. | Sampna .. .. | Betul | 1954 | 1959 | 529 | 9,500 | 48·60 | 2,375 | |
| 6. | Mola Dam .. | Guna | 1956 | 1961 | 509 | 5,000 | 33·1 | 1,250 | |
| 7. | Kundanalla .. | Dhar | 1955 | 1961 | 286 | 4,100 | 24·3 | 1,020 | |
| 8. | Mahanadi .. | Raipur | 1957 | 1966 | weir work | 1.40.000 | 276·68 | 35,000 | |
| 9. | Morwan .. .. | Mandsaur | 1956 | 1966 | 556 56 | 6,600 | 44 50 | 1,650 | |
| 10. | Satak .. .. | West Nimar | 1956 | 1964 | 584 6 | 9,500 | 67 40 | 2,375 | |
| 11. | Sagar Nadi .. | Seoni | 1957 | 1965 | 191·58 | 3,940 | 38·07 | 985 | |
| 12. | Keswa Nalla .. | Raipur | 1956 | 1966 | 630·7 | 9,500 | 56 45 | 2,375 | |
| 13. | Shivgarh Bedli .. | Ratlam | 1955 | 1962 | 140 | 2,800 | 17 22 | 550 | |
| 14. | Barodia .. .. | Rajgarh | 1956 | 1966 | 205·6 | 2,535 | 20·36 | 634 | |
| 15. | Chambal .. .. | Mandsaur | 1952 | IV Plan | 2,73,557 | 7,00,000 | 2,900 | 1,75,000 | |
| 16. | Saroda .. .. | Durg | 1953 | 1966 | 1,065 | 18,168 | 166·73 | 4,542 | |
| 17. | Kharadi .. .. | Balaghat | 1954 | 1965 | 483 | 9,000 | 30 04 | 2,250 | |
| 18. | Nandanwara .. | Tikamgarh | 1958 | 1965 | 755 | 4,495 | 13 | 1,124 | |
| 19. | Deroli .. .. | Damoh | 1956 | 1964 | 162 6 | 5,600 | 31 08 | 1,400 | |
| 20. | Bhitrigarh .. | Jabalpur | 1957 | 1965 | 162·60 | 2,736 | 27·75 | 684 | |
| 21. | Dhaudhar .. | Mandla | 1958 | 1966 | 180 01 | 3,400 | 45 85 | 850 | |
| 22. | Maniari .. .. (Development) | Bilaspur | 1956 | 1966 | 5,216 | 24,000 | 33·85 | 6,000 | |
| 23. | Dudhawa .. .. | Bastar | 1955 | 1966 | — | 10,019 | 267·44 | — | |

### SECOND FIVE-YEAR PLAN

The Second Five-Year Plan of the State involved a financial outlay of Rs. 190·90 crores but only Rs. 148·92 crores could be spent by the end of the Plan. The First Five-Year Plan of the four units envisaged a total outlay of only Rs. 67·32 crores out of which Rs. 58·85 crores are estimated to have been spent during the period.

### THIRD FIVE-YEAR PLAN

An outlay of Rs. 300·00 crores has been fixed for the Third Plan of Madhya Pradesh. The distribution of the outlay among different sectors is given below :—(Rs. in crores).

(*i*) Agriculture and community development 76·45; (*ii*) Irrigation and power 117·80; (*iii*) Industry and mining 10·50; (*iv*) Transport and communications 17·80; (*v*) Education 31·98; (*vi*) Health including drinking water supply 21·30; (*vii*) Housing 5·50; (*viii*) Labour and Labour welfare 1·20; (*ix*) Welfare of backward classes 8·00; (*x*) Social welfare 0·70; (*xi*) Miscellaneous including State Capital Project 8·77; Grand Total 300·00.

The per capita development expenditure in the Third Plan, on the basis of 1961 census, will be Rs. 92·5 as against Rs. 63·9 in the Second Plan. In the total Plan outlay of Rs. 300·00 crores, Rs. 219·74 crores constitute investment and Rs. 80·26 crores as current expenditure which would mean that 73 per cent will be fresh investment in the State's economy and 27 per cent will be current expenditure. The foreign exchange content of the Plan is Rs. 35·70 crores. Expenditure on buildings is estimated at Rs. 39·42 crores, on equipment and machinery Rs. 75·21 crores and on all other works including staff Rs. 185·31 crores. Out of the total outlay of Rs. 300 crores, Rs. 78·80 crores would be needed for the spill-over works of the First and Second Plans and the balance of Rs. 221·20 crores would be utilised for new schemes. Besides the outlay of Rs. 300·00 crores, an amount of Rs. 16·12 crores will be made available as Central assistance outside the Plan for the implementation of certain schemes included in the Plan.

In addition to the outlay of Rs. 300·00 crores, the following provision has been made in the National Plan for schemes to be undertaken in the State :— (Rs. in crores).

(*i*) Expansion of Bhilai Steel Works to increase its production capacity from 7·70 lakh to 25 lakh tons. 138·00; (*ii*) Basic Refractories Project, Bhilai 3·00; (*iii*) Completion and expansion of the Heavy Electricals Project at Bhopal 35·00; (*iv*) Doubling the production capacity of Nepa Mills, Nepanagar 4·00; (*v*) Establishment of a security paper mill at Hoshangabad 5·50; (*vi*) Production of iron-ore from Bailadilla iron-ore deposits 17·00; (*vii*) Production of diamonds from Panna diamond mines 1·50; Total 204·00.

The total investment in Madhya Pradesh under public sector during the Third Five-Year Plan will thus be of the order of Rs. 204 crores. In addition, the National Coal Development Corporation will make additional investment for increasing the production of coal from the coal-fields in Madhya Pradesh. Another scheme of importance that is being implemented by the Central Govt. partly in Madhya Pradesh and partly in Orissa is Dandakaranya Project. The development of Dandakaranya has been taken up with the twin objective of settling families of the displaced persons from East Pakistan and promoting the welfare of local population, particularly the tribals. During the Third Five-Year Plan, this programme envisages reclamation and development of land, irrigation and construction of roads. Loans and grants will also be given to the settlers and adequate provision will be made for amenities.

The Government of India have also included the 230 miles Bailadilla to Kotwalasa and 134 miles Guna-Makshi railway lines in this State under the programme for the construction of new rail lines in the country during the Third Plan period.

Bauridand-Karonji link (about 54 miles long) is already under construction during the Third Plan.

Out of the total outlay of Rs. 300·00 crores, Rs. 30·67 crores are earmarked for schemes to be implemented in the predominantly scheduled tribes areas. This is in addition to a provision of Rs. 8·00 crores exclusively earmarked in the State Plan and Rs. 7·01 crores for the Centrally-sponsored programme for the welfare of backward classes.

### FINANCIAL RESOURCES

Of the total outlay of Rs. 300 crores, the Central assistance will be Rs. 207·00 crores. The balance of Rs. 93·00 crores will have to be found by the State Government from its own resources.

Allocation for the fifth year of the Third Five-Year Plan is Rs. 64·65 crores; Rs. 47·50 crores from the Central Govt. and Rs. 17·15 crores from the State resources.

Out of this 74 per cent of the expenditure will be on productive projects while 26 per cent on social services.

The distribution among different projects is as follows : Power generation Rs. 16·30 crores; Agriculture Rs. 8·30 crores; Chambal Hydel Scheme Rs. 3·05 crores; Tawa Hasdo Barma and Halali irrigation projects : Rs. 3·15 crores; Medium Irrigation projects : Rs. 3·05 crores; Industrial and Mineral development Rs. 2·09 crores; Roads Rs. 2·95 crores; Education Rs. 7·57 crores; Public Health Rs. 3·20 crores; Rural and Urban water supply Rs. 1·76 crores, Housing Rs. 0·70 crore; Welfare of Backward Classes Rs. 1·65 crores; Craftsman training Rs. 0·32 lakh; Community development Rs. 3·55 crores; and Bhopal capital project Rs. 1·02 crores.

In addition to this, Rs. 1·50 crore has been agreed to for Kharkhera irrigation project over and above the State Plan ceiling.

### BUDGET ESTIMATES FOR 1965-66

(*See under 'States Budget'.*)

### ADMINISTRATIVE PERSONNEL

(*See under 'States Administrative Personnel'.*)

### LEGISLATIVE ASSEMBLY

(See under 'General Elections'.)

### UNIVERSITIES

### INDIRA KALA SANGEET VISHWAVIDYALAYA KHAIRAGARH

*Founded* 1956.

*Chancellor :* K. C. Reddy, B.A., B.L., LL.D., Governor, Madhya Pradesh.

*Pro-Chancellors :* Narsinghrao Dixit, *Education Minister,* Madhya Pradesh; Raja Bahadur Birendra Bahadur Singh, M.P.; Shrimati Rani Padmavati Devi, Minister for Social Welfare.

*Vice-Chancellor :* P. N. Chinchore, M.A., M.Mus.

*Treasurer :* R. K. Jha.

*Registrar :* B. B. Biswas, BA., LL.B.

It is a teaching, affiliating, examining and residential University of Music and Fine Arts.

Number of affiliated Colleges :—31.

Number of students in the University : 4,000.

**Budget Estimates :** 1964-65 :—

Total Income Rs. 1,22,659.

Total Expenditure Rs. 1,22,920.

The media of instruction for all classes are Marathi, Urdu, Hindi and English.

#### Affiliated Colleges

*Government Colleges :*—Madhav Music College, Gwalior; Music College, Indore; Madhav Music College, Ujjain; Sangeet Mahavidyalaya, Mandsaur; Sangeet Mahavidyalaya, Narsinghgarh; Anand Sangeet Mahavidyalaya, Dhar; Government Music College, Malhar.

*Private Colleges :*—Bhatkhande Sangeet Mahavidyalaya, Jabalpur; Shri Ram Sangeet Mahavidyalaya, Raipur; Kamladevi Sangeet Mahavidyalaya, Raipur; Sharda Sangeet Vidyalaya, Dewas; Chatur Sangeet Mahavidyalaya, Gwalior; Lalit Kala Kendra, Gwalior; Chatur Sangeet Mahavidyalaya, Nagpur; Bhatkhande Sangeet Mahavidyalaya, Bilaspur; Sangeet Niketan, Delhi; Shri Sharda Sangeet Vidyamandir, Gondia; Bhartiya Sangeet Mahavidyalaya, Gwalior; Music College, Ajmer; Sharda Sangeet Vidyalaya, Kawardha; Sangeet Mahavidyalaya, Shri Maharudra Mandal, Gwalior; Music College, Ratlam; Vishwanath Sangeet Vidyalaya, Rewa; Shri L. C. Jain Sangeet Vidyalaya, Jagdalpur; Sangeet Kala Kendra, Jodhpur; Sadhana Sangeet-Mahavidyalaya, Bhopal; Shri Jain Sangeet Vidyalaya, Indore; Sangeet Vidyalaya, Vidisha; Sangeet Mahavidyalaya, Bhandara; Adarsh Bhatra Kala Kendra, Gwalior; Vishwanath Sangeet Vidyalaya, Rewa.

### INDORE UNIVERSITY

Indore.

The University of Indore was established on May 1, 1964. It is at present an affiliating University, but is intended to develop as a federal University with teaching departments.

*Chancellor :* K. C. Reddy, B.A., B.L., LL.D., Governor of M.P.

*Vice-Chancellor :* H. S. Kamath, M.A., I.C.S. (Retd.).

*Registrar :* G. N. Tandan, M.A.

No. of affiliated colleges : 14.

No. of students in the University : 11,300.

*Affiliated Colleges :* Govt. Arts & Commerce College, Indore; Holkar Science College, Indore; Indore Christian College, Indore; P. M. B. Gujarati College, Indore; Girls' Degree College, Indore; New Girls' Degree College, Indore; Islamia Karimia Degree College, Indore; College of Dentistry, Indore; College of Nursing, Indore; Govt. Sanskrit College, Indore; Shri Govindram Seksaria Technological Institute, Indore; Shri Rajkumar Singh Ayurvedic College, Indore; M. G. M. Medical College, Indore; Govt. Degree College, Mhow.

#### Budget (1964-65)

Receipts : Rs. 7,38,400.

Expenditure : Rs. 6,03,300.

#### Development Budget

Receipts : Rs. 1,10,000.

Expenditure : Rs. 1,10,000.

### JABALPUR UNIVERSITY

Jabalpur.

The Jabalpur University was established on 11th March 1957. It is a teaching and affiliating University.

*Chancellor,* K. C. Reddy, B.A., LL.D., Governor of Madhya Pradesh.

*Vice-Chancellor,* Dr. Dhirendra Verma, M.A., D. Litt.

*Registrar,* S. C. Seth, M.A. (Officiating).

Number of affiliated colleges : 20. (The status of colleges as constituent colleges to be decided leter.)

Number of University Departments post-graduate Studies and Research : 12.

Number of students in the Colleges and University Department : 12,632.

**Affiliated Colleges :** G. S. College of Commerce & Economics, Jabalpur; Mahakoshal Arts Mahavidyalaya, Jabalpur; Govt. Science College, Jabalpur; Prantiya Shikshan Mahavidyalaya, Jabalpur; Govt. Engineering College, Jabalpur; Hitkarini Mahavidyalaya, Jabalpur; Hitkarini Law College, Jabalpur; New Education Society Law College, Jabalpur; Hawabagh Women's College, Jabalpur; D. N. Jain College, Jabalpur; St. Aloysius College, Jabalpur; M. H. College of Home Science for Women, Jabalpur; C. P. Mahila Mahavidyalaya, Jabalpur; Govt. Medical

College, Jabalpur; Shyam Sunder Agarwal College, Sehora (Jabalpur); Tilak Rashtriya Mahavidyalaya, Katni (Jabalpur); N.E.S. Arts College, Jabalpur; Kesharwani Mahavidyalaya, Jabalpur; College of Educational Psychology and Guidance, Jabalpur; Govt. Polytechnic, Jabalpur.

NORMAL BUDGET 1965-66

| | Rs. |
|---|---|
| Receipts .. | 20,63,410 |
| Expenditure .. | 23,56,040 |
| Govt. of India Special Grant (U.G.C.) | 1,50,000 |
| State Government | |
| (*a*) Maintenance Grant .. | 6,00,000 |
| (*b*) Special Grant | 6,000 |

DEVELOPMENT BUDGET 1965-66

| | Rs. |
|---|---|
| Receipts .. | 43,07,369 |
| Expenditure .. | 43,07,369 |
| University Grants Commission .. | 25,96,086 |
| State Government .. .. | 13,06,117 |

Contribution from General Funds 3,70,965.

## JAWAHARLAL NEHRU KRISHI VISHWA VIDYALAYA

Jabalpur.

*Estd.* 1964

*Chancellor :* K. C. Reddy, Governor, Madhya Pradesh.

*Vice-Chancellor :* Dr. J. S. Patel.

*Registrar :* T. C. R. Menon, M.A., I.A.S.

## JIWAJI UNIVERSITY

Gwalior.

Established in 1964, it is a teaching, affiliating and residential University.

*Chancellor :* K. C. Reddy, Governor, Madhya Pradesh.

*Vice-Chancellor :* S. S. Bhandarkar, M.A.

*Registrar :* M. N. Kaul, M.A., LL.B.

No. of affiliated colleges : 27 (as on 31-3-1965)

No. of constituent Colleges : 10 (as on 31-3-1965).

**Budget (1965-66).**

*Receipts :* Rs. 57,29,000.

*Expenditure :* Rs. 51,10,000.

## RAVISHANKAR UNIVERSITY

Raipur.

*Chancellor :* K. C. Reddy, Governor, Madhya Pradesh.

*Vice-Chancellor:* Dr. B.R. Saksena, M.A., D.Litt.

*Registrar :* K. P. Chaube, M.A.

Constituent Colleges : 10.

Affiliated Colleges : 33.

Students (1964-65) : 16,000 (approximate).

**Budget Estimates (1965-66).**

*Estimated Income :* Rs. 22,69,840.

*Estimated Expenditure :* Rs. 22,68,375.

*Grant from State Govt.* Rs. 2,00,000.

Medium of instruction for graduate and post-graduate courses is Hindi except for LL.B., M.Sc. For medical and engineering medium is English.

## SAUGAR UNIVERSITY

Founded : 1946.

*Chancellor*, Dr. K. N. Katju, M.A., Ph.D., LL.D., D.Litt.

*Vice-Chancellor*, Dr. M. P. Sharma, M.A., D.Litt.

*Rector*. Prof. Ishwar Chandra, M.A.

It is a teaching and affiliating University.

Number of affiliated colleges : 63.

Number of students : Teaching Departments : 2,729 ; Affiliated Colleges : 15,128.

*Library :* 92,715 (includes volumes, journals & pamphlets).

Budget (1965-66).

Receipt : Rs. 30,96,778. } Excluding building grants.

Total expenditure : Rs. 38,87,171. }

The medium of instruction for all classes is Hindi upto degree course examination and it is optional for all post-graduate examinations in Arts. The medium is English for all post-graduate examinations in Science.

**Affiliated Colleges**

*Government Colleges :* The Jatashanker Trivedi Sharakeeya Mahavidyalaya, Balaghat ; J. H. Govt. Degree College, Betul ; Govt. Degree College, Bina ; Maharaja College, Chhatarpur ; Govt. P.G.B.T. College, Chhatarpur ; Motilal Nehru Mahavidyalaya, Chhindwara ; Govt. Degree College, Damoh ; Govt. P.G.B.T. College, Khandwa; Govt. Girls' Degree College, Khandwa; Govt. Degree College, Mandla ; Govt. Degree College, Narsimhapur ; Govt. Polytechnic, Nowgong ; Army Education Corps Training College & Centre, Pachmarhi ; Chhatrasal Degree College, Panna ; Thakur Ranmat Singh College, Rewa ; Govt. P.G.B.T. College, Rewa ; Govt. Science College, Rewa ; Govt. Girls' Degree College, Rewa ; Govt. Sanskrit Degree College, Rewa ; Medical College, Rewa ; Govt. Engineering College, Rewa ; Govt. P.G.B.T. College, Sagar ; Govt. Degree College, Satna ; Govt. Degree College, Seoni ; Govt. College, Shahdol ; Govt. Mining Polytechnic, Shahdol ; Govt. Degree College, Sidhi ; Govt. Degree College, Tikamgarh.

*Private Colleges :* Shriniwas Rao Telang NES College, Barman ; Seva Sadan Mahavidyalaya, Burhanpur ; Saifee Golden Jubilee Quaderia Men's College of Science, Burhanpur ; Saifee Golden Jubilee Quaderia Women's College of Arts, Science and Home Science, Burhanpur ; Pandit Motilal Nehru Law College, Chhatarpur ; Satpura Mahavidyalaya for Law, Chhindwara ; Law College, Damoh ; Kamala Nehru Mahila Mahavidyalaya, Damoh ; Pt. Jawaharlal Mahavidyalaya, Deori ; Laxman Prasad Tiwari Sanskrit Degree College, Dhana ; Narmada Municipal Mahavidyalaya, Gadarwara ; Arts & Commerce College, Harda ; Narmada Mahavidyalaya, Hoshangabad ; Home Science College, Hoshangabad ; Mahatma Gandhi Memorial College, Itarsi ; Motilal Nehru College, Khandwa ; Arts & Commerce College, Khurai ; Arts & Commerce College, Mahrajpur ; Arts & Commerce College, Monganj ; Janta College, Nagod ; Dahya Bai Chudasama Law College, Panna ; Janapad Mahavidyalaya, Parasia ; Jai Hind Adarsh Mahavidyalaya, Piparia ; Girls' College, Sagar ; Dr. H. S. Gour Mahavidyalaya, Sagar ; Law College, Satna ; Vanijya Mahavidyalaya, Satna ; Law College, Shahdol ; Law College, Sidhi ; Jawaharlal Nehru Memorial Mahavidyalaya, Sohagpur ; Law College, Tikamgarh ; Seth Parmanand Swaroopchand Arts & Commerce College, Waraseoni.

## VIKRAM UNIVERSITY

(Ujjain)

The Vikram University was established by law under Act 18 of 1955 and came into being on March 1, 1957. It is an affiliating and teaching University. The media of instruction are English and Hindi.

*Chancellor :* K. C. Reddy, B.A., B.L., LL.D., Governor of Madhya Pradesh.

*Vice-Chancellor :* Dr. G. L. Datta, M.A., Ph. D.

*Registrar :* V. Shankaran, M.A.

Number of University Schools of Studies : 8.

Number of Constituent Colleges : 13.

Number of Affiliated Colleges : 23.

University Teaching Department : 1.

Number of Students (1964-65) : 16,393.

Total income including Govt. Grants (1965-66) : Rs. 26,10,650.

Total Expenditure : Rs. 32,76,510.

University Schools of Studies provide education for post-graduate courses only :—

(1) University School of Studies in Ancient Indian History & Culture, Scindia Oriental Institute, Ujjain.

(2) University School of Studies in Mathematics & Statistics, University Campus, Ujjain.

(3) University School of Studies in Physics, University Campus, Ujjain.

(4) University Teaching Department in Library Science, Vikram University Library, Ujjain. (Diploma in Library Science and Certificate in Library Science).

(5) University School of Studies in Chemistry, Holkar College of Science, Indore.

(6) University School of Studies in Botany, University Campus, Ujjain.

(7) University School of Studies in Zoology, University Campus, Ujjain.

(8) University School of Studies in Geology, Motilal Vigyan Mahavidyalaya, Bhopal.

**Constituent Colleges**

Govt. Hamidia Arts & Commerce College, Bhopal ; Motilal Vigyan Mahavidyalaya, Bhopal ; Govt. College, Dhar ; Govt. College, Mandsaur, Govt. College, Ratlam ; Govt. College, Sehore ; Madhav College, Ujjain ; S.S.L. Jain College, Vidisha ; Post-Graduate Basic Training College, Bhopal ; Post-Graduate Training College, Dewas ; Post-Graduate Training College, Ujjain ; State Institution of Education, Sehore ; Gandhi Medical College, Bhopal.

**Affiliated Colleges**

These Colleges provide Courses upto bachelor's degree : Govt. Degree College, Barwani ; Govt. Degree College, Bareili ; Jawaharlal Nehru Degree College, Barwah ; Saifia Degree College, Bhopal ; Maharani Laxmibai Girls' College, Bhopal ; K. P. Degree College, Dewas ; Govt. Degree College, Ganj-Basoda ; Govt. Degree College, Jaora (Ratlam) ; Govt. Degree College, Jhabua ; Govt. Degree College, Khargone ; Govt. Degree College, Neemuch ; Govt. Degree College, Narsingarh ; Govt. Degree College, Rajgarh ; Govt. Degree College, Rampura ; Balakrishna Sharma Naveen Govt. Degree College, Shajapur ; Nehru Memorial Degree College, Sendhawa ; Jawaharlal Nehru Smriti Mahavidyalaya, Shujalpur ; Govt. Girls' Degree College, Ujjain ; Govt. Polytechnic, Ujjain ; Maulana Azad College of Technology, Bhopal ; Samrat Ashok Technological Institute, Vidisha ; Regional College of Education, Bhopal ; Nagar Palika Law College, Ratlam.

## MADHYA PRADESH FINANCIAL CORPORATION

(*See under "State Corporations".*)

## ASSOCIATIONS, SOCIETIES, ETC.

### ADIWASI CHAMBER OF COMMERCE

Alirajpur.

*President*, Bhagwandas Kothari; *V. President*, Somchandji Gupta; *Secretary*, Mishralalji Gupta; *Treasurer*, K. Gupta.

### BHATKHANDE LALITKALA SHIKSHA SAMITI

Gandhi Chowk, Raipur.

*President :* Laxminarayandas; *Chief Directress :* Smt. Anita Sen.

*Founder & Secretary :* Arun Kumar Sen.

*Conducts :* Kamaladevi Sangeet Mahavidyalaya, L. N. Girls' Higher Secondary School, Raipur & 'Theatre Group'.

*Aims :* (1) Teaching of Indian Music upto M. Mus. standard & research in international fields of Music ; (2) Female Education upto Higher Secondary Standard ; (3) Staging programmes of dance, drama, ballets & Music.

CENTRAL INDIA CHAMBER OF COMMERCE & INDUSTRIES
Bambakhana, Ujjain.

*President :* B. K. Sethi ; *Vice-Presidents :* I. H. Parikh, A. N. Arora ; *Hon. Gen. Secy. :* B. M. Agrawal ; *Treasurer :* M. L. Agrawal.

CENTRAL INDIA COTTON ASSOCIATION LTD.
Chhota Sarafa, Ujjain.

*Chairman :* B. K. Sethi ; *Vice-Chairman :* Hukamchand Jain ; *Secretary :* T. R. Varma.

THE CHAMBER OF COMMERCE
Ratlam.

FEDERATION OF ALL INDIA LOCAL AUTHORITIES
"Chandralok", Satna.

*President :* Dr L. P. Khare ; *Gen. Secretary :* K. Narsimha Rao.

FOREST CONTRACTORS' ASSOCIATION
Chhindwara.

INDIAN SOCIETY OF ANAESTHETISTS
K.E.H. Corner, Indore.

INDORE PAINTS & HARDWARE MERCHANTS' ASSOCIATION
Siyaganj, Indore.

INDUSTRIAL ESTATE MANUFACTURERS' ASSOCIATION
Industrial Estate, Polo Ground, Indore.

*President :* J. J. Nerurkar ; *Vice-President :* T. C. Jethmalani ; *Secretary :* G. C. Jethmalani ; *Joint Secretary :* B. A. Patel ; *Treasurer :* D. U. Shegaonkar.

INSTITUTE OF PLANT INDUSTRY
Old Residency Area, Indore.

DEFENCE RESEARCH & DEVELOPMENT ORGANISATION

DETACHMENT DEFENCE RESEARCH LABORATORY (MATERIALS)

(JIWAJI INDUSTRIAL RESEARCH LABORATORY)
Govt. of India, Ministry of Defence, Tansen Road, Gwalior 2.

*Officer-in-Charge :* Dr. C. N. Haksar, M.Sc., Ph.D. (Bristol).

KASTURBA GANDHI NATIONAL MEMORIAL TRUST

*Address :*—P. O. Kasturbagram, Dist. Indore.

*Aims and Objects :*—Welfare of women and children in rural areas of India. The Trust trains women workers for educational, vocational and health programmes and after training deputes them to rural areas.

The Fund at present amounts to Rs. 78 lakhs which have been invested in Government Securities, Fixed Deposits and Shares. The sources of income are :—Corpus of the original Trust Fund ; Interest on Government Securities ; Grants from the Gandhi Smarak Nidhi ; from Central Social Welfare Board and subscriptions collected in States towards part of the expenses of the village centres.

The Trust at present runs about 250 village centres with the activities of pre-basic, basic, adult education and various craft and health programmes ; maternity homes, leprosy relief centres, Shanti Sena Centres, etc. etc.

Besides running 16 training Centres in the States the Central Training Institute is located at Kasturbagram, five miles from Indore, where Shant Sena Training, Kasturba Sevika Training, Pre-basic Teachers' Training, Mukhya Sevika Training, Rural Institute for Women, Midwifery Training & Spinners Trainers Training etc. are being conducted by the Trust.

The Trust had been the principal agency for training gram sevikas of the Central Social Welfare Board, who work in their welfare extension projects. The Trust had so far trained nearly 4,000 trainees of the Board.

*Chairman :* Mrs. Premlila Vithaldas Thackersey.

*Vice-Chairman :* Dr. Sushila Nayyar.

*Secretary :* Smt. V. Rajalakshmi.

MADHYA PRADESH CHAMBER OF COMMERCE AND INDUSTRY
"Chamber Bhavan", Dharma Mandir Road, Lashkar, Gwalior.

*President :* D. P. Mandelia ; *Vice-President :* G. G. Bansal ; *Hony. Secretary :* Rambabu Vaishya ; *Hony. Jt. Secy. :* M. K. Bansal ; *Secy. :* A. P. Johri.

MADHYA PRADESH MILLOWNERS' ASSOCIATION
8, South Tukoganj, Street No. 1, Indore.

*Chairman :* K. Agrawal ; *Vice-Chairman :* K. A. Desai ; *Secretary :* R. C. Bhandari.

MADHYA PRADESH STATE COUNCIL FOR CHILD WELFARE
Secretariat Building, Bhopal.

MADHYA PRADESH WELFARE ASSOCIATION FOR THE BLIND
83, Bozanket Market, Indore.

*President :* Balkrishna Shah ; *Vice-Preisdent :* Smt. Kunda Tambe ; *Hon. Treasurer :* Radhakisan Bahal ; *Executive Secretary :* B. V. Mulye ; *Hon. Secretary :* M. V. Shirdhonkar.

MAHAKOSHAL CHAMBER OF COMMERCE
Jawaharganj, Jabalpur.

THE MALWA CHAMBER OF COMMERCE
57, Sitlamata Bazar, Indore City.

MASIHI SEVA MANDAL
Malwa Church Council.

The Masihi Seva Mandal works under the auspices of the Malwa Church Council of the United Church of Northern India.

*Secretary and Executive Officer*, Rev. I. Khimla, United Church of Northern India, Ratlam.

*Treasurer :* Rev. Hilda M. Johnson, Old Seminary Bldg., Opp. G.P.O., Indore.

M. P. SUGAR MILLS' ASSOCIATION
Jail Road, Indore.

RAIPUR CHAMBER OF COMMERCE & INDUSTRIES
Sadar Bazar, Raipur.

*Pres. :* Mohanlal Nathani ; *Vice-Presidents :* Prataprai ; G. Agarwal ; *Secy. :* L. K. Parakh.

RAIPUR DISTRICT SMALL INDUSTRIES ASSOCIATION
C/o Vijay Soap Works, Fafadhi Chowk, Raipur.

SCINDIA ORIENTAL INSTITUTE
University Road, Ujjain.

The Institute owns a manuscripts library containing over thirteen thousand old manuscripts, besides a rich collection of beautiful old pictures of Rajput, Mugal and Tanjore style, rare printed volumes and Journals. It is a source of great attraction to scholars doing research in Indology and allied subjects. It undertakes the work of publishing critical editions of unpublished manuscripts, catalogue of manuscripts and research journal, and has hitherto published 5 such manuscripts, two parts of catalogue and two volumes of the Journal.

*Curator :* V. S. Tillo.

SHANKAR GANDHARV MAHAVIDYALAYA
(Music College).
Hujarat Road, Lashkar, Gwalior.

*President :* P. S. Apte ; *Vice-President :* Surendra Bahadur Shastri Ayurvedacharya ; *Principal :* Sangeet Ratnalankar Dr. Krishna Rao Shankar Pandit. (Winner of President's Award) and Music Supervisor, Madhav Music College, Gwalior ; *Secretary :* P. W. Sahasrabudhe, Advocate, Gwalior.

SHRI GOVINDRAM SEKSARIA TECHNOLOGICAL INSTITUTE
Opposite Nehru Park, Indore.

*Principal & Secretary :* Dr. S. M. Das Gupta.

THE TRIBAL RESEARCH INSTITUTE
Chhindwara.

# MADRAS STATE

Area : 50,331 sq. miles; Population: 33,686,953 (1961 Census) (males 16,910,978; females 16,775,975). Percentage of increase 1951-61 : 11·85. Density per sq. mile 669. Literacy 31·4 per cent—males 44·5 per cent ; females 18·2 per cent. Sex ratio : 992 females per 1,000 males.

The Nilgiris district shows the highest rate of population growth of 31·30 per cent between 1951 and 1961 while Tiruchirapalli shows the lowest being 8·36 per cent. The highest sex ratio is in Ramnathapuram 1,060 females for every 1,000 males and the lowest is in Madras Corporation being 901 females for 1,000 males. Density is highest in the Madras Corporation (35,289 per sq. mile) and lowest in Nilgiris (416 per sq. mile).

No. of Villages in the State : 14,742 ; Villages uninhabited : 615 ; No. of towns in the State: 338.

Capital : Madras.

Districts with District headquarters in brackets : Madras (Madras), Chingleput (Saidapet), South Arcot (Cuddalore), Thanjavur (Thanjavur), Madurai (Madurai), Ramanathapuram (Tallakulam at Madurai), Tirunelveli (Tirunelveli), North Arcot (Vellore), Salem (Salem), Tiruchirapalli (Tiruchirapalli), Coimbatore (Coimbatore, Nilgiris (Ootacamund), Kanyakumari (Nagercoil).

The bifurcation of Salem District into Salem and Dharmapuri Districts has been effected for administrative convenience with effect from May 31, 1965.

Languages spoken : Tamil, Malayalam, Telugu. The vast majority of the people is of the Dravidian race.

**Panchayats Act :** The Madras Panchayats Act provides for the establishment of panchayats at village/town level and panchayat unions at the block level. The District Development Councils Act, Madras (1956) provides for the establishment of Development Councils at the district level. The panchayat unions will be coordinating, supervisory and executive bodies, while the roles of the Development Council will be only advisory and supervisory.

There are on the whole 375 Panchayat Union Councils. The total number of Panchayats in the State is 12,418.

**Local Administration :** The Units of Local Administration comprise (*i*) Madras City Municipal Corporation for Madras District, (*ii*) Municipalities for major towns : 64, (*iii*) Townships for special localities like Mettur, Bhavanisagar, Courtallam and Kodaikanal, which are industrial areas, institutional or labour colonies or health resorts, (*iv*) Panchayat Unions at Development Block Level and (*v*) Panchayats for minor towns and villages. The Madras City Municipal Corporation Act 1919 governs the Madras Municipal Corporation in the Madras District and the Madras Municipalities Act governs the Municipalities in other Districts. The townships are governed by special provisions.

**Official Language :** In pursuance of the Madras Official Language Act 1956, Tamil was first introduced for official correspondence in all small Government Offices in this State in January 1958. Since then it has been progressively introduced in numerous offices in the various departments, and Tamil is now the official language of correspondence in all the Departments of Government upto the district level.

The Madras Government has passed orders revising the dearness allowance of its employees twice, in April and June 1965.

*Judiciary :* Madras State has completely separated the judiciary from the executive.

## BUDGET (1965-66)

(*See ' State Budgets'*)

## POPULATION

For full details about Population (1961 census) see article on "Population."

## FORESTS (1962-63)

| | |
|---|---|
| Area of reserved forests .. | 17,236 sq. kilometres. |
| Area of reserved forests to total land area of the State .. .. .. | 13·2 per cent. |
| Area of reserved lands .. | 3,824 sq. kilometres. |
| Output of timber .. | 51,091 cubic metre. |
| Quantity of fuel extracted | 2,78,928 tonnes. |
| Quantity of sandalwood extracted .. .. | 1,173 cubic metre. |
| Revenue realised .. | Rs. 259·03 lakhs. |

## LIVESTOCK (1963-64)

| | |
|---|---|
| Cattle .. .. .. | 11,423,054 |
| Buffaloes .. .. .. | 2,935,240 |
| Total, bovine .. | 14,358,294(A) |
| Sheep .. .. .. | 7,278,731 |
| Goats .. .. .. | 3,337,626 |
| Pigs .. .. .. | 508,249 |
| Other livestock (horses, ponies, mules, donkeys, camels, etc). .. .. | 139,465 |
| Total .. .. | 11,264,071(B) |
| Total, Livestock—(A) & (B) .. .. .. | 25,622,365 |
| Fowls .. .. .. | 11,199,750 |
| Ducks .. .. .. | 491,157 |
| Others .. .. .. | 118,607 |
| Total, Poultry .. | 11,809,514 |

## INDUSTRIES

Chief Industries in this State are Textiles, General and Electrical Engineering, Sugar, Cement, Tobacco including bidis and cigar manufacture, bricks and tiles, tanning, glassware, chemicals, bicycles, leather and footwear and manufacture of utensils.

**Cotton Textiles :** During the year 1964 there were 131 spinning mills and 25 composite mills and the cotton yarn produced was 35,765,562 kgs. The production of cotton cloth during the year was 33,641,775 metres.

**Sugar :** There were ten sugar factories and the production of sugar during the year 1964 was 157,744 tonnes.

The production of sugar by these factories in 1961–62 was 1,48,886 tonnes. One more sugar factory in Tiruchirapalli district went into production early in 1963. Three more co-operative sugar factories were under various stages of erection (July 1964).

**Cement :** The number of factories engaged in the manufacture of cement in the State in 1964 was five. The production in these factories during the year was 1,596,127 tonnes.

**Bicycles :** There were five factories in the State, including one opened in 1964, which produced 292,804 cycles.

**Fertilizers :** The production of fertilizers in the 6 large factories in the State in 1964 was 2,09,197 tonnes.

**Caustic Soda :** In the year 1964 there were 2 factories engaged in the production of caustic soda. The production in these factories was 45,074 tonnes.

## EMPLOYMENT IN INDUSTRIAL SECTOR

The total number of factories registered and notified under the Factories Act 1948 in commission at the end of the year 1963 was 6,572 and the average daily number of workers employed in them was 3,52,563. Industries providing employment for more than 10,000 workers were as follows : The figure in brackets relate to the factories and the figure follow the number of workers respectively are : Rice mills (1,483) 15,790 ; Cotton ginning mills (273) 13,452 ; Cotton mills (246) 106,960 ; Silk mills (195) 3,265 ; Printing presses (530) 15,319 ; Chemicals (109) 11,213 ; General engineering 441) 17,371 ; Motor Vehicles and Transport (337) 21,655 ; Railway Workshops (5) 20,148 ; Other Industries (1,231) 56,999.

**Handloom :** Number of cotton looms registered in the State, during 1963–64 was 5,06,386.

Number of weavers within the co-operative fold as on 31st Dec., 1964 was 2,32,477.

There were 1,041 weavers' co-operative societies with 2·15 lakh looms (as on 31st Dec. 1963) out of a total of 5·719 lakhs. These co-operative societies together produced cloth worth Rs. 12 crores and sales amounted to Rs. 3·5 crores in 1963.

## INDUSTRIAL DEVELOPMENT

One of the prominent aspects of the industrialisation in this State is the important role played by the public sector. It has been estimated that in the Central sector alone, an investment of the order of Rs. 170 crores has been made in this State and that on account of this investment, employment opportunities to the extent of 39,100 persons have been created so far.

### Integral Coach Factory

It has reached its full production capacity of 70 coaches per year on double shift. It has started diversifying its production pattern also. At present it is producing 11 types of coaches including specialised ones like the electrical multiple units and diesel rail cars. The Furnishing Division of the Factory is now capable of furnishing all the shells manufactured in the main factory. This undertaking proposes to produce in the coming year deluxe rakes, air-conditioned tourist cars, dining cars, motor coaches and a variety of other allied products.

### Neyveli Lignite Project

The first mine-cut of this project is designed for the production of 3·5 million tons of lignite. Lignite mining on a commercial basis was commenced in May, 1962 and upto December, 1964 a quantity of 2·699 million tons of lignite has been mined and used mainly for power generation. The work relating to stepping up the capacity of the first mine-cut from 3·5 million tons to 5·5 million tons on the first stage and to 6·5 million tons in the second stage has also been taken on hand.

An installed capacity of 250 MW of thermal power has been commissioned and the work in regard to stepping up of this capacity to 400 MW has already been taken on hand.

The Fertilizer Plant costing about Rs. 35 crores is expected to commence production on a commercial scale by March, 1966. The briquetting and carbonisation plant being set up at a cost of about Rs. 26 crores is also expected to go into full production in the near future. The Clay Working Plant has already gone into production and is supplying work clay to the ceramic units and paper mills. In view of the need to expand the capacities of the Power Station and the fertilizer plant and the requirements of the Salem Steel Plant and other industries it is proposed to open a second mine cut. This is expected to cost about Rs. 46 crores. The preliminary investigations in this regard have been completed.

**Film Factory :** The Raw Film Factory at Ootacamund involving a capital outlay of Rs. 11 crores and designed to produce photographic films, photographic papers, etc. is yet another important public sector undertaking. This project is being set up with the technical collaboration of a French concern and is expected to commence production shortly.

*The Hindustan Teleprinters Limited :* The licensed capacity of this unit is 1,300 teleprinters per year. The factory has already taken up expansion scheme, with a view to produce about 8,500 machines per year by 1971.

*High Pressure Boiler Plant :* The Tiruchi High Pressure Boiler Plant went into production on 1st May, 1965. It is designed to produce 700–850 MW of high pressure boilers and 10 to 12 package boiler units for production of process steam used in Rice Mills and other industries and has a surplus capacity of about 2,600 tonnes of high pressure boilers with a capacity of 750 MW per year, boiler fittings upto 1,800 tonnes annually and 10 package boiler units.

The two defence-oriented industries, viz. the Heavy Vehicles Factory at Avadi and the Small Arms Factory near Tiruchirapalli are also nearing completion.

*Surgical Instruments Project :* Undertaken with Soviet Collaboration and scheduled to produce 2.5 million pieces of surgical instruments annually, this project involves a capital outlay of about Rs. 5.25 crores, including the township. The township at Nandambakkam near St. Thomas Mount, given free by the Madras Government, occupies 130 acres of 207, has its own arrangements for water supply, roads and drainage. The plant is expected to provide employment to about 1,300 persons.

*Oil Refinery :* The Oil Refinery and Petro-Chemical complex and the Marine Diesel Engine Plant that are to be established near Madras will be other important milestones in industrial development.

*Continuous Casting Plant :* Lands have been secured near Arkonam. Detailed specifications for the Plant and equipment have been drawn-up ; tenders have been invited for a turn-key job and the offers received from French, British and Russian firms are under examination by the Government. The Government have constituted a High Power Committee for taking a decision regarding the choice of the agency for the turn-key job. This work is expected to be completed in a few weeks and actual work at the site is expected to commence shortly.

*Cement Plant :* Major portion of the limestone survey work has been completed and the availability of adequate deposits of limestone have been proved beyond doubt. A large number of offers have been received and a High Power Committee will examine those tenders. Work is expected to be completed in a few weeks. The work relating to the construction of the Cement Plant is expected to be taken on hand during the current year 1965-66.

*Madras Industrial Development Corporation :* The M.I.D.C. has been registered with an authorised capital of Rs. 10 crores. This Corporation

will take over from the Government the Projects relating to the concast plant and the cement plant initially.

*Co-operative Spinning Mills.* The Fourth Co-operative Spinning Mill near Salem went into operation in 1964. The work relating to the construction of a new Co-op. Spinning mill and the work relating to the construction of the Co-operative Spinning Mill at Pettai are making progress ahead of schedule. The total amount of loan available to the Co-operative Mills will be Rs. 240 lakhs. The import licences for the plant and equipment have been received and orders have been placed for the import of machinery. These plants are expected to go into production towards the end of this year.

*Co-operative Sugar Mills :* The Fourth Co-operative Sugar Mills near Mohanur in Salem District went into production with the crushing capacity of 1,000 tons of cane per day. The work relating to the construction of the Co-operative Sugar Factories near Madurai and Kallakurichi are progressing according to schedule and they are expected to catch the next crushing season

*Kalpakkam Atomic Plant :* The Planning Commission has approved the setting up of the Rs. 60-crore atomic power plant at Kalpakkam, about 60 miles away from Madras during the Fourth Plan period. The capacity of the plant would be 400 m.w., having two reactors of the heavy water moderated type. This plant is expected to go into commission with in five years.

See under "Govt. Industrial Undertakings" for details about Integral Coach Factory, Neyveli Lignite Projects and other State owned undertakings.

*Sethusamudram Project :* The working group constituted to examine all aspects of the project has submitted its report to the Govt. The scheme, when implemented, will enable ships to go round Cape Comorin. At present vessels plying between east and west coasts of India have to circumnavigate Ceylon. This will reduce sea route from East to West coast by 400 miles.

The project, originally estimated to cost Rs. 22 crores, may actually cost twice as much.

Land borings at the project site have already started.

## SMALL SCALE INDUSTRIES

*Industrial Estates :* In the field of Small Scale Industries Madras State occupies an important position and there are more than 7,500 small scale industries registered on the list. By the end of the Second Plan 9 industrial estates were constructed containing 237 units at a cost of Rs. 154.80 lakhs.

During the Third Plan 35 factory units in the Estates of Madurai, Tiruchirapalli and Erode have been constructed. 13 new industrial estates with 283 factory units were sanctioned at a cost of Rs. 320 lakhs. Out of these 11 estates have been completed and many of them commissioned and the units have been occupied. The Estate at Arakonam is under construction and the other estates are expected to be completed in the near future. A sum of Rs. 321 lakhs has been spent and the expenditure is expected to go up to Rs. 500 lakhs before the end of the Third Five-Year Plan. Besides, functional Industrial Estates like the Ceramic Industrial Estates at Vridhachalam and Leather Industrial Estate at Madavaram have been set up. Another significant development is the encouragement given by the State Government to the private and co-operative agencies to set up industrial estates. So far 4 co-operative estates and 2 private estates have been sanctioned. Of these, a private estate near Tiruvotiyur has already come into existence. Others at Tuticorin, Sivakasi, Pollachi, Vysarpadi, Coimbatore and Vellacheri are in progress.

The most significant development during the Third Plan period, however, is the introduction of the concept of the industrial areas in the industrial estate programme. This scheme has been introduced for the first time in the Industrial Estate at Ambattur, where an extent of 1,200 acres has been acquired for the purpose of providing developed industrial sites. The successful completion of the industrial history of Madras State, since it provides for an integrated development of large, medium and small industries through mutual co-operation and assistance. Similar industrial areas are also being planned in half-a-dozen other places in the State.

## MINES AND MINERALS 1964

District-wise production of different minerals in tonnes and their value respectively are as follows :—

*Salem :* Bauxite 6,792 Rs. 65,000 ; Magnesite 2,28,423 Rs. 80,99,000 ; *Tiruchirapalli :* 4,230 Rs. 20,000 ; Fire clay 21,424 Rs. 47,000 ; Gypsum: 1,00,253 Rs. 12,68,000 ; Limestone 20,80,372 Rs. 2,26,03,000 ; Quartz 2,619 Rs. 12,000. *Nilgiris :* Mica 9 Rs. 12,000.

Detailed investigations made by the State Geological Department in respect of iron ore in the Kanjamalai area has formed the basis for drawing up the scheme for setting up the Neyveli — Salem Steel Plant. Investigations in the survey of limestone, kankar and clay areas for a public sector cement plant near Alangulam, for bauxite in Palani Hills, for asbestos in Coimbatore district and for copper in Tirunelveli district, are in progress. 23 other investigations for various types of minerals including white clay required for ceramic units are also progressing. The Oil & Natural Gas Commission has been conducting surveys in the Cauvery basin for mineral oil. The factory of the Madras Aluminium Co. Ltd., at Mettur, has been inaugurated and 10,000 tonnes of the ore is expected to be produced per year. The extensive bauxite deposits discovered in Nilgiris strengthen the raw material position of the project further.

## KHADI

Madras has been pioneer in the development of Khadi Industry. The most important organizational change has been the formation of the Madras State Khadi and Village Industries Board on a statutory basis.

| | 1962–63 | 1963–64 |
|---|---|---|
| Khadi Production.. | 227·91 lakhs of yarn produced | 226·76 lakhs of yarn produced |
| Khadi Sales | Rs.141·86lakhs | Rs.154·77lakhs |
| *Employment :* | | |
| Spinners .. | 1,05,801 | 1,01,895 |
| Weavers .. | 4,139 | |
| *Wages paid :* | | |
| Spinners .. | Rs.29,13,300·48 | Rs.3,079,410 |
| Weavers .. | Rs.29,78,314·43 | |

## AGRICULTURE

**The figures are for 1963-64.**

**Total area cultivated (gross area) :** 18·5 mln. acres (7·48 mln. hectares).

**Total area irrigated (net area):** 7·9 mln. acres (3.2 mln. hectares); or 43.9 per cent of the total area cultivated.

**Net area sown and its percentage to the total area :** 15·45 million acres (6·25 mln. hectares).

### Classification

Area in hectares and percentage to the total respectively under different heads are as follows: Forests 1,995,549 : 14.6 ; Barren and uncultivable land 2,164,666 : 16.6 ; Land put to non-agricultural uses 2,164,666 : 16.6 ; Cultivable waste 6,79,872 : 5.2 ; Permanent pastures and other grazing lands 364,217 : 2.8 ; Land under miscellaneous tree crops and groves not included in the net area sown 271,544 : 2.1 ; Current fallows 808,158 : 6.2 ; Other fallow lands 578,701: 4.5 ; Net area sown 6,252,399 : 48.0 ; Total area 13,015,106 : 100.

**Statement showing the area under important food crops and the yield in 1963-64.**

| Crops | Area in hectares | Yield in tonnes. |
|---|---|---|
| Paddy (Rice) | 2,620,000 | 3,917,000 |
| Cholom, Cambu & Maize .. | 1,246,972 | 904,680 |
| Millets .. | 530.001 | 417,890 |
| Ragi .. .. | 336,500 | 334,600 |
| Pulses .. | 416,841 | 108,760 |
| Sugarcane .. | 81,340 | 667,390 |
| Potatoes .. | 9,460 | 61,740 |
| Sweet Potatoes | N.A. | N.A. |
| Tapioca .. | N.A. | N.A. |

The State's total output of food grains during 1963-64 was 55·63 lakh metric tons.

**The principal commercial crops of the State under cultivation in1963-64 were as follows :**

| Crops | Area in hectares | Yield in tonnes |
|---|---|---|
| Groundnut · | 823,332 | 111,051 (shelled) |
| Cotton .. | 419,090 | 410,050 (Bales of 392 lbs.) (177·8 kg.) |
| Gingelly .. | 125,200 | 40,000 |
| Coconut[1] .. | 75,040 | 668,144 (copra) |
| Tobacco .. | 18,820 | 27,430 |
| Coffee[1] .. | 12,100 | 2,703 |
| Tea[1] | 11,800 | 17,084 |
| Pepper .. | 299 | 61 (Black) |
| Rubber[1] .. | 5,020 | 2,134 |

[1] provisional figures.

Production of rice during 1963-64 was 3,917,000 metric tons.

Bananas, mangoes and citrus are the most important fruit crops of the State. The area under bananas was 36,380 hectares with an yield of 673,000 tonnes.

*Cotton and Oilseeds :* Production of Cotton during the year 1963–64 was 4·86 lakh bales of 392 lbs. each ; and that of oil seeds for the same period was 13.17 lakh tonnes.

*Plantation Schemes :* The important schemes of economic plantations undertaken during the Third Plan relate to rubber plantation in Kanyakumari district, bamboo plantations in Coimbatore district, and the raising of quick-growing fuel plantations in the districts of Chingleput, South Arcot and North Arcot. Fuel plantation of about 1,000 acres was taken up during 1962-63 and another 1,000 acres were to be covered by the scheme during 1963-64.

*Dairy and Milk Project :* In addition to the milk produced at the Madhavaram Milk Colony, milk is also collected from rural areas. Milk is also being purchased and brought from Ooty Co-operative Society to Madras by rail. An integrated Dairy Scheme has started functioning at Erode, Milk is being collected and brought to Madras.

The Central Dairy, besides processing both buffalo's and cow's milk, collected from all sources, is also producing toned milk. The Madras Dairy and Milk Project is now handling cow's milk, buffalo's milk and toned milk.

The total quantity of milk handled during the period from 1st April 1963 to 31st March 1964 :—

| | *Litres* | *Value* |
|---|---|---|
| | | Rs. |
| Tones milk .. | 11,90,960 | 6,66,937.60 |
| Buffalo's milk .. | 42,25,751 | 44,42,205.94 |
| Cow's milk .. | 29,02,932 | 23,80,404.24 |

## FISHERIES

Estimated landings of inland fish from the various inland waters in (1964–65) : 99,568.436 tonnes of the value of Rs. 555.07 lakhs.

The estimated marine fish landings for the State (1964–65) : 160,218.57 tonnes of the value of Rs. 1,785.34 lakhs.

## LAND REFORMS

The Madras Land Reforms (Fixation of Ceiling on Land) Act, 1961 was first published as Madras Act 58 of 1961 on 2-5-1962.

### ZAMINDARI ABOLITION (Sept. 1962)

The Estates Abolition Act provides for the repeal of the Permanent Settlement and for the acquisition of the rights of land-holders in certain estates in the State by payment of equitable compensation to the several persons having interest in the estates and for the introduction of the ryotwari settlement in them.

Statistical data : Total number of estates in the State : 4,944; Total number of estates taken over under the Estates Abolition Act : 4,923; Number of estates not yet taken over : 21; Total area of estates surveyed upto May 1962 : 11,248·85 sq. miles; Balance of area to be surveyed as in May 1962 : 240·35 sq. miles; Total estimated compensation amount payable in respect of estates taken over (compensation : Rs. 6,32,33,000; Interim payments : Rs. 1,84,00,000); Number of estates in which ryotwari settlement has been introduced : (1) Zamin : 1,000; (2) Undertenure : 936; (3) Inam : 2,935; Total : 4,872; Area of estates under ryotwari : 11,187·39 sq. miles.

## IRRIGATION

(1963-64) Provisional :

| Source of Irrigation | Net area irrigated Hectares |
|---|---|
| Government Canals .. | 9,23,358 |
| Private Canals .. | 1,334 |
| Tanks .. .. .. | 9,39,515 |
| Wells .. .. .. | 5,94,299 |
| Other sources, i.e., spring channels, etc. | 44,284 |
| Total net area irrigated .. .. | 2,502,790 |

Total Land Area of State 32·19 mil. acres; Cultivated area in the State 18·5 mil. acres; Total net area irrigated at the beginning of First Plan by all sources 4·415 mil. acres; Total net area irrigated at the end of the First Five Year Plan 5·190 mil. acres; Total net area irrigated at the end of the Second Plan 6·073 mil. acres; Total area which is expected to be irrigated when the major and medium projects proposed under the Third Five-Year Plan are completed 6·120 mil. acres; Anticipated extra food production under Projects taken up during the First and Second Plans 2·19 lakh tons of foodgrains; Anticipated extra food production on completion of irrigation projects taken up during the Third Plan 2·60 tons of foodgrains; Total investment to end of Second Plan Rs. 3,216 lakhs; Total investment proposed in Third Plan Rs. 2,742 lakhs.

## MAJOR PROJECTS

Major projects with location of Districts, estimated cost in Rs. lakhs and area benefited in acres in brackets respectively are : Lower Bhavani Project (Coimbatore and Tiruchi Dists.) 1,020 (2,07,000); Mettur Canals Scheme (Salem and Coimbatore Districts) 192·91 (45,000); Manimuthur Reservoir Project (Tirunelveli Dist.) 506 (1,30,000); Araniar Reservoir Project (Chingleput Dist.) 105·89 (6,066); Amravati Reservoir Project (Coimbatore Dist.) 329·76 (53,500); Vaigai Reservoir (Madurai Dist.) 330 (22,818); Sathanur Reservoir Project (North Arcot and South Arcot Dist.) 258 (21,000); Krishnagiri Reservoir Projects (Salem Dists.) 202 43 (9.000); New Kattalai High Level Canal 224·58 (20,622); Pullambadi Canal Scheme 206·06 (22,114); Vidur Reservoir Project 88·94 (3,200) : Neyyar IInd Stage 90 (9,200); Parambikulam Aliyar Project 3,508 (2,40,000).

## PROJECTS UNDER THIRD PLAN

| S. No. | Name of the Project | Cost of the Project | Revised Estimates | Area to be benefited | | Present stage |
|---|---|---|---|---|---|---|
| | | | | New | Stabilization | |
| | | (In Lakhs of Rupees) | | | | |
| 1. | Improvement to Palar Anicut and channels .. .. .. .. | 48·10 | .... | 3,285 | .... | Sanctioned and taken up for execution in the middle of 1961–62. Almost nearing completion. |
| 2. | Sathanur Project — II stage .. .. | 55·00 | 60·00 | .... | 5,000 | –do.– |
| 3. | Chittar Pattanamkal Scheme .. .. | 680·00 | 667·00 | (Under Tirukoilur anicut) 15,000 in Kanyakumari Dist. 17,000 in Tirunelveli Dist. | | Sanctioned in 1963 under execution. |
| 4. | Gomukhinadhi Scheme .. .. | 87·00 | .... | 5,000 | .... | Sanctioned in 1962–63 under execution. |
| 5. | Manpalar Project .. .. .. | 65·80 | .... | 1,200 | 3,249 | –do.– |
| 6. | Ramanadhi Scheme .. .. .. | 87·00 | .... | 500 | 1,499 | Not yet sanctioned. |
| 7. | Gatana Reservoir Project .. .. | 89·00 | .... | 505 | 7,355 | –do.– |
| 8. | Modernising Vaigai Canals .. .. | 395·00 | .... | 95,882 | 13,900 | –do.– |
| 9. | Manimukthanadhi Scheme .. .. | 91·00 | .... | 4,000 | 250 | –do.– |

## MINOR IRRIGATION

There are 33,000 minor irrigation sources in the State out of which 27,000 are tanks and 6,000 are spring channels. Out of these sources about 30,000 have ayacut of more than 10 acres.

The number of works completed and benefits obtained from the special Minor Irrigation Programme during the first and Second Plans respectively were as follows. Figures of the First Plan are in brackets.

Cost of the special Minor Irrigation Programme (Rs. in lakhs) : (290); 439; Number of works completed (2,458); 2,250; New Irrigation in old ayacut (430,000) 187,600.

The number of irrigation pump sets electrified and the area irrigated as on March 31, 1965 respectively was 2,24,362 and 9,89,600 acres.

Third Plan provision Rs. (in lakhs) 12,80·00.

About 5,000 minor irrigation works would need to be renovated during the Third Plan.

*Rainfall* (1961-62) : Annual rainfall for Madras State.—863·9 millimetres (34·01 inches).

## ELECTRICITY

Madras State ranked first in India in Hydro-Electric Development, in the use of electric power for irrigation purposes and by way of number of consumers.

Total Capital outlay of the power schemes as on 31-12-1965 : Rs. 227·00 crores

| | (Rs. in lakhs) |
|---|---|
| Gross Revenue (Revenue Receipts) | 2,833·00 |
| Revenue Expenses .. .. .. | 1,657·00 |
| Capital Expenditure .. .. | 2,793·00 |

**Installed Capacity (As on Dec. 31, 1964)**

| | KW. |
|---|---|
| Pykara .. .. .. .. | 70,200 |
| Moyar .. .. .. .. | 36,000 |
| Mettur .. .. .. .. | 40,000 |
| Papanasam .. .. .. | 28,000 |
| Periyar .. .. .. .. | 105,000 |
| Kundah Power House I .. | 40,000 |
| ,, ,, ,, II .. | 175,000 |
| Kundah III .. .. .. | 20,000 |
| Madurai .. .. .. .. | 14,000 |
| Madras .. .. .. .. | 87,500 |
| Madras Grid Total .. | 635,700 |
| Neyveli (Centrally Administered) | 2,50,000 |
| Total .. .. | 8,85,700 |
| Power Demand .. .. | 775MW |

### Rural Electrification

| | |
|---|---|
| Number of towns, villages and hamlets electrified as on 31st Dec. 1964 .. .. .. | 2,141 |
| *Number of connections given :* | |
| Agriculture .. .. .. | 25,542 |
| Industry .. .. .. | 1,606MV |
| Domestic .. .. .. | 31,841 |

36,521 kilometres of high tension transmission lines of voltages varying from 11,000 to 230,000, 62,163 kilometres of low tension distribution lines and 15,726 distribution stations.

In the Third Plan, schemes costing Rs. 100·19 crores have been drawn up for implementation. During the Third Plan period the installed capacity is proposed to be augmented by another 500 M.K. which does not include the installed capacity coming under the Neyveli Thermal Station. The above figure of Rs. 100·19 crores includes a sum of Rs. 2 crores towards loan to licensees.

## ROADS

National Highways 1,090 miles, State Highways 1,092 miles, Major District Roads 9,648 miles, other district roads and village roads 15,852 miles.

The outlay made by the Government of India for the development of National Highways in this State in the Third Plan for new works is only Rs. 27·50 lakhs.

Links of National Highways within towns having a population of 20,000 are maintained entirely from State Funds.

## TRANSPORT

The Bus Transport in Madras City is Government owned. The transfer to public ownership was carried out in stages starting in October 1947 and ending in June 1948.

Position in the year 1963-64 :

Number of routes served by the Department : 153.
Total daily mileage : 30,730,025.
Number of suburban routes : 26+2.
Number of long distance routes : 6+7.
Fleet strength : 820.

The mofussil services (District services) operate from Madras to Kancheepuram, Madras to Tirupathi, Madras to Venkatagiri, Madras to Salem, Madras to Tiruchirapalli, Madras to Tanjavur and Tiruchirapalli to Nagercoil.

Other routes are : Madurai to Krishnagiri, Madras to Neyveli, Coimbatore to Krishnagiri (via) Mettur, Nagapattinam to Ramanathapuram, Madras to Nagapattinam (via) Pondicherry, Salem to Ootacamund, Cuddalore to Salem, and Madras to Bangalore (via) Huzur and Krishnagiri.

## CO-OPERATION

The Third Plan outlay has been increased to Rs. 471·06 lakhs as against the total Second Plan outlay of Rs. 283·88 lakhs for various co-operative development schemes in the State.

The programme for the Third Plan was to increase the membership of the village co-operatives so as to bring within the Co-operation fold about 85 per cent of the rural population and to increase the provision of agricultural credit from year to year so as to increase to Rs. 50 crores in the last year of the Third Plan period. To achieve this objective so far about 850 societies, 2,200 village credit societies and 10 Land Mortgage Banks have been organized. The Co-operatives would have covered 85 per cent of the rural population (according to 1961 census) and issued loans to the extent of Rs. 47 crores (short-term, medium-term and long-term) by the end of 1964-65. The Co-operatives will serve 88 per cent of the rural population by the end of the Third Plan and are expected to increase the quantum of credit supplied by them from Rs. 47 crores to Rs. 50 crores.

For further particulars see article on "Co-operative Movement."

## EDUCATION

Particulars for 1963–64

*General Education :*

(*a*) *Primary Education :* Total number of Primary Schools (including Basic Schools) : 30,138 (as on 30th September 1964).

Students in those institutions : Boys : 28,15,867 ; Girls : 19,29,034.

(*b*) *Secondary Education :*

| | No. | Strength Boys | Strength Girls |
|---|---|---|---|
| (*i*) No. of Secondary Schools (Indian) for Boys .. | 1,645 | | |
| (*ii*) No. of Secondary Schools (Indian) for Girls .. | 296 | | |
| (*iii*) Anglo-Indian Secondary Schools .. .. | 40 | 6,92,388 | 2,97,202 |
| (*iv*) Matriculation Schools .. .. .. .. | 13 | | |
| (*v*) Post Basic Schools .. .. .. .. | 4 | 140 | 126 |

178 secondary schools have been permitted to be opened for the year 1964–65.

(*c*) *University and Collegiate Education :*

| | No. | Strength Boys | Strength Girls |
|---|---|---|---|
| (*i*) Number of Universities in the State .. .. | 2 | 3,391 | 350 |
| Arts and Science Colleges for men .. .. | 48 | 42,370 | 13,307 |
| (*ii*) ,, ,, ,, ,, f r Girls .. .. | 20 | | |

*Note :* 10 Colleges for General Education (8 for men and 2 for women) have been opened during the year 1964–65.

(*d*) *Teacher Training Institutions :*

Teacher Training Colleges : 19 (13 for men, 6 for women) Strength : Men : 1,216 ; Women : 502.

| | No. | Strength Men | Strength Women |
|---|---|---|---|
| Non-Basic Training Schools (6 for men ; 13 for women) .. .. .. .. .. | 19 | | |
| Basic Training Schools (70 for men ; 49 for women) | 119 | 12,649 | 11,158 |
| Pre-Primary Teacher Training Schools (for women only) .. .. .. .. .. | 4 | | |
| Anglo-Indian Teacher Training Schools .. .. | 1 | | |
| Adult Training School .. .. .. .. | 1 | 200 | .. |
| Training School for Music Teachers .. .. | 1 | 4 | 74 |

(*e*) *Other than General Education (Professional) :*

| | | | |
|---|---|---|---|
| Institutions for Physical Education .. .. | 3 | 434 | 114 |
| Commercial Schools .. .. .. .. | 446 | 22,747 | 6,698 |

(*f*) *Social Education :*

| | | | |
|---|---|---|---|
| Colleges for Social Education .. .. .. | 1 | 60 | 6 |
| School for Grama Sevikas (Social Education) .. | 1 | .. | 33 |
| Adult Literacy Schools .. .. .. .. | 460 | 10,453 | 1,051 |

(*g*) *Other Types of Institutions :*

| | | | |
|---|---|---|---|
| Reformatory Schools .. .. .. .. | 20 | 4,084 | 992 |
| Schools for the Handicapped .. .. .. | 19* | 1,111 | 551 |
| Jail Schools .. .. .. .. .. .. | 9 | 1,083 | 547 |
| Oriental Colleges .. .. .. .. .. | 14 | 741 | 161 |
| Oriental Schools .. .. .. .. .. | 12 | 563 | 130 |
| Music Colleges .. .. .. .. .. | 2 | 24 | 163 |
| Music Schools .. .. .. .. .. | 1 | 3 | 70 |
| Rural Colleges .. .. .. .. .. | 2 | 455 | 21 |

(*h*) *Miscellaneous :*

*Audio-Visual Education :*

| | |
|---|---|
| Number of schools equipped with 16 m.m. projectors .. .. .. .. | 537 |
| Number of schools equipped with 35 m.m. filmstrip projector .. .. | 551 |
| Number of schools equipped with Radio sets .. .. .. .. .. | 648 |

*Midday meal scheme :*

The number of schools in which the scheme was in operation during the year, was 30,056 and the number of pupils fed was 15·65 lakhs. The scheme was also functioning, on a purely voluntary basis in 597 secondary schools, the number of pupils fed being 16,081.

*National Scholarships Scheme :*

The following is the break up figures for the award of National Scholarships on the results of examining bodies held in March April.

| | 1962–63 | 1963–64 |
|---|---|---|
| S.S.L.C. | 146 | 130 |
| A.I.S.L.C. | 11 (Nov. '62) | .. |
| Matric | 5 | 3 |
| P.U.C. | 19 | 15 |
| Degree | 13 | 32 |
| Post Graduate (Humanities) | 15 | .. |

* 6 for the Blind ; 8 for the Deaf and 5 for crippled and Orthopaedically Handicapped.

### THIRD PLAN

The following are the outlays in Rs. Crores, under different heads of the development schemes of Madras State for the Third Plan: Agriculture 36·98; Community Development and Co-operation 25·18; Irrigation and Power 127·61; Large and Medium Industry 3·35; Village and Small-scale Industries 20·16; Roads and Tourism 11·25; Education 32·16; Health 21·50: Housing 7·00; Welfare of Backward Classes 3·26; Social Welfare 0·52; Labour and Labour Welfare 1·33; Other Items 0·59. Total Rs. 291 crores.

Some of the items of agricultural production at the beginning of the Third Plan and expected production at the completion of the Plan respectively in lakh tons are as follows:

Food grains 53·24, 69·78; Sugarcane (gur) 4·00, 5·00; Oilseeds 10·50, 13·40; Cotton (lakh bales) 4·20, 5·20.

The expenditure for power generation during Second Plan was Rs. 79 crores. The Third Plan outlay has been fixed at Rs. 100 crores.

The provision for the continuing power development schemes namely Periyar Hydro-Electric Scheme Stage I, Kundah Hydro-Electric Scheme Stages I & II and Sandyanallah Reservoir Scheme during the Third Plan are Rs. 12 lakhs, Rs. 277 lakhs and Rs. 30 lakhs respectively.

Provision and additional installed capacity to be established during Third Plan of some of the new schemes are as follows:—Mettur Tunnel Scheme Stage I Rs. 580 lakhs; 100 M.W. (since revised to 200 M.W.); Kundah Stage III Rs. 2,306 lakhs; 240 M.W.; Periyar Hydro-Electric Scheme Stage II Rs. 94 lakhs; 35 M.W.; Annamalai Project Rs. 500 lakhs; 100 M.W.

During the Third Plan period a High Pressure Boilers Plant, one of the seven major heavy industrial projects in the public sector has been taken up to be established near Tiruchi. The estimated investment is about Rs. 15–20 crores. The project is to manufacture high pressure chemical and other equipment.

The outlay for the large and medium industries for the Third Plan has been classified as follows:—

Multi-purpose food plant Rs. 35 lakhs; Preliminary investigation of the Iron and Steel plant Rs. 75 lakhs; Investment in Madras Industrial Corporation Rs. 100 lakhs; Steel Rolling Mill Rs. 100 lakhs; Strengthening the State's Geological Survey Rs. 25 lakhs.

A multi-storeyed office building at an estimated cost of Rs. 95 lakhs for housing the Central Govt. Offices at Haddows Road, Madras is to be completed by the end of the Third Plan out of allocations for the office buildings fund.

*Rental Housing Scheme:* The State Govt. proposes to construct a minimum of 50 flats per year in each district headquarters under the rental housing scheme for low-paid Govt. employees with an income not exceeding Rs. 500 per month.

Agricultural production, minor irrigation, power generation and educational programmes both general and technical are all being pushed through with high priority.

Pruning has been made in view of the National Emergency to conserve the scarce materials like iron, cement etc. by cutting down the programme under administrative buildings and housing schemes.

The State Govt. had proposed an outlay of Rs. 80·9 crores for 1965–66, but this has been revised to Rs. 77.86 crores by the Planning Commission. The plan provision of Rs. 291 crores has now gone up to Rs. 335 crores.

### FOURTH PLAN

Top priority for food grains production is the highlight of the draft outline of Madras State's Fourth Plan. The Plan, which calls for an outlay of Rs. 750 crores on Centrally-assisted schemes and Rs. 65 crores on Centrally-sponsored schemes, is bigger than all the three earlier Plans put together.

A feature of the draft outline is that the controversial Salem steel plant project is definitely put down for implementation in the Central sector.

Taking into account the comparatively high density of population in the State, the Plan aims at a higher rate of growth than the 6½ per cent visualised for the national economy as a whole.

The Plan's food grain target is to step up production from 65 lakh tonnes to 82 lakh tonnes. In respect of industry, the primary objectives laid down is to fill in the gaps in the industrial structure, to make good the lags in fields in which progress has been tardy and to correct the factors that inhibit growth so that the industrial sector is made to yield an additional output of over Rs. 200 crores.

The size and pattern of outlays proposed are (Rs. in lakhs and in the order of Centrally-assisted and Centrally sponsored):—

Agriculture 8,437, 861; Co-operation, community development and rural development 5,126, 101; Irrigation 6,881, nil; Power 21,700; Industry including handlooms 8,836, nil; Transport and communications 3,749, 1,133; Miscellaneous 116, nil.

The outlay in the first year of the State's Fourth Plan, commencing on April 1, 1966, is expected to fall short of the investment for the current year (the last year of the Third Plan), by about, Rs. 9 crores. The Plan outlay during the year (1965-66) is Rs. 81 crores.

### THE CORPORATION

Ripon Buildings,
Madras 3.

*Mayor*, C. Chitti Babu.

*Dy. Mayor*, Dr. Habibullah Baig.

*Commissioner*, J. A. Amba Sankar, I.A.S.

*Asstt. Commissioners*, K. S. Kumaraswami (North); R. Jagadeesan, B.A., B.L. (South).

*Revenue Officer*, T. Thirugnanam, M.A.

*Health Officer*, Dr. A. Ramachandra Rao, M.B., B.S.

*Engineer*, P. T. Govindarajulu Chetty, B.E., A.M.I.E.

*Special Engineer*, B. Varadarajulu, B.E., A.M.I.E., M.A., W.W.A., M.I.W.E.

*Electrical Engineer*, P. Balasubramaniam, B.A., B.E., A.M.I.E.

*Water Works Engineer*. O. T. Raghavan, B.A., B.E., C.E. (Hons.), A.M.I.E.

*Chief Accounts Officer*, K. Krishnan Nair, B.A.

*Mechanical & Building Engineer*, P. S. Damodaran, B.E., A.M.I.E.

*Educational Officer*, P. V. Krishna Murthy, B.Sc., L.T.

*Secretary to the Council*, G. Ramakrishnan, B.Sc., B.L.

*Chairman, Taxation Appeal Committee*, M. Murugesa Mudaliar, B.A., B.L.

### MEMBERS OF THE CORPORATION COUNCIL

Total number of elected members: 100.

Total number of co-opted members: 4.

Total electorate: 9,48, 779.

Party position in the Corporation Council: Dravida Munnetra Kazhagam 54; Congress Municipal Party 40; Muslim League Municipal Party 5; Independents 4; Communist 1.

Names of the members of the Corporation Council showing within brackets the names of the divisions they represent, in the strict order from 1 to 100.

G. Kannan (New Washermanpet); M. Vedachalam (Tondiarpet); M. Varadappa Naicker (Grace Garden); N. Thiruvengada Naicker (Sanjeevirayanpet); S. G. Vinayagamurthy (Mottai Garden); G. Nagarajan (Narayanappa Naick Garden); G. Rajarathinam (Singara Garden); K. Ramalingam (Royapuram); S. Thiagarajan (Meenakshiammenpet); D. Venkatesan (Old Washermanpet); G. Lakshmipathy (Seven Wells/North); V. Munusamy (Ammen Koil/North); A. Selvaraj (Muthialpet); R. Silarmiyan (Harbour); K. Kuppuswami (Mannady); K. Govindaswamy (Ammen Koil/South); G. Umapathy (Seven Wells/South); Dr. K. V. Swamy (Sowcarpet); Dr. Habibullah Baig (Kothwalchavadi); P. S. Krishnamani (Katchaleeswarar); T. Venugopal (Korukkupet); M. Mohanarangam (Kumaraswamy Nagar); R. Arumugham (Dr. Vijayaraghavalu Nagar); S. M. Dorairaj (Basin Bridge); A. Venkatesan (Kondithope); K. Arumugham (Peddu Naickenpet); K. A. Chakrapani (Perumal Koil Garden); P. Guru Vittal (Trevelyan Basin); E. Narayana Pillai (Elephant Gate); R. Sivasankar Mehta (Edapalayam); V. Thanikachalam (Perambur); K. Anbirkarasan (Vyasarpadi); P. R. Palaniswamy (Pulianthope); T. Natarajan Wadia Nagar); K. Loganathan (Thiru-Vika Nagar); S. Balan (Pattalam); M. Varadarajulu (Thattankulam); T. S. Nallathambi (Dr. Besant Nagar); T. Krishnamurthy (Choolai); M. Kanniappan (Hospital Maiden); C. Damodaran (Sembiam); T. Andiappan (Sirivallur); N. Jambulingam (Agaram); Velur D. Narayanan (Nagamma Ammaiyar Nagar); B. E. Bakthavachalam (Ayanavaram); T. S. Govindaswamy (Nammalwarpet); M. Minor Moses (Otteri); V. Audikesavalu (Kosapet); T. K. Daivasigamani (Perumalpet); M. G. Appadurai (Purasawalkam); M. Kothandapani Naidu (Shenoy Nagar); Smt. T. Indrani (Kilpauk); M. A. Palani (Chetput); V. Shanmugham (Nungambakkam); Era Sambantham (Sevagram); M. Swaminathan (Thousand Lights—West); M. A. Jesudoss (Thousand Lights—East); C. Chitti Babu (Pudupakkam); T. N. Krishnan (Amirmahal); G. Elavarasu (Royapettah); A. Kannan (Gangadeswarar Koil); S. Kanniappan (Dr. Ambedkar Nagar); K. Madanagopal (Periamet); P. C. Ramadoss (Park Town); A. A. Kabalamoorthy (Adikesavapuram); A. Karikalan (Chintadripet); K. Bhaskar (Egmore); M. Nagoor Meeran (Pudupet); R. Kanniah Pillai (Komaleeswaranpet); Dr. T. Rajagopal (Narasingapuram); Syed Amanullah (Nehru Nagar); S. M. Krishnan (Thiruvatteeswaranpet); A. G. Mohan (Chepauk); P. R. Nagarajan (Marina); N. E. Raghunathan (Triplicane); M. S. Sambandappa (Jam Bazaar); S. A. Khaja Mohideen (Mirsahibpet); K. Parthasarathy (Azad Nagar); M. Aranganathan (Dhurgapuram); K. Nagalingam (Krishnampet); R. Kannappan (Teynampet); V. Natesa Pillai (Vivekanandapuram); A. C. Thulasingam (Madhavaperumalpuram); K. Govindaswamy (Karniswararpuram); T. Thambi Durai (Santhome); K. S. Kunjithapatham (Mylapore); A. Selvaraj (Bheemannapet); V. Purushotham (Alwarpet); T. K. Kapali (Raja Annamalaipuram); K. Ananthakrishnan (Adyar); S. Arputharaj (Aminjikarai); S. Ganesan (Vadapalani); S. Krishnamurthy (Thyagaroya Nagar); R. Sadagopan (Sathyamurthy Nagar); Dr. K. Sourirajan (Rajaji Nagar); K. M. Subramanian (Kamaraj Nagar); Saidai Sambandan (Saidapet—North); C. P. Pavalavannan (Periapet); M. Gopal (Guindy); R. D. Bhasker (Saidapet—South).

*Co-opted Councillors:* S. Thulukkanam (Circle II); S. Mangalakshmi (Circle V); K. Subramaniam (Circle VIII); Mylai V. Tami. Mani (Circle IX).

### BUDGET

FOR 1964-65

| | | | | |
|---|---|---|---|---|
| Revenue | .. | .. | .. | Rs. 6,10,47,990 |
| Expenditure | .. | .. | .. | Rs. 5,95,17,120 |

1965–66

| | | | | |
|---|---|---|---|---|
| Revenue | .. | .. | .. | Rs. 7,13,72,840 |
| Expenditure | .. | .. | .. | Rs. 7,27,89,720 |

### MADRAS INDUSTRIAL INVESTMENT CORPORATION LTD.

(*See under 'Corporations'.*)

## COIMBATORE DISTRICT

*Dt. Hqrs.:* Coimbatore.

The Coimbatore District, next in importance to the City of Madras, has an area covering 6,024 square miles with a population of 3,154,296. It is one of the major districts in Tamil Nad. The Anamallais (elephant hills) which form part of the District in the south have large coffee and tea plantations covering 40,000 acres and employing 40,000 workers whose annual wage bill is nearly Rs. 3 crores. Some 35 million lbs. of tea and 1,000 tons of coffee are produced. There are also cardamom and cinchona plantations. The finest teak in India is produced on these hills.

The work on the Rs. 40 crore Parambikulam Aliyar multi-purpose project is in full swing. It is the best example of interstate cooperation in the South made possible by an agreement between Madras and Kerala for utilising the waters of the west-flowing Parambikulam and Sholayar rivers at the same time guaranteeing the existing irrigation in Kerala. This multi-valley project is a masterpiece of integration of waters flowing through different valleys by the construction of 8 reservoirs—6 in the Anamalais and 2 in the plains—through 12½ miles of inter-connecting tunnels. The Aliyar reservoir designed to irrigate 35,000 acres, one of the two in the plains, was commissioned in October, 1962. A special feature of the project is that irrigation is subsidised by power. The power part consists of producing 180,000 kW. in five stations utilising the drops available.

The Mettur Tunnel Scheme generating 200,000 kW. utilising the irrigation flow of Cauvery is progressing and will be commissioned next year. The project costs Rs. 10 crores.

The last of the irrigation projects for the district to utilise the waters of Upper Bhavani has been investigated and is awaiting sanction by Government. It will irrigate 40,000 acres in Avanashi taluk at a cost of Rs. 2½ crores.

Coimbatore, the District Headquarters, is the largest industrial city in Madras State. The district has 71 textile mills, 57 of which are spinning mills and the rest weaving mills. The spinning mills have a spindlage of 1,743,984 and a tonnage of 4,200. All the mills employ approximately 55,000 workers of whom 12,000 are women. There are also 60 ginning factories with an additional labour of about 10,000 and the city itself is officially called "the Manchester of South India." It is the largest textile manufacturing centre with ring and mule spindles totalling 1,566,846 producing on an average 27,000 bales of yarn monthly.

There are also a number of iron foundries, Coimbatore being the first in India to manufacture pump-sets for irrigation. A medium-sized blast furnace is in operation. An Associated Cement factory produces 1,500 tons a day.

A branch of the Asbestos Cements Ltd. is also located at Podanur.

A 22-lakh synthetic gem factory, the first of its kind in Asia, was opened in 1957. The factory which is an Indo-Swiss venture, hopes to meet the full demand for synthetic gems, which are now being imported, producing in the first year alone gems valued at Rs. 20 lakhs.

The finishing part is done at Tiruchirapalli and Jaipur by cottage industry groups.

### OTHER INDUSTRIES

A Rs. 10-crore Indo-Italian venture, Messrs. South India Viscose Ltd., manufacturing rayon-pulp, four miles from Mettupalayam went into production in 1961.

Another Rs. ten-crore venture with Italian aid is an aluminium factory at Mettur on the banks of Cauvery. A third, Rs. 10-crore paper factory opposite Erode was expected to go into production during the year 1963. It is an Indo-American venture.

At Udumalpet taluk, Rs. one-crore Amravati co-operative sugar factory went into production in 1960.

Plans for starting another Rs. one-crore sugar factory in the private sector in Gobi taluk has been finalised and work is to begin shortly.

Two factories are engaged in the production of textile machinery and parts. The ultimate plan of the factories is to manufacture all modern equipment required for textile industry.

Three factories in Coimbatore produce nut and plastic buttons.

The Central Govt. has a plan to build an industrial estate on the northern outskirts of the city. A Security printing press is also under construction at Naickenpalayam.

The Regional Agricultural Research Institute caters to the needs of Madras, Kerala, Mysore and Andhra Pradesh and is open to 40 post-graduates. The institute awards the highest degrees of M.Sc. (Ag.) and Ph.D. to successful candidates.

Other specialised institutions are the Union Government's Sugarcane Breeding Institute, the Southern Herbarium of the Botanical Survey of India and the Regional Research Station of the Indian Council of Agricultural Research for cotton, millets and oilseeds.

A privately sponsored polytechnic, the Nachimuthu Industrial Institute, Pollachi, was opened in the year 1960.

*Taluks with headquarters within brackets:* Coimbatore Taluk (Coimbatore); Avanashi Taluk (Avanashi); Palladam Taluk (Tiruppur); Bhavani Taluk (Bhavani); Dharapuram Taluk (Dharapuram); Erode Taluk (Erode); Gobichettipalayam Taluk (Gobichettipalayam); Udumalpet Taluk (Udumalpet).

### BANKS

The State Bank of India, Bank Road, Coimbatore; The Coimbatore Central Co-operative Bank Ltd., Bank Road, Coimbatore; The Central Bank of India Ltd., Variety Hall Road, Coimbatore; Bank of Baroda, Big Bazar Street, Coimbatore; Bank of Bikaner Ltd., Oppanakara Street, Coimbatore; Bank of India, Head Post Office Road, Coimbatore; Bank of Jaipur Ltd., Variety Hall Road, Coimbatore; Bank of Mysore Ltd., Oppanakara Street, Coimbatore; Thomasco Bank, Raja Street, Coimbatore; Coimbatore National Bank Ltd., Variety Hall Road, Coimbatore; The Canara Bank Ltd., Oppanakara Street, Coimbatore; The United Commercial Bank, Oppanakara Street, Coimbatore; Pandyan Bank Ltd., Oppanakara Street, Coimbatore; Indian Overseas Bank Ltd., Big Bazar Street, Coimbatore; Andhra Bank Ltd., Oppanakara Street, Coimbatore; South Indian Bank Ltd., Raja Street, Coimbatore; United Bank of India, Oppanakara Street, Coimbatore.

*Hospital:* A modern maternity hospital managed by the Kuppuswani Naidu Trust has been functioning for some time.

### COMMERCIAL ASSOCIATIONS

The South Indian Millowners' Association, Race Course, Coimbatore, having a membership of 100 textile mills from all over South India; The Indian Chamber of Commerce, Post Box No. 200, Coimbatore.

The South Indian Textile Research Association, was inaugurated on Oct. 13, 1958 by Dr. Radhakrishnan.

### COLLEGES

The Agricultural College (a Farmers' School attached); Lawley Road, P.O. Coimbatore; The Southern Rangers' Forest College, Lawley Road, P.O. Coimbatore; The Government Arts College, Coimbatore; The College of Technology, Lawley Road, P.O. Coimbatore; Polytechnic, Avanashi Road, Coimbatore: Nirmala College for Women, Redfields, Coimbatore; P.S.G. College of Technology and Polytechnic, Peelamedu, Coimbatore; The Visalakshi College for Women, Udumalpet; The Coimbatore Institute of Technology, Peelamedu, Coimbatore; The P.S.G. Arts College, Peelamedu, Coimbatore; The Coimbatore Training College for Women, Big Bazar Street, Coimbatore; The Indian Air Force College for training ground personnel.

The Avinashilingam Trust runs a Home Science College. The College has been granted affiliation for M.Sc. course in Home Science by the Madras University.

Under the Ramakrishna Mission a Teachers' College, a College of Rural Higher Education, a College of Physical Education, a school of Agriculture and a School of Engineering Diploma Course are run at Perianaickanpalayam. A Post-graduate Course to H.Ed. degree has also been opened.

### SOCIAL ORGANISATIONS

Y.M.C.A., Post Office Road, Coimbatore; Y.W.C.A., Avanashi Road, Coimbatore; Madras State Conference of Social Work, Race Course, Coimbatore; Guild of Service and Indian Red Cross Society, Opposite Sessions Court, Coimbatore: Inter-Collegiate Social Service League, Peelamedu P.O., Coimbatore.

# EDUCATIONAL INSTITUTIONS IN MADRAS STATE

## UNIVERSITY OF MADRAS

Chepauk, Madras 5.

This University, founded in 1857, was reorganized in 1923 as a Teaching and Residential University, and it continues to exercise control over the quality of the teaching given by its constituent and affiliated colleges. The Vice-Chancellor is a whole-time salaried officer. The authorities of the University include a Senate, Syndicate, Academic Council, Faculties and Boards of Studies.

Laboratories for research in Zoology, Botany, Physics, Geology, Organic Chemistry, Biochemistry, Physical Chemistry and Textile and Chemical Technology, are provided. There are also Departments of study and research in the following subjects: Anthropology, Indian History and Archaeology, Indian Economics, Indian Philosophy, Psychology, Mathematics, Statistics, Geography, Politics and Public Administration, Constitutional and International Law, Business Administration, Sanskrit, Tamil, Telugu, Kannada, Malayalam, Hindi, Arabic, Persian and Urdu, and Indian Music.

*Degrees:* B.A., M.A., M.Litt., Ph.D., D.Litt., B.L., M.L., B.Sc., M.Sc. (by Exam.), M.Sc. (by thesis and Exam.), Ph.D., D.Sc., B.E., M.Sc., Engg., B.Com., M.Com., B.Sc. (Ag.), M.Sc. (Ag.), B.V.Sc., M.V.Sc., M.B., B.S., M.D., M.S., B.S.Sc., B.Pharm., B.D.S., B.Sc. (Nursing), B.Sc. (Tech.), B. Tech., M. Tech., B.T., M.Ed., B.Sc., Home Science, M.Sc., Home Science, B.Lib.Sc., B.Arch., M.A. Social Work.

*Diplomas:* Gynaecology and Obstetrics, Venereology, Dermatology, Ophthalmology, Oto-Rhino-Laryngology, Radiology, Orthopaedics, Tuberculosis, Child Health, Clinical Pathology, Anaesthesia, Radio Therapy, Radio Diagnosis, Archaeology, Anthropology, Modern European Languages (French and German), Journalism, Physical Education, Social Service, Analytical Chemistry, Horticulture, Economics, Politics and Public Administration, Indian Music, Co-operation, Statistics, Geography and Business Management, Criminology and Forensic Science.

*Oriental Titles :* Siromani, Vidvan, Afzal-ul-Ulama, Munshi-i-Fazil, Adib-i-Fazil, Tabib-i-Kamil, Afzal-ul-Attibba, Maipan and Soppar, Sangita Siromani.

*Chancellor*, H.H. Maharaja Sri Jaya Chamaraja Wadiyar Bahadur, G.C.B., G.C.S.I., Governor of Madras.

*Pro-Chancellor*, Minister for Education, Madras.

*Vice-Chancellor*, Lt.-Col. Sir A. Lakshmanaswamy Mudaliar, B.A., M.D., LL.D., D.Sc., D.C.L., F.R.C.O.G., F.A.C.S., M.L.C.

*Registrar*, B. M. Thirunaryanan, B.A. (Hons.), Lond.

*Deputy Registrar :* P. S. Vaidyanathan, B.A., Dip. Com.

Total number of Colleges (Arts, Science and Professional)—155 ; Total number of Students 81,967.

### ARTS AND SCIENCE COLLEGES (80)

*Constituent Colleges* (15): Agurchand Manmull Jain College, Meenambakkam, Madras 27 ; Government Arts College, Mount Road, Madras 2 ; Dwarkadoss Goverdhandoss Vaishnav College, Madras 29 ; Loyola College, Madras 34 ; Pachaiyappa's College, Chetput, Madras 30 ; Presidency College, Triplicane, Madras 5 ; Sir Theagaraya College, Washermanpet, Madras 21 ; Vivekananda College, Mylapore, Madras 4 ; Government Arts College for Women, North Madras ; Ethiraj College for Women, Egmore, Madras 8 ; Queen Mary's College, Mylapore, Madras 4 ; Stella Maris College, Cathedral, Madras 6 ; Women's Christian College, Nungambakkam, Madras 6 ; The New College, Royapettah, Madras 14 ; The South Indian Educational Trust Women's College, Teynampet, Madras 18.

*Affiliated Colleges* (65) ; Khadir Mohidden College, Adirampattinam ; Government Arts College, Coimbatore ; Alagappa College, Karaikudi ; Paramakalyani College, Alwarkurichi (Tirunelveli Dist.) ; Government College, Kumbakonam ; P. S. G. R. Krishnamal College for Women, Peelavedu, Coimbatore 4 ; The American College, Madurai ; Madura College, Madurai ; Lady Doak College, Madurai ; Thiagarajar College, Madurai ; Sarah Tucker College, Palayamkottai ; St. John's College, Palayamkottai ; Scot Christian College, Nagercoil ; South Travancore Hindu College, Nagercoil ; St. Xavier's College, Palayamkottai ; Raja's College, Pudukottai ; Govt. Arts College, Cuddalore ; Govt. College, Salem ; Sri Ramakrishna Mission Vidyalaya Arts College, Periyanaickerpalayam (Coimbatore Dt.) ; Rajah Doraisingam Memorial College, Sivaganga ; Madras Christian College, Tambaram ; The M.D.T. Hindu College, Tirunelveli ; Holy Cross College, Tiruchirapalli ; Jamal Mohamed College, Khajanagar, Tiruchirapalli ; National College, Tiruchirapalli ; Sri Parasakthi Arts College for Women, Courtallam ; St. Joseph's College, Tiruchirapalli ; G.T.N. Arts College, Dindigal ; Sacred Heart College, Tirupattur (N. Arcot Dt.) ; St. Mary's College, Tuticorin ; V. O. Chidambaram College, Tuticorin ; Sri G. V. G. Visalakshi College for Women, Udumalpet ; Islamiah College, Vaniyambadi (N. Arcot Dt.) ; V. H. N. Senthikumara Nadar College, Virudhunagar ; P. S. G. Arts College, Coimbatore ; Nirmala College for Women, Coimbatore ; Chikkiar Naicker Mahajana College, Erode ; Govt. Thirumagal Mill's College, Gudiyatham ; Govt. Arts College, Krishnagiri ; Pachaiyappa's College, Kancheepuram ; Auxilium College, Katpadi (N. Arcot Dt.) ; Govt. Arts College for Women, Kumbakonam ; Fatima College, Madurai ; Christian College, Martandom ; Ambanathapuram Vahaira Charities College, Mayuram ; Government Arts College, Ootacamund ; Sri Pushpam College, Poondi, Tanjore ; The Rajah Serfoji College, Tanjore ; Sitalakshmi Ramaswami College, Tiruchirapalli ; Lakshmipuram College of Arts & Science, Neyyoor ; Hajee Karutha Rawther Howthia College, Uthamapalayam ; Voorhees College, Vellore (North Arcot Dt.) ; Sri Avinashilingam Home Science College, Coimbatore ; Nallamuthu Gounder Mahalingam College, Pollachi ; Palani Andavar College of Oriental Culture, Palani ; Poonphuhar College of Oriental Culture, Melayur (Thanjavur Dt.) ; Tagore Arts College, Pondicherry ; Sri Sarada College for Women, Salem 4 ; Sri Kumara Gurupara Swamigal Arts College, Srivaikuntam ; Seethalakshmi Achi College for Women, Pallathur (Ramnad Dt.) ; Pope's College, Sawerpuram (Tirunelveli Dt.) ; Kandaswami Kaudar College, Velur (Salem) ; Sri Palaniandavar Arts College, Palani ; Ayya Nadar Janaki Ammal College, Sivakasi ; V. V. Vanniaperumal College for Women, Virudhunagar.

### PROFESSIONAL COLLEGES (40)

*Law :*

Madras Law College, Madras 1.

*Medicine :* Madras Medical College, Madras 3 ; Stanley Medical College, Madras 1 ; Christian Medical College, Vellore (N. Arcot District) ; Madurai Medical College, Madurai ; Dhanvanthi Medical College, Pondicherry ; Kilpauk Medical College, Madras 10 ; School of Nursing, Vellore ; Thanjavur Medical College, Thanjavur ; Indian Systems of Medicine, Courtallam, Palayamkottai.

*Engineering :* College of Engineering, Guindy, Madras 25 ; Government College of Technology, Lawley Road, Coimbatore 3 ; P.S.G. College of Technology, Peelamedu, Coimbatore ; Coimbatore Institute of Technology, Coimbatore ; Alagappa Chettiar College of Technology, Karaikudi ; Thyagaraja College of Engineering, Tiruparamkundram P.O., Madurai 15 ; Regional Engineering College, Tiruchirapalli 15.

*Teaching :* Lady Willingdon Training College, Triplicane, Madras 5 ; Meston Training College, Royapettah, Madras 14 ; St. Christopher's Training College, Vepery, Madras 7 ; Teachers' College, Saidapet, Madras 15 ; Stella Matutina Training College for Women (St. Thomas Convent), Madras 4 ; Government Training College for Women, Coimbatore ; Sri Ramakrishna Mission Vidyalaya Training College, Perianaickenpalayam (Coimbatore Dt.) ; Dr. Alagappa Chettiar Training College, Karaikudi ; Thiagaraja College of Preceptors, Madurai ; St. Ignatius' Training College for Women, Palayamkottai ; Government Training College, Komarapalayam, Salem Dt. ; Govt. Basic Training College, Orathanad, Tanjore Dt. ; St. Xavier's Training College, Palayamkottai ; Government Training College, Pudukottai ; V. O. Chidambaram Training College, Tuticorin ; Government Training College, Vellore, N. Arcot Dt. ; Annammal Training College for Women, Tuticorin ; Training College, Martandam.

*Veterinary :* Madras Veterinary College, Vepery, Madras 7.

*Agriculture :* Agricultural College, Lawley Road, P.O., Coimbatore.

*Technology :* Alagappa Chettiar College of Technology, Guindy, Madras 25.

*Physical Education :* Y.M.C.A. College of Physical Education, Nandanam, Madras 35 ; Alagappa College of Physical Education, Alagappa College P.O., Karaikudi-4.

### GOVERNMENT POLYTECHNICS

Central Polytechnic, Guindy, Madras 32 ; Tamilnad Polytechnic, Madurai 11 ; Government Polytechnic, Peelamedu, Coimbatore 4 ; Institute of Leather Technology, Madras 21 ; Institute of Film Technology, Madras 1 ; Regional School of Printing, Madras 1 ; Government Polytechnic, Vellore, North Arcot ; Government Polytechnic, Nagercoil, Kanyakumari ; Tamilnad Polytechnic, Madurai 11 ; Govt. Women's Polytechnic, Madras 1 ; Regional School of Printing, Broadway, Madras 1.

### PRIVATE POLYTECHNICS

C. N. T. Institute, Vepery, Madras 7 ; Ramakrishna Mission Technical Institute, Madras 4 ; Alagappa Polytechnic, Karaikudi ; P. S. G. Polytechnic, Peelamedu, Coimbatore ; Annamalai Polytechnic, Chettinad ; Nachimuthu Polytechnic, Pollachi ; Murugappa Polytechnic, Avadi, (Near) Madras ; Seshasayee Institute of Technology, Tennur, Tiruchirapalli ; Virudhunagar S. Vellaichami Nadar Polytechnic, Virudhunagar ; Thiagarajar Polytechnic, Salem ; Valivalam Desikar Polytechnic, Nagapattinam ; Sankar Institute of Polytechnic, Thalaiyuthu-Post, Tirunelveli District ; Bhakthavatchalam Polytechnic, Kancheepuram ; Srinivasa Subbaraya Polytechnic, Sirkali ; Rajagopal Polytechnic, Gudiyatham ; Muthiah Polytechnic, Annamalainagar, Chidambaram (S. A. Dist.) ; The C. S. I. Polytechnic, Nazareth, Tirunelveli.

### ORIENTAL TITLE INSTITUTIONS

Oriental College, Mayuram ; Sanskrit College and Swaminatha Sastri Vedanta Patasala, Mylapore, Madras 4 ; Sri Venkataramana Dispensary and Ayurvedic College, Mylapore, Madras 4 : Madarsa Jamalia, Perambur, Madras 11 ; Rameswaram Devasthanam Patasala, Madurai ; Sentamil College, Tamil Sangam Road, Madurai ; Sri Ahobila Mutt Free Sanskrit College, Madurantakam, Chingleput District ; Srimath Sivagnana Balya Swamigal Tamil College, Mailam, S. A. Dist. ; Ganesar Sentamil Kalloori, Melasivapuri (Pudukottai) ; Jamia Darussalam, Omerabad (N. Arcot Dist.) ; Sree Santhalingaswamigal Tamil Kalluri, Perur, Coimbatore Dist. ; Sanskrit College, Sriperumbudur (Chingleput Dist.) ; Karanthai Pulavar Kalloori, Tanjore ; Sri Kasivasi Swaminatha Swamigal Tamil Kalloori, Tiruppanandal, Tanjore Dist. ; Raja's College of Sanskrit and Tamil Studies, Thiruvaiyaru ; Bakiyatussalihat Arabic College, Vellore, N. A. Dist. ; Kalakshetra, Tiruvanmiyur, Madras 41.

### BUDGET (1965–66)

| | | |
|---|---|---|
| Receipts | .. .. .. | Rs. 1,43,28,322 |
| Expenditure | .. .. .. | Rs. 1,48,20,120 |

## ANNAMALAI UNIVERSITY

Annamalainagar P.O.
South India.

### CHANCELLOR

His Highness Maharaja Sri Jaya Chamaraja Wadiyar Bahadur, G.C.B., G.C.S.I., LL.D., D.Litt., Governor of Madras.

### PRO-CHANCELLOR

Dr. Rajah Sir M. A. Muthia Chettiar, Kt., B.A., D.Litt., M.L.C.

### VICE-CHANCELLOR

Col. Dr. Sir C. P. Ramaswami Aiyar, LL.D., D.Litt.

*Registrar*, T. D. Meenakshisundaram, B.A., B.L.

*Bursar*, P. A. Sitapathi, M.A.

Total number of students in the University : 3,896 and Muthiah Polytechnic 328.

Accounts and Government Grant (1963-64) :

Total income from grants from Government and other sources : Rs. 93,85,900.

Total estimated expenditure on salaries, contingencies, buildings and equipment : Rs. 1,00,18,125.

Recurring grant receipts : Rs. 13,72,300.

The medium of instruction is English.

# ASSOCIATIONS, SOCIETIES, ETC.

### ACADEMY OF TAMIL CULTURE
Madras 7.

### THE ADYAR LIBRARY & RESEARCH CENTRE
Adyar, Madras 20.

*Head:* N. Sri Ram; *Adviser:* Dr. V. Raghavan; *Director:* Smt. Radha Burnier.

### AGRI-HORTICULTURAL SOCIETY OF MADRAS
18, Cathedral Road, Madras 6.

*Chairman:* V. T. Rangaswamy; *Hon. Secy.:* C. S. Krishnaswamy, J.P.; *Hon. Treasurer:* S. Parthasarathy.

### ALL INDIA ANGLO INDIAN ASSOCIATION
20, Ritherdon Road, Madras 7.

### ALL INDIA AUTOMOBILE ASSOCIATION
Cherry Road, Salem.

### ALL-INDIA CARROM FEDERATION
28, Second Line Beach, Madras 1.

### ALL INDIA CHESS FEDERATION
317, Thambu Chetty St., Madras 1.

### ALL INDIA COFFEE MERCHANTS' ASSOCIATION
22/48, 49, Raja Street, Coimbatore.

*President:* A. N. Nayak; *Vice-President:* V. S. P. S. Vairava Nadar; *Secretary:* A. V. L. Narayan; *Treasurer:* A. K. Narayanan.

### ALL INDIA MANUFACTURERS' ORGANISATION
(Madras State Board)
7/15, Haddows Road, Nungambakkam, Madras 6.

*Chairman:* A. P. Jamal; *Vice-Chairman:* K. V. Srinivasan; *Hon. Secy.:* R. Ramakrishnan.

### ALL INDIA RADIO MERCHANTS' ASSOCIATION (Madras Zone)
22, General Patters Road, Madras 2.

*President:* S. Singaravel; *Vice-President:* G. Natarajan; *Hony. Secretary:* L. S. V. Easwar.

### ALL INDIA RAILWAYMEN'S FEDERATION
Madras 4.

### ANDHRA CHAMBER OF COMMERCE
Andhra Chamber Building, 272/73, Angappa Naick Street, P.B. 1511, Madras 1.
Also at 68-B, Rashtrapathi Road, Secunderabad.

*President:* P. Brahmayya; *Vice-Presidents:* V. G. S. V. Prasad; Rasiklal M. Mehta; M. Harischandra Prasad, M.L.A.; *Treasurer:* C. Audiseshu; *Secretary:* M. S. Sambasivam; *Asstt. Secretary, Secunderabad Office:* K. P. Ramamurthy.

### ANDHRA MAHILA SABHA
Luz Church Road, Mylapore, Madras 4.
Vidyanagar, Hyderabad.

*Institutions of the Sabha:* Mahila Vidyalaya Industrial Institute, Sisu Vihar and Vanitha Bala Vihar, Nursing Home and Orthopaedic Centre, Family Planning Institute and Tourist Hostel in Madras; Regional Handicrafts Institute, Sisu Vihar and Nursing Home and Basic Education Teacher's Trg. School in Hyderabad.

*Founder President:* Smt. Durgabai Deshmukh; *Vice-Chairman, Co-ordination and Development Committee:* V. Lakshmi Parvathi.

### THE ANGLO-INDIAN & DOMICILED EUROPEAN ASSOCIATION OF SOUTHERN INDIA
White Memorial Hall, Egmore, Madras, 8.

*President-in-Chief:* Pearson Joseph; *General Secretary:* H. L. Bowie.

### THE ANJUMANE-HIMAYATHE-ISLAM AND MUSLIM ORPHANAGES
No. 33, North Boag Road, T. Nagar, Madras 17.

### ARTS ACADEMY
42, Purasawalkam High Road, Vepery, Madras 7.

### THE ASSOCIATION OF ELECTRICAL UNDERTAKINGS, SOUTHERN INDIA
20, Second Line Beach, Madras 1.

*President:* C. R. Ramaswamy, *Hony. Secretary:* S. Venkataraman, F.C.A., *Jt. Hon. Secy.:* H. K. Ramaswami, B.A., Mem. A.I.E.E., M.I.E.; *Treasurer:* V. Balasubramaniam.

### ASSOCIATION OF PLANTERS OF THE STATE OF MADRAS
'Canowie', Coonoor.

*Chairman:* N. Bhagwandas; *Vice-Chairman:* H. S. Jackson; *Secretary:* C. S. Krishnaswami.

### AUTOMOBILE ASSOCIATION OF SOUTHERN INDIA
38-A, Mount Road, Madras 6.

*President:* M. A. Chidambaram; *Chairman:* S. V. B. Row; *Hon. Treasurer:* K. Hariharan; *Secretary:* Lt.-Col. (Retd.) M. Osman.

### BALA BHARAT
Olcott Gardens, Adyar, Madras 20.

Maintains Institute of Educations.

*Director:* G. V. Subba Rao; *Secretary:* C. N. Vaidheswaran.

### BARNARD INSTITUTE OF RADIOLOGY
General Hospital, Madras 3.

*Director:* Prof. Y. Sidiq, M.B.B.S., F.F.R. (Lond.), D.M.R.T. (Lond.), D.M.R. (Mad.).

### THE BHARAT SCOUTS AND GUIDES
State Headquarters: "Wenlock Park", South Beach Road, Triplicane, Madras 5.

*President:* K. Venkataswami Naidu; *State Chief Commissioner:* C. D. Natarajan; *State Commissioner (Scouts):* T. R. Kothandaram Mudaliar; *State Commissioner (Guides):* Smt. Sarojini Varadappan; *Honorary State Secretary:* P. R. Ganapathy Pillay; *Honorary State Treasurer:* P. M. Dowlathram; *State Organising Commissioner (Scouts):* M. Ram Mohan; *State Organising Commissioner (Guides):* Miss C. John; *Headquarters Commissioner for Training (Scouts):* R. Messiah Doss; *Headquarters Commissioner for Training (Guide):* Kumari G. R. Samuel.

### BIBLE SOCIETY OF INDIA AND CEYLON (MADRAS AUXILIARY)
Post Box 502, Park Town, Madras 3.

### BOOK INDUSTRY COUNCIL OF SOUTH INDIA
25, Sterling Road, Madras 34.

*President:* Vai Govindan; *Secy.:* R. S. Ramakrishnan.

### THE BRITISH COUNCIL
150-A, Mount Road, Madras 2.

*Regional Representative:* S. E. Hodgson.

### BUILDERS' ASSOCIATION OF INDIA
53, Sir Mohamed Usman Road, T. Nagar, Madras 17.

### CANCER INSTITUTE
Adyar, Madras 20.

*Chairman:* Dr. (Mrs.) S. Muthulakshmi Reddi; *Secretary:* Dr. V. Shanta, M.D.; *Director & Scientific Director:* Dr. S. Krishnamurthi, M.S.

### CATHOLIC CENTRE
Armenian Street, Madras 1.

### CENTRAL FOOTWEAR TRAINING INSTITUTE
Guindy, Madras 32.

### CENTRAL LEPROSY TEACHING AND RESEARCH INSTITUTE
Chingleput.

*Chairman:* (Dr. Sushila Nayar); *Vice-Chairman:* Madras Health Minister; *Director/Secretary:* Dr. Dharmendra.

### CHAMKUR ART ACADEMY
23, Apparasami Koil Street, Mylapore, Madras 4.

Imparts art knowledge to pupils and undertakes to execute high class oil portraits and statue work and publishes art work.

*Director:* S. N. Chamakur, G.D. Art. (Bom.). (*Vice-President:* Andhra Pradesh Lalit Kala Akademi and Member, Advisory Panel, Central Board of Film Censors, Madras).

### THE CHILDREN'S CLUB SOCIETY
91, Venkatachala Mudali Street, Mylapore, Madras.

### CHILDREN'S WRITERS' ASSOCIATION
(Estd. 1950)
10, Vaidyaramier St., Madras 17.

### CHRISTIAN LITERATURE SOCIETY
Park Town, Post Box 501, Madras 3.

The Society owns presses and bookshops, *Presses:* Diocesan Press, Post Box 455, Vepery, Madras 7; Christian Literature Society Press, 1, Dickenson Road, Post Bag 34, Bangalore 1 and Wesley Press, Post Box 37, Mysore City. *Book Shops:* Christian Literature Society Book Shop, Post Box 501, Park Town, Madras 3; Christian Literature Society Bookshop, Tiruvalla, Kerala; Tract and Book Society, St. Mark's Road, Bangalore 1; C. L. S. Bookshops, at Kodaikanal, Coimbatore and Tiruchirapalli.

### THE CINE TECHNICIANS' ASSOCIATION OF SOUTH INDIA
No. 15, Arulammal Street,
Thyagarayanagar, Madras 17.

*President:* C. Sitaram; *Vice-Presidents:* N. Krishnaswamy Nimai Ghosh; *Hony. Secretaries:* K. J. Mohan, S. V. Venkataram.

### COIMBATORE AND NILGIRI DISTRICTS MASTER PRINTERS' ASSOCIATION
100, Oppanakara Street, Coimbatore.

### COIMBATORE BUTTER & GHEE MERCHANTS' ASSOCIATION
9, Subiah Mudaliar Street, Coimbatore 1.

### COIMBATORE CHAMBER OF COMMERCE
Post Box No. 12, Race Course Road, Coimbatore.

### THE COIMBATORE CLOTH MERCHANTS' ASSOCIATION
11/41, Ratnasabapathi Mudaliar Road,
Coimbatore 2.

*President:* R. Subba Rao; *Vice-President:* N. S. Vellingiri Chettiar; *Hon. Secretary:* A. V. Venkataramanaswamy; *Treasurer:* N. A. Parasuraman.

COIMBATORE DISTRICT HARDWARE MERCHANTS' ASSOCIATION (Regd.)
15/13, Mill Road, Coimbatore.

*President :* S. V. N. Nagappan ; *Vice-President :* M. S. Ramaswamy ; *Executive Secretary :* V. Jayabalan ; *General Secretary :* E. Purushotham ; *Treasurer :* P. V. Ukkuru.

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Thomas Street, Coimbatore 1.

CONNEMARA PUBLIC LIBRARY
Pantheon Road, Egmore, Madras 8.

The Connemara Public Library named after Lord Connemara, the then Governor of Madras during 1886-1891, and constructed in Indo-Saracenic style was opened formally on 5-12-1896 under the auspices of Government of Madras. With effect from 1-4-1950, it became the State Central Library under the Madras Public Libraries Act, 1948. Under Delivery of Books (Public Libraries) Act of 1954 of Government of India, this library became the depository for Indian publications with effect from 10-9-1955. It is also a depository centre for United Nations Organisation and its specialised agencies and organs.

It accommodates 250 readers at a time. It held 1,73,760 volumes on 18-7-'65. At present it receives 4,115 periodicals and 254 newspapers. This library manned by 58 persons remains open to the public for 9½ hours—(from 8·00 a.m. to 5·30 p.m. a day for 304 days.

1,52,536 readers—giving a daily average of 502 readers—have used 5,81,551 volumes—giving a daily average of 1,913 volumes—including 1,23,943 volumes lent out to 6,083 members—giving a daily average of 408 volumes—during the year 1964-65.

*Librarian :* V. Thillainayagam, M.A., M.L.S.B.T.

THE COUNCIL OF PUBLIC AFFAIRS
11, Second Main Road, Madras 28.
Daivajna Samaj
44, Purasawalkam High Road, Madras-7.

*Vice-Presidents :* S. Narayanaswamy, A. G. Venkatachari ; *Gen. Secy. :* V. K. N. Chari.

DEVELOPMENT CENTRE FOR MUSICAL INSTRUMENTS
Sangita Vidyalaya, Annamalaimanram, Madras 1.

EAST INDIA TOBACCO FEDERATION
2/6, Second Line Beach, Madras.

EMPLOYERS' FEDERATION OF SOUTHERN INDIA
Dare House, 1st Line Beach, Madras 1.

*Chairman :* C. F. M. Baldwin ; *Vice-Chairman :* N. S. Bhat ; *Secretary :* V. J. Ross.

FORUM OF FREE ENTERPRISE
35, Mount Road, Madras 2.

FRIEND-IN-NEED SOCIETY
Finsbree Garden, 19/20, Poonamallee High Road, Madras 3.

*President :* C. F. M. Baldwin ; *Hony. Secretary :* B. M. X. Wauchope ; *Hon. Treasurer :* A. Ramamurthy.

GANDHI LINCOLN INSTITUTE OF HUMAN RELATIONSHIP
Gandhigram (Dt. Madurai).

*Director :* G. Ramachandran ; *Secretary :* R. Srinivasan.

GANDHI MEMORIAL
All India Depressed Classes, Educational Employment & Welfare Association.
Gokulam, Madras 18.

Conducts research on Socio-Economic and Educational position of Scheduled Castes in all the Indian States. Represents problems of Scheduled Castes' problems and difficulties for redressal.

*President :* S. Nagappa, Ex-M.L.A., M.C.A., *Hon. Secretary :* G. A. Appan, B.A., D.S.S.A., B.Sc. (Tech.), B.Com. (Hons.), D.Com., F.S.A.A., *Hon. Organiser :* Mrs. G. Kausalya Appan, B.A., B.L., B.T., Dip. French.

GOKULAM METHOD VILLAGE WELFARE ASSOCIATION
11-B, Eldams Road, Teynampet, Madras 18.

Provides, Textile Instructors' course with a hostel attached ; Free Higher Ele. and Adult Education, Library, bajana, socio-economic-cum-cultural programmes for poor slumfolk etc.

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GOVT. TUBERCULOSIS INSTITUTE
Spur Tank Road, Chetput, Madras 31.

GUILD OF SERVICE (SEVA SAMAJAM)
Pioneer House, Peelamedu, Coimbatore 4.

*President (Ex-Officio) :* K. V. Ramanathan, (Dt. Collector), I.A.S. ; *Hon. Secretary :* Smt. Chandrakanthi Govindarajulu.

HANDLOOM TEXTILES MANUFACTURERS' AND EXPORTERS' SOCIETY
Salem Main Road,
Komarapalayam P.O.,
(Salem District).

HANDLOOM TEXTILE PRINTERS' ASSOCIATION
222, Nethaji Road, Erode.

THE HINDU GOOD TEMPLARS' LEAGUE (Estd. 1895)
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Works for prohibition and brotherhood.

HINDUSTAN CHAMBER OF COMMERCE
'Hindustan Chamber Buildings'
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INDIA SUNDAY SCHOOL UNION
Coonoor.

The India Sunday School Union, founded in Allahabad in 1876, is an interdenominational and ecumenical organisation having for its object the strengthening of religious and moral education in Christian schools throughout India.

Headquarters at Coonoor on the Nilgiri Hills.

INDIAN BOTANICAL SOCIETY
Univ. Botany Laboratory, Madras 5.

THE INDIAN CHAMBER OF COMMERCE
6/83, Avanashi Road, Post Box No. 200, Coimbatore.

*President :* G. K. Sundaram ; *Vice-Presidents :* S. R. P. Ponnuswamy Chettiar, M.L.C. ; M. S. Jagannathan, T. V. Angappan ; *Hon. Secretaries :* S. Venkateswara Iyer, A. N. Nayak ; *Hon. Treasurer :* T. Ganesan.

THE INDIAN CHAMBER OF COMMERCE
84-B, South Raja Street, Tuticorin.

*President :* A. P. C. Veerabahu, B.A., M.L.A. ; *Vice-Presidents :* I. S. Machado, P. S. T. S. Thiraviaratna Nadar ; *Secretary :* V. V. D. Nithyanandam.

INDIAN CHILD EVANGELISM FELLOWSHIP
9, Bronsan Garden Road, Kilpauk, Madras 10.

Also at 2, Jubilee Road, Poona 1.

INDIAN COUNCIL OF CHILD EDUCATION
39, Edward Elliots Road, Mylapore, Madras 4.

INDIAN ENGINEERING ASSOCIATION (SOUTHERN REGION)
SS : "Dare House", North Beach Road, Madras 1.

*Chairman :* P. D. Whitely ; *Dy.-Chairman :* A. Ray ; *Secretary :* V. J. Ross.

INDIAN INSTITUTE FOR POPULATION STUDIES
Gandhinagar, Madras 20.

Estd. in 1950. A non-profit educational and Research organization. *Chairman, Executive Committee :* C. Karayalar ; *Chairman, Indian Advisory Board :* C. Subramaniam ; *Director :* Dr. S. Chandrasekhar ; *Secretary :* Shrimati Ann Chandrasekhar.

INDIAN INSTITUTE OF HOMOEOPATHS
30, Bakthapuri St., Kumbakonam and
6, Stringers St., Madras 1, 4, Manjanakara Street, Madurai 1 and Arunachala Asari St., Salem 1.

INDIAN INSTITUTE OF TECHNOLOGY
Madras 36.

This Institute, started from July 1959, is the third in the chain of the five Higher Technological Institutes set up by the Government of India for the advancement of Technological education in the country. *Chairman :* Dr. A. L. Mudaliar ; *Director :* Prof. B. Sengupta ; *Registrar :* C. V. Sethunathan.

INDIAN OFFICERS' ASSOCIATION
Mohana Vilas, 31, Royapettah High Road, Madras 14.

*President :* Hon. Justice R. Sadasivan ; *Secretary :* D. Balasundaram, I.A.S. ; *Warden :* M. Murugesa Mudaliar.

INDIAN RED CROSS SOCIETY, MADRAS STATE BRANCH
Red Cross Buildings, Monteith Road, Egmore, Madras 8.

*President :* Dr. Sir A. Lakshmanaswami Mudaliar, Padma Vibhushan ; *Vice-Presidents :* Dr. R. G. Krishnan, A. M. M. Murugappa Chettiar ; *Hon. Secretary :* V. K. Dharma Rao Mudaliar ; *Hon. Jt. Secretary :* Mrs. V. Hanumantha Rao.

INDIAN ROADS AND TRANSPORT DEVELOPMENT ASSOCIATION LTD.
Post Box No. 1270, Burmah-Shell House, Esplanade, Madras.

*Chairman :* K. Hariharan ; *Vice-Chairman :* K. P. Rao ; *Executive Vice-Chairman :* J. Verghese ; *Hon. Secretary and Treasurer :* V. N. Krishna Rao.

INDUSTRIAL ESTATE MANUFACTURERS' ASSOCIATION
Industrial Estate, Guindy, Madras 32.

*President :* A. N. Srinivasa Rao ; *Vice-President :* M. S. Parthasarathy ; *Hon. Gen. Secretary :* T. S. Natesan ; *Hon. Treasurer :* B. B. Chandoke.

INSTITUTE OF AUTOMOBILE ENGINEERING AND BUSINESS MANAGEMENT
85, Mount Road, Teynampet, Madras 18.

INSTITUTE OF CATERING TECHNOLOGY & APPLIED NUTRITION
Adyar, Madras 20.

*Chairman :* R. Venkataram (Minister for Industries & Tech. Edn., Govt. of Madras) ; *Principal :* A. V. Kuppuswamy.

INSTITUTE OF LEATHER TECHNOLOGY
Madras 20.

### INSTITUTE OF MANAGEMENT

C/o "Karpagam", 24/80, Sallivan Street, Coimbatore 1.

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*Vice-Presidents :* N. G. Talukdar, K. Srinivasan.

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### INSTITUTE OF RURAL HEALTH AND FAMILY PLANNING

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*Chairman :* Dr. (Mrs.) T. S. Soundram Ramachandran, M.B.B.S., D.G.O ; *Director :* Dr. K. V. Ranganathan, M.B.B.S., B.S.S.C., M.P.H. (California).

### INSTITUTION OF ENGINEERS (INDIA)

1, Adam's Road, Chepauk, Madras 5.

*Chairman :* N. Mahalingam ; *Hon. Secy. :* Prof. S. Panchanathan.

### INSURANCE ASSOCIATION OF INDIA

Madras Regional Council,
2-6, Second Line Beach, Madras 1.

*Chairman :* A. M. Soundararajan ; *Dy. Chairman :* M. N. Seshagiri ; *Secretary :* P. P. Ginwalla.

### KALAI KAZHAGAM

35, Vadiar Street, Devakottai.

### KALAKSHETRA—INTERNATIONAL ART CENTRE, TIRUVANMIYUR MADRAS 41.

Founded at Adyar in 1936 by Shrimati Rukmini Devi. The College of Fine Arts gives training to Indian and foreign students in classical Bharata Natya and Kathakali (Indian Dance), music (Vocal and Instrumental) and Painting and Crafts.

The centre has a weaving section, famous for the production of attractive Indian sarees, a photographic division offering colour process, Microfile and Photostat Service & a Publication Department.

Dr. U. V. Swaminatha Aiyar (Tamil) Library—a complete library of all the old and rare Tamil palm-leaf manuscripts and books collected and used by the great scholar—is affiliated to Kalakshetra and located in the Tiruvanmiyur campus.

Two other educational institutions, namely the Besant Theosophical High School and the Arundale Training Centre for training teachers (Montessori System), work in close collaboration.

*President :* Srimati Rukmini Devi ; *Vice-Presidents :* Dr. C. P. Ramaswami Aiyar ; T. L. Venkatarama Aiyar ; Dr. P. V. Rajamannar ; *Secretary :* K. Sankara Menon ; *Treasurer :* N. Gopal Iyer.

### THE KARNATAKA ASSOCIATION

7/49, Sarojini Street, Ramnagar, Coimbatore.

### KARUR WEAVING & KNITTING FACTORY OWNERS' ASSOCIATION LTD.

New Street, Karur.

### THE KENNEL CLUB OF INDIA

Coonoor 1—Nilgiris.

*Chairman :* Capt. J. M. Bannerjea ; *Vice-Chairman :* H. H. the Raja of Rampura ; *Hon. Secy. & Treasurer :* Mrs. O. Goldsmith.

### KING INSTITUTE

Guindy, Madras 32.

*Director :* Dr. N. R. Ratnakannan, M.D.

### THE KUPPUSWAMI SASTRI RESEARCH INSTITUTE

Sanskrit College, Mylapore, Madras 4.

### LEATHER EXPORT PROMOTION COUNCIL

"Marble Hall"

3/38, Vepery High Road, Madras 3.

*Chairman :* Janab M. J. Jamal Moideen Sahib, M.P. ; *Vice-Chairman :* A. Nagappan Chettiar ; *Secretary :* Janab B. Ali Khan Sahib.

### THE MADRAS AERATED WATER REQUISITES MERCHANTS' ASSOCIATION

No. 296, Wall Tax Road, Madras 3.

### THE MADRAS ALUMINIUM MERCHANTS' AND MANUFACTURERS' ASSOCIATION

499, Mint Street, Madras-3.

### THE MADRAS BETEL NUT MERCHANTS' ASSOCIATION

17, Anna Pillai Street,
G. T. Madras-1.

### THE MADRAS BUTTER AND GHEE MERCHANTS' ASSOCIATION (REGD.)

137, Audiappa Naick Street, Madras.

### MADRAS CHAMBER OF COMMERCE

"Dare House," First Line Beach, Madras.

There are two classes of members, Chamber members and affiliated members. Election for membership is by ballot.

The Chamber undertakes arbitrations and surveys, and the granting of certificates of origin.

There are 120 firms, who are members of the Chamber ; and there are 6 affiliated members and 7 honorary members of the Chamber.

*Chairman :* A. W. Stansfeld ; *Vice-Chairman :* John K. John ; *Secretary & Adviser :* V. J. Ross.

### MADRAS CHAMBER OF SMALL INDUSTRIES

Y. M. I. A. Bldg., 9, Armenian St., Madras 1.

### MADRAS CHILLIES MERCHANTS' ASSOCIATION

18, Chinnathambimudali Street, Madras.

### MADRAS CITY COUNCIL FOR CHILD WELFARE

81, Suryanarayana Chetty Street, Royapuram, Madras 13.

*Chairman :* M. A. Chidambaram ; *Vice-Pres :* S. Parthasarathi Iyengar ; *Secretary :* V. N. Subbarayan ; *Treasurer :* D. S. Sastri.

### THE MADRAS CRICKET ASSOCIATION

Nehru Stadium, Madras 3.

*President :* M. A. Chidambaram ; *Hon. Secretary :* S. Sriraman.

### MADRAS CYCLE IMPORTERS' ASSOCIATION

7-B, Broadway, Madras.

*President :* N. A. Dave ; *Vice-President :* R. M. Dave ; *Secretary :* T. L. Shah.

### MADRAS DYES AND CHEMICALS MERCHANTS' ASSOCIATION

209, Govindappa Naick Street, Madras-1

*President :* Balakrishna N. Kathare ; *Vice-President :* P. R. Viswanathan ; *Hon. Secretary :* M. Gangadharan ; *Hon. Jt. Secretary :* S. E. Balakrishnan ; *Hon. Treasurer :* S. Lakshmanan.

### THE MADRAS FRUITS COMMISSION AGENTS' ASSOCIATION

12, Bunder Street, Madras.

### MADRAS GUNNY MERCHANTS' ASSOCIATION

35-A, Audiappa Naiken Street, Madras 1.

*President :* M. Mayandi Nadar ; *Vice-Presidents :* M. Pulliah Chetty, P. P. Kanniah Chetty ; *Hon. Secretaries :* A. Ranganatham, R. E. Devarajulu Chetty ; *Hon. Treasurer :* J. Delhi Chetty.

### MADRAS HARDWARE & PAINT MERCHANTS' ASSOCIATION

45, Venkatachala Mudali St., Madras 3.

### MADRAS HOTELS ASSOCIATION

289, Netaji Subhas Chandra Bose Road, Madras 1.

### THE MADRAS INDUSTRIES ASSOCIATION

3/144, Mount Road, Thousand Lights, Madras 6.

*Objects :* (1) Supporting and improving large-scale as well as cottage industries ; (2) Furnishing information about the industrial and mineral resources of the State ; (3) Conducting a Central Industrial Museum with an information bureau, a commercial library and a free reading-room attached to it ; (4) Holding periodical itinerant exhibitions ; (5) Publishing pamphlets for propaganda ; (6) Giving technical and financial assistance to industries and (7) Doing all other things that are conducive to the attainment of the above objects.

The Association also conducts an industrial museum for the display and publicity of Indian manufactured goods. A commercial library and reading room are attached.

*Council of Management :—President :* K. Venkataswami Naidu ; *Vice-President & Treasurer :* N. Ramakrishna Iyer, M.P. ; *Secretary :* A. Arunachalam, Advocate.

### MADRAS INSTITUTE OF TECHNOLOGY

Chromepet P.O., Chingleput Dist.

### MADRAS JEWELLERS' & DIAMOND MERCHANTS' ASSOCIATION

11 & 12, Car Street, Netaji Subhaschandra Bose Road, Madras 1.

### THE MADRAS KIRANA MERCHANTS' ASSOCIATION

210, Govindappa Naick Street, Madras 1.

*President :* J. Harigopal Agarwal ; *Vice-Presidents :* R. Chobey, S. C. Shah ; *Hon. Secretary :* J. Devichand Jain ; *Hon. Treasurer :* K. V. Shah.

### MADRAS LIBRARY ASSOCIATION

32, Sami Pillai Street, Triplicane, Madras 5.

*President :* Dr. S. R. Ranganathan ; *Secretaries :* N. Chengalvarayan, K. M. Sivaraman, R. Muthukumaraswamy ; *Treasurer :* C. Seshachalam.

### MADRAS LITERARY SOCIETY AND AUXILIARY OF THE ROYAL ASIATIC SOCIETY

*Office:* College Road, Nungumbakkam, Madras 6.

The Society's Library contains nearly a lakh of books which are circulated among members.

*Chairman :* K. Krishna Menon ; *Honorary Secretary :* S. V. B. Rao ; *Librarian :* C. N. Ramakrishnaiyar.

### MADRAS MAHA BODHI SOCIAL SERVICE SOCIETY

10, Kennet Lane, Egmore, Madras 8.

Also runs an orphanage.

### MADRAS MANIYARI MERCHANTS' ASSOCIATION

No. 1-A, Narayana Mudali Lane, Madras 1.

### MADRAS MATHEMATICS CLUB

Dept. of Mathematics, Univ. of Madras, Senate Buildings, Chepauk, Madras 5.

### MADRAS METALWARE MANUFACTURERS' & MERCHANTS' ASSOCIATION

102, Narayana Mudali St., Madras 1.

### MADRAS MOTOR PARTS DEALERS' ASSOCIATION

22, General Patters Road, Mount Road, Madras 2.

*President :* S. Narayanan ; *Vice-Pres. :* K. R. Raghavan ; *Hon. Secy. :* N. S. Rishi.

### MADRAS OIL & SEEDS ASSOCIATION

320, Linghi Chetty Street, P.O. Box No. 1639, Madras 1.

*Secretary :* V. S. Krishnamurti, B.A.

### THE MADRAS OIL AND SEEDS EXCHANGE LTD.

No. 24, Thambu Chetty St., Madras 1.

### MADRAS OPTICIANS' ASSOCIATION

7/22, Broadway, Madras 1.

*Secretary :* N. I. Patel.

### THE MADRAS PAPER MERCHANTS' ASSOCIATION

No. 2, Anderson St., 1st Floor, Madras 1.

### THE MADRAS PIECEGOODS MERCHANTS' ASSOCIATION

100, Godown Street, Madras 1.

*President :* C. Perumal Chetty ; *Hon. Secretary :* P. A. Padmanabha Gupta ; *Hon. Treasurer :* T. Madhava Perumal Chetty.

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40, Anderson Street, Madras 1.

### MADRAS REPORTERS GUILD

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(Monthly publication : *Newsman*).

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### MADRAS STATE COTTONSEED MERCHANTS' ASSOCIATION

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Started in 1902 with the object of promoting higher education amongst Muslims. Awards Scholarships to poor and deserving Muslim and Harijan Students worth about Rs. 40,000. The Association started "The New College" situated at No. 49, Peters Road, Royapettah, Madras in July 1951. The present strength of the College is about 200, out of which about 60 per cent are non-Muslims. The College has P. U. C., B.A., & B.Sc., Classes. The Association has invested more than Rs. 15 lakhs for organising the College.

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**MADRAS LEGISLATIVE COUNCIL**
(*See under 'General Elections'*)

**MADRAS LEGISLATIVE ASSEMBLY**
(*See under 'General Elections'*)

**ADMINISTRATIVE PERSONNEL**
(*See under States Administrative Personnel*)

## COMMERCIAL FIRMS

**Aarnad Commercial Co. Ltd.**, 330, Thambu Chetty Street, Madras 1.

**A. Boake Roberts & Co. (India) P. Ltd.**—St. Thomas Mount, Madras 16.

**A. Praboo & Co.**—No. 3, Mailai Ranganatha Mudaliar Street, T. Nagar, Madras 17.

**Abdul Rahim & Bros.**—13, Evening Bazar Road, Madras 3.

**Abdullabhai Fidaali & Co.**, 16, Perianna Mestri St., Madras 1.

**A. C. E. C. (India) Ltd.**—19/21, Muker Nallamuthu St., Madras 1.

**Addison & Co., P. Ltd.**—158, Mount Road, Madras 2.

**Agents & Distributors P. Ltd.**, 120, Armenian Street, Madras.

**Ahamed & Co., A.M.**—255, Linghi Chetty St., Madras 1.

**Ahmedally Hassanally & Co.**, 4-153D, Broadway, Madras 1.

**Airlines Hoteliers & Caterers (M) P. Ltd.**—177/79, Mount Road, Madras 2.

**A. J. & Sons P. Ltd.**, 16, Audiappa Naik St., Madras 1.

**Ajanta Art Calendar Mfg. Co.**, 17, Godown Street, Madras 1.

**Ajitbhai Jayantilal Somabhai Patel & Co.**—5, Godown St., Madras 1.

**Akbarali Haideralli & Co.**, 27, Linghi Chetty St., Madras 1.

**Albert David Ltd.**—14, Sembudoss Street, Madras 1.

**Alex Miller (Madras) P. Ltd.**—128, Nyniappa Naick St., Madras 3.

**Alfred Herbert India P. Ltd.**, 1st Line Beach, Madras.

**Allied Industrial Distributors Ltd.**—7, 2nd Line Beach, Madras 1.

**All India Clearing & Trading Co.**—310/311, Linghi Chetty St., Madras 1.

**A. M. HASSANALLY & CO.**—Post Box No. 2037, 34, Linghi Chetty Street, Madras 1. (Estd. : 1910), Phone : 21752, Grams : "BRILLIANT".

**Amalgamations Private Ltd.**—202, Mount Road, Madras 2.

**Amarchand Sobachand.**—95, Nyniappa Naick St., Madras 3.

**Ambadi Enterprises P. Ltd.**, 52/53, Jehangir St., Madras 1.

**Ambalavana Chettiar & Co., P. Ltd.**—P. S. N. S.—14, Mint Street, Madras 3.

**Amco Engg. Corpn.**—C10 & 11, Industrial Estate, Guindy, Madras 32.

**Aminchand Nagindas & Co.**—198, Netaji Subhas Road, Madras 1.

**Aminchand Payarelal**—27, Sembudoss Street, Madras 1.

**AMRUTANJAN LTD.**—14/15, Luz Church Road, Madras 4. Manufacturers of Amrutanjan Pain Balm, Anoleum, Dermal Ointment, Inhaler and Gripe Mixture.

**Andhra Cement Co., Ltd.**—337, Thambu Chetty St., Madras 1.

**Armstrong Smith P. Ltd.**, Post Box 1618, Madras.

**Asbestos Cement P. Ltd.**, 202, Mount Road, Madras 2.

**Asbestos Magnesia & Friction Materials Ltd.**—202, Mount Road, Madras 2.

**Ashland Oil Co. (India)**—1/6, Second Line, Beach, Madras 1.

**Ashok Leyland Ltd.**—Bank of Mysore Bldgs., Madras 1.

**Asiatic Commercial Corporation** 48, Bazullah Road, Madras 17.

**Associated Agencies.**—271, Angappa Naick Street, Madras 1.

**Associated Distributors**, 271, Angappa Naick Street, Madras 1.

**Auto & Diesel Co. Ltd.**—1/155, Mount Road, Madras 2.

**Avery Co., Ltd.**—16/17, Armenian Street, Madras 1

**A.V.M. Ltd.**, 481, Royapettah High Road, Mylapore, Madras 4.

**Ayurvedashramam Ltd.**—79, G. N. Chetty Road, T. Nagar, Madras 17.

**B. CHOWDHURY & CO.**, Engineers and Manufacturers' Representatives ; 11-A/35, Mount Road, Madras 2.
(For details please see Commercial Firms section—Bombay).

**Badrudin, A. M. & Co.**, 23, Linghi Chetty St., Madras 1.

**Bahri & Co. Ltd.**—8, Imperial Bank St., Madras 2.

**BAJAJ ELECTRICALS LTD.**, Electrical Engineers, Manufacturers & Contractors, 3/33 Mount Road, Madras 2.
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*For further details please see* Commercial Firms Section BOMBAY.

**Balakrishnan & Co., K.S.P.**—38, Armenian St., Madras 1.

**Balaram Chetty & Sons, P.V.**—74, Acharappan St., Madras 1.

**Baliga Lighting Equipment Private Ltd.**—C-39-40, Industrial Estate, Guindy, Madras-32.

**Balussery Benefit Chit Fund P. Ltd.**, 3, Singarachari Street, Madras 5.

**Batlibhoy & Co.**—3/153, Broadway, Madras 1.

**Beardsell & Co. (Private) Ltd., W.A.**—8, Second Line Beach, Madras 1.

**Best & Co., P. Ltd.**—First Line Beach, Madras 1.

**Bharat Pulverising Mills P. Ltd.**—589, Thiruvottiyur High Road, Madras 19.

**Bhawoo Kashinath & Co. (Madras).**—Dents Gardens, 4, Patullo Road, Madras-2.

**Beehive Benefit Chit Fund**, 128, Mount Road, Madras 1.

**Belson & Co.**, 334, Thambu Chetty St., Madras 1.

**Bimetal Bearings Ltd.**, Huzar Gardens, Sembiam, Madras 11.

**Binny & Co. Ltd.**—7, Armenian Street, Madras 1. Post Box No. 66, Phone: 29171 (6 Lines); Grams: "BINNY"; Telex: TLXMS. 302; Agents for English Electric Co. Ltd.. and for a number of Engineering Commodities and dealers in a variety of Handloom Textiles; Agents for Steamer Passages and Air Travel, Shippers, Freight Brokers, Stevedores and Insurance Agents and also Principal Agents for P. & O. Steam Navigation Co. and British India Steam Navigation Co. Ltd.; The Buckingbam & Carnatic Co. Ltd., Madras, The Bangalore Woollen, Cotton & Silk Mills Co. Ltd., Bangalore, Binny's Engineering Works Ltd., Madras and Giovanola—Binny Ltd., Cochin, are subsidiary companies.

**Blackwood Hodge (India) Ltd.**—150-B, Mount Road, Madras 2.

**Blue Mountain Estates Ltd.**—Oriental Bldgs., Armenian St., Madras.

**Blue Star Engg. Co., (Madras) P. Ltd.**—23/24, Second Line Beach, Madras 1.

**Bob Corporation**—20, Anderson Street, Madras 1.

**Bombay Co., Ltd.**—169, Broadway, Madras 1.

**Brady, W. H., & Co. Ltd.**—Engineering and Sundries, 154/155, Pophams, Broadway, Madras 1.

**BRADMA OF INDIA LTD.**—Data writing Machines and Business Systems, 1/18, Mount Road, Madras 2. Phone: 85326. Grams: "BRADMALT".

**Brilliant Trading Corpn. Ltd.**, 4-A, Basni Bridge Road, Madras 1.

**British Insulated Callender's Cables Ltd.**—37, Second Line Beach, Madras 1.

**British Machinery Supply Co.**—136, Mount Road, Madras 6.

**British Overseas Airways Corporation.**—35/4, Mount Road, Madras 2.

**Brunnschweller, A., & Co.**—104, Armenian Street, Madras 1.

**Buckingham & Carnatic Co. Ltd.**—7, Armenian Street, Madras.

**Burmah-Shell Oil Storage & Distributing Co. of India Ltd.**—Burmah-Shell House, Esplanade, Madras 1.

**Calamee South Traders.**—116, Linghi Chetty St., Madras 1.

**Calcutta Chemical Co. Ltd.**, 5/149, Broadway, Madras.

**Caltex (India) Ltd.**—202, Mount Road, Madras 2.

**Canara Workshops Ltd.**—40, General Patters Road. Madras 2.

**Capco Private Ltd.**—16, Armenian Street, Madras 1.

**CARBORUNDUM UNIVERSAL LTD.**—Manufacturers of Bonded and Coated Abrasives Grains and Super Refractories, *Head Office:* 11-12, North Beach Road, Post Box No. 1677, Madras 1. Phone: 29141 (8 lines). Grams: "CUMI". *Branch Offices:* United India Buildings, 3rd Floor, Sir Phirozshah Mehta Road, P. B. No. 962, Bombay 1. Phone: 254658, Grams: "CUMIBOMB"; 7, Second Line Beach, P. B. No. 1997, Madras-1; Phone: 21437, Grams: "CARBORUND"; 56-D, Free School Street, P. B. No. 9058, Calcutta-16; Phone: 23-9765, Grams: "CUMICAL"; Laxman House, 2nd Floor, 9-10/3, Asaf Ali Road, P.O. Box No. 185, New Delhi-1. Phone: 273640, Grams: "CUMIDE".

**CASTROL LTD.**,—58/59, North Beach Road, Madras-1; Manager: G. W. Denby.

**Central Agency Ltd.**—19, Vaniar Street, Madras 1.

**Century Flour Mills Ltd.**, 330, Thambu Chetty St., Madras 1.

**Chambers, K. H., Ltd.**—Lecots Bldg., Madras 1.

**Chandra Foundries Ltd.**—55, Basin Bridge Road, Washermanpet, Madras 21.

**Chandrie & Co. Private Ltd.**—P. Box 156, Madras 1.

**Chandrakant & Co. Private Ltd.**—36, Kandappa Chetty St., Madras 1.

**Chari & Chari P. Ltd.**—2/7, Second Line Beach, Madras.

**Charles Morgan & Co., Ltd.**—314/315, Linghi Chetty Street, Madras 1.

**Chelpark Co., Ltd.**—37-L, Mount Road, Guindy, Madras 32.

**Chemical Enterprises P. Ltd.**—Madras 6.

**Chermaraja Nadar & Co., K.S.A.**—70, Govindappa Naick St., Madras 1.

**Chhotabhai Jhaverbhai & Co., Ltd.**—468, Mint St., Madras 3.

**Chimanlal Desai & Co.**—6, Sunkarama Chetty St., Madras 1.

**Chitra & Co.**—Bombay Mutual Bldg. Annexe, Linghi Chetty St., Madras 1.

**Chitram & Co.**—Main Road, Royapuram, Madras 12.

**Chokshi Bros. Private Ltd.**—Dinroze Estate, 5/17, Mount Road, Madras 2.

**Chowgule & Co. (Hind) P. Ltd.**—7/90, Wallajah Road, Mount Road, Madras 2.

**City Motor Service P. Ltd.**, 1/163, Mount Road, Madras 2.

**C. J. Hewlett & Son India P. Ltd.**, Nyniappa Naick Street, Madras.

**Colgate-Palmolive (India) Private Ltd.**, 7, Second Line Beach, Madras 1.

**Commercial Credit Corpn. P. Ltd.**, Finance House, Pattolos Road, Madras 2.

**Consolidated Importers & Exporters Private Ltd.**—2/21, First Line Beach, Madras.

**Consolidated Pneumatic Tool Co. Ltd.**—Finance House, Pattulos Road, Madras 2.

**Coogans.**—31, Mount Road, Madras 2.

**Coromandel Produce Corporation.**—17/337, Thambu Chetty Street, Madras 1.

**Coronet (Arts & Crafts).**—"Icon House", 1/155. Mount Road. Madras 2

**Curzon & Co.**—97, Walajah Road, Madras 2.

**Danis Malcolm & Co.**—204, Anna Pillai St., Madras 1.

**Dawood Haneef & Co., S.G.**—4, Anna Pillai St., Madras 1.

**Deeth & Co., W. H.**—14-15, Second Line Beach, Madras.

**Dhruva & Co., A.H.**—21, Sembudoss St., Madras.

**Dickinson, John & Co., Ltd.**—Hakim Mansions, Loane Square, Madras 1.

**Dipak Industrial Associates**, C-29, Industrial Estate, Madras 32.

**Doraiswamy Chetty & Co., A.S.**—55, Govindappa Naick St., Madras 1.

**Dunlop Rubber Co. India Ltd.**—3-29, Mount Road, Madras 2.

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**East India Industries (M) Ltd.**—498, Mint Street, Madras 3.

**Eastern United Trading Co. Ltd.**, 54-C, Usman Road, T. Nagar, Madras 17.

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**Ebrahim Currim & Sons**—251-256, N. Subbas Road, Madras 1.

**E. G. S. C.**—Post Box 1807, Madras.

**Electronic Service Company.**—17/35, Mount Road, Madras 2.

**Ellore Engineering Co. Ltd.**, 20, Second Line Beach, Madras 1.

**Empee Corpn. Private Ltd.**—20, Venkatachala Mudali Street, Madras 3.

**Empire Vermicelli Co., The.**—52, Choolai High Road, P. B. No. 481, Madras 7.

**Enfield India Ltd.**—Tiruvottiur, Madras 19.

**English Electric Co., of India Private Ltd.**—P. Box No. 2392, Pallavaram, Madras 27.

**Escorts (Agents) Ltd.**—9/10, Second Line Beach, Madras 1.

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**Essesstee (Private) Ltd.**—362-C, N.S.C. Bose Road, Madras 1.

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**Famous Engineering Corpn.**—27, Perianna Maistry St., Madras 1.

**Firestone Tyre & Rubber Co. of India Private Ltd.**—Woods Road, Madras 2.

**Food, Fats & Fertilisers P. Ltd.**,—67, Godown Street, Madras 1.

**Fraser & Ross**—12, Mcleon Street, Madras 1.

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**F. X. Pereira & Sons (Estd. 1889)**—H. O., Post Box No. 1532, 2/21, First Line Beach, Madras 1.

**G. Janshi & Co.**—2/163, Mount Road, Madras-2.

**Gallakotwala, C. A., & Co., Ltd.**—18, Armenian Street, Madras 1.

**Gally & Co.**—28, General Patters Road, Madras 2.

**Gandavadi Sreeramulu Chetty & Sons**—207/208, N. S. C. Bose Road, Madras 1.

**Ganesan & Sons, P. N.**—12/13, Angappa Naick St., Madras 1.

**Ganga & Co.**—Andhra Chamber Bldgs., Angappa Naick St., Madras.

**Gannon Dunkerley & Co., (Madras) Private Ltd.**—14, Boag Road, Madras 17.

**Garlick & Co., Ltd.**—26, Errabalu Chetty St., Madras 1.

**Gaumant Kelly P. Ltd.**—36, Mount Road, Madras 2.

**Gem & Co.**—325/6, Netaji Subhas Chandra Bose Road, Madras 1.

**General Electric Co. of India Ltd.**—Magnet House, Mount Road, Madras 2.

**General Produce Dealers (M) Ltd.**—2/25, P. Mudali Street, Madras 1.

**General Radio & Appliances Private Ltd.**—1/18, Mount Road, Madras 2.

**Geoffrey Manners & Co., Private Ltd.**—43, Moore Street, Madras 1.

**George Oakes Private Limited.**—36/D, Mount Road, Madras 1.

**George Vint & Bhalla (India) Ltd.**—7, Woods Road, Mount Road, Madras 2.

**Gillanders Arbuthnot & Co., Ltd.**—1st Line Beach, Madras 1.

**G. K. Syndicate Ltd.**—119, Armenian Street, Madras 1.

**Gladstone Lyall & Co. Ltd.**—Connemara Hotel Annexe, Madras.

**Glaxo Laboratories (India) Ltd.**—Woods Road, Madras 2.

**Godrej & Boyce Mfg. Co., Ltd.**—163-D, Broadway, Madras 1.

**Golden Industries**, Madras 5.

**Goodyear Tyre & Rubber Co. of India Private Ltd.**—2, Patullo Road, Madras 2.

**Gordon Woodroffe & Co. (Madras) Ltd.**—1/21, North Beach Road, Madras 1.

**Govindaraj & Sons Ltd., P.**—44, Theagaraja Road. Madras 1.

**Govindaraju Chetty & Co., Ltd., T. N. K.**—3, Dr. Nair Road, Madras 17.

**Grahams Trading Co. (India) Ltd.**—310/311, Linghi Chetty Street, Madras 1.

**Grand Trunk Roadways Ltd.**—337, Thambu St., Madras 1.

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**Guest, Keen, Williams, Ltd.**, 202, Mount Road, Madras 1.

**Gulamali Abdul Husein & Co.**—28 & 29, Linghi Chetty St., Madras 1.

**H. Chandanmal & Co.**—97, Nyniappa Naick Street, Madras 3.

**H. A. Taiyebali & Co.**—294, Linghi Chetty St., Madras 1.

**Hackbridge-Hewittic & Easun Private Ltd.**—5-7, Second Line Beach, Madras 1.

**Harbour Engineering Private Ltd.**—322, Linghi Chetty St., Madras 1.

**Hargolal & Sons**—27-A & B, Linghi Chetty St., Madras 1.

**Harrison & Co. (Drug Section)**, 167, Broadway, Madras.

**Heatly & Gresham Ltd.**—Bombay Mutual Bldgs., Madras 1.

**HIGGINBOTHAMS (PRIVATE) LTD.**—(Estd. : 1844), Book-Sellers & Publishers, 165, Mount Road, Madras 2 ; Phone : 86556 ; Grams : "BOOKLOVER".

**Hind Industrial Corpn.**—79/11, Sembudoss St., Madras 1.

**Hind Mercantile Corporation Ltd.**, 308, Linghi Chetty Street, Madras 1.

**Hindu Office and National Press, The**, "Kasturi Buildings", Mount Road, Madras 2.

**Hindustan Lever Ltd.**—11-14, Armenian Street, Madras 1.

**Hindwire Metal Industries.**—36, Sembudoss St., Madras 1.

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**Hoechst Dyes & Chemicals Ltd.**—67, Dr. Alagappa Chettiar Road, Madras 7.

**Hope Prudhomme & Co., Private Ltd.**—271, Angappa Naick St., Madras 1.

**Husein Ali & Co., A.**—287, Linghi Chetty St., Madras 1.

**Hydraulics P. Ltd.**—M. Road, Madras.

**Ilford-Selo (India) Private Ltd.**, 2/3, Woods Road, Madras 2.

**Imperial Chemical Industries (India) Private Ltd.**, Bombay Mutual Buildings, Netaji Subhas Chandra Bose Road, Madras 1.

**Imperial Tobacco Co. of India Ltd.**—Bombay Mutual Bldgs., 2nd Floor, Netaji Subhas Chandra Bose Road, George Town, Madras 1.

**India Cements Ltd.**, 11-12, Second Line Beach, Madras.

**India Company Private Ltd.**—Oriental Bldgs., Armenian St., Madras 1.

**India Forge & Drop Stampings Ltd.**, 21, Sunkurama Chetty Street, Madras 1.

**India Manufacturers (Madras) Private Ltd.**—313, Linghi Chetty St., Madras 1.

**India Pistons Private Ltd.**, Huzur Gardens, Sembiam, Madras 11.

**India Tyre & Rubber Co. (India) Ltd.**, 150-B, Mount Road, Madras.

**Indian Alloy Metal Works**, 43, Spur Tank Road, Madras 31.

**Indian Aluminium Co. Ltd.**,—Agurchand Mansions, Mount Road, Madras.

**Indian Biselers, P. Box 1595**, Madras 1.

**Indian Cable Co. Ltd.**—37, Second Line Beach, Madras.

**Indian Cable & Wire Industries**, 310/311, Linghi Chetty St., Madras 1.

**Indian Chemical & Therapeutical Works Ltd.**, 14/15, Second Line Beach, Madras 1.

**Indian Commerce & Industries Co. Private Ltd.**—95, Broadway, Madras 1.

**Indian Craft & Industries**, 3, Valmiki Street, Madras 17.

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**Indian Oxygen & Acetylene Co., Ltd.**, 7/A, Vaithianatha Mudali Street, Tondiarpet, Madras 21.

**Indian Potash Supply Agency P. Ltd.**—8/9, Thambu Chetty St., Madras.

**Indo-Ceylon Dental & Surgical Co. Ltd.**, 288, Esplanade, Madras 1.

**Indo-German Engineering Co. Private Ltd.**—120, Armenian Street, Madras 1.

**Indo-Malayan Trading Co.**, 125, Audiappa Naick St., Madras.

**Indo-Metal Industries**, 23, Errabalu Chetty St., Madras 1.

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**International Equipment Corpn. P. Ltd.**—Caithness Hall, 310-311, Linghi Chetty St., Madras 1.

**International General Electric Co. (India) Private Ltd.**, 36-B, Mount Road, Madras 2.

**Italab P. Ltd.**, 19, Govindappa Naicken St., Madras 1.

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**Jammi Venkataramanayya & Sons**, 48/1, Royapettah High Road, Madras 4.

**Jayant Packaging P. Ltd.**, Super A-12 & 18, Industrial Estate, Madras 32.

**J. B. Advani & Co. Ltd.**, Loane Square, Broadway, Madras.

**J. B. Mangharam & Co.**, 35/37, Thambu Chetty St., Madras 1.

**J. & J. DeChane (Depot)**, 153, Nainiappa Naick Street, P.T. Madras.

**Jeewanlal (1929) Ltd.**, 127, Mint Street, Madras 1.

**Jemco P. Ltd.**, Super B-3, Industrial Estate, Madras 32.

**Johnson & Co. (India)**, 18, Andhra Insurance Bldgs., Thambu Chetty St., Madras 1.

**Jones & Co. P. Ltd., J. D.**, 30, Broadway, Madras.

**Jupiter General Insurance Co., Ltd.**, Jupiter House, 167, Broadway, Madras 1.

**K. C. P. LTD.**—38, Mount Road, Madras-6.

**Kartik & Co., Feroze Mahal, Linghi Chetty St., Madras 1.**

**Karamchand Thapar & Bros., Saifya Chambers, 7, Second Line Beach, Madras 1.**

Kasimari Industrial Corporation.—295, T. H. Road, Madras 21.

**Kemp & Co. Ltd., 27/28, Armenian Street, Madras 1.**

**KAYCEE INDUSTRIES LTD.,** 3/33, Mount Road, Madras; Agents for Hind Rectifiers Ltd., Manufacturers of Selenium and Silicon Semiconductors, Electroplating Rectifiers, Battery Chargers, Silicon Power Plants for Electro-chemical Industries, 'Santon' Rotary Switches, 'Kaycee' Toggle Switches Water Meters; Head Office: Kamani Chambers, Nicol Rad, Ballard Estate, Bombay; Phone: 263521, Grams: "TURNRITE"; Branches: Delhi, Calcutta & Kanpur.

Kesari Kuteeram Ltd., 15, Wescott Road, Madras 14.

**Keshavlal Talakchand Private Ltd., 63, Mint St., Madras 3.**

**Khemka & Co. (Agencies) P. Ltd., Indian Chamber Bldgs., Esplanade, Madras 1.**

**Kilachand Devchand & Co., Ltd., 310/311, Linghi Chetty Street, Madras 1.**

**Kilburn & Co. Ltd., 32/33, Linghi Chetty Street, Madras 1.**

Kishinchand Chellaram (India) Private Ltd.,—3/4, Godown Street, Post Box No. 165, Madras 1.

K. Orr & Co., 40, Chinnathambi St., Madras 1.

Kothandaraman & Co., K. R., 13/B, Second Line Beach, Madras 1.

**Kothari Textiles Ltd., Oriental Bldgs., Armenian Street, Madras 1.**

Kowtha Business Syndicate P. Ltd., 95, Broadway, Madras 1.

**K. P. V. Sheik Mohamed Rowther & Co., 41, Linghi Chetty St., Madras.**

Krishna & Co.—No. 16, First Line Beach, Madras 1; Agents—India Steamship Co. Ltd., Clearing and Forwarding Agents; Phone: 21638/21648; Grams: "INDAWARDS."

Krishna Industrial Corporation Ltd., 38, Mount Road, Madras 6.

**Krishnamachari & Co., T. T., 331/333, Thambu Chetty St., Madras 1.**

**Kubera Enterprises Private Ltd., 21, Sunkurama Chetty St., Madras 1.**

**Kuppuswami Naicker & Co. Private Ltd., 15, Sembudoss St., Madras 1.**

Kutty Flushdoors & Furniture Co. P. Ltd., Poonamallee High Road, Madras 49.

Lakshmi Paper Industries, 5/22, Broadway, Madras 1.

Lakshmidas Dwarkadas & Co., 35, Govindappa Naik Street, Madras 1.

Lala Gopikrishna Gokuldas.—114, Mint St., Madras.

Laljee Godhoo & Co., 8, Perumal Mudali St., Sowcarpet, Madras.

Larsen & Toubro Ltd., Engineers, 4/5, Club House Road, Mount Road, Madras 2.

Laxmi Industrial Corporation, Super B-6, Industrial Estate, Madras 32.

Leos Mercantile Corporation, B-20, Industrial Estate, Madras 32.

Lilaram Shewaram (India) P. Ltd., Post Box 1368, Madras 1.

Lipton Ltd., 129, Moore Street, Madras.

Little's Oriental Balm & Pharmaceuticals Ltd., Express Estates, Mount Road, Madras 2.

Lloyd Insulations, 10, Victoria Crescent, Madras 8.

Louis Dreyfus & Co., Ltd., 310-311, Linghi Chetty Street, Madras 1.

Lotus Industries Ltd., 16, Coral Merchant Street, Madras 1.

**Lovelock & Lewes, Mercantile Bank Bldgs., 1st Line Beach, Madras 1.**

Lucas Indian Service Private Ltd.—10, Patullo Road, Madras 2.

MBT Biggest Cargo Movers, H.O. 1/235, Angappa Naicken Street, Madras 1.

M. R. Electronic Components(P) Ltd., C-24-25, Industrial Estate, Guindy, Madras-32.

Maconochie & Co.—Mercantile Bank Bldgs., Madras 1.

Madras Commercial Corporation Ltd., 27, Moore Street, Madras 1.

Madras Commercial Trust Ltd., 5, Linghi Chetty Street, Madras 1.

Madras Enamel Works Ltd., 65, Sydenham's Road, Madras 7.

Madras Engineering Agencies Private Ltd.—11, Linghy Chetty St., Madras 1.

Madras Food Products Co. Ltd.—48, Anderson St., Madras 1.

Madras Light Casting Co.—4th Kathbada Lane, Washermanpet, Madras 21.

**MADRAS MOTORS PRIVATE LTD., THE,** Motor Cycle Specialists; 36-C, Mount Road, Madras 2; Phones: 86031 (5 Lines); Grams: "MOTOGLYDE"; Sole Selling Agents for Royal Enfield Motor Cycles, Three Wheelers and Fantabulus Scooters manufactured by the Enfield India Limited, Madras 19.

Madras Palayakat Co. Ltd.—31, Armenian Street, Madras 1.

Madras Safe Deposit Co., Ltd., P. Box 267, Madras 1.

Madura South India Corpn. P. Ltd.—Post Box 1823, Madras 1.

Mahindra & Mahindra Ltd., 175/1, Mount Road, Madras 2.

**Mahomed Ebrahim & Co. Private Ltd.—7/8, Mount Road, Madras 2.**

"Mail", The, Mount Road, Madras.

Mansfield Oil Gas Co. Ltd., 301, Linghi Chetty St., Madras.

Marshall Sons & Co. (India) Ltd., Marshall Building, Second Line Beach, Madras 1.

May & Baker (India) Ltd., Purshothamdas Bldg., 193, Mount Road, Madras 2.

Mayer & Co.—16, Ayya Pillai St., P. T., Madras 3.

McDowell & Co., Ltd., 1-6, Second Line Beach, Madras 1.

McRennett & Co., Bakers, Mount Road, Madras 6.

Meccano Floorings P. Ltd., 533, Poonamalle High Road, Madras 7.

Mechelec Engineering Co., Ltd., 21, Sunkurama Chetty Street, Madras 1.

Mercantile Corpn. (India).—15/16, Angappa Naick St., Madras 1.

Messageries Maritimes Co., 6-20, North Beach Road, Madras 1.

Metal Box Co. of India Ltd., Elaya Mudali Street, Tondiarpet, Madras 21.

Metallizers P. Ltd., C-28, Industrial Estate, Madras 32.

Metalware Co., 425, Mint Street, Madras 1.

Mettur Industries Ltd.—Second Line Beach, Madras.

Microtee Castings P. Ltd., 11/12, Second Line Beach, Madras 1.

Mills Stores Limited, 24, Errabalu Chetty Street, Madras 1.

Modern Housing Construction & Properties Ltd.—13, West Cott Road, Royapettah, Madras.

Modi & Modi, P.B. No. 293, Madras 1.

Mohamedaly Sarafaly & Co., 10, Sembudoss St., Madras 1.

Mohan Industries, 470, T. H. Road, Madras 21.

Motor India.—5/A 147, Mount Road, Madras 6.

M. R. Electronic Components P. Ltd. C-24 & 25, Industrial Estate, Madras 32.

Murcott, A., & Co. (India) Ltd., 28, Stringer's Street, Madras 1.

Murlay Industries.—2/153, Broadway, Madras 1.

My Coffee Co., 84, Sydenham's Road, Madras 7.

Mysindia Tiles & Eng. Co.—1 & 2, Poonamallee High Road, Madras 3.

Mysore Insecticides Co.—31-A, North Beach Road, Madras 1.

**Narayanan & Co. Private Ltd.—26, Mount Road, Madras 2.**

Natesan & Co., Private Ltd., 10, Mount Road, Madras 2.

**National Carbon Co. (India) Ltd.—590, Tiruvottiyur High Road, Madras 19.**

National Cork Products Industries, D-1, Industrial Estate, Madras 32.

National Engineering Co., (M) Private Ltd., 379, Netaji Road, Madras 1.

National Fasteners P. Ltd., Super B-1, Industrial Estate, Madras 32.

National Insulated Cable Co. of India Ltd.—10, Mount Road, Madras 2.

National Products Corpn. Private Ltd.—10, Visweswarapuram St., Madras 4.

National Tobacco Co. of India Ltd.—145, Angappa Naick St., Madras 1.

National Trading Co.—391, Mint Road, Madras 1.

National Tyre & Rubber Co. of India Ltd.—28, Peters Road, Royapettah, Madras 14.

Natural Slabs & Floorings Co., 58, Thambu Chetty Street, Madras 1.

Navita P. Ltd., 331/332, Thambu Chetty Street, Madras 1.

**Nestle's Products (India) Ltd.—30, Second Line Beach, Madras 1.**

Newton & Co.—80, Wallajah Road, Mount Road, Madras 2.

Norton & Co.—1/16, Thiruvengada Mudali St., Madras 7.

Oakley Bowden & Co. (Madras) Ltd.—Express Estates, Mount Road, Madras 2.

**Oldham & Son (India) Private Ltd.—P. Box 2635, Madras 32.**

Omega Insulated Cable Co. of India Ltd., 122/2, Mount Road, Madras 6.

Orient Credit Corporation.—26, Errabalu Chetty St., Madras 1.

**ORIENT EXPRESS CO. PRIVATE LTD., THE,** Agurchand Mansion, 35, Mount Road, Madras-2; Phone: 86260; Grams: "OREXPRESCO"; World Wide Travel Service; Authorised Agents for Airlines, Steamship Companies, Railways and Hotels; Offices in New Delhi, Calcutta, Bombay and Madras; Correspondence in 350 cities throughout the world; Managing Director: S. S. Poddar.

Orient Pharma P. Ltd.—Old Trunk Road, Pallavaram, Madras.

Oriental Mercantile Agency—99-A, Armenian Street, Madras 1.

Orr, P., & Sons Pt. Ltd.—Mount Road, Madras 2.

Osler, F. & C. (India) Ltd.—1st Line Beach, Madras.

P. Govindaraj & Sons Private Ltd., 44, Thyagaraya Road, Madras 17.

Pagoda Metal Industries, 19-B, Industrial Estate, Madras 32.

Palghat Chit Funds P. Ltd., 331/332, Thambu Chetty Street, Madras 1.

Palmer Leetz Chemical Co.—22, Royapettah High Road, Madras 14.

Parry & Co., Ltd.—"Dare House", First Line Beach, Madras 1.

Paterson & Co.—Errabalu Chetty St., Madras 1.

Perkins, F. Ltd.—2-C, Kilpauk Garden Road, Madras 10.

Pest Control Service Co.—193, Mount Road, Madras 2.

Philips India Private Ltd.—Indian Chamber Bldgs., Esplanade, Madras 1.

Pilco Mirror Industries, C-14, Industrial Estate, Madras 32.

**PILMEN AGENTS PRIVATE LTD.**—13, Second Line Beach, Post Box 1928, Madras 1.

Pilot Pen Co. (India) Private Ltd.—Catholic Centre, Armenian St., Madras 1.

Pioneer Equipment Co. P. Ltd.—193, Mount Road. Madras.

Pioneer Sports (India) Private Ltd.—199, Mount Road, Madras 2.

Polson Ltd.—17, Angappa Naick St., Madras 1.

Polyene General Industries, Industrial Estate. Madras 32.

Poppat Jamal & Sons—182, Broadway, Madras 1.

Power Tools & Appliances Co.—327, Thambu Chetty St., Madras.

Precision Products Co., C-45, Industrial Estate, Madras 32.

Prem Industrial Corporation. B-10 & 11, Industrial Estate, Madras 32.

Premier Suppliers P. Ltd.—9, Stringers Street, Madras 1.

Premier Trading Co.—31, Ekambareswarar Agraharam, Madras 3.

Printers House Ltd.—177, Mount Road, Madras 2.

Protos Engineering Co. P. Ltd.—Post Box 375, Madras.

Prynne, Abbot & Davis.—13, College Road, Madras 6.

Racek & Co. P. Ltd.—F-2, Singanna Naick Street, Madras.

Rajagopalan & Co. Ltd., V.S.—24, Wallers Road, Madras 2.

Raka Chemicals & Food Products Ltd., 138, Moore Street, Madras 1.

Raka Corporation P. Ltd.,—138, Moore Street, Madras 1.

Ralli Brothers Ltd.—Dare House, 1st Line Beach, Madras 1.

Rallis India Ltd.—Ralli House, 320, Linghi Chetty Street, Madras 1.

Ramabrahman & Sons (Madras), K.—31-A, North Beach Road, Madras 1.

Rambal Private Ltd.,—Lattice Bridge Road, Adyan, Madras-20.

Ram Mohan & Co., Ltd.—Travel Agents, 362, N. S. C. Bose Road, Madras 1.

Rama Vilas Service Private Ltd.—Mount Road, Madras 2.

Ramson Export (I) P. Ltd.—226, Poonamallee High Road, Madras 3.

Ranbaxy Private Ltd.—Ebrahim Bldgs., 3, Errabalu Chetty St., Madras.

Rane (Madras) Ltd.— 7, Velacheri Road, Madras 32.

Ranganatham & Sons Private Ltd., A. K.—'Kumara Vijayam', Royapettah High Road, Madras 4.

Raptakos Brett & Co., Ltd.—52/53, Thambu Chetty Street, Madras 1.

Rattan and Cane Industries.—31, Purasawalkam High Road, Madras 10.

Rayala Corporation (Madras) P. Ltd.—L-25. Mount Road. Madras 2.

Rayon Traders Private Ltd.—61, Sembudoss St., Madras 1.

Refrigerators & Home Appliances Private Ltd.—36, Mount Road, Madras 2.

Remington Rand of India Ltd.—Agurchand Mansion, Mount Road, Madras 2.

Richardson & Cruddas Ltd.—First Line Beach, Madras 1.

Rightaids Orient P. Ltd., Super A-7, Industrial Estate, Madras 32.

Road Transport Corporation P. Ltd., Fatema Manzil, 302, Linghi Chetty Street, Madras 1.

R. Subbaraman & Co. P. Ltd.—11/12, Second Line Beach. Madras 1.

**S. B. S. TRADING CO.**—8, Ramanuja Iyer Street, Madras 21, P.O. Box 65—Madras-1; Phones: 51207 and 84038; Grams: "BONDHU". Export & Import—Manufacturers of quality Handloom Textiles — Handicrafts — Carpets — Minerals—Cotton Yarns—Dyes & Chemicals

Sahib Singh Mfg. Co. P. Ltd.—Post Box 129, Madras.

Sait Roadline, 4, Sunkurama Chetty Street, Madras 1.

Sami Venkatachelam Chetty & Co., Burmah Shell Agents & Stockists for Cement Marketing Co. of India, Dealers in Coal, Chemicals and Tyres; 58, Theagaraya Road, T. Nagar, Madras 17.

Sanghvi Brothers.—310-311, Linghi Chetty Street, Madras 1.

Scindia Steam Navigation Co. Ltd.—109, Angappa Naick St., Madras 1.

Scott & Pickstock Private Ltd.—Catholic Centre, Armenian St., Madras 1.

Seashore Traders, 20, Kasi Chetty St., Madras 1.

Seeyensee & Co.—55, Anderson Street, Madras 1.

Sen & Pandit Private Ltd.—1, Philips St., Madras 1.

Sepulchre Bros. (India) Ltd.—11/12, Second Line Beach, Madras 1.

Sethuram Thiagarajan & Co.—272/73, Angappa Naick Street, Madras 1.

Shahani & Co. Private Ltd., M. G.—62, Malaiperumal St., Madras 1.

Shah Metographic Industries, 3/2, Audiappa Naicken Street, Madras 1.

Shaik Mohamed Rowther & Co.—K. P. V., 41, Linghi Chetty Street, Madras 1.

Shanti Agencies.—28, Stringer Street, Madras 1.

**SHAW WALLACE & CO., LTD.**, 8/9, Thambu Chetty Street, Madras 1, Phone: 29301; Grams: "SHAWLACE"; P.O.Box No. 14. *Registered Office:* Calcutta. *Manufacturers:* Fertilisers and Fertiliser Mixtures. Superphosphate, Sulphuric Acid, Sodium Silicofluoride, Animal Feeds, Glue Roller Composition, Power & Hand Sprayers and Spraying equipment. *Secretaries:* Indian Potash Supply Agency Ltd. *Agents:* Sandoz (India) Ltd., American Cyanamid Company, New York; British Ropes Ltd., London; Celotex Ltd., London; The Micron Sprayers Ltd., London; Steel worth Ltd., Calcutta (C.T.C. Machines); Hellenic Lines, New York, D.D.G. Hansa, Bremen; Queensland Insurance Co., Ltd., Sydney; Agents in Mysore & Andhra Pradesh for the Jaipur Mineral Development Syndicate Private Ltd., and The Associated Soapstone Distributing Co., Private Ltd., Distributors: Tower Brand Yeast, Distillers: Haywad's Products. *Stockists:* Imported Wines, Spirits & Beer. Manufacturers, Engineers, Importers and General Merchants. *London Correspondents:* R. G. Shaw & Co., Ltd., 19, Leadenhall Street, London, E.C. 3. *Associate Companies:* Shaw Wallace Pakistan Ltd., Karachi & Chittagong, Shaw Wallace & Hedges Ltd., Colombo.

Sherif Travel and Cargo Service Private Ltd.—34, Second Line Beach, Madras 1.

Shimoda Glass & Flask Factory P. Ltd.—Madras 23.

Siemens Engineering & Manufacturing Co. of India Ltd., 122, Mount Road, Madras.

Simpson & Co., Ltd.—202/203, Mount Road, Madras 2.

Simson & McConechy—22, Errabalu Chetty Street, Madras 1.

Singer Sewing Machine Co.—12, Mount Road, Madras 2.

Singson & Co. (India).—1/2, State Bank St., Madras 2.

Snow White Industrial Corpn.—Manufacturers of Supercem Water Repellent Cement Paint—109, Netaji Subhas Road, Madras 1.

Soundararajan & Co., V.—'Catholic Centre', Armenian Street, Madras 1.

Soundararajan & Co. Ltd.—221, Govindappa Naick St., Madras 1.

South India Automotive Corpn. P. Ltd.—24, Whites Road, Madras 14.

South India Corporation (Madras) Ltd.—2, Armenian Street, Madras 1.

South India Export Co. Ltd., 5, Mclean Street, Madras 1.

South India Trade Expansion Co.—109, Sydenham's Garden Road, Madras 7.

South India Trading Co.—204/5, Govindappa Naick St., Madras 1.

South Indian Export Co., Ltd.,—5, McLean Street, Madras 1.

South Indian Products Ltd.—95, Mundakanniamman Koil St., Madras 4.

Southern Agencies—7, Kondi Chetty Street, Madras 1.

Southern Automatic Industries, B-2, Industrial Estate, Madras 32.

Southern Conduits.—C-16 & C-17, Industrial Estate, Madras 16.

Southern Constructions Private Ltd.—Luz Avenue, Madras 4.

Southern Forgings P. Ltd. A-17 & 19, Industrial Estate, Madras 32.

Southern India Skins Corporation.—7, V sidhi Vinayagar Koil St., Madras 3.

Southern India Trading Corpn.—3, H.D Rajah Nagar, Eldams Road, Madras 18

Southern Industrial Corpn. P. Ltd.—6, Armenian St., Madras.

Southern Languages Book Trust, 3, Wheatcroft Road, Nungambakkam, Madras 31.

Southern Roadways Private Ltd.—28 Broadway, Madras.

Southern Structurals Ltd.—GDC Bldg., Cathedral Road, Madras 6.

Speed-A-Way Private Ltd., 35/5, Mount Road, Madras 2.

Spence Ltd.—24, General Patters Road, Madras 2.

Spencer & Co., Ltd., Mount Road, Madras 2.

Sri Jothi Waste Paper Co.—21, Anna Pillai St., Madras 1.

Sri Rama Machinery Corpn. Private Ltd.—5/6, Armenian St., Madras 1.

Standard Motor Products of India Ltd.—29, Mount Road, Madras 2.

Standard Printing Machinery Co.—12/81, Sembudoss St., G. T., Madras 1.

Steel & General Traders, 19, Sembudoss St., Madras.

Sunderdas Trading & Mfg. Co.—150A, Mount Road. Madras 2.

Surajmall Lallubhai & Co.—313, Esplanade, Madras 1.

Swastik Agency, 165, G. Naick Street, Madras 1.

Swastik & Co.—7, Second Line Beach, Madras 1.

T. A. Taylor & Co. Madras Private Ltd.—(Estd.: 1878), 100, Armenian Street, Post Box No. 51, Madras-1.

T. A. S. Ratnam Brothers, Post Box 1151 Madras 21

Tarapore & Co., 175/1, Mount Road, Madras 2.

Tecalemit (India) Ltd., Bombay Mutual Building, Esplanade, Madras 1.

Technical Engineering Products Co.—C-22, Industrial Estate, Madras 16.

Thomas & Co. (India) Ltd., A. V.—2/21, First Line Beach, Madras.

Thos. Cook & Son (Continental and Overseas) Ltd., 4/5, First Line Beach, George Town, Madras.

T. I. Cycles of India Ltd.—Ambattur, Madras.

Tiffin Barytes Asbestos & Paints Ltd.—322/23, Linghi Chetty St., Madras 1.

Tinplate Dealers' Association P. Ltd.—9, Sembudoss Street, Madras.

T. O. A. P. Ltd., Avadi, Madras 54.

Travancore Cements Ltd.—10, Mount Road, Madras 2.

Travancore Rayons Ltd.—216, Second Line Beach, Madras.

Tube Investments of India Ltd.—52/53, Jehangir St., Madras 1.

Tube Products of India, Avadi, Madras 54.

Tube Suppliers Ltd.—6, Armenian Street, Madras 1.

Tullis Woodroffe & Co. P. Ltd., 1/21, North Beach Road, Madras.

Turner Hoare & Co. Ltd.—3/33, Mount Road, Madras 2.

**TYPEWRITER & OFFICE APPLIANCES (INDIA) CO. PRIVATE LTD.**—17, Armenian St., Madras 1.

Uberoi Ltd., 22, Mount Road, Madras.

Union Carbide (I) P. Ltd.—Hakim Mansion, Loane Square, 14, Stringers St., Madras 1.

United Concerns, 54, Bunder Street, Madras.

United Liner Agencies of India Ltd.—7, 2nd Line Beach, Madras 1.

United Printers Syndicate P. Ltd., 42, Broadway, Madras 1.

United Steel Companies India P. Ltd., 19, Agurchand Mansion, Mount Road, Madras.

Upper India Berrings P. Ltd., 1/18, Mount Road, Madras 2.

Upper India Trading Co. P. Ltd.—1/18, Mount Road, Madras 2.

Varul Industrial Corporation, B-12 & 13, Industrial Estate, Madras 32.

Vasant Electronic Co.—1/34, Mint St., Madras 3.

V. D. Swami & Co. P. Ltd.—3/1, Cathedral Road, Madras 6.

Vaman Bros.—39, Spurtank Road, Chetput, Madras 31.

Venkataraman & Co. Private Ltd., K. S.—5, Dr. Thomas Road, Madras 17.

Vernon & Co., Ltd., 36, Second Line Beach, Madras 1.

Vikas Industries, C-23, Industrial Estate, Madras 32.

Vikrama Engineering Co. (Agencies), P.O. Box 909, Adyar, Madras 20.

Volkart Brothers.—5/6, Armenian Street, Madras.

Voltas Limited, 115/116, Armenian Street, Madras 1.

Vulcan Trading Co. Private Ltd.—88-C, Mount Road, Madras 6.

Vummidiars Manufacturers Private Ltd.—Mfrs. of stainless steel utensils, 162, Mount Road, Madras 2.

Wakefield & Co. Ltd., C. C.—58/59, North Beach Road, Madras 1.

Water Supply Specialists P. Ltd.—330, Thambu Chetty Street, Madras 1.

Western India Match Co., Ltd., Manufacturers of Matches, 38-C, Mount Road, Madras 6.

Western India Plastic Trading Co.—7, Narayana Mudali St., Madras 1.

**WESTREX COMPANY (Prop.: Cinerama Pvt. Ltd.).**—Agurchand Mansion, 35, Mount Road, Madras-2.

Wheatley & Yate.—Hakim House, 11/12, Jaffar Syrang Street, Madras 1.

W. I. Oil Distributing Co. Ltd.—310/311, Linghi Chetty St., Madras 1.

Wheel & Rim Co. of India Private Ltd., Sembiam, Madras 11.

Wilfred Pereira Private Ltd.—Vepery, Madras 7.

William Jacks & Co., Ltd., National Bank Building, First Line Beach, Madras 1.

Wilson & Co., North Railway Terminus Road, Royapuram, Madras 1.

Wirenetting Industries Corpn.—17, Rundalls Road, Vepery, Madras 7.

World Trade Agencies.—4, Bunder Street, Madras 1.

Wren, Bennett & Co. India Ltd., 34. Mount Road, Madras 2.

# CLASSIFIED LIST OF TRADES & PROFESSIONS

## ABRASIVES

Ambadi Enterprises P. Ltd.—52/53, Jehangir Street, Madras 1.

Ajax Products Ltd.—106, Armenian Street, Madras.

Best & Co. Ltd.—First Line Beach, Madras 1.

**CARBORUNDUM UNIVERSAL LTD.—Manufacturers of Bonded and Coated Abrasives grains and Super Refractories, 7, Second Line Beach, P.B. No. 1997, Madras-1.**

East Asiatic Co. (India) Ltd., The.—Mercantile Bank Bldg., First Line Beach, Madras 1.

**FOREIGN TRADES.—Post Box No. 1617, Madras-1: Suppliers of Emery, Garnet, Flint, Corundum, Aloxide, Carborundum Silicon Carbide, Optical Rouge, Quartz, Dolomite, Fedspar, Glass Powder and Manganese Powder.**

Gillanders Arbuthnot & Co., Ltd.—3, North Beach Road, Madras 14.

Gordon Woodroffe & Co. (Madras), Ltd.—1/21, North Beach Road, Madras 1.

Grindwell Abrasives Ltd.—27/28, Armenian Street, Madras.

Roberts McLean & Co., Ltd.—200, Mount Road, Madras 2.

R. Subbaraman & Co. P. Ltd.—11/12, Second Line Beach, Madras 1.

Verma & Co., Ltd.—36, Second Line Beach, Madras 1.

William Jacks & Co., Ltd.—National Bank of India Bldg., First Line Beach, Madras 1.

Wilson & Co.—North Railway Terminus Road, Royapuram, Madras.

## ACIDS & ALLIED PRODUCTS

**BHANSALI CHEMICALS.—149, Nyniappa Naick Street, Madras-3; Phone: 32147, 37211; Grams: "MUKPRIYA": Largest Dealers in Heavy, Light, Laboratory, Photographic, Litho, Process, Plastic, Rubber, Electroplating, Tanning, Industrial Chemicals, Aromatic Chemicals, Essential oils, Drugs and acids of every description—AR/GR/LR/CP and Commercial Varieties.**

## ADDING, CALCULATING AND ACCOUNTING MACHINES

Facit Asia Ltd.—6-A, Woods Road, Madras 2.

Gillanders Arbuthnot & Co., Ltd.—3, North Beach Road, Madras 1.

Indian Manuufacturers (M) P. Ltd.—35, Mount Road, Madras 2.

International Computers & Tabulators (I) P. Ltd.—L.I.C. Bldgs. 3/18, Mount Road, Madras 2.

Kilburn & Co., Ltd.—32/33, Linghi Chetty Street, Madras 1.

Powers-Samas Accounting Machines (Sales) Ltd.—150B, Mount Road, Madras 2.

## ADDRESSING & LISTING MACHINES

**BRADMA OF INDIA LTD.—Data Writing Machines and Business Systems; Bharat Insurance Building, 1/18, Mount Road, Madras 2. Phone: 85326. Grams: "BRADMALT."**

P. N. Ganesan P. Ltd.—7, Judge Jambu Linga Mudaliar Road Mylapore, Madras 4.

## ADVERTISING AGENTS AND CONSULTANTS

**AJANTA ADVERTISING.—35, Mount Road, Madras 2. Phone: 88479, Grams: "ADINFER"; Head office at Bombay, Branch at Calcutta.**

Amar Advertising Corporation.—255, Thambu Chetty Street, Madras 1.

Anuradha Advertising Service.—Lattice Bridge Road, Adyar, Madras 20.

Aruna & Co.—36-B1, Mount Road, Madras 1.

Associated Advertisers & Printers.—83, Gopathy Narayanaswamy Chetty Road, T. Nagar, Madras 17.

Beebees, C/o Balu Bros.—2, Thayar Sahib Street, Madras 2.

Bomas Ltd.—3/18, Mount Road, Madras 2.

Central Publicities Ltd.—Arcot Road, Vadapalani, Madras 26.

Chari Advertising.—174, Broadway, Madras 1.

Clarion Advertising Service P. Ltd.—150A/2, Mount Road, Madras 2.

Criterion Publicity Ltd.—19, Woods Road, Madras 2.

D. V. Advertising.—50, Mount Road, Madras 6.

Eastern Advertising Consultants.—2/16, Mount Road, Madras 1.

Efficient Publicities P. Ltd.—Dinroze Estate, Mount Road, Madras 2.

Elegant Publicities.—77, General Patters Road, Madras 2.

Everest Advertising P. Ltd.—Airlines Hotel, Mount Road, Madras 2.

Ganesh Publicities.—8, Bells Road, Triplicane, Madras 5.

**GRANT ADVERTISING INC.—4, High Road, Egmore, Madras 8; Phone: 87357; Grams: "GRANTCHI." Advertising Agents & Consultants; R. S. J. Davidson, President, West Asia Division; Hope S. Willis, Manager; Offices at Bombay, Calcutta, Delhi (38 Branches all over the World).**

Hindustan Publicity Bureau.—57, Audiappa Naick Street, Madras 1.

Jupiter Advertisers.—6, Deenadayalu Street, Madras 17.

Kayorcee Advertising.—54, Bunder Street, Madras 1.

Krishnaswami & Co., V.S.—106, Armenian Street, Madras 1.

L. A. Stronach & Co. (India) Ltd.—193, Mount Road, Madras 2.

**LPE-AIYARS PRIVATE LTD.—"SUNDRA", 14, Thanikachalam Chetty Road, Thyagarayanagar, Madras-17; H.O. Bombay: Branches: Delhi, Calcutta and London.**

**L. R. SWAMI.—96-A, Mount Road, Teynampet, Madras 18; Anything in Advertising; Specialists in Newspapers, Radio and Railway Advertising; Bus and Railway Carriages Advt. a Speciality; Specialists in Producing and exhibiting advertisement films and slides in Cinemas; Consult for Outdoor Publicity; Phone: 72629, Madras; Grams: "ADVERTISE," Madras.**

**MADRAS ADVERTISING CO., PRIVATE LTD.—200, Mount Road, Madras 2. Phones: 85537 and 85035. Branch: George Oakes Building, Narasimharaja Square, Bangalore 2. Phone: 26939.**

Madras Booklet Match Co.—10, Perianaikaran Street, Madras 1.

Mani & Co., P.S.—2/4, Mount Road, Madras 2.

Modern Ads. P. Ltd.—44, Nellamma Mudali Street, Madras.
Moulvi Advertising Service.—No. 42, Whites Road, Madras 14.
Nalin Publicity Bureau.—Vanguard House, Second Line Beach, Madras 1.
National Publicity Co.—28, Burkitt Road, Madras 28.
Neena Publicities, C/o Bharat Studios.—Opp. Mount P.O., Madras 2.

**PARAMOUNT PUBLICITIES.—96-A, Mount Road, Teynampet, Madras 18; Specialists in Newspaper Publicity all over India and abroad; Fully equipped to provide complete advertising Services; Recognised by Newspapers all over India; Consult for anything and everything in advertising; Phone: 72509, Madras.**

P. S. Mani & Co.—2/4, Mount Road, Madras 2.

**RAVI PUBLICITY SERVICE.—186, Mount Road, Madras 2. Sole Agents for Slide and short Films in Prabhat, Mekala and Saraswathy Talkies, Madras; Undertake to exhibit Cinema Slides and advertisement Shorts in Theatres in Principal towns and cities of India: Specialists in display on hoardings, preparation and supply of painting etc. of Dealer Stockists Signboards; Phone: 82342, Grams: "RAVIPUB", Madras.**

Sastry's Advertising.—Indian Chamber Buildings, Esplanade, Madras 1.

**SWASTIK ADVERTISING.—3/6, Thambu Chetty Street, Madras 1. Proprietor: V. Pandu Ranga Rao, Phone: 29569.**

United India Publicity Corpn.—337, Thambu Chetty Street, Madras 1.
Vijaya Publicities.—Vijaya Gardens, Vadapalani, Madras 26.
Walter Thompson & Co. P. Ltd., J.—38-C, Mount Road, Madras 6.

## AERATED WATER

A. G. Raju & Sons.—Chintadripet, Madras.
A. M. Rajam & Co.—G. T. Road, Madras.
Baby Aerated Water Works.—Royapuram, Madras.
City Ice & Cold Storage Co.—12, General Patters Road, Madras 2.
Gemini Soda Factory.—Royapettah, Madras.
Indian Herald Aerated Water Works.—Waltax Road, Madras.
J. James & Co.—Soda Factory, Park Town, Madras.
Labour Soda Factory.—Seven Wells Street, Madras.
Mazda Ice Mfg. Co.—1-22A, Vepery High Road, Madras 7.
Mc. Dowells Aerated Water Works.—2nd Line Beach, Madras.
New Elphinstone Soda Fountain.—Mount Road, Madras 2.
Phoenix Aerated Water Works.—10, General Patters Road, Mount Road, Madras.
R. Maclure Aerated Works.—Mount Road, Madras.
South Indian Royal Ice Factory.—Egmore, Madras 8.
Star Aerated Water Works.—Chintadripet, Madras.

## AERATED WATER REQUISITES

**ESOOFALY MAHOMEDALY & CO.—12, Walltax Road, Madras 3. Phone: 33400. Grams: "HARMLESS." H.O. 102/4, Sarang Street, Bombay 3. Grams: "PURIFIED." Phone: 22516. Dealers in Aerated Water Requisites. Branches: 13-11 233, Convent Street, Park Road, Vijayawada 1. Phone: 1004. Grams: "PURIFIED" —Vijayawada and Shivaji Road, Kolhapur.**

## AGRICULTURAL IMPLEMENTS

Agricultural Equipment Co., Ltd.—235, Poonamallee High Road, Madras 3.
Amalgamations Ltd.—202, Mount Road, Madras 2.
Easun Engineering Co. Ltd.—5/7, Second Line Beach, Madras 1.
Gillander's Arbuthnot & Co., Ltd.—North Beach Road, Madras 1.
Gordon Woodroffe & Co. (Madras) Ltd.—1/21, North Beach Road, Madras 1.
Larsen & Toubro Ltd.—4/5, Club House Road, Mount Road, Madras 2.
Marshall Sons & Co. (India) Ltd.—Marshall Building, Second Line Beach, Madras 1.
Modern Machine Works.—5, Errabalu Chetty Street, Madras 1.
National Engineering Co. (Madras) Ltd.—379, Netaji Subhas Chandra Bose Road, Madras 1.
Rallis (India) Ltd.—Ralli House, 320, Linghi Chetty Street, Madras 1.
Shaw Wallace & Co., Ltd.—8 9, Thambu Chetty Street, Madras 1.
S. Jagannatham & Co.—84, Nyniappa Naick Street, Madras 3.
South Indian Export Co., Ltd.—5, McLean Street, Madras 1.
Tecalemit (India) Ltd.—Bombay Mutual Bldg., Esplanade, Madras.
Voltas Ltd.—115/116, Armenian Street, Madras 1.
V. Venugopal Pillai & Co.—2/27, Broadway, Madras 1.
William Jacks & Co., Ltd.—National Bank of India Building, First Line Beach, Madras 1.

## AIR-CONDITIONING AND REFRIGERATION

Blue Star Engineering Co. (M) P. Ltd.—23/24, Second Line Beach, Madras.
General Radio & Appliances Ltd.—1/18, Mount Road, Madras 2.
Kundlia Brothers.—296, Lingha Chetty Street, Madras 1.
Mohamed Ebrahim & Co. Ltd.—7/8, Mount Road, Madras 2.
Standard Electric Co.—27, General Patters Road, Madras 2.
W. A. Beardsell & Co. (Private) Ltd.—8, Second Line Beach, Post Box No. 8, Madras-1.

## AIR-CONDITIONING AND VENTILATING PLANT EQUIPMENT

Andhra Electric Co.—115-A, China Bazar, Madras 1.
Best & Co., Ltd.—First Line Beach, Madras 1.
Gillander's Arbuthnot & Co., Ltd.—North Beach Road, Madras 1.
Lloydaire.—No. 10, Victoria Crescent, Madras 8.
Marshall Sons & Co. (India) Ltd.—Marshall Building, Second Line Beach, Madras 1.
Refrigerators & Home Appliances Ltd.—36, Mount Road, Madras 2.
Richardson & Cruddas Ltd.—First Line Beach, Madras 1.
Spencer & Co., Ltd.—Mount Road, Madras 2.
Voltas Ltd.—115/116, Armenian Street, Madras 1.

## ALUMINIUM PRODUCTS

Amalgamations Private Ltd.—202, Mount Road, Madras 1.
India Foils Ltd.—Agurchand Mansion, 35, Mount Road, Madras.
Indian Aluminium Co. Ltd.—35, Mount Road, Madras 2.
Grahams Trading Co. (India) Ltd.—311, Linghi Chetty Street, Madras 1.
Imperial Chemical Industries (India) Ltd.—Spring Haven Road, "The Harbour", Madras 1.
Jeewanlal (1929) Ltd.—127, Mint Street, Madras 3.
McDowell & Co., Ltd.—Second Line Beach, Madras 1.
Mysore Premier Metal Factory.—124, Mint Street, Madras 1.
Prem Industrial Corporation.—10/11B, Industrial Estate, Guindy, Madras 32.
Voltas Ltd.—115/116, Armenian Street, Madras 1.

## ANALYSTS

**ITALAB PRIVATE LTD.—19, Govindappa Naicken Street, Madras. Assayers. Samplers, Surveyors, Geologists, Consultants and Public Analysts; Head Office: 15, Cawasji Patel Street, Bombay 1. Phone: 25-3882/83; Grams: "ITALABO". Chain of Laboratories at: Calcutta, Visakhapatnam and Kandla.**

## ARC WELDING EQUIPMENT AND ELECTRODES

**EAST ASIATIC COMPANY (INDIA) PRIVATE LTD., THE.—Machinery & Engineering Dept., Bharat Bldg., Mount Road, Madras 2; Phone: 86021; Grams: "MANDARIN"; P.O. Box No. 146.**

Easun Engineering Co., Ltd.—5/7, Second Line Beach, Madras 1.

**GUEST, KEEN, WILLIAMS, LTD.—202, Mount Road, Madras 2.**

Indian Oxygen and Acetylene Co., Ltd.—7/A, Vaithianatha Mudali Street, Tondiarpet, Madras 21.
Larsen & Toubro Ltd.—4/5, Club House Road, Mount Road, Madras 2.
Marshall Sons & Co. (India) Ltd.—Marshall Building, Second Line Beach, Madras 1.
Rallis India Ltd.—Ralli House, 320, Linghi Chetty Street, Madras 1.
Robert McLean & Co., Ltd.—200, Mount Road, Madras 2.
Vernon & Co., Ltd.—36, Second Line Beach, Madras 1.
Voltas Ltd.—115/116, Armenian Street, Madras 1.
William Jacks & Co., Ltd.—National Bank of India Building, First Line Beach, Madras 1.

## ASBESTOS PRODUCTS

**ASBESTOS, MAGNESIA & FRICTION MATERIALS LTD., (Incorporated with limited liability in England); A member of Turner & Newall group; Madras Sales Office: 202, Mount Road, Madras; Phone: 85610, Grams: "ASMAFRIC"; Bombay office: Bombay-Agra Road, Ghatkopar, Bombay 77; Phone: 51491, Grams: "ASMAFRIC"; Sales Offices at Calcutta & New Delhi.**

**HINDUSTAN FERODO LTD.—A member of the Turner & Newall Group, 202, Mount Road, Madras; Phone: 85610; Grams: "FERODOSTAN"; Regd. Office & Factory: Bombay-Agra Road, Ghatkopar, Bombay 77; Phone: 51491 (5 lines); Grams: "FERODOSTAN"; Manufacturers of "FIREFLY" asbestos textiles, Compressed Asbestos Fibre jointings and "Limpet" asbestos sheet.**

## AUTOMOBILES (TRUCKS, MOTORCARS & MOTOR-CYCLES)

George Oakes Ltd.—36-D, Mount Road, Madras.

**MADRAS MOTORS PRIVATE LTD., THE.—Motorcycle Specialists, 36-C, Mount Road, Madras 2. Phones: 86031, (5 Lines), Grams: "MOTOGLYDE." Sole Selling Agents for Royal Enfield Motor Cycles, Three Wheelers and Fantabulus Scooters Manufactured by the Enfield India Ltd., Madras 19.**

## AUTOMOBILE & ANCILLARY INDUSTRIES

Best & Co. Pvt. Ltd.—13/15, North Beach Road, P.B. No. 63, Madras 1.
Enfield India Ltd.—"Royal Enfield" Bldgs., P.B. No. 5284, Tiruvottiyur, Madras.
Engine Valves Ltd.—No. 5, Patullos Road, Mount Road, Madras 2.
Hydraulics Pvt. Ltd.—P.B. No. 331, 29, Mount Road, Madras 2.
India Pistons Pvt. Ltd.—"Huzur Gardens", Sembiam, Madras 11.
India Radiators Ltd.—6, Armenian Street, Madras 1.
Simpson & Co., Ltd.—202/203, Mount Road, Madras 2.

## AUTOMOBILES, AUTOMOBILE PARTS AND ACCESSORIES

Abdulla & Brothers.—20, Harris Road, Mount Road, Madras.
Abdul Rahim—14-A, General Patters Road, Mount Road, Madras.
Accurate Products Corpn. P. Ltd.—23, Mount Road, Madras 2.
Addison & Co. P. Ltd.—158, Mount Road, Madras 2.
Anand Automobiles—24, General Patters Road, Mount Road, Madras.
Annamalai Trading Co.—82, Harris Road, Mount Road, Madras.

**ASBESTOS, MAGNESIA & FRICTION MATERIALS LTD. (Incorporated with limited liability in England); A member of Turner & Newall group; Madras Sales Office: 202, Mount Road, Madras; Phone: 85610, Grams: "ASMAFRIC"; Bombay office: Bombay Agra Road, Ghatkopar, Bombay 77. Phone: 51491; Garms: "ASMAFRIC" Sales Offices at Calcutta & New Delhi.**

Ashok Automobiles—44 General Patters Road, Mount Road, Madras.
Associated Trades.—Tool House, Pattulos Road, Madras 2.
Auto & General Supplies Co.—Bharath Insurance Bldg., 1/18, Mount Road, Madras.
Autoliners (Madras) P. Ltd.—202, Mount Road, Madras.
Automobiles Components—7, Imperial Bank Street, Mount Road Madras.
Automotive Agencies (P) Ltd.—12, Smith Road, Mount Road, Madras.
Automotive & Allied Industries (P) Ltd.—52, General Patters Road, Mount Road, Madras.

**AUTOMOTIVE MANUFACTURERS' AGENCIES.—Automobiles, Automobile Parts & Accessories Dealers; 42-E, General Patters Road, Madras 2; Head Office: Vandekar Mansion, 443, Lamington Road, Post Box No. 4061, Bombay 4. Branches: 6, Saklat Place, Calcutta-13 and 2610, Hamilton Road, Delhi 6.**

Automotive Traders.—48, Bobegun Street, General Patters Road, Madras 2.
Auto Parts Trading Co.—22, General Patters Road, Mount Road, Madras.
Auto Sales Co.—2, Imperial Bank Street, Mount Road, Madras.
Auto Tool.—23, General Patters Road, Madras 2.
Bawa Motors.—10, Imperial Bank Lane, Mount Road, Madras 2.

**BHARAT MOTORS.—(Proprietors: N. R. Private Ltd.), 35, Mount Road, Madras 2. Phones: 86203 & 86204. Grams: "BHARATCARS." Head Office: Modi Chambers, Sandhurst Bridge Corner, Bombay 4. Showroom: 144, Mount Road, Madras 6. Service Station: 5, Greams Road, Madras 6. Factory: Manufacturing Rubberised Fibre Mattresses, Cushions, Upholstery—Industrial Colony, Tirunelveli 4.**

Bombay Motor House—28-A, General Patters Road, Mount Road, Madras.
Central Auto Agencies.—192, Walltax Road, Madras 1.
Central Automobiles—7-A, Imperial Bank Street, Mount Road, Madras.
Central Auto Parts Co.—75, Apparswamy Koil Street, Mylapore, Madras 4.
Ceylon Agencies—17, Mount Road, Madras.
Chimanlal Desai & Co.—6, Sunkurama Chetty Street, Madras.
City Auto Stores.—No. 41, G. P. Road, Madras 2.
Continental Distributing Co.—Post Box No. 2223, Madras.
Continental Parts Co.—3, State Bank Street, Madras 2.
D. V. Grover—5, Imperial Bank Street, Mount Road, Madras.
Deens Garage—14, Imperial Bank Street, Madras.
Eastern Automobile & Engineering Co., (P) Ltd.—24, General Patters Road. Mount Road, Madras.
Engines Valves Ltd.—Madras 16.
Foreign Agencies.—Woods Road, Mount Road, Madras.
Garage P. Ltd.—Armenian Street, Madras 1.
Gemini Automobiles—12-A, Imperial Bank Street, Mount Road, Madras.
General Automobiles—18, General Patters Road, Mount Road, Madras.
George Vint Bhalla (P) Ltd.—7, Woods Road, Mount Road, Madras.
G. M. Automobiles (Jeep Centre).—41, General Patters Road, Mount Road, Madras 2.
Globe Traders.—7-B, Imperial Bank Street, Madras 2.
Hercules Automobiles.—Express Estates, Woods Road, Madras 2.
Himco Batteries (Madras) Pvt. Ltd.—144, Mount Road, Madras 6.

**HINDUSTAN FERODO LTD.—A member of the Turner & Newall Group, 202, Mount Road, Madras; Phone: 85610; Grams: "FERODOSTAN"; Regd. Office & Factory: Bombay-Agra Road, Ghatkopar, Bombay 77; Phone: 51491 (5 lines); Grams: "FERODOSTAN"; Manufacturers of "FERODO" Brake & clutch linings.**

Hindustan Motors Ltd.—83, Peters Road, Madras 14.
Hindustan Pistons (P) Ltd.—52, Dams Road, Mount Road, Madras 2.
India Motor Parts & Accessories P. Ltd.—1/115, Mount Road, Madras 2.
India Pistons P. Ltd.—Sembiam, Madras 11.
India Radiators Ltd.—6, Armenian Street, Madras.
Indian Engineering & Trading Co.—26, Wallers Road, Mount Road, Madras.
Inland Agencies—153, Ramakrishna Mutt Road, Mylapore, Madras.
Jupiter Agencies—1, Motilal Street, T. Nagar, Madras.
Kannappan Motor Stores—34, General Patters Road, Mount Road, Madras.
Kapur Auto Agencies—41, General Patters Road, Mount Road, Madras.
Khaliq Automobiles—12, State Bank Street, Mount Road, Madras.
Khanna Auto Corpn.—18, General Patters Road, Mount Road, Madras.
Khivraj Motors P. Ltd.—150/A, Mount Road, Madras 2.
Kishore Automobiles—22, General Patters Road, Mount Road, Madras.
Lakshmi Motors—35, General Patters Road, Mount Road, Madras.
Laxmi Traders—15, Stringer Street, Madras.
Madras Auto Service Pvt. Ltd.—37, Mount Road, Madras.
Madras Auto Diesel House.—8-A, Pattulos Road, Madras 2.
Madras Auto Service P. Ltd.—37, Mount Road, Madras 6.
Madras Ball Bearing House—17-A, General Patters Road, Mount Road, Madras.
Madras Mercantile Agencies (P) Ltd.—1/18, Mount Road, Madras.
Madras Motors P. Ltd.—36C, Mount Road, Madras 2.
Madras Rubber Factory Ltd.—175/1, Mount Road, Madras 2.
Madras Sales Corporation—22, General Patters Road, Madras.
Majestic Motor—15, General Patters Road, Madras.
Mani's Modern Mart—35, General Patters Road, Mount Road, Madras.
Marikar (Motors) Ltd.—18, General Patters Road, Mount Road, Madras.
Modern Automobiles—4/17-A, Mount Road, Madras.
Modern Distributing Co.—65, Singanna Chetty Street, Mount Road, Madras.
Modern Motors—16, General Patters Road, Mount Road, Madras.
Motor & Allied Agencies—1/17-H, Mount Road, Madras.

**MOTOR INDUSTRIES CO., LTD.—Manufacturers of Mico-Licence-Bosch Diesel Fuel Injection Equipment & Spark Plugs; Distributors of Bosch Automobile parts & Accessories; 1/155, Mount Road, Madras 2, Phones: 83581 (3 Lines), Grams: "MICODIESEL" Madras; Head Office: Post Box No. 93, Bangalore; Branches: 41, Queen's Road, Bombay 2 and 91-A, Park Street, Calcutta 16.**

Motor & General Trading Co.—P. B. No. 361, Mount Road, Madras.
M. M. Kasim Bros.—14 & 15, Harris Road, Mount Road, Madras.
M. P. Narayanan—81 & 82, Harris Road, Mount Road, Madras.
Narayan Automobiles—8, Imperial Bank Street, Mount Road, Madras.
Narayan Trading Co.—P. B. No. 2245, Madras.
Nathan Trading Co.—99, Poonamallee High Road, Madras.
National Products Corporation P. Ltd.—22, General Patters Road Madras 2.
National Automobiles—15, Imperial Bank Street, Mount Road, Madras.
New Motor House—16, General Patters Road, Mount Road, Madras.
Neson's—48, General Patters Road, Mount Road, Madras.
Nishat Trading Co.—52, General Patters Road, Mount Road, Madras.
Odeon Automobiles—82A, General Patters Road, Madras 2.
Oil Seal Traders.—24, Wallers Road, Mount Road, Madras 2.
Overseas Manufacturers Sales Co.—22, General Patters Road, Mount Road, Madras.
Pai & Co., G.N.—28-A, General Patters Road, Madras 2.
Pioneer (Madras) Pvt. Ltd.—23, Mount Road, Madras.
Premier Auto-Electric P. Ltd.—4, Pattulos Road, Madras 2.
Presidency Motors—33, General Patters Road, Mount Road, Madras.
Radhakrishna Motor Stores—17, Mount Road, Madras.
Ram Motors.—4/30, Mount Road, Madras 2.
Rapid Industries.—No. 8, Broadway, Madras 1.
Ravindra Trading Co.—43-A, General Patters Road, Mount Road, Madras.
Rayala Corpn. (Madras) Pvt. Ltd.—1/155, Mount Road, Madras.
Reliance Motor Co. P. Ltd.—160, Mount Road, Madras 2.
Reliance Trading Co.—3, General Patters Road, Madras.
Royal Cycle & Motor Co.—13/14, Broadway, Madras 1.
Rudolphus & Co.—51-4 General Patters Road, Mount Road, Madras.
Sat Pal Bros.—53/1, General Patters Road, Mount Road, Madras.
Scott & Pickstock Pvt. Ltd.—Catholic Centre, Armenian Street, Madras.

Singson & Co. (India)—1/2, Imperial Bank Street, Mount Road, Madras.
Solar Auto Agencies.—13, Begum Sahib 4th Lane, General Patters Road, Madras 2.
South India Automobile Corpn. P. Ltd.—24, Whites Road, Madras 1.
South India Automotive Corporation Private Ltd.—24, Whites Road, Madras 14.
South India Motor Co.—36B, Mount Road, Madras 2.
Southern India Trading Corporation.—4, Westcott Road, Madras 14.
Southern Mercantile Corporation.—19, Woods Road, Madras 2.
Spence Ltd.—24, General Patters Road, Madras 2.
Standard Auto Parts Co.—2/30, Mount Road, Madras 2.
T. V. Sundaram Iyengar & Sons P. Ltd.—37, Mount Road, Madras 6.
Union Com. (Accessories) P. Ltd.—29, Mount Road, Madras 2.
United Auto Supplies Co.—62, G. Patters Road, Madras 2.
United Motors.—49-A, General Patters Road, Madras 2.
Upper India Trading Co. (P) Ltd.—1/18, Mount Road, Madras.
Vijay Trading Co.—8, Imperial Bank Street, Madras.
Visram Motors—38-C, Mount Road, Madras 6.
V. S. T. Motors P. Ltd.—34, Mount Road, Madras 2.
V.T.C. Automobiles.—Post Box 2720, Madras 2.
VX-6 India Corporation (Madras).—85, Mount Road, Madras 18.

## AUTOMOBILE MANUFACTURERS

Ashok Leyland Ltd.—Bank of Mysore Bldgs., N. S. C. Bose Road, Madras.
Standard Motor Products of India Ltd.—29, Mount Road, Madras.

## BATTERIES

Amalgamations Private Ltd.—202, Mount Road, Madras 2.
Associated Electrical Industries (India) Ltd.—11/12, First Line Beach, Madras 1.
Chloride & Exide Batteries (Eastern) P. Ltd.—Exide House, 150-B, Mount Road, Madras.
General Electric Co. of India Ltd.—Magnet House, Mount Road, Madras 2.
Gordon Woodroffe & Co. (Madras) Ltd.—1/21, North Beach Road, Madras 1.
Heatly & Gresham Ltd.—United India Life Building, Esplanade, Madras 1.
Himco Batteries Madras Private Ltd.—144, Mount Road, Madras 6.
Lucas Indian Service P. Ltd.—Patullos Road, Madras 2.
Oldham & Sons (India) P. Ltd.—P. Box 2635, Madras 32.
South India Export Co., Ltd.—5, McLean Street, Madras 1.
Sridhar & Co.—11-B, Mount Road, Madras 2.
Swami & Co.—35, General Patters Road, Madras 2.
Taylor, T. A. & Co. (Madras) Ltd.—100, Armenian Street, Madras 1.
Vernon & Co., Ltd.—36 .Second Line Beach, Madras 1.
Wilson & Co.—North Railway Terminus Road, Royapuram, Madras.

## BEARINGS (BALL AND ROLLER)

Binny & Co. (Madras) Ltd.—7, Armenian Street, Madras 1.
Bombay Co., Ltd.—169, Broadway, Madras 1.
**EAST ASIATIC COMPANY (INDIA) PRIVATE LTD., THE, Machinery & Engineering Dept., Bharat Bldg., Mount Road, Madras-2; Phone: 86021, Grams : 'MANDARIN'; P.O. Box No. 146.**
Eastern Importers Syndicate.—76, Thambu Chetty Street, Madras.
Guest, Keen, Williams, Ltd.—202, Mount Road, Madras 2.
Heatly & Gresham Ltd.—United India Life Building, Esplanade, Madras 1.
H. M. Brothers.—80/81, Sembudoss Street, Madras 1.
Jairamdas & Sons, 33, Sambhudoss Street, Madras 1.
Kilburn & Co., Ltd.—32/33, Linghi Chetty Street, Madras 1.
Malhotra Mill Store Co.—33, Mooker Nallamuttu Street, Madras 1.
Marshall Sons & Co. (India) Ltd.—Marshall Building, Second Line Beach. Madras 1.
**MILL STORES & SUPPLY CO. (M),—7A, Singanna Naik Street, Madras.**
Narayan Automobiles.—8, State Bank Street, Mount Road, Madras 2.
Robert Mclean & Co., Ltd.—200, Mount Road, Madras 2.
Sachdev Trading Co.—P. Box 54, Madras 1.
Taylor, T. A. & Co. (Madras) Ltd.—100, Armenian Street, Madras.
United Bearing Co.—45, Thambu Chetty Street, Madras 1.
William Jacks & Co., Ltd.—National Bank Building, First Line Beach, Madras 1.

## BOLTS, NUTS AND SCREWS

Bombay Co., Ltd.—169, Broadway, Madras 1.
Gordon Woodroffe & Co. (Madras) Ltd.—1/21, North Beach Road, Madras 1.
**GUEST, KEEN, WILLIAMS, LTD.—202, Mount Road, Madras 2.**
**JAIRAMDAS & SONS.—33, Sambhudoss Street, Madras 1; Manufacturers of M.S. Bolts and Nuts ; Factory : Industrial Area, Azamabad, Hyderabad.**
McDowells & Co. Ltd.—Second Line Beach, Madras 1.
P. A. Govardhan Das.—13/81, Sembudoss Street, Madras 1.
Rambal Private Ltd.—Lattice Bridge Road, Adyar, Madras 20.
Southern Industrial Corporation Ltd.—6, Armenian Street, Madras 1.
Taylor, T. A., & Co. (Madras) Ltd.—100, Armenian Street, Madras 1.
Wilson & Co.—North Railway Terminus Road, Royapuram, Madras.

## BOOKSELLERS (WHOLESALERS)

**BOOK DISTRIBUTION SERVICE.—Wholesale Booksellers, 7, State Bank Lane, Mount Road P.O., Madras-2.**

## BOOKSELLERS AND PUBLISHERS

**ALLIED PUBLISHERS PRIVATE LTD.—Mohan Mansions, 38/C, Mount Road, Madras 6; Head Office: 15, Graham Road, Ballard Estate, Bombay 1; Branches: 17, Chittaranjan Avenue, Calcutta 13 and 13/14, Asaf Ali Road, New Delhi.**
Amudha Nilayam P. Ltd.—91, Mount Road, Madras 18.
Ananda Vikatan—Mount Road, Madras 2.
Aruna Publications.—23, G. N. Chetty Road, Thyagarayanagar, Madras 17.
Arunodayam Publications—Royapettah, Madras.
Asia Publishing House—99, Mount Road, Madras 2.
Avvai Noolagam—4/41, Broadway, Madras 1.
B. G. Paul & Co.—4, Francis Joseph Street, Madras.
Balasaraswathi Book Depot—6, Sunkurama Chetty Street, Madras.
Balkumar & Co.—Appah Buildings, Esplanade, Madras 1.
Basuram & Co.—2/27, Meeran Sahib Street, Mount Road, Madras.
Bharathi Pathippagam—14, Usman Road, T'Nagar, Madras 17.
Bible Society of India & Ceylon—P.B. No. 502, Park Town, Madras 3.
Blackie & Sons—3, Rajamannar Street, Madras 17.
Book Centre, The.—Publishers, 3, Kondi Chetty Street, Madras 1.
Book Distribution Service—7, Imperial Bank Lane, Mount Road, Madras.
Books India (Private) Ltd.—135, Coral Merchant Street, Madras.
C. Subbiah Chetty & Co.—62, Big Street, Triplicane, Madras 5.
Central Art Press—11, McNichol Road, Chetput, Madras 31.
Central Book Depot—B1, Pycrofts Road, Triplicane, Madras 5.
Chandamama Publications—2 & 3, Arcot Road, Madras 26.
Christian Literature Society—Post Box No. 501, Madras 3.
Coomaraswamy & Sons—N.S.C. Bose Road, Madras 1.
Cultural Books P. Ltd.—31, Meerasahib Street, Madras 2.
Damodaram & Co., M.—Appah Bldgs., Esplanade, Madras 1.
Express Newspapers (P) Ltd.—P. B. No. 333, Madras 2.
Ganesh & Co. (Private) Ltd.—Madras 17.
Grama Jothi Noolagam—1, Robertson Lane, Madras 28.
**HIGGINBOTHAMS (PRIVATE) LTD. (ESTD. 1844).—Post Box No. 311, Madras. Phone : 86556. Grams : "BOOKLOVER". Booksellers, Publishers, Stationers, etc. Branches at:—Bangalore, Ootacamund and Trivandrum. Bookstalls on all important Rly. Stations, Aerodromes and Harbours in S. India.**
Himalaya Publications—14, Warren Road, Madras 4.
Inba Nilayam—34, Kutchery Road, Mylapore, Madras 4.
India Book House—Purushotham Bldgs., 193, Mount Road, Madras 2.
Indian Publishing House Ltd.—14, Sunkurama Chetty Street, Madras.
International Publishing Co.—12, North Tank Square, Nungambakkam, Madras.
Jaico Publishing House—7 State Bank Lane, Mount Road, Madras 2.
Jayam & Co.—Nungambakkam, Madras 6.
Jyothi Nilayam—Muslim High School Compound, Triplicane, Madras 5.
Kalaignan Pathippagam—T'Nagar, Madras 17.
Kalaimagal Publications.—55/56, M. K. Amman Koil Street, Post Box No. 604, Mylapore, Madras 4.
Kapali Book Centre—61, Kutchery Road, Madras.
Kaviya Kazhagam—4, Rajagopala Naicken Lane, Chintadripet, Madras 2.
Little Flower Co.—8, Ranganathan Road, Thyagarayanagar, Madras 17.
Macmillan & Co. Ltd.—6, Patullo Road, Mount Road, Madras 2.
Madras Premier Co.—33, Broadway, Madras 1.
The Malar Nilayam—133, Broadway, Madras 1.
Mangala Noolagam—2, Josier Street, Nungambakkam, Madras 6.
Mercury Publishing House—38, Sambanda Mudaliar Street, Madras 28.
N.C.B.H. (Private) Ltd.—6, Nallathambi Chetty Street, Ellis Road, Mount Road, Madras 2.
New Century Book House P. Ltd.—6, Nallathambi Chetty Street, Madras 2.
N. V. Gopal & Co.—63, Krishnappa Naick Tank Street, Madras.
Natesan & Co., G. A.—3, Sunkurama Chetty Street, Madras 1.
National Publishing Co.—6, Kondi Chetty Street, Madras 1.
Orient Longmans (P) Ltd.—36-A, Mount Road, Madras.
Oriental Publishing House—286, Esplanade, Madras.
Ottrumal Office—8, Vyasarao Street, T'Nagar, Madras 17.
Our India Directories & Publications (P) Ltd.—11, 2nd Main Road, Madras 28.
Oxford University Press—Mount Road, Madras 2.

P. L. Arunachalam—70, Padavathamman Koil Street, Madras 12.
Paari Nilayam—59, Broadway, Madras 1.
Palani Prachuram—3, Pycrofts Road, Triplicane, Madras 5.
Palaniappa Bros.—4, Venkatesanaicken Street, Madras 5.
Paul & Co., B.G.—4, Francis Joseph Street, Madras 1.
Pearl Publications—Purushotham Bldgs., 193, Mount Road, Madras 2.
Presidency Book Supplies—8-C, Pycrofts Road, Madras 5.
Protima Books—49, Mukathal Street. Madras 7.
Rajeswari Book House—28, V. S. V. Koil Street, Mylapore, Madras 4.
Rayalu & Co.—32, Narayanamudali Street, Madras 1.
Sakthi Karyalayam—1/142, Mount Road, Madras 6.
Samskriti Nilayam—88, Kutcheri Road, Mylapore, Madras 4.
South India Saiva Siddhantha Works Publishing Society—1-140, Broadway, Madras.
Southern Languages Book Trust.—3, Wheat Croft Road, Madras 31.
Srimagal Co.—122, Varada Muthiappan Street, Madras.
Star Publications—Big Street, P.B. No. 423, Triplicane, Madras 5.
T. N. Jayavelu—49, Venkatachala Mudali Street, Choolai, Madras 7.
T. V. Chellappa Sastry & Sons—No. 2, Philips Street, Madras 1.
The Teachers' Publishing House—53-56, Coral Merchant Street, Madras.
Thyagaraja Vilasam: Dr. Swaminatha Ayyar's Publications—53, Pillaiyar Koil Street, Madras.
Union Publishing House—286, Esplanade, Madras.
Valluvar Pannai—137, Broadway, Madras.
Vanathi Pathippagam—82/1, Pondy Bazaar, T'Nagar, Madras 17.
Varadachary & Co., P.—8, Linghi Chetty Street, Madras 1.
Vidya Sagar Corpn. (P) Ltd.—35, Katchaleswaran Agraharam, Madras 5.
Vindhya Publications—19, Stringers Street, Madras.
V. Sadanand—Post Box No. 2447, Madras 2.

## BRASS & COPPER PRODUCTS

Hindusthan Metal Refinery & Rolling Mills Ltd.—124, Mint Street, Madras.
Mardi & Co.—28, Mooker Nallamuthu Street, Madras 1.
S. D. Rangwalla & Co.—289, Linghi Chetty Street, Madras 1.

## BROKERS (STOCK AND SHARE)

B. N. Viswanathan & Co.—310/311, Linghi Chetty Street, G. T., Madras 1.
Chitra & Co.—110/111, Armenian Street, Madras 1.
Dalal & Co.—National Insurance Building, Esplanade, Madras 1.
Kothari & Sons—Oriental Building, Armenian Street, Madras 1.
Maconochie & Co.—Mercantile Bank Building, Madras 1.
Paterson & Co.—22, Errabalu Chetty Street, Madras 1.
Raj & Co.—107/B, Armenian Street, Madras 1.
Ramlal & Co.—17, Angappa Naick Street, Madras 1.
Somayajulu & Co.—Andhra Insurance Buildings, 337, Thambu Chetty Street, Madras 1.
**SWASTIK & CO.—Stock & Share Brokers, Safaiya Chambers, 7, Second Line Beach, Madras 1.**
Trojan & Co.—New India Buildings, 13/14, Second Line Beach, Madras 1.
Venkataraman & Co.—Bombay Mutual Building Annexe, 322/32, Linghi Chetty Street, Madras 1.
V. S. Krishnaswami & Co.—106, Armenian Street, Post Box 265, Madras 1.

## BUILDING ENGINEERS AND CONTRACTORS

Associated Constructions.—Venkatachala Mudali Street, Madras.
Associated Industrial & Engg. Corpn. Ltd.—14, Boag Road Madras 17
Brilliant Building Corpn.—20, McNichol Road, Madras 31.
British & Eastern Engineering Co.—16, General Patters Road, Madras 2.
Builders Industries.—33, Walltax Road, Madras 3.
Construction Engineering Corpn.—1, Club House Road, Madras 2.
Coromandel Engineering Co., Ltd.—106, Armenian Street, Madras 1.
Durai Bros.—1/11, Umpherson Street, Madras 1.
Eastern Construction Co.—323, Linghi Chetty Street, Madras.
Gajendra Prasad, B.—48, Venkatrangam Pillai Street, Madras 5.
Gally & Co.—28, General Patters Road, Madras 2.
Gannon Dunkerley & Co.—14, Boag Road, T. Nagar, Madras 17.
General Engineering Co.—27, Narasingapuram Street, Mount Road, Madras 2.
Harold & Co.—57, General Patters Road, Madras 2.
India Construction Co.—16/3A, Sterling Road, Madras 31.
Joshi & Co.—24, Thambu Chetty Street, Madras 1.
Kesari Construction Co.—5, Burkitt Road, Madras 17.
King & Co.—321, Thambu Chetty Street, Madras 1.
K. S. Venkataraman & Co.—4, Dr. Thomas Road, Madras 17.
Krishna & Co.—25, Thambu Chetty Street, Madras 1.
Kutti & Rao.—1/95, Broadway, Madras 1.
M. Arunachalam & Co.—34, Lloyds Road, Mylapore, Madras 4.
Madras Builders.—15-C, Vijayaraghavachari Road, Madras 17.
Madras Engineering Syndicate.—83, Poonamallee High Road, Madras 10.
Masseys Engineers.—4-B, North Rly. Terminus Road, Madras 13.
Minerva Trading Co.—Andhra Insurance Bldg., Thambu Chetty Street, Madras 1.
Modern Construction Co.—14, Srinivasa Iyengar Road, Alwarpet, Madras.
Modern Housing Construction & Properties Ltd.—13, Westcott Road, Madras 14.
Murali Construction Co. P. Ltd.—9/62, Royapettah High Road, Madras 14.
Nathan & Co.—42, Harrington Road, Chetpet, Madras 31.
National Co.—Dr. Besant Road, Madras 5.
National Engineering Co. (M.) P. Ltd.—379, N.S.C. Bose Road, Madras 1.
Pathy & Co.—186, Triplicane High Road, Madras 5.
Rathnam & Co.—311, Thambu Chetty Street, Madras 1.
Satyanarayana Brothers.—25, Edward Elliot Road, Madras 4.
Simplex Concrete Piles (India) Ltd.—Casamajor Road, Madras 8.
South India Corporation (Madras) Ltd.—Catholic Centre. Armenian Street, Madras 1.
Southern Constructions P. Ltd.—Luz Avenue, Madras 4.
**S. SUBRAHMANYAN & CO.—Civil Engineers & Contractors 5, Sir C. V. Raman Road, Madras 18. Partners: (1) S. Subrahmanyam, B.A., B.E., M.I.E.; (2) S. Ramamurthy, B.E. (3) S. Srinivasan, B.E., M.Sc. (PH).**
Tarapore & Co.—175/1, Mount Road, Madras 2.
Techno Engineering Co.—14-D, Sterling Road, Nungambakkam, Madras 31.
William Jacks & Co., Ltd.—National Bank of India Building, First Line Beach, Madras 1.

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Andhra Cement Co. Ltd.—38, Mount Road, Madras.
Asbestos Cement Ltd.—202, Mount Road, Madras 2.
Associated Cement Companies Ltd.—Mount Road, Madras 2.
Cementation Construction Co. P. Ltd.—16/3-A, Sterling Road, Madras.

**CHETTINAD CEMENT CORPORATION LTD.,**

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Manufacturers of Portland Cement.

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Greaynol Chemical Corporation, 180, Lloyds Road, Madras 14.
Hyderabad Asbestos Cement Products Ltd.—4, Stringers St., Madras.
India Cements Ltd.—175/1, Mount Road, Madras 2.

## CHEMICAL DEALERS

Al. Sp. Pl. Subramanyam Chettiar.—Govindappa Naik Street, Madras 1.
Amritlal & Co., Ltd.—Linghi Chetty Street, Madras 1.
Beacon Chemicals.—149, Nyniappa Naick Street, Madras 3.
Capco Private Ltd.—16, Armenian Street, Madras 1.
Carl & Co.—44, Purasawalkam High Road, Madras 7.
Chandra Veerabhadrappa & Bros.—Govindappa Naik Street, Madras 1
Chowgule & Co. (Hind) P. Ltd.—7/90, Wallajah Road, Madras 2.
C. J. Seth.—Bunder Street, Madras 1.
Dadajee Dhackjee & Co., Ltd.—Govindappa Naik Street, Madras 1.
Ganga Dyes & Chemicals.—Nyniappa Naik Street, Madras 3.
Indira Chemical Agency.—208, Govindappa Naik Street, Madras 1.
Indo-German Agencies Ltd.—67, Dr. Alagappa Chettiar Road, Madras 7.
International Trading Corpn.—Mint Street, Madras 3.
**K. MOHAN & CO.—163, Nyniappa Naick Street, Madras 3.**
Khatau Vallabhdas & Co.—Govindappa Naik Street, Madras 1.
Lakshmi Colour Co.—Govindappa Naik Street, Madras 1.
Lashmidas Dwarkadas & Co.—Govindappa Naik Street, Madras 1.
Madras Colour Co.—Govindappa Naik Street, Madras 1.

Modern Chemical Co.—3/3, Veeraraghavan Road, Madras 21.
M. Mohanlal & Co.—Mint Street, Madras 3.
Nanavati & Co., Ltd.—Govindappa Naik Street, Madras 1.
Narandas Pramanandas.—Govindappa Naik Street, Madras 1.
N. K. Ramamoorthy.—Devaraja Mudali Street, Madras 1.
N. V. Kuppuswamy Iyer.—Pillar Coil Street, Madras 3.
Oriental Mercantile Agency.—90, Armenian Street, Madras 1.
Paul's Chemical Corporation.—75, General Patters Road, Madras 2.
P. K. Japee & Co.—99, Nyniappa Naick Street, Madras 3.
Scamars Chemical Corporation.—2/8, Lloyds Road, Madras 6.
Seth Sheonarain & Sons.—3/202, Govindappa Naick Street, Madras 1.
South India Dyes Co.—Govindappa Naik Street, Madras 1.
Union Colour Co.—Thiruvottiyoor High Road, Madras.
Vattson Corporation.—56, Gengu Reddy Road, Madras 8.
Vijaya Chemical & Toilet Works.—'Vijaya Mansions', 15, Clements Road, Madras 7.

## CHEMICALS IMPORTERS & STOCKISTS.

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**BHANSALI CHEMICALS**
149, Nyniappa Naick Street, Madras-3.
Phone: 32147, 37211 Grams: "MUKPRIYA"
Largest Dealers in Heavy, Light, Laboratory, Photographic, Litho, Process, Plastic, Rubber, Electroplating, Tanning, Industrial Chemicals, Aromatic Chemicals, Essential oils, Drugs and acids of every description; AR/GR/LR/CP and Commercial Varieties.

**BOB CORPORATION.—20, Anderson Street, Madras 1. Importers of Heavy Chemicals and Sundries. Branch: 316, Linghi Chetty Street, Madras 1; For Tata & Kalinga G.I. Pipes & Pipe Fittings.**

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Gillanders Arbuthnot & Co., Ltd.—First Line Beach, Madras 1.
Grahams Trading Co. (India) Ltd.—311, Linghi Chetty Street, Madras 1.
H. Chandanmal & Co.— 97, Nyniappa Naick Street, Madras 3.
Imperial Chemical Industries (India) Private Ltd.—Bombay Mutual Bldg., N. S. C. Bose Road, Madras 1.

**JAASKO AGENCIES.—20, Anderson Street, Madras 1. Importers of Heavy Chemicals and Sundries. Branch: 316, Linghi Chetty Street, Madras 1. For Tata & Kalinga G.I. Pipes & Pipe Fittings.**

McDowell & Co., Ltd.—Second Line Beach, Madras 1.
Parry & Co., Ltd.—Dare House, First Line Beach, Madras 1.
Rallis India Ltd.—Ralli House, 320, Linghi Chetty Street, Madras 1.
Sanghavi & Co.—90, Nyniappa Naick Street, Madras 3.
Shaw Wallace & Co., Ltd.—8/9, Thambu Chetty Street, Madras 1.
Spencer & Co., Ltd.—Mount Road, Madras 2.
Voltas Ltd.—115/116, Armenian Street, Madras 1.
Wilson & Co.—North Rly. Terminus Road, Royapuram, Madras.

## CHEMICAL & PHARMACEUTICAL PRODUCTS MANUFACTURERS & DEALERS

Abbot Laboratories (I) Ltd.—3, Errabalu Chetty Street, Madras 1.
Alfred Berg & Co. (I) Ltd.—246-47, Poonamallee High Road, Madras 29.
Alvitone Laboratories.—8, Trunk Road, Madras 16.
Amrutanjan Ltd.—Luz Church Road, Mylapore, Madras 4.
Arvind Laboratories.—Arcot Road, Madras 26.
Asco Pharmaceuticals.—13, Errabalu Chetty Street, Madras.
Asiatic Chemical Co.—Madras; 18/B, Sukeas Lane, P.O. Box 2101, Calcutta; Offices: Masjid Siding, Opp. Prince's Dock, Bombay 9; 26/46, Birhand Road, P.O. Box 189, Kanpur.
Associated Pharmaceutical Industries Pvt. Ltd.—10, Boag Road, Madras 17.
Ayurvedashram Ltd.—29, Gopathi Narayanaswamy Road. T. Nagar, Madras.
Bapuchi Pharmaceuticals.—Linghi Chetty Street, Madras 1.
Bharath Laboratories.—No. 1, Pillar Koil Street, Arumbakkam, P. O. Box 2471, Madras 21.
Biological Laboratories.—Props.: Hahnemann Homœo Institute, P. B. No. 19, Tiruvarur.

**BRITISH DRUG HOUSES (INDIA) PRIVATE LTD.—99, Nyniappa Naick Street, Park Town, Madras 3; P.O. Box 3201; H.O.: 5, Graham Road, Bombay 1.**

Buckingham & Carnatic Co.—P.O. Box No. 1966, Madras.
Chemical Engg. Corpn. Ltd.—7-A, Sriganna Naick Street, Madras 1.
Chemo Pharma Laboratories Ltd.—Purushotam Bldg., 163, Mount Road, Madras.

**CITADEL FINE PHARMACEUTICALS.—Main Road, Velacheri Post, Madras 42.**

Dollar Co.—337, Thambu Chetty Street, Madras 1.
East India Pharmaceutical Works Ltd.—22, Second Line Beach, Madras 1.
Ehrlich Laboratories.—Vasudeva Balaji Nagar, Royapettah, Madras.
Fairdeal Corporation P. Ltd.—2, Errabalu Chetty Street, Madras.
Glaxo Laboratories (I) Ltd.—Woods Road, Madras 2.
Hall Mark Pharmaceuticals.—Khaleeli Mansions, Mount Road, Madras 2.
Herts Pharmaceuticals Ltd.—First Line Beach, Madras 1.
Indian Chemicals & Therapeutical Works Ltd.—14-15, Second Line Beach, Madras.
Indian Health Institute Laboratory Ltd.—Broadway, Madras.
Indo Agencies Pharma P. Ltd.—67, Dr. Alagappa Chettiar Road, Madras 7.
Indo Ceylon Dental and Surgical Co. Ltd.—288, Esplanade, Madras 1.
Indo-French Pharmaceutical Co.—Tondiarpet 1st Dn., Madras.
Intrac Pharmaceuticals P. Ltd.—3, Ashoka Road, Alwarpet, Madras 18.
Jammi Venkatramanayya & Sons.—1/1, Brodies Road, Mylapore, Madras.
Jeevanjan Laboratories.—15, Westcott Road, Royapettah, Madras.

**K. MOHAN & CO.—163, Nyniappa Naick Street, Madras-3; Chemicals for Textile, Tanning, Sugar, Plantation, Paper, Glass, Match, Ceramics, Foundry, Inks and Pharmaceutical Industries including requisites for disinfectants, Insecticides and perfume Manufacturers.**

Kanara Pharmaceutical Works.—44, Purasawalkam High Road, Madras.
Kesari Kuteeram Ltd.—15, Westcott Road, Royapettah, Madras.
Little's Oriental Balm & Pharmaceuticals Ltd.—11-12, First Line Beach, Madras.
Luxonal.—17/1, Ramakrishna Mutt Road, Madras 4.
Madras Alkali & Chemical Works, Ltd.—13, Kondi Chetty Street, George Town, Madras.
Martin & Harris Ltd.—4, Sunkurama Chetty Street, Madras 1.
May & Baker (I) Ltd.—193, Mount Road, Madras 2.
Meclec Nutriments & Pharmaceuticals Ltd.—26, Errabalu Chetty St., G. T. Madras.
Mount Mettur Pharmaceuticals P. Ltd.—3, Greenways Road, Madras 28.
Neo Remedies Mfg. Co.—613-H, Palm Grove, Royapettah High Road, Madras.
New Premier Chemical Industries P. Ltd.—3/10, Kalingaraya Mudali Street, Madras 21.
Oriental Research Laboratory.—147, Purasawalkam High Road, Vepery, Madras.
Pfizer Private Ltd.—Akber Chambers, 85-87, Armenian Street, Madras 1.
Pharmaceutical & Research Laboratories.—19, Dr. Guruswami Mudaliar Road, Madras 10.
Primco Ltd.—Thambu Chetty Street, Madras.
Raka Corporation P. Ltd.—138, Moore Street, Madras 1.
Rangto Laboratories.—161, Purusawalkam High Road, Vepery, Madras.
Santha Chemicals Ltd.—147, Poonamallee High Road, Madras 10.
Smith Stanistreet & Co. Ltd.—101/102, Armenian Street, Madras 1.
South Indian Products Ltd.—55, Bunder Street, George Town, Madras.
Sreevatsa Chemicals & Drugs Ltd.—72, Govindappa Naick Street, Madras.
Standard Drugs & Chemicals Co.—131, Nyniappa Naick Street, Madras 3.
Standard Pharmaceutical Works Ltd.—19, Sembudoss Street, Madras.
Standard Products & Chemical Co.—131, Nyniappa Naick Street, Madras 3.
Tablets P. Ltd.—Express Estates, Mount Road, Madras 2.
Teddington Chemical Factory Ltd.—113, Arcot Road, Vadapalani, Madras 26.
Thirumal Industrial & Chemical Works.—73-74, Gollawar Agraharam Road. Madras 21.
United Pharma (I) Ltd.—P. Box 21, Madras 3.
Vitalone Research Institute P. Ltd.—220, T. H. Road, Tondiarpet, Madras 21.
Voltas Ltd.—115/116, Armenian Street, Madras 1.
Wilfred Pereira Ltd.—2, Hunters Road, Vepery, Madras.

## CINEMA EQUIPMENTS

Ama P. Ltd.—159, Mount Road, Madras 2.
Cine Agency (India)—9, Mount Road, Madras 2.
Cine Crafts.—11, United India Colony, Madras 24.
Cinema Kadir.—19, Catchery Road, Madras 4.
Devi Cine Projector Mfg. Co.—B-7, Industrial Estate, Madras 32.

## CLEARING & FORWARDING AGENTS

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A. M. Ahamed & Co.—255, Linghi Chetty Street, Madras 1.
A. V. Kanniah Naidu.—260B, N.S.C. Bose Road, Madras 1.
International Clearing and Shipping Agency.—20-B, 2nd Line Beach, Madras 1.
Krishna & Co.—16, 1st Line Beach, Madras 1.
K. Ramabrahman & Sons.—31-A, North Beach Road, Madras.
M. Sheriff & Sons.—34, Second Line Beach, Madras.
Renown Trading & Shipping Agency.—1/22, Iyyaswami Mudali Lane, Madras.
Shaikh Mohamed Roather & Co., K. P. V.,—41, Linghi Chetty, Madras 1.

## COLLIERY EQUIPMENT

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Bosotto Hotel Confectionery.—Mount Road, Madras.
Deccan Sugar & Abkhari Co. Ltd.—P. B. No. 12, Madras.
Devi Confectionery Works.—George Town, Madras.
Eveready Confectionery Works.—Thyagaraja Nagar, Madras.
J. B. Mangharam & Co.—35/37, Thambu Chetty Street, Madras.
K. G. P. Confectionery.—Tondiarpet, Madras.
Kohinoor Confectionery Product Co. Ltd.—Arcot Road, Kodambakkam, Madras 34.
Krishna Confectionery Works.—G. T. Madras.
M. A. P. Industries.—362/364, T. M. Road, Tondiarpet, Madras.
National Confectionery.—Alandur, Madras 16.
Nutrine Confectionery Co. Ltd.—254, Linghi Chetty Street, Madras 1.
Parry's Confectionery Ltd.—Dare House, 1st Line Beach, Madras.
Sankara Confectionery Works.—Madras 21.
Spencer & Co.—Mount Road, Madras.
Universal Biscuit Factory.—115/116, Pycrofts Road, Madras 5.

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**GILL & CO. PRIVATE LTD.—36, Venkatasagramari Street, Chintadripet, Madras 2. H.O. Indu House, Dougall Road, Ballard Estate, Bombay-1.**

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A. K. Shah & Co.—28/29, Evening Bazar, Madras 3.
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E. M. Abdulla & Co.—315/318, Netaji S. C. Bose Road, Madras 1.
Indian Glassware Depot.—29, Stringers Street, Madras 1.
Jamal's Corner Shop.—Evening Bazar Road, Madras 3.
J. M. Jamal & Bros.—289, Netaji S. C. Bose Road, Madras 1.
Kassam Chocku & Co.—288, China Bazar Road, Madras 3.
K. S. Shivji & Co.—178/179, Broadway, Madras 1.
Madras Glassware House.—Evening Bazar, Madras 3.
Mohmed Hussain & Bros.—Rattan Bazar, Madras 3.
Noor Mohmed & Co.—288, China Bazar Road, Madras 3.
P. Alli Mohmed Zinna & Co.—67/68, Rattan Bazar, Madras 3.
Peer Mohmed & Co.—287, Netaji S. C. Bose Road, Madras 1.
Poppat Jamal & Sons.—182, Broadway, Madras 1.
S. Ibrahim & Co.—10, Jones Street, Madras

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A. K. Shah & Co.—28/29, Evening Bazar, Madras 3.
Aluminium Glassware Emporium.—289, China Bazar, Madras 3.
Indian Glassware Depot.—29, Stringer Street, Madras 1.
Jamal's Corner Shop.—Evening Bazar Road, Madras 3.
J. M. Jamal & Bros.—289, Netaji Bose Road, Madras 1
Kassam Chacku & Co.—288, China Bazar, Madras 3.
K. Rajaram & Co.—8, Bunder Street, Madras.
Madras Glassware House.—Evening Bazar, Madras 3.
Mohmed Husain & Bros.—Rattan Bazar, Madras 3
Noor Mohmed & Co.—288, China Bazar, Madras 3.
P. Alli Mohmed Zinna & Co.—67/68, Rattan Bazar, Madras 3.
Peer Mohmed & Co.—3/287, Netaji Bose Road, Madras 3.
Poppat Jamal & Sons.—Broadway, Madras 1.
S. Ibrahim & Co.—10, Jones Street, Madras.

## CYCLES, MOTOR CYCLES AND CYCLE & MOTOR CYCLE ACCESSORIES

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Bombay Cycle Importing Co.—7, Broadway, Madras.
British Cycle Trading Co.—10, Broadway, Madras.
Burma Cycle Trading Co.—164, Broadway, Madras.
B. M. Davey & Co.—16-C, Broadway, Madras.
Central Cycle & Motor Co.—170, Broadway, Madras.
Enfield (India) Ltd.—Royal Enfield Bldg., Madras 19.
English Cycle & Motor Importing Co. (I) Ltd.—4/9, Broadway, Madras.
Metropolitan Cycle House.—24, Broadway, Madras.
National Cycle Importing Co.—12, Umpherson Street, Madras 1.
National Engineering Works.—107, Suryanarayana Chetty Street, Royapuram, Madras.
P. K. Japee & Co.—99, Nyniappa Naik Street, Madras 3.
Pioneer Cycle Industries (India) P. Ltd.—27, Thanikachalam Chetty Road, Madras.
Poppat Jamal & Sons.—182, Broadway, Madras.
Popular Cycle Importing Co.—8/9, Broadway, Madras.
Raja Cycle Co.—6/8, Broadway, Madras.
Rapid Industries.—Rapid Nagar, Near Madras. Office: No. 8, Broadway, Madras 1.
Royal Cycle & Motor Co.—13/14, Broadway, Madras.
Saraswati Cycle Importing Co.—15, Broadway, Madras 1.
Saurashtra Cycle Importing Co.—159A, Broadway, Madras.
South India Cycle Importing Co.—7B, Broadway, Madras.
T. I. Cycles of India.—Ambattur, Madras 53.
T. I. Diamond Chain Ltd.—Ambattur, Madras 53.
T. I. Metal Sections.—Avadi, Madras 54.
T. I. Miller Ltd.—Ambattur, Madras 53.
Tube Products of India.—Avadi, Madras 54.
The Wright Saddles of India.—Ambattur, Madras 53.

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Bombay Co., Ltd.—169, Broadway, Madras 1.
Gillanders Arbuthnot & Co., Ltd.—First Line Beach, Madras 1.
Imperial Chemical Industries (India) Private Ltd.—Springhaven Road, The Harbour, Madras 1.
Jaya Bharatam Co.—5, Velders St., Mount Road, Madras.
Kilburn & Co., Ltd.—32/33, Linghi Chetty Street, Madras 1.
Spencer & Co., Ltd.—Mount Road, Madras 2.
William Jacks & Co., Ltd.—National Bank of India Building, First Line Beach, Madras 1.

## DYES & CHEMICALS DEALERS

Amar Dye-Chem Ltd.—304, Linghi Chetty St., Madras.
Amritlal & Co., Ltd.—Linghi Chetty Street, Madras 1.
Aniline Dyes & Chemical Co.—Govindappa Naick Street, Madras 1.
Arunachalam & Co.—Mint Street, Madras 1.
A. T. Meharwade.—9, Govindappa Naick Street, Madras 1.
B. Khanna & Co.—41, 3rd Cross St., Madras.
Capcas Ltd.—Singanna Naicken Street, Madras 1.
Capco P. Ltd.—16, Armenian Street, Madras 1.
Chandra Bandeppa & Sons.—213, Govindappa Naick Street, Madras 1.
Chandramauli & Co.—26, Govindappa Naick St., Madras 1.
C. J. Sheth.—2, Bunder Street, Madras 1.
Dadajee Dhackjee & Co., Ltd.—Govindappa Naick Street, Madras 1.
Ganga Dyes & Chemicals—Nyniappa Naick Street, Madras 3.
G. Mastaniah.—18, Govindappa Naick St., Madras 1.
Gemipex (Private) Ltd.—29, Govindappa Naick St., Madras 1.
Hansa Chemical Industry.—194, Govindappa Naick St., Madras 1.
Harakchand Kukmichand.—28, Govindappa Naick St., Madras 1.
Harshadry (Private) Ltd.—175, Mount Road, Madras 1.
Hoechst Dyes & Chemicals Ltd.—67, Alagappa Chettiar Road, Madras 1.
H. Chandanmall & Co.—97, Nyniappa Naick St., Madras 1.
India Impex Corporation.—3rd Cross St., Madras 28.
Indian Impex Agency.—23, Govindappa Naick St., Madras 1.
Indira Chemical Agency.—208, Govindappa Naick Street, Madras 1.
International Trading Corpn.—Mint Street, Madras 3.
Jeevandas Laljee & Sons.—212, Govindappa Naick St., Madras 1.
Khatau Vallabhdas & Co.—Govindappa Naick Street, Madras 1.
Lakshmi Colour Co.—Govindappa Naick Street, Madras 1.
Lakshmidas Dwarkadas & Co.—Govindappa Naick Street, Madras 1.
Madras Colour Co.—Govindappa Naick Street, Madras 1.
Mahalakshmi Colour Co.—Devaraja Mudali Street, Madras 1.
Mangilal & Co.—201, Govindappa Naick St., Madras 1.
M. Mohanlal & Co.—Mint Street, Madras 3.
M. Srinivasacharlu & Co.—15, Govindappa Naick St., Madras 1.
Nanavati & Co., Ltd.—Govindappa Naick Street, Madras 1.
Narayanan & Co.—56, Bunder Street, Madras 1.
N. Baktavatsalam.—11, Audiappa Naick St., Madras 1.
P. Audinarayana.—19, Govindappa Naick St., Madras 1.
P. K. Japee & Co.—Nyniappa Naick Street, Madras 3.
P. S. Narayanan.—45, Govindappa Naick St., Madras 1.
P. S. Narayanan & Co.—45, Govindappa Naick Street, Madras 1.
Parekh, H. V.—30, Govindappa Naick St., Madras 1.
Patel & Sons.—5, Godown Street, Madras 1.
Premier Traders.—6, Luckmadass Street, Madras 1.
Ramnath & Co.—Kondi Chetty Street, Madras 1.
Ravindra & Co.—17/228, Govindappa Naick St., Madras 1.

Roopchand & Sons.—28/A, Govindappa Naick St., Madras 1.
R. Mangilal Mehta.—Audiappa Naick Street, Madras 1.
S. Devichand & Co.—32, Govindappa Naick St., Madras 1.
S. S. Mehta & Co.—194, Govindappa Naick St., Madras 1.
South India Dyes Co.—Govindappa Naick Street, Madras 1.
Sridhar Chemical Corporation.—228, Govindappa Naick St., Madras 1.
Standard Dyes & Chemical Co.—217, Govindappa Naick Street, Madras.
Sudha Dyes & Chemicals.—Namvalwar Street, Triplicane, Madras 1.
Sunshine Co.—26, Govindappa Naick St., Madras 1.
T. T. Krishnamachari & Co.—333, Thambu Chetty St., Madras 1.
T. V. Netasa Iyer.—1/14, Baker Street, Madras 1.
Union Colour Co.—Thiruvottiyoor High Road, Madras.
V. N. Devanathan.—213, Govindappa Naick St., Madras 1.
Vanijia & Co.—472, Mint Street, Madras 1.
Verjeewandas Hirjee & Co.—194, Govindappa Naick St., Madras 1.
W. Dorairajulu Chetty & Sons.—201, Govindappa Naick St., Madras 1.

## DYESTUFFS IMPORTERS & DEALERS

**A. T. MEHARWADE.—9, Govindappa Naik Street, Madras-1.**

**INDIRA CHEMICAL AGENCY.—208, Govindappa Naik Street, Madras 1; Distributors to Dhrangadhra Trading Co. Private Ltd., Bombay, The Anil Starch Products Ltd., Ahmedabad.**

## ELECTRICAL ENGINEERS, MFRS. & DEALERS IN ELEC. GOODS

**BAJAJ ELECTRICALS LTD.—3/33, Mount Road, Madras-2; Phone: 83969; Head office at Bombay; Electrical Engineers, Manufacturers and Contractors.**

**INDIAN ENGINEERING CO.—Saleh Mansion, 1, Tuckers Lane, Broadway, Madras 1; Phone: 22786; Grams: "IECARG", also at Bombay, Calcutta & New Delhi.**

**KAYCEE INDUSTRIES LTD.—3/33, Mount Road, Madras; Agents for Hind Rectifiers Ltd., Manufacturers of Selenium and Silicon Semiconductors, Electroplating Rectifiers, Battery Chargers, Silicon Power Plants for Electro-Chemical Industries, 'Santon' Rotary Switches, 'Kaycee' Toggle Switches, 'Kaycee' Water Meters; Head Office: Kamani Chambers, Nicol Road, Ballard Estate, Bombay; Phone: 263521, Grams: "TURNRITE". Branches: Delhi, Calcutta & Kanpur.**

## ELECTRICAL GOODS (ALTERNATORS, MOTORS, GENERATORS AND SETS) & APPLIANCES

All India Electric Co.—93, Perumal Mudali Street, Sowcarpet, Madras 1.
Amalgamations Private Ltd.—202, Mount Road, Madras 2.
Andhra Electric Co.—Andhra House, N.S.C. Bose Road, Madras 1.
Associated Electrical Industries (India) Ltd.—11/12, First Line Beach, Madras 1.
Bliga Liaghting Equipment P. Ltd., C-39-40, Industrial Estate, Madras 32.

**EAST ASIATIC COMPANY (INDIA) PRIVATE LTD., THE.—Machinery & Engineering Dept., Bharat Bldg., Mount Road, Madras 2; Phone: 86021; Grams: "MANDARIN"; P.O. Box No. 146.**

Electrical Accessories P. Ltd.—C-5 & 6, Industrial Estate, Madras 32.
Hackbridge Hewittic& Easun Private Ltd.—5/7, Second Line Beach, Madras 1.
General Electric Co. of India Private Ltd.—Magnet House, Mount Road, Madras 2.
Imperial Electric & Radio Mart.—111, Mount Road, Madras 6.
Industrial Stores Company, The.—2, Errabalu Chetty Street, Madras 1.
Jemco P. Ltd.—Super B-3, Industrial Estate, Guindy, Madras 32.
K. R. Kothandaraman & Co. P. Ltd.—P. B. No. 1555, Madras 1.
Manohar Brothers.—37, Errabalu Chetty Street, Madras.
Marshall Sons & Co. (India) Ltd.—Marshall Bldg., Second Line Beach, Madras 1.
Modi & Modi.—11, Linghi Chetty Street, Madras 1.
Modern Engineering Co.—2/27, Broadway, Madras 1.
National Electricals, Industrial Estate, Madras 32.
P. Natesan (Industries) Ltd.— 191, Triplicane High Road, Madras 5.
Premier Auto Electric Ltd.—4, Patullo Road, Madras 2.
Rallis India Ltd.—Rallis House, 320, Linghi Chetty Street, Madras 1
South India Export Co., Ltd.—5, Mclean Street, Madras 1
Swastik Electric Co.—2/105, Armenian Street, Madras 1.
Transformer & Switchgear Ltd.—Indian Chamber Bldgs., Esplanade, Madras 1.
Tube Lights P. Ltd.—3, Stringers St., Madras.

## ELECTRICAL GOODS AND APPLIANCES

Asea Electric India P. Ltd.—Mercantile Bank Bldg., 1st Line Beach, Madras 1.
Ashok Electric Co.—8/2, Govindappa Naick Street, Madras 1.
Associated Electricals Ltd.—12/A, Linghi Chetty Street, Madras 1.
Auto & Electric Co.—57, Venkatesapuram Colony, Madras 23.
Bajaj Electricals P. Ltd.—3/33, Mount Road, Madras 2.
Bharat Electricals, 17, Thambu Chetty Street, Madras 1.
Chicago Telephone & Radio Co., Ltd.—196, Mount Road, Madras 2.
Eastern Electric Co., 11/12, 2nd Line Beach, Madras 1.
Electrical Accessories P. Ltd.—C-5 & 6, Industrial Estate, Madras 32.
Electrical Engineering Equipment Co.—4, Errabalu Chetty Street, Madras 1.
Electrical & General Supply Co.—17-C, Broadway, Madras 1.
Electro Industries.—39, North Mada Street, Madras 4.
Esplanade Electric Co.—5-A, Sembudoss Street, Madras 1.
Fomra Brothers.—392, Mint Street, Madras 1.
Ganesh Flour Mills Co. Ltd.—2, Thambu Chetty Street, Madras 1.
Govindarai & Sons Ltd.—P-21, Errabalu Chetty Street, Madras 1.
Hindustan Electrical Co. Ltd.—35, Mount Road, Madras 2.

**HIVELM INDUSTRIES PRIVATE LTD.—A-5 & 6, Industrial Estate, Guindy, Madras 32. Phone: 80504. Grams: "HIVELM." Manufacturers of High Voltage and extra High Voltage Disconnecting Switches from 11 kv to 220 kv with current ratings upto 1,200 amps.**

Imperial Electric & Radio Mart.—Congress Buildings, 111, Mount Road, Madras 6.
India Electric Works Ltd.—101/102, Armenian Street, Madras 1.
International General Electric Co., Ltd.—36B, Mount Road, Madras 2.
K. S. Shivji & Co.—178-79, Broadway, Madras 1.
Kumar Brothers—61, Netaji Subhas Chandra Bose Road, Madras 1.
Leo Enterprises.—96, Narayana Mudali Street, Madras 1.
Madras Electricals Ltd.—55/57, Rattan Bazar, Madras 3.
Madras Electric Trades and Agencies.—80/3, Lloyds Road, Madras 6.
Mahaveer Electric Corporation.—24, Govindappa Naick Street, Madras 1.
Modern Electric Co.—301, Linghi Chetty Street, Madras 1.

**MODI & MODI.—11, Linghi Chetty Street, P. B. No. 293, Madras 1. Phones: 23096 & 23892. Grams: "HIGHSPEED." Electrical Merchants and Engineers. Branches: Madurai, Vijayawada.**

**NATIONAL ELECTRICALS.—B-10, Ambattur Industrial Estate, Madras-58; Manufacturers of 'VIJAY' Brand Table and Pedestal Fans and Automatic Electric Irons.**

National Electrical Industries.—Industrial Estate, Madras 32.
Neo Hindustan Electricals.—Mowbrays Road, Madras 18.
P. Allimahomed Zinna & Co.—67/68, Rattan Bazar, Madras 3.
Patel Electric Company Private Ltd.—18, Govindappa Naik Street, Madras 1.
Premier Auto Electric P. Ltd.—4, Pattulos Road, Madras 2.
Rm. S. & Co. P. Ltd.—16, Broadway, Madras 1.
Revathi Agencies.—4, Stringers Street, Madras 1.
S. B. Electric Mart Ltd.—175, Netaji Subhas Road, Madras 1.
Scott & Pickstock P. Ltd.—Catholic Centre, Armenian Street, Madras 1.
Seeyensee & Co.—55, Anderson Street, Madras 1.
Sethuram Thiagarajan & Co.—Angappa Naicken Street, Madras 1.
S. N. M. Electric P. Ltd.—108, Mint Street, Madras 1.
Shenoy Electrical Industries.—138. Wall Tax Road, Madras.
Shree Nursinghay Mudungopal Electric Co. P. Ltd.—108, Mint Street, Madras 1.
Standard Electric Co.—27, General Patters Road, Madras 2.
Swastik Electric Co.—33, Ratan Bazar, Madras 3.
T. Nagar Electrical Supplies Co.—5011, General Patters Road, Madras 2.
Westrex Company India (formerly Western Electric Co. of India).—35, Mount Road, Madras 2

## ELECTRODES

**INDUSTRIAL GASES LTD., THE.—1/33, Mount Road, Madras. Phone: 81626, Telex: 138, Grams: "INDUSGASES", Head Office: P. O. Box 853, Calcutta-1. Mild Steel, Cast Iron, Stainless and Alloy Steels, Non-Ferrous Metals, Hard-facing Electrodes for Automatic Welding.**

## ELECTROPLATING MATERIAL & MACHINERY

**KAYCEE INDUSTRIES LTD.—3/33, Mount Road, Madras; Agents for Hind Rectifiers, Battery Chargers, Silicon Power Plants for Electro-Chemical Industries, 'SANTON' Rotary Switches, 'Kaycee' Toggle Switches, 'Kaycee' Water Meters; Head Office: Kamani Chambers, Nicol Road, Ballard Estate, Bombay; Phone: 263521, Grams: "TURNRITE"; Branches: Delhi, Calcutta & Kanpur.**

## ENGINEERING

Ace Engineering Corporation.—Super B-4, Industrial Estate, Madras 32.
Addison & Co. Ltd.—158, Mount Road, Madras.
Amalgamations Private Ltd.—202, Mount Road, Madras
Amco Engg. Corpn.—A-3, Industrial Estate, Madras 32.

Armcess Engineers P. Ltd.—A-8, Industrial Estate, Madras 32.
Bharat Engg. Works.—C-20, Industrial Estate, Madras 32.
Binny's Engineering Works Pvt. Ltd.—Meenambakkam, Madras 27.
Carborundum Universal Ltd.—52/53, Jehangir St., Madras.
Chitrom & Co. (Structural Engineers).—Main Road, Royapuram, Madras-31.
Easun Engineering Co., Ltd.—5/7, Second Line Beach, Madras 1.
Foundry & Engineering Services.—Super A-16 & 17, Industrial Estate, Madras 32.
Gannon Dunkerley & Co. Ltd.—14, Boag Road, Madras 17.
General Electric Co. of India Pvt. Ltd.—Magnet House, 202, Mount Rd., Madras.
Grahams Trading Co. (India) Ltd.—311, Linghi Chetty Street, Madras 1.
Hassanally, A. M., & Co.—34, Linghi Chetty Street, Madras 1.
Heatly & Gresham Ltd.—United India Bldg., Esplanade, Madras 1.
Indian Commerce & Industries Co. Private Ltd.—95, Broadway, Madras.
Jairamdas & Sons, 33, Sambudoss Street, Madras 1.
Kilburn & Co., Ltd.—32/33, Linghi Chetty Street, Madras 1.
Marshall Sons & Co. (India) Ltd.—Marshall Bldg. Second Line Beach, Madras 1.
Metal Box Co. of India Ltd.—Elaiya Mudali Street, Tondiarpet, Madras.
Richardson & Cruddas Ltd.—First Line Beach, Madras.
Roberts Mclean & Co., Ltd.—200, Mount Road, Madras 2.
Simpson & Co. (India) Ltd.—202-203, Mount Road, Madras.
South India Export Co. Ltd.—5, Mclean Street, Madras 1.
Sreenivasa Engineering Co.—A-7, Industrial Estate, Madras 32.
Standard Motor Products of India Ltd.—29, Mount Road, Madras.
Sundaram Motors Pvt. Ltd.—37, Mount Road, Madras.
T.I. Cycles of India Ltd.—Ambattur, Near Madras.
Universal Engg. Works.—D-3, Industrial Estate, Madras 32.
Voltas Ltd.—115/116, Armenian Street, Madras 1.
William Jacks & Co., Ltd.—National Bank of India Bldg., First Line Beach, Madras 1.

## ENGINEERS—ELECTRICAL AND MECHANICAL

A.C.E.C. India P. Ltd.—19/21, Muker Nallamuthu St., Madras 1.
Acme & Co.—61, G. N. Chetty Road, Madras 17.
Allied Engineering Works.—43, West Coum River Road, Madras 2.
Associated Electricals Private Ltd.—12-A, Linghi Chetty Street, Madras 1.
British & Eastern Engineering Co.—16, General Patters Road, Madras 2.
Calcutta Electrical Mfg. Co. Ltd.—27, Vaidyaramier St., Madras 17.
Daga Commercial Corpn. P. Ltd.—433, Mint St., Madras.
Easun Engineering Co. Ltd.—5/7, Second Line Beach, Madras 1.
Electrical Engineering Equipment Co.—4, Errabalu Chetty St., Madras 1.
Electronic Service Co.—17/35, Mount Road, Madras 2.
F. & C. Osler (India) Ltd.—Post Box No. 1276, 1st Line Beach, Madras.
Fomra Brothers—"Fomra House", 392, Mint Street, Madras.
**HIND INDUSTRIAL & MERCANTILE CORP. PVT. LTD., (HINDCO).—193, Mount Road, Purshottam Bldg., Madras-2; H.O.: 7, New Queens Road, Bombay-4; Grams: "ADEK", Phone: 30061-2; Importers & Distributors; Branches: Delhi & Bangalore.**
India Electric Works, Ltd.—Chatnath Buildings, 19/29, Mount Road, Madras 2.
Jaigopal & Co.—119, Mount Road, Madras 2.
Jayems Engineering Co.—317, Thambu Chetty Street, Madras 1.
Hillal Engineering Works.—50, Mir Bakshi Ali Street, Madras 14.
K. R. Kothandaraman & Co. (Private) Ltd.—Indian Chamber Bldg., Esplanade, P. O. Box 1555, Madras 1.
Kumar Brothers—61, N. S. C. Bose Road, Madras 1.
Lucas Electrical Tractor Service P. Ltd.—9, Patullo Road, Madras 2.
Madras Electricals Ltd.—55/57, Rattan Bazar, Madras 3.
Mahomed Ebrahim & Co. P. Ltd.—7/8, Mount Road, Madras 2.
Marshall Sons & Co. (India) Ltd.—Marshall Bldg., Second Line Beach, Madras 1.
Masseys.—P. Box 554, Royapuram, Madras 13.
**MODI & MODI.—11, Linghi Chetty Street, P. B. No. 293, Madras 1. Phones: 23096 & 23892. Grams: "HIGHSPEED." Electrical Merchants and Engineers. Branches: Madurai, Vijayawada.**
National Engineering Co. (Madras) Ltd.,—879, Netaji Subhas Chandra Bose Road, Madras 1.
Orient Distributors.—26, Errabalu Chetty St., Madras 1.
Radio & Electricals Ltd.—38, Mount Road, Madras 6.
Richardson & Cruddas Ltd.—First Line Beach, Madras 1
RM. S. & Co. Private Ltd.—16, Broadway, Madras 1.
R. S. M. & Co.—236/237, Devaraja Mudaly St., Madras 1.
Seeyensee & Co.—55, Anderson St., Madras 1.
Sethuram Thiagarajan & Co.—272/273, Angappa Naicken Street, Madras 1.

## ENGINES (DIESEL AND OIL)

Amalgamations Private Ltd.—202, Mount Road, Madras 2.
Best & Co., Ltd.—First Line Beach, Madras 1.
Bharat Motors.—35, Mount Road, Madras 2.
Binny & Co., Ltd.—7, Armenian Street, Madras 1.
Bombay Co., Ltd.—169, Broadway, Madras 1.
Brady, W. H., & Co., Ltd.—154/155, Pophams, Broadway, Madras 1.
**EAST ASIATIC COMPANY (INDIA) PRIVATE LTD., THE.—Machinery & Engineering Dept., Bharat Bldg., Mount Road, Madras 2; Phone: 86021; Grams: "MANDARIN"; P.O. Box No. 146.**
Easun Engineering Co., Ltd.—5/7, Second Line Beach, Madras 1.
Gordon Woodroffe & Co. (Madras) Ltd.—1/21, North Beach Road, Madras 1.
Greaves Cotton & Co., Ltd.—19, Second Line Beach, Madras 1.
Guest, Keen, Williams, Ltd.—202, Mount Road. Madras 2.
Industrial Stores Co.—318, Linghi Chetty Street, Madras 1.
Larsen & Toubro Ltd.—4/5, Club House Road, Mount Road, Madras 2.
Marshall Sons & Co. (India) Ltd.—Marshall Bldg., Second Line Beach, Madras 1
**National Engineering Co. (Madras) Ltd., The,—879, Netaji Subhas Chandra Road, Madras 1.**
Parry & Co., Ltd.—"Dare House", First Line Beach, Madras 1.
Rallis India Ltd.—Ralli House, 320, Linghi Chetty Street, Madras 1.
South India Export Co., Ltd.—5, Mclean Street, Madras 1.
Taylor, T. A., & Co. (Madras) Ltd.—100, Armenian Street, Madras 1.
Voltas Ltd.—115/116, Armenian Street, Madras 1.

## FERTILISERS

Imperial Chemical Industries (India) Private Ltd.—Bombay Mutual Bldg., N. S. Bose Road, Madras 1.
Louis Dreyfus & Co., Ltd.—310/311, Linghi Chetty Street, Madras 1.
Madras Oils & Fertilisers P. Ltd.—Villivakam, Madras.
Mysore Fertiliser Co.—31/A, North Beach Road, Madras 1.
Parry & Co., Ltd.—"Dare House", First Line Beach, Madras 1.
Premier Fertilisers Ltd.—150-A, Mount Road, Madras 2.
Rallis India Ltd.—Ralli House, 320, Linghi Chetty Street, Madras 1.
Scientific Fertiliser Co., Ltd.—13/14, Second Line Beach, Madras 1.
Shaw Wallace & Co., Ltd.—8/9, Thambu Chetty Street, Madras 1.

## FINANCIERS & FINANCE BROKERS

Associated Finance Co. Ltd.—10, Perianaikaran Street, Madras 1.
Bharat Finance Corporation—101, Mint Street, Madras 1.
Chordia General Finance Co.—38-C, Mount Road, Madras 6.
Commercial Credit Corporation Ltd.—Pattulos Road, Madras 2.
Commercial Financial Corporation, 1/65, Mount Road, Madras 2.
General Credit Corporation India P. Ltd.—11-D, Mowbrays Road, Madras 18.
Ganali Credit Corporation P. Ltd.—36-B, Mount Road, Madras 2.
G. A. Vasant.—17-A, Armenian Street, Madras 1.
Sundaram Finance Ltd.—52, Peters Road, Madras 14.

## FIRE EXTINGUISHERS AND FIRE FIGHTING EQUIPMENT

Anur Agencies.—3, Malaiperumal Street, Madras 1.
Best & Co., Ltd.—First Line Beach, Madras 1
Binny & Co., Ltd.—7, Armenian Street, Madras 1.
Parry & Co., Ltd.—"Dare House", First Line Beach, Madras 1.
Roberts Mclean & Co., Ltd.—200, Mount Road, Madras 2.
South India Export Co., Ltd.—5, Mclean Street, Madras.
William Jacks & Co., Ltd.—National Bank of India Bldg., First Line Beach, Madras 1.

## FLOUR MILLS

Century Flour Mills.—330, Thambu Chetty Street, Madras 1.
Madras Flour Mills.—196, Govindappa Naick St., Madras.
Sahuwala Flour Mills.—38, Strotten Muthiah Mudaly St., Madras 1.
United India Roller Flour Mills P. Ltd.—1, Anna Pillai St., Madras 1.

## FOUNTAIN PENS, NIBS & SPARES MANUFACTURERS AND DEALERS

Bharathi Agencies—307-308, Netaji Subhas Road, Madras 1.
Gem & Co.—225-226, Netaji Subhas Chandra Bose Road, Madras 1.
Geneve Pen Industries—4/441, Mint Street, Madras 3.
Globe Industries.—6, Gopal Das Road, Madras 2.
Gujarat Industries P. Ltd.—20, Kasi Chetty Street, Madras 1.
**LOYAL PEN COMPANY.—23, Errabalu Chetty Street, Madras 1. Dealers in Pen and Spares—Rates reasonable—Enquiries solicited.**
Pen Corner.—Netaji Subhas Chandra Bose Road, Madras 1.
Pen Spares Mfg. Co.—A-12, Industrial Estate, Madras 32.
Pens & Products.—11, Mount Road, Madras 2.

The Pilot Pen Co. (India) Private Ltd.—Catholic Centre, Armenian Street, Madras 1.
Rada Pen Co.—Mint Street, Madras 3.
Radhakrishna & Co.—No. 28, Arani Rangan Street, Madras 21.
Rance Pen Co.—29, Sunkurama Chetty Street, Madras 1.
Regal Products P. Ltd.—186, Royapettah High Road, Madras 14.
Shelat Brothers.—8, Lakmudas Street, Madras.
W. L. Marrian (I) P. Ltd.—162, Mount Road, Madras 2.

## FUEL INJECTION EQUIPMENT MFRS.

**MOTOR INDUSTRIES CO. LTD.—Manufacturers of Mico-Licence-Bosch Diesel Fuel Injection Equipment and Spark Plugs; Distributors of Bosch Automobile Parts & Accessories; 1/155, Mount Road, Madras 2; Phone: 83581 (3 Lines), Grams: "MICODIESEL", Madras; H.O. Post Box No. 93, Bangalore; Branches: 41, Queen's Road, Bombay 2 and 91-A, Park Street, Calcutta 16.**

## GASES

**INDUSTRIAL GASES LTD., THE.—1/33, Mount Road, Madras. Phone: 81626, Telex: 138. Grams: "INDUSGASES". Head Office: P.O. Box 853, Calcutta-1. Industrial Gases—Oxygen, Liquid Oxygen, Acetylene, Nitrogen, Argon, Neon & Helium, Medical and Refrigerant.**

## GAS PLANTS

**INDUSTRIAL GASES LTD., THE.—1/33, Mount Road, Madras. Phone: 81626, Telex: 138. Grams: "INDUSGASES". Head Office: P.O. Box 853, Calcutta-1. Complete plants for the Manufacture of Gases—Oxygen, Nitrogen, Carbon Dioxide, Hydrogen, Liquid Oxygen, Acetylene, Ammonia.**

## GAUGES

**INDUSTRIAL GASES LTD., THE.—1/33, Mount Road, Madras. Phone: 81626, Telex: 138. Grams: "INDUSGASES." Head Office: P.O. Box 853, Calcutta-1. Gauges—Pressure—Vacuum—Vacuum Single, Deplex, Steam, Ammonia, Oxygen, Acetylene, Oil.**

## GLASS AND GLASSWARE MERCHANTS

Akbarally Allibhoy.—201-202, Devaraja Mudali Street, Madras 3.
A. N. Mani & Co.—126, Devaraja Mudali Street, Madras.
Ashok Glass Works.—23, Gantz Road, Perambur Barrack, Madras.
Bawa Glass & Crockeries (P) Ltd.—52, Devaraja Mudali St., Madras.
C. Cunniah & Co.—248-249, Devaraja Mudali St., Madras.
C. Cunniah & Bros.—58-59, Devaraja Mudali St., Madras.
Central Glass Works.—Tiruvottiyur, Madras.
Chithapuram Rajamannar Chetty & Sons.—143, Devaraja Mudali St., Madras.
C. S. Anjaneylu & Co.—100, Devaraja Mudali Street, Madras
D. Namberumaliah.—54/57, Devaraja Mudali Street, Madras.
D. Ramiah Chetty & Sons.—230, Devaraja Mudali St., Madras.
E. Ethirajiah & Sons—103, Devaraja Mudali Street, Madras 23.
Glass Corporation P. Ltd.—119, Nyniappa Naick Street, Madras 3.
Industrial & Engg. Apparatus Co. P. Ltd.—23/24, Second Line Beach, Madras 1.
Kannan & Co.—63/68, Devaraja Mudali Street, Madras.
K. Manavaliah.—3, Subramaniam Lane, Madras.
K. Radhakrishniah.—24, Devaraja Mudali Street, Madras.
K. Rajaram & Co.—8, Bunder St., Madras 1.
K. R. S. Sreenivasiah & Sons.—169, Devaraja Street, Madras.
Krishna Glass Works.—26, Venkatachala Mudali Lane, Madras.
K. Ramalinga Mudaliar.—148/149, Devaraja Mudali Street, Madras.
K. Singapermaliah.—151/152, Devaraja Mudali Street, Madras.
Maddhali Radhakrishniah & Sons.—16/110, Devaraja Mudali Street, Madras.
Madras Glass & Plywood Depot.—172/176, Devaraja Mudali Street, Madras.
M. Ramakrishna.—200, Devaraja Mudali Street, Madras.
M. Radhakrishinaih & Co.—184-185, Devaraja Mudali St., Madras.
M. Seethamma & Co.—33, Devaraja Mudali Street, Madras.
M. Sampathiah.—17, Venkatachala Mudali Lane, Madras.
M. S. P. Balakrishna Chetty & Co.—221-222, Devaraja Mudali St., Madras.
N. Ranganathiah & Sons.—71/72, Devaraja Mudali St., Madras.
N. Sreemannarayana & Co.—147, Devaraja Mudali St., Madras.
Oriental Glass Works.—25, Gandhi Road, Madras 12.
Poppat Jamal & Sons.—55/58, Konnur High Road, Madras 23.
P. N. Balu Chetty & Sons.—237-239, Devaraja Mudali St., Madras.
P. Thiruvarangiah & Son.—3/5, Ayya Pillai Street, Madras.
Peermohamed & Co.—287, China Bazar Road, G.T., Madras 1.
R. Ethirajiah & Sons.—103, Devaraja Mudali Street, Madras 3.
Raja Brothers.—29, Devaraja Mudali Street, Madras.
Ramakrishna Frame Works.—230, Devaraja Mudali St., Madras.
R. Ethirajiah & Sons.—103, Devaraja Mudali St., Madras.
Ranga & Co.—2, Ayya Pillai Street, Madras.
R. Ramanujiah & Son.—87, 191, Devaraja Mudali Street, Madras.
Sayani Glass Factory.—Ainavaram, Madras.
S. Gulam Ghouse.—133, Devaraja Mudali Street, Madras.
Sekar & Soumya.—10/14, Ayya Pillai Street, Madras.
Selvam & Co.—192-193, Devaraja Mudali Street, Madras.
Shimada Glass Works.—Ainavaram, Madras.
Soumya General Traders.—144-145, Devaraja Mudali St., Madras.
S. M. Yousuff.—37, Devaraja Mudali Street, Madras.
Sri Balaji & Co.—212/214, Devaraja Mudali Street, Madras.
S. V. M. Mohamed Jamaludeen & Co.—207-208, Devaraja Mudali St. Madras.
T. Janakiramiah.—105/107, Devaraja Mudali Street, Madras.
V. Panduranga Chetty.—187-188, Devaraja Mudali Street, Madras.
V. Poongavanam & Bros.—134, Devaraja Mudali Street, Madras.
Venkateswara Frame Works.—247, Devaraja Mudali Street, Madras.

## GUNNY MERCHANTS

Bengal Trading Co.—29, Audiappa Naicken Street, Madras 1.
Chelliah Nadar, V. K.—63, Monegar Choultry Road, Madras 21.
Chenchuraghavulu Chetty, S., & Sons.—2/139, Anna Pillai Street, Madras 1.
Chinniah Chetty, V.—46, Elephant Gate Carts Stand, Madras 1.
Dawood Trading Co.—109, Audiappa Naicken Street, Madras 1.
Devarajulu Chetty, B.C.—21, Ramanan Road, Madras 1.
Devarajulu Chetty, R.E., & Co.—1/34, Audiappa Naicken Street, Madras 1.
Gopal Chetty, K. & Bros.—103, Audiappa Naicken Street, Madras 1.
Govindaswamy Chetty, Kota.—1/34, Audiappa Naicken Street, Madras 1.
Govindaswamy Chetty, M. and Sriramulu Chetty, M. S.—1/38, Audiappa Naicken Street, Madras 1.
Govindaswamy Chetty, T.—99, Audiappa Naicken Street, Madras 1.
Gunniah Chetty, T.—2, Ramanan Road, Madras 1.
Gunny Trading Co.—105, Audiappa Naicken Street, Madras 1.
Guruviah Chetty, J.—105-A, Audiappa Naicken Street, Madras 1.
Jambulingam, S.—29, Monegar Choultry Road, Madras 21.
Joseph Pandian.—66, Monegar Choultry Road, Madras 21.
Kesavulu Chetty, Kota.—10, Ramanan Road, Madras 1.
Kothandaram Chetty, B.C.—133, Audiappa Naicken Street, Madras 1.
Krishniah Chetty, T.—26, Ramanan Road, Madras 1.
Kuppuswamy Chetty, Polur.—19, Ramanan Road, Madras 1.
Kuppuswamy Chetty, R., & Son.—17, Ramanan Road, Madras 1.
Madras Stores.—89, Audiappa Naicken Street, Madras 1.
Mahalingam Pillai, M.—73, Narasu Iyer Street, Madras 21.
Mahalinga Nadar, A.S.P.—24/25, Audiappa Naicken Street, Madras 1.
Mayandi Nadar, S.S. & M.—110, Audiappa Naicken Street, Madras 1.
Munuswamy Chetty, J., & Co.—91, Audiappa Naicken Street, Madras 1.
Munuswamy Chetty, M. C.—40/41, Audiappa Naicken Street, Madras 1.
Muthyala Subbarangiah Chetty.—113, Audiappa Naicken Street, Madras 1.
Narayanaswamy Chetty, K.—6, Ramanan Road, Madras 1.
Narayanaswamy Chetty, V.—6, Ramanan Road, Madras 1.
Padmanabha Chetty, P., & Sons.—27, Ramanan Road, Madras 1.
Palanichamy Nadar, S.P.—71, Monegar Choultry Road, Madras 21.
Pandian & Co.—67, Monegar Choultry Road, Madras 21.
Periasamy Nadar, P.K.—31, Monegar Choultry Road, Madras 21.
Ponnuchamy Chettiar, S.V.S.—92-A, Audiappa Naicken Street, Madras 1.
Radhakrishniah Chetty.—26, Ramanan Road, Madras 1.
Raghavulu Chetty, T.—22, Ramanan Road, Madras 1.
Rajan, P. K.—37, Monegar Choultry Road, Madras 21.
Ramaswamy Nadar, P.K.—39, Monegar Choultry Road, Madras 21.
Sambandan, P.—27, Monegar Choultry Road, Madras 21.
Seeniah Chetty, T.—44, Corporation Lorry Stand, Elephant Gate, Madras 1.
Somasundara Nadar, P.R.S.—13, Monegar Choultry Road, Madras 21.
Sree Gnanambika & Co.—6, Corporation Lorry Stand, Elephant Gate, Madras 1.
Sree Jayalakshmi & Co.—25, Ramanan Road, Madras 1.
Sree Shunmugar Gunny Stores.—70, Monegar Choultry Road, Madras 21.
Sree Suyambu & Co.—13, Monegar Choultry Road, Madras 21.
Srinivasulu Chetty, M.—94, Audiappa Naicken Street, Madras 1.
Subbiah Nadar, A.V.—34, Monegar Choultry Road, Madras 21.
Subramani, P. K.—62, Monegar Choultry Road, Madras 21.
Venkatesulu Chetty, K.—99, Audiappa Naicken Street, Madras 1.
Veeriah Chetty, A.—27, Calathi Pillai Street, Madras 1.
Viswanadham Chetty, M.N.M., & Co.—152, Anna Pillai Street, Madras 1.

## HANDLOOM MERCHANTS & EXPORTERS

Adhithan Palayakat Co.—25, Mallan Ponnappa Mudali Street, Triplicane, Madras 5.
Aiyasamu Mudaliar Son.—11, East Mada St., Mylapore, Madras 4.
Amin & Co.—233, Angappa Naick Street, G. T., Madras 1.
A. M. Ahmed & Co.—255, Linghi Chetty St., G. T., Madras 1.
A. V. Malliah Chettiar & Sons.—5, Ramaswamy Street, Madras 1.
A. R. Panchatchara Mudaliar & Bro.—13, Karpavinayagar Street, Alandur Street, St. Thomas Mount, Madras 16.
Asoka Palayakat Co.—253, Thambu Chetty Street, Madras 1.
Bharat Handloom Textiles.—92, Gafoor Street, Triplicane, Madras 5.

B. Appavoo & Bros.—59, Sadayappa Mudaliar St., Saidapet, Madras 15.
Bismillah Palayakat Co.—72, Angappa Naick Street, Madras 1.
Chanrai Uttamchand.—20, Wallajah Road, Mount Road, Madras 2.
Chettyzons.—28, Mint Subraylulu Naidu Street, Washermanpet, Madras-21.
City Palayakat Co.—25, Muthumari Chetty Street, Madras.
G. Ramachand (Madras).—16, Arunachala Naicken Street, Chindatripet, Madras.
G. R. K. Radharam & Co.—1/54, Armenian Street, Madras.
Gemini Lunghi Co.—1/15, Ramaswamy Street, Madras.
Golden Palayakat Co.—26, Coral Merchant Street, Madras.
Good Luck Palayakat Co.—43, Linghi Chetty Street, Madras.
Govindaswamy Chettiar S. & Co.—52, Ayyappa Chetty Street, Madras.
Gudyatham Lunghi Co.—47, Coral Merchant Street, Madras.
Hadri V. Perumal Chetty & Sons.—15/16, Mangammal Lane, Mint Post, Madras.
Hajee M. A. Shahul Hammed & Sons, Hameedia Palayakat Kaily Co.—23, Pallappan St., Triplicane, Madras.
Hajee S. M. Syed Abdul Rahman Sahib & Co.—111, Moore St., Madras.
Hameedia Lunghi Co.—Royapettah, Madras.
Hindusthan Colour Dyeing Co.—2/20, Sura Mudali Street, Triplicane, Madras.
Hope Prudhomme & Co. Ltd.—271, Angappa Naick Street, Madras.
H. Imperial Palayakat.—8, Jayaram Chetty Street, Saidapet, Madras 15.
India Famous Pulicat Co.—29, Armenian Street, Madras.
Indolanka Traders.—38, Linghi Chetty Street, Madras.
International Import Corpn. (Private) Ltd.—3, Asok Road, Alwarpet, Madras.
K. Abdul Razack Sahib & Co.—44, Angappa Naick Street, G.T., Madras.
K. M. K. Annamalai Chetty & Sons.—27, Mint Street, P.T. Madras.
K. S. P. Balakrishnan & Co.—38, Armenian Street, Madras.
K. V. Subbaraya Chetty Sons.—96, Linghi Chetty Street, G.T., Madras.
Kaithari Lunghi Stores.—287, Thambu Chetty Street, Madras.
Kasimari Stores.—2/28, Jones Street, Madras.
Kasthuri Palayakat Co.—25, Ramaswamy Street, Madras.

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M. H. Abdul Gafoor & Co.—No. 204, Angappa Naick Street, Madras 1.
M. M. Mohamed & Co.—32, Angappa Naick Street, Madras.
M. M. Naina & Co.—251, Linghi Chetty Street, Madras.
M. N. M. A. Calendar Lebbai & Bros.—2/235, Surappa Mudali Street, Triplicane, Madras.
M. Naraindas.—16, Arunachala Naicken Street, Chindatripet, Madras.
M. Raju Mudaliar.—9, Karpaga Vinayagar Koil Street, Alandur, Madras.
M. Thulasi Mudaliar.—8, Visagathottam Street, Saidapet, Madras.
Madras Handloom Coy.—94, Thambu Chetty Street, Madras.
Madras Lungi Corpn.—35, Angappa Naicken Street, Madras.
Madras Pulicat Textiles, Co.—1/36, Venkatamaistry Street, Madras.
Madras State Handloom Weavers' Co-operative Society Ltd.—Balasundara Bldgs., 34/A-1, Pantheon Road, Egmore, Madras.
Madras Textile P. Ltd.—19/20, Arumuga Mudali St., Madras 21.
Madariya Lungi Co.—34, Surappa Mudaliar Street, Triplicane, Madras.
Malabar Handloom Textiles.—24, Godown Street, Madras.
Mani & Co.—243, Linghi Chetty Street, G.T., Madras.
Modern Palayakat Co.—12, New Street, Madras.
Mohamed Aboobacker & Co.—95, Thambu Chetty Street, Madras.
Moulana Co. (Private) Ltd.—52, Angappa Naick Street, Madras.
N. K Aiyasami Mudaliar.—7, South Mada Street, Mylapore, Madras.
Nagavedu Lunghi Co.—34, Sengalaneer Pillayar Koil Street, Madras.
Nataraja Lungi Co.—117-118, Ramaswamy Street, Madras.
Natarajan & Co.—251, Lingi Chetty Street, Madras.
Oriental Lunghi Co.—3, Arumuga Achari Street, Triplicane, Madras.
Original Pulicat Co.—1/28, Godown Street, Madras.
Overseas Trading Corpn.—94, Linghi Chetty Street, G.T., Madras.
P. A. Mohamed Yusuff & Sons.—333-334, High Road, Triplicane, Madras.
P. G. Ekambara Mudaliar, P. G. Muruguesa Mudaliar.—47, Coral Merchants St., Madras.
P. Sriramulu Chetty & Co.—138, T.H. Road, Washermanpet, Madras.
P. Subbaraya Mudaliar.—55, V. S. Mudali Street, Saidapet, Madras.
P. T. Siramulu Chetty & Bros.—36, Arumuga Mudali St., Washermanpet, Madras-21.
Panchaksharam Lungi Co.—19, Jones Road, Saidapet, Madras-15.
Parvathi Palayakat Co.—110, Coral Merchant Street, G.T. Road, Madras.
Rayon Traders (Private) Ltd.—61, Sembudoss Street, Madras.
Royal Textiles.—42, Tippu Sahib Street, Royapettah, Madras.
S. B. S. Trading Co.—8, Ramanuja Iyer Street, Washermanpet, Madras.
S. M. Akbar & Co.—12, Surappa Mudali Street, Triplicane, Madras.
S. M. Syed Ali & Co.—35, Angappa Naick Street, Madras.
S. R. K. Bapu Ismail Sahib & Co.—70, Armenian Street, Madras.
S. Thiruvengadam.—15, Mavadi Vinayakar Koil Street, Kozapettai, Royapetta, Madras.
Samuel Co.—7, New Street, Madras.
Samy Iyer Palayakat Co.—66, Armenian Street, Madras.
Saraswathi & Co.—148, Coral Merchant Street, Madras.
Saraswathi Palayakat Co.—116, Ramaswamy Street, G.T. Madras.
Scissors Palayakat Co.—Triplicane High Road, Madras.
Sell Abubacker & Co.—62, Angappa Naick Street, Madras.
Sellamuthu Sivanadhan & Co., Ltd.—224, Angappa Naick Street, Madras.
Selvam Lungi Co.—59, Old Mambalam Road, Saidapet, Madras-15.
Shunmuga & Co.—21, Kuthadum Pillayar Koil Street, Saidapet, Madras.
Simons & Co.—3, Somasundara Devar 6th Street, Ayanavaram Post, Madras.
Superior Palayakat Co.—116, Ramaswamy Street, Madras.
Swarnambika Lungi Co.—38, Visagatttam Street, Saidapet, Madras.
Tamilnad Handloom Weavers' Co-operative Society Ltd.—34/1-A, Pantheon Road, Egmore, Madras 8.
T. Duraiswamy Mudaliar.—30, Post Office Street, G.T. Madras.
V. A. Khaja Lunghi Co.—62/63, Shaik Dawood Street, Royapettah, Madras.
V. Govinda Mudaliar Sons.—23, Jones Street, Madras.
V. M. Lungi Emporium.—96, Thambu Chetty Street, Madras.
V. N. K. Textiles.—216, T.H. Road, Tondiarpet Post, Madras.
Velavar Palayakat Co. Ltd.—46, Linghi Chetty Street, Madras.
Wassiamull Assomull & Co.—7, Mohamed Abdullah Street, Chepauk, Madras.
Western Palayakat Co.—20/21, Ramaswamy Street, G.T. Madras.
Yousuff Lunghi Co.—32, Jawahar Hussainkhan 1st Street, Royapettah, Madras.
Yusuf Lungi Co.—13, Shaik Dawood Street, Triplicane, Madras.

## HARDWARE DEALERS AND IRONMONGERS

Abdool Hoossain Jeevajee & Co.—21, Linghi Chetty St., Madras.
Abdul Hussain Salebhoy & Co.—29, Periyanna Maistry St., Madras.
Abdul Kader & Sons.—7, Angappa Naick Street, Madras 1.
A. Alimohamed & Co.—26, Light Chetty St., Madras.
A. K. Abdullabhoy & Co.—319, Linghi Chetty St., Madras.
A. K. Muthukumaraswami Chetty.—268, Rasappa Chetty St., Madras.
A. Kunnan Chetty.—40/41, Venkatachala Mudali Street, P. T., Madras 3.
A. L. Natesan Chettiar.—200/201, Rasappa Chetty St., Madras 3.
A. M. Goolamali & Co.—20, Errabalu Chetty St., Madras 1.
A. Mohamed & Co.—313, Linghi Chetty St., Madras.
Aminchand Payare Lal.—27, Sembudoss Street, Madras.
Anuradha Private Ltd.—53, Peter's Road, Madras 6.
A. Radhakrishna Chetty.—265, Rasappa Chetty St., Madras.
A. T. Khorakiwala & Co.—11, Vaniar St., Madras.
C. A. Galiakotwala & Co., Pvt. Ltd.—18, Armenian St., Madras.
C. Natesa Chetty.—276, Rasappa Chetty St., Madras.
C. R. Muthukumaraswami Chetty.—256, Rasappa Chetty St., Madras.
C. Senjoo Chetty.—86, Rasappa Chetty St., Madras.
C. Thirunavukarasu Shetty.—267, Rasappa Chetty St., Madras 3.
Emcete & Sons, Pvt. Ltd.—Sembudoss St., Madras.
Fakrudeen & Co.—307, Linghi Chetty Street, Madras.
G. R. Datchanamurthy Chetty & Son.—215, Rasappa Chetty St., Madras.
G. Suryanarayana Chetty & Co.—65, Govindappa Naicken St., Madras.
Gulamali Abdul Hussain & Co.—28/29, Linghi Shetty St., Madras.
H. A. Taiyebali & Co.—294, Linghi Chetty St., Madras.
H. Abbasbhoy Ahmedaly & Co.—288, Linghi Chetty St., Madras.
Hind Hardware Co.—20, Venkatachala Mudaly Street, Madras 3.
Hind Industrial Corpn. Ltd.—79, Sembudoss St., Madras 1.
India Co., Ltd.—108, Armenian Street, Madras.
Iron & Metal Traders P. Ltd.—8, Sembudoss Street, Madras 1.
Jairamdas & Sons, 33, Sambudoss Street, Madras-1.
Kali Natesa Chetty.—260, Rasappa Chetty St., Madras.
Khanderia P. Ltd.—1, Tucker's Lane, Madras 1.
Khandhalwal Bros., Ltd.—82, Sembudoss St., Madras.
K. N. Chari & Co.—144, Nyneappa Naick Street, Madras.
K. Sreenivasa Chari.—277, Rasappa Chetty St., Madras.
K. Thangavelu Chetty.—88, Rasappa Chetty St., Madras.
K. Thiruvengadam Chetty & Co.—93, Rasappa Chetty St., Madras.
K. V. Seshiah Chetty & Co.—44, Thathamuthiyappan St., Madras.
M. Arumuga Chetty.—269, Rasappa Chetty St., Madras.
M. A. Chindambaram.—6, Armenian Street, Madras.
Madras Circle Pipe Dealers' Assen. Ltd.—6, Armenian St., Madras 1.
Madras Circle Regd. Stockholders' Assns. Ltd.—6, Armenian St., Madras 1.

Madras Circle Scrap Dealers' Assn. Ltd.—6, Armenian St., Madras 1.
Madura South India Corpn., Ltd.—80, Sembudoss St., Madras.
Mayuranatham & Co.—271, Rasappa Chetty St., Madras.
M. C. S. Rajan & Co.—155, Nyniappa Naick Street, Madras.
M. C. Sundara Rajan & Co.—290, Linghi Chetty St., Madras.
Metro Hardware Mart.—15/16. Rasappa Chetty Street, Madras 3.
M. Kuppuswami Naicker.—15, Sembudoss Street, Madras.
M. M. Abbas & Bros.—7, Sembudoss St., Madras.
Mohamedaly Sarafaly & Co.—10, Sembudoss St., Madras.
Murlimal Santram & Co.—13, Sembudoss Street, Madras.
Muruga & Co.—253/254, Rasappa Chetty St., Madras 3.
P. K. Vaduvammal.—258, Rasappa Chetty St., Madras.
P. M. Kalathi Chetty, P. M. Muthumanickam Chetty.—151, Nyniappa Naick St., Madras.
P. M. Ramanjulu Chetty.—172/3, Nyniappa Naick St., Madras.
P. Natesa Chetty.—102, Rasappa Chetty St., Madras.
P. R. Desikan & Sons.—75, Govindappa Naick St., Madras.
P. V. Rathakrishna Chetty & Bros.—45, Venkatachala Mudali Street, Madras 3.

**RAJALAXMI CORPORATION.—170, Broadway, Madras 1.**

S. Akbarali Haidarali & Co.—27, Linghi Chetty St., Madras.
S. A. Bhagat & Co.—26, Periyanna Maistry St., Madras.
Saleh Bros.—6, Sembudoss Street, Madras.
Scott & Pickstock P. Ltd.—Catholic Centre, Armenian Street, Madras 1.
South India Corn. (A) Pvt. Ltd.—6, Armenian St., Madras.
Sree Ramachandra & Co.—8/11, Rasappa Chetty Street, Madras 3.
T. H. Shamsudin & Co.—12 & 13, Devaraja Mudali Street, Madras 3.
T. M. Radhakrishna Chetty & Co.—261, Rasappa Chetty St., Madras.
T. T. Yagappa Chetty & Son.—116, Nyniappa Naick St., Madras.
V. Elumalai Chetty.—259, Rasappa Chetty St., Madras.
V. Kanakiah Chetty & Co.—148, Nyniappa Naick St., Madras.
V. Kuppuswami Chetty & Co.—262, Rasappa Chetty St., Madras.
V. M. Periyaswami Chetty & Co.—89, Rasappa Chetty St., Madras.
V. M. K. Pillai.—263, Rasappa Chetty St., Madras.
V. Venugopal Pillai & Co.—2/27, Broadway, Madras.
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A. T. B. Mehtab Majid & Co.—4, Ramapallai Street, Madras 3.
B. A. Ahmed Pasha & Co.—5, V. V. Koil Street, Madras 3.
C. Kalyanam & Co.—2, Muthugramni Street, Madras 3.
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F. K. Haseeb & Co.—40, Sydenhams Road, Madras 3.
G. Govindarajulu Naidu & Co.—2, Ramapillai Street, Madras 8.
Gordon Woodroffe Leather Mfg. Co. P. Ltd.—1/21, North Beach Road, Madras 1.
G. Sreenivas & Co.—10, Sydenhams Road, Madras 3.
Habib & Co.—22, Sydenhams Road, Madras 3.
Hajee Mohamed Meera Sahib & Co., E.K.—13/A, Sydenhams Road, Madras 3.
H. H. Naeems & Co.—9, Ramopillai Street, Madras 8.
India Leather Corpn. P. Ltd.—9, Davidson St., Madras 1.
Khandelwal Bros. Ltd.—82, Sembudoss St., Madras 1.
K. M. Adam.—9, Perianna Maistry Street, Madras 8.
K. O. Mohamed Sulaiman & Co.—11, Vepery High Road, Madras 3.
Kothwal Hajee A. R. Mohamed Obaidulla & Co.—5/6, Nabi Khan Subedar Street, Madras 3.
K. T. Basha Rasheed & Co.—18, Sydenhams Road, Madras 3.
Light Leathers P. Ltd.—161, Mount Road, Madras 2.
Maija Hajee Ismail Sahib & Co.—15, V. V. Koil Street, Madras 3.
Merit, M. E. Ibrahim & Co.—12, Vepery High Road, Madras 3.
M. Hajee Mohamed Ismail Sahib & Co.—17, Sydenhams Road, Madras 3.
M. K. S. Mohamed Labbai & Co.—234, Angappa Naick Street, Madras 1.
M. L. Abdul Rasheed & Co.—12/A, Vepery High Road, Madras 3.
M. M. Mohiadeen Thumby & Co.—228, Angappa Naick Street, Madras 1.
Mohideen Thumby & Co., M.M.—228, Angappa Naick St., Madras 1.
P. Krishnaswamy & Co.—17, Vepery High Road, Madras 3.
P. M. Batcha & Co.—Kumarappa Chetty Street, Madras 3.
Simpson & McConechy Ltd.—Badsha Bldgs., 22, Errabalu Chetty St., Madras 1.
Southern India Skins Corpn.—7, V. V. Koil St., Madras 3.
Sreenivas & Co.—19, Sydenhams Road, Madras 3.
T. Abdul Wahid & Co.—19, Vepery High Road, Periamet, Madras 3.
T. K. Fazal Habib & Co.—7B, Nabikhan Subedar Street, Madras 3.
V. Sreenivas & Co.—10, V. V. Street, Madras 3.

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Connemara Hotel—Benny's Road, Madras 2.
Gupta's Ajanta Hotel—32, Royapettah High Road, Madras 32.

**GUPTA'S STATES HOTEL.—61 & 61-A, Kutchery Road, Mylapore, Madras 4.**

Hotel Ashoka—Pantheon Road, Madras 8.
Hotel Connemara.—Binnay's Road, Madras.
Hotel Everest—Poonamallee High Road, Madras 3.
Hotel India—39, Mount Road, Madras 6.
Hotel Oceanic.—San Thome High Road, Madras 28.
Hotel Romana—110, Mount Road, Madras 18.
Hotel Select—9, Linghi Chetty Street, Madras.
Savoy Hotel & Restaurant.—39, Mount Road, Madras 6.
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Indo African Exporters—114, Singanna Chetty Street, Madras 2.
International Import Corporation—3, Ashok Road, Alwarpet, Madras 18.
K. Ramson & Co.—226, Poonamallee High Road, Madras 3.

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Liberty Ink Co.—16, Broadway, Madras.
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Perumal Chetty & Sons., V.—5, Stringers Street, Madras.
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Ravi Inks, New Star & Co.—Tondiarpet, Madras.
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Research Chemical Laboratories.—Lattice Bridge Road, Adyar, Madras 20.
Shelat Bros.—8, Lukmudas Street, Madras.
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Toa Private Ltd.—10, Armenian Street, Madras.
Venus Chemicals.—11, E. Kandappan Street, Madras.
Vishwanatham & Co.—17, Francis Joseph Street, Madras.
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D. Anraj Sowcar.—North Mada Street.
Sastry & Sastry.—East Mada Street.

*Chintadripet, Madras*

D. R. Ranka Brothers.—Arunachala Naicken Street.
Mehta Pukhraj Manmull.—Arunachala Naicken Street.
Seshmul Kewalchand & Co.—Arunachala Naicken Street.
Shanti Jewellery Mart.—Arunachala Naicken Street.

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T. Rangaswamy Iyengar.—Rajabathar Mudali Street.

*Ekambareswarar Agraharam, G. T. Madras*

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B. R. Raghavendra Rao.—Strotten Muthiamudali Street.
Haji S. Ishaq & Co.—Perianna Maistry Street.
Indian Chemical Diamond Works.—Devarajamudali Street.
Nadilla Jayarama Chetty.—Varadamuthiappan Street.
R. Narasimhan & Co.—10, Thambu Chetty Street.
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S. Sakruchand.
Surani Brothers & Co.

*Tholasingam Street, Madras* 1

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Bisanlal Sitaram.
Sohanlal Mehta.
Vadilal Nanalal Shah.

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B. P. Bhadariya.
Bhanji Bhagwandoss.
Burma Rangoon Diamond Mfg.
Dinuprakash Kantilal.
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Hanuman Sahai & Bros.
Hind Diamond Co.
Imperial Chemical Diamond Works, The.—94, Mint Street, Sowcarpet, Madras 1.
Jamunadoss & Co.
K. G. Kothari.
K. R. Purushothamadoss.
Kapurchand & Co.
Keshvalal & Co.
Mehta Brothers.
Nemichand Jhabak.
Noble Diamond Co.
Phusaram Munthada.
Pyarelal Danji.
Raghunandan Prasad & Co.
Raghuveer Sahai & Co.
Ratilal Vadilal.
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*Perumal Mudali Street, G. T. Madras*

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Venkateswara Silver Emporium.

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Kanaiyalal Ishvarlal & Co.
Kota Alwar Chetty & Sons.
Natwarlal Vadilal.
Srinivasa Jewellery Mart.
T. Manickam Chetty & Son.
T. M. Selvaraju Pillai.
Vadilal & Sons.
Vumidi Bangaru Chetty & Sons.

*Netaji Subhaschandra Bose Road, Madras*

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Ambaji Rao & Son.
Amichand Nagindoss & Co.
Ashok Jewellers.
B. Pattabhi Chetty & Brothers.
B. Sundaram Chetty.
B. C. Shantilal & Co.
Bapalal & Co.—Ramakoti Bldg., Rattan Bazar.
Bhagwandoss & Co.—(Genguraman Street).
Chhotalal Joshi.
Chhotabhai & Co.
Chimanlal Kothari & Co.
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G. Gopal Chetty P. Sundararajulu Chetty & Co.
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G. Krishnaih Chetty & Sons.
Gandavadi Sreeramulu Chetty & Sons.
Jalagam Subramaniyam Naidu & Co.
Janaki Jewellery Mart.
Jayavilas Chemical Diamond & Co.
Jeewan Brothers.
Jivraj Ramji Shah.
Jorawarmul Champalal.
K. A. Srikandam Chetty.
K. G. Babu Chetty (Hanumantharoyan Koil Street).
K. Kuppuswamy Naidu.
K. Narasimhulu.
K. Radhakrishna Chetty.
K. M. Chokkanatham Chetty.
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Kantilal & Co.
Khader Baig Sahib & Sons.
Krishna Jewellery Mfg. Co.
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Nama Jayarama Chetty Salem Radha Krishna Chetty.
Nama Chennakesavelu Chetty.
Nama Jayarama Chetty & Son.
Nama Sreeramulu Chetty & Sons.
Nama Subbiah Chetty & Sons.
Nama Venkataramana Chetty & Sons.
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Nathella Jewellers.
Nathella Sampathu Chetty Son & Co. Ltd.
P. L. Narasimhulu Chetty.
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P. K. Sundaram Pillai.
P. M. Loganatham Chettiar.
P. Mallikarjuna Chetty.
P. M. Devasenapathy Chetty & Sons.
P. Rangiah.
P. S. Venkataramiah Chetty.
P. Selvanatham Chetty.
Pandu Rao & Co.
Pasumarthy Cunniah Chetty & Son.
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Bombay Co., Ltd.—169, Broadway, Madras 1.
Brady, W. H., & Co., Ltd.—154/155, Pophams, Broadway, Madras 1.
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General Electric Co. of India Ltd.—Magnet House, Mount Road, Madras 2.
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Gordon Woodroffe & Co. (Madras) Ltd.—1/21, North Beach Road, Madras 1.
Greaves Cotton & Co., Ltd.—19, Second Line Beach, Madras 1.
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Grafex Mahinery Co.—2/17, Meera Sahib Street, Madras.
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Manecklal & Sons Agency.—55, Armenian Street, Madras.
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South India Export Co., Ltd.—5, Mclean Street. Madras.
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Bombay Co., Ltd.—169, Broadway, Madras 1.
East India Industries (Madras) Private Ltd.—498, Mint St., Madras 3.
General Trading Co.—182/83, Nyniappa Naicken Street, Madras 3.
Gordon Woodroffe & Co. (Madras), Ltd.—1/21, North Beach Road, Madras 1.
Greaves Cotton & Co., Ltd.—19, Second Line Beach, Madras 1.
Guest, Keen, Williams, Ltd.—202, Mount Road, Madras 2.
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Hind Mercantile Corporation P. Ltd.—308/9, Linghi Chetty St., Madras.
Indian Biselers—247, Netaji Bose Road, Madras.
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Murugappa Agencies Private Ltd.—52/53, Jehangir St., P.B. No. 1356, Madras.
Natwarlal Shamaldas & Co.—28, Linghi Chetty St., Madras.
Oriental Agencies.—167, China Bazar, Madras.
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Sterling Construction & Trading Co.—6, Pachiappa's College, Hostel Road, Madras-6.
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Mahalakshmi (OIL) Mills.—Wall Tax Road, Madras.
Massey Oil Mills.—Main Road, Royapuram, Madras.
Mogili Oil Mills.—15-3, Chinnathambi Mudali Street, Madras.
Satyanarayana Oil Mills Ltd.—4-13, Adam Sahib Street, Royapuram Madras.
Sri Ram Oil Mills & Refineries Ltd.—4-5, Elayamudali Street, Madras.
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Pragvat & Co.—Broadway, Madras 1.
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Radha Brothers.—Broadway, Madras 1.
Rawal Optical Mfg. Co., Broadway, Madras 1.
Real Optical Co.—Philips Street, Madras 1.
Reliance Optical Co.—Mount Road, Near Addisons, Madras 2.
S. Gajapathi Jain.—Broadway, Madras 1.
Shantilal P. Mehta.—Broadway, Madras.
South India Optical Co.—Francis Joseph Street, Madras 1.
Surajmall Lallubhai & Co.—3/3, Esplanade, Madras.
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Anuradha Private Ltd.—53, Peter's Road, Madras 6.
A. S. Manickam & Co.—46, V. Mudali Street, Madras 3.
Best & Co., Ltd.—First Line Beach, Madras 1.
Bombay Co., Ltd.—169, Broadway, Madras 1.

British Paints (I) Ltd.—23, Haddows Road, Nungambakkam, Madras.
Cellulose Products Ltd.—7-A, Singanna Naick Street, Madras.
Chemical Enterprises P. Ltd.—Madras 6.
East India Paint & Chemical Works Ltd.—19/3, Armenian St., Madras 1.
Gillander's Arbuthnot & Co., Ltd.—First Line Beach, Madras 1.
Goodlass Nerolac Paint P. Ltd.—29, Perianna Maistry St., Madras.
Gordon Woodroffe & Co. (Madras) Ltd.—1/21, North Beach Road, Madras 1.
Handymen Industries Ltd.—161, Mount Road, Madras.
Imperial Chemical Industries (India) Ltd.—Bombay Mutual Bldgs., N. S. C. Bose Road, Madras 1.
Jenson & Nicholson (I) Ltd.—7, Armenian St., Madras 1.
John Fleming & Co. P. Ltd.—280, Linghi Chetty Street, Madras.
Jyoti Paint & Varnish Industries.—3, Kondi Chetty Street, Madras 1.
Kuppuswami & Co., S.—15, Venkatachala Mudali St., Madras 3.
London Varnish & Enamel Co. Ltd.—8/9, Thambu Chetty Street, Madras.
McDowell & Co., Ltd.—Second Line Beach, Madras 1.

**MEHTA PAINT WORKS.—C-15, Industrial Estate, Ambattur, Madras-58.**

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S. D. Rangwalla & Co.—289, Linghi Chetty Street, Madras 1.
Sekar & Co., G.D.—134, Mount Road, Madras 6.
S. Ganesan & Sons.—1/44, Venkatachala Mudali Street, P. T. Madras 3.
Shalimar Paint, Colour & Varnish Co., Ltd.—8/9, Thambu Chetty Street, Madras 1.
Shaw Wallace & Co., Ltd.—8/9, Thambu Chetty Street, Madras 1.
Snow White Industrial Corporation—109, Netaji Subhas Road, Madras 1.
Spencer & Co., Ltd.—Mount Road, Madras 2.
Star Paint & Oil Works—14-B, Venkatachala Mudali Street, Madras 1.
Taylor, T. A., & Co. (Madras) Ltd.—100, Armenian Street, Madras 1.
Vernon & Co., Ltd.—36, Second Line Beach, Madras 1.
V. Raghavulu Chetty & Son—13, Venkatachala Mudali Street, Madras 3.
Western India Paint & Colour Co.—19, Venkatachala Mudali St., Madras.
William Jacks & Co., Ltd.—National Bank of India Building, First Line Beach, Madras 1.
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Copparam Natesa Chetty.—59, Anderson Street, Madras.
C. Sanjeevi Chetty Co.—56, Bunder Street, Madras.
East & West Trading Co.—232, Govindappa Naick St., Madras.
Eastern Mercantiles.—41, Anderson Street, Madras.
E. Subbiah Pillai Sons.—26, Sembudoss Street, Madras.
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General Papers Ltd.—16, Armenian Street, Madras.
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K. Jayaram Mudaliar.—4, Badrian St., Madras 1.
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Lalchand Kewalram.—101, Godown Street, Madras.
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Madras Paper Converters and Industries.—84, Sydenham's Road, Madras.
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McDowell & Co., Ltd.—6, Second Line Beach, Madras.
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Raja Paper Co.—1-B, Anderson Street, Madras.
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Rangoon Paper Stores.—4, Anderson Street, Madras.
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Star Trading Co.—58, Anderson Street, Madras.
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S. V. Mani & Co.—27, Angappa Naick Street, Madras.
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T. M. Abdul Azeez & Co.—10, Badrian Street, Madras 1.
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T. H. Gangappa & Sons.—11, Broadway, Madras.
T. M. Abdul Azeez & Co.—10, Badrian Street, Madras.
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National Trading Co.—391, Mint Street, Madras.
Orient Cosmetics P. Ltd.—C-48 & 49, Industrial Estate, Madras 32.
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A. Subbarayalu Chetty & Co.—72, Godown Street, Madras.
A. Thambu Chettiar & Sons.—91/92, Godown Street, Madras.
Ahmedabad Textiles Agency.—67, Godown Street, Madras.
Ajitbhai Desai & Co.—10, Godown Street, Madras.
Ajitbhai Jayantilal & Co.—5, Godown Street, Madras.
Alathoor Suresh & Co.—34-B, Godown Street, Madras.
Andal Textiles.—24-A, Godown Street, Madras.
Anto Stores, Piece-Goods Merchants.—2/156, Broadway, Madras.
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B. L. N. Seetharamiah.—32, Godown Street, Madras.
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B. N. Chandra & Co.—71, Godown Street, Madras.
B. N. D. Govindarajulu Chetty & Co.—71, Godown Street, Madras.
B. Radhakrishnamoorthy.—57, Godown Street, Madras.
B. R. Bashiam & Co.—2/286, N. S. C. Bose Road, Madras.
B. R. Parthasarathi & Co.—18-A, Godown Street, Madras.
B. Shewaram Bros.—254, N. S. C. Bose Road, Madras.
B. Suganchand & Co.—70, Godown Street, Madras.
Bhagwan Stores.—248/49, N.S.C. Bose Road, Madras.
C. A. Govindaswamy Chetty.—261/62, Devaraja Mudali Street, Madras.
C. Janakiah Chetty & Son.—33, Godown Street, Madras.
C. M. Ethirajulu Naidu.—27, Godown Street, Madras.
C. Mallikarajunam.—68, Godown Street, Madras.
C. Moonooswamy Chetty & Co.—60, Godown Street, Madras.
C. Varadarajulu Chetty & Co.—62, Godown Street, Madras.
Champalal & Co.—245, N. S. C. Bose Road, Madras.
Chandanmal Asera.—13, Godown Street, Madras.
Chandrakant & Co.—2/96, Godown Street, Madras.
Cheta Stores.—77, Godown Street, Madras.
Chetty & Bros.—263/64, Devaraja Mudali Street, Madras.
Chhotabhai Javerbhai & Co. Ltd.—468, Mint Street, Madras.
Chimanlal C. Barbhaiya & Co.—20, Samudra Mudali Street, Madras.
Chinubhai & Bros.—27, Godown Street, Madras.
Chitra Stores.—190, N. S. C. Bose Road, Madras.
Colombo Stores.—101, Godown Street, Madras.
D. Gopalaswamy Chetty & Co.—5/99, Godown Street, Madras.
D. Jitendra & Co.—2/99, Godown Street, Madras.
D. Munuswamy Chetty & Co.—6, Godown Street, Madras.
D. Ranganayakulu Chetty.—23, Murugappa Mudali Street, Vepery, Madras.
Davidoss & Co.—67/3, Godown Street, Madras.
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Devdatt & Bros.—1/38, Godown Street, Madras.
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Dharamsi Anandji.—68, Godown Street, Madras.
Dwarkadas C. Parikh.—88/89, (Upstairs) Godown Street, Madras.
Dwarkadas Rameshwar Goenka.—67, Godown Street, Madras.
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G. B. Adinarayana.—28, Godown Street, Madras.
G. Desi & Co.—85, Mint Street, Madras.
G. R. Doss & Co.—87, Godown Street, Madras.
G. Varadarajam.—8/20, Godown Street, Madras.
Ganesh Textiles.—70, Godown Street, Madras.
Geetha & Co.—63, Godown Street, Madras.
General Stores.—585, Pycrofts Road, Triplicane, Madras.
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Hajee Mohamed Abdul Azeez Sahib.—2/99, Godown Street, Madras.
Haji Beg Mohamed Jamal Sons.—1/97, Godown Street, Madras.
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J. Venkataramanujam Chetty & Co.—94, Godown Street, Madras.
Jagroopchand Javerchand.—15, Godown Street, Madras.
Jain Jari Store.—90, Godown Street, Madras.
Jalalia Textiles.—24-B, Godown Street, Madras.
Jamnadas Jagjivandas Shah.—15, Godown Street, Madras.
Jeshingbhai Balabhai & Sons.—29, Godown Street, Madras.
Jessaram Vishindas & Co.—3/67, Godown Street, Madras.
Jivaraj Topun & Sons.—32, Ekambareswarar Agraharam, Madras.
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K. Chellapilla Chetty & Co.—85, Godown Street, Madras.
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K. Purushottam Chetty & Co.—26, Godown Street, Madras.
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K. Venkatesulu Chetty & Co.—2/99, Godown Street, Madras.
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Lalchand Kewalram.—101, Godown Street, Madras.
Lekhraj & Sons.—1/25, Godown Street, Madras.
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M. Purushotham Chetty & Co.—91/92, Godown Street, Madras.
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M. Munuswamy Chetty.—91/92, Godown Street, Madras.
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Madras Overseas Traders.—99, Godown Street, Madras.

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Mehta Brothers.—2/67, Godown Street, Madras.
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P. R. S. P. Namasivayam Pillai & Co.—84, Godown Street, Madras.
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P. Suryanarayana & Co.—75, Godown Street, Madras.
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Pala Muddukrishnaiah & Co.—84, Godown Street, Madras.
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Pr. Kanapathy Pillai & Sons.—1/38, Godown Street, Madras.
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Rajendralal Bishayee.—8, Godown Street, Madras.
Rallis India Ltd.—320, Linghi Chetty Street, Madras 1.
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Ramco Swadeshis.—28, Godown Street, Madras.
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Shah Jawanthraj & Co.—23, Godown Street, Madras.
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Silk Rayon Ltd.—61, Godown Street, Madras.
Silk Traders.—2/22, Godown Street, Madras.
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Sujan Singh Mehta & Co.—93, Godown Street, Madras.
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T. K. Devaraj & Co.—72, Godown Street, Madras.
T. Purushotham & Co.—15, Godown Street, Madras.
T. S. Annamalai Chetty.—3/10, Godown Street, Madras.
T. S. Hajee Moosa & Co.—95, Godown Street, Madras.
T. Sadasive Mehta.—1/74, Godown Street, Madras.
T. V. Chandraiah Chetty & Co.—90, Godown Street, Madras.
T. V. Ethirajulu Chetty & Co.—96, Godown Street, Madras.
Textiles of India.—100, Godown Street, Madras.
Thakurdas Choithram Bros.—1/1, Godown Street, Madras.
Thallam Veeraiah Chetty & Sons.—4/67, Godown Street, Madras.
Traders & Traders.—428, Mint Street, Madras.
Tulesiram Pukjraj.—4/26, Godown Street, Madras.
V. Chengiah Chetty & Co.—17-A, Godown Street, Madras.
V. K. Janakiram Chetty & Co.—3/96, Godown Street, Madras.
V. Narayana Chetty.—2/74, Godown Street, Madras.
V. N. V. Devarajulu Chetty & Co.—17-A, Godown Street, Madras.
V. V. Chengiah Chetty & Co.—1/5, Godown Street, Madras.
Valjee Kanjee & Co.—2/97, Godown Street, Madras.
Vallabhadas Mathuradas & Co.—68, Godown Street, Madras.
Venkateswara & Co.—3/34, Godown Street, Madras.
Venkatesh Trading Corpn.—2/22, Godown Street, Madras.
Venkatesh Vastralaya.—2, Thambu Chetty Street, Madras.
Voors Venkatesaperumal & Co.—2/38, Godown Street, Madras.

## PIPES AND PIPE FITTING MERCHANTS

Aminchand Pyarelal—27, Sembudoss Street, Madras 1.
A. K. Muthukumarasamy Chetty.—268, Rasappa Chetty Street, Park Town, Madras 3.
A. Radhakrishna Chetty.—265, Rasappa Chetty St., Madras 3.
A. S. Hatimbhoy.—79, Sembudoss Street, Madras 1.
Bob Corporation.—316, Linghi Chetty Street, Madras 1.
Bombay Hardware Syndicate.—12/79, Sembudoss St., Madras 1.
E. S. Haji & Co.—12, Sembudoss St., Madras 1.
East Asiatic Co. (India) Ltd.—Mercantile Bank Building, First Line Beach, Madras 1.
Gordon Woodroffe & Co. (Madras) Ltd.—1/21, North Beach Road, Madras 1.
Hassanally, A. M., & Co.—34, Linghi Chetty Street, Madras 1.
H. Hassan & Co.—8, Sembudoss St., Madras 1.
Jaasko Agencies.—316, Linghi Chetty Street, Madras 1.
Jindal India P. Ltd.—19, Venkatachala Mudaly St., Madras 3.
K. Rajendran.—4, General Swami Naicken St., Triplicane, Madras 5.
K. Thiruvengadam Chetty & Co.—93, Rasappa Chetty St., Madras 3.
M. Arumugam Chetty.—269, Rasappa Chetty St., Madras 3.
M. Fazale Hussen & Co.—Corner Estate, 79, Sembudoss St., Madras 1.
M. Kuppuswamy Naicker & Co. P. Ltd.—15, Sembudoss St., Madras 1.
Murlimal Santram & Co. (Madras) Private Ltd.—No. 13, Sembudoss Street, G. T. Madras 1.
P. A. Goverdhan Das—13/81, Sembudoss Street, Madras 1.
P. Rajaram Laul.—Old Slaughter Road, Royapuram, Madras.
Preetam Pipes Syndicate.—79, Sembudoss Street, Madras 1.
Rameschandra Santram—16, Sembudoss Street, Madras 1.
S. V. Shanmugam & Co.—32, Jones St., Madras 1.
Sattar Sanitary Stores.—No. 1, Vaniar St., Madras 1.
Soora Chandrasekar & Bros.—10, Broadway, Madras 1.
Steel & General Traders.—61, Sembudoss St., Madras 1.
Tubes & Malleables Ltd.—6, Armenian Street, Madras 1.
V. K. Thiagarajan & Co.—32, Jones Street, Madras 1.
V. M. K. Pillay.—263, Rasappa Chetty St., Madras 3.
V. Venugopal Pillai & Co.—2/27, Broadway, Madras 1.
Vittas.—20, Anderson Street, Madras 1.

## PLANT & MACHINERY SUPPLIERS

**INTERNATIONAL EQUIPMENT CORPN. (P) LTD.—310/311, Linghi Chetty Street, Madras 1; Phone: 23991; Grams: "FRECIFA"; Branches at New Delhi, Bombay, Calcutta, Secunderabad.**

## POWER GENERATION & TRANSMISSION EQUIPMENT

**INDUSTRIAL GASES LTD., THE.—1/33, Mount Road, Madras. Phone: 81626, Telex: 138, Grams: "INDUSGASES". Head Office: P.O. Box 853, Calcutta-1. Design, Supply & Erection of complete Power Stations, Turbines, Generators, Motors, Transformers, Switchgears, Lightning Arresters, Voltage Regulators, Relays, Insulators, Conductors and Cables.**

## PRINTERS & PUBLISHERS

Associated Printers (M) P. Ltd.—Mount Road, Madras 2.
Associated Publishing House.—94/95, New Street, Mannady, Madras.
C. Coomaraswamy Naidu & Sons.—34, Chinna Thambi Street, Madras.
E. M. Gopalakrishna Kone.—289, Esplanade, Madras.
International Publishing House.—Opp. Loyola College, Madras.
Madras Premier Co.—33, Broadway, Madras 1.
M. Seshachalam & Co.—Sunkurama Chetty St., Madras.
S. R. Subramanya Pillai.—9, Philip Street, Madras.
United Printers Syndicate P. Ltd.—48/42, North Usman Road, Madras 17.
Venkatarama & Co.—Anderson Street, Madras.
V. S. Swaminathan.—15, Sunkurama Chetty St., Madras 1.
Wardha Publishing House.—Sami Naicken Street, Chintadripet, Madras.

## PRINTING PRESS MACHINERY & MATERIALS

Amalgamations Private Ltd.—202, Mount Road Madras 2.
Beardsell, W. A. & Co., Ltd.—Second Line Beach, Madras 1.
Charles Morgan & Co., Ltd.—314/315, Linghi Chetty Street, Madras 1.
**EAST ASIATIC COMPANY (INDIA) PRIVATE LTD., THE.—Machinery & Engineering Dept., Bharat Bldg., Mount Road, Madras 2; Phone: 86021; Grams: "MANDARIN"; P.O. Box No. 146.**
Gordon Woodroffe & Co. (Madras) Ltd.—1/21, First Line Beach, Madras 1.
Hoogly Ink Mfg. Co., Ltd.—Rundalls Road, Madras 7.
Jaya Bharatham Co.—Philips Street, Madras 1
South India Export Co., Ltd.—5, Mclean Street, Madras 1.
**STANDARD PRINTING MACHINERY CO.—Shanti Theatre Building, Madras; Phone: 25096, Grams: "PRINTMACHO". Stockists of Printing Press Machinery and Material.**
Winstone India P. Ltd.—No. 1, McKay's Garden, Pathari Road, Thousand Lights, Madras 6.

## PUMPS AND PUMPING SETS MANUFACTURERS AND DEALERS

Best & Co., Ltd.—First Line Beach, Madras 1.
Binny & Co (Madras) Ltd.—7, Armenian Street, Madras 1.
Brady, W. H. & Co., Ltd.—154/155, Pophams, Broadway, Madras 1.
Chandra Foundries Private Ltd.—55, Basin Bridge Road, Washermanpet, Madras 21.
Easun Engineering Co., Ltd.—5/7, Second Line Beach, Madras 1.
General Electric Co. (India) Ltd.—Magnet House, Mount Road, Madras 2.
Gordon Woodroffe & Co., Ltd.—1/21, North Beach Road, Madras 1.
Greaves Cotton & Co., Ltd.—19, Second Line Beach, Madras 1.
Guest, Keen, Williams, Ltd.—202, Mount Road, Madras 1.
Heatly & Gresham, Ltd.—Bombay Mutual Bldg., Madras 1.
Iaec Pumps Ltd.—2/17G, Mount Road, Madras 2.
Jyoti Ltd.—177-79, Mount Road, Madras 2.
Kilburn & Co., Ltd.—32/33, Linghi Chetty Street, Madras 1.
Larsen & Toubro Ltd.—4/5, Club House Road, Mount Road, Madras 2.
Marshall Sons & Co. (India) Ltd.—Marshall Building, Second Line Beach, Madras 1.
Masseys Engineers—4B-4C, North Railway Terminus Road, Royapuram, Madras 13.
National Engineering Co. (Madras) Ltd.—379, Netaji Subhas Chandra Bose Road, Madras 1.
Parry & Co., Ltd.—"Dare House", First Line Beach, Madras 1.
**P. Natesan (Industries) Ltd.—191, Triplicane High Road, Madras 5.**
Refrigerators & Home Appliances Ltd.—36, Mount Road, Madras 2.
Taylor, T. A. & Co. (Madras) Ltd.—100, Armenian Street, Madras 1.
Vernon & Co., Ltd.—36, Second Line Beach, Madras 1.
Voltas Ltd.—115/116, Armenian Street, Madras 1.

**WATER SUPPLY SPECIALISTS PRIVATE LTD.—330, Thambu Chetty Street, Madras 1. H.O. 8, Hamam Street, Bombay 1; Phone: 252325; Grams: "PUMPMEN"; Branches: Calcutta, New Delhi and Secunderabad. Sole Agents for Myers Pumps, Manufacturers of "WASP" Pumping Sets, etc.**

William Jacks & Co., Ltd.—National Bank of India Building, First Line Beach, Madras 1.

## RADIO & RADIO PARTS MFRS. & DEALERS

Alpha Radio & Novelties P. Ltd.—9, Mount Road, Madras 2.
Amson & Co.—38C, Mount Road, Madras 6.
Arrow Radio Co.—22, General Patters Road, Mount Road, Madras.
Asiatic Radio Co.—4/169, Mount Road, Madras.
A. V. Thomas & Co. (I) Ltd.—2/21, First Line Beach, Madras.
Britannia Talking Machine Co.—173, China Bazar, Madras.
Chimanlal Desai & Co.—6, Sunkurama Chetty St., Madras 1.
Conjap Electronic Industries.—64, Dr. Alagappa Chettiar Road, Vepery, Madras 7.
Dhanam & Co.—164, Brodies Road, Mylapore, Madras.
Electrical Engineering Equipment Co.—4, Errabalu Chetty Street, Madras 1.
Electronic Service Co.—Agurchand Mansions, 17/35, Mount Road, Madras.
Expert Radio Service.—Jammi Bldgs., 48/1, Royapettah H. Road, Mylapore, Madras.
General Agencies.—169, Mount Road, Madras.
General Radio & Appliances Pvt. Ltd.—1/18, Mount Road, Madras.
General Radio Co.—3, Ritchie St., Mount Road, Madras 2.
G. Janshi & Co.—2/163, Mount Road, Madras.
G. K. Syndicate—118, Armenian Street, Madras.
Green Radio Co.—Mount Road, Madras.
India Radio House.—9, Mount Road, Madras.
International Talkie Equipment Co. Pvt. Ltd.—18, Mount Road, Madras.
Jay-O-Phone Co.—13, Mint Street, Madras.
Jaypee Electronics.—1/155, Mount Road, Madras 2.
Jeyrad Electronic Industries—38, Thangasalai Street, Madras 3.
Krishna (Sales) Agency.—P.B. No. 2733, Madras 2.
Lalwani Radio Corporation.—180, Mount Road, Madras 2.
Mahamed Ebrahim & Co. Pvt. Ltd.—Victory House, 7/8, Mount Road, Madras.
Modern Trading Co. (Madras).—1/155, Rayala Bldgs., Mount Road, Madras.
Motwane Pvt. Ltd.—196, Mount Road, Madras.
National Electronics.—53-A, Usman Road, T. Nagar, Madras.
New Radio Home.—27, Govindappa Naicken Street, Madras.
Nu Wood P. Ltd.—9, Mount Road, Madras 2.
Obul Reddy (Madras) P. Ltd.—31, General Patters Road, Madras 2.
Oriental Radio Corporation.—162, Mount Road, Madras.
Philips India Ltd.—35-4, Mount Road, Madras 2.
Poppat Jamal & Sons.—36-B, Mount Road, Madras.
Radio & Allied Engineering Co.—4/17-B, Mount Road, Madras.
Radio & Electricals Ltd.—1-29B, Mount Road, Madras 2.
Radio Centre P. Ltd.—193, Mount Road, Madras 2.
Radio Services.—10, Mount Road, Madras.
Rahila Traders.—28/30, Rattan Bazar, Madras 3.
Raj Trading Co.—No. 4, Narasingapuram Street, Madras.

**RESA CO.—Manufacturers of Domestic, Industrial and Community Radios, Amplifiers, Transformers and Coils; Factory: B-8 & 9, Industrial Estate, Guindy, Madras-32. Office: 11, Mount Road, Madras-2.**

Revathi Radios.—121, Netaji Subhas Road, Madras 1.
R. S. M. & Co.—236/237, Devaraja Mudali Street, Madras 3.
Savit Electronic Corpn.—1, Ritchie Street, Mount Road, Madras.
Singh Trading Co.—9, Blaker's Road, Mount Road, Madras.
South India Music Emporium.—3, Broadway, Madras.
Southern Agencies.—37, Waller's Road, Madras.
Standard Electric Co.—27, General Patters Road, Madras
Standard Radio & Electric Co.—26, Pycroffs' Road, Madras 5.
S. Sundaramoorthy and Sons.—26, General Patters Road, Madras.
Tele Tape Recording Industries.—30-A, Santhome High Road, Madras 4.
Universal Agencies.—2/18, Mount Road, Madras.
Usha Radio & Electricals.—58, Mint Street, Madras.
Vauhini Radios.—126, Mint Street, Madras 1.
Veneers.—36, Mount Road, Madras.
Venkateswara Radio Sales, Service & Electricals.—229, Govindappa Naick Street, Madras.
V. G. Panneerdas & Co.—49, Jeenis Road, Madras 15.
V. Krishnaswami & Co.—193, Mount Road, Madras 2.
V. S. Rajagopalan & Co.—24, Wallers Road, Mount Road, Madras.
Wireless Sales & Service Co.—1/11-A, Mount Road, Madras.

## REFRIGERATION EQUIPMENT

Amalgamations Private Ltd.—202, Mount Road, Madras 2.
Associated Electrical Industries (India) Ltd.—11/12, First Line Beach, Madras 1.
Beardsell, W. A. & Co., Ltd.—Second Line Beach, Madras 1.
Best & Co., Ltd.—First Line Beach, Madras 1.
Binny & Co. (Madras) Ltd.—7, Armenian Street, Madras 1.
General Electric Co. of India Ltd.—Magnet House, Mount Road, Madras 2.
Gordon Woodroffe & Co. (Madras) Ltd.—1/21, North Beach Road, Madras 1.
Larsen & Toubro Ltd.—4/5, Club House Road, Mount Road, Madras 2.
Parry & Co., Ltd.—"Dare House," First Line Beach, Madras 1.
Poornima Agencies.—10, Mount Road, Madras 2.
Philips Electrical Co. (India) Ltd.—Mount Road, Madras 2.
Spencer & Co., Ltd.—Mount Road, Madras 2.
Voltas Ltd.—115/116, Armenian Street, Madras 1.

## ROAD BUILDING MACHINERY

**JAIRAMDAS & SONS, 33, Sambudoss Street, Madras-1; Manufacturers of "JESONS" Concrete Mixers and Lime Mortar Mills; Factory: Industrial Area, Azamabad, Hyderabad.**

## RUBBER GOODS MANUFACTURERS AND DEALERS

Asiatic Tyres.—71, General Patters Road, Madras 2.
Best & Co., Ltd.—First Line Beach, Madras 1.
Bombay Co., Ltd.—169, Broadway, Madras.
Dunlop Rubber Co. (India) Ltd.—3/29, Mount Road, Madras 2.
East India Rubber Works Private Ltd.—24/27, Mooker Nallamuthu Street, P. O. Box No. 1926, Madras 1.
Firestone Tyre & Rubber Co. (India) Ltd.—Woods Road, Madras 2.
Gillander's Arbuthnot & Co., Ltd.—First Line Beach, Madras 1.
Goodyear Tyre & Rubber Co. India Ltd.—2, Patullos Road, Madras 2.
Heatly & Gresham Ltd.—Bombay Mutual Bldg., Esplanade, Madras 1.
Kilburn & Co., Ltd.—32/33, Linghi Chetty Street, Madras 1.
M. M. Rubber Co.—175/1, Mount Road, Madras 2.
National Rubber Mfrs. P. Ltd.—3/28, Muker Nallamuthu Street, Madras.
National Tyre and Rubber Co. of India Ltd.—28, Peter's Road, Madras.
Oriental Rubber Trading Co. (Madras) P. Ltd.—8, Greames Road, Thousand Lights, Madras 6.
Southern Tyre Mfrs. P. Ltd.—5/6, Mount Road, Madras 2.
Spencer & Co., Ltd.—Mount Road, Madras 2.

## SANITARY-WARES AND FITTINGS

Arunachalam & Co.—34, Lloyds Road, Madras 14.
Calcutta Light Casting Supply Co.—19, Errabalu Chetty Street, Madras 1.
Gillander's Arbuthnot & Co., Ltd.—First Line Beach, Madras 1.
Grahams Trading Co. (India) Ltd.—311, Linghi Chetty Street, Madras 1.
King & Company.—321, Thambu Chetty Street, Madras 1.
K. Rathnam & Co.—311, Thambu Chetty Street, Madras 1.
Murugappa Agents P. Ltd.—52/53, Jehangir Street, Madras 1.
P. A. Goverdhan Das—13/81, Sembudoss Street, Madras 1.
Raval & Co.—306, Linghi Chetty Street, Madras 1.
Sanitary Sales & Service.—26, Thambu Chetty Street, Madras 1.
Swamy & Co.—318, Thambu Chetty Street, Madras 1.
Vasanta Engineering Co.—9B, Prithvi Avenue, Madras 18.
Venus & Company.—Thambu Chetty Street, Madras 1.
Vijaya Trading Corporation.—320, Thambu Chetty Street, G.T., Madras 1.

## SCIENTIFIC INSTRUMENTS

Acme Trading Corpn.—113, Armenian Street, Madras 1.
Adair, Dutt & Co. (India) Pvt. Ltd.—P.B. No. 327, 1/29, Mount Road, Madras.
Andhra Scientific Co. Ltd.—4, Blacker's Road, Mount Road, Madras.
Central Scientific Supplies Co. Ltd.—17, Stringer Street, Madras.
Dutta Scientific Works—5, Sunkurama Chetty Street, Madras 1.
Free India Scientific Co.—74/A, Kothavalchavadi St., Saidapet, Madras.
General Radio & Appliances Pvt. Ltd.—1/18, Mount Road, Madras.

**HARGOLAL & SONS.—The Science Apparatus Workshop, 27 ABC, Linghi Chetty Street, Madras; H.O. Ambala Cantt., Branches: Tilak Road, G.P.O. Lane, Hyderabad (AP), 21, Purushottambad, Tandon Marg, Dehra Dun, C-767, Mahanagar, Lucknow; Manufacturers of and Dealers in Scientific Instruments, Laboratory Glassware and Chemicals, Physiology Models Charts, Engineering Models and Apparatuses.**

Premier India Scientific Co.—1-33, Varadarajulu Naidu Road, Egmore, Madras 8.
Scientific Instrument Co. Ltd.—30, Mount Road, Madras.
Standard Scientific Instruments Co., The.—115, Ramakrishna Math Road, Madras 28.
Toshniwal Instruments.—C-37, Industrial Estate, Madras 32.
United Scientific Co.—9, Sunkurama Chetty Street, G. T., Madras.

## SNUFF MANUFACTURERS AND DEALERS

**AMBAL & CO.—201, Mint Street, Madras 1. Phone: 32061. Grams: "BRAHMAPODI".**

Original Shanmugham Snuff & Co.—233-34, T. H. Road, Madras.

## SOAP MANUFACTURERS

All India Soap Works.—31, Hakim Makdoom Ashruff St., Madras 5.
Best & Co., Ltd.—First Line Beach, Madras 1.
Calcutta Chemical Co. Ltd.—5/149, Broadway, Madras 10.
East Asiatic Co. (India) Ltd.—Mercantile Bank Building, First Line Beach, Madras 1.
Gajavalli Soap Works.—13, Muthiah Mudali St., Madras 21.
Ganga Works.—Lattice Bridge Road, Adyar, Madras 20.
Godrej Soaps Private Ltd.—164. Broadway, Madras.
Hindustan Lever Ltd.—11/14, Armenian Street, Madras 1.
Joshi Soap Works.—310, Thambu Chetty St., Madras 1.
Mohan Brothers.—32, Alandur Road, Saidapet, Madras.
Muraly Industries Ltd.—2/153, Broadway, Madras 1.
Parvathi Toilet Soap Factory.—31, Elakandapan St., Madras.
Presidency Soap Works.—6, General Swami Naicken St., Jam Bazar, Triplicane, Madras.
Rajkamal Industries.—157, Walltax Road, Kondithope, Madras.
Rathna Chemical Industries.—Saidapet, Madras.
Santa Soap Works.—26, Muthumary Chetty Street, Madras.
Season Soap Factory.—15, Oilmonger Street, Madras 5.
Taj Soap Works.—383-A, Thiruvottiyur High Road, Madras 21.

**UNITED SOAP WORKS.—68, Perambur High Road, Madras 12. Soft Soap and Washing Soap Manufacturers, Trade Mark U.S. Co. '555.'**

## STAINLESS STEEL

Indo-Metal Industries—23, Errabalu Chetty Street, Madras 1.
Madras Stainless Steelware Industries.—23, Errabalu Chetty St., Madras 1.
Metalware & Co.—425, Mint Street, Madras 1.
Mysore Premier Metal Factory.—124, Mint Street, Madras.
Nachiappa Metal Corporation.—268, Linghi Chetty Street, Madras 1.
S. D. & Sons.—16, Lakshmidas Street, Park Town, Madras 3.

## STEEL FURNITURE & FITTINGS

Ajax Products Co.—52/53, Jehangir Street, Madras 1.
Godrej & Boyce Mfg. Co. P. Ltd.—177-179, Mount Road, Madras.
Industrial Contemporary Furniture Works.—192, N. Bose Road, Madras 1.
Ravi & Co.—6/141, Broadway, Madras 1.
Tamilnad Thozilagam.—40, Whites Road, Madras 14.
Vellodi Brothers P. Ltd.—6-A, Woods Road, Mount Road, Madras 2.

## STOCKINETTE MANUFACTURERS

**LOTUS INDUSTRIES LTD.—16, Coral Merchant Street, Madras 1. Manufacturers of Press Buttons (Snap Fastners), Exporters Importers and Manufacturers' Representatives. Phone: 25015. Grams: "FULFIL."**

## SURGICAL INSTRUMENTS AND APPLIANCES

Associated Surgicals (India).—5, Velders Street, P.B. No. 3749, Mount Road, Madras 2
Bengal Surgical Co.—8/1, Semmunath Mudali St., Madras 1.
Becker Scientific Co.—4/14, Bakers St., Madras.
Bombay Surgical Equipment Co.—8, Sunkurama Chetty Street, Madras 1.
East Asiatic Co. of India Ltd.—Mercantile Bank Building, First Line Beach, Madras 1.
Forward Surgical Co.—105, Nyniappa Naick Street, Madras 1.
Gillanders Arbuthnot & Co., Ltd.—First Line Beach, Madras 1.
Hale & Co.—Hale Mansions, 192, Poonamallee High Road, Vepery, Madras 7.
Hospital Equipment Co.—60/1, Gangadareswar Koil St., Madras.
Hospital Equipment Mfg. Co.—1, Iron Monger Street, Kondithope, Madras 1.
Hospital Requisites Co.—14-H, Cross Road, Madras.
Indian Sterilizer Co.—13, Devanatha St., Madras.
Medical Equipment Co.—Jammi Bldgs., Royapettah High Road, Madras 4.
Modern Stainless Steel Hospital Requisites Industries.—6, North Wall Road, Madras.
Modern Surgical Co.—16, Kandappa Achari Street, Madras 7.
National Surgical & Eng. Works.—187, Mount Road, Madras 2.
Pikay's Medico Surgicals.—199, Mount Road, Madras 2.
South India Surgical Co.—142, Nyniappa Naick Street, Madras 3.

## SWITCH GEAR MFRS

**MODI & MODI MANUFACTURING CO.—11, Linghi Chetty Street, Madras-1; Phone: 23096, 23892; Grams: "HIGH-SPEED"; Factory at Vriddhachalam; Phone: 22; Manufacturers of high class electrical Porcelain fuse units and Switchgear parts.**

## TOOLS (MACHINE, ELECTRIC, DIAMOND AND PNEUMATIC)

Amalgamations Private Ltd.—202, Mount Road, Madras 2.
Bombay Co., Ltd.—169, Broadway, Madras 1.
Easun Engineering Co., Ltd.—5/7, Second Line Beach, Madras 1.
General Electric Co. of India Ltd.—Magnet House, Mount Road, Madras 2.
Greaves Cotton & Co., Ltd.—19, Second Line Beach, Madras 1.
Guest, Keen, Williams Ltd.—202, Mount Road, Madras 2.
Hassanally, A. M., & Co.—34, Linghi Chetty Street, Madras 1.
Heatly & Gresham Ltd.—Bombay Mutual Bldg., Esplanade, Madras 1.

**INDUSTRIAL DIAMONDS & TOOLS CO.,**
47/50, Rattan Bazar,
Madras-3 (INDIA)
Manufacturers & Importers of Industrial Diamond Products, Dressing Tools, Boring Tools, Diamond Powders, Handness Testers, Hand Laps, Files, Wheels etc.

J. Prataprai & Co.—295, Linghi Chetty Street, Madras 1.
Larsen & Toubro Ltd —4/5, Club House ltd., Mount Road, Madras 2.
Marshall Sons & Co. (India) Ltd.—Marshall Building, Second Line Beach, Madras 1.
McDowell & Co., Ltd.—Second Line Beach, Madras 1.
Parry & Co., Ltd.—"Dare House," First Line Beach, Madras 1.
Rallis India Ltd.—Ralli House, 320, Linghi Chetty Street, Madras 1.
Richardson & Cruddas Ltd.—First Line Beach, Madras 1.
Shailendra Enterprises P. Ltd.—Ambattur Industrial Estate, Madras 50.
Taylor, T. A., & Co. (Madras) Ltd.—100, Armenian Street, Madras 1.
Voltas Ltd.—115/116, Armenian Street, Madras 1.
William Jacks & Co., Ltd.—National Bank of India Building, First Line Beach, Madras 1.

## TRANSPORTERS & GOODS CARRIERS

A. T. M. Ltd.—Madras 2.
All India General Transport Corpn. Ltd.—Davidson Street, Madras 1.
Andhra Pradesh Transport Co.—160, Govindappa Naik St., Madras 1.
Andhra Roadways—135, Walltax Road, Madras 1.
Associated Transport Co.—38, Errabalu Chetty Street, Madras 1.
Associated Transports (M) P. Ltd.—29, Bhoodaperumal Mudali St., Mount Road, Madras 2.
City Transport Co.—2/92, Thambu Chetty Street, Madras 1.
Commercial Goods Transports.—6, Singanna Naicken St., Madras 1.
Express Carriers Ltd.—6, Armenian St., Madras 1.
Garage P. Ltd.—Oriental Bldgs. Armenian St., Madras 1.
Grand Trunk Roadways Ltd.—337, Thambu Chetty Street, Madras 1.
International Clearing & Shipping Agency.—20-B, Second Line Beach, Madras 1.
Madras Bangalore Transport Co.—1/235, Angappa Naicken St., Madras 1.
Madras Transport Co. Ltd.—'Greenfields', 1, Nungambakkam High Road, Madras.
M. B. T. Co.—1/235, Angappa Naick Street, Madras 1.
M. G. Brothers Lorry Service.—3 Basin Water Works St., Madras 1.

Nethaji Lorry & Bus Service—33, Angappa Naicken St., Madras 1.
Popular Transport.—19, Stringers St., Madras 1.
Presidency Transport P. Ltd.—29, Walltax Road, Madras 2.
Provincial Transport Ltd.—5, Annaswami Naick Street, Madras.
Radiat Roadways.—47, Bunder St., Madras 1.
Road Transport Corpn. P. Ltd.—26, Errabalu Chetty Street, Madras 1.
South Eatern Roadways.—3/156, Broadway, Madras 1.
South India Bus Transport Ltd.—3-11, Mount Road, Madras.
Southern Roadways P. Ltd.—Express Estates, Madras 2.
Sree Narayana Transports.—2-C, Goomes St., Madras 1.
Sri Ram Vilas Service P. Ltd.—1/17, Mount Road, Madras 2.
Sri Vijayalakshmi Lorry Service.—35, Broadway, Madras 1.
Transport Ltd.—6, Harrington Road, Chetput, Madras.
United Transport Co.—198, Mount Road, Madras.

## TRAVEL AGENTS

Asian Travels (India) P. Ltd.—39, Mount Road, Madras 6.

**MERCURY TRAVELS (INDIA) PRIVATE LTD.—Ashoka Hotel, Pantheon Road, Egmore, Madras 8. Phone : 85095. Head Office : Oberoi Grand Hotel, Chowringhee, Calcutta 13. Phone: 236051 (8 lines). Branches: Oberoi Imperial Hotel, New Delhi. Phone: 43001 (3 lines). 70, Forbes Street, Rampart Row Corner, Fort, Bombay 1. Phone: 253948 (3 lines). Oberoi Palace Hotel, Srinagar, Kashmir; Phone : 1045, Srinagar 19. Abid Road, Hyderabad 1. Phone : 33325. National Motors Building, Mirza Ismail Road, Jaipur. Phone : 77284. Grams : "MERCTRAVEL."**

**ORIENT EXPRESS CO. PRIVATE LTD., THE.—Agurchand Mansion, 35, Mount Road, Madras-2. Phone : 86260 ; Grams: "OREXPRESCO".**

Trade-Wings (Private) Ltd.—Purushottam Bldgs., 193, Mount Road, Madras.

## TYPE MFRS. & DEALERS

**STANDARD PRINTING MACHINERY CO.—Shanti Theatre Building, Madras; Phone : 25096, Grams: "PRINTMACHO". Stockists of Printing Press Machinery and Material.**

## TYPEWRITERS

Amalgamations Private Ltd.—202, Mount Road, Madras 2.
Blackwoods (India) Ltd.—2/29, Mount Road. Madras 2.
Godrej & Boyce Mfg. Co., Private Ltd.—177 & 179, Mount Road, Madras.
Rayala Corporation (Madras) Ltd.—"Rayala Bldgs.", 1/155, Mount Road, Madras 2.

**REMINGTON RAND OF INDIA LTD.—Manufacturers of Remington Rand Business Equipment; 38/3, Mount Road, Madras 6. Phone : 86484 (3 lines); Grams: "REMINGTONS".**

Typewriters & Office Appliances Co. (India) Ltd.—17, Armenian Street, Madras 1.

## UMBRELLAS

Champalal & Co.—29, Tholasingam St., Madras 1.
Dakshinabharath Umbrella Mfg. Co.—Georgetown, N. S. C. B. Road, Madras.
Ebrahim Currim & Sons—251/56, Netaji Subhas Road, Madras 1.
Modern Umbrella Mfg. Co.—111, Nyniappa Naick Street, Madras 3.

## VANASPATI AND VEGETABLE OIL MANUFACTURERS

East Asiatic Co. (India) Ltd.—P.B. No. 146, Madras.
East Coast Food Products Ltd.—99, Armenian Street, Madras.
Hindustan Lever Ltd.—11-14, Armenian Street, Madras 1.
Madras Vanaspati Ltd.—12/13, Angappa Naick Street, Madras.

## VEGETABLE PRODUCTS

**EAST ASIATIC COMPANY (INDIA) PRIVATE LTD., THE.—Machinery & Engineering Dept., Bharat Bldg., Mount Road, Madras-2; Phone: 86021, Grams: "MANDARIN", P.O. Box No. 146.**

## WATER METERS

**KAYCEE INDUSTRIES LTD.—3/33, Mount Road, Madras; Agents for Hind Rectifiers Ltd., Manufacturers of Selenium and Silicon Semiconductors, Electroplating Rectifiers, Battery Chargers, Silicon Power Plants for Electro-chemical Industries, 'SANTON' Rotary Switches, 'Kaycee' Toggle Switches, 'Kaycee' Water Meters; Head Office: Kamani Chambers, Nicol Road, Ballard Estate, Bombay; Phone: 263521, Grams: "TURNRITE" ; Branches: Delhi, Calcutta & Kanpur.**

## WEIGHING MACHINES

Avery Co., Ltd.—16/17, Armenian Street, Madras 1.
Gordon Woodroffe & Co. (Madras) Ltd.—1/21, First Line Beach, Madras 1.
Heatly & Gresham Ltd.—Bombay Mutual Building, Esplanade, Madras 1.
McDowell & Co., Ltd.—Second Line Beach, Madras 1.
Spencer & Co., Ltd.—Mount Road. Madras 2.
Vernon & Co., Ltd.—36, Second Line Beach, Madras 1.

## WELDING SETS AND MATERIALS

**EAST ASIATIC COMPANY (INDIA) PRIVATE LTD., THE.—Machinery & Engineering Dept., Bharat Bldg., Mount Road, Madras 2; Phone : 86021; Grams : "MANDARIN", P.O. Box No. 146.**

General Electric Co. of India Ltd.—Magnet House, Mount Road, Madras 2.
Gordon Woodroffe & Co. (Madras) Ltd.—1/21, First Line Beach, Madras 1.
Guest, Keen, Williams, Ltd.—202, Mount Road, Madras 2.
Indian Oxygen & Acetylene Co., Ltd.—7, Vaithianatha Mudali Street, Tondiarpet, Madras 21.

**INDUSTRIAL GASES LTD., THE.—1/33, Mount Road, Madras. Phone: 81626, Telex: 138, Grams: "INDUSGASES". Head Office : P.O. Box 853, Calcutta-1. Design, Supply & Erection of Transformers, Generators, Automatic Welders, Inert Gas Shielded Arc Welding Equipment, Spot, Seam and Stud Welders and Cutting Machines.**

Marshall Sons & Co. (India) Ltd.—Marshall Building, Second Line Beach, Madras 1.
Rallis India Ltd.—Ralli House, 320, Linghi Chetty Street, Madras 1.
Voltas Ltd.—115/116, Armenian Street, Madras 1.
William Jacks & Co., Ltd.—National Bank of India Building, First Line Beach, Madras 1.

## WIRE AND WIRE PRODUCTS

Binny & Co. (Madras) Ltd.—7, Armenian Street, Madras 1.
Bombay Co., Ltd.—169, Broadway, Madras.
Chambers, K. H., Ltd.—Lecots Building, Madras.
Grahams Trading Co. (India) Ltd.—311, Linghi Chetty Street, Madras 1.
Guest, Keen, Williams, Ltd.—202, Mount Road, Madras 1.
Heatly & Gresham Ltd.—Bombay Mutual Building, Esplanade, Madras 1.
Indian Steel & Wire Products Ltd.—19/A, Vaniar Street, Madras.
Indian Wire Products Industries.—B-14 & 15, Industrial Estate, Madras 32.
McDowell & Co., Ltd.—Second Line Beach, Madras.
Southern Industrial Corpn. (P) Ltd.—Polal, Red Hills, Madras.

## YARN MERCHANTS

Abdul Karim Noor Mohamed & Co.—22, Anderson Street, Madras.
Abdul Shakoor & Co., S.— 190, Angappa Naick Street, Madras.
Alwariah Chetty, V.—118, Audiappa Naick Street, Madras.
Annamalai Chetty & Sons., K. M. K.—5, Sannadhi Street, Madras.
Balasubbaraya Chetty & Son, V. S.—28/29, Coral Merchant Street, Madras.
Brunnschweiler & Co., A.—104, Armenian Street, Madras.
Central Commercial Co.—32, Ekambareswar Agraharam St., Madras.
Chathurbhujdas Narayandas.—462, Mint Street, Madras.
Chelvapilla & Bros., C.—135, Varada Muthiappan Street, Madras.

**CHHOTABHAI JAVERBHAI & CO. (PRIVATE) LTD.—468, Mint Street, Madras 3.**

Colour Cotton Co.—61/62, Mint Street, Madras.
Colombo Stores.—101, Godown Street, Madras.
Crescent & Co.—71, Mint Street, Madras.
Dalooram Jayanarayan.—32, Perumal Mudali Street, Madras.
Donti Venkatesiah Setty Co.—17, Lukmudas Street, Madras.
Dwarkadas Rameshwar Goenka.—67, Godown Street, Madras.
Ghanshamdas, C. G.—459, Mint Street, Madras.
Gocoola Doss Jumna Doss & Co.—29, N. S. C. Bose Road, Madras.
Gomraj Fataichand.—190, Govindappa Naick Street, Madras.
Govinda Mudaliar Sons, V.—23, Jones Street, Madras.
Govindarajalu Chettiar & Co., M.—33, Mint Street, Madras.
Govindaraju Chetty, A. V.—72, Mint Street, Madras.
Govindarajn Chetty, T. N. K.—498. Mint Street, Madras.
Govindas, K.—73, Mint Street, Madras.
Haji Jiva & Sons.—26, Anderson Street, Madras.
Harakchand Roopchand.—28, Govindappa Naick Street, Madras.
Jagannath Bajranglal.—23, Govindappa Naick Street, Madras.
Jayantilal J. Chokshi.—461, Mint Street, Madras.
Jivraj Topun & Sons.—32, Ekambareshwar Agraharam, Madras.
K. P. Shah.—228/230, Rasappa Chetty Street, P.T. Madras 3.
Kamalam Dyeing Factory, M.—70, Mint Street, Madras.
Kanniram & Sons.—96, Nyniappa Naick Street, Madras.
Keshavlal & Co.—21, Ragunayakalu Street, Madras.
Keshvlal Talakchand (P) Ltd.—63, Mint Road, Madras.

Kiran Premchand Shah.—228/230, Rasappa Chetty St., Madras.
Kissendoss Girchardoss & Sons.—459, Mint Street, Madras.
Krishna Dye Works.—70, Mint Street, Madras.
Lakshmanier & Sons, T. K.—77, Mint Street, Madras.
Lakshmidas Dwarkadas.—436, Mint Street, Madras.
Laldas Govindas & Sons.—459, Mint Street, Madras.
Lokanatham Chetty & Co., K.—473, Mint Street, Madras.
Madras Palayakat Co., Ltd.—31, Armenian Street, Madras.
Mannar Chetty & Co., S. K.—462, Mint Street, Madras.
Mohamed Aboobacker & Co.—95, Thambu Chetty Street, Madras.
Mohanlal & Co., M.—472, Mint Street, Madras.
Moolchand Devichand Shah.—88, Nyniappa Naick Street, Madras.
Moulana & Co. (P) Ltd.—53, Angappa Naicken Street, Madras.
Munuswami Naidu, K. N.—446, Mint Street, Madras.
Nahalchand Laloochand (P) Ltd.—99, Nyniappa Naick Street, Madras.
Narasayya Chetty, G.—158, Anna Pillai Street, Madras.
Nathella Sampathu Chetty & Son.—177, N. S. C. Bose Road, Madras.
Radhakrishiah Chetty & Co.—Pokkali, 467, Mint Street, Madras.
Rathnam, S., B.A.—77, Mint Street, Madras.
Rayon Traders (P) Ltd.—27, Coral Merchant Street, Madras.
Sanghvi Bros.—310/311, Linghi Chetty Street, Madras.
Sankalchand G., Shah & Co., Ltd.—472, Mint Street, Madras.
Sathyamurthy S. S.—466, Mint Street, Madras.
Sattariah Chetty Sons, Y.—22, Govindappa Naick St., Madras.
Saurashtra Trading Co.—70, Mint Street, Madras.
Seshachala Chettiar & Sons, V. G.—497, Mint Street, Madras.
Shah Khetsey & Co.—38, Mint Street, Madras.
Shivprakash Janakraj & Co.—38, Mint Street, Madras.
Sivaraj Manchalal Shah.—89, Nyniappa Naick Street, Madras.
S. T. S. Trading Co.—61/62, Mint Street, Madras.
Subbarangiah Chetty, Muthyala.—113, Audiappa Naick St., Madras.
Subramaniam Chetty, Vumiti.—463, Mint St., Madras.
Sundararaman, K. M. S. L.—31, Mint Street, Madras.
Sundararamier & Co., M. P. V.—464, Mint Street, Madras.
Sundararamier & Sons, S. K.—63, Mint Street, Madras.
Thiruvengadachari, T.—474, Mint Street, Madras.
Thulasi Mudaliar, M.—460, Mint Street, Madras.
Vadivelu Mudaliar, K. C.—71, Mint Street, Madras.
Venkatachalapathy, K. R.—470, Mint Street, Madras.
Venkatesam Chetty, A.—72, Mint Street, Madras.
Vidyapoornachari & Sons, K. V.—54/56, Mint Street, Madras.
Yarn Syndicate, Ltd.—51, Mint Street, Madras.
Yathindran, K. M. S. L.—145, Nyniappa Naick Street, Madras.

### X-RAY EQUIPMENTS

**INDUSTRIAL GASES LTD., THE.—1/33, Mount Road, Madras. Phone: 81626, Telex: 138, Grams: "INDUSGASES". Head Office: P. O. Box 853, Calcutta—1. Oxygen and X-Ray Therapy Equipment-Iron Lungs, Resuscitators, Humidifiers, Oxygen Tents, Masks, Anaesthesia Equipment and Parts.**

### ZIP FASTENERS

**ZIP INDUSTRIES PRIVATE LTD.—366, T. H. Road, Madras 21.**

# COIMBATORE COMMERCIAL FIRMS

Acme Textiles, Trichy Road, Coimbatore.
Addisons & Co., Ltd., Avanashi Road, Coimbatore.
Aluminium Company Ltd., Lakshmi Vilas, Race Course, Coimbatore 1.
**Ambubhai Kalidas P. Ltd., 7/49, Grey Town, Coimbatore.**
Anamallais Retreading Co., 9/69, Jail Road, Coimbatore 1.
**A. R. Chockalingam Chettiar & Sons, 34, Raja St., Coimbatore.**
**Arvee Industries, 14, Arunachalam St., R. S. Puram, Coimbatore 2.**
**Arvind & Co., 255, Oppanakara Street, Coimbatore.**
**A. T. N. Stainless Steel Industries, 346, Raja Street, Coimbatore.**
**Avery Co., Ltd., Trichy Road, Coimbatore.**
**Batliboi & Co., Avanashi Road, Coimbatore.**
Bell Alloy Steels P. Ltd., No. 1, Race Course, Coimbatore.
**Binny & Co. Madras Ltd., Post Box No. 69, Coimbatore.**
Blue Chips & Co., Jail Road, Coimbatore.
Bluemount Switchgears Associates Switchgears Ltd., Patel Road, Ranganathapuram, Coimbatore 9.
Bradma of India P. Ltd., 109/110, Avanashi Road, Coimbatore.
**Brady & Co., Ltd., W. H., Jail Road, Coimbatore.**
**British Insulated Callender's Cables Ltd., Race Course Road, Coimbatore.**
**Broadway Engineering & Transport Co., 5/15, Old Post Office Road, Coimbatore.**
**Brooke Bond India Ltd., Krishnaswamy Mudaliar Road, Coimbatore.**
**Caltex (India) Ltd., Avanashi Road, Coimbatore.**
Carbon Products of India Private Ltd., Trichy Road, Coimbatore 1.
**Cement Marketing Co. of India Ltd., Race Course Road, Coimbatore.**
Central India Machinery Mfg. Co. Ltd., Variety Hall Road, Coimbatore.
Chellam & Co. P. Ltd., 55, Big Bazar St., Coimbatore 1.
Chromotan (Cbe.) Ltd., 2/249, Avanashi Road, Coimbatore.
Coimbatore Central Co-operative Stores Ltd., P. Bag No. 5, Coimbatore 2.
**Coimbatore Premier Corporation P. Ltd., Patel Road, Coimbatore.**
**Cotton Textiles Ltd., Mall Mill Road, Coimbatore.**
**D. Engineering P. Ltd., United Motors Bldgs., Avanashi Road, Coimbatore.**
**Diesel (India) Coimbatore, 124-B, Trichy Road, Coimbatore.**
**Dhandayuthapany Foundry P. Ltd., Pappanaickenpalayam, Coimbatore.**
E. G. S. Company, Post Box 83, Coimbatore.
Electro-Diesel Equipment Co., 23, Avanashi Road, Coimbatore.
Elgi Equipments P. Ltd., Trichy Road, Coimbatore 1.
Elseetee. Industries, Post Box No. 28, Singanallur, Coimbatore 5.
**Feroke Timber & Tiles Co., Mettupalayam Road, Coimbatore.**
Gajaraj & Co., Jail Road, Coimbatore.
Ganapatty Engineering Mfrs. Private Ltd., Ganapathy, Coimbatore 6.
**Gannon Dunkerley & Co., Ltd., Power House Road, Coimbatore.**
**Garlick & Co., Ltd., Cox Street, Coimbatore.**
**General Electric Co. of India Ltd., "Magnet House," Avanashi Road, Coimbatore.**
**George Oakes Ltd., Avanashi Road, Coimbatore.**
**Gill & Co. P. Ltd., 12/25, Syrian Church Road, Coimbatore.**
G. K. Syndicate Ltd., 15/72, Big Bazar Street, Coimbatore.
Gopal Clock Works, Gopal Bagh, Avanashi Road, Coimbatore.
**Gordon Woodroffe & Co. (Madras) Ltd., Fraser Square, Coimbatore.**
Gounder & Co. P. Ltd., Jail Road, Coimbatore.
Greaves Cotton & Co. Ltd., India House, Trichy Road, Coimbatore.
**Guardian Investment P. Ltd., Edayar Street, Coimbatore.**
Hari Trading Corpn., 8/18, Tatabad, Coimbatore 12.
**Haridas Bhagath & Co. P. Ltd., 7/15, Crosscut Road, Coimbatore.**
Hindustan Carbonic Products, Podanur (Dt. Coimbatore).
**Imperial Tobacco Co. of India Ltd., United India Bldg., Avanashi Road, Coimbatore.**
**Importers Ltd., Gopal Bagh, Avanashi Road, Coimbatore.**
India Silicate Industry, Fraser Square, Coimbatore.
Indian Cable Co. Ltd., 4/2, Race Course Road, Coimbatore.
Indian Cashewnuts & Plantations Ltd. (Managing Agents, T. Stanes & Co., Ltd.), Coimbatore.
**Indian Hume Pipe Co., Ltd., Ranganathapuram, Coimbatore.**
**Indian Overseas Trading Co., Ltd., Power House Road, Coimbatore.**
Indian Refrigeration Industries P. Ltd., Singanallur, Coimbatore 5.
Indo-Swiss Synthetic Gem Mfg. Co. Ltd., Mettupalayam (Dt. Coimbatore).
Industrial Equipment & Stores Agencies, 7/105, Jail Road, Coimbatore.
**Jayems Engineering Co., Oppanakara Street, Coimbatore.**
Jenson & Nicholson P. Ltd., 7/219, Avanashi Road, Coimbatore 1.
Kala Industries P. Ltd., Tudiyalur (Dt. Coimbatore).
**Kannapiran Corporation Ltd., Mill Road, Coimbatore**
**Keserishih Vallabhdas & Co., R. S. Puram P.O., Coimbatore.**
**Kikani & Co., 9/20, Syrian Church Road, Coimbatore.**
**Kilachand Devchand & Co., Ltd., Grey Town, Coimbatore.**
**Kilburn & Co. P. Ltd., Post Box 763, Coimbatore 2.**
**Kirtilal Kalidas & Co., 230, Raja Street, P. O. Box No. 32, Coimbatore.**
K. N. D. Tool & Equipment Co., Lakshmi Bldg., Patel Road, Coimbatore 9.
**Kollegal Seriveeri Chetty & Sons, Sukravarpet, Coimbatore.**
**Kovai Syndicate, 315, Vysial St., Coimbatore.**
Leader Industries, 8, Tatabad, Coimbatore 12.
**Lilaram Shewaram (India) Ltd., 62, Raja Street, Coimbatore.**
**Madras Chit Funds P. Ltd., 56/57, Oppanakara St., Coimbatore.**
Madras Circle Pipe Dealers' Assen. Ltd., 4/2, Race Course Road, Coimbatore.
Madras Phosphate Manufacturers P. Ltd., 51, Ponnurangam Road, Coimbatore 2.

**Meccano Floorings Ltd., College Road, Coimbatore.**
Mopeds (India) Ltd., No. 1, Palaniswamy Naidu Street, Avanashi Road, Coimbatore.
Motors & Services Private Ltd., United Motors Buildings, Avanashi Road, Coimbatore.
Murugappa & Sons, Raja Street, Coimbatore.
**Nanco Rubber & Plastics Ltd., A.T.T. Colony, Coimbatore.**
Needlex Industries (India) Ltd., Post Box No. 12, Coimbatore.
Pagefield Agencies, Coimbatore 9.
**Pannalal Ramkumar & Co., 9/2, Kannuswamy Road, R. S. Puram, Coimbatore.**
Parry & Co., Ltd., Fraser Square, Coimbatore.
**Patel Cotton Co., Ltd., Avanashi Road, Coimbatore.**
**Patel Steel Trunks Ltd., Big Bazar Street, Coimbatore.**
Peirce Leslie & Co., Ltd., Race Course Road, Coimbatore.
Popular Equipment Co., Avanashi Road, Coimbatore.
**P. S. G. Industrial Institute, Peelamedu P.O., Coimbatore 4.**
Praga Industries P. Ltd., Peelamedu, Coimbatore 4.
Purshotam Ramjee & Co., 11/49, East Sambandam Road, Coimbatore 2;
Quality Traders, 47, Karuppa Gowder Street, Coimbatore.
Radha Industries, 100, Ft. Road, Coimbatore 2.
Rainbow Sewing Thread Co., 14/191, Lingappa Chetty Street, Coimbatore.
**Rallis India Ltd., Avanashi Road, Coimbatore.**
Ram Co. Swadhesis, 266, Oppanakara Street, Coimbatore.
Ram Industrials, Tudiyalur (Dt.), Coimbatore.
Ramakrishna Industrial P. Ltd., Peelamedu P.O., Coimbatore 4.
Ramkrishna Metal & Alloy Industries, Patel Road, Coimbatore.
Ramu Foundry, Pappanaicken Palayam, Coimbatore.
Rayon Traders P. Ltd., United India Bldg., Avanashi Road, Coimbatore.
Remington Rand of India Ltd., 12/204, Oppanakara Street, Coimbatore.
Sai Traders, Raja Street, Coimbatore.
Shreekala Hosiery and General Enterprises. 5/32, Pankaja Mill Road, Coimbatore 1.
South India Corporation P. Ltd., 10/25, Jail Road, Coimbatore.
South India Sanfits, S. M. Pudur P.O. Ondiputhur, Coimbatore.
Speedline Agencies, 15/188, Oppanakara Street, Coimbatore.
Spencer & Co. Ltd., Coimbatore.
**S. S. Hajee Syed Ahmed Rowther & M. A. P. Hajee Mohammed Kamaldeen Rowther, 321-A, Vysial Street, Coimbatore.**
Sri Ramakrishna Steel Industries, 1/9, Ramakrishna Nilayam, Naranapuram, Pappanaiken Palayam, Coimbatore.
**Stanes Amalgamated Estates Ltd. (Managing Agents: T. Stanes & Co., Ltd.), Race Course Road, Coimbatore.**
**Stanes Motors (South India) Limited, (Managing Agents & Secretaries: T. Stanes & Co., Ltd.), Post Box No. 12, Race Course Road, Coimbatore.**
Tamilnad Transports (Cbe.) P. Ltd., Santhi Nilayam, Saibaba Colony, Coimbatore 11.
**Tea Estates India P. Ltd., Race Course Road, Coimbatore.**
Textile Machinery Manufacturers Ltd., Avanashi Road, Coimbatore 1.
**Textool Company Limited, Ganapathy, Coimbatore 6.**
Thachil Corporation, 97, Jail Road, Coimbatore.
Tiles and Floorings Ltd., Avanashi Road. Coimbatore.
**T. S. Dasappa Chettiar & Co., Jail Road, Coimbatore.**
Titan Paints and Varnishes Ltd., Podanur P. O., Coimbatore.
**T. M. S. & Company, Avanashi Road, Coimbatore.**
**T. V. Sundaram Iyengar & Sons, P. Ltd., Mettupalyam Road, Coimbatore.**
Uberoi Limited, 8/23, Avanashi Road, Coimbatore.
United Nilgiri Tea Estates Co., Ltd., The (Managing Agents: T. Stanes & Co., Ltd.), Post Box No. 12, Coimbatore.
**UNIVERSAL RADIATORS,** Mettupalayam Road, Coimbatore 11. Manufacturers of Radiators for Automobile, Industrial-Engines and all other types of Engines, High Pressure Oil Coolers for Diesel Rail, way Cars, Rotary Compressors and allied Products.
U.M.S. Blade Factory, Gopal Bagh, Coimbatore.
U. R. Joshi & Co., 13/29, Ponnurangam Road, Coimbatore 2.
**V. A. M. Ratnam & Bros., Vysial Street, Coimbatore.**
Vijaya Industries Ltd., Elithottam Road, Peelamedu, Coimbatore 4.
Vitamin Products Co., 213, Tatabad, Coimbatore 12.
**V. Raju Naidu & Co., Mill Road, Coimbatore.**
**Veeku Silk Co., 275, Oppanakara St., Coimbatore.**
Voltas Ltd., Race Course Road, Coimbatore.
V. S. Rajagopalan & Co., Avanashi Road, Coimbatore.
V. T. S. Castor Oil Mfg. Co., Ltd., Sastri Road, Ranganathapuram, Coimbatore.
**Vyas & Co., G. M., 95, Jail Road, Coimbatore.**
Wakefield Engineering Co., Jail Road, Coimbatore.

# CLASSIFIED LIST OF TRADES & PROFESSIONS

## AGRICULTURAL IMPLEMENTS MFRS.

Eastern Electrical Co. Ltd.—Singanallur, Coimbatore 5.
Elseetee Industries.—P.O. Box 28, Singanallur, Coimbatore 5.
Farm Equipment Ltd.—Ganapathy Post, Coimbatore.
P. S. G. Industrial Institute.—Peelamedu, Coimbatore.
Voltas Ltd.—Race Course Road, Coimbatore.

## AIR-CONDITIONING & REFRIGERATION

Brilliant Engg. Co., India House, Trichy Road, Coimbatore.
Garlick & Co.—Cox Street. Coimbatore.
Parry & Co. Ltd.—Fraser Square, Coimbatore.
Refrigeration Engineering Works.— Nawab Hakeem Road, Coimbatore.
Voltas Ltd.—Race Course Road, Coimbatore.

## AUTOMOBILE ENGINEERS

Anthony's Automobiles.—Trichy Road, Coimbatore.
Ashok Automobiles.—Mettupalayam Road, Coimbatore; Phone: 5355.
Associated Automobiles Ltd.—Avanashi Road, Coimbatore.
Autocraft Automobile Electrical Engineers.—9/93, Dewan Bahadur Road, Coimbatore. 2.
Auto-Reconstruction Works —Cross Street Road, Coimbatore 1.
Bluemount Auto Service.—Mettupalayam, Coimbatore.
City Transport Ltd.—Avanashi Road, Coimbatore.
Francis Motor Works.—Trichy Road, Coimbatore.
George Oakes Ltd.—Avanashi Road, Coimbatore.
Gibson's Auto Service.—Mettupalayam, Coimbatore.
India Services (Coimbatore) Ltd.—4/105, Trichy Road, Coimbatore.
Krishna Motor Works.—Avanashi Road, Coimbatore.
L. G. Balakrishnan & Bros.—India House, Trichy Road, Coimbatore.
Mani Motor Cycle Works.—Avanashi Road, Coimbatore.
Marikar (Motors) Ltd.—Avanashi Road, Coimbatore.
Modern Motor Works.—Fraser Square, Coimbatore.
Motors & Services.—Avanashi Road, Coimbatore.
National Motor Works.—Trichy Road, Coimbatore.
Shining Motors.—13/34, B-Thiruvenkatasami Road, R. S. Puram, Coimbatore 2.
Southern Motors.—Trichy Road, Coimbatore.
South India Corporation (Madras) Ltd.—Jail Road, Coimbatore.
Standard Automobiles.—Crosscut Road, Coimbatore.
Stanes Motors (South India) Ltd.—Trichy Road, Coimbatore.
St. Anthony's Motor Cycle Works.—Trichy Road, Coimbatore.

## AUTOMOBILE PARTS & ACCESSORIES

A. C. B. Automobiles.—Mettupalayam Road, Coimbatore.
Ashok Automobiles.—Mettupalayam Road, Coimbatore 11.
Associated Automobiles Ltd.—Avanashi Road, Coimbatore.
Central Autoparts & Co.—Avanashi Road, Coimbatore.
Coimbatore Automobiles.—Avanashi Road, Coimbatore.
Gajaraj & Co.—Jail Road, Coimbatore.
Gounder & Co. Ltd.—Jail Road, Coimbatore.
Greenland Automobiles.—11/19, Arokiaswami Road, Coimbatore.
Katteri Automobiles.—Avanashi Road, Coimbatore.
Malabar Modern Automobiles.—Avanashi Road, Coimbatore.
Mythili Motors.—Mettupalayam Road, Coimbatore.
Pakshirajan Automobiles.—Avanashi Road, Coimbatore.
Pillay & Co.—Avanashi Road, Coimbatore.
Pioneer Motors.—Old Post Office Road, Coimbatore.
Premier Agencies.—Trichy Road, Coimbatore.
Shining Motors Ltd.—Cox Street, Coimbatore.
Telelite.—6/25, Trichy Road, Coimbatore.
United Motors Ltd.—Avanashi Road, Coimbatore.

## BANKS

Adhelaksmi Bank Ltd.—Raja Street, Coimbatore.
Annupparpalayam Bank Ltd.—Jail Road, Coimbatore.
Arian Bank.—Rangai Gowder Street, Coimbatore.
Bank of Baroda Ltd.—Big Bazar Street, Coimbatore.
Bank of India Ltd.—Head Post Office Road, Coimbatore.
Bank of Jaipur Ltd.—Oppanakara Street, Coimbatore.
Bank of Madura Ltd.—Oppanakara Street, Coimbatore.
Bank of Mysore Ltd.—Oppanakara Street, Coimbatore.

Canara Banking Corporation Ltd.—Oppanakara Street, Coimbatore.
Canara Bank Ltd.—Edayar Street, Coimbatore.
Canara Industrial & Banking Syndicate Ltd.—Oppanakara Street, Coimbatore.
Central Bank of India Ltd.—Variety Hall Road, Coimbatore.
Chaldean Syrian Bank.—Raja Street, Coimbatore.
City Co-operative Bank Ltd.—Gopalapuram, Coimbatore.
Coimbatore Bank Ltd.—Raja Street, Coimbatore.
Coimbatore Bhaghylakshmi Bank Ltd.—Oppanakara Street, Coimbatore.
Coimbatore Commerce Bank.—Union High School Road, Coimbatore.
Coimbatore Co-operative House Mortgage Bank Ltd.—Jail Road, Coimbatore.
Coimbatore Co-operative Stores & Bank Ltd.—Sullivan Street, Coimbatore.
Coimbatore District Co-operative Central Bank Ltd.—State Bank Road, Coimbatore.
Coimbatore Ganeshar Bank Ltd.—Jail Road, Coimbatore.
Coimbatore Hindu Kripakara Nidhi Ltd.—Oppanakara Street, Coimbatore.
Coimbatore Janopkara Bank Ltd.—Vysial Street, Coimbatore.
Coimbatore National Bank Ltd.—Variety Hall Road, Coimbatore.
Coimbatore Standard Bank Ltd.—R. S. Puram, Coimbatore,
Coimbatore Town Bank Ltd.—Rangai Gowder Street, Coimbatore.
Coimbatore Varthaka Virdhi Bank Ltd.—Rangai Gowder Street, Coimbatore.
Coimbatore Vasunthara Bank Ltd.—Raja Street, Coimbatore.
Dravya Sahaya Bank Ltd.—Oppanakara Street, Coimbatore.
Indian Bank Ltd.—Variety Hall Road, Coimbatore.
Indian Overseas Bank Ltd.—Oppanakara Street, Coimbatore.
Indo Commercial Bank Ltd.—Oppanakara Street, Coimbatore.
Indo Mercantile Bank Ltd.—Edayar Street, Coimbatore.
Janasahaya Bank Ltd.—Nawab Hakeem Road, Coimbatore.
Kamalalaya Bank.—Raja Street, Coimbatore.
Karpaga Nidhi Ltd.—Devangapet, Coimbatore.
Karur Vysia Bank Ltd.—Oppanakara Street, Coimbatore.
Madras City Bank Ltd.—Oppanakara Street, Coimbatore.
Mannar Bank Ltd.—Thomas Street, Coimbatore.
Modern Bank Ltd.—Oppanakara Street, Coimbatore.
Nedungadi Bank Ltd.—Oppanakara Street, Coimbatore.
New India Bank Ltd.—Vysial Street, Coimbatore.
Peelamedu Co-operative Land Mortgage Bank Ltd.—Avanashi Road, Coimbatore.
Punjab National Bank Ltd.—Oppanakara Street, Coimbatore.
South Indian Bank Ltd.—Raja Street, Coimbatore.
Srinivasperumal Bank Ltd.—Crosscut Road, Coimbatore.
State Bank of India.—State Bank Road, Coimbatore.
Thocos Bank Ltd.—Raja Street, Coimbatore.
Travancore Bank Ltd.—Oppanakara Street, Coimbatore.
Travancore Forward Bank Ltd.—Oppanakara Street, Coimbatore.
United Commercial Bank Ltd.—Oppanakara Street, Coimbatore.

## BOOKSELLERS & STATIONERS

Balu Book Stall.—Crosscut Road, Coimbatore.
Bettai Gowder K.O.—Raja Street, Coimbatore.
The Bookseller.—113, Big Bazar Sheet, Coimbatore.
Chelliah Stores.—Crosscut Road, Coimbatore.
Christian Book Shop.—Avanashi Road, Coimbatore.
Coimbatore Sakthi Kariyalayam.—Variety Hall Road, Coimbatore.
Dinamani Stores.—Near U.M.S., Coimbatore.
Hindustan Traders.—Raja Street, Coimbatore.
Kavignar Padippakam.—Raja Street, Coimbatore.
Nanjappa & Co.—Raja Street, Coimbatore.
New Century Book House Private Ltd.—19/43, Big Bazar Street, Coimbatore.
Popular Hindustan Publication.—Old Post Office Road, Coimbatore.
Reliance General Stores.—Variety Hall Road, Coimbatore.
Tamil Nadu Book Sellers.—Raja Street, Coimbatore.
Vasantham Stores.—Crosscut Road, Coimbatore.

## BUTTON FACTORIES

Jaga Button Industries Ltd.—Post Bag No. 519, Mettupalayam Road, Coimbatore.
Praga Industries P. Ltd.—P. Box 161, Coimbatore.
Vijaya Industries.—Peelamedu, Coimbatore.

## CASTOR OIL MANUFACTURERS

K. P. Castor Oil Works.—R. S. Puram P.O., Coimbatore 2.
Radha Castor Oil Works.—Sukrawarpet, Coimbatore.
V. T. S. Castor Oil Manufacturing Co. Ltd.—Rt. Hon'ble Sastri Road, Ranganathpuram, Coimbatore.

## CENTRIFUGAL PUMPS MANUFACTURERS

Dnandayuthapani Foundry Private Ltd.—Pappanaichenpalayam, Coimbatore 1; Phone: 2419; Grams: "MOTORPUMP".
Eastern Electrical Co. Ltd.—Singanallour, Coimbatore 5.
Ganapathy Engineering Manufacturers Private Ltd.—Post Box No. 6, Ganapathy, Coimbatore 6.
P. S. G. Industrial Institute.—Peelamedu P. O., Coimbatore 4.

## CHAIN MANUFACTURERS

**L. G. BALAKRISHNAN & BROS. PVT. LTD.**

Ganapathy, Coimbatore-6.

Manufacturers of 'ROLON' the finest Chains for Cars, Motor Cycles, Scooters etc. Made in India.

## CHEMISTS & DRUGGISTS

Ali Medical Stores.—Big Bazar Street, Coimbatore.
Arya Vaidya Pharmacy (Cbe.) P. Ltd.—Trichy Road, Coimbatore.
Central Pharmacy, The.—33, St. Michael's Emporium, Big Bazar Street, Coimbatore.
City Pharmacy.—Avanashi Road, Coimbatore.
Dasai Gowder & Co.—Avanashi Road, Coimbatore.
D. S. V. & Sons.—Avanashi Road, Coimbatore.
Easwar Medical Shop.—Raja Street, Coimbatore.
English Pharmacy.—Raja Street, Coimbatore.
European General Stores.—State Bank Road, Coimbatore.
Gurunath Medical Stores.—Nawab Hakeem Road, Coimbatore.
Hameed Medical Stores.—Big Bazar Street .Coimbatore.
Jaya Pharmacy.—Oppanakara Street, Coimbatore.
Kanchana Medical Store.—Rangai Gowder Street, Coimbatore.
Kasinath & Co.—Big Bazar Street, Coimbatore.
Kerala Medical Stores.—Rangai Gowder Street, Coimbatore.
K.P.M. Sadhu Vaidyasala.—Variety Hall Road, Coimbatore.
Krishnaswami & Co.—Raja Street, Coimbatore.
Manian & Co.,E. P. B.—Avanashi Road, Coimbatore.
Modern Medical & General Stores.—Big Bazar Street, Coimbatore.
National Pharmacy.—Oppanakara Street, Coimbatore.
Paul & Co., V. J.—Nawab Hakeem Road, Coimbatore.
Ramdas Pharmacy.—Crosscut Road, Coimbatore.
Ramnath & Co.—State Bank Road, Coimbatore.
Saraswathi Medical Stores.—Edayar Street, Coimbatore.
Saroja Medical & General Stores.—Raja Street, Coimbatore.
Shivaji Medical Hall.—Imperial Bank Road, Coimbatore.
South India Medical Stores.—Oppanakara Street, Coimbatore.
South India Medical Co. Ltd.—Big Bazar Street, Coimbatore.
Star Drug Co.—Raja Street, Coimbatore.
Subramanian & Co.—Raja Street, Coimbatore.
Thambi & Co.—Ukkadam, Coimbatore.
Thomson Medical & General Stores.—Raja Street, Colmbatore.
United Concerns.—Thomas Street, Coimbatore.
Vasan & Co.—Rangai Gowder Street, Coimbatore.
Veda & Co.—East Arogysamy Road, Coimbatore.
Wilfred Pereira Ltd.—Avanashi Road, Coimbatore.

## CLOTH MERCHANTS

*Raja Street :—*

Ajay Textiles.
Aruna Cloth Shop.
B. Basuvaiah Chetty.
Blue Palace.
Ceylon Traders & Co.
Chettiar & Co.
City Matty Stores.
C.S.V.'s Cloth Centre.
Giri Swadesi Stores.
Karana Cloth Palace.
Kumar & Co.
Laxmi Textiles.
Manohar Swadeshi Stores.
Mehta Hosiery Mart.
M. Kaliappan & Sons.
Murugappa & Sons.
M. V. N. Maruthachalam Chettiar.
Parameswari Hall.
Rajalakshmi Cloth Stores.
Rajaram Hall.
Rajeswaran Textiles.
Sarada Cloth & Embroidery Stores.
Sha Fulchand Vasthimal & Co.
S. Venkataraman.
V. Peraswamy.

*Uppukinar Street :—*

Lakshmi Textiles.
N. R. G. & Co.
Paramesh Textiles.

*Mill Road :—*

Kantha Cloth Stores

*Variety Hall Road :—*
Sri Krishna Industrials.
T. P. Krishna & Co.

*Rangai Gowder Street :—*
Bombay Hall.
K. Nataraja Gownder.
K. Sivasamy.
Krishna Vilas
Kumai Gowder & Sons.
Mangala Vilas.
N. Ramaswamy Pandaram.
Ramnarayan Giridari Das & Co.
Ramniah Gowder & Co.
R. K. Velaswamy.
T. S. Kalyanarama Iyer.
Tribuvandas Vendravan & Co.
V. Rangai Gownder Sons.

*Oppanakara Street :—*
Bombay Warehouse.
B. Nanjunda Gownder Sons.
Fashions Silk House.
Ganesh Emporium.
Harish & Co.
K. Manickam Chettiar.
Lunkaran Pookhraj & Co.
Manohara Swadesi Stores.
Muthuraman & Co
P. Lalchand & Sons.
P. S. Murugesa Mudaliar.
P. B lan & Brother.
Ramco Swadesis.
R. Doraswamy Naidu.
R. S. Murugesa Mudaliar.
Saraswathi Textiles.
Selvamani Textiles.
Seetharam Agencies.
S. M. Ranaganatham Chettiar.
South Indian Textile Corporation.
Swaraj Textiles.
Veeku Silk Co.
Venkatesh Vastralaya.
Vijayalakshmi Hall.
V. M. Annamalai Mudaliar.

*Big Bazaar Street :—*
A. Kuppanan.
Bharat Stores.
B. Narayana Naicker & Co.
Chellam Cloth Shop.
Coimbatore Cloth Mart.
Colombo Saree Works.
C. S. Arumugam Chettiar.
C. Tickamdass.
Fancy Hall.
Farook Stores.
General Ware House.
Jothi Readymade Stores.
Kamala & Co.
Kantha Cutpiece Stores.
K. Narayana Naicker & Co.
K. N. Venkataswamy Naidu.
Maduram Stores.
Meda Gopal Chettiar & Sons.
Meda Swadesi Stores.
M. Lalchand.
Mohan Stores.
Poornima Stores.
Prakasam Readymade Stores.
Rajini Silk Palace.
Royal Silk House.
Satya Stores.
S. Beemiah Chettiar.
Seetharam Stores.
Selections.
S. Manickam Pillay & Son.
S. Rajuchettiar.
Sri Murugan & Co.
Sundaram Stores.
Swaraj Silk Palace.
Tajmahal Silk Museum.
Venkatesh Emporium.

*Y.M.C.A. Road :*—Santha Stores.
*Edayar Street :*—Vinayagar Stores.
*Avanashi Road :*—Zubaida Fancy.

*R. S. Puram :—*
Bharathi Stores.
Ramoo & Co.

*Crosscut Road :*—K. L. G. & Sons.
*Ramnagar :*—Tharakaram Silk House.
*Ghandipuram :*—Sri Devy Stores.

## COFFEE & TEA MERCHANTS

Achutha Coffee Manufacturing Co.—Raja Street, Coimbatore.
Ambrosia Tea Emporium.—Trichy Road, Coimbatore.
Anandha Coffee Works.—Rangai Gowder Street, Coimbatore.
Anandha Tea Emporium.—Trichy Road, Coimbatore.
Bhavani Tea Products Ltd.—R. S. Puram, Coimbatore.
Coimbatore Coffee Trading Co.—Variety Hall Road, Coimbatore.
Devarshola Tea Company Ltd.—Race Course Road, Coimbatore.
Famous Coffee & Tea Works.—Rangai Gowder Street, Coimbatore.
Gita Coffee Works.—Oppanakara Street, Coimbatore.
Indian Coffee Supply Co.—Big Bazar Street, Coimbatore.
Indra Coffee Works.—Union High School Road, Coimbatore.
Iyer, Nadar & Co.—Variety Hall Road, Coimbatore.
Jain's Coffee Works.—Oppanakara Street, Coimbatore.
Kannan Coffee Co.—Rangai Gowder Street, Coimbatore.
K. S. S. Soudhan Chettiar & Sons.—Variety Hall Road, Coimbatore.
Lakshmi Coffee Co.—Raja Street, Coimbatore.
Lion Brand Coffee Co —Raja Street, Coimbatore.
Lipton Tea Ltd.—Edayar Street, Coimbatore.
Madras Tea Estates.—Race Course Road, Coimbatore.
Meera Coffee Works.—Rangai Gowder Street, Coimbatore.
Narasus Coffee Manufacturing Co.—Rangai Gowder Street, Coimbatore.
Narayan & Co.—Raja Street, Coimbatore.
Nathan Coffee Works.—Variety Hall Road, Coimbatore.
Neelamalai Coffee Estates.—Gandhipuram, Coimbatore.
Radha Coffee Manufacturing Co.—Rangai Gowder Street, Coimbatore.
Ramu Coffee Works.—Rangai Gowder Street, Coimbatore.
Saraswathi Coffee Trading Co.—Rangai Gowder Street, Coimbatore.
Sri Shanmugha Coffee Works.—Crosscut Road, Coimbatore.
Stanes Amalgamated Tea Estates.—Race Course Road, Coimbatore.
Star Coffee Works.—Rangai Gowder Street, Coimbatore.
Tea Estates India Ltd.—Race Course Road, Coimbatore.
Thomco Tea Ltd.—Jail Road, Coimbatore.
United Coffee Supply Co. Ltd.—Trichy Road, Coimbatore.
United Nilgiris Tea Estates.—Race Course Road, Coimbatore.
Vishnu Coffee Works.—Rangai Gowder Street, Coimbatore.

## COTTON MERCHANTS

A. G. Gurusawmy Naidu & Sons.—Avanashi Road, Coimbatore.
Ahmad Abdul Sakoor.—Raja Street, Coimbatore.
Amubhai Kalidas P. Ltd., 7/47, Grey Town, Coimbatore.
Bell & Co.—Grey Town, Coimbatore.
Champaklal & Bros. P. Ltd.—P.Box 718, R. S. Puram, Coimbatore 2.
C. Jairam & Co., Syrian Church Road, Coimbatore.
Consolidated Cotton Corporation.—Rangai Gowder Street, Coimbatore.
Dhanji Dwarkadas & Bros.—Rangai Gowder Street, Coimbatore.
Ganesar Ginning Co. Ltd.—Ganapathy, Coimbatore.
**GILL & CO. (PRIVATE) LTD.—P.O. Box No. 272, 12 25, Syrian Church Road, 1, Coimbatore 1; H.O. Indu House, Dougall Road, Ballard Estate, Bombay 1; Phone : 265001 (5 lines); Grams : " GILLCO."**
Hanumanthappa & Sons.—R. S. Puram, Coimbatore.
H. M. Mehta & Co.—Cox Street, Coimbatore.
Indira & Co.—Big Bazar Street, Coimbatore.
Jairamdas Nanmal.—Subramanya Mudaliar Street, Coimbatore.
Jothi & Co.—R. S. Puram, Coimbatore.
Kandaswamy Gounder & Co., E. R.—Ponnurangam Road, Coimbatore.
Kanji Walgi.—B. K. Chetty Street, Coimbatore.
Kilachand Devchand & Co.—Grey Town, Coimbatore.
Kotak & Co.—R. S. Puram, Coimbatore.
Krishna Ginning Factory.—Pappanaickenpalayam, Coimbatore.
Kurjee Dhanjee.—Syrian Church Road, Coimbatore.
Murugappa & Sons.—Raja Street, Coimbatore.
Narayana Ginning Factory.—Pappanaickenpalayam, Coimbatore.
Narsee Nagsee & Co.—R. S. Puram, Coimbatore.
Naryandas Gokuldas.—Oppanakara Street, Coimbatore.
N. V. Asher & Co.—11/43, Ramachandra Road, Coimbatore 2.
Pannalal Rajkumar & Co.—R. S. Puram, Coimbatore.
Patel Cotton Co. Ltd.—Avanashi Road, Coimbatore.
Rallis (India) Ltd.—Avanashi Road, Coimbatore.
Sardar Trading Co.—3, Syrian Church Road, Coimbatore.
Sethna, H. B.—Syrian Church Road, Coimbatore.
Thulsidas Murarjee.—Vysial Street, Coimbatore.
T. K. Chinnaswamy Naidu.—Avanashi Road, Coimbatore.
Valjee Kanjee & Co.—Oppanakara Street, Coimbatore
Vijayakumar Mercantile Corporation.—R. S. Puram, Coimbatore.
Voltas Ltd.—Race Course Road, Coimbatore.
Vyas & Co.—Jail Road, Coimbatore.
Waterfield & Co.—Edayar Street, Coimbatore.
Yagappa Chettiar, M. Y.—West Sambandam Road, Coimbatore.

## COTTON MILLS

The Anandakumar Mills Ltd.—Sravanampatti P.O., Coimbatore.
Asher Textiles Limited.—Tirupur.
Sri Balasubramania Mills Limited.—Singanallur P.O., Coimbatore 5.
The Bhavani Mills Ltd.—6/3-B, Race Course, Coimbatore 1.
The Cambodia Mills Limited.—P. B. No. 281, Singanallur, Coimbatore 5.
The Chandra Textiles Ltd.—Peelamedu, Coimbatore 4.

**THE COIMBATORE COTTON MILLS LTD.—Singanallur P.O., Coimbatore 5. Phones : 5505 & 5506; Grams : "RUKMANI" —Coimbatore; Spinners of Cotton Yarn of Counts 20s to 100s and Staple fibre yarn 20s, 30s, etc.. both in Hanks and on Cones; Managing Agents: R. Bheema Naidu & Co., Singanallur.**

The Coimbatore Cotton Jubilee Mills.—Singanallur, Coimbatore 5.
The Coimbatore Kamala Mills Ltd.—Uppilipalayam, Singanallur P.O., Coimbatore 5.
The Coimbatore Murugan Mills Ltd.—P.B. No. 703, R. S. Puram P.O., Coimbatore 2.
The Coimbatore Pioneer Mills Ltd.—P.B. No. 4, Peelamedu P.O., Coimbatore 4.
The Coimbatore Spg. & Wvg. Co. Ltd.—P.B. No. 24, Coimbatore.
The Dhanalakshmi Mills Ltd.—P.B. No. 29, Tirupur.
The D.P.F. Textiles Ltd.—Mettupalayam Road, Gnanambikai Mills P.O., Coimbatore.
The Gnanambikai Mills Ltd.—Gnanambikai Mills Post, Coimbatore.
G. Ramaswamy & Co.—Ganga Textiles, P.B. No. 279, Pappanaickenpalayam, Coimbatore.
The Gobald Textiles Ltd.—Tirupur.
Sri Hari Mills Ltd.—P.B. No. 27, Singanallur P.O., Coimbatore 5.
The Janardhana Mills Ltd.—Uppilipalayam, Singanallur P.O., Coimbatore 5.
The Jayalakshmi Mills Ltd.—P.B. No. 10, Singanallur P.O., Coimbatore.
The Jothi Mills.—Perianaickenpalayam, Sri Ramakrishna Vidyalaya P.O., Coimbatore.
The Kadri Mills (CBE) Ltd.—P.B. No. 19, Odderpalayam, Singanallur P.O., Coimbatore 5.
The Kannapiran Mills Ltd.—Sowripalayam P.O., Coimbatore.
The Karthikeya Spg. & Wvg. Mills Ltd.—P.B. No. 18, Singanallur P.O., Coimbatore 5.
The Karunambikai Mills Ltd.—Somanur P.O., Coimbatore Dist.
The Kasthuri Mills Ltd.—Singanallur P.O., Coimbatore 5.
The Kothari Textiles Ltd.—Singanallur P.O., Coimbatore 5.
The Krishnaveni Textiles Ltd.—P.B. No. 25, Singanallur P.O., Coimbatore 5.
The Kumaran Mills Ltd.—Peelamedu P.O., Coimbatore 4.
The Kwality Spinning Mills Ltd.—Pollachi.
The Lakshmi Mills Co. Ltd.—P.B. No. 31, Pappanaickenpalayam, Coimbatore.
The Lakshminarayana Textiles Ltd.—Vadugapalayam, Palladam Taluk, District Coimbatore.
The Lotus Mills Ltd.—Sundarapuram P.O., Podanur.
Narasimha Mills Ltd.—Kannanpalayam, Sulur P.O., Coimbatore.
Natesar Spg. & Wvg. Mills Ltd.—Erode.
Om Parasakthi Mills Ltd.—Krishnarayapuram, Ganapathy P.O., Coimbatore 6.
The Palamalai Ranganathar Mills Ltd.—Perianaickenpalayam, Sri Ramakrishna Vidyalaya P.O., Coimbatore.
The Palani Andavar Mills Ltd.—Dhalli Road, Udamalpet, Coimbatore Dist.
The Pankaja Mills Ltd.—P.B. No. 150, Puliakulam, Coimbatore.
Pioneer Textiles Ltd.—Vedapatty P O., Coimbatore.
The Prakash Mills Ltd.—P.B. No. 12, Peelamedu, Coimbatore 4.
The Premier Mills (Coimbatore) Ltd.—Pulankinar, R. S. Udamalpet.
The Premier Mills (Coimbatore) Ltd.—Othakalmandapam Branch, Coimbatore.
The Radhakrishna Mills Ltd.—Peelamedu, Coimbatore 4.
The Radhika Mills Ltd.—5/179, Uppilipalayam, Coimbatore 5.
The Rajalakshmi Mills Ltd.—Singanallur P.O., Coimbatore 5.
Sri Ramakrishna Mills (CBE) Ltd.—Ganapathy P.O., Coimbatore 6.
The Ramalinga Choodambikai Mills Ltd.—Tirupur.
The Ramnarayan Mills Ltd.—Perianaickenpalayam, Coimbatore.
The Ranga Vilas Ginning, Spg. & Wvg. Mills Ltd.—P.B. No. 3, Peelamedu, Coimbatore 4.
The Raveendran Mills Ltd.—P. B. No. 26, Singanallur P.O., Coimbatore 5.
The Sakthi Textiles Ltd.—Post Box No. 36, Pollachi.
The Sarada Mills Ltd.—Loganathapuram, Podanur.
Sarguna Textiles.—Sulur P.O., Coimbatore.
The Saroja Mills Ltd.—Singanallur P.O., Coimbatore 5.
The Selvaraj Mills Ltd.—Singanallur P.O., Coimbatore 5.
The Sivananda Mills Ltd.—Ganapathy P.O., Coimbatore 6.
The Somasundaram Mills Ltd.—P.B. No. 134, Coimbatore.
The Southern Textiles Ltd.—Sulur Post, Coimbatore.
The Sujani Textiles Ltd.—Sowripalayam P.O., Coimbatore.
The Suryaprabha Mills Ltd.—Kuniamuthur, Coimbatore.
The Tirumurthi Mills Ltd.—Udamalpet, Coimbatore District.
The Tirupur Cotton Spg. & Wvg. Mills Ltd.—P.B. No. 12, Tirupur.
United Bleachers P. Ltd.—Mettupalayam.
The Varadarajah Textiles Ltd.—Peelamedu P.O., Coimbatore 4.
The Vasantha Mills Ltd.—P.B. No. 16, Singanallur P.O., Coimbatore 5.
The Vasudeva Industries Ltd.—Odderpalayam, Singanallur, Coimbatore 5.
The Venkatesa Mills Ltd.—Venkatesa Mills Post, Udamalpet, R.S.
The Vijayalakshmi Mills Ltd.—Kuniamuthur Post, Coimbatore.
The Vijayeswari Textiles Ltd.—Pulliampatti, Pollachi.

## COTTON TEXTILE MACHINERY

**LAKSHMI MACHINE WORKS LTD.—Factory & Administrative office : Perianaickenpalayam, CBE Dist., Registered office : 348, Avanashi Road, Coimbatore 1.**

## COTTON WASTE MERCHANTS AND EXPORTERS

Asoka Corporation.—Ramalingam Road, R. S. Puram, Coimbatore 2.
C. Jairam & Co.—Syrian Church Road, Coimbatore.
G. M. Vyas & Co.—93, D. B. Road, R. S. Puram, Coimbatore 2.
Kurji Dhanjee.—Devangapet, Coimbatore.
M. K. Bhatt & Co.—Rangai Gounder Street, Coimbatore.
Narsi Thulsidas.—Ponnurangam Road, R. S. Puram, Coimbatore 2.
Pandya Company.—Magircar Road, R. S. Puram. Coimbatore 2.

**PURUSHOTHAM MURARJEE.—Cotton waste Exporters, Sweepings, Droppings, Fly, Strippings, Combers etc. for Re-Spinning, Waddings, upholstery, Beddings, Surgical Dressings etc. 123, Ramachandra Road, Post Bag 740, Coimbatore 2.**

Purushotam Ramjee & Co.—Sambandam Road, R. S. Puram, Coimbatore 2. Cotton, Cotton waste, Yarn & Kapok Merchants, Commission Agents and Exporters.
Sarada Trading Co.—Syrian Church Road, Coimbatore.
Thulsidas Murarji & Co.—Vysial Street, Coimbatore.

## CYCLE DEALERS

Arrow Industries.—Krishnaswamy Mudaliar Road, Coimbatore 2.
Babulal & Sons.—Variety Hall Road, Coimbatore.
Bharath Cycle Stores.—Variety Hall Road, Coimbatore.
Easwar Cycle Stores.—Oppanakara Street, Coimbatore.
Gowder Cycle Mart.—Variety Hall Road, Coimbatore.
Gujarat Cycle Trading Co.—Oppanakara Street, Coimbatore.
International Cycle Emporium.—Variety Hall Road, Coimbatore.
Jupiter Cycle Mart.—Big Bazar Street, Coimbatore.
Lakkiah Cycle Mart.—Variety Hall Road, Coimbatore.
Presidency Cycle Importing Co.—Variety Hall Road, Coimbatore.
Raja & Co.—Avanashi Road. Coimbatore.
Standard Cycle Importing Co.—Variety Hall Road, Coimbatore.
Universal Cycle Mart.—Variety Hall Road, Coimbatore.
Variety Cycle Stores.—Oppanakara Street, Coimbatore.

## DYEING & BLEACHING COMPANIES

Acme Textile Dyeing & Printing Industries.—Mettupalayam, Coimbatore.
Ananda Saya Salai—Edayar Street, Coimbatore.
Balasubramaniam Dyeing & Trading Corp.—Rangai Gowder Street, Coimbatore.
Essorpe Saya Salai—Rangai Gowder Street, Coimbatore.
Maili Saya Salai.—Rangai Gowder Street, Coimbatore.
Nilamegam Saya Salai.—Sukrawarpet, Coimbatore.
Rainbow Dyeing & Bleaching Works.—Chinnappa Chetty Street, Coimbatore.
Saraswathy Saya Salai—Rangai Gowder Street, Coimbatore.
United Bleachers Ltd.—Mettupalayam P.O., Coimbatore.

## DYESTUFF & CHEMICAL DEALERS

Acme Textile Distributors.—Venkataswamy Road, R. S. Puram, Coimbatore.
Doraiswamy, P. M.—Rangai Gowder Street, Coimbatore.
Pattabiraman, T. K.—Rangai Gowder Street, Coimbatore.
Srinivasa Charlu & Co., M.—Rangai Gowder Street, Coimbatore.
Subburaju, R.—Sukrawarpet, Coimbatore.
Vasan & Co., S.—Rangai Gowder Street, Coimbatore.

## ELECTRIC MOTORS, GENERATORS & SETS

**KASTURI ENGINEERS LTD., THE.—218, Avanashi Road, Coimbatore 1; Manufacturers of Electric Motors, Allied Units, Pump Sets and Textile Machineries Single and Double Sided Reeling Machines and Yarn Bundling Presses.**

## ELECTRIC MOTORS, PUMPS & PUMPING SETS

Argus Engineering Co., Ltd.—Peelamedu, Coimbatore 4.
Balasubramania Foundry.—Patel Road, Coimbatore.
Coimbatore Premier Corporation P. Ltd., Avanashi Road, Coimbatore.
Eastern Electrical Co., Ltd.—Singanallur, Coimbatore 5.

Eletex Engineering Corporation P. Ltd., 5/4, H. Q. Road, Coimbatore 1.
Excel Industries,—P. Box 1, Coimbatore 11.

**GENERAL ENGINEERING CO., THE.—Patel Road, Coimbatore.**

Karthikeya Foundry.—Puliakulam Road, Pappanaickenpalayam, Coimbatore 1.

**KASTURI ENGINEERS LTD., THE.—218, Avanashi Road, Coimbatore 1; Manufacturers of Electric Motors, Allied Units, Pump Sets and Textile Machineries, Single and Double Sided Reeling Machineries and yarn Bundling Presses.**

Leader Industries 8, Tarabad, Coimbatore 12.
Moulvi & Sons, Crosscut Road, Coimbatore 9.
Navamani & Co., Pappanaickenpalayam, Coimbatore 1.
P. S. G. Industrial Institute.—Peelamedu P.O., Coimbatore 4.
Sri Sakti Engineering Works.—Avanashi Road, Coimbatore 4.
Texmo Industries.—Mettupalayam Road, R. S. Puram Post, Coimbatore 2.
T. R. Industrials.—Coimbatore 8.

## ELECTRICAL GOODS & APPLIANCES

Associated Electrical Industries (India) Ltd.—Race Course Road, Coimbatore.
Batliboi & Company.—Avanashi Road, Coimbatore.
British Insulated Callender's Cables Ltd.—Race Course Road, Coimbatore.

**BROADWAY ENGINEERING & TRANSPORT CO.—5/5, Old Post Office Road, Coimbatore. Phone: 3119, Grams: "BUCKET"; Manufacturers of 'BET' Electric Motors; Partners: K. G. Vaidyanathan, K. G. Ranganathan & K. S. Krishnan.**

Coimbatore Electric & Novelty Stores.—Oppanakara Street, Coimbatore.
Crompton Engineering Co. (Madras) Ltd.—Arts College Road, Coimbatore.
Electrical & General Supply Ltd.—Avanashi Road, Coimbatore.
General Electric Co. of India Ltd.—Magnet House, Coimbatore.
Hindustan Equipment Manufacturers.—Krishnarayapuram, Coimbatore 6.
Industrial Engineering Co.—Fraser Square, Coimbatore.
Lakshmi Textile Suppliers.—5/4, Headquarters Road, Coimbatore 1.
Modi & Modi.—Police H.Q. Road, Coimbatore.
Nagindas Kilabhai (S. India) Ltd.—Cox Street, Coimbatore.
Pioneer Electricals.—Raja Street, Coimbatore.
Prabha Electricals.—Oppanakara Street, Coimbatore.

**RADHA KRISHNA & CO.—7/274, Avanashi Road, Coimbatore 1; Electrical Dealers; Phone: 2940.**

Ramakrishna & Co.—Avanashi Road, Coimbatore.
Ramu N. & Bros.—Avanashi Road, Coimbatore.
Shanmugham & Co.—5/106, Jail Road, Coimbatore.

**STANDARD COMMERCIAL CORPORATION.—Avanashi Road, Coimbatore.**

**SWITCHES & METER INDUSTRIES.—6/85, Trichy Road, Coimbatore; Manufacturers of Electrical Indicating Instruments, Rotary Switches and Relays.**

## ENGINEERING

Arrow Industrial Works.—Krishnasami Mudaliar Road, Coimbatore.
Cotexme Engineering Corporation, 1/19, Trichy Road, Coimbatore 5.
Everest Engineering Works.—Crosscut Road, Coimbatore.
Ganapathy Engg. Manufacturers P. Ltd.—Ganapathy, Coimbatore 6.
General Engineering Co.—Sardar Patel Road, Ramanathapuram, Coimbatore.
Govardhana Engineering Industries—Ukkadam South, Coimbatore 1.
Industrial Engineering Co. (Cbe.) P. Ltd.—Fraser Square, Coimbatore.
Industrial & Scientific Works, Fraser Square, Coimbatore.
Jayachander Engineering Industries — Mettupalayam Road, Coimbatore 2.
Kasturi Engineers Ltd.—P.O. Box 231, Coimbatore.
Lakshmi Machine Works Ltd.—348, Avanashi Road, Pappanaickenpalayam, Coimbatore 1.
Measureall Engineering Co. Private Ltd.—Singanallur, Coimbatore 5.
New City Engineering Works.—Patel Road, Coimbatore.
Nirmala Engineering Works.—Krishnaswamy Mudaliar Road, Coimbatore.
P.N.B. Engineering Works.—Big Bazar Street, Coimbatore.
Prabhakar Industries.—100 Ft. Road, Tatabad, Coimbatore 11.

**RADHA FOUNDRY.—6/2, Blackstone Road, Red Fields, Coimbatore.**

Rockford Engineering Co.—1/22, Avanashi Road, Coimbatore.
Sivananda Metal Works.—Mill Road, Coimbatore.
Southern Engineering Industries.—2/242, Avanashi Road, Coimbatore 1.
Sreevatsa Engineering & Trading Co.—Patel Road, Coimbatore.
Star Electro Plating Works.—Variety Hall Road, Coimbatore.
United Engineering Co.—Avanashi Road, Coimbatore.
Vasa Engineering Industries.—Krishnaswami Mudaliar Road, Coimbatore.

## FERTILISERS

Agrico Chemicals & Fertilisers.—Vazhiampalayam, Kallupatty, Coimbatore 6.
Coimbatore Chemicals & Fertilisers Ltd.—Vysial Street, Coimbatore.
Coimbatore Pioneer Fertilisers P. Ltd., Pioneer House, Pioneer Mills Road, Coimbatore 4.
Deccan Fertiliser Co. (Coimbatore) Ltd.—Oppanakara Street, Coimbatore.
Mettur Fertiliser Co. Ltd.—R. S. Puram, Coimbatore.
Mysore Fertiliser Co.—43, Dewan Bahadur Road, Coimbatore 2.
Parry & Co., Ltd.—Fraser Square, Coimbatore.
Radhakrishnan, C.N.—Vysial Street, Coimbatore.
Scientific Fertiliser Co. Ltd.—Ponnurangam Road, R. S. Puram, Coimbatore.
Stanes & Co., T.—Tudiyalur, Coimbatore.

## GLASS MERCHANTS

Amir Sahib.—Nawab Hakeem Road, Coimbatore.
Art Cottage.—Nawab Hakeem Road. Coimbatore.
Balajee Frame Works.—Variety Hall Road, Coimbatore.
Chikkiah Gowder Sons, M.—Big Bazar Street, Coimbatore.
Murugiah Gowder Sons, S.—Big Bazar Street, Coimbatore.
Palaniswamy, M.S.—Raja Street, Coimbatore.
Selvam Picture Framing Works.—Crosscut Road, Coimbatore.
Sri Ramkrishna Mart.—Raja Street, Coimbatore.

## HARDWARE & PAINT MERCHANTS

Abdulla & Sons.—Nawab Hakim Road, Coimbatore.
Arul Krishna & Co.—Nawab Hakim Road, Coimbatore.
B. K. Renganatha Naidu & Co.—Mill Road, Coimbatore.
Coimbatore Machinery & Metal Mart.—Fraser Square, Coimbatore.
C. R. S. Mannadiar & Bro.—Nawab Hakim Road, Coimbatore.
Devasagayam Pillai & Sons.—12/36, Nawab Hakim Road, Coimbatore.
D. Kulandaisamy.—Mill Road, Coimbatore.
E. Purushotham.—Mill Road, Coimbatore.
Feroke Timber & Tile Co.—M-8, Palayam Road, Coimbatore.
General Industrial Corporation.—Jail Road, Coimbatore.
Hardware & Mechinery Marketing (India) Co.—54, H. Q. Office Road, Coimbatore.
Hindustan Corporation.—Jail Road, Coimbatore.
Hindustan Trading Co.—Jail Road, Coimbatore.
India Company Pvt. Ltd.—Union High School Road, Coimbatore.
Industrial Engineering Stores.—Cox Street, Coimbatore.
Inland Commercial Corporation.—Jail Road, Coimbatore.
Janarthana Hardwares.—Mill Road, Coimbatore.
K. Abram Saibo & Co.—15/122, Nawab Hakim Road, Coimbatore.
K. Rengasami Naidu & Co.—Gandhipuram, Coimbatore.
Krishna & Co.—Mill Road, Coimbatore.
K. Santhubava Rowther Son & Co.—Vysial Street, Coimbatore.
K. S. Raju Chettiar & Sons.—Rengai Gowder Street, Coimbatore.
M. Devasagayam Pillai & Sons.—N. H. Road, Coimbatore.
M. S. Manickam & Co.—Mill Road, Coimbatore.
Murugan Hardware Stores.—Jail Road, Coimbatore.
M. Nanubhoy & Co.—Fraser Square, Coimbatore.
M. S. Manickam & Co.—Mill Road, Coimbatore.
N. Ramu Brothers.—Avanashi Road, Coimbatore.
P. K. Gopalakrishnan.—Union High School Road, Coimbatore.
P. Venkatachalam.—Rengai Gowder Street, Coimbatore.
P. V. Ukkuru.—Nawab Hakim Road, Coimbatore.
Pioneer Corporation.—Trichy Road, Coimbatore.
Radha & Chalam.—Rengai Gowder Street, Coimbatore.
Rainbow Trading Co.—70 Ft. Road, R. S. Puram, Coimbatore.
Rajendra & Co.—Mettupalayam Road, Coimbatore.
Rama & Co.—Mettupalayam Road, Coimbatore.
Sarada Corporation.—Nawab Hakim Road, Coimbatore.

**SOUTH INDIA CORPORATION (AGENCIES) PRIVATE LTD.—4/2, Race Course Road, Coimbatore-1.**

Sri Krishna Corporation.—Mill Road, Coimbatore.
Swami & Co.—Mettupalayam Road, Coimbatore.
Titan Paint & Varnish Co., Ltd.—Podanur, Coimbatore.
T. N. Amir.—Mill Road, Coimbatore.
T. S. Dasappa Chettiar & Co.—Jail Road, Coimbatore.
V. A. Palanisamy Nadar & Co.—Mill Road, Coimbatore.
V. A. M. Vellaiyappa Nadar & Co.—Vysial Street, Coimbatore.
V. A. R. Rathinam & Bros.—Vysial Street, Coimbatore.
V. Janardhanan.—Rengai Gowder Street, Coimbatore.
V. Raju Naidu & Co.—Mill Road, Coimbatore.

## HOSIERY MFRS. & DEALERS

Bharath Hosiery & Weaving Mills 1.—6, Dispensary Road, Peelamedu Post, Coimbatore.
Mars Hosiery Mills.—Rangai Gowder Street, Coimbatore.
R.B.W. Parrot Fabrics.—Raja Street, Coimbatore.

## HOTELS & RESTAURANTS

C. S. Hotel.—Old Post Office Road, Coimbatore.
C. S. Lodge.—Off Arts College Road, Coimbatore.
Hotel Davey.—Imperial Bank Road, Coimbatore.
Hotel Majestic.—Arts College Road, Coimbatore.
J. M. English Hotel.—Avanashi Road, Coimbatore.
Kerala Hotel & Restaurant—13/19, Periapalayam Road, Coimbatore 2.
Seetharam Vilas.—Rangai Gowder Street, Coimbatore.
Sree Seetharam Boarding & Lodging House.—State Bank Road, Coimbatore.
Sree Sumuka Vilas.—Big Bazar Street, Coimbatore.
Sree Venkatesha Lodge.—State Bank Road, Coimbatore.
Woodland Hotel.—Arts College Road, Coimbatore.

## INK MANUFACTURERS

Alayam's Industries.—R. S. Puram, Coimbatore.
Tarzo Products.—Variety Hall Road, Coimbatore.
Vasanta Printing Ink Factory.—Trichy Road, Coimbatore.

## JEWELLERS, GOLD & SILVERSMITHS

Angappa Achari, C.V.—Rangai Gowder Street, Coimbatore.
Ayyava Gowder Son, E.—Big Bazar Street, Coimbatore.
Balkrishna Chettiar, E.R.—Big Bazar Street, Coimbatore.
Chandra Jewellery.—Big Bazar Street, Coimbatore.
Chellam & Co.—Big Bazar Street, Coimbatore.
Dandapani Jewellery Mart.—Big Bazar Street, Coimbatore.
E. G. M. & Sons.—Big Bazar Street, Coimbatore.
Kirtilal Kalidas & Co.—Raja Street, Coimbatore.
Kodandarama Chettiar, S.—Big Bazar Street, Coimbatore.
K. R. & Sons.—Big Bazar Street, Coimbatore.
Krishna & Co., P.A.R.—Big Bazar Street, Coimbatore.
Krishna Chetty & Brother, A.B.—Big Bazar Street, Coimbatore.
Mangalore Jewellery Mart.—Raja Street, Coimbatore.
Muthusamy Chettiar, T.K.—Big Bazar Street, Coimbatore.
Narayana Achary Bros., K.P.—Big Bazar Street, Coimbatore.
New Mangalore Jewellery Works.—Raja Street, Coimbatore.
P. A. Raju Chettiar & Bros.—P. Box 139, Coimbatore 1.
Pasupathy & Co.—Big Bazar Street, Coimbatore.
Radhakrishna Jewellery.—Big Bazar Street, Coimbatore.
Raghunath & Co., P.A.R.—Big Bazar Street, Coimbatore.
Ramaswamy Chettiar, S.P.—Big Bazar Street, Coimbatore.
Ramu & Co.—Big Bazar Street, Coimbatore.
Ranganathan & Co., T.R.—Big Bazar Street, Coimbatore.
Shanmuga Jewellery.—Big Bazar Street, Coimbatore.
Shantilal P. Mehta.—516, Big Bazar Street, Coimbatore.
Sri Vasavi & Co.—Big Bazar Street, Coimbatore.
Subbara Acharya Sons, T.—Big Bazar Street, Coimbatore.
Surya Jewellery.—Big Bazar Street, Coimbatore.
Thirumalaisani Achari & Bros., K.N.—Big Bazar Street, Coimbatore.
Viswanath & Co., P.A.R.—Big Bazar Street, Coimbatore.

## LEATHER GOODS MFRS. & DEALERS

A. Abdul Azeez.—Nawab Hakeem Road, Coimbatore.
A. M. Kamal Batcha.—Nawab Hakeem Road, Coimbatore.
Carnatic Leather Industries.—Big Bazar Street, Coimbatore.
Crown Leather Works.—Nawab Hakeem Road, Coimbatore.
Hindusthan Leather Mart.—Big Bazar Street, Coimbatore.
H.M.F.A. Batcha.—Nawab Hakeem Road, Coimbatore.
N. Mohamed Abdul Kader & Son.—Big Bazar Street, Coimbatore.
R. Venkatesalu Naidu & Bros.—Nawab Hakeem Road, Coimbatore.
Skins & Leathers P. Ltd.—Ganesh Mahal, Dewan Bahadur Road, Coimbatore 2.
S. K. Kanniah Naidu.—Nawab Hakeem Road, Coimbatore.
S. K. Rangasamy Naidu.—Nawab Hakeem Road, Coimbatore.
Taj Leather Store.—Nawab Hakeem Road, Coimbatore.
V. Avanasilingam.—Nawab Hakeem Road, Coimbatore.

## MACHINERY MFRS. & DEALERS

Abboi Machine Tools P. Ltd.—Singanallur, Coimbatore 5.
Argus Engineering Co. Ltd.—Peelamedu, Coimbatore 4.
Associated Electrical Industries Ltd.—Race Course Road, Coimbatore.
Auto Equipment Machinery Co.—8/46, Jail Road, Coimbatore.
Batliboi & Co.—Avanashi Road, Coimbatore.
Brady & Co. Ltd. (W.H.).—Jail Road, Coimbatore.
Central India Machinery Mfg. Co. Ltd.—Variety Hall Road, Coimbatore.
Coimbatore Mechinery & Metal Mart.—Fraser Square, Coimbatore.
Crompton Engineering Co. (Madras) Ltd.—Arts College Road, Coimbatore.
Engineering & Industrial Foundry Co., Coimbatore 9.
Gallakotwala & Co. Ltd. C. A.—Grey Town, Coimbatore.
Gannon Dunkerley & Co. Ltd.—Crosscut Road, Coimbatore.
Garlick & Co.—Cox Street, Coimbatore.
Gordon Woodroffe & Co. (Madras) Ltd.—Fraser Square, Coimbatore.
**JAYEMS ENGINEERING CO.—14/246, Oppanakara Street, Coimbatore; Engineers, Machinery Merchants, Manufacturers Representatives and Direct Importers of Machine Tools, Woodworking Machinery, Sheet Metal Working Machinery, Welding & Foundry Equipment. Head Office: Warden House, Sir P. M. Road, Bombay-1; Branches at all important centres.**
Madras Machine Tools Manufacturers Ltd.—8/146-B, Trichy Road, Coimbatore 5.
Machinery Mfrs. Corporation Ltd.—Gowders Colony, Tatabad, Coimbatore 12.
Parry & Co. Ltd.—Fraser Square, Coimbatore.
Pioneer Foundry, 167, Patel Road, Coimbatore 9.
Revathi Machinery Traders, Gudipudur, Coimbatore 5.
Sree Radhakrishna Industries—Krishnarayapuram, Coimbatore 6.
Sri Venkatapathi Industries, 9/33, Patel Road, Coimbatore 9.
U.M.S. Machine Tools, Avanashi Road, Coimbatore 1.

## MERCHANTS & EXPORTERS

**NARSI TULSIDAS**
Cotton & Cotton Waste Merchants & Exporters,
Ponnurangam Road,
R. S. Puram Post,
Coimbatore-2
Phone: Office: 4343
Res.: 4242

## MILL & GIN STORES SUPPLIERS

Acme Textile Distributors.—4/20, Trichy Road, Coimbatore.
Alexander & Co.—5/7, Grey Town, Coimbatore.
Allied Industrial Engineering Corpn.—58, V. C. V. Layout, R. S. Puram, Coimbatore 2.
Altex Limited.P.—Avanashi Road, Coimbatore.
A. Pera Naidu & Sons.—Avanashi Road, Coimbatore.
B. Mehta & Co.—9/44, Macgreggor Street, Coimbatore 2.
Bipin Industries.—Crosscut Road, Coimbatore.
Brady & Co. Ltd., W.H.—Jail Road, Coimbatore.
Coimbatore Mill Stores & General Supplies Co.—Avanashi Road, Coimbatore.
Coimbatore Premier Corp. Ltd.—Avanashi Road, Coimbatore.
Coimbatore Textile Corporation.—5/4, Headquarters Road, Coimbatore.
Indian Overseas Trading Co., Private Ltd.—Power House Road, Coimbatore.
Industrial Engineering Stores.—Avanashi Road, Coimbatore.
International Industries & Agencies Ltd.—Avanashi Road, Coimbatore.
J. B. Sundaram & Co.—Jail Road, Coimbatore.
Jupiter & Co.—4/114, East Trichy Road, Coimbatore.
Keserishi Vallabhdas.—R. S. Puram, Coimbatore 2.
Kumar Bhimani & Sons.—45-A, Devanga High School Road, Coimbatore 2.
L. P. Krishna Naidu & Bros.—Fraser Square, Coimbatore.
Mahadeo Trading Corpn.—8/4, Mall Mill Road, Coimbatore.
Mangaldas & Co.—Mall Mill Road, Coimbatore.
Manhar Murlidhar & Co.—V. C. V. Layont, R. S. Puram, Coimbatore 2.
Mehta Mill Supply Co.—135, Cross Cut Road, Coimbatore 12.
Nagindas Kilabhai—'The Vintage', Cox Street, Coimbatore.
Nalin Textile Traders.—10/10, Mall Mill Road, Coimbatore.
Nataraja Corpn. P. Ltd.—Raja Street, Coimbatore.
P. N. Rangasamy Naidu.—Avanashi Road, Coimbatore.
Popular Mill Stores Co.—8/4, Mall Mill Road, Coimbatore 1.
Radhakrishna Textile Traders, 210, Subbiah Mudaly St., Coimbatore.
Sizing Materials Co. P. Ltd.—Trichy Road, Coimbatore.
Skins & Leathers P. Ltd., P. Box 745, Coimbatore 2.
Supreme Mill Stores Trading Co.—12/38, Devanga High School Road, Coimbatore 2.
Textiles Supplies Syndicate (India) Ltd.—Crosscut Road, Coimbatore.
Venkatesa Traders.—5/127, Avanashi Road, Coimbatore.

## OPTICIANS

Bangalore Optical Co.—Oppanakara Street, Coimbatore.
Imperial Optical Co.—Big Bazar Street, Coimbatore.
Indo-American Opticals.—Big Bazar Street, Coimbatore.

Madras Opticals.—Big Bazar Street, Coimbatore.
New Bombay Opticals.—Big Bazar Street, Coimbatore.

Pearl Optical Co.—Big Bazar Street, Coimbatore.
Posai Rangoon Opticals.—Variety Hall Road, Coimbatore.

Star Opticals.—Big Bazar Street, Coimbatore.
Taj Optical Co.—Big Bazar Street, Coimbatore.

Tharyan & Co.—State Bank Road, Coimbatore.
V. Ketticaran & Co.—Big Bazar Street, Coimbatore.

## PACKING MATERIALS

**PREMIER PAPER PRODUCTS.—Manufacturers of Flexible Packing Materials, 23, Venkataswamy Road, P.O. Box No. 747, Coimbatore 2.**

## PAPER & BOARD MERCHANTS

A. P. Muthukrishnan.—1/65-A, New Siddapudur, Pappanaickenpalayan, Coimbatore 1.

Arumugham, A. M.—Oppanakkara Street, Coimbatore.
Asoka Book Binding Works.—Raja Street, Coimbatore.

Bettai Gowder, K.O.—Raja Street, Coimbatore.
Book Trading Co.—Raja Street, Coimbatore.

Coimbatore Paper Mart.—Raja Street, Coimbatore.
General Papers Ltd.—Thomas Street, Coimbatore.

Hariharan & Co.—Raja Street, Coimbatore.
Karuppanna Gowder S.—Raja Street, Coimbatore.

Lakshmi Paper Stores.—Raja Street, Coimbatore.
Nanjappa A., & Co.—Raja Street Coimbatore.

Natarajan & Co., C. R.,—Big Bazaar Street, Coimbatore.
Palaniappa & Co.—Raja Street, Coimbatore.

Pandian Paper Mart.—Oppanakkara Street, Coimbatore.
Parameswari Paper Stores.—Raja Street, Coimbatore.

Poulose, K. V. & Son.—Raja Street, Coimbatore.
Premier Paper Products.—63, Dewan Bahadur Road, Coimbatore 2.

Sai Traders.—Raja Street, Coimbatore.
Samundeespari Binding Works.—Raja Street, Coimbatore.

Subbu Chetty, P.—Raja Street, Coimbatore.
Viswanatha Trading Co.—Sullivan Street, Coimbatore.

## PEST CONTROL

**PEST CONTROL (INDIA) PVT. LTD.—177, Jail Road, Coimbatore 1; Phone: 5975; Grams: "FUMIGATION"; Head Office: 36, Yusuf Bldg., Mahatma Gandhi Road, Fort, Bombay 1; Phone: 251546-7; Grams: "PESTCIL"; Consulting Entomologists, Termite Control, Disinfection & Fumigation Service; Member National Pest Control Association, U.S.A. & Entomological Society of India; Branches: Ahmedabad, Delhi, Calcutta, Madras, Hyderabad and Ernakulam.**

## PRINTING PRESSES

Amboji & Co.—Edayar Street, Coimbatore.
Ananda Press.—Edayar Street, Coimbatore.
Arumugham Press.—Edayar Street, Coimbatore.

Badrakali Press.—Subbiahmudaliar Street, Coimbatore.
Bagyam Press.—100, Feet Road, Tatabad, Coimbatore.

Bharathi Press.—Raja Street, Coimbatore.
Coimbatore Printers.—Oppanakara Street, Coimbatore.

Co-operative Printing Press.—Trichi Road, Coimbatore.
Daily News Press.—Edayar Street, Coimbatore.

Dandapani Press.—Raja Street, Coimbatore.
Devi Press.—Sathy Road, Coimbatore.

Electrical Printing Press.—Variety Hall Road, Coimbatore.
Jaffar Printing Press.—Nawab Hakim Road, Coimbatore.

Jewel Press.—Oppanakara Street, Coimbatore.
Jupiter Press.—Raja Street, Coimbatore.

Kalai Achagam.—Marakkara Nanjappa Gounder Street, Coimbatore.
Kalaivani Press (Private) Ltd.—Post Box No. 542, Coimbatore.

Kalai Kadir Achagam.—Avanashi Road, Pappanaickenpalayam, Coimbatore.

Kammavar Achukkudam Ltd.—Big Bazaar Street, Coimbatore.
K. R. V. & Co.—Printers, Raja Street, Coimbatore.
Kaithari Press.—Oppanakara Street, Coimbatore.

Karthikeyan Press.—Oppanakara Street, Coimbatore.
Kasthuri Printing Press.—Jail Road, Coimbatore.

Lakshmi Vilas Press.—Edayar Street, Coimbatore.
L. S. Press.—K. K. Block, Rangai Gowder Street, Coimbatore.

Manickam Press.—Nawab Hakim Road, Coimbatore.
Mani Achagam.—Gandhipuram, Coimbatore.
Merchant Press.—Raja Street, Coimbatore.

Modern Press.—Trichi Road, Coimbatore.
Mohan Press.—Raja Street, Coimbatore.

Nagu Achagam.—Subbiah Mudaliar Street, Coimbatore.
Nanjappa Press.—Raja Street, Coimbatore.

Nirmala Printers.—Subbiah Mudaliar Street, Coimbatore.
Pankajam & Co.—Edayar Street, Coimbatore.
Pioneer Press.—Big Bazaar Street, Coimbatore.

Premier Printers.—Raja Street, Coimbatore.
Pudumalar Press.—Trichi Road, Coimbatore.
Rainbow Printers.—Rangai Gowder Street, Coimbatore.

Ramakrishna Industries Press.—C/o Nava India, Peelamedu, Coimbatore.
Ramakrishna Press.—Jewellers Market, Big Bazar Street, Coimbatore.
Ramnarayana Press.—Mill Road, Coimbatore.

Rathna Printers.—Sukrawarpet, Coimbatore.
Sabapathi Press.—Sukrawarpet, Coimbatore.
Saraswathi Printers.—Raja Street, Coimbatore.

Senthamizh Achagam.—Ramanathapuram, Coimbatore.
Shanmuganandam Press.—Raja Street, Coimbatore.
Somasundaram Press.—Somasundaram Mills Compound, Coimbatore.

Star Power Press.—Subbiah Mudaliar Street, Coimbatore.
St. Joseph's Industrial Press.—Big Bazaar Street, Coimbatore.
Subhashini Achukudam.—Oppanakara Street, Coimbatore.

S. V. Press.—Variety Hall Road, Coimbatore.
Swan & Co.—Printers, Oppanakara Street, Coimbatore.
Thiyagi Press.—Kattoor, Coimbatore.

Velala Press Ltd.—Oppanakara Street, Coimbatore.
Victoria Press.—Big Bazaar, Coimbatore.
Vijaya Press.—Sukrawarpet, Coimbatore.

Workmen Press.—Avanashi Road, Pappanaickenpalayam, Coimbatore.

## PUMP MANUFACTURERS & DEALERS

Coimbatore Premier Corpn. P. Ltd..—262, Avanashi Road, Coimbatore 1.

Dhandayudapani Foundry P. Ltd.—Pappanaickenpalayam, Coimbatore.

FarmEquipments P. Ltd.—Ganapathy P.O.. Coimbatore 6.
Ganapathy Engg. Mfrs. P. Ltd.—Ganapathy, Coimbatore 6.

**GENERAL ENGINEERING CO., THE.—Patel Road, Coimbatore 9; Motor Pumpset Manufacturers.**

Karthikeya Foundry.—Pulliakulam Road, Pappanaickenpalayam, Coimbatore 1.

Kasturi Engineers Ltd.—P. Box 231, Coimbatore 1.
Lakshmi Foundry.—Patel Road, Coimbatore.
Murugan Foundry.—Jail Road, Gandhipuram, Coimbatore.

P. S. G. & Sons Charity Industrial Institute.—Peelamedu, Coimbatore.
Radha Foundry.—Trichy Road, Coimbatore.

Ramu Foundry.—Avanashi Road, Pappanaickenpalayam, Coimbatore 1.
Sri Ram Industrials.—Tudiyalur, Coimbatore.
Sova Private Ltd.—Kunniamuthur, Coimbatore 8.

Subbiah Foundry.—Pappanaickenpalayam, Coimbatore.
Vijaya Foundry.—Pappanaickenpalayam, Coimbatore 1.

## RADIOS & RADIO PARTS

Associated Electrical Industries (India) Ltd.—Race Course Road, Coimbatore.
Central Radio Service.—Avanashi Road, Coimbatore.

General Electric Co. of India Ltd.—Magnet House, Avanashi Road, Coimbatore.
International Radio Co., 113, Big Bazar Street, Coimbatore 1.

Modern Agencies.—Avanashi Road, Coimbatore.
Myco Corporation.—Avanashi Road, Coimbatore.
Radio and Talkie Combines—Near Goods Shed, Coimbatore 1.

Radio House.—Avanashi Road, Coimbatore.
Rythm House.—Nawab Hakeem Road, Coimbatore.
Shetty & Company.—Jail Road, Coimbatore.

**UNITED ENGINEERING CO.—Radio & Sound Engineers, Avanashi Road, Coimbatore 1; Phone: 2879; Distributors for U.M.S. Radios in Coimbatore, Nilgiris, Salem, N. Arcot & Tiruchy districts.**

V. Krishnaswamy & Co.—Avanashi Road, Coimbatore.
V. S. Rajagopalan & Co.—Avanashi Road, Coimbatore.

## RICE HULLER SCREENS

Ganesar Industries.—Post Box No. 1, Ganapathy, Coimbatore 6.
Sai Cottage Industries.—88, Jail Road, Coimbatore.

Sri Venkatapathi Industries.—9/33, Patel Road, Coimbatore.
Usha Screen Agencies, Ganapathy, Coimbatore 6.

## SOAP MANUFACTURERS

Arian Soap Mfg. Co.—Arian Soap Colony, Trichy Road, Coimbatore.
Cauvery Soap Co.—Oppanakara Street, Coimbatore 1.
Chandrika Products, R. S. Puram, Coimbatore 2.
Helen Soap Co.—Rangai Gowder Street, Coimbatore 1.
Parco Soaps & Chemicals.—P.B. No. 158, Coimbatore.
Pushpakamala Soap Works.—P.B. No. 158, Coimbatore.
Raka Soap Mfg. Co., 26/722, Big Bazar Street, Coimbatore.
Santhi Soap Works.—Shukrawarpet, Coimbatore.

## TEXTILE ENGINEERS & MACHINERY MFRS. & DEALERS

Altex P. Limited.—Avanashi Road, Coimbatore.
Argus Engineering Co. Ltd.—Avanashi Road, Coimbatore.
Batliboi & Co.—Avanashi Road, Coimbatore.
Bharat Trading Company.—Avanashi Road, Coimbatore.
Brady & Co. Ltd., W. H.—Jail Road, Coimbatore.
C. A. Galiakotwala & Co., Private Ltd.—7/47, Grey Town, Coimbatore.
Cotexma Engineering Corporation, 1/19, Trichy Road, Coimbatore 5.
Crompton Engineering Co. (Madras) Ltd.—Arts College Road, Coimbatore.
Eastern Electrical Co. Ltd.—Singanallur, Coimbatore 5.
Gannon Dunkerley & Co. Ltd.—Crosscut Road, Coimbatore.
Garlick & Co.—Cox Street, Coimbatore.
Gordon Woodroffe & Co. (Madras) Ltd.—Fraser Square, Coimbatore.
Hardware & Machinery Marketing (India) Co.—Police H. Q. Road, Coimbatore.
International Industries & Agencies Ltd.—Avanashi Road, Coimbatore.
Jayems Engineering Co.—Oppanakara Street, Coimbatore.
Kamala Industries.—Kuniamuthur, Coimbatore.

**KASTURI ENGINEERS LTD., THE.—218, Avanashi Road, Coimbatore 1; Manufacturers of Electric Motors, Allied Units, Pump Sets and Textile Machineries, Single and Double Sided Reeling Machines and Yarn Bundling Presses.**

Kasturi Industries Ltd.—Avanashi Road, Coimbatore.

**LAKSHMI MACHINE WORKS LTD.—Factory & Administrative Office: Perianaickenpalayam, CBE Dt., Registered Office: 348, Avanashi Road, Coimbatore 1.**

Laxmi Recter Medine Works Ltd., Shell House, Avanashi Road, Pappanaickenpalayan, Coimbatore 1.
Mani & Co.—Old Post Office Road, Coimbatore.
Modern Sales Corporation.—Avanashi Road, Coimbatore.
Parry & Co. Ltd.—Fraser Square, Coimbatore.
Pera Naidu & Sons, A.—Avanashi Road, Coimbatore.
Pierce Leslie & Co. Ltd.—Race Course Road, Coimbatore.
P.S.G. Industrial Institute.—Peelamedu P.O., Coimbatore 4.
Radakrishna & Co.—Avanashi Road, Coimbatore.
Ramakrishna Industrials P. Ltd.—Peelamedu, Coimbatore 4.
Ramu Brothers.—Avanashi Road, Coimbatore.
Textile Machinery Corpn., Ltd.—Avanashi Road, Coimbatore.

**TEXTOOL CO. LTD.**
Coimbatore-6.
Phones: 6231, 6232, 6233. Grams: 'TEXTOLCO.'
Manufacturers of Carding Engine, Draw Frame, Speed Frame, Narrow Ring Frame, Textool-Kamitsu Cone Winder, Reeling Machine, Bundling Press, Baling Press, Diesel Engine, Machine Tools, Signalling Equipments (Railways & Roadways—in Collaboration with the Nippon Signal Co. Ltd., Tokyo, Japan), Special Alloy Steels etc.

Universal Sales Corp.—Avanashi Road, Coimbatore.
Voltas Ltd.—Race Course Road, Coimbatore.

## TYRE RETREADING WORKS

Auto Retread Tyres.—Raja Street, Coimbatore.
Dhanalakshmi Vulcanising Works.—Podanur Road, Coimbatore.
Free India Tyre Works.—Mettupalayam Road, Coimbatore.
Good Shepherd Tyres.—Ukkadam, Coimbatore.
Nanco Rubber & Plastics Ltd.—A.T.T. Colony, Coimbatore.
National Tyre Works.—Mettupalayam Road, Coimbatore.
Rani & Co.—Oppanakara Street, Coimbatore.
Special Guaranteed Tyre Co.—Ukkadam, Coimbatore.
Stanes Motors (South India) Ltd.—Trichy Road, Coimbatore.
St. Antony Tyre Works.—Raja Street, Coimbatore.
United Vulcanising Works.—Mettupalayam Road, Coimbatore.

## WATCHES & CLOCKS (IMPORTERS, DEALERS & REPAIRERS)

Abdul Watch Co., P. K.—Big Bazar Street, Coimbatore.
Azim & Sons.—Oppanakara Street, Coimbatore.
Bentex-Time House.—Oppanakara Street, Coimbatore.
City Watch House.—Nawab Hakeem Road, Coimbatore.
Expert Watch House.—Raja Street, Coimbatore.
Gajendra Watch Repairing House.—Sukrawarpet, Coimbatore.
Globe Watch Co.—Oppanakara Street, Coimbatore.
Meeran & Co., P. K.—Big Bazar Street, Coimbatore.
Mohan Watch Works.—Nawab Hakeem Road, Coimbatore.
National Watch Co.—Big Bazar Street, Coimbatore.
New Watch & Radio Co.—Oppanakara Street, Coimbatore.
Rajan Watch Co.—Sukrawarpet, Coimbatore.
Record Watch Co.—Avanashi Road, Coimbatore.
Swiss Watch House.—Oppanakara Street, Coimbatore.

## YARN MERCHANTS

Abdul Salem Bros.—Oppanakara Street, Coimbatore.
Chettiar & Co.—Raja Street, Coimbatore.
Cotton Textiles Ltd.—Mall Mill Road, Coimbatore.
Haji Jiva & Haji Khamisa & Co.—Oppanakara Street, Coimbatore.
Kalyani & Co.—Rangai Gowder Street, Coimbatore.
Kollegal Seniveeri Chetty & Son.—22/70, Sukravarpet, Coimbatore.
Seshachalam Chettiar & Sons, V. G.—Oppanakara Street, Coimbatore.
Sivagnanam & Co., M.—Rangai Gowder Street, Coimbatore.
Sri Kamala & Co.—Rangai Gowder Street, Coimbatore.
Yarn Syndicate.—27-B, V. C. V. Layout, Coimbatore 2.

# MAHARASHTRA

CAPITAL: Bombay.

Area: 1,18,717 sq. miles; Population: 39·55 millions (1961 census).

## DISTRICTS AND TALUKS

(For the names, area and population, see under article "Population").

The State is divided into 26 Districts. There are 198 Talukas and 223 municipal towns.

The Districts with their capitals in brackets are:—

Dhulia (Dhulia), Nasik (Nasik), Thana (Thana), Bombay Suburban (Bombay), Kolaba (Alibag), Ratnagiri (Ratnagiri), Ahmednagar (Ahmednagar), Poona (Poona), Satara (Satara), Sangli (Sangli), Kolhapur (Kolhapur), Sholapur (Sholapur), Jalgaon (Jalgaon), Aurangabad (Aurangabad), Parbhani (Parbhani), Bhir (Bhir), Osmanabad (Osmanabad), Nanded (Nanded), Buldhana (Buldhana), Akola (Akola), Amravati (Amravati), Yeotmal (Yeotmal), Wardha (Wardha), Nagpur (Nagpur), Chanda (Chanda), Bhandara (Bhandara).

It may be added here that two Districts, Thana and Dhulia have become smaller after bifurcation through the loss of villages (See under Gujarat). Bombay City, which has not been included in any of the above districts, has been kept as a separate entity for revenue administration.

These 26 Districts are grouped into four Divisions.

Bombay Division:—Bombay Suburban, Thana, Kolaba, Nasik, Dhulia, Jalgaon, Ratnagiri.

Poona Division:—Ahmednagar, Poona, Satara, Sangli, Kolhapur, Sholapur.

Aurangabad Division:—Aurangabad, Parbhani, Bhir, Osmanabad, Nanded.

Nagpur Division:—Buldhana, Akola, Amravati, Yeotmal, Wardha, Nagpur, Bhandara, Chanda.

The State came into being on May 1, 1960 when the Bombay Reorganisation Act, 1960, came into force. This Act split the old Bombay State into two States, Maharashtra and Gujarat.

The strength of the Maharashtra Assembly is 265, of the Council 78. The State sends 19 members to the Rajya Sabha and 45 to the Lok Sabha.

It is the third biggest State in the Union both in respect of area and population.

The density of the population is highest in Greater Bombay 24,568 per sq. mile and lowest in Chanda 123 per sq. mile. The sex ratio is 936 females per 1,000 males. This ratio is highest in Ratnagiri District, 1,237 and lowest in Greater Bombay, 663.

There are 12 cities with a population of one lakh and above and 15 towns with a population of between 50,000 and one lakh.

## GEOGRAPHY

The Sahyadris or the Western Ghats run quite close and almost parallel to the west coast, leaving a very narrow strip of land between the sea and the lofty mountain barrier, which at no place is more than 60 miles in breadth. This narrow strip of land known as Konkan, stretches from Daman to Vengurla to a distance of about 350 miles. Interspersed with hills, the land is very undulating and the soil far from fertile, only suitable for paddy cultivation in flat patches, which lie couched in small valleys and perched on hill slopes. The mountain sides are, however, covered by evergreen vegetation, which lends Konkan its spell-binding scenic beauty and also its horticultural wealth.

The North Konkan is a flat alluvial belt along the coast formed by the rivers Ulhas and Vaitarna in their lower courses. This belt is not more than ten miles wide, with a series of parallel ridges in the background. Along the coast is a string of small ports like Rewas, Harnai, Dabhol, Ratnagiri, Vijaydurg, Malvan and Vengurla served by the Konkan ferry service.

To the east of the Sahyadris stretches a vast plateau intercepted by rivers which rise in the Sahyadris and flow eastward. In the north is the Satpura range which runs almost in a straight line from east to west. The main Sahyadri range all along its length sends its arms across the tableland. To the north of Nasik is the Satmala range with its continuation in the Balaghat range, which goes right upto the eastern border of Vidarbha and Marathwada. The transverse ranges to the south of Nasik are much shorter and of little consequence.

The State is drained by a number of rivers—Tapi, Godavari, Bhima, Krishna, Wardha and Vainganga. The smaller rivers are the tributaries of one or the other of these rivers.

In between the Satpuras in the north and the Balaghat range in the south lies the great Tapi trough. The Tapi, rising in the Satpuras, flows westward, with the Girna flowing into it in its upper course. The Tapi valley, which comprises the western parts of Vidarbha and districts of Dhulia and Jalgaon, is one fertile belt of black soil, which grows cotton and is known as 'the black cotton soil'.

To the farther east is the Vainganga-Wardha valley. The two rivers, Wardha and Vainganga, flow south-east before they drain into the Godavari. The land abounds in lakes and tanks, many of which are man-made, which add to the natural beauty of the land. The green meadows dotted by the blood-red *palas* flowers lend a unique charm to the land on this eastern border of Maharashtra.

To the south of the Balaghats, right from Nasik to Nanded stretches the great valley of the Godavari, the cradle of Maharashtrian culture. The Godavari rises in the Brahmagiri mountain near Trimbakeshwar, which is one of the twelve 'Jyotirlingas'. From about fifteen miles from Trimbakeshwar is Nasik on the banks of the Godavari which is also a sacred place of the Hindus. Paithan in Marathwada was once the seat of learning and the centre of cultural movements. Still farther east is Nanded, the holy place of the Sikhs, with the famous Gurudwara shrine on the banks of the Godavari.

Whereas the Godavari valley linked by the valleys of Wardha and Vainganga which flow into it, is the nerve centre of Maharashtra, the Krishna valley is its southern periphery and historically its strong arm. It covers Satara, Sangli, Sholapur and Kolhapur districts. The eastern portions of the valley which cover the eastern Talukas of the districts of Satara, Sangli, Kolhapur and Sholapur are less fertile.

It is interesting to note that in Maharashtra the trades relating to distribution of commodities are run to a large extent by Gujaratis and Marwaris. Thus even in the remotest village, the cloth dealer is usually a Gujarati, while the grocer is generally a Marwari.

There are a number of Adibasi communities in Maharashtra, who live either in dense forests or on the mountain perches of the Sahyadris and the Satpuras. The main communities among these are the Agaris, the Warlis, the Katkaris and the Thakurs of Thana and Kolaba districts, the Bhils of Dhulia and the Korkus and the Gonds of Vidarbha.

## BASIC FACTS AND FIGURES

1961 CENSUS:

*Area:* (in sq. miles) 1,18,717.

*Population:* Total 39,553,718; Males 20,428,882; Females 19,124,836; Rural 28,391,157; Urban 11,162,561.

Percentage increase: 1951-61: 23·60.

Literacy: 29·8%; Literacy among males 42·0%; Literacy among females 16·8%; Density: 334 persons per sq. mile; No. of towns: 266; No. of villages (inhabited & uninhabited) 38,867.

*Livelihood classes* (1961 *census*): Cultivators 8,737,075; Agri. labourers 4,510,002; In mining, quarrying, livestock, forestry, fishing etc. 409,391; In household industry 832,169; In manufacturing other than household industry 1,304,335; In construction 235,616; In trade & commerce 856,050; In transport, storage & communications 446,812; In other services 1,617,031; Total workers 18,948,481; Total non-workers 20,605,237.

*Towns classified according to population:*

| | |
|---|---|
| Less than 5,000 | 15 |
| Popul. between 5,000 to 10,000 | — 88 |
| " " 10,000 to 20,000 | — 89 |
| " " 20,000 to 50,000 | — 47 |
| " " 50,000 to 1 lakh | — 15 |
| " of 1 lakh and above | — 12 |

**Income during 1961-62** (in crores of Rs.): 1,556·2 (100·0). Agriculture and allied activities 569·6 (36·6); Mining, manufacturing and small enterprises 390·7 (25·7); Commerce, transport and communications 346·7 (22·3); Other services 249·2 (16·0). Per capita income 389. Figures in brackets show percentages to the total income.

### LAND UTILIZATION

(area in '00 Hectares)

| Classification | 1962-63 |
|---|---|
| Total Geographical Area | 307,709 |
| Area under Forests | 54,275 |
| Net Area Sown | 180,123 |
| Gross Cropped Area | 189,634 |
| Barren & Uncultivable Land | 18,105 |
| Land put to non-agricultural use | 7,099 |
| Culturable waste | 8,978 |
| Land under miscellaneous tree crops | 1,873 |
| Permanent pastures | 14,049 |
| Current fallows | 11,714 |
| Other fallows | 11,493 |

### Area Under Different Crops

('000 Hectares)

| Items | 1962-63 | 1963-64 |
|---|---|---|
| Rice | 1,341 | 1,323 |
| Wheat | 880 | 894 |
| Jowar | 6,128 | 6,080 |
| Bajra | 1,680 | 1,644 |
| *Total Cereals* | 10,493 | 10,409 |
| *Total Pulses* | 2,349 | 2,291 |
| Sugarcane | 135 | 146 |
| Cotton (Lint) | 2,660 | 2,654 |
| Groundnut | 1,145 | 1,103 |
| Tobacco | 19 | 20 |
| Ragi | 223 | 219 |
| Maize | 30 | 28 |
| Barley | 6 | 3 |
| Tur | 544 | 553 |
| Gram | 372 | 378 |
| Potatoes | N.A. | N.A. |
| Chillies | 162 | N.A. |
| Sesamum | 133 | 128 |
| Castor Seed | 4 | 5 |
| Rape, Mustard, Linseed | 228 | 221 |

* Figures are provisional.

(In '00 Hectares)

Area irrigated by crops during 1962-63: Rice 2,809; Wheat 1,414; Jowar 2,951; Sugarcane 1,351; Cotton 660; Groundnut 103.

The area under certain groups of crops figures in '00) as in 1962-63:—

Fruits and vegetables 1,528; condiments and spices 2,016; oil seeds 19,306; drugs and narcotics 223; fodder crops 9,234; total non-food crops 56,263.

**Out-turn of Principal Crops in '000 M. tonnes for 1963-64:** Rice 1,517; wheat 343; jowar 3,221; bajra 456; tur 368; gram 111; Total of all cereals and pulses 6,659; cotton (lint) 247; groundnut 734; sugarcane 1,149; tobacco 11.

**Area Irrigated by Sources ('00 hectares), 1962-63:** Govt. canals 2,233; private canals 316; tanks 1,997; wells 6,315; other sources 397; net irrigated 11,258; gross irrigated 12,782.

**Agricultural Implements (1961):** Wooden ploughs 16,73,499; Carts 13,43,378; Sugarcane Crushers 15,801; Oil Engines with Pumps for Irrigation purposes 63,747; Electric Pumps for Irrigation 6,530; Tractors 1,427; Ghanis 5,608.

**Livestock 1961:** Cattle (Males over three years) 64,90,000; Used for breeding only 23,000; Used both for breeding & work 2,71,000; Used for work only 61,00,000; Others 97,000; Females (Over three years) 46,44,000. Young Stock 41,94,000; Total cattle 1,53,28,000.

Buffaloes (Males over three years) 3,53,000; Used for breeding 14,000; Used both for breeding and work 27,000; Used for work only 3,05,000; Others 7,000; Females over three years 16,39,000; Young Stock 10,95,000; Total buffaloes 30,87,000.

Sheep 20,93,000; Goats 51,81,000; Horses and Ponies 1,05,000; Other Livestock 2,54,000; Total livestock 2,60,48,000; Total poultry 1,05,78,000.

**Cooperation:** Number of societies†, number of members and working capital (Rs. lakhs) respectively as in 1963-64‡ Agricultural,§ 24,911; 29,47,000; 13,640; Non-Agricultural 10,417; 16,27,000; 7,739; Land Mortgage Banks 27; 3,93,000; 2,611; State and Central Banks 29; 66,000; 19,543; Urban Banks 175; 5,20,000; 3,600; Total number of all types of cooperative societies, total number of members and total working capital (Rs. lakhs) respectively: 35,559; 55,53,000; 47,133.

*Various types of banking offices in* 1963:

Scheduled banks 700; Non-Scheduled banks 14; Co-operative banks 676; Total banking offices 1,387.

**Education** (1963-64‡): No. of Institutions, pupils and teachers respectively under each category is as follows:—Primary 38,930; 49,56,000; 1,34,877; Secondary 8,394; 12,17,000; 47,066; Higher 431; 159; N.A.

**Technical Institutions (1962-63):** *Higher Education:* Engineering institutions 8; Technical Institutions 2; *Special Education:* Polytechnics (engineering) 20; Polytechnics (others) 13; Industrial Training Institutions 24; Technical centres 90; Industrial and Technical Institutions 58; Evening classes for Industrial Workers 3; Agriculture Schools 18; Gramsevak and Taining Centres 9.

Number of institutions per lakh of people in 1962-63: 665·1

Number of students per thousand of population: State as a whole 177·3; Greater Bombay 217·5

**Electricity:** (Figures in million kilowatt hours) as in 1963-64: Installed capacity 10,19,519 kW. Electrical energy consumed 4,092; (domestic consumption 360; commercial consumption 264; industrial consumption 2,976; traction 408; other purposes 84).

Joint Stock Companies as on 31-3-1962 (capital in '000 of Rs.)

| Industrial classification | No. of Companies | | Paid up Capital | |
|---|---|---|---|---|
| | Public | Private | Public | Private |
| Agriculture and Allied Activities | 21 | 69 | 65.13 | 88,81 |
| Mining & Quarrying | 14 | 63 | 1,75,03 | 1,60,08 |
| Processing & Manufacturing Foodstuffs, Textiles, Leather and Leather products thereof | 162 | 331 | 56,46,31 | 19,79,63 |
| Processing and Manufacturing metals, chemicals and products thereof | 162 | 1,000 | 62,32,63 | 35,39,78 |
| Processing and Manufacturing not elsewhere classified | 92 | 481 | 49,85,95 | 11,75,77 |
| Construction and Utilizers | 54 | 111 | 30,22,06 | 2,45,18 |
| Commerce (Trade & Finance) | 225 | 1,556 | 41,66,66 | 48,62,89 |
| Transport Communication & Storage | 23 | 86 | 14,36,16 | 8,28,35 |
| Community & Business services | 13 | 91 | 1,72,74 | 1,06,39 |
| Personnel & other services | 27 | 247 | 1,81,31 | 3,16,76 |
| Total | 793 | 4,035 | 2,63,83,98 | 1,33,03,64 |

Source:—Deptt. of Company Law Administration, Ministry of Finance.

**INDUSTRIES (1961)**

| Name of the Industry | Employment (Actual) | Productive Capital (Rs. lakhs) | Output (Rs. lakhs) |
|---|---|---|---|
| Canning & Preserving of Fruits & Vegetables | 680 | 33 | 54 |
| Grain Mills | 4,680 | 224 | 2,277 |
| Bakery Products | 3,078 | 202 | 542 |
| Sugar and Gur | 22,186 | 3,936 | 4,308 |
| Miscellaneous Food Preparations | 21,123 | 1,500 | 10,241 |
| Spinning, Weaving & Finishing of Textiles | 3,11,390 | 10,523 | 29,492 |
| Paper and Paper Products | 6,633 | 815 | 1,129 |
| Basic Industrial Chemicals | 12,940 | 3,494 | 3,673 |
| Paints, Varnishes etc. | 2,308 | 281 | 586 |
| Miscellaneous Chemicals | 25,779 | 4,855 | 8,377 |
| Glass & Glass Products | 7,218 | 218 | 398 |
| Iron & Steel | 23,749 | 1,876 | 3,246 |
| Non-Ferrous Metals | 5,928 | 537 | 1,725 |
| Machinery except Electrical | 36,325 | 2,601 | 3,975 |
| Electrical Machinery etc. | 20,652 | 2,066 | 3,177 |
| Motor Cycles & Bicycles | 3,386 | 258 | 436 |
| Other Industries | 2,71,163 | 28,512 | 34,185 |
| All Industries | 7,79,218 | 61,931 | 1,07,821 |

Number of shops and establishments and the number of employees in them respectively during 1961 in the State were 3,19,292 and 6,12,071.

During 1963, the total no. of working factories was 9,090 and average daily attendance of factory workers 8,58,780.

Number of strikes, number of workers involved and mandays lost respectively in the State during 1963: 437; 2,09,985; 9,17,649.

Mineral production and value in '000 metric tons, '000 Rs. respectively for the year 1963: Iron ore 397; 6,886; Manganese 114; 12,816; Coal 944; 22,276; Salt 463; 18,950; Lime Stone 69; 247.

**Community Development Programme:**— Coverage under C.D. Stage I, C.D. Stage II and M.D. projects in the State upto March 31, 1963: No. of blocks of CPA pattern 370; No. of villages 34,132; Population covered 2,29,38,000.

The following table gives progressive Achievements under C. D. Programmes.

| Items | Units | 31st March 1963 | 31st March 1964 |
|---|---|---|---|
| Distribution of fertilisers | B.Mds. | 1,17,24,677 | 1,72,27,015 |
| Distribution of improved seeds | B.Mds. | 24,68,511 | 32,08,618 |
| Animals castrated | No. | 9,51,426 | 12,07,776 |
| Bulls supplied | No. | 4,817 | 6,223 |
| Area reclaimed and bunded | Acres | 24,16,548 | 32,09,464 |
| Additional area irrigated | Acres | 5,84,665 | 7,96,965 |
| Drinking water wells constructed | No. | 10,225 | 13,257 |
| Adults made literate | No. | 7,65,745 | 10,88,212 |
| Youth Clubs started | No. | 15,919 | 17,683 |
| Mahila Samittees started | No. | 8,564 | 9,964 |
| Katcha roads constructed | Furlongs | 57,573 | 71,334 |
| People's contribution | Rs. '000 | 76,396 | 92,690 |
| Government expenditure | Rs. '000 | 3,43,803 | 4,17,299 |

† Excludes Supervising Unions, Divisional and District Cooperative Boards and Insurance Societies. ‡ Provisional. § Includes Grain Banks.

**Medical :**—(Figures for 1961): Number of hospitals and dispensaries in the State : 1,085; Number of beds 25,198; Number of indoor patients treated 680,653; Number of outdoor patients treated 13,929,960. Death rate per 1,000 due to: Malaria †(1961): 0·02; tuberculosis †(1961): 2·8.

**Transport and Communications :** Figures as on 1st Jan. 1965 : Number of motor cycles 23,524; Motor cars 66,689; Taxi cabs 8,296 Auto-Rickshaws 902; Stage carriages (Diesel engined 3,511; Petrol engined 585); Lorries: Public carriers (Diesel engined 13,155; Petrol engined 11,802); Private carriers (Diesel engined 2,539; Petrol engined 5,731); Ambulances 257; School buses 339; Private Service vehicles 302; Trailers 2,777; Tractors 2,534; Others 465; Total number of vehicles 1,43,408.

Roads in Kilometres (Figures as on 31st March 1965)‡ : Total 43,806, National highways 2,378; State highways 10,449; Major district roads 12,180; Other district roads 8,057; Village roads 10,742.

A road styled Bombay-Goa Road connecting Goa with Bombay, under construction, was expected to be completed by the end of the Third Plan.

Railway kilometrage : Total 5,227 kms. (Broad Gauge 2,767 kms.; Metre Gauge 1,197 kms.; Narrow Gauge 1,263 kms.).

Nationalised Road Transport (Figures as on 31st March 1964): No. of routes 2,307; route distance in klm. 1,34,427; average no. of vehicles on road per day 2,380; operating fleet 2,647; average no. of passengers who travelled per day 7,86,174.

**Employment Exchange Statistics** (Figures for 1963-64) : Registrations 3,87,204; Vacancies notified 98,870; Placements 43,494; Those on the live register 2,40,798.

The following figures show the position of employment statistics from April to Dec. 1964 : Registrations 31,537; Placements 4,567; Vacancies notified 8,167 and number on live register 2,57,275.

**Village Panchayats.** The total income of Village Panchayats in 1962-63 was about Rs. 7·1 crores showing an increase of about 31 per cent over 1961-62. The Government grants contributed about 51 per cent of the total revenue. The total expenditure of Village Panchayats in 1962-63 was about Rs. 5·3 crores.

The receipts of the Zilla Parishads (1964-65 budget estimates) amounted to Rs. 50·4 crores in 1964-65, of which more than 90 per cent (Rs. 45·5 crores) were Government grants. The purposive grants and the Plan grants formed the major share e.g. 37 per cent and 27 per cent respectively of the total Government grants.

**Small Savings :** In small savings Maharashtra enjoyed the premier position in India till last year. During 1963-64, the target fixed for the State was Rs. 21·17 crores. As against this target, the net collection was Rs. 29·45 crores. The target for 1964-65 has been Rs. 22 crores, the net collection being Rs. 27·17* crores.

**Cost of Living Index**

| Year | Bombay[1] | Sholapur[2] | Jalgaon[3] | Nanded[4] | Aurangabad[4] | Nagpur[5] |
|---|---|---|---|---|---|---|
| 1957 .. | 369 | 339 | 445 | 223 | 193 | 422 |
| 1958 .. | 395 | 313 | 453 | 223 | 185 | 447 |
| 1959 .. | 412 | 340 | 493 | 241 | 202 | 498 |
| 1960 .. | 420 | 357 | 492 | 252 | 212 | 512 |
| 1961 .. | 431 | 352 | 485 | 239 | 212 | 495 |
| 1962 .. | 444 | 381 | 519 | 259 | 234 | 502 |
| 1963 .. | 448 | 380 | 524 | 266 | 235 | 525 |

[1]Base : Average from July 1933 to June 1934 as 100. [2]Base : Average from February 1927 to January 1928 as 100. [3] Base : Average prices for August 1939 as 100. [4] Base : Average August 1943 to July 1944 as 100. [5] Base : Average price for August 1939 as 100.

**Index Number of Wholesale Prices** (Base : 1952-53 = 100)

| Year | Annual Average | | | | | |
|---|---|---|---|---|---|---|
| | Food Articles | Liquor and Tobacco | Fuel, Power light and Lubricants | Industrial Raw Materials | Manufactures | All Commodities |
| 1958 .. .. | 112·0 | 93·7 | 114·9 | 114·7 | 108·2 | 111·0 |
| 1959 .. .. | 118·2 | 100·7 | 116·0 | 119·7 | 109·7 | 115·5 |
| 1960 .. .. | 120·2 | 106·4 | 118·9 | 138·8 | 120·8 | 122·9 |
| 1961 .. .. | 119·5 | 103·6 | 121·9 | 147·7 | 127·2 | 125·8 |
| 1962 .. .. | 124·9 | 99·5 | 123·0 | 137·3 | 128·1 | 127·2 |
| 1963 .. .. | 132·7 | 115·4 | 136·3 | 137·2 | 130·3 | 132·5 |
| 1964 .. .. | 154·7 | 126·9 | 142·9 | 156·4 | 134·9 | 148·3 |

## ECONOMY

From the point of view of rainfall, the State can be divided into four regions—the Coastal area where the rainfall is between 80″ and 120″. The plateau areas where the rainfall is between 25″ and 80″ and is mostly around 25″—30″. In quite a few places it is less than 20″. The Vidarbha Districts where the rainfall varies between 30″ and 60″ are mostly around 60″.

There are a few acute scarcity areas :—in Poona District the areas of Shirur Taluka, Dhond Taluka, northern part of Baramati Taluka, villages to the north of Mula-Mutha river upto the northern boundary of Haveli Taluka. In Satara District Khanapur Taluka. In Sholapur District Karmala and Sangola Talukas. In Ahmednagar District Shrigondh Taluka.

The whole of Vidarbha is completely free from scarcity threats.

Rice is abundantly grown in the coastal Districts of Thana, Kolaba, Ratnagiri and also in Chanda and Bhandara. It accounts for one-fifth of the foodgrains grown in the State. Wheat accounts for a little more than one-twentieth. Millets are grown abundantly in the Deccan, Vidarbha and Marathwada districts. Jawar is the major cereal and accounts for half the production.

In 1962-63, area under all oil seeds was 19,30,600 hectares in Maharashtra and 1,47,96,000 hectares in the country. Area under cotton was 26,60,000 hectares and 78,45,000 hectares in the country.

The production of cotton in 1962-63 was 2,28,900 metric tons and groundnut 8,06,900 metric tons in Maharashtra. The production of cotton and groundnut was 9,44,000 metric tons and 48,21,000 metric tons respectively in the country.

The State has abundant forest wealth. Forests form 20·7 per cent of the area of the State. There are forest areas in all districts, but the thickest forest areas are, in Chanda, Amravati, Yeotmal, Bhandara, Nagpur, Dhulia, Thana and Nasik Districts. They produce various types of timber, teak and minor forest produce.

In the matter of live-stock, the milk-yielding buffalo population is greater than the cattle only in Kolhapur and Greater Bombay. The sheep and goat abound in all Districts but are particularly noticeable in Nasik, Dhulia, Ahmednagar and Sholapur. The concentration of horses and ponies is greater in Marathwada, Dhulia and Ahmednagar.

The number of joint stock companies as in March 1964 was 5,589 in Maharashtra as against 5,460 in March 1963. 243 new companies were registered during 1963-64 with an authorised capital of Rs. 38·92 crores as against 293 new companies with authorised capital of Rs. 72·65 crores in 1962-63.

During 1963-64, 132 companies with paid-up capital of Rs. 240 lakhs were reported to have gone in liquidation or were struck off the register. Of these 132 companies, 21 companies with paid-up capital of Rs. 64 lakhs were from the public sector. During 1962-63, 119 companies with paid-up capital of Rs. 99 lakhs were reported to have gone in liquidation.

About 3 per cent of the companies at work are in agriculture, mining and quarrying sector, 46 per cent in processing and manufacturing sector, and about 37 per cent in trade and commerce sector.

The State is rich in minerals like manganese and salt. Salt is produced in the coastal Districts, while manganese is mined in the Vidarbha Districts and to some extent in Ratnagiri. Some iron is mined in Ratnagiri and Chanda. It is believed that Vidarbha and to some extent Marathwada have deposits of China Clay, limestone, coal etc. With these exceptions the mineral deposits elsewhere are poor.

The more important industries are cotton textiles, general and electrical engineering, chemicals, sugar, vegetable oils, paper, paper boards and soap. Out of the 9,090 registered factories in the State, nearly half, that is about 4,500 factories are in the Greater Bombay area. The factories in the remaining areas are concentrated in Sholapur, Nagpur, Bhandara, Poona, Ahmednagar and Thana Districts. The concentration in Marathwada Districts is very poor.

Out of the Rs. 533 crores of productive capital in Maharashtra in 1960, the textile industry alone accounts for Rs. 104 crores. The large sugar and soap factories exist only in Maharashtra.

Today all places with a population of 50,000 and over are electrified. Power generation and consumption in Greater Bombay are high.

The length of roads excluding municipal roads is estimated to be about 42,093 kilometres in March 1964. 900 kilometres more were expected to be added by March 1965. The road length per 100 sq. kilometre area in Marathwada is 8 kilometres as against the State average of 13·7 kilometres.

**Social Services :**—It is calculated that about a fourth of the population of Greater Bombay consists of students. In the State as a whole students make up one-eighth of the population. But the number of institutions per lakh of population is on the low side. The number of teachers per thousand of population is 4; in Greater Bombay it is 7.

**EMPLOYEES' STATE INSURANCE SCHEME**

( *See after* ' *Yeotmal Dist.* ' )

*Provisional. † This is according to the indoor patients treated in the hospital. ‡Anticipated length.

# ELECTRIC POWER DEVELOPMENT

Power and irrigation schemes account for about 38 per cent. of the total allocation of Rs. 67 crores earmarked for the annual Plan of Maharashtra for 1962-63.

Total installed capacity as on March 31, 1961 : 7·60 lakh kW. Output of electricity in 1961-62: 3,568 mln. kwhs.

Maharashtra State is fortunate in having several power projects—both hydel and thermal—generating over 6,00,000 kW of electricity. The generation and consumption power in Maharashtra is very high, the per capita power generated being about 71·1 kwh in 1956 as compared with 27·1 kwh in the Indian Union as a whole.

As evident from the highly industrial Bombay-Poona area, the bulk of the power generated at present is in that region. Even so there has been a chronic power shortage in this region, where industries are fast growing. To meet this shortage, additional thermal units were installed at Trombay and Chola but the real solution to these problems is the fulfilment of the Koyna project, which is now under construction. This project will not only supply abundant power to the Bombay-Poona region, but will also supply power to south Maharashtra where industries are fast coming up. The Koyna Project is estimated to generate 6,30,000 kW of power on completion.

Below we give a brief account of some power systems in the State.

## TATA PROJECTS

The hydro-electric undertakings in the State are the three schemes developed and brought into operation by Tata Sons, Ltd., and continued under their management until 1929, when they were transferred to the management of the Tata Hydro-Electric Agencies, Ltd., in which Messrs. Tata Sons retain a majority interest. These undertakings are :—

(*a*) The Tata Hydro-Electric Power Supply Company, Ltd. Supply started in 1915.

(*b*) The Andhra Valley Power Supply Company, Ltd. Supply started in 1922.

(*c*) The Tata Power Company, Ltd. Supply started in 1927.

The three Hydro-Electric Companies are interconnected with Chola Steam Station of the Central Railway and the newly commissioned Koyna Hydro generating station of Maharashtra State which feeds bulk power to the Tata system at Trombay over 220 kV transmission lines. Together they are operated as a Hydro-Thermal system under the co-ordinated control of the Hydro Companies.

The three Hydro Companies have constructed a modern Steam Thermal Station of 188 MW capacity at Trombay which is also interconnected to the system. The station is being expanded by the addition of a 4th unit of 125 MW capacity.

**The Tata Hydro-Electric System** serves an area in Maharashtra State of more than 2,072 sq. kilometres.

**Electric service is rendered to the textile mills and other industries of Bombay and the suburban areas, to local authorities, and, in bulk for retail distribution, to the electrical undertakings including the State Electricity Board, supplying Greater Bombay, Poona and ten other localities within the area.**

The transmission network of the Tata system consists of 1,010 circuit kilometres of 100,000-volt overhead lines and 24 circuit kilometres of 100 KV gas filled underground cables and the distribution network of 321 circuit kilometres of 22,000-volt overhead as well as 201 circuit kilometres of 22,000-volt and 199 circuit kilometres of 6,600-volt underground cables. There are also 35 circuit kilometres of 6,600-volt overhead lines.

Substantial additions to the transmission and distribution network are expected to be made during the next few years.

During 1964 the peak demand on the Tata Rly. System reached a figure of 638 MW.

The sales by Tatas during 1963-64 was 3,210 million units and the purchase from Koyna to supplement Hydro system during the year was 1,198 million units.

NOTE : Because of security reasons, we have been asked not to publish any information relating to location of electricity generating Plants.

## MAHARASHTRA STATE ELECTRICITY BOARD*

Position as on 31st March 1964 :

| | | |
|---|---|---|
| *Total installed capacity* .. | 3,82,002 | kW. |
| | Steam : 1,12,500 | kW. |
| | Hydro : 2,45,824 | kW. |
| | Diesel : 23,678 | kW. |
| *Total number of towns and villages supplied with electricity* .. .. .. .. | 2,372 | |
| *Total length of Transmission lines* 11 *KV and above* .. | circuit Km. 15,567 | |
| *Total number of consumers* .. | 3,18,019 | |
| *Total electricity production in* 1963-64 (*million* kWH) .. | 2,056·72 | |
| *Total electricity purchased in* 1963-64, *from out-agencies* (*million* kWH) .. .. | 146·43 | |
| *Total sales in* 1963-64 (*million* kWH) .. .. .. | 1,900·17 | |
| *Total expenditure on Electricity Schemes upto* 1963-64 (*Rs. lakhs*) .. .. .. | 1,702·74 | |
| *Capital Assets on* 31*st March* 1964 (*Rs. lakhs*) .. .. | 6,241·17 | |
| *Gross Revenue in* 1963-64 (*Rs. lakhs*) .. .. .. | 811·68 | |
| *Working expenditure for the year ending* 31*st March* 1964 (*Rs. lakhs*) .. .. .. | 566·33 | |

### Third Plan Schemes

Involving an outlay of Rs. 51·92 crores, the Board's power development programme for the Third Plan envisaged, initially, the stepping up of its power generating capacity by 1,80,000 kW, construction of additional high voltage transmission lines of a total length of about 3,900 kMS and sub-stations, electrification of 900 more villages and supply of electricity to 10,000 agricultural pumps. The outlay has since been increased to 58·17 crores. The increase is due mainly to expansion of the rural electrification programme and inclusion of additional schemes of establishing three more new steam stations of a total capacity-of 9,00,000 kW in the Vidarbha, Western Maharashtra and Marathwada regions and of construction of high voltage transmission lines of varying lengths and sub-stations for supply of electricity throughout the State.

*Achievements :* The targets in respect of transmission lines, rural electrification and supply of electricity to agricultural pumps have already been exceeded. Of the additional 1,80,000 kW programmed for the Plan period, 60,000 kW were commissioned at the Board's steam station at Khaperkheda towards the end of 1964 raising the station's capacity to 1,20,000 kW. The remaining 1,20,000 kW comprise expansion of the Board's steam station at Paras by 60,000 kW and construction of a new steam station of 60,000 kW. at Bhusaval. Works in respect of these are in various stages of progress and are expected to be completed by the end of the Plan period. Of the three new steam stations of a total of 9,00,000 kW capacity, one of 5,60,000 kW is proposed to be constructed near Nagpur in Vidarbha, the second of 60,000 kW at Parli in Marathwada and the third of 2,80,000 kW near Nasik in Western Maharashtra. The construction of these stations would project into the Fourth Plan.

*Electricity for Goa :* The Board has undertaken to supply electricity to Goa to the extent of about 1,700 kW and for this purpose to construct a 33 kV line (192 kMS) from its Radhanagari hydro station to Panjim in Goa *via* Sawantwadi. The line has since been completed and supply made available to Goa.

### Power Projects

Statement showing particulars about power projects in operation in Maharashtra as on March 31, 1963 :

**Radhanagari-Kolhpur-Karad-Satara Koyna System :—**

This system had two Power Stations, (1) Radhanagari Hydro Power Station (2) Kolhapur Diesel Power Station. The other three Power Stations namely (1) Vishrambag Power Station; (2) Islampur Power Station and (3) Ichalkaranji Power Station, were closed down and power supply from Koyna Hydro Power Station was made available to the areas around Satara, Karad and Vishrambaug. Units generated : 27·86 Million kWH ; Number of Consumers : 34,844 ; Total length of transmission lines : 1,983 Circuit Kilometres.

**Bhatgar Scheme :** Name of power house : Bhatgar. Existing Capacity : 1,024 kW. Units generated during 1962-63 : 4·39 million kWH. No. of units sold during 1962-63 : 45 million kWH. No. of consumers : 41,617. Length of transmission lines : 1,972 circuit kilometres.

**Vidarbha Grid Scheme :** This has three power houses. (1) Khaperkheda Power House. Existing capacity : 60,000 kW. Units generated during 1962-63 : 238·91 million KWh.

(2) Ballarshah Power House. Existing capacity: 22,500 kW. Units generated during 1962-63 : 56 million kWH.

(3) Paras Power House. Existing capacity : 30,000 kW. Units generated during 1962-63 : 154·17 million kWH.

Total units generated under the Vidarbha Grid Scheme : 449·08 kWH. Units sold during 1962-63 : 360·88 mln. kWH. Number of consumers : 78,449. Length of transmission lines 11 KV. and above : 5,990 circuit kilometres.

**Minor Diesel Schemes unconnected to any Grid :** There are 34 such schemes. Existing capacity : 14,384 kW. ; Units generated during 1962-63 : 16·07 million kWH ; number of units sold : 13·72 million kWH ; number of consumers : 37,433 ; length of transmission lines : 1,170 Circuit Kilometres.

Minor Schemes based on bulk purchase have been included under Bhatgar Poona System given above.

### THIRD PLAN SCHEMES

**Western Maharashtra Extension :** Construction works on transmission lines, 11 KV and above, also construction work of major and minor sub-stations was in progress in order to receive and distribute power from Koyna Hydro Electric Power Station, to the areas around Karad, Sangli, Kolhapur, Satara, Poona, Ahmednagar, Sholapur, Pandharpur, Kalyan, Virar, Kolaba and Ratnagiri.

**Vidarbha Grid Extension :** Erection work of the two 30 MW generating Plants was in progress. Considerable work has been done on the construction work of 66 KV transmission line. Surveys in connection with 132 KV transmission line, between Khaperkheda and Paras were

* Excluding revenue and expenditure of the Koyna Hydro Electric Project which is leased to the Board for operation and maintenance and for which separate accounts have been maintained. The total revenue from the project in 1963-64 amounted to Rs. 465·15 lakhs and working expenses to Rs. 7·81 lakhs.

undertaken. Orders for line and Sub-station equipments have been placed (March 1964).

**Khandesh-Marathwada Scheme :** Construction work of a 60·5 MW thermal power station at Bhusaval was in progress. Work of extension to Paras Power Station was also in progress.

**Rural Electrification Schemes† :** 481 villages and towns were electrified during 1962-63. 2,145 irrigation pumps were supplied with electric power in 1963.

### CHOLA, KOYNA

A brief note each on two other power schemes is in order.

Central Railway's Power House at Chola has a total installed capacity of 136,000 kW and supplies electric power for the requirements of Central and Western Railways' electrified lines in Bombay. This power house is interconnected with the Tata-Koyna system.

The second scheme is Koyna, it is the biggest scheme in Maharashtra.

The Koyna Hydro-Electric Project provides construction of dam at Koynanagar for diverting water of river Koyna—a tributary of river Krishna, to the west for power generation.

The entire scheme to be completed in three stages, will have an installed capacity of about 900 MW.

The first stage of the Project comprises construction of the dam in rubble concrete to store water to run the four generating sets of 60 MW capacity each in an Underground Power House, by diverting the water from Shivaji Sagar through a Head-race Tunnel of 21′ and 12,300 ft. long and then through steel-lined inclined Pressure Shafts of dia. varying from 10′ at top to 8′-6″ at bottom. The utilised water is let out in Vashishti river through a Tail-race Tunnel of length 7,260 ft. The electricity generated is fed into the Tata-Koyna Railway interconnected Grid system by a double circuit 220 KV Line and Southern Maharashtra region by single circuit 220 KV Line. The four generating sets are working.

The second stage comprises raising and thickening of dam to store 98 TMcft. of water and construction of two more Pressure Shafts and erection and commissioning of four more generating units of 75 MW capacity each and 220 KV transmission line towards Bombay and double circuit line to the Aluminium factory. The concreting of dam is completed, spillway radial gates are to be erected. Erection of stage II units is now progressing (June 1965).

The estimated cost of Stages I & II put together is Rs. 5,644 lakhs, out of which expenditure of about Rs. 4,523·30 lakhs has been incurred upto end of March 1965.

The provisions for the Project in the First Second and Third Five-Year Plans are respectively Rs. 400 lakhs, 2,900 lakhs and Rs. 2,752 lakhs.

The Project is financed by I.B.R.D. Loan 223-IN for Rs. 789 lakhs and I.D.A. 24-IN Credit for Rs. 840 lakhs (excluding Koyna-Sholapur Scheme).

The third-stage of the Project comprises utilising of the residual head of tail-water discharged from Under-ground Power House and also monsoon run-off in the nearby catchment area. About 320 MW of power would be generated in a single Underground Power House, which is to be used as a peaking Station. The estimated cost of this Project is Rs. 3,188·90 lakhs. The Planning Commission has cleared the stage III Project in the Fourth Plan and advance action is allowed to be taken up in the Third Plan. Excavation for approach tunnel, constructing colony buildings, roads are taken up.

The Govt. of Maharashtra has formed an Advisory Board, called the Koyna Control Board, which comprises representatives from Central and State Governments and Commercial Corporations. The Board advises the State Government in respect of major policies and the day-to-day administration rests with the Irrigation & Power Department of Maharashtra Government.

## HOUSING

Housing schemes are coordinated by the Urban Development and Public Health Department of the Government. The actual building work and ancillary functions are discharged by the Housing Boards. Finance comes partly from the Government of India.

There are two Boards now, the Maharashtra Housing Board for the Maharashtra area and the Vidarbha Housing Board for Vidarbha. The Maharashtra Housing Board have jurisdiction in the Marathwada area since April 1963.

The following urban housing schemes are now in operation :—

(1) Subsidised Industrial Housing Scheme; (2) Low Income Group Housing Scheme; (3) Slum Clearance Scheme ; (4) Sweepers' Housing Scheme ; (5) Middle Income Group Housing Scheme ; (6) Land Acquisition and Development Scheme and Economically weaker Sections Scheme.

**Subsidised Industrial Housing Scheme :** This scheme is meant for industrial workers whose income does not exceed Rs. 350 per month. The scheme is executed through the Maharashtra Housing Board, Vidarbha Housing Board, Employers and Co-operative Societies of industrial workers. The Housing Boards are provided with 100 per cent financial assistance. The financial assistance is given to the employers at the rate of 50 per cent loan and 25 per cent subsidy and to the Co-operative Societies at the rate of 65 per cent loan and 25 per cent subsidy. In addition, employers can also give their 25 per cent share of subsidy to the Housing Boards for construction of tenements for their employees. The rents charged are subsidised rents as fixed by the Government of India. The total number of tenements completed, agency-wise, till March 31, 1965 is as follows : Maharashtra Housing Board 24,422 ; Vidarbha Housing Board 3,520 ; Employers 3,458 ; Co-operative Societies 332 ; Total 31,732.

The construction of 4,042 tenements including spill-over works would be the programme for the two Housing Boards during 1965–66.

**Slum Clearance Scheme :** This scheme provides for construction of tenements and provision of plots for slum dwellers. The scheme is executed through the local bodies and the Maharashtra Housing Board, which are given financial assistance by way of 50 per cent subsidy and 37½ per cent loan of the approved cost. The rents charged are subsidised rents as fixed by the Government of India. The total number of tenements constructed by the various agencies till the end of March 1965 is as follows : Maharashtra Housing Board 10,156 ; Bombay Municipal Corporation 3,875 ; Poona Municipal Corporation 724 ; Nagpur Municipal Corporation 332 (plots) ; Nagpur Improvement Trust 650 (plots) ; Ahmednagar Municipality 90 ; Dhulia Municipality 32 ; Total 15,859.

The construction of 5,680 tenements and plots including the spill-over works would be the programme of the Maharashtra Housing Board for 1965–66.

**Low Income Group Housing Scheme :** This scheme is meant for persons whose total annual income does not exceed Rs. 6,000. The scheme is in operation in the municipal areas of the State. The loans under the scheme are granted to individuals, co-operative housing societies, local bodies, institutions, etc. The loan is granted upto 80 per cent of the cost of construction subject to the maximum limit of Rs. 10,000 per tenement. The total number of tenements completed through the various agencies till the end of March 1965 is as follows : Maharashtra Housing Board 7,145 ; Vidarbha Housing Board 95 ; Individual 329 ; Local Bodies 1,233 ; Co-operative Societies 3,234 ; Institutions 55 ; Total 12,091.

The construction of 1,873 tenements including spill-over works would be the programme of the two Boards for 1965–66.

**Economically Weaker Sections Schemes :** This scheme provides for construction of tenements for persons whose monthly income does not exceed Rs. 250 in Bombay and Rs. 175 elsewhere. The scheme is executed through the agencies of the Vidarbha Housing Board and the Maharashtra Housing Board, which are given 100 per cent financial assistance. The rents charged are based on 25 per cent subsidy of the ceiling cost of construction. The total number of tenements constructed by the various agencies till the end of March 1965 is as follows : Maharashtra Housing Board 634.

The construction of 688 tenements including spill-over works would be the programme of the two Boards for 1965–66.

**Sweepers Housing Scheme :** This is meant for providing residential houses to the sweeper employees of the various local bodies in the State. The scheme is executed through the local bodies, individual sweepers and their co-operative societies and recognised social service agencies, which are given financial assistance by way of loan and subsidy based on the approved cost. The total number of tenements constructed by the local bodies till the end of Dec. 1964 is 136.

**Middle Income Group Housing Scheme :** This scheme is meant for persons whose monthly income is between Rs. 501 and 1,250. The scheme is implemented through the Maharashtra Housing Board and the Vidarbha Housing Board, which draw loans to the extent of 80 per cent of the approved cost subject to the maximum of Rs. 20,000 per tenement, from L.I.C., under the guarantee given by the State Government. The tenements constructed are given on rental and hire-purchase basis. The total number of tenements constructed till the end of March 1965 by the two Boards is 1,463.

The construction of 1,048 tenements including spill-over works would be the programme of the two boards for 1965–66.

**Land Acquisition and Development Scheme :** The scheme is executed through the agencies of the Maharashtra Housing Board and the Nagpur Improvement Trust, which are given financial assistance to the extent of 100 per cent. The Maharashtra Housing Board has been allowed to constitute "Revolving Fund" out of the amount of Rs. 110 lakhs given to it under the Scheme. Since 1962–63, assistance for this scheme is given by the L.I.C. to the two agencies under the guarantee of the State Government. The area acquired and notified for acquisition respectively in acres till the end of Sept. 1964 by the two agencies is given below : Maharashtra Housing Board 515 ; 1,258 ; Nagpur Improvement Trust 91·82 ; nil ; Total 606·82 ; 1,258.

## ROAD TRANSPORT

A single road transport corporation for the entire State, known as the Maharashtra State Road Transport Corporation, came into existence from July 1, 1961.

The Provincial Transport Services of Vidarbha and the State Transport of Marathwada have been merged with the Bombay State Road Transport Corporation to form a unified body for Maharashtra.

† Extended to 31 villages in May 1964, bringing the total number of villages electrified in the State to 2,344 (1,230 in Vidarbha, 968 in West Maharashtra and 146 in Marathwada).

The operational data of Maharashtra State Road Transport Corporation as of March 1964:

No. of passenger vehicles—2,937; No. of goods vehicles—145; No. of routes operated—2,315; Route mileage—83,869; Major workshops—One central, 11 divisional and 86 depot and sub-depot workshops; No. of persons employed—20,145; No. of nationalised city services—Eleven; No. of municipalised city bus services—four; Rate per passenger mile—5 P.; Total bus miles operated—10,74,83,708; Total No. of passengers carried—2,500·96 lakhs; No. of bus stations—54, temporary bus stations—168; No. of refreshment rooms—337; No. of cloak-rooms—69; Pick-up stands—361; Capital invested (Rs. lakhs)—1,928·31; Total gross revenue (Rs. lakhs)—2,008·44; Total revenue expenditure (Rs. lakhs)—1,985·04.

## MILK SCHEME—1965

*Staff employed:* Govt. Regular 2,820; Part-time 3,430; daily rated 1,500.

*Area of Govt. Land:* 4,057 hectares (Aarey 1,280 hec.; Palghar 1,380 hec.; cultivated under irrigated fodders at Aarey for Para-grass 210 hec.; Vankas 1,179 hec.; Worli 8 hec.).

*Daily quantity of milk procured:* Aarey 1,04,867 litres; Anand 98,089 litres; Societies 16,356 litres; Dist. Govt. Milk Scheme 27,271 litres; Co-operative Societies 14,347 litres. Total 2,60,930 litres.

*Distribution of Milk (per day in litres):*

| Type | |
|---|---|
| Whole Milk .. .. .. | 2,11,671 |
| Toned Milk .. .. .. | 1,25,499 |
| Double Toned Milk .. .. | 21,781 |
| Sterilised Milk .. .. .. | 885 |
| Cow Milk .. .. .. | 760 |
| Total Litres .. .. .. | 3,60,596 |

*Number of distribution centres:* 1,662; Total number of consumers taking milk from scheme: a little over two million.

*Sale price of milk per litre:* Whole Milk Rs. 1·30; Cow Milk Rs. 1·30; Toned Milk Re. 0·60; Sterilised Milk Re. 0·25 per bottle of 200 c.c.

*Transport:* Insulated 169 motor vehicles; uninsulated 110 (including staff vehicles); Leylands 13 (including 5 tankers). Total 292.

*Water consumption* (daily): 18,16,000 litres (Aarey); 21,36,490 litres (Worli).

*Electricity* (Weekly): 52,500 units (Aarey); 89,600 units (Worli).

*Fuel Furnace Oil* (Weekly): 30,000 litres (Aarey); 33,000 litres (Worli).

*Bottles replaced* (Weekly): 10,000 (Aarey); 15,000 (Worli).

### The Aarey Milk Colony

Started: March 1949; Investments by the Govt. at Aarey: About Rs. 4 crores; By licensees at Aarey and outside in cattle: About Rs. 3 crores.

*Pasteurising Capacity (Central Dairy):* 18,000 litres per hour.

*Bottling capacity:* 40,000 bottles per hour.

Number of livestock as on 1-1-1965 (Aarey): In milk 15,975; dry 248; bulls 125; youngstock 4,472; dry animals outside the colony 14,517; total 35,337.

Number of Cattle-owners 208; Number of Dairy Farms 30.

### The Worli Dairy

Started: Nov. 7, 1961; Investment on land, buildings etc.: Rs. 98,59,000; Value of machinery supplied by UNICEF Rs. 70,05,000.

*Pasteurising Capacity:* 40,000 litres per hour; *Bottling capacity:* 50,000 bottles per hour.

The quantity of toned milk, double toned milk and sterilized milk for 1965 is lower than for 1964.

## LABOUR

Particulars about labour in Maharashtra State are given below:

Total number of registered factories as on Dec. 31, 1963: 9,516.

Number of Works Committees functioning as on 31st Dec. 1964: 206.

Average daily number of workers employed in factories as on Dec. 31, 1963: 8,58,780.

Number of towns covered as on Jan. 1, 1965 by the Bombay Shops & Establishments Act, 1948: 116.

Number of industries covered by the Bombay Industrial Relations Act, 1946 as on Dec. 31, 1964: 10.

Number of workers covered by the Bombay Industrial Relations Act, 1946 as on Dec. 31, 1964: 3,40,517.

Number of registered trade unions in the State as on March 31, 1964: 1,626.

Total membership of registered trade unions as on March 31, 1964: 12,59,661.

Number of regd. trade unions affiliated to I.N.T.U.C. as on March 31, 1964: 120.

Membership of unions affiliated to I.N.T.U.C. as on March 31, 1964: 1,79,336.

Number of regd. trade unions affiliated to A.I.T.U.C. as on March 31, 1964: 47.

Membership of unions affiliated to A.I.T.U.C. as on March 31, 1964: 72,523.

Number of regd. trade unions affiliated to H.M.S. as on March 31, 1964: 47.

Membership of unions affiliated to H.M.S. as on March 31, 1964: 1,86,048.

### THE MAHARASHTRA LABOUR WELFARE BOARD

Jambori Maidan, Worli, Bombay 18 (WB).

The Board is appointed by Government under Section IV of the Bombay Labour Welfare Fund Act (1953) every three years. The Dy. Minister for Labour is the Chairman of the Board and Welfare Commissioner is its Principal Executive Officer.

The number of welfare centres under the control of the Maharashtra Labour Welfare Board are 72. In addition, there are three sub-centres carrying out activities on a restricted scale. Activities of these centres include recreation through entertainment, games and sports, health programme through first aid and health education, community and social education, subsidiary occupations and handicraft for women, nursery schools and scouts and guides for children, creches for toddlers, Tailoring Classes, etc.

Along with the programme of mass recreation, health and education, there has also been an emphasis on skilled recreation with an educative bias.

Attendance for 72 welfare centres in the State during 1963-64 was 2,79,14,460 with a regular membership of 99,458.

*Industrial Disputes* (1964):

No. of strikes 616; No. of workers directly involved 2,56,372; No. of workers indirectly involved 23,091; No. of man days lost 15,94,160.

**Official Language:** Maharashtra Official Language Act, 1964 has been passed in the State Legislature and Directorate of Languages has nearly finalised the initial preparations like training of typists and stenographers, preparing administrative lexicon and other help books, etc. needed for the change-over from English to Marathi.

**Decentralisation of Administration:** In the State all villages have been brought within the fold of Panchayati Raj. Out of the total number of 38,437 villages, 38,259 villages have been covered by establishment of 20,287 Gram Panchayats. In addition 3,518 Nyaya Panchayats have been notified. Elections to these Nyaya Panchayats are in progress. So far (Sept. 1964) elections to 1,151 Nyaya Panchayats have taken place.

### IRRIGATION

( *See after* ' *Yeotmal Dist.* ' )

### BUDGET 1965-66

(See "State Budgets".)

## AGRICULTURE

Production of foodgrains in the State in 1962–63 was 67 lakh tonnes which is 16·6 oz. per capita per day. Production of cotton and groundnut was 2·29 lakh tonnes and 8·1 lakh tonnes respectively. Production of tobacco was 0·12 lakh tonnes in 1962–63. Production of foodgrains and cotton during 1963–64 are estimated at 67·45 lakh tonnes and 2·47 lakh tonnes respectively.

Sugarcane is grown in all the districts except the Konkan districts, the major cane growing districts being Ahmednagar, Kolhapur, Poona, Nasik, Satara, Sangli, Sholapur, Osmanabad and Aurangabad. These nine districts have about 3·04 lakh hectares under sugarcane yielding 9·73 lakh M. tonnes of sugarcane (in terms of gur) in 1962–63. Estimated production of sugarcane in 1963–64 was 11·49 lakh tonnes.

The Marathwada districts have nearly 6·52 lakh hectares under oilseeds, the corresponding figures for Vidarbha districts being 3·66 lakh M. tonnes. The western Maharashtra including Jalgaon has about 9·12 lakh hectares under oilseeds.

As regards cotton, the area and production in Marathwada, Vidarbha and Western region including Jalgaon is as follows: Marathwada: 7 lakh hectares, 5 lakh tonnes; Vidarbha: 15 lakh hectares and 10 lakh tonnes; Western region: 4 lakh hectares and 7 lakh tonnes.

Although the Konkan districts are lean in the production of food crops, they excel in horticultural wealth. Ratnagiri district has 9,200 acres under mangoes. Similarly, the district has 8,900 acres under cashewnut. Thana district is the home of bananas, with an acreage of 2,900. Nagpur oranges are well known. They are grown in Nagpur, Amravati and Wardha Districts, which have about 27,200 acres under them.

### LAND REFORMS

For the purposes of tenancy reform, Maharashtra State falls into the following main categories:—

(*i*) the former Bombay areas consisting of 13 district which are governed by the Bombay Tenancy and Agricultural Lands Act, 1948;

(*ii*) Vidharbha areas consisting of 4 districts of former Central Province and 4 Berar districts, governed by the Bombay Tenancy and Agricultural Lands (Vidharbha Region) Act, 1958;

(*iii*) the Marathwada area consisting of 5 districts governed by the Hyderabad Tenancy and Agricultural Lands Act, 1950.

The main provisions of these laws are more or less similar and they can broadly be grouped under the following five topics:—

(*i*) Security of tenure for tenants, (*ii*) Regulation of rent, (*iii*) Resumption for personal cultivation, (*iv*) Rights of ownership for tenants, (*v*) Land management.

The main provisions relating to security of tenure is that no tenancy can now be terminated merely on the ground of efflux of time. Rights of all tenants are also entered in the Record of Rights. A general provision has also been made laying down that whenever a landlord gets a right to obtain back possession of land he shall do so only through the revenue officer. Where

a tenant is dispossessed unlawfully he has right to seek restoration of possession generally within two years by making necessary application to the Revenue Officer.

All the three tenancy laws now provide that the rent shall be paid in cash and also lay down the maximum rate of rent in terms of multiples of assessment. In the Western Maharashtra and the Marathwada the maximum rate is fixed at five times the assessment while in Vidarbha it is four times the assessment. In the Western Maharashtra there is also a provision which requires the revenue officers to fix rate of rent (which has to be between the maximum limit of 5 times the assessment and minimum limit of 2 times the assessment) in respect of lands situated in any village or group of villages. In other areas the tenants are to pay rent at agreed rate subject to the maximum limit laid down by the Act. In case of dispute the reasonable rent is determined by the Revenue Officer. The rent so determined then remains in force for a period of five years. There is also a general provision that the rent payable by tenant in any year shall not exceed one sixth of the produce from the land in that year. The other important provision is that the landlord is now required to give receipt (in the prescribed form) for the rent received by him. Failure to pass such a receipt has been made a cognisable offence. In regard to default in payment of rent the law provides that the tenancy shall not be terminable unless the tenant has committed three such defaults and that the landlord has given necessary notice to the tenant on each such occasion. All the three tenancy laws contain provisions for compulsory transfer of ownership to tenants with effect from the prescribed dates on payment of reasonable price which is payable in annual instalments.

In order to provide for the more equitable distribution of land amongst the peasantry of the State, the Maharashtra Government has enacted the Maharashtra Agricultural Lands, (Ceiling on Holdings) Act, 1961. The Act was brought into force on the 26th of Jan, 1962. The Act seeks to impose a maximum limit or ceiling on the holding of agricultural land in the State and also contains provision for the acquisition of land in excess of the ceiling and its distribution amongst landless persons, small holders, co-operative joint farming societies and farming societies, etc. The enquiries to be held under the Act in respect of the holdings of the joint stock sugar companies in the State have been completed and necessary declarations and notifications notifying the surplus lands with the companies have also been issued. The surplus lands of these factories are ultimately to be granted to the joint farming societies. Pending formation of such societies, the Government has decided to entrust the management of these surplus lands to a Government owned Company. The Government has accordingly, promoted a private Limited Company, *viz.* The Maharashtra State Farming Corporation Ltd., with an authorised capital of Rs. two crores and issued capital of Rs. one crore (all of which is subscribed by the Government) for the management of the sugarcane farms of the sugar factories that are to vest in the Government under the Ceiling Act. There are in all 13 Joint Stock Sugar Companies in the State holding big sized sugarcane farms. So far (Nov. 1963), possession of the surplus lands of ten sugar factories have been handed over to the Corporation.

The programme of consolidation of small and uneconomic holdings was completed in 1,869 villages by the end of 1963, covering an area of nearly 31 lakh acres. In the western Maharashtra about 5,20,000 tenants out of 16 lakh tenants have till March 1965 become owners of ten lakh acres of land as a result of legislation for compulsory transfer of ownership from landlord to tenant.

## INDUSTRIES

**Engineering :**—In the field of engineering industry, there have been several notable developments particularly in the Bombay region. Some of these are machine tools like lathes, shaping machines, pillar drills, power hammers, metal cutting saws, steel and malleable iron castings, welding electrodes, electrical stampings, link chains, melting crucibles, umbrella ribs, steel furniture, safes and cash boxes, steel balls and copper roller engraving for textile industry.

Another feature is the beginning made in the manufacture of modern appliances like typewriters, refrigerators, wireless receiving sets, wooden and plastic cabinets and household electrical gadgets. Manufacture of modern equipment for agricultural plant protection, pressure stoves and lamps, stainless steel-pressed wares and equipment, industrial machinery for textile and chemical industries and fabrication of heavy structurals like transmission tower and pipe line, cranes, etc. has also developed in recent years.

The engineering industries located at Kirloskarwadi, Poona and Satara are known for their agricultural implements, engines and other products. There are about 63 units in the Poona division itself, manufacturing diesel engines, oil-engines, sugar-mill machinery, jeep trailors and tractors, non-ferrous utensils, agricultural implements, power looms, etc. In electrical engineering, the manufacture of electrical motors, transformers, cables for transmission and switch gears are worthy of mention.

**Sugar :**—Maharashtra is one of the major sugar-producing States in the country, having 28 sugar factories, with a crushing capacity of 53·20 lakh tonnes per year. They are located in the districts of Ahmednagar (13), Kolhapur (6), Poona (4), Satara (3), Sangli (1), Sholapur (3), Nasik (3) and Aurangabad (1).

One of the important features of this industry is the organisation of co-operative sugar factories. This is borne out by the fact that out of the total licensed 34 factories, 20 are co-operatives. A letter of intent has been granted to a sugar mill in Co-operative sector to be established in Osmanabad District.

**Industrial Alcohol :**—Allied to the sugar industry is the industrial alcohol industry, which can be developed from the molasses available from sugar factories. Out of about 152·4 million litres of alcohol made wholly from molasses in the country, 33·47 mil. litres are made in the 8 distilleries located in the Poona Division. In view of the increasing demand for power alcohol for industrial purposes, the State Government has in 1962 put up a new and bigger distillery at a cost of Rs. 71 lakhs at Chitali, in Ahmednagar district in the place of the old unit at Nasik. The new distillery has an installed capacity of about 2·7 million gallons per year.

**Chemicals :**—The chemical industry in Maharashtra is developing fast, heavy as well as light.

For dye-stuffs Bombay and Thana are the main centres manufacturing a wide range of products. Ceramic and glass, gases, oils and soaps, paints, pigments and varnishes, food products, rubber goods and other chemical industries also follow the same pattern.

**The Automobile Industry :**—Bombay is progressively undertaking the manufacture of cars, utility vehicles and scooters in three large assembly plants. The ancillary industry manufacturing component parts is also steadily developing under the patronage of the automobile industry. The **Bicycle Industry** is also making headway, having an annual licensed capacity of 2,30,000 bicycles.

**Paper Mills :**—There are in all five paper mills in Maharashtra, one in Bombay, one at Khopoli, one each at Poona, Ogalewadi and Ballarpur. The Ballarpur mills have plans of expansion. One more unit has been licensed for manufacture of paper and pulp in Ratnagiri Dist.

**Oil Mills :**—Groundnut being one of the important cash crops in Nagpur and Aurangabad Divisions, there are several oil mills located in these regions. In Aurangabad Division itself, there are 45 independent oil mills, Pachora and Amalner having oil hydrogenation plants. In Nagpur Division, there are about 55 oil mills. Akola and Shegaon in this Division have one oil hydrogenation plant each. In Bombay Division, the oil milling industry is concentrated in Jalgaon, Dhulia and Nasik Districts where there are 35, 37 and 17 oil mills respectively. In addition, most of the ginning and pressing factories in the cotton growing tracts, which grow groundnut also, have oil mills for off-season working.

Ginning and pressing is an important processing industry serving the cotton growing areas. There are about 463 such factories all over the State, a large number of them, having been located in Nagpur Division. A little over 84 ginning and pressing units are spread over the entire cotton-producing area in Aurangabad Division giving seasonal employment to over 7,000 persons. In Bombay Division, 22 ginning and pressing factories are located in Dhulia District and 61 in Jalgaon District while there are 75 such factories in Poona Division.

**Petrochemical Industry:**—The organic chemical industry in India has so far been based upon the fermentation of alcohol, acetylene from calcium carbide and benesene and allied products from coal-tar. With the setting up of petroleum refineries in the country, there is scope of utilising petroleum naphtha for production of intermediates required for the organic chemical industry. One petro-chemical complex is expected to come up near Bombay in the Trans-Thana-Creek area. In this complex several organic products such as ethylene oxide, diasetone alcohol, P.V.C. etc. will be produced with petroleum naphtha as the starting material.

**Textiles :**—Thirty per cent of the total spindle capacity and 40 per cent of the loom capacity of the Country is in Maharashtra. The total number of mills in the State is 92 (14 spinning and 78 composite) with a capacity of 42,50,000 spindles and 82,181 looms.

Of this, 62 mills constituting 80 per cent capacity are in the city of Bombay.

In addition, there are also 2 lakhs of handlooms and about 50,000 to 60,000 powerlooms. The total number of workers employed is as follows :—

| | |
|---|---|
| Organised Sector | 2,68,601 |
| Handloom Sector | 2,50,000(approximately) |
| Powerloom Sector | 1,50,000 ( —do.— ) |

Maharashtra occupies an important place in the field of growing of cotton in the Country. Of the total production in the Country, about 25 per cent is produced in the State, amounting to 14 lakhs of bales. The quality of cotton is mostly short and medium staple. Recently growth of long staple cotton has picked up in certain irrigated tracts in the District of Ahmednagar.

## MINERALS

The rich deposits of iron ores, estimated to be of the order of about 89 lakh tons, located in Vidarbha and Konkan, very large deposits of manganese ore, both of high and low grade, occurring in Vidarbha, particularly Nagpur and Bhandara districts, extensive deposits of bauxite, estimated about two crore tons in Kolhapur district alone, as also in parts of Ratnagiri, Thana and Kolaba districts and coal reserves of over 428 crore tons in Vidarbha, constitute the mineral wealth of Maharashtra.

In addition to these major minerals, there also occur other minerals like ilmenite, chromite, mica, silica, limestone, clay, etc.

**Iron ore :**—Very rich deposits of iron ore, estimated to be of the order of about 89 lakh tons, are located in various parts of Maharashtra, particularly in Ratnagiri and Kolaba districts and in Vidarbha region.

Important occurrences of iron ore are located in Ratnagiri District in Bombay Division, round about in Vengurla taluka and Bandapeta in Sawantwadi taluka. The overall potential appears to be enormous, the iron content in

them varying from 45 to 66 per cent. A few mining concessionaires are already working in the Redi area and the present annual output is about three lakh tons. Patches of iron ore, lateritic or otherwise, are also known to occur in Kolaba district, round about Janjira.

Nagpur region, however, seems to be rich, not only in manganese and coal deposits, but also in iron ore. Those occurring in Chanda district are the most important, both in extent and quality. They occur at places like Lohara, Asola, Dewalgaon, Bissi, Pipalgaon, Ratnapur and Surajgarh.

**Manganese :**—The Vidarbha region has very large deposits of manganese ore, both of high and low grade. There are 231 working mines exploiting manganese ore in various parts of Nagpur and Bhandara districts, which are the main manganese producing areas of Vidarbha. Most of the areas bearing high grade ore have already been leased out. For the present, almost the entire quantity of manganese ore produced is exported in raw condition. However, recently, two ferro-manganese plants which will utilize a sizeable quantity of the ore have been set up in Nagpur and Bhandara districts.

In Bombay division also, the manganese ore appears to be occurring almost side by side with the three iron-ore belts running parallel in Ratnagiri district.

**Bauxite :** Kolhapur district has rich deposits of bauxite. More than 3·4 crore tons of bauxite exist in this zone. They occur at Udgeri, Dhangarwadi, Rangewadi, Radhanagari, Waki, Gargoti, Panhala, Ajara and Vishalgadh all in Kolhapur district.

In Bombay Division, bauxite occurs in Ratnagiri, Thana and Kolaba districts. The deposits of Ratnagiri lie in the up-ghat region at Amboli. The reserves were estimated at over 50 lakh tons. The ore occurs at Tungar hills and in the Borivli, Jogeshwari and Goregaon area. In Kolaba district, bauxite deposits of good quality have been reported at Dohane, Ambegaon and Wakalghar in Murud taluka and Wave and Shinona in the Shriwardhan taluka.

**Coal :**—Coal occurs at Kamptee in Nagpur district and in the Wardha valley. The Wardha valley comprises the Bandar, Warora, Majri, Rajura, Chanda (Durgpur, Mahakali, Babulpeth and Lalpeth), Ghugus and Ballarpur fields. The deposits are, however, of the second grade as compared to the Jharia grade and are of non-coking variety. At present, about 10 coal mines are being worked in this area. The Bhandar reserves are estimated at 10 crores and 80 lakh tons, while the Warora field reserves are roughly over 1 crore and 20 lakh tons. The reserves of the Rajura and Wani coal fields are of the order of 29 crore tons.

In Nagpur district, coal has been proved at Tekadi and Juni Kamptee. The exact reserves may be of the order of 30 crore tons. Areas between Kanhan and Saoner are likely to contain extensive deposits of coal. Mining operations have been undertaken at Kamptee. However, the present production is diverted exclusively to the Khaparkheda thermal power station.

Thus the total coal reserves in the Vidarbha region are of the order of 428 crore tons.

**Limestone :**—The Marathwada region has limited mineral resources, which consist chiefly of building stones, semi-precious stones, zeolites and material for lapidary industry. Limestone deposits have, however, been discovered south-west of Mohada in the Kinwat Taluka of Nanded district. The reserves are provisionally estimated at 6·60 lakh tons.

Important deposits of limestone occur in Nagpur Division, limestone deposits are located near Rajura in Yeotmal district and Warora in Chanda district. In Chanda district, limestone occurs a quarter of a mile north-west of Purkepar village, about four miles east of Nawargaon. It also occurs in Kondala village and at Wardha. The estimated reserves of Chanda district are of the order of 10 million tons of workable lime stone, suitable for cement manufacture. The estimated reserves of Yeotmal District are of the order of 4,000 million tons.

In Poona Division, limestone has been located at Kallur, Nandur, and Khanderawadi in Ahmednagar district. The reserves have been estimated to be only 10,000 tons. Recent surveys reveal good deposits of limestone in the Miraj taluka of Sangli district.

Limestone deposits are also known to occur in Ratnagiri district to the south-west of Phonda ghat and in the high hills of Hanumat ghats. Limestone patches occur right from Dabhol to Panvel, Malad to Bassein and Palghar to Dahanu.

The distribution of some other ores are :—

**Ilmenite :** Ratnagiri District (between Ratnagiri and Jaygadh) ; estimate 20 lakh tons ; near Yerangal in Borivli Taluka and near Bassein in Thana.

**Chromite :** Ratnagiri District (Kankavali, Vadga) ; estimates 70,000 tons. Are worked.

**Mica :** Ratnagiri District ; 5,000 maunds a year could be worked.

**Silica :** Ratnagiri District ; estimate over two crore tons. Now worked. Yield 10,000 tons a year.

**Clay :** Ratnagiri District (Talegaon, Malvan, Vengurla, Kudal, Sawantwadi) ; Thana District (Ghokhara Mouza near Bassein Road) ; Nagpur District (Bozargaon, Shemda, Khapri) ; Amravati District (Belkher, Kharaili, Pandhari) ; Chanda District (Kothari, Isapur, Ballarshah, Junona, Bhandak). Some leased for pottery works at Nagpur, Jabalpur and Chanda.

**Felspar and quartz :** Ratnagiri District (Kadwa-Pangharat ; also southern areas).

**Ochres :** Ratnagiri District (Savantwadi, Kudal, Vengurla).

In 1963, the total value of mineral production in Maharashtra was Rs. 6·16 crores as against Rs. 6·38 crores in 1962. The State ranks eighth in mineral production in India.

## THIRD PLAN

*State level Schemes :* Of the total plan outlay of Rs. 390·20 crores, the outlay on State level schemes is Rs. 34·09 crores. The sub-joined table shows the regionwise distribution of the State Plan outlay less the outlays on State level schemes and the resultant per capita outlays in the different regions on the basis of their populations according to 1961 census.

| Division | Total outlay (Rs. crores) | Per capita outlay (Rs.) |
|---|---|---|
| Greater Bombay .. | 32·83 | 79 |
| Bombay excluding Bombay City .. | 82·76 | 87 |
| Poona .. .. .. | 90·83 | 88 |
| Nagpur .. .. | 88·18 | 96 |
| Aurangabad .. | 61·51 | 98 |
| Total .. .. | 356·11 | 90 |

*Note :* Because of security reasons, we have not been able to get details about region-wise irrigation projects.

# GREATER BOMBAY

The area of Greater Bombay is 186 sq. miles and the population 4,152,056 (1961 Census).

The area of Bombay City is 26 sq. miles and the area of the Bombay Suburban District is 160 sq. miles. For population see under "Population".

The northern boundary runs from the north of Dahisar village in the west, in the centre between the milestones 21 and 22 on the Agra Road, and in the east north of Mulund Municipality.

The municipal area of Greater Bombay described above is also the area covered by Bombay City and the Bombay Suburban District from the point of view of revenue division.

The Collector for Bombay City is also the Collector for the Bombay Suburban District. Bombay City Collectorate is directly under the Government and is governed in accordance with the provisions of the Bombay City Land Revenue Act of 1876.

The Bombay Suburban District has besides the Collector, one Additional Collector, one District Deputy Collector, one Additional District Deputy Collector and three Mamlatdars one for each of the Talukas Andheri (also called South Salsette) with headquarters in Andheri, Borivli with headquarters in Borivli and Kurla with headquarters at Mulund (with effect from Aug. 16, 1962). The headquarters of the Additional District Deputy Collector is at Andheri.

There are 30 Presidency Magistrates Courts and 8 Courts of Honorary Presidency Magistrates. Two Courts are created for the trial of railway cases of Central and Western Railways. There are 10 Police Divisions, 34 police stations and four sub-police stations.

### AGRICULTURE

In Bombay Island proper though about 8 sq. miles of unbuilt and undeveloped land is available there is practically no agriculture. Vegetables, flowers and fruit are grown in private gardens and wadis but on a very negligible scale. In the newly merged areas and the adjoining suburbs, however, extensive paddy cultivation is carried on. Vegetables and fruits are also grown especially during the monsoon. The produce is largely marketed in Bombay.

### COMMERCE AND INDUSTRY

Commercially and industrially Bombay is the second, if not the first City in India. It is the principal centre of the cotton textile industry (60 cotton mills with 62,290 looms and 32,78,480 spindles). Its share in looms and spindles is 30·80 per cent and 22·35 per cent respectively of the total in the country. There are over 566 textile factories including silk, woollen and hosiery ; over 986 engineering undertakings ; over 146 establishments manufacturing articles of food, drink and tobacco ; over 256 establishments producing chemicals, etc. ; 19 hides and skins processing concerns, and over 2,000 factories of a miscellaneous character.

On the total it is reckoned that there are 1,831 factories employing under 20 workers ; 1,213 factories employing between 20 and 50 workers ; 1,125 employing between 50 and 500 ; and 145 employing between 500 and 5,000 workers. The number of persons engaged in organised industry in the year 1962 was 5,22,862.

Of the population it is reckoned that 260,000 are in public employment ; 445,000 in organized industry ; 340,000 in commercial business ; 150,000 in establishments that come under the Shops and Establishment Acts.

After Calcutta, Bombay is the biggest financial centre in India. The Stock Exchange, Bullion Exchange and Cotton Exchange regulate trading in stocks and shares of a wide circle of industrial undertakings. The Reserve Bank of India, the central banking and currency authority has its Central Office in Bombay. 29 Indian Scheduled Banks operate in Bombay. Of these four have their Registered offices here. There are 13 foreign Scheduled Banks. Of these seven have their principal offices located in Bombay. The head office of the Life Insurance Corporation of India is also located in Bombay.

Being the best natural harbour in India, the trade carried through Bombay is about 46 per cent of the total trade of India. The principal

items of import are bricks, cement, sand, etc.; China clay; coal; cotton; glassware; grain; hardware; iron and steel; kerosene; fuel oil; motor vehicle parts; machinery; boilers and railway materials; oilman stores; oils; vegetables, etc.; paper; piece-goods; petrol; sugar; timber; twist and yarn; Government and naval and military stores.

The main exports are coal; cotton; flour; groundnuts; hemp; hides and skins; kerosene and fuel oils; manganese ore; myrobalans; oil-cake; piece-goods; seeds; spices; sugar; wool packages; twist and yarn; Government and naval and military stores.

The total returns to the Central Government from Greater Bombay in customs revenue is about 49·66 per cent of the total revenue from the seaborne and air borne trade of India. The income-tax return to the Central Government from Greater Bombay is about 31·82 per cent of the total income from the country. The Corporation Tax amounts to about 42·5 per cent of the total collections in Gr. Bombay.

### COMMUNICATIONS

From the communications point of view Bombay holds a unique position. There are numerous air routes connecting Bombay with the rest of the country, and it is also directly linked with foreign countries aerially. The head offices of two chief railway systems, the Central and Western Railways are in Bombay which is rail linked with Calcutta, Delhi, Nagpur and Madras. It is the second biggest port and the chief sea communications centre of India. Greater Bombay's transport requirements are met by the local services of the two railways, Central and Western, besides the bus services of the municipalised Bombay Electric Supply and Transport Undertaking.

### HOUSING

Statement showing the number of tenements constructed by the Housing Board from April 1, 1947 to Dec. 31, 1964 in the Greater Bombay area, under the respective groups: Old industrial housing scheme 2,608; scheme for B.S.O.R. 500; old low income group housing scheme 2,075; military hutments 1,575; subsidised industrial housing scheme 24,026; rehabilitation works 19,715; new low income group housing scheme 5,100; slum clearance scheme 9,038; housing scheme for dishoused persons 200; middle income group housing scheme 1,342; economic weaker section housing scheme 566; acquisition and development of lands 368 acres; Juhu-Vile Parle development scheme 426 acres; Total expenditure incurred during the above period for the whole State Rs. 2,967·38 lakhs. This is exclusive of overhead charges and the expenditure incurred on the works transferred to Gujarat Housing Board due to bifurcation.

Total number of households: 568,862.

22,695 households were examined in a sample survey. The number of persons living in them was 107,282—66,530 males and 40,752 were females.

Out of these households, the number of small households (3 members and less) was 9,110, and the number of persons living in them was 18,518; of medium households (4 to 6 members) 8,238, and the number of persons 39,699; of large households (7 to 9 members) 3,656, and the number of persons 28,454; of very large households (10 and above) 1,691, and the number of persons 20,611.

## THE GREATER BOMBAY CORPORATION

THE municipal area of Greater Bombay is now divided into 14 administrative wards. These are A, B, C, D, E, F (North); F (South); G (North); G (South); H; K; L + M; N + P; R + T.

For election purposes the municipal area of Greater Bombay is divided into 44 electoral wards—numbered 1 to 44.

From a demarcation point of view one or more electoral wards would go to make one administrative ward.

Total no. of seats: 131.

The administrative ward, the electoral ward, the area covered by the electoral ward, and the number of seats allotted to it are given below:

| Administrative | Electoral | Area | Seats |
|---|---|---|---|
| A | 1 | Colaba | 2 |
| A | 2 | Fort | 2 |
| A | 3 | Bori Bunder | 3 |
| C | 4 | Mandvi | 2 |
| B | 5 | Dongri | 2 |
| B | 6 | Umerkhadi | 3 |
| C | 7 | Kharatalao | 3 |
| B & C | 8 | Kumbharwada | 3 |
| C | 9 | Markets | 3 |
| C | 10 | Dhobi Talao | 3 |
| C | 11 | Fanaswadi | 3 |
| C & D | 12 | Girgaum | 3 |
| D | 13 | Khetwadi | 3 |
| D | 14 | Walkeshwar | 3 |
| D | 15 | Mahalaxmi | 3 |
| D | 16 | Tardeo | 3 |
| E | 17 | Kamathipura | 2 |
| E | 18 | Nagpada | 2 |
| E | 19 | Mazgaon | 3 |
| E | 20 | Byculla West | 4 |
| E | 21 | Byculla East | 3 |
| E | 22 | Ghorupdeo | 2 |
| E & F | 23 | Sewri | 3 |
| F | 24 | Lalbaug | 2 |
| E & F | 25 | Parel | 2 |
| F | 26 | Naigaum | 5 |
| F | 27 | Matunga | 2 |
| F | 28 | Sion | 3 |
| | 29 | Love Grove | 4 |
| G | 30 | Lower Parel | 3 |
| G | 31 | Worli | 4 |
| G | 32 | Prabhadevi | 4 |
| G | 33 | Dadar | 4 |
| G | 34 | Mahim | 5 |
| H | 35 | Bandra East | 4 |
| H | 36 | Bandra West | 3 |
| K | 37 | Andheri Vile Parle (South) | 3 |
| K | 38 | Andheri Vile Parle (North) | 4 |
| L | 39 | Kurla | 3 |
| M | 40 | Chembur | 2 |
| N | 41 | Ghatkopar | 3 |
| P | 42 | Malad-Goregaon | 3 |
| R | 43 | Borivli-Kandivli | 3 |
| T | 44 | Mulund, Tulshi and Vihar Lake area | 1 |

The municipal government of Greater Bombay vests in the Municipal Corporation, composed of 131 representatives elected on adult franchise.

The Corporation has four statutory committees, the Standing Committee, the Improvements Committee, the Bombay Electric Supply and Transport Committee and the Education Committee.

The executive power in regard to general municipal administration vests in the Municipal Commissioner. The administration of the B.E.S.T. Undertaking, however, vests in the General Manager, B.E.S.T.

The Corporation is required to meet at least once a month. In actual practice it meets twice a week and oftener if necessary. Meetings of the Corporation are presided over by the Mayor who also convenes the meetings. The Mayor's term of office is one year and he is elected at the first meeting in April.

The Corporation has decided to adopt the Maharashtra State Legislature Assembly Roll and constituencies for Greater Bombay for holding the next municipal general elections (expected to be held in March 1966) on the basis of single member constituencies (120 wards).

### COMMITTEES

The Standing Committee consists of 17 members, 16 of whom are elected by the Corporation. Half the members retire at the end of each year. The Chairman is elected by the members of the Committee at the first meeting in April every year. The main functions of the Committee are to sanction contracts, to scrutinize the budget and establishment schedule, frame service regulations, sanction investment of funds, prescribe the form of keeping accounts and conduct their scrutiny. The Committee meets once every week, usually on Wednesdays.

The Improvements Committee consists of 16 Councillors, all of whom are elected by the Corporation. The Chairman is elected for a term of one year, while half the Councillors retire at the end of each year. The Committee is charged with all improvement and development schemes, slum clearance, providing accommodation for the poorer classes and purchase and sale of land which does not exceed Rs. 50,000. The Committee usually meets once a fortnight on Tuesdays.

The Bombay Electric Supply and Transport Committee consists of nine members, one of whom is the Chairman of the Standing Committee (ex-Officio), while the remaining members are appointed by the Corporation from among persons who (may or may not be members of the Corporation) have experience of administration, transport or electric supply, or of engineering, industrial, commercial, financial or labour matters. The Chairman is appointed by the members for a period of one year, while half the members retire every second year. The Committee usually meets every Friday. The Committee exercises general control over the electric supply and transport undertakings of the Corporation.

The Education Committee consists of 16 members, of whom 12 are Councillors and 4 non-Councillors of whom two have to be women. The Chairman of the Committee is elected for a period of one year, while half the members retire at the end of each year. The

Committee usually meets on the first Friday of every month. The main function of the Committee is to administer the Primary Education Act or any other law for that purpose for the time being in force.

Besides the Statutory Committees mentioned above there are four Special Committees appointed by the Corporation. These are : 1. the Works Committee, 2. the Medical Relief and Public Health Committee, 3. Markets and Gardens Committee, and 4. Law, Revenue and General Purposes Committee. Each Committee consists of 24 Councillors appointed by the Corporation after each general election. There are a Chairman and a Deputy Chairman for each Committee who are elected by the members and who hold office for one year. All questions that are due to go before the Corporation must first be considered by the appropriate Special Committee which then makes its recommendations to the Corporation.

Then there are a number of *ad hoc* Consultative Committees appointed from year to year, to which the Corporation can refer any matter for consideration and report.

The four most important officers of the Corporation are the Municipal Commissioner, the General Manager of the Undertaking, the Municipal Secretary and the Municipal Chief Auditor.

The Municipal Commissioner is at the head of the Civic Administration. He is usually a senior member of the Indian Civil Service and is appointed by the Government for a renewable period of three years. He can be removed by the Corporation by a five-eighths vote. If however Government desire to revert him to their service the consent of the Corporation is necessary. He attends meetings of the Corporation and Committees but does not vote. He is assisted by four Deputy Municipal Commissioners.

The General Manager of the Undertaking is in the same position to the Electric Supply and Transport Undertaking as the Municipal Commissioner is to the Corporation as a whole. He is appointed by the Corporation subject to the approval of the State Government for a renewable period of not more than five years at a time. He can be removed by the votes of not less than half the total number of Councillors. He attends the meetings of the B.E.S.T. Committee and takes part in the discussions but does not vote.

The Municipal Secretary is in charge of all the secretarial work pertaining to the Corporation and its Committees. He is independent of the Commissioner and is directly under the Standing Committee.

The Municipal Chief Auditor is also independent of the Commissioner and is directly under the Standing Committee.

## EDUCATION AND MEDICAL RELIEF

Primary education is free and compulsory in the Lower Primary standards of Municipal Schools all over Greater Bombay. It is the special responsibility of the Corporation.

But only about 88 children out of 100 receive an education.

From 1958 the benefit of free education was extended to the upper primary classes too.

There were in June, 1965, 900 Municipal Schools and Classes conducted by the Education Committee and 485 Aided or Recognised Schools to which the Corporation makes or gives recognition. The total number of pupils in all Primary Schools was about 6,00,000 out of whom 4,80,000 were in Municipal Schools and the rest in other Schools. The Corporation spent about Rs. 5·4 crores on primary education in 1964–65. Of this Government contributed Rs. 65 lakhs. There was a net increase of 30,000 pupils in Municipal Schools during the year.

To meet the growing expenditure on primary education the Corporation decided for the first time in 1958 to levy an education cess at 1¼ per cent. Education cess collected during 1963–64 was Rs. 59,60,778.

The Municipality maintains the Victoria and Albert Museum at Victoria Gardens and 14 libraries.

*Medical Relief :* The Municipality runs one large hospital for infectious diseases (except tuberculosis, veneral disease and leprosy) at Sane Guruji Road and three other large general hospitals in the City proper (K.E.M.; Nair and the Lokamanya Tilak Hospital, previously known as the Sion Hospital) and a group of hospitals for the treatment of tuberculosis at Sewri, an isolation centre at Dadar and four clinics and an ear, nose, throat hospital at Napier Road. Altogether 1,048 beds are reserved for T.B. patients. In the Suburbs there are four general hospitals and 1 T.B. Clinic and 300 beds reserved for T.B. patients. Medical treatment is administered also through 58 general dispensaries, 2 Ayurvedic dispensaries, 1 Unani, 6 women's and children's clinics, 9 Mobile Hospital Units, and 17 Maternity Homes. Anti-rabic treatment is given free of charge at the K.E.M., Nair and Lokamanya hospitals as well as the Bhabha Hospital at Bandra and the Municipal General Hospital at Ghatkopar (at Rajawadi).

The two-storeyed eye Hospital at Kamatipura undertaken in 1960 started functioning from May 1962. The old 12-bed hospital and dispensary have been shifted into the new hospital. Built on modern lines it has a 36-bed accommodation.

## WATER SUPPLY

The water supply of the City is drawn from four lakes : Tansa, Vaitarna, Vihar and Tulsi. The Tansa Lake combined with Vaitarna has a maximum supply capacity of 210 million gallons per day and is the main source of water supply. It is situated about 66 miles north-east of Bombay. The Vihar Lake can supply 20 million gallons a day exclusively to the north-east part of the City and also partly to Chembur and Kurla. It is situated about 18 miles north of Bombay. The Tulsi Lake which is to the north-west of Vihar Lake supplies 3 million gallons a day.

Under Section 140 of the Bombay Municipal Corporation Act the Corporation can levy water tax on buildings, lands and premises in the City. The tax is fixed as a certain percentage of the rateable value of the building, land or premises. The rate in 1958 was 3¾ per cent which has been increased to 4½ per cent. Under Section 169 the water supplied can also be charged on meter measurement and at the rates prescribed from time to time by the Standing Committee. Water tax is the first charge on a property under Section 141, and can be recovered from the owner by distress (Sections 203, 204) and is also recoverable from tenants by authorizing them to make payments from their rents (Section 209). The supply of water to any premises can be cut off in default of payment of water tax or any sum due for water or hire of meter or expenses of work done (Section 279(1)(*a*)). Copies of Water Charges Rules can be had from the Public Relations Department on payment of a sum of 50 nP. per copy.

The obligatory duty of the Corporation to supply an adequate quantity of water relates to the provision of supply only up to the boundary of the premises, as distinguished from the distribution of water within the premises. Any premises can be served by means of one communication pipe, the size of which depends upon the quantity of water needed in the premises. The owner can have separate connections to each floor provided he pays the cost of all the connections but one.

If the Municipal Commissioner finds that any premises are not provided with an adequate supply of pure water he has the power under Section 271(2) to compel the person who pays the property tax to obtain an adequate supply from Municipal Water Works and carry out all such works as is necessary for a proper distribution of water.

No one except a licensed plumber can undertake work on water-pipes and fittings and no person can allow any such work to be done by anyone except a licensed plumber.

For purposes of distribution Bombay is divided into four divisions, *viz.*, area getting supply from (*a*) Malabar Hill Reservoir (*b*) Bhandarwada Hill Reservoir (*c*) Worli Hill Reservoir (*d*) and direct supply.

A five million-gallon reservoir at Worli Hill, undertaken in 1960 was put into commission in October 1961. To be filled twice daily, the reservoir, under ideal conditions, is expected to supply 10 million gallons of water to that portion of "G" ward comprising mainly of Abdul Gaffarkhan Road, Worli B.D.D. Chawls, Housing Board Estates, Fergusson Road, Haines Road, Clerk Road, Prabhadevi.

Central Control Division (at Babula Tank) consists of the localities of Kalachowki Road, Reay Road, Coal Bunder in the north, on the eastern coast up to Carnac Road, Abdul Rehman Street, Kika Road, Falkland Road and part of Grant Road up to Lamington Road in the south, in the west Lamington Road and Arthur Road and finally some areas of Dongri and Mandvi and Mazagon. The whole of this Division is supplied from the Bhandarwada Hill Reservoir. This division, as the name implies, controls the supply and distribution of water right from the lakes upto the distributing mains.

The amalgamated areas of the former Bombay Suburban District are supplied water by gravity through several tapping points on the trunk mains coming from the lakes. For distribution purposes, the areas are divided into two zones, viz., the western and eastern zones. The former get their supply from tappings on the east and west Tansa and Tulsi mains between Marol and Bandra, and the latter through tappings on the West Tansa mains, the Vihar mains and Tansa mains. The supply is throughout metered.

Total water supplied to Greater Bombay per day : almost 210 million gallons.

But the present requirements on account of growing industrialisation and the increase in population is much more than can be presently supplied. Among the schemes envisaged to augment the present water supply are : Rs. 3·5 crore Dahisar river dam, which is expected to yield 6 million gallons of water per day ; construction of a dam on the Upper Vaitarna river, the expenditure of about Rs. 23 crores which is to be borne jointly by the Corporation and the State Government ; and schemes contained in the Master Plan of Greater Bombay.

The Tansa supply is chlorinated at the Chlorination Plants of Powai and Ghatkopar, while the Vihar supply is sterilized at Powai.

There is regular bacteriological and chemical analysis of water carried out by the Municipal Analyst.

## PUBLIC HEALTH DEPARTMENT

The Public Health activities are carried on under the direct control and supervision of the Executive Health Officer. The Department is divided into several branches such as environmental sanitation, food, sanitation and food adulteration, vital statistics, regulation of places for disposal of the dead, prevention and control of communicable diseases, maternity and child hygiene, family planning, medical relief and health propaganda.

Environmental sanitation comprises inspection and supervision of premises, provision of public sanitary conveniences, sanitary control over factories, licensable trades, overcrowding.

The veterinary staff inspects the stables in the city and are also in charge of the bullock hospital and segregation sheds in Mahalaxmi.

For purposes of sanitation, registration and vital statistics the Gr. Bombay is divided into 19 divisions, 12 in the city proper, each under a Medical Inspector, and 7 in the suburbs under 5 Medical Health Officers of Health.

For the hygienic control of foodstuffs including milk trade there are Milk Sub-Inspectors and Sanitary Inspectors. Since the Prevention of Food Adulteration Act, 1954, came into force in 1955, sampling of food including milk has become more elaborate than before. In addition to the usual Food Inspectors, a mobile squad of surprise "Sampling with Swiftness" has been at work to control adulteration of food through sampling.

For pest control there is an Insecticide Branch.

The vaccination staff includes a Superintendent, a Head Vaccinator, a number of Vaccinators including a Lady Vaccinator. There are 89 public vaccination stations 7 of which work daily at : 1. The Central Vaccine Dept., Parel. 2. The Sanitary Institute Building, Princess Street. 3. Municipal Suburban Offices, Waterfield Road, Bandra. 4. Andheri Maternity Home, Andheri. 5. Seth N. L. High School, Malad, 6. Kasturba Hospital, Sane Guruji Road, 7. Ferry wharf (closed from June 1, to Sept. 30). The remaining centres work on one day every week by rotation for about 2½ hours.

Hygiene includes maternity and child welfare, family planning and school health.

There are 17 Maternity Homes in Greater Bombay and two maternity wards in general hospitals, each in charge of a Lady Medical Officer. A number of Health visitors do the follow-up work and ensure domiciliary care under the direction of the Lady Medical Officers. A small maternity unit is conducted at Dharavi. Expectant mothers are encouraged to attend ante-natal clinics, of which there are 37 in number. Maternity Homes in the City are at Cadell Road, Victoria Road, Bellasis Road, Khetwadi, Imamwada Road and Naigaum. And child welfare clinics are conducted (besides the Maternity Homes) at Fergusson Road Dispensary, Dadar Main Road Dispensary, Ambewadi Dispensary at Parel Tank Road, District Dispensary at Souter Street, Tardeo Flats Dispensary, District Dispensary at Charni Road, District Dispensary at Panjrapole, Palton Road Stables Dispensary, District Office at Kolsa Mohalla. Six child welfare clinics, two well-baby centres and three paediatric centres are conducted at Maternity homes.

There are Family Planning Clinics at 264, Charni Road; Bai Gulbai Choksy Dispensary at Dr. D'Silva Road, Dadar; Bellasis Road Maternity Home; Victoria Road Maternity Home; Imamwada Maternity Home; Cadell Road Maternity Home; and Khetwadi Maternity Home; Municipal General Hospital, Sion; and 27 other Centres.

Instruction and advice in the spacing of births are given at the family planning clinics. Operative procedures are done at the larger Municipal hospitals as well as at Naigaum Maternity Home on a voluntary basis only.

School Health Work is limited to Municipal Schools only and is under a Medical Officer. Children found to have defects are taken for treatment in school buses to the school clinic at K.E.M. Hospital. Dental care is given at the Dental Clinic at the Bai Yamunabai L. Nair Hospital. All children in municipal schools are given free milk on working days.

The Public Health Laboratory which is under the charge of a Municipal Analyst conducts routine and special examinations of water, sewage, food, urine, blood and sputa of patients at Municipal Institutions. There is also a Health Museum maintained for the education of citizens.

The Conservancy Branch is under the City Engineer, who is assisted by a Public Health Engineer. Under him are Supervisors, Senior Overseeas. Junior Overseers, Depot attendants, etc.

Conservancy includes cleansing of streets, etc., removal and disposal of refuse, destruction of rats and dogs, veterinary service, removal of carcasses, disinfection, ambulance and so on.

The Veterinary staff is under a Senior Veterinary Inspector, who has a number of Junior Inspectors and qualified veterinary surgeons.

Medical Relief is given at the following hospitals: K.E.M., Nair Lokamanya Tilak Hospital, R.P.T.B. and Kasturba Hospital, at 58 Municipal General Dispensaries, nine Mobile Hospital units and one Eye Hospital and dispensary.

Addresses of Municipal General Dispensaries, Maternity Homes, Hospitals and Family Planning Clinics in Greater Bombay are given below :—

55, Rajwadkar Street, Colaba; 303, Frere Road, Fort; Municipal Stables, Palton Road; 259, Sardar Vallabhbhai Patel Road, Dongri, 44, Jail Road North; 212(1), Panjrapole Street, Bhuleshwar; 264, Charni Road, Girgaum; H. C. Shroff Dispensary, 15-17, Khetwadi; 1st Lane; Tardeo Flats, Mahalaxmi; Bai Gourabai Dispensary, Kamathipura 8th Lane; 1, Souter Street, Byculla; Tarwadi Dispensary, Mazagaon; Cannaught Road, Byculla; 143, Foras Road; Mulji Bhuvan, Sewri New Road; New Chawl, Ambewadi, Parel Tank Road; Dadasaheb Phalke Road, Municipal Chawl No. 1; Digvijay Mill Compound, Lalbaug; Central Vaccine Depot, Parel; Bai Gulbai Choksi Dispensary, D'Silva Road, Dadar; 245(H) & (I), Dharavi Road; 213-C, Delisle Road; 160-160A, New Delisle Road (Fergusson Road); New Prabhadevi Road and Cadell Road Junction; B.D.D. Chawl No. 45, Worli; Dispensary for beggars at the King George V Infirmary, Haines Road, Mahalaxmi; Worli Koliwada Dispensary, Worli; Sir Cawasji Jehangir Readymoney Dispensary, Waterfield Road, Bandra; Kherwadi, Khar East; Danda Village Dispensary, Danda, Udhavdas Tarachand Municipal Free Dispensary, Off Swami Vivekananda Road, Old Khar; Kalina Bus Stop, Kalina Santacruz (East); Yeshodabai Monji Vora Dispensary, Vile Parle, N. J. Wadia Dispensary, Andheri; Kol Dongri, Andheri; Squatters, Colony, Jogeshwari; Khoja Gully, Versova; Marol Road, Marol Village; Bai Mithibai Hormusji Wadia Main Dispensary, Kurla; Bai Mithibai Hormusji Wadia Branch; Seth Dwarkadas Tribhuvandas J. P. Municipal Dispensary, Chembur; Rajawadi, Ghatkopar; Champabai Motichand Premises, Near Bhandup; Horse Shoe Valley, Ghatkopar; Tagore Nagar, Govt. Housing Colony, Vikhroli (East); Municipal Colony, Vikroli (West); Topiwala Charitable Dispensary, Goregaon; Govt. Housing Colony, Modilal Nagar (Goregaon West); Choksy Charitable Dispensary, Malad; Basil Gomes Dispensary (Part-time), Manori; K. K. Charitable Dispensary, Borivli; Chaturbai Bhuvan, Irani Wadi, Kandivli (West); P. J. & K. Charitable Dispensary, Mulund; Dahisar; Welkarwadi, off Cadell Road, Mahim; Unani Dispensary, Mohalla, Pydhonie.

*Ayurvedic Dispensaries :*

Ayurvedic Municipal Free Dispensary, Gokhale Road (South), Dadar; Ayurvedic Dispensary (Zandu), Labour Camp, Matunga.

The eye hospital is located at Bapty Road, Kamatipura.

There are also physiotherapy and occupational therapy centres, a diabetic centre, school clinics, a rehabilitation and training centre for the crippled, health centre and a convalescent home at the K.E.M. Hospital; dental clinics at the Nair Hospital Dental College; and the benefit of a paying-beds scheme at the Lokamanya Tilak Hospital. V.D. cases are treated at the V. D. Clinic at 254, Bellasis Road and leprosy cases at the Acworth Leprosy Home Clinic at Wadala and seven other clinics. Of the 58 Municipal Dispensaries, two give Ayurvedic treatment.

## WELFARE WORK

To stimulate civic awareness and promote closer contact with the public, the Corporation has been running an illustrated English monthly called 'The Bombay Civic Journal' from March 1954. It deals with the activities and problems not only of the Bombay Municipality, but also of other local bodies all over the country and seeks to foster 'an objective discussion of civic issues and the larger questions relating to local self-government from the national angle'.

Another new development has been the starting of a Public Relations Department in February 1956. This department, besides doing educative publicity through films, posters, pamphlets, press notes etc., has also been issuing useful booklets for the guidance of citizens.

The Corporation has been a pioneer in many spheres of civic activity. It was the first in the country to experiment with adult franchise, introduce free compulsory education at the primary stage, extended in 1958 to the upper primary classes, to own and administer urban transport and electric supply, to undertake trading, supply free milk and snacks to under-nourished school children, and to promote family planning.

Other notable activities of the Corporation have been the institution of a permanent Mayor's Fund for the relief of distress, starting of physiotherapy and occupational therapy schools and centres, and several new ventures in medical relief, education and research; conducting of three medical colleges and a dental college, running of a general museum, the creation of a family health centre and a health museum, and the running of a regular monthly publication, 'The Bombay Civic Journal', for publicising the activities of the Corporation and of other civic bodies and for promoting discussion of civic issues.

Other activities include the production of films for health education, the introduction of various modern devices for traffic movement, starting of a unit for research in primary education, the opening of a municipal bank, the building of two open-air theatres for the recreation of citizens, holding of civic exhibitions, organisation of Health and Cleanliness Weeks, conducting of seminars, two fly-overs, establishment of an electric crematorium, construction of sub-ways and the starting of a department of preventive and social medicine at the Topiwala National Medical College and a convalescent home at the K.E.M. Hospital and maintenance of a swimming pool.

A vast new five-storied structure, designed to accommodate the numerous scattered departments of the Corporation, was built by the side of the old head office and declared open on February 5, 1958.

The City Engineer's, the Special Engineer's and the Hydraulic Engineer's departments are all now housed in the new building.

The new building has lounges, party rooms and committee rooms for Councillors and also accommodates the Public Health and Public Relations Departments, the Municipal Secretary's office, the Election and Town Duty Dept., the Shops and Establishment Dept., Licence Dept., Conservancy Branch, Labour Dept. and the Civic Journal Dept.

The Corporation, however, continues to meet in the Corporation Hall in the old building.

The administration of the suburbs was put under a Deputy Commissioner with offices in Bandra.

## GREATER BOMBAY

Area : About 1,05,909·82 acres.

Population : 41,52,056 (1961 census) (City 27,71,933 ; Suburbs 10,36,585 ; Extended suburbs 3,43,538). The mid-year (1963–64) estimated population of the city, suburbs and extended suburbs was 28,75,000 ; 11,59,000, and 3,88,000 respectively.

Below we give particulars about Greater Bombay :

No. of Hospitals (Municipal, Government and Private) : 21.

No. of Municipal Hospitals : 14.

No. of Municipal Dispensaries incl. of women and children as well as Ayurvedic Dispensaries : 58.

No. of Primary Schools (Municipal and Private) : about 1,400.

No. of pupils in all Primary Schools : about 6,00,000.

No. of Municipal Primary Schools : 900.

No. of children in Municipal Primary Schools : 4,80,000.

No. of teachers in Municipal Primary Schools : 11,274

No. of Municipal Medical Colleges : 4 including a Dental College.

No. of Motor Vehicles : More than 68,777.

Road Mileage : about 590.

No. of Markets (municipal and private) : 41.

No. of gardens, open spaces etc. : 135.

No. of Fire Brigade Stations : 15.

No. of fire-alarms : 219.

Total no. of Municipal employees : 45,000 including those engaged on temporary and daily wages basis and excluding the B.E.S.T.

Annual wage bill of employees : About Rs. 7 crores.

## CITY

Below we give some facts about the City for 1963-64 :

| | |
|---|---|
| Area of the City | 16,761 acres (26·189 square miles). |
| Population | 27,71,933 (according to census of 1961). |
| Density of population | 165 per acre. |

*INCOME :* Actuals for (1963-64) :—

| | Rs. |
|---|---|
| General Tax at 24¾ per cent including Fire Tax at ¾ per cent | 6,91,32,788 |
| Water Tax at 4½ per cent including other receipts from Water Works | 4,78,71,094 |
| Halalkhore Tax at 3½ per cent including receipts from special service | 1,05,28,691 |
| Total income (including revenue from other sources) | 18,11,78,856 |
| Rates charged for water connections by measurement | From 97 P. to Rs. 3·80 per 10,000 litres for 1963-64. |

*EXPENDITURE :* City proper (March 31, 1964) :—

| | | Rs. |
|---|---|---|
| Primary Education (for City and Suburbs including Cess plus grants) | | 3,97,88,433 |
| Medical Relief | | 2,10,37,066 |
| Water Works— | | |
| Maintenance etc. | Rs. 87,97,337 | |
| Debt Charges | „ 3,44,82,009 | |
| | | 4,32,79,346 |
| Public Health | | 1,29,01,274 |
| Fire Brigade | | 30,55,442 |
| General Supervision, Collection of Revenue etc. | | 73,77,225 |
| Grants-in-aid to Public Institutions | | 16,32,843 |
| Debt charges (excluding Water Works) | | 2,27,63,415 |
| Total expenditure including other items | | 17,83,39,106 |

*TAXES, LOANS ETC. (1963-64) :—*

| | | |
|---|---|---|
| Incidence of taxation per head | Rs. | 48·55 |
| Total rateable value of properties | „ | 34,19,65,387 |
| Properties registered in the Assessment Book | „ | 57,625 |
| Rateable value per head of population | „ | 123·40 |
| Number of vehicles and animals taxed | „ | 62,461 |
| Taxes outstanding | „ | 5,18,22,316 |
| Redemption or Sinking Fund in hand or invested | „ | 98,55,585 |
| Net loan debt | „ | 15,75,45,000 |
| Net debt per head of population | „ | 121·78 |

*BIRTHS AND DEATHS (1964)*—For Greater Bombay :—

| | |
|---|---|
| Total number of births registered during the year 1963-64 | 79,400 |
| Birth rate per thousand living | 27·6 |
| Total number of deaths during the year | 27,821 |
| Death rate per thousand of population | 9·7 |

### Budget, 1965-66 (Estimates)

Here are a few salient features of the City Budget for 1965-66 as presented to the Corporation by the Chairman of the Standing Committee :

| | Rs. |
|---|---|
| Opening balance on April 1, 1965 | 3,66,50,000 |
| Income on existing basis of taxation | 26,48,37,000 |
| Expenditure | 28,37 02,000 |
| Deficit | 1,88,65,000 |
| Closing Balance | 1,77,85,000 |

*Note* Urban Development Tax was abolished by the Government from 1st April 1963 and the General Tax was raised from that date.

*Revenue Account :*

New or increased provisions made on revenue account are in respect of almost all heads due to expansion of activities. The main increases are under water works, public health, medical relief, education, street cleansing and conservancy, roads, S.W. drains, fire brigade, gardens, markets and slaughter houses.

Substantial provisions have been proposed for supplying milk and snacks to undernourished needy children attending municipal schools, medicines, drugs, stores, diets in hospitals and dispensaries, collection and transport of refuse and maintenance of roads, gas and electric lighting.

*Loan Works : (1965-66)*

The Loan Works programme for the year 1965–66 includes provision for completion of works already in progress and new works necessary in the interest of health, sanitation, water supply and other civic services. The total amount provided for 1965–66 is Rs. 22,19,16,000 including Rs. 1,10,94,000 for plant and machinery.

Some of the major works for which funds have been provided are as under (in Rs. '000) :—Construction of centralised ward office buildings 50,50 ; Master Plan for distribution of water supply in the city 1,94,20 ; Upper Vaitarna scheme 5,09,00 ; Bhatsai scheme 25,00 ; work of underground tunnel below the creek level at Kasheli 60,00 ; Construction of building No. 3 at L.T.M.G. Hospital, Sion 30,00 :

Construction of an eight storeyed building for B.Y.L. Nair Charitable Hospital 10,00; Resurfacing the major roads in the city 46,00; Construction of vehicular bridge connecting Princess street to Netaji Subhas road etc. 20,00; Construction of fly-over bridge at Kemp's Corner 2,79; Widening of Sion-Agra Road upto city limits 5,75; Providing sewage arrangements for Koliwada Borla road 5,00; Proposed swimming pool on garden opposite Kurla Court on B.A. road, Kurla 7,50; Providing hume pipe S.W. drain from Dena Bank to Andheri Naka to Swami Vivekananda Road, Andheri 3,80; Providing hume pipe from Andheri Naka to Oshiwara 3,90; Construction of 250 bedded hospital at Juhu development scheme, Vile Parle West 40,00; Construction of the municipal general hospital of 350 beds at Poisar village, Kandivli 59,24; Further widening and improvement of Swami Vivekananda Road, from Oshiwara to Borivli 35,00.

*Total Loan Funds* (1965–66): Rs. 22,15,57,000; *Total expenditure:* Rs. 42,52,65,000; *Uncovered Deficit:* Rs. 20,37,08,000.

A loan of Rs. 7·50 crores is proposed for financing the capital expenditure during 1965–66 which will still leave a deficit of Rs. 20,37,08,000. The deficit is proposed to be left uncovered for the present and the position will be reviewed in due course having regard to the progress of Loan Works expenditure during 1965–66.

The Fire Brigade Department of the Corporation was taken over by the Government of Maharashtra in Jan. 1963.

## SUBURBS

(1964-65).

| | |
|---|---|
| Area of the Suburbs | 43,398 acres. |
| Population | 10,36,585 (according to the census of 1961). |
| Density of population | 24·2 per acre |

*INCOME:* Actuals (1963-64):—

| | | |
|---|---|---|
| General Tax at 19 per cent and Fire Tax at ¾ per cent (Rs. 1,44,94,524 + Rs 6,12,772) | Rs. | 1,95,32,909 |
| Water Tax by measurement (including other receipts from Water Works) | ,, | 1,29,54,722 |
| Halalkhore Tax at 3½ per cent including receipts from special service | ,, | 16,80,534 |
| Share from City Budget under Town Duties | ,, | 25,14,718 |
| Total income, including revenue from other sources | ,, | 4,36,50,318 |
| Rate charged for water supplied by measurement | | From Rs. 1·65 to Rs. 5·50 per 10,000 litres according to class of property. |

*EXPENDITURE* (1963-64):

| | | | |
|---|---|---|---|
| Education (Primary) | | Rs. | 37,49,630 |
| Medical Relief and Education | | ,, | 25,70,200 |
| Water Works— | | | |
| Maintenance etc. | Rs. 1,03,26,478 | | |
| Debt Charges | ,, 20,32,155 | | |
| | | ,, | 1,23,58,633 |
| Public Health | | ,, | 11,61,582 |
| Fire Brigade | | ,, | 1,45,149 |
| General Supervision, Collection of Revenue etc. | | ,, | 1,81,093 |
| Grants-in-aid to Public Institutions | | ,, | 43,888 |
| Debt charges excluding Water Works | | ,, | 75,77,119 |
| Total expenditure including other items | | ,, | 4,46,36,112 |

The following particulars relate to 1962-63:

*TAXES, LOANS ETC.:—*

| | | |
|---|---|---|
| Incidence of taxation per head | Rs. | 37·69 |
| Total rateable value of properties | ,, | 10,30,92,855 |
| Properties registered in the Assessment Book | ,, | 56,037 |
| Rateable value per head of population | ,, | 99·42 |
| Number of vehicles and animals taxed | | 3,084 |
| Debts outstanding | Rs. | 2,80,62,137 |
| Redemption or Sinking Fund in hand or invested | ,, | 215·19 lakhs |
| Net Loan Debt | ,, | 7,72,94,583 |
| Net debt per head of population | ,, | 74·57 |

**Budget, 1964-65 (Estimates)**

Here are a few salient features of the Budget for the Suburbs, (1964-65) as presented to the Corporation:

| | | |
|---|---|---|
| Estimated Opening Balance on April 1, 1963 | Rs. | 38·03 lakhs |
| Income on present basis of taxation | ,, | 432·29 ,, |
| Expenditure | ,, | 510·20 ,, |
| Deficit | ,, | 77·91 ,, |
| Closing Balance | ,, | 39·88 ,, |

*Loan Works:* 1964-65

The Loan Works programme for the year comprises the completion of works in progress and new works necessary in connection with water supply, roads, drainage and village amenities.

Laying 250 mm (9") water main in slaughter house lane including extension from Kasaiwada to Khajur-Bhatti Road, Kurla Rs. 1,00,000; Laying a 6" water main with hydrants wherever necessary in Chapel Road, Baptista Road, Bandra (West) Rs. 1,00,000; Proposed horizontal expansion to V. C. Gandhi and M. A. Vora Municipal General Hospital, Rajwadi, Ghatkopar with staff quarters Rs. 5,00,000; Providing additional sewer in T.P.S. III, Ghatkopar Rs. 2,00,000; Acquisition of land for construction of 60 ft. road at Vile Parle joining M. G. Road and Salseth Track Road Rs. 1,20,000; Widening of Mathuradas Vissanji Road (Kurla-Andheri Road) from another level crossing to Mithi River Bridge, Andheri Rs. 6,00,000; Proposed widening of Chakala Road from its junction with Mathuradas Vissanji Road (Kurla-Andheri Road) to the proposed diversion road of Chakala Gauthan at Andheri (East) including provision of footpath and S. W. drain Rs. 1,50,000; Improving the surface of G. B. Road from Andheri naka to Oshivara Rs. 3,86,000; Provision for improving private lanes under section 63(*k*) Rs. 2,00,000; T.P.S. Vile Parle (varied) Rs. 2,02,000; Proposed widening of Dr. Ambedkar Road with 10 ft. footpath at T.P.S. III, Bandra Rs. 1,00,000; Developing a garden at Plot No. 161 along Agra Road, Ghatkopar near Singhara Estate Rs. 83,000; Construction of market at Vikroli Rs. 1,00,000; Earth filling for the proposed development of industrial plots for timber market at S. No. 356, Chembur Rs. 5,36,000.

An amount of Rs. 2,60,000 is provided for purchases of Plant and Machinery under Trust Fund.

The position of Loan Funds and Expenditure during 1963-64 and 1964-65 will be as follows:—

Loan Funds for 1963-64 Rs. 2,16,63,000.

Amount of Loan in 1964-65 Rs. 2,20,00,000.

Total—Loan Funds Rs. 4,16,63,000.

**Expenditure.**

| | | |
|---|---|---|
| Provision for works in Revised Estimates for 1963-64 | Rs. | 5,62,30,000 |
| Provisions for works in Budget Estimates of 1964-65 | ,, | 3,34,56,000 |
| | Rs. | 8,96,86,000 |

Uncovered deficit Rs. 4,80,23,000.

## EXTENDED SUBURBS

The following particulars relate to 1962-63:

The extended suburbs, merged in Greater Bombay on February 1, 1957, consist of areas once forming part of the municipal districts of Malad, Kandivli, Borivli and Mulund, village panchayats of Goregaon and Dahisar and 34 villages of the Thana District where there was no municipal administration of any kind, though certain functions were being performed by the District Local Board of Thana.

| | |
|---|---|
| Area of the Extended Suburbs | About 48,000 acres (75 sq. miles). |
| Population | 3,43,538 |
| Density of population | 7·5 per acre. |

*INCOME* :—Actuals for 1963-64 :

| | | |
|---|---|---|
| General Tax at different rates varying from 8 per cent to 19½ per cent .. .. .. | Rs. | 46,96,162 |
| Water Tax (including other receipts from Water Works) .. .. .. .. .. .. | ,, | 31,88,368 |
| Halalkhore Tax at 3½ per cent including receipts for special service .. .. .. .. | ,, | 6,81,334 |
| Grant-in-aid from Government .. .. .. | ,, | 2,47,429 |
| Share from City Budget under Town Duties .. | ,, | 11,20,530 |
| Total income, including revenue from other sources .. .. .. .. .. .. | ,, | 1,16,68,663 |

*EXPENDITURE* :—

| | | |
|---|---|---|
| Education (Primary) .. .. .. .. | Rs. | 12,289 |
| Medical Relief and Education .. .. .. | ,, | 9,20,649 |
| Water Works .. .. .. .. .. | ,, | 36,80,077 |
| Public Health .. .. .. .. .. | ,, | 7,52,501 |
| General Supervision, Collection of Revenue etc. | ,, | 3,70,523 |
| Grants-in-aid to Public Institutions .. .. | ,, | 9,900 |
| Total expenditure including other items .. | ,, | 1,17,47,860 |

**Budget, 1964-65**

Here are a few features of the Budget for the Extended Suburbs (1964-65) as presented to the Corporation:

| | | |
|---|---|---|
| Estimated Opening Balance on April 1, 1963 | Rs. | 10·69 lakhs. |
| Income after taking into consideration the increase in general tax by 2 per cent .. | ,, | 107·76 lakhs. |
| Expenditure .. .. .. .. .. | ,, | 134·28 lakhs. |
| Deficit .. .. .. .. .. | ,, | 26·52 lakhs. |
| Closing Balance .. .. .. | ,, | —15·83 lakhs. |

*Loan Works :*

The Loan Works Programme for 1964-65 provides for completion of works in progress and essential new works. The total amount provided for expenditure in 1964-65 is Rs. 82,76,000. Out of the proposed expenditure, Rs. 59,82,000 are for works in progress, Rs. 18,97,000 for New Works and Rs. 3,97,000 for Plant & Machinery to be purchased out of Advances from Loan Funds.

The main works for which the provisions are proposed are as stated below :—

Construction of Building for office and store at Malad and provision of furniture Rs.1,00,000 ; Laying two nos. 250 m.m. water mains—one on either side of the proposed 23·77 meters wide road, south of Kailas Nagar, connecting Western Express Highway and Swami Vivekananda Road, Malad Rs. 1,00,000 ; Construction of 50 bedded General Hospital and T.B. Sanatorium at Tulsibaug Mandpeshwar Road, Borivli Rs. 580,000 ; Acquisition of land and construction of 20 bedded Maternity Home and 50 bedded General Hospital at Kandivli and construction of Staff quarters there at Rs. 3,00,000 ; Acquisition of Plot and construction of Maternity Home and Staff Quarters at Borivli Rs. 1,00,000 ; Providing sewerage arrangements for Malad area including main intersecting sewers, subsidiary sewers and pumping station Rs. 2,00,000 ; Providing sewerage arrangements for Mulund area including main intersecting sewers, subsidiary sewers and pumping station Rs. 2,00,000 ; Construction of road from Gorai village to Gorai creek Rs. 2,00,000 ; Improvement and surface dressing of roads in P. and R. ward of zone III Rs. 1,00,000 ; Construction of Ferry Wharf at Manori and Gorai on the creek Rs. 1,00,000 ; Acquisition of land and construction of Fire Station at Mulund Rs. 2,00,000 ; Acquisition of land and construction of Fire Station at Kandivli Rs. 4,00,000 ; Construction of Market at Borivli (west) Rs. 4,00,000.

The amount provided for the purchase of Plant and Machinery to be purchased by way of advance out of Loan Funds is Rs. 3,97,000. The advance will be repaid in 5 equated instalments by making necessary provision in the Revenue Budget.

The position of the total Loan Funds and the total expenditure will be as shown below :

| | Rs. | Rs. |
|---|---|---|
| Loan Funds for 1963-64 .. .. | | 95,89,000 |
| Loan Funds for 1964-65— | | |
| Amount of loan for 1963-64 .. | 50,00,000 | |
| Contribution to be received from Government being ⅓rd of the expenditure on the extension and improvement of (*a*) Water Supply, (*b*) Sewerage, (*c*) Surface drain, etc. | 4,26,000 | 54,26,000 |
| Total .. .. | | 1,50,15,000 |

**Expenditure**

| | Rs. |
|---|---|
| Provision for works in Revised Estimates for 1963-64 .. .. .. .. .. .. | 98,63,000 |
| Provision for works in Budget Estimates for 1964-65 .. .. .. .. .. .. | 82,76,000 |
| Total provision .. .. .. .. | 1,81,39,000 |
| Uncovered Deficit .. .. .. .. | 31,24,000 |

A loan of Rs. 50 lakhs is proposed for financing the Capital Expenditure during 1964-65 which will leave a deficit of Rs. 31,24,000. The deficit for the present is proposed to be left uncovered and the position will be reviewed in due course having regard to the progress of the Loan Works Expenditure during 1964-65.

**B.E.S. & T. UNDERTAKING**

The following particulars relate to 1963-64 :

| | | |
|---|---|---|
| Total staff in the Undertaking .. .. .. | | 22,846 |
| *Bus Section*— | | |
| No. of vehicles including luxury buses for tourists | | 1,358 |
| Route kilometres .. .. .. .. .. | | 1,144·6 |
| No. of passengers carried per day .. .. | | 17,84,789 |
| Specially-built luxury buses for tourists .. | | 8 |
| Total income for the year .. .. .. | Rs. | 8,71,58,562 |
| Total expenditure .. .. .. .. .. | ,, | 9,07,77,826 |
| *Electric Supply Section*— | | |
| Total number of units purchased .. .. | | 829·46 million |
| Total number of units sold (Supply) .. .. | | 72,09,49,409 |
| Total number of units sold (Traction) .. .. | | 26,11,789 |
| Total number of consumers .. .. .. | | 3,30,278 |
| Total income for 1963–64 .. .. .. | Rs. | 7,43,92,979 |
| Total expenditure for 1963–64 .. .. .. | ,, | 6,58,10,762 |

**Budget, 1965-66**

| | | |
|---|---|---|
| Estimated opening balance .. .. .. | Rs. | 1,00,000 |
| *INCOME* :— | | |
| Electric Supply .. .. .. .. | ,, | 9,07,49,750 |
| Buses .. .. .. .. .. .. | ,, | 10,12,84,048 |
| Trolley Buses .. .. .. .. .. | ,, | 12,33,202 |
| Total .. .. .. .. .. | ,, | 19,33,67,000 |
| *EXPENDITURE* :— | | |
| Electric Supply .. .. .. .. | Rs. | 8,07,13,500 |
| Buses .. .. .. .. .. .. | ,, | 11,11,46,793 |
| Trolley Buses .. .. .. .. .. | ,, | 13,10,387 |
| Total .. .. .. .. .. | ,, | 19,31,70,680 |
| Appropriation to statutory and other funds or objects .. .. .. .. .. | Rs. | 96,320 |
| Estimated Closing Balance .. .. .. | ,, | 1,00,000 |
| Total .. .. .. .. .. | ,, | 19,33,67,000 |

# RAINFALL OF BOMBAY

## COLABA OBSERVATORY

*Note :* From the year 1957 rainfall figures are recorded in Millimeters instead of inches. 1 inch equals 25·4 mms.

| Years | May | June | July | August | September | October | November | Yearly Total | Number of Rainy Days in the year* | Maximum fall in one day |
|---|---|---|---|---|---|---|---|---|---|---|
| 1890.. | 0·06 | 24·55 | 21·54 | 10·61 | 6·45 | 0·58 | 1·25 | 65·18 | 116 | 4·61 |
| 1.. | 0·00 | 13·99 | 32·48 | 6·94 | 22·53 | 1·04 | 0·00 | 77·18 | 100 | 5·82 |
| 2.. | 0·11 | 13·30 | 23·86 | 36·56 | 18·73 | 1·89 | 0·67 | 95·12 | 114 | 5·43 |
| 3.. | 6·30 | 21·47 | 16·14 | 13·55 | 7·54 | 0·45 | 1·63 | 67·24 | 124 | 4·97 |
| 4.. | 0·00 | 16·87 | 26·16 | 8·40 | 12·04 | 3·08 | 0·00 | 66·85 | 124 | 4·77 |
| 5.. | 0·08 | 17·84 | 18·04 | 15·97 | 11·91 | 3·62 | 0·06 | 67·59 | 109 | 6·82 |
| 6.. | 0·26 | 28·02 | 36·44 | 20·77 | 1·62 | 0·01 | 0·53 | 87·65 | 102 | 6·21 |
| 7.. | 0·00 | 14·40 | 30·19 | 13·82 | 20·60 | 2·51 | 0·00 | 81·53 | 108 | 4·92 |
| 8.. | 0·16 | 27·21 | 20·72 | 5·28 | 19·94 | 0·48 | 0·13 | 74·09 | 110 | 5·13 |
| 9.. | 0·08 | 20·81 | 4·72 | 5·23 | 3·49 | 0·00 | 0·00 | 35·90 | 87 | 6·58 |
| 1900.. | 0·00 | 18·26 | 25·75 | 17·62 | 7·49 | 0·00 | 0·00 | 69·12 | 91 | 8·04 |
| 1.. | 0·01 | 25·36 | 32·70 | 14·27 | 1·81 | 0·39 | 0·00 | 75·32 | 98 | 6·55 |
| 2.. | 0·00 | 9·77 | 16·96 | 16·53 | 27·11 | 0·78 | 0·01 | 71·97 | 100 | 6·74 |
| 3.. | 7·79 | 19·75 | 24·82 | 18·23 | 7·82 | 5·91 | 0·00 | 84·49 | 111 | 6·03 |
| 4.. | 0·02 | 15·10 | 10·14 | 5·72 | 1·81 | 0·56 | 0·00 | 33·42 | 90 | 3·33 |
| 5.. | 0·00 | 6·53 | 15·30 | 4·35 | 6·16 | 0·20 | 1·04 | 33·66 | 89 | 4·00 |
| 6.. | 0·00 | 13·20 | 18·10 | 20·91 | 3·94 | 0·00 | 0·00 | 56·30 | 95 | 4·89 |
| 7.. | 0·00 | 22·49 | 59·26 | 15·93 | 2·75 | 0·02 | 0·00 | 100·78 | 94 | 8·84 |
| 8.. | 0·00 | 15·19 | 21·13 | 9·67 | 6·71 | 0·62 | 0·00 | 53·54 | 100 | 4·30 |
| 9.. | 0·00 | 16·68 | 31·37 | 7·82 | 15·35 | 0·00 | 0·00 | 71·22 | 100 | 4·07 |
| 1910.. | 0·03 | 23·92 | 7·42 | 16·89 | 18·84 | 0·62 | 0·14 | 67·86 | 104 | 8·14 |
| 1.. | 0·04 | 10·85 | 15·89 | 16·90 | 2·50 | 0·00 | 0·27 | 46·51 | 92 | 4·78 |
| 2.. | 0·43 | 10·79 | 25·77 | 9·70 | 3·09 | 0·65 | 3·62 | 54·05 | 87 | 7·86 |
| 3.. | 0·00 | 25·81 | 33·58 | 3·47 | 5·75 | 2·35 | 0·00 | 70·96 | 94 | 5·50 |
| 4.. | 0·00 | 16·69 | 31·12 | 12·44 | 21·03 | 0·01 | 0·18 | 81·62 | 114 | 6·28 |
| 5.. | 0·36 | 40·10 | 14·39 | 8·93 | 10·21 | 2·55 | 0·02 | 77·68 | 100 | 11·41 |
| 6.. | 0·07 | 23·55 | 25·10 | 17·19 | 14·59 | 4·79 | 0·72 | 86·05 | 128 | 7·60 |
| 7.. | 0·88 | 15·83 | 12·91 | 33·27 | 19·58 | 16·11 | 0·00 | 99·76 | 134 | 5·96 |
| 8.. | 11·17 | 10·65 | 4·31 | 4·80 | 3·06 | 0·00 | 0·09 | 35·54 | 94 | 4·98 |
| 9.. | 0·00 | 23·35 | 24·49 | 10·63 | 8·16 | 1·40 | 0·18 | 68·32 | 106 | 8·74 |
| 1920.. | 0·00 | 8·16 | 22·60 | 4·58 | 4·05 | 0·84 | 0·00 | 41·05 | 98 | 5·51 |
| 1.. | 0·00 | 26·79 | 35·67 | 10·37 | 13·13 | 0·06 | 0·00 | 86·02 | 101 | 7·68 |
| 2.. | 0·00 | 26·63 | 31·00 | 5·15 | 7·43 | 0·61 | 0·00 | 70·96 | 111 | 6·56 |
| 3.. | 0·00 | 8·96 | 41·88 | 8·33 | 18·32 | .. | 0·00 | 77·56 | 90 | 11·03 |
| 4.. | 0·00 | 7·46 | 16·75 | 15·42 | 12·12 | 0·06 | 0·88 | 52·19 | 101 | 3·12 |
| 5.. | 3·83 | 26·86 | 8·31 | 7·71 | 3·55 | 0·19 | 0·37 | 50·82 | 109 | 7·54 |
| 6.. | 0·10 | 6·81 | 30·68 | 21·93 | 8·84 | 1·29 | 0·00 | 72·64 | 107 | 8·21 |
| 7.. | 0·00 | 35·52 | 14·08 | 6·59 | 5·30 | 7·25 | 5·48 | 74·38 | 128 | 7·10 |
| 8.. | 0·00 | 28·46 | 30·24 | 16·69 | 9·81 | 0·43 | 0·09 | 85·73 | 109 | 8·96 |
| 9.. | 0·00 | 26·09 | 15·78 | 5·85 | 6·49 | 3·78 | 0·22 | 59·76 | 114 | 5·29 |
| 1930.. | 0·02 | 27·48 | 9·61 | 6·60 | 43·77 | 2·50 | 0·00 | 89·98 | 93 | 21·59 |
| 1.. | 0·00 | 7·66 | 46·94 | 22·69 | 4·53 | 13·02 | 2·40 | 97·94 | 111 | 10·06 |
| 2.. | 0·57 | 10·64 | 35·47 | 6·77 | 11·13 | 9·01 | 0·07 | 73·66 | 106 | 5·62 |
| 3.. | 3·23 | 9·91 | 15·69 | 17·25 | 12·42 | 2·93 | 0·01 | 62·37 | 116 | 5·28 |
| 4.. | 0·00 | 29·06 | 22·74 | 12·14 | 5·83 | 0·21 | 3·23 | 73·25 | 110 | 5·05 |
| 5.. | 0·00 | 28·14 | 23·70 | 16·71 | 11·83 | 1·04 | 0·18 | 81·62 | 99 | 7·00 |
| 6.. | 0·34 | 32·62 | 8·13 | 9·23 | 5·73 | 0·00 | 2·31 | 58·48 | 113 | 5·60 |
| 7.. | 0·00 | 18·32 | 30·42 | 5·45 | 14·20 | 1·77 | 0·00 | 70·16 | 109 | 3·68 |
| 8.. | 1·29 | 31·24 | 16·06 | 16·77 | 10·35 | 15·17 | 1·13 | 92·01 | 124 | 7·13 |
| 9.. | 0·00 | 4·67 | 33·08 | 10·87 | 5·39 | 0·17 | 0·15 | 54·34 | 95 | 9·12 |
| 1940.. | 0·00 | 29·98 | 21·03 | 28·27 | 11·26 | 4·89 | 0·76 | 97·58 | 106 | 6·42 |
| 1.. | 0·00 | 8·09 | 14·03 | 5·83 | 6·17 | 1·62 | 0·00 | 35·81 | 81 | 4·14 |
| 2.. | 0·00 | 27·39 | 32·36 | 8·24 | 13·52 | 0·00 | 0·00 | 81·80 | 96 | 7·03 |
| 3.. | 6·02 | 30·19 | 29·62 | 3·30 | 8·15 | 3·77 | 0·04 | 81·37 | 116 | 8·01 |
| 4.. | 0·20 | 9·47 | 45·56 | 16·32 | 1·68 | 0·80 | 0·00 | 74·10 | 90 | 7·13 |
| 5.. | 0·00 | 24·36 | 31·87 | 26·10 | 6·16 | 0·70 | 0·87 | 90·38 | 99 | 8·65 |
| 6.. | 0·23 | 21·61 | 16·29 | 15·23 | 17·90 | 0·81 | 6·46 | 79·14 | 120 | 10·48 |
| 7.. | 0·00 | 3·61 | 22·03 | 20·56 | 25·45 | 2·92 | 0·00 | 77·09 | 104 | 10·88 |
| 8.. | 0·00 | 8·78 | 27·16 | 17·03 | 11·78 | 2·11 | 4·54 | 71·74 | 105 | 6·79 |
| 9.. | 0·98 | 18·31 | 23·64 | 15·22 | 49·01 | 1·35 | 0·00 | 108·51 | 124 | 26·98 |
| 1950.. | 0·13 | 11·22 | 23·82 | 3·30 | 21·50 | 1·38 | 0·06 | 61·50 | 93 | 5·97 |
| 1.. | 1·68 | 20·25 | 35·11 | 8·55 | 1·74 | 2·71 | 0·11 | 70·41 | 108 | 5·11 |
| 2.. | 0·00 | 23·69 | 27·51 | 6·82 | 3·05 | 2·26 | 0·00 | 63·33 | 97 | 7·06 |
| 3.. | 0·00 | 32·59 | 39·99 | 12·99 | 4·59 | 3·24 | 0·00 | 93·57 | 103 | 8·35 |
| 4.. | 0·00 | 24·66 | 51·56 | 33·72 | 24·84 | 1·89 | 0·00 | 137·08 | 108 | 10·31 |
| 5.. | 0·04 | 13·98 | 21·65 | 34·75 | 11·44 | 5·81 | 0·97 | 88·64 | 116 | 6·77 |
| 6.. | 1·69 | 25·86 | 32·34 | 17·37 | 20·69 | 2·83 | 0·50 | 101·28 | 133 | 8·88 |
| 7.. | 25.4 | 283.0 | 777·2 | 578.9 | 65·7 | 21·2 | 23·9 | 1,775·3 | 93 | 162·9 |
| 8.. | 3·6 | 862·6 | 830·3 | 1,265·4 | 353·1 | 1·8 | 1·3 | 3,319·2 | 101 | 239·2 |
| 9.. | 5·4 | 651·5 | 745·4 | 446·0 | 261·0 | 278·6 | 0·0 | 2,393·6 | 116 | 163·1 |
| 1960.. | 39·6 | 1,011·1 | 500·0 | 225·4 | 97·5 | 244·7 | 0·0 | 2,118·9 | 112 | 201·4 |
| 1.. | 12·3 | 392·7 | 1,109·8 | 299·5 | 269·9 | 101·2 | 0·0 | 2,205·1 | 128 | 164·0 |
| 2.. | 26·6 | 433·4 | 751·0 | 396·9 | 341·3 | 21·5 | 0·5 | 2 029·6 | 118 | 243·4 |
| 3.. | Tr. | 370 3 | 797·8 | 1,004·1 | 330·1 | 17·8 | 5·5 | 2,530·9 | 110 | 189·1 |
| 4.. | Tr. | 654·8 | 470·6 | 464·2 | 258·4 | 114·9 | 1·4 | 1,964·3 | 105 | 112·1 |

* A rainy day is one on which 0·01" of rain or more has fallen.

# ASSOCIATIONS (TRADE & COMMERCIAL) IN GREATER BOMBAY*

## ADVERTISING AGENCIES ASSOCIATION OF INDIA

111A, Mahatma Gandhi Road, 2nd Floor, Opp. Rajabhai Clock Tower, Bombay, 1.

The Advertising Agencies Association of India, was established in 1945. Since then it has contributed to improve the standards of advertising in India. The following are among the various objects for which the Association was formed :

(*a*) To raise and improve the standard of publicity and advertising by all practical means ; (*b*) To encourage and preserve a high standard of industrial design ; (*c*) To arrange for educational courses in the profession of advertising for its members and others ; (*d*) To encourage and maintain a high level of business and professional integrity among advertising agencies and their suppliers ; (*e*) To encourage and secure friendly relations and unanimity amongst members of the advertising profession and advertising agencies all over the world. The Association issues a monthly bulletin which contains information of interest to members of the profession and those interested in advertising. Copies of the bulletin are sent to a number of overseas countries.

With a view to promoting healthy competition and the standard of advertising, the A.A.A.I. has adopted a 'code of standards of advertising practice' which covers advertising ethics vis-a-vis the customer and the advertiser.

Membership of the Association is open only to an organisation, firm or company which practices advertising and has permanent office within the territory of India and Ceylon and which confirms and agrees to conform to the minimum standards of business practice and professional skills as may be prescribed by the Association, from time to time.

Associate membership is open to an organisation, firm or company which operates as an advertising agency but has no permanent office within the aforesaid territory.

Affiliate membership is open to such advertising agencies which are operating within the territory covered by the Association and which do not fully come up to the standard of full fledge membership. Affiliate members must qualify for full fledge membership within two years from the date of admission.

*President :* R. Ahmed ; *Vice-President :* J. Chakravarty ; *Secretary :* V. S. Joshi.

## ADVERTISING COUNCIL OF INDIA

Army and Navy Bldg., 148, Mahatma Gandhi Road, Bombay 1.

## ALKALI MANUFACTURERS' ASSOCIATION OF INDIA

15A, Horniman Circle, Fort, Bombay 1.

*President :* L. Sawhny ; *Secretary :* B. M. L. Moorthy.

## ALL-INDIA AUTOMOBILE AND ANCILLARY INDUSTRIES ASSOCIATION

80, Dr. Annie Besant Road, Worli, Bombay 18.

*President :* Pranlal Patel, Dipl. Ing. ; *Vice-Pres.*, M. K. Raju ; *Hon. Secretary :* H. R. Aslot; *Executive Officer :* V. S. Nair.

## ALL-INDIA BOBBIN MANUFACTURERS' ASSOCIATION

General Assurance Bldg., 1st Floor, 232, Dr. D. Naoroji Road, Bombay 1.

OFFICE-BEARERS :—*President :* V. S. Shah : *Vice-President :* B. P. Mistry ; *Hon. Secretary :* P. R. Gupte ; *Hon. Treasurer :* L. A. Gajjar ; *Ag. Secretary :* S. Peethambaram.

## ALL-INDIA COTTONSEED CRUSHERS' ASSOCIATION

Warden House, 2nd Floor, Sir P. M. Road, Fort, Bombay.

Represents the organised sector of the Cottonseed Crushing Industry on a scientific basis.

*Chairman :* Jayantilal Maneklal Shah ; *Vice-Chairman :* T. Chandranna ; *Members of Advisory Panel :* G. V. Sirur, N. J. Agrawal, B. P. Maheshwari, E. Bolger, L. J. Tanna, I. A. Kadar.
*Secretary*, N. D. Mehta.

## ALL INDIA FEDERATION OF MASTER PRINTERS

Red Building, Horniman Circle, Fort, Bombay.

*President :* N. L. Contractor ; *Vice-Presidents :* R. Venkateswaran, G. C. Ray ; *Hony. General Secretary :* Rustom M. Cama ; *Hony. Jt. Secretaries :* P. H. Patwardhan, Sardar Joginder Singh ; *Hony. Treasurer :* Amir F. Varawala.

## ALL-INDIA FOOTWEAR AND RUBBER GOODS MANUFACTURERS' ASSOCIATION

15A, Horniman Circle, Fort, Bombay.

## ALL-INDIA GLASS MERCHANTS' ASSOCIATION

116, Abdul Rehman Street, Bombay 3.

*President :* E. T. Kachwalla ; *Vice-President :* R. R. Parikh ; *Hon. Secretary :* T. E. Kachwalla, LL.B. ; *Hon. Treasurer :* T. D. Kachwalla, J.P.

## ALL-INDIA HANDLOOM FABRICS MARKETING CO-OPERATIVE SOCIETY LTD.

Janmabhoomi Chambers, Fort Street, Bombay 1.

## ALL-INDIA IMPORTERS' ASSOCIATION

Churchgate House, Vir Nariman Street, Bombay 1.

*President :* R. C. Shah ; *Vice-President :* B. M. Chokshi ; *Hon. Secretaries :* K. T. Sanghvi, P. G. Vaidya ; *Hon. Treasurer :* J. R. Mehta ; *Secretary :* J. A. Mulky.

## ALL-INDIA INSTRUMENT MANUFACTURERS' & DEALERS' ASSOCIATION

A-32, Navyug Nivas, Lamington Road, Bombay 7 (WB.).

*President :* G. N. Banerjee ; *Vice-Presidents :* B. D. Toshniwal, G. Battacharya, H. C. Verma, C. Ramanadha Babu ; *Hon. Secretary :* K. Ananda Mohan ; *Hon. Treasurer :* H. R. Dua ; *Joint Hon. Secretary:* U. V. Desai.

## ALL-INDIA MANUFACTURERS' ORGANISATION

Co-operative Insurance Bldg., 4th Floor, Sir Pherozeshah Mehta Road, Bombay 1.

There are State and Regional Boards in New Delhi, Calcutta, Punjab, Saurashtra, Madras, Bangalore, Ernakulam, Bombay, Ahmedabad, Indore and Hyderabad and District and City Councils in important centres of industrial activity.

*Chairman :* Hansraj Gupta ; *Vice-Chairmen :* Pranlal Patel, G. S. Bhandari, K. S. G. Haja Shareeff, B. P. Podar, B. D. Kapur ; *Hon. Secretaries :* M. S. Dighe, A. K. Bhimani, Dr. P. A. Desai ; *Hon. Treasurer :* B. D. Toshniwal ; *Secretary :* P. L. Badami.

## ALL-INDIA NON-FERROUS METAL INDUSTRIES ASSOCIATION

Liberty Building, Marine Lines, Bombay 1.

*President :* Rai Bahadur Himchand K. Shah ; *Vice-President :* Ramanlal M. Shah ; *Hon. Secretary :* Bharat Kishore B. Gupta ; *Hon. Treasurer :* K. Bhambri.

## THE ALL-INDIA PLASTIC BANGLES MANUFACTURERS' ASSOCIATION

'Shanti Nagar', Mukta Baug, Near Malad Sub-way, Malad (West), Bombay-64 N. B.

*President :* B. J. Gandhi ; *Vice-President :* B. J. Mehta ; *Treasurer :* M. M. Savla ; *Hon. Secretary :* D. P. Patel.

## THE ALL-INDIA PLASTICS MANUFACTURERS' ASSOCIATION

Jehangir Bldg., Mahatma Gandhi Road, Bombay 1.

*President :* Kantikumar R. Podar ; *Vice-Presidents :* S. I. Parekh, S. N. Kaseera; *Hon. Secretaries :* A. B. Chouhan, M. V. Saraiya ; *Secretary :* A.H Srikanta Aiyar.

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* In the case of some associations, besides the title and the address a short note is added about their aims, etc. This is generally done where the aims, activities, organization are not immediately obvious from the title. Also, when an association appears for the first time in our book, a note is generally added. The addition of a note is not necessarily an indication of the relative importance of the association, that is, in relation to others.

Two points should be kept in mind : office-bearers may change ; addresses given may sometimes be in the nature of a reference specially where we say c/o.

## ALL-INDIA RADIO MERCHANTS' ASSOCIATION

Fateh Manzil, Opera House, Bombay 4.

*Central Committee : President :* G. K. Sanker ; *Vice-Presidents :* V. C. Shah, R. S. Bhatnagar, G. S. Israni ; *Hon. General Secretary :* L. K. Ojha ; *Hon. Secretary :* C. J. Asnaney ; *Hon. Treasurer :* J. S. Jhaveri.

## ALL-INDIA RAZOR BLADE MANUFACTURERS' ASSOCIATION

Industrial Assurance Bldg., Opp. Churchgate Station, Bombay.

## ALL-INDIA SINDWORK MERCHANTS' ASSOCIATION

Commissariat Bldg., 4th Floor, 231, Dr. Dadabhoy Naoroji Road, Bombay 1.

## ALL-INDIA STAINLESS STEEL IMPORTERS' ASSOCIATION

203, Himalaya House, Palton Road, Bombay 1.

## ALL-INDIA STAINLESS STEEL INDUSTRIES ASSOCIATION

130, Kalbadevi Road, Bombay 2.

*President :* Ramanlal M. Shah ; *Vice-President :* Mulji V. Narsi ; *Hon. Secretary :* B. D. Nagpal ; *Hon. Treasurer :* G. U. Shah.

## ALL-INDIA STARCH MANUFACTURERS' ASSOCIATION PRIVATE LTD.

Pushpa Vihar No. 3, 159, Colaba Road, Bombay 5.

*President :* Chinubhai Manibhai ; *Secretary :* S. B. Sethi.

## ALL-INDIA WOOL TRADE FEDERATION

Post Box No. 1051, Bombay.

*President :* Seth Jagannath Malpani ; *Vice-President :* Parmanand Issardas ; *Hon. Secretary :* Menghraj Chandwani ; *Jt. Hon. Secretary :* Mohanlalji Master.

## ALL-INDIA WOOLLEN MILLS ASSOCIATION LTD.

"Manohar", 27, New Marine Lines, Bombay 1.

## ALL-INDIA X-RAY AND ELECTRO-MEDICAL TRADES' ASSOCIATION

Fazalbhoy Bldg., 2nd Floor, 45, Mahatma Gandhi Road, Bombay 1.

*President :* R. Gopalan ; *Vice-President :* H. J. Mody ; *Hon. Secretary :* A. H. Malgham ; *Secretaries :* P. D. Mehta & Co.

## AMATEUR CINE SOCIETY OF INDIA

No. 2, Rehem Mansion, Colaba Causeway, Bombay 1.

*President :* G. S. Pohekar ; *Vice-President :* M. A. Merchant ; *Hon. Treasurer :* Rusi P. Ghandy ; *Jt. Hon. Secretaries :* Mrs. Krishna A. Khatau, I. I. Janmahomed.

## ASSOCIATION OF ELECTRICAL UNDERTAKINGS, BOMBAY STATE

Killick House, Home Street, Bombay 1.

## ASSOCIATION OF INDIAN AUTOMOBILE MANUFACTURERS

Army & Navy Bldg., Third Floor, Mahatma Gandhi Road, Bombay 1.

*President :* M. A. Chidambaram ; *Deputy President :* K. V. Srinivasan ; *Secretary :* N. Balkrishna, B.Sc. (Engg.), M.I.E. (India), M.I.R.T.E. (Eng.), M.I.R.T., J.P.

## THE ASSOCIATION OF INDIAN INDUSTRIES

4th Floor, "Co-operative Insurance Building," Sir Pherozshah Mehta Road, Fort, Bombay 1.

*President :* Hemantkumar J. Vaidya ; *Vice-President :* K. G. Thanawala ; *Hon. Secretary :* N. D. Dalal ; *Hon. Treasurer :* R. Nanabhoy ; *Secretary :* S. P. Subramanian.

## ASSOCIATION OF INDIAN TRADE & INDUSTRY

Bombay Mutual Chambers, 21, Hamam Street, Fort, Bombay 1.

*President :* Tulsidas Kilachand ; *Secretary :* Dr. K. R. Paymaster.

## ASSOCIATION OF MERCHANTS AND MANUFACTURERS OF TEXTILE STORES AND MACHINERY, INDIA

Sir Vithaldas Chambers, 16, Apollo Street, Bombay 1.

*President :* Pranlal Bhogilal ; *Vice-President :* B. K. Mehta ; *Hon. Secretary :* S. G. Shah ; *Hon. Treasurer :* J. G. Kulkarni ; *Secretary :* N. C. Munsif.

## AUDIT BUREAU OF CIRCULATIONS LTD.

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Estd. 1948. Membership comprises many leading national Advertisers, Advertising Agencies and Publishers of newspapers, periodicals and magazines. Total Membership (March 1965)—350.

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## AUTOMOBILE DEALERS' ASSOCIATION OF WESTERN INDIA LTD.

C/o Bombay Chamber of Commerce & Industry, Ballard Estate, Bombay 1.

*Chairman :* Dr. J. M. Rane ; *Vice-Chairman :* M. R. Chinoy ; *Labour Officer :* M. S. Hathi.

## BASIC CHEMICALS, PHARMACEUTICALS & SOAPS EXPORT PROMOTION COUNCIL

Plot No. 56, Ashok Chambers (5th Floor), Broach Street, Bombay-9 (BR).

*Chairman :* P. A. Narielwala (Director, Tata Industries (Pvt.) Ltd., Bombay) ; *Secretary :* P. K. K. Vydiar.

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246, Abdul Rehman Street, Bombay 3.

*President :* Huseini F. Bandukwala ; *Secretary :* Zainul A. Bandukwala ; *Treasurer :* Hatimbhai T. Bandukwala.

## BOMBAY AUTOMOBILE CONSUMERS CO-OPERATIVE SOCIETY

342/48, Vithalbhai Patel Road, Bombay 4.

## THE BOMBAY BOOKSELLERS & PUBLISHERS ASSOCIATION

C/o India Book House, Eruchshaw Building, 1st Floor, 249, Dr. D. N. Road, Bombay 1.

*President :* G. L. Mirchandani ; *Vice-President :* G. D. Sthalekar ; *Secretary :* T. Mahadevan ; *Jt. Secretary :* C. C. Shah.

## THE BOMBAY BULLION ASSOCIATION LIMITED

185, Sheikh Memon Street, Bombay 2.

*President :* Chandulal Kasturchand ; *Vice-President :* Dhursingh Shekhavat ; *Asstt. Secretary :* Jayendra A. Mehta

## THE BOMBAY CAMPHOR TABLETS MANUFACTURERS' & MERCHANTS' ASSOCIATION

218, Samuel Street, Bombay 3.

*President :* Nandlal Premji ; *Vice-President :* Chunilal K. Vyas ; *Hon. Secretaries :* Purshottam Damodar, Narandas V. Gokarni.

## THE BOMBAY CHARCOAL MERCHANTS' ASSOCIATION LTD.

Coal Depot, Sewri, Bombay 15.

*President :* Babu Sukhdevsingh Shamshersingh ; *Vice-Presidents :* Babu Hubrajsingh Jang Bahadursingh ; Udharam Uttamchand ; *Secretary :* N. D. Trivedi.

## BOMBAY COAL & COKE MERCHANTS' ASSOCIATION LTD.

94, Medows Street, Fort, Bombay 1.

*President :* N. S. Worah ; *Vice-President :* B. P. Joshi ; *Hon. Secretary :* B. P. Sheth.

## BOMBAY COTTON MERCHANTS' & MUCCADUMS' ASSOCIATION LTD.

2nd Floor, S. 72-73, Cotton Exchange, Sewree, Bombay 33 DD.

*President :* Hansraj Jivandas ; *Vice-President :* J. K. S. Nicholson ; *Hon. Secretary :* Khushal Khengar Shah ; *Secretary :* I. N. Parikh, M.A.

## BOMBAY CUSTOM HOUSE CLEARING AGENTS' ASSOCIATION

Warden House, 2nd Floor, Sir P. M. Road, Bombay 1.

*President :* Karandas Tulsidas Khimji; *Vice-President :* M. T. Bandiwdekar; *Hon. Treasurer :* G. V. Marathe; *Hon. Secretary :* J. B. Shah.

## BOMBAY DIAMOND MERCHANTS' ASSOCIATION

Zaveri Bazar, 3, Dhanji Street, Bombay 3.

*President :* R. B. Jasani; *Vice-President :* R. B. Jhaveri; *Hon. Secretaries :* R. K. Mehta, V. K. Jhaveri.

## THE BOMBAY ELECTRO-PLATERS' ASSOCIATION

139, Bhendi Bazar, Bombay 3.

## THE BOMBAY EXCHANGE BANKS' ASSOCIATION

C/o The Chartered Bank, 25, Mahatma Gandhi Road, Bombay 1.

*Chairman :* The Manager, The Chartered Bank *(ex-Officio); Vice-Chairman :* The Manager, National and Grindlays Bank Limited *(ex-Officio).*

## BOMBAY FLOUR MILLS OWNERS' ASSOCIATION

Parekhwadi, V. P. Road, Bombay 4.

## BOMBAY GLASSWARE MERCHANTS' ASSOCIATION

91, Sheriff Devji Street, Bombay 3.

## BOMBAY GOODS TRANSPORT ASSOCIATION

416, Katha Bazar, Bombay-9.

*President :* G. L. Vijan; *Vice-President :* Abdul Rehman; *Hon. General Secretary :* R. V. Kale; *Joint Secretary :* M. V. Savani; *Hon. Treasurer :* Hirji Virji.

## THE BOMBAY GRAIN DEALERS' ASSOCIATION

Grain Dealers Building, 103, Keshavji Naik Road, Bombay 9.

*President :* M. R. Kurlawala; *Vice-President :* R. M. Mokhawala; *Hon. Jt. Secretary :* J. M. Shah; *Hon. Mg. Secy. :* N. V. Dharod.

## BOMBAY GRASS MERCHANTS' ASSOCIATION

Bombay Central Grass Yard, Jacob Circle, Bombay 11.

## THE BOMBAY HARDWARE MERCHANTS' ASSOCIATION

Burhani Building, 57, Sarang Street, Bombay 3.

## THE BOMBAY HESSIAN & GUNNY MERCHANTS' ASSOCIATION LTD.

395/97, Narsi Natha Street, Katha Bazar, Bombay 9.

*President :* Devkishan Ramkaran; *Vice-President :* R. N. Waghani; *Hon. Secretary :* Gordhandas Bhagwandas; *Secretary :* N. V. Shah.

## BOMBAY HOSIERY MERCHANTS' ASSOCIATION

102/4, Chakla Street, Bombay 3.

## BOMBAY INDUSTRIES ASSOCIATION

Sahakar Bhavan, Kurla Industrial Estate, Agra Road, Ghatkopar, Bombay 77AS.

This is an organisation of small, medium and big scale industries in Greater Bombay area. Membership : 450.

*President :* M. S. Doshi; *Vice-President :* S. P. Zaveri; *Hon. Secretary :* Sardar Jagjit Singh; *Hon. Treasurer :* R. C. Purohit; *Secretary :* J. J. Desai.

## BOMBAY INSURANCE BROKERS' ASSOCIATION

Rajabahadur Compound, 19, Bruce Street, Bombay 1.

*Directors.*—C. U. Chheda, A. A. Trivedi, C. M. Kayani, Chunilal V. Thakkar, K. S. Popat, Jethabhai D. Nagda and Jethabhai Narshi.

*President :* Arvindchandra A. Trivedi; *Vice-President :* Jethabhai D. Nagda; *Jt. Hon. Secretaries :* Jethabhai Narshi & Jayantilal L. Dalal; *Jt. Hon. Treasurers :* Chunilal V. Thakker and Champsey M. Kayani; *Asstt. Secy. :* D. A. Chavda.

## THE BOMBAY IRON MERCHANTS' ASSOCIATION

250, Sant Tukaram Road, Latif House, Bombay 9.

*President :* Babubhai O. Valia; *Vice-President :* Abbasbhai T. Vasi; *Secretary :* J. V. Doshi.

## BOMBAY KARIANA, COLOUR AND CHEMICAL MERCHANTS' ASSOCIATION

222-A, Samuel Street, Bombay 3.

*President :* Krishnakumar S. Kothari; *Vice-President :* A. D. Gandhi; *Hon. Secretaries :* Gulabrai D. Bhuta, V. C. Merchant; *Hon. Treasurers :* K. L. Mehta, R. P. Thakkar.

## BOMBAY KHAREK BAZAR AND MEWA MERCHANTS' ASSOCIATION

308, Kharek Bazar, Bombay 9.

*President :* Hirji Keshavji Kesarwala; *Vice-President :* Jugaldas Damoder Mody; *Hon. Secretary :* Mohandas R. Advani.

## THE BOMBAY LIGHT MERCHANTS' ASSOCIATION

Shreeji Bhuvan, Lohar Chawl, Bombay 2.

## BOMBAY LOCAL OIL MILLERS' ASSOCIATION LTD.

Katha Bazar, Bombay 9.

## BOMBAY MARBLE & TILE MERCHANTS' ASSOCIATION

32, Apollo Street, Bombay 1.

*President :* Rustam D. Sidhwa; *Hon. Secretary :* Hiralal M. Kothari.

## BOMBAY MASTER PRINTERS' ASSOCIATION

274, Tardeo Road, Bombay 7.

*President :* N. J. Ardeshir; *Vice-Presidents :* J. G. Deokule, P. M. Doshi; *Hon. Secy. & Treasurer :* Rev. Fr. T. A. Pereira.

## THE BOMBAY MERCURY TRADERS' ASSOCIATION LTD.

218, Samuel Street, Bombay 3.

## BOMBAY METAL EXCHANGE LTD.

Gogate Mansion, Kika Street, Bombay 2.

*President :* Mohanlal Hargovandas; *Sr. Vice-President :* Surendra N. Parekh; *Vice-President :* Nandlal Chunilal Shah; *Secretary :* M. S. Mehta.

## THE BOMBAY MOTOR MERCHANTS' ASSOCIATION LTD.

Sukh-Sagar, 3rd Floor, Sandhurst Bridge, Bombay 7.

*President :* Sardar Kuldip Singh Chadha; *Senior Vice-President :* Sardar Sohan Singh Sethi; *Junior Vice-President :* Ishwardas Chadha; *Honorary General Secretary :* Sardar Kesar Singh Kohli; *Honorary Joint Secretaries :* Sardar Rajinder Singh Anand, Sardar Tarlochan Singh Anand; *Honorary Treasurer :* Kashmiri Lal.

## THE BOMBAY MUDIBAZAR KARIANA MERCHANTS' ASSOCIATION

43, Mudibazar, Kazi Syed Street, Bombay 3.

*President :* Tulsidas R. Ved; *Vice-President :* Purushotam Laxmidas Thakker; *Hon. Secretary :* Jethalal Devshi Shah.

## BOMBAY OIL MERCHANTS' ASSOCIATION

C/o Messrs. Muljee Jaitha & Company, Katha Bazar, Bombay 9.

## THE BOMBAY OILSEED CRUSHERS' ASSOCIATION

Anna Bhavan, 5th Floor, Plot No. 87C, Broach Street, Bombay 9.

*Chairman :* C. V. Mariwala; *Vice-Chairman :* Nanji G. Chheda; *Hon. Secretary :* R. C. Parikh; *Secretary :* R. C. Sheth.

## BOMBAY OILSEEDS & OILS EXCHANGE LTD.

Jenabai Building, Musjid Bunder Road, Bombay 3.

*President :* Ramdas Kilachand; *Vice-Presidents :* Chandulal Kasturchand *(Sr.)*, Gokalchand J. Agrawal *(Jr.)*; *Secretary :* Rasiklal V. Sheth.

## BOMBAY OVERSEAS FREIGHT BROKERS' ASSOCIATION

C/o Pitamber & Co., Scindia House, Ballard Estate, Bombay 1.

*Chairman :* Vithaldas Purshottam; *Hon. Secretary :* N. T. Toprani; *Hon. Treasurer :* Chandrasen Govindji.

## BOMBAY PARSI TEXTILE LEAGUE

Prospect Chambers Annexe, Dr. Dadabhoy Naoroji Road, Fort.

## BOMBAY PIECE-GOODS MERCHANTS' MAHAJAN

Mulji Jetha Cloth Market Hall, 250, Sheikh Memon Street, Bombay 2.

*President :* Navnitlal L. Shah ; *Vice-President :* Jamnadas Gokaldas ; *Hon. Secretaries :* V. K. Mehta, D. V. Sangvi ; *Hon. Treasurers :* Bhagwandas N. Shroff, R. Jamnadas ; *Secretary :* K. M. Pandit.

## BOMBAY PIPES & FITTINGS MERCHANTS' ASSOCIATION

84, Nagdevi Street, Bombay 3.

*President :* Indulal A. Adalja ; *Vice-President :* Natwerlal O. Desai ; *Hon. Treasurer :* Muljibhai C. Dharia ; *Hon. Secretaries :* Dhanvant H. Shah, Kantilal L. Vora.

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196B, Gaiwadi, Girgaum, Bombay 4.

*Honorary Secretary and Treasurer :* M. C. Modi.

## BOMBAY PRODUCTIVITY COUNCIL

India House, Kemp's Corner, Bombay 26.

*President :* Y. A. Fazalbhoy ; *Vice-Presidents :* Dr. C. Nanjundayya, V. V. Ranade ; *Hon. Treasurer :* J. G. Parikh ; *Hon. Secretary :* S. V. Mani ; *Executive Secretary :* P. S. Easwaran ; *Industrial Engineer :* H. N. Jhangiani.

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C/o Empire Stores, Crawford Market, Bombay 1.

## BOMBAY RETAIL BANARAS & SILK MERCHANTS' ASSOCIATION

C/o Jeshingbhai Sankalchand, 61, Marwadi Bazar, Bombay 2.

## BOMBAY RETAILERS (GOODS SUPPLY) CO-OP. SOCIETY LTD.

Ahmed Mansion, Top Floor, Pinjari Street, Bombay 3.
Has a branch at Margret Bldg., Antop Hill, Wadala, Bombay 31.

*President :* Dayaram H. Garibdas ; *Secretary :* N. N. Khemani.

## THE BOMBAY RICE MERCHANTS' ASSOCIATION

116, New Chinch Bunder Road, Bombay 9.

## THE BOMBAY SALT MERCHANTS' & SHILOTRIES' ASSOCIATION

583, Chira Bazar, Bombay 2.

*President :* Jayantilal Tribhovandas ; *Vice-President :* Nandlal Laduram ; *Hon. Secretary :* Maneckshaw S. Kotwal ; *Hon. Treasurer :* Ardeshir H. Bhiwandiwalla ; *Jt. Hon. Secy. :* N. P. Bharthania.

## THE BOMBAY SANITARYWARE ASSOCIATION

8/10, Green Street, Fort, Bombay 1.

## THE BOMBAY SHAREHOLDERS' ASSOCIATION

Agakhan Building, 3rd Floor, Dalal Street, Fort, Bombay.

## BOMBAY SHROFFS' ASSOCIATION

233A, Shroff Bazar, Bombay 2.

*President :* Mangulal Trikamlal Parikh ; *Vice-President :* Hiralal Jethalal Parikh ; *Hon. Secretaries :* B. K. Javeri, K. L. Desai ; *Treasurer :* Mohanlal Hargovindas & Co.

## BOMBAY SMALL-SCALE INDUSTRIES ASSOCIATION

91/93, 1st Pathan Street, Bombay 4.

## THE BOMBAY SPORTS TRADERS' ASSOCIATION

C/o K. L. Malhotra Bros., 5th Floor, Mohatta Market, Palton Road, Bombay 1.

*President :* R. W. Wagle ; *Vice-President :* Capt. (Retd.) D. N. Mehta ; *Secretary :* K. L. Malhotra ; *Treasurer :* R. D. Patel.

## THE BOMBAY STATIONERS' ASSOCIATION

205, Abdul Rehman Street, Bombay 3.

## THE BOMBAY STEVEDORES' ASSOCIATION LTD.

Janmabhoomi Chambers, Fort Street, Bombay.

*President :* D. A. Dhunjibhoy ; *Vice-President :* R. D. Dubash ; *Secretary :* C. K. Vyas.

## BOMBAY SUGAR MERCHANTS' ASSOCIATION LTD.

104/114, Frere Road, opp. Victoria Dock, Bombay 9.

*President :* C. T. Shanghvi ; *Vice-President :* Jamandas T. Talreja ; *Hon. Secretary :* M. T. Parekh ; *Secretary :* A. B. Karia.

## BOMBAY TEA MERCHANTS' ASSOCIATION

222-A, Samuel Street, Mandvi, Bombay 3.

## BOMBAY TEXTILE AND ENGINEERING ASSOCIATION

Satar Bldg., Opp. Grant Road, Railway Station (East), Bombay 7.

*President :* L. V. Patel ; *Vice-President :* M. N. Kulkarni ; *Hon. Secretary :* K. S. Punegar ; *Hon. Treasurer :* H. A. Gadiali ; *Hon. Librarian :* K. H. Engineer.

## THE BOMBAY TIMBER MERCHANTS' ASSOCIATION LTD.

Victoria Road, Mustafa Bazar, Bombay 10.

*President :* P. M. Sejpal ; *Vice-President :* Aboobaker A. Parekh ; *Secretaries :* Homi Cavasji Bharucha, D. P. Panthaki ; *Treasurer :* Manibhai Patel.

## BOMBAY TYPE FOUNDRY OWNERS' ASSOCIATION

B-196, Gaiwadi, Girgaon, Bombay 4.

*Hon. Secretary :* M. C. Modi.

## BOMBAY WATCH DEALERS' SYNDICATE

78, Abdul Rehman Street, Bombay 3.

*President :* H. J. Jogi ; *Hon. Secy. :* H. J. Parekh ; *Treasurer :* M. O. Mehta.

## BOMBAY WATCH MATERIAL MERCHANTS' ASSOCIATION

138, Nagdevi Street, Bombay 3.

*President :* Firoz Rangwala ; *Secretary :* Lalchmandas Krishnani ; *Treasurer :* Bashir M. Ahmedi.

## THE BOMBAY WOOL MERCHANTS' ASSOCIATION

Post Box No. 1040, Bombay 1.

*President :* Vijaysinh ; *Vice-President :* Rameshchandra V. Dave ; *Hon. Secretary :* Jethmal Jain ; *Jt. Hon. Secretary :* V. C. Trivedi.

## BOMBAY WOOLLEN DEALERS' CORPORATION

27/29, Champagalli, M. J. Market, Bombay 2.

*President :* Fulchand Shamji ; *Vice-President :* Lakshmandas Kapoor ; *Hon. Secretaries :* Gordhandas Lakhmidas, Sampatrai Jain ; *Hon. Treasurer :* Narandas H. Kotadiya.

## BOMBAY WOOLLEN PIECE-GOODS MERCHANTS' ASSOCIATION

Mulji Jetha Cloth Market Hall, Sheikh Memon Street, Bombay 2.

## BOMBAY YARN MERCHANTS' ASSOCIATION & EXCHANGE LIMITED

111, Chawala Building, Tambakanta, Bombay 3.

*President :* Kantilal Nahal Chand ; *Vice-President :* B. B. Shah ; *Hon. Treasurer :* M. G. Shroff ; *Secretary :* D. M. Boradia, B.A., LL.B.

## THE BOOK MANUFACTURERS' ASSOCIATION

1st floor, 23, Mirza Street, Bombay 3.

*President :* Khimjibhai D. Shah ; *Vice-President :* Natwarlal Kadakia ; *Hon. Jt. Secretaries :* E. H. Roopawalla, Zakir Kapadia ; *Hon. Treasurer :* Jethalal Joshi.

## BUILDERS' ASSOCIATION OF INDIA

United India Bldg., Sir Pherozshah Mehta Road, Bombay 1.

*President :* Y. G. Patel ; *Vice-President :* B. V. Apte ; *Hon. Treasurer :* H. J. Shah ; *Hon. Secretary :* J. S. Ajmera ; *Secretary :* R. S. Desai.

Centres at Agra, Ahmedabad, Allahabad, Ajmer, Calcutta Gauhati, Hyderabad, Kanpur, Madras, Poona, Ranchi and Delhi.

## BUTTER MANUFACTURERS' ASSOCIATION

C/o Star of India Dairy Co., 112, Medows Street, Fort, Bombay.

## CEMENT MANUFACTURERS' ASSOCIATION

Cement House, 121, Queen's Road, Bombay 1.

## CENTRAL ORGANISATION FOR OIL INDUSTRY & TRADE

Anna Bhavan, 5th Floor, Plot No. 87-C, Broach St., Bombay 9.

*President :* Ratilal M. Gandhi ; *Chairman :* Maddi Sudarsanam ; *Secretary :* R. C. Sheth.

## THE CHEMICAL AND ALKALI MERCHANTS' ASSOCIATION

5th Floor, Himalaya House, Palton Road, Bombay 1.

*President :* D. G. Valia ; *Vice-President :* A. A. Mehta ; *Hon. Secretaries :* N. Ramamoorthy, P. C. Mehta.

## CHEMICAL PLANT MANUFACTURERS' ASSOCIATION OF INDIA

C/o Bombay Chamber of Commerce & Industry, Mackinnon Mackenzie Building, Ballard Road, Ballard Estate, Bombay 1.

*Chairman :* J. G. Brown ; *Dy. Chairman :* S. C. Dalal ; *Secretary :* T. R. Subramaniam.

## CHEMISTS' & DRUGGISTS' ASSOCIATION

Block 3, Devkaran Mansion, Princess Street, Bombay 2.

*President :* N. J. Bole ; *Vice-President :* S. K. Shah ; *Hon. Secretary :* P. B. Oza ; *Jt. Hon. Secretary :* D. V. Gandhi ; *Hon. Treasurer :* R. H. Metha.

## CINEMATOGRAPH EXHIBITORS' ASSOCIATION OF INDIA

Sandhurst Building, Sardar Patel Road, Bombay 4.

*President :* B. D. Bharucha ; *Dy. President :* I. D. Shah ; *Vice-President :* G. S. Gadre ; *Hon. Treasurer :* P. R. Irani ; *Secretary :* I. K. Menon.

## CINEMATOGRAPHIC SUPPLIERS' ASSOCIATION

107, M. Gandhi Road, G.P.O. Box 311/A, Bombay 1.

*President :* S. A. Patel ; *Vice-President :* Dr. Bihari M. Adalja ; *Secretary :* V. Doraiswamy.

## COMMERCIAL ARTISTS' GUILD

4th Floor, India House, Fort Street, Bombay 1.

## CONCRETE ASSOCIATION OF INDIA

Cement House, 121, Queen's Road, Fort, Bombay 1.

*Chief Engineer and Editor, "Indian Concrete Journal" :* K. K. Nambiar, B.E., C.E. (Hons.), M.I.E. (India), F.Inst. H.E. (England), M.I.Mun.E. (England), F.Am.Soc. C.E.

## COPPER & BRASSWARE MANUFACTURERS' & SELLERS' ASSOCIATION LTD.

64, Kansara Chawl, Room No. 80, 2nd Floor, Bombay 2.

## COTTON BUYERS' ASSOCIATION

1st Floor, Great Western Bldg., 130-32, Apollo Street, Fort, Bombay 1.

*President :* M. R. Ruia ; *Vice-President :* Jehangir P. Patel ; *Secretary :* D. S. Nadkarni.

## COTTON TEXTILES EXPORT PROMOTION COUNCIL

Cecil Court, 4th Floor, 26, Lansdowne Road, Apollo Bunder, Bombay 1.

*Chairman :* Neville N. Wadia ; *Secretary :* C. K. Srinivasan.

## DECCAN SUGAR FACTORIES' ASSOCIATION

Stadium House, Block No. 2, Veer Nariman Rd., Bombay 1.

*President :* G. J. Ruparel ; *Vice-President :* B. Gulabchand ; *Secretary :* R. Venkataraman.

## DYESTUFFS MANUFACTURERS' ASSOCIATION OF INDIA

Girton House, 177, Lamington Road, Bombay 7.

## EAST INDIA COTTON ASSOCIATION, LIMITED

Cotton Exchange, Marwari Bazar, Bombay 2.

*Chairman :* Madanmohan R. Ruia ; *Vice-Chairman :* Ramdas Kilachand ; *Secretary :* D. G. Damle.

## THE ELECTRIC MERCHANTS' ASSOCIATION

Shreeji Bhuvan, Lohar Chawl, Bombay 2.

## ELECTRICAL CONTRACTORS' ASSOCIATION

63, New Stock Exchange Building, Apollo Street, Bombay 1.

*President :* D. V. Khambhla ; *Vice-Pres. :* D. M. Doctor ; *General Secretary :* B. V. Mirashie ; *Hon. Treasurer :* V. N. Sarvaiya.

## EMPLOYERS' FEDERATION OF INDIA

Army & Navy Building, 148, Mahatma Gandhi Road, Bombay 1.

OBJECTS : To regulate the relations between employers and workmen ; to promote and protect the interests of employers engaged in industry, trade and commerce ; to promote and support all well-considered schemes for the general uplift of labour and to take all possible steps to establish harmonious relations between Capital and Labour ; to advise employers on labour matters, to assist them in the settlement of labour disputes and to represent or arrange for the representation of employers in any proceedings before Tribunals, Courts and other judicial or quasi-judicial body ; and to carry on propaganda for the purpose of educating the public with regard to the character, scope, importance and needs of industrial enterprise as represented by the Federation.

*President :* Naval H. Tata ; *Vice-Presidents :* J. V. Jardine-Paterson, N. M. Wagle, C. F. M. Baldwin and J. K. Srivastava ; *Secretary-General :* T. S. Swaminathan ; *Secretary :* N. M. Vakil.

## ENGINEERING ASSOCIATION OF INDIA

(Western Region)

87, Veer Nariman Road, Bombay 1.

*Chairman :* A. M. Kapadia ; *Vice-Chairman :* B. V. Shah ; *Secretary :* M. de Melo.

## EXHIBITION SOCIETY

Central Bank Building, D. Naoroji Road, Bombay 1.

The Society is founded for organising exhibition sales of indigenous household articles.

## FEDERATION OF BOMBAY RETAIL CLOTH DEALERS' ASSOCIATIONS

24/30, 1st Marine Street, Bombay 2.

*President :* A. K. Jobanputra ; *Vice-President :* M. V. Dhabliwalla ; *Hon. Secretaries :* H. V. Dedhia and A. M. Kulkarni ; *Treasurer:* V. G. Solanki.

## FEDERATION OF ELECTRICITY UNDERTAKINGS OF INDIA

Killick House, Home Street, Bombay 1.

## FEDERATION OF MOTOR TRANSPORT ASSOCIATIONS

26, P. D'mello Road, Wadi Bunder, Bombay 9.

## FEDERATION OF PAPER TRADERS' ASSOCIATIONS OF INDIA

401A, Commerce House, 140, Medows Street, Fort, Bombay 1.

*President :* A. K. Sur ; *Vice-Presidents :* Keshavlal R. Shah, Anand Parkash Kapur, Jagan Nath Gupta, J. K. Chopra ; *Hony. Secretary :* Vishwa Nath Kapur ; *Hony. Treasurer :* K. C. Goel.

## THE FEDERATION OF PUBLISHERS AND BOOKSELLERS ASSOCIATIONS IN INDIA

C/o India Book House, Eruchshaw Bldg., 1st Floor, 249, Dr. Dadabhai Naoroji Road, Bombay 1.

*President :* Shamlal Gupta ; *Vice-Presidents :* Sadanand Bhatkal, V. Balaraman ; *Secretary :* G. L. Mirchandani ; *Treasurer :* J. H. Shah.

## THE FERTILISER ASSOCIATION OF INDIA, WESTERN REGIONAL OFFICE

305, Neelkanth, 98, Marine Drive, Bombay 2.

*Head Office :* 85, Sundar Nagar, New Delhi 11.

*Regional Executive :* Dr. T. J. Mirchandani, M.Sc., Ph.D. (London), A.I.I.Sc. ; *Technical Officer :* E. G. Tikhe, B.Sc. (Agri.), Assoc. I.A.R.I.

## FOREIGN EXCHANGE DEALERS' ASSOCIATION OF INDIA

C/o The Chartered Bank, 23/25, Mahatma Gandhi Road, Bombay 1.

*Chairman :* D. C. Martin ; *Vice-Chairman :* T. D. Kansara ; *Hon. Secretaries :* T. R. Srinivasan, B. R. Patankar.

## GHEE MERCHANTS' ASSOCIATION

191/193, Samuel Street, Bombay 9.

*President :* Harilal Girdharlal Doshi ; *Vice-President :* Kantilal Dahyabhai ; *Hon. Secretary :* Shantilal Jivraj Modi.

## GRAIN, RICE AND OILSEEDS MERCHANTS' ASSOCIATION

72-80, Masjid Bunder Road, Mandvi, Bombay 3.

*President :* Devji Rattansey ; *Vice-President :* Premji Velji ; *Hon. Secretary :* Premji Bhanji ; *Secretary :* K. N. Joshi.

## GREY ART SILK MANUFACTURERS' GROUP

C/o The Central Textiles, Samraat Mill's Compound, Agra Road, Vikhroli, Bombay 79.

*Hon. Secretary :* J. K. Turakhia.

## HINDUSTANI MERCHANTS' & COMMISSION AGENTS' ASSOCIATION LTD.

342, Kalbadevi Road, Bombay 2.

*President :* D. P. Kejriwal ; *Vice-President :* Manoharlal Bhatia ; *Hon. Secretaries :* D. Gandhi, M. P. Taparia ; *Hon. Treasurer :* P. Chandanmalji ; *Secy. :* A. K. Agnihotri.

## HOOSHAMI OLD IRON MERCHANTS' ASSOCIATION

Darukhana, Mazagaon, Bombay 10.

## HOTEL & RESTAURANT ASSOCIATION OF BOMBAY REGION

Taj Mahal Hotel, Apollo Bunder, Bombay 1. (Tel. Nos. 212639 & 219101).

OFFICE-BEARERS.—*President :* Maneck S. Shaw, M.H.C.I. ; *Hon. Secretary :* Harish Lamba ; *Hon. Treasurer :* J. P. Voyantzis ; *Secretary :* Shrikant Joshi.

## INDIAN BANKS ASSOCIATION

Devkaran Nanjee Bldg., Horniman Circle, Fort, Bombay.

*Chairman :* Vacant ; *Dy. Chairman :* R. B. Shah ; *Hon. Secretary :* C. E. Kamath ; *Secretary :* Dr. S. G. Panandlikar.

## INDIAN CHEMICAL MANUFACTURERS' ASSOCIATION

(Bombay Regional Office)

Elphinstone Building, 10, Veer Nariman Road, Bombay 1.

*Chairman :* V. N. Sardesai ; *Vice-Chairman :* Dr. H. B. Shreerangachar ; *Hon. Secretary & Treasurer :* Dr. T. P. S. Rajan.

## THE INDIAN COTTON MILLS' FEDERATION

Elysium Mansion, Walton Road, Colaba Causeway, Bombay-1.

*Chairman :* G. K. Devarajulu ; *Dy. Chairman :* Madanmohan Mangaldas ; *Vice-Chairman :* Radhakrishna R. Ruia ; *Secretary-General :* Bhaskar G. Kakatkar.

## INDIAN COUNCIL OF FOREIGN TRADE

Co-operative Insurance Bldg., 4th Floor, Sir Phirozshah Mehta Road, Bombay 1.

OBJECTS.—The object of the Council is to promote International trade in general with a special emphasis on boosting India's exports all over the world. The Council is also compiling a Directory of Indian Exporters.

OFFICE-BEARERS : *President :* P. B. Advani ; *Vice-Presidents :* B. N. Banerjee, D. C. Kothari, S. P. Godrej, R. V. Vora ; *Secretary :* S. K. Urval.

## INDIAN ELECTRICAL MANUFACTURERS' ASSOCIATION

C/o Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay 1.

## INDIAN ENGINEERING ASSOCIATION

(Western Region)

C/o Bombay Chamber of Commerce & Industry, Post Box 473, Bombay 1.

*Chairman :* F. A. Jasdanwalla ; *Dy. Chairman :* Gunnar Hansen ; *Secretary :* Frank D'Souza.

## THE INDIAN INSURANCE COMPANIES' ASSOCIATION

"Jeevan Sahakar", Sir Pherozshah Mehta Road, Bombay 1.

*Chairman :* H. V. Gandhi ; *Secretary :* D. N. Majmudar, B.A., LL.B.

## THE INDIAN LANGUAGES NEWSPAPERS' ASSOCIATION

Janmabhoomi Bhavan, Ghogha Street, Fort, Bombay 1.

*Publication :* Language Press Bulletin Monthly published in English, devoted to the Indian Newspaper Industry.

*President :* A. R. Bhat ; *Vice-Presidents :* T. M. Chettiar, F. Das, B. Rawat, K. M. Mathew, N. L. Shah, M. S. Kirloskar, U. H. Khansaheb, K. A. Nettakallappa ; *Hon. Gen. Secs. :* Ratilal Sheth, R. A. Gupta, D. S. Potnis.

## INDIAN MACHINE TOOL MANUFACTURERS' ASSOCIATION

12, Rampart Row, Fort, Bombay.

*President :* J. V. Patel ; *Vice-President :* C. B. Saran ; *Hon. Secretary:* H. J. Dias.

## INDIAN MANUFACTURERS' EXPORT ASSOCIATION

121-22, St. Xavier's Street, Bombay 12.

## INDIAN MOTION PICTURE DISTRIBUTORS' ASSOCIATION

Mogul Lane, Off Sitaladevi Temple Road, Mahim, Bombay 16.

*President :* P. K. Bhandarkar ; *Vice-President :* Gulshanrai ; *Hon. Treasurer :* Madanlal T. Shah.

## INDIAN MOTION PICTURE PRODUCERS' ASSOCIATION

Sandhurst Building, Sardar Patel Road, Bombay 4.

*President :* Roshanlal Malhotra ; *Vice-Presidents :* G. P. Sippy, S. Samanta ; *Hon. Treasurer :* J. B. Bakshi ; *Secretary :* I. K. Menon.

## INDIAN NATIONAL STEAMSHIP OWNERS' ASSOCIATION

Scindia House, Ballard Estate, Bombay 1.

*President :* Pratapsinh S. Vallabhdass ; *Vice-President :* K. K. Birla ; *Hon. Treasurer :* J. M. Kapadia ; *Hon. Secretary :* M. J. Buch ; *Secretary :* S. K. Aier.

## INDIAN OIL AND PRODUCE EXPORTERS' ASSOCIATION

Anna Bhavan, 5th Floor, Plot No. 87-C, Broach Street, Bombay 9.

*Chairman :* S. Bhuwalka ; *Vice-Chairman :* J. J. Tanna ; *Hon. Treasurer :* N. P. Nopany ; *Hon. Secretary :* S. L. Bheda ; *Secretary :* R. C. Sheth.

## INDIAN PAINT & ALLIED INDUSTRIES ASSOCIATION

Botawala Bldg., 2nd Floor, 8, Horniman Circle, Bombay 1.

*President :* N. K. Meghani ; *Vice-President :* L. U. Shegaonkar ; *Secretary :* T. R. Ganapathy ; *Treasurer :* N. M. Shah.

## THE INDIAN PHARMACEUTICAL ASSOCIATION

Bharati Bhavan, 3rd Floor, 213/19, Frere Road, Fort, Bombay 1.

*President :* B. V. Patel ; *Hon. Gen. Secretary :* Dr. J. N. Banerjee ; *Editor :* Dr. G. B. Ramasarma.

## INDIAN ROADS & TRANSPORT DEVELOPMENT ASSOCIATION, LIMITED

27, Bastion Road, Bombay 1.

The Association has its headquarters in Bombay and branches at Calcutta, Bombay, Madras, New Delhi and Gauhati.

*President :* G. L. Anderson ; *Vice-President :* A. B. Parakh.
*Secretary :* C. S. Nair.

## INDIAN RUBBER INDUSTRIES ASSOCIATION

12, Rampart Row, Fort, Bombay 1.

*President :* D. Bose ; *Vice-Presidents :* M. M. Patel, K. R. Sengupta ; *Hon. Gen. Secy. :* B. B. Sangtani ; *Hon. Treasurer :* S. V. Lathia ; *Secy. :* N. K. Patel.

## INDIAN SALT MANUFACTURERS' ASSOCIATION

C/o Tata Chemicals Ltd., Bombay House, Bruce Street, Bombay.

*Chairman :* P. A. Narielwala.

*Hon. Secy. & Treasurer :* A. K. Banerjee.

## INDIAN SOCIETY OF ADVERTISERS LTD.

Army and Navy Building, Mahatma Gandhi Road, Bombay 1.

*Chairman :* Arvind N. Mafatlal ; *Vice-Chairmen :* R. V. Leyden, P. Guha Thakurta ; *Executive Secretary :* Pothen Philip.

## INDIAN STOCK EXCHANGE LTD.

Yusuf Building, 43, Mahatma Gandhi Road, Bombay 1.

DIRECTORS :

*Chairman :* Chunilal B. Mehta ; *Directors :* N. P. Oza, K. M. Parekh, D. D. Joshi ; *Secretary :* K. A. Kamdar.

## THE INDIAN TOBACCO MERCHANTS' ASSOCIATION LTD.

Clive Road, Bombay 9.

*Chairman :* Mohanlal Ambalal Parikh ; *Secretary :* Percy Thomas Dias.

## INDIAN WOOLLEN MILLS' FEDERATION

G. 4 Advent Building, Foreshore Road, Bombay 1.

*Chairman :* B. M. Grover ; *Deputy Chairman :* R. K. Seth ; *Vice-Chairman :* L. J. Behal ; *Secretary General :* J. N. Chaudhry.

## INSURANCE ASSOCIATION OF INDIA BOMBAY REGIONAL COUNCIL

Radia House, 6, Rampart Row, Bombay 1.

*Chairman :* S. K. Desai, B.A., LL.B., F.F.I.I. ; *Dy. Chairman :* R. A. Isaac ; *Secretary :* Vaman H. Thakor, B.A., LL.B. Advocate (O.S.), A.F.I.I.

## IRON & STEEL SCRAP ASSOCIATION OF INDIA

Loha Bhavan, 515/5th Floor, P. D'Mello Rd., Bombay 9 (BR).

*President :* S. A. Nathani ; *Vice-Presidents :* A. M. Elijah, S. C. Laul ; *Secretary :* T. S. Seetaram.

## IRON, STEEL & HARDWARE MERCHANTS & MANUFACTURERS' CHAMBER OF INDIA

403, Loha Bhavan, Frere Road, Bombay-9.

*President :* H. B. Gupta ; *Sr. Vice-President :* S. M. Gupta ; *Hon. Gen. Secy. :* R. M. Valia ; *Secretaries :* K. L. Bawa, P. T. Shah, K. K. Khandelwal ; *Secy. :* S. P. Khosla.

## LEATHER GOODS MANUFACTURERS' & DEALERS' ASSOCIATION

157, Princess Street, Bombay 2.

## MAGNET WIRES & CABLE MANUFACTURERS' ASSOCIATION

30, Sardar Griha, Carnac Road, Bombay 2.

*Chairman :* D. C. Chinai ; *Vice-Chairman :* P. L. Dhanuka ; *Hon. Secy. :* S. R. Saboo ; *Hon. Treasurer :* K. D. Kapadia.

## THE MAHARASHTRA GRAIN & PROVISION MERCHANTS' ASSOCIATION LTD.

C/o G. D. Bodas & Co., 27, Zaoba Wadi, Thakurdwar, Bombay 2.

*President :* D. K. Bhagvat ; *Vice-President :* M. G. Palsule ; *Treasurer :* G. V. Velankar ; *Hon. Secretary :* R. D. Barve.

## MARITIME UNION OF INDIA

204, Dr. Dadabhoy Naoroji Road, Bombay 1.

The Union is recognised by the principal shipping companies and is represented on the National Shipping Board, National Welfare Board for Seafarers, Merchant Navy Training Board and on the Councils of the International Transport Workers' Federation and the Officers' (Merchant Navy) Federation Ltd., London and also on the Joint Maritime Commission of the International Labour Organisation.

The Union's quarterly publication the " OCEANITE " is the only maritime magazine in India.

*President :* H. K. Variyava ; *General Secretary :* J. D. Randeri.

## MARWAR JAIN MERCHANTS' ASSOCIATION

Bhoiwada, Parel, Bombay 12.

## METAL TRADE & INDUSTRIES ASSOCIATION OF INDIA LTD.

31, Mirza Street, Bombay 3.

*President :* A. H. Baldota ; *Vice-President :* C. C. Lalwani ; *Managing Director :* M. S. Mehta.

## MILK POWDER MERCHANTS' ASSOCIATION

418, Crawford Market, Bombay 1.

## THE MILL GIN STORE MERCHANTS' ASSOCIATION

88/92, Nagdevi Cross Lane, Bombay 3.

*President :* Ambalal G. Shah ; *Vice-President :* Hariram M. Thakkar ; *Treasurer :* K. B. Khatwani ; *Hon. Secretaries :* Ratilal N. Mehta, K. V. Doshi.

## MILLOWNERS' ASSOCIATION, BOMBAY

Elphinstone Building, Veer Nariman Road, Bombay 1.

*Office-bearers for the year* 1965-66 : Radhakrishna R. Ruia (*Chairman*), C. H. Campbell (*Deputy Chairman*), Krishnaraj M. D. Thackersey, Neville N. Wadia, G. D. Somani, Ramnath A. Podar, M. L. Tapuriah, Pratap Bhogilal, Arvind N. Mafatlal, Naval H. Tata, Babulal Bubna, F. H. Kemple, Chandrakant Mulraj Khatau, J. J. Ashar, A. N. Haksar, Pratapsinh Mathuradas, Gopikisan Piramal, N. D. Sirur, Kudilal G. Seksaria, S. R. Damani, R. L. N. Vijayanagar (*Secretary*), M. S. Warty (*Labour Officer*).

## MOTOR MANUFACTURERS' & IMPORTERS' ASSOCIATION

Bank of Baroda Bldg., Apollo St., Bombay 1.

## MYROBALANS MERCHANTS' ASSOCIATION

104-108, Clive Road, Dana Bunder, Bombay 9.

*President :* Darasha P. Tata ; *Hon. Secretary :* Chimanlal M. Shah.

## NATIVE SHARE AND STOCK BROKERS' ASSOCIATION

Sir Dinshaw Petit Brokers' Exchange Hall, Dalal Street, Bombay 1.

*President :* K. R. P. Shroff ; *Vice-President :* Kantilal Ishvarlal ; *Hon. Treasurer :* Dhirajlal Maganlal ; *Secretary :* P. J. Jeejeebhoy ; *Asstt. Secretary :* A. J. Shah.

## NON-POWER SOAP MANUFACTURERS' ASSOCIATION

380, Girgaum Rd., Bombay 2.

*President :* C. D. Shah ; *Vice-President :* P. H. Shah ; *Treasurer :* R. C. Doshi ; *Secretary :* N. K. Mehta.

*Total Membership :* 680 (Spread all over India).

## PAPER TRADERS' ASSOCIATION

54, Sutar Chawl, Bombay 2.

*President :* Indulal G. Lakhia ; *Vice-President :* K. C. Goel ; *Hon. Secretaries :* Abdul Kaiyum Esufali Haveliwala, Anantray M. Mehta ; *Hon. Treasurer :* Laltaprasad Misra.

## PEARLS IMPORTERS' & EXPORTERS' ASSOCIATION

80-AB, Sheikh Memon Street, Bombay 2.

## PEPPER & GINGER MERCHANTS' ASSOCIATION LIMITED

332-34, Narsi Natha Street, Bombay 9.

*President :* Vallabhdas V. Mariwala ; *Vice-President :* Abhechand D. Gandhi ; *Hon. Treasurer :* Meghji Velji ; *Secretary :* D. N. Shah.

## THE PERFUMERY RAW MATERIALS TRADE ASSOCIATION

Devkaran Mansion, 2nd Floor, 45/47, Princess Street, Bombay 2.

*President :* S. D. Nadkarni ; *Vice-President :* Hakim Rai Khanna ; *Treasurer :* H. R. Thakkar ; *Hon. Secretaries :* K. N. Shah, J. N. Dhagay.

## THE PETROL DEALERS' ASSOCIATION

32, Hughes Road, Bombay 7.

*President :* R. S. Vatcha ; *Vice-Presidents :* Jethalal Mehta, Kundanlal Punjabi, Madhavprasad Ruia ; *Treasurer :* Shantilal Mody.

## PHARMACEUTICAL AND ALLIED MANUFACTURERS' AND DISTRIBUTORS' ASSOCIATION, LTD.

C/o Bombay Chamber of Commerce and Industry, Mackinnon Mackenzie Building, Ballard Estate, Bombay 1.

*President :* C. P. Zaveri; *Vice-President :* V. A. Castellino; *Hon. Secretary :* J. E. Moniz; *Hon. Treasurer :* D. L. Amore.

## THE PLASTICS AND LINOLEUMS EXPORT PROMOTION COUNCIL

Patel Industrial Centre, 68, Tardeo Road, Bombay 34.

*Chairman :* R. M. Patel; *Vice-Chairman :* C. M. Srimal; *Secretary :* D. S. Swaminathan.

## PROPERTY OWNERS' ASSOCIATION

Bansilal Mansion, 11, Bruce Street, Bombay 1.

*President :* R. C. Rele.

## RAW SILK MERCHANTS' ASSOCIATION

Kilachand Bldg., 39/43, Abdul Rehman St., Bombay.

## THE REFRIGERATION AND AIR CONDITIONING TRADES ASSOCIATION LIMITED

C/o Bombay Cycle & Motor Agency Ltd.,
534, Sardar Vallabhbhai Patel Road, Bombay 7.

*President :* Ram D. Malani; *Vice-President :* Maj. Gen. H. M. Mohite; *Hon. Treasurer :* N. K. Limji; *Hon. Secretary :* H. K. Ghose.

## THE RETAIL GRAIN DEALERS' FEDERATION

'Shiv Mahal', 84-86, Dr. Maheshwari Road, Bombay-9.

*Chairman :* Khimji M. Bhujpuria; *President :* Jagdeo Shanker Sharma; *Sr. Vice-President :* Virpal Devji Bheda; *Jr. Vice-President :* Siddique Haji Vali Mohmed; *Hon. Secretaries :* Lakhamshi Punjabhai Malde, Premji Meghji Shah; *Secretary :* Dayhabhai L. Patel.

## THE SCIENTIFIC & SURGICAL INSTRUMENT MANUFACTURERS' & TRADERS' ASSOCIATION

2nd Floor, Devkaran Mansion, 43, Princess Street, Bombay 2.

*President :* Dr. S. R. Lele; *Vice-President :* N. J. Bole; *Hony. Jt. Secretaries :* N. C. Dalal, V. Bedekar; *Hony. Treasurer :* J. S. Trivedi.

## THE SHUTTLE MANUFACTURERS' ASSOCIATION

8, Hamam Street, Fort, Bombay.

## SILK & ART SILK MILLS' ASSOCIATION LTD.

Resham Bhavan, 78, Veer Nariman Road, Bombay 1.

*Chairman :* D. N. Shroff; *Vice-Chairman :* Surendra M. Mehta; *Secretary :* Zarine R. J. Taraporevala.

## THE SILK & RAYON TEXTILES EXPORT PROMOTION COUNCIL

Resham Bhavan, 78, Veer Nariman Road, Bombay 1.

*Chairman :* D. N. Shroff; *Secretary :* O. P. Dhawan.

## SILK MERCHANTS' ASSOCIATION

Dahanukar Building, Kalbadevi Road, Bombay 2.

*President :* Manilal S. Kapadia; *Vice-President :* Lalbhai P. Shah; *Hon. Secretary :* Laxmichand Dulabhji; *Hon. Jt. Secretary :* Manilal Bapulal Gandhi; *Treasurers :* J. Kimatrai & Co.

## THE SMALL SCALE COPPERWARE MANUFACTURERS' ASSOCIATION

37-39, Bhajipala Street, Bombay 3.

## SOLVENT EXTRACTIONS ASSOCIATION OF INDIA

Bombay House, Bruce Street, Fort, Bombay 1.

## SOUTH INDIAN CO-OPERATIVE CENTRAL WHOLESALE SOCIETY LTD.

Telang Road, Matunga, Bombay 19.

*President :* V. Sivaraman; *Chairman :* C. V. Ramaswamy; *Hony. Secretary :* V. G. Pisharody.

## STAINLESS STEEL MERCHANTS' ASSOCIATION

253, Harihar Niwas, Khetwadi 3rd Lane, Bombay 4.

## STEEL FURNACE ASSOCIATION OF INDIA

C/o Mukand Iron & Steel Works Ltd., Kurla, Bombay 70-AS.

*Chairman,* Viren J. Shah, *Vice-Chairman,* N. S. Gilani; *Hon. Secretary,* Dhiroo N. Mehta.

## THE STOCK EXCHANGE

Dalal Street, Bombay 1.

*President :* K. R. P. Shroff; *Vice-President :* Kantilal Ishvarlal; *Secretary :* P. J. Jeejeebhoy.

## SWADESHI MARKET TEXTILE MERCHANTS' ASSOCIATION

Swadeshi Market Bldg., Cavel Street, 1st Floor, R. No. 204, Bombay 2.

*President :* Mayabhai C. Shah; *Hon. Secretaries :* N. C. Patel, D. H. Maniar.

## THE TEXTILE ASSOCIATION (INDIA)

72-A, Shivaji Park Road, No. 1, Bombay 28.

The Association is a central body of technical and supervisory staff in textile mills all over India with twelve branches.

*President :* N. V. Ullal; *Chairman :* J. M. Dalal; *Hon. Gen. Secy. :* S. M. Marfatia.

## TEXTILE MACHINERY MANUFACTURERS' ASSOCIATION

87, Veer Nariman Road, Bombay 1.
80, Dr. Annie Besant Road, 3rd Floor, Worli, Bombay-18.

*Chairman :* L. T. Gholap; *Vice-Chairmen :* H. J. Save, Atul K. Bhagwati; *Actg. Secretary :* I. I. Pandya.

## THEOSOPHY COMPANY (INDIA) PRIVATE LIMITED

Theosophy Hall, 40, New Marine Lines, Bombay 1.

*President :* Smt. Sophia Wadia; *Secretary :* N. A. Subramaniam.

## TRACTOR EARTHMOVING AND CONSTRUCTION EQUIPMENT DISTRIBUTORS' ASSOCIATION LTD.

C/o The Bombay Chamber of Commerce & Industry, Post Box No. 473, Bombay 1.

*Chairman :* E. P. Manning; *Vice-Chairman :* B. I. Bhambhani.

## TRADE MARKS OWNERS' ASSOCIATION OF INDIA LTD.

Army & Navy Building, Bombay 1.

## THE TRAVEL AGENTS' ASSOCIATION OF INDIA LTD.

C/o Bombay Chamber of Commerce & Industry,
Mackinnon Mackenzie Bldg., Ballard Road, Ballard Estate, Bombay 1.

*President :* V. M. Kotak; *Vice-President :* Inder Sharma; *Secretary :* N. J. Katgara; *Hon. Treasurer :* V. S. Ubhayakar; *Secretary :* J. J. Oonwalla.

## UPCOUNTRY NEWSPAPER REPRESENTATIVES ASSOCIATION

40, Police Court Lane, off Dadabhoy Naoroji Road, Bombay 1.

It is an organisation of persons working in Bombay on behalf of newspapers including magazines and periodicals, published outside Bombay. It is the only representative body of advertising—space sellers and its members collectively represent over 400 publications from all over India, Ceylon and even U.K

*President :* C. H. Ramnath; *Treasurer:* R. B. Khare; *Hon. Secretary :* S. P. Divan.

## THE VANASPATI MANUFACTURERS' ASSOCIATION OF INDIA

India House, Bombay 1.

## WADI BUNDER FORWARDING AGENTS' UNION

Down Platform No. 12, Wadi Bunder, Bombay 10.

*President :* M. A. Ganatra. *Hon. Secretary :* M. R. Vaishampayan.

## WATCH TRADE FEDERATION

Ghadiali Building, 88A-90, Nagdevi Cross Lane, Bombay 3 RB.

### THE WEST SUBURBAN MANUFACTURERS' ASSOCIATION

Orlem Post Office Bldg., 1st Floor, Off Marve Road, Malad West, Bombay-64.

*President :* Nanubhai H. Bhatt; *Vice-Presidents :* G. C. Shroff, M. B. Desai, M. I. Patel; *Treasurer :* L. M. Patel; *Jt. Hony. Secretaries :* C. M. Desai, J. B. Shah.

### WESTERN INDIA AUTOMOBILE ASSOCIATION

Lalji Naranji Memorial Building, Churchgate Reclamation, Bombay 1.

BRANCH OFFICES.—Ahmedabad : The Cellar, Khanpur; Poona : 7, Moledina Road, Poona 1; Nagpur : Turabali Hassonjee, C/o K. S. M. Hassanjee & Sons, P.O. Box 312; Jaipur : S. Trivedi, Rajendra Bhuvan, Subash Marg, 'C' Scheme.

*Patron-in-Chief.*—Dr. S. Radhakrishnan, President of India.

*President :* Chandrakant C. Patel, *Vice-Presidents :* R. S. Vatcha, Pravinchandra V. Gandhi; *Secretary :* Jehangir J. K. Patell, B.A., A.C.A., F.C.C.S., B.A., F.C.B.A., F.I.C.S.; *Asstt. Secretary :* K. G. Subramanian, B.A.

### THE WESTERN INDIA MINERALS ASSOCIATION

3, India House, Fort Street, Fort, Bombay.

*Chairman :* N. S. Worah; *Vice-Chairman :* B. N. Vyas; *Secretary :* T. K. Uchil.

### WESTERN INDIA PHOTOGRAPHIC & ALLIED TRADES ASSOCIATION LTD.

Mangrol Mansion, 6, Gunbow Street, Bombay 1.

*Chairman :* P. J. Patel; *Hon. Secretary :* T. N. Rao; *Hon. Treasurer :* I. R. Nallawala; *Hon. Jt. Secretary :* B. R. Patwardhan.

### WESTERN INDIA SHEET ROLLERS' ASSOCIATION

32, Nicol Road, Ballard Estate, Bombay 1.

*President :* D. K. Agarwal; *Vice-President :* P. C. N. Mazumdar; *Hon. Secretary :* D. K. Bhatt.

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# BENEVOLENT INSTITUTIONS IN GREATER BOMBAY

***Note :*** **Office-bearers and addresses change periodically.**

### ACWORTH LEPROSY HOSPITAL

Wadala, Bombay 31.

*President :* V. V. Joshi, M.A. (Oxon); *Hon. Secretary :* Dr. R. B. Fondekar, M.B.B.S., B.Hy.; *Special Officer :* Dr. N. Figueredo, M.B.B.S., B.Hy.; *Superintendent :* Dr. N. D. Katdare, M.B.B.S.; *Medical Officer :* Dr. A. C. Parikh, M.B.B.S., D.V. & D.

### ALL-INDIA ANIMAL WELFARE ASSOCIATION

149, Shroff Bazar, Bombay 2

Working Office : 16, Dadabhoy Manzil, Congress House, Bombay 4.

*Patron-in-Chief,* Dr. S. Radhakrishnan; *Hon. Patron :* Mrs. Rukmini Devi Arundale.

*President :* S. K. Patil; *Vice-Presidents :* Madame Sophia Wadia; Mrs. Mehra D. Malegamvala; Prof. T. V. Ramanujam; *Jt. Hon. Secys. :* Mrs. Shera Noshir Vajifdar; Dr. K. V. N. Swamy; Miss Perin E. Davar; *Jt. Hon. Treasurers :* J. N. Mankar, Miss Freany H. Wadia.

### ANJUMAN-E-MUFIDUL YATAMA

Madanpura, Masjid Jamil, Bombay 8.

This Institution conducts an orphanage and a Primary school named Madrasa-i-Farooqiah. It is a Fit Person Institution recognised by the Maharashtra Government. Magistrates commit destitute boys of educable type till they attain the age of 18 years.

### ARTYTOYS INDUSTRIAL SCHEME TRUST

Sir Ratan Tata Welfare Centre, Sir Ratan Tata Road, Tardeo, Bombay-34.

*Director-in-Charge.*—H. H. Vaziralli.

*Secy. & Treasurer.*—D. N. Navder; *Manager.*—D. B. Mobedji.

### ASSOCIATION FOR MORAL & SOCIAL HYGIENE

(Maharashtra Branch)

C/o 42, Queen's Barracks, 63, Foreshore Road, Cooperage, Bombay 1.

### ATHORNAN MANDAL

Representative Body for Parsee Priests in India.

Navsari Building, 240, Dr. Dadabhoy Naoroji Road, Fort.

### BAI MOTLIBAI WADIA CHARITABLE FUNDS

22-D, Parsi Bazar Street, Fort.

Endowments for scholarships.

### BALVIKAS KENDRA

Tilak Vidyalaya Road, Vile Parle (East), Bombay 57.

### BAPNU GHAR

2, Annie Besant Road, Near Vallabhbhai Patel Stadium, Hornby Vellard, Worli.

### BEGGARS' HOME FOR FEMALES

Chembur, Bombay 71.

Training and Rehabilitation of Beggar Women including Leprosy Women.

The Home is run by the State Government.

### BENE-ISRAEL HOME FOR DESTITUTES AND ORPHANS

Plot 92, Agripada, Jacob Circle, Bombay.

### BHAGINI SAMAJ

Bhagini Samaj Maganlal Ghia Building, 225, Khetwadi Main Road, Bombay.

Welfare activities in the interests of women and children. Has five centres in Bombay. Conducts Montessori, literacy and industrial classes, and library service for women and children. Two Hostels for Working Women, Physical Culture and Club for Women, Children's Club, Health and Family Planning Centres, *Bhagini Samaj Patrika* (monthly paper). Also conducts village extension projects and nursery classes in Surat District, Ashramshala for backward class girls and boys, Home Science School for girls and Hostel for backward class girls, at Udwada in Surat District, Balwadis at rural area and a Kagilaben Adhyapan Mandir.

*President.*—Smt. Lilavati Banker; *Hon. Secys.*, Smt. Bachuben Lotewala, Smt. Sarojini Mehta and Smt. Indiraben Marfatia.

### BHARATIYA VANITA SAMAJ

Nair Mahal, 1st Floor, Tulsi Pipe Road, Bombay 16.

*President.*—Mrs. Karthika P. Nair.

Hostel for working women, and other activities at Bharatiya Vanita Samaj Building, Sion Matunga (West) Estate, Plot 'A', Sion, Bombay 22.

### BILLAWAR ASSOCIATION

17, Raghunath Dadaji Street, Fort, Bombay.

Conducts : Guru Narayana Free Night High School; Jawaharlal Free Night High School; Ladies Free Industrial School, Free Reading Room and Library, Seva Dal; caters to the needs of poor destitutes by rendering medical and other general help; awards scholarship to poor and deserving students.

*President :* R. V. Amin, B.A., LL.B.

*Secretary :* N. R. Mulki.

### BLIND RELIEF ASSOCIATION

481, Botawala Building, Kalbadevi Road, Bombay 2.

*President :* Kamalnayan Bajaj, M.P.; *Hon. Secretaries :* M. N. Chhatrapati, B.A., LL.B. (Advocate), R. Bhandare, Smt. S. R. Potnis.

## BLINDMEN'S ASSOCIATION

(Estd. Jan. 1947.)

177-79, Lamington Cross Road, Bombay 7.

*Activities :* Strives to provide higher education to the deserving blind, helps the blind to start small industries or loan money to them for advancement in their professions and vocations, thus making them self-supporting, helps the blind during the short periods of their unemployment, sickness or other calamities and provides, them with medical aid. It has affiliated associations at Poona and Ahmedabad.

The Association conducts a Central Circulating Braille Library in Gujarati, Marathi and Hindi, and has so far transcribed into Braille about 500 volumes. A special out-door recreational centre for blind children has been started at Bal-Bhavan. It has introduced a "Talking Magazine" for the blind, the first of its kind in Asia.

*President :* S. R. Potnis, B.A., LL.B. ; *Hon. Gen. Secy. :* Dr. Rajendra T. Vyas, M.A., LL.B., PhD. (U. N. O. Fellow).

## THE BOMBAY CHESHIRE HOME

Bethlehem House, Makahali Caves Road, off Mathuradas Visanji Road (Kurla Andheri Road), Andheri, Bombay 58.

The Cheshire Homes are for the incurably sick and homeless.

## BOMBAY CITY AMBULANCE CORPS

21, Marine Lines, Bombay.

Free First Aid and Ambulance Service Station—all days, all hours.

## BOMBAY CITY RED CROSS BLOOD TRANSFUSION SERVICE

Red Cross Office, 141, Mint Road.

## BOMBAY FAMILY PENSION FUND OF GOVERNMENT SERVANTS

Bombay Mutual Bldg., D. Naoroji Road, Fort, Bombay.

## BOMBAY INSTITUTION FOR DEAF AND MUTES

Nesbit Road, Mazagon.

*Patron.*—Valerian Cardinal Gracias, Archbishop of Bombay.

*President.*—Leo Rodrigues, B.A., LL.B.

*Hon. Secretary.*—F. X. D'Silva, B.A., LL.B., B.T.; *Hon. Medical Supdt.*—Dr. (Miss) U. M. Lobo, L.M. & S., M.B.E., W.M.S. (Retd.).

## BOMBAY LEGAL AID SOCIETY

Hamam House, Hamam Street, Bombay 1.

The object of the Society is to make justice more readily accessible to the poor.

*Patron.*—Vacant.

*President.*—S. V. Gupte.

*Hon. Secretary.*—Nayan H. Pandia.

## THE BOMBAY MOTHERS AND CHILDREN WELFARE SOCIETY

No. 10, B.D.D. Chawl, DeLisle Road, Bombay No. 11.

*Chairman :*—Lady Cowasji Jehangir.

*Jt. Hon. Treasurers.*—K. S. Sethna, Dr. J. N. Vazifdar ; *Hon. Secretaries.*—Dr. K. S. Mhaskar, Dr. H. V. Tilak.

*Executive Secretary :*—Vasant P. Borkar.

## BOMBAY PINJRAPOLE

Bhuleshwar, Post Girgaon, Bombay 4.

Has branches in Bhiwandi, Raita and Chembur. It has a breeding centre for the best Gir cows and gives animals to farmers and tillers almost free of charge and supplies cows' pure milk.

*Secretary.*—Dasharathalal Manilal Thaker.

*Permanent Chairman, Board of Trustees.*—Sir Jamsetjee Jejeebhoy, Bart.

*Chairman, Mg. Cttee.*—Sheth Tulsidas M. Vishram.

## BOMBAY RELIEF ASSOCIATION

*Office :* Cook's Bldg., 2nd Floor, Dr. Dadabhoy Naoroji Road, Bombay 1 ; *Relief Office :* 115, Love Lane, Mazagon, Bombay 10.

*General Committee :*—A. R. Leyden (*Chairman*); J. D. Smithard (*Vice-Chairman*); M. J. Howard (*Honorary Treasurer*).

The following institutions are affiliated to the Association :—

Bombay European & Eurasian Poor Fund, European Pensioners' and Widows' Home, Mazagaon, Strangers' Friend Society, Mazagaon, British Forces' Benevolent Fund, Sir Shapurji Broacha Trust Fund, Bombay Medical & Hospital Endowment Fund.

## BOMBAY SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS

Bombay 12.

## BYRAMJEE JEEJEEBHOY PARSEE CHARITABLE INSTITUTION

Opp. Charni Road Rly. Station, Bombay 4.

## CHILD GUIDANCE CLINIC OF THE TATA INSTITUTE OF SOCIAL SCIENCES

Bai Jerbai Wadia Hospital for Children, Parel.

*Aims and Objects :* Helping Children who present difficulties of adjustment and psychological problems. A laboratory for students of social work and students of child psychiatry. The Clinic is open every day and new cases are registered on Tuesdays and Fridays. Holds lectures for doctors. Also lectures before parent-teacher groups. Mental testing is done at the Clinic. The Clinic also runs speech-therapy classes. The Clinic functions as part of the Tata Institute of Social Sciences.

*Head :* Dr. (Miss) G. R. Banerjee.

## CHILDREN'S AID SOCIETY, BOMBAY

83, Lady Hardinge Road, Mahim, Bombay 16.

## COUNTESS OF DUFFERIN FUND

Raj Bhavan, Bombay 6.

*Nature of Body :* Endowments for female medical aid.

*Hon. Secretary and Treasurer*, R. N. Bhavnagri, 113, Mahatma Gandhi Road, Bombay 1.

## COWASJI BEHRAMJI DIVECHA TRUST

Darya Building, 375, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

*Nature of Body :* Endowments for Maintenance, Education, Medical Relief, etc.

## DADAR BHAGINI SAMAJ

3rd Lane, Hindu Colony, Dadar, Bombay 14.

Industrial Classes, welfare centre and family planning.

## DADAR PARSI WELFARE CENTRE

Munsiff Building, 635, Joshi Road, Parsi Colony, Dadar, Bombay 14.

*Principal Activities :* Charitable Nursery School and General Welfare Centre for Parsi children ; charitable Tuition Classes in Cutting & Tailoring for Parsi women and girls, etc.

## DADAR SCHOOL FOR THE BLIND

160, Dadasaheb Phalke Road, Dadar, Bombay 14.

*President.*—Kamalnayan Bajaj ; *Hony. Secretaries.*—Smt. S. R. Potnis, B.A., LL.B. ; Smt. Sundertabai S. Patil ; *Principal.*—Kum. N. K. Ajgaonkar, B.A., LL.B.

## DAUGHTERS OF MARY IMMACULATE

Regina Pacis, Seth Motishah Lane, Victoria Gardens, Bombay 27 DD.

1. Residential Training Centre, Club & Employment Bureau for Houseworkers. 2. Home and School for destitute children. 3. Hostel for working girls and students. 4. Regina Pacis Free Dispensary for the poor.

## THE FAMILY PLANNING ASSOCIATION OF INDIA

1, Metropolitan House, Dadabhai Naoroji Road, Bombay 1.

The Association was established in 1949 with Headquarters in Bombay and Branches in different parts of the country. Its work proceeds on 4 main lines : (1) providing clinical service ; (2) training doctors, health visitors, social workers etc. ; (3) carrying out educational work to spread information about family planning and to motivate people to adopt it ; and (4) providing encouragement to research work—sociological, demographic and medical. At Headquarters the Association conducts the following *Family Planning Clinics :* (*a*) a Family Welfare Centre (Kutumb Sudhar Kendra, in the Bombay Central Station Compound) where birth control services are available, including vasectomy, with branch clinics in B.D.D. Chawls, Delisle Road and Kurla ; (*b*) a Family Welfare Bureau, at premises in the New Hospital for Women, New Queen's Road, Bombay 4, where treatment for infertility and subfertility is given under the direction of Dr. V. N. Shirodkar with a panel of Specialists. Vasectomy operations are also conducted at the Bureau ; (*c*) family planning clinics at Ulhasnagar (Kalyan Refugee Camp), and Badlapur village ; (*d*) clinics are also being conducted by the Association for the Reserve Bank Colonies in Byculla and Mahim, at the Century Mills and at the Spring Mills. A *Supplies Department* is maintained at Headquarters from where approved contraceptives at clinical rates are available to welfare clinics all over India. A free *reading room and*

*library* are maintained at the Headquarters. The Association also issues publications, reports, pamphlets etc. in various languages, including a Quarterly, the "Journal of Family Welfare" and a monthly Bulletin "Planned Parenthood" (both in English) which are widely distributed in India and abroad. It has held five *All India Conferences* and two *International Conferences* on Family Planning and two *International Seminars* on scientific aspects of family planning. The Association as a whole carries out an extensive programme of *education* including home visits, group talks, public meetings with or without film shows, in different languages. A *Touring Training Team* was maintained for conducting on-the-spot training in family planning in various towns and places and training facilities are also available at Headquarters and several of its Branches. The Headquarters operate a *Mobile Clinic and Education Unit* in the suburbs and rural areas outside Bombay, with the gift of a Van from the International Planned Parenthood Federation. Many of the Association members are serving on the Government Family Planning Boards and as Hon. Family Planning Education Leaders appointed by the Union Government.

The Headquarters is affiliated to the International Planned Parenthood Federation and maintains contact with family planning associations in many countries of the world.

The following are the *Branches* of the Association: Agra, Ajmer, Amravati, Andhra Pradesh, West Bengal, Bombay, Delhi, Indore, Jalpaiguri, Kalchini, South Kanara, Madras, Manipur, Ahmedabad, Miraj, Bhavnagar, Bihar, Jabalpur, Midnapore, Mysore State, Punjab, Tiruchirapalli, Trivandrum, Vidarbha, Lucknow, Gwalior, Ernakulam, Vishakapatnam, Raipur, Kottayam, Cannanore, Mysore City, New Delhi, Jaipur, Bhopal and Nasik.

*President :* Smt. Avabai B. Wadia ; *Vice-Presidents :* Smt. Premlata Gupta, Dr. N. P. Tripathi, B. M. Singhi ; *Jt. Hon. Treasurers :* Smt. Vaidehi Char, Smt. M. S. H. Jhabvala , *Hon. Gen. Secy. :* Smt. Mallika Ghosh.

## THE FAMILY WELFARE AGENCY

209, Dadabhai Naoroji Road, Fort.

## FELLOWSHIP OF THE PHYSICALLY HANDICAPPED

Haji Ali Park, Clerk Road, Mahalaxmi, Bombay 11.

## FREE OPHTHALMIC HOSPITALS' SOCIETY

Jehangir Merwanji Road, Poibavdi, Parel, Bombay 12.

*President.*—Dr. D. S. Sardesai. *Mg. Trustee.*—S. V. Oak. *Hon. Treasurer :* Dr. A. G. Sardesai ; *Chairman :* Dr. A. M. Gokhale ; *Hon. Secy. :* Dr. S. M. Charegaonkar.

## GANDHI SEVA SENA

12, Ness Baug, Nana Chowk, Bombay 7.

The Gandhi Seva Sena conducts (*a*) a Village Industries Shop, (*b*) a Ration Shop, (*c*) a Khadi Shop and a free work Class for Women for Embroidery Work only on Khaddar-Hand-spun and hand-woven cloth.

## GHATKOPAR BALKAN-JI-BARI

Prafulla Nivas, Agra Road, Ghatkopar, Bombay 77.

Conducts various child welfare activities.

## GOCULDAS TEJPAL BOARDING SCHOOL & SANSKRIT PATHSALA

Tejpal Road, Gowalia Tank, Bombay.

Boarding School admits poor deserving Students for degree courses in Science, Commerce and Engineering as free, half free and paying students. Pathsala prepares students upto the Acharya examinations in Sahitya, Vyakarana and Jyotish.

*Superintendent.*—J. H. Khabaria, B.A.

## GOCULDAS TEJPAL CHARITIES

7, Bastion Road, Fort, Bombay.

## GOVERNOR'S HOSPITAL FUND FOR BOMBAY

C/o Jehangir J. K. Patell, W. I. A. A., Post Box No. 211, Bombay 1.

*Chairman.*—N. B. Jeejeebhoy ; *Joint Hon. Secretaries.*—Khatau G. Dayal, Jehangir J. K. Patell ; *Hon. Treasurer.*—E. Golwalla.

## HABONIM WORK ROOM

55, Forbes Street, Fort.

Women and girls from all strata of society are admitted.

For deserving people, free training, free meals every afternoon ; free medical attention and bus transportation fees are given.

## HAJI ALLARAKHIA RAHIMTOOLA SONAWALLA CHARITY TRUST (WAKF) FUND No. 1.

Khetwadi 9th Lane, Bombay 4.

*President :*—Camruddin G. Vakil.

*Managing Trustee :*—Valimahomed Haji Alarakhia Sonavala.

## HAPPY HOME & SCHOOL FOR THE BLIND

B. D. D. Chawl 52, 3rd Floor, Worli, Bombay 18.

This charitable residential institution for blind boys between 6 and 20 and fully secular, is the only one of its kind to provide for street blind and delinquents. It was started in 1925. It aims at giving educational and vocational training to blind juvenile boys. Music both instrumental and vocal as well as cane-work, weaving, net-work, sewing, knitting, elementary handicraft, clay modelling, dramatics, physical culture, scouting, etc. are taught, with a view to making them self-supporting. It gives general education in Marathi and Gujarati upto the 7th Standard. Hindi and English are also taught. Bright students are sent out to normal high schools to study upto S.S.C. since 1959. Special attention is paid to developing the character of inmates and turn them into useful citizens thus saving them from becoming beggars.

There are 60 inmates with room for 60, funds permitting.

*Hon. Secretary :* Mrs. C. S. Bharoocha.

## HIND KUSHT NIVARAN SANGH

Maharashtra State Council, Red Cross Office, 141, Mint Road, Bombay 1.

*President.*—The Minister for Health, Maharashtra.

*Hon. Secy. & Treasurer.*—Dr. J. N. Vazifdar, M.B.B.S., M.C.P.S.

## HIS ROYAL HIGHNESS THE PRINCE AGAKHAN'S COUNCIL FOR BOMBAY

Khoja Jamatkhana, Chinch Bunder, Bombay 9.

*President :* Jusabaly Esmail Ooka ; *Vice-President :* Mahomed Alibhoy Bhanji ; *Hon. Jt. Secretary :* Gulamhusain Habib Lalji, J.P. ; *Hon. Jt. Secretary :* Sultan I. Allana.

## INDIAN COUNCIL FOR MENTAL HYGIENE

Cambatta Chambers, 42, Queen's Road, Bombay 1.

*Chairman :* Dr. K. R. Masani ; *Hon. Treasurer :* V. C. Setalvad ; *Hon. Secretaries :* Hussain Bashey, Rev. Father Fuster, S.J., Dr. Miss M. Gamat, Dr. S. M. Lulla, Dr. U. C. Kothari ; *Executive Secy. :* Mrs. Susheela Rao.

## INDIAN RED CROSS SOCIETY

(Maharashtra State Branch).
141, Mint Road, Bombay 1.

*President.*—The Governor of Maharashtra.

*Chairman.*—Commandant General M. J. B. Maneckji.

*Vice-Chairmen.*—Dr. N. K. Parikh, F.R.C.S., Jayantilal R. Shroff, B.A.

*Hon. Treasurer.*—Dr. R. C. Cooper, M.Com., Ph.D., F.C.A., F.S.A.A.

*General Secretary.*—Dr. J. N. Vazifdar, M.B.B.S., M.C.P.S.

## INDIAN SAILORS' HOME SOCIETY

Masjid Siding Road, Bombay 9.

*Office-Bearers :*—L. M. Nadkarni, I.C.S. (*Chairman*) ; T. V. Rajagopalan (*Hon. Secretary*) ; J. J. Parakh (*Hon. Treasurer*) ; Sital Das Gupta (*Superintendent*).

## INDUSTRIAL HOME FOR BLIND WOMEN

160, Dadar Main Road, Dadar, Bombay 14.

This is the first industrial home of its kind in Bombay for blind women. There are 41 inmates at present and they are given free boarding, lodging, clothing, medical aid, tuition and other amenities.

*President :*—Kamalnayan Bajaj.

*Hon. Secretaries :*—Smt. S. R. Potnis, B.A., LL.B. ; Smt. Sunderabai S. Patil ; *Hon. Supdt.*—Kum. N. K. Ajgaonkar, B.A., LL.B.

## INJUREDS' AID SOCIETY

21, Hatim Manzil, 149, Frere Road, Bombay 1.

Renders free medical and legal aid to persons injured in road accidents within the limits of G. Bombay.

*Hon. Secretary :* Manubhai A. Shah.

## IRANIAN ZOROASTRIAN ANJUMAN

Kermani Building, Sir P. M. Road, Fort.

*Secretary.*—K. M. Kateli, B.Com., Cert., A.I.B. (Lond.).

## THE ISMAILIA HELPING SOCIETY

**C/o 'Apni Duccan', Junc. of Samuel Street and Pydhonie Road, Bombay 9.**

*President :* Mrs. Hamida G. Currimbhoy ; *Vice-President :* Mrs. Shirin Y. A. Fazalbhoy ; *Jt. Hon. Secretaries :* Mrs. Nazli G. Hashambhoy, Mrs. Niamat M. Munjee.

## JAMSETJEE JEEJEEBHOY HOSPITAL NURSING ASSOCIATION

**Maneckji Wadia Bldg., Mahatma Gandhi Road, Bombay 1.**

**Neville N. Wadia (*President*) : J. R. Taleyarkhan (*Hon. Secy. and Treasurer*).**

## JEWISH RELIEF ASSOCIATION

**Hague Building, Sprott Road, Ballard Estate. Post Box No. 47.**

***Hostel*** **:—Habib Chambers, 324, Victoria Gardens Road.**

## J N. TATA ENDOWMENT

**Bombay House, Bruce Street, Fort.**

TRUSTEES : J. R. D. Tata, *Chairman ;* Sir Homi Mody, K.B.E., Professor R. Choksi, J. D. Choksi, S. Moolgaokar, J. J. Bhabha.

*General Secretary :* R. D. Doongaji ; *Secretary :* V. G. Narainasami.

## JUVENILE SERVICE BUREAU

**83, Lady Hardinge Road, Mahim, Bombay 16.**

The Juvenile Service Bureau of the Children's Aid Society, Bombay, in tenth year of its useful existence offers through its case-work services help to the parents of the following categories of children : (*a*) Children with minor behaviour problems ; (*b*) Socially handicapped or partially destitute ; (*c*) Physically handicapped children ; (*d*) Mentally handicapped children ; (*e*) Children with school adjustment difficulties.

The Bureau offers case-work services to the families of these problem children and also runs eleven Child Care Area Project Centres in the various disorganized localities of the city for the benefit of under-privileged children.

*Bureau Officer.*—D. S. Jamkhedkar.

## KHOJA GIRLS' ORPHANAGE

**125, Jail Road East, Habib House, Bombay 9.**

## KING GEORGE V MEMORIAL

**Infirmary and Lady Dhunbai Jehangir Home for the Destitute.**

**C/o K. S. Sethna, Royal Insurance Bldg., 14, Jamshedji Tata Road, Bombay 1.**

*Chairman.*—Lady Cowasji Jehangir ; *Hon. Secretaries.*—P. R. Bhatt, C. M. Desai : *Hon. Treasurer.*—K. S. Sethna, J.P.

## LADY TATA MEMORIAL TRUST

**Bombay House, Bruce Street, Fort, Bombay 1.**

*Trustees.*—J. R. D. Tata (*Chairman*), Sir Homi Mody, K.B.E., J. D. Choksi, D. R. D. Tata, Professor R. Choksi, *Gen. Secy.*, R. D. Doongaji, *Secretary*, Jal P. Master.

## LEAGUE OF MERCY FOR DIOCESE OF BOMBAY

**61, Clare Road, Byculla, Bombay 8.**

*President.*—The Right Rev. the Bishop of Bombay ; *Vice-President :*—Miss M. Thomas ; *Hon. Secretary :* H. J. Houston ; *Hon. Treasurer :* H. J. Houston (*Ag.*).

## LIAISON COMMITTEE FOR ORGANISATION OF PARSI CHARITIES AND SOCIAL SERVICES

**Zor. Assn., Indust. Inst. Bldg., Chikalwadi, Tardeo, Bombay.**

## LOKMANYA SEVA SANGH

**Tilak Mandir, Ram Mandir Road, Vile Parle, Bombay 57.**

The Sangh runs a library, a gymnasium, tailoring and embroidery classes, Montessori School, Vocational Guidance and other educative and useful civic activities in its own premises.

*President :*—Dr. P. G. Vartak.

*Secretaries :*—R. G. Barve, Mrs. Nalinibai Sathe.

## MAHARASHTRA STATE COUNCIL FOR CHILD WELFARE

**No. 10, B.D.D. Chawl, Delisle Road, Jacob Circle, Bombay 11.**

## MAHARASHTRA STATE COUNCIL ON BLINDNESS

**C/o Sir C. J. Ophthalmic Hospital, Bombay 8.**

## MANGESH VISHWANATH RAJADHYAKSHA SCHOLARSHIPS AND CHARITY FUND

**Mangesh Building, New Bhatwadi, Bombay 4.**

**The object of the Trust is to help the poor and deserving students and destitutes in the whole of the Gowd Saraswat Brahman community. The trust spends annually Rs. 3,000, two-thirds of which are given by way of scholarships and the balance as subsistence allowance to destitutes.**

## MAZAGAON BHADEKARU SANGH, "REGD."

**Room No. 21, Bombay Improvement Trust, Chawl No. 3, Mazagaon, Bombay 10.**

**The above Sangh has been formed and registered under the Charitable Instrument Act for the whole of the Mazagaon Area by the tenants of the locality in order to solve their difficulties and grievances especially concerning the Municipality and private landlords. The Sangh is also for the upliftment of the tenants and deserving students.**

## MOGAVEERA VYAVASTHAPAKA MANDALI

**Manek Mansion, 8, Nanabhai Lane, Bombay 1.**

***Objects*** **:—Spread of education through day and night schools.**

## MR. & MRS. BAGOMAL TULSIDAS CHARITIES

**"Mayfair", Ghodbunder Road, Bandra, Bombay 50.**

**Benevolent Institution giving medical relief.**

## MUNCHERJEE NOWROJEE BANAJEE INDUSTRIAL HOME FOR THE BLIND

**'Chateau Dieu', 280, Swami Vivekananda Road, Jogeshwari, Bombay 60.**

**Trains adult blind in Cane-Work, Carpentry, Handloom Weaving, Tailoring, Music and Rehabilitation and gives them free boarding and lodging.**

***Chairman*** **:—Shantilal H. Shah ; *Vice-Chairman* :—Smt. Mithan J. Lam ; *Hon. Secretaries* :—Capt. H. J. M. Desai, Lt. G. L. Nardekar, B. J. Masani.**

## MUNICIPAL AMBULANCE GARAGE

**( For Infectious Diseases )**

**174, Arthur Road.**

## MUSLIM AMBULANCE SOCIETY

**154, Kambeker Street, Bombay 3.**

***President :*** **A. S. Kably ; *Jt. Hon. Secretaries. :* R. F. Merchant; S. A. Hameed.**

## MUSLIM BOYS AND GIRLS ORPHANAGE

**Darul-Yatama, 69, Kambekar Street, Bombay 3.**

***Managing Trustee*** **:—Haji Ahmed Haji Abdullah Gareeb.**

## N. M. WADIA CHARITIES

**22-D, Parsi Bazar Street, Fort**

***Trustees*** **:—Sir Jamsetjee Jejeebhoy, Bart., Sir Rustom P. Masani, Kt., C. P. Wadia and K. J. Khambata, M.A., LL.B., Advocate (O.S.).**

***Secretary.*—Lt. Comdr. D. B. Morris, G.D.A., A.C.A., I.N. (Retd.).**

## N. S. D. INDUSTRIAL HOME FOR THE BLIND

**B.D.D. Chawl No. 52, Worli, Bombay 18. Tel. No. 75995.**

**The chief aim is to train blind persons and to place them in gainful employment.**

***Hon. Secretaries.*—Lt. G. L. Nardekar, B. V. Nadkarni, R. D. Kothare.**

## NAGPADA NEIGHBOURHOOD HOUSE

**New Nagpada Road, Byculla.**

***Activities.*—Medical and Family Planning Clinics, children's welfare centre, nursery, dramas, meetings, cinemas, games, classes, clubs, athletics, night classes, lectures, Crafts Sales Centre for Village & Mission Industries, employment bureau, working men's and women's hostels, libraries for adults and children, Bombay School of Social Welfare, Family Welfare Agency, Women's activities, Creche, Child Guidance Clinic.**

***Director*** **:—P. R. Gaikwad, B.A., Dip. S.S.A., M.S. ; *Medical Officers* :—Dr. (Mrs.) P. M. Mody, M.B.B.S., Dr. (Mrs.) S. P. Gaikwad, L.S.M.F.**

## THE NATIONAL ASSOCIATION FOR THE BLIND

51, Mahatma Gandhi Road, Bombay 1.

AIMS AND OBJECTS.—To work in the whole of India for the prevention and cure of blindness and for the welfare of the blind, to bring about co-operation among the various organisations of the blind, to co-ordinate their activities, to organise and start new organisations and institutions for various activities for the welfare of the blind and to do all such other things as may be necessary for the promotion of the interest of the blind.

Funds are derived from donations from the public and by organising entertainments, etc.

*Conducts :* The Employment and Placement Services for the Blind in open industry ; The Tata Agricultural and Rural Training Centre for the Blind, Phansa, Via Bhilad, Gujarat, to train blind farmers in agricultural and rural pursuits ; Braille printing press to publish books in Indian languages ; Talking Book Library in Indian Languages ; Grants, Scholarships to the blind for higher education and publishes a professional journal for workers of the blind "Blind Welfare".

OFFICE-BEARERS :—*President.*—Smt. Queenie H. C. Captain ; *Vice-Presidents.*—M. N. Chhatrapati ; Dr. H. N. Kunzru ; Shantilal H. Shah, Minister for Health Government of Maharashtra ; *Hon. Treasurers.*—Smt. J. N. Gobhai, Noshir P. Dastur ; *Secretaries.*—Smt. R. Fazelbhoy, Smt. P. D. Khambatta, Smt. S. R. Potnis, Capt. H. J. M. Desai, K. N. K. Jussawala ; F. F. Moos, G. L. Nardekar; *Executive Officer.*—Suresh C. Ahuja ; *Development Officer.*—Dr. Rajendra T. Vyas, M.A., LL.B., Ph.D.

## NESSERWANJEE MANOCKJEE PETIT CHARITY FUND (1888) AND NESSERWANJEE MANOCKJEE PETIT FUND FOR HELPING DESTITUTE INSANE ZOROASTRIANS

United Commercial Bank Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

## PARSI CHARITY ORGANISATION SOCIETY

Thakur Nivas, 173, Jamshedji Tata Road, Bombay 1.

*Hon. Secretary.*—Prof. P. A. Wadia, M.A.

## PARSI PUNCHAYET FUNDS AND PROPERTIES

209, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

The Trustees of the Parsi Punchayet manage religious and charitable funds for general relief of poverty, education, medical relief, housing, etc. They also manage several institutions and projects some of which are :—Nursery Schools : The Fort Nursery and Infant School (Noble Chambers, Parsi Bazar Street, Fort, Bombay-1) ; Gamadia Colony Nursery School (Gamadia Colony) and Khareghat Colony Nursery School (Khareghat Colony) ; Sir Jamsetjee Jejeebhoy Zarthoshti Madressa (Engineer Building, Princess Street, Bombay-2) ; Sir Jamsetjee Jejeebhoy College of Commerce (42, New Marine Lines, Bombay-1) ; Sir Jamsetjee Jejeebhoy Commercial Institute (14-14A, Nanabhoy Lane, Fort, Bombay-1) ; Zend Avesta Classes (Engineer Building, Princess Street) ; Sir Cowasjee Jehangir Rural Boys Home, Gholvad ; The Jehangir Rural Girls' Home, Gholvad ; the B. N. Gamadia Technical Institute (Gamadia Colony, Tardeo) ; The Health Unit (Gamadia Building, Gamadia Colony) ; Hostel for Boys (Gamadia Colony, Tardeo) ; The Central Employment Bureau (Head Office) ; Vocational and Educational Guidance Bureau (B.J.P.C. Institute, 33 Queens Road-4) ; The Industrial Institute and the Godrej Memorial Printing Press (Gamadia Colony, Tardeo) ; An Infirmary known as the F. S. Parekh Dharamshalla (Hughes Road, Bombay) ; M. P. Khareghat Memorial Hall and Museum (Khareghat Colony, Hughes Road, Bombay-7) ; Housing Colonies for poor, lower middle and middle class families throughout Greater Bombay, Towers of Silence at Doongerwadi, 'Parsi Prakash', a chronicle of Parsi events, etc. etc.

The Trustees are also custodians of charitable and religious funds of Parsis of mofussil and foreign towns.

*Chairman :* Nadirshah R. Mulla, Solicitor.

*Secretaries.*—Sapur Desai ; Gustasp Antia.

## POONA SCHOOL AND HOME FOR THE BLIND

201, Khadilkar Road, Girgaum, Bombay 4.

## THE POPULAR AMBULANCE ASSOCIATION

Talmakiwadi, Tardeo, Bombay 7.

## PROBATION AND AFTER-CARE ASSOCIATION, MAHARASHTRA STATE

B.I.T. Block No. 15, King's Circle, Matunga.

Conducts a hostel for boys at Chembur and a hostel for girls at Borivli.

## PROF. DATE'S CHARITABLE DEAF AND DUMB INSTITUTE

Opp. Kalaram Mandir, Thakurdwar Road, Bombay 2.

Estd. 1907, first vernacular institution in India. Cosmopolitan. Teaches drawing, tailoring and needlework in addition to teaching how to talk, read and write.

## RASHTRA DHARMA SOCIETY

Ganga Nivas, 234, Walkeshwar, Bombay 6.

(Estd. 1927)

The Society is devoted to Education and Rural Welfare.

## ROYAL BOMBAY SEAMEN'S SOCIETY

Nicol Road, Ballard Estate, Bombay.

## SARAIYA CHARITY TRUST

Swastik Court, 132, Queen's Road, Band Stand, Bombay 1.

Scholarships given for higher education in India preferably for medical and engineering studies.

## SCHOOL FOR CHILDREN IN NEED OF SPECIAL CARE

Sewri Hill, Sewri Road, Bombay 33.

## SETH MANECKCHAND HIRACHAND JUBILEE BAUG TRUST FUND

Jubilee Baug, Near Tardeo Bridge. *Office :* 190, Javeri Bazar, Bombay 2.

Endowments for scholarships.

## SETH RANCHHODDAS CHATURBHUJ CUTCHI LOHANA BAL ASHRAM

63, Chinchpokli, Bombay.

*Chairman.*—Purshotam Chaturbhuj Maskai.

*Hon. Secretary.*—Hirji Lakhmidas ; *Jt. Hon. Secretary.*—H. J. Mewawalla.

## SEVA SADAN SOCIETY

Gamdevi, Bombay 7.

## SHRADDHANAND MAHILASHRAM

(Conducted by Hindu Women's Rescue Home Society).

King's Circle, Matunga, Bombay 19.

*President.*—Mrs. Tarabai M. Premchand.

*Chairman.*—N. H. Pandia.

*Hon. Treasurer :* M. N. Bhagwat ; *Hon. Jt. Secys. :* S. S. Navare ; R. S. Tatke.

## SHREE MANAV SEVA SANGH

(formerly known as Hindu Deen Daya Sangh)

Plot No. 255/257 Sion Road, Sion (West), Bombay-22.

(A foundling home for infants and orphans.)

*President :* Mangaldas M. Pakvasa ; *Chairman :* Prabhashanker R. Bhatt ; *Vice-Chairmen :* Dr. D. D. Vora, M.D., F.C.P.S. M.R.C.P. (Lond.), M. C. Parekh, B. O. Valia, M. K. Kothari ; *Hon. Secretaries :* Smt. Siddhidaben Trivedi, Lalbhai P. Shah, Pratapbhai K. Shah, Smt. Siddhidaben Trivedi.

## SHREE RAMKUNVAR CHARITABLE X-RAY INSTITUTE TRUST

Ranade Road, Jiva Devsi Niwas, Dadar, Bombay 28.

*Managing Trustee* :—Girdharlal Damodar Daftary.

The trust conducts (1) Shri Ramkunvar Charitable X-Ray Institute, Dadar, (2) Shri Damodar Ambavidas Daftary Sarvajanik Dispensary at Chembur Township Colony and (3) at Sharadhanand Road, Ghatkopar, Bombay 77.

*Working Hours for X-Ray :* 8 to 9.30 a.m. and 3 to 5 p.m.

*Medical Superintendent :* Dr. S. P. Mehta, M.D.

## SHREE VILE PARLE KELAVNI MANDAL

Dadabhoy Road, Vile Parle, Bombay 56.

Conducts Pre-primary and Secondary Schools and Arts & Science College.

## SHRI GIRDHARLAL DAMODAR DAFTARY EDUCATION TRUST

Derasar Lane, Ghatkopar, Bombay 77.

*Managing Trustee.*—Girdharlal Damodar Daftary.

The Trust gives school books to students upto Matric without the distinction of caste and creed.

## SHRI JAIN MAHILA SAMAJ

Mangrol Mansion, Bora Bazar Street, Bombay 1.

**Dadar Centre:** A-36, Palanji Sojpal Bldg., Portuguese Church Street, Bombay 28.

**Shanti Centre:** Block No. 9, R.No. 9, Arthur Road, Bombay 11.

It is open to all Indian women above the age of 18. There are 1,500 members at present. Coaches ladies for the diploma course in tailoring of the Technical Education Department of Maharashtra, conducts classes for its own tailoring. Adult education in Hindi, Gujarati and English also given. Besides, the Samaj conducts a Kanya Mandal for girls between 12 and 16 years of age and a Bal-Mandir for children of 3 to 6. *Vikas*, a magazine is run by the Samaj. Classes in cutting, sewing and music are also held. Scholarships are given to needy women and girls joining Nursing Course and Teacher's Training College Courses.

## SHRI MAHAVIRA JAINA VIDYALAYA

Gowalia Tank Road, Bombay 26.

Nature of Body: Endowments for scholarships and loans; Publication of Jaina books.

## SIR DORABJI TATA TRUST

Bombay House, Bruce Street, Bombay 1.

*Trustees.*—Lady Ratan Tata, Sir Homi Mody, K.B.E. (*Chairman*), J. R. D. Tata, A. D. Shroff, N. H. Tata, J. D. Choksi, D. R. D. Tata, R. D. Choksi. *Gen. Secretary.*—R. D. Doongaji.

## SIR JAMSETJEE JEJEEBHOY PARSEE BENEVOLENT INSTITUTION

209, Dr. Dadabhai Naoroji Road, Fort, Bombay.

## SIR RATAN TATA CHARITIES

Bombay House, Bruce Street, Fort.

*Trustees.*—N. H. Tata; Sir Hormazdiar Dastur, Kt.; N. H. C. Coyajee; N. K. Suntook, K. A. D. Naoroji.

*Secretary.*—S. F. Vajifdar.

## SOCIETY FOR THE CARE, TREATMENT AND TRAINING OF CHILDREN IN NEED OF SPECIAL CARE

Sewri Hill, Sewri Road, Bombay 33.

*President.*—Dr. R. N. Cooper.

*Vice-President.*—Dr. J. C. Marfatia.

## SOCIETY FOR THE EDUCATION OF THE CRIPPLED

Chunilal Mehta Scout-Guide Hut, Mahatma Gandhi Road, Bombay 1.

## SOCIETY FOR THE PROTECTION OF CHILDREN IN WESTERN INDIA

The Byramjee Jeejeebhoy Home for Children, Matunga, Bombay 19.

*President.*—Lady Masani; *Chairman.*—Diwan Bahadur Dr. J. S. Nerurkar.

*Vice-Presidents:*—Sir Rustom Masani, M.A.; N. B. Jeejeebhoy; *Hon. Secretaries:*—Lady Kania; Mrs. Gopa Mehta; Mrs. Hiloo J. Dalal; *Hon. Treasurers:*—Rustomjee J. R. B. Jeejeebhoy; M. Natarajan; *Superintenent.*—Miss I. A. Sabnis.

## SOCIETY FOR THE REHABILITATION OF CRIPPLED CHILDREN

Haji Ali Park, Clerk Road, Mahalakshmi, Bombay 11.

## ST. ANTHONY'S HOME

Bellasis Road, Byculla.

Orphanage, School and foundling home.

## ST. CATHERINE'S HOME

Andheri, Bombay.

Home for unwanted, homeless, poor babies, children and youngsters.

## ST. FRANCIS D'ASSISI HIGH SCHOOL & ORPHANAGE

Mount Poinsur, P.O. Borivli, Bombay 92.

*Superior-General.*—Rev. Brother Modestus.
*Principal.*—Rev. Brother Martin, M.A., B.T.

## ST. JOHN AMBULANCE ASSOCIATION

MAHARASHTRA STATE CENTRE

*President.*—The Governor of Maharashtra.

*Chairman.*—Commandant-General M. J. B. Maneckji.

*Hon. Secretary.*—Dr. J. N. Vazifdar, M.B.B.S., M.C.P.S.

*Secretary.*—M. K. Saklatvala, B.A.

*Office Address.*—141, Mint Road, Bombay 1.

## ST. JOHN AMBULANCE BRIGADE (INDIA)

No. 3 District, Maharashtra.

*District Headquarters.*—Red Cross and St. John Ambulance Building, Town Hall Compound, Fort, Bombay.

*Commissioner.*—Commandant-General M. J. B. Maneckji; *Dt. Secy.*: M. K. Saklatvala, B.A.

## ST. JOHN AMBULANCE BRIGADE (INDIA)

COSMOPOLITAN DIVISION

Divisional Headquarters—Sir Byramji School, opposite Charni Road Station, Bombay.

## ST. JOHN AMBULANCE BRIGADE (INDIA)

PARSI DIVISION

Lady Willingdon Building,

1, Mahatma Gandhi Road, Fort, Bombay.

Service open to all communities for 24 hours.

*Dist. Supdt.*—T. P. Panthakey, F.C.I.I., F.F.H., M.I.E.T.

## ST. JOHN AMBULANCE BRIGADE (OVERSEAS)

MUSLIM AMBULANCE DIVISION

152-154, Kambekar Street, Bombay 3.

*Divisional President.*—A. S. Kably.

## ST. JOHN AMBULANCE BRIGADE (OVERSEAS)

MUSLIM NURSING DIVISION

152-154, Kambekar Street, Bombay 3.

*Lady Divisional Superintendent.*—Mrs. Khadija Shuffi Tyabji, J.P.

*Lady Ambulance Officer & Lady Divisional Secretary.*—Mrs. Sultana Husain.

## SWASTIK LEAGUE

Seth Varjivandas Motilal Swastik Mandir, Vithalbhai Patel Road, Bombay 4.

Ambulance Service Tel. No. 70232.

*President.*—Justice P. B. Gajendragadkar, M.A., LL.B.

*Vice-Presidents.*—B. N. Gokhale, M.A., LL.B.; Seth V. M. Saraiya, B.A.; Dr. K. S. Mhaskar, M.A., M.D., D.P.H.; Dr. R. V. Sathe, M.D., M.R.C.P.

*Chairman.*—M. V. Jayakar, B.A., LL.B., Solicitor.

*Vice-Chairman.*—S. G. Rane, B.A., LL.B., Advocate.

*Jt. Honorary Secretaries.*—M. W. Pradhan, B.Sc., LL.B.; P. R. Chaukar.

*Jt. Honorary Treasurers.*—Dr. V. P. Kamat, M.B.B.S.; G. D. Lovalekar.

*Jt. Hon. Auditors:*—M. C. Chudawala; N. D. Lovalekar, Chartered Accountants.

## TAHERI SCHOLARSHIP SOCIETY

Mohamedi Baug, 21, Sarang Street, Bombay 3.

The Society is being run by contributions from the late His Holiness Syedna Dr. Taher Saifuddin Saheb and members of the Dawoodi Bohra community for awarding scholarships and for promoting the educational interests of the Dawoodi Bohra students.

### VANITA VISHRAM

Sardar Vallabhbhai Patel Road, Bombay 4.

Vanita Vishram, a pioneer women institution, is a monument of Social Reform and a unique institution working in the field of education, social reform and uplift of women for the last 50 years. The institution aims at ameliorating the condition of women in the States of Maharastra and Gujarat and also elevating their social status. It conducts Primary Teachers' Training Colleges, Primary Schools, College Hostels and Ashrams at Bombay and Surat. About 2,500 students take their education in the institution without distinction of caste, creed or religion. There are also 350 boarders.

*Hon. Secretary :* Mrs. Kanta Khandwala, B.A.

### VICENTA MARIA SOCIAL SERVICE SOCIETY

Regina Pacis, Seth Motishah Lane, Victoria Gardens, Bombay 27-DD.

This Society, conducted by the Daughters of Mary Immaculate, has the following activities :—

1. Residential Training Centre, Club and Employment Bureau for Houseworkers. 2. Home and School for destitute children. 3. Hostel for working girls and students. 4. Regina Pacis Free Dispensary for the poor.

All at the above address.

### VICTORIA MEMORIAL SCHOOL FOR THE BLIND

Tardeo Road, Bombay.

Fort Office—C/o Jayant Trading Co., Sir Vithaldas Chambers, Apollo Street, Fort, Bombay.

### THE WORKSHOP FOR THE BLIND

Dr. Annie Besant Road, Worli, Bombay 18.

The aim of the Workshop is to provide congenial and remunerative employment to adult blind and thereafter to place them in open industries on simple repetitive jobs.

*Chairman:* Homi J. H. Taleyarkhan. *Vice-Chairman :* A. D. Shroff, Vijay M. Merchant.

*Hon. Secretaries :* Capt. H. J. M. Desai, Lt. G. L. Nardekar, Prabodh B. Vaidya, M. H. Mirchandani.

## CHAMBERS OF COMMERCE IN GREATER BOMBAY

### ALL INDIA EXPORTERS' CHAMBER

2nd Floor, Janmabhoomi Chambers, Fort Street, Bombay 1.
(Established 1959).

Number of members : 356.

Activities : Exports of cotton piece-goods and cotton yarn and other commodities to any part of the world.

*President :*—Gulabchand G. Siraj. *Vice-President :*—Kantilal K. Sheth. *Hon. Secretaries :*—Jayant M. Shah, Chinubhai M. Shah. *Hon. Treasurer :*—Manharlal J. Desai. *Office Secretary :*—H. A. Bharucha, B.A. *Jt. Secretary :*—G. R. Jarmarvala, B.A., LL.B.

### BOMBAY CHAMBER OF COMMERCE & INDUSTRY

Mackinnon Mackenzie's Bldg., Ballard Estate, Bombay 1.

All firms or persons engaged or interested in mercantile or industrial pursuits are eligible for election as Ordinary Members or Associate Members in their conventional or corporate name. The Chamber member's annual subscription is Ordinary Rs. 1,000, Associate Rs. 750. An Ordinary Member on election pays an entrance fee of Rs. 1,000 and an Associate Member Rs. 500.

Officials and others indirectly connected with the trade, commerce or manufactures of India, or who may have rendered distinguished service to the interests represented by the Chamber may be elected by the Committee Honorary Members of the Chamber.

General Committee (1965-66) : *President :* H. D. S. Hardie ; *Vice-President :* J. B. Bowman, M.B.E., *Additional Vice-President :* Keshub Mahindra : *Members :* J. W. Anson, P. C. R. Coates, E. J. Fielden, R. E. Grant, H. Holck-Larsen, Y. N. Mafatlal, P. S. Mistry, L. Sawhny, P. L. Tandon.

### EAST INDIA CHAMBER OF COMMERCE LIMITED

Patwa Chawl, Sheikh Memon Street, Bombay 2.

Number of members 500. The Chamber was formerly regulating the conduct of forward business in groundnut oilcake. On the recognition of the Bombay Oilseeds & Oils Exchange Ltd. for the regulation of forward business in groundnut cake, the Chamber has entered into an agreement with the said Exchange for enabling its members to deal in forward business under the auspices of the Exchange at the Trading Ring of the Chamber.

*President :* Jivanlal Amulakh Kuvadia ; *Vice-President :* Narandas Navalchand Doshi ; *Hon. Secretary :* Jayantilal Nanchand Shah ; *Jt. Hon. Secretary :* Varadhilal Vamalshi ; *Treasurers :* Tekchand Girdharidas Rajani, Jayantilal Chunilal Shah.

### INDIAN MERCHANTS' CHAMBER

Lalji Naranji Memorial, Indian Merchants' Chamber Building, 76, Veer Nariman Road, Churchgate, Bombay 1.

The Chamber has a membership of over 1887. About 119 Industrial and Trade Associations representing various trades such as textiles, silk and art silk, engineering goods, plastics, nonferrous metals, sugar, chemicals, paints and varnishes, grains and oilseeds, cotton, kariana and spices, bullion, indigenous banking, insurance, etc. In the City of Bombay and the State of Maharashtra are affiliated to the Chamber.

The Chamber is directly represented on several public bodies.

*President :* Ramnath A. Podar ; *Vice-President :* Dr. R. C. Cooper.

*Secretary :*—C. L. Gheevala.

*Dy. Secretaries :*—M. K. Desai, D. S. Pendurkar, S. K. Aiyar.

*Journal of the Indian Merchants' Chamber.*
(Anglo-Gujarati Monthly) : Established in 1907.

*Editor :* C. L. Gheevala. Published by P. M. Pathak for the Indian Merchants' Chamber, 76, Veer Nariman Road, Churchgate, Fort, Bombay 1. Official organ of the Indian Merchants' Chamber.

### INDO-GERMAN CHAMBER OF COMMERCE

P.O. Box No. 1689,

Vulcan Insurance Bldg., Veer Nariman Road, Bombay 1.

The Chamber promotes and fosters trade and commerce of all description between the Union of India and the Federal Republic of Germany. It has also offices at Calcutta, Delhi and Dusseldorf (W. Germany).

*President :* H. Grabonhorst ; *Vice-President :* V. C. Setalvad ; *Treasurer :* A. N. Kilachand ; *Secretary :* Dr. K. Pracht.

### INTERNATIONAL SINDHI CHAMBER OF COMMERCE & INDUSTRIES

Sheva Niketan, Top Floor, Pinjari Street, Bombay 3.

*President :* Dayaram H. Garibdas ; *Vice-Presidents :* Sugnomal Namomal, Assandas Fatandas ; *Chairman :* Dulahanomal J. Sadhwai; *Hon. Secretaries :* Naraindas N. Khemani, Shewaram A. Makhija.

### MAHARASHTRA CHAMBER OF COMMERCE

12, Rampart Row, Bombay 1.

Membership of the Chamber is open to all carrying on trade, commerce and industry in Maharashtra State irrespective of caste, creed or community.

The Chamber issues a monthly magazine *Vaibhav* and distributes it free of cost to its members.

Membership : Chamber has over 1400 members spread over through out the territory it serves. Number of Joint Stock Companies : over 350. Number of Commercial Associations : over 50 (having amongst them more than 1,000 members).

*Office-Bearers :*

*President :*—Ramkrishna J. Bajaj. *Vice-Presidents :*—M. L. Apte, Y. A. Fazalbhoy, Devchand C. Shah. *Secretary.*—R. G. Mohadikar.

### MEMON CHAMBER OF COMMERCE

Patharia Palace, Mohamedali Road, Bombay 3.

*President.*—H. H. Ismail. *Vice-President.*—Alhaj Ebrahim Motiwala. *Hon. Secretary.*—Moosa Kasam Jetpurwala. *Jt. Hon. Secretary.*—Sayed Ahmed Sarfullah.

### WESTERN INDIA CHAMBER OF COMMERCE, LTD.

232-234, Kalbadevi Road, Bombay 2.

To advance and promote commercial and technical education and to found establishments and institutions for such purposes, and to provide maintenance funds for them.

# CHURCHES IN GREATER BOMBAY

## ALL-INDIA FEDERATION OF NATIONAL CHURCHES

St. Paul's Indian National Church, 287, Bellasis Road, Byculla, Bombay-8.

It is a Christian Fellowship of indigenous National and Independent Churches which function under the management of either of their own congregations or properly elected Local Panchayats, quite independent of any outside control, direction and finance.

His Eminence Mar Athanasius Joel S. Williams, Archbishop of Bombay, is the Primate of all the Indian National Churches within the Federation.

His Eminence Mar Athanasius Joel S. Williams, M.A., D.D., C.T., M.R.S.T., O.S.J., (England), O.S.S. (France), S.T.D. (U.S.A.), *Secretary-General & Ag. President.*

## ST. PAUL'S INDIAN NATIONAL HINDUSTANI CHURCH

287, Bellasis Road, Byculla, Bombay 8.

*Minister and Chairman :* His Eminence Mar Athanasius Joel S. Williams, M.A., D.D., C.T., O.S.J., M.R.S.T. (England), O.S.S. (France), S.T.D. (U.S.A.), Archbishop and Primate of the Indian National Church ; *Dy. Ministers :* Rev. Fr. B. S. Panthagani, Rev. Fr. R. L. B. Charles, Rev. Fr. E. Prabhu Dass ; *Hon. Treasurer* L. L. Saway.

## BOMBAY BAPTIST CHURCH

Opp. Colaba Post Office, Colaba.

The church has been on the present site since 1911 when it was moved from Byculla. *Minister :* Rev. J. G. Hutchinson.

*Hon. Secretary & Treasurer :* A. C. Daniels.

Sunday Services : (English)—10.30 and 6.30 ; Hindustani : 3 p.m. Sunday School : 9-30 a.m. Prayer and Bible Study : Tuesday 7.30 p.m.

## BOMBAY DIOCESAN COUNCIL

19, Waudby Road, Bombay 1.

*Bishop :* The Right Reverend C. J. G. Robinson ; *Secretary :* The Rev. Canon J. W. L. Timmins ; *Honorary Secretary : The Bombay Diocesan Trust Association Private Ltd. :* The Rev. Canon J. W. L. Timmins.

## FIRST CHURCH OF CHRIST SCIENTIST, BOMBAY

Killick Nixon Bldg., 31, Murzban Road, Bombay 1.

This Church is a branch of The Mother Church, The First Church of Christ, Scientist in Boston, U.S.A. A Reading Room is maintained at the same address, where the Bible, the Christian Science Textbook, "Science and Health with Key to the Scriptures" by Mary Baker Eddy and other authorized Christian Science literature may be read, borrowed or purchased. Reading Room open daily, except Sundays.

## CHURCH OF INDIA, PAKISTAN, BURMA AND CEYLON

*Bishop of Bombay (St. John's House, Duxbury Lane, Bombay 5).*—The Rt. Revd. C. J. G. Robinson, M.A. *Archdeacon of Bombay,* Birdwood Hostel, Colaba Road, Bombay 1. The Ven. H. V. Paul. *Registrar of the Diocese of Bombay,* C/o 19, Waudby Road, Bombay 1. —The Rev. R. N. Wynne.

All Saints' Church, Malabar Hill, Bombay 6 ; Christ Church, Clare Road, Byculla, Bombay. Church of Saint John The Evangelist, Colaba ; Church of St. Mary The Virgin, Elphinstone Road, Parel, Bombay ; Emmanuel Church, C.M.S. House, Proctor Road, Bombay 7 ; Holy Redeemer Church, Dadar ; St. Nicholas' Church, Nicol Road, Ballard Estate, Bombay; St. Stephen's Church, Mount Mary Road, Bandra Hill, Bombay ; St. Thomas' Cathedral, Vir Nariman Road, Bombay 1.

## METHODIST CHURCH

Bombay.

The Methodist Church has been established in the City since 1887 and has the following centre :

Wesley Church, The Causeway (opp. Electric House). This Church is in charge of the Rev. A. W. Saunders, Wesley House, 62, Causeway, Fort, Bombay 1.

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The Woman's Division of Christian Service of the Methodist Church has its headquarters at 22 Club Back Road, Byculla, Bombay 8, with a hostel for women. The WSCS of the Kanarese Central Church runs a Kindergarten School at 21, Club Back Road, Byculla, which is indigenous.

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AIMS AND OBJECTS :—To foster the welfare of the mentally ill persons particularly rehabilitating them by organising clubs, libraries, hostels, homes and workshops for them.

*President* :—Dr. Gore ; *Vice-President* :—Dr. L. P. Shah ; *Hon. Treasurer* :—M. A. Panna.

*Jt. Hon. Secretaries* :—Mrs. B. V. Raman, Mrs. R. H. Dastur.

* The fact that a note is added to the name and address of an institution is not necessarily an indication of its relative importance, that is, in relation to other similar institutions.

The address of an institution may be in the nature of a reference. Also, it should be remembered that office-bearers change periodically.

## ASSOCIATIONS OF PHYSICIANS OF INDIA

Talwalkar Nursing Home, 8, Queen's Road, Bombay 4.

An association to encourage and advance the knowledge, study and practice of the science of medicine in all possible ways.

*President* :—Dr. J. C. Patel (Bombay) ; *Hon. Gen. Secy.* :—Dr. C. V. Talwalkar.

## AYURVED PRACHAR SANSTHA

143B, Gowalia Tank Road, Cumballa Hill, Bombay 26.

Medical help and educational service to the public.

## AZAD PANCHAL YUVAK SANGH

Hararwala Bldg. No. 13, 1st Floor, Room No. 43, DeLisle Road, Bombay 11.

## BADMINTON ASSOCIATION OF INDIA

Dungha, Rathodi, Marve Road, Malad (G. Bombay).

## BAL BHAVAN

Balodyan, Netaji Subhas Road, Bombay 4.

*Chairman.*—Dr. N. N. Kailas ; *Secretary :* K. C. Mohile ; *Assistant Secretary.*—Smt. V. M. Chouthai.

## BALKAN-JI-BARI

(THE CHILD WELFARE ASSOCIATION OF INDIA) and its Youth Section AKHIL HIND YUVAK SANGH (THE ALL-INDIA YOUTH ASSOCIATION).

"Gulistan," Khar, Bombay 52 AS.

An Association of and for children founded in 1923. Children of its various local units in Bombay and Suburbs and all over India, in Assam, Gujarat, Maharashtra, Punjab, South India, U.P., M.P., Delhi, Bihar, Rajasthan, W. Bengal and other States meet frequently for stories, songs, games, arts, handicrafts, picnics, outings, excursions, trips and tours. Activities consist of meetings, libraries and museums and publication of 'Children's Corners' in papers of the different States. Attached to it is a Youth Section, Akhil Hind Yuvak Sangh. The Association conducts a quarterly English journal *The Home and the World* and also magazines in Indian languages. It also runs Child Welfare Workers' Training Classes. It conducts a Pen-Friends' Club and numerous other activities for the welfare of children and youth. It has started Ashram Shallas (Residential Schools), in villages and specially in Adivasi areas. It has affiliation with several International organisations.

*Patron-in-Chief.*—Dr. S. Radhakrishnan ; *Hon. Patron.*—Dr. Zakir Hussain ; *Founder-Director.*—Dada Shewak Bhojraj ; *President,* —S. K. Patil ; *Dy. President.*—Achamma J. Matthai ; *Secretary-General.*—P. G. Kher ; *Treasurer.*—G. B. Kotak ; *Leader, Youth Section.*—Krishnavadan Joshi ; *Promoter, Pen Friends, Club.*—Rani Malhotra.

## BHAGINI SEVA MANDIR KUMARIKA STREE MANDAL

Sarojini Road, Vile Parle West, Bombay 56.

## BHARAT SEVAK SAMAJ

Narandas Building, Sprott Road, Ballard Estate, Fort, Bombay.

A national organisation dedicated to the task of promoting national sufficiency.

*Pradesh Chairman :* T. S. Bharde (Speaker, Maharashtra Legislative Assembly) ; *Secretary :* Ratanlal Mohanlal ; *Hon. Secy., Bombay Divn. :* T. H. Kataria.

## BHARATIYA DEPRESSED CLASSES LEAGUE

Maharashtra State.

112, Medows Street, Bombay 1.

*President.*—T. H. Sonavne, M.P. ; *Secretaries.*—R. S. Kajrolkar, J.P., P. D. Jadhav, B. M. Bharaskar.

## BHARATIYA JANA SANGH

Kathak Lodge, Dadar Cross Road, Bombay 14.

## BHARATIYA MUSIC AND ARTS SOCIETY

11/138, Poornima, Wadala, Bombay 31.

Besides encouraging Carnatic music, also runs a music school.

*President :* M. Madhavan ; *Hon. Secretaries :* V. G. Venkataram, S. Ramakrishnan ; *Hon. Treasurer :* R. Parthasarathy.

## BOMBAY ADULT EDUCATION ASSOCIATION

136, Apollo Street, Bombay 1.

Organises foreign and Indian language and technical subject courses ; also centre for literacy.

*President :* Prof. M. F. Colaco ; *Vice-Presidents :* Prof. V. G. Rao, R. E. Hawkins ; *Hon. Treasurer :* D. N. Marshall ; *Jt. Hon. Secretaries :* Miss Amy B. H. J. Rustomjee, B. M. Kapadia ; *Principal :* C. A. Christie.

## BOMBAY ADVOCATES' ASSOCIATION

Small Causes Court, Carnac Road, Bombay.

## THE BOMBAY AMATEUR LIGHT OPERA SABHA

(Founded 1956)

*Care :* The Wesley Hall, 62, The Causeway, Colaba, Bombay 1. Promotion of the appreciation of Western music in India, and the wider understanding of Indian music by its presentation and arrangement in Western musical diction ; *School of Music :* Run by the Sabha. Gives training in the theory of music and singing. *Membership :* Open to all communities and nationalities residing in Bombay. Rs. 6 per annum.

*President :* S. K. Patil ; Board of Trustees : *Chairman :* Victor Paranjoti ; *Hon. Secretaries :* Indira Bhide, John Carvalho ; *Hon. Treasurer :* Ben. J. Smith.

## BOMBAY ANDHRA MAHASABHA (REGD.)

Lakhamsi Nappoo Road, Hindu Colony, Dadar, Bombay 14.

The Institution has sections for ladies and children, Kasinadhuni Nageswara Rao Memorial Library & Reading Room, 'Kalakshetra', the open air theatre, students wing and gymkhana activities.

*President :* V. R. Swamy ; *Vice-President :* Y. S. Murty ; *Genl. Secretary :* P. V. Ramana.

## BOMBAY AQUARIUM SOCIETY

Taraporevala Aquarium, Bombay 2.

*Chairman :* Dr. C. V. Kulkarni, Ph.D. ; *Hon. Secretary :* Sam J. Dadyburjor, B.A. (Econ.) ; *Hon. Treasurer :* P. T. Zaveri.

## BOMBAY ART SOCIETY

(Estd. 1888)

Jehangir Art Gallery, Bombay 1.

## THE BOMBAY ASSOCIATION OF HEADS OF SECONDARY SCHOOLS

C/o Smt. G. P. P. High School, Vile Parle, Bombay 56.

*President :* Rev. Fr. Rodriques ; *Vice-President :* Kumari S. Samtani ; *Secretary :* B. R. Desai ; *Treasurer :* J. R. Joshi.

## THE BOMBAY ASTROLOGICAL SOCIETY

C/o Janmabhoomi Panchang Karyalaya, 22/26, Ghoga Street, P. Box No. 62, Fort, Bombay.

## BOMBAY CHARTERED ACCOUNTANTS SOCIETY

60, Forbes Street, Fort, Bombay 1.

*President :* A. H. Dalal, B.Com., F.C.A. ; *Hon. Treasurer :* C. N. Sanghvi, B. Com, F.C.A. ; *Hon. Secretaries :* R. J. Damanwala, F.C.A., H. B. Jokhakar, B.Com., A.C.A.

## BOMBAY CONTRACT BRIDGE ASSOCIATION

Brabourne Stadium (North Stand), Veer Nariman Road, Bombay 1.

## THE BOMBAY CO-OPERATIVE HOUSING FEDERATION LTD.

19, Bell Building, Sir P. M. Road, Fort, Bombay 1.

Regd. 1948. Membership : 943 ; *Chairman :* A. N. Samant. *Vice-Chairman :* M. V. Thakur ; *Hon. Secy.,* G. G. Kamat ; *Jt. Hon. Secy. :* K. R. Prabhudesai ; *Hon. Treasurer :* B. P. Sinha.

## BOMBAY CULTURE COMMUNE

21, Hatim Manzil, 149, Frere Road, Carnac Bunder, Bombay 1.

*President.*—P. K. Roy ; *Jt. Secretaries.*—B. T. Dongre, Musolini Menezes.

## BOMBAY GEOGRAPHICAL ASSOCIATION

C/o Parle College, Bombay 57.

## BOMBAY GUJARATI CHRISTIAN ASSOCIATION

Gopal Bhuvan, Bapubhai Vashi Road, Vile Parle (West), Bombay 57.

## BOMBAY HALAI BHATIA MAHAJAN

398, Kalbadevi Road, Bombay 2.

## BOMBAY HISTORICAL RESEARCH ASSOCIATION

Secretariat Record Office, Elphinstone College Bldg., Bombay 1.

## BOMBAY HOMOEOPATHIC ASSOCIATION

311, Tardeo Road, Bombay 7.

## BOMBAY INCORPORATED LAW SOCIETY

High Court New Bldg., Bombay 1.

*President :* R. A. Gagrat ; *Vice-President :* C. C. Shah ; *Hon. Secy. :* M. B. Madgavkar.

## BOMBAY KANNADA SANGHA

(Estd. 1936—Regd.)

2, Venkatesh Nivas, Bhau Daji Road, Matunga, Bombay 19.

*President :* Vidwan M. R. Gopalacharya, M.A. ; *Working President :* H. S. Srinivasachar ; *Vice-President :* K. Subbarayan ; *Hon. Joint Secretaries :* T. S. Venkatesha, G. V. Rangaswamy ; *Hon. Treasurer :* A. S. Gopinath Rao.

Promotion of Kannada education and culture. Striving for the unity and general welfare of Kannadigas of Bombay. Started the National Kannada Education Society School, Wadala, in 1939. Free Reading Room & Library started functioning from 1936. More than 6,500 books collection. Cultural and Religious programmes and lectures on various aspects of Kannada Language & Literature arranged.

## BOMBAY KERALEEYA SAMAJ

Plot 16A, "Kerala Bhavanam", K. A. Subramanian Road, Matunga, Bombay 19.

*President :* Dr. V. Gopalan ; *Chairman :* A. Narayanan ; *Vice-Chairman :* P. V. Karunakaran ; *Hon. Secretary :* K. J. Thomas ; *Hon. Treasurer :* P. Sankaranarayanan.

## BOMBAY LABOUR BUREAU

(Regd. under Societies Registration Act, 1860 & Bombay Public Trusts Act, 1950.)

Nagpada Neighbourhood House, Byculla, Bombay 8.

*The aims are :*—To arrange voluntary bodies for creating harmonious industrial relations between management and labour and settling their industrial disputes by bi-partite conferences ; to organise and conduct short-term refresher courses in labour management and allied subjects for the benefit of executives ; to disseminate information on labour management and allied subjects through its bi-monthly Journal—the *Management Executive ;* to undertake study tours and carrying out research surveys in labour and industrial relations ; to render free legal and professional advice to its members and representing them in any court of law.

*Founder :*—S. K. Patil ; *President :*—H. H. Ismail, J.P. ; *Chairman :*—K. C. Pant, M.P.

## BOMBAY LABOUR INSTITUTE

(Government of Maharashtra)

Dadabhoy Chamarbaugwala Road, Parel, Bombay 12.

*Director :*—Prof. V. B. Kamath, M.Sc. (Bom.), B.Sc. (Spl.), London, F.S.S. (London).

*Registrar :*—M. J. Naik, M.A., (Dip.) S.S.

The Institute was started in 1947 with the purpose of organising leaders for labour and social work. Till 1955, 9 months and 3 months courses were conducted for the same for which students from all over India and candidates nominated by various State Governments, prominent industrial concerns and Trade Union Organisations, besides fresh students were taken up. In July 1955 the Institute started 2-year Diploma Course in Labour Welfare (Dip. L.W.) for training labour welfare officers. As in the past the institute gets the patronage of all State Governments, employers and trade union organisations.

Since July 1959 the Institute has been recognised by the Bombay University as a post-graduate institution of specialised studies leading to 2-year University Diploma in Labour Welfare (D.L.W.). The course is open to Degree holders in B.A., LL.B. or B.Com. of Bombay University or any other recognised University. B.Scs. are admitted with prior approval of the University.

The Institute is now also training Government Labour Officers, in the short in service training course of about 9 months' duration ; and the successful candidates are awarded the Labour Officers' Certificate (L.O.C.) of the State Government.

The Institute has started a full time one-year post Intermediate (relaxable to S.S.C. level) Diploma Course in Trade Unionism on behalf of the Maharashtra Government with a view to equipping workers and others concerned with the welfare of workers with adequate information and knowledge on scientific trade unionism, to encourage workers to become healthy and sound Trade Unionists, to promote better industrial relations and to strive for unity in the Trade Union movement.

The Institute operates the State Workers' Education Scheme on behalf of the Government to train and discipline the mind of the workers, to enable them to be good and efficient workers and to promote better industrial relations. The class is open to all factory workers and each session lasts for 3½ months.

On behalf of the Planning Commission the Institute conducts from time to time Case-studies of Labour-Management Relations in different units.

The faculty consists of the following members. In addition, outside experts in various fields of labour are invited to deliver lectures on topics contained in the curriculum.

*Director :* Dr. B. S. Bhir, M.Com. (Bom.), Ph.D. (Econ.) (London).

## THE BOMBAY MADRIGAL SINGERS' ORGANISATION

Oak Chambers, 9 Oak Lane, Bombay 1.

*Chairman :* Erik B. Mogensen ; *Hon. Secretary & Director of Music :* Cesar Coelho ; *Hon. Treasurer :* Jamshed Modi.

## BOMBAY MANAGEMENT ASSOCIATION

Army and Navy Bldg., 3rd Floor, Mahatma Gandhi Road, Bombay 1.

The aim of the Association is to promote mutual exchange of knowledge, experience and ideas on the principles and practices of Management among its members ; to co-operate with educational institutions in developing schemes of instruction in Management principles and practice ; to establish a Management Library in the Bombay area.

*President :* M. L. Gauba ; *Executive Secy. :* V. B. Tendulkar.

## BOMBAY MEDICAL UNION

(Estd. 1883)

Blavatsky Lodge, French Bridge, Chowpatty, Bombay 7.

*President :* Dr. P. N. Vaidya ; *Vice-Presidents :* Dr. H. S. Patel, Lt.-Col. N. S. Variava ; *Hon. Treasurer :* Dr. B. K. Vibhakar ; *Jt. Hon. Secretaries :* Dr. M. C. Kothary, Dr. U. N. Bastodkar ; *Jt. Hon. Librarians :* Dr. Smt. Padma J. Mehta, Dr. M. G. Pradhan.

## BOMBAY NATURAL HISTORY SOCIETY

Hornbill House, Opp. Lion Gate, Apollo Street, Bombay 1.

Founded 1883, devoted entirely to advancement of the study of natural history of the Oriental Region.

*President.*—Governor of Maharashtra. *Hon. Secretary.*—Zafar Futehally.

## BOMBAY PARSI ASSOCIATION

Darya Building, 375, Dr. D. N. Road, Fort, Bombay 1.

*President.*—Major S. R. Bamji, M.B.E. ; *Vice-Presidents.*—B. M. Daruwala ; P. N. Gandhi, Solicitor ; J. F. Shroff ; *Hon. Joint Treasurers :*—Miss B. D. Gilder, Pheroze M. Reporter ; *Hon. Gen. Secretary :*—T. B. Chinoy.

## BOMBAY PHYSICAL CULTURE ASSOCIATION

22, Nikadwari Lane, Girgaum, Bombay 4.

## BOMBAY PRADESH CONGRESS COMMITTEE

Congress House, V. P. Road, Bombay 4.

*President.*—Bhawanji A. Khimji ; *Vice-Presidents.*—Sardar Pratap Singh ; K. Hafizka ; *General Secretaries.*—Dr. M. B. Popat ; Maheshwar Thakur ; Adam Adil ; P. N. Shukla ; 'Nirjhari' ; *Treasurer :* Harish C. Mahindra.

## BOMBAY PRESIDENCY ASSOCIATION, 1885

107, Mahatma Gandhi Road, Bombay 1.

## BOMBAY PROVINCIAL HOCKEY ASSOCIATION LTD.

B. P. H. A. Stadium, 'D' Road, Churchgate, Bombay 1.

## BOMBAY PSYCHOLOGICAL ASSOCIATION

Department of Applied Psychology, Univ. of Bombay, Bombay 1.

*President :*—Prof. N. Mukerji ; *Vice-President :*—F. S. Chothia ; *Secretaries :*—Dr. N. N. Shukla, R. B. Naik ; *Treasurer :*—Dr. N. N. Shukla.

## BOMBAY SANITARY ASSOCIATION

C/o Public Health Dept., Municipal Office Extn. Bldg., Bombay 1.

*Hon. Secretary & Treasurer :*—Dr. R. B. Fondekar ; *Jt. Hon. Secretary :*—Dr. D. V. Parulekar.

## BOMBAY SCHEDULED CASTES IMPROVEMENT TRUST

Buddha Bhushan Printing Press Building, Gokuldas Pasta Road, Dadar, Bombay 14.

## THE BOMBAY SHORTHAND WRITERS' ASSOCIATION

*Regd. Office :* No. 1, Krishna Nivas, Station Road, Matunga, Bombay 19.

*Branch Office :* 3/3, Kailas Kripa, Scheme 6, Road 1, Sion (East), Bombay 22.

*President :* V. Nanu ; *Vice-President :* O. S. Kumaran ; *Hon. Secretary :* T. Nagarajan ; *Hon. Treasurer :* S. Subramanian.

## BOMBAY SOCIAL HYGIENE COUNCIL

10, Waterloo Mansions, Apollo Bunder, Bombay 1.

*President :* The Hon'ble Minister for Public Health, Government of Maharashtra ; *Chairman :* The Surgeon-General with the Government of Maharashtra ; *Hon. Secretary :* Dr. Socrates de Noronha ; *Hon. Treasurer :* Dr. J. A. Fernandez.

## BOMBAY SOCIAL REFORM ASSOCIATION

Servants of India Society's Home, Sardar V. Patel Rd., Bombay 4.

## BOMBAY SOCIETY OF MODEL ENGINEERS

Noble Chambers, Rooms 23 and 24, Parsi Bazar Street, Bombay 1.

*Chairman.*—H. K. Colah ; *Hon. Treasurer.*—N. F. Dubash ; *Hon. Secretaries.*—B. A. Engineer, A. E. Tarwalla.

## BOMBAY STATE CHESS ASSOCIATION

C/o Parsian Restaurant, Bruce Street, Bombay 1.

## BOMBAY STATE CYCLING ASSOCIATION

14-A, Jamal Mansion, Sleater Road, Bombay 7.

## BOMBAY STATE RIFLE ASSOCIATION

C/o Indian Hume Pipe Co. Ltd., Construction House, B. Estate, Bombay 1.

## BOMBAY STATE VOLLEYBALL ASSOCIATION

Morarji Mills Ltd., Parel, Bombay 12.

## BOMBAY SUBURBAN VILLAGE INDUSTRIES ASSOCIATION

Basement, Khadi Emporium, 286, D. N. Road, Bombay 1.

## BOMBAY TAMIL SANGAM

Sion Road, Bombay 22.

## BOMBAY TENANTS' ASSOCIATION

17, Benham Hall Lane, Bombay 4.

OFFICE BEARERS :—*President.*—S. C. Joshi. *Vice-Presidents.*—Prof. A. N. Namjoshi and Major Sohrab R. Bamji. *Joint Hon. Secretaries.*—M. P. More and Mrs. Shera N. Vajifdar. *Hon. Treasurer.*—R. B. Patel.

There are branch offices and secretaries in each ward.

## THE BOMBAY TEXTILE RESEARCH ASSOCIATION

Bombay-Agra Road, Ghatkopar, Bombay 77.

*Chairman :*—Krishnaraj M. D. Thackersey ; *Jt. Director :*—Dr. C. Nanjundayya.

## BOMBAY UNION OF JOURNALISTS

Prospect Chambers Annexe, 2nd Floor, Dadabhai Naoroji Road, Bombay 1.

## BOMBAY VIGILANCE ASSOCIATION

124, Dadasaheb Phalke Road, Bombay 14.

The objects of the Association are (1) to secure recognition of the principle that the moral law is the same for both men and women; (2) to suppress and prevent the traffic in women and girls and the outrage, corruption, abduction and prostitution of persons under eighteen : (3) to do rescue and vigilance work in general ; (4) to see that the provisions of the Indian Penal Code and of the Prevention of Prostitution Act of 1923, are efficiently carried out ; (5) to prevent the publication and sale of indecent and obscene pictures, books and papers, and of objectionable advertisements, cinema films and theatrical performances ; and (6) to carry on active propaganda work for the ultimate and complete abolition of brothels.

## BOMBAY WOMEN'S HOCKEY ASSOCIATION

C/o Bombay Hockey Association Ltd.,
'D' Road, Churchgate Reclamation, Bombay-1.

## BOMBAY WOMEN'S RELIEF COMMITTEE

1-A, Mafatlal Park, Bhulabhai Desai Road, Bombay 26.

## BOMBAY WOMEN'S WORK GUILD

Readymoney House, Nepean Sea Road, Bombay 6.

*Vice-Presidents :* Lady Cowasji Jehangir, Mrs. Maneklal Premchand ; *Hon. Secretary :* Miss Arny F. Khan.

## BOMBAY ZIONIST ASSOCIATION

(Central Organisation in India)
63-67, Medows Street, Fort, Bombay, P.O. Box 539.

Shellim Samuel, *President ;* J. S. Ezra and Dr. J. M. Gheesta, *Vice-Presidents ;* H. Cynowicz, *Chairman ;* O. D. Ezra and Siles J. Taylor, *Jt. Hon. Secretaries ;* David Solomon, *Hon. Treasurer.*

## BRAHMAN SAHAYYAK SANGH

Ganesh Wadi, D. L. Vaidya Road, Dadar, Bombay No. 28 and Plot No. 113-115, Shivaji Park Road No. 3, Bombay 28.

## CENTRAL INSTITUTE OF MANAGEMENT FOR CONSUMERS' BUSINESS

F. No. 657, Block No. B/68, Gandhi Nagar Colony, Bandra (East), Bombay 51.

*Hon. Director :* K. Rama Murthy, I.A.S.

## CENTRAL RAILWAY INSTITUTE

Byculla, Bombay.

## CERCLE LITTERAIRE BIBLIOTHEQUE DINSHAW PETIT—1886

60, Forbes Street, Bombay 1.

*Object :*—To promote the study of French language, literature and civilization, Library and Reading Room.

*Patrons :*—Sir Dinshaw Maneckjee Petit, Bart. ; *President :*—Prof. M. L. Balse ; *Hon. Treasurer :*—D. P. Katrak ; *Hon. Secretary :*—P. R. Bharucha.

## CHILDREN'S FILM SOCIETY (INDIA)

Hingorani House, Worli, Bombay 18.

*Chairman :* Dr. B. Gopala Reddi.

The following States & Union Territories are members :

Andaman & Nicobar Islands, Bihar, Gujarat, Goa, Daman and Diu, Laccadive & Minicoy Islands, Madras, Madhya Pradesh, Manipur, Mysore, Nagaland, Pondicherry, Rajasthan, Tripura, Uttar Pradesh and West Bengal.

## CITIZEN'S NATURE CURE SOCIETY

C/o Dr. J. M. Jussawalla, 140, Cumballa Hill, Bombay 26.

*President :*—D. C. Desai ; *Secretary :*—Miss Irwin Jennet.

## THE COLOUR SOCIETY

C/o Blundell Eomite Paints Limited, 1st Victoria Cross Lane, Mazagon, Bombay 10.

## COMMERCE GRADUATES' ASSOCIATION

Wadia Bldg., Dalal Street, Fort, Bombay 1.

*President :* Ramdas Kilachand ; *Chairman :* N. N. Dalal ; *Jt. Hon. Secretaries :* A. R. Desai, Bhupendra B. Shah ; *Hon. Treasurer :* R. L. Kapadia.

## COMMUNIST PARTY OF INDIA

*Bombay Council :* Dalvi Bldg., Parel, Bombay 12.

*Secretary :* P. B. Waidya.

## DEMOGRAPHIC TRAINING & RESEARCH CENTRE

Govandi, Bombay 71.

The Government of India, in association with Sir Dorabji Tata Trust and the United Nations, have established a Demographic Training and Research Centre at Bombay. It is intended to serve not only India but also other Asian countries.

Indian and foreign students are undergoing training at the Centre, which has developed research programmes in the field of population. The Demographic Centre is an autonomous institution with a Governing Body for its management.

*Chairman.*—Dr. V. K. R. V. Rao; *Director.*—Dr. C. Chandrasekaran.

## DEPRESSED CLASSES MISSION SOCIETY OF INDIA

112, Medows Street, Fort, Bombay.

*President:* Ratilal M. Gandhi; *Chairman:* M. B. Maniar, Bar-at-Law; *Hon. Gen. Secretary:* N. S. Kajrolkar, M.P.; *Hon. Treasurer:* R. C. Dalal.

## DEVADIGA SUDHARAKA SANGHA

108, Bora Bazar Street, Bombay 1.

*President:* K. Bhujangadhar; *Jt. Hon. Secretaries:* N. P. Salian; Sundaraj A. Adiyar.

## DIABETIC ASSOCIATION OF INDIA

Maneckji Wadia Bldg., 1st Floor, 127, Mahatma Gandhi Road, Bombay 1.

*President.*—Dr. R. V. Sathe; *Vice-Presidents.*—Dr. J. N. Karande, Mangaldas N. Verma; *Chairman:* C. E. Lalkaka; *Hony. Secretary.*—Dr. S. S. Ajgaonkar; *Hon. Jt. Secs.*—Dr. T. P. Vyas, Dr. S. D. Bhandarkar; *Hon. Treasurer:* Dr. L. S. Desai; *Editor.*—Dr. C. V. Talwalkar.

Publishes a Quarterly Journal 'MADHUMEHA' (A Guide for the Diabetic).

## EAST BOMBAY BHARAT SCOUTS & GUIDES DISTRICT ASSOCIATION

*Headquarters.*—The Chunilal Mehta Scout and Guide Hut, Mahatma Gandhi Road, Bombay.

*President:* Sir Hormazdvar Phiroze Hoshang Dastur, Kt., Bar-at-Law; *Vice-Presidents:* Lt.-Col. J. D. Kothawala, Mrs. Jer J. D. Kothawala, Dr. Mrs. Tehmi B. Mehta, Burjor M. Mistry; *Chairman:* Camruddin G. Vakil; *Vice-Chairman:* Miss Tehmi P. Asha; *Hon. Secretary:* Godrej M. Colabawalla; *Hon. Treasurer:* Keki J. Framji; *Hon. Auditor:* Dara Sorabji.

## EMPIRE OF INDIA PHILATELIC SOCIETY

C/o Dr. M. U. Mascarenhas, Victoria Garden Road, Bombay 27.

## ENGINEERING ASSOCIATION OF INDIA

Western Region.

Brabourne Stadium, 87, Veer Nariman Road, Bombay 1.

## EX-SERVICES ASSOCIATION, INDIA BOMBAY BRANCH

Cook's Building (2nd floor), Dr. Dadabhoy Nowroji Road, Bombay 1.

*Chairman.*—F. W. Courtney; *Vice-Chairman.*—T. W. Harrington, M.C.

## FEDERATION OF BOMBAY MOTOR TRANSPORT OPERATORS LTD.

26, Frere Road, Wadi Bunder, Bombay 9.

## FEDERATION OF CUSTOM HOUSE AGENTS' ASSOCIATIONS IN INDIA

Warden House, Sir P.M. Road, Bombay 1.

*President:*—F. R. Kapadia; *Vice-Presidents:* K. D. Pathak, Arvind N. Parikh; *Hon. Secretary:* Naval H. Mehta; *Hon. Treasurer:* Arvind N. Parikh.

## FILM FEDERATION OF INDIA

91, Walkeshwar Road, Bombay 6.

*President:* A. L. Srinivasan; *Vice-Presidents:* Roshanlal Malhotra, Ajit Bose and Santosh Singh Jain; *Hon. Treasurer:* P. K. Bhandarkar.

## THE FILM JOURNALISTS' ASSOCIATION

C/o Chitrapat, Naaz Gate, Lamington Road, Bombay 4.

## FIRE SALVAGE ASSOCIATION OF BOMBAY, LTD.

Radia House, 6, Rampart Row, Bombay 1.

*Secretary.*—Vaman H. Thakor.

*Objects.*—To provide an organised salvage corps of trained men, who will always be ready to attend at fires, take charge of salvage and handle salvage, if necessary.

*Station.*—Sewree Cotton Depot. *Superintendent.*—S. M. Saleh; *Station Officers.*—M. A. Telang, C. L. Job.

## THE FORMANITES

C/o National Advertising Service P. Ltd., 4th Floor, Khorshed Bldg., Sir P. M. Road, Bombay 1.

## FORUM OF FREE ENTERPRISE

"Sohrab House", 235, Dr. Dadabhai Naoroji Road, Bombay 1.

*President:*—Murarji J. Vaidya; *Secy.:* M. R. Pai.

## FRIENDS OF THE TREES

27, Prospect Chambers Annexe, Dr. D. N. Road, Bombay-1.

(A fellowship of tree-lovers seeking to create and foster a tree-sense in the country).

*President:* V. P. Naik; *Vice-Presidents:* Homi J. H. Taleyarkhan, J. C. Jain; *Hon. Gen. Secretary:* G. P. Nair; *Hon. Treasurer:* Dr. B. S. Navalkar; *Hon. Jt. Secretaries:* V. N. Palekar, D. T. Desai.

## GANDHI SEVAK SAMAJ

Mani Bhavan, 19, Laburnum Road, Gamdevi, Bombay 7.

Objects: To create among the people faith in the principles of truth and non-violence in the conduct of social, economic and political affairs and to train missionaries for the service of humanity by example and percept.

*President:* Purushottam Das Kanji; *Vice-President:* Dr. M. D. D. Gilder; *Hon. Secretary:* B. V. Shikhare.

## GOAN UNION EDUCATIONAL TRUST

75, Princess Street (West), Bombay.

The Goan Union Educational Trust owns and conducts the Little Flower of Jesus High School founded in 1924 by late Rev. Fr. Herculano Gonsalves.

*Hon. Secretary:* Menino Gomes.

## GOMANT BHARATI

J. K. Building No. 4/20, Gamdevi, Bombay No. 7.

*President:* Vasant P. Borkar; *Chairman:* Ravindra Kelekar; *Hon. Treasurer:* Kum. Sarojini Nanawati; *Jt. Hon. Treasurer:* Ramesh Borkar; *Hon. Secretary:* Dr. D. Sukhthankar.

## GRAND CHAPTER OF UNITED SCOTTISH ROYAL ARCH FREEMASONRY OF INDIA & PAKISTAN

17, Murzban Road, Fort, Bombay.

*Grand Scribe:* A. P. Bhandari.

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## GUJARAT RESEARCH SOCIETY

*The Main Office:* Samsodhana Sadan, South Avenue, Khar, Bombay-52.

*President's Office:* Lalit Kunj, 11th Road, Khar, Bombay-52.

OBJECTS.—(1) to promote research in all branches of knowledge, (2) to collect and publish information relating to Gujarat and city of Bombay, (3) to foster inter-relations with other parts of India and the world. Publishes a *Quarterly Journal of Research.*

Its work is conducted in the Society Building at Khar in various branches through Committees and Sub-Committee. The Psychological Research Institute conducts Child Guidance Clinic, Vocational and Educational Guidance, Test Construction and has undertaken several research programmes, viz., research in Juvenile Delinquency & Mental Hygiene. The Social Economic Research Institute has conducted general Socio-Economic Surveys on tribes of Gujarat, Social change and Sociological aspects of life in Greater Bombay and Industrial Relations Problems in the city of Bombay. The Health Research

Institute studies the Health Problems of people of Bombay. The Family Planning Centre helps in the solution of the National Problems of maternal and child health.

There is a branch of the Society at Ahmedabad at 2947, Ambli Pole, Jhavariwad, Ratanpole, which also conducts similar schemes.

*President :* Dr. H. I. Jhala ; *Vice-Presidents :* P. G. Shah ; Dr. M. B. Nanavati, Dr. D. T. Lakdawala, Dr. (Mrs.) M. R. Shah, Dr. K. M. Munshi, M. C. Parekh ; *Hon. Tresurers :* B. D. Randeri, D. M. Trivedi ; *Hon. General Secretary :* Dr. M. P. Vaidya ; *Hon. Joint Secretaries :* Dr. C. H. Shah, Dr. J. C. Pandya.

## GUJARATI HINDU STREE MANDAL

**123, Vithalbhai Patel Road, Bombay 4.**

The main activity of the Mandal is educational. It conducts home classes, an industrial home, Chandaben Teachers' College of Tailoring and Embroidery, the P.S.C. class, Shree N. J. V. Bala-Mandir, Sir P. T. Prathmik Vidya Mandir in its premises.

The Mandal maintains the Jamnabai Sakkai Free Library, and also the Sir Jagmohandas Library for children. It issues a monthly patrika.

## GUJARATI NATYA MANDAL

**12, Homji Street, Fort, Bombay.**

## HAFFKINE INSTITUTE

**Parel, Bombay 12.**

Haffkine Institute is the principal State medical research institute of Western India. In addition, it carries out large-scale manufacture of plague, cholera, T.A.B. and anti-rabic vaccines ; anti-toxins, sera and toxoids, vitamin and sulfa tablets, intravenous solutions, etc. It also undertakes drug testing and clinical pathological work of a higher type and of specialised nature, facilities for which do not exist elsewhere. It is recognised as a Post-Graduate Institution.

*Director.*—Dr. H. I. Jhala. M.D., F.C.P.S., D.T.M.

## HARIJAN SEVAK SANGH

**Congress House, V. Patel Road, Bombay 4.**

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**(National Headquarters)**

**Nagindas Chambers, 167, Frere Road, Bombay 1.**

*President :* Deven Sen ; *Secretaries :* Ram Desai and R. C. Pradhan ; *Treasurer :* Kisan Tulpule ; *Membership :* 765,000.

## INDIA-AFGHANISTAN FRIENDSHIP SOCIETY

**Mistry Court, 208, D. Watcha Road, Bombay 1.**

## INDIA-INDONESIA SOCIETY

**Bombay Mutual Chambers, 5th Floor, 19-21, Hamam St., Bombay 1.**

## INDIA CULTURE LEAGUE

**Dhun Building, Nanabhai Lane, Flora Fountain, Bombay 1.**

## INDIAN ASSOCIATION OF INDUSTRIAL EDITORS

*Office :* **Army & Navy Building (3rd Floor), Mahatma Gandhi Road, Fort, Bombay 1.**

## INDIAN CANCER SOCIETY

**Tata Memorial Hospital, Parel, Bombay 12.**

The aims and objects of the Society are to encourage and support scientific investigation of the cause, prevention and control of cancer ; to create a public awareness of the curability of early cancer, and a medical awareness of the best methods of detection, diagnosis and treatment ; to encourage and aid financially and otherwise persons suffering from cancer ; to combat quackery ; to increase the facilities for social service. The Society maintains a Rehabilitation Unit consisting of occupational therapy, physiotherapy and social service research sections at the Tata Hospital. It conducts Colposcopy and Chemotherapy Service Units at the same Hospital. A Cancer Registry has been started in Bombay in collaboration with the Dept. of Health, U.S. Government. Cancer Detection Centres have been established in two of Bombay Hospitals, and the Society has also started publication of the *Indian Journal of Cancer* the only professional journal of its kind in India. The Society is planning to establish an Association of Laryngectomees, and an All-India Committee for the study of Cancer. To achieve these various objectives, the Society has to depend entirely on voluntary aid from individuals and corporations

*President :* Y. B. Chavan, Minister for Defence, Govt. of India. *Chairman :* N. H. Tata (Director, Tata Sons Ltd.). *Vice-Chairman :* F. H. Kemple (*Mg.* Director, Fortes, Fortes, Campbell & Co. Ltd.). *Hon. Treasurer :*—P. A. Narielwala (Director, Tata Industries Ltd.).

*Founder & Hon. Secretary :*—Dr. D. J. Jussawalla, M.S., F.R.C.S., F.A.C.S., Surgeon, Tata Memorial Hospital, Parel, Bombay 12.

## INDIAN CHEMICAL SOCIETY

**(Bombay Branch)**

**Institute of Science, Mayo Road, Bombay 1.**

*President :*—A. B. Kulkarni ; *Jt. Hon. Secretaries :*—Dr. J. R. Merchant, Dr. M. D. Karkhanawala.

## INDIAN COMMITTEE FOR CULTURAL FREEDOM

**148, Mahatma Gandhi Road, Bombay 1.**

*Hon. Secretaries :* V. B. Karnik, J. B. H. Wadia.

*Executive Secretary :* A. B. Shah.

## INDIAN CONFERENCE OF SOCIAL WORK

*Central Office :* **42, Queen's Barracks, Foreshore Road, Bombay 1.**

The Indian Conference of Social Work is a central national organization for the promotion of social welfare in India.

*President :* Smt. M. Clubwala Jadhav ; *Vice-Presidents :* Smt. Rajan Nehru, Smt. Zarina E. G. Currimbhoy, S. R. Venkataraman ; *Hon. Treasurers :* P. R. Bhatt, N. C. Chaturvedi, Vasudeo K. Naik ; *Hon. General Secretary :* N. F. Kaikobad ; *Hon. Associate Secretaries :* Sushil Chandra, Smt. Roda Mistry, M. Jayaseelan ; *Hon. Public Relations Officer :* D. M. Tahilramani ; *Assistant Secretary :* Smt. H. M. Billimoria.

Indian Conference of Social Work is a National Committee of the International Conference of Social Work.

South-East Asia Western Pacific Regional Office of the International Conference has been established in conjunction with the Central Office of the Indian Conference of Social Work in Bombay. N. B. Cama, Asstt. Secy.-Genl., International Conference of Social Work is in charge of the Regional Office.

## INDIAN COUNCIL FOR CULTURAL RELATIONS

*W. Regional Office :* **Kimatrai Bldg., 79, Queen's Road, Bombay 2.**

## INDIAN COUNCIL OF MANAGEMENT EXECUTIVES

**Post Box 1914, Bombay 1.**

THE AIMS ARE :—To promote and develop the Science of Management in Industry. To conduct short term training courses in Management. To compile a national Directory for Management Executives. To conduct Management Executive Training College.

*President :* Prof. A. R. Wadia, M.P. ; *Vice-President :* H. H. Ismail; *Hon. Gen. Secretary :* K. S. Gupta ; *Hon. Treasurer :* J. P. Bhardwaj.

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**Ranjit Studios, Dadar, Bombay 14.**

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## INDIAN HISTORY CONGRESS

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## THE INDIAN INSTITUTE OF WORLD CULTURE

**(Bombay Branch)**

**Theosophy Hall, 40, New Marine Lines, Bombay 1.**

*President :* Madame Sophia Wadia ; *Vice-President :* Sir Rustom Masani ; *Secretary :* Dr. J. F. Bulsara.

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(Bombay Branch)

Shri Nivas, Sardar Vallabhbhai Patel Road, Bombay 4.

*President :* Dr. N. N. Shah ; *Vice-Presidents :* D. S. Munagekar, Dr. N. M. Shroff ; *Hon. Jt. Secretaries :* Dr. S. V. Bapat, Dr. H. T. Mehta ; *Hon. Treasurer :* Dr. R. N. Gurbaxani.

## INDIAN MEDICAL ASSOCIATION
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## INDIAN NATIONAL THEATRE

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## INDIAN RAILWAY PASSENGERS CONFERENCE ASSOCIATION

23, Bell Building, Sir Pherozshah Mehta Road, Bombay 1.

Assistance to railway passengers in their dealings with the Railways with regard to their obligations to each other ; restoration of run-away boys to their parents ; elimination of crimes on railways against the person and property of railway passengers ; free legal help to railway passengers ; establishment of Poor Homes to house, medically treat and otherwise rehabilitate disabled and destitute persons infesting in and around railway premises ; to hold conferences and to organise exhibitions to display the progress and development of the transport industry.

Founded in 1938. Registered as a Society in 1953.

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## INDIAN SOCIETY OF RAYON TECHNOLOGISTS

144, Dharavi Road, Bombay 17.

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A premier cultural and educational organization established with the purpose of promoting goodwill and understanding among the peoples of India and America.

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## INDO-ARAB SOCIETY

12, Nagin Mahal, Veer Nariman Road, Bombay 1.

## INDO-BULGARIAN FRIENDSHIP SOCIETY

2A, Harkness Road, Malabar Hill, Bombay 6.

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## INSTITUTE OF INDUSTRIAL ENGINEERS (INDIA)

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Estd. 1957

## INSTITUTE OF SOCIAL SERVICE

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*Aims and Objects :*—To renew and continue the connection between the old land of Iran and Hind.

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For India.

Karimabad, Imamwada Road, Bombay 9.

The object is uplifting and elevating the poor without distinction of caste or creed.

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## KANARA CATHOLIC ASSOCIATION

C/o 14, Noble Chambers, Parsee Bazar Street, Bombay 1.

## KANARA SARASWAT ASSOCIATION

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## KERALEEYA MAHILA SAMAJ

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**C/o Secretariat of Sporting Association, Brabourne Stadium, North Stand, Bombay 1.**

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*President :* S. K. Patil ; *Vice-Presidents :* F. E. Patanwala, P. M. Rungta ; *Hon. Secy. :* R. Vaikuntam.

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**Hamam House, Hamam Street, Bombay-1.**

*Training Centre :*

**Scout/Guide Pavilion, Shivaji Park, Dadar, Bombay 28.**

*President :* Mangaldas Pakvasa ; *State Chief Commissioner :* Lt.-Col. K. T. Mangalmurti ; *State Commissioner (Scouts) :* Sardar Lakshman Singh ; *State Commissioner (Guides) :* Smt. Poornima A. Pakvasa ; *Honorary State Treasurer :* V. L. Arya ; *Honorary State Secretary :* Padam S. Pavri.

## MAHARASHTRA STATE BILLIARDS ASSOCIATION

**C/o Islam Gymkhana, Kennedy Sea Face, Bombay 2.**

## MAHARASHTRA STATE CARROM ASSOCIATION

**Nagpada Neighbourhood House, New Nagpada Road, Bombay 8.**

*Hon. Gen. Secy. :* Mukhtar Ahmed.

## MAHARASHTRA STATE DENTAL COUNCIL

**Swadeshi Mills Estate, Near Roxy Cinema, Tata Road, New Queen's Road, Bombay 4.**

**The Council is a statutory body constituted under the Dentists Act, 1948.**

**The Council maintains the Dentists' Register for the State and administers the Code of Dental Ethics.**

*President :* Dr. S. P. Kapadia ; *Vice-President :* Dr. R. R. Jaiswal ; *Registrar :* B. M. Sidhaye.

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## MAHARASHTRA STATE LAWN TENNIS ASSOCIATION

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**This Institution imparts industrial education to all women irrespective of caste or creed.**

**It has been recognised by the Director of Technical Education, Maharashtra and prepares students for Government Examinations.**

*President.*—Trimbak Atmaram Gharat, A.M.I.E.T. (Lond.) ; *Hon. Secertary.*—Miss S. J. Date B.A. ; *Hon. Treasurer.*—M. B. Desai.

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Association's Pavilion, Station Road, Mahim, Bombay 16.

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## MARATHA BHAGINI SAMAJ

32-C, Khotachi Wadi, Girgaum, Bombay 4.

## MARATHA MANDIR, LTD.

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The aims and objects of the Mandir are to work generally for the uplift of the masses in educational, social, cultural and other fields. The Mandir at present conducts the following institutions.

Thakurdwar High School, Bombay 2 ; Thakurdwar Night High School, Bombay 2 ; S.T.C. Trg. Institute, Thakurdwar, Bombay 2 ; Worli High School, Bombay 18 ; Worli Night High School, Bombay 18 ; Academy of English, Bombay 8 ; Shri Shahaji High School, Akalkot, Dist. Sholapur ; Shri Ramrao Vidya Mandir School, Jath, District Sangli ; Hostel for students in Sholapur ; Maratha Mandir Co-operative Bank Ltd., Thakurdwar, Bombay 2 ; Maratha Mandir Scholarships Fund for studies in India or abroad ; Vanita Vishwa Sansar Shastra ; and Kala Kendra.

*Governing Council : President :* Her Highness Rajmata Vijaya Raje Scindia of Gwalior ; *Vice-Presidents :* Lt.-Col. His Highness Raja Bahadur Shivram Raje Bhosle ; D. S. Desai, Home Minister, Maharashtra State ; P. B. Bobde, J.P. ; *Hon. General Secretary :* G. G. Gawde ; *Hon. Secretaries :* T. D. More, J.P. ; Dr. B. B. Parab, J.P. ; R. Y. Savant ; *Hon. Treasurers :* V. K. Kadav, J.P. ; T. P. Bhosle, J.P.

## MARATHI SANSHODHAN MANDAL

Mumbai Marathi Granthasangrahalaya, 172, Naigaum Cross Road, Dadar, Bombay 14.

*President :* Principal K. R. Gunjikar ; *Director:* Prof. A. K. Priolkar.

## MARKET HALAI MEMON JAMAT

Jamatkhana Building, 334-338, Abdul Rehman Street, Bombay 3.

## MARWADI SAMMELAN

227, Kalbadevi Road, Bombay 2.

## MECHANICAL ENGINEERS' ASSOCIATION (INDIA)

Janmabhoomi Chambers, 29, Fort Street, Bombay 1.

## MIDDLE CLASS PEOPLE'S CONVENTION

12, Rampart Row, Bombay 1.

## MOGAVEERA YUVAKA SANGHA

46, Vir Nariman Road, Bombay 1.

## MUMBAI MARATHI SAHITYA SANGH

(Sangha Mandir, Kelewadi, Girgaum, Bombay 4).

## MYSORE ASSOCIATION

393, Bhau Daji Road, Matunga, Bombay 19.

*President :* J. N. Iyer ; *Vice-President :* T. R. S. Anandam ; *Hon. Secretaries :* C. R. P. Setty, C. A. Ramachandran ; *Hon. Treasurer :* M. M. Bhandary.

## N. C. CORPORATION PRIVATE LTD.

Stadium House, 3rd floor, Vir Nariman Road, Bombay 1.

To spread 'God-Guided Economics', in industry, trade and administration particularly.

## NATIONAL ASSOCIATION OF PURCHASING EXECUTIVES

Cecil Court, 5th floor, Lansdowne Road, Apollo Bunder, Bombay 1.

*President :* P. K. Palit ; *Vice-President :* R. M. Khatu ; *Hon. Secy. :* M. Prabhakar ; *Treasurer :* J. D. Lobo.

## NATIONAL INDIAN ASSOCIATION

The advancement of education of women in Bombay colleges by award of scholarships ; the promotion of friendly intercourse by social gatherings and lectures.

*Office-Bearers :—President :* Smt. Tara Cherian ; *Vice-Presidents.*—Lady Byramjee Jeejeebhoy and Lady Chandavarkar ; *Hon. Secretaries.*—Mrs. J. R. B. Jeejeebhoy and Mrs. L. V. Velinkar ; *Honorary Treasurer.*—Mrs. M. B. Madgaokar ; *Entertainment Secys.* : Mrs. M. R. Meher, Mrs. Khorshed D. P. Madon ; *Official Residence.*—"The Cliff", Ridge Road, Bombay.

## NATIONAL INSTITUTE OF LABOUR MANAGEMENT

M. G. Textile Technical School Premises, Parel, Bombay 12.

*President :* N. H. Tata ; *Chairman :* N. M. Vakil : *Hon. Secy.* B. R. Dangi.

## NATYA SANGH & NATYA ACADEMY

113/115, Mahatma Gandhi Road, Bombay.

A federation of Cultural institutions affiliated to the Indian National Centre of the International Theatre Centre, UNESCO.

*President :* H. H. The Nawab of Palanpur ; *Hon. Gen. Secretary :* Mrs. Aida Lobo ; *Principal :* Adi Marzban.

## THE NEUROLOGICAL SOCIETY OF INDIA

534, Sandhurst Bridge, Bombay 7.

*President :* N. S. Vahia ; *Vice-President :* D. K. Dastur ; *Secretary :* Gajendra Sinh ; *Treasurer :* E. P. Bharucha.

## NOISE ABATEMENT LEAGUE

19, Pherozshah Mehta Road, Bombay 1.

*Convener :* Dr. V. V. Gupte ; *Executive Member :* Nalini Ambegavkar.

## ORIENTAL INSTITUTE OF INDIAN LANGUAGES

32, Khorsheed Building, Sir P. M. Road, Bombay 1.

Founded to develop the institute so as to make accessible to the West, through the media of English the wealth and glories of Indian Languages Literatures.

## PARSEE LEKHAK MANDAL

(Parsee Journalist Assocn.)

C/o Jehanbax Bomanshaw Vatcha, Tafti Building, South Frere Bridge, Grant Road, Bombay 7.

*Honorary Secretary and Treasurer.*—Jehanbax B. Vatcha.

## PASSENGERS' AND TRAFFIC RELIEF ASSOCIATION

Anand Bhavan, 346, D. Naoroji Road, Fort, Bombay 1.

*President.*—V. N. Desai ; *Vice-Presidents.*—M. A. Parikh, H. H. Ismail ; *Hon. Secretaries.*—G. K. Vora, M. J. Mehta ; *Treasurer.*—R. C. Shah.

## PATHARE KSHATRIYA VAKTRUTWOTTEJAK SAMAJ

Gamdevi, Bombay 7.

## PATHARE PRABHU SOCIAL SAMAJ

Mankubai Bldg., 18 Nowroji Street, Thakurdwar Road, Bombay 2.

## THE P. E. N. ALL-INDIA CENTRE

Indian Branch of the International P. E. N. Club of leading poets, playwrights, editors, essayists, novelists.

OBJECTS :—To promote friendliness among writers everywhere, to uphold freedom of speech and to foster national cultural unity by spreading appreciation of the Indian literatures outside their own linguistic areas, by means of public lectures, *The Indian P. E. N.* and a series of P.E.N. books on the Indian Literatures and Writers' Conferences.

The P.E.N. All-India Centre has its headquarters at Theosophy Hall, 40, New Marine Lines, Bombay 1.

PRESIDENT.—Dr. S. Radhakrishnan ; VICE-PRESIDENTS.—R. P. Masani, Masti Venkatesa Iyengar ; HON. SECRETARY-TREASURER.—Nissim Ezekiel. FOUNDER AND ORGANISER IN INDIA AND EDITOR, *The Indian P.E.N.* —Sophia Wadia.

## PHILATELIC SOCIETY OF INDIA

*Hon. Secretary.*—D. E. Wadia, "B" Block, Shireen Mansion, Tardeo Road, Bombay 7.

## PHOTOGRAPHIC SOCIETY OF INDIA

Saheb Building, 195, Dr. D. N. Road, Bombay 1.

*President :* Homi A. Kharas ; *Vice-President :* B. B. Fanibunda ; *Hon. Treasurer :* M. J. Vussonji ; *Jt. Hon. Secretaries :* A. T. Sodah, Dr. V. Sadasivan. Weekly lectures & demonstrations. Enjoyable outings. Studio & Dark-room facilities. A well-equipped J. N. Unwalla Memorial Library. Competitions and Exhibitions.

## PORT HAJ COMMITTEE

(Constituted under the Act of the Central Legislature—XX of 1932)
Seth Mahomed Haji Saboo Siddick Musafirkhana, Carnac Road, Bombay 1.

## PRESS ASSOCIATION OF INDIA

196B, Gaiwadi, Girgaum, Bombay 4.

*Hon. Secretary.*—M. C. Modi.

## PRESS GUILD OF INDIA

Majestic Hotel, 3rd Floor, Bombay 1.

## PRINCE OF WALES MUSEUM OF WESTERN INDIA

Bombay 1.

*Hours of Admission.*—The Museum is open daily to the public from 10 A.M. to 5-30 P.M. except Mondays.

## PROGRESSIVE GROUP

C/o Olympia, Metro Cinema Bldg., Bombay 1.

*President :* Girish K. Chitalia ; *Vice-Presidents :* Bhupendra B. Shah, Hoshang D. Baldawala, *Jt. Hon. Secretaries :* Mrs. Gool T. Panthakey, Miss Katy P. Doctor ; *Hon. Treasurer :* Chimanlal C. Sheth.

## RATHESTAR MANDAL

A Parsi association for upliftment of the Parsi community.

*Hon. Secretary & Treasurer.*—Jehanbax Bomanshaw Vatchha, Tafti Building, South Frere Bridge, Grant Road, Bombay 7.

## REGIONAL GRAND LODGE OF WESTERN INDIA

Freemasons' Hall, Raveline Street, Fort, Bombay.

*Regional Grand Secretary:* K. J. Mody ; *Asstt. Regional Grand Secy. :* F. D. Dhondy.

## RELIGIOUS AMITY CENTRE

Mistry Court, 208, D. Watcha Road, Bombay 1.

*President :* H H. Ismail ; *Vice-Presidents :* Sardar Bakshi Dalip Singh ; Shaikh Mohmedali Zairal Ali Reza ; *Hon. Gen. Secretary :* Smt. Z. R. Khan.

## ROHIDAS (HARIJAN) EDUCATION SOCIETY

112, Medows Street, Bombay 1.

Established in 1939 to promote education, provide work, and remedy the social disabilities of the Chambhar (Harijan) classes.

## ROHIDAS SUDHARAK MANDAL

B.D.D. Block No. 12-B, Room No. 54, Naigaum, Bombay 14.

Literary and Social Institution.

*President.*—R. B. Chandorkar ; *Vice-President.*—K. G. Ziradkar ; *Secretary.*—S. K. Chandorkar.

## SAFETY FIRST ASSOCIATION OF INDIA

Stadium House, 2nd Floor, Veer Nariman Road, Bombay 1.

An all India non-official Organization established in 1932 and devoted to conservation of life and property ; acts as clearing house on accident prevention matters ; publishes a monthly magazine 'Safety News' and other safety literature, leaflets, posters, etc. ; arranges lectures, exhibitions and film shows.

*President :* A. A. Jasdenvala; *Hon. General Secretary :* D. S. Venkatraman.

## SAHAKARI KELAVANI MANDAL

Sahakar Nivas, 20 Tardeo Road, Bombay 34.

Runs the educational institution, Shree B. P. K. Sahakari Vidya Mandir with Montessori, Primary, High School classes.

## THE SALES TAX PRACTITIONERS' ASSOCIATION

Mohata Market, 5th floor, Room No. 8, Palton Road, Bombay-1.

*President :* J. K. Sheth ; *Vice President :* N. Shah ; *Treasurer :* H. H. Kumar ; *Jt. Hon. Secretary :* P. U. Thakore.

## SAMYUKTA KARNATAK SANGHA

Navsari Building, D. Naoroji Road, Bombay 1.

A federation of Karnatak institutions in Bombay.

## SAMYUKTA SOCIALIST PARTY

*Bombay City Office :* 25, Bhai Jivanji Lane, Bombay 2.

*Maharashtra Provincial Office :*
25, Bhai Jivanji Lane, Bombay 2.

## SANSKRIT VISHVA PARISHAD

(World Academy of Sanskrit)
Bharatiya Vidya Bhavan, Chowpatty, Bombay 7.

Is devoted to the spread of Sanskrit language and culture ..... has 600 branches and kendras throughout the country and outside ..... examinations in Sanskrit are held by the Bharatiya Vidya Bhavan under its guidance....has published textbooks for the graded Sanskrit examinations.....has held seven all India Sessions.....has been instrumental in the establishment of Kurukshetra Sanskrit University, Government Sanskrit University at Varanasi and Raipur Sanskrit Mahavidyalaya, Darbhanga Sanskrit University & Central Sanskrit Institute of Research, Tirupati.

## SANTA CRUZ MALAYALEE SAMAJAM

(Registered).
14, Air View Building, Vakola, Bombay 55.

Besides conducting a Library and Free Reading Room, the Samajam runs an Ayurvedic Dispensary.

*President :* C. D. Oommachan, B.A., LL.B. ; *Vice-Presidents :* Maman Babu, B.A., LL.B., R. Sathyan ; *General Secretary :* O. K. Pillai ; *Secretaries :* D. K. V. Pillai, K. Oonnikrishnan ; *Treasurer :* P. K. John.

## SANTA CRUZ WELFARE LEAGUE

"Anand Kunj", Dadabhai Road, Santa Cruz West, Bombay 54.

The organisation renders social and civil service and conducts six Free Medical Equipment Centres. It also organises cultural activities for the benefit of women and children.

*President :*—H. D. Pathak ; *Vice-President :*—Dr. Sudha Saraiya ; *Gen. Secretary :*—Yahya Lokhandwala ; *Treasurer :*—Kashinath J. Dongre.

## SARASWAT VIDYARTHI SAHAYAK MANDALI

Chikitsaka Samuha Building, Kandewadi, Bombay 4.

The Institution has advanced in all nearly Rs. 7,56,320 to 2,762 poor and deserving students of both sexes from all parts of the country to get education and has built up a Reserve and Endowment Fund of Rs. 9,28,654.

*Trustees :*—Dewan Bahadur Dr. J. S. Nerurker, Y. H. Sukthankar ; Prof. L. G. Khedekar ; *Chairman :* S. R. Sukthankar ; *Vice-Chairman :* V. N. Kamat ; *Hon. Secretaries :* R. K. Patkar, J. S. Rege ; *Hon. Treasurers :* B. Y. Rajadhyaksha, D. N. Manerikar.

## THE SEA CADET CORPS

C/o Fleet Mail Office, Mint Road, Bombay-1.

The Sea Cadet Corps is a Voluntary Youth Movement whose objects are to give boys and girls between the ages of 12 and 18 sea training and such other training as will develop in them qualities of good citizenship and to help boys wishing to make their career at sea achieve their ambition.

It had its origin in Karachi where the Movement was founded in 1938 by G. S. Ahuja who is now Captain Superintendent of the Corps.

There are over 600 cadets in Bombay besides Units in Madras, Tiruchirapalli & Calcutta.

The cadets attend instructional classes outside school hours and on Sunday mornings. Practical training is given on board various naval ships and shore establishments. Training camps are organised at least once a year. Selected cadets are sent out on Training Cruises abroad.

There are two courses in a year starting in March and September.

The Corps has now just about completed construction of their National Headquarters in India. The building which is in the shape of a ship and is located near Pilot Bunder, Colaba, has cost Rs.1 million. The building is expected to be commissioned as Training Ship "JAWAHAR" by the President of India shortly.

The Corps is recognised by the Government of India.

The Corps is controlled by the Sea Cadet Council of which the Governor of Maharashtra is the President and the Flag Officer Bombay is the Chairman. The Chief Minister of Maharashtra is the Senior Vice-President and the office-bearers include important persons from Merchant Shipping.

*Secretary to the Sea Cadet Council and Captain Supdt. of the Sea Cadet Corps :* G. S. Ahuja.

## SERVANTS OF INDIA SOCIETY

BOMBAY BRANCH.

Sardar V. Patel Road, Girgaum, Bombay.

*Bombay Branch Members.*—Dinkar D. Desai, *Senior Member* K. J. Chitalia.

## SEVA SADAN

Gamdevi, Bombay 7.

The Society maintains the following departments : (1) Home for the Homeless. (2) Hindu and Parsi Ashrams. (3) Primary Teachers' Training College, Pre-Primary, Primary and Secondary Schools (Marathi Medium), Home Classes in English for adults. Industrial Department includes Cooking, Laundry and Hosiery where the work is offered to the poor and needy women to support themselves. Cutting and Embroidery Classes are conducted and students are prepared for the Government Diploma Examination in Tailoring. The total number of women and children in different classes is over 1,000.

## SHILPI KENDRA

The Majestic Museum, Bombay 1.

Shilpi Kendra (meaning centre for craftsmen) was established in Dec. 1963. It was inaugurated by the late Prime Minister, Jawaharlal Nehru.

*Aims and Activities:* To promote traditional handicrafts of India and give encouragement to Indian craftsmen. Endeavours to revitalise interest in Indian handicrafts at home and abroad. Organised "Our Heritage" exhibition during the World Eucharistic Congress in Bombay in Nov.-Dec. 1964, which was well appreciated in India and abroad.

It is now engaged in the promotion of Indian handicrafts in Bombay. It provides information on handicrafts, their availability, their centres, the location of craftsmen, etc. It has constituted "Awards for Master Craftsmen of Maharashtra", with a view to encouraging traditional craftsmen to continue in their trade.

*Chairman :* Mrs. H. J. H. Taleyarkhan ; *Vice-Chairmen :* Nawab of Palanpur, Sir Cowasji Jehangir ; *Art Director :* V. N. Adarkar ; *Treasurers :* H. H. Ismail, G. K. Vora. *Jt. Hon. Secretaries :* Miss R. J. Engineer, Mrs. Z. Jairazbhoy.

## SHORT FILMS PRODUCERS' GUILD

106, Famous Studios, Mahalaxmi, Bombay 11.

## SHRI BRIHAD BHARATIYA SAMAJ

N K M. International House, 178, Netaji Subhas Road, Bombay 1

(Transit Camp : Congress House, Vithalbhai Patel Road, Bombay 4).

A Society for the promotion of economic, social, educational and cultural interests of Indians abroad. S. K. Patil (*Chairman*), Babubhai M. Chinai, M.P. (*Hon. Treasurer*) ; C. L. Gheevala (*Hon. Secretary*).

## SILK & ART SILK MILLS' RESEARCH ASSOCIATION

"Sasmira", Dr. Annie Besant Road, Worli, Bombay 18.

*President :* Shantilal M. Mehta, M.Sc. (Tech.) (Manchester) ; *Vice-President:* Ganeshnarayan R. Podar ; *Dy. Director :* J. G. Parikh, B.Sc. (Hons.), LL.B., A.T.I. (Manch.).

## SIR D. M. PETIT & J. N. PETIT GYMNASTIC INSTITUTE

Khetwadi Main Road, Bombay 4.

## SOCIAL SERVICE LEAGUE

Servants of India Society's Building, Vallabhbhai Patel Road, Girgaon, Bombay 4.

*Aims and Objects :*—Collection and study of social facts. *Activities:*—The Marathi Night School at Chinchpokli. A free library and reading room at Chinchpokli and at Madanpura. The Mafatlal Gagalbhai Textile Technical School at Parel. Industrial schools for women in 6 different centres in the city and a Social Workers' Training class. Two dispensaries, namely, Bachoobai Kanji Karsandas Charitable Allopathic Dispensary at Patel and Ayurvedic Charitable Dispensary at Parel. A gymnasium for working men at Parel. A Night High School and the Damodar Thackersey Hall, Parel. A Co-operative Credit Society for members. *Magazine :*—A quarterly magazine called the *Social Service Quarterly. General Secretary :* Dinkar Desai.

## SOCIAL WORKERS' SOCIETY

207, Bazar Gate Street, Bombay 1.

## SOCIETY FOR THE CAUSE OF MOTHERS' LINEAGE

Plot No. B2, House No. R. 105,
Theosophical Colony, Juhu,
Bombay 54.

(Tel. No. 573037).

The main aim of this society is to disseminate knowledge of matrilineal succession and to educate public opinion in favour of this fundamental human right to own the lineage of one's mother for all intents and purposes.

The call of the age today demands matrilineal succession for the rightful recognition of woman as a full-blooded human being. Matrilineal succession would go a long way in meeting the long overdue social reform in our society for recognition of the natural right of a woman to raise her own family through her own lineage.

*Convenor :* Kailash Chand Pista Devi.

## SOCIETY FOR COMPILATION OF INDIAN BIOGRAPHIES

Congress House, V. P. Road, Bombay 4.

## SOCIETY OF GOODWILL AND CULTURE

Darya Bldg., 2nd Floor, 375, Dr. Dadabhoy Naoroji Road, Bombay 1.

## THE SOCIETY OF THE JUSTICES OF THE PEACE AND THE HONORARY PRESIDENCY MAGISTRATES OF BOMBAY

C/o Shri I. A. Makani, Consulate-General for Costa Rica, Standard Bldg., Dr. D. N. Road, Bombay 1.

## SOHRAB F. BHAROOCHA ARCHITECTURAL LIBRARY

Prospect Chambers Annexe. 32-34, Dadabhoy Naoroji Road, Bombay 1.

*Patron :* Mrs. Coomi Sohrab Bharoocha ; *Ex-Officio Chairman :* K. A. Parelkar, A.R.I.B.A., F.I.I.A. ; *Hon. Secretary :* R. B. Fernandes, B.Arch., A.I.I.A.

## STATE INDUSTRIAL CO-OPERATIVE ASSOCIATION LIMITED

9, Bake House Lane, Fort, Bombay 1.

It is an apex body of the Industrial Co operatives in the State of Maharashtra, runs handloom fabrics/Sales Depots. Footwear Production Centre at Mazgaon manufactures civilian and military boots chappals etc.

*Paid-up capital :* Rs. 8,25,020 (Rs. 5,62,360 contributed by the Govt. of Maharashtra).

*Established :* 28-10-1946.

*Membership :* 300 societies having about 30,000 artisans in its fold.

*Chairman :* J. G. Patil, B.A., LL.B.

*Secretary & General Manager :* P. S. Barve.

## STUDENTS' LITERARY AND SCIENTIFIC SOCIETY

24, Nowroji Sheth Street, Jagannath Sunkersett Road, Bombay 2

The Society conducts 1. A Girls' High School, 2. Dr. Bhau Daji Middle School, 3. Jagannath Sunkersett Marathi School for boys and girls and 4. Montessori Classes.

## SUBURBAN FINE ARTS AND SANGEETHA SABHA

10, Radhe Nivas, 30th Road, Bandra, Bombay 50.

*President :* A. B. Nair ; *Vice-Presidents :* P. G. Kher, M.L.A., T. V. Subramanyam ; *Chairman :* K. G. Menon ; *Secretary :* S. Gopal ; *Joint Secy. :* S. Sivaramakrishnan ; *Treasurer :* K. S. N. Swamy.

## THE SUBURBAN PROTESTANT CHRISTIAN ASSOCIATION

Gopal Bhuvan, Bapubhai Vashi Road, Vile Parle (West), Bombay 57.

## SUR-SINGAR SAMSAD

Arun, Narayan Dabholkar Road, Bombay 6.

1. To promote, encourage and develop the art of classical Hindustani music by organising and arranging public and private performances in Bombay and/or elsewhere.

2. To promote the Arts of Indian Dances, Sculpture, Paintings, Photography, Architecture Handicrafts and of Theatre.

*Director.*—Brijnarain.

*President :* S. K. Wankhede ; *Chairman :* Dr. N. N. Kailas ; *Vice-Presidents :* J. C. Jain, A. B. Nair, Jivaraj N. Mehta ; *General Secy. :* Shankarlal Bajaj ; *Treasurers :* Mrs. Shakuntala Brijnarain, M. S. Pai, S. M. Deo ; *Secretaries :* V. S. Mani, K. M. Chokshi.

## SWADESHI LEAGUE TRUST

17, Horniman Circle, Bombay 1.

To hold Swadeshi Exhibitions and to propagate the spirit of Swadeshi.

*Founded by :*—Late Pranlal Devkaran Nanji ; *Trustees :*—(Chairman) Babubhai M. Chinai (M.P.) ; A. C. Ramalingam, C. L. Gheewala, M. R. Ruia; *Mg. Trustee :*—Pravinchandra V. Gandhi.

## TARAPOREVALA MARINE BIOLOGICAL RESEARCH STATION

Taraporevala Aquarium, Bombay 2.

Dr. C. V. Kulkarni, *Director of Fisheries, Maharashtra, Incharge, Taraporevala Marine Biological Research Station, Bombay.*

Dr. H. G. Kewalramani, *Sr. Scientific Officer.*

*Asstt. Research Officers,* B. R. Jaggi (*Fresh Water Biology*) ; K. N. Sankolli (*Marine Biology*).

## TATA AGRICULTURAL AND RURAL TRAINING CENTRE FOR THE BLIND

Jehangir Wadia Bldg., Mahatma Gandhi Road, Bombay 1.

The Centre trains every year 50 blind adults in agriculture, horticulture, animal husbandry, poultry raising and rural crafts.

*Chairman :* Shantilal H. Shah ; *Vice-Chairmen :* J. S. Lam, M. P. Mistry ; *Hony. Secretaries :* H. J. M. Desai, F. F. Moos, Rustom Doctor.

## TAX-PAYERS' ASSOCIATION OF INDIA, LTD.

Fort Chambers A, Dean Lane, Hamam Street, Fort, Bombay 1.

*President :*—Rao Bahadur V. D. Muzumdar, M.A. ; *Vice-President :*—S. B. Athalye, M.A., LL.B. ; *Secretary :*—J. D. Telang, B.A.

## TECHNOLOGICAL ASSOCIATION

Department of Chemical Technology, Matunga Road, Bombay 19.

## TEXTILE INSTITUTE

Bombay Section

C/o J. G. Parikh, "Sasmira",

Dr. Annie Besant Road, Worli, Bombay 18.

*Chairman :* J. G. Parikh ; *Hon. Secy. :* Dr. K. Balakrishna Iyer ; *Jt. Hon. Secy. :* S. D. Mathure.

## THE THEATRE GROUP

3rd Floor, 70, Wodehouse Road, Colaba, Bombay 5.

*Activities* include producing significant plays by world renowned dramatists, 'visual enactments', evenings of music and poetry, revivals of film classics and, staging contemporary new plays in Hindi and English.

*President :* Deryck Jefferies : *Vice-President :* Alyque Padamsee ; *Secretary :* Pearl Padamsee ; *Treasurer :* S. da Cunha.

## THEATRE UNIT

Vithal Court, 151, Cumballa Hill, Bombay 26.

The Unit's main objective is to provide training in all branches of the theatre. Short courses on acting and production are held at frequent intervals. It has an English and a Hindi section.

A Children's section has recently been started.

To stimulate interest in the theatre and the other arts, film shows, lectures and exhibitions are organised.

## THEOSOPHY COMPANY (INDIA) PRIVATE LIMITED

40, New Marine Lines, Bombay 1.

*President.*—Madame Sophia Wadia ; *Secretary.*—N. A. Subramaniam.

## TOURIST COURTESY COMMITTEE

"Mistry Court", Opp. C.C.I., 208, D. Watcha Road, Bombay 1.

*President :* H. H. Ismail ; *Vice-Presidents :* Smt. M. S. Muthanna, Sardar Bahadur Bakshi Dalip Singh ; *Hon. Gen. Secretary :* Miss T. Irani ; *Hon. Treasurer :* M. Manal.

## UNITED KINGDOM CITIZENS' ASSOCIATION (BOMBAY BRANCH)

Cook's Bldg., Dr. Dadabhoy Naoroji Road, Bombay 1.

*Chairman :* C. H. Campbell ; *Hon. Secretary :* N. G. McNeill.

## UNITED LODGE OF THEOSOPHISTS

40, New Marine Lines, Bombay 1.

## UNITED SEAFARERS' FEDERATION

235, Husseini Building, Frere Road, Fort, Bombay 1.

## VAISHYA SAMAJ

Hanuman Bldg., 4th Floor, Kiln Lane, Bombay 7.

## VICTORIA AND ALBERT MUSEUM

Victoria Gardens, Byculla, Bombay.

Founded in 1855

The collection in the Museum is mainly divided into divisions of Art, Agriculture, Ethnology, Industry, Numismatics, Painting, etc.

The Victoria and Albert Museum Library has a good number of books. Monday : entirely closed. Wednesday : admission to ladies & children only. Thursday : free admission for all. On other days admission at the rate of 5 paise only."

## VIDYADAINI SABHA

31, Raghunath Dadaji Street, Bombay 1.

The Sabha was started in 1920 with the object of ameliorating the conditions of the community. It conducts a free reading room and library and maintains a Seva Dal. It awards scholarships to the poor deserving students.

It also runs a school "Kanara Vidyadaini Free Night High School" at Amrit Villa, 29, Modi Street, and at Colaba Municipal Hindi School Premises, Colaba, Bombay, which impart free education to poor day labouring boys without any distinction of caste or creed, between 6-30 P.M. and 9-30 P.M. Recognised by the Municipal Corporation of Bombay and Education Dept., Govt. of Maharashtra.

*President :* B. C. Suvarna ; *Hon. Gen. Secretary :* K. D. Kotian ; *Hon. Treasurer :*—R. T. Suvarna.

## VISVA YOGA BHARATI

Vallabhnagar, Borivli, Bombay 92.

Visva 'Yoga' Bharati is an organisation devoted to integral victory of 'dharma' and regeneration of universal dynamic spirit force through spiritual yogic self-culture-cum-self-reformation. The institution is founded by Raj-Yogi Nathji Ananda, and sponsored by the Yogic Self-Culture Society. One of the objects is to train yogic staff to man educational institutions. There is a gurukula for boys and girls between the ages six and fourteen and an Industrial Home for the poor and inmates of the Ashram and students of the Yoga institute.

A Visva Yoga Hostel to accommodate nearly 300 yoga trainees has been provided at a cost of Rs. 1,25,000 by the Society.

*Constituted Institutions :* Rajayoga-Vedanta Centre ; Raja-Yoga Vanaprastha Asrama ; Dhayana Yoga Brahamachari Gurukula ; Geeta Yogic Self-Culture Library & Sanskrit Pathshala ; Central Yoga-Natural Therapy Training College, Clinic, Hostel & Sanatorium.

*Patron :* G. L. Nanda, Union Home Minister ; *Founder President :* Swami Rajayogi Nathji Ananda; *Principal Secretary:* Yogiraj Anand Dhruva.

## THE VYAS ACADEMY OF INDIAN MUSIC

148, Hindu Colony, Dadar, Bombay 14.

## WESTERN INDIA FOOTBALL ASSOCIATION

Cooperage Football Ground, Bombay 1.

*President :* S. K. Wankhede (Minister of Finance, Maharashtra State) ; *Hon. Secretary :* K. Ziauddin.

## WESTERN INDIA NATIONAL LIBERAL ASSOCIATION

107, Esplanade Road, Bombay 1.

## WOMEN GRADUATES UNION

(*Bombay Association :* Indian Federation of Univ. Women's Association)

123B, Cumballa Hill, Bombay-26.

## WORKERS' EDUCATIONAL SERVICE LEAGUE

Municipal Central Urdu School Bldg., Mustan Tank Road, New Nagpada, Bombay 8.

## THE YOGA INSTITUTE

Headquarters, Santa Cruz, Bombay 55.

Founded in 1918 by Shri Yogendra and registered as a Society in 1939, this institute is the oldest technical centre of Yoga learning in India. Its activities in U.S.A., Brazil, Australia, Japan and U.S.S.R. and other countries popularized Yoga in the East and the West. Among its various activities are: Academic researches, scientific investigations, training in Yoga technique, indoor and outdoor clinics, publication of texts and journal on Yoga, and cultural activities. The Institute is recognised by the Government.

*Secretary.*—Smt. Sitadevi.

## YOGA SCIENCE UNIVERSITY

Yogamahavidyalaya Vidjnan Vidyapeeth.

Purshottam Bldg., Opp. Royal Opera House, 3, New Queen's Road, Bombay 4.

## YOGIC ISHWARDAS CHUNILAL HEALTH CENTRE KAIVALYADHAMA

N. Subhas Road, Bombay 2.

Yogic culture and therapy. Fee ranges from Rs. 2 to Rs. 15 per month. Trained Medical Officers and Demonstrators.

## YOGIC SELF-CULTURE SOCIETY

Sadachar Jeevan Samiti

(For simultaneous and harmonious development of spirit force, intellect and health through Yoga)

5, Vallabhnagar, Borivli, Bombay 92.

*Patron:* G. L. Nanda, Union Home Minister; *Founder-President:* Swami Rajapogi Nathji Ananda Acharya; *Principal Secretary:* Yogiraj Anand Dhruva.

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141, Vithalbhai Patel Road, Bombay 4.

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## YOUNG WOMEN'S CHRISTIAN ASSOCIATION

18, Madame Cama Road, Fort, Bombay 1.

Membership and services open to women and girls of all communities and creeds. Employment Bureau, Commercial School and Hostels for working girls and women. Recreational, cultural and educational classes and Welfare Centres.

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*Hon. Secretary & Treasurer.*—Prof. P. C. Hansotia. *Jt. Hon. Treasurer.*—K. S. Engineer. *Asstt. Secretary.*—H. B. Kapadia.

## ZOROASTRIAN BROTHERHOOD

C/o Jehanbax Bomanshaw Vatcha, Tafti Building, South Frere Bridge, Grant Road, Bombay 7.

## ZOROASTRIAN PHYSICAL CULTURE AND HEALTH LEAGUE

Central Bank Building (Dean Lane Entrance), Bombay 1.

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# EDUCATIONAL INSTITUTIONS IN GREATER BOMBAY*

## UNIVERSITY OF BOMBAY

### Bombay 1.

INCORPORATED under Act XXII of 1857 (subsequently amended by Act VII of 1904, and reconstituted by the Bombay University Act IV of 1928 and Act XXXI of 1953).

The Senate meets ordinarily once a year in March on a date fixed, and at other times when convened, by the Vice-Chancellor. A meeting of the Senate can be convened on the requisition of at least twenty-five Fellows to the Vice-Chancellor. Thirty members of the Senate form a quorum; and all questions are decided by a majority of the votes of the members present, the Chairman, when the numbers are equal, having a second or casting vote. There are seven Faculties, *viz.* Arts, Science, Technology, Law, Medicine, Commerce and Dentistry. Each Faculty elects its own Dean. Convocations for conferring degrees are held twice a year — the Annual Convocation is held in August — and the Special Convocation is held in February.

The Executive Government of the University is vested in the Syndicate. The Vice-Chancellor is the Chairman of the Syndicate.

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Prof. S. S. Shrikhande, M.Sc., Ph.D. (*Mathematics*).
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Dr. S. N. Gajendragadkar, M.A., Ph.D. (*Linguistics*).
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The Rector.
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### I. FELLOWS—EX-OFFICIO

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* In the case of some institutions, besides the title and address a short note is added about their curriculum, etc. This is generally done where the objects, curriculum, organization are not immediately obvious from the title. A note is also added when an institution appears in our book for the first time. The addition of a note is not necessarily an indication of the institution's relative importance, that is, in relation to others.

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### MINISTER OF EDUCATION

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### DY. MINISTER OF EDUCATION

Dr. N. N. Kailas, M.B.B.S., M.L.A.

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Anant Sheshgiri Sthalekar, M.Sc., Soli Shiavaxa Pavri, B.A., B.Sc., M.Ed.

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Ramchandra Narayan Joshi, B.E., M.I.E.; Gopal Anandrao Kamtekar, B.A., B.Sc. (Bom.), B.Sc. (Edin.), M.I.E.; Yogendra Shankerlal Shah, M.Sc. (Tech.).

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ELECTED BY THE BOMBAY CHAMBER OF COMMERCE

R. E. Hawkins, M.A. (Oxon.).

ELECTED BY MAHARASHTRA CHAMBER OF COMMERCE

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Gopikisan Piramal, B.A.

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V. B. Karnik; D. G. Tulpule, B.Sc.

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ELECTED BY THE MAHARASHTRA LEGISLATIVE COUNCIL

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ELECTED BY DONORS

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NOMINATED BY THE CHANCELLOR

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*umber of Teaching Deptts., constituent colleges and recognised post-graduate institutions as on 20th June 1964.*

| | |
|---|---|
| University Deptts. .. .. .. .. .. | 14 |
| Constituent colleges .. .. .. .. .. | 56 |
| Recognised post-graduate institutions .. .. .. | 14 |
| Institutions recognised as qualified institutions under 0·84 AA .. .. .. .. .. .. | 2 |
| Total .. .. .. .. .. | 86 |

*Number of students as on 1st August 1964.*

| | |
|---|---|
| Students in University Departments .. .. .. | 2,122 |
| Students in constituent colleges .. .. .. .. | 56,714 |
| Students in recognized post-graduate institutions .. | 462 |
| Total .. .. .. .. .. | 59,298 |

BUDGET ESTIMATES 1965-66

(*a*) Income—(exclusive of non-recurring income) Rs. 99,86,689 (*b*) Expenditure—(exclusive of non-recurring expenditure), Rs. 1,00,50,212; (*c*) State Government Grants: Rs 12,66,933; (*d*) Non-recurring expenditure (General Fund): Rs. 1,15,830.

LIST OF COLLEGES (1965-66)

R. D. & S. H. National College, Bandra, Bombay-50; Ramniranjan Jhunjhunwala College, Ghatkopar, Bombay-77; Sophia College for Women, Bhulabhai Desai Road, Bombay-26; Kishinchand Chellaram College, Dinshaw Wachha Road, Churchgate, Bombay-1; Parle Tilak Vidyalaya's Parle College, Vile-Parle (East), Bombay-57; St. Xavier's Institute of Education, 15, New Marine Lines, Opp. U.S.I.S., Bombay-1; Government Dental College, St. George's Hospital Compound, Fort, Bombay-1; D. E. Society's Kirti College, Cadell Road, Bombay-28; L. U. Jhaveri College of Arts & M. V. College of Science, Andheri (East), Bombay-69; Dhempe College of Arts & Science, Panjim, Goa; Siddharth College of Commerce & Economics, Anand Bhuvan, Dr. Dadabhai Naoroji Road, Bombay-1; Siddharth College of Arts & Science, Anand Bhuvan, Government Law College, Churchgate, Bombay 1; K. C. Law College, Dinshaw Wachha Road, Churchgate, Bombay 1; New Law College, Tulsi Pipe Road, Matunga (W. Rly.), Bombay 16; St. Xavier's College, Mapuca, Goa; Sydenham College of Commerce & Economics, 'B' Road, Churchgate, Bombay 1; Elphinstone College, Bombay 1; Seth G. S. Medical College, Parel, Bombay 12; Ruparel College, Tulsipipe Road, Matunga, Bombay 16; V. J. Technical Institute, Matunga, Bombay 19; Grant Medical College, Byculla, Bombay 8; Sir J. J. College of Architecture, Dr. D. N. Road, Bombay 1; Siddharth College of Law, Anand Bhavan, Dr. Dadabhai Naoroji Road, Bombay 1; M. L. Dahanukar College of Commerce, Vile Parle, Bombay 57; H. R. College of Commerce & Economics, Dinshaw Wachha Road, Churchgate, Bombay 1; Mithibai College of Arts & Chauhan Inst. of Science, Vile Parle (West), Bombay 56; College of Nursing, J. J. Hospital Compound, Bombay 8; Hazarimal Somani College of Arts & Science, Chowpatty, Bombay 7; Bandra College of Commerce & Economics, Bandra, Bombay 50; Sadhana School of Educational Research & Training, Near Lions' Park, Juhu Road, Santa Cruz, Bombay 54; Secondary Training College, 3, Cruickshank Road, Bombay 1; Sardar Patel College of Engineering Versova Road, Andheri, Bombay 58; Chinai College of Commerce & Economics, Andheri (East), Bombay 69 (AS); Smt. Parwatibai Chougule College of Arts & Science, Margao, Goa; Ismail Yusuf College, Jogeshwari, Bombay 60; Topiwala National Medical College, Dr. A. L. Nair Road, Bombay 8; Ramnarain Ruia College, Matunga, Bombay 19; R. A. Podar College of Commerce & Economics, Matunga, Bombay 19; S. I. E. S. College of Arts & Science, Sion (West), Bombay 22; St. Zavier's College, Cruickshank Road, Bombay 1; Khalsa College, Matunga, Bombay 19; K. J. Somaiya College, Ghatkopar, Bombay 77; Jai Hind College, 'A' Road Churchgate, Bombay 1; Maharshi Dayanand College, Government Gate Road, Parel, Bombay 12; Nair Hospital Dental College, Dr. A. L. Nair Road, Bombay 8; Bombay Veterinary College, Parel, Bombay 12; Nossa Sr. de Piedade Institute of Education, Panjim, Goa; Admar Mutt Education Society's College of Arts & Science, Dahisar, Bombay 68; Goa Medical College, Panjim, Goa; M. M. College of Arts and N. M. Institute of Science (Bhavan s College), Andheri 58; Chikitsak Samuha Sir Sitaram and Lady Shantabai Patkar College of Arts and Science, Goregaon (West), Bombay 62; Carmel College for Women, Nuvem, Goa; Shri Vile Parle Kalavni Mandal's Shri Narsee Monji College of Commerce and Economics, Juhu Development Scheme, Vile Parle (West), Bombay 56; College of Pharmacy, Panjim, Goa; Municipal Medical College, Sion, Bombay 22.

## COLLEGES

### BANDRA COLLEGE OF COMMERCE & ECONOMICS

32nd Road, T.P.S. III, Bandra, Bombay 50.

### BHARTIYA VIDYA BHAVAN'S M. M. COLLEGE OF ARTS AND N. M. INSTITUTE OF SCIENCE

Bombay 58.

### BHAVAN'S COLLEGE

Chowpatty, Bombay 7; Andheri, Bombay 58.

### BOMBAY COLLEGE OF JOURNALISM

K. C. College Building, Churchgate, Bombay 1.

### BOMBAY COLLEGE OF PHARMACY

Bharati Bhavan, 3rd Floor, 213-219, Frere Road, Bombay 1.

### BOMBAY HOMOEOPATHIC MEDICAL COLLEGE

Irla Road, Vile Parle (West), Bombay 56.

### BOMBAY VETERINARY COLLEGE

Parel, Bombay 12.

### COLLEGE OF HOME SCIENCE OF S.N.D.T. WOMEN'S UNIVERSITY

1, Nathibai Thackersey Road, Fort, Bombay-1.

### COLLEGE OF NURSING
New Nurses' Quarters, Sir J. J. Hospital Compound, Byculla, Bombay 8.

### COLLEGE OF PHYSICIANS AND SURGEONS OF BOMBAY
Hospital Avenue, Parel, Bombay 12.

*President :* Dr. Vishwanath Hari Salaskar ; *Vice-Presidents :* Dr. Thakershi Khushaldas Mehta ; Dr. Dharamdas Damodardas Vora ; Murarji Mavji Kavadia, *Secretary*.

### ELPHINSTONE COLLEGE
156, Mahatma Gandhi Road, Bombay 1.

### GOVERNMENT DENTAL COLLEGE
P. D'Mello Road, Bombay 1.

### GOVERNMENT LAW COLLEGE
Churchgate, Bombay.

### GRANT MEDICAL COLLEGE
Parel Road, Bombay 8.

### HASSARAM RIJHAMAL COLLEGE OF COMMERCE & ECONOMICS
Dinshaw Wacha Road, Bombay 1.

### ISMAIL YUSUF COLLEGE
Jogeshwari, Bombay 60.

### JAI HIND COLLEGE AND BASANTSING INSTITUTE OF SCIENCE
23-24, Backbay Reclamation, 'A' Road, Bombay 1.

Also a hostel at 29, Backbay Reclamation, 'B' Road, Bombay.

### KHALSA COLLEGE
King's Circle, Bombay 19.

### KIRTI M. DOONGURSEE COLLEGE
K. Dhuru Road, Dadar, Bombay 28.

### KISHINCHAND CHELLARAM COLLEGE
Dinshaw Wachha Road, Churchgate, Bombay 1.

### KISHINCHAND CHELLARAM LAW COLLEGE
Dinshaw Wachha Road, Churchgate Reclamation, Bombay 1.

### MAHARSHI DAYANAND ARTS & SCIENCE COLLEGE
Parel, Bombay 12.

### MARINE COLLEGE AND SEAMEN'S ORPHANAGE
Nhava Island, Bombay Harbour.

*Address :* Hon. Secretary, Managing Board, Nhava House, Queen's Road, Bombay 2.

### M. L. DAHANUKAR COLLEGE OF COMMERCE
Vile Parle, Bombay 57.

### NAIR HOSPITAL DENTAL COLLEGE
Dr. A. L. Nair Road, Bombay 8.

### THE NEW LAW COLLEGE
Tulsi Pipe Road, Bombay 16.

### PARLE TILAK VIDYALAYA'S PARLE COLLEGE
Vile Parle, Bombay 57.

### PEOPLE'S EDUCATION SOCIETY'S SIDDHARTH COLLEGE OF COMMERCE AND ECONOMICS
Anand Bhavan, Dr. Dadabhoy Naoroji Road, Bombay 1.

### PRABHURAM AYURVEDIC COLLEGE
92, Atmaram Road, Bhuleshwar, Bombay 2.

### P.V.D.T. COLLEGE OF EDUCATION FOR WOMEN
1, Nathibai Thackersey Road, Fort, Bombay-1.

### RAMBILAS ANANDILAL PODAR MEDICAL COLLEGE (AYURVEDIC)
Worli, Bombay.

### RAMNARAIN RUIA COLLEGE
Matunga (C.R.), Bombay 19.

### RAMNIRANJAN ANANDILAL PODAR COLLEGE OF COMMERCE AND ECONOMICS
Matunga (C.R.), Bombay 19.

### RISHI DAYARAM NATIONAL COLLEGE & SETH WASSIAMULL ASSOMULL SCIENCE COLLEGE
Bandra, Bombay 50.

### RUPAREL COLLEGE
Tulsi Pipe Road, Bombay 16.

### SECONDARY TRAINING COLLEGE
3, Cruickshank Road, Bombay.

### SETH GORDHANDAS SUNDERDAS MEDICAL COLLEGE
King Edward Road, Parel, Bombay 12.

The Hostel for male students accommodates 231 students and the one for the lady students 42.

### SHRI VILE PARLE KELAVNI MANDAL'S MITHIBAI COLLEGE OF ARTS & CHAUHAN INSTITUTE OF SCIENCE
Vile Parle (West), Bombay 56.

### SIDDHARTH COLLEGE OF ARTS AND SCIENCE
Anand Bhavan, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

### S. I. E. S. COLLEGE OF ARTS & SCIENCE
Sion (West), Bombay 22.

### SIDDHARTH COLLEGE OF LAW
Anand Bhavan, Dr. Dadabhoy Naoroji Road, Bombay 1.

### SIR J. J. COLLEGE OF ARCHITECTURE
Dr. Dadabhai Naoroji Road, Bombay 1.

### S. N. D. THACKERSEY WOMEN'S UNIVERSITY
1, Nathibai Thackersey Road, Queen's Road, Bombay 1.

This is a teaching and affiliating University.

The University began to function as a Statutory Body with effect from 13th January 1951 by an Act known as 'The Shreemati Nathibai Damodar Thackersey Women's University Act No. LI of 1949' and Dr. Smt. Premlila V. Thackersey, D.Litt. was elected as its Vice-Chancellor.

The University conducts an Arts College, a College of Nursing, a College of Education, a College of Home Science, and a School of Library Science at Bombay, and one Arts College and a College of Education at Poona. It also conducts two High Schools at Bombay and Poona. Five Colleges at Ahmedabad, Bhavnagar, Baroda, Surat and Matunga are permanently affiliated to this University and four colleges at Ghatpokar, Fanaswadi, Surendrangar and Visnagar are temporarily affiliated to it. A College at Sholapur has been granted temporary affiliation from the year 1965–66.

The Senate is the Supreme Governing Body. It meets ordinarily twice a year and consists of 93 members ; 40 elected, 12 nominated, 40 ex-officio, and 1 special member. The Annual Convocation for conferring the Degree is generally held in the month of September as decided by the Chancellor.

The executive government of the University is vested in a Syndicate consisting of the Vice-Chancellor, Dr. Smt. Premlila V. Thackersey, the Deputy Director of Education, Smt. Sharda Divan, Dean of the Faculty of Arts, Principals of conducted and affiliated colleges and 10 Fellows elected by the Senate for three years.

*Chancellor :*—Governor of Maharashtra.
*Vice-Chancellor :*—Dr. Smt. Premlila V. Thackersey, D.Litt.
*Dean of the Faculty of Arts :*—Smt. Sharda Diwan, M.A.
*Registrar :*—Smt. Kamalini H. Bhansali, B.A., M.Ed.

*Conducted Colleges :*

1. S. N. D. Thackersey College for Women, Bombay.
2. College of Home Science, Bombay.
3. P.V.D.T. College of Education for Women, Bombay.
4. Lilabhai Thackersey College of Nursing for Women, Bombay.
5. S.H.P.T. School of Library Science, Bombay.
6. S.N.D.T. College for Women, Poona.
7. S.N.D.T. College of Education for Women, Poona.

*Affiliated Colleges :*

1. S.L.U. College for Women, Ahmedabad.
2. Mahila Mahavidyalaya, Baroda.
3. Smt. N. C. Gandhi Mahila College, Bhavnagar.
4. Z. F. Wadia Women's College, Surat.
5. Shri Matunga Gujarati Seva Mandal Women's College Matunga, Bombay 19.
6. Smt. B.M.R. Mahila Mahavidyalaya, Fanaswadi, Bombay 2.
7. S.P.R. Mahila Mahavidyalaya, Ghatkopar, Bombay 77.
8. Smt. M. M. Shah Mahila College, Surendranagar.
9. Shree Mahila Arts College, Visnagar.
10. Mahila College, Sholapur.

*Budget :* 1965–66 :

| | *Recurring* | *Non-Recurring* | *Total* |
|---|---|---|---|
| Income : | 23,78,902 | 3,67,140 | 27,46,042 |
| Expenditure : | 30,08,692 | 11,78,500 | 41,87,192 |

## S. N. D. THACKERSEY COLLEGE FOR WOMEN

**1, Nathibai Thackersey Road, Fort, Bombay.**

## SOMAIYA COLLEGE OF ARTS & SCIENCE

Ghatkopar, Bombay 77.

## SOPHIA COLLEGE FOR WOMEN

**Bhulabhai Desai Road, Bombay 26.**

**Arts Courses up to M.A. and Science Courses up to Inter Science.**

## ST. XAVIER'S COLLEGE

**Cruickshank Road, Bombay 1.**

## ST. XAVIER'S INSTITUTE OF EDUCATION

**15, New Marine Lines, Bombay 1.**

## SYDENHAM COLLEGE OF COMMERCE AND ECONOMICS

**B. Road, Churchgate Reclamation, Bombay.**

## TOPIWALA NATIONAL MEDICAL COLLEGE

**Dr. A. L. Nair Road, Byculla, Bombay 8.**

## WILSON COLLEGE

Chowpatty, Bombay.

## COMMERCIAL AND TECHNICAL SCHOOLS

ANJUMAN-I-ISLAM JAN MOHOMAD CASSUM COMMERCIAL HIGH SCHOOL (Sandhurst Road).

ANJUMAN-I-ISLAM JAN MOHOMAD CASSUM COMMERCIAL NIGHT HIGH SCHOOL (Sandhurst Road).

ELPHINSTONE TECHNICAL HIGH SCHOOL (Cruickshank Road, Dhobi Talao).

HIRJI GHELABHAI SAVLA COMMERCIAL HIGH SCHOOL (Matunga, Central Rly.).

MOHAMED HAJI SABOO SIDDIK TECHNICAL HIGH SCHOOL (Byculla, Shepherd Road).

PRATAPSINH RANCHHODDAS COMMERCIAL HIGH SCHOOL (Ghatkopar, B.S.D.).

PREMIER INSTITUTE OF COMMERCE, Esplanade Mansions, Mahatma Gandhi Road, Kalaghoda and Lalchand Bank Building, 263, D. Naoroji Road, Fort.

PREMIER SCHOOL OF SHORTHAND AND TYPEWRITING 235, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

RATAN VALAVALKAR TECHNICAL HIGH SCHOOL (17th Road, Khar).

R. H. PATUCK TECHNICAL HIGH SCHOOL (Nehru Road, Santa Cruz East).

ROBERT MONEY TECHNICAL HIGH SCHOOL (Proctor Road).

Y.W.C.A. COMMERCIAL SCHOOL (18, Madame Cama Road, Bombay 1).

## INSTITUTE OF CATERING TECHNOLOGY AND APPLIED NUTRITION

Sponsored by the Min. of Food and Agri., Government of India

(TECHNICAL COLLEGE)

**Dadabhai Road, Andheri, Bombay 58.**

*Chairman :* Smt. Lilavati Munshi ; *Principal :* Miss Thangam E. Philip, M.S. (U.S.A.), F.C.F.A., M.H.C.I., M.R.S.H. ; *Technical Adviser :* C. Belfield-Smith, F.H.C.I., F.C.F.A., M.R.S.H., Technical Expert, Food and Agriculture Organization of the United Nations.

## ALEXANDRA COLLEGE OF COMMERCE

(Estd. 1905)

**Prospect Chambers Annexe, Dr. Dadabhoy Naoroji Road, Bombay 1.**

One of the oldest colleges in Bombay, it provides specialised oral/postal training for Indian and foreign Professional Diploma Courses for Cost Accountants, Accountants, Secretarial, Banking and General Commerce.

The College has local centre and the Principal is the Representative in India for several foreign professional bodies.

*Principal.*—Burjor P. Bamji, B.Com., F.I.C.S., F.A.C.A.

## DAVAR'S COLLEGE OF COMMERCE, LAW, ECONOMICS AND BANKING

(Estd. 1900)

**Jehangir Wadia Building, 51, Mahatma Gandhi Road, Fort, Bombay.**

The College specialises in Professional Education such as for Bank Officers, Company Secretaries, Cost Accountants, Income-tax & Sales Tax Experts, Personal Secretaries, etc., and also provides courses in Management in its air-conditioned Management Wing.

**Postal tuition—A special facility for up-country students.**

*Jt. Principals :* Rustom S. Davar, M.B.A. (Standford, U.S.A.), F.C.C.S. (Lon.), M.S.M.A. (Lon.), Bar-at-Law ; Nanabhoy S. Davar, S.M. (M.I.T., U.S.A.), A.M.B.I.M. (Lon.), F.C.C.S. (Lon.), F.C.A., Chartered Accountant ; Khorshed D. P. Madan, F.C.I.S. (Lon.), F.C.C.S. (Lon.), A.M.B.I.M. (Lon.), LL.B., Advocate (O.S.).

## LAXMI COLLEGE OF COMMERCE

**Sharadashram Vidyamandir, Dadar, Bombay 28.**

Estd. 1932. For careers in Costing (AICWA), Company Secretary (GDCS), Incorporated Secretary (ACCS), Banking (CAIIB), and Commerce (D. COM.).

BOARD OF MANAGEMENT

*Joint Principals :* R. S. S. Iyer, B.Sc., F.C.W.A., F.I.C.W.A., M.B.I.M., and R. V. S. Mani, LL.B., A.C.W.A., A.I.C.W.A., F.C.C.S., A.M.B.I.M., A.M.P.O.A.

## THE LAXMI INSTITUTE OF COMMERCE

**Sharadashram Vidya Mandir, Bhavani Shankar Road, Dadar, Bombay 28.**

## LINGUAPHONE INSTITUTE (INDIA) PRIVATE LTD.

**359, Dadabhoy Naoroji Road, Flora Fountain, Bombay 1.**

**The Linguaphone Institute provides courses in 34 different European and Eastern languages.**

## TECHNICAL INSTITUTIONS

ADARSHA ART TAILORING COLLEGE (Hanuman Road, Vile-Parle).

ADARSHA KALA KENDRA (D. L. Vaidya Road, Dadar, Bombay).

ADARSHA MAHILA CLASS (Kama Lane, Ghatkopar, Bombay).

ADVIRKAR TAILORING COLLEGE (316A, Hemraj Wadi, Thakurdwar, Tram Naka, Bombay 2).

AMULAKH AMICHAND BHIMJI VIVIDHLAKSHI VIDYALAYA (Behind Aurora Cinema, King's Circle, Bombay-19).

ANJUMAN-E-TALIMUL MUSALMAN, SEWING & CUTTING CLASS (Pinjara Chawl, Clerk Road, Bombay-11).

A. S. PATEL ACADEMY FOR DOMESTIC ARTS (Classes attached to Bai Bhikajee S. Bengalee Girls' High School, 42, New Marine Lines, Fort).

B. J. KATRAK TRAINING CLASSES (723, Dinshaw Master Road, Parsee Colony, Dadar, Bombay 14).

B. N. GAMADIA PARSEE HUNNARSHALA (Gamadia Parsee Colony, Tardeo, Bombay).

BENNE ISRAEL STREE MANDAL CLASSES, Sajan Bldg., 2nd Peerkhan Street, Bombay 8.

BHAGINI SAMAJ (Tardeo Kendra, Sonawala Building Hall, Tardeo, Bombay 7).

BHAGINI SAMAJ BHULESHWAR CENTRE (Jai Hind Estate Building, 3 South Wing, 1st Floor, C.P. Tank, Bombay).

BHAGINI SAMAJ CHANDABEN UDYOGA MANDIR (225, Khetwadi Main Road, Bombay).

BHAGINI SEVA MANDIR (Sarojini Road, Vile Parle, Bombay 57).

BHARATIYA KALA KENDRA (388, V. P. Road, Ahilya Bldg. Near Congress House, Bombay 4).

BHARTIYA KALA VIKAS (Prashant, 17th Road, Khar, Bombay 51).

BHARTIYA STREE SEVA SAMAJ (25, B. Sonawala Bldg. No. 8, Sleater Road, Tardeo, Bombay-7).

BHARATIYA STREE SEVA SANGH (Bharatiya Vidya Bhuvan, Chowpatty, Bombay 7).

BHATIA STREE MANDAL (Mangesh Shenoy Street, Fort, Bombay).

BHATIA STREE HUNAR UDYOG GRIHA (Kolbhat Lane, Kalbadevi, Bombay-2).

BOMBAY TECHNICAL SCHOOL (C/o Saraswati School, Girgaum, Bombay 4).

BRAHMAN SABHA MAHILA SHAKHA (Shankar Wadi, 190, Charni Road, Bombay 4).

CHEMBUR CHILDREN'S HOME (Chembur).

CHEMBUR TAILORING COLLEGE (Near Bus Stand, Chembur Camp, Chembur, Bombay 71).

COLLEGE OF CATERING AND INSTITUTIONAL MANAGEMENT, Andheri.

CUTCHI LOHANA SAHAKARI MANDAL, Mahila Hunnar Udyog Griha, Laxmi Narayan Lane, Matunga (C.R.), Bombay.

DADAR ELECTRIC INSTITUTE (Bole Wadi, Near Portuguese Church, Dadar, Bombay 28).

DAVID SASSOON INDUSTRIAL SCHOOL (83, Lady Hardinge Road, Mahim).

DAWOODBHOY FAZALBHOY MUSLIM WOMEN'S HANDICRAFT INSTITUTE (42, Pydhonie Road, Khadak, Bombay).

DESHASTHA MARATHA DNYATI DHARMA SANSTHA SHIVAN KALA KENDRA (6, Raghunath Maharaj St., Mandvi, Bombay-3).

ELECTRONIC INSTITUTE (364-C-D, Lodiwala Joshi Compound, N. C. Kolhari Rd., Dadar, Bombay 28).

GENERAL OFFICE TRAINING INSTITUTE (371, Dr. D. N. Road, Bombay-1).

GHATKOPAR STREE HUNNER UDYOG SHIKSHAN VARGA (Mahatma Gandhi Road, Ghatkopar).

GHATKOPAR STREE HUNNER UDYOG SHIVAN VARGA (Hansraj Morarji Wadi, Mahatma Gandhi Road, Ghatkopar, Bombay).

GHELABHAI PUNSEY MAHILA UDYOG GRIHA (12, Dr. Maisari Road, Bombay-9).

GOVERNMENT LEATHER WORKING SCHOOL (Bandra).

GOVERNMENT POLYTECHNIC (C/o Elphinstone Technical High School Compound, Bombay-1).

GOVERNMENT TANNING INSTITUTE (Bandra).

GOVT. TECHNICAL HIGH SCHOOL (Vile Parle, Bombay 57).

GUJARATI HINDU STREE MANDAL (Amroli House, Vithalbhai Patel Road, Bombay 4).

GUJARATI HINDU STREE MANDAL (Hiravati Hall, Tagore Road, Santa Cruz, Bombay 54).

GUJARATI MAHILA KALA KENDRA (Bombay City Social Edn. Committees), Bhawani Shankar Road, Dadar.

HALAI MEMON INDUSTRIAL HOME (93, Memon Wada, Bombay-3).

HANDICRAFTS TEACHERS TRAINING COLLEGE (Near Worli Sports Club, Dr. Annie Besant Road, Bombay 18).

HIND MAHILA SAMAJ, Cutch Castle, Opp. Opera House, Bombay-4.

I. I. T. CENTRAL SCHOOL, Powai, Bombay 76.

INDUSTRIAL ARTS SCHOOL (262, Rane Building, Charni Road, Bombay 4).

INDUSTRIAL TRG. INSTITUTE (Arthur Road, Bombay 11).

INSTITUTE OF RADIO TECHNOLOGY (Jestharam Baug, Tram Terminus, Dadar).

JAIN MAHILA SAMAJ (Mangrol Mansion, Bora Bazar, Fort, Bombay 1).

KALA MANDIR (C/o Girgaum New English School, Mughbhat Naka, Bombay 4).

KANDIVLI STREE MANDAL, Ghodbunder Road, Kandivli.

KANDIVLI TAILORING & EMBROIDERY INSTITUTE, Dhanmal Vidya Bhavan, Mathuradas Road, Kandivli.

KASTURBA MAHILA MANDAL, Jivan Prakash, Tulsi Pipe Rd., Mahim, Bombay-16

KATCHI LOHANA MAHAJAN MAHILA MANDIR (Narottam Road, Mulund).

KSHATRAIKYA SAMAJ KALA KENDRA (Vanmali Hall, Dadar, Bombay).

KUMBARWADA SANSKAR KENDRA (Mahila Mandal, Durgadevi Park, Bombay-4).

LADIES INDUSTRIAL HOME (C. K. P. Hall, Linking Road, Khar, Bombay).

LOHANA BHAGINI UDYOG GRIHA (286, Samuel Street, Vadgadi, Bombay 3).

LOHANA MAHILA PARISHAD MAHILA UDYOG GRIHA (Netaji Road, Mulund).

LOKMANYA SEVA SANGH (Tilak Mandir, Vile Parle, Bombay 57).

M. G. TEXTILE TECHNICAL SCHOOL (Damodar Thackersey Moolji Hall, Parel, Bombay 12).

MADARASHAH TAIYABI HUSSEIN CUTTING CLASS (Saifi Masjid, Doctor Street, Bombay 3).

MAHILA KALA BHAVAN, Vinayak Bhavan, Opp. Diamond Talkies, Borivli.

MAHILA KALA BHUVAN (D. L. Vaidya Road, Rammurat Road, Dadar, Bombay 28).

MAHILA KALA BHUVAN (Kunte Building, Vithalbhai Patel Road, Girgaon, Bombay 4).

MAHILA KALA KENDRA (Tank Bldg., Bhuleshwar, Bombay-2).

MAHILA KALA KENDRA (Santa Cruz, Bombay 54).

MAHILA KALA KENDRA TARABEN UDYOGA GRIHA (Sa Niketan, Chandavarkar Lane, G. B. Road, Borivli).

MAHILA KALA MANDIR, Brahmin Sabha Building, Underai Cross Road, Malad.

MAHILA KALA MANDIR (Laxmi Sadan, Vithalbhai Patel Road, Bombay 4).

MAHILA KALA NIKETAN (Gamdevi, Bombay 7).

MAHILA SEVA MANDAL INDUSTRIAL CLASSES (Jubilee Bldg., Damodar Hall, Parel).

MAHILA SEVA SADAN, Plot 205, Opp. Vadala Station, Vadala, Bombay-31.

MAHILA PARISHAD, BHAIDAS LIBRARY, SEWING CLASS (Versova Road, Andheri).

MAHIM HINDU MAHILA SANGH (Amirani Mansion, Station Road, Mahim, Bombay 16).

MALAD MAHILA SHIVAN VARGA, Shanti Sadan, Marve Road Malad.

MATUNGA GUJARATI HINDU STREE MANDAL (Near Aurora Cinema, Matunga, Bombay-19).

MODEL INDUSTRIAL INSTITUTE (388, Vithalbhai Patel Road, Near Congress House, Girgaon, Bombay 4).

MODERN TAILOR & CUTTER ACADEMY (Gool Mahal, Sleater Road, Bombay-7).

MODERN TAILORING COLLEGE (Central Riy. Stores Lane, Patri Chawl, Lower Parel, Bombay 13).

MOGAVEERA FREE INDUSTRIAL SCHOOL FOR WOMEN (46 Vir Nariman Road, Fort, Bombay).

MOHD. HAJI SABOO SIDDIK TECHNICAL SCHOOL & INSTITUTE (8, Shepherd Road, Byculla, Bombay 8).

MULODYOGA SHIKSHANA KENDRA (Lady Jamshedji Road, Municipal Upper Primary Marathi School, Ranade Road, Dadar, Bombay).

MULUND COLONY NARI SHALLA (Mulund).

NARI SHALLA (T. 44, Chembur Camp, Chembur, Bombay 71).

NAVABHARAT AUDYOGIK VIDYALAYA (Girgaon Municipal Marathi Boys' School, Girgaon, Bombay 4).

NAVA BHARAT KALA MANDIR (336, Bhai Jivanjee Lane, Thakurdwar, Bombay 2).

NAVYUG TAILORING COLLEGE (Narvekar's Anant Nivas, Arthur Road, near Chinchpokli Bridge, Bombay 12).

NEETA MAHILA TAILORING CLASS (Shivanmahal, Near Chinchbunder, Bombay).

NEW INDIA TAILORING COLLEGE (Jawahar Nagar, Bandra, Bombay).

NEW PEDNEKAR TAILORING COLLEGE (Contractor Building, First Floor, 2nd Dubash Lane, V. P. Road, Bombay 4).

NORTH INDIAN ASSOCIATION, LADIES SEWING CLASS (Manu Mahal, King's Circle, Bombay 19).

NUTAN MAHILA KALA BHUVAN (Vishnu Sadan, Hindu Colony, 4th Road, Dadar, Bombay 14).

PATHARE PRABHU MAHILA SAMAJ CUTTING AND SEWING CLASS (333, Thakurdwar, Bombay).

PATUCK POLYTECHNIC, Nehru Road, Santa Cruz (East), Bombay-55.

PRABHADEVI SANKAR KENDRA, Mahila Mandal, Khed Galli, Prabhadevi Road, Bombay-28.

PRIYATAM DHARMA SABHA (Sind Seva Samiti Nagar, Kolwada, Bombay 22).

R. V. TECH. HIGH SCHOOL, 17th Road, Khar, Bombay 52.

RADIO ELECTRIC INSTITUTE (Lamington Chambers, Lamington Road, Bombay 4).

SARVODYA WOMEN'S CO-OPERATIVE SOCIETY, 153-A, Jain Society, Sion, Bombay-22.

SARASWAT BRAHMAN SAMAJ (Nikadwari Lane, Girgaon, Bombay 4).

SCHOOL OF PRINTING TECHNOLOGY, J. J. SCHOOL OF ART, Bombay.

SEVA SADAN SOCIETY (Harvey Road, Gamdevi, Bombay 7).

SEVA SAMAJ MARWADI BUNGALOW, Borivli.

SHIVAN KALA KENDRA (Naigaon Labour Welfare Centre, Naigaon, Bombay-14).

SHIVAN KALA MANDIR, Jamat Khana Bldg., Kurla, Bombay-70.

SHRI BAGNAVI PANCHAYAT NAVISHALA (Panchayat Hall, 162B, Cadell Road, Mahim, Bombay-16).

SHRI DHARMA SHIKSHAN & NIRASHRIST SAHAYAK MANDAL (Shivaji Hall, Byculla, Bombay).

SHRI JAIN MAHILA SAMAJ, Palanji Sojpal Chawl, "A" Block, Portuguese Church St., Dadar, Bombay.

SHRI JAIN SHWETAMBER CONFERENCE UDYOGA GRIHA, Lotisha Jain, Lalbag, 109-117, C. P. Tank Road, Bombay 4.

SHRI KOT HINDU STREE MANDAL, 45, Modi Street, Fort, Bombay-1.

SHRI LAD MAHILA MANDAL (Lad Wadi, C. P. Tank), Bombay.

SHRI LOHANA MANDAL (Maha Parishad Bhavan, 10, Khetwadi, 4th St., Bombay-4).

SHRI VANITA VIKAS MANDAL (Sakarbai Damji Kheraj Bungalow, Trivedi Road, Mulund, Bombay).

SIR J. J. COLLEGE OF ARCHITECTURE, J. J. School of Art Compound, Bombay.

SIR J. J. INSTITUTE OF APPLIED ARTS, J. J. School of Art Compound, Bombay.

SITA'S TAILORING INSTITUTE, Sharda Bhuwan, IInd Floor, Station Road, Kandivli.

ST. XAVIER'S COLLEGE TECHNICAL INSTITUTE (Cruickshank Road, Bombay 1).

STRAND TAILORING COLLEGE (Room No. 24, Abdulla Bldg., Fergusson Road, Lower Parel, Bombay 13).

STREE MITRA MANDAL (Aurora Vistar) (Zaveribhai Hall, B. N. Kapol Nivas, 54/57, R. A. Kidwai Road, Bombay).

VANITA SAMAJ (National Library Hall, Bandra, Bombay 50).

VANITA VIKAS (120-33, Fanaswadi, Bombay 2).

VICTORIA JUBILEE TECHNICAL INSTITUTE (Matunga, Bombay 19).

VICTORIA JUBILEE TECHNICAL INSTITUTE (Govt. Apprentices Scheme, Matunga, Bombay 19).

VIDYUT SHIKSHAN KENDRA (Near Ahmed Tailor Bldg., Vincent Road, Dadar, Bombay).

VIDYUT VIDYALAYA (C/o Ram Mohan English School, Girgaum, Bombay 4).

VIENNA TAILORING COLLEGE (Haroon Rangari Chawl, Opp. Vijayanagar, Dadar, Bombay 28).

VIJAYA VIDYALAYA TAILORING CLASSES (Mohd. Mansion, Dr. Maheshwari Road, Bombay 9).

VILE PARLE GUJARATI MANDAL (Shraddhanand Road, Vile Parle (East), Bombay 57).

VIVEKANAND EDUCATION SOCIETY (Vivekanand Housing Society, Lady Hardinge Road, Bombay-16).

WADALA MAHILA MANDAL (H. No. 909, Katnak Road, Bombay-31).

YESHWANT TAILORING AND CUTTING COLLEGE (Opp. Post Office, Agra Road, Bhandup).

YOUNG MEN'S HINDU ASSOCIATION (Vithalbhai Patel Road, Bombay 4).

ZARAPKAR TAILORING COLLEGE (Bhavani Shankar Road, Dadar, Bombay 28).

## MISCELLANEOUS

### ACADEMY OF ARCHITECTURE

Javeri House, 110, Medows Street, Fort, Bombay.

*Director :* S. H. Wandrekar ; *Principal :* C. K. Gumaste.

### ALLIANCE FRANCAISE DE BOMBAY

French Bank Building, 21, Homji Street, Fort, Bombay.

Central Audio-Visual : Dhanraj Mahal, Apollo Pier Road, Bombay 1.

The aim of the Alliance Francaise is to make known French language, thought and culture.

OFFICE-BEARERS :—Dr. Sageer, *President ;* H. Fuseillier, *Cultural Attache, Director ;* A. Bourgault, *Honorary Treasurer.*

### ALL INDIA EDUCATIONAL & VOCATIONAL GUIDANCE ASSOCIATION

25, Souter Street, Bombay-8.

*President :* (Dr. (Mrs.) Perin H. Mehta ; *Vice-Presidents :* Dr. Jamuna Prasad, Dr. H. Dutt ; *Gen Secretary :* B. S. Gokral.

### ALL INDIA INSTITUTE OF PHYSICAL MEDICINE AND REHABILITATION

Haji Ali Park, Clark Road, Mahalaxmi, Bombay 34.

Rehabilitation Centre for the Orthopaedically Handicapped with the following Physical Medicine Services :—

Orthopaedics, Physiotherapy, Occupational Therapy, Medical Social Work, Vocational Training and Counselling, Rehabilitation Nursing, Speech Therapy, Prosthetics and Orthotics.

The Institute also conducts Post-graduate training courses in Rehabilitation for the above professions.

### ALL INDIA INSTITUTE OF LOCAL SELF-GOVERNMENT

(Established in 1951.)

11, Horniman Circle, Bombay-1.

An association of Local Bodies established with a view to advancing the study and knowledge of the principles and practice of Local Self-Government.

Conducts (*i*) Post Graduate Classes for Officers of Local Bodies for L.G.S. Diploma recognised by the Government of India, (*ii*) Training Classes for Local Self-Government Service, awards L.S.G. Diploma, recognised by the Ministry of Health and various State Governments and (*iii*) the Sanitary Inspectors Training Classes.

Has been recognised by the University of Bombay as an Institution qualified to guide post-graduate students for the Ph.D. degree in Politics (Local Self-Government).

Maintains a big Library and runs a book depot of publications on Local Self-Government subjects. Conducts five Journals in English, Marathi, Gujarati, Hindi and Kannada.

Tenders free legal and technical advice to Local Bodies, acts as Central Stores Purchasing Agency, holds periodical Conferences of Local Bodies, and renders other numerous services.

### ANGLO-SCOTTISH EDUCATION SOCIETY

6, Outram Road, Fort.

### ANJUMAN-I-ISLAM

92, Dr. Dadabhoy Naoroji Road, Bombay 1.

The Anjuman-i-Islam, originally founded in 1875, is an association registered under the Indian Companies Act. It conducts :

3 Boys' High Schools ; 1 Boys' Middle School ; 1 Boys' Residential School ; 1 Technical High School ; 1 Polytechnic ; 2 Commercial High Schools ; 2 Girls' High Schools with Primary Sections ; 1 Girls' Primary School ; 1 Urdu Research Institute for Post-Graduate Studies ; 1 Public library and reading room ; 1 Boy's Hostel ; 1 Night School for adults ; 1 Children's Foundling Home ; 2 Girls' Orphanages ; 1 Printing Press and 1 Publishing House.

*President.*—Akbar A. Peerbhoy, Bar-at-Law ; *General Secretary.*—S. S. Desnavi.

### ARYAN EDUCATION SOCIETY

75, Girgaum Road, Bombay 4.

*Chairman :* Mr. Justice M. G. Chitale ; *Secretaries :* S. G. Upasani, S. B. Damle ; *Principal :* R. C. Kher.

### AYURVIDYA PRASARAK MANDAL

(Ayurvedic Hospital and College).

Near Sion Railway Station, Sion, Bombay 22.

### BALAK MANDIR

C/o P. K. V. Samaj, Gamdevi, Bombay 7.

The Institution was founded in June 1949 by the Pathare Kshatriya Vaktrutwottejak Samaj to impart education to children through Montessori methods.

*President :* Manik Ramchandra Pathare ; *Hon. Treasurer :* Smt. Gangubai Vasant Dholekar, B.A. ; *Hon. Secretary :* Prabhakar Ramchandra Pansare.

## BANKERS TRAINING COLLEGE

(Reserve Bank of India)

Cadell Road, Dadar, Bombay 28.

*Principal :* T. A. Vaswani.

## BHARATIYA VIDYA BHAVAN

Chowpatty Road, Bombay 7.

Bharatiya Vidya Bhavan, a unique institution, devoted to the promotion of education, art and culture, conducts Shastric studies, on indigenous lines and Indological research on lines developed in the West and the dynamic cultural activities of resurgent India looking forward to the future. It conducts (*i*) Mumbadevi Sanskrit Mahavidyalaya for Shastric studies ; (*ii*) Gita Vidyalaya for study of Bhagawad Gita ; (*iii*) Mungalal Goenka Samshodhan Mandir for post-graduate studies and research in indology ; (*iv*) M. M. College of Arts and N. M. Institute of Science for courses leading to M.A., B.Sc., and Ph.D. of the Bombay University ; (*v*) Hazarimal Somani College of Arts and Science for courses leading to B.A., B.Sc.. (*vi*) Ranchhodlal Acharatlal College of Arts and Science at Ahmedabad for courses leading to B.A., B.Sc., (*vii*) Bhavan's College of Arts and Science at Dakor (Gujarat) for courses leading to B.A., B.Sc., (*viii*) Sardar Patel College of Engineering, Bombay for courses leading to B.E., (Electrical, Mechanical and Civil) ; (*ix*) College of Journalism, Advertising and Printing ; (*x*) Munshi Saraswati Mandir ; a Library consisting of over 65,000 volumes including many on Indology and a Museum of old and valuable palm leaf manuscripts, coins, paintings, etc. (*xi*) Bhavan's Public School, New Delhi ; (*xii*) Academy of Languages in Bombay and New Delhi ; (*xiii*) Conducts Sanskritik Vikas Yatra (Educational-cum-Cultural Tours) to various pilgrim centres and places of historical interest ; (*xiv*) Samskriti Vichara Samiti. : a forum for discussion on subjects dealing with spiritul and higher values ; (*xv*) Bhavan International : a Department to develop and foster goodwill and friendship amongst Bhavan's numerous contacts abroad ; (*xvi*) Bhavan's Kendras and Branches : at Ahmedabad, Bangalore, Calcutta, Coimbatore, Dakor, Delhi, Hyderabad, Kanpur, Kashmir, Madras, Mauritius, Stuttgart (West Germany), California and Nashville (U.S.A.) ; (*xvii*) Bharatiya Sangit Shikshapith for Classical Music ; (*xviii*) Bharatiya Nartan Shikashapith for Indian dances ; (*xix*) Bharatiya Kala Kendra for Fine Arts and Dramatics ; (*xx*) Bharatiya Itihas Vibhag which has undertaken the scheme of publication of the *History and Culture of Indian People* in 11 volumes ; (*xxi*) Prakashan Mandir : Publishes Book University Series of paperback books, Munshi Sahitya, Bharatiya Vidya, (Indological Quarterly) "Samvid" (Sanskrit Quarterly), "Bhavan's Journal" (English Fortnightly). "Bharati" (Hindi Fortnightly), "Samarpan" (Gujarati Fortnightly). It conducts examinations in easy Sanskrit on all-India basis at which 50,000 students appear every year. Its research work consists of 76 volumes published, an equal number under print and more under preparation. Many Chairs and Scholarships are established for study and research. Many scholars of All-India reputation are on the staff.

*President :* Dr. K. M. Munshi ; *Vice-Presidents :* Sir H. V. Divatia, Smt. Lilavati Munshi ; *Hon. Secretaries :* Sarvarshri Jasvantlal Matubhai, Shrigopal Nevatia, J. M. Barot, C. L. Gheewala ; *Hon. Treasurers :* Sarvasri Shriyans Prasad Jain, Charandas Megji. Motilal Tapuriah, Bhupendra Munshi.

*Hon. Director :* J. H. Dave ; *Jt. Director and Executive Secretary :* S. Ramakrishnan ; *Registrar :* D. Sivaramakrishnan : *Chief Accounts Officer :* J. H. Patel.

*Trustees :* K. M. Munshi, H. V. Divatia, Smt. Lilavati Munshi, J. M. Shelat, R. D. Birla, D. M. Khatau, Charandas Megji, K. K. Birla, Girdharilal Mehta, Rajendra Singh Singhi, Harilal G. Sonawala, Jasvantlal Matubhai, Pravinchandra V. Gandhi.

## BOMBAY CITY SOCIAL EDUCATION COMMITTEE

Samaj Shikshan Mandir, Adarsha Nagar, Worli, Bombay 18.

The Committee imparts Social Education including instruction in community and individual health, hygiene, civics and literacy both in theory and practice to men and women in the city of Bombay.

The Committee has a Special Scheme for educating workers in mills and factories also.

*Activities :*—The Committee runs 1,300 literacy and 550 post literacy centres per year in Marathi, Gujarati, Hindi, Urdu, Kannada and Telugu ; arranges cultural programmes every week ; cinema programmes every day ; circulates library boxes ; arranges general science and other exhibitions for the enlightenment of the illiterate masses and also organises cleanliness programmes. The Committee arranges teachers' training courses. Every year, an excursion and community recreation programme is arranged for the benefit of nearly one thousand adult pupils and workers of the Committee. It has also established 14 Community Radio centres in the labour areas. It conducts 7 Matru Vikas Kendras for lower middle class women.

*Finances :*—The annual expenditure is about Rs. 3,50,000. The Government of Maharashtra pays 60 per cent of the annual expenditure and the Bombay Municipal Corporation contributes about 20 per cent. Among others, Sir Dorabji Tata, Sir Ratan Tata Trust, Mahalaxmi Temple Trust, and N. M. Wadia Charities make regular yearly contributions. A special annual feature is the Social Education Week which is celebrated to collect funds and to awaken consciousness among the public for the urgent need of Social Education.

*Achievements :*—During the last 26 years, the Committee has enrolled 8,61,593 adults in its literacy classes out of whom 4,86,301 adults including 1,09,509 women have passed the literacy and social education test. In addition 3,01,150 adults (2,17,118 men and 84,032 women) were attending the post literacy classes of whom, 1,18,395 passed the post literacy test.

During the last 26 years the Committee has spent Rs. 68,01,051 over this movement.

*President.*—Smt. Sulochana Modi ; *Secretary.*—G. K. Gaokar.

## BOMBAY CO-OPERATIVE SCHOOL

11, Bank Street, Fort, Bombay 1.

*Principal,* K. R. Dengle. *Registrar,* G. V. Sadhale.

## BOMBAY DUMB & DEAF INSTITUTION

Kakadwadi, Girgaon, Bombay 4.

The above institution was started in 1925. Dumb and deaf boys and girls are taught here to write, read and sew and also cane & paper work. Admission is given to the needy irrespective of caste and creed. More than 514 students have had the benefit of this charitable institution so far. Almost all of them now earn their own livelihood.

*Trustees :* N. D. Kamat, Smt. S. S. Medhekar, K. M. Upadhye.

## THE BOMBAY EDUCATION INSTITUTE

Ganga Nivas, Ranade Road,

Dadar (Western Railway), Bombay 28.

The institute conducts courses in commercial subjects. It holds morning and evening classes.

## BOMBAY EDUCATION SOCIETY

Clare Road, Byculla, Bombay 8.

*President :* The Rt. Rev. C. J. G. Robinson, M.A., Bishop of Bombay ; *Vice-President :* S. P. Whaley ; *Hon. Treasurer :* W. I. Jacobs, B.A., A.C.A. : *Hon. Secretary :* The Ven. H. V. Paul.

*The two Schools governed by the Society :*

Barnes High School, Deolali, (Nasik) ; Christ Church High School, Clare Road, Byculla, Bombay 8. The two Schools prepare candidates for Indian School Certificate Examination.

## BOMBAY EDUCATIONAL LEAGUE

(Estd. 1933)

Shri Bhuwan, IInd Floor,

169/20, Thakurdwar Road, Bombay 2.

The League is running the Colaba Night School since 1933 through English Medium and caters to all communities and castes. Total Strength is 200. 1965-66 is the Silver Jubilee year. Expected to open a NEW NIGHT HIGH SCHOOL in COLABA LAND MILL COMPOUND in 1964.

*President :* Sardar Bahadur Bakshi Dalip Singh ; *General Secy. :* A. P. Pardeshi ; *Treasurer :* Tukojirao S. Rane.

## BOMBAY HIGHER EDUCATION SOCIETY

(Founded 1958)

208, Dinshaw Watcha Road, 2A, Mistry Court, Bombay 1.

AIMS AND OBJECTS : To provide and promote higher education by giving financial aid to the needy and deserving students belonging to the educationally-backward communities.

*President :* M. Fakih ; *Vice-President :* H. H. Ismail.

## THE BOMBAY SCHOOL OF REFRACTION

(for the scientific correction of vision).

Parker Bldg. 10, Cawasji Patel Street, Bombay 1.

## THE BRITISH COUNCIL

REGIONAL OFFICE.—French Bank Bldg., 4th Floor, Homji Street, Bombay 1.

*Library :*—N. K. Mehta International House, 178, Backbay Reclamation, Bombay 1.

Poona Branch Library :—917/1 Shivajinagar, Fergusson College Road, Poona-4.

Bhopal Branch Library :—Tagore School of Fine Arts Building, Central T. T. Nagar, Bhopal.

The British Council is a body under Charter to Her Majesty the Queen and is the principal agent of Great Britain for the development of cultural relations with foreign and Commonwealth countries. It works in some seventy countries, in addition to extensive activities in the United Kingdom itself.

Its purpose and work are to convey knowledge of Britain to other countries. This it does by encouraging the flow of knowledge, ideas, and understanding between the technical, professional, and learned men and societies of Britain and those of countries abroad; it assists in English language teaching and in the promotion of English studies; it awards a small number of scholarships each year for post-graduate study in Britain; it concerns itself with the welfare of overseas students in Britain, and maintains centres in most of the university towns; it arranges courses and programmes of a professional nature for visitors to Britain, and it has administrative and welfare responsibilities for fellows and scholars of the United Nations agencies, for Colombo Plan trainees, and for beneficiaries under the established Commonwealth Universities Interchange Scheme as well as the latest Schemes for Educational Co-operation in the Commonwealth. The Council also acts as the overseas arm of Voluntary Service Overseas.

The Bombay Library and Reading Room contains 50,000 books on literary and technical subjects, and a large collection of over 280 periodicals. Poona branch library has 18,000 books and 100 periodicals. Bhopal branch library opened in May 1965 has a stock of 7,000 Volumes and 90 periodicals.

*Headquarters :* 65, Davies Street, London W. 1.
*Headquarters in India :* 21, Jorbagh, New Delhi 3.
Other Regional Offices in Calcutta and Madras.

Branch libraries in Poona, Bangalore, Lucknow, Trivandrum Patna, Ranchi and Bhopal.

## THE BRITISH INSTITUTE OF ENGINEERING TECHNOLOGY

(India) Pvt. Ltd.
359, D. Naoroji Road, Bombay 1.

Provides postal courses for recognised professional examinations.

*Tack Training Division :*—Provides training service for Company-sponsored candidates in Salesmanship and Human Relations, Sales Supervision and Area Management, Service Engineer, Effective Communication, etc.

*B. I. Publications :*—Publishing and wholesaling.

*Linguaphone :*—Most modern method of learning languages quickly and with the correct accent through gramophone records and illustrated texts.

## CENTRAL TRAINING INSTITUTE FOR INSTRUCTORS

Sion Chembur Road, Bombay-70.

*Principal and Dy. Central Apprenticeship Adviser :* G. D. Tawney ; *Asstt. Director of Training & Asstt. Central Apprenticeship Adviser :* R. N. Kulkarni ; *Vice-Principal,* V. M. Raghavan ; *Registrar :* S. Krishnaswami.

## CHANDRASENIYA KAYASTHA PRABHU EDUCATION SOCIETY

67, Vijayanagar, Dadar, Bombay 28.

*President :* R. B. Kotwal, B.Sc., LL.B. ; *Chairman :* S. S. Gupte, B.Sc. ; *Secretaries :* P. S. Tipnis, A. T. Korde, K. S. Mokashi.

## THE DADAR PARSEE YOUTHS' ASSEMBLY

Perviz Hall, 800, Jam-e-Jamshed Road, Parsee Colony, Dadar.

S. S. C. & Pre-S. S. C. Classes, Commercial Classes, Hindi Classes, Shorthand & Typing Classes, Loaning of Books to students, Small Scale Industries, High School.

## THE DAWOODBHOY FAZALBHOY MUSLIM EDUCATIONAL TRUST

42, Pydhoni Road, Bombay 9.

*Trustees :* Mrs. Z. H. Rahimtoola, Y. C. Chinwala, S. H. Dossal, H. A. Panjoo.

Conducts The Dawoodbhoy Fazalbhoy Women's Handicraft Institute, Home Science, Primary & Nursery Schools. Awards Scholarships and Loans for higher studies in Colleges.

## DEODHAR'S SCHOOL OF INDIAN MUSIC

Mody Chambers, French Bridge Corner, Bombay 4.

## DEVGAD EDUCATION BOARD

C/o Dr. M. V. Rege, 173, Khadilkar Road, Girgaum, Bombay 4.

## DOCKYARD APPRENTICE SCHOOL

Naval Dockyard, Fort.

Dockyard Apprenticeships are offered to boys between 14–19 years under Apprenticeship Act 1961 twice yearly in January and July. Competitive examinations and interviews are held in various recruiting centres in India. Period of apprenticeship three years.

*Officer-in-Charge,* Commander S. D. Mazumdar.

*Senior Instructor Officer,* Lieut.-Commander M. K. Dass, I.N.

## "DUFFERIN," TRAINING SHIP

Off Mazagon Pier, Bombay 10.

(Under the administrative control of the Government of India, Ministry of Transport).

The "Dufferin" is a pre-sea training ship for cadets aspiring to become Navigating Officers and ultimately the Captain of a ship in the Merchant Navy. A large number of Dufferin ex-cadets are also employed as officers in the Indian Navy, Port Services, Mercantile Marine Department and other ancillary services.

The course is of 2 years duration and consists of educational and professional subjects, stress being laid upon officer-like qualities and physical proficiency. All cadets are resident on board and are required to be physically fit to take part in all ship's activities. On satisfactory completion of training, cadets are accepted in sea-going ships of the Merchant Navy for 3 years apprenticeship. After passing the Ministry of Transport Certificate of Competency they become qualified for appointment as Navigating Officers.

The age limits for admission are 15½ to 18 years on the 1st of July of the year of entry. Annually about 80 cadets who have matriculated are selected on the basis of an all-India qualifying examination, and interview. The approximate total cost to a parent is about Rs. 2,600. A large number of scholarships ranging in value from Rs. 400 to Rs. 1,800 are available.

The first cadets joined the Training Ship in November 1927 since when 1,457 cadets have been trained for a sea career ; in addition between the years 1936 and 1949, 287 cadets were trained for the Engineering Branch. Of the 1,457 cadets, 590 are Officers in the Merchant Navy, 55 are serving in the Indian Navy, 245 in the Port Services and 75 are serving in the ancillary and other services. In addition, there are 160 cadets in training on board the ship.

The "Dufferin Committee" under the auspices of the Merchant Navy Training Board presided over by the Minister of Transport, with the Director General of Shipping as Chairman is the Advisory Body.

*Captain Superintendent.*—Captain D. G. Hazari, M.I., Mar., Tech., J.P.

## FIDAI ACADEMY & GIRLS' EDUCATIONAL INSTITUTE

Fidai Baug, Marzban Road, Andheri (Bombay).

Conducted By—The followers of H.H. The Agakhan's Ismaili Community.

Maintains 240 needy boys and girls.

*President (Boys) :* Mahomed Alibhai Mahomed ; *President (Girls) :* Ismail Jaffer Maherali ; *Hon. Jt. Secretaries (Boys) :* Shamshuddin K. Budhwani, Andulaziz H. Kadwani and Kassamali B. Pirani ; *Hon. Secretary (Girls) ;* Haji Mahomed Ajania ; *Hon. Jt. Treasurer (Boys) :* Kurbanali M. Hudda ; *Hon. Treasurer (Girls) :* Badruddin I. Morani.

## GENERAL EDUCATION ACADEMY

65, Babu Genu Road, Bombay 2.

A private organisation for the promotion of education. Rare books and hand written manuscripts on India are bought. Teachers provided full-time and spare-time jobs.

*Director :*—Hari Prasad Gupta.

## THE GENERAL EDUCATION INSTITUTE

Dadar, Bombay 28.

OBJECT : Promoting education among the masses.

The Institute at present conducts the following institutions :—

Chhubildas Lulloobhoy Boys' High School, Dadar, Bombay ; Girls' High School, Dadar, Bombay ; English School, Mahim, Bombay ; High School, Kurla, Bombay ; M. H. High School Thana ; S. V. Joshi High School, Dombivli, District Thana ; New High School, Kalyan ; High School, Kalyan ; P. R. High School, Bhiwandi, District Thana ; Native Institution, Uran, District Kolaba ; Chhubildas Lulloobhoy Primary School, Dadar, Bombay.

*President :* Justice P. B. Gajendragadkar ; *Chairman, Board of Directors :* G. S. Diwan ; *Secretary :* M. A. Upadhye.

## GOKHALE EDUCATION SOCIETY

Vithalbhai Patel Road, Bombay 4.

The objects of the Society are:—1. To start, control and maintain institutions imparting education to students with a view to making them ideal citizens. 2. To encourage and facilitate among the life-workers of the Society the study of educational problems in India and other countries. 3. To carry on educational propaganda by means of lectures, publications and other means. The present number of life-members is 14.

The affairs of the Society are managed by a Senate which consists of all the Life-members of the Society, retired life-members and representatives of the Staff and by a governing body consisting of life members and retired life members.

## GOLWALLA'S CLASSES

(Estd. 1910)

Bombay Mutual Building, Dadabhoy Naoroji Road, Fort, Bombay.

PRINCIPAL AND PROPRIETOR.—Eruch R. Golwalla.

## GOVERNMENT TRAINING INSTITUTE FOR PHYSICAL EDUCATION

Kandivali, Bombay 67.

Admission is open to university graduates. The institution is wholly residential with separate accommodation for 80 men and 20 women.

*Principal*, Smt. Tara V. Sabnis, B.A., M.Ed., D.P. Ed.

## HIND EDUCATION SOCIETY

C/o Dr. S. J. Patkar, Dossa Bldg., Nowrojee Hill Road No. 7, Bombay 9.

*President:* P. G. Manjrekar; *Vice-President:* S. M. Thakare, M.L.A., J.P.; *Secretary:* Dr. S. J. Patkar, M.B.B.S., J.P.

## IMC ECONOMIC RESEARCH & TRAINING FOUNDATION

76, Veer Nariman Road, Churchgate, Bombay 1.

*Aims & Objects:*

Arranging for and providing facilities for assisting and carrying on of research on socio-economic problems, and publication of studies; assisting or providing facilities for practical training in business methods; assisting the setting up or conduct of regular classes and seminars for Commercial, Industrial and Technical education and other specialised courses of study and research; arranging courses or lectures in Business Management and other specialised branches of study.

The Foundation has so far published:

(*a*) Resources for the Third Five Year Plan; (*b*) Inflation in a Developing Economy; (*c*) National Income of India (1950-51 to 1960-61); (*d*) Union Budgets (A factual study of Finances of Government of India (1950-51 to 1964-65).

It is at present engaged in the study on Price Fixation in Indian Industries and a Quarter Century of Direct Taxation in India (1939-1965).

It arranges annual lectures under the B. F. Madon Memorial Scheme and publishes them in book form.

*Chairman:* G. P. Kapadia; *Executive Officer:* C. L. Gheevala.

## INDIAN INSTITUTE OF ARCHITECTS

Prospect Chambers Annexe, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

*President:* K. A. Parelkar, A.R.I.B.A., F.I.I.A.; *Vice-President:* J. R. Bhalla, F.R.I.B.A., F.I.I.A.; *Jt. Hon. Secretaries:* J. B. Aga, L.R.I.B.A., F.I.I.A., J. B. Fernandes, A.R.I.B.A., F.I.I.A.; *Hon. Treasurer:* H. N. Dallas, F.R.I.B.A., F.I.I.A.

## INDIAN INSTITUTE OF BANKERS

State Bank of India Building, Apollo Street, Bombay 1.

*Secretary.*—Dr. J. D. Sundram.

## THE INDIAN INSTITUTE OF EDUCATION

"Prabhuniketan", 16th Road, Chembur, Bombay 71.

An Educational Research Institute—(*i*) Guides post-graduate students of the University of Bombay, (*ii*) Publishes educational researches.

*Chairman:* N. P. Samant, B.A., LL.B.; *Hon. Secretary and Director:* V. P. Khanolkar, M.A. (London).

## INDIAN INSTITUTE OF ROAD TRANSPORT

Best House, P.O. Box No. 192, Fort, Bombay 1.

*President:* T. S. Rajam; *Chairman:* Erach A. Nadirshah; *Hony. Secretaries:* N. Balkrishna, C. D. Jeffereis; *Hon. Treasurer:* M. C. Chudawala.

## INDIAN INSTITUTE OF TECHNOLOGY

P.O. I. I. T. Bombay, Powai, Bombay 76.

The Institute was established in 1958. The Institute provides instruction and facilities for research in various branches of Science, Engineering and Technology, and Applied Arts and for the advancement of learning and dissemination of knowledge in all such branches. It enjoys the status of a university by an act of Parliament and is a member of Inter-University Board.

The Institute is fully residential and has accommodation for 2,000 students. Training is provided in Aeronautics, Chemical, Civil, Electrical, Mechanical and Metallurgical Engineering, leading to degrees of Bachelor of Technology, Master of Technology and Ph.D. in Technology, Science and Mathematics. Courses leading to degrees of Master of Science in Physics, Chemistry and Mathematics (two years' course) are also offered. Post-graduate Diploma courses of 1 year duration in specialised fields are also offered.

BOARD OF GOVERNORS: Kasturbhai Lalbhai (*Chairman*); Prof. S. K. Bose, B.Sc. (Eng.), M.I.E. (*Director-ex-officio member*); Dr. V. M. Dokras, Ph.D., M.I.E., Pranlal Patel, Dipl. Ing., Akbar A. Peerbhoy, Barrister-at-Law, N. S. Gupchup, B.E. (Civil) (Bom.), B.Sc. (Eng.) (Edin), M.I.E., M.Inst. C.E., F. ASCE; S. Sarangapani, B.E. (Elect. & Mech.), M.I.E., I.R.S.E. (Retd.), T. A. Desai, B.Sc. (Eng.), M.I.E., Prof. G. S. Tendolkar, B.Sc. (Tech.), Ph.D. (Sheffield), Prof. G. K. Bhagavat, B.E., Dr. Ing., A.M.I.E., (Members); V. Nehra, B.A., B.E., M.I.E. (*Registrar, ex-officio Secretary*).

## THE INDIAN SCHOOL OF SYNTHETIC JURISPRUDENCE

Sethna House, 251, Tardeo Road, Bombay 7.

*President:* Dr. M. J. Sethna; *Secretary:* J. M. Sethna; *Treasurer:* J. Y. Singhania.

## INDIAN STATISTICAL INSTITUTE

(Bombay Branch)

1st Floor, Nanabhay Mansion, Sir P. M. Road, Bombay 1.

OFFICE-BEARERS:—S. K. Wankhede, *Hon. President;* R. G. Saraiya, Dr. N. S. R. Sastry, Dr. C. Nanjundayya, Prof. C. N. Vakil, *Hon. Vice-Presidents;* K. A. Antony, *Hon. Secretary;* P. K. Bhowmick, *Hon. Jt. Secretary;* Prof. P. N. Phutane, *Hon. Treasurer.*

## THE INDIAN TECHNICAL EDUCATION SOCIETY'S RADIO ELECTRIC INSTITUTE

Lamington Chambers, Opp. " The Naaz ", Bombay 4.

This Institute was started in April 1934 to fulfil a much felt need in Radio Circles for good, trained ' Radio Experts '. It gives students a thorough experience and training in courses preparatory to :

(*i*) Associate Membership Examinations held by (*a*) Institute of Engineers (India), (*b*) Institute of Electrical Engineers (Lon.) and (*c*) British Institute of Radio Engineers (Lon.) (*ii*) City and Guilds-London Institute Final Grade Examinations in (*a*) Electrical Engineering Practice. (*b*) Radio Service Work, (*iii*) Government of India's I, II and Special Class Certificate of Proficiency Examinations in Wireless Telegraphy. (*iv*) Department of Technical Education, Government of Maharashtra Examinations in Radio Servicing.

## INSTITUTE OF SECRETARIES

Lentin Chambers, Dalal Street, Fort.

*President:* C. C. Sutaria, F.C.C.S., F.A.I.A. (Lond.); *Vice-President:* T. D. Dave; *Hon. Treasurer:* S. R. Dalal; *Hon. Secy:* B. L. Tholiya.

## INSTITUTE OF SOCIAL SERVICE

Nirmala Niketan, 38, New Marine Lines, Bombay 1.

Two year Home Science Course; 1 year Course for Teacher Training in Home Science; One year course in Home Making for Graduates; two year Post Graduate School of Social Work. Recognised by Bombay University.

## THE INSTITUTE OF VOCATIONAL GUIDANCE AND SELECTION

3, Cruickshank Road, Elph. Tech. High School Bldg., 1st Floor, Bombay 1.

## INTERNATIONAL CORRESPONDENCE SCHOOLS (OVERSEAS) LTD.

Lakshmi Building, 4th floor, Sir Phirozeshah Mehta Road, Fort, Bombay 1.

## JAIN EDUCATION SOCIETY

14, Marzban Road, Fort, Bombay 1.

## KISHINCHAND CHELLARAM EDUCATIONAL TRUST

Gazdar House, Dhobi Talao, Bombay 2.

## K. R. CAMA ORIENTAL INSTITUTE

136, Apollo Street, Fort, Bombay.

**OBJECTS.—The Institute has been founded with the object of promoting and advancing oriental studies and offering facilities to the existing societies and institutions already engaged in such work, and if necessary by founding scholarships for the purpose of encouraging and advancing oriental studies. The Institute publishes a journal periodically. Life-membership subscription, Rs. 100, annual membership, Rs. 10.**

*President :* Prof. Phiroze J. Shroff, M.A. LL.M., Adv. (O.S.); *Jt. Hon. Secretaries :* J. C. Tarapore, M.A., LL.B.; Dastoor N. D. Minochehr-Homji, M.A.; *Librarian :* K. P. Dastoor, M.A.

## THE MAHARASHTRA STATE CO-OPERATIVE UNION

9, Bakehouse Lane, Fort, Bombay 1.

Apex body for Co-operative Education, Training Propaganda and Publicity in the Maharashtra State.

## MANAGEMENT TRAINING CENTRE

448, Sardar V. Patel Road, Bombay 4.

The Centre is a division of Kumar Jain and Associates, Counsellors to Management. Occasional training in different cities is imparted on various management topics of office, business and sales.

## THE M. F. CAMA ATHORNAN INSTITUTE

*Office :* 24-26, Dalal Street, Fort, Bombay 1.
*Institute :* Cama Road, Andheri, Bombay 58.

***President :* J. H. Cama ; *Secretary :* J. R. Mistry ; *Principal :* Dr. P. K. Anklesaria.**

## MMC SCHOOL OF MANAGEMENT

Podar Chambers, Parsi Bazar Street, Bombay 1.

*Director :* N. H. Atthreya.

## MODEL ART EDUCATION SOCIETY'S MODEL ART INSTITUTE

Noor Building, Opp. W. Rly., Dadar Station, Bombay 28.

## NATIONAL INSTITUTE FOR TRAINING IN INDUSTRIAL ENGINEERING

Powai, Bombay 76.

This Institute is a Govt. of India Project undertaken with the assistance of the United Nations Special Fund to organise and develop in India comprehensive facilities for the training of practising industrial executives and engineers in the modern techniques of Industrial Engineering. The object of this training is to equip them with skills for raising the productivity of their plants and to train others in these skills wherever possible.

The Institute campus is situated at Powai a few miles north of Bombay on the road leading to Vihar Lake. The Institute buildings include training class rooms, assembly hall, instructional cinema, library, exhibition hall, audio-visual work shops, administrative offices, residential quarters for staff, and a hostel with modern amenity blocks for 200 officer-trainees.

The Institute is an autonomous organisation administered through a Board of Governors.

The Institute will conduct 21 exclusive courses of durations varying from two to twenty-two weeks in different fields of scientific management, which are classified under five principal heads, viz. Work Study, Production Planning & Control, Personnel Administration, General Management, and Marketing & Supply. The Courses are fully residential. Modern methods of audio-visual aids will be extensively used during training.

*Director :* V. S. Vernekar.

## NATIONAL KANNADA EDUCATION SOCIETY

Sewri-Wadala Estate, Bombay 31.

The Society runs a high school at the Sewri-Wadala Estate having Standards I to XI.

*President :* B. Narayanaswamy ; *Vice-Presidents :* Vidwan M. R. Gopalacharya, Dr. R. L. N. Iyengar ; *Hon. Secretary :* R. Venkatesa Murthy ; *Jt. Hon. Secretary :* C. L. N. Iyengar *Hon. Treasurer :* B. Chidambara Rao.

*Principal of the School :* P. N. Moorthi, M.A., B.T.

## NAUTICAL AND ENGINEERING COLLEGE

Azad Maidan, Waudby Road, Bombay 1.

(Ministry of Transport & Communications, Government of India).

This College provides training facilities to officers of the Merchant Navy and akin services.

*Principal :*—Captain P. Alexander, F.R. Met.S., M.I.N., Assoc.I.N.A., J.P.

## OCCUPATIONAL THERAPY TRAINING SCHOOL & CENTRE

K.E.M. Hospital, Parel, Bombay 12.
Opp. Tata Cancer Hospital, Parel, Bombay 12.

*Suptt.:* Mrs. Mira M. Shahani.

## PARSEE GIRLS' SCHOOL ASSOCIATION

42, New Marine Lines, Bombay 1.

## PEOPLE'S EDUCATION SOCIETY, BOMBAY

Anand Bhavan, Near Flora Fountain,
Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

The Society was founded in 1945 by the late Dr. B. R. Ambedkar. **Its object is to bring college education within the reach of the** poorer classes in general and the Backward classes in particular. It gives special facilities to the Scheduled Caste Class Students.

*Chairman :* D. G. Jadhav, B.A., LL.B. ; *Secretary :* K. B. Talwalkar.

The Society runs the following institutions : (1) Siddharth College of Arts & Science, Bombay ; (2) Siddharth College of Law, Bombay ; (3) Siddharth College of Commerce & Economics, Bombay ; (4) Milind College of Science, Aurangabad ; (5) Milind College of Arts, Aurangabad ; (6) Dr. Ambedkar College of Commerce, Aurangabad ; (7) Dr. Babasaheb Ambedkar College of Arts, Science & Commerce, Mahad, Dist. Kolaba ; (8) Siddharth Night High School, Bombay ; (9) Milind Multipurpose High School, Aurangabad ; (10) Matoshri Ramabai Ambedkar High School, Osmanpura, Aurangabad ; (11) Shri Gadge Maharaj Vidyarthi Vasatigriha, Pandharpur ; (12) Matoshri Ramabai Ambedkar Vidyarthi Ashram, Dapoli, Dist. Ratnagiri ; (13) Siddharth Institute of Commerce, Bombay and (14) People's Education Society's College of Journalism, Advertising and Marketing, Bombay.

Besides these, the Society gives annual grants-in-aid to the Backward Classes Hostels at Manmad, Nandurbar, Chalisgaon, Poona, Mahad, Nipani, Dholka and Patan.

## RAO BAHADUR S. V. RAJADHYAKSHA G. S. B. FOREIGN EDUCATION SOCIETY

Chikitsaka Samuha Building, Kandewadi, Bombay 4.

**FUNDS.—The Permanent Fund of the Society amounted to Rs. 2,69,924.**

**LOAN-SCHOLARSHIPS GRANTED—82 Scholars have been granted loan-scholarships of the aggregate sum of Rs. 4,08,177.**

**MANAGING COMMITTEE :—*Chairman :*—S. S. Naik ; *Vice-Chairman :—Principal* K. R. Gunjikar ; *Hon. Treasurers :*—V. M. Telang, R. G. Gulgule ; *Hon. Secretaries :*—K. S. Laud and Y. H. Sukthankar.**

## SARASWAT VIDYARTHI SAHAYAK MANDALI

**OFFICE.—Chikitsaka Samuha Building, Kandewadi, Bombay 4.**

**The Institution has advanced in all nearly Rs. 7,56,320 to 2,762 poor and deserving students of both sexes from all parts of the country to get education and has built up a Reserve and Endowment Fund of Rs. 9,28,654.**

*Trustees :* Dewan Bahadur Dr. J. S. Nerurker, Y. H. Sukthankar ; Prof. L. G. Khelekar, *Chairman* ; S. R. Sukthankar, *Vice-Chairman* ; V. N. Kamat ; *Hon. Secretaries :* R. K. Patkar, J. S. Rege ; *Hon. Treasurers :* B. Y. Rajadhyaksha, D. N. Manerikar.

## SHRI MAHAVIRA JAINA VIDYALAYA

**Gowalia Tank Road, Bombay 26.**

**Among its multiple aims includes founding useful secular and religious institutions, giving special facilities to students for prosecuting their studies in different colleges and universities as well as encouraging studies of Sanskrit and Prakrit literature.**

## SIR JAMSETJEE JEEJEEBHOY SCHOOL OF ART

D. Naoroji Road, Fort, Bombay.

A small Art Gallery containing specimens of Indian and European art is attached to the school.

## STATE COUNCIL OF TECHNICAL EDUCATION, STATE OF MAHARASHTRA

C/o Department of Technical Education, Elphinstone Technical High School Building, Dhobi Talao, Bombay.

The functions of the Council are to advise Government on matters relating to technical education. A State Board of Technical Examinations has been established. The functions of the Board are to lay down syllabi in technical and industrial courses of non-Univ. Grade and conduct examinations in the courses approved by it.

## STUDIES IN INDUSTRIAL ENGINEERING

Victoria Jubilee Technical Institute, Matunga, Bombay 19.

Training in Industrial Engineering leading to post-graduate diploma in Industrial Engineering of Bombay University. (Evening Course for employed person).

Higher diploma in Production Engineering of the State Council of Technical Education.

Part-time course leading to Certificate in Foremanship and Supervision of the All India Council of Technical Education. (Evening Course for employed person).

*Principal and Secretary :*—Prof. R. K. Mody, M.Sc. Tech. (Manchester), A.M.C.T., A.T.I., M.I. Prod. E. (Lond.).

## TATA INSTITUTE OF FUNDAMENTAL RESEARCH

Colaba, Bombay 5.

The Tata Institute of Fundamental Research was established jointly by the then Government of Bombay (now Government of Maharashtra) and the Trustees of the Sir Dorabji Tata Trust in June 1945. The object of this all-India Institute is fundamental research in Physics, Mathematics and allied sciences.

In 1948, the Government of India entrusted to the Institute several of its research projects. In view of the Government of India's increasing financial assistance, the Institute's constitution was amended in 1956, and a tripartite agreement, between the Government of India, the then Government of Bombay (now Government of Maharashtra) and the Sir Dorabji Tata Trust, came into force on April 1, 1956.

The Government of India has recognised the Institute as the National Centre for advanced study and fundamental research in nuclear science and mathematics. The Institute is permanently recognised by the University of Bomay as a constituent recognised institution for post-graduate research in physics and mathematics.

Prior to the formation of the Atomic Energy Establishment at Trombay, the Atomic Energy Commission of the Government of India entrusted to the Institute all its large-scale nuclear research projects. The Institute, therefore, can rightly be called the cradle of India's Atomic Energy Programme.

The Institute is managed by a Council consisting of the representatives of the three contracting parties.

COUNCIL

J. R. D. Tata (*Chairman*) ; Dr. H. J. Bhabha, D.Sc., F.R.S., F.N.I. (*Director*) ; Professor R. Choksi, M.A. ; S. Jagannathan, I.C.S. ; V. M. Joshi, I.C.S.

*Administrative*

R. S. Bhandarkar, *Administrative Officer* ; N. R. Puthran, *Registrar and Secretary to the Council.*

## TATA INSTITUTE OF SOCIAL SCIENCES

Sion-Trombay Road, Chembur, Bombay 71. AS

*Board of Trustees.*—Sir Homi Mody, K.B.E. (*Chairman*) ; J. R. D. Tata ; A. D. Shroff ; N. H. Tata ; J. D. Choksi, D. R. D. Tata ; Professor R. Choksi (*Mg. Trustee*).

*Governing Board :*—Prof. R. Choksi (*Chairman*) : A. D. Gorwala, P. N. Kirpal ; K. A. D. Naoroji ; P. A. Narielwala ; Prem Narain ; J. J. Bhabha ; D. R. D. Tata ; Dr. M. S. Gore ; A. Subramanian (*Secretary*).

Founded by the Sir Dorabji Tata Trust in 1936, this pioneer institution offers a two-year programme of training in social work and social sciences and a one year training pogramme in Social Research to graduates of recognised Universities. In recognition of its pioneering efforts, the Government of India has conferred on the Institute the status of a University.

The Institute maintains a high academic standard and gives thorough practical training aimed at providing public and industrial organisations with workers trained in professional social work, the fields of specialisation being Criminology and Correctional Administration, Family and Child Welfare, Labour Welfare and Industrial Relations, Medical and Psychiatric Social Work, Rural Welfare, Social Research, Tribal Welfare and Urban Community Development.

The Department of Social Research promotes research in Social problems. A Labour Research Centre has been set up recently. The Department of Publications publishes literature on social work and related subjects. The Indian Journal of Social Work, which is a quarterly, is published in April, July, October and January.

The Institute has one of the best Social Science Libraries in the country with over 17,000 books in the related fields. A Documentation List is published by the Library once a fortnight.

The Institute conducts a Child Guidance Clinic, which besides providing guidance to parents and treatment to children with personality defects, serves as a laboratory for the students of the Institute to gain practical experience in handling, diagnosing and treating problem children.

Other activities include a special school for bedridden hospitalised children at Parel, the Worli Community Centre, a Lok Karya Kshetra at Turbho (Thana), etc.

The Institute is at Chembur, and provides accommodation for about 130 resident men and women students and some members of the staff.

*Director :* Dr. M. S. Gore, M.A., Ph.D. (Columbia), Dip. S.S.A.

*Registrar :* A. Subramanian, M.A. (Annamalai), A.B.I. (London), A.A.I.A. (London), G.I.R.T.

## TEACHERS TRAINING ACADEMY

Bharda New High School, Waudby Road, Bombay 1.

*Director :*—J. H. Trivedi. B.A. *Secretary :*—B. M. Kapadia, M.Sc., B.T. ; *Treasurer :* A. J. Trivedi, M.A., B.T.

## UNIVERSITIES INFORMATION BUREAU

Bombay Univ. Club House, 'B' Road, Churchgate, Bombay 1.

*Secretary.*—H. M. Remedius, M.A., Dip. Lib.

The Bureau collects and supplies information in regard to Indian and Foreign Universities, other educational Institutions, training centres or industrial works and assists students of the Bombay University to secure admission-scholarship to institutions in foreign countries.

## THE VAISHYA VIDYA VARDHAK SAMAJ, BOMBAY

33-G, Vithal Mandir, Mugbhat Cross Lane, Bombay 4.

## VANI VIHAR SANSKRIT MAHAVIDYALAYA

Choksey Bhavan, Bhimani Street, Opp. Nappoo Gardens, Matunga, Bombay 19.

This research institute of oriental learning offers free tuition in all branches of Sanskrit literature and Indian philosophy.

*Founder Principal.*—Nyayavedanta Vidwan M. R. Gopalacharya ; *Hon. Secretaries.*—H. S. K. Rao, S. Pandurang Rao.

## VAZIFDAR COLLEGE OF BUILDING INDUSTRIES

17, Arthur Bunder Rd., Colaba, Bombay 5.

*Technical Director and Principal :* J. P. Vazifdar ; *General Director :* D. N. Shroff ; *Administrative Director :* Miss F. J. Minocherji.

## VICTORIA JUBILEE TECHNICAL INSTITUTE

Matunga, Bombay 19.

(Central Technological Institute, Maharashtra).

*Principal & Secretary :* Prof. R. K. Mody, B.Sc. Tech. (Manchester), M.Sc. Tech. (Manchester), A.M.C.T., A.T.I., M.I. Prod. E. (Lond.) Chartered Textile Technologist.

## YOUNG MEN'S EDUCATION SOCIETY

Ida Mansion, 18, Karwar Street, Fort, Bombay.

AIMS AND OBJECTS.—To conduct the Young Men's Free Night High School and to impart education irrespective of caste or creed.

# HOSPITALS, MATERNITY AND NURSING HOMES, CONVALESCENT HOMES & SANATORIA, CLINICS & DISPENSARIES IN GREATER BOMBAY

## HOSPITALS

### ADAMS-WYLIE MEMORIAL HOSPITAL

(Managed by Bombay City Red Cross)
Wylie Road, Post Jacob Circle, Bombay 10.

### ADATIA'S GENERAL AND MATERNITY HOSPITAL

Jai Hind Estates, Bhuleshwar, Bombay 2.

### AJINKYA MATERNITY AND GYNAECOLOGICAL HOSPITALS

204, Charni Road, Bombay 4, Ajinkya Mansion, Hughes Road, Bombay 7 and 11th Road, Khar Extension.

### ALBLESS OBSTETRIC HOSPITAL

Cruickshank Road, Fort.

### AYURVED BHAVAN

(Ayurvedic Hospital)
Matunga (W. Rly.), Bombay.

### AYURVIDYA PRASARAK MANDAL

Sion, Bombay 22.

The Mandal conducts the following branches :—

1. Ayurveda Mahavidyalaya, Sion, Bombay 22.
2. Sheth R. V. Ayurvedic Hospital, Sion, Bombay 22.
3. Sheth V. M. Ayurvedic Dispensary, Sion, Bombay 22.
4. Ayurvedic Hospital and Dispensary, Mugbhat, Bombay 4.

*President.*—S. K. Patil. *General Secretary.*—Dr. T. R. Naravane.

### BAI JERBAI WADIA HOSPITAL FOR CHILDREN

Parel, Bombay. (Tel. 60494.)

*Board of Management.*

Neville N. Wadia (*Chairman*), Sir Jamsetjee Jejeebhoy, Bart. H. R. Batlivala, K. J. Khambata (representatives of Nowrosjee Wadia & Sons Pr. Ltd.); S. B. Mahadeshwar, D. P. Bakhle, C. H. Khare, Prof. (Smt.) Asha V. Toraskar, M.A. (representatives of Bombay Municipality).

*Honorary Principal Medical Officer :*—Dr. A. E. de Sa, F.R.C.S. (Eng.) ; *Chief Accountant and Secretary :*—N. C. Sethna, B.Com.

### BAI MOTLIBAI AND SIR D. M. PETIT HOSPITALS

Mazagon, Bombay 10.

These Hospitals are exclusively meant for the treatment of diseases of women (Obstetrics and Gynæcological). The hospitals accommodate 96 beds (56 obstetrics and 40 gynæcological) and are open to all nationalities.

### BAI SAKARBAI DINSHAW PETIT HOSPITAL FOR ANIMALS

Govt. Gate Road, Parel, Bombay 12.

### BAI YAMUNABAI L. NAIR CHARITABLE HOSPITAL

(Bombay Municipal Corporation)
Dr. A. L. Nair Road, Bombay 8.

The Bai Yamunabai L. Nair Charitable Hospital provides free medical aid without distinction of caste, creed or colour. It also provides clinical facilities to the students of the T. N. Medical College. There are 336 beds. *Dean,* Dr. T. H. Rindani.

### DR. BALABHAI NANAVATI HOSPITAL

Swami Vivekananda Road, Vile Parle West (Opp. Juhu Aerodrome), Bombay 56.

Provision of free gynaec, maternity, medical and surgical treatment for poor patients, to all communities; facilities for special rooms also available. Deserving patients are treated at concessional rates. Fully equipped laboratory, X-ray, dental, ophthalmic, physiotherapy and psychiatric departments. Casualty department open at all hours.

### BHATIA GENERAL HOSPITAL

Chikalwadi, Tardeo Road, Bombay 7.

### B. M. C. EYE HOSPITAL

Kamathipura, Bombay 8.

*Superintendent :* Dr. V. V. Gupte.

Indoor accommodation : 40 beds.

Out-patients complete with all departments. Open 8 A.M. to 11 A.M

### BOMANJEE DINSHAW PETIT PARSEE GENERAL HOSPITAL

Bomanji Petit Road, Cumballa Hill, Bombay 26.

Erected for the use of Parsees from subscriptions by the Parsees.

*President.*—Maneckji D. Petit.

*Vice-President.*—Sir H. P. Dastur, Kt.; *Honorary Medical Secretary.*— Dr. H. S. Mehta, M.S., F.C.P.S., J.P.

### BOMBAY HOSPITAL

12, Marine Lines, Bombay 1.

This Hospital was opened in 1950 and Annexe in 1959. Both are run by the Bombay Hospital Trust, a public charitable institution serving all communities. Hospital has out-patient departments and in-patient wards.

The Annexe has air-conditioned auditorium with revolving stage named Birla Mathushri Sabhagar, accommodating 1,200 persons and is in great demand for Scientific and Educational Conferences and Seminars.

Total number of beds 418, out of which 100 are entirely free. Departments : Medicine, General Surgery, Neurosurgery, Thoracic Surgery, Orthopaedic, Psychiatry, Dental, Skin and Physiotherapy. The Hospital is well equipped and very popular.

*Chairman :* R. D. Birla ; *Hon. Secretaries :* B. D. Binani, S. G. Nevatia and Dr. J. S. Mishra ; *Superintendent :* Dr. V. V. Jadhav : *Manager :* C. G. Joshi.

### BOMBAY MUNICIPAL CORPORATION, DR. BHAJEKAR HOSPITAL

Dr. Bhajekar Street, off Sardar Patel Road, Bombay 4.

### BRAHMAN SABHA MHASKAR MATERNITY HOSPITAL

9, Benham Hall Lane, Girgaum, Bombay.

### BYRAMJEE JEEJEEBHOY HOSPITAL FOR CHILDREN

J. J. Hospital, Bombay 8.

The Hospital built in 1928 (oldest in the country) is situated along Mazgaon Road next to the Outpatient Department of J. J. Group of Hospitals, Bombay. Number of beds 125—(75 Medical and 50 Surgical). Since May 1960, the B. J. Hospital is a part of the Pediatric Centre, J. J. Group of Hospitals, which is a project sponsored by the Union Government, UNICEF and W.H.O. and is under the control of the State Government. Apart from B. J. Hospital for children, the centre includes (1) an infectious diseases block of 15 beds, (2) Premature Baby Unit of 20 beds, (3) Child Welfare Centre, (4) Child Guidance Clinic, (5) Central Pediatric Laboratory and Library, etc.

*Dean, J. J. Group of Hospitals.*—Dr. D. V. Virkar.

*Director of Pediatric Centre.*—Dr. P. M. Udani.

### CAMA AND ALBLESS HOSPITALS

Cruickshank Road, Bombay.

### CHILDREN'S ORTHOPAEDIC HOSPITAL

Haji Ali Park, Clerk Road, Bombay 11.

*Acting President :* Dr. B. B. Yodh, F.R.C.P. (Lond.), D.T.M. & H. (Lond.).

*Hon. Secretary :* Dr. Mrs. Gulbanoo Premji, M.B.B.S. (Bom.).

*Medical Director :* Dr. Miss P. K. Mullaferoze, O.B.E., M.B.B.S. (Bom.), F.R.C.S. (Eng.).

### CHOWPATTY MATERNITY & GYNAECOLOGICAL HOSPITAL

4, Chowpatty, Bombay 7.

## EYE CLINIC AND HOSPITAL

375, D. Naoroji Road, Opp. Flora Fountain.

## FRACTURE AND ORTHOPAEDIC HOSPITAL

395, Lamington Road, Bombay 4.

## GOCULDAS TEJPAL HOSPITAL

Carnac Road, Bombay 1.

## GROUP OF T. B. HOSPITALS

Opp. Christian Cemetery, Jerbai Wadia Road, Sewri, Bombay 15.

Patients are selected for admission at the G.T.B. Hospitals and Sarvodaya Hospital, Ghatkopar out of the patients referred by the different Municipal T.B. Clinics which are at—(1) Princess Street, (2) Foras Road Junction, (3) Ramkunwar Daftary T.B. Clinic, Dadasaheb Phalke Road, Dadar and (4) Mr. & Mrs. M. M. Munshi T.B. Clinic, Swami Vivekananda Road, Khar. Facilities for A.P. and P.P. treatment exist at all the T.B. Clinics. Time : 8 a.m. to 12 noon and 4 p.m. to 6 p.m.

There are 800 beds in the hospitals at Sewri. In Ramkunwar Daftary T.B. Hospital, Dadar, an Isolation Centre, there are 88 beds for advanced cases, and 300 additional beds are reserved by the Bombay Municipal Corporation at Sarvodaya Hospital, Ghatkopar.

Admissions to these hospitals are given seriatim from waiting list maintained for the purpose. All treatment is free of charge. Facilities for Laboratory, X-ray, A.P., P.P. major and minor operations are available.

Out-patients are treated on all working days.

All the above hospitals and T.B. Clinics are under the control and supervision of the Medical Superintendent, Group of T.B. Hospitals.

## J. J. GROUP OF HOSPITALS

Babula Tank Road, Byculla, Bombay 8.

*Dean* :—Dr. D. V. Virkar, M.S., F.R.C.S.E.

*Pathologist* :—Dr. R. K. Gadgil, M.D.

*Dy. Supdt.* :—Dr. (Smt.) R. H. Ansari, M.B.B.S., M.M.S., Cl.I. Divn.I.

*Director, Pediatric Centre* : Dr. P. M. Udani, M.D., D.C.H.

## KANCHANGAVRI MANGALDAS PAREKH MATERNITY AND GYNÆCOLOGICAL HOSPITAL AND DISPENSARY

Dr. Bhajeker Street, Sardar Vallabhbhai Patel Road.

## KASTURBA HOSPITAL FOR INFECTIOUS DISEASES

Sane Guruji Road, Bombay 11.

*Ag. Medical Superintendent*, Dr. R. S. Deshpande, M.B.B.S., D.P.H.

## KHAN BAHADUR HAJI BACHOOALI FREE OPHTHALMIC HOSPITAL

Poibawdi, Parel, Bombay 12.

*Chairman, Hospital Committee.*—Dr. A. M. Gokhale ; *Hon. Secretary*, Dr. B. D. Telang ; *Hon. Superintendent.*—Dr. S. V. Oak.

## KHAN BAHADUR HORMUSTJI BHABHA HOSPITAL

Old Agra Road, Kurla, Bombay 70.

## KING EDWARD VII MEMORIAL HOSPITAL

Hospital Avenue, Parel.

The hospital accommodates 1080 beds at present.

Dr. S. V. Joglekar, M.S., F.C.P.S. (Bom.) (*Dean*) ; Dr. R. B. Redkar, B.Sc., M.B.B.S., D.A. (*Asstt. Dean*) ; Dr. P. Raghavan, M.D. (*Professor of Medicine*) ; Dr. P. K. Sen, M.S., F.A.C.S. (*Professor of Surgery*).

## LAXMIBAI MATERNITY HOSPITAL

96, D'Souza Street, Wadgadi.

## LOKMANYA TILAK MUNICIPAL GENERAL HOSPITAL

Sion Road, Bombay 22.

*Superintendent.*—Dr. (Smt.) A. S. Punde, M.D.

*Asstt. Medical Officer* : Dr. V. S. Shevade, M.B.B.S.

*Municipal Medical College, Sion Road, Bombay* 22.

*Dean*—Vacant.

## MAHADEVI ANANDILAL PODAR HOSPITAL

Worli.

## MASINA HOSPITAL

Victoria Road, Byculla, Bombay 27.

## DR. MEHTA H.T.'S MODERN HOSPITAL FOR WOMEN

6, Wilson Street, Bombay 4.

## N. M. MENTAL HOSPITAL

Naupada, Thana, Central Railway.

*Superintendent.*—Dr. B. L. Chandorkar, M.B.B.S., D.P.M. M.M.S. cl. I.

## NEW HOSPITAL FOR WOMEN

New Queen's Road, Bombay 4.

## NORTHCOTE POLICE HOSPITAL

New Nagpada, Byculla.

## NOWROSJEE WADIA MATERNITY HOSPITAL

King Edward Road, Parel.

BOARD OF MANAGEMENT : Neville N. Wadia, *Chairman* ; Sir Jamsetjee Jeejeebhoy, Bart. ; H. R. Batlivala ; Krishnaraj M. D. Thackersey ; J. J. Ashar ; Dr. D. V. Virkar, F.R.C.S.E. ; Dr. P. M. Bhandarkar, M.S. ; J. D. Daroga, M.Sc. (Lond.), M.I.C.E., M.I.E., M.I. Mech. E. ; Smt. Ahilya P. Rangnekar, B.Sc. ; *Secretary* : N. C. Sethna, B.Com.

*Chief Accountant and Secretary* : N. C. Sethna, B.Com., G.I.A.

*Hon. Principal Medical Officer* :—Dr. K. M. Masani, M.D. (Lond.), F.R.C.S. (Eng.), F.I.C.S.

## PARSI LYING-IN HOSPITAL

Outram Road, Fort.

The hospital was started for the admission and treatment of Parsi women. The hospital is managed by a Committee of 12 members.

## PEOPLE'S MOBILE HOSPITALS

Dr. Annie Besant Road, Worli, Bombay 18.

Free Medical aid through Mobile Units.

## DR. PURANDARE MATERNITY, GYNÆCOLOGICAL HOSPITAL AND RADIUM INSTITUTE

4, Chowpatty Seaface.

## RAMWADI FREE EYE HOSPITAL

36/69, 1st Cavel Cross Lane, Kalbadevi Road.

Open to all classes. It has accommodation for 37 beds. There is an Operation Theatre.

## SARVODAYA HOSPITAL

Rifle Range, Agra Road, Bombay 77.

*Managing Trustee*, Kantilal Maganlal Shah ; *Superintendent*, Dr. V. J. Sampat, M.S. ; *Manager*, G. H. Dave.

## SIR C. J. OPHTHALMIC HOSPITAL

(J. J. GROUP OF HOSPITALS)

Byculla, Bombay 8.

## SIR COWASJEE JEHANGIR READYMONEY DISPENSARY & KERSHEDJI BEHRAMJI BHABHA HOSPITAL

Waterfield Road, Bandra, Bombay 50.

## SIR CURRIMBHOY EBRAHIM MEMORIAL DENTAL COLLEGE & HOSPITAL

J. J. Hospital Compound, Byculla, Bombay 8.

## SIR HURKISONDAS NURROTTUMDAS HOSPITAL

New Charni Road, Bombay 4.

*President.*—Ghordhandas Bhagwandas Narotamdas.

*Hon. Secretary.*—Manubhai M. Daru ; *Hon. Treasurer* : Natverlal Mancklal.

*Superintendent.*—Dr. P. M. Sangani.

The Hospital maintains about 287 beds (183 free). Average number of patients per year 8,000. On an average about 36,000 Pathological investigations are carried out at Sheth D. M. Pathology Department and about 12,000 Radiological investigations are done in the Sheth R. B. X-Ray Department of the Hospital

Attached to the Hospital are Sir Purshotamdas Thakordas Clinic with Eye, Dental, Skin, E.N.T. Departments and the Narrondas Manordass Nurses' Training College.

### S. K. PATIL AROGYA DHAM
Malad, Bombay 64.

It is a modern general hospital having free beds, diet paying beds and nursing home section. It has indoor facilities for T.B. patients also. Facilities for treatment of all branches of medicine including eye, dental and skin are there. It has fully developed pathology and X-ray department with attached physiotheraphy department. The Govt. of Maharashtra has started Diagnostic Centre for insured workers under E.S.I. Scheme.

### ST. GEORGE'S HOSPITAL
Frere Road, Fort.

*Superintendent.*—Dr. H. V. Pophale.

### SUBSIDIARY POLICE HOSPITAL
New B.D.D. Chawl No. 6, Naigaum, Bombay 14.

### TALWALKAR NURSING HOME AND MATERNITY HOSPITAL
Next to Ruia College, Bombay 19.

### TATA MEMORIAL HOSPITAL
Hospital Avenue, Parel, Bombay 12.

*Chief Surgeon & Superintendent,* Dr. J. C. Paymaster, F.R.C.S.E., F.R.C.S., F.A.C.S. *Hospital Secretary,* M. D. Mirza, B.A.

### WORLI GENERAL HOSPITAL
Sea Face Corner, Bombay 18.

## MATERNITY & NURSING HOMES

### DR. BACHA'S MEMORIAL BELLE-VUE NURSING HOME
"La Citadelle", next to Government of India Offices, Queen's Road, Marine Lines.

### BILL NURSING HOME
Dadar.

Home for aged and infirm patients.

### BREACH CANDY HOSPITAL & NURSING HOME
60, B. Desai Road, Bombay 26.

### CALCUTTA NURSING HOME
(Mental Hospital)
Sita Niwas, Bombay 12.

### CENTRAL HOSPITAL & NURSING HOME
Bellasis Road, Bombay 8.

### CHARNI ROAD NURSING HOME
331, Charni Road, Bombay 4.

### COLONY NURSING HOME
Sir Bhalchandra Road, Matunga (Central Rly.).

### DRS. HIRALAL & D'SA SURGICAL NURSING HOME
Backbay View, New Queen's Road, Bombay 4.

### KHATAU MAKANJI FREE DISPENSARY & BHATIA MATERNITY AND NURSING HOME
65, Bazar Gate Street, Fort.

### MARINE HOSPITAL & MATERNITY HOME
5, New Marine Lines, Bombay 1.

### MODERN NURSING HOME
Framroze Court, 60, Main Road, Dadar, Bombay 14.

### THE NORTHCOTE NURSING HOME PRIVATE, LTD.
Ormiston Road, Apollo Bunder.

### PARK NURSING HOME (DR. NAYEN'S)
204, Shivaji Park Road 5, Bombay 16.

### ST. ELIZABETH'S NURSING HOME
Kunj Nivas, Harkness Road, Malabar Hill, Bombay 6.

Rev. Sister Frances Teresa (Superioress).

### SURGICAL NURSING HOME AND FRACTURE CLINIC
8, New Queen's Road, next to Opera House Cinema, Bombay 4.

### TALWALKAR NURSING HOME & MATERNITY HOSPITAL
Next to Ruia College, Bombay 19.

## CONVALESCENT HOMES AND SANATORIA

### BAI SHIRINBAI MANCHERJI CAMA CONVALESCENT HOMES
Byramji Jijibhoy Road, Bandra, Bombay 50.

### BEL-AIR SANATORIUM FOR T. B. PATIENTS
Panchgani (Dist. Satara).
(Founded 1912)

Founder and Trustee.—Dr. R. B. Billimoria, B.A., M.D., Padma Bhushan.

Wassiamal Building, Charni Road Junction, Bombay.

### CONSUMPTIVES' HOMES SOCIETY
C/o Jehangir Bldg., Mahatma Gandhi Road, Bombay 1.

### MARINA CLINIC & SANATORIUM
Indian Merchants' Chamber Building, Churchgate, Bombay 1.

### PECHEY PHIPSON SANITARIUM FOR WOMEN AND CHILDREN, NASIK ROAD
OFFICE—1, Bakehouse Cross Lane, Fort.

### TUBERCULOSIS CONTROL
(Medical Supdt., Group of T. B. Hospitals, Sewri.)

Out-patients are treated on all working days at the clinics at—Princess Street, Foras Road, Ramkunwar Daftary T.B. Clinic and Isolation Centre, Dadasaheb Phalke Road, Dadar, and Mr. & Mrs. Munshi T. B. Clinic, Khar.

Admissions are made to the Group of T. B. Hospitals, Sewri, with 800 beds, R. D. Hospital and Isolation Centre with 88 beds, and 300 beds reserved at Sarvodaya Hospital at Ghatkopar, seriatim from waiting lists maintained for the purpose.

## DISPENSARIES

### BOMBAY HOMŒOPATHIC ASSOCIATION'S DISPENSARIES
I. 311, Tardeo Road, Nana Chowk, Bombay 7 (main dispensary).
II. Jamnadas Mody Kapol Nivas, 64, Cavel Street (near Ramwadi Eye Hospital).

### THE BOMBAY KERALEEYA SAMAJ AYURVEDIC DISPENSARY
"Kerala Bhavanam", 16-A, K. A. Subramanian Road, Matunga.

*Physician :* M. C. K. Namboodiri, L.I.M.
Branch at 81, Hindu Colony Road No. 2, Dadar.
*Physician :* U. Achutha Warrier.
Branch at 534, "Prasanna", 11th Road, Chembur, Bombay 71.
*Physician :* E. K. Gopalan Nair.

### FORT GRATUITOUS DISPENSARY
10, Ravelin Street, opp. Excelsior Cinema, Fort.

### REGINA PACIS FREE DISPENSARY FOR THE POOR
Conducted by the Daughters of Mary Immaculate, Regina Pacis, Love Lane, Bombay 27 DD.

### SANTA CRUZ MALAYALEE SAMAJAM AYURVEDIC DISPENSARY
14, Air View Building, Vakola, Bombay 55.

### SHRI DAMODAR AMBAVIDAS DAFTARY SARVAJANIK DISPENSARY
(1) Township Colony, S. 14, Chembur, Bombay 71 and (2) Ratan Mahal, Shraddhanand Road, Ghatkopar, Bombay 77.

# MISSIONARY AND RELIGIOUS SOCIETIES IN GREATER BOMBAY

## AHMADIYYA MOVEMENT

*Local Branch* :—'Alhaq', 17, Club Back Road, Bombay 8.
*Headquarters* :—Qadian, Dist. Gurdaspur, Punjab, India.
*Activities* :—Revival and Propagation of Islam.
*Founder* :—Hazrat Mirza Gulam Ahmad of Qadian, the promised Messiah and Mehdi (1835-1908).
*Missions* :—Throughout India & Pakistan and other countries.
*Present Head of the Movement* :—Hazrat Mirza Bashiruddin Mahmood Ahmad, Khalifatul-Masih II, Rabwah (W. Pakistan).
*Chief Secretary* :—Moulana Abdur Rehman.

## AMERICAN MARATHI MISSION

Byculla, Bombay.

(Under the United Church Board for World Ministries, Boston, Mass., U.S.A.).

OFFICERS : *Chairman.*—T. Barnabas, Ahmednagar Coll., Ahmednagar. *Secretary.*—Miss M. E. Rogers, Harding House, Sholapur. *Treasurer.*—S. R. Pandit, Inter-Mission Business Office, 364, Dadabhoy Naoroji Road, Bombay.

## ANJUMAN-I-FAIZ-I-PANJETANI

69, Samuel Street, Bombay 9.

The aims and objects of Anjuman-i-Faiz-i-Panjetani are to render service to pilgrims to the Hedjaz, Iraq, Iran, etc.

*President.*—Haji R. C. Nathani. *Vice-President.*—H. H. G. Rassiwala. *Hon. Treasurer.*—H. A. K. Panjoo. *Hon. Gen. Secretary.*—Bachoobhai Jivan.

MANAGER.—Sherally Virjee.

## ASTHIKA SAMAJ

Asthika Samaj Building, King's Circle, Matunga, Bombay 19.

To foster the acquisition of spiritual knowledge, cultivation of devotion to God, promotion of the spirit of brotherhood and service to humanity.

## BIBLE SOCIETY OF INDIA AND CEYLON

India House, Opp. G.P.O., Fort Street, Bombay 1.

*President.*—The Rt. Rev. C. J. G. Robinson, M.A.
*Secretary & Treasurer.*—Rev. R. S. Rahator, M.A., B.D., S.T.M.

## BOMBAY SPIRITUAL CENTRE

Indra Kunj,
2, Laburnum Road, Gamdevi, Bombay 7.

## BOMBAY ZOROASTRIAN JASHAN COMMITTEE

Navsari Building, Dr. Dadabhoy Naoroji Road, Bombay 1.

PRESIDENT.—Maneck Pheroze Mistry.
SECRETARY :—Kaikhasru Aderji Dumasia.
HON. TREASURER :—Sohrab Hirjibhoy Batlivala.

## CHINMAYA MISSION

Sandupany Sadhanalya, Powai, Bombay 70.

## CHURCH MISSIONARY SOCIETY

Mission House, Proctor Road, Bombay 7.

*Regional Secy.* : Miss A. M. James.
*House Warden* : Miss R. M. G. Manning.

The Office of the Parent Society is in Salisbury Square, Fleet Street, London, E.C.4.

*Bombay*

Emmanuel Church, Proctor Road.—Rev. A. B. Bhalekar, B.A., B.T., B.D.
Robert Money School.—C. A. Christie, B.A., B.T.

## INTER MISSION BUSINESS OFFICE

Financial Hqrs., American Missionary Societies, 364, Dr. Dadabhoy Naoroji Road, Bombay 1.

## MAHA BODHI SOCIETY OF INDIA

(Bombay Branch)

Bahujan Vihar, Buddha Temple Street, Parel, Bombay 12.

*Secretary.*—Bhikkhu H. Dhammananda.

## MISSIONARY SETTLEMENT FOR UNIVERSITY WOMEN

Reynolds Road, Byculla, Bombay.

Maintains a hostel for about 60 women students attending the various colleges in Bombay.

STAFF.—Miss H. D. Hunt, B.A., *Warden*; Miss M. Thomas, B.A., Dip. in Social Science.

## MOTHER'S LODGE

Saraswati Road, Santa Cruz West, Bombay 54.

*President:* Mai Swarup Mai Markand.

## PARSI VEGETARIAN AND TEMPERANCE SOCIETY

Noble Chambers No. B, Parsi Bazar Street, Bombay 1.

## PRARTHANA SAMAJ

Girgaum, Bombay 4.

The Bombay Prarthana Samaj is a religious body whose faith is founded on the essential belief in One God who is without form and all-pervading, and in the brotherhood of man.

G. L. Chandavarkar, *President*; P. B. Madgavkar, *Vice-President*; Mrs. S. Karhade, *Hon. Secretary*.

## RAMAKRISHNA MISSION ASHRAM

Khar, Bombay 52.

*Presidents.*—Swami Sambuddhananda (*President of the Ashram*); Morarji R. Desai (*President of the Mission Managing Committee*); *Secretary, Ramakrishna Mission Mg. Committee.*—Dr. C. A. Mehta, M.A., LL.B., Ph.D.

## SANT NIRANKARI MANDAL

Sant Nirankari Sat Sang Bhawan,
50, Morbagh Road, Dadar, Bombay-14.

## SHREE AYYAPPA BHAKTA SAMITI

Star of Cochin, Opp. Broadway Cinema, Dadar, Bombay-14.

## SOCIETY OF SERVANTS OF GOD

Mayfair, 84, Little Gibbs Road, Bombay 6.

## SPIRITUAL ASSEMBLY OF THE BAHA'I OF THE CITY OF BOMBAY

Baha'is Centre, 7, Bruce Street, Bombay 1.

*Objects* :—To establish universal peace and the oneness of mankind in co-operation with fellow Baha'is of over 5,000 Centres in 256 other countries through the spiritual principles of the Baha'i World Faith proclaimed by Baha-u-llah in 1863.

## SPIRITUALIST DEVELOPMENT AND HEALING CIRCLE

Kalam Kutir, 211/219, Frere Road, Bombay.

To help those who desire to develop psychic power and to give relief to those who are ailing.

## ST. JOSEPH'S CONVENT

Bandra, Bombay 50.

This Institution, conducted by the Daughters of the Cross of Liege, Belgium, comprises :—

1. An Anglo-Indian High School (Boarding and Day).
2. An English-Teaching High School (Boarding and Day).
3. An Orphanage.

## THEOSOPHICAL SOCIETY

The Blavatsky Lodge, T.S. French Bridge, Bombay 7.

This is the first Lodge in India, founded in 1879, having a good library, a book-depot and Besant Hall for public activities.

## WESTERN INDIA UNION OF SEVENTH-DAY ADVENTISTS

HEADQUARTERS ADDRESS : 16, Club Road, Byculla, Bombay 8.
PRESIDENT : Pastor M. D. Moses.
SECRETARY AND TREASURER : W. M. Hillock.

## ZOROASTRIAN RADIH SOCIETY

Noble Chambers, No. B, Parsi Bazar Street, Bombay 1.

# READING ROOMS AND LIBRARIES IN GREATER BOMBAY

### THE ASIATIC SOCIETY OF BOMBAY
Town Hall, Bombay 1.

### BLAVATSKY LODGE LIBRARY
Blavatsky Lodge, T.S., French Bridge, Bombay 7.

### BOMBAY KERALEEYA SAMAJ LIBRARY & FREE READING ROOM
Road No. 2, Hindu Colony, Dadar, Bombay 14 and Kerala Bhavanam, 16A, K. A. Subramanian Road, King's Circle, Bombay 19 and "Prasanna", Plot No. 534, 11th Road, Chembur, Bombay 71.

*President :* Dr. V. Gopalan ; *Chairman :* A. Narayanan ; *Secretary :* K. J. Thomas ; *Treasurer :* P. Sankaranarayanan.

### BOMBAY UNIVERSITY LIBRARY
Mayo Road, Fort, Bombay 1.

### BRITISH INFORMATION SERVICES
Mercantile Bank Bldg., Mahatma Gandhi Road.

### CHUNILAL SHROFF LIBRARY FOR COLLEGE STUDENTS
C/o Shroff Private Ltd., Sir Vithaldas Chambers, 16, Apollo Street, Fort, Bombay 1.

### DAVID SASSOON LIBRARY AND READING ROOM
152, Mahatma Gandhi Rd., Bombay 1.

### Dr. H. D. KANGA MEMORIAL LIBRARY
Brabourne Stadium (North Stand),
Veer Nariman Road, Bombay 1.

Possesses over 4,600 books and subscribes for 25 magazines and periodicals on all kinds of games indoor and outdoor.

### JAMSETJEE NESSERWANJI PETIT INSTITUTE
312, D. Naoroji Road, Bombay 1.

*Librarian.*—Minocher K. Mowdavala, B.A., LL.B., A.L.A.

### K. R. CAMA ORIENTAL INSTITUTE LIBRARY
136, Apollo Street, Fort.

### KARNATAKA FREE READING ROOM AND LIBRARY
46, Vir Nariman Road, Bombay 1.

### MAHARASHTRA MITRA MANDAL LIBRARY AND FREE READING ROOM
Saraswati Building, Government Gate Road, Lalbaug, Bombay 12.

*President :* Y. S. Shinde.
*Hon. Secretaries :* S. K. Prabhu, K. S. More.

### MOOLJIBHOY JIVRAJ KHOJA GENERAL READING ROOM AND LIBRARY
(Estd. 1865)
9, Dontad Cross Lane, Khadak, Bombay 9.

### MUMBAI MARATHI GRANTHA SANGRAHALAYA
172, Naigaum Cross Road, Bombay 14.

### MUNSHI SARASWATI MANDIR GRANTHAGAR
Bharatiya Vidya Bhavan, Chowpatty Road, Bombay 7.

### PEOPLE'S FREE READING ROOM AND LIBRARY
Ravelin Street, Dadabhai Naoroji Road, Fort.

The Institution has one branch at Dhobi Talao.
This is one of the oldest Free Reading Rooms & Libraries in Bombay, which caters to the public of Bombay of all castes and communities.

*Secretary and Chief Librarian.*—H. K. Vyas.

### SANTA CRUZ MALAYALEE SAMAJ LIBRARY AND FREE READING ROOM
14, Air View, Vakola, Santa Cruz, Bombay 55.

*Librarian.*—G. Rajan.

### SHRIMAN MUNI MAHARAJ SHRI MOHANLALJI JAIN CENTRAL LIBRARY AND SANSKRIT PATHSHALA
Near Madhavbag, Bombay 4.

### TATA INSTITUTE OF FUNDAMENTAL RESEARCH LIBRARY
Colaba, Bombay 5.

### TATA INSTITUTE OF SOCIAL SCIENCES LIBRARY
Sion-Trombay Road, Chembur, Bombay 71.

### TRADE MARKS REGISTRY LIBRARY
Central Govt. Building, Queen's Road, Bombay 1.

### UNITED STATES INFORMATION SERVICE
"The International,"16, Queen's Road Estate, Bombay 1.

# SWIMMING POOLS AND BATHS IN GREATER BOMBAY

### BREACH CANDY SWIMMING BATH TRUST
66, Bhulabhai Desai Road, Bombay.

Dimensions of Pool : The main pool is irregular in shape covering an area of approximately 3,500 sq. yards containing about 1¼ million gallons of sea water.

### GOLWALLA'S VICTORIA SWIMMING BATH
Backbay, Fort, Bombay.

This has been the oldest and the first cosmopolitan Salt Water Swimming Pool since 1901, and over 100,000 people of both sexes have learnt Swimming, Diving and Water Polo.

The Bath has also a most up-to-date Rowing and Boating Club and is the first of its kind in India to have shallow ends on both sides with dressing rooms beneath the pool and a complete change of water every day. There are underwater lighting arrangements and observation windows for training in elementary and advanced swimming and diving.

The Bath is open to all communities of both sexes and special personal instruction in Swimming, Diving, Life Saving, Water Polo, Rowing etc., is given by a staff of well qualified teachers.

### MAFATLAL PARK SWIMMING POOL
Bhulabhai Desai Road, Bombay.

Dimensions of the Pool : 60 ft. 6 in. long and 30 ft. 4 in. wide. The depth varies from 3 ft. at one end to 8 ft. 3 in. at the deepest point and again reduces to 6 ft. 9 in. at the other end.

The swimming pool is meant for the use of the tenants of Mafatlal Park only, free of charge. However tenants can bring their own guests in which case they are charged at the rate of Re. 1 per guest, per day.

The Swimming Pool is managed by Messrs. Mafatlal Gagalbhai Co., Private Ltd., Bombay, the proprietors of Mafatlal Park.

### MAHATMA GANDHI MEMORIAL OLYMPIC SWIMMING POOL
(Bombay Municipal Corporation).
Cadell Road, Bombay 28.

Largest fresh-water pool in India constructed by the Bombay Municipal Corpn. as a memorial to Mahatma Gandhi. The pool can accommodate over 450 persons at a time.

Dimensions of the Pool : 165 ft. by 60 ft. with a recess for diving 60 ft. by 40 ft. Depth varying from 3 ft. shallow end to 16 ft. below the diving stage. Capacity 7½ lakhs of gallons.

Entrance Fee Rs. 3 ; Monthly Rs. 4 ; Quarterly Rs. 10 ; Yearly Rs. 30 ; Instruction fee Rs. 10 (Quarterly) ; Special Concession (Yearly) for family members ; Members' Guest 0·60 ; Casual Dip 0·50 ; Visitors 0·05 ; Labourers & Factory Workers 0·10 per hour for 2 hours on Sundays only. Reservation Charges Rs. 30 per hour. Mixed bathing on Sundays and bank holidays only when non-members are also allowed on a charge of Re. 1 per head.

*Manager :* S. N. Pinge.

### PRANSUKHLAL MAFATLAL HINDU SWIMMING BATH AND BOAT CLUB TRUST
OFFICE : Netaji Subhas Road, Bombay 7.

The above Club owns two Swimming Pools (Gents & Ladies), claiming membership of about 7,000 Ordinary and 1,900 Life Members situated at Netaji Subhas Road, Bombay-7 with modern club with Badminton, Billiards and Table Tennis sections. The land is contained by admeasurement 12,210 sq. yds. ; the construction cost about Rs. 9,00,000.

The Club is governed by a scheme approved by the High Court and managed by a Managing Committee consisting of seven Trustees as ex-officio members in addition to fourteen elected members.

### WILLINGDON SPORTS CLUB SWIMMING POOL
Bombay 34 (W.B.).
(FOR MEMBERS AND THEIR GUESTS ONLY).

Size of the Pool—60′ × 30′.
Depth—at shallow end 3′-6″.
„ below high diving board 9′.
„ at deep end 7′.
Capacity of Pool—80,000 gallons.
„ of Filtration Plant—7,000 gallons per hour.

# BANKS and BANKERS

## ALLAHABAD BANK, LTD.

(Established 1865).

Affiliated to the Chartered Bank.

AUTHORISED CAPITAL .. .. .. Rs. 3,00,00,000
ISSUED & PAID-UP CAPITAL .. .. Rs. 82,50,000
RESERVES .. .. .. .. .. Rs. 1,40,47,000

LONDON CORRESPONDENTS :—The Chartered Bank.

REGISTERED OFFICE : 14, India Exchange Place, Calcutta 1.

*Chairman :* Shri S. P. Puri; *General Manager :* J. Ritchie, O.B.E.

BOMBAY MAIN OFFICE

Allahabad Bank Building, 37, Apollo Street. Agent—Shri N. S. Chakravarti; Accountant—Shri A. D. Nadkarni; Asst. Accountants: Sarvasri P. K. Ghose, C. M. Chandran, B. S. Pimplapure, D. S. Vithalkar, D. T. Barve and R. V. Redkar. Tel. Address: "Allah." Phone for Office No. 2535-46, for Agent No. 251935. P.O. Box No. 282.

BOMBAY CITY OFFICE (Kalbadevi)

Western India Chamber of Commerce Building, 232-34, Kalbadevi Road Agent—Shri R. L. Lewis, Assistant Agents—Sarvashri P. S. Vedpathak, V. P. Shah and B. N. Chatterjee, R. C. Shukla. Tel. Address: "Allacity." Phone No. 29404.

BRANCHES

Agra, Agra Belan Gang, Agra City, Ahmedabad Maskati Market, Akola, Aligarh, Aligarh Muslim University, Allahabad, Allahabad City, Allahabad-Katra, Ambala Cantt., Amritsar, Auraiya, Banda, Bangalore, Bareilly, Bareilly City, Bareilly Shiamganj Batala Bhagalpur, Bhopal, Bindki, Bombay, Bombay Kalbadevi Road, Buxar, Calcutta, Calcutta B. K. Paul Avenue, Calcutta Bhowanipore, Calcutta Brabourne Road, Calcutta Burra Bazar, Calcutta College Street Market, Calcutta Gariahat, Calcutta Shambazar, Calcutta South, Chandrapur, Chandausi, Chandigarh, Dehra Dun, Delhi, Delhi Sadar Bazar, Deoria, Dhanbad, Drug, Etawah, Faizabad, Fatehpur, Firozabad, Ghaziabad, Ghazipur, Gorakhpur, Gorakhpur City, Gulaothi Hapur, Hardoi, Hathras, Hyderabad Deccan, Jabalpur, Jabalpur City, Jaipur, Jamalpur, Jhansi, Jullundur City, Jullundur Civil Lines, Kalpi, Kanpur, Kanpur City, Kanpur Swampnagar, Laharpur, Lucknow, Lucknow Aminabad Park, Lucknow City, Ludhiana, Madhupur, Mahoba, Mathura, Meerut, Meerut City, Mirzapur, Modinagar, Moradabad, Moradabad City, Mussoorie, Muzaffarnagar, Muzaffarpur, Nagpur, Nagpur City, Nagpur Gandhi bagh, Naini Tal, New Delhi Scindia House, New Delhi Parliament Street, New Delhi Karol Bagh, Orai, Patna, Patua University, Rae Bareli, Raipur, Rajnandgaon, Ranchi, Satna, Shahjahanpur, Shahjahanpur City, Sitapur, Varanasi.

PAY OFFICES

Agra Hotel Clarks Shiraz, Agra University, Bhagalpur University.

## THE AMERICAN EXPRESS COMPANY, INC.

(Incorporated in the U.S.A. with limited liability).

International Bankers, Travel Agents.

HEAD OFFICE : 65, Broadway, New York, N.Y. CAPITAL : (Paid-up) : U.S. $6,000,000. SURPLUS and RESERVES : U. S. $ 23,132,035. LONDON OFFICE : 25, Abchurch Lane, London E.C. 4. BOMBAY OFFICE : 364, Dr. Dadabhai Naoroji Road, Fort. Bombay 1. GRAMS : "AMEXCO", Phone Nos. 25-5021/4. Calcutta Office : 21, Old Court House Street. Grams : "AMEXCO" ; Phone No. : 236281, New Delhi Office : Hamilton House, Block A, Connaught Place, New Delhi, Grams : "AMEXCO" ; Phone No. : 43553. Branches in all the principal cities throughout the world.

## THE BANK OF BARODA LIMITED

* *Registered Office : Mandvi, Baroda*

LIST OF BRANCHES :

ANDHRA PRADESH : Guntur, *Hyderabad, Kakinada, *Secunderabad, Vijayawada, Visagapatnam.

BIHAR : Dhanbad, Jamshedpur.

EAST PUNJAB & DELHI : Amritsar, Chandigarh, Sector 17-B and Sector 22-C, Gurgaon, Jullundur City, *Ludhiana, Delhi (Chandni Chowk), * Delhi (Sadar Bazar), * Delhi (Shaktinagar), New Delhi (Asaf Ali Road), New Delhi (Connaught Circus), *New Delhi (Greater Kailash No. 1), New Delhi (Karol Baug), New Delhi (Paharganj), New Delhi (South Extension No. 1, Ring Road).

GOA : Margao, Vasco-da-Gama.

GUJARAT : *Ahmedabad (Ambawadi), *Ahmedabad (Asarwa), *Ahmedabad (Bhadra), Ahmedabad (Dariapur), *Ahmedabad (Delhi Chakla), Ahmedabad (Dhanlaxmi Market), *Ahmedabad (Ellis Bridge), Ahmedabad (Girdharnagar), *Ahmedabad (Geeta Mandir Road), Ahmedabad (Kalupur), *Ahmedabad (M. G. Road, Main Branch), *Ahmedabad (Maninagar), *Ahmedabad (Navrangpura), Ahmedabad (Panch Kuva), *Ahmedabad (Relief Road), *Ahmedabad (Sabarmati), Ahmedabad (University Campus), *Amalsad, *Amreli, Anand, Anklav Bahadarpur, Baroda (Alkapuri), Baroda (Industrial Estate), Baroda (Khanderao Market), Baroda (M. S. University Extn.), Baroda (Pratapnagar), Baroda (Raopura), *Baroda (Sayaji Ganj), Bhadran, Bhavnagar, *Billimora, Bodeli, Borsad, Broach, *Cambay, Chhani, *Chikhli, *Dabhoi, Dehgam, Dholka, Dhuwaran, *Dwarka, Godhra, Harij (N.G.), *Jamnagar, Junagadh, Kadi (N.G.), *Kalol (N.G.). *Kapadwanj, *Karjan (Miyagam), *Kosamba, *Madhi, Mansa, *Maroli Bazar, Mehlav Mehsana, *Mithapur, †*Nadiad. *Navsari (Panch Hatdi) *Navsari (Station Road),† *Patan (N.G.), Patdi (Dist. Surendranagar), *Petlad, Porbandar, Radhanapur, *Rajkot, *Rajpipla, *Rander, Sanjan, *Sankheda, Savli, Shahpur, *Sidhpur, Surat (Kanpith), Surat (Parsee Sheri), Surat (Salabatpura), Surat (Vania Sheri), Surendranagar Talod, Udhna, *Umbergaon, Umreth, Unjha (N.G.), Vadnagar, Vapi, Vasad, Veraval, Vijapur, *Viramgam, *Visnagar, Vyara, Virsad.

KERALA : Alwaye, Cochin, Irinjalakuda.

MADHYA PRADESH : Bhilai, *Indore (Sitalamata Bazar), Indore (Siyaganj).

MADRAS : Coimbatore, Madras (Ambattur), Madras (E. C. Street), Madras (Mount Road), Madras (Mylapore), *Madras (North Beach Road, Main Branch), Madras (Theagaroyanagar), *Tiruchirapally, Lalgudi, Tanjore, Mannachanallur.

MAHARASHTRA : Ahmednagar, Akola, Amraoti, *Bombay (Andheri), *Bombay (Backbay Reclamation), Bombay (Ballard Estate), *Bombay (Bandra), Bombay (Bori Bunder), Bombay (Bullion Hall), Bombay (Byculla), *Bombay (Colaba), Bombay (Crawford Market), Bombay (Dadar), *Bombay (Fort, Main Branch), Bombay (Gamdevi), *Bombay (Ghatkopar), Bombay (Girgaum) *Bombay (Khand Bazar), Bombay (Khar), *Bombay (Khar Pali Road), *Bombay (Khetwadi), Bombay (Mandvi), Bombay (Mangaldas Market), *Bombay (Matunga, Chandavarkar Road), Bombay (Matunga, Podar College), *Bombay (Mulund), Bombay (Nepean Sea Road), **Bombay (Opera House), Bombay (Princess Street), *Bombay (Shivaji Park), Bombay (Sir Pherozeshah Mehta Road), *Bombay (Sion), Bombay (Vile-Parle, East), *Bombay (Vile-Parle, West), *Bombay (Wadala), *Bombay (Zaveri Bazar), Chandrapur, *Deolali, Dhulia, Ichalkaranji, Jalgaon, Karanja, Kolhapur (Shahupuri), Kolhapur (Shivaji Chowk), Kopergaon, Lonand, Mahad, Malegaon, Miraj, Murtizapur, *Nagpur (Dharampeth), *Nagpur (Ghandhi Baug), Nagpur (Sitabuldi), *Nandurbar, Nasik City, Nasik Road, Pandharpur, *Pen (Kolaba), *Poona Camp, Poona City (Budhwar Peth), *Poona City (Laxmi Road), *Poona (Shivajinagar), *Sangamner, Sangli, Sholapur, Sinnar, Thana, Yeotmal.

MYSORE *Bangalore *Belgaum, Mangalore, Mysore.

ORISSA : Rourkela.

RAJASTHAN : *Ajmer, *Jaipur (M. I. Road), Jaipur (Tripolia Bazar), *Jodhpur, *Kota.

UTTAR PRADESH : Allahabad, Bareilly, Fatehganj West, Kanpur (Birhana Road), Kanpur (Latouche Road), Lucknow.

WEST BENGAL: Asansol, Calcutta (Ballygunge), *Calcutta (Bhowanipore), Calcutta (Brabourne Road), Calcutta (Burra Bazar), *Calcutta (Dum Dum), *Calcutta (India Exchange, Main Branch), *Calcutta (M. Gandhi Road), *Calcutta (Sham Bazar), Calcutta (Lake Market), Howrah

FOREIGN BRANCHES :

UNITED KINGDOM : London.

EAST AFRICA : Dar-es-Salaam (Tanzania), *Jinja (Uganda), *Kampala (Uganda),†*Kisumu (Kenya), *Mbale (Uganda), *Mombas, (Makadara Road) (Kenya), *Momasa (Salim Road) (Kenya), Moshi (Tanzania), *Mwanza (Tanzania), *Nairobi (Coryndon Street) (Kenya) Nairobi (City Square) (Kenya).

EAST PAKISTAN : Narayangunj.

FIJI ISLANDS : Suva, *Lautoka.

MAURITIUS : †Port Louis.

Agents in All Principal Countries of the World.

*Safe Deposit Lockers are provided.

**Safe Deposit Lockers only.

†Mobile Bank is operated in the surrounding villages.

## THE BANK OF INDIA LIMITED

(Established : 7th September, 1906)

*Registered Office* :—70/80, Mahatma Gandhi Road, Bombay 1.

| | | |
|---|---|---|
| CAPITAL—AUTHORISED .. .. .. | Rs. | 10,00,00,000 |
| CAPITAL—ISSUED AND SUBSCRIBED .. | Rs. | 7,60,00,000 |
| CAPITAL—PAID-UP .. .. .. .. | Rs. | 4,05,00,000 |
| RESERVE FUND AND OTHER RESERVES AS AT 31ST DECEMBER 1965 .. .. | Rs. | 5,47,50,000 |
| DEPOSITS AS AT 31ST DECEMBER 1965 EXCEED .. .. .. .. .. | Rs. | 239 Crores |
| WORKING FUNDS EXCEED .. .. .. | Rs. | 295 Crores |

BOARD OF DIRECTORS :

Mr. Krishnaraj M. D. Thackersey, (*Chairman*) ; Mr. Ramniwas Ramnarain, (*Vice-Chairman*) ; Mr. Bhagvandas C. Mehta ; Mr. Madanmohan Mangaldas ; Mr. N. K. Petigara ; Mr. Jugmohan Prasad Goenka ; Mr. Jaisinh Vithaldas ; Mr. Girdharilal Mehta ; Mr. Pratap Bhogilal ; Mr. S. P. Godrej ; Dr. Vikram A. Sarabhai.

HONORARY ADVISER : MR. AMBALAL SARABHAI.

GENERAL MANAGER : MR. T. D. KANSARA.

*Overseas Branches :* Aden, Birmingham, Dar-es-Salaam, Hong-Kong, Jinja, Kampala, Karachi, Lagos, London, Manchester, Mombasa, Nairobi, Osaka, Singapore, Tokyo.

BRANCHES IN INDIA :—

BOMBAY :—Mahatma Gandhi Road (*Main Office*), Andheri, Bandra, Borivli, Bullion Exchange, Chembur, Churchgate, Cotton Exchange, C. P. Tank, Cusrow Baug, Dadar (West), Electric House, Fort, Ghatkopar, Girgaum, Goregaon, Kalbadevi, Khar, King's Circle, Mahalaxmi, Mahim, Malabar Hill, Malad, Mandvi, Mohamedali Road, Naigaum Cross Road, Sandhurst Road, Santa Cruz, Sion, Tardeo, Walkeshwar, Wodehouse Road.

AHMEDABAD :—Bhadra (*Main Office*), Ambavadi, Delhi-Chakla, Ellis Bridge, Gandhi Road, Mandvi Pole, Manek Chowk, Maninagar, Navrangpura, New Cloth Market, Paldi, Relief Road, Sabarmati, Saraspur, Station.

AMRITSAR :—Hall Bazar (*Main office*), Golden Temple Road.

BANGALORE :—Kempegowda Road (*Main Office*), Malleswaram.

BARODA :—Mahatma Gandhi Road (*Main Office*), Alkapuri, Raopura.

BHOPAL :—Marwari Road (*Main Office*), Tatya Tope Nagar.

CALCUTTA :—Netaji Subhas Road (*Main Office*), Bara Bazar, Bhowanipur, Bow Bazar, Chowringhee Square, C.I.T. New Road, Lindsay Street, Mission Row, Vivekananda Road.

COCHIN :—Mattancherry (*Main Office*), Willingdon Island.

DELHI :—Janpath (*Main Office*), Ajmere Gate Extension, Bank Street, Chandni Chowk, Connaught Circus, Connaught Place, Kamla Nagar, Karol Bagh, Khan Market, Kirti Nagar, Narela, Paharganj, Patel Nagar.

INDORE :—Santa Bazar (*Main Office*), Siyaganj.

JAMSHEDPUR :—Sakchi Boulevard (*Main Office*), Telco Town.

KANPUR :—Kasturba Gandhi Marg (*Main Office*), General Gunj.

MADRAS :—Armenian Street (*Main Office*), Mount Road, Mylapore, Sowcarpet, Theagaroyanagar.

NAGPUR :—Kingsway (*Main Office*), Dharampeth, Gandhi Baug, Itwari Bazar.

POONA :—Elphinstone Road (*Main Office*), Budhwar Peth, Hadapsar, Laxmi Road.

RAJKOT :—Camp (*Main Office*), Lakhajiraj Road.

OTHER BRANCHES :—Anand, Asansol, Bhavnagar, Bhuj, Calicut, Chaibasa, Chakan (Dt. Poona), Chas (Dt. Dhanbad), Chikhodra (Dt. Kaira), Coimbatore, Coonoor, Dehu Road, Durgapur, Ernakulam, Gandhidham, Gauhati, Ghodnadi (Dt. Poona), Gwalior, Hospet, Howrah, Hyderabad, Jabalpur, Jaipur, Jamnagar, Jullundur, Junagadh, Junnar, Kalol, Kalyan, Kalyani (West Bengal), Kamarhatty, Kath'al (Dt. Kaira), Kolhapur, Kota, Kuvadva, (Dt. Rajkot), Ludhiana, Madurai, Margao (Goa), Morvi, Nadiad, Naroda, Navsari, Paddhari, Palanpur, Panagarh (Dt. Jabalpur), Patna, Pimpri, Porbandar, Ranchi, Rourkela, Sanganer (Dt. Jaipur), Saswad, Secunderabad, Sholapur, South Suburbs (West Bengal), Surat, Thana, Tiruchirapalli, Ujjain, Varanasi, Vasco-da-Gama (Goa), Vatva, Veraval, Visakhapatnam.

Correspondents in all the principal countries of the world.

## THE BANK OF TOKYO, LIMITED

Incorporated in Japan.

Liability of Shareholders Limited.

*Head Office :* Nihombashi, Chuoku, TOKYO (Japan) ; 24 Overseas Offices ; 22 Overseas Representatives Offices ; 2 Affiliate Banks ; 1 Associated Bank. *Bombay Office :* "Jeevan Prakash", Sir Phirozshah Mehta Rd., Bombay-1 (BR). *Calcutta Office :* 2, Brabourne Road, Calcutta 1. *New Delhi Office :* "Jeevan Vihar," 3 Parliament Street, New Delhi 1.

## THE BOMBAY MERCANTILE CO-OPERATIVE BANK LIMITED

ESTD. JUNE 1939.

HEAD OFFICE : 78, Mohamedali Road, Bombay 3.

Phone : 325961 (5 Lines)

| | | |
|---|---|---|
| AUTHORISED CAPITAL .. .. .. | Rs. | 20,00,000·00 |
| ISSUED, SUBSCRIBED AND PAID-UP CAPITAL .. .. .. .. .. | ,, | 19,35,900·00 |
| RESERVE AND OTHER FUNDS .. .. | ,, | 9,28,900·00 |
| DEPOSITS .. .. .. .. .. | ,, | 3,58,06,900·00 |
| WORKING CAPITAL .. .. .. .. | ,, | 4,28,46,800·00 |
| CASH AND INVESTMENTS IN GOVT. SECURITIES .. .. .. .. .. .. | ,, | 1,92,36,900·00 |

Annual Turnover exceeds Rupees Sixty-five Crores (Government Audit Classification "A").

CHAIRMAN :—Khan Bahadur Mohamedally Allabux.

MANAGING DIRECTOR:—Zain G. Rangoonwalla, J.P.

*Branches :*—Jariwalla Building, Null Bazar, Bombay 3. Phone ; 332778. 294, Abdulrehman Street, Bombay 3. Phone : 325961 (5 Lines).

*Sub-Office :* Mohamed Haji Saboo Siddick Musafirkhana, Carnac Road, Bombay 1.

*Gujarat Branch :* Gandhi Road, Ahmedabad.

*All kinds of Banking Business Transacted.*

## THE BRITISH BANK OF THE MIDDLE EAST

(Incorporated in England by Royal Charter 1889).

HEAD OFFICE :—7, King William Street, London E.C. 4.

| | |
|---|---|
| AUTHORISED CAPITAL .. .. .. .. | £2,500,000 |
| ISSUED AND FULLY PAID-UP .. .. .. | £2,500,000 |
| RESERVE FUND .. .. .. .. | £3,066,922 |

BOARD OF DIRECTORS :—Sir Michael Turner, C.B.E. (Chairman) ; Sir G. C. R. Eley, C.B.E. (Deputy Chairman) ; Sir Dallas Bernard, Bt. Sir Alec Seath Kirkbride, K.C.M.G., C.V.O., O.B.E., M.C. ; H. Musker, O.B.E., M.C. ; G. O. W. Stewart, Sir Roger Bentham Stevens, G.C.M.G. ; Sir Humphrey Trevelyan, G.C.M.G., C.I.E., O.B.E. ; Claude Evan Loombe, C.M.G.

*General Manager :* A. Macqueen ; *Deputy General Manager :* F. J. L. Wilkes, M.B.E.

*Branches :*—ADEN—Crater, Steamer Point ; INDIA—Bombay ; JORDAN—Amman, Jerusalem ; LEBANON—Beirut (3 Branches), Tripoli ; SAUDI ARABIA—Alkhobar (with Sub-branch Damam), Jeddah ; SHEIKHDOM OF BAHRAIN—Manama, Muharraq ; STATE OF KUWAIT—Kuwait (6 Branches) ; SULTANATE OF MUSCAT AND OMAN—Muscat, Muttrah ; SHEIKHDOM OF QATAR—Doha ; TRUCIAL STATES—Sheikhdom of Abu Dhabi ; Abu Dhabi ; Sheikhdom of Dubai ; Deira, Dubai ; Sheikhdom of Rasal Khaimah ; Ras al Khaimah ; Sheikhdom of Sharjah ; Sharjh ; TUNISIA—Tunis.

*Bombay Branch :*—314, Dr. Dadabhai Naoroji Road, Fort, Bombay 1. *Manager :*—K. V. R. Jefferies, *Sub-Manager :*—J. de. C. Stevens Guille, *Telephone :*—252267-8-9. *Tel. Address :*—"BACTRIA."

SUBSIDIARY COMPANY

THE BRITISH BANK OF THE MIDDLE EAST

(Morocco) S. A.

Capital Dirhams 1,600,000

Casablanca (Morocco)

TANGIER (DO)

ASSOCIATED COMPANY

THE BANK OF IRAN AND THE MIDDLE EAST

Capital Rials 250,000,000.

*Head Office :* Teheran (with 3 Sub-Branches), Iran (Persia).

*Branch Office :* Khorramshahr, Iran (Persia).

BANK OF NORTH AFRICA

*Head Office :* Tripoli,

*Branch Office :* Benghazi.

## CANARA BANK, LIMITED

(Established in 1906). HEAD OFFICE :—Mangalore, South Kanara. Administrative Office : Bangalore. Foreign Departments in Bombay, Calcutta, Madras and New Delhi.

## THE CENTRAL BANK OF INDIA, LIMITED

(Established—December, 1911)

REGISTERED OFFICE: Mahatma Gandhi Road, Fort, Bombay 1.

| | | |
|---|---|---|
| AUTHORISED CAPITAL .. .. | Rs. | 10,00,00,000 |
| SUBSCRIBED CAPITAL .. .. | ,, | 8,90,72,650 |
| PAID-UP CAPITAL .. .. | ,, | 4,71,61,325 |
| RESERVE FUND & OTHER RESERVES | ,, | 6,34,55,589 |
| DEPOSITS AS AT 31-12-1964. .. | ,, | 2,77,41,12,289 |

DIRECTORS:

Sir Homi Mody, K.B.E. (*Chairman*); Mr. Cooverji Hormusji Bhabha (*Vice-Chairman*); Mr. Dharamsey Mulraj Khatau, Mr. Chimanlal Bapalal Parikh; Sir Jamsetjee Jejeebhoy (Bart); Mr. Jaykrishna Harivallabhdas; Mr. Shiavax Sorabji Khambata; Mr. Nityanand Mangesh Wagle; Nawab Prince Mukarram Jah Bahadur; Mr. Nariman Kaikhushru Karanjia, Mr. Akbar Hydari.

Branches and Pay Offices in all important Commercial Centres of India and Pakistan.

LONDON BRANCH:
Orient House, 42-45, New Broad Street, London E.C. 2.

NEW YORK AGENTS:
Morgan Guaranty Trust Co. of New York.
The Chase Manhattan Bank.

V. C. Patel
General Manager

## THE CHARTERED BANK

(INCORPORATED IN ENGLAND BY ROYAL CHARTER, 1853.)

Wholly owned subsidiaries: The Eastern Bank Ltd., The Chartered Bank of London, San Francisco. Affiliated bank in India: Allahabad Bank Ltd.

Associated Companies: Commercial Bank S. A. L., Libya; Irano British Bank, Iran; Credit Corporation (Malaysia) Ltd., Singapore; The Mutual Acceptance Co. Ltd., Australia; Conrad Hinrich Donner, West Germany.

| | |
|---|---|
| AUTHORISED CAPITAL .. .. .. .. | £ 10,000,000 |
| CAPITAL STOCK ISSUED .. .. .. .. | £ 8,470,000 |
| RESERVE FUND .. .. .. .. .. | £ 9,450,000 |

HEAD OFFICE.—38, Bishopsgate, London, E.C. 2.

COURT OF DIRECTORS.—Vincent Alpe Grantham (*Chairman*); Sir John Tait (*Deputy Chairman*); Sir Paul Benthall, K.B.E.; Sir Arthur Atkinson Bruce. K.B.E., M.C.; William Ewing Eadie, C.A.; Sir Harry Greenfield, C.S.I., C.I.E.; The Rt. Hon. The Earl of Inchcape; Sir Evan Meredith Jenkins, G.C.I.E., K.C.S.I.; Ian Lilburn MacEwen; Sir Charles Watt Miles, O.B.E.; Kenneth M. Campbell, M.B.E.; Sir John Henry Swain Richardson; Clifford Waite, C.M.G.; J. M. Pattinson, C.B.E.; Derck Lister d'Anyers Willis.

CHIEF GENERAL MANAGER.—W. G. Pullen.

JOINT GENERAL MANAGERS.—David Beath, Stafford Northcote, J. Shewan, A. T. Hobbs.

ASSTT. GENERAL MANAGER.—R. A. S. Lane.

SECRETARY.—J. A. S. L. Leighton-Boyce.

WEST END BRANCH.—2, Regent Street, London, S.W. 1.

MANCHESTER BRANCH.—52, Mosley Street, Manchester 2.

LIVERPOOL BRANCH.—28, Derby House, Exchange Buildings, Liverpool, 2.

NEW YORK BRANCH.—76, William Street, New York 5, N.Y., U.S.A.

HAMBURG BRANCH.—Dornbusch 2, Hamburg 1, W. Germany.

BOMBAY BRANCH.—25, Mahatma Gandhi Road, P.O. Box No. 558.

*Manager.*—D. C. Martin; *Deputy Manager:* J. B. Collier; *Accountant:* P. Bolander.

TELEGRAPHIC ADDRESS:—"CHARTABANK", Telex. 230, Phone No. 255241 (5 Lines).

REPRESENTATIVE OFFICE

The Chase Manhattan Bank, N. A.

CAPITAL: $507,086,637; SURPLUS, UNDIVIDED PROFITS and RESERVE for CONTINGENCIES: $621,792,334; RESOURCES OVER: $15,331 million; HEAD OFFICE: 1, Chase Manhattan Plaza, New York; 130 Offices in Greater New York. MAIN LONDON OFFICE: 6, Lombard St., E.C.3; WEST END BRANCH: 46, Berkeley Square, W.1; OTHER BRANCHES: France (Paris); Germany (Frankfurt/M); Lebanon (Beirut); Liberia (Monrovia); Japan (Tokyo, Osaka); Hong Kong; Thailand (Bangkok); Singapore; Malayasia (Kuala-Lumpur); Nigeria (Lagos); Panama (5); Canal Zone (1); Bahamas (Nassau); Puerto Rico (4); South Africa (3); Trinidad (Port-of-Spain); Virgin Islands (4); Representative Offices at Washington, D.C., Buenos Aires (Argentina), Madrid (Spain), Geneva (Switzerland), Rome (Italy), Mexico, D.F., Rio de Janeiro (Brazil), Australia (Melbourne). Correspondents throughout the commercial world. Overseas Affiliates: Banco Lar Brasileiro, S.A., Rio de Janeiro (13 Branches); Banco Mercantil Y Agricola, C.A., Caracas, Venezuela (4 Branches); Banco Continental, Peru, The Standard Bank of South Africa Ltd., Johannesburg. BOMBAY REPRESENTATIVE OFFICE: New India Assurance Building, Mahatma Gandhi Road, Post Box 1961, Telephone: 252759.

## COMPTOIR NATIONAL D'ESCOMPTE DE PARIS

(FRENCH BANK).

(Incorporated in France with Limited Liability.)

HEAD OFFICE:—14, Rue Bergere, Paris 9e.

LONDON BRANCH.—8/13, King William Street, E.C. 4.

TELEGRAPHIC ADDRESS FOR H.O. AND BRANCHES: "COMPTONIA".

BOMBAY OFFICE.—French Bank Building, 62, Homji Street, Fort. Phone: 251347-8-9. "Telex: 011-341".

CALCUTTA OFFICE:—Stephen House, 4A, Dalhousie Square East. Phone: 239841-2-3. Telex: 021-353.

NEW DELHI REPRESENTATION:—19A, Ratendon Road. Phone: 611517.

*Other Branches:* Brussels, Sydney, Melbourne, Brisbane, and over 800 in France and Algeria (Affiliates—French American Banking Corporation, New York, Banque d'Escompte et de credit a L'Industrie in Tunisia, Banque Malgache d'Escompte et de credit in Madagascar).

## DAXINI BRAHMAN CO-OPERATIVE BANK LTD., BOMBAY.

Jayant Nivas, 163-165, Jagannath Shankar-Sheth Road, Girgaum, Bombay-4.

*Branch Office:* Bhagirthi Nivas, N. C. Kelkar Road, Dadar, Bombay 28. Membership open to all above the age of 18, residing in greater Bombay and area upto and inclusive of Virar & Kalyan. Deposit account can be opened by any body. Advances are granted to members against Gold Ornaments, Silver, Government and other Trustee Securities, Life Insurance Policies, Shares of Jt. Stock Companies, Goods, Property etc. Advances against Gold & Silver only are granted to Nominal Members. Transacts all kinds of Banking business. Phone: Head Office: 355738, Branch: 451814.

## DEVKARAN NANJEE BANKING CO., LTD.

(Incorporated in Bombay under the Indian Companies Act on 26th May 1938)

| | | |
|---|---|---|
| AUTHORISED CAPITAL .. .. .. | RS. | TWO CRORES |
| ISSUED, SUBSCRIBED AND PAID-UP CAPITAL .. .. .. .. | ,, | ONE CRORE AND TWENTY-FIVE LAKHS |
| RESERVE FUNDS .. .. .. | ,, | ONE CRORE AND THIRTY LAKHS |
| DEPOSITS EXCEED .. .. .. | ,, | EIGHTY CRORES |
| WORKING FUNDS EXCEED .. .. | ,, | NINETY CRORES |
| NO. OF ACCOUNTS EXCEED .. .. | ,, | FOUR LAKHS |

BOARD OF DIRECTORS:—Lalitchandra C. D. Nanjee (*Chairman*); Yuvraj Shree Udaybhan of Porbandar; Natvarlal S. Choksey; Jayantilal R. Trivedi; Laxmikant S. Dabholkar; Mansukhlal A. Master; Harshadrai B. Parekh; Dhirendra N. Mehta; Kishore D. Khatau; Udayan Chinubhai.

MANAGING DIRECTOR—Pravinchandra V. Gandhi.

DEPUTY MANAGER—Haridas K. Swali.

REGISTERED OFFICE:—Devkaran Nanjee Buildings, Horniman Circle, Fort, Bombay 1. Phone No. 255327. Telegraphic Address: "DENA BANK", Post Box No. 41.

BRANCHES:

157 Offices and 47 Safe Deposit Vaults.

MAHARASHTRA: (60 Offices)—BOMBAY: *Horniman Circle (H.O.), Andheri, Bandra, *Bhandup, Bhat Bazar, Bhuleshwar, *Borivli, Chembur, *Colaba, Dadar-Khodadad Circle, *Dadar-Ranade Road, *Ghatkopar, Gol Deval, Goregaon, *Jogeshwari, *Juhu, Kalbadevi, *Kandivli, Khar-Ghodbunder Road, Khar-Linking Road, Kharek Bazar, Kurla, Mahim, *Malabar Hill, *Malad (E), *Malad (W), Mandvi, *Matunga, *Mulund, Nagdevi, Parel, *Pedder Road, Sandhurst Bridge, *Santa Cruz (E), *Santa Cruz (W), *Share Bazar, Sion, *Tardeo, Thakurdwar, Thana, *Vile Parle (E). *Vile Parle (W), *Wadala, Worli, *Zaveri Bazar.

Ahmednagar, Baramati, Kolhapur, *Malegaon, Manmad, Nagpur, Nandurbar; NASIK: Nasik City, Nasik Road; POONA; Budhwar Peth, *Camp, *Deccan Gymkhana, *Raviwar Peth; Sholapur; Walchandnagar.

GUJARAT : (78 Offices) ; AHMEDABAD—Asarwa, Astodia Chakla, *Delhi Chakla, *Ellis Bridge, *Gandhi Road, Maskati Market, Manek Chowk, *Maninagar, Navrangpura, *Relief Road, *Saraspur, Amreli, *Anand, Ankleshwar, Bagasra, Bardoli; BARODA—Jubilee Baug, Sayaji Ganj ; *Bhavnagar, Billimora, *Borsad, *Botad, Broach, *Bulsar, Cambay, Chanasma, Chorwad, Dakor, Damnagar, Dhari, *Dharmaj, Dhoraji, Dhrangadhra, Gandevi, Godhra, Gondal, Jalalpore ; JAMNAGAR—Cloth Market, Grain Market; Junagadh, Kadod, Karamsad, Keshod, Lunavada, Mahudha, Mahuva, Mandvi, Mehmadabad, Mehsana, Morvi, Nadiad, *Navsari, Ode, Padra, Palanpur, Palsana, Patan, Petlad, Porbandar, *Rajkot, Salaya, Savarkundla, Sevalia Bazar, Sidhpur, Sihor, Sinor ; SURAT—Burhanpuri Bhagol, Nanpura ; *Surendranagar, Udhna, Umreth, Unjha, Upleta, Vadnagar, Veraval, Viramgam, Visnagar, *Wankaner.

WEST BENGAL : (3 Offices) Calcutta—*Bhowanipore, Brabourne Road, Burra Bazar.

DELHI : (5 Offices) Calcutta—Chandni Chowk, Delhi, Connaught Place, New Delhi ; *Karol Bagh, New Delhi ; Subzi Mandi, Delhi; Daryaganj Delhi.

MADHYA PRADESH : (3 Offices)—Bhopal, Burhanpur, Indore.
RAJASTHAN : (1 Office)—*Jaipur.
MADRAS : (2 Offices) Madras City—Mount Road, N. S. C. Road.
ANDHRA PRADESH : (1 Office)—Hyderabad.
MYSORE : (2 Offices)—Bangalore, Mangalore.
KERALA : (1 Office)—Cochin.
GOA : (1 Office)—*Panjim.

* Has Safe Deposit Vault.

GENERAL BANKING BUSINESS TRANSACTED AND INLAND AND FOREIGN LETTERS OF CREDIT ARRANGED

| LONDON AGENTS : | NEW YORK AGENTS : |
|---|---|
| The Chase Manhattan Bank | The Chase Manhattan Bank |
| Bank of America N.T. & S.A. | Manufacturers Hanover Trust |
| Midland Bank Ltd. | Bank of America (International) |
| Barclay's Bank | |

## EASTERN BANK, LIMITED

(Incorporated in England—1909, the liability of members being Limited).

(Wholly owned Subsidiary of the Chartered Bank).

(Incorporated by the Royal Charter, 1853).

HEAD OFFICE :—2 & 3 Crosby Square, London, E.C. 3.

Bombay Office :—Corner of Dr. Dadabhai Nowroji Road and Veer Nariman Road. *Manager :* C. Raymond. *Accountant :* R. H. Lincoln. Tel. Address : " EASTERTIDE." Telephone No. 255056. P.O. Box No. 219. *Branches :* Abu Dhabi, Aden (crater Ma'alla, Sheikh Othman), Al-Ain, Bahrain, Manama and Muharraq), Beirut (Lebanon), Bombay, Calcutta, Colombo, Doha (Qatar), Karachi, Kuala-Lumpur, Madras, Mukalla (Hadhramaut, East Aden Protectorate), Seiyun Sharjah and Singapore.

## FIRST NATIONAL CITY BANK

(Incorporated with limited liability in the U.S.A.)

Established 1812

World wide Banking Services.

| | |
|---|---|
| DEPOSITS .. .. .. .. | $ 10,806,051,000 |
| CAPITAL .. .. .. .. .. | $ 266,196,000 |
| SURPLUS & UNDIVIDED PROFITS AS ON DEC. 31, 1964.. .. .. .. | $ 608,136,000 |

HEAD OFFICES.—55, Wall Street, and 399 Park Avenue, New York with 148 Branches in New York and 162 Branches and Affiliates in 54 countries overseas. LONDON OFFICE.—117, Old Broad Street, London, E.C.2. Branches in Argentina, Belgium, Brazil, Canal Zone, Chile, Colombia, Dominican Republic, Equador, El Salvador, England, France, Germany, Greece, Guantanamo Bay, Hong Kong, India, Italy, Jamaica, Japan, Lebanon, Malaysia, Mexico, Netherlands, Pakistan, Panama, Paraguay, Peru, Philippines, Puerto Rico, Republic of China, Saudi Arabia, Singapore, Switzerland, Trinidad, Trucial States, Uruguay, Venezuela, and affiliates in Bahamas, Cameroon, Canada, Central African Republic, Chad, Congo, Dohomey, Gabon, Ivory Coast, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Union of South Africa, Togo, Upper Volta. Correspondents in every commercially important city in the world.

BOMBAY OFFICE.—293, Dr. Dadabhoy Naoroji Road, Fort. *Vice-President :* R. E. Grant ; *Manager :* M. V. Stolen ; *Assistant Managers :* W. T. Goldrick, K. S. Karant, M. M. Mistri, S. R. Tare ; *Assistant Manager—Operations :* J. C. Ryan ; *Accountant :* I. H. Gidwani ; *Pro-Managers :* M. M. Ballur, M. C. George, N. P. Korday ; *Assistant Accountants :* H. K. Channabasappa, E. W. Glazier, D. R. Hoskote, F. M. Irani, G. J. Joshi, D. M. Shanbhag.

Tel. Address : "CITIBANK".
Phone No. 26-3131. Telex : 288, P.O. Box No. 175.

CALCUTTA OFFICE.—9, Brabourne Road. *Manager :* T. G. Harding ; *Assistant Managers :* A. S. Goldie, T. C. Sanyal, S. N. Vittalrau ; *Accountant :* N. Krishnan ; *Assistant Accountants :* A. M. Bannerjee, R. C. Dubal, H. K. Nandi, S. K. Paul.

Tel. Address : "CITIBANK ".
Phone No. 22-5741. Telex : 346, P. O. Box No. 655.

CHOWRINGHEE OFFICE :—1 Middleton Street, Calcutta—16. *Manager :* B. B. L. Kapoor ; *Assistant Accountant :* G. D. Bose.

Tel. Address : "CITIBANK".

Phone No. 44-7596. P.O. Box No. 9028.

MADRAS OFFICE.—15/16, Kondi Chetty Street (off N. S. C. Bose Road). *Manager :* H. H. Mitchell ; *Assistant Accountants :* J. Amrith, P. N. S. Menon ; *Per-Procuration :* H. I. Subramanium.

Tel. Address : "CITIBANK".

Phone No. 22453. Telex 326. P.O. Box No. 1953.

NEW DELHI OFFICE.—3, Parliament Street, New Delhi 1. *Manager :* Peter Jefferys ; *Assistant Manager :* P. Malhotra ; *Pro-Manager :* K. Murari ; *Assistant Accountant :* N. F. Humphries ; *Per-Procuration :* G. Natarajan.

Tel. Address : "CITIBANK".

Phone No. 44921. Telex 332. P.O. Box No. 520.

CODES USED : Bentley's Complete and Second Phrases ; Peterson's International 3rd & 4th editions ; A. B. C. 6th Edition.

## THE HONGKONG AND SHANGHAI BANKING CORPORATION

(Incorporated in Hong Kong with Limited Liability).

HEAD OFFICE.—Hong Kong.

CHIEF MANAGER.—J. A. H. Saunders, D.S.O., M.C.

| | |
|---|---|
| CAPITAL AUTHORISED .. .. .. | HK. $ 200,000,000 (Rs. 16,66,66,666) |
| CAPITAL ISSUED AND FULLY PAID-UP .. | HK. $ 158,092,250 (Rs. 13,17,43,541) |
| RESERVE FUND (INCLUDING SHARE PREMIUM ACCOUNT) .. .. .. .. | Stg. £ 15,000,000 (Rs. 20,00,00,000) |

Banking and Exchange Business of every description transacted with the Principal Commercial Centres of the World.

A Comprehensive Service as Trustees and Executors is also undertaken by the Bank's Trustee Companies in Hong Kong, London & Singapore

| BOMBAY OFFICE : | CALCUTTA OFFICE : |
|---|---|
| 16, Veer Nariman Road. | 31, Dalhousie Square. |
| T. S. Wright, | R. E. H. Nelson, |
| Manager. | Manager. |

## INDIAN BANK, LIMITED

(ESTD. 1907.)

MADRAS.

OFFICES IN BOMBAY : 1. United India Life Assurance Bldg., Sir Phirozeshah Mehta Road, Fort. 2. Lakhamsey Napoo Road, Matunga (Central Rly.), Bombay 19. 3 "Kanmoor House", 281/87, Narsinatha Street, Mandvi, Bombay-9. 4. Shanmukhananda Sabha Bldgs., Flank Road, Sion West, Bombay 22-5. "Sunder", Plot No. 71-C, Govandi Road, Chembur, Bombay and 6. Sundaram Bldg., Sion Circle, Bombay 22. With a network of Branches and Sub-Offices in all the important places in South India and at Ahmedabad, Calcutta, New Delhi, Poona. Overseas branches at Singapore, Kuala Lumpur, Penang, Malacca, Colombo. *London Agents :* Westminster Bank Ltd. *New York Agents :* First National City Bank and Chase Manhattan Bank.

## THE INDIAN OVERSEAS BANK, LIMITED

Central Office :

151, Mount Road, Madras 2.

| | | |
|---|---|---|
| AUTHORISED CAPITAL .. .. | Rs. | 1,00,00,000·00 |
| PAID-UP CAPITAL .. .. .. | " | 99,95,775·00 |
| RESERVES .. .. .. .. .. | " | 98,42,534·50 |

CHAIRMAN :—M. CT. Muthiah, Esq.

GENERAL MANAGER :—K. M. Nanjappa, Esq.

*Branches at :*

Ahmedabad, Amritsar, Bombay, Calcutta, Cuttack, Ludhiana, Madras, Hyderabad, Delhi, New Delhi and throughout South India, Colombo, Singapore, Ipoh, Klang, Malacca, Penang, Kuala Lumpur, Bangkok and Hong Kong.

*Agents in all the Principal Commercial Centres of the World.*

Every description of Banking business transacted and for those who trade Overseas, The Indian Overseas Bank Ltd., is particularly well equipped to deal with their requirements.

OFFICES AT BOMBAY :—(1) Elphinstone Building, 2/10, Veer Nariman Road, Fort. (2) 117/119, Kazi Syed Street, Bombay 3. (3) Tajoo Kaya Park, Vincent Road, Matunga. (4) 378, Lady Jamshedji Road, Mahim, Bombay 16. (5) Opp. Town Hall, Timbi Naka, Thana. (6) 525/527, Kalbadevi Road, Bombay 2.

## JODHPUR COMMERCIAL BANK, LTD.

**(Incorporated in Jodhpur State : Liability of Members is Limited).**

REGISTERED OFFICE :—Jalori Gate, Jodhpur. CENTRAL OFFICE :—207, Kalbadevi Road, Bombay. BRANCHES : MARWAR.—Jalori Gate, Jodhpur ; Khejarla House, Jodhpur ; Kuchaman City, Nagaur ; Merta City, Pali ; BOMBAY.—53, Tamarind Lane, Fort ; 207, Kalbadevi Road ; 118–122, Kazi Syed Street, Mandvi ; Municipal Building, Bhiwandi (Dist. Thana) ; Jambhali Naka, Thana ; Shivaji Chowk, Kalyan.

## THE MAHARASHTRA STATE CO-OPERATIVE BANK, LTD.

(Incorporating the Vidarbha Co-op. Bank Ltd.)

*Head Office :* 9, Bakehouse Lane, Fort, Bombay-1

*Regional Office :* Mahal, Nagpur.

*Local Branches in Greater Bombay :*

1. Byculla,
2. Lalbaug,
3. Prabhadevi,
4. Khar,
5. Vile-Parle, (East)
6. Goregaon,
7. Santa Cruz,
8. Mulund,
9. Chembur,
10. Mahim,
11. Sion,
12. Matunga,
13. Andheri,
14. Vile Parle (West).

*Chairman* : Prof. D. R. Gadgil.

Money deposited with this Bank helps the Indian Agriculturists and Small Industries and Sugar Factories organized on a co-operative basis.

| | Rs. |
|---|---|
| PAID-UP SHARE CAPITAL .. .. .. .. | 530,51,000 |
| RESERVE & OTHER FUNDS .. .. .. | 156,75,000 |
| TOTAL DEPOSITS .. .. .. .. .. | 39,14,33,000 |
| WORKING CAPITAL .. .. .. .. .. | 91,48,35,000 |

Collection arrangements in all the important cities of Indian Union. Banking business of every description transacted.

Deposits of all kinds accepted.

## MERCANTILE BANK LIMITED

(Incorporated in England.)

(Liability of Shareholders Limited.)

| | |
|---|---|
| AUTHORISED CAPITAL .. .. .. | £4,000,000 |
| SUBSCRIBED CAPITAL .. .. .. | £2,940,000 |
| PAID-UP CAPITAL .. .. .. | £2,940,000 |
| RESERVE FUND .. .. .. | £2,200,000 |

HEAD OFFICE—15, Gracechurch Street, London, E.C. 3.

WEST END OFFICE—123, Pall Mall, London, S.W.1.

Branches & Agencies throughout India and the East.

| | |
|---|---|
| CHIEF MANAGER .. .. .. | C. F. Pow. |
| BOMBAY MANAGER .. .. .. | A. M. Mackie. |
| SUB-MANAGER .. .. .. | S. R. Stevenson. |

A member of the Hongkong Bank Group.

## THE MITSUI BANK, LIMITED

(Incorporated in Japan.)

(Liabilities of Shareholders Limited.)

| | |
|---|---|
| AUTHORISED CAPITAL .. .. | Yen 27,000,000,000. |
| PAID-UP CAPITAL .. .. .. | Yen 18,000,000,000. |

HEAD OFFICE : No. 12, Yurakucho, 1–Chome, Chiyoda–Ku, Tokyo, Japan.

Branches throughout Japan.

OVERSEAS OFFICES : Bombay, London, Bangkok, New York and Singapore.

BOMBAY BRANCH AT : 6, Wallace Street, Dr. Dadabhoy Naoroji Road, Fort, Bombay. P.O. Box No. 1278.

MANAGER : Mr. Yutaka Shinohara.

Telegraphic Address : "MITSUIBANK".

Telephone No. 26–4834 (3 lines).

## NATIONAL AND GRINDLAYS BANK LTD.

(Amalgamating National Bank of India Ltd., Grindlays Bank Ltd. and the Eastern Branches of Lloyds Bank Ltd.)

Registered in London under the Companies Act of 1862 on the 23rd March 1866.

The Liability of Members is Limited.

Bankers to the Government in Aden, Kenya, Zanzibar, and Uganda.

| | |
|---|---|
| AUTHORISED CAPITAL .. .. .. .. | £9,000,000 |
| SUBSCRIBED AND PAID-UP CAPITAL .. .. | £5,703,000 |
| RESERVE FUNDS .. .. .. | £5,400,000 |

HEAD OFFICE : 26, Bishopsgate, London, E.C. 2.

LONDON BRANCHES :
13, James's Square, S.W. 1.

Branches throughout India, Pakistan, Ceylon, Aden, Somalia, Kenya, Uganda, Tanzania, Zambia and Rhodesia.

The Bank conducts all classes of Banking and Exchange Business throughout the World. Trusteeships and Executorships are undertaken.

BOMBAY BRANCHES : 90, Mahatma Gandhi Road, Mint Road (Corner of Mint Road and Sir P. M. Road) ; 270/272, Dr. Dadabhoy Naoroji Road (Lloyds Branch) ; 21/29, Princess Street (Lloyds Branch) ; 117-119, Kazi Syed Street, Mandvi, Bombay-3 ; 65F, Linking Road, Santa Cruz (West), Bombay 54 ; Shivaji Mandir, N. C. Kelkar Road, Dadar, Bombay 28 ; 2/571, Gowalia Tank Road, Cumballa Hill, Bombay/26 ; 24B, Club Road, Byculla (Next to Maratha Mandir), Bombay-8 ; Next to Castle Mills ; Agra Road, Kolbad Road, Thana, N. Bombay.

ASSOCIATED BANKS : Lloyds Bank Ltd., National Provincial Bank Ltd.

## NORTH KANARA GOUD SARASWAT BRAHMIN CO-OPERATIVE BANK, LTD.

Laxmi Sadan, 361, Vithalbhai Patel Road, Bombay.

OBJECTS :—To raise funds by Debentures, Deposits, etc., to be lent out at interest to members of the Bank against personal securities, gilt-edged securities and immovable properties and to undertake such other business on behalf of the members as is incidental to banking business.

## THE PUNJAB NATIONAL BANK, LTD.

(Established in 1895)

*Regd. Office*, New Delhi.

| | Rs. |
|---|---|
| AUTHORISED CAPITAL .. .. .. | 2,00,00,000 |
| Subscribed and paid-up Capital (including Bonus Issue of 3,75,000 Shares) .. .. | 2,00,00,000 |
| Reserve Fund and other Reserves .. .. | 3,57,50,000 |
| Deposits and other Accounts (as on 31st December 1964) .. .. .. .. | 2,15,08,66,344·11 |

469 offices in India. Transacts Banking and Foreign Exchange Business of every description.

CORRESPONDENTS IN UNITED KINGDOM :—American Express Company Inc. ; Bangkok Bank Ltd ; Bank of America NT. & SA ; Bank of New South Wales Ltd. ; Barclays Bank Ltd. ; Continental Illinois National Bank & Trust Company ; First National City Bank ; Manufacturers Hanover Trust Co. ; Midland Bank Ltd., National Provincial Bank Ltd. ; N. M. Rothchild & Sons ; Rafidain Bank ; Sanwa Bank Ltd. ; Westminister Bank Ltd.

CORRESPONDENTS IN U.S.A. :—American Express Company Inc. ; Bank of America NT & SA ; Bank of California National Association ; Bank of Montreal ; Bank of New York ; Bankers Trust Company ; Chase Manhattan Bank ; Citizens & Southern National Bank ; Continental Illinois National Bank & Trust Company of Chicago ; Crocker-Citizens National Bank ; Detroit Bank & Trust Company ; First National Bank of Arizona ; First National Bank of Atlanta ; First National Bank of Boston ; First National Bank of Chicago ; First National Bank of Hawaii ; First National Bank of Oregon ; First National City Bank ; Industrial National Bank of Rhodes Island ; Irving Trust Company ; Manufacturers Hanover Trust Company ; Manufacturers National Bank of Detroit ; Marine Midland Grace Trust Company of New York ; Marine National

Exchange Bank; Morgan Guaranty Trust Company; New England Merchants National Bank of Boston; Philadelphia National Bank; Public Bank; Sanwa Bank Ltd.; Seattle First National Bank; Security First National Bank; Society National Bank of Cleveland; United California Bank; Wachovia Bank & Trust Company; Western Bancorporation International Bank.

*Chairman :* Shri Kamalnayan Bajaj ; *General Manager :* Shri R. L. Tuli ; *Deputy General Manager :* Shri S. C. Trikha ; *Chief Accountant :* Shri S. L. Verma ; *Secretary :* Shri A. S. Puri ; *Chief Manager, Foreign Exchange :* Shri B. K. Vora ; *Controller of Advances :* Shri S. R. Mohindroo ; *Chief Inspector :* Shri A. L. Bhandari ; *Assistant Controller of Advances :* Shri G. R. Bamba ; *Deputy Chief Accountant :* Shri A. K. Srinivasa Prasad ; *Principal, Staff Training College :* Shri S. L. Kapoor.

*Assistant General Managers/District Managers :* Shri Y. Prashar (Bombay), Shri K. L. Bhandari (Calcutta), Shri S. L. Mehra (Madras), Shri D. C. Gupta (Delhi), Shri G. D. Khanna (Indore), Shri C. S. Brara (Kanpur), Shri K. S. Sahgal (Chandigarh), Shri H. L. Malhotra (Jullunder).

## RESERVE BANK OF INDIA

**Incorporated under the Reserve Bank of India Act, 1934 (II of 1934) to regulate the issue of Bank notes and the keeping of reserves with a view to securing monetary stability in India and generally to operate the currency and credit system of the country to its advantage. Nationalised on 1st January 1949. *Officers and Branches of the Banking Department*—Bombay, Calcutta, Madras, New Delhi, Kanpur, Bangalore, Nagpur, Byculla (Bombay 8). *Branches of the Issue Department*—Bombay, Calcutta, New Delhi, Kanpur, Madras, Nagpur, Bangalore and Byculla (Bombay 8).**

## STATE BANK OF HYDERABAD

(Subsidiary of State Bank of India).

Incorporated in India under Special Statute : The Liability of the members is limited.

HEAD OFFICE : HYDERABAD (DN.) AUTHORISED CAPITAL : Rs. 1,00,00,000 ; ISSUED AND PAID-UP CAPITAL : Rs. 50,00,000. Offers complete Banking Service through a network of Offices spread over Andhra Pradesh, Maharashtra, Madras City and Mysore States and through its correspondents elsewhere in India. Foreign Exchange Business of all types undertaken.

BOMBAY OFFICES : 1. New India Assurance Building, Mahatma Gandhi Road. Fort, Bombay.
2. 262-270, Narsi Natha Street, Bhat Bazar, Mandvi, Bombay 9.

MADRAS OFFICES : 1. 41, Linghi Chetty Soreet, George Town, Madras-1.
2. 84, Mint Street, Sawcarpet, Madras-3.

## STATE BANK OF INDIA

(Constituted under the State Bank of India Act, 1955)

| | | |
|---|---|---|
| AUTHORISED CAPITAL .. .. .. | Rs. | 20,00,00,000 |
| PAID-UP CAPITAL AS ON 31-12-1964 .. | Rs. | 5,62,50,000 |
| RESERVE FUND AND OTHER RESERVES AS ON 31-12-1964 .. .. .. .. .. | Rs. | 9,90,00,000 |

*Local Head Offices :*—Ahmedabad, Bombay, Calcutta, Hyderabad, Kanpur, Madras and New Delhi.

*London Office :*—Clements House, 14-18, Gresham Street, London, E.C. 2.

REPRESENTATIVE OFFICES :—

| | |
|---|---|
| (*a*) Western Europe .. .. | Goethestrasse 26-28, 6, Frankfurt (Main), West Germany. |
| (*b*) U.S.A., Canada and Latin America .. .. | 44, Wall Street, New York, N.Y. 10015, U.S.A. |

Principal Office in Pakistan :—Karachi.

Over 1,215 offices comprising 7 Local Head Offices, the office in London, two representative offices at Frankfurt (West Germany) and New York (U.S.A.) respectively, 5 offices in Pakistan. (From about the 8th September 1965, the offices in Pakistan have been taken over by a Custodian appointed by the Pakistan Government.) One office in Ceylon and Branches and Sub-Offices in India.

All classes of Banking Business undertaken including Foreign Exchange Business.

*Chairman :* Shri V. T. Dehejia.

*Vice-Chairman :* Shri H. M. Seervai.

*Managing Directors :*—(1) Shri R. N. Chettur.
(2) Shri N. Ramanand Rao.

*Names of the Subsidiaries :*—State Bank of Bikaner & Jaipur; State Bank of Hyderabad ; State Bank of Indore ; State Bank of Mysore ; State Bank of Patiala ; State Bank of Saurashtra ; State Bank of Travancore.

## SYNDICATE BANK LIMITED

REGISTERED OFFICE : MANIPAL. ESTD : 1925

| | | |
|---|---|---|
| AUTHORISED CAPITAL .. .. .. .. | Rs. | 2,00,00,000 |
| ISSUED & SUBSCRIBED CAPITAL .. .. .. | ,, | 1,00,45,550 |
| PAID-UP CAPITAL .. .. .. .. | ,, | 87,16,067 |
| RESERVE FUND .. .. .. .. .. | ,, | 85,00,000 |

Board of Directors :

Dr. T. M. A. Pai, M.B.B.S., CHAIRMAN.

T. A. Pai, B.Com. (Bom.), A.I.I.B., F.R.E.S. (Lond.), VICE-CHAIRMAN.

A. Lakshminarayana Rao, B.A., B.L.
M. N. Prabhu Shiroorkar
V. V. Shanbhag
L. H. Prabhu, B.A., LL.B.
B. Padmanabha Pai
K. Gururaja Rao, B.A., B.L.
Dr. K. Mohandas Pai, B.Sc., M.B.B.S.
Dr. K. L. Althala, M.B.B.S.
M. D. Narayan, B.Sc., M.S. (Colo.).
Dr. B. S. Jirge, M.B.C.S. (Eng.). M.R.C.P. (Lond.).
Yadalam N. Gangadhara Setty.
K. Velayudhan Nair, B.A., LL.B.
K. S. G. Haja Shareeff, M.L.A.

CHIEF OFFICER :
K. K. PAI, B.Com.

BOMBAY OFFICES :—
Sir Phirozshah Mehta Road, Fort.
83/85, Kazi Syed Street, Mandvi.
3A, Dadar Matunga Estate, Bombay-Agra Road, Matunga.
542, Subhas Road, Mulund West, Ashok Chambers, Broach Street.
Foreign Exchange Department :—Rahimtoola House, Homjee Street, P.B. 614, Fort.

Over 200 Branches throughout India—States of Andhra, Delhi, Goa, Gujarat, Kerala, Madras, Maharashtra, Mysore and West Bengal and Agencies all over the world.

## UNION BANK OF INDIA, LIMITED

REGISTERED OFFICE—66/80, Apollo Street, Fort, Bombay 1.

LOCAL BRANCHES : Abdul Rehman Street, *Bandra, Bhandup, *Bhat Bazar, *Bhuleshwar, Borivli, Byculla, Dadar, Dahisar, *Goregaon, *Kalbadevi, Khand Bazar, Khar, Kurla, Malad, Mandvi, Matunga, *Mulund, Napean Sea Road, Null Bazar, Opera House; *Peddar Road, Princess Street, Santacruz, *Sion, Veer Nariman Road, Zaveri Bazar.

UPCOUNTRY BRANCHES : Ahmedabad :—Dhanlaxmi Market, Delhi Chakla, *Ellis Bridge, *Gandhi Road, Maneck Chowk, *Vadej, Ahmednagar, Alleppey. Alwaye :—Bank Street, Hospital Road, Amritsar, Angamaly, Bajuva, Bangalore, Bareja, Baroda, Bhavnagar, *Bhiwandi, Bhopal, Burhar, Calcutta :—Clive Row, Ezra Street, Dharamtolla, Shyam Bazar, St and Road, Cambay, Chalakudy, Cherpu, Cochin, Coimbatore. Delhi :—*Chandni Chowk, Chawri Bazar, *Connaught Place, *Karol Bagh, Khari Baoli, *Patel Nagar, Sadar Bazar, *Subzi Mandi, Dhoraji, Gauhati. Goa :—Panjim, Guntur, Hubli, Hyderabad, Indore, Irinjalakuda. Jabalpur :—City, *Cantonment, Jaipur, Jamnagar, Jandiala, Jetpur, Jullunder, Kalady, Kalyan, Kanpur, Katni, Kolhapur, Kothamangalam, Kozhikode Landour (Mussoorie). Madras :—Sembudoss Street, Sowcarpet, Madurai, Mala, Marthandum, Muvattupuzha, Nagpur, Nasik City, Neral, N. Parur. Perumbavur. Poona :—*City, *Cantonment, Porbander, Raipur, *Rajkot, Secunderabad, Sojitra, Sunav, Surat Thana, Trichur, Trivandrum, Vallabh Vidyanagar, Valparai, Vaso, *Veraval, Vijayawada.

*Equipped with Safe Deposit Vault.

## UNITED WESTERN BANK, LTD.

(Estd. : 1936).

SCHEDULED BANK : *Regd. Office :* Satara ; Central Office :—Bombay; Total branches 22 at principal business Centres in Maharashtra; Authorised Capital Rs. 20,00,000 ; Transacts every kind of Banking business, loans, etc.

# CLASSIFIED LIST OF OVERSEAS FIRMS WITH NAMES OF BOMBAY AGENTS/REPRESENTATIVES.

## AGRICULTURAL MACHINERY MFRS.

International Harvester Export Co., Overseas Division, Chicago, U.S.A. Sole Distributors : Voltas Limited.

## AIR-CONDITIONING, REFRIGERATION, HUMIDIFICATION UNITS AND EQUIPMENT

Carrier International Ltd., 385, Madison Avenue, New York, U.S.A. Sole Distributors : Voltas Limited.

**KELVINATOR INTERNATIONAL CORPORATION, U.S.A. Refrigerators. Sole Distributors : Spencer & Co., Ltd., Spencer's Building, Forjett Street, Bombay 26. Phone : 73261-2-3. Grams : "PORTEDOS."**

Tempair Ltd., Maidstone, Kent, England. Manufacturers of "Rootes Tempair" self-contained packaged and window type air-conditioners. Sole Distributors & Progressive Manufacturers : Dadajee Dhackjee & Co. Private Ltd., Sandhurst Bridge, Bombay 7.

## AIR COMPRESSORS

Broom & Wade Ltd., High Wycombe, England. Sole Distributors : Voltas Limited.

## ALUMINIUM

Swiss Aluminium Ltd., Zurich, Switzerland. Sole Distributors : Voltas Ltd., Ballard Estate, Bombay 1.

## ANTIFRICTION METALS AND SOLDERS

Eyre Smelting Ltd., Antifriction Metals. **Agents : Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone : 261494 (3 lines). Grams : "BALMER".**

## ANTI-VIBRATION BEARINGS & MOUNTINGS

Silentbloc Ltd., Manor Royal, Crawley, Sussex. Antifriction, Flexible Mounting and Couplings. Agents : Heatly and Gresham Ltd., 43, Forbes Street, Fort, Bombay 1.

## AROMATIC CHEMICALS

**ESROLKO LTD. (Formerly FLORA), Switzerland. Manufacturers of Synthetic Essential Oils & Aromatic Chemicals. Agents : M. C. Davar & Co., 143, Princess Street, Bombay 2. Phone : 39752. Grams : "EMCIDAVAR".**

Les Derives Resiniques & Terpeniques, Dax (Landes), France. Sole Agents for India : R. K. Shapurji & Co., Prospect Chambers, 319, Dr. Dadabhoy Naoroji Road, P.B. 1065, Bombay 1.

N. V. Chemische Fabriek "Flebo" Hoogezand (Holland). Sole Agents : Aromatic Products and Chemicals Private Ltd., 42, Prospect Chambers Annexe, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Grams : "DISCOVERY".

Takasago Perfumery Co. Ltd., Tokyo, Japan Sole Agents : Aromatic Products & Chemicals Private Ltd., 42, Prospect Chambers Annexe, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Grams : "DISCOVERY".

## ASBESTOS PRODUCTS

Arthur Hecker Asbest-Und Gummiwerke kg., (14a) Weil Im Schonbuch (Wurttemberg), West Germany. Sole Agents : Datson, Raviraj & Co., Private Ltd., 43, Tamarind Lane, Fort, Bombay.

Chillcotts Ltd., Newlands Park, Sydenham, London S. E. 26. Sole Agents : Datson, Raviraj & Co., Private Ltd., 43, Tamarind Lane, Fort, Bombay.

## AUTOMATIC LOOMS

British Northrop Sales Ltd., Blackburn, England. Automatic Looms. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

## AUTOMATION EQUIPMENT

Press Automation System, 3840, East Outer Drive, Detroit, U.S.A. Automatic Mechanical Handling Equipment, mostly required by Sheet Metal Working Shops. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Bombay.

## AUTOMOBILE

**Bentley Motors (1931) Ltd., Conduit Street, London. Manufacturers of Bentley Motor Cars. Sole Distributors : Dadajee Dhackjee & Co. Private Ltd., Sandhurst Bridge, Bombay 7.**

**Rolls-Royce Ltd., Conduit Street, London. Manufacturers of Rolls-Royce Motor Cars. Sole Distributors : Dadajee Dhackjee & Co. Private Ltd., Sandhurst Bridge, Bombay 7.**

**Rootes Limited, Devonshire House, Piccadilly, London, W.1, Export Division of Humber, Hillman, Sunbeam, Singer Motor Cars and Commer and Karrier Commercial Vehicles. Sole Distributors : Dadajee Dhackjee & Co. Private Ltd., Sandhurst Bridge, Bombay 7.**

## AVIATION

Aerojet-General Corporation, Sacramento, California, U.S.A., JATO engines for rocket-assisted take-off for guided missiles and aircraft, rocket motors and ancilliary equipment for guided weapons. Sole concessionaires : Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

Aircraft Marine Products (Great-Britain) Ltd., Terminal House, Stanmore, Middlesex, England. All sizes of solderless terminals and connectors for electrical wiring systems with associated hand, hydraulic and automatic machine tooling. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Auto Diesels Limited, Uxbridge, Middlesex, England. Aircraft ground starting and servicing equipment. Sole Concessionaires : Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

Avica Equipment Ltd., Mark Road, Hemel Hempstead, Herts, England. Stainless steel and rubber flexible pipe assemblies, high pressure swivel pipe couplings, H.T. and L.T. ignition leads and harness, electrical wiring conduit assemblies, stainless steel bellows assemblies, precision barometric bellows, support clips. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay 1.

Bristol Aerojet Limited. Banwell Weston-Super-Mare, Somerset, England. Rocket motor cases, pressure vessels in high tensile steel for industrial and aeronautical use, gas storage vessels, oxygen/air cylinders. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Bristol Aeroplane Plastics Ltd., Filton House, Filton, Bristol, England. High Strength reinforced corrosive resistant glass fibre piping, aircraft drop-tanks, radomes, boat hulls, and other plastic products. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Bristol Siddeley Engines Ltd., Post Box 3, Filton, Bristol, England (includes former Engine Companies of Bristol Aero Engines Ltd., Armstrong Siddeley Motors Ltd., Blackburn and De Havilland). Cirrus, Bombardier, Hercules and Centaurus piston aero engines from 150 b.h.p. to 2,850 b.h.p.; Turbomeca, Turbo Compressor and gas turbines in the 250-1,000 shp range; Astazou turboprop of 594 e.h.p. and Aubisque turbofan of 1,543 lb. thrust; Proteus turboprop in the 3890 to 4400 e.h.p. range; Viper turbojet 1,640 lb. to 3,000 lb. thrust range; Gnome turboshaft engine 1,250 shp class and coupled Gnome; Orpheus turbojet engines in the 4,000 lb. to 8,170 lb. thrust range; Gyron Junior gas turbine engines 8,000 lb. to 10,000 lb. thrust; Sapphire Turbojet in the 8,000 lb. to 11,000 lb. thrust range; Olympus turbojet in the 17,000 lb. to 33,000 lb. thrust range; High ratio turbo fan engines in the 7,550 lb. thrust class; high ratio lift/thrust turbo fan engines for use in V/STOL aircraft in the 18,000 to 30,000 lb. thrust range; range of turbo fan pure lift engines for use in VTOL/STOL aircraft; Ramjet engines and rocket motors etc. Sole Concessionaires : Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

Canadian Bristol Aerojet Ltd., P.O. Box 874, Winnipeg International Airport, Winnipeg, Canada. Black Brant Series of high altitude research rockets for scientific and defence space research, cosmic ray altimeter, telemetry transmitter, IRIG standard PAM commutator, electronic commutator, sub carrier oscillators. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Chelton Electrostatics Ltd., Marlow-on-Thames, England. Aerial arrays and static dischargers. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Cossor Communications Ltd., Elizabeth Way, The Pinnacles, Harlow, Essex, England. VHF and UHF transmitter/-receiver equipment including mobile transmitter/receiver equipment for Police Forces, Railways and other similar organisations, etc. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Cossor Electronics Ltd., Elizabeth Way, The Pinnacles, Harlow, Essex, England. Primary radar for early warning and G.C.A. systems; air surveillance radar, meteorological radar, ground and airborne secondary surveillance radar, ground and Airborne gee navigational equipment, display systems, delay lines, printed wave-guides, etc. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Darchem Engineering Co., Ltd., (Refrasil Division) Stillington, County Durham, England. Thermal and Electircal Insulating materials. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Dynatron Radio Ltd., St. Peter's Road, Furze Platt, Maidenhead, Berkshire. England. Scaling Units, pulse analysers, pulse amplifiers, portable scalers, power units, coincidence units, timing units, clinical monitors and accessories. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Dowty Exports Ltd., Cheltenham Road, Gloucester, England (includes the following Companies). Dowty Rotol Ltd., Propellers, gear boxes, accessory drive equipment, undercarriages and hydraulic systems and powered flying controls etc. Dowty Fuel Systems Ltd., Fuel systems and associated components for gas turbine engines. Dowty Seals Ltd., Precision seals and components in natural, synthetic and silicone rubbers, bonded seal, washers etc. Dowty Electrics Ltd., Switches, indicators, selector switches for aircraft, undercarriage flying controls and aircraft warning and measuring instruments etc. Actuators and Fatigue Testing Equipment. Boulton Paul Aircraft Division-Powered Flying Control systems. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

English Steel Forge & Engineering Corporation Ltd., River Don Works, Post Box No. 57, Sheffield, England. Special Steel Aircraft Forgings and Stampings. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Ekco Electronics Ltd., Southend-on-Sea, Essex, England. Amplifiers, ratemeters scalers, scintillation counters, radiation monitors, electrometers, thickness gauges, density gauges, power units, airborne weather automatic direction finding equipment, transistorised Static Invertors, Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Elliott-Automation Ltd., Abbey Road, Park Royal, London N.W.10, England Military and civil aircraft electronic systems including auto pilots, auto stabilisation and control systems, air data computers and sensors, automatic landing devices, stable platforms and inertial navigational systems, fuel flowmeters and thrust measuring devices etc., air defence systems for ground control interception and similar systems for air traffic control and control of armoured fighting vehicles. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

Gloster Equipment Ltd., Hucelecote, Gloucester, England. Industrial electronic equipment including data measuring, display and logging equipment; Control engineering and servo systems, general system engineering electronic equipment, etc. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Henry Wiggin & Co., Ltd., Holmer Road, Hereford, England. High Nickel heat and creep resisting alloys for aircraft jet engines. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Hunting Surveys Ltd., 6, Elstree Way, Boreham Woods, Herts, England. Aerial photographic surveys, airborne geophysical exploration for oils and minerals. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay 1.

Raytheon Company, Lexington 73, Massachusetts, U.S.A. Air traffic control radars, navigational aid systems, fire control radars, CW radars, semi-active Homing devices, scan conversion bright display systems, space vehicle recovery control systems, meteorological radars, anti-submarine warfare equipment, under-water Sonar systems, under-water communication. Heavy route microwave communication equipment, fully transistorised light route microwave communication equipment, television microwave relays, equipment utilising pulse code modulation technique, Infra Red Communicator, fully transistorised and portable 100 watt SSB/AM transceivers, SSB/AM transceivers for static and mobile stations, carrier multiplexing equipment, citizens bond transceivers. Analogue to digital convertors, multiplexers, magnetic voltage regulators, transistorised power supplies, inverters, converters, regulators, industrial equipment. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Redifon Ltd., Gatwick Road, Crawley, Sussex, England. Electronic synthetic training devices, flight simulators, Air Traffic Control radar simulators, harbour radar simulators, tactical trainers, etc. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

Slough Estates (London) Ltd., London. Agents: Killick, Nixon & Co., Ltd., Killick House, Home Street, Fort.

Selenia Co. Ltd., Industrie Elettroniche Associate S.P.A., *Via* Tiburtina K. M. 12,400 Rome, Italy. Air traffic control and surveillance radar systems, early warning radar and associated systems, marine radar, radar for defence systems including Army use for battlefield surveillance and fire control purposes etc. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

Teddington Aircraft Controls Ltd., Cefn Coed, Nr Merthyr. Tydfil, Glamorgan, S. Wales. Aircraft Cabin Temperature Control systems and aircraft pressurisation systems; other associated equipment to A.R.B. and M.O.A. specifications. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Ultra Electronics Ltd., Western Avenue Acton, London W.3, England. Search rescue and homing equipment, communication control equipment, engine condition analysers, throttle control amplifierse and jet pipe temperature control amplifiers etc. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

## AXLE BOX OILERS

Armstrong Oiler Co., Ltd. Lendal Bridge, York, England. Axle Box Oilers for Railway Rolling Stock. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## BALL & ROLLER BEARINGS (MFRS.)

**KUGELFISCHER GEORG SCHAFER & CO., West Germany. Mfrs. of Ball and Roller Bearings. Sole Agents: Messrs. B. Chowdhury & Co., Indian Globe Chambers (7th Floor), Fort Street, Fort, Bombay 1. Phone: 263479. Grams: "BISUKHI."**

**STEPHENS ADAMSONS MFG. COMPANY (Sealmaster Ball Bearing Pillow Block units), Aurora, Illinois, U.S.A. Sole Agents: Harchandrai Sons, 172-74, Nagdevi Street, Bombay 3. Phones: 327377 & 326647.**

## BALLING PRESSES

Lindemann Kommanditgesellschaft, Dusseldorf, West Germany. Sole Distributors: Voltas Limited.

## BATTERY OPERATED TRUCKS

Balkancar, Sofia (Bulgaria), Agents: India Metal Agencies, Post Box No. 1966, Bombay 1.

## BATTERIES

D. P. Battery Co., Ltd., Storage Batteries. Agents: Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".

## BEER AND STOUT

Beck & Co., Bremen. Brewers. Sole Distributors: Spencer & Co. Ltd., Spencer's Building, Forjett Street, Bombay 26.

Tennent, J. & R., Ltd., Glasgow. Brewers. Sole Distributors: Spencer & Co., Ltd., Spencer's Building, Forjett Street, Bombay 26.

## BELTING (TEXTILE) MANUFACTURERS

British Belting & Asbestos Ltd., Southwark, London. MINTEX and Halo Brake Lining and Clutch Rings, etc. Agents: Balmer Lawrie & Co. Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".

Fenner & Co. (Overseas) Ltd., J. H., Hull, England. Leather & Woven Belting. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Gandy Limited, Wheatland Works, Wallasey, Cheshire, England. Sole Distributors: Voltas Limited.

## BISCUIT MANUFACTURERS

Huntley & Palmers Ltd., Biscuit Manufacturers, Reading. Sole Distributors: Spencer & Co., Ltd., Spencer's Building, Forjett Street, Bombay 26.

## BOILER ACCESSORIES

Clyde Blowers, Ltd., Livingston Street, Clydebank, near Glasgow C. 2. Sole Agents: Heatly & Gresham, Ltd., 43, Forbes Street, Bombay 1.

**DEWRANCE & CO., LTD., 165, Great Dover Street, London S.E. 1. Steam Valves, Steam Traps and Boiler Mountings. Sole Agents: Kilburn & Co., Ltd., P. O. Box No. 565, Bombay. Phone: 25-1908. Grams: "TASCONIUM".**

Everlasting Valve Co. (Great Britain), Ltd., 125, Balham High Road, London, S.W. 12, England. Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

Gresham & Craven, Ltd., Post Box No. 4, Norfolk Street, Worsley Road, North Walkden, Manchester. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## BOILER MANUFACTURERS

Copes Regulator's Ltd., London, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

Cradley Boiler Co. Ltd., Nr. Birmingham. Makers of Vertical Steam Boilers. Agents: Richardson & Cruddas, Ltd., Byculla, Bombay 8.

Penman & Co., Ltd., Caledonian Iron Works, Glasgow. S. E. Lancashire & Cornish Boilers, Economic Boilers. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Ruston & Hornsby Ltd., Lincoln. Vertical Cross Tube and "Thermax" Boilers. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

## BOILER PRESERVATIVES AND COMPOSITIONS

Clensol Ltd., 40, Berkeley Square, London. Patent Scale Remover and Boiler Water Purifiers. Agents: Roberts, McLean & Co., Ltd., Ilaco House, Sir Phirozshah Mehta Road.

Houseman & Thomson Ltd., New Castle-upon-Tyne. "D.M." Boiler Solution. Agents: Balmer Lawrie & Co. Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".

## BOILER SCALE PREVENTIVE AND COMPOSITIONS

Houseman & Thompson Ltd., Newcastle-upon-Tyne. "D.M." Boiler Solution. Agents: Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".

## BOILER TUBES

Comptoir F. B. T. 23-27, Avenue de Nevilly, Paris. Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## BOLTS, NUTS & SCREWS

G. K. N. Bolts & Nuts Ltd., Darlaston. Bolts, Nuts, etc. Representatives: Guest, Keen Williams Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

## BOOKS PUBLISHERS

Harrap & Co., Ltd., George G., 182, High Holborn, London W.C. 1. Publishers. Agents: Oxford University Press, Post Box No. 31, Bombay 1.

University Tutorial Press, Ltd., Clifton House, Euston Road, London, N.W.1. Publishers. Agents: Oxford University Press, Post Box No. 31, Bombay 1.

## BRICK-MAKING EQUIPMENT

Hebert Alexander & Co. Ltd., Leeds. Brick-making machinery & equipment. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

## BRIGHT DRAWN BARS

Frederick A. Power & Sons Ltd., Saltley, Birmingham, England. Bright drawns Steel Bars. Sole Representatives: The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

## BUILDERS' HOISTS

**ALLOYS ZEPPENFELD, 21 b. Oberveischede, Uber Grevenbruck, West Germany. Manufacturers of Builders' Hoists and Power Winches. Agents: M/s. Gaytee & Co., Janmabhoomi Chambers, Fort Street, Fort, Bombay 1. Phone: No. 263449. Grams: "IMPENG".**

## CABLES & WIRES

Aktiebolaget Liljeholmens Kabelfabrik, Stockholm. Manufacturers of cables and wires. Representatives: Asea Electric India, Private Limited, Yaffi Building, Goa Street, Ballard Estate.

John Rigby & Sons Ltd., England. Steel Wire for Springs, Pianos, Stitching, Reeds, Screws, Pins, Drawn Pinion Sections & Powder Metallurgy Products, Paper Clips, etc. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road Post Box No. 185, Bombay 1.

**SCOTTISH CABLES LIMITED, Deanside, Renfrew, Scotland. Power Cables. Representatives: James Finlay & Co., Limited, P.O. Box No. 73, Bombay 1.**

## CAST IRON ROLLS

Aktiebolaget Akers Styekebruk, Sweden. Sole Distributors: Voltas Limited.

## CEMENT & CONCRETE

Colcrete Ltd., London. Manufacturers of Colloidal Mixers and Colloidal Grouting. Sole Agents in India: Gammon India Ltd., Gammon House, Cadell Road, Prabhadevi, Bombay-28DD.

Dr. Ing R. Hochstrasser (W. Germany). Piling System. Agents in India: Gammon India Ltd., Gammon House, Cadell Road, Prabhadevi, Bombay-28DD.

L. G. Mouchel & Partners, London. Cooling Towers Consultants; Agents in India: Gammon India Ltd., Gammon House, Cadell Road, Prabhadevi, Bombay-28DD.

## CEMENT TILES MANUFACTURING MACHINERY

**ENRICO Longinnatti, Ferenze, Italy. Sole Agents for Iudia: Jashvant C. Shah & Co. Navroze Baug, Navrozi Lane, Ghatkoper, Bombay-77.**

## CERAMIC KILNS & MATERIALS

Harshaw — Poulenc — Coiffe, Limoges, France. Sole Distributors: Voltas Limited.

## CHAIN BELTS AND CONVEYORS

Griffin Woodhouse Chain Cables Ltd., Chains and Cables. Agents: John Fleming & Co., Private Ltd., Bastion Road, Fort, Bombay. Phone: 261153.

J. Collis & Sons Ltd., London. Sole Agents: Killick Nixon & Co., Ltd., Killick House, Home Street, Fort.

## CHEMICAL AND PHARMACEUTICAL MACHINERY AND PACKAGING EQUIPMENT MFRS.

A. H. Bland (Engineers) Ltd., England. "PYRAMID" Heat Sealing Machines for Alkathene, Pliofilm, P.V.C., Cellophane, etc. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

Albro Fillers & Engineering Co. Ltd., Middlesex, England. Filling Machines for liquid, cream chutneys, Powder, etc. Lidding and Capping Machines. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

Ambeg, Germany. Machinery for manufacture of Ampoules, Vials, Tablet and test-tubes, bulbs, etc., Glass Tubes Cutting, Sorting & Weighing Machines. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

Apex Construction Co., London. Tablet Machines, Industrial Compressing Machinery, Pharmaceutical equipment, special process plant. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

Arenco Aktiebolag, Stockholm (Sweden). Tube Filling, Folding & Crimping Machine, Jar Filling Machine. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

Arthur Colton & Co., New York 16, N. Y. Complete range of Tablet Machinery, Filling, Closing, Crimping Machines, etc. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

Autopack Ltd., Birmingham, England. Ampoule Cutting, Washing, Filling & Sealing Machines, Powder Ampoule Filling Machine, Vial Feeding, Filling & Capping Machines, Protamin Insulin Double Headed Filling machine, Powder, Tea Powder, Flour, Cereal, Soap Flakes Weighing & Filling Machines, Weighing, Pressing & Tin Feeding Machines, Tube Filling, Feeding and Corking Machine, Cap Spinning Unit for Vials, Screw Capping Machine with/without filling unit, Cellophane wrapping machine, Automatic film wrapping machine, Anacin type Tablet Packing Machine. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

Blomquists Vertstadskiebolag, P O. Box 2036, Sodertalje 2, Sweeden. Mixing Equipment. Agents: Armstrong Smith Ltd., 1, Sir Phirozeshah Mehta Road, Bombay 1.

C. E. King & Sons Ltd., England. Tablet Counting, Tablet Cleaning and Cotton Wool Inserting Machines, etc. Agents: Armstrong Smith Ltd., 1, Sir Phirozshah Mehta Road, Bombay 1.

Chemokomplex, P.O. Box 141, Budapest 62, Hungary. Air Separation Plants, Oxygen Plants. Agents: Armstrong Smith Ltd., 1, Sir Phirozeshah Mehta Road, Bombay 1.

D. Trapow & Co. (Clifford Packaging Machinery Ltd.), England. NEWMAN Fully and Semi-Automatic Labelling Machines for bottles, jars, ampoules, vials, torch batteries, etc. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

Foster Wheeler Ltd., Ontario, Canada. Complete Petroleum Refineries for Gasoline, Processing & Chemical Plants, Fertiliser Plants. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Gabor Aron, Hungary. Gas Producing Plants. Agents: Armstrong Smith Ltd., 1, Sir Phirozshah Mehta Road, Fort, Bombay 1.

H. Strunek & Co., Postfach 148, Liehstrasse 30-54, Kolb-Ehrenfeld 1, W. Germany. Ampoule Vial, Washing, Filling, Drying, Labelling machines etc. Agents: Armstrong Smith Ltd., 1, Sir Phirozeshah Mehta Road, Fort, Bombay 1.

Hassia Verpackungsmaschinen G.m.b.H., Germany. Strip, Packaging Machines for Tablets, Capsules Powders and Liquids. Agents: Armstrong Smith Ltd., 1, Sir Phirozshah Mehta Road, Bombay 1.

J. G. Jackson & Crockatt Ltd., Nitshill Road, Thornliebank, Glasgow. Scotland. Granulators. Agents: Armstrong Smith Ltd., 1, Sir Phirozeshah Mehta Road, Bombay 1.

Kilian & Co., Germany. Prescoters and other Tableting Machines. Agents: Armstrong Smith Ltd., Sir P. M. Road, Bombay 1.

L. A. Mitchell Ltd., England. Heating Ovens, Mitchell Drying Equipment, Acid Pumps, Chemical Plants, etc. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

**MANESTY MACHINES LTD., Liverpool, 19. Pharmaceutical & Tablet making Machines, Distilled Water Plants, etc. Sole Agents: Kilburn & Co., Ltd., P. O. Box 565, Bombay. Phone: 25-1908. Grams: "TASCONIUM."**

Medway Papersacks Ltd., England. Paper Sack Sealing and Shaping Machines. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Fort, Bombay.

Metrimpex, Budapest, Hungary, Physico-Chemical Laboratory Instruments and Equipment. Agents: Armstrong Smith Ltd., 1, Sir P. Mehta Road, Bombay 1.

Ormerod Engineers Ltd., England. Homogenizers for Pharmaceutical, Textile, Jute, Foodstuffs, etc. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

Associate Companies of Degna Limited, Hongkong — Pfaudler S.A., Switzerland, Pfaudler Co. U.S.A., Pfaudler-Werke-Germany, Enamelled Metal Products Corporation (1933) Ltd., England. Shinko-Pfaudler Co. Ltd., Japan. Pfaudler Glass Enamelled Steel Storage and Mixing Vessel, Steel Chemical Process Equipment, Stainless Steel Vessel and Equipment. Agents: Armstrong Smith Ltd., Sir P. M. Road, Bombay-1.

Q. V. F. Limited, England. Industrial Plants in Glass, "PYREX" Visible Flow Pipes Lines for Chemical, Pharmaceutical and Food Industries. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

Robert Muenster Muttenz, Bale Suisse Switzerland. Granulate Quickrair for Tablet mass. Agents: Armstrong Smith Ltd., 1, Sir Phirozeshah Mehta Road, Bombay 1.

William Gardner & Sons (Gloucester) Ltd.' England. Sifters & Mixers, Crushers, Grinders and Ball Mills, Essence Sprayer, Mixer. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

## CHEMICAL ORE DRESSING & EQUIPMENT

**DENVER EQUIPMENT CO., U.S.A. Sole Agents: Pioneer Equipment Co. Private Ltd., 139, Medows Street, P.O. Box 1909, Bombay 1; (Phone: 251882). Also at Calcutta, New Delhi, Madras & Baroda.**

## CHEMICAL PLANTS SUPPLIERS

Oronizo De Nora. Italy. Associates in India: Norindia Ltd., Khona Construction House, 44, Abdul Gaffar Khan Road, Worli, Bombay-18. Suppliers & Plants & know-how: Chlorine-Caustic Derivatives, Hydrogen & Oxygen, Hydrogen Peroxide & Per salts, Faltty Alcohols & Detergents, Ammonia & Fertilizers, Sulfuric acid, Pulp and Paper, Petrochemicals and other Chemicals Plants.

## CHEMICAL PUMPS

British Labour Pump Co. Ltd., Blundell Street, London. N.7., Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay-1.

## CHEMICALS

Airco Company International, 60, East 42nd Street, New York 18, N.Y., U.S.A. Agents: Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.

Archer Daniels-Midlands Company, 225, Broadway, New York 7, N. Y., U. S. A. Agents: Hardcastle Waud & Co. Private Ltd., Alice Building, Dr. Dadabhai Naoroji Road, Fort.

Atlas Chemical Industries Inc., Wilmington 99, Delaware, U.S.A. Sole Distributors: Voltas Limited.

British Oxygen Chemicals Ltd., London. Sole Distributors: Voltas Limited.

**DIAMALT AKTIENGESELLSCHAFT, Muenchen, Germany. Manufacturers of Gums & Desizing Agents. Please apply to: Chika Limited, Mehta Chambers, 13, Mathew Road, Bombay 4. Phone: 38091/95. Grams: "DYECOLD".**

**FARBENFABRIKEN BAYER AKTIENGESELLSCHAFT, Leverkusen, Germany. Manufacturers of Chemicals. Sole Distributors: Chika Limited, Mehta Chambers, 13, Mathew Road, Bombay 4. Phone: 38091/95. Grams: "DYECOLD".**

**FARBWERKE HOECHST AKTIENGESSELLSCHAFT, Frankfurt (M)—Hoechst, Germany. Manufacturers of Dyestuffs, Chemicals, Organic intermediates, raw materials for the paint and plastic industries, fibres, films, Industrial gases and Welding equipment. Licences: Hoechst Dyes & Chemicals Ltd., Parekh Mahal, Vir Nariman Road, Churchgate, Bombay 1. Grams: "HOSTACHEM."**

Hercules Powder Co., Inc., Wilmington, Delaware, U.S.A. Agents: Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.

Houghton, E. F., & Co., Philadelphia. Houghton's Heat Treatment Specialities. Agents: Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.

Industrial Tartarica Valenciana, S.A., Valencia, Spain. Tartaric Acid. Distributors: F. Bock & Co., Shale Building, Bank Street, Fort.

Industrias Quimicas Y. Tartaricas, S.A., Gerona, Spain. Tartaric & Citric Acid. Distributors: F. Bock & Co., Shale Building, Bank Street, Fort.

M. W. Hardy & Co., Ltd., London. Chemicals, Pharmaceuticals, Dyes. Distributors: F. Bock & Co., Shale Building, Bank Street, Fort.

N. V. Chefaro Maatschappij, Rotterdam, Holland. Sole Distributors: Voltas Ltd., Bombay 1.

Societe des Usines Chimiques Rhone-Poulene, Paris. Sole Distributors: Voltas Limited.

## CIGARETTE LIGHTERS

Ronson Products Ltd., London. Cigarette Lighters & Products. Sole Distributors: Spencer & Co. Ltd., Spencer's Building, Forjett Street, Bombay 26.

## CIRCLIPS

**ORBIS G.m.b.H., West Germany. Mfrs. of Circlips. Sole Agents: Messrs. B. Chowdhury & Co., Indian Globe Chambers (7th Floor), Fort Street, Fort, Bombay 1. Phone: 26-3479. Grams: "BISUKHI".**

## CLEARING AND FORWARDING AGENTS

Dean & Dawson Ltd., Passenger and Tourist Agents. Agents: Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".

Geo. W. Wheatley & Co. Ltd., London, Liverpool, New York and Marseilles. Shipping and Forwarding Agents. Agents: Balmer Lawrie & Co. Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".

Gerhard & Hey Ltd., Shipping Agents, London, Liverpool, Manchester, Hull, Southampton, Glasgow. Agents: Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.

Gerhard & Hey Co., Inc., Shipping Agents, 44, Whitehall Street, New York 4, N. Y. Agents: Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.

Pitt & Scott Ltd., London, Glasgow, Liverpool, New York and Marseilles. Shipping and Forwarding Agents. Agents: Balmer Lawrie & Co. Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".

## CLOSED CIRCUIT TELEVISION EQUIPMENT

Epsylon Industries Ltd., Faggs Road, Feltham, Middlesex, England. Agents: Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.

## COAL CUTTING MACHINERY AND CONVEYORS

**Mayor & Coulson Ltd., 47, Broad Street, Glasgow. Coal Cutters and Conveyors. Agents: Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".**

## COLOURS

Blythe Colour Works Ltd., England. Sole Agents in India: Indian Furnace Co. Private Ltd., Lotus Cinema Building, Dr. Annie Besant Road, Bombay 18.

S. C. C. Colours Ltd., London. Fine Colour & Pigments. Distributors: F. Bock & Co., Shale Building, Bank Street, Fort.

## COMMUNICATIONS TEST EQUIPMENT

James Scott (Electronic Engineering) Ltd., Carntyne Estate, Glasgow E-2, Scotland. Agents: Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.

Marconi Instruments Ltd., St. Albans, Hertfordshire, England. Agents: Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.

Microwave Instruments Ltd., 98, St. Pancras Way, Camden Road, London N.W.1. Agents: Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.

## COMPRESSORS

Gesellschaft Fur Linde's Eismaschinen A.G., Niederlassung Suerth, W. Germany. Sales Distributors: Motwane Private Limited, 127, Mahatma Gandhi Road, Bombay-1.

## COMPUTING EQUIPMENT

Short Brothers and Harland Ltd., 7th Floor, Berkeley Square House, Berkeley Square, London W.1, England. Sealand aircraft analogue computing equipment. Skyvan freight Aircraft, Sea cat and Tiger cat Missiles. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

## CONCRETE MACHINERY

Cable Covers Ltd., Sole Agents: Killick Nixon & Co., Ltd., Killick House, Home Street, Fort, Bombay.

## CONCRETE REINFORCEMENT

McCall & Co., (Sheffield) Ltd., Templeborough, Sheffield, England. "Matobar" High Tensile Electrically Welded Steel Fabric for Reinforcement; Sole Representatives: The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

## CONCRETE VIBRATORS

Allam, E. P., & Co., Ltd., 132-135, Sloane Street, London, S.W.1. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

Johnson (Machinery) Ltd., C. H., England. Sole Agents: Killick, Nixon & Co., Ltd., Killick House, Home Street, Fort.

Wacker Gebruder, Germany. Gasoline/Electric High Frequency Internal/External Concrete Vibrators, Tampers, Tie Tampers, Plate Vibrators, etc. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

## CONTRACTORS' PLANT AND MACHINERY

Boydell & Co. Ltd., E., Manchester (Muir-Hill Loaders & Dumpers). Agents for Western India: Killick, Nixon & Co. Ltd., Killick House, Home Street, Fort.

Cable Covers Ltd., London. Agents: Killick Nixon & Co. Ltd., Killick House, Home Street, Fort, Bombay.

Cement & Steel Ltd., Kent, (Bar Bending & Bar Shearing Machine). Agents: Killick, Nixon & Co. Ltd., Killick House, Home Street, Fort.

Christopher & Sons Ltd., J., London, (Hemel Hoists). Sole Agents: Killick, Nixon & Co. Ltd., Killick House, Home Street, Fort.

Fiorentini & Co., Ing. F., Italy. Agents for Western India:—Killick, Nixon & Co. Ltd., Killick House, Home Street, Fort.

**Frederick Parker, Ltd., Leicester.** Sole Agents: Heatley & Gresham Ltd., 43, **Forbes Street, Fort.**

Johnson (Machinery) Ltd., C. H., England. Sole Agents: Killick, Nixon & Co., Ltd., Killick House, Home Street, Fort, Bombay.

## CRANES & HOISTS

**Clyde, Crane & Booth Ltd., Rodley, Leeds,** England and Mossend, Scotland and Cowans Sheldon & Co. Ltd., Carlisle, England. Electric Overhead Travelling Cranes, Electric, Steam and Diesel Dock and Wharf Cranes, Travelling Jib Cranes for Docks, Railways and Collieries, Railway Breakdown and Main Line Cranes and Deck cranes. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Fellows Brothers Ltd., Cradley Heath, England. Overhead Electric and hand Power Travelling Cranes, Pulley Blocks & Hoists. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

Holland Cranes, The Hague, Holland. Agents for Western India: Killick, Nixon & Co. Ltd., Killick House, Home Street, Bombay 1.

John Smith & Sons (Keighley) Ltd., Keighley. Electric Overhead Travelling Cranes. Sole Agents: Marshall, Sons & Co. (India) Ltd., Marshall's Building, Ballard Road, Bombay 1.

Loro & Parisini, Milan. Sole Agents: Killick, Nixon & Co. Ltd., Killick House, Home Street, Fort, Bombay.

Richard C. Gibbins & Co., Ltd., Birmingham. Agents: Killick Nixon & Co. Ltd., Killick House, Home Street, Fort.

Thomas Smith & Sons (Rodley) Ltd., Rodley. Steam and Diesel Cranes. Sole Agents: Marshall, Sons & Co. (India) Ltd., Marshall's Building, Ballard Road, Bombay 1.

## DIAMOND DRILLING RODS

Jacques Dembitzer, Antwerp, Belgium. Sole Agents: Killick, Nixon & Co. Ltd., Killick House, Home Street, Bombay 1.

## DIESEL ENGINES

**Davey Paxman & Co., Ltd., Standard Iron Works, Colchester. Diesel Engines for Stationary, Marine and Rail Traction Duties. Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.**

**R. A. Lister & Co. Limited, Dursley, Gloucestershire, Great Britain. Distributors: Voltas Limited.**

**Ruston & Hornsby Ltd., Lincoln & Grantham, England. Horizontal & Vertical Stationary Diesel Engines, also Marine, Main and Auxiliary Diesel Engines. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.**

## DISC SPRINGS

**ADOLF SCHNORR, WEST Germany. Mfrs. of Disc Springs. Sole Agents: Messrs. B. Chowdhury & Co., Indian Globe Chambers (7th Floor), Fort Street, Fort, Bombay 1. Phone: 26-3479. Grams: "BISUKHI".**

## DISINFECTANTS AND INSECTICIDES, FUNGICIDES, WEEDKILLERS, LIQUID CHLORINE ETC.

Hercules Powder Co., Inc., Wilmington, Delware, U.S.A. Agents: Hardcastle, Waud & Co. Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.

## DOMESTIC APPLIANCES

Lumbys Ltd., England. Hot Water Boiler, etc. Agents: Richardson & Cruddas, Ltd., Byculla, Bombay 8.

## DRAWING OFFICE EQUIPMENT

**HALL HARDING LTD., London, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.**

## DRAWING AND SURVEYING EQUIPMENT

Holmes Brothers (London) Ltd., Flempton Road, London E.10. Agents: Associated Instrument Manufacturers (India) Pt. Ltd., India House, Fort Street, Bombay 1.

**HYMATIC DREDGES LTD., Battlebridge House, Tooley Street, London S.W. 1. Representatives: James Finlay & Co., Ltd., P.O. Box No. 73, Bombay 1.**

I. H. C. Holland, The Hague, Holland. Agents for Western India: Killick, Nixon & Co. Ltd., Killick House, Home Street, Bombay 1.

**SIMONS—LOBNITZ LTD., Renfrew Near Glasgow. Representative: James Finlay & Co., Ltd., P.O. Box No. 73, Bombay 1.**

## DRILL STEEL

Modern Hardmetals Ltd., Holme Lane, Sheffield, England. Drilling & Boring Tools. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

## DRILLING AND BORING EQUIPMENT

English Drilling Equipment Co., Ltd., London. Sole Agents: Killick Nixon & Co. Ltd., Killick House, Home Street, Fort.

Fredk. Pollard & Co. Ltd., Leicester, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

Halifax Tool Co., Ltd., Halifax. Sole Agents: Killick, Nixon & Co. Ltd., Killick House, Home Street, Fort.

Mindrill Exports Pty. Ltd., 64-74, Bell Street, Preston N-18, Victoria, Australia. Diamond Coring and blast hole drills, Grout drills and accessories. Rods, Casings and pumps. Diamond bits for Coring, non-coring, reaming and casing. Portable Rotary drills. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

Ruston-Bucyrus, Ltd., Lincoln, England and Bucyrus-Erie Company, South Milwaukee, Wisconsin, U.S.A. Excavating Machinery, Well and Blast Hole Drills, Hydro Cranes. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

**Siemens-Schuckert (G.B.) Ltd., Brentford, Middlesex. Electric Hand Drills, Gate End Panels, Wimet Bits, etc. Agents: Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".**

## DUMPERS

Road Machines (Drayton) Ltd., The Ridgeway, Thorney Lane, Iver, Bucks, England. Weighbatchers, Dumpers and Monorail Transporters. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## DUMPERS LOADERS

Chaseside Engineering Co. Ltd., Blackburn, Lancashire, England. Agents: Heatly & Gresham Ltd., 43 Forbes Street, Bombay-1.

## DUST EXTRACTION EQUIPMENT

Dallow Lambert & Co., Ltd., Thurmaston, England. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## DYESTUFFS

**FARBENFABRIKEN BAYER AKTIENGESELLSCHAFT, Leverkusen, Germany. Manufacturers of Coal-tar Dyes. Sole Distributors: Chika Ltd., Mehta Chambers, 13, Mathew Road, Bombay 4. Phone: 38091 95. Grams: "DYECOLD".**

**FARBWERKE HOECHST AKTIENGESELLSCHAFT, Frankfurt (M)—Hoechst, Germany. Manufacturers of Dyestuffs, Chemicals, Organic intermediates, raw materials for the paint and plastic industries, fibres, films, industrial gases and welding equipment. Licensees: Hoechst Dyes & Chemicals Ltd., Parekh Mahal, Vir Nariman Road, Churchgate, Bombay 1. Grams: "HOSTACHEM."**

## EARTHMOVING EQUIPMENTS

Aveling Barford Ltd., Invicta Works, Grantham, England. Motor & Diesel Road Rollers, Dumper Trucks, Calf-Dozers, Graders, Crushing & Screening Plant. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Blaw Knox Ltd., London. Bulldozers, Scrapers, Rooters, Tamping Rollers, Excavators. Sole Agents: Marshall, Sons & Co. (India) Ltd., Marshall's Building, Ballard Road, Bombay 1.

International Harvester Export Co., U.S.A., U.K., Australia and Associates. Sole Distributors: Voltas Limited.

Mack Trucks Worldwide Ltd., Hamilton, Bermuda. Sole Distributors: Voltas Limited.

Ruston-Bucyrus, Ltd., Lincoln, England and Bucyrus-Erie Company, South Milwaukee, Wisconsin, U.S.A. Excavating Machinery, Well and Blast Hole Drills, Hydro Cranes. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

## EARTHMOVING MACHINERY, CRANES

Fiorentini & Co., Ing. F., Italy. Agents for Western India: Killick, Nixon & Co. Ltd., Killick House, Home Street, Fort.

## EDUCATIONAL FILMS

Bray Studies Inc., 729 Seventh Avenue, New York, 19, N.Y. Sole Agents: National Education & Information Films Ltd., National House, Apollo Bunder, Bombay.

Czechoslovak Films, Prague, Sole Agents: National Education & Informations Films Ltd., National House, Apollo Bunder, Bombay.

Common Ground Ltd., Sydney Place, London, S.W. 7. Sole Agents: National Education and Information Films Ltd., National House, Tulloch Road, Apollo Bunder, Bombay.

Coronet Instructional Films, Coronet Building, Chicago, U.S.A. Sole Distributors: National Education & Information Films Ltd., National House, Tulloch Road, Apollo Bunder, Bombay.

Indiana University, Blomington (U.S.A.), Sole Distributors for 16 mm. films. National Education & Information Films Ltd., National House, Apollo Bunder, Bombay.

McGraw-Hill Book Co., New York. Distributors of McGraw-Hill Textfilms: National Education & Information Films Ltd., National House, Apollo Bunder, Bombay.

Moody Institute of Science, Los Angeles, Distributors: National Education & Information Films Ltd., National House, Apollo Bunder, Bombay 1.

National Film Board of Canada, Montreal (Canada). Sole Distributors for 16 mm. Films and Filmstrips: National Education & Information Films Ltd., National House, Apollo Bunder, Bombay.

United World Films Inc., New York. Distributors: National Education & Information Films Ltd., Apollo Bunder, Bombay.

## ELECTRIC THERMOSTATS

**ROBERT MACLAREN & CO., LTD., Eglinton Works, Kilbirnie Street, Glasgow, C. 5. Representatives: James Finlay & Co., Ltd., P.O. Box No. 73, Bombay 1.**

## ELECTRICAL GOODS & APPLIANCES

**Artic Fuse & Electrical Mfg. Co., Ltd.,** Birtley Co., Durham, England. Pressure Contact Self-Aligning Fuses both Semi-Enclosed (Fuse Wire) Type and H.R.C. Cartridge Fuse Type, Knife Switches, Heavy-duty Ironclad Switchgear and Fusegear. Agents: Greaves Cotton & Crompton Parkinson, Ltd., 1 Forbes Street, Bombay 1.

**Belling & Co., Ltd., Southbury Road, Enfield, Middlesex, England. Electric** Cookers & Heaters and Electric Domestic Appliances. Agents: Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay 1.

Black & Decker Ltd., Harmondsworth, Middlesex, England. Portable Electric Drills, Grinders, Saws, Sanders and Polishers. Agents: Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay-1.

Black & Decker Mfg. Co., Towson, Maryland, U.S.A. Electric Garage Equipment including Valve Refacers, Valve Seat Grinders and Electric Bench Grinders. Agents: Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay-1.

Bullers Ltd., Milton, Staffs, England. Proclain Insulators and Steelwork for Telegraph, Telephone and Electrical Power Transmission. Agents: Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay-1.

Cooke & Ferguson Ltd., Openshaw, Manchester, England. Metal Clad H.T. and E.H.T. Switchgear. Agents: Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay-1.

**CROMPTON PARKINSON LTD., Crompton House, Aldwych, London, W.C. 2. England. Electric Motors and Generators, Power and distribution Transformers, Switchgear, Switchboard and Control Gear, Electric Tranctions Equipment, Electrical Instruments, Electric Ceiling Fans, Electric Lamps, Automobile Batteries, C. M. A. Rubber Wires and Cables, Paper insulated Cables, Electric Vehicle Batteries and Fluorescent Lighting Fittings. Agents: Greaves Cotton & Cromptom Parkinson Ltd., 1, Forbes Street, Bombay 1.**

Dubilier Condenser Co. (1925) Ltd., North Acton, London, W.3., England. Static Capacitors for Power Factor Improvement. Agents: Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay 1.

**DIEHL, Uhrenfabrik Stenphanstrasse 49, 8,500, Numberg-2. W. Germany. Sole Agents for India:—Jashvant C. Shah & Co. Navroz Baug, Navrozi Lane, Ghatkopar, Bombay 77.**

**E. D. HARTMANN, Schornbach Bei Schorndorf/Wurtt W. Germany. Sole Agents for India:—Jashvant C. Shah & Co. Navroz Baug, Navrozi Lane, Ghatkopar, Bombay 77.**

**ELECTRICAL APPARATUS CO. LTD., The St. Albans, England, A.C. and D.C. Motor Starting and Control of Gear, A.C. and D.C. Automatic Starters and Contractor Gear and Iron Clad Circuit Breakers. Agents: Greaves Cotton & Crompton Parkionson Ltd., 1, Forbes Street, Bombay 1.**

**ELECTRONIC GENERATEHAU DORNBIRN, Ing. Dipl. Walter Rainer-Sandgasse 22, Dornbirn, Austria. Sole Agents for India:—Jashvant C. Shah & Co. Navroz Baug, Navrozi Lane, Ghatkopar, Bombay 77.**

**FRITZ KUBLER, Schwenningen/Neckar, W. Germany, Sole Agents for India:—Jashvant C. Shah & Co. Navroz Baug, Navrozi Lane, Ghatkopar, Bombay 77.**

**FUCHS-MUHLEN, Maschinenfabrik Maximilian Fuchs & Co. Wien, Westbahnstrasse 27-29, Vienna VII 62, Austria. Sole Agents for India: Jashwant C. Shah & Co. Navroz Baug, Navrozi Lane, Ghatkopar, Bombay-77.**

Fuller Electric Ltd., Fulgourne Road, London E. 17. Onload tapchanging gear for Power Transformers. Agents: Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay 1.

Gent & Co., Ltd., Faraday Works, Leicester, England. Electric Pul-Syn-Etic Impulse Clocks, Electric Frequency Clocks, Electric Bells, Buzzers and Sound Signals of all types, Electric Syrens, Liquid Level Indicators and Alarms, Telephones and Telephone SwitchB oards, Electrical Apparatus and Appliances. Agents: Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay 1.

**GRUNER & CO., G. M. B. H. Wehingen/Wttg. W. Germany. Sole Agents for India:—Jashvant C. Shah & Co. Navroz Baug, Navrozi Lane, Ghatkopar, Bombay 77.**

**H. K. PORTER COMPANY, INC. Delta-Star Electric Division, Lynchburg, va. U.S.A.: Crystal Valve Lightning Arresters; Sole Agents: Johnson & Phillips, Ltd., Kaiser-I-Hind Building, Currimbhoy Road, Ballard Estate, Bombay.**

Horstmann Gear Co., Ltd., Bath, England. "H.B.E." Electric Time Switches. Sole Agents: Johnson & Phillips Ltd., "Kaiser-I-Hind" Building, Currimbhoy Road, Ballard Estate.

**JULUISBAUSER, Empfingen, G. Horb, W. Germany. Sole Agents for India:—Jashvant C. Shah & Co. Navroz Baug, Navrozi Lane, Ghatkoper, Bombay 77.**

**KONTAK TWERK ENZBERG, Ing. Alfred Odenwald, Enzherg (Wurttemberg), W. Germany. Sole Agents for India:—Jashvant C. Shah & Co. Navroz Baug, Navrozi Lane, Ghatkopar, Bombay 77.**

Landis & Gyr, S.A., Zug (Switzerland). Sole Distributors: Voltas Limited.

London Electric Wire Co. & Smiths Ltd., The.—London, S.W.1, England. Sole Distributors: Voltas Limited.

**M. & C. SWITCHGEAR LTD., Kelvinside Works, Kirkintilloch, Glasgow. Mining Type & Flame proof Circuit breakers & Switchboards, Gate-End-boxes, Special Switch boards for Oil Refineries & Oxygen Plants. Agents: Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay 1.**

Morganite Exports Ltd., Battersea Church Road, London, England. Morganite and Battersea Carbon Brushes for all Electrical Machines and Carbon Products for all Electrical and Mechanical Applications. Agents: Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay-1.

Morganite Exports Ltd., Battersea Church Road, London, S.W. 11, England. Carbon and Morganite Brushes. Agents: Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay.

Nalder Bros. & Thompson Ltd., England. Electrical Measuring Instruments. Sole Agents: Johnson & Phillips Ltd., Kaiser-i-Hind Building, Currimbhoy Road, Ballard Estate.

Reyrolle, A., & Co. Ltd., Hebburn Co., Durham, England. Heavy-Duty, Metal-cased, Earthed (A) Sockers and Plugs (B) Switch-Socket Saw Plugs (C) Switch-Fuse Sockets and Plugs. Agents: Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay 1.

Richard Johnson & Nephew Ltd., Forge Lane, Manchester 11, England. Plain & Steel Cored Aluminium Conductor. Agents: Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay 1.

Simplex Electric Co. Ltd., P.O. Box No. 8, Brmingham, England. Ironclad Switchgear and Fusegear, Conduit and Conduit Fittings, Commercial and Industrial Lighting Equipment, Flame proof Switchgear and Fusegear Accessories. Agents: Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay 1.

**Switchgear & Equipment Ltd., Banbury,** Oxon, England. L. T. and H. T. Airbreak Switchgear and Fusegear, L.T. and H.T. Overhead-Line Switchgear. Agents: Greaves Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay 1.

Thomas & Son (Worcester) Ltd., Worcester, England. "Climax" Shallow and Deep Well Piston Pumps. Agents: Greaves Cotton & Crompton Parkinston Ltd., 1, Forbes Street, Bombay 1.

Walsall Conduits Ltd., West Bromwich, England. Conduit. Agents: Balmer Lawrie & Co. Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".

Wardle Engineering Co., England. Industrial lighting, Floodlights & Fittings. Agents: Richardson & Cruddas Ltd., Byculla, Bombay 8.

W. H. Keys Ltd., England, "Mastico" Electrical Insulating Compounds & Varnishes. Agents: Richardson & Cruddas Ltd., Byculla, Bombay 8.

## ELECTRICAL LAMPS

Osram G.m.b.H., Munchen 2, W. Germany. Agents: Hindco, 27, New Queen's Road, Bombay.

## ELECTRICAL MACHINERY

Elextriska Sevkningsktiebolaget, Esab, Export Dept., Box 850 Gotesborg 8, Sweden. Electrodes & Welding Plants. Agents: Armstrong Smith Ltd., 1, Sir Phirozeshah Mehta Road, Bombay 1.

Micafil S. A., Zurich, Switzerland. Sole Distributors: Voltas Limited.

Oerlikon Engineering Company, Zurich 50 (Switzerland). Sole Distributors: Voltas Limited.

## ELECTRICAL MOTOR CONTROL GEAR

**BROOKHIRST IGRANIC LTD., Works at Bedford and Chester, England. (Electric Motor Control Gear and Auxiliaries). Representatives: James Finlay & Co., Limited, P.O. Box No. 73, Bombay 1.**

## ELECTRICAL PLANT

Asea, Vasteras, Sweden. Manufacturers of all types of electrical machinery and apparatus for power purposes. Representatives: Asea Electric India, Private Limited, Yaffi Building, Goa Street, Ballard Estate.

## ELECTRICAL & ELECTRONIC TEST INSTRUMENTS

Avo Ltd., England. Sales Distributors: Motwane (Private) Ltd., 127, Mahatma Gandhi Road, Bombay 1.

Sangamo Weston Ltd., England. Sales Distributors: Motwane (Private) Ltd., 127, Mahatma Gandhi Road, Bombay 1.

## ELECTRICAL RESISTANCE ALLOYS, NICHROME, ETC.

British Driver-Harris Co. Ltd., England. Sales Distributors: Motwane (Private) Ltd., 127, Mahatma Gandhi Road, Bombay 1.

Driver-Harris Company, U.S.A. Sales Distributors: Motwane (Private) Ltd., 127, Mahatma Gandhi Road, Bombay 1.

Henry Wiggin & Co. Ltd., Holmer Road, Hereford, England. "Brightray" Series of High Nickel-Chromium Alloys. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

## ELECTRICAL SYSTEMS

Aircraft Marine Products (Great Britain) Ltd., Terminal House, Stanmore, Middlesex, England. All sizes of solderless terminals and connectors for electrical wirinig systems with associated hand, hydraulic and automatic machine tooling. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

## ELECTRICAL INDICATING AND RECORDING INSTRUMENTS

Everett Edgcumbe & Co. Ltd., Colindale Works, Colindeer Lane, London, N.W.9. Agents: Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay-1.

## ELECTRICAL SWITCHGEAR

Erskine Heap & Co., Ltd., Manchester, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

Midland Electric Mfg. Co. Ltd., England MEM. Switch Products. Agents: Richardson & Cruddas Ltd., Byculla, Bombay 8.

Yorkshire Switchgear & Engineering Co. Limited, Meanwood, Leeds 6, England. Manufacturers of Metalclad H. V. Switchgear. Representatives: Asea Electric India Private Limited, Yaffi Building, Goa Street, Ballard Estate.

## ELECTRODES

Anglo Great Lakes Corporation Ltd., Newcastle upon Tyne, England. Sole Agents in India:—Indian Furnace Co. Private Ltd., Lotus Cinema Building, Dr. Annie Besant Road, Bombay-18.

Cooper & Turner Ltd., Vulcan Works, Vulcan Road, Sheffield, England. Sole Agents: Datson, Raviraj & Co., Private Ltd., 43, Tamarind Lane, Fort, Bombay.

Great Lakes Carbon Corporation, U.S.A. Mfrs. of Graphite Electrodes for Arc Furnaces and anodes for Caustic soda cells and other Graphite Products. Sole Agents in India:—Indian Furnace Co. Private Ltd., Lotus Cinema Building, Dr. Annie Besant Road, Bombay-18.

**Murex Welding Processes Ltd., Waltham Cross, Herts. Agents: Guest, Keen, Williams, Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.**

Union Carbide International Co., New York, U.S.A. Sole Distributors: Voltas Limited.

Weldcraft Ltd., 26, Purley Way, Croydon, England. Manufacturers of "Bronzecraft" Low Temperature Welding Rods, Sole Agents: Datson Raviraj & Co., Private Ltd., 43, Tamarind Lane, Fort.

## ELECTRONIC APPARATUS FOR RESEARCH & INDUSTRY

Cossar Electronics Ltd., Elizabeth Way, The Pinnacles, Harlow, Essex, England. Primary radar for early warning & G.C.A. systems; air surveillance radar, meteorological radar, ground and airborne secondary surveillance radar, ground and airborne gee navigational equipment, display systems, delay lines, printed wave-guides, etc. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Dynatron Radio Ltd., St. Peter's Road, Furze Platt, Maidenhead, Berkshire, England. Scaling units, pulse analysers portable scalers, power units, coincidence units, timing units, clinical monitors and accessories. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Ekco Electronics Ltd., Southend-on-Sea, Essex, England. Amplifiers, ratemeters scalers, scintillation counters, radiation monitors, electrometers, thickness gauges, density gauges, power units, airborne weather automatic direction finding equipment, transistorised Static Invertors. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Fairchild International, A Division of Fairchild Camera and Instrument Corporation, U.S.A. Sales Distributors: Motwane Private Limited, 127, Mahatma Gandhi Road, Bombay-1.

Ultra Electronics Ltd., Western Avenue, Acton, London W. 3, England. Search rescue and homing equipment, communication control equipment, engine condition analysers, throttle control amplifiers and jet pipe temperature control amplifiers, etc. Sole Concessionaires; Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

## ELECTRONIC APPARATUS & RADIO BROADCASTING & COMMUNICATION EQUIPMENT

Westinghouse Trading Co. (Asia) Ltd., U.S.A. Sales Distributors: Motwane (Private) Ltd., 127, Mahatma Gandhi Road, Bombay 1.

## ELECTRONIC COUNTERS AND TIMERS

Computer Measurements Co., 12970 Bradley Avenue, San Fernando, California, U.S.A. Agents: Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay-1.

## ELECTRONIC & ELECTRICAL DEVICES AND COMPONENTS

P. R. Mallory & Co., Inc. Indianapolis, 6, Indiana U.S.A. Agents: Hindco, 27, New Queen's Road, Bombay-4.

N. V. Pope's Draad-en Lampen Fabrieken, Holland. Agents: Hindco, 27, New Queen's Road, Bombay-4.

Telegraph Condenser Co. Ltd., North Acton, London, W-3. Agents: Hindco, 27, New Queen's Road, Bombay-4.

## ELECTRONIC EQUIPMENT AND INSTRUMENTS

Brush instruments. U.S.A. Sales Distributors: Motwane (Private) Ltd., 127, Mahatma Gandhi Road, Bombay 1.

General Radio Company, U.S.A. Sales Distributors: Motwane (Private) Ltd., 127, Mahatma Gandhi Road, Bombay 1.

## ELECTRONIC VALVE MFRS.

English Electric Valve Co., Ltd., Chelmsford, Essex, England. Agents: Associated Instrument Manufacturers (India) Private Ltd., India House, Fort, Street, Bombay 1.

## ENGINEERING

**Aerex Ltd., 46, Rutland Park, Sheffield. Mine Ventilating Fans. Agents: Balmer Lawrie & Co. Ltd., 5, Graham Road, Ballard Estate, Fort, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".**

**Beck & Co. (Meters) Ltd., etc. Agents: Hardcastle, Waud & Co. Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.**

**Lister & Co. (R. A.), Dursley, Glos. Auto Trucks. Agents: Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".**

**Power Plant Co., Ltd., England. Agents: Balmer, Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".**

**Richard Klinger Ltd., Klinger Engineering specialities. Agents: Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.**

**Ultra Lens Company, The, London, E.C. 2. Agents: Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.**

**Wells, A. C., & Company Ltd., Manchester, Wells Oil Filters. Agents: Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.**

## EQUIPMENT FOR STEEL PLANTS

Schloemann A. G., Dusseldorf, West Germany. Sole Distributors: Voltas Ltd Ballard Estate.

## ESSENTIAL OILS

Bruno Court, S. A. Jean Roure & Cie, Grasse (France). Agents: Aromatic Products & Chemicals Private Ltd., 42, Prospect Chambers Annexe, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Grams: "Discovery".

Destilaciones Garcia De la Fuente S.A., Granada (Spain). Sole Agents: Aromatic Products & Chemicals Private Ltd., 42, Prospect Chambers Annexe, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Grams: "DISCOVERY."

Holland-China Trading Co. Ltd., Hongkong. Indenting Agents: Aromatic Products and Chemicals Private Ltd., 42, Prospect Chambers Annexe, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Grams: "DISCOVERY".

L. Russo & Figlio, Messina (Italy). Sole Agents: Aromatic Products & Chemicals Private Ltd., 42, Prospect Chambers Annexe, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Grams: "DISCOVERY."

M. M. Hatherbacha & Co., Penang, Malaya. Agents: M. C. Davar & Co., 143, Princess Street, Bombay 2. Phone: 39752, Grams: "EMCIDAVAR".

N. V. Chemische Fabrick "FLEBO" Hoogezand (Holland). Sole Agents: Aromatic Products & Chemicals Private Ltd., 42, Prospect Chambers Annexe, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Grams: "DISCOVERY".

Takasago Perfumery Co. Ltd., Tokyo, Japan. Sole Agents: Aromatic Products & Chemicals Private Ltd., 42, Prospect Chambers Annexe, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Grams: "DISCOVERY".

## EXCAVATING MACHINERY MANUFACTURERS

Harnischfeger Corpn.: U.S.A., Germany and Japan. Sole Distributors: Voltas Limited.

## FIRE ENGINES AND APPLIANCES MANUFACTURERS

Dennis Bros. Ltd., Guildford, Surrey, England. Dennis' Motor, Fire Engines and Trailer Pumps. Agents: Roberts, McLean & Co., Ltd., Ilaco House, Sir Phirozshah Mehta Road.

Merryweather & Sons, Ltd., Greenwich, London Fire Engines & Appliances. Agents: Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER."

Walter Kidde Co., England. Fire Extinguishers and built-up systems. Agents: Roberts McLean & Co., Ltd., Ilaco House, Sir Phirozshah Mehta Road, Fort.

## FIRE FIGHTING APPLIANCES

Albion Motor Co., Sweden. Sole Agents: National Fire Equipment Co., 11 Bank Street, Bombay 1.

H. Christoferson & Co., Gotebrurg, Sweden. Agents: National Fire Equipment Co., 11, Bank Street, Fort, Bombay 1.

## FISH (PRESERVED)

Seafood Products Ltd., Vancouver. Frozen Fish. Sole Distributors: Spencer & Co., Ltd., Spencer's Building, Forjett Street, Bombay 26.

## FLAME GUNS & BURNERS

**Hauck Manufacturing Co., U.S.A. Agents: Guest, Keen, Williams, Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.**

## FLOOR HARDENING COMPOUND

**Ironite Co., Ltd., 4, Holbeine Place, Sloane Square, London, S.W. 1. Sole Agents: Heatly & Gresham, Ltd., 43, Forbes Street, Bombay 1.**

## FLUID HANDLING EQUIPMENT

Emco Brass Mfg. Co., Margate, Kent, England. Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## FORGINGS AND STAMPINGS FOR RAILWAYS

**COMPTOIR DES FERRURES, CHARLEVILLE (ARDENNES), France. Manufacturers of Component Parts of Machinery, Rolling Stock, etc. Agents: Gaytee & Company, Janmabhoomi Chambers, Fort Street, Bombay. Phone: 263449. Grams: "IMPENG."**

## FORK LIFT TRUCKS

Automatic Transportation Company, Chicago, U.S.A. Electric Automatic Industrial Fork Lift Truck. Agents: Guest, Keen, Williams, Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

Yale & Towne Manufacturing Co., U.S.A., U.K., Germany and Associates. Sole Distributors: Voltas Limited.

## FOUNDRY MATERIAL & EQUIPMENT

**Hauck Manufacturing Co., U.S.A. Agents: Guest, Keen, Williams, Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.**

**Houghton, E. F., & Co., Philadelphia. Agents: Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.**

**J. S. FRIES-SOHN, Germany. Manufacturers of "Fries" Pressure Die-Casting Machines, Continuous Billet Casting Machines, Sole Agents in India: Pioneer Equipment Co. Private Ltd., 139, Medows Street, P.O. Box 1909, Bombay 1. (Phone: 251882). Also at Calcutta, New Delhi, Madras & Baroda.**

## FRUIT JUICES AND EXTRACTS

E. I. Michel & Co., Ltd., 415, Oxford Street, London W.I. Sole Distributors: Spencer & Co., Ltd., Spencer's Building, Forjett Street, Bombay 26.

## FUEL INJECTION EQUIPMENT

American Bosch Arma Corp., Massachusetts, U.S.A. Sole Distributors: Voltas Limited.

## FURNACES

Amco Furnace Contractors Ltd., Ontario (Toronto), Canada. Sole Distributors: Voltas Limited.

Efco Furnaces Ltd., Weybridge, Surrey. Agents: Killick Nixon & Co., Ltd., Killick House, Home Street, Fort, Bombay 1.

Foundry & Metallurgical Equipment Co. Ltd., 161, Queen's Road, Weybridge, Surrey. Die-Casting Equipment and Furnaces. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

**G. W. B. Furnaces Ltd., England. (Manufacturers of large Electric Furnaces). Sole Agents in India: Indian Furnace Co., Private Ltd., Lotus Cinema Buildings, Dr. Annie Besant Road, Bombay 18.**

Morganite Experts Ltd., Battersea Church Road, London, S.W. 11. Morgan's tilting and Lift-out Furnaces, Oil and Coke-fired. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

**OTTO-JUNKER, G.m.b.H., Germany. For Electric Melting & Heat Treatment Furnaces. Sole Agents: Pioneer Equipment Co. Private Ltd., 139, Medows Street, P.O. Box 1909, Bombay 1. (Phone: 251882). Also at Calcutta, New Delhi, Madras & Baroda.**

Stein Atkinson Stordy Ltd., Westminster House, Kew Road, Richmond, Surrey, England. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

Thermic Equipment and Engineering Co. Ltd., England. Sole Agents in India: Indian Furnace Co., Private Ltd., Lotus Cinema Buildings, Dr. Annie Besant Road, Bombay 18.

Wildfield Ltd., England. Sole Agents in India: Indian Furnace Co., Private Ltd., Lotus Cinema Buildings, Dr. Annie Besant Road, Bombay 18.

## GARAGE EQUIPMENT

**B. O. Morris Ltd., England. "Morrisflex" Flexible Shaft Equipment for Motor Garages, Workshops and for Boiler Descaling Agents: Armstrong Smith Ltd., Sir P. M. Road, Bombay 1.**

John Bean Eastern Division, U.S.A. Barrett Equipment, Brake Drum Lathes, Brake Relining Machines, Hydraulic Brake Bleeder & Filler Tanks. Agents: Armstrong Smith Limited, Sir P. M. Road, Bombay-1.

Black & Decker Mfg. Co. U.S.A., Black & Decker Ltd., England "UTILITY" Portable Electric Tools, Valve Refacers, Vibrocentric Kits, Bench & Portable Grinders, etc. Agents: Armstrong Smith Ltd., 1, Sir P. Mehta Road, Bombay 1.

Clayton Manufacturing Co., U.S.A. CLAYTON Engine and Chassis Dynamo meters. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

De Vilbiss Company, Ohio, U.S.A. Air Compressing & Spray Painting Outfits, Hose, etc. Agents: John Fleming & Co., Private Ltd., Bastion Road, Fort, Bombay 1. Phone: 261153.

Harvey Frost & Co. Ltd. England. Garage Tools, Jacks, Tyre Changers, Vulcanising Equipment. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

Joseph Bradbury & Sons Ltd., England. Garage Equipment, Jacks, etc. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

Pendleton Tool Industries International. Terminal Annexe, Los Angles, U.S.A. Garage Tools. Rep.: Jairamdas & Sons, 168, Narain Dhuru Street, Bombay 8.

Van Norman Co., U.S.A. Cylinder Boring Bars, Crankshaft Regrinders, Horizontal Surface Grinders, Automatic Wet Honer, Super Rotary Surface Grinder, Cop-Rod Boring Machine, Piston Turning & Grinding Machines, Rase-way Grinding Machines, Special purpose Milling Machines. Agents: Armstrong Smith Private Ltd., 1, Sir P. M. Road, Bombay 1.

## GAS CUTTING MACHINERY

Esab Ltd., England. Electrodes and Welding Plants, Magnetic Crack Detectors and Gas Cutting Machines. Agents: Armstrong Smith Ltd., 1, Sir P. Mehta Road, Bombay 1.

## GAS TURBINES

Bristol Siddeley Engines Ltd., Post Box 3, Filton, Bristol, England. Industrial & Marine Gas Turbines. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

Ruston & Hornsby Ltd., Lincoln, England. Gas Turbines. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

## GAUGES & INSTRUMENTS

Coley Thermometers Ltd., Brentford, Middlesex. Thermometers & Pressure Gauges. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Dobbie McInnes Ltd., Glasgow. Engine Indicators & Accessories. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Joseph Tormey & Sons Ltd., England. Gauge glasses, Pressure-Vacuum & Temperature Gauges. Agents: John Fleming & Co. Private Ltd., Bastion Road, Fort, Bombay 1. Phone: 261153.

## GEARS

David Brown Corporation (Sales) Ltd., Huddersfield, England. All types of open Gearing, Totally enclosed Gear units, Automobile Gears, Geared Motors. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Sandersons Bros. & Newbould Ltd., Sheffield 9, (U.K.). Meliocentric Gears. Representatives: Jairamdas & Sons, 163, Narain Dhuru Street, Bombay 3.

## GENERATING SETS

Australite Ltd., Crawley, Sussex, England. Agents: Associated Instruments Manufacturers (India) Private Ltd., India House, Fort Street, Bombay-1.

## GLASS-CRETE BLOCKS

**King, J. A., & Co., Ltd., Bridge House, 181, Queen Victoria Street, London, E.C. 4. Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.**

## GLASS YARN & FABRICS

Fothergill & Harvy Ltd., Manchester. Agents: Killick Nixon & Co. Ltd., Killick House, Home Street, Fort.

## GRINDERS

Snow & Co., Ltd. Sheffield. Surface Grinders. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## HYDRAULIC JACKS

Epco Ltd., Leeds 7, England. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## HYDRAULIC MACHINERY

Armfield Hydraulic Engineering Co. Ltd. Ringwood, England. Water Turbines, power house equipment, Axial flow Pumps. Sole concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

John Blake Ltd., Accrington, Hydram Water Raisers. Agents: Richardson & Cruddas Ltd., Byculla, Bombay 8.

## INDUSTRIAL CHEMICAL & GAS

Fisons Overseas Ltd., London, Great Britain. Distributors: Voltas Limited.

Humphreys & Glasgow Ltd., London. Agents: Killick, Nixon & Co. Ltd., Home Street, Fort.

## INDUSTRIAL EQUIPMENT (MANUFACTURERS)

**TEDDINGTON INDUSTRIAL EQUIPMENT LTD., Windmill Road, Sunbury-on-Thames, Middlesex. Manufacturers of Industrial Control Equipment. Representatives: James Finlay & Co., Ltd., P.O. Box No. 72, Bombay 1.**

## INDUSTRIAL INSTRUMENTS

**HARRY W. DIETERT, INC., Detroit, U.S.A. Manufacturers of Sand Testing Equipment. Sole Agents: Pioneer Equipment Co. Private Ltd., 139, Medows Street, P.O. Box 1909, Bombay 1. (Phone: 251882). Also at Calcutta, New Delhi, Madras & Baroda.**

Hilger & Watts Ltd., 98, St. Pancras Way, Candon Road, London N.W. 1 Agents: Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.

Kappa Electronics Ltd., 159, Hammersmith Road, London. Agents: Associated Instrument Manufacturers (India) Private Ltd., India House Fort, Street, Bombay 1.

**RIDSDALE & CO., U.K. Manufacturers of Sand Testing Equipment. Sole Agents: Pioneer Equipment Co. Private Ltd., 139, Medows Street, P.O. Box 1909, Bombay 1. (Phone: 251882). Also at Calcutta, New Delhi, Madras & Baroda.**

**STROHLEIN & CO., Dusseldorf, Germany, for Analytical Instruments for Iron, Steel and other metallurgical Industries. Sole Agents: Pioneer Equipment Co. Private Ltd., 139, Medows Street, P.O. Box 1909, Bombay 1. (Phone: 251882). Also at Calcutta, New Delhi, Madras & Baroda.**

W. & L. E. Gurley, U.S.A. Sales Distributors: Motwane (Private) Ltd., 127, Mahatma Gandhi Road, Bombay 1.

## INDUSTRIAL INSTRUMENTS AND STEAM LINE ACCESSORIES

Drayton Controls Ltd., West Drayton Middlesex, England. Steam Traps & Steam Line Accessories, Instruments for Measuring, Regulating or Controlling Temperature, Pressure and Draught. Electrically and hydraulically operated valves, metal bellows. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

The Tintometer Limited, The Colour Laboratory, Waterloo Road, Salisbury England. Agents: Associated Instruments Manufacturers (India) Private Ltd., India House, Fort Street, Bombay-1.

## INDUSTRIAL PRESSES

Leeds Engineering & Hydraulic Co., Ltd., Rodley, Leeds, England. Hydraulic Presses, Benders and Transmission Systems. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

U. S. Industries Inc. Production Machine Division, Chicago 38, Illinois, U.S.A. and 1/5, New Bond Street, London, England. Mechanical and Hydraulic Power presses and Press Brakes. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Vickers Armstrong Engineers Ltd., New-Castle-on-Tyne, England. Hydraulic & Mechanical Press Brakes. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

## INSULATING BOARD & MATERIAL

Budd Company, International Division, Continental Diamond Fibre Sales, Bridgeport, Pa., U.S.A. Agents: Hardcastle, Waud & Co. Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.

Diamond Fibre Co., Ltd., 59, Southward Street, London. Agents: Hardcastle, Waud & Co. Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.

Ioco Ltd., Anniesland, Glasgow. Agents: Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER."

Mo. & Domsjo Trading Co., Ltd., 47, Piccadilly, London, W. 1. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## INSULATORS (HIGH TENSION)

Hoverken, Bromolla, Sweden. Manufacturers of Porcelain Insulators. Representatives: Asea Electric India Private Limited, Yaffi Building, Goa Street, Ballard Estate.

## IRON, STEEL & BRASS

Geo H. Martin, Sydney, Australia. Sole Distributors: Voltas Limited.

Jessop-Saville Ltd., Sheffield. Sole Distributors: Voltas Limited.

Sanderson Bros. & Newbould Ltd., Sheffied 9, (U.K.). All sorts of Tool & Alloy Steel. Representatives: Jairamdas & Sons, 163, Narain Dhuru Street, Bombay 3.

## LABORATORY CHEMICALS & REAGENTS

Fine Chemicals of Canada Ltd., 124, Pharmacy Avenue, Toronto 13, Ontario Canada. Agents for Maharashtra State: R. K. Shapurji & Co., Prospect Chambers, 319, Dr. Dadabhai Naoroji Road, P. B. No. 1065, Bombay 1.

George T. Gurr Ltd., 136/138, New King's Road, London, S.W.6, England. Agents for Maharashtra State: R. K. Shapurji & Co., Prospect Chambers, 319, Dr. Dadabhai Naoroji Road, P.B. No. 1065, Bombay 1.

International Division Allied Chemical & Dye Corp., 40, Rector Street, New York 6, N. Y. Sole Agents for India: R. K. Shapurji & Co., Prospect Chambers, 319, Dr. Dadabhai Naoroji Road, P.B. No. 1065, Bombay 1.

## LABORATORY EQUIPMENT

Cambridge Instrument Co., Ltd., 13, Grosvenor Place, London, S.W.1., England. Mfrs. of Instruments for Science and Industry. Distributors: J. T. Jagtiani, National House, Tulloch Road, Apollo Bunder, Bombay 1.

Chr. Beck & Sohne, K. G. Kassel, Germany. Manufacturers of Microscopes. Sole Agents for India: J. T. Jagtiani, National House, 6, Tulloch Road, Apollo Bunder, Bombay 1.

Laboratory Equipment Corporation, St. Joseph, Michigan, U.S.A. Equipment for Metallurgical laboratories. Distributors: J. T. Jagtiani, National House Tulloch Road, Apollo Bunder, Bombay.

Measuring & Scientific Equipment Ltd., Spenser Street, London. S.W. 1. Agents: Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.

Metrohm Ltd., Herisau, Switzerland Mfrs. of pH-meters, titriscopes, polarometers. Agents for India: J. T. Jagtiani, National House, Tulloch Road, Apollo Bunder, Bombay 1.

Nederlandsche Optieken Instrumentenfabriek, Dr. C. E. Bleaker N. V. ZEIST, Holland. Mfrs. of Phase-contrast microscopes, pocket refractometers. Sole Agents for India : J. T. Jagtiani, National House, Tulloch Road, Apollo Bunder, Bombay 1.

Sanderson Bros & Newgould Ltd., Sheffield 9, (U.K.). All sorts of Tool & Alloy Steel. Representatives : Jairamdas & Sons, 163, Narain Dhuru Street, Bombay-3.

The Nalge Co. Inc., 75, Panorama Creek, Dr., Rochester 2, N.Y., U.S.A. Plastic Laboratoryware. Distributors : J. T. Jagtiani, National House, Tulloch Road, Apollo Bunder, Bombay 1.

Thermostatic Controls Co., Avenue Road, Hampton, Middlesex, England. Mfrs. of Thermostats. Sole Agents for India : J. T. Jagtiani, National House, Tulloch Road, Apollo Bunder, Bombay 1.

W. Memmert, Konigplatr 17 und Aussere Tittersbacher Stresse 38a Postfach 24, Schwabach Forsthof Bayern, W. Germany. Mfrs. of Ovens and Incubators. Distributors : J. T. Jagtiani, National House, Tulloch Road, Apollo Bunder, Bombay 1.

## LAMPS AND LANTERNS MANUFACTURERS

Tilley Lamp Co., Ltd., London. Patent Kerosene Floodlight Projectors. Agents : Roberts, McLean & Co., Ltd., Ilaco House, Sir Phirozshah Mehta Road.

## LIFTS, ELEVATORS, CONVEYORS (ELECTRIC)

Christopher & Sons Ltd., J., London (Hoists & Winches). Sole Agents : Killick, Nixon & Co., Ltd., Killick House, Home Street, Fort.

Marryat & Scott, London. Electric Passenger and Goods Lifts. Agents : John Fleming & Co. Private Ltd., Bastion Road, Fort, Bombay 1. Phone : 261153.

**W. S. BARRON & SONS LTD., Gloucester, England, Manufacturers of Screw Lifts, Elevators & Conveyors. Agents : Gaytee & Co., Janmabhoomi Chambers, Fort Street, Bombay 1. Phone : 263449. Grams : "IMPENG."**

## LIGHT HOUSE EQUIPMENT MFRS.

Stone-Chance Ltd., Crawley, Sussex, England. Agents : Associated Instruments Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.

## LOCOMOTIVES

Davey Paxman & Co., Ltd.. Standard Iron Works, Colchester. Vertical Diesel Oil Engines for land and marine use. Diesel Engines for Rail Traction in Locomotives and Railcars. Sole Conscessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

**DREWRY CAR COMPANY LTD.—129/139, Finsbury Pavement, London E.C. 2, England. Representations : James Finlay & Co., Ltd., P.O. Box No. 73, Bombay 1.**

Ruston & Hornsby Ltd., Lincoln. Narrow & Metre Gauge Diesel Locomotives and Broad Gauge Shunting Diesel Locomotives. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

## LUBRICATING OILS AND GREASES

Acheson, Colloids Ltd., London. "Colloidal Graphite Products", 'Oildag', 'Aquadag', etc. Agents : Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.

Edgar Vaughan & Co., Ltd., Birmingham. Agents : Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.

Germ Lubricants Ltd., Salford, Manchester. (Mineral Oils). Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Houghton, E. F., & Co., Philadelphia. Agents : Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.

Ocean Oil Co. (1942) Ltd., Marine Engine Oils. Agents : Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.

## LUBRICATION EQUIPMENT

Farvalube Ltd., England and The Farval Corporation, U.S.A., Lubricating System. Agents : Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone No. 261494 (3 lines), Grams : "BALMER".

## MACHINE TOOLS

Alfred J. Amsler & Co., Switzerland. Sole Distributors : Voltas Limited.

Bohner & Kohle 'BOKO' West Germany. Sole Distributors : Voltas Limited.

Carl Hurth, West Germany. Sole Distributors : Voltas Limited.

Casati Ernesto & Figli CASER, Italy. Sole Distributors : Voltas Limited.

Churchill-Redman Ltd., Parkinson Lane, Halifax. Sole Agents : Heatly & Gresham Ltd., 43, Forbes Street, Fort, Bombay 1.

Cincinnati Milling & Grinding Machines, Inc., Cincinnati, Ohio, U.S.A. Sole Agents : Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

Cincinnati Milling Machines Co., Ltd., Kingsbury Road, Birmingham, England. Sole Agents : Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

Cincinnati Nederland N. V., Vlaardingen, Holland. Agents : Heatly & Gresham Ltd., 43, Forbes Street, Fort, Bombay 1.

Eitel K. G., West Germany. Sole Distributors : Voltas Limited.

Ernst Grob, Switzerland. Sole Distributors : Voltas Limited.

Ernst Grob, W. Germany. Sole Distributors : Voltas Ltd.

F. B. Hatebur, Switzerland. Sole Distributors : Voltas Limited.

G.D.R., DIA Machinen—Export, Mohrenstrassee 61, Berlin W3, G.D.R.—Foundry Equipment. Agents : Armstrong Smith Limited, 1, Sir Phirozeshah Mehta Road, Bombay 1.

George Fischer Ltd., Switzerland. Sole Distributors : Voltas Limited.

Gildemeister & Co., A. G., West Germany. Sole Distributors : Voltas Limited.

H. A. Waldrich G. m. b. H., Siegen, W. Germany. Sole Distributors : Voltas Limited.

Hermann Pfauter, West Germany. Sole Distributors: Voltas Limited.

Herminghausen Werke, G. m. b. H., West Germany. Sole Distributors : Voltas Limited.

Kitchen & Wade Ltd., Halifax, England. Drilling Machines. Agents : Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

Kummer Freres S. A., Tramelan, Switzerland. Sole Distributors : Voltas Limited.

Maag Gear Wheel Co. Ltd., Zurich, Switzerland. Sole Distributors : Voltas Limited.

Mannaloni Works, Italy. Sole Distributors : Voltas Limited.

Manurhin, France. Sole Distributors : Voltas Limited.

N. V. Machinefabriek Gefra, The Hague, Netherlands. Sole Distributors : Voltas Limited.

Officine Meccaniche Ceruti, S. A., Italy. Sole Distributors : Voltas Limited.

Ormerod Shapers Ltd., Hebden Bridge, Yorks, England. Sole Agents : Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

Pickles, John & Son (Engineers), Ltd., Hebden Bridge, England. Sole Agents : Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

Praehoma-Werke Kehren & Co., West Germany. Sole Distributors : Voltas Ltd.

Schaudt Maschinenbau G.m.b. H., W. Germany. Sole Distributors : Voltas Limited.

Schiess—A. G., West Germany. Sole Distributors : Voltas Limited.

Scottish Machine Tool Corporation Ltd., Glasgow, U.K. Sole Distributors : Voltas Limited.

Societe Genevoise D'Instruments De Physique, Switzerland. Sole Distributors : Voltas Limited.

Sykes, W. E., Ltd., Manor Works, Staines, Middlesex, England. Hobbing and Gear Cutting Machine. Agents : Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

Technoimpex, Budapest, Hungary. Lathes, Drilling Machines, Punching & Shearing Machines, Plate Shears, Grinding Machines etc. Agents for Bihar, Orissa, Assam, East U.P. and West Bengal : Armstrong Smith Ltd., Sir P. Mehta Road, Bombay 1.

Tesa, S. A., Switzerland. Sole Distributors : Voltas Limited.

Ulvsunda Verkstader Aktiebolag, Sweden. Sole Distributors : Voltas Limited.

Vertimax Ltd., Glasgow, Scotland. Vertical Production Lathes. Sole Agents : Heatly & Gresham Ltd., 9, Forbes Street, Bombay 1.

## MACHINERY (BAG FILLING)

Sack Fillers Ltd., London. Sole Agents : Killick Nixon & Co. Ltd., Killick House, Home Street, Fort.

## MACHINERY (ELEC. & MECH.)

Electric Construction Co. Ltd., 9, Kingsway, London. Electric Motors and Generators. Agents : Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone : 261494 (3 lines). Grams : "BALMER".

**SIEMENS-HALSKE, A.G. SIEMENS SCHUCKERTWERKE, A.G. SIEMENS-REINIGER-WERKE A.G., SIEMENS-ELECTRO-GERAETE AG., GERMANY & WIENER-STARKSTROM-WERKE G.m.b.H. VIENNA (AUSTRIA) —Manufacturers of Telephone & Telecommunication Equipment, Instruments & Watermeters, all Types of Electrical Equipment, Steam & Hydro Power Plants, Electrical Precision Machinery, Cables & Electricity Meters, Electro Medical Equipment, Radios & Household Appliances, Graphite Electrodes and other Carbon Products for the Electro-Thermal & Chemical Industry. Sole Representatives in India : Siemens Engineering & Manufacturing Co. of India Limited, 84, Veer Nariman Road, G.P.O. Box 490, Bombay 1. Phone : 246221-7.**

Stroj Export, Praha, Czechoslovakia. Agents for Western & Central India : India Metal Agencies, Post Box No. 1966, Bombay 1.

**Weston, Shipley & Weston Ltd., Leicester. "Kut-Out" Machinery for cutting C. I. & Steel Pipes. Agents : Richardson & Cruddas Ltd., Byculla, Bombay 8.**

## MACHINERY MANUFACTURERS

Cement Gun Co., Ltd., London. Agents : John Fleming & Co., Private Ltd., Bastion Road, Fort, Bombay 1. Phone : 261153.

## MACHINERY PRESSURE GAUGES

**Eagle & Wrights (Gauges) Ltd., 87, Carver Street, Birmingham 1, England. Sole Agents for Bombay State : R. K. Shapurji & Co., Prospect Chambers, 319, Dr. D. Naoroji Road, Fort, P.B. No. 1065, Bombay 1.**

## MACHINERY (STEEL MILLS)

Amsler Morton Company, Pittsburgh 19, P.A. (U.S.A.). Sole Distributors : Voltas Limited.

Distington Engineering Co., Ltd., Workington, England. Concast Continuous Casting Machines for Steel Making. Representatives : The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

## MACHINERY (TEXTILE)

**ANDRE RUBBER CO., LTD., Surbiton, Surrey (U.K.). Manufacturers of Condenser Rubbers, Rubber Mountings for Machinery and Condenser Tapes, etc. for Textile mills. Sole Agents : Popular (Imp.-Exp.) Trading Co., Jhaveri House, 110, Medows Street, Bombay 1.**

Artos Maschinen Bau Dr. Ing. Meier Windhorst, Hamburg, West Germany. Sole Distributors : Voltas Limited.

Benninger Engineering Co., Ltd., Uzwil, Switzerland. Sole Distributors : Voltas Ltd.

**Daniel Foxwell & Son, Ltd., Cheadle Manchester. Cloth Rolling, Folding Measuring and Lapping Machinery Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.**

**ELLERWERKE MASCHINENFABRIK, Hamburg 33, Germany. Mfrs. of Hydro Extractors. Sole importers : Popular (Imp.-Exp.) Trading Co., Javeri House, 110, Medows Street, Bombay 1.**

**Goodbrand & Co., Ltd., Stalybridge. Yarn & Cloth Testing Machines. Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.**

**JAMES HOLDSWORTH & SONS (H. X.) LTD., Halifax, U. K. Makers of Worsted and Woollen Spinning Machinery Spare Parts. Sole Importers : Popular (Imp.-Exp.) Trading Co., Jhaveri House, 110, Medows Street, Bombay 1.**

John T. Hardaker Ltd., Bradford. Jacquards and Jacquard Sundries. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Longclose Engineering Co. Ltd., Leeds. Cheese, Cone & Beam Dyeing Plants. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Mather & Platt Ltd., Manchester. Dyeing, Bleaching, Printing and Finishing Machinery. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

**OERLIKON MACHINE TOOL WORKS, Zurich 50 Oerlikon, Switzerland. Mfrs. of Roller bearing inserts and Jockey pulleys. Sole importers : Popular (Imp.-Exp.) Trading Co., Javeri House, 110, Medows Street, Bombay 1.**

**REINERS & FURST., M. Gladbach, Germany. Mfrs. of Spinning Rings, Ring Travellers & Automatic Winders Knotters. Sole importers : Popular (Imp.-Exp.) Trading Co., Javeri House, 110, Medows Street, Bombay 1.**

Rieter Machine Works Ltd., Winterthur, Switzerland. Sole Distributors : Voltas Limited.

Ruti Machinery Works Ltd., Ruti (Zeh.). Switzerland. Sole Distributors : Voltas Limited.

Scholl A. G., Zofingen, Switzerland. Sole Distributors : Voltas Ltd.

Schweiter Engineering Works Ltd., Horgen, (Switzerland). Sole Distributors : Voltas Limited.

**Staubli Bros. & Co., Horgen, Switzerland.** Sole Distributors : Voltas Limited.

**T. W. Riley & Co., Ltd., Rochdale. Cloth Raising Machines. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.**

**Wright Hargreaves Engineering Co., Ltd., Blackburn. Vacuum Card Stripping Equipment. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.**

Zellweger Ltd., Uster, Switzerland. Distributors : Voltas Limited.

## MARINE DIESEL ENGINES

Bergius-Kelvin & Co., Ltd., The Glasgow, England. Agents : India Metal Agencies, India House, Fort, Bombay 1.

**Gleniffer Engines Ltd., Anniesland, Glasgow, Scotland. Agents : Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.**

## MATERIAL HANDLING EQUIPMENT

Maschinenfabrik Esslingen, Esslingen/Neckar, West Germany. Fork Lift Trucks. Agents : John Fleming & Co. Private Ltd., Bastion Road, Fort, Bombay. Phone : 261153.

## MEASURING AND RECORDING INSTRUMENTS

Aktiebolaget Ermi, Karlskrona, Sweden. Manufacturers of Electricity Meters. Representatives : Asea Electric India, Private Limited, Yaffi Building, Goa Street, Ballard Estate.

Electroimpex, Sofia (Bulgaria). Agents : India Metal Agencies, Post Box No. 1966, Bombay 1.

Esterline-Angus Co., Inc., U.S.A. Sales Distributors : Motwane (Private) Ltd., 127, Mahatma Gandhi Road, Bombay 1.

Thomas Ashworth & Co. Ltd., England. "Speedy" Moisture Testers. Agents : Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

Tylors (Division of Crane Ltd.), Burgess Hill, Sussex, England. Water Meters, Waste & Cocks Fittings. Agents : John Fleming & Co. Private Ltd., Bastion Road, Fort, Bombay 1. Phone : 261153.

## MEASURING TESTING INTRUMENTS

Comtcurs Et Material, D'usions A Gaz, 12, Place Des Estate-Unis, Montronge, Scine, France.

## MECHANICAL HANDLING, CONVEYING & TRANSPORTING EQUIPMENT

J. Collis & Sons, Ltd., London. Sole Agents : Killick, Nixon & Co. Ltd., Killick House, Home Street, Fort.

Lansing Bagnall Ltd., Basing Stoke, England. Agents : Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

Oliver International, S.A., Chicago, Illinois, U.S.A., Crawler Tractors, Fork Lift Trucks. Sole Concessionaires : Greaves Cotton & Co. Ltd., 1, Forbes St., Fort, Bombay.

## METAL DOORS AND WINDOWS

**Gibbons James, Ltd., St. John's Works, Wolverhampton, England. Sole Agents :** Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## METAL MANUFACTURERS

Henry Wiggin & Co., Ltd., Holmer Road, Hereford, England. Nickel and Nickel Alloys. Sole Concessionaires : Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

International Nickel Ltd. Thames House, Millbank, London. S.W. 1. Nickel. Sole Concessionaires : Greaves Cotton & Co. Ltd., Forbes Street, Fort, Bombay.

## METEOROLOGICAL AND INDUSTRIAL INSTRUMENT MFRS.

C. F. Casella & Co., Ltd., Regent House, Britaina Walk, London. Agents : Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.

## MICROSCOPES

R. & J. Beck Ltd., Bushey Mill Lane, Watford, Hertfordshire, England. Agents : Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.

## MILL & GIN STORE SUPPLIERS

**Haydock & Drake Ltd., Blackburn. Healds and Reeds. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.**

**Joseph Sykes Bros., Huddersfield. Card Clothing. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay 1.**

**Kenyon & Son, Ltd. (James) Bury, Lancs.** Sole Distributors : Voltas Limited.

**Lupton Bros., Accrington. Loom Sundries. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.**

**Resilla Cots & Rollers Ltd., Marfleet, Hull, (England). Cots, Aprons, Buffers, Loop Pickers, Twister Sleeves, Lug Straps, etc. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.**

**Robert Hyde & Co., Ltd., Stalybridge. Machinery Cloths for Cotton Spinning & Weaving. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.**

**William Kenyon & Son Ltd., Dukinfield, Cheshire. P.I. Cotton Driving Rope and Banding. Spindles, Tape and Twine. Sole Concessionaires : Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.**

## MINERAL WATERS, SQUASHES CORDIALS, ETC.

**E. I. Michel & Co., Ltd., 415, Oxford Street, London W.1. Sole Distributors : Spencer & Co., Ltd., Spencer's Building, Forjett Street, Bombay 26.**

**Societe Des Eaux Mineral Source Cachat Evian Les-Bains. Sole Distributors : Spencer & Co., Ltd., Spencer's Building, Forjett Street, Bombay 26.**

## MINERS LAMPS & EQUIPMENTS

Ceag Ltd., 53, Victoria Street, London, S.W. 1. Miner's Electric Safety Lamps. Agents: Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Gram: "BALMER."

## MINING MACHINERY & EQUIPMENT

A. G. Wild & Co., Ltd., Sheffield, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

A. N. F. Les Ateliers de Construction du Nord de la France, S.A., Paris. Diesel Electric Mine Shuttle Cars. Agents: Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "Balmer".

Austin Hopkinson & Co., Ltd., Manchester, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

Automatic Coal Cleaning Co., Ltd., Carlisle, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

Barker Davies & Co., Pontypridd, Wales. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

Belmos Co., Ltd., Lanarkshire, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

Bruntons (Husselburgh) Ltd., Scotland. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

Dowty Mining Equipment Ltd., England. Hydraulic Props. Agents: Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "Balmer".

Etelco Ltd., London, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

Head Wrightson Stockton Ltd., Calcutta. Safety Hooks. Agents: Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".

Hugh Wood & Co., Ltd., Gaeshead-on-Tyne, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

J. K. Smit & Sons (Diamond Tools) Ltd., London. Sole Distributors: Voltas Limited.

James W. Smallman Ltd., Nuneaton England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

John Mills & Co. (Llanidloes) Ltd., Montgomeryshire, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

Joy Manufacturing Co., Pittsburg 22, Pa., U.S.A. & Joy Sullivan Ltd., London, England. Sole Distributors: Voltas Ltd.

Oldham & Son Ltd., Denton, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

Reliance Rope Attachment Co., Ltd., England. Winding Rope Cappels, Cage suspension Equipment. Agents: Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".

Triefus Industries Ltd., Crawley, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

Uakside Engineering Co. Ltd., Newport, Mon. Agents: Guest, Keen, Williams, Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

Varel Manufacturing Co. Dallas, Texas, U.S.A. Sole Distributors: Voltas Limited.

## MOTOR SCOOTERS

"Innocenti" Metallurgical and Mechanical General Co., Milan. Manufacturers of Lambretta Motor Scooters, 3-Wheeler Rikshaw and Dely. Van Chassis, Auto-Bykes. Sole Distributors: Dadajee Dhackjee & Co., Private Ltd., Sandhurst Bridge, Bombay 7.

## NON-FERROUS METALS

Henry Wiggin & Co., Ltd., Holmer Road, Hereford. Monel and Nickel alloys. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

International Nickel Ltd., Thames House, Millbank, London S. W. 1. Nickel, Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

Noranda Sales Corporation Ltd., 44, King Street West, Toronto, Ontario, Canada. Electrolytic Zinc. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

Thomas Bolton & Sons Ltd., London, England. Agents: India Metal Agencies, Post Box No. 1966, Bombay 1.

United Non-ferrous Metal Ltd., Birmingham. Agents: Guest, Keen, Williams, Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

## NUCLEAR RESEARCH INSTRUMENTS

Baird Atomic Inc., U.S.A. Sales Distributors: Motwane (Private) Ltd., 127, Mahatma Gandhi Road, Bombay.

## NUT & BOLT MAKING MACHINES

Etchells David & Son Ltd., Bull Piece Works, Darlaston S. Staffs, England. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street Bombay 1.

## OFFICE APPLIANCES AND EQUIPMENT

Addressograph-Multigraph Corporation, Cleveland, Ohio, U.S.A. and London-England. Sole Distributors for India: The National Cash Register Co., Steelcrete House, Dinsha Wacha Road, Back Bay Reclamation, Bombay 1.

Block & Anderson, Ltd., London. Sole Distributors for India: The National Cash Register Co., Steelcrete House, Dinshaw Wacha Road, Back Bay Reclamation, Bombay 1.

Ozalid Co., Ltd., England. Ammonia Process Developing and Printing Machine. Agents: Armstrong Smith Ltd., 1, Sir Phirozeshah Mehta Road, Fort, Bombay 1.

**PITNEY-BOWES LTD., London. Postal Franking and Stamp Cancelling Machines, Totometer-Counting & Imprinting Machines. Sole Agents: Kilburn & Co. Ltd., P.O. Box 565, Bombay; Phone: 25-1908. Grams: "TASCONIUM".**

## OIL BURNERS

Wallsend Hubbard Combustion Ltd., Walsend-on-Tyne, England. Sole Agents: Heatly & Gresham, Ltd., 43, Forbes Street, Bombay 1.

## OIL ENGINES

Blackstone & Co., Ltd., Dursley, England. Voltas Limited, Ballard Estate, Bombay 1.

Lister & Co., Ltd., R.A., Dursley, Gloucestershire, England. Sole Distributors: Voltas Limited.

Ruston & Hornsby Ltd., Lincoln, England. Horizontal and Vertical Diesel Engines. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

## OIL MILLING MACHINERY

Rose Downs & Thompson Ltd., Hull. Maxoil & Duplex Oil Expellers. Sole Agents: Marshall, Sons & Co. (India) Ltd., Marshall's Building, Ballard Road, Bombay 1.

## OIL PURIFYING EQUIPMENT

Stream-Line Filters Ltd., Surrey, England. Filters for reclaiming used Engine Lubricating Oil, Transformer Oil Filters, Aviation Fuel Filters. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay 1.

## OIL SEALS

**CARL FREUDENBERG, West Germany. Mfrs. of "cFw" Simmering Oil Seals. Sole Agents: Messrs. B. Chowdhury & Co., Indian Globe Chambers (7th Floor), Fort Street, Fort, Bombay 1. Phone: 26-3479. Grams: "BISUKHI."**

## OIL WELL EQUIPMENTS

Baker Oil Tools Inc., Terminal Annex, Los Angeles, U.S.A. Oilwell equipment. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

National Supply Co., The, New York. Oil Well Drilling rigs & equipment. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes St., Fort, Bombay.

Petroleum & Mining Equipment S.A., Geneva, Switzerland. Rock Bits, Tricone Roller Bits. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Smith Tool Co., P.O. Box 4549, Compton, California, U.S.A. Drilling Bits. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

## OUTBOARD MOTORS

Outboard Marine & Manufacturing Co., Wankegan, U.S.A. Agents: India Metal Agencies, Post Box No. 1966, Bombay 1.

## PACKING & JOINT RINGS

Walker, James & Co., Ltd., Woking, Surrey, England. 'Lion' Brand Packings and Jointings. Agents: Roberts, McLean & Co., Ltd., Ilaco House, Sir Phirozeshah Mehta Road, Fort.

## PAINTS, ENAMEL & VARNISHES

Heyden Newport Chemical Corporation, New York, U.S.A. Sole Distributors: Voltas Limited.

## PAPER & BOARD MAKING MACHINERY

**WARTSILA-KONCERNEN A/B-Export, Post Box No. 230, Helsing fors (Finland) Paper Making Machinery. Representatives: James Finlay and Co. Limited, Post Box No. 73, Bombay-1.**

## PAPER MACHINERY

Joh Kleinewefers Soehne Maschinenfabrik, Krefeld West Germany. Sole Distributors: Voltas Limited.

## PAPER MFRS. & MERCHANTS

**A/B JAN LIEBIG LTD., Gothenburg, Sweden. Exclusive Agents for: Fiskeby Fabriks Aktiebolag, Sweden. A/S. Follum Fabrikker, Norway. Union Paper Co., Ltd. A/S Norway. Representatives in India:—Scanfennia Paper Co., (Bombay) Private Ltd., 53/47, Lakshmi Bldgs., Sir Phirozshah Mehta Road, Bombay 1. Calcutta Office: Scanfennia Paper Co., (Calcutta) Private Ltd., 5th Floor, Room No. 57, P/36, India Exchange Place, Calcutta.**

**STORM & BULL LTD., Oslo, Norway. Agents: R. K. Gandhi & Co., Aga Khan Building, Dalal Street, Fort, Bombay. Phone: 255684. Grams: "BOARD PAPER".**

**TERVAKOSKI OSAKEYHTIO PAPER MILLS, Tervakoski, Finland. Representatives: James Finlay & Co., Ltd., P.O. Box No. 73, Bombay-1.**

## PAPER MILLS

Drayton Paper Works Ltd., Talbot House, 9, Arundel Street, London W.C. 2. Agents: Hardcastle, Waud & Co., Pr. Ltd., Alice Bldg., Dr. D. Naoroji Road, Bombay 1.

F. Gardner Corbett Ltd., Napier House, 24-27, High Holborn, London W.C. 1. Agents: Hardcastle Waud & Co. Pr. Ltd., Alice Bldg., Dr. D. Naoroji Rd., Bombay 1.

## PAPER TRANSFERS

Tearne & Sons Ltd., All Saint's Road, Birmingham England. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## PATENT GLAZING BARS

Pennycook Patent Glazing & Engineering Co., Ltd., 38, Bath Street, Glasgow C.2, Scotland. Sole Agents: Heatly & Gresham, Ltd., 43, Forbes Street, Bombay 1.

## PERFORATING MACHINES

J. Sloper & Co., Ltd., London, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

## PERFUMERY RAW MATERIAL

**ESROLKO LTD. (FORMERLY FLORA), Switzerland. Mfrs. of Synthetic Essential Oils & Aromatic Chemicals. Agents: M. C. Davar & Co., 143, Princess Street, Bombay 2. Phone: 39752. Grams: "EMCIDAVER".**

## PETROL & DIESEL ENGINES

Lister & Co. Ltd. (R.A.) Dursby, Glos., England. Distributors: Voltas Limited.

## PHARMACEUTICALS

C. H. Boehringer Sohn (6057) Ingelheim Am Rhein, West Germany. Factory Representatives: German Remedies Private Ltd., "Adelphi", 119, Queen's Road, G.P.O. Box No. 1945, Bombay 1.

Chemifa Chemische Fabriek Amsterdam N. V., Amsterdam—"X-Ray Contrast Mediums & Dental Anaesthetics." Agent: The Fairdeal Corporation (Private) Ltd., Lakshmi Building, Sir P. M. Road.

Conray Products Co., 129, Pearl Street, New York 5, N.Y. Fine Chemicals/Pharmaceuticals. Distributors: F. Bock & Co., Shale Building, Bank Street, Fort, Bombay 1.

Curapharm C. V. Amsterdam—"Intravenous Solutions and Administration Sets". Agents: The Fairdeal Corporation (Private) Ltd., Lakshmi Building, Sir P. M. Road.

Hamol Ltd., Zurich 38, "Pharmaceutical Specialities". Agents: Fairdeal Corporation (Private) Ltd., Lakshmi Building, Sir Phirozshah Mehta Road, Fort, Bombay.

Homburg Chemiewerk, Zweigniederlassung Der Degussa, Daimlerstrasse 25, Postfach 3944, Frankfurt/Main, Western Germany. Factory Representatives: German Remedies Private Ltd., "Adelphi", 119, Queen's Road, G.P.O. Box No. 1945, Bombay 1.

Inabata & Co. Ltd., 40 2-Chome, Doshomachi, Higashiku, Osaka, Japan. Distributors: F. Bock & Co., Shale Building, Bank Street, Fort, Bombay.

Industria Chimica PROFARMACO S.P.A., via Sinsi, 7, Milano, Italy. Distributors: F. Bock & Co., Shale Building, Bank Street, Fort, Bombay 1.

International Division, Allied Chemical Corp., 40, Rector Street, New York 6, N. Y. Sole Agents for India: R. K. Shapurji & Co., Prospect Chambers, 319, Dr. Dadabhai Naoroji Road, Fort, Post Box No. 1065, Bombay 1.

Internazionale Farmaceutici S.P.A., via Salvins, 10, Milano, Italy. Distributors: F. Bock & Co., Shale Building, Bank Street, Fort, Bombay-1.

Istituto Chemioterapico Italiano, Milano—*Via* Crocefisso No. 12, Milano Italy. Products: Sulfa drugs and Vitamins. Distributors: F. Bock & Co., Shale Building, Bank Street, Fort, Bombay.

M. & R., Dietetic Laboratories Inc., Columbus, 16, U.S.A. "Similac", Infant Milk Food. Agents: Fairdeal Corporation (Private) Ltd., Lakshmi Building, Sir Phirozshah Mehta Road, Fort.

Meditalia S.P.A., Via Paola Da Connobio, 37, Milano, Italy. Distributors: F. Bock & Co., Shale Building, Bank Street, Fort, Bombay-1.

Nordmark Werke G.M.B.H., 2082, Uctersen/Holstein, Western Germany. Factory Representatives: German Remedies Private Ltd., "Adelphi", 119, Queen's Road, G.P.O. Box No. 1945, Bombay 1.

Riedel de Haen A. G., (Pharmaceutical Department), (20a.) Seelze, b. Hannover, Western Germany. Factory Representatives: German Remedies Private Ltd., "Adelphi", 119, Queen's Road, G.P.O. Box No. 1945, Bombay 1.

Schering A. G., Mullerstrasse, 170-172, Berlin N 65. Western Germany. Sole Importers & Distributors: German Remedies Private Ltd., "Adelphi", 119, Queen's Road, G.P.O. Box No. 1945, Bombay 1.

Sperti Faraday Inc., Hoboken, U.S.A. "Electro Medical Apparatus." Agents: Fairdeal Corporation (Private) Ltd., Lakshmi Building, Sir Phirozshah Mehta Road, Fort.

Wilhelm F. Damm, Bremer Strasse 125, Hamburg-Harburg, West Germany. Distributors: F. Bock & Co., Shale Building, Bank Street, Fort, Bombay 1.

Wulfing & Co., A., M.B.H., (Sanatogen-Werke Bauer & Cie, and Fabrik Pharmazeutischer Praeparate Johann A. Wulfing) Graf-Adolf-str., 18 (22a.) Dusseldorf, Western Germany. Factory Representatives: German Remedies Private Ltd., "Adelphi", 119, Queen's Road, G.P.O. Box No. 1945, Bombay 1.

Yodogawa Pharmaceutical Co., Ltd., 136, Higashi, 2-Chome, Nozato, Nishiyodogawa-Kn, Osaka, Japan. Products: Folic Acid U.S.P. Distributors: F. Bock & Co., Shale Building, Bank Street, Fort, Bombay.

## PHOTO COPYING MACHINES

American Photocopy Equipment Co., Chicago, U.S.A. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

## PLASTICS

Dr. F. Raschig-G.m.b.H., Chemische Fabrik. Ludwigshafen. A. Rhein, West Germany, "DEKORIT" Phenol Formaldehyde Resinous Tubes, Rods, and Sheets. Distributors: F. Bock & Co., Shale Building, Bank Street, Fort, Bombay 1.

Dr. F. Raschig-G.m.b.H., Chemische Fabrik. Ludwigshafen. A. Rhein, West Germany, "VIGOHAS" Polyester Resinous rods, sheets and Castings. Distributors: F. Bock & Co., Shale Building, Bank Street, Fort, Bombay 1.

## PLASTIC MOULDING POWDERS

American Molding Powder & Chemical Corporation, 250, South Terrace Avenue, Mount Vernon, N.Y. Eastman Products—Cellulose Acetate Tenite I., Cellulose Acetate Butyrate Tenite II. Low Density Polyethylene and High Density Polyethylene, Plasticizers, and Chemicals—'Master' Colour concentrates. "Kromaplast" Dry Colorants. Distributors: F. Bock & Co., Shale Building, Bank Street, Fort, Bombay 1.

## PLASTIC RAW MATERIALS

E. I. Du Pont De Nemours & Co. Inc., Wilmington, Delaware, U.S.A., Distributors: Voltas Ltd.

## POWER PRESSES

Horden Mason & Edwards Ltd., Pype Hayes, Birmingham-24, England. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## POWER TRANSMISSION EQUIPMENT

Fluidrive Engineering Co., Ltd., Isleworth Middlesex, England. Hydraulic Couplings. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

## PRESENTATION ARTICLES

Ronson Products Ltd., London. Cigarette Lighters & Products. Sole Distributors: Spencer & Co., Spencer's Building, Forjett Street, Bombay 26.

## PRINTING PRESS MACHINERY MATERIAL

Rejafix Ltd., London, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

## PROCESS ENGINEERING

Gesellschaft FUR LINDE'S Eismaschinen A.G., W. Germany. Sales Distributors: Motwane (Private) Ltd., 127, Mahatma Gandhi Road, Bombay 1.

Haver & Boecker, W. Germany. Sales Distributors: Motwane (Private) Ltd., 127, Mahatma Gandhi Road, Fort, P.O.B. 1312, Bombay 1.

Karlfischer Apparate-Und-Rohrle-Itungsbau W. Germany. Sales Distributors: Motwane Private Limited, 127, Mahatma Gandhi Road, Bombay-1.

Pintsch Bamag A.G., W. Germany. Sales Distributors: Motwane (Private) Ltd., 127, Mahatma Gandhi Road, Bombay 1.

Polysius G.m.b.H., W. Germany. Sales Distributors: Motwane (Private) Ltd., 127, Mahatma Gandhi Road, Bombay 1.

## PROCESS HEATING EQUIPMENT

Barlow—Whitney Ltd., 2, Dorset Square, London N.W.1. Agents: Associated Instruments Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.

## PROVISION MERCHANTS

Canada Packers Ltd., Toronto. Sole Distributors: Spencer & Co., Ltd., Spencer Building, Forjett Street, Bombay 26.

## PUMPS & PUMPING MACHINERY

Charles S. Madan & Co. Ltd., Altrincham, England. Compressed Air-operated Testing Pumps, Hydraulic Pressure Pumps, Grease and Viscous Fluid Pumps. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

Drysdale & Co., Ltd., Glasgow, Scotland. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

Lee, Howl & Co., Ltd., England. Centrifugal and Power driven reciprocating pumps. Agents: Richardson & Cruddas Ltd., Byculla, Bombay 8.

## PUNCHES & PUNCH RETAINERS

Richard Brothers Punch Division of Allied Products Corporation, 26500 Capitol Avenue, Detroit 39, Michigan, U.S.A. Punches, Die Buttons, Punch Retainers and Allied products. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

## PYROMETERS

**Foster Instrument Co. Ltd., England.** Manufacturers of Pyrometers. Sole Agents in India: Indian Furnace Co. Private Ltd., Lotus Cinema Building, Dr. Annie Besant Road, Bombay 18.

## QUARRYING EQUIPMENT

**Goodwin Barsby & Co. Ltd., Leicester.** Stone-breakers & Crushing Plants, Road Quarry, Gravel and Construction Plant. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

## RAW OPTICAL GLASS, COLOUR FILTERS

Chance-Pilkington Optical Works, Glascoed Road, St. Asaph, Flintshire, England. Agents: Associated Instruments Manufacturers (India) Private Ltd., India House, Fort Street, Bombay-1.

## RAIL JOINT SHIMS

**Wonham Incorporated, 13, Victoria Street London, S.W.1. Rail Joint Shims. Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.**

## RAILWAY ENGINEERS

**P. & M. Co. (England), Ltd., London. Agents: Guest, Keen, Williams, Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.**

## RAILWAY EQUIPMENT

English Steel Spring Corporation Ltd., Sheffield. Springs and Railway Wagon Accessories. Sole Concessionaires: Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

**S. A. D. Ateliers de la Dyle, Louvain, Belgium. Agents: Hardcastle Waud & Co.,** Private Ltd., Alice Building, Dr. Dadabhoy Naoroji Road, Fort.

Steel, Peech & Tozer, Sheffield, England. Locomotive, Carriage and Wagon Tyres. Wheels, Axles and Laminated Springs, Disc Wheel Centres, Crank Axles and Forgings. Sole Representatives: The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

Wm. Beardmore & Co. Ltd., Glasgow. Railway Wheels and Axles. Agents: Guest, Keen, Williams, Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

Workington Iron & Steel Co., Workington, England. Steel Rails, Fish plates, Steel Sleepers and Fastenings. Sole Representatives: The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate Bombay 1.

## RAILWAY EQUIPMENT & SANITARY FITTINGS

Levick John Ltd., Birmingham, England. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## REFRACTORY CEMENTS

Furnace Linings Co., Ltd., Nursery Street, Sheffield 3. Sole Agents: Datson, Raviraj & Co. (Private) Ltd., 43, Tamarind Lane, Fort, Bombay.

Quigley Company of Canada Ltd., P. Q. Lachine, Canada. Sole Agents: Datson, Raviraj & Co. (Private) Ltd., 43, Tamarind Lane, Fort, Bombay.

## REFRIGERATORS

**KELVINATOR LTD., England. Refrigerators. Sole Distributors: Spencer & Co. Ltd., Spencer's Building, Forjett Street, Bombay 26.**

## ROAD BUILDING EQUIPMENT & MACHINERY

Galion Iron Works & Mfg. Co., Galion, Ohio, U.S.A. Sole Distributors: Voltas Ltd.

International Harvester Export Co., U.S.A., U.K., Australia & Associates. Sole Distributors: Voltas Limited.

Johnston Bros. (Engineering) Ltd., 284, Ibex House, Minories, London, E.C. 3. Asphalt Mixers, Tar Boilers, Slush Removers, Suction Scavengers, Mobile Bitumen Heaters, Road Line Makers. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

## ROLLING SHUTTERS

**Dennison Kett & Co., Ltd., Kenoval House, Farmer's Road, London, S.E. 5. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.**

## ROLLMAKERS

British Rollmakers' Corporation Ltd., Crewe. Agents: Guest, Keen, Williams Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

## ROLLS FOR PAPER & RUBBER MANUFACTURE

Miller Co. Ltd., Edinburgh. Agents: Guest, Keen, Williams, Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

## ROOFING MATERIAL

D. Anderson & Sons, Manchester, England. **Rok Roofing, Paints, etc. Agents:** Richardson & Cruddas Ltd., Byculla, Bombay 8.

McNeil, F., & Co., Ltd., 10, Lower Grosvenor Gardens, London, S. W. 1. Bituminised Roofing Felt. Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## RUST, ACID AND HEAT RESISTING STEELS

Sanderson Bros. & Newbould Ltd., Sheffield 9 (U.K.). Representatives: Jairamdas & Sons, 163, Narain Dhuru Street, Bombay 3.

## SANITARY WARES & FITTINGS

**J. & R. Howie Ltd., Hurlford. Fireclay Works, Kilmarnock, Scotland. Sole Agents for Bombay State: R. K. Shapurji & Co., Prospect Chambers, 319, Dr. Dadabhai Naoroji Road, Fort, P.B. No. 1065, Bombay 1.**

## SCIENTIFIC INSTRUMENTS

Hilger & Watts Ltd., 98, St. Pancras Way Camden Road, London, N.W. 1. Agents: Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.

Hilger-Ird Ltd., 98, St. Pancras Way, London, N.W. 1. Agents: Associated Instruments Manufacturers(India) Private Ltd., India House, Fort Street, Bombay 1.

**Leeds & Northrup Company, Philadelphia. Indicators, Recorders, Controllers, etc. Electrical Measuring Instruments. Agents:** Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.

Metals Research Ltd., 91, King Street, Cambridge, England. Agents: Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.

N. V. Nederlandsche, Rontgen-Apparatenfabriek, Delft Holland. Agents: Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.

## SCREWS

G. K. N. Screws & Fasteners Ltd., Birmingham. Wood Screws, Machine Screws, Self-Tapping Screws, Hammer Drive Screws, Spring Washers, etc. Agents: Guest, Keen, Williams, Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

## SEWAGE EQUIPMENT

Cakebread Robey & Co., England. Makers of Drain Cleaning Appliances. Agents: Richardson & Cruddas, Ltd., Byculla, Bombay 8.

## SHIPPING COMPANIES

**Belships Co., Ltd., Victoria St., Westminster, London, S.W. 1. Agents: Killick Nixon & Co., Ltd., Killick House, Home Street, Fort.**

Compagnie des Messageries Maritimes, Paris. Cargo Service from Antwerp, French Channel & Atlantic Ports, Casablanca, Marseilles to Karachi, Bombay, Cochin, Colombo, Rangoon, Calcutta, Madras and *vice versa*. Passenger service from and to Marseilles, Port Said, Aden, Bombay, Colombo, Singapore, Saigon, Hongkong and Japan. Volkart (India) Ltd., Ballard Estate, Bombay.

**Ellerman's City & Hall Lines Ltd., Bankside House, 107, Leadenhall Street, London, E.C. 3. Agents: Killick Nixon & Co.,** Ltd., Killick House, Home Street, Fort.

Hoegh Line—Service of the Hoegh Line to and from U.S.A., Atlantic and Gulf Ports. Representatives: Volkart (India) Ltd., Ballard Estate, Bombay.

**Holland-Bombay-Karachi Line and Holland-Bengal-Burma Line. Service of the United Netherlands Navigation Co., Rotterdam, to and from European, Continental and Mediterranean Ports. Representatives:** Volkart (India) Ltd., Ballard Estate, Bombay.

**L. Smit & Co.'s Internationale Sleepdienst, Westplein 5, P.O. Box 1042, Rotterdam. Agents: Killick Nixon & Co., Ltd., Killick House, Home Street, Fort.**

Maersk Line—Service of A. P. Moller, Copenhagen, to and from the Far East. Representatives: Volkart (India) Ltd., Ballard Estate, Bombay.

Nedlloyd & Hoegh Lines—Service of Nedlloyd Lines, Rotterdam, and Leif Hoegh & Co., A/S., Oslo, to and from Colombo, Penang, Singapore, Bangkok, Manila, Hongkong and West Coast of U.S.A. and Canada. Representatives: Volkart (India) Limited, Ballard Estate, Bombay.

Nedlloyd Lines—Service of S. M. "Nederland", Amsterdam and Royal Rotterdam Lloyd, Rotterdam, from U. S. Atlantic and Gulf Ports, also U.S. and Canadian Great Lakes Ports. Representatives, Volkart (India) Ltd., Ballard Estate, Bombay.

**T. & J. Harrison, Mersey Chambers, Liverpool. Agents: Killick Nixon & Co., Ltd., Killick House, Home Street, Fort.**

**Thos. & Jno Brocklebank Ltd., Cunard Building, Pier Head, Liverpool. Agents: Killick Nixon & Co., Ltd., Killick House, Home Street, Fort.**

## SIZING MATERIAL

Houghton, E. F., & Co., Philadelphia. Agents: Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Fort.

## SMALL TOOLS—METAL & WOOD WORKING

Sanderson Bros. & Newbould Ltd., Sheffield 9 (U.K.). Mfrs. of all sorts of Tool & Alloy Steel. Representatives: Jairamdas & Sons, 163, Narain Dhuru Street, Bombay 3.

## SOLDERING GOODS AND BATHS

Ernst Sachs, Wertheim Am-Main, W. Germany. Agents: Hindco, 27, New Queen's Road, Bombay-4.

## SPEED INDICATORS & RECORDERS

**Hasler Telegraph Works, 26, Victoria Street, Westminster, London, S.W.1. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.**

## SPORTS GOODS MFRS. AND DEALERS

**Golf Ball Developments Ltd., Birmingham, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.**

## SPRAY PAINTING EQUIPMENT

**Aerograph Co. Ltd., London, England. Spray Painting Equipments. Agents: John Fleming & Co. Private Ltd., Bastion Road, Fort, Bombay. Phone: 261153.**

De Vilbiss Company, Ohio, U.S.A. Air Compressing, Spray Painting outfits and Hose, etc. Agents: John Fleming & Co., Private Ltd., Bastion Road, Fort, Bombay 1. Phone: 261153.

## STEAM & WATER TURBINES

Stal-Laval Turbin A. B. Finspong and Nacka, Sweden. Manufacturers of Steam and Gas-Turbo-Alternators. Representatives: Asea Electric India, Private Limited, Yaffi Building, Goa Street, Ballard Estate.

## STEAM TRAPS & VALVES

Richard Klingers Ltd., Klingerit Works, Sidcup, Kent. Agents: Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Dr. Dadabhoy Naoroji Road, Bombay 1.

Velam Engineering Co., Ltd., Ross Walk, Leicester, England. Agents: Hardcastle, Waud & Co., Private Ltd., Alice Buildings, Bombay 1.

## STEEL

Sanderson Bros. & Newbould Ltd., Sheffield-9, (U.K.). Manufacturers of all sorts of Tools & Alloy Steel. Representatives: Jairamdas & Sons, 163, Narain Dhuru Street, Bombay 3.

## STEEL (STAINLESS) & ALLOY

Brown Bayley Steels Ltd., "Riverdale", Riverdale Road, Sheffield 10. Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

Samuel Fox & Co. Ltd., Sheffield, England, Alloy and Stainless Steel Sheets, Bars, Strip including Razor Blade Strip and Wire. Sole Representatives: The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

## STEEL CASTINGS & FORGINGS

Darlington Forge Ltd., Darlington, County Durham, England. Steel Castings and Forgings. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

English Steel Forge & Engineering Corpn. Ltd., Sheffield. Forgings and Railway Wagon Accessories. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

English Steel Casting Corpn. Ltd., Sheffield, Castings and Railway Wagon Accessories. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Klockner—Werke A.G., Osnabruck, West Germany. Sole Distributors: Voltas Limited.

**USINES ET ACIERIES DE SAMBRE ET MEUSE, Paris, France. Steel Castings, Carbon Steel and Alloy Steel. Railroad Parts, Armament Products, Aircraft Bombs, Machinery, etc. Agents: Gaytee & Company, Janmabhoomi Chambers, Fort Street, Bombay. Phone: 263449. Grams: "IMPENG".**

## STEEL MANUFACTURERS

Appleby-Frodingham Steel Co., Scunthorpe, England. Mild Steel Plates for Shipbuilders, Bridge builders, Structural Engineers, Boiler Makers, etc. Steel Angles, Channels, Joists, Tees, and Flats. Sole Representatives: The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

**ARTHUR LEE & SONS LTD., Sheffield, (Lee of Sheffield Ltd.), Sheffield, England. Manufacturers of Cold Rolled Steel Strips, Free cutting Steel, Bars, Rounds and Hexagons, Stainless Steel Strips, High Tensile Steel Wires, etc. Representatives for Bombay:— Eastern Trading & Engineering Co., Alice Building, 3rd Floor, 339, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.**

Barrow Steel Works Ltd., Barrow in-Furness, England. Rolled Sections Baling & Cable Tape. Sole Representatives: The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

Dorman Long & Co. Ltd., Middlesborough, England. Agents: Balmer Lawrie & Co., Ltd., 5, Graham Road, Ballard Estate, Bombay. Phone: 261494 (3 lines). Grams: "BALMER".

English Steel Rolling Mills Corporation Ltd., Sheffield. Tool & Alloy Steel. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort.

Exors of James Mills, Ltd., Stockport. Agents: Guest, Keen, Williams Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

Steel Company of Wales Ltd., London. Agents: Guest, Keen, Williams, Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

Steel Peech & Tozer, Sheffield. Mild & Carbon Steel Bars, Strip & Sections, Forgings, Wheels, Axles & Tyres. Representatives: The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

**TINSLEY ROLLING MILLS CO. LTD., Tinsley, Sheffield, 9, England. Manufacturers of Hot Rolled Steel Sheets, Silico-Manganese Spring Steel Flats, etc. Representatives for India: Eastern Trading & Engineering Co., Alice Building, 3rd Floor, 339, Dr. Dadabhoy Naoroji Road, Fort, Bombay.**

United Steel Companies Ltd., Sheffield, England. Sole Representatives: The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

United Steel Structural Co.Ltd., Scunthorpe, England. Fabricated Structures and Beams. Representatives: The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

## STEEL ROLLS

Daniel Doncaster & Sons Ltd., Sheffield. Hardened rolls for cold rolling. Representatives: The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

Steel Peech & Tozer, Sheffield. Forged unhardened rolls for hot re-rolling. Representatives: The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

## STEEL SCAFFOLDINGS

Acrow Engineers (Export) Ltd., South Wharf, London W.2. Steel Scaffolding and Formwork for Building and Road work. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## STEEL STRIPS

Firth Cleveland Steel Ltd., Rotherham, (U.K.). Steel Strips of all sorts, Hardened & Tempered or annealed. Representatives: Jairamdas & Sons, 163, Narain Dhuru Street, Bombay 3.

Steel Peech & Tozer, Sheffield; Hot & Cold Rolled Strips. Representatives: The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

## STEEL WELDING EQUIPMENT

P. & M. Co. (England), Ltd., London. Agents: Guest, Keen Williams, Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay-1.

## STRADDLE CARRIERS

Conveyancer Fork Trucks Ltd., Warrington, England. Agents: Killick Nixon & Co., Ltd., Killick House, Home Street, Fort.

## SURVEYING INSTRUMENTS

Hilger & Watts Ltd., 98, St. Pancras Way, Camden Road, London, N.W. 1. Agents: Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.

## TAPE RECORDERS, RECORD CHANGERS, SOUND EQUIPMENT

Telefunken. G.m.b.H. Gotlinger, Chaussce, 76, Hanover W. Germany. Agents Hindco, 27, New Queen's Road, Bombay-4.

## TEA MACHINERY

Russell Constructions (Export) Ltd., London, England. Agents: Kilburn & Co. Ltd., P.O. Box No. 565, Bombay 1.

## TELE TECHNICAL INSTRUMENTS

Radiometer, 72, Emdrupvetj, Copenhagen, Denmark. Agents: Hindco, 27, New Queen's Road, Bombay-4.

## TELEPHONE, TELEGRAPH AND CARRIER COMMUNICATION APPARATUS

Gegenral Telephone & Electronics International Inc., U.S.A. Sales Distributors: Motwane Private Limited, 127, Mahatma Gandhi Road, Bombay-1.

C.E.A. Perego, S.P.A., Milano, Italy. Sole Distributors: Voltas Limited.

## TELE COMMUNICATION EQUIPMENT

Telephone Manufacturing Co., Ltd., West Duluich, London S.E. 21. Agents: Hindco, 27, New Queen's Road, Bombay-4.

## TESTING MACHINES (PHYSICAL)

**TINIUS OLSEN TESTING MACHINE CO., U.S.A., for Physical Testing and Balancing Equipment. Sole Agents: Pioneer Equipment Co. Private Ltd., 139, Medows Street, P.O. Box 1909, Bombay 1. (Phone: 251882). Also at Calcutta, New Delhi, Madras & Baroda.**

## TEXTILE MACHINERY & EQUIPMENT

Fritz Buser A.G., Engineering Works, Wiler, Switzerland. Sole Distributors: Voltas Limited.

Grob & Co. Ltd., Horgen, Switzerland. Sole Distributors: Voltas Limited.

Heberlein & Co. Ag., Wattwil. Switzerland. Sole Distributors: Voltas Limited.

Platt Bros. & Co., Ltd., Oldham. Cotton Gins & Openers. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Stutz & Co., Kempten, Switzerland. Sole Distributors: Voltas Limited.

## TEXTILE STORES & ACCESSORIES

Graf & Co., Ltd., Horgen, Switzerland. Sole Distrfbutors: Voltas Limited.

## TEXTILE & TECHNICAL PUBLICATIONS

**NIXON (ALFRED) SON & TURNER, Chartered and Incorporated Accountants, 40, Brazennose Street, Manchester 2, England. British Representatives for The Indian Textile Journal Private Ltd., Military Square, Fort, Bombay.**

## TOOLS MFRS.

Austin, Payton & Co. Ltd., England "WARRIOR" Taps and Dies, manufactured by Nuckey, Scott & Co. Ltd., England, and "T. & J." Expanding Reamers, manufactured by Taylor & Jones Ltd., England. Agents: Armstrong Smith Ltd., 1 Sir P. Mehta Road, Bombay 1.

C. E. Johansson, Sweden, Precision Instruments and Gauges, Agents: Armstrong Smith Ltd., 1 Sir P. Mehta Road, Bombay 1.

English Steel Tool Corporation Ltd., Manchester, Shefield, Engineers' Small Tools, Files, Hacksaw Blades, etc., Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Hack Saws Ltd., England. "Aven" Hacksaw Blades, Frames and Metal Cutting Band Saws. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

Holland & Blair. Ltd., London. Mfrs. of Ratchet & Sprira Screw Drivers. Representatives: Jairamdas & Sons, 163, Narain Dhuru Street, Bombay 3.

Ideal Machine Tools & Eng. Co. Ltd., England. Precision Tools. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

Modern Hardmetals Ltd., Sheffield, England. Tungsten Carbide Tools & Tips. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

Nuckey Scott & Co., Ltd., Warrior Works, Lea Valley Road, Ponders End, Enfield, Middlesex, England. Warrior Taps and Dies Agents: Armstrong Smith Ltd., 1, Sir Phirozeshah Mehta Road, Bombay-1.

Pendleton Tool Industries, International, Los Angeles, U.S.A., All sorts of Hand Tools. Representatives: Jairamdas & Sons, 163, Narain Dhuru Street, Bombay 3.

Peter Stubs Ltd., England. Files, Gravers, Scrapers, Tool Holder Bits, Tool Steels. Agents: Armstrong Smith Limited, 1, Sir P. M. Road, Post Box No. 185, Bombay 1.

Taylor & Jones Ltd., Hornby, Near Huddersfield, England. Expanding Reamers. Agents: Armstrong Smith Ltd., 1, Sir Phirozeshah Mehta Road, Bombay 1.

Turton Bros. & Matthews Ltd. Sheffield. Agents: Guest, Keen, Williams, Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

**WALTER SPENCER & CO., LTD., Sheffield, England. Manufacturers of Highspeed Steel, Alloy Tool Steel, Carbon Tool Steel, etc., etc. Milling Cutters, Twist Drills, Reamers, Slitting Saws, Files, Carbide Tipped Tools, Lathe Tools, etc. Agents: Gaytee & Co., Janmabhoomi Chambers, Fort, Bombay. Phone: 263449. Grams: "IMPENG."**

## TRACTION GEARS AND UNITS

Wiseman, Alfred & Co. Ltd., Glover Street, Birmingham 9. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## TRACTORS & PLOUGHS

International Harvester Export Co., Chicago, U.S.A. Sole Distributors: Voltas Limited.

## VACUUM EQUIPMENT MFRS.

Edwards High Vacuum Ltd., Manor Royal, Crawley, Sussex, England. Agents: Associated Instrument Manufacturers (India) Private Ltd., India House, Fort Street, Bombay 1.

## VALVES (WATERWORKS)

Ham Baker & Co., Ltd., England. Valves, Penstocks Fittings, etc. Agents: John Fleming & Co., Private Ltd., Bastion Road, Fort, Bombay 1. Phone: 261153.

J. Blakeborough & Son, Ltd., Brighouse. Makers of Valves all types, and other Waterworks Appliances. Agents: Richardson & Cruddas Ltd., Byculla, Bombay 8.

## VEE ROPE MFRS.

**J. H. FENNER & CO., LTD., Marfleet, Hull, England. "Fenner" V-Belts, "Fenner" V-Belt Drives, "Torque-Arm" Shaft Mounted Speed Reducers and Fenner "Automobile" Fan Belts. Agents: Greaves, Cotton & Crompton Parkinson Ltd., 1, Forbes Street, Bombay 1.**

## VIBRATORY SCREENS

Niagara Screens (Great Britain) Ltd., Middlesex. Sole Agents: Killick Nixon & Co. Ltd., Killick House, Home Street, Fort.

## WATER FILTRATION

**CANDY FILTER CO., LTD., London. Manufacturers of all types of Water Purification and treatment Plant. Representatives: Candy Filters (India) Private Ltd., Forbes Bldg., Home Street, Fort, Bombay.**

## WATER METERS

Aquametro Water Meter Works, Ltd., Basle, Switzerland. Sole Distributors: Voltas Limited.

**CONTGEA Bruxelles, Belgium. Manufacturers of Water Meters, Gas Meters and Geysers. Agents: Gaytee & Co., Janmabhoomi Chambers, Fort Street, Bombay 1. Phone: 263449. Grams: "IMPENG."**

Tylors (Division of Crane Ltd.), Burgess Hill, Sussex, England. Water Meters, Waste Not and Cocks Fittings. Agents: John Fleming & Co. Private Ltd., Bastion Road, Fort, Bombay 1. Phone: 261153.

## WATER PURIFICATION & SCALE PREVENTING DEVICES

Epuro Limited, Antwerp, Belgium, Water Purification Plants, Electro Magnetic Devices for anti-Calcareous treatment of Water, Sugar-cane Juice, etc. Contact: Ratansi Morarji Private Limited, Prospect Chamber, 317/21, Dr. Dadabhoy Naoroji Road, P.B. No. 1270, Bombay 1.

## WEIGHBRIDGES

Ashworth, E. & A. Ltd., Crown Engineering Works, Staincliffe Road, Dewsbury, Yorks, England. Scales & Weighbridges. Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## WELDED STEEL WIRE FABRIC

British Reinforced Concrete & Engineering Co., Ltd., Lichfield Road, Stafford, England. Sole Agents: Heatly & Gresham, Ltd., 43, Forbes Street, Bombay 1.

## WELDERS (ELECTRIC & GAS)

**A. I. WELDERS LTD., Rose Street, Inverness, England. Representatives: James Finlay & Co. Ltd., P.O. Box No. 73, Bombay 1.**

## WELDING EQUIPMENT

AB Asea Svetsmaskiner, Stockholm, Sweden. Manufacturers of Electric Welding Equipment and Electrodes of all types. Representatives: Asea Electric India Private Limited, Yaffi Building, Goa Street, Ballard Estate.

Donald Ross & Partners Ltd., Twinner Works, Gatwick Road, England. Holding, Positioning and other Ancillary Equipment for Arc Welding Process. Agents: Guest, Keen, Williams Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

Esab Ltd., England. Magnetic Crack Detectors, Welding Plants, etc. Agents: Armstrong Smith Ltd., 1 Sir P. Mehta Road, Bombay 1.

## WINCHES & HAULAGES

Clarke Chapman & Co. Ltd., Gateshead-on-Tyne, England. Capstans, Winches, Haulages, etc. Sole Concessionaires: Greaves Cotton & Co., Ltd., 1, Forbes Street, Fort, Bombay.

## WINDOW & DOOR FITTINGS (TRANSPORT)

E. Hill Aldam & Co. Ltd., Britannic Works, Red Lion Road, Tolworth, Surbiton, Surrey, England. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## WINDOWS FOR RAIL, ROAD AND MARINE TRANSPORT

Beckett Laycock & Watkinson Ltd., Acton Lane, London, N.W. 10. Sole Agents: Heatly & Gresham Ltd., 43, Forbes Street, Bombay 1.

## WINE & SPIRITS

Drambuie Liqueur Co. Ltd., 12, York Place, Edinburgh 1. Sole Distributors: Spencer & Co., Ltd., Spencer's Building, Forjett Street, Bombay 26.

## WIRE BRUSHES

Gem Brushes (Luson) Ltd., Gem Works, Minerva Road, Park Royal Road, London, N.W 10. Sole Agents: Datson, Raviraj & Co. (Private) Ltd., 43, Tamarind Lane, Fort, Bombay.

Richard Johnson & Nephew Ltd., Manchester, England. Mild and High Tensile Steel Wire. Sole Representatives: The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

Somerset Wire Co. Ltd., Somerset. Wire for Rope and Spring Making, Prestressed Concrete Wire. Agents: Guest, Keen, Williams, Ltd., Wakefield House, Sprott Road, Ballard Estate, Bombay 1.

## WIRE RODS

Templeborough Rolling Mills Ltd., Rotherham, England. Wire Rods. Representatives: The United Steel Companies (India) Private Ltd., Orient House, Mangalore Street, Ballard Estate, Bombay 1.

## WIRE ROPE MANUFACTURERS

**UNITED ROPEWORKS, Post Box No. 1143, Rotterdam, Holland. Manufacturers of Wire Ropes. Agents: M/s. Gaytee & Company, Janmabhoomi Chambers, Fort Street, Fort, Bombay 1. Phone: 263449. Grams: "IMPENG".**

## WIRELESS & TELE-COMMUNICATION

Redifon Ltd., Wandsworth, London S.W. 18. Agents: Hindco, 27, New Queen's Road, Bombay 4.

## WOOD PULP

**FINNISH CELLULOSE ASSOCIATION, S Esplanadgatan 2, Helsinki, Finland. Representatives: James Finlay & Co., Ltd., P.O. Box No. 73, Bombay 1.**

## WOODWORKING TOOLS, SAWS & FLOUR MILLING MACHINERY ETC.

**ELSWORTH LTD., Sheffield, England. Manufacturers of Woodworking Saws and Woodworking Tools. Agents: Gaytee & Co., Janmabhoomi Chambers, Fort Street, Bombay. Phone: 263449. Grams: "IMPENG."**

Mafell Maschinenfabrik, Germany. Powerful Portable and Stationary Woodworking Machines, like Saws, Routers, Jointers, Planers, etc. Agents: Armstrong Smith Ltd., 1, Sir P. M. Road, Bombay 1.

**R. S. STOKVIS & ZONEN N. V., P.O. Box 426, Rotterdam (Holland), Manufacturers of Woodworking machinery and machine tools. Agents: Messrs. Gaytee & Company, Janmabhoomi. Chambers, Fort Street, Fort, Bombay 1. Phone: 263449. Grams: "IMPENG".**

Thomas Robinson & Son Ltd., Rochdale. Woodworking and Flour Milling Machinery. Sole Agents: Marshall, Sons & Co., (India) Ltd., Marshall's Building, Ballard Road, Bombay 1.

## WORKSHOP MACHINES

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**A. BOAKE, ROBERTS & CO. (INDIA) LTD.,** Manufacturers of Flavouring Essences & Aromatic compounds, Fourth Floor, Harilela House, Mint Road, Fort, Bombay No. 1-BR. Grams: "FLAVAROM". *Regd. Office:* Madras. *Branch:* Calcutta.

**A. C. E. C. INDIA PRIVATE LTD.,** 96, Apollo St., P. B. 893, Bombay 1; Importers and Stockists of heavy electric Motors; Wires and Cables; Static Condensers; Transformers, Switchgears, etc. Phone: 252311. Grams: "EDEMPAIN", Bombay.

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Phone: 261930. Grams: "OCSAH".

Branch: 5, Bentinck Street, Calcutta.

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London Agents.—Arthur H. Wheeler & Co., St. Stephen's House, Victoria Embankment, S.W. 1. Tel. Address.—"Bookstalls"—Bombay. Phone No. 26-3915, Bombay. Post Office Box 204, Bombay 1.

**A. M. Master & Co.,** Weights & Measures Merchants. 179–81, Janjikar Street, Bombay 3. Phone: 326309.

**A. M. Motiwalla & Co.,** Shipchandlers, Contractors, Engineering Tools and Hardware stores Suppliers. 213, Nagdevi Street, Bombay 3.

**A. Vallabdas & Co.,** Mill Gin Store Merchants. 37, Nagdevi Street, Bombay 3.

**Abbott Laboratories (India) Private Ltd.** Manufacturing Pharmaceutical Chemists, Jehangir Building, Mahatma Gandhi Road, Fort, Bombay.

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*Calcutta :* Govind Bhawan, 2, Brabourne Road, Calcutta-1.
*Madras :* 3/18, Mount Road, Madras 2.
*Delhi :* 1/25, Asaf Ali Road, New Delhi-1.
*London :* 215, High Holborn, London W.C.2.

**BHAGAT & SONS PRIVATE LTD.,** Managing Agents for Structural Engineering Works Ltd. Registered Office :—Maneckji Wadia Bldg., 127, Mahatma Gandhi Road, Fort, Bombay 1.
*Chairman & Managing Director :*—Mr. I. N. Bhagat.
Residential Address at Bombay : Anand Bhuwan, Carmichael Road, Bombay 26. *Phones : Office :* 255601-2-3-4. *Res. :* 71908. *Tel. Add. :* "BHAGATSON."

Bharat Bijlee Ltd., Udyognagar, Near King's Circle Rly. Station, Bombay 22.

Bharat-Chemicals Co., The. Textile Dyes & Chemicals, 331, Samuel St., Vadgadi, Bombay 3. (BR). Phones : 324401 (Office), 471601 (Res.). Grams : "BHARCHEM" (MD).

Bharat Dental Supply Co., Dental Goods Dealers, 346, Dr. Dadabhoy Naoroji Road, Bombay 1.

**BHARAT DYES & CHEMICAL CO.,** Dyes, Chemical & Textile Auxiliaries. Merchants, 119, D'Souza Street, Bombay 3. Phone : 322888. Grams : "BHARATDYE". For details see in "Dyestuffs" heading.

Bharat Electric and Engineering Corporation, 21, Dalal Street, Fort, Bombay. Telegram : "Godgrace." Phone 255374. Dealers in all kinds of machinery and spares.

**BHARAT ENGINEERING STORES,** Engineering Stores & Hardware Merchants. 113, Nagdevi Street, Bombay 3. Phone : 323193, Grams : "Uniontools".

Bharat Industrial Corporation, Oil Mill Machinery Merchants, Petit Compound, Grant Road, Bombay 7.

Bharat Insurance Co., Ltd. Bombay Branch: Bharat Insurance Building, Elphinstone Circle, Fort.

Bharat Pulverising Mills Private Ltd., Hexamar House, 38-A, Sayani Road, Bombay 28.

Bharat Tank & Steel Co., The, 64, Podar Chambers, Parsi Bazar Street, Bombay 1. Phone : 251471.

**BHARAT TILES & MARBLE PRIVATE LTD.,** 32, Apollo Street, Bombay 1, India. Telegrams : ENTENTE, Bombay. Telephone : 251291/92.
*Manufacturers of :* Terrazo, marble-mosaic and plain coloured cement tiles for floors and walls. Non-slip tiles for staircase steps & footpaths. Special heavy-duty STILAN tiles for floors of factories, mills, railway platforms, etc. Suppliers of Granite and Marble in white and beautiful colours, for lining of walls, facades, columns, staircases, and for table tops, bank counters, etc.
*Suppliers of :* THERMO-LITECRETE lightweight building and insulating boards for insulating asbestos and terrace roofs ; for controlling condensation and humidification loads in mills ; for lightweight partitions and false ceilings in buildings, etc.
*Manufacturers of :* KIP-KLIN, cleaning powder ; HANDY-SOAP, an excellent cleaning soap for grimy and greasy hands, dirty machinery parts, basins, floors, etc. ; ARSHAN, a special floor cleaner for polished tile and marble floors.
Main factory at Bombay.

Bharat Tool Manufacturing Co., Ltd., Swastik Mills Compound, Fergusson Road.

Bharat Trading Company, Ball Bearing Specialists, 71, Nagdevi Cross Lane, Bombay 3. Phones : 323250 & 324338.

Bharat Trading Co., Electroplating Material Dealers. 303, Sandhurst Road, Bombay 4.

Bharat Umbrella Mfg. Co., 65, New Hanuman Lane, Bombay 2.

Bhathena & Co., B. N. Stockists of : Copper, Brass, Galvanised & Steam pipes & Fittings, Asbestos goods, Flax Fire Hose, G. M. and C. I. Valves and Cocks, etc., etc. 100, Nagdevi Street, Bombay 3. Phone : 323155. Grams : "TEENAZ".

**BHAVNAGAR OIL & CHEMICAL INDUSTRIES PRIVATE LTD.,**
*Manufacturers of :*—Medicinal Castor Oil, Refined Groundnut Oil, Salad Oil, "CASTAROMA" Hair Oil, perfumed Castor Oil etc.
*Sales Office :*—Bombay Mutual Building, D. Naoroji Road, Bombay 1.
*H. O. & Factory :*—Mahatma Gandhi Road, Bhavnagar.
*Managing Director :*— D. M. Merchant.

**BHAWOO KASINATH & CO.,** Cloth Merchants and Uniform Clothing Contractors. 63, Bhandari Street, near Null Bazar, Bombay 4. Phone : 332148. Grams : "PROGRESS".

Bhawsar Home Furnishers & Decorators, Manufacturers and Dealers of furniture and interior decorators. Show-room and Office, 66, Karwar Street, Mint Road, Bombay 1. Phone : 263771.

Bhiwandiwalla & Co., H. M. D. H., Salt, Sugar and Sugar Factories. 583, Chira Bazar, Girgaon Road, Bombay 2.

**THE BHOR INDUSTRIES LTD.** Manufacturers of "RAJA" Brand Plastikloth, Oil Cloth, Book Binding Cloth, Waterproof Cloth, Fumigation Cloth, and also manufacturers of "NATARAJ" Brand Plastic film and Sheeting in different thickness, Vynatile Flooring material.
*Regd. Office :*
Sir Vithaldas Chambers,
16, Apollo St., Bombay-1.
Trade enquiries to Sales Department,
392, Cadell Road, Bombay 28.
Grams : "COVERCLOTH" { Phone : 451418, 451967, 451978.

**Bijlee Products Private Ltd.,** Electric Bulbs Mfrs., Dr. A. L. Nair Road, Bombay 8.

**BIOLOGICAL EVANS PRIVATE LIMITED,** Das Chambers, 25, Dalal Street, Bombay 1. Phones : 256561 and 256907. Grams : "BIOEXTRACT," Bombay. Manufacturers of Liver extracts (oral and injectable grades), Glycerophosphates, P.A.S., I.N.H., Heparin, Bacteriological Peotone and Specialistics of Evans Medical Ltd., Liverpool, such as Rondase, Dindevan, Marevan etc.

**Billion Plastik Private Ltd.,** Mfrs. of P.V.C. Insulated Wires and Cables, Sleeving, Tubings, Pipes, Films, Sheets, etc., 101, Himalaya House, Paltan Road, Bombay-1. Phone : 265573. Grams : "BILLION."

**BIPINKUMAR ELECTRIC CORPORATION,** Importers & Stockists of Electrical Accessories. 14, Tavawala Building, Lohar Chawl, Bombay 2.

**Birkmyre Brothers, Ltd.,** Manufacturers in India of Hair, Cotton Belting, etc. "Hastings", "Birkbelt", "Revflex" and "Laflex" Belting—Canvas—Waterproof Covers—Hood Cloths—"V" Belting—Agents for Richard Lloyd & Co., Ltd.'s Leather & Rubber Belts, etc., etc. 12, Rampart Row Fort. Tel. Address : "Birkmyres". Phone No. 255183. Head Office : 87, Stephen House, 4, Dalhousie Square, Calcutta.

**Birla Brothers Private Ltd.,** Industry House, Churchgate Reclamation, Bombay 1.

**Blackie & Son (India), Ltd.,** Publishers, 103/5, Fort Street, Bombay 1. Telephone No. 26-1410. Telegrams : "Blackie", Bombay.

**BIERI PRIVATE LTD.,** Manufacturers of Artificial Jwellery, Lables and Display Material and Radio Decorative Components such as Medallions, Badges, Trimmings, Headings, Styling Bars, Knob Caps etc. from Aluminium—embossed, printed, anodised in bright colours. Office & Factory : Near Bus Terminus, Sion, Bombay-22 DD. Phone : 471291, 473855, 475565.

**BLUNDELL EOMITE PAINTS LTD.,** Box No. 16235, 1st Victoria Cross Lane, Mazagaon, Bombay-10 DD. Phone : 78658-9-50. Grams : "Eomite" Bombay 10.

MANUFACTURERS OF QUALITY INDUSTRIAL AND DECORATIVE COATINGS

*Managing Director :* A. K. Gupta.
*Senior Executive (Technical) :* N. S. Bharatia.
*General Sales Manager :* M. A. Rajkumar.
*Sales Divisions :*

Bombay Division and Bombay Industrial Division Rustom Building, Veer Nariman Road, Bombay 1.
Phone : 251246-7. Grams : "BLUNPAINTS".

Delhi Division, Jindal House, 9/1, Asaf Ali Road, Near Kamla Market, New Delhi 1. Phone : 271238. Grams : "BLUNPAINTS".

Cochin Division, Thoppil Buildings, Broadway, Ernakulam 1. Phone : 27. Grams : "BLUNPAINTS".

Calcutta Division, P. 97, Chowringhee Square, Calcutta 13. Phone : 23-6792, 23-7216. Grams: "BLUNPAINTS".

Ahmedabad Division, Amit Chambers, Mirzapur Road, Lal Darwaja, Ahmedabad. Grams : "BLUNPAINTS."

Bangalore Division, Naheed Building, 91, Jayachamarajendra Road, Bangalore 2. Phone : 28871. Grams : "BLUNPAINTS".

Madras Division, 21 Thambu Chetty Street, George Town, Madras 1. Phone : 21419. Grams : "BLUNPAINTS".

**BOEHRINGER-KNOLL LIMITED,** Head Office : United India Bldg., P. M. Road, Bombay-1. Phone : 256485 & 254571. Grams : "ALCAOID." Factory : Kolshet Road, Thana (Maharashtra). Factory Phone : 591363. Manufacturers of Fine Chemicals and Pharmaceutical Specialities.

**BOLTON FINE ART LITHO WORKS,** 274, Tardeo Road, Bombay 7. Photo Offset printers of Posters, Calendars, Show Cards, Labels, Boxes, Pictures, Playing Cards, Insurance Policies, Booklets, etc. Estd. 1909. Phones: 367411/12. Grams: "BOLTONLITO", Bombay (GG).

**BOMANJI DHUNJIBHOY PRIVATE LIMITED (Established 1867),** *Regd. Office :*—24-AB, Nawab Tank Road, Bombay 10. *Fort Office :* 17, Murzban Road, Fort, Bombay. Dubashes, Landing & Shipping Contractors for B.I.S.N. Co. Ltd., work of every description pertaining to vessels undertaken, shipping contracts for refrigerated cargoes, supply of skilled & unskilled labour & painting of vessels in both the Graving docks undertaken. Stockists of ships bottom Compositions and various ready mixed Paints.
*Importers of :* International Bottom Paints & Compositions, London and American and Canadian Lumber and Lignum Vitae and Cork Standard Life Jackets, Toilet Soaps, etc.
*Exporters of :* General Goods.
Telegrams : "SHIPWRIGHT". Phones : *Reg. Office :* 73643 and 73644. *Mg. Dir. Personal :* 79074 ; *Bond Dept. :* 72016 ; *Mg. Dir. Residential :* 533689 ; *Labour Superintendent Residential :* 41389 ; *Market Office :* 263767 ; *Fort Office :* 263418.

**BOMBAY ART PRINTERS,** Near Saki Naka, Kurla Road, Bombay 70. Phones : 55367-55798.

**Bombay Ball Bearings Supply Co.,** Ball Bearings Merchants, 361, Samuel Street, Bombay 3.

**Bombay Brass & Metal Works,** 2nd Panjrapole Street, Bombay 4. Mfrs. of Stainless Steel Utensils.

**Bombay Building Materials Trading Co.,** Dealers in Sanitaryware, Bath Room fittings and Tiles. 73, Medows Street, Bombay 1.

**BOMBAY BURMAH TRADING CORPORATION LTD., THE,** 9, Wallace Street, Fort. Merchants, Timber, Tea, Coffee, etc. Directors : Pratapsinh Mathuradas, Sir Jamsetjee Jeejeebhoy, Bart., M. G. R. Aitker, Arvind N. Mafatlal, C. H. Campbell, Neville N. Wadia, G. V. Nath and C. G. Colclough. Secretaries, Treasurers : Wallace & Co. : Correspondents in Europe : Wallace Bros. & Co. (Holdings), Ltd., 4, Crosby Square, London, E.C. 3. Code, used : 2nd Bentley's.
Tel. Address : "Romford".
Phone No. 263032. P. O. Box No. 10077.

# BOMBAY COMPANY (PRIVATE) LTD.

Merchants, Industrialists, Importers and Exporters (Engineering Goods, Machinery, Wool, Piecegoods etc.).
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*Chairman :*—
G. V. Nath, Bombay.
*Directors :*—
H. A. K. Hood, Madras.
W. R. Gaunt, Calcutta.
D. A. Bond, Bombay.
F. C. Johnston, Bombay.
J. C. Jackson, Catcutta.
*Bombay Office :*—
Fibreglass Factory & Sales : F. C. Johnston and J. F. B. King.
Pyrotenax Technical Adviser: J. H. Hague.
*Associated Companies :*—
Pyrotenax India Ltd., Bombay.
Dental Products of India Ltd., Bombay.
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*Agents :*—
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*Sole Agents (Engineering Equipments) :*—
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Blaw Knox Ltd. (Excavators).
Bohler Bros. & Co. Ltd. (Pneumatic Tools, Special Steels & Electrodes).
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Davy Compressor Co. (Air Compressors).
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Fibreglass Limited (Heat, Sound & Electrical Insulation).
Fort William Ltd., Calcutta (Wire Rope).
Gebruder Klees (Foundry Laboratory Equipment).
George Hermann, Munich (Annealing Furnaces).
Guest & Chrimes Ltd. (Hydraulic Equipment & Venturi Meters).
Habag Export und Import, G.m.b.H. (Consultants for complete manufacturing plants).
H. R. Hilfiker-Dunn (Electronic Scale Preventors).
Henry Berry (Hydraulic Presses and Equipment).
J. H. Carruthers & Co. Ltd. (Overhead Travelling Cranes & Pumps).
James Equipment Co. (Coil Forming Equipment).
Jones Stroud & Co. Ltd. (Glass Tapes and Sleevings).
Karl Buch G.m.b.H. (Cast Iron Rolls).
Ken Mac International (Holt Equipment).
Lindeteves N. V. (Suppliers of machinery & Technical Equipment).

Marglass Ltd. (Industrial Glass Fabrics).
Metal & Pipeline Endurance Ltd. (MAPEL) England (Consultants for Cathodic Protection and Welding Inspection).
Otte Boge, Bielefeld, W. Germany (Compressors).
Peugeot Freres (Hand Tools).
Precision Tool & Mfg. Co. (Multi-spindle drilling machines).
Pyrotenax Ltd. (Mineral Insulated Cable).
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Roperwerk (Foundry Core Shooting Machines).
Russel & Stoll Co. Inc. (Flame-Proof Electrical Equipment).
SPEICHIM (Equipments for Chemical Industries).
Stardrill Keystone (Drilling rigs and equipment).
Taylor and Hubbard (Steam and rail cranes).
Technocommerz (Diesel Engines).

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John Thompson Wolverhampton (India) Ltd. (Boilers & Plants).
Reyrolle & Co. Ltd. (Heavy Electrical Equipment, Switchgear).
Robert Hudson (India) Ltd. (Light Railway Equipment).
Martin Black & Co. Ltd. (Wire Ropes).

*Representation U.S.A.*

Schield Bantam Co. (Cranes and Excavators).
Laboratory Equipment Co. (Laboratory equipment).
Foundry Equipment Co. (Core and Mould drying ovens).
Star Machinery (General Machinery).

*U. K. Agents :*—Wyer & Hawke.
*Corresponding Firm :*—Wallace Brothers & Co., (Holdings) Ltd. } 4, Crosby Square, London, E. C. 3.

*Tel. Address :* "CABRONADA."
Phone No. 26-3031 (Seven Lines).
Post Box 1081, Bombay.

**BOMBAY CYCLE & MOTOR AGENCY, LTD.,** 534, Sardar Vallabhbhai Patel Road, Bombay 7. Dealers for Dodge Cars & Trucks, Fiat Cars, Mopar Parts & Accessories, Distributor for Airtemp & Premair Room Air Conditioners. Tel. Address : "Cyclosters.", Grant Road, Bombay. Phones: Office & Showroom 70684. Service Stations: Tardeo Road, Tardeo, 73411-2, J. Tata Road, Churchgate, 246134. Air Conditioning Service Station : Industory Manor, Chowny Gully, Worli, Bombay 28. Phone : 452998.

**BOMBAY DRUMS MANUFACTURERS**
Estd. 1910.
24, Calicut Street, Safia Manzil, Fort, Bombay.
Manufacturers of Drums, Nut Bolt type, seaming type screw cap type, and cans for paste, dyes, chemicals, liquid, etc.

**BOMBAY GARAGE PRIVATE LTD.,** (Automobile & Refrigeration Engineers) Meher Buildings, Chowpatty, Bombay 7. Tel. 70631 (4 lines)—Grams: "FRIENDSHIP'.
*Dealers :* Plymouth Cars, Fargo Trucks, Mopar Parts, Perkins Diesel Engines & Parts, MEC Batteries, Tyres, Allwyn Refrigerators, Accaire Air-conditioners & Water Coolers.
*Overseas Representatives for :* Cadillac, Buick, Pontiac, Oldsmobile, Vauxhall and Opel Cars, Frigidaire Products.
*Airconditioning & Refrigeration Dept :* Radio House, 34/38, Apollo Street, Bombay 1. Tel.: 256191.

**BOMBAY GAS CO., LTD.,** Administration & Finance Offices and Show Rooms : (Ground floor), Empire House, 214, Dr. Dadabhoy Naoroji Road, Fort and Works—Chinchpokli, Parel.
*General Mgr. & Secretary :* S. Chowdhary.
Tel. Add.: "CHRISTOLITE." Phones : Works 42023 (3 lines), Administration and Finance Offices and Show Room : No. 261271 (3 lines), P. O. Box 85.

**Bombay General Agency, Regd. General Merchants and Stores Suppliers, Jiji House,** Ravelin Street, Fort, Bombay 1. Tel. Address : "Faithful."

Phones : 323042 & 323153.
Grams : "SISTACAR".
**BOMBAY HARDWARE TRADERS**
79, Narayan Dhuru Street,
Musjid Bunder Road,
Bombay 3.
Importers & Dealers in All kinds of Screws, Bolts, & Nuts, Boot & Shoe Materials, Hardware, Engineering Steel Files, Measuring Precision Tools, Steel Pipes & Fittings. Sole Selling Agents for "Jet Brand" Blue Cut Wire Shoe Tacks.

**BOMBAY INSULATED CABLES WIRES CO.,** Electric Wires & Cables Merchants, 10, Himalaya House, Palton Road, Bombay 1. Phone : 261383. Grams : "BOMINWIRES."

**BOMBAY LETTER FOUNDRY PRIVATE LTD.,** Type Founders & Printers' Providers, 7A, Nickadwary Lane, Kandewadi, Girgaum, Bombay 4.

Bombay Machine Tools & Hardware Corporation, Importers & Stockists of Crucibles, Engineering Small tools, Electrodes and Electric portable drills, grinders, etc. 103, Narayan Dhuru Street, Bombay 3. Phone : 322702, Grams : "Wiregrip".

Bombay Mercantile Corporation, Lubricating Oils and Diesel Engines Merchants. 211, Nagdevi Street, Bombay 3. Phone : 325982. Grams : "CORPBOMBER."

Bombay Metal Syndicate, Metal Manufacturers & Merchants, 166, Kika Street, Gulalwadi, Bombay 4. Phone : 331873 and 333601. Grams : "ABBRASIVE".

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Phone : 263901. Grams : "FEPRU".

Bombay Pencils Private Limited, Manufacturers of High quality Pencils, Artist colours and Inks, Kamer Building, Cawasji Patel Street, Fort, Bombay 1.

**BOMBAY PLASTIC CORPORATION**
Elphinstone Building, 10, Veer Nariman Road, Bombay 1.
Manufacturers of Plastic Advertising and Complimentary Articles.
Phone : 252527.
Grams : "BESIEGER".

**BOMBAY POTTERIES & TILES LTD.,** Manufacturers of Sanitaryware, Glazed & Acid proof Tiles, Insulators, Refractories etc. Pipe Road, Kurla, Bombay 70.

Bombay Rosin & Turpentine Co., Rosin & Turpentine Mfrs., Podar Chambers, Parsee Bazar Street, Bombay 1.

Bombay Safe Deposit Company, Ltd., Forbes Building, Home Street, Fort.
*Directors :* Mr. F. H. Kemple (ex-Officio); Mr. M. R. Chinoy; Mr. J. M. Mehta; Phone : No. 268083 and Mr. H. F. Vakeel.
*Managing Agents :*—Forbes Forbes Campbell & Co. Ltd., Forbes Building, Home Street, Fort, Bombay.

Bombay Safe Manufacturing Co., Steel Furniture Mfrs., 307, Kalbadevi Road, Bombay 2.

**BOMBAY SAMACHAR, THE,** "Red House", Horniman Circle, Bombay. Proprietors : The Bombay Samachar Private Ltd. Phone No. 255531. Tel. Address : "Samachar". G.P.O. Box No. 676, Bombay.

Bombay Scientific Glass Industry Private Ltd., 29, Veer Nariman Road, Fort, Bombay. Phone : 252920. Manufacturers of Laboratory Neutral Glass apparatuses, Mainly Ampoules, Vials, Saline Bottles, Regent Bottles, etc.

**BOMBAY SCOOTER & MOTOR AGENCY,** 43, Queen's Road, Bombay 2. Phone : 20086. Grams : "SRETOOCS". Distributors for Lambretta Scooters, Three wheelers and Scooterettes.

Bombay Silk Mills Ltd., Industrial Estate, Lalbaug, Bombay 12. Manufacturers of Georgettes, Crepes, Nylon & Polyster Shirtings. Phone : 74644. Grams : "EYEDOC."

Bombay Stationery Mart. Props : Gulamhusein Ahmedally & Co. Private Ltd., 7/A, Sir Phirozshah Mehta Road, Fort, Bombay. Phone : 253897.

**BOMBAY STEEL CORPORATION,** Importers and Stockists of Alloy & Tool Steels. 140, Medows Street, Bombay 1. Grams : "SHISHIRCO". Phones : 254756, 255077. Sales Office : 241, Kumbharwada, opp. 2nd Sutar Lane, Bombay 4. Phones : 331577 ; Residence : 472383.

**BOMBAY STEEL SUPPLIES PRIVATE LTD.,** Govt. Controlled Stockists of Iron & Steel ; Exporters and Importers. Regd. Offices : K. T. Bldg., Broach Street, Bombay 9. Phone: 323831. 19, Bank Street, Fort, Bombay 1. Phone : 252625. Grams : "STEELSUPLY".

**BOMBAY SUBURBAN ELECTRIC SUPPLY LIMITED,** Registered Office : Killick House, Home Street, Fort, Bombay 1. Telegraphic Address : "Kindred". Telephone No. 262311. Managing Agents: Killick Industries Ltd., Technical Office: Central Administration Department, No. 5, Graham Road (4th Floor), Ballard Estate Bombay 1. Telegraphic Address : "ADISEBS". Telephone Nos. 261741/ 261742 and 266083. Local Office : Electricity House, Santa Cruz (East), Bombay 55.

**BOMBAY SUBURBAN ELECTRIC SUPPLY LIMITED.**

*Local Office :* Electricity House, Santa Cruz (East), Bombay 55 AS. Tel. 532211.

*Officers :* R. Y. Apte, B.Sc. (Engg.), M.I.E., Resident Engineer; M. R. Bhat, B.Sc., (Hons.), M.A., C.I.I.Sc., A.M.I.E., A.M.I.E.E., Dy. Resident Engineer; B.C. Amin. B.E. (Elec. Mech.), Distribution Engineer.

Bombay Swadeshi Co-operative Stores Co., Ltd., Western India House, Sir Phirozshah Mehta Road, Fort.

Bombay Tablet Mfg. Co., Manufacturing Chemists. Princess Street, Bombay 2.

**BOMBAY**

**TOOLS SUPPLYING AGENCY**

Importers & Manufacturers' Representatives for Machine Shop Tools & Precision Measuring and Inspection Instruments.

*Regd. & Sales Office :* 50, Nagdevi Cross Lane, Bombay-3. BR. Cable : TERRA-TOOLS, Masjid P.O. Bombay-3. BR. Tel. : 321326.

*Admn. Office & G. D. R. Agency Show Room :* T. G. Shah Building, Pydhonie Jn. Bombay-3. BR. Tel. : 326495.

*Branch Office :* BANGALORE, 23/24, Jaya Chamaraj Road.

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*Distributors & Stockists :—*

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"BURN CAPITA" Twist Drills of Martin Burn Ltd., Calcutta.

"SHIVAJI" Vices.

Shivaji Works Ltd., Shivashahi.

"WARRIOR" TAPS & DIES.

M/s. Warrior India Ltd., Bombay.

HST Milling Cutters.

Hindustan Small Tools Ltd. Calcutta.

STM Coventry Chasers.

Small Tools Manufacturing Co., Ltd., Calcutta.

Bombay Typewriting Institution, opp. The General Post Office, Bhatia Mitra Mandal, Fort Street, Bombay 1. Phone : 262484.

**BOOTS PURE DRUG CO. (INDIA) PRIVATE LTD.** Registered Office : 17, Nicol Road, Bombay 1BR. Phone No. 261436. Tel. Address : "Drugboots", Bombay. Factory : Sion, Bombay 22DD. Telephone : 472444 & 472445. Grams : "BURNOL".

Borivli Hosiery Mills, Hosiery Manufacturers, Dahanukar Building, 480, Kalbadevi Road, Bombay 2.

**BRADMA OF INDIA LTD.,** Lakshmi Bldg., Sir P. Mehta Road, Bombay 1; Phone : 262981-2 ; Data Writing Machines & Business Systems. Grams : "BRADMALT"

Brady, W. H. & Company Limited, Brady House, 12-14, Veer Nariman Road, Merchants, Machinery Dealers, Exporters and Importers.

**BRANDON & CO. PRIVATE LTD.** Caterers and Aerated Water Manufacturers. Head Office : Elphinstone Building, Churchgate Street, Fort, Bombay. Phone : 252433. *Aerated Water Factory :* Spencer's Building, Forjett Street, Bombay. Phone : 74798.

**BREUL & CO.,** Cotton Merchants, Brokers, Exporters & Commission Agents. Taj Building, Dr. Dadabhai Naoroji Road, Fort, Bombay.

J. K. S. Nicholson, *Proprietor.*

Tel. Address : "Breul." Phone Nos. 263981/2/3 (3 Lines), Post Box No. 27.

Bright & Co. (Private) Ltd., Paints, Enamels & Varnishes manufacturers. 18, Commercial Chambers. Masjid Bunder Road, Bombay 3.

**Bright Brothers Private Limited**

156-A, Tardeo Road, Bombay 34. Manufacturers of Quality Plastic Articles for Home, Industry, Office and Gift Advertising.

Phones : 78548, 78549, 78540.
Grams : "BRIBOS".
*Managing Director :* T. W. Bhojwani.

Brijlal & Hargovind, Iron & Brass Founders & Contractors, W. I. Split pulleys manufacturers. 253, Duncan Road (Near B. E. S. T. Power House), Bombay 8. Phone : 40668. Grams : 'PULLEYS'.

**BRIMCO PLASTIC MACHINERY CORPORATION,** Plot No. 55. Govt. Industrial Estate, Kandivli (West), Bombay-67. Phone : 692818. Grams : "BRIMSEAL", Bombay, Kandivli. Machinery and Equipments for Processing Plastics, Brimo Thermoplastic Extruders and Equipments for Extrusion of Tubular Film (Layflat Tubes), Rods, Strips, Sections, Plastic Cane, Monofilament, and Covering Wires and Cables, etc. from Polyethylene, Polystyrene, PVC, Celulose Acetate, high Density Polyethylene, Polypropylene, etc. Also Injection Moulding Machines, Granulators, Palletizing, Colouring, Reprocessing Equipments, and Automatic Bag Making Machines. *Sole Selling Agents for whole of India :* William Jacks & Company Limited.

**BRITANNIA BISCUIT CO., LTD.** Registered Office : Calcutta. Bombay Office and Factory : Reay Road Bridge, Bombay 10.

Telephone : 73581 (3 lines). Telegraph : "BISCUITBOX."

**BRITISH DRUG HOUSES (INDIA) PRIVATE LTD.,** Manufacturers of Pharmaceuticals and Laboratory Chemicals, associated with BDH Group Ltd., London.

*Head Office :*—BOMBAY : 8, Graham Road, Bombay 1. P.O. Box 1341. Phone No. 26-3138, 26-3139.

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British India Press, 108, Love Lane, Mazagon, Bombay-10. Tel. Nos. 75334-35. ESTD. 1887. Grams : "PRINTBIND".

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Manufacturers of Synthetic Resins in collaboration with Chemische Werke Albert, Wiesbaden, Germany, and Pharmaceuticals in collaboration with Pliva Pharmaceutical and Chemical Works, Zagreb, Yugoslavia, with factory at Bombay-Agra Road, Thana.

*Sole Importers &/or Agents :* Fuji Photo Film Co. Ltd., Tokyo—Sensitised Photographic Materials; Chemische Werke Albert, Wiesbaden—Synthetic Resins and Chemicals; Sera and Vaccines manufactured by the Institute of Immunology, Zagreb, Yugoslavia; Manufacturers of Production machinery and Machine Tools in West Germany.

*Branches :* 7, Chittaranjan Avenue, P.O. Box 8943, Calcutta 13. Telephone: 233645. Telex No. 337; 7/90, Wallajah Road, Mount Road, P.O. Box 3738, Madras 2. Telephone: 84715. Telex No. 304. M-8, Connaught Circus, P.O. Box 486, New Delhi. Telephone: 42642. Telex No. 360.

**CHRISTENSEN—LONGYEAR (INDIA) LIMITED,** (Subsidiary of Larsen & Toubro Limited and in collaboration with Christensen Diamond Products Co. and E. J. Longyear Co. both of U.S.A.) *Registered Office :* I. C. House, Dougall Road, Ballard Estate, Bombay 1. Phone: 26441-9. Grams: 'CHRISLONG." Factory: 41, Koliwada Road, Sion East, Bombay 22. Phone: 472575. *Managing Agents :* L. & T. (Management) Private Limited. Manufactures Diamond Core Drills, Diamond Bits and Accessories.

*Directors :* H. Holck-Larsen, N. M. Desai, P. G. Bhagat. B. I. Bhambhani, F. L. Christensen, V. N. Burnhart, R. H. Lawe, Eugene Larsen.

*Selling Agents :* Larsen & Toubro Limited, P.O. Box 278, Bombay 1. Telephone: 264411/9. Tel. Address: "LARSENBRO." Telex: TLX 246.

**CHUDGOR & CO. PRIVATE LTD.,**

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Phone: C/o 30023, 30024 & 20419 Grams: "CHUDGORECO."

Dealers in Chemicals, Dyes, Sizing Material & Waxes, etc.

**Chunilal & Co.,** Expanded Metal, Zinc Sheet, Monel Metal and Stainless Steel Merchants. Opp. State Bank, 74, Abdul Rehman Street, Bombay 3. Phone: 326710. Grams: "HIRCHUNGI".

Chunilal & Co., Diamond, Pearl & Jewellery Merchants, 17-19, Dhanji Street.

**CHUNILAL KHANNA & CO.,** Govt. & Rly. Contractors. Saraswati Nivas, Thakurdwar Road, Bombay 2. Phone: 23513. Grams: "BABALALU".

**CHUNILAL MULCHAND & CO.,** Waterloo Mansion, Madame Cama Road, Fort, Bombay. Phone No. 211515. Grams: "Muircom."

*Sole Prop. :* —R. C. Kapadia.

*Manager :* J. C. D'Souza.

*Accountant :* S. C. Shah.

# CIBA

**CIBA OF INDIA LIMITED.** *Regd. Office :* 14, Jamshedji Tata Road, Bombay 1. Phone Nos. 245031 (3 lines) and 246084 (3 lines). Grams: "CIBA", Bombay. *Bankers :* The National & Grindlays Bank Limited.

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(1) The products of CIBA Limited, Basle (Switzerland), manufacturers of all classes of dyestuffs, textile auxiliaries, pharmaceuticals, cosmetics, synthetic resins, pesticides, chemicals and allied products.
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(3) The products of Hardman & Holden Limited, Manchester (England), manufacturers of "Manox" sodium hydrosulphite.
(4) The products of Societe Rapidase Seclin (France), manufacturers of "Rapidase" textile de-sizing agents.

Manufacturers of CIBA Pharmaceutical Specialities and Cosmetics.

*Plastics Division at :*

Esplanade House, Waudby Road, Bombay 1. Phone No. 264818 (2 lines).

*Factory at :*

(1) Bombay-Agra Road, Bhandup, Bombay 78 (Pharmaceutical Factory). Phone Nos. 581681 (4 lines).
(2) Off Dockyard Road Station, Bombay 10 (Dyes Mixing Plant). Phone No. 41575.

*Research Centre at :*

Goregaon, Bombay 62. Phone No. 692657 and 692697-9. Dr. T. Govindachari 692852.

**CIEM TRADING CO.,** Manufacturers & Govt. Contractors. Manufacturers of Paper Sleeves, Insultated Tubes, Centres for Reeling, Postal Tubes, Cartons, Discs, etc. 7, Cross Road, No. 3, Mamlatdar Wadi, Malad, Bombay 64. Phone: 692226, 692473, Grams: "CIEMITE".

**"CIPLA"—Chemical, Industrial & Pharmaceutical Laboratories, Ltd.,** 289, Bellasis Road, Byculla, Bombay 8. Manufacturers of fine chemicals and pharmaceutical preparations, patent medicines, steroids and Hormones.

Phones: 75211, 75212, 75213. Tel. Address: "CIPLAB", Bombay 8.

City Ice Supplying & Cold Storage, Ice Manufacturers and Cold Storage. City Ice Building, 298, Bazargate Street, Fort, Bombay. Phone No. 252497.

**CLARIDGE, G., & CO., LTD.,** Security and Cheque Printers, Photo-offset, Transfers (Decals), Book-binders, Cartons, Packaging Experts. Caxton Works, Frere Road.

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*Home Representatives :*—W. H. Brady & Co., Ltd., Manchester.

*General Manager :*—Brig. J. F. N. Vakil (I.A.) Retd.

*Sales Manager :*—Mr. J. E. Baptista.

*Works Manager :*—Mr. S. Gopal.

**CLUBWALA & CO.,** Manufacturers of Cooking Ranges, Hot Water Boilers, Aerated Water Machinery Accessories and Essences; Machinery, Filters. Municipal & Railway Stores; Folding Ladders and stockists of sanitarywares, etc. etc. On Government, Railway and Municipal Lists. 27-29, Hamam Street, Fort, Bombay 1. Tel. Address: "GRAPE." Phone: No. 254217.

**COLGATE-PALMOLIVE (INDIA) PRIVATE LTD.,** Toilet Soaps, Toilet Articles, Steelcrete House, 3, Dinshaw Vaccha Road, Churchgate Reclamation, Bombay 1-BR. Phones: 24-5071, 24-5072, 24-5073. P.O. Box No. 1965. Grams: 'PALMOLIVE'.

**COLOUR-CHEM LIMITED,** Fort House, 221, Dadabhai Naoroji Road, Fort, Bombay-1. Telegraphic address: "PIGMENTDYE." Telephone No. 265151/5, 266417 and 266418.

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• Acramin is the registered trade-mark of Farbenfabriken Bayer, A.G., Leverkusen, West Germany.

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**COMMERCIAL CREDIT CORPORATION (1943) PRIVATE LTD., THE,** *Head Office :* Hughes Road, Bombay No. 7.

*Branches :* Hughes Road, Bombay No. 7, Mount Road, Madras 18, St. Mark's Road, Bangalore, New Buti Building, Mount Road, Nagpur.

*Managing Director :*—R. A. Murdeshwar.

*Directors :*— S. Rama Iyer, U. R. Rao, M. S. Dastur and V. Nimbkar.

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**CONCORD OF INDIA INSURANCE CO., LTD., THE,** Hongkong Bank Building, 16, Veer Nariman Road, Fort. Tel. Address: "Concordia." Phone No. 255561 (3 lines). *Resident Manager:* H. M. Chawalla.

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**Telephone: 242001**

REGIONAL OFFICES: New Delhi, Calcutta, Secunderabad.

*Chief Engineer and Editor, "Indian Concrete Journal."* K. K. Nambiar, B.E., C.E. (Hons.), M.I.E. (India), F.Inst. H.E. (Eng.), M.I. Mun. E. (Eng.), F. Am. Soc.C.E.

**CONSOLIDATED ENGINEERING EQUIPMENT CO.,** Engineers, Machinery Merchants and Manufacturers' Representatives. Union Co-operative Insurance Society Building, Sir Phirozshah Mehta Road, Bombay 1. Phone: 255333. Grams: "CONEQUIP."

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"PFAFF" Pulley Blocks.

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Consolidated Pneumatic Tool Co., Ltd. (Incorporated in England), 301/302, Agra Road, Mulund, Bombay 80; Phone: 592274/6, Grams: "CAULKING", Mulund-Bombay; Manufacturers of Air Compressors, Pneumatic Rivetting and Chipping Hammers, Drilling Machines, Grinders, Rock Drills, Mining Equipment, Portable Electric Tools, Hicycle Electric Tools, etc. London Office: 232, Dawes Road, S.W. 6. Branches at Calcutta, Madras and New Delhi. Branch Office: Calcutta: 30, Chowringhee Road, Calcutta 16; Madras: Finance House, Pattulos Road, Mount Road, Post Bag 5251, Madras 2; New Delhi: 87, Sundar Nagar, New Delhi 11.

Consolidated Pneumatic Tool Co. (India) Ltd., (Incorporated in India). 301/302, Agra Road, Mulund, Bombay 80. Phone: 592274/6, Grams: "Pneumatic", Mulund, Bombay. Manufacturers of Air Compressors, Pneumatic Riveting and Chipping Hammers. Drills, Grinders, Impact wrenches, Rock Drills, Feed Legs, Sump Pumps, Sludge Pumps, Jacks, etc.

Consolidated Trading Corporation, Exporters of Cotton, Woollen and Rayon Textiles, Readymade garments and general order Suppliers to middle East Countries and Governments; Sole Export Agents for Bombay Dyeing & Mfg. Co., Ltd., Advani Chambers, Sir P. M. Road, Fort, Bombay. Phones: 264250 and 265297. Grams: "ONTRAC".

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Cooper & Co., Paint Merchants & Painting Contractors. 53, Abdul Rehman Street, Bombay 3.

Cooper Engineering Ltd., Registered Office: Construction House, Ballard Estate, Bombay 1. Phone: 265471 (5 lines). Grams: "COOPENG", Bombay.

Cooper Landing Co., Dady House, Veer Nariman Street, Fort.

**COORLA SPINNING & WEAVING CO., LTD.,** Manufacturers of Dhoties, Sarees, Shirtings. Office: Udyog Bhawan, 3rd Floor, Wittet Road, Bombay. Mills: Kurla. Looms 680, Spindles 32,356. Agents: K. P. Goenka & Sons Private Ltd.

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Culture Pearls Dealing Co., Wholesale and Retail Dealers in (Real) Culture Pearl ornaments and other jewelleries, Madrasi Building, 2nd Floor, 148, Mumbadevi Road, Bombay 2. Phone: 321658.

Current Technical Literature Co. Private Ltd., India House, opp. G.P.O., Bombay 1. P.O. Box No. 1374. Phone: 261045.

Currim, E. A. Private Ltd., Hardware Dealers & Iron-mongers, 97, Apollo Street, Fort, Bombay. Branch at Calcutta.

**CYANAMID INDIA LTD.,** Producers of Broad Spectrum antibiotics and other pharmaceutical products, veterinary products, antibiotic feed supplements as well as insecticides. Registered Office: 254-D(2) Dr. Annie Besant Road, Worli, Bombay-18WB. Grams: "CYANAMID", Bombay.

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D. C. Batliwala, Furniture Merchants, 12, Bruce Street, Bombay 1.

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D. S. Coutinho & Co., Billiard Tables Mfrs., 91-93, D'Lima Street, Mazagaon, Bombay 10.

D. Shah & Co., Laboratory Equipment Merchants, 24, Sardar Griha Bldg., Carnac Road, Bombay 2.

D. Dahyabhai & Co., Scientific Laboratory and Hospital Equipment Merchants, 79, Princess Street, Bombay 2.

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D. V. Industries, Manufacturers and Exporters of Rayon and Synthetic Fabrics, 167, Bhavanishankar Road, Dadar, Bombay 28. Phone : 451865. Grams : "TEJCHHAYA". Sales Office : 367/A, Kalbadevi Road, Bombay 2. Phone : 29341.

Dada Fireworks Private Ltd., 240-42, Juma Masjid, Bombay 2.

Dadabhoy Hormusjee & Co., Clearing & Forwarding Agents. Dady House, Veer Nariman Street, Fort.

Dadabhoy Hormusjee & Sons (Private) Ltd., 30, Imperial Chambers, Ballard Estate, Bombay.

**DADAJEE DHACKJEE & CO. PRIVATE LTD.,** DYES DEPT. P.B. No. 3090. 274, Samuel Street, Vadgadi, Mandvi, Bombay 3. Grams : "PROMPT" Bombay. Phone : 324161/62, Importers & Exporters of and Dealers in Dyes, Chemicals and Intermediates for Cotton, Silk, Acetate Yarn & Woollen Textiles, Leather, Soap, Paper, Coir, Jute & Allied Industries. Also Sulphur Black and Photines (Optical Whitening Agents) Liquid Toilet Soap, Soap Powders, Detergents, Disinfectants and Insecticides. *Branches :* Cannanore, Delbi, Kanpur, Madras, Madura, Nagpur and Patna.

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**DALI B. SHROFF & CO.,** Manufacturers, Representatives, Importers and Exporters, 361, Dr. Dadabhoy Naoroji Road, Fort, Post Box No. 973, Bombay. Phone No. 251765. Tel. Address : "Oldisgold."

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**DANDEKAR, G. G., MACHINE WORKS LTD.,** Bhiwandi. Dt. Thana, Bombay. Tel. Address : " Dandekarco."

Danesh Waterproof Materials Private Ltd., Tarpaulin Merchants, 146, Dongri Street, Bombay 9.

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*Telegrams :* (1) "DARVESHTIM" ; (2) "CEILPLANK", Bombay (VG).

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**DATSON, RAVIRAJ & CO. (PRIVATE) LTD.,** 43, Tamarind Lane, Fort. Phone : 254433. Grams : "DATNARE." Importers and Exporters, Specialists in Foundry Supplies, Welding Rods, Electrodes, Equipments and Accessories, Welding Cutting & Profiling Machines, High Temperature Refractory Cements, Boiler Laggings, Boiler Fittings, Packings and Jointings, Wire Brushes, Casehardening Compounds, Industrial Protective Appliances, Motor driven flexible shaft tube cleaning equipment & Accessories, Cutting Oils, Wire drawing compounds, Rust Preventatives, Quenching oils, & Heat Treatment Products, etc. Associates : Shetty Chemical & Engineering Works Private Ltd., Bombay. Calcutta Office : 32, Ganeshchandra Avenue, Calcutta-13.

**Daudbhoy M. Tayebally, Government & Railway Contractors and Glass Merchants, 110, Abdul Rehman Street, Bombay 3.**

Davar, N., & Co., Interior Decorators and Painting Contractors. Syndicate Bank Building, Sir Phirozshah Mehta Road, Fort, Bombay. Phone : 261880. Showroom : Commerce Centre, Tardeo, Bombay 7 (WB).

Dave Bros., Photo-Studio and dealers in Photo & Cine Materials. Shop No. 9, Waterloo Mansion, 170, Mahatma Gandhi Road, Opp. Regal Cinema, Bombay 1. Phone : 211158 & 214042.

**DEAN & WEBBER MILL STORES CO.,** Manufacturers of Quality Bobbins, Plastics, Metallic & Wooden ; Wooden Spools, Steel Beams, Shuttles, Chemicals, sizing Materials, 5A, Advani Chambers, Sir Phirozshah Mehta Road, Fort, Bombay. P.O. Box No. 1461. Phone : 26-3848, 26-4041 and 26-4049. Grams : "EFKAY".

**Deepak Electric Corporation, Electric Goods, Stockists & Distributors, 44, Bhangwadi, Kalbadevi, Bombay 2.**

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*Office :* 2, Mohatta Bldg., Bombay 1.
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Phone : 263765. Grams : "HEATINGROD.

Delta Products Corporation (India), Manufacturers of Auto Springs & Parts, 3, Modi Chambers, French Bridge, Bombay 4. Phone : 71083. Grams : "MOTORCYCLE".

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Desai Tube & Hardware Mart, Mill Gin & Hardware Merchants. 41, Nagdevi Cross Lane, Bombay 3. Phone : 321606, Grams : "Hasty".

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*Chief Accountant :*
K. N. Shah
*Commercial Manager :*
R. S. Raman
*Works Manager :*
M. R. Lodh

*Factory at :*
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Phones : Office : 70001, 72371-72
Factory : 591336.

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Phone : 334124

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STAMPING DIVISION

*Factory:*—DEVIDAYAL NAGAR,
&
*Office :*—Kanjur, Village Road, Bhandup, BOMBAY 78.
**Tel. 581201, 581214, 582017**

●

*H. O. :*—Darukhana, Reay Road, BOMBAY 10
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**DEWAN CHAND NIKHA MALL & CO.,** Stockists of Hardwar, Tools, Workshop & Agricultural Machinery, 126, Narayan Dhru Street, Bombay 3. Phone: 322142. Grams: "DHAMICHAIN".

Dewan Raj Kumar, (Estd. 1942) Trade Marks & Patents Attorneys and Advertising Consultants, 78, Podar Chambers Parsi Bazar Street, P.O. Box No. 711, Fort. Phone No. 252044. Tel. Address: "Rajmilap. " Poona Office: 1147/B, Shivaji Nagar. Phone: 57455.

Dharamdas M. Jhaveri & Co., Tool & Alloy Merchants. 108, Jhaveri Bazar, Bombay 2, (For details see in "Tool, Alloy & Special Steel Merchants.")

**DHARAMPUR LEATHER CLOTH CO. PRIVATE LTD.**
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*Manufacturers of :*
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*Factories at :* 1. Ambarnath (Near Kalyan) C. Rly., Maharashtra State.
2. Kumhari (Near Raipur) S. E. Rly., Madhya Pradesh.

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*Telegraphic Address :* "Dharmajaya", Bombay. "Avantika", Raipur.
*Telephone Nos. :* 255581, 255582 & 255583.

Dhirajlal & Co., Bearings, Shaftings & Steel Merchants, Manubhai Desai Road, Bombay 4. Phone: 72592. Grams: "WILDERNESS".

**DHIRAJLAL & CO.,** 15, New Queen's Road, Bombay 4. Phone: 23112. (Resi.) 473703. Grams: "RICEMILL" Importers & Distributors of Ball & Roller bearings. Stock holders of STEYR Q. INA Bearings. Authorised Stockists for NBC Bearings.

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Dinanath Sons, Importers, Exporters & Manufacturers' Representatives, 466, Kalbadevi Road, Bombay 2. Phone: 39619.

**DINSHAW, N. & CO.,** Papers, Boards, Jute, Twine, Beltings, Industrial Rubber & Leather Goods, Pigments, General Merchants, Mill Store Suppliers, Govt. & Rly. Contractors. 14, Ismail Building, Flora Fountain, Bombay 1. Phone: 253488. Tel. Address: "DILINOL".

**DOBSON & BARLOW (RAYON PLANTS) PRIVATE LTD.,** Suppliers of plants for the production of Continuous Filament Viscose Rayon and Transparent Paper, 3rd Floor, Stadium House, Veer Nariman Road, Bombay 1. Phone: 245878.

**DODGE & SEYMOUR (INDIA) PRIVATE LTD.,** Laxmi Building, 6, Ballard Road, Bombay. Phone Nos.: 263674 & 265479. Grams: "EXIMCO."

**DONGRE, & CO., PRIVATE LTD., K. T.,** Manufacturing Chemists. Manufacturers of DONGRE'S BALAMRIT. GRIPE WATER and various Ayurvedic Medicines. Chairman & Governing Director: R. V. Dongre. Managing Director: S. V. Dongre. Office: Commonwealth Bldg., 82, Nagindas Master Road (Medows Street), Bombay 1. Tele. Add. "Balamrit" Phone Nos. 254853 and 256460 (Office); 70670 and 70574 (Res.).

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**DUNCAN STONE CO.,** Marble & Tile Merchants, 300, Duncan Road, Bombay 4. BR. Phone: 20985 (Res.): 332409 (Office): Grams: "TILERIES".

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Durga Arms Stores, 63, Sitaram Building, Dadabhoy Naoroji Road, Bombay 1. Phone: 261879.

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Code used—Private.
Phone No. 249151 (10 lines).
Post Box No. 355.

General Manager: **G. P. Case.**

★

Western India Office: Esso Building, 17, Jamshedji Tata Road, Churchgate Reclamation, Bombay 1.

Telegraphic Address: "Essoeast."

Code used: Private.

Telephone No. 249151 (10 lines).

Post Box No. 355.

Manager Western India: **P. A. Dunbar.**

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*Agents to:* Burmah-Shell Oil Storage and Distributing Co. of India Ltd., Petrol, Kerosene, Diesel Oils.

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*Directors:* H. Holck-Larsen, N. M. Desai, Gunnar Hansen, R. D. Wasserman, F. Brandenburg, M. Roth.

*Selling Agents:* Larsen Toubro Limited, P.O. Box 278, Bombay 1. Phone: 264411/9. Grams: "LARSENBRO." Telex: TLX 246.

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*Phone:* 22461.
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*Factory:* Goregaon (East), Bombay 62.
*Phone:* 691321.
*Branch:* 182, Nainappa Naick Street, Madras 3.
*Phone:* 32846.
*Grams:* "WIRECLOTH".

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**EVERETT STEAMSHIP CORPORATION,** (Incorporated in the Philippines with limited liability), Shipowners, Brokers, Operators and Agents. Fort House Annexe, 221, Dr. Dadabhoy Naoroji Road, (Post Box 523), Bombay 1. Telephones: 264081-3 (three lines). Telegraphic Address "STARLINER" and "EVORIENT," Bombay. Agents for American Mail Lime, Everett Orient Line, Johnson Line, Keystone Shipping Co., National Shipping Corporation, Oriental Exporters Inc., Waterman Steamship Corporation and J. H. Winchester & Co.

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Phones: 572743—573327—573328.

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**D. W. Kerkar.**
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**MANAGING AGENTS:**

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Kaycee Industries Ltd., Kamani Chambers, Nicol Road, Ballard Estate, Bombay 1. Phone : 264030.

"Hindu, The," Office and National Press, (Estd. 1878). Kasturi Buildings, Jamshedji Tata Road, Bombay. Head Office : Mount Road, Madras 2.

**HINDCO LIGHTING**

***INDUSTRIES LTD.***

Hindlight House, Subhash Nagar, Jogeshwari East, Bambay 60 (NB), India
Telephone : **572320 - 572622.**
Grams : **HINDLIGHT,** Jogeshwari, Bombay.

*Mfrs., Distributors and Exporters of*

GI Hindlight

**FLUORESCENT LIGHTING FITTINGS, BALLASTS, LOW VOLTAGE TRANSFORMERS, M. V. LANTERNS AND ACCESSORIES OF ALL KINDS.**

**HINDUSTAN CONSTRUCTION CO. LTD.,** *Registered Office :* Construction House, Ballard Estate, Bombay 1. Phone : 268091 (13 lines). Grams : "HINCON". *Managing Agents :* Walchand & Co. Private Ltd. Engineers & Contractors. Specialists in Cement Concrete Works, Construction of Dams, Bridges, Tunnels, Buildings, R.C.C. Elevated Tanks and Pile Driving Public Health Engineering, etc. Also undertake Fabrication & Erection of Steel structures.

Hindustan Electric Co., Ltd., The, (In Collaboration with Brown, Boveri & Co., Ltd., Baden, Switzerland) Manufacturers, Engineers, Contractors and Suppliers of

Plant, Machinery and equipment. *Registered Office :* Thackersey House, Graham Road, Ballard Estate, Bombay 1. Phones : 261121-22. Grams : "UDYOG". Sales & Engineering Division : Mahatma Gandhi Memorial Building, Netaji Subhas Road, Bombay 2. Phone : 38221-22. Grams : "HECSALES". Branches all over India. *Works :* Baroda, Faridabad, Ghaziabad and Howrah. Importers of all products of BBC and their concession aires.

**HINDUSTAN ENGINEERING CO.** (Machinery Dept.), Machinery Merchants & Manufacturers' Representatives. Sole Agents : "NEW HINDUSTAN" Diesel Engines. Phone : 253583. Grams : "VIDOOALL". Aban House, 25/31, Ropewalk Street, Fort, Bombay 1.

**HINDUSTHAN ENGINEERING WORKS,** 7-C, Pitamber Lane, Mahim, Bombay-16. Phone : 61408. Grams : "DICHROMATE". *Partners :* Jitendra M. Shah, Hari K. Ahuja. *Technical Adviser :* H. M. Shah. *Chief Promotor :* M. T. Shah. Fabrication of Steel Structurers, Gantry Girders, M. S. Tanks, Chemical Vessels, Chimneys, etc. M. S. Pipes 8" onwards upto ¼" thick, M. S. Castings for Piles, Pressure Vessels.

# HINDUSTAN EXPORT & IMPORT CORPORATION PRIVATE LTD.

*Registered Office :*—Anand Bhavan, Dr. Dadabhoy Naoroji Road, Fort, Bombay. Post Bag 1091. Phone No. 253885/86. Grams : "Hindexport",
*Branch Offices :* Grover Mansions, 3/17, Asaf Ali Road, New Delhi, Phone No., 272967. Grams : "HINDEXPORT".
Suite No. 2, 7 Circus Avenue, Calcutta 17. *Branch Manager :* A. K. Bandyopadhyay. Phone No. 448005. Grams : "HINDEXPORT".
*Sub Agents in Madras State :* Productivity Elements Pvt. Ltd., B-14, Ambattur Industrial Estate, Madras 58. Director : R. Palaniappan. Phone No. 60275. Grams : "Protel", Ambattur.
*Managing Director :* Kanwal K. Grover.
*Machinery & Machine Tool Dept., General Manager :* P. Chopra.
*Bombay Branch Manager :* R. Shivram.
*Manager, Textile Dept. :* R. D. Malhotra.
Importers and Sole Agents of many manufacturers of Machine Tools and Europe, U.S.A., Japan and Australia. Exporters of Grey and Processed Cotton yarn & Textiles.

## HINDUSTAN FERODO LIMITED

**A Member of the Turner & Newall, Group.**

*Registered Office & Factory :*
Bombay-Agra Road, Ghatkopar, Bombay 77.
Tel. No. 51491.
Grams : "FERODOSTAN".

*Sales Offices :*
Calcutta, Madras and New Delhi.
Manufacturers of "FERODO" brake and Clutch linings, "Firefly" asbestos textiles, compressed Asbestos Fibres Jointing, and "Limpet" Asbestos Sheets.

**HINDUSTAN LEVER LIMITED,** Manufacturers and Sellers of Soap, Glycerine, Toilet preparations, Vanaspati, Ghee, Margarine, Dehydrated Vegetables and animal feedings stuffs.
*Head Office :* Hindustan Lever House, Backbay Reclamation, Bombay 1. P. O. Box No. 409. Phone No. 246251. Tel. Address : "HINDLEVER". *Factories :* Bombay, Calcutta, Shamnagar, Ghaziabad, Tiruchirapalli, Etah.
*Branches :* Delhi, Calcutta, Bombay & Madras.

**HINDUSTAN PLASTIC CO.,** Plastic Sheetings Merchants. 95, Abdul Rehman Street, Bombay 3. Phone : 323270. Grams : "SUEDE". (For details see in "Plastic").

Hindustan Plywood & Metal Depot, Wholesale & Retail Dealers in Plywood, Hardware, etc. 301, Shree Krishna Nivas, Masjid Bunder Road, Bombay 3.

Hindustan Scale Co., Scales & Weights Merchants, 186-188, Janjikar Street, Bombay 3.

**HINDUSTAN STEEL CORPORATION,** Importers and Indentors of Machinery & Equipment as follows :
Eccentric Presses, Hydraulic Presses, Multiple Die Presses, Press Brakes, Plate Shears, Nibbling Shears, Combined Shearing & Punching Machines, Plastic Processing Machines, Sheet Metal Machinery, Wire Cutting & Straightening Machines, Wire Net Weaving Looms, Rubber Processing Machines, Continuous Cable Valcanising Plants, Machinery for the Cable Industry, Wire Drawing and Stranding Machines, Paper Covering Machines, Transmission Drive Elements, Clutches for Heavy Machinery, Hydraulic Pumps and Valves, Rolling Mills and Ancillary Equipment, Ore Dressing Machines, Turbines.
*Office :* Nagin Mahal, 82, Veer Nariman Road, Bombay 1. Phone : 242774.
*Branch Office :* B-6, Asaf Ali Road, New Delhi. Phone : 273756.

**HINDUSTAN TOOLS & HARDWARE MART,** Engineering Stores & Hardware Merchants. 126, Lohar Chawl, Bombay 2. Phone : 20666, Grams : "FAKIRSAI".

Hindustan Tools & Engineering Co., Engineering Tools & Hardware Merchants. 9/11, Picket Cross Lane .Post Box 231.

ESTD. 1946.

## HINDUSTAN TILES & CEMENT INDUSTRIES

Bombay & Jamnagar.

*Manufacturers of :—*
FLOORING TILES, MOSAIC, SYNTHETIC MARBLE, TERRAZO, ART & COLOURED Etc.

*Bombay Office :*
89, Princess Street, Bombay 2.
Phone : 23951.
Grams : "MARMOSAIC."

*Head Office & Factory :*
Gulabnagar : P.O. Box 3, Jamnagar Gujarat. Phone : 269 and 427.
Grams : "TILES."
No other Branches.

**HINDUSTAN WIRE NETTING CO., PRIVATE LTD.** Manufacturers of Wire Gauze, Hexagon Wire Netting, Galvanized Chain Link Fencing, Galvanized Stranded Stay Wires, Galvanized Signal Wire, Stranded Copper Conductors and Panel Pins. *Works :* Agra Road, Thana City *Office :* 55/57, Nagdevi Cross Lane, Bombay 3. Telegrams : "Wiregauze," Bombay. Phones : 324008-326646.

**HINDUSTAN WIRE PRODUCTS LTD.,** Manufacturers of Super Enamelled & Cotton covered copper wires.
*Bombay Office :* Sardar Griha Building, Carnac Road, Bombay 2. Phone : 22280, Grams : "HINWIREPRO".
*Factory :* Factory Area, Patiala (Punjab).
*Calcutta Office :* 14, Netaji Subhas Road, Calcutta.
*New Delhi Office :* 1774, Vishnu Bhavan, Bhagirath Place, Chandni Chowk, Delhi-6.

Hindusthan Mineral Products Co. Private Ltd., The, Geologists & Mining Engineers. 111, Industrial Area, Sion, Bombay 22-DD.

**HINDUSTAN TYRES PRIVATE LTD., THE** Manufacturers of all kinds of Rubber and Ebonite goods and Retreaders of Tyres, Lamington Road (North), opp. Agripada Police Station, Bombay-11. Phone No. 77476. "TYRES."

**HOARE MILLER & CO. LTD.,** Head Office : 5, Fairlie Place, P.O. Box No. 63, Calcutta 1. Phone : 22-4801-8 (8 lines). Grams : "HOARMILLER."
*Branch Office :* "Readymoney Terrace", Dr. Annie Besant Road, Worli, Bombay 18. P.O. Box No. 6567. Phones : 77421–2 (2 lines), Grams : "HOARMILLER". *Manager :* L. J. Dodd. *Madras : Office :* Catholic Centre, Armenian Street, Madras 1. Phone : 2640. Grams : "HOARMILLER".

**HOECHST DYES & CHEMICALS LTD.,** Parekh Mahal, Vir Nariman Road, Churchgate, Bombay 1. Phones : 242345/46, 242453. Grams : "HOSTACHEM", Branches at Ahmedabad, Bombay, Calcutta, Madras and New Delhi.

**HOECHST PHARMACEUTICALS LTD.,** Dugal House, Backbay Reclamation, Bombay. Phones : 246191/2/3 & 245059. Grams : "HOSTAPHARM".

Hoosaini Co., Mount Road, near Hasanabad Horse Stable Compound, Mazagaon, Bombay 10.

Hoosein, M. A., & Bros., Agents and Importers of Iron & Steel and their products, Non-Ferrous Metals, Building materials, Papers, Chemicals, Exporters of Indian Cotton Piece-goods, Yarns and all sorts of merchandise. Lakshmi Building, Sir Phirozshah Mehta Road, Fort. Tel. No. 26-2166/67. Tel. Add. : "Tropicals." Branch : Calcutta.

**HOOSEINI METAL ROLLING MILL PRIVATE LTD.,** Grams : ALUBRAS. Phone : 76965, 323941. Manufacturers of Brass, Aluminium & Lead Sheets and Circles. *Factory :* Atlas Mill Compound, Reay Road, Bombay 10.

**HOOSEINBHOY A. LALLJEE SONS & CO.,** Navsari Bldg., Dadabhoy Naoroji Road, Bombay 1. Phone : 262052. Grams : "FLOWERMEAD".
*Importers of :* Dyestuffs, Chemicals, Textile Auxiliaries etc.
*Exporters of :* Vegetable Oils, Oil Seeds, Oil cakes and miscellaneous.

Hormasji Ardeshir & Co., Proprietor, Sorab H. Ardeshir, A.M.S.E. (Lond.), Architects and Surveyors, 22-D, Parsi Bazar Street, Fort, Bombay 1. Phone No. 253592.

**IBCON PRIVATE LIMITED,** Industrial and Business Consultants, *Registered Office :* Adelphi House, 119, Queen's Road, Phone : 242052/3, Grams : "IBCO".

*Branches :* 5, Russell Street, Calcutta 16. 18, Palace Road, Bangalore 1. Brady's Building, Mahatma Gandhi Road, Kanpur. 7, Sukhastan Gardens, Off Ward Place, Colombo 7, Ceylon.

*Managing Director :* R. R. Bajpai.

*Directors :* B. J. Kirpalani, J. B. Vasandani, M. C. Mitter, D. K. Basu.

*Associate Cos. :* In Pakistan, Mexico, Chile, Argentina, Brazil, United Kingdom, Burma, Iraq, Hong Kong, Chicago, New York, Boston.

*Consultancy Services for :* Development of new Industries; Market Survey and feasibility Studies; Planning for modernisation and expansion of Industries in respect of Paper, Chemicals, Rayons, Sugar, Cement, Textiles and Engineering; Building and Factory design, Supervision of Civil Engineering construction and Erection of equipment and commissioning; valuation of Buildings and machinery.

*Also*

Company organisation; Management controls, Clerical Procedures and Methods; Labour utilisation, Job classification and wage structure; Incentives, Stores organisation and control; Fuel economy and Steam utilisation; Market Research; Project feasibility studies and consumer preference Surveys; Production Planning and Control; Executive Training; Selection of Management and Technical Staff.

**IBM WORLD TRADE CORPORATION,** Electric and Electronic Punched Card data Processing machines & Electronic Computers. India Main Office: CBT Building, 4 Bahadur Shah Zafar Marg, P.O. Box 704, New Delhi 1. Phone: 277881 (10 Lines). Tel. Address: "INBUSMACH." *Delhi Branch :* CBT Building, 4 Bahadur Shah Zafar Marg, New Delhi-1. Phone: 277881 (10 Lines). *Calcutta Branch :* Mackinnon Mackenzie Building, 16, Strand Road, Calcutta 1. Phone Nos. 228135 and 225316.

*Bombay Branch :* Vulcan Insurance Building, Veer Nariman Road, P.O. Box 1071, Bombay 1. Phone: 242386 (7 Lines).

*Madras Branch :* Indian Overseas Building, 151, Mount Road, P. O. Box 2439, Madras 2.

Ideal Motors, Distributors of Jawa Motor Cycles, Cycles and Spare Parts. Service Dept. Bombay Mutual Annexe, Cawasji Patel Street, Fort, Phone: 262660 and Office: Sitaram Building, Dr. Dadabhoy Naoroji Road, Bombay 1. Phone: 263485. Grams: "IDEALMOTOR."

IMANES BOMBAY

SPRINGS & FORMS

By

IMANES

BOMBAY-56(AS).

P.O.B. 8002. Tel. 571634. Gram. "Bellibone"

**IDEAL WRAPPERS PRIVATE LTD.,** Manufacturers of Himalaya Drinking Straws; Paper Converters, Waterproof Kraft Paper, Waxed Paper and other Laminated Papers. Advani Chambers, Sir P. M. Road. Fort, Bombay; Phones: 261061 & 2 (Office) and 591444 (Factory). Grams: "LAMINATED"

**I.C.I (INDIA) PRIVATE LIMITED.** Suppliers of Dyestuffs and Auxiliary Products; Plastics, all types, including "Alkathene" brand polythene, "Alkathene" Pipe and Film; Paints and Pretreatment Chemicals, Heat Treatment Furnaces and Salts; Metal Degreasing Plants and Trichloroethylene; Wrought non-ferrous Metals and Alloys; Rubber Chemicals Colours and Fillers; 'Butakon' highstyrene Co-polymers; nitrile Rubbers and Latices; Polyurethane Chemicals; Refrigerant Gases; Water Treatment Chemicals; Alkalis; Mineral and Organic Acids; Silicones; Emulsifying Agents; Fertilizers; Agricultural Chemicals; Insecticides; Fungicides; Weedkillers; Pharmaceutical Ethical Products; Veterinary Products; Explosives; Safety Fuses and Detonators.

*Head Office for India :*

34, Chowringhee, Calcutta-16.

Telegraphic Address: "IMPKEMIX", Calcutta.

G.P.O. Box No. 182, Calcutta-1.

Phone: No. 23-2391 (15 lines).

Technical Service Laboratory, Tiljala, Calcutta-46. Telephone: 44-6221 (4 lines).

*Head Office for Dyes :*

'Crescent House', 19 Wittet Road. P.O. Box No. 287, Ballard Estate, Bombay 1.

Telegrams: "ICIDYES" Bombay.

Telephone: 268051 (14 lines).

Technical Service Laboratory (Dyes).

Fosbery Road, Sewri, Bombay.

Telephone No. 73691.

*Branches :*

* Calcutta—P.O. Box 334. Phone No. 22-2361 (15 lines).

*Bombay Regional Office :*

Telegrams: "ALKALI", Bombay—

P.O. Box No. 310. Telephone: 268051 (14 lines).

* Madras—P.O. Box 130. Phone No. 29351 (5 lines).

Delhi—P.O. Box 107, New Delhi. Phone No. 43154 (4 lines).

*Telegram :* "IMPKEMIX", DELHI.

* *Telegraphic Address :* "ALKALI".

**ILFORD SELO (INDIA) PRIVATE LTD.,** *Registered Office :* Cooks Building, Dr. Dadabhoy Naoroji Road, Bombay 1. Sole Agents and Distributors: ILFORD Photographic and X-ray Materials, Cameras & Accessories. Phone No. 251284. Tel. Address: "BROMIDE." *Branches :* Calcutta and Madras.

Imperial Surgical Co. Private Ltd., "India House", opp. G.P.O., Fort, Bombay.

**IMPERIAL TOBACCO CO. OF INDIA LTD., THE,** Factory Address: P.O. Box No. 6002, Parel, Bombay 12-DD. Phone No. 62521 (3 lines). Tel. Address: "BACCYMAKE. (PL) Bombay."

Independent India Motor Co., Auto Parts Specialists. 417-B, Vithalbhai Patel Road, Bombay 4.

Indequip Private Ltd., Maneckjee Wadia Bldg., 127, Mahatma Gandhi Road, Fort, Bombay 1.

**INDIA CROWN CORK CO. LTD.,** (Wholly owned subsidiary of Larsen & Toubro Limited). *Registered Office :* I. C. House, Dougall Road, Ballard Estate, Bombay 1. Telephone: 264411/9. Grams: "LARSENBRO," Telex: TLX. 246. Factory: Saki Vihar Road, Powai, Bombay 70. Telephone: 581501/10.

*Managing Agents :* L & T (Management) Private Ltd.

Manufacturers of Crown Corks.

*Directors :* H. Holck-Larsen, S. K. Toubro, N. M. Desai, P. G. Bhagat, Gunnar Hansen.

*Selling Agents :* Larsen & Toubro Limited, P.O. Box 278, Bombay 1. Phone: 264411/9. Grams: Telex: TLX. 246. Grams: "LARSENBRO."

*Sales Office :* 41, Koliwada Road, Sion East, Bombay 22. Phone: 472575/6.

India Electro Traders, Stockists of & dealers in everything electrical. 151, Princess Street, Bombay-2.

India Machinery Stores, Dealers in Machinery, Flourgrinding Mills, etc., 163, Nagdevi Cross Lane, Bombay 3.

**INDIA METAL AGENCIES,** Importers & Manufacturers' Representatives, India House, Opp. G.P.O., P. Box 1966, Bombay 1. Telephones: 265456, 261978. Grams: 'WIDEEYE'.

*Agents for :—*

Thomas Bolton & Sons Ltd. (London, England). Brass & Copper Rods, Tubes, Sheets, Strips, Sections, Phos. Bronze Rods, Wire, Sheets, Copper Printing Rollers, etc.

The Bergius Kelvin Co., Ltd., Glasgow for Kelvin Marine Diesel and Petrol Kerosene Engines.

*Agents for Western India :*

The Bergius-Kelvin Co. Ltd., Glasgow, Kelvin Marine Diesel & Petrol Kerosene Engines.

GPIF Indian Make Water Meter ¾", 1", 1" (Agent in Andhra Pradesh).

Bengal Potteries Ltd., Calcutta for H.T. & L.T. Insulators.

Strojexport, Praha. (Czechoslovakia) (For Western & Central India). Fork Lift Trucks Diesel & Gasoline operated Trucks, Conveyors, Electrical Hoists, Mechanical and Hydraulic Jacks, Chain Pulley Blocks.

Outboard Marine International, S. A., Nassau (Bahamas). "EVINRUDE", Outboard Motors.

Balkanear, Sofia (Bulgaria). Battery operated Forklift Trucks.

Electroimpex, Sofia (Bulgaria). Electric Measuring Instruments and Electric Hoists.

We also supply Brass Sugar Tubes, Cables, Wire Ropes. Stone Crushers, Electric Hoists, Forklift Trucks, etc.

India Raw Products Supply Co., 65, Alli Chambers, Tamarind Lane, Fort, Bombay.

**INDIA TUBE MILLS & METAL INDUSTRIES PRIVATE LTD.,** Agra Road, Vikhroli, Bombay 83. Phone: 581541 & 581542, 581951. Grams: "TUBEMILL". Specialists in Tank Fabrications and Erection, Pressure Vessels, Laying of Oil Pipes Lines and Manufacturers of Bright Bars free Cutting and Commercial Quality. Gram: "INDCOM". Phone: 254248/256023. Sole Selling Agents for Polychem Ltd.

**INDIAN ALUMINIUM COMPANY LIMITED.**

*Bombay Office :* Engineering Centre, 4th Floor, 9, Mathew Road, Bombay 4.

Telephone: 38377.

Telegram : "INDALUMIN".

*Head Office :* 1, Middeton Street, Calcutta 16.

*Branches :* Bangalore, Bombay, Calcutta and Delhi.

*Products :* Alumina Hydrate, Calcined Alumina ; Aluminium Ingots ; Sheets, Strips, Coils, Circles, Slugs, Corrugated Sheet, Chequered Plate, Extruded Sections, Frameless Houses, Grain Bins ; Aluminium paste and powder, Carbon paste, Aluminium Foil.

**INDIAN CABLE COMPANY LIMITED, THE,** Cable Manufacturers, Electrical Engineers and Contractors. Representatives in India for British Insulated Callender's Cables Ltd.

*Bombay Office :* Esplanade House, Waudby Road, Fort, Bombay 1.

*Head Office :* 9, Hare Street, Calcutta-1.

*Factory :* Tatanagar, South Eastern Railway.

**INDIAN CASABLANCAS HIGH DRAFT CO., PRIVATE LTD., THE,** Registered Office : Maneckji Wadia Building, Mahatma Gandhi Road, Fort, Bombay 1. Telephones : 255026/7 and 75056. Grams : "INCASA." Patentees and Manufacturers of the Casablancas System of High Drafting for Cotton Spinning, "Casavon" Cots & Bands, Constant Card Stripping Apparatus and Hunt Let-Off Motion, TAPER BOARD MACHINE for India, Burma and Ceylon.

**INDIAN CATHODIC PROTECTION CO. PRIVATE LTD.,** Corrosion Engineers. Maneckji Wadia Building, 127, Mahatma Gandhi Road, Fort, Bombay 1.

*Chairman :* A. M. Kapadia.

Tel. Nos. : 255601-2-3-4.

Telegrams : "CATHOPROT".

**INDIAN COMMERCIAL CO., PRIVATE LTD.,** 45/47, Apollo Street, Fort, Bombay. Gram : "INDCOM". Phone : 254248/256023. Sole Selling Agents for Polychem Ltd.

*Exporters :* Cotton, Cotton Textiles, Oilseeds, Oilcakes, PVC Leather Cloth, etc.

*Importers :* Chemicals, Diesel oil Engine Spare Parts. Representatives in India for Dow Chemical International Inc., U.S.A.

**Indian Durries Emporium, Carpets, Durries & Coir Mats Dealers, 64, Mahomedali Road, Bombay 3.**

**INDIAN DYESTUFF INDUSTRIES LTD.,** Manufacturers of "Navinon Vat Dyes", and intermediates, Mafatlal House, Backbay Reclamation, Bombay 1. Phone : 246281-88(8 lines).Grams: "HITSAGAR". *Factory at :* Shahad, near Kalyan (Thana Dist.).

*Managing Agents :* Messrs. Mafatlal Gagalbhai & Sons.

**Indian Electric Stores, Electrical Goods, Maskati Mahal, Lohar Chawl, Bombay 2. Phone No. 31613.**

**INDIAN ENGINEERING CO.,** Worli Naka, Post Box 16551, Bombay 18. Phone : 73490, Grams : "AMPVOLT(JC)" Manufacturers & Dealers of Electrical Equipment, Components and raw materials for the Electrical Industry. Also at Calcutta, New Delhi and Madras.

**INDIAN EXPANDED METALS, PRIVATE LTD., THE,** Manufacturers of Steel, Brass, Copper & Aluminium Expanded metal of all sizes and meshes.

*Chairman :* A. M. Kapadia.

*Works Manager :* I. N. Bhagat.

*Works :*—Fort Road, Wadala, Bombay 31. Phone : 62741-2.

*Office :*—Maneckji Wadia Bldg., 127, Mahatma Gandhi Road, Fort, Bombay 1. Phones : 255601-2-3. Grams : "EXPEEYAM".

**INDIAN FURNACE CO., PRIVATE LTD.** (Formerly Indian-Wild-Barfield Co. Pvt. Ltd.), Lotus Cinema Building, Dr. Annie Beasant Road, Worli, Bombay 18. Branch Office : 27/29, Brabourne Road, Calcutta 1. Furnace Manufacturers, Suppliers of : "WILD-BARFIELD" and "G.W.B." Electric Furnaces ; "THERMIC" Fuel Fired Furnaces ; "FOSTER" Pyrometers ; "GRAFTON" Electric Lehrs and Pottery Kilns ; Blythe Ceramic and Enamel Colours ; G. L. C. Graphite Electrodes for arc furnaces and anodes for caustic soda cells and other Heat treatment Shop Supplies ; "CASSEL" Heat treatment salts ; "SHELL-WILDBARFIELD" Quenching Oils. Manufacturers of "IFCO" Thermic Fuel Fired furnaces, "IFCO" Electric Furnaces. "ETERNITE" Carburizing Compounds, "Carbodrip" Gas Carburizing Fluid and "FOSTER" Thermo Couples. Phone : 74687. Grams : "ELECFURN".

**INDIAN HOTELS CO., LTD.,** Bombay House, 24, Bruce Street, Fort, Bombay 1. Taj Mahal Hotel, Green's Hotel.

Directors :—

Sir Homi Mody, (*Chairman*).
J. R. D Tata.
N. H Tata
J. D. Choksi.
T. V. Baddeley.
D. R. D. Tata.
K. C. Rakhle.
L. Sawhny.
J. J. Bhabha.

Secretaries & Treasurers : Tata Industries Private Ltd.

Director-in-Charge : L. Sawhny.

Manager : B. D. Cotval.

Tel. Address : "INHOTELS."

Phone No. 219101.

**THE INDIAN HUME PIPE CO. LTD.** are the largest manufacturers in India of R.C.C. Pipes known as "Hume Pipes", allied products, Prestressed concrete pipes, Hume steel pipes, Steel penstocks for Hydro-Electric Projects, R.C.C. Poles, Prestressed concrete poles, Welding fluxes Welding electrodes etc.

Hume Pipes are very extensively used for Water Supply, Sewage, Drainage, Irrigation, Culverts, Well sinking etc. Concrete half-rounds and one-third round channels, R.C.C. Septic tanks, Telephone cabins, dust bins, Cattle troughs, Fencing posts, Latrines, Policeman Cabins, Pillars are the allied Products made out of Hume Pipes. For High Pressure Mains required for water supply, the Company manufactures steel pipes, lined and outcoated with concrete, popularly known as "Hume Steel Pipes" which outmode alternative materials for Water Supply Schemes. The Company also manufactures Prestressed Concrete Pipes by Rocla method, designed to stand pressure of 60 lbs. P. S. I. and above. These are found economical.

During the World War II, the Company pioneered manufacture of Welded Steel Pipes—Penstock pipes—for Hydro Electric Projects. Penstocks manufactured by the Company have been used in such important Projects as the Papanasam Hydro Electric Schemes Madras, Mahatma Gandhi Hydro Electric Projects Mysore, The Moyar Hydro Electric Scheme, Madras, Rihand Hydro Electric Projects U.P., Koyna Hydro Electric Project (Maharashtra State) and 1st Stage of Sharavathi Valley Hydro Electric Project (Mysore State) which the Company have recently executed successfully. Company's Penstock factory at Hadapsar (Poona) is fully equipped with the latest machinery to cater the increasing needs of Penstocks for coming Hydro Electric Projects in the country.

Prestressed Concrete Poles for Transmission lines manufactured by the Company have very advantageously replaced the Steel Tubular Poles for both High tension and Low tension lines. Also R.C.C. Poles manufactured by the Co. are largely used as Lamp Posts in all the cities.

The Company has a large network of about 60 factories spread over India and Ceylon with its Registered office at Construction House, Ballard Estate, Bombay 1. Telephone No. 268091 (13 lines). Tel. Address : "HUMEPIPE", Bombay.

**INDIAN INDUSTRIAL ENGINEERS,** Electrical Engineers, Importers and Stockists of Electrical Measuring Instruments, 43, Tamarind Lane, Fort, Bombay 1. Phones : 254972 (Office) and 241469 (Res.) Grams : "NEWLIGHT."

*Proprietor :* B. A. Mehta, B.Sc. (Eng.), M.I.E.

*Manager :* I. P. Gupta, M.A., B.Com., LL.B.

**INDIAN IRON & STEEL CO., LTD., THE,** Esplanade House, Waudby Road, Post Box 922, Bombay 1 BR. Phone : 26-6115. Gram : "INISCOBOM". Branch Manager : Col. G. C. Dubey. Martin Burn Ltd. 12, Mission Row, Calcutta 1.

# INDIAN PLASTICS LIMITED

KANDIVLI, BOMBAY 67

*Telegram :*
"PLASTICS" KANDIVLI

*Telephone Nos. :*
661241-42-43

*Directors :* Sarvashri L. N. Birla, H. P. Barat, N. T. Shah, B. D. Sharma, B. N. Ray Chowdhury.

*The Company, one of the largest of its kind in Asia, operates three active manufacturing Divisions, as under :*

**PLASTICS DIVISION :** Injection and Compression moulding of various industrial items and manufactures of Perspex novelties.

**RADIO DIVISION :** Manufacture of well-known SHARP-JHANKAR Radios, in collaboration with the world-famous Japanese manufacturers Messrs. Hayakawa Electric Co. Ltd., Osaka, Japan.

**CHEMICAL DIVISION :** Manufacture of 'FLORITE' Phenolic, Urea and Melamine Moulding Powders and Resins, in collaboration with the well-known German firm. Messrs. Bakelite Gesellschaft M.B.H. Letmathe, W. Germany.

# INDIAN OXYGEN

## LIMITED

GHATKOPAR (BOMBAY-AGRA ROAD), BOMBAY-77-AS.

**Manufacturers of :—**

Industrial Oxygen (Compressed and liquid), Medical Oxygen, High Flying Oxygen, Industrial and Marine Dissolved Acetylene, Industrial and Dry Compressed Air, Industrial and Dry Nitrogen, Argon, Hydrogen, Nitrous Oxide, Electric Arc Welding Electrodes, Gas Welding Fluxes, Oxy-Acetylene Welding and Cutting Equipment and Accessories, Gas Anaesthetic Apparatus and Oxygen Therapy Equipment and Liquid Oxygen Explosives.

**Suppliers of :—**

The above mentioned items and Automatic Arc Welding Equipment, Metal Spraying Equipment and Wires, Helium, Neon and other rare gases.

Distributors of "Burshane" for industrial uses.

**Registered Office :**—48-1, Diamond Harbour Road, Calcutta 27.

**Managing Director :**—A. K. Sen.

**Bombay Office & Works :**—Ghatkopar (Central Railway), Bombay-77-AS.

*Telegrams :*—"INDOXCO", Ghatkopar.

*Phone Nos. :* 55241 (7 lines), 55180, 55382 & 55340.

**Bombay City Depot :**—Arched Bungalow Road, Off Reay Road, P.O. Tank Road, Bombay-33-DD.

*Phone Nos.* 75311 and 75312.

*Bombay Goregaon Depot :*—1-A, Menon Industrial Estate, 504-E, Swami Vivekanand Road, Goregaon, Bombay-62-NB. Phone : 692967.

**District Manager :**—L. M. Pasricha.

**Bombay Works :—**

Production and compression of Oxygen, Production of Dissolved Acetylene, Nitrogen and Nitrous Oxide.

**Other Branches :**—Ahmedabad, Asansol, Bangalore, Calcutta, Delhi, Gauhati Hyderabad, Jamshedpur, Kanpur, Madras and Visakhapatnam.

*Sales Depots :*—Ahmedabad City, Amritsar, Bangalore City, Barauni, Baroda, Beromo*, Bhurkunda*, Birmitrapur*, Barsua*, Bolani*, Bhavnagar, Coimbatore, Cochin, Cuttack, Delhi City, Gauhati, Gua*, Gidi*, Gaziabad, Goregaon, Howrah, Hubli, Hyderabad, Jaipur, Jullundur, Joda,* Khardah, Kathara*, Kiriburu*, Kolhapur, Lohardaga*, Madurai, Nagpur, Nasik, Noamundi*, Patna, Pimpri, Poona, Puranapani*, Rajkot, Ranchi, Rourkela, Surat, Salem, Siliguri, Tiruchirapalli and Vijayawada.

* L.O.X. Depot.

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IPCA Laboratories Ltd., Manufacturers of Pharmaceutical & Biological Products. 95, Morland Road, Byculla, Bombay 8. Phone : 78208. Grams : "IPCAPHARM."

Indian Rare Earths Ltd., Manufacturers of rare earths and Thorium/Cerium nitrates, Army & Navy Building, 148, Mahatma Gandhi Road, Fort, Bombay. Phone: 255544/45. Gram : "RAREARTH".

**THE INDIAN SMELTING & REFINING CO. LTD. THE**

*Regd. Office :* Industry House, 159, Churchgate Reclamation, Bombay-1.

Tel. No. 246261.

Cable : 'ISARC', Bombay.

Double Hammer Brand.

Registered Trade Mark.

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Brazing Solders & Tin Solders.
Fine Zinc Die Casting Alloys—'ISMAK-3'.
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**INDIAN STANDARD METAL CO., LTD., THE,** I. S. M. Estate, Chinchpokli Cross Lane, Bombay 27. Phone Nos. 42205 and 75018. Tel. Address : "ISMETCO."

**REGISTERED TRADE MARK**

Metal Smelters, Refiners and Founders.

*Manufacturers of :—*

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Metallurgical and Foundry Engineers.

*Board of Directors :*

J. D. Choksi (*Chairman*), A. A. Jasdenvala, D. M. Ghia, S. K. Handoo.

*Works Manager :* F. A. A. Jasdanwalla.

*Secretaries & Treasurers :* The Investment Corporation of India Ltd.

# INDIAN TEXTILES CO. PRIVATE LTD.

Manufacturers & Exporters of Handwoven Sarees, Brocades, Silks, Raw Silks, Cottons, Prints, Woollens, Embroideries, etc.

Bombay Office : Taj Mahal Hotel, Bombay 1. Phone : 211771. Grams : "HANDICRAFT".

*Head Office :* Varanasi (U.P.). Phone : 3087. Grams : "TEXTILES".

*Branches :* Great Eastern Hotel, Calcutta. Phone : 231543, and Grand Hotel, Calcutta, Grams : "Artwares". 13N, Connaught Circus, New Delhi. Phone : 46418. Grams : "Handwoven," Hotel Clarks, Shiraz, Agra. Grams : "Silkemp".

**INDIAN TEXTILE ENGINEERS PRIVATE LTD.,** Stadium House, 81/83, Veer Nariman Road, Bombay. Phone : 246238/9. Grams : "INTEXTILE". Importers of U.K. Textile machinery for Spinning and Doubling Cotton, Cotton waste, woollen & worsted yarns.

# THE INDIAN TEXTILE JOURNAL

**THE INDIAN TEXTILE JOURNAL PRIVATE LTD.,** Registered Office : "Surya Mahal", Military Square, Fort. Proprietors and Publishers of "The Indian Textile Journal," a representative monthly publication for the Textile Engineering and Electrical Industries of South Asia. Founded in 1890 by the late Mr. Sorabji M. Rutnagur.

*Directors.*—Neville N. Wadia, J.P. (*Chairman*), Jal H. Mehta, Nityanand M. Wagle, Jimmy M. Mehta, and Jal S. Rutnagur (*Managing Director*)

Tel. Address : "Journal."

Phone No. 252943.

# INDIAN TOOL MANUFACTURERS LTD., THE

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REGISTERED TRADE MARK

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**INDIAN TRADE & GENERAL INSURANCE CO., LTD.,** Business Transacted : Fire, Marine, Motor and Miscellaneous. Principal Office : Jehangir Building, Mahatma Gandhi Road, Fort, Phone : 255101 (5 lines). Grams : "ADASTRA". Regd. Office : 25, Brabourne Road, Calcutta 1.

**INDIAN TUBE COMPANY LTD.**

A Tata-Stewarts and Lloyds Enterprise.

18 Fosbery Road, Tank Road Post Office

Bombay 33

Grams : "ITEECEE".

Sales and Warehouse Office.

*Manufacturers of :—*
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*Head Office & Registered Office :—*
41, Chowringhee Road, Calcutta 16.

*Sales Offices and Warehouses :—*
*Calcutta :* Transport Depot Road, Calcutta 27.

*Delhi :* Lok Kalyan Bhawan, 11-A, Rouse Avenue Lane, New Delhi-1.

*Madras :* The Indian Overseas Bank Bldg., 151, Mount Road, Madras 2.

*Ahmedabad :* G. P. O. Box No. 308, Lakhia Bros. Premises, Lal Darwaja, Ahmedabad.

*Works :* Jamshedpur, Bihar.

**INDIAN VEGETABLE PRODUCTS LIMITED,** Manufacturers of Refined Oil, & Hydrogenated Vegetable Oils Epoxy Plasticizers, Organic Esters and Peroxides.

*Directors :* F. H. Kemple, Esq. (*Ex-officio*); Mathuradas Devidas Madhowji, Esq.; K. M. Antia, Esq.; Prahlad C. Mehta, Esq.; Russi Jal Taraporevala, Esq.; P. A. Narielwala, Esq.

*Factory :* Arched Bungalow Road, Ghorupdeo, Bombay 33.

*Telegraphic Address :* "YESTERMORN".

*Factory Telephone Nos. :* 42094/5.

*Office Telephone No. :* 268081 (10 lines).

**INDMAG PRIVATE LIMITED** Regd. *Office :* "Corinthian", 17, Arthu Bunder. Road, Colaba, Bombay 5. Phon : 213591 and 213596. Grams : "EYESENSTAL".

*Branches :* Calcutta : 2, Brabourne Road, 6th Floor, Calcutta 1; New Delhi: United Commercial Bank Building, Parliament Street, New Delhi; Madras : 177/179, 2nd Floor, Mount Road, Madras 2.

Representatives for Mysore State: Messrs. Industrial Agencies,11, Hardinge Road, Bangalore 4. Gujarat State : Messrs. Bharat Traders, Chippa Pole, Ahmedabad 1.

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Indo-Auto Traders, Stockists of Ball-bearings. 524, Sandhurst Road, Bombay 4.

**INDO-BRITISH TRADING BUREAU (Estd. 1917),** Direct Importers and Stockists of Mill & Handloom Stores, 7-10, Horniman Circle, Fort, Bombay. Phone No. 252778. Tel. Address : "Millocraft."

Indo-Europa Trading Co., Estd. 1926, Importers Exporters & Printers' Complete Furnishers. 9, Dalal Street, Fort, Bombay.

*Sole Agents for :* Cundall Folding Machine Co. Ltd., England; Fishburn Printing Ink Co., Ltd., England; VEB Druck-Machinwork Welpzig, Germany; Baptist Bacher, Germany; August Form, Maschimfabrik Deipzig,Germany; Reiss & Schirmer, Hamburg, Germany; Prakma Machinenfabrik a. m. b. H., Berlin, Germany; VEB Kartonagenmaschinenwerk KAMA, Germany; W. Rasplicka, Berlin, Germany; Constuzioni Meccanichi Wingi & Ing. Giarmi Mandelli, Monza, Italy.

Indo-European Trading Agencies, 4th Floor, Behramji Mansion, Sir Phirozshah Mehta Road, Fort, P.O. Box 1344, Bombay. Phone: 262664. Grams: "MUSKETEERS." Specialists in Thermostats and Heating Elements and Domestic Refrigeration Spare Parts.

**INDO-FOREIGN TRADE SERVICE,** Commercial Representatives & Debt collectors, 505, Kalbadevi Road, opp. Edward Cinema, Bombay 2. Phone No. 22848. Tel. Address: "Busitrade," Bombay 2.

Indo-International Commercial Corpn., Private Ltd., Manufacturers' Representatives, Crescent Chambers, Tamarind Lane, Bombay 1.

Indo-Pharma Pharmaceutical Works Private Ltd., Manufacturing Chemists (Pharmaceuticals), Kohinoor Road, Dadar, Bombay 14.

**INDOKEM PRIVATE LTD.,** 221, Dadabhoy Naoroji Road, Bombay 1; P.O. Box 832. Telegraphic Address : "Indokem". Phones : 265151/5.

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Ramniwas Ramnarain.
Ratansey Mulji.
C. Rai.

*Distributors :—*
Dyes, Chemicals, Pigments, Synthetic Resins, Textile auxiliaries, Methols and Adhesives manufactured by Badische Anilin & Soda Fabrik AG., Ludwigshafen (W. Germany); Cassella Farbwerke Mainkur AG., Frankfurt (Main)—Fechenheim (W. Germany); Indian Dyestuff Industries Ltd., Bombay; Colour-Chem Limited Bombay; Aniline. Dyestuffs & Pharmaceuticals (P) Ltd., Bombay; Cellulose Products of India Ltd., Ahmedabad; Dai-ichi Karkaria Private Ltd., Bombay; Bhavana Chemicals Ltd., Baroda; Duro Metochem Private Ltd., Bombay.

**INDOPLAST LIMITED,** Kasturi Buildings, Jamshedji Tata Road, Bombay-1. BR. Manufacturers of Thermocole, the expanded (foam) polystyrene insulation material, ideal for low temperature insulation. INDOPLAST LIMITED also manufacture STYROPOR, the well known expandable polystyrene beads, in Collaboration with Messrs. Badische Anilin & Soda-Fabrik AG of Ludwigshafen, West Germany. Phone : 38071. Grams : "STYROPOR". Post Bag No. 10076.

**INDUS ENGINEERING COMPANY,** *Office & Works :* Opp. Worli D.D. Chawl, No. 114, Bombay 13. Fabricators of Chemical & Pharmaceutical Plant Equipments such as Heat exchangers, Condensers, Reaction vessels, Jacketed vessels, Autoclaves, Pressure vessels, etc. in Stainless steel and Mild Steel construction, Storage Tanks & Structural Fabrication. Phone : 40342. Grams : "INDUSINDH". DeLisle Road, Bombay 13.

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**Industrial & Agricultural Engineering Co. (Bombay) PRIVATE Ltd.**

43, Forbes Street, Fort, Bombay 1.

Importers, Manufacturers' Representatives and Stockists of Electrical Machinery, Switch Gear, Machine Tools, Ventilating Plants, etc. *Branch and Associated Offices at :*—Delhi, Madras, Bangalore, Hyderabad and Calcutta.

Phone Nos. : 251440, 254173, 256593
Grams : "AGRICOLA."

**INDUSTRIAL AIR CONTROL (INDIA) PRIVATE LTD.,** Karimjee House, 2nd Floor, 59, Sir Phirozshah Mehta Road, Fort, Bombay. Phone No. 262475. Grams: "Coolair." Specialists in all Air handling Equipments, Textile Dust and Fume Removal and Oil Spraying.

**INDUSTRIAL ENGINEERING COMPANY,** Direct Importers of Tool, Alloy and Special Steels, Stainless Steel Bars, Tubes, Sheets, Wires and Manufacturers of Mild Steel Commercial & Free cutting Bars. 45, Apollo Street, Fort, Bombay 1. Phones : 254072 and 325156. Grams: "CALLING".

Industrial Electrical Engineering Co., 10, Hamam Street, Fort, Bombay 1. Phone No. 252836. Specialists in Insulating Materials and Armature Wires, *e.g.*, Bakelite, Fibre, Ebonite, Empire Cloth, Tapes, Cotton Tapes, etc. and Enamelled Copper, D.C.C., S.C. Enamelled and high Resistance Wires.

**INDUSTRIAL GASES LTD., THE,** Bombay. Grams : "INDUSGASES." Head Office: P. O. Box 853. Calcutta-1. For Industrial Gases, Gauges - Pressure - Vacuum, Welding Transformers and Cutting apparatus, Measuring and Testing Equipment, Welding and Cutting Accessories Acetylene Generators, Welding Rods & Electrodes, Wox Explosives & Fuses, Power Generation and Transmission Equipment, Haulage Equipment, Complete Plants for Manufacture of Gases, Colliery Equipment, Compressors, Welding & Cutting Machines, Electroplating and Battery Chargers, Metallizing & Sandblasting, Oxygen & X-Ray Therapy Equipment.

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**INTER-MISSION BUSINESS OFFICE,** Financial Headquarters, American Missionary Societies, 364, Dr. Dadabhai Naoroji Road.

International Ball Bearing Corporation, Dealers in Balls, Rollers & Thrust Bearings for Industrial & Automobile purposes, 151, Mutton Street, Bombay-3. Phone: 331899. Grams: "ATOZROLLER", Mandvi, Bombay (BR).

International Book House Ltd., Booksellers & Publishers, 9, Ash Lane, Mahatma Gandhi Road.

International Cotton Corporation Private Ltd., Cotton Merchants, Importers and Exporters. Indian Globe Chambers, Fort Street, Bori Bunder, Bombay 1. Phones: 262966 & 262594. Grams: "INTERCOTCO".

I·C·T

**INTERNATIONAL COMPUTERS AND TABULATORS (INDIA) PRIVATE LIMITED,** Electronic Data Processing Equipment. *Head Office :* Magnet House, Dougall Road, Ballard Estate, P.O. Box 516, Bombay 1. Telephone Nos. 262091-263264. *Directors :* Mr. Ramnivas R. Ruia (*Chairman*); Mr. Murarji J. Vaidya (*Deputy Chairman*) : Mr. S. P. Godrej ; *Managing Director ;* Mr. A. M. Richford ; *Sales Director :* Mr. J. S. Bedwell ; *Secretary and Financial Adviser :* Mr. L. C. Mehta ; *Field Maintenance Manager :* Mr. M. Vincett.

*Western Zone Office (Sales), Bombay ;* Liberty Building, New Marine Lines. P.O. Box 516. Telephone: 243509, *Manager,* Mr. P. C. Ramaswamy ; *Maintenance Manager :* Mr. J. R. Albuquerque.

*Accounts Department :* Fazalbhoy Building, Mahatma Gandhi Road, P.O. Box 516, Bombay 1. Telephone: 252243. *Chief Accountant :* Mr. M. N. Bhagvat.

*Card Works :* 3, Jackeria Bunder Road, Cotton Green, Bombay. *Manager :* Mr. D. D. Karnik.

*Also Zone Offices at :* Calcutta, Delhi and Madras.

*District Offices at :* Ahmedabad, Bangalore, Jamshedpur, Lucknow, Poona.

*Telegraphic Address :* "TABULORIAL." Bombay.

**International Dental Co., Direct Importers of Dental Goods, Davar House, 199, Hornby Road, Fort, Bombay 1. Phone: 262829. Grams: "Acrylic."**

International Electric Trading Co., The, Importers & Dealers in Everything Electrical, Devkaran Mansion, 63, Princess Street, Bombay 2. Phone: 20613. Grams: "Interlite", Bombay 2.

**INTERNATIONAL GENERAL ELECTRIC CO. (INDIA) PRIVATE LTD.,** Thackersey House, Graham Road, Ballard Estate, P.O. Box 992, Bombay 1. Phone: No. 26-3833. Cable: 'INGENETRIC' (all Offices). *Branches :* Calcutta, Madras, New Delhi. Ahmedabad, Bangalore, Lucknow. *Mg. Dir. :* Mr. J. W. Whiteside; Lucknow. *Managing Director :* Mr. J. W. Whiteside ; *Deputy Managing Director :* Mr. R. E. Kask ; *Manager—Finance :* Mr. C. L. Bohm. Representing General Electric Co., U.S.A., Manufacturers of electrical machinery, apparatus, electric and diesel-electric locomotives, refrigerators, air conditioners, domestic appliances, lamp and lighting fixures, X-Ray and elctro-medical equipment. Distributors in India for Compagnia Generale di Elettricita, Italy ; Atomic Energy Commission of Canada ; Fritz Hoffmann of Germany and Smit Rontgen of Holland (X-Ray equipment).

International Lubricants Private Ltd., Importers of Lubricating Oils & Petroleum Products. Court House. Dhobi Talao, Bombay 2.

International Research Laboratories, Manufacturers of Coal Tar Dyes, 349, Vadgadi, Bombay 3. Grams: 'INTRALABS.'

International Structural Engineering Works Private Ltd., Structural Engineers & Contractors, Mansukh Nivas, 2nd Floor, 188, Khetwadi Back Road, Bombay 4. Grams: "STEELFRAME". Phone: 76389.

**INVESTA INDUSTRIAL CORPORATION LIMITED,** Ewart House, Bruce Street, Fort, Bombay 1.

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Sir Chunilal V. Mehta, K.C.S.I.
M. R. Chinoy.
R. D. Choksi.
K. C. Bakhle.

*Secretary.*—P. B. Poonjlaji.

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**INVESTA MACHINE TOOLS & ENGINEERING CO., LTD.,** Ewart House, Bruce Street, Fort.

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Precision Machine Tools, such as all geared headstock Lathes, All geared Pillar, and Radial Drills and heavy grey iron and alloy castings for Diesel Engines and Locomotive Components.

*Secretaries & Treasurers :—*
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*Directors :—*
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Sir Chunilal B. Mehta.
A. A. Jasdenvala.
T. V. Baddeley, C.B.E.
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S. K. Handoo.
R. N. Mafatlal.
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*Chief Executive Officer :* R. H. Colah.

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*Works :*—Pais Street, Clark Road, Byculla, Bombay 11. Phone: 42004/5. Grams: "VESTATOOLS".

*New Works :* At and Post Chinchwad, Dist. Poona. Phone: 88211.

J. V. Pandit (*Manager*).
J. Mathews (*Works Manager*).

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*Directors :—*
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J. D. Choksi (*Vice-Chairman*).
A. D. Shroff.
Sir Chunilal B. Mehta.
N. H. Tata.
C. H. Bhabha.
Pratap Bhogilal.
B. M. Ghia.
A. B. Bilimoria (*Manager-Investments*).
J. N. Patuck (*Secretary*).
R. H. Colah (*Assistant Secretary and Accountant*).

Tel. Address: "Vescor." Phone Nos. 251612 & 251911.

**IRONITE COMPANY OF INDIA LTD.,** 43, Forbes Street, Fort, Bombay 1. Phone: 255756-57. Manufacturers of "Ironite" floor Hardner and Waterproofer and "Irongrout" Non-Shrinking grouting material.

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Ishwardas & Co., Mfrs., dealers and Exporters of all kinds of sewing embroidery and glazed threads. 2, Sutar Chawl, Bombay 2. Phones: Office: 323641 Res.: 38786. Grams: "BADMINTON". Sole Agents for the Raghuvanshi Mills Ltd., for Sewing, Embroidery & Glazed Threads.

Issak Bros., Transport Agents & Contractors, Poona Street, Dana Bunder, Bombay 9.

**ITALINDIA COTTON CO. PRIVATE LTD.** (Estd. 1922). Exporters of Piecegoods, Yarns, Seeds and Importers of Egyptian, American, Sudan and African Cotton, Pime Cotton, Staple Fibre, Art Silk and Silk Yarn. Indian Globe Chambers, Fort Street, Fort, Bombay 1. Phone: 26-2629. Tel. Address: "Artbonesch."

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15, Shree Ram Market, Bombay 3.
Phone: 322752. Grams: "JAMKEM".

**Jacks & Company Ltd., William,** Manufacturers' Distributors, Engineers and General Merchants, "Hamilton House", Graham Road, Ballard Estate, P.O. Box No. 335, Bombay.

**JAFFERBHAI & CO.,** Motor Body Building Material Merchants. 106, Bhendi Bazar, Bombay 3. Phone: 333324. Grams: "NECESSITY".

**Jafferjee Hussanally & Sons,** Sanitary Goods, 259, Nagdevi Street, Bombay 3.

**Jagjivandas Nandalal & Co.,** Wholesale Stationers and Manufacturers, 237, Abdul Rehman Street, Bombay 3.

**Jagtiani Bros.,** Importers and Stockists of Electrical Goods, 53, Podar Chambers, Parsi Bazar Street, Fort.

**JAI DAYAL KAPUR** (Distributors for Shree Gopal Paper Mills Ltd., Jagadhari), and Baharpur Paper & Straw Board Mills Ltd., 31, Sutar Chawl, Bombay 2. Phone: 325667 and 328161. Grams: "JAIKAPSO".

**Jaicos'** Booksellers and Publishers, 125, Mahatma Gandhi Road, Bell Lane, Bombay 1. Grams: "Jaicobooks". Phone Nos. 252164 & 256958.

**JAIPUR METALS AND ELECTRICALS LTD.,** Kamani Chambers, Nicol Road, Ballard Estate, Bombay 1. Phone: 261744. Manufacturers of Arsenical Copper Rods, Copper and Cadmium Copper Conductors, Brass Rods and Wire, House Service Meters. *Head Office:* Near Railway Station, Jaipur.

**JAIRAMDAS & SONS,** 163, Narain Dhuru Street, Bombay 3. Phone: 323616. Grams: "JAIRAMSONS", Importers & Stockists of Precision Tools, Metal Cutting & Thread Forming Tools, Garage Tools and Equipment. Manufacturers of Concrete Mixers, Lime Mortar Mill, C. I. Surface Plates, Angle Plates, V Blocks, Straight Edges, M. S. Bolts &. Nuts, etc.

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**"JAM-E-JAMSHED"** (Established 1832), Anglo-Vernacular daily. J. B. Marzban & Co. Private Ltd., Ballard House, Mangalore Street, Fort. Tel. Address: "Jamshed", Bombay. Phone Nos. 26-2571 & 26-2572.

**JAMES TOOLS & HARDWARE CO.,** "House of Chucks & Tools", Importers & Manufacturers. 109, Nagdevi Street, Bombay 3. Phone: 323839. Grams: "JAMETOOLS".

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**Jankidas & Co.,** Cycle Merchants. 192, Princess Street, Bombay 2.

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YARNALL WARING CO. Philadelphia, U.S.A. (Steam Traps, Remote Water Level Indicators, Blow-off Valves, Expansion Joints).

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A. G. WILD & CO. LTD., Sheffield, England. ('Sylester' Pit Prop Withdrawers).

AUSTIN HOPKINSON & CO. LTD., Manchester, England. ('Pikrose' Haulages —Flameproof Electric (A.C.) and Compressed Air).

BARKER DAVIES & CO., PONTYPRIDD, Wales. (Safety Detachable Hooks, Rope Cappels, Cage Chains, etc.).

BRUNTONS (MUSSELBURGH) LTD., Scotland. (Steel Wire Ropes for all purposes).

DIAMOND DRILL SYNDICATE, Calcutta. (Diamond and Calyx Core Drilling Contractors).

ERSKINE HEAP & CO. LTD., Manchester, England. (Electrical Switchgear, Motor Control Gear—Industrial and Flameproof).

ETELCO LTD. (Ericsson Telephones Ltd.), London, England. (Underground Mining Telephone Equipment).

JAMES W. SMALLMAN LTD., Nuneaton, England. (Haulage Clips for Endless Rope Haulage).

JOHN MILLS & CO. (LLANIDLOES), Montgomeryshire, England. (Heavy duty Haulage Engines—Electric, Steam, Compressed Air).

OLDHAM & SON (INDIA) LTD., Madras. (Mine Lighting Equipment—Self-servicing Cap Lamps and Accessories and Storage Batteries).

OLDHAM & SON LTD., Denton, England. (Sole Overseas Distributors of I.G.D. Testing Instruments for Mines, Gas Plants, Oil Installations etc. Also F.L.P. Tuba Torches).

PRECISION TOOLS INDIA LTD. Calcutta (Diamond Drill Bits ; Diamond Dressers—Single, Multipoint and Bonded Particle ; Diamond Wheels—Resin or Metal Bonded; Electro Tools ; Tungsten Carbide Coring Bits etc.).

TRIEFUS INDUSTRIES LTD., Crawley, England. (Industrial Diamonds, Drilling Bits, Diamond Tools of all kinds).

## GENERAL AND OFFICE EQUIPMENT SECTION

AMERICAN PHOTOCOPY EQUIPMENT CO., Chicago, U.S.A. ('Apeco' Photo-Copying Equipment and Supplies).

THE ASSAM RAILWAYS & TRADING CO. LTD., Margherita. (Timber Products, Blockboard, Plywood, Building Materials, Flush Doors etc.).

BRUNTONS (MUSSELBURGH) LTD., Scotland. (Galvanised Wire Ropes).

DITTO INCORPORATED, Chicago, U.S.A.

DITTO (BRITAIN) LTD., London, England (Spirit and Gelatine Process Duplicators).

HALL HARDING LTD., London, England. (Drawing Office Materials and Copying Machines).

J. SLOPER & CO., LTD., London, England. (Perforating Machines).

NATIONAL TIME RECORDER CO. LTD., London, England. (Time and Attendance Recording Equipment).

PITNEY BOWES LTD., London. (Postal Franking and Stamp Cancelling Machines, Employees' State Insurance Franking Machines).

PITTAR LEVERSON & CO., LTD., England. (Precious Stones).

**KHATAU MAKANJI SPG. & WVG. CO., LTD.,** Laxmi Bldg., Ballard Road, Bombay 1. Phone: 265411. Grams: "CRAFTSMAN."

Khimandas Jagumal & Sons, Estd. 1910 (Sind). Engineers, Machinery Merchants, 12, Gunbow Street, Fort. Phone No. 26-1691. Grams: "EXPOCORP." Branch Office: Belan Gunj, Agra (U.P.).

**KHIMJI POONJA & CO.,** Banks' Muccadams; Clearing, forwarding and shipping Agents; Cotton & Seeds Brokers and Commission Agents; Ready Cotton Merchants, Commission Agents, Importers & Exporters. 19-21, Dalal Street, Fort. Phone Nos. 253510, 251644, 252837, 251621. Tel. Address: "GAINSURE". Branch at Kandla Port, Gandhidham (Kutch). Phone No. 2155.

**KHIRA STEEL WORKS PRIVATE LTD.** Manufacturers of fine steel furniture & equipment for homes, offices, libraries, canteens, patented 'Ajax' Aluminium Collapsible Awnings & Folding Roofs. Factory: Swami Vivekananda Road, Santa Cruz, Bombay 54. Grams: "STEELCASE"; Phones: 533226 (4 lines). Regd. Office: Khira Bhavan, Sandhurst Bridge, Bombay 7. Grams: "SWAKALA". Phones: 30097 & 30098. Showrooms: At Khira Bhuvan, Sandhurst Bridge, Bombay 7. Also at Fulchand Nivas, Chowpatty Sea Face, Bombay 7. Grams: "SWAKALA". Phone: 30408.

Khosla & Co. Private Ltd., K. G., 33-A, New Marine Lines, Fort, Bombay. Phone: 243744, Grams: "KEGIKHOSLA". Manufacturers of Heavy duty Air Compressors & Refrigeration Compressors & Garage Equipment.

**KIKABHOY CHANDABHOY,** Paper & Strawboard Merchants. P.B. No. 2131, 33-35, Mangaldas Road, Bombay 2. Phone Nos. 38046. Tel. Address: "Creamlaid."

**KILACHAND DEVCHAND & CO. PRIVATE LTD.** 45-47, Apollo Street, Fort. Phone No. 25-1301. Tel. Address: "Seeds."

Importers and Exporters of Raw Cotton; Oils, Oilseeds & Oilcakes; Cotton, Rayon and Art Silk Piecegoods and Yarn, Chemicals, etc.

**KILLICK INDUSTRIES LTD.,** Industrialists, Killick House, Home Street, Fort, Bombay 1.

Authorised Capital: Rs. 150 lakhs.

Issued and Subscribed Capital: Rs. 125 lakhs.

Subscribed and Called Up Capital: Rs. 1,24,95,600.

*Directorate:* A. N. Haksar, Chairman & Managing Director; C. M. Mehta; M. R. Chinoy; Manecklal Premchand Kantilal Nahalchand, L. V. Apte.

*Assistants and Administrative Staff:* R. P. Aiyer, B. J. Boyce, J. P. Dalal, I. M. Desai, R. N. Joshi, P. J. Kapadia, H. J. MacQueen, B. M. Maniar, L. K. Panjabi, M. P. Khambata, P. R. Saraiya, B. N. Vakil.

*Agents and Registered Offices:* The Kohinoor Mills Co. Ltd.; The Ahmedabad Electricity Co. Ltd.; The Surat Electricity Co. Ltd.; Bombay Suburban Electric Supply Ltd.; The Shivrajpur Syndicate Ltd.; The Hingir Rampur Coal Co. Ltd.; The Central Provinces Railways Co. Ltd., The Thana Electric Supply Company Ltd.

Manufacturers of "Light House" Brand Engineers' Steel Files.

*Joint Members:* Cement Agencies Ltd. (Managing Agents: The Associated Cement Cos. Ltd.).

*Subsidiary Companies:* Messrs. Killick Nixon & Co. Ltd., Killick Caribonum Ltd.; A. R. Haseler Ltd.; Snowcem India Ltd.; Killick Slotted Angles Ltd.; Filtrona India (Private) Ltd.

*London Agents:* Indian Industrial and Mercantile Agencies (London) Ltd., Norfolk House, 7, Laurence Pountney Hill, Cannon Street, London, E.C. 4.

*Codes Used:* A.B.C. 5th and 6th Editions, Bentley's, Scotts, Private.

Grams: "KINDRED". Phone: 26-2311. P.O. Box No. 109.

**KILLICK, NIXON & CO. LTD.,** (A wholly owned Subsidiary of Killick Industries Ltd.), Registered Office: Killick House, Home Street, Fort, Bombay 1. General Merchants, Engineers, Steamship Agents and Exporters.

*Directors:* A. N. Haksar, M. R. Chinoy, H. J. MacQueen, Himatlal Kantilal, M. L. Apte, A. L. Apte.

*Agency Department:* N. F. C. Hilling, J. P. Antia, R. V. Kodikal, K. D. Sharma, K. Khullar, E. D'Sylva.

*Kilpiece Exports Dept.:* V. Paupamah, F. H. Hirjikaka.

*Caribonum Division:* J. E. Pocock, R. C. Kapur.

*Engineering Department:* M. R. Ogle, A. T. Kothavala, S. P. Chaudhry, Y.C. Khanna, R. K. Jagtiani, D. R. Suri, D. Atherley, S. Y. Khan.

*Shipping & Clearing Department:* F. Rozario, D. S. Kumana.

*Finance & Accounts:* P. J. Kapadia, B. N. Vakil, S. K. Shah.

*General Department:* S. S. Gangoli.

*Calcutta Office:* (D-2, Gillander House, 8, Netaji Subhas Road, Calcutta 1)—N. G. Takle, P. D. Bhattacharya. Phone: 229146.

*Delhi Office:* (10-A, Gobind Mansion, Connaught Circus, New Delhi)— P. J. Chandran, J. S. Anand, R. K. Kapur. Phone: 40308 & 40521.

*Madras Office:* (Agurchand Mansion, 35, Mount Road, Madras 2)—T. V. M. Lingam. Phone: 83785.

*Ahmedabad Office:* (Relief House, Opp. Jyoti Sangh, Relief Road, Ahmedabad) —R. R. Nevrekar. Phone: 20952.

*Goa Office:* (Mormugao Harbour, Goa) Phone: 44.

*Attached Staff:* Ellerman's City & Hall Lines—Captain J. Mason-Price.

*Agency Department:* 31, Murzban Road, Fort, Bombay 1.

*Own Manufacture:* U. C. (Universal Cleanser) Detergents.

*Agencies:* Gulf Oil (India) Private Ltd.; Hope's Metal Windows (India) Ltd., Calcutta; Killick Slotted Angles Ltd.; Killick Caribonum Ltd.; Masonite Corporation, Chicago; Pressure Cookers & Appliances Private Ltd., Bombay; Snowcem India Ltd., Bombay.

*Kilpiece Division:* Export of Textiles, Yarn & Sundries.

*Engineering Department:* 31, Murzban Road, Fort, Bombay 1.

*Own Manufacture:* Concrete Vibrators—Immersion, Screed, Platform and Table types; Prestressing Jacks, Pumps and accessories; Furnaces—electric and fuel fired; Drilling Equipment; Concrete Mixers.

*Agencies:* Aluminium Industries Ltd., Kundara; Allied Electrical Corporation Private Ltd., Calcutta; E. Boydell & Co., Ltd., Manchester; J. Collis & Sons Ltd., London; Conveyancer Fort Trucks Ltd., Warrington; Cable Covers Ltd., London; Efco Furnaces Ltd., Weybridge; English Drilling Equipment Co., Ltd., London; Failing Supply Ltd., London Forthergill & Harvey Ltd., Lancashire; Ing. F. Fiorentini & Co., Rome; Humphreys & Glasgow Ltd., London; Halifax Tool Co., Ltd., Halifax; Holland Cranes, The Hague; I.H.C. Holland, The Hague; C. H. Johnson (Machinery) Ltd., Stockport; Jacques Dembitzer, Antwerp; J. Christopher & Sons Ltd., London; K. Streetlite Electric Corporation, Faridabad; Loro & Parisini, Milan; Niagara Screens & Plant Ltd., Enfield; Richard C. Gibbins & Co., Ltd., Birmingham; Slough Estates Ltd. (M. L. Aviation Co. Ltd.), London; Universal Electrics Ltd., Calcutta.

*Shipping:* The Hall Line; The City Line; T. & J. Brocklebank Ltd., Belships Co., Ltd.; T. & J. Harrison; L. Smit & Co.'s Internationale Sleepdienst, Rotterdam; Hinode Kisen Co., Ltd., Tokyo, Japan.

*Insurance:* British & Foreign Marine Insurance Co., Ltd.

*London Representatives:* Indian Industrial & Mercantile Agencies (London) Ltd., Norfolk House, 7, Laurence Pountney Hill, Cannon Street, E.C. 4.

*Tel. Address:* 'Killick' Bombay or 'Kilpiece' Bombay. P.O. Box No. 109. Phones: General Offices: 265201; Clearing & Forwarding Dept.: 261395; Dexion Design and Construction Services and Dexion Sales Division: Powai Road, P.O. Box No. 7165, Kurla Bombay 70.

**KIRON TEXTILE INDUSTRIES,** Yusuf Building Mahatma Gandhi Road, Bombay 1. Phone: 253224; Grams: "YANTRAYUG"; Manufacturers of L.T. & H.T. Electrical Switch and Control gears Switchboard Panels, Circuit breakers H.T. Gang Operated Airbreak Switches, Dro Pout Fuses, etc.

Kirtikumar & Co., Chemicals and Sizing Materials Dealers, 80, Bhandari Street, Mandvi, Bombay 3.

Kirtikumar Electric Corporation, Electric & General Merchants, 12, Tawawala Building, Lohar Chawl, Bombay 2.

Kirtilal & Co., Ball Bearings & Mill Gin Store Merchants, 31, Bibijan Street, Barbhai Mohalla, Bombay 3. Phone: 23572. Grams: "PIPEWRENCH".

Kiv Trading Co., Tin Printers & Anodizing Specialists. 17/1, Parsiwada, Khetwadi, Bombay 4.

**K. K. Shah & Co.,** Empty Bottles, Corks and Capsules Merchants, Sheriff Devji Street, Bombay 3. Grams: "NEW BOTTLE". Phone: 29973.

**KODAK LIMITED** (Incorporated in England with limited liability), Manufacturers and Distributors of Photographic Materials. Kodak House, Dr. Dadabhai Naoroji Road, Fort, Bombay-1-BR. Phone No. 26-2604; 17, Park Street, Calcutta-16; 33/34, Netaji Subhas Marg, Daryagunj, Delhi-6; and 2/155, Mount Road, Madras-2. Tel. Add.: "Kodak."

**KOHINOOR ELECTRO GILDERS,** Electroplaters, Barrel Platers, Electro Tinners & Galvanisers and anodising alum. Khetwadi 10th Lane, Bombay 4. Phone: 71786.

Kooverji Devshi & Co. Private Ltd., Fire Protection Engineers, 164, Lohar Chawl, Bombay 2. (*Also see* under Fire Fighting Equipment Section.

**KORULA RUBBER CO. PRIVATE LTD.,** Manufacturers of Latex Foam Cushions, Telecord Cables, automobile parts, Rubber lined Tanks, Industrial Rubber goods, Gloves & Pharmaceutical Rubber goods. 249. Worli, Bombay 18. Phone: 451750 Grams: 'ZIRCON', Worli, Bombay.

**KOSMEK PRIVATE LIMITED,** Sole Distributors of BINACA Toothpaste and Toiletries, "MEDALLION" Toys & Dolls; 'POLYTAINER' Polythene Containers. Head Office: 'Cecil Court', Lansdowne Road, Apollo Bunder, Bombay 1. P. O. Box 1680. Phones: 212841/2/3. Grams: "KOSDIST". *Branches:* Calcutta, Delhi, Madras.

**Kosmos Paper Stores,** Paper & Strawboard Merchants, 87A, Khadilkar Road, Bombay 4. Phone: 71901. Grams: "KOSMOSPAP."

## KOTAK & CO.

*Head Office:*

Navsari Building, Dadabhai Naoroji Road, Fort Bombay 1.

Gram: "KOTAKANDCO".
Phone: 263331 (Five Lines)

*EXPORTERS & IMPORTERS:* Raw Cotton, Cotton Yarn, Textiles, Silk and Art Silk Yarn, Staple Fibre and Yarn, Oils & Oilseeds etc. Also Industrial Machinery from Japan, U.K., U.S.A. and continental countries.

Viz.:

Textiles, Electrical Machineries & "Shimadzu" Scientific Testing Machines.

*Sole Selling Agents for*

N. G. K. Insulators Ltd., Japan,
and
Government Porcelain Factory, Bangalore
for
H.T. & L.T. Insulators & Accessories
for
Maharashtra, Gujarat & Goa.

**Kothari Trading Corporation,** Dental Goods Dealers, 38, Police Court Lane, Bombay 1.

**K. T. Steel Industries Ltd.,** Manufacturers of Wire Nettings of all types. K. J. Building, Broach Street, Bombay 9.

**Kulkarni & Co.,** Insurance underwriters, Merchants & Manufacturers' Agents. Navsari Building, 2nd Floor, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

**Kumar Commercial Co.,** Machinery & Oil Engines Importers, Nadirshaw Sokia Street, Fort, Bombay.

**Kumar Stationery Mart (Estd. 1942),** Importers, Stationers, Paper Merchants and Government & Railway Contractors. Sole Distributors of "Daylight" pencils, and "Planway" Brand Ferro and Amonia Paper rolls and "Projecto" Brand Indian Tracing Cloth and "Excella" Brand Foreign Tracing Papar. "STAPCO" Brand Stapling Machine. Stockists of Gem Clips and Pins. Podar Chambers, Store Lane, 109, Parsee Bazar Street, Fort. Phone No. 255303. Grams: "TRADEMOTO".

**KUMUDCHANDRA & CO.,** Importers and Manufacturers of replacement parts for Textile winding machines. 29, Dalal Street, Fort, Bombay. Phone: Office: 253214. Godown: 264437. Grams: "VERYGOOD."

**Kwality Tool Steel Corporation,** High Speed Steel, High Carbon High Chromium Steel, Oil Hardening Non-Shrinking Steel, Carbon Steel, etc. Stainless Steel, Nickel Chrome Steel, Silver Steel, Hot-Die Steel, EN Specification Steel, etc. 111, Tamba Kanta, Chawale Building, 3rd Floor, Bombay 3. Phone: 329375.

**LABORATORIES GRIMULT PRIVATE LTD.,** 20, Haines Road, Bombay 11. Manufacturers of Cosmetic, Toiletries and Pharmaceuticals. Phones: 70121, 70122 & 70123; Grams: "SIROGRIMO."

## LAKHANPAL
## PRIVATE LTD.

Radio Receivers and Radio Parts Suppliers, 29, New Queen's Road, Bombay. Tel. Address: "ETHERWAVE." Phone: 22473.

**LAKME LIMITED,** Bombay House, Bruce Street, Bombay 1; Phone: 259141 Ext. 213 & 251501 Ext 410. Manufacturers of Cosmetics, Toiletries and French Perfumes and Colognes; Liquid Foundation, Face Powder, Compact, Lipstick Eye Shadow, Eye Liner, Eye Pencil, Mascara, Cold Cream, Vanishing Cream, Deep Pore Cleansing Milk, Special Astringent, Skin Tonic & Freshner, Nourishing Cream, Hand & Body Lotion, Deodorant, Eau de Cologne, Eau de Toilette, Nail Varnish, Soaps, Talcum Powder, Shaving Stick, After Shave Lotion.

**L. R. Trading Company,** Manufacturers of greeting cards for all occasions and 'Flash' & "BEST" zip fasteners. Navsari Chambers, Outram Road, Fort, Bombay. Phones: 263141 & 264073. Grams: 'SHAHANICO'.

**Lakhmichand Cooverji & Co.,** Tarpauline Merchants. 297, Narsi Natha Street, Bombay 9.

**LALLUBHAI AMICHAND PRIVATE LTD.,** Manufacturers of Cycle Brand Aluminium wares & Queen Brand Brassware and also Nickel-Silver & Stainless steel & other wares. Metal-wares, Props. of "Dun Aluminium Factory" 225-227, Tardeo Road, Bombay 7. Grams: "Cycle-Brand". Phone Nos. 41618, 77175, 334049 & 331888.

**LARSEN & TOUBRO LIMITED.** *Registered Office and Head Office:* I. C. House, Dougall Road, Ballard Estate, Bombay 1. P.O. Box: 278. Phone: 264411/9. Grams: LARSENBRO." Tlex: TLX 246.

*Works, Service Station and Stores:* Saki-Vihar Road, Powai, Bombay 70; P.O. Box 7151; Phone: 581501/10.

*Regional Offices:* P.O. Box 278, Bombay; P.O. Box 619, Calcutta; P.O. Box 323. *New Delhi:* Post Bag 5247, Madras; Branch Offices: P.O. Box 283, Ahmedabad; P.O. Box 98, Bangalore; P.O. Box 29, Bhopal; P.O. Box 23, Ernakulam; P.O. Box 12, Hyderabad; P.O. Box 149, Lucknow; 6,157, Pavilion Road, Gandhinagar, Mangalore; P.O. Box 109, Panjim; L & T House, Public Sector, Rourkela.

*Representations at:* 206, "Yash Kamal", Lokmanya Tilak Road, Baroda; 9, Legislators Flats, Sector 3, Chandigarh; Iran House, Kowdiyar, Trivandrum; "Vijaya", Srikrishna Nagar, Maharanipeta, Vizagapatam.

Manufacturers Representatives of over 200 overseas and Indian Manufacturers and Civil, Mechanical and Electrical Engineers; Manufacturers of plant and equipment for full range of dairy operations; equipment for refrigeration and meat processing industries; feed compounding plants; equipment for chemical, pharmaceutical, dyestuffs and fertiliser industries, distilleries and breweries; complete sulphuric acid oleum, phosphate and super phosphate plants; plant and machinery for cement industry; low tension electrical switchgear including switchboards and control and relay panels, motor starters; petrol dispensing and metering pumps; pin disc grinding mills; jigs and fixtures, pressure casting dies, press tools, plastics and bakelite moulds; portable belt conveyors; cooling towers; sheeps foot tamping rollers; aluminium capsules, crown corks and capsuling machines; diamond core drills and diamond bits.

Representatives of manufactures of track and wheel type tractors, bulldozers, rippers, scrapers, traxcavators, motorgrades for agriculture, mining and earthmoving; grain handling equipment such as pneumatic dischargers, conveyors and silos with partly indigenous content; material handling equipment including shovels, cranes, bucket wheel excavators, conveyors, locos and aerial ropeways; oil well, water well and core drilling, mining and processing equipment, turbine pumps and accessories; plant and equipment for dairy, food processing, sulphuric acid, oleum, super phosphate, pthalic anhydride and allied chemicals and fertilisers, explosives, cotton and preparation and breweries; glass lined equipment, thin film evaporators, indirect heating units, safety fuses and detonators; plant and equipment for cement, pulp, paper, iron and steel industries; high tension and low tension switchgear, transformers, metering and protection equipment, capacitors, rectifiers, special motors and cables; refrigeration, spray drying and accelerated freeze drying plants, controls and accessories; food, confectionery and pharmaceutical packaging and bottling machines; nuclear handling equipment, electronic, telemetering, communication, process control, measurement and data handling instruments and machines; seismic instruments; flow, control and other special purpose valves; low temperature welding alloys, electrodes and fluxes; and other industrial appliances, equipment and instruments.

*Subsidiaries:* Alu Capsules Limited, Christensen-Longyear (India) Limited, Engineering Construction Corporation Limited, India Crown Cork Limited, Willcox Buckwell India Limited.

*Associate Companies:* Audco India Limited, Eutectic Welding Alloys of India Limited, Utkal Machinery Limited, Tractor Engineers Limited, Tractor & Equipment Corporation Limited.

*Directors :* H. Holck-Larsen, S. K. Toubro, Dwarkadas H. Vora, N. M. Desai, Ambalal S. Parikh, S. D. Vimadalal, P. G. Bhagat, Chinubhai C. Chokshi, John Hover, Gunnar Hansen.

*Managing Agents :* L & T. (Management) Private Limited.

**LAWRENCE & MAYO (INDIA) PRIVATE LTD.,** Qualified Sight-testing Opticians and Scientific Instrument Makers, 274, Dr. Dadabhai Naoroji Road, Bombay 1, Telegraphic Address : "Lynx", Bombay. Telephone No. 261827.

(ESTD. 1914)
**LAXMIDAS & DWARKADAS**
466, Sardar V. Patel Road, Bombay 4 (India)
Importers of Radio Parts & Accessories.
Leading Dealers in Radio Parts & P. A. Systems.
Phone : 40692 Grams : "THYMOL"

**LAXMI ELECTRIC TRADING CO. (Estd. 1930),** Stockists of everything Electrical including "Marlex" Appliances such as Sirens, Musical Bells, Gong Bells, etc. 21-23, Lohar Chawl, Bombay 2. Phone : 29048. Grams : "LAXELEC."

**Laxmi Offset & Printing Works,** Lithographers. 30, Goa Street, Bombay 1.

**Laxmi Playing Cards Mfrs.,** 30, Goa Street, Bombay 1.

**Laxmi Syndicate,** Machinery Importers, 4th Floor, Lentin Chambers, Dalal Street, Fort, Bombay.

**Laxmi Trading Co.,** Dyestuffs Merchants, 340, Samuel Street, Bombay 3.

**L. Dewan & Son,** Cargo Supdts. and Shipping Agents, Jan Mansion, Sir Pherozshah Mehta Road Fort, Bombay.

**Lee & Muirhead (India) Private Ltd.,** Clearing, Shipping, Travel, Warehousing & Insurance Agents. 12, Rampart Row, Fort. Phone : 251571 (9 lines). Grams : "LEMUIR."

**LEGAL & GENERAL ASSURANCE SOCIETY LIMITED,** (Fire, Marine & Misc.). *Head Office :* Temple Court, 11, Queen Victoria Street, London, E.C. 4. *Chief Office for India :* Madurai ; Manager for India : S. Vinayakam. Bombay Office : Gresham Assurance House, Sir Phirozshah Mehta Road, Fort. Acting Manager : J. F. S. P. Fernandes ; Phone : 255088 (2 lines). Grams : "LEGRESH." Branches at : Calcutta, Madras, Delhi, Nagpur, Sholapur, Coimbatore and Cochin. Agents and Representatives throughout India.

**Light House,** Batteries, Torches & Bulbs, 51, Kitchen Garden Lane, Bombay 2. Phone : 30351, Grams : "GREATWALL".

**Linotype and Machinery, Ltd. Printing Machinery Manufacturers.** *Head Office :* 21, John Street, Holborn, London, W.C. 1. **Works :** Altrincham, Cheshire. Head Office for India : 14, Madan Street, Calcutta 13. Bombay Branch : 11-13, Horniman Circle. Tel. Address : "Linotype." Phone No. 251068. Madras Branch : 6, Club House Road, Mount Road, Madras 2.

**LINTAS LIMITED,** International Advertising Agency, "Hindustan Lever House", 165/166, Backbay Reclamation, P.O. Box 758, Bombay 1. Phone : 246011.

**LIONEL EDWARDS LTD.,** Nicol Road, Ballard Estate, Bombay. Head Office at Calcutta. Freight and Steamship Agents. Managing Agents : India Steamship Co., Ltd., Agents for Passenger Service for India : Flotta Lauro (Lauro Lines), Naples. *Agents :* American Export and Isbrandtsen Lines, New York. Pacific Far East Line Inc., San Francisco. Codes used : Bentley's 1st & 2nd Editions New Boe Code. (Tel. Address : "LIONWARDS" —All Offices). Phone Nos. 26-1241/43 & 262581. Post Box 1000.

**Lipton (India) Ltd.,** Ilaco House, Sir Phirozeshah Mehta Road, Bombay. Tel. Address : "Liptea." Phone No. 262769.

**Little & Co.,** Solicitors and Notaries, Central Bank Building, Fort, Bombay. N. J. Apthorpe-Webb, J. S. Bapasola, N. B. Vakil, C. J. E. Grundy, J. J. Vakil, K. J. Chokshi, S. E. Morris, S. N. Wakhariya, D. P. Mehta, J. P. Shroff. Cable Address : "Legal," Bombay. Phone : 251281/82/83.

**LIVERPOOL & LONDON & GLOBE INSURANCE CO., LTD., THE** (Incorporated in England ; Shareholders' Liability Ltd.) 12, Jamshedji Tata Road, Bombay. (Fire—Loss of Profits—Motor—Accident (all classes)—Engineering—Aviation—Marine). *Branch Manager:* R. A. Issac. Tel. Address : "Globance". Phone : 246226 (5 Lines). Post Box No. 1848. Head Office :—1, Dale Street, Liverpool, England.

**LLOYD TRIESTINO,** Navigation Company, Post Box No. 1080, Bazargate Street, Fort, Bombay 1. Phone No. 252388. Grams : "Lloydiano."

**LONDON, EASTERN & AMERICAN TRADING CO. PRIVATE LTD.,** Sole Proprietors :—'AA,' 'XLN,' 'A-1,' 'AONE' Electric Lamps and Accessories. 'Premier,' 'Commander,' Cable Wires, Sole Agents for Silvery and Oosmania Clips, Splendor Lamps, 'LEA' Fans, 'Britmac'. English Electrical Accessories. Dealers in Electric Fans, Fixtures, Accessories, Eveready Flashlights and Novelties. Address : 22, Hamam Street, Bombay 1. Phone : 252969. Grams : "SANGUINE."

**LONDON & LANCASHIRE INSURANCE CO., LTD., THE** (Incorporated in England ; Liability of the members of the company is limited). 12, Jamshedji Tata Road, Bombay. (Fire—Loss of Profits—Motor—Accident (all classes)—Engineering—Aviation—Marine). Branch Manager : R. A. Isaac. Tel. Address : "Londlanc". Phone No. 246226 (5 lines). Post Box No. 117, *Head Office :* 1, North John Street, Liverpool, England.

**LONDON & PROVINCIAL MARINE & GENERAL INSURANCE CO., LTD.,** 10, Bruce Street, Fort, Bombay. Grams : "YORKSHIRE." Phone : 252321. Post Box No. 842.

**Lookmanji Moosaji,** Furniture Fittings Merchant, Diamond Building, Lohar Chawl, Bombay 2.

**Louis Dreyfus & Co., Ltd.,** Nicol Road, Ballard Estate. Tel. Address : "Dreyfus."

LPE-AIYARS PRIVATE LIMITED
*International Advertising and Marketing*
REGD. OFFICE :
5, CONVENT STREET,
P. O. BOX 727, COLABA, BOMBAY 1.
TEL : 214381 • 214382
*Branches at :*
Calcutta • Delhi • Madras • London

**LUCAS INDIAN SERVICE PRIVATE LTD.,** Dealers & Repairers of Motor Car Electrical Equipment, Diesel Fuel Injection Equipment. *Head Office :* 15, Mama Parmanand Road, Bombay 4. Phone Nos. : 23301 & 29840. Tel. Address : "LUCASIND." Branch Offices at : 46, Rafi Ahmed Kidwai Road, Calcutta 16 and Patullo Road, Mount Road, Madras 2.

**Luiz,** Manufacturers of Naval, Air Force, Civil, Military Caps, Shoulder and Cap Badges, Stockists of all kinds of Wedding Requisites. Opp. G. T. Hospital, 280, Carnac Road, Bombay 2.

**M. C. Mody & Bros.,** Electrical Engineers & Importers. 125A, Lohar Chawl, Bombay 2.

**M. J. PATEL & CO.,** Importers & Manufacturers of Pipes, Fittings & Boiler Tubes & Accessories. 177, Nagdevi Street, Bombay 3. Phone : 327931, Grams : "REDTEE".

**M. Desai & Co.,** Mill Gin Stores & Abrasive Merchants, 163, Narayan Dhuru Street, Bombay 3.

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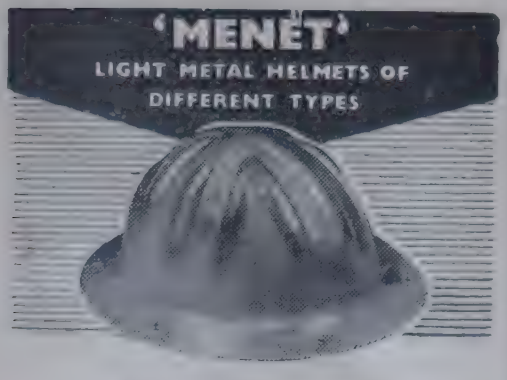


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Mineral Corporation of India Private Ltd., Mineral Merchants. 107, Jamli Moholla, Bombay 3.

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**MITRA & CO., S.,** Distributors for :—Canning Mitra Phoenix Ltd., Manufacturers of Electroplating and Polishing Equipments and Materials. Bachubai Building, 187, Dadabhoy Naoroji Road, Fort, Bombay 1. Phone No. 26-2342. Grams : "Mludeshi." Branches at Calcutta and Madras.

Mitsui & Co., Ltd., *Bombay Office* :—5th Floor, "Manek Mahal", Vir Nariman Road, Churchgate Reclamation, Bombay. Phones : 243635 and 243716. Gram : "MITSUI", Bombay.

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Mohamed Umar Chandbhoy, General Exporters and Commission Agents. Estd.: 1836 A.D. 150, Nagdevi Street, Bombay 3. Tel. Address: "SAFREE."

**MOHAMEDALLY NOORBHAI & CO.,** Motor Body Building Material Dealers. 144/148, Ibrahim Rahimtoola Road, Bombay 3. Phone Nos. 333068 and 333763. Grams: "CABRUBBER". Branches at, Calcutta, Madras & Lucknow.

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Works and Regd. Office: Agra Road, Kurla, Bombay 70. Phone: 51471. Grams: "JEEWAN", Kurla.

**MULCHANDANI ELECTRICAL & RADIO INDUSTRIES LTD.,** Manufacturers of Bush Radio, Celestion Speakers Hunts Capacitors and Mc Murdo Valveholders. Sukh Sagar, Sandhurst Bridge, Hughes Road, Bombay 7. Phone: 74546 and 76755. Grams: "MULRAIN".

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Naoroji N. Vakil & Co., Stoneware Pipes & Fittings Mfrs. Sharu Castle, Mohamedali Road, Bombay 3.

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National Engineering Industries Ltd., Bombay: G/3, "Advent", 12-A, Foreshore Road, Bombay 1.

**NATIONAL FIRE EQUIPMENT CO.,** Fire-Fighting Engineers. 11, Bank Street, Bombay 1. Phone: 254635. Grams: "STORESUPPLY".

National India Development Co., Ltd., Air Conditioning and Refrigeration Engineers. Forjett Street, Bombay 26.

**NATIONAL INSURANCE COMPANY OF NEW ZEALAND LIMITED, THE** (Incorporated in New Zealand with Limited Liability). *Head Office:* Dunedin, New Zealand. *Principal Office for India:* Rahimtoola House, Homji Street, Fort, Bombay 1. Transacts Fire, Marine and Miscellaneous Business. Principal Officer for India: R. W. Chidgey. Phones: 251537-9, Grams: 'OTAGO,' Bombay.

National Litho Works Private Ltd., Lithographers, 608 Haines Road, Bombay 11.

**NATIONAL MACHINERY MANUFACTURERS LTD.,** Kalwe, Thana. Tel. No. 591875. Manufacturers of Textile Spinning and Weaving Machinery and Spares.

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*Managing Directors :* Shri Jiwanlal C. Chinai, Shri Rasiklal J. Chinai.

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**NATIONAL STORES,** Wine and General Merchants. Sitaram Buildings, Crawford Market, Bombay 1. Phone No. 263121. Grams : "Avija."

National Supply & Distributing of Agency, Electrical Goods Dealers. Jay Mahal, 20-48, Lohar Chawl, Bombay 2.

**NATIONAL WIRE HEALD WORKS (PRIVATE) LTD.,** Manufacturers of Wire Healds and flat Healds, Lakshmi Bldg., Sir Phirozshah Mehta Road, Fort, Bombay, Phone : 26-2166/67.

**NATURAL GAS CO., PRIVATE LTD.,** H.O. : 53/57, Laxmi Building, Sir Phirozshah Mehta Road, Bombay 1. Phone : 265435/6. Grams : 'Naturalgas'. *Branch :* 2, Moledina Road, Poona.

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**NEAR EAST TRADING CO. (INDIA),** Exporters of Cotton Textiles, 32, Apollo Street, Fort. Phone Nos. 254407 & 251757. Tel. Address : "WIDESPREAD".

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Telegrams : "Stonesand."

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**NEW DHOLERA SHIPPING & TRADING CO., LTD. THE,** *Managing Agents :* Vikramsinh Private Limited. Darabsha House, Ballard Road, Ballard Estate, Bombay 1. Branches and Agencies all over India. Telegram : 'RAVASIA', Bombay. Telephone No. 263443.

**NEW DHOLERA STEAMSHIPS LTD.,** *Managing Agents :* Pratapsinh Private Limited, Darabsha House, Ballard Road, Ballard Estate, Bombay 1. P. O. Box No. 1137 Bombay 1. Telegraphic Address : 'JAYSHIPS'. Telephone No. 263443.

**NEW ERA AGENCIES PRIVATE LTD.,** Chemicals Importers & Stockists. Kamani Chambers, 32, Nicol Road, Ballard Estate. Phone : 262552. Grams : 'MUJKO'.

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*Factory :*
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Phone : 573039.

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Phone : 26-1523.
Grams : "GULDASTA".
*Factory :* 38, Pawai Lake Road, Saki Naka, Kurla, Bombay 70.
Phone : 581185

New Hind Engineering Co., Mill Gin Store & Textile Beltings stockists, 63, Nagdevi Cross Lane. Bombay 3.

**NEW INDIA ASSURANCE CO. LTD., THE,** *Head Office :* New India Assce. Building, Mahatma Gandhi Road, Fort, Bombay, P.B. No. 969. Phone : 259151. Grams : "NIASURANCE".

**NEW INDIA PLASTICS,** Khanna Construction House, 44-Abdul Gaffar Khan Road, Worli, Bombay-18. Manufacturers of Plastic items for Commercial and Industrial Purposes. Specific Inquiries Solicited.

H.O. & Factory : Industrial Estates, Lalbaug, Bombay 12. P.O. Box 6025. Phone : 41773 and 72753.

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**STAR PAINT & OIL INDUSTRIES,** Crescent Chambers, Tamarind Lane, Bombay 1. Mfrs. of Industrial, Marine and Building Paints; Natural & Synthetic Enamels. Specialist in "STAR'S" Aluminium Paint, general Purpose, & High Temperature Heat Resisting upto 1200°F. Metallic Paint upto 1800°F' Rubberex Rubber Paint (For Chemical Resisting). Grams: "Starpaint". Phone No. 253493.

**STAR TRADING CO., PRIVATE LTD., THE,** Importers of Textile Machinery, Textile Engineers and Merchants. Bank of Baroda Building, 12, Apollo Street, Fort, Bombay 1. Phone Nos. 253480 & 251357; Grams: "STARTRADE."

**STEAM & MINING EQUIPMENT (INDIA) PRIVATE LTD.,** *Head Office:* 207-B, Park Street, Calcutta-17, Phone: 447551-4. Grams: THERMAL—Calcutta, *Branch Offices:* Bombay Mutual Chambers, 21, Hamam Street, Fort, Bombay-1, Phone: 25-2061. Grams: STEAMING-Bombay, 1/23B, Asaf Ali Road, New Delhi, Phone: 272684, Grams: STEAMINGCO—New Delhi, No. 150/A-3, Mount Road, Madras, Phone: 82464, Grams: THERMAL—Madras, Dak Bungalow Road, Ranchi.

*Manufacturers of:—*

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*Importers of:—*

Rectifiers, Transformers, Reactors, On-load Tap changers, Voltage Regulators, Lighting Arresters, Circuit Breakers, Switchgear, Starters, Traction Switchgear, Isolators, Cables, Steam Boilers, Fuel Economisers, Soot Blowers, Steam, Liquid & Gas Flow Meters, Temperature Recorders & Indicators, Fabricated Steam Pipework, Steam valves, Boiler Mountings, Shafting, Reduction Gears. Machinery for Paint, Printing Ink, Pharmaceutical, Chemical, Cosmetic Industries.

*Suppliers of:—*

Miniature Circuit Breakers, Welding Electrodes, Vibratory Equipment, Instruments Survey Drawing Optical Meteorological, Scales, Profile Projectors, Gauges, Vacuum, Steam Pressure, Oxy-Acetylene, Combined Pressure & Vacuum Gauges, Freon Gauges, Hydrometers etc.

Steel Age Industries Private Ltd., Opp. Post Office, Mazagaon, Bombay 10.

Steel Crafts, Manufacturers of all types of Steel. *Head Office & Factory:* Bakewell House, 384, Cadell Road, Bombay 28. Showrooms: 2/12, Dadyseth Agiary Lane, Kalbadevi Road, Bombay 2; 87-88, Sleater Road, Nana's Chowk, Bombay 7. Sales Office: 91, Sleater Road, Nana's Chowk, Bombay 7. Grams: "FURNITURE". Phone No. 65851.

Steelyard Private Limited, Regd. Office: Carnac Bunder, Sant Tukaram Road, Bombay 9. Steel, Hardwear. *Chairman:* R. J. Maniar. *Managing Director:* C. J. Ambani J. J. Amb. ni. Phone: S. les Office 322643 and 39211 (Res.). Tele. Address: "Scotchiron."

Sterling Dyes Private Limited, Manufacturers of Textile Dyes & Chemicals. 296, Samuel Street, Vadgadi, Bombay 3. Phone: 324656. Grams: "LAXNAGAR."

**STEWART-JACKS PRIVATE LIMITED,** "Shirin" 1st Floor, Colaba, Near P.O., Bombay 5.

*Agencies:*

Sole Agents in India for Messrs. Barbier, Benard & Turenne, S.A., Paris for Lighthouses & Lighthouses Equipments.

Sole Agents in India for Messrs. National Research & Chemical Company of Hawthorne, Calif, U.S.A., for their Tyfo-Diesel Additives and other Chemicals; Exporters, Importers and Indentors.

Stewart's Laboratories, Mody Chambers, 319-21, Kharek Bazar, Bombay 9. Manufacturers of Inks, Ink Powders, Gum and Paste, Sealing Waxes, Loose Leaf Binders, Wooden and Metal Stationery Articles, Stockists of 'Gum Arabic.' Telephone: 321259. Grams: "INKWAXGUM."

**STOESSEL, W. R., & CO.,** 63, New Marine Lines, Fort. Tel. Address: "Entireness." Phone Nos. 242241/2.

Designers and Manufacturers of: STOESSEL Advertising Specialities for Desk and Pocket use, made of Leather, Plastics, metal and wood.

*Sole Agents for:*

THE COTTON TRADE JOURNAL (Memphis, U.S.A.). Publishers in India for: The Association of Mouth and Foot Painting Artists—Greeting Cards and Calendars.

**STONE & CO. (INDIA) PRIVATE LTD., J.,** 1st Floor, Tiecicon House, Dr. E. Moses Road, Post Nox No. 6274, Mahalakshmi, Bombay-11-BC. Mr. J. R. Butler & Mr. K. V. S. Mani. Manufacturers of STONE'S Train Lighting Equipment, SAB Railway Brake Regulators, STONE-FAIVELEY Pantographs for Elec. Loco and EMU Stock, THE SUPERHEATER COMPANY'S Locomotive Superheater Elements, KHEOPS Intervehicle Couplers for EMU Stock, & TONUM-FHP Motors. Suppliers of STONE-CARRIER Refrigeration & Air conditioning Equipment for Road & Railway Vehicles, & STONE'S Marine Propellers & Specialities. Agents for Steatite & Porcelain Products Ltd., Pilkington Bros. Ltd., Taylor Bros. & Co. Ltd., Thos. Turton & Sons Ltd., Stone-Manganese Marine Ltd., Rail Traction Supplies Ltd., Austinlite Ltd., Staame Usines Et Acieries Leonard Giot, Svenska Aktiebolaget Bromsregulator, Vapor International, National Electric Coil Co., Et. Pierre Carrier, and Etablissements L. Faiveley. Phone: Tel. Address: "STONECOY". Registered Office: 16, Taratalla Road, P.O. Box No. 16731, Calcutta 53.

**STONOLITE MONOLYTHIC PRODUCTS,** Sole Manufacturers of "STONOLITE" brand Monolythic Non-Crackable, Fireproof, Heat-resisting, Germ-proof, Compositions for Floors, Skirtings, Dadoes, Partitions, Walls and Roofs etc. Suppliers to Railways, Factories, Residences, Textile Mills, etc. Jiji House, Grd. Floor, Ravelin Street, Fort, Bombay 1. Phone: 264296.

**STRONACHS ADVERTISING, L. A. STRONACH & CO. (INDIA) PRIVATE LTD.,** 15, Graham Road, Ballard Estate, Bombay. Established 1923. Tel. Address: "Adservice". Phone: 26-3236. Associate Company in United Kingdom, Ceylon and Pakistan.

**STRUCTURAL ENGINEERING WORKS, LTD.** Managing Agents:— Bhagat & Sons Private Ltd., Engineers. Registered Office:—Maneckji Wadia Bldg., 127, Mahatma Gandhi Road, Fort, Bombay No. 1.

Works No. 1: Fort Road, Wadala, Bombay 31.

Works No. 2: Bombay-Agra Road, Near Mile Stone 20, Mulund, Bombay 80.

Works No. 3: 27, Barrackpore Trunk Road, P.O. Kamarhati, Dist. 24-Parganas, West Beng.l.

Phones:

Office: 255601-2-3-4.
Works No. 1: 62741-2.
Works No. 2: 592257-8-9.
Works No. 3: Panihati-348.
Grams:—Office: "Bhagatson."
Works No. 1: "Structural."
Works No. 2: "Weldstruc."
Works No. 3: "Structural".

*Directors:—*

H. M. Patel, *Chairman.*
I. N. Bhagat, *Managing Director.*
A. M. Kapadia, *Technical Director.*
B. M. Ghia, *Director.*
R. J. Chinai, *Director.*
R. J. Taraporevala, *Director.*
M. N. Bhagat, *Tech. Asstt.*
R. N. Bhagat, *Mgr. for Works.*
J. R. Taleyarkhan, *Commercial Manager.*
A. T. Tarkas, *Secretary.*

Sudan Trading Co., Importers & Exporters, Dhan-Nur Bldg., Sir P. M. Road, Bombay 1.

**SUHRID GEIGY TRADING LTD.,** Suppliers of Dyestuffs, Chemicals & Pharmaceuticals, Express Building, 'E' Road, Churchgate, Bombay 1. Phones: 242184, 242185, 242186. Grams: "ACEE-DEECEE."

Sukhanand Shankerlal Jain & Co., Dyestuffs & Chemical Merchants, 47, Daryasthan Street, Bombay 3.

Sultanali Mohamedali, Provision Merchants' 148, Sarang Street, Bombay 3.

*Telephone:* 39435 & 20290
*Telegram:* SUNPROCESS

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Sunshine Traders, 3, Hamam Street, Fort, Bombay. Phone: 251631. Grams: "Subhmangal". Manufacturers of Spindle Tapes, Listings, Webbings, Egyptian Cotton tapes, Venetian blind tapes, Zip Tapes, Bleached Tapes, Cotton & Manila Ropes, Cotton Bandings, Tubular bundle bandings and Sleevings.

Superior Stationery Mart Ltd., Stationers, Printers, Direct Importers of Stationery and Paper, Examiner Building, 117, Naginda Master Road, (Medows Street), Fort, Bombay 1. Phone: 25-2398. Grams: "Loveliness."

**SUPERPHONE INDIA** Telecommunication Engineers & Contractors Manufacturers of Superphone Intercommunication Telephones & Exchanges of all system. Suppliers: Spareparts, Accessories and Line Materials. Undertakes complete installation, Repair, Maintenance. Guaranteed Comprehensive service. Phone: 367920. Gram: "PHONSESUPER". P.O. Box 3573. Enquiries Solicited—Local, National and International Interested in Export.

**SUPREME INDUSTRIES LTD.,** Wadala Bombay 31. Manufacturers of Plastics Machinery, Moulds Articles for Household & Industry, Industrial Paints, Adhesives & Waterproofing Compounds.

**SUPREME INDUSTRIAL WORKS,** Manufacturers of Gears of all kinds. Specialists in worms and worm wheels. 196-K, Gaiwadi, Girgaum, Bombay 4.

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Suresh Engineering Works, Bombay Cotton Mills Estate, Kalachowki Road, Bombay 33. Phone: 77887; Steel Fabrication and Sheet Metal Works. Stainless Steel Fabrication by Argon Arcwelding our Speciality.

Suresh Stationery Mart, Manufacturers of Exercise Books, Letter Books, etc. 285, Abdul Rehman Street, Bombay 3. Phone: 327397.

**SUSHRA & CO.,** Tulsi Pipe Road, next to G. E. I. Girls School, Dadar, Bombay 28. Manufacturers of "Heatbeam"—Embedded STRIP-HEATERS, FINNED HEATERS, and all other kinds of Industrial Heaters.

**SUTRAMDAS (INDIA) PRIVATE LTD., R.,** United India Building, 5th floor, Sir Phirozshah Mehta Road. Fort. Bombay. Phones: 252493 and 252671. Grams: "TRAVRAY." Agents: 'Trayons' Rayon Yarn and Trayophane (Cellulose Film). Manufactured by the Travancore Rayons Ltd., Rayonpuram (Kerala State).

Swastik Oil Mills Ltd. *Address:* P O. Box No. 362, Bombay 1. *Phone:* (Factory) 61707; (*Office*) 265361-2. *Grams:* "SOMUC."

Swastik Paper Industries, Corrugated Paper & Board Mfrs. 54, Sutar Chawl, Bombay 2.

Swastik Rolling Shutters & Engineering Works, Parel Station Road, Bombay 12. Rolling Shutters Manufacturers.

**SYMOND DISTRIBUTORS PRIVATE LTD.,** J. Eruchshah Bldg., 249, Dr. Dadabhoy Naoroji Road, Bombay 1; 18, Netaji Subhas Road, Calcutta 1, and 15, Elgin Road, Allahabad. Sole Distributors in India for the "SLAZENGER" Sports Goods, made in India.

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**T. MANEKLAL MFG. CO. LTD.** Manufacturers of the most modern Textile Processing Machines inclusive of Continuous Dyeing Range-Wet to Wet and Dry to Wet Type, "BENNINGER-MANEKLAL", Chainless Mercerisers, Automatic Open Width Bleaching and Dyeing Machines, Automatic Dye Jiggers and Four Bowl Pad Dyeing Machines — FIBE in technical collaboration with MESSRS. BENNINGER ENGINEERING CO. LTD., Uzwil, Switzerland, "ARTOS-MANEKLAL" Universal Jet Stentering Machines, Float Dryers, Hot Flue and Steam Agers in technical collaboration with MESSRS. ARTOS MASCHINENBAU DR. ING., MEIER WINDHORST, Hamburg, West Germany DUROTEX Synthetic Rubber Lots Industrial Rubber and Ebonite Rollers and Sleeves with technical guidance from SUHNER & CO., AG., Herisau, Switzerland, Hard Rubber Drums; rubber lining of vessels and plants upto any capacity also undertaken. Also Sole concessionaires in India for all textile machinery manufactured in the German Democratic Republic. Vaswani Mansions, Dinshaw Vachha Road, P.O. Box 111-A, G.P.O. Bombay 1. Phone: 245091 (3 lines). Grams: "TEXRUBBER" Bombay 1. Branches: 16 Hailey Road, New Delhi; Vatva, Taluka Descroi, Ahmedabad.

**Taj Printing Works, 46-A, Cawasji Patel Street, Fort, Bombay.**

**Talib & Company, Pipes. Fittings & General Hardwares. Talib House, 104, Nagdevi Street, Bombay 3. Phone No. 321977. Tel. Address: "Talibco."**

**TALWALKER BROTHERS PRIVATE LIMITED, W. R.,** Lentin Chambers, Dalal Street, Fort, Bombay 1. Phone: 253367. Tel. Address: "PUMPENAMEL."

*Distributors for:*

KIRLOSKAR PRODUCTS: Shallow and Deep Well Hand Pumps, Direct Coupled Engine & Motor Pumping Sets, Diesel Oil Engines, Electric Motors, Star Delta Starters, Groundnut Decorticators, Sugarcane Crushers, Agricultural Implements, Compressors and Pneumatic Tools.

SPECIAL PUMPS FOR SUGAR FACTORIES, CHEMICALS, AIR CONDITIONING UNITS:

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Tambawalla Metal Manufacturing Works Private Ltd., 66/68, Narayan Dhuru Street, Bombay 3.

**TAMBAWALA PRODUCTS AGENCIES PRIVATE LTD.,** Importers and Dealers in all sorts of Non-Ferrous Metals and Scraps, Lead Sheets, Chemical & Antimonial also Brass, Copper, Aluminium Pattas, Lead Capsules & Tubes, etc., 66-68, Narayan Dhuru Street, Bombay 3. Tel. Address: "AXLE." Phone Nos.: 323941-42. *Branches:* Calcutta and Madras.

**Tambe Pt. Ltd., B., Vegetarian Caterer (Props. of Tambe Health Home). Head Office: Sanzgiri Sadan, Girgaum Road, Bombay 4. Phone No. 20687.**

**Branches: (1) Thakurdwar Corner; (2) Hammam Street, Fort; (3) Cona, Girgaon.**

**Taraporevala, D. B., Sons & Co. Private Ltd. Booksellers and Publishers, Treasure House of Books, Taj Building, 210, Dr. Dadabhoy Naoroji Road, Fort. Bombay 1.**

**Taraporvala & Co., Architects, Engineers and Surveyors, 7-10, Horniman Circle, Fort, Bombay 1. Phone No. 252703. Kersasp B. Taraporvala, B.E.(Lpl.), etc., Chartered Architect, and Dorab V. Tarapore A.R.I.B.A., Chartered Architect.**

**Tarasingh Harbindersingh, Princess Street, Bombay 2.**

**Tarkar, B. A., 50, Kansara Chawl, Bombay 2. (Props. of A. B. Tarkar Metal Factory and Tarkar Products). Manufacturers of Copper, Brass, German Silver and Non-Corrosive Stainless Steel wares.**

**TATA ENGINEERING & LOCOMOTIVE CO., LTD.,** *Head Office :* Bombay House, 24, Bruce Street, Fort, Bombay 1. *Sales Office :* 148, Mahatma Gandhi Road, Fort, Bombay 1. *Works :* Jamshedpur 10.

*Directors :—*
J. R. D. Tata, *Chairman* (*Special Director*).
Sir Chunilal V. Mehta.
S. Moolgaokar.
Khan Bahadur C. B. Taraporvala.
W. Hitzinger.
A. Wychodil.
C. H. Bhabha.
N. K. Suntook.
N. N. Wadia (*Tata Iron & Steel Co.'s Director*).
D. C. Baijal.
N. H. Tata.
Dr. J. Zahn (*Alternate Director*).

*Manufacturers of* "Tata-Mercedes-Benz" Diesel-engined truck and bus chassis; steam locomotives, steel and alloy, iron castings and special steel ingots, Tata P & H excavators, paper & pulp making machinery and industrial shunters.

*Subscribed Share Capital :* Rs. 13,00,00,000 (£9,732,000 or $ 27,400,000).

*Debentures :* Rs. 5,00,00,000 (£3,750,000 or $10,500,000).

*Total annual Sales :* Over Rs. 607 million (1964-65).

*No. of Employees :* 20,000.

*Telegraphic address :—Head Office:* "TATALOCO"; (PG) *Sales Office :* "TELCOSALES".

*Telephone No. : Head Office :* 259141, 251501, *Sales Office* 255262-63.

**TATA FISON INDUSTRIES LIMITED,** *Registered Office :* Ralli House, 21, Ravelin Street, Bombay-1.

*Head Office :* Union Bank Building, Dalal Street, Bombay-1.

*Telegraphic Address :* TATFISON, Bombay.

*Telephone :* Head Office—256284. Spraying Service Section—266221.

*Directors :*
P. A. Narielwala (*Chairman*).
A. D. Mango (*Deputy Chairman*).
G. V. K. Burton.
C. Merrick.
L. Sawhny.
N. V. Knowe (*Managing Director*).
D. S. Seth.
H. J. Silverston (Alternate Director to G. V. K. Burton).

Manufacturers of (i) pest control products for agriculture, public health and domestic uses and (ii) ethical pharmaceuticals.

*Sole Distributors in India—*
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Pharmaceuticals : Martin & Harris (India) Private Limited.

**TATA HYDRO-ELECTRIC AGENCIES LIMITED,** Bombay House, 24, Bruce Street, Fort, Bombay-1.

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Sir Chunilal V. Mehta.
J. D. Choksi.
N. H. Tata.
M. G. K. Aitken.
C. B. Campbell.
S. Moolgaokar.
K. G. Saraiya.
P. M. Agerwala (*Managing Director*).
*Secretary :*—M. P. Mistri.

*Agents for :—*
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Andhra Valley Power Supply Co., Ltd.
Tata Power Co., Ltd.

Tel. Address : "THEBAMCO." Phone No. 259141 and 251501. Code used : Bentley's.

**TATA INDUSTRIES PRIVATE LIMITED,** Bombay House, 24, Bruce Street, Fort, Bombay No. 1.

*Directors :—*
J. R. D. Tata (*Chairman*).
N. H. Tata.
J. D. Choksi.
D. R. D. Tata.
P. A. Narielwala.
S. Moolgaokar.
R. D. Choksi.
L. Sawhny.
N. A. Palkhivala.
J. R. Jenk.
K. R. K. Menon.
B. Sh. Saklatvala.
S. K. Nanavati.
R. S. Pande.
J. J. Bhabha.
N. R. Mody.

*Secretary :*—M. P. Mistri.

*Managing Agents for :—*
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Tata Engineering & Locomotive Co., Ltd
Swadeshi Mills Co., Ltd.
Tata Mills Ltd.
Tata Oil Mills Co., Ltd.
Tata Chemicals Ltd.

*Secretaries & Treasurers for :—*
Ahmedabad Advance Mills Ltd.
Central India Spg. Wvg. & Mfg. Co., Ltd.
Indian Hotels Co., Ltd.

Corresponding Firms :—
Tata Limited, 18, Grosvenor Place, London, S.W. 1. Tel. Address: "TATALD."
Tata Incorporated 425, Park Avenue, New York, 22, N. Y. Tel. Address : "TATAINC."
Tata A. G. Poststrasse 20, Zug, Switzerland. Tel. Address: "TATAG" ZUG.

Codes used—Bentley's.
Telegraphic Address : "TATIND."
Phone Nos. 259141 and 251501.

**TATA OIL MILLS CO., LTD.,** *Head Office :* Bombay House, 24, Bruce Street, Fort, Bombay 1. *Mills:* Bombay, Calcutta, Tatapuram (Kerala State) and Ghaziabad (U.P.).

Tel. Address : "Tatoils." Phone : H. O. 259141.

Manufacturers of vegetable oils, oil-cakes, refined and hydrogenated oils, washing and toilet soaps, perfumes, colognes and other toilet preparations, essential oils, detergents, and chemically pure and Industrial Glycerine.

**TATA SONS PRIVATE LTD.,** Bombay House, 24, Bruce Street, Fort, Bombay 1.

*Directors :—*
J. R. D. Tata (*Chairman*).
Lady Ratan Tata.
N. H. Tata.
J. D. Choksi.
D. R. D. Tata.
Sir Jehangir Ghandy.

*Secretary*—M. P. Mistri.

*Corresponding Firms :—*
Tata Limited, 18, Grosvenor Place, London, S.W.1. Tel. Address: "TATALD."
Tata Incorporated 425, Park Avenue, New York, 210022. N.Y. Tel. Address : "TATAINC."
Tata A. G. Poststrasse 20, Zug. Switzerland. Tel. Address : "TATAG" ZUG.
Codes used—Bentley's.
Telegraphic Address : "TATASONS."
Phone No. 259141 and 251501 P.O. Box No. 186.

## THE TATA IRON & STEEL COMPANY LIMITED

**Managing Agents :** Messrs. Tata Industries Private Limited.

**Registered Office :** Bombay House, 24, Bruce Street, Bombay 1.

(TELEGRAPHIC ADDRESS : 'IRONCO". Phone : 259141 & 251501.)

**Calcutta Office :** 23-B, Netaji Subhas Road, Calcutta 1.

(TELEGRAPHIC ADDRESS : "TATAIRON". Phone : 22-2341.)

**Jamshedpur Office :** (TELEGRAPHIC ADDRESS : "TATAIRON").

**Steel Works :** Situated at Jamshedpur, Bihar.

**(Rly. Stn. :** Tatanagar, South Eastern Rly.)

(TELEGRAPHIC ADDRESS : "IRONCO").

**Head Sales Office :** 23-B, Netaji Subhas Road, Calcutta 1.

(TELEGRAPHIC ADDRESS : "IRONCO". PHONE : 22-2341.)

**DIRECTORS :**
J. R. D. Tata (*Special Director*) (*Chairman*).
J. D. Choksi (*Vice-Chairman*).
Sir Chunilal V. Mehta.
Dharamsey Mulraj Khatau.
Neville N. Wadia.
Sir Fazal Ibrahim Rahimtoola.
Sir Jehangir Ghandy (*Special Director*).
Arvind N. Mafatlal.
S. S. Khambata.
N. N. Wanchoo (*Govt. Director*).

**Head Office :** *Mg. Agents' Director*—J. J. Bhabha.
*Agent*—H. D. Katrak

**Jamshedpur & Calcutta Offices :—**
*Mg. Agents' Resident Director-in-charge :* S. K. Nanavati.
*Mg. Agents' Resident Director (Administration) :* R. S. Pande.
*Agent : (Administration)* K. Khosla (Jamshedpur).
*Agent : (Raw Materials)* R. H. Mody (Jamshedpur)
*General Manager :* K. H. Kutar (*Jamshedpur*).
*Sales Manager :* A. H. Sethna (Calcutta).

Manufacturers of Coke, Pig Iron, Ferro Manganese, Ingots, Blooms, Billets, Slabs, Sheet Bars, Tin Bars, Rails, Wheels, Tyres and Axles, Structural Shapes, Bars, Plates, Sheets (Black and Galvanised), Skelp, Strip, Electrical Steel Sheets, Pick-axes, Powrahs, Beaters, Crow Bars, Hammers, Shovels, Bl. ksmst K. kes, etc. Sulphuric Acid, Coal Tar, Sulphate of Ammonia, Benzol, Benzene, Toluene, Crude Naphthalene, Spent Oil, Bottom Sludge, Solvent Naptha.

**TECHNO-INDUSTRIAL SYNDICATE,** Sole Distributors for W. Marshall (Hessle) Ltd., Through the Cement Marketing Co., Ltd., England and N. V. "Lithos," Holland. The Murarka Paint & Varnish Works Private Ltd., Calcutta. Commission Agents, Exporters and Importers of Heavy & Industrial Chemicals, Oils, Zinc Oxide Pigments & Paint materials, Marshall's English Whiting. 19B, Noble Chambers, Parsee Bazar Street, Fort, Bombay. Phone: 251220. Tel. Address: "TEINSY".

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Manufacturers of the well known "TENBY" electrical accessories under license from the English Company

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**VISHWA BHARATI TRADING CO.,** 45, Mint Road, Post Box No. 1052, Bombay 1. Phones: 266371 (All Depts.); 264555 Sales; 263795 Purchase. Grams: "VIBHACO." *Branch:* G.P.O. Box 2628, Calcutta 1. Phone: 336680. Grams: "ARCWELD." Manufacturers of Welding Equipments, Acetylene & Oxygen Gas Generators, Metals joining equipments, Soldering and Brazing equipments, Safety-wear for Industrial Workers, Gloves, Goggles, Dust Protection Respirators, Aprons, etc.

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**VITRUM PRIVATE LTD.** (Proprietors of Vitrum Glass Products), Manufacturers of Glass Bottles and Jars for the Pharmaceutical, Cosmetic and other Industries and of Glass Mosaic Tiles. *Factory:* Bombay-Agra Road, Vikhroli, Bombay 79. Phone: 581643. *Registered Office:* Hanvant Bhuwan, Nepean Sea Road, Bombay 6, Grams: "VITGLASS".

**VITRUM STUDIO & SHOWROOM,** Rutton Villa, 143-B, Cumballa Hill (Opp. Parsi Sanatorium), Bombay 26. Artistic ceramics (hand-painted single tiles & combinations of tiles for murals & tabletops, plates, etc.) Phone: 73912.

Vog & Co., Watch Straps & Bracelets Mfrs., Empire Bldg., D. Naoroji Road, Bombay 1.

Volkart (India) Private Ltd., Post Box No. 199, 19, Graham Road, Ballard Estate, Bombay 1.

**VOLTAS LIMITED,** 19, Graham Road, Ballard Estate, Bombay 1.

*Head Office:*—Bombay 1.

*Branches:*—Calcutta, Madras, New Delhi, Bangalore.

*Sub-Branch:* Lucknow.

*Offices:*—Ahmedabad, Bhopal, Chandigarh, Cochin, Coimbatore, Durgapur, Margao, Jaipur, Jamshedpur, Kanpur, Lucknow, Madurai, Nagpur, Patna, Ranchi, Rourkela, Secunderabad, Sivakasi, Trivandrum, Vijayawada and Visakhapatnam.

*Directors:*—Messrs. P. A. Narielwala (Chairman), J. D. Choksi, B. Reinhart, R. F. S. Talyarkhan, S. K. Handoo, A. B. Parakh, P. C. Cheryan, A. Vogt (Alternate Director for Mr. B. Reinhart), A. Hydari.

*General Management (Bombay):*—R. F. S. Talyarkhan (*Managing Director*); A. B. Parakh (*Jt. Managing Director*); P. C. Cheryan (*Technical Director & General Manager*); R. V. Leyden, E. Thalman and Col. T. K. Mukerji (*General Managers*).

*Divisions:* Air Conditioning & Refrigeration; Earthmoving, Mining & Agriculture; Electrical; Mechanical; Textile Machinery; Project Engineering; Machine Tools; Pharmaceutical and Chemical, & Consumer Products.

*Codes used:* Universal Trade Code, Bentley's Complete Phrase, Bentley's Second.

*Tel. Address:* "VOLTAS". Phone: 26-8131. Post Box No. 900.

**VON KOHORN EASTERN CORPORATION LTD.,** (Incorporated in the Bahama Islands with Limited Liability), Taj Mahal, Strand Road, Bombay 1. Plant Design and Engineering Services for the Production of Viscose and Acetate yarns, Staple Fibre, Tyre Cord Yarns, Transparent Cellulose Sheeting and Synthetic Fibres. Phone: 212638. Grams: "WORLDRAYON", Bombay.

Vora, J. C., & Co., Dealers in Hardware, Bolts, Nuts & Screws, Automobile Parts & Engineering Stores, Modi Chambers, French Bridge, Bombay 4. Tel. Address: "Godisall."

## VULCAN-LAVAL LIMITED

Regd. Office:

Indian Mercantile Chambers,
Nicol Road, Ballard Estate,
P.O. Box 735,
BOMBAY 1-BR.

*Branches:*

Calcutta, Madras, Delhi.

Telephone: 262583.

1. Industrial Engineering Division, Mustafa Building, Sir P. M. Road, Bombay 1-BR. Telephone: 252242 & 256915.
2. Delhi Office: 4, Sunder Nagar, New Delhi 11. Telephone: 619346
3. Calcutta Office: 19/C, British Indian Street, Calcutta 1. Telephone: 235852.
4. Madras Office: 38-C, Mount Road, Madras 6. Telephone: 84061/62.
5. Factories: Bombay-Poona Road, Dapodi, Poona 12. Telephone: 88221-2 & 88271-2.

**MANUFACTURERS OF:**

1. "ASTRA" Ammonia and Freon Compressors and Condensing Units manufactured under licence from Bergedorfer Eisenwerk of West Germany. Complete Ice Plants, Cold Stores, Chilled Water Plants for dairy, food, pharmaceutical, chemical and other process industries.
2. "DE LAVAL" Centrifugal Separators for clarification, purification of transformer and switch-gear oil, diesel oils, lubricating oil, cutting oil etc.
3. "ALFA-LAVAL" Stainless Steel Centrifugal Pumps for dairy, food, pharmaceutical and chemical industries.
4. "ALFA-LAVAL" Stainless Steel Sanitary Fittings for dairy, food, and other pharmaceutical industries.
5. Stainless Steel Equipment, for example, vessels, stills, heat exchangers for dairy, food, pharmaceutical and chemical industries.
6. "ALFA-LAVAL" Plate Heat Exchangers for heating, cooling, heat regeneration and recovery, pasteurizing and sterilizing of liquids.

**SUPPLIERS OF:**

1. Dairy Utensils, such as, tinned steel or aluminium milk cans, bottle crates, milk buckets and dairy laboratory equipment.
2. Vertical non-clogging type of KISHORE pumps in various materials of construction.
3. WINSTONE quality printing inks.
4. WESMAN oil burning equipment, i.e. low pressure burners, blowers, electric oil pre-heaters and also "WESMAN" foundry equipment.
5. "BAILEY" diamond tipped tools, wheels and diamond powders.

**IMPORTERS OF:**

1. "ALFA-LAVAL" complete plant for milk, milk products and other food industries.
2. "DE LAVAL" centrifugal machines for clarification, purification, separation and concentration in food, chemical, pharmaceutical and other industries.
3. "KRUPP-DOLBERG" Centrifuges Plough-and-Pusher-type & larger horizontal conveyor machines.
4. Heat Exchangers of plate, spiral, lamella and shell and tube type of heat exchangers in corrosion resisting alloys for heating, cooling, heat regeneration and heat recovery.
5. "ANHYDRO" evaporating and spray drying plants for milk, pharmaceutical and chemical industries.
6. "KAMAS" seed cleaning and seed handling equipment. Grain storage and grain and other granular handling equipment.
7. "HOFLIGER & KARG" packaging machinery for food and pharmaceutical industries. Specializing in packaging for granular and powdery products.
8. "KUSTNER" packaging machinery for butter, margarine, ice cream and process cheese machinery.
9. Diamond Drilling Equipment for Mining and Geological Survey.
10. "GRAM" ice cream making machinery of Denmark.
11. Bottling machinery for dairy, soft-drink, brewery and other food industries.

Ship Servicing of Centrifugal and Refrigeration Machinery.

## WACO RADIO

**WACO RADIO ELECTRONIC INDUSTRIES**—Office : Sukhsagar Building, Hughes Road, Bombay 7. Phone : 71051. Factory : Ulhasnagar 4, opp. Vithalwadi, C. Rly. St., Maharashtra State. Mfrs. of Sanyo Transistor Radios, Waco Radios, Amplifiers Intercom equipments, HI-FI-amplifiers, Ampligrams, Radiograms, Transformers, Chokes, Ballasts for Lamps and Wooden Radio Cabinets.

Wadia & Co., K.—Jewellers, Diamonds & Precious Stones. 324, Grant Road, Bombay 7. Phone : 71483. Grams : "GEMARTWORK".

**WAKEFIELD PAINTS PRIVATE LTD.,** "Dhan-Nur", 15/16, Sir Phirozshah Mehta Road. Bombay 1. Phone : 264061. Grams : "WAKEPAINT". Manufacturers of Industrial & Decorative Finishes & Painting Contractors.

Walchandnagar Industries Ltd., *Registered Office :* Construction House, Ballard Estate, Bombay 1.

**WALLACE & CO., Merchants, 9, Wallace Street. Partners : Wallace Brothers & Co. Ltd., Europe ; The Bombay Co., Private Ltd., Bombay, and Secretaries and Treasurers of the Bombay-Burmah Trading Corporation, Ltd. Agents for : F. F. Chrestien & Co., Ltd., Union Insurance Society of Canton Ltd., Commercial Union Assurance Co., Ltd. Tel. Address : "ROMFORD." Phone No. 26-3032. Post Box No. 201.**

Wallace Flour Mills Co., Ltd., Registered Office : 9, Wallace Street, Fort. Telephone : 26-3281.

## WANDER

**WANDER PHARMED LIMITED.**
Lotus House, 33A, New Marine Lines, Bombay-1. *Phone :* 244030
*Manufacturers* of Chemicals (Anti. T.B. Drugs) and Pharmaceuticals. *Factory :* Sion-Trombay Road, Deonar, Chembur Bombay-71. *Phone :* 521807.

**WANDLESIDE NATIONAL CONDUCTORS LTD.,** *H.O. :* Industrial Estate, Lalbaug, Bombay 12. Phone : 77391 (3 Lines). *Works :* Nagar Road, Poona 14. Phone : 25211/2. Grams : *H.O.* 'Natelin'. *Works :* "WANDLESIDE". Makers of "ELECTROLYTIC PAPER—COVERED —COPPER WIRES & STRIPS" also "TEMPLON" Super Enamelled Copper Wires.

**WARDEN & CO. PRIVATE LTD.,** Mfrs. of "Security" Brand Waterproof & Waxed Paper, Multi-Wall Paper Sacks and Hessian Lined Paper/Polythene Bags. Quay Street, Mazagon, Bombay 10.

*(For details please see "Waterproof Paper Mfrs.").*

Watanmal Boolchand, Importer, Exporter & Manufacturers' Agent, 534, Kalbadevi Road, Bombay 2. P.O. Box 2233.

**WATERPROOF PAPER MANUFACTURING CO., PRIVATE LTD.,** Manufacturers of all kinds of Waterproof Paper in Rolls for packing, Textile Goods, Machinery, etc. Alice Buildings, 339, Dr. Dadabhai Naoroji Road, Fort, Bombay 1. Phone : 255771. Factory : Anjirwadi, Mazagon, Bombay 10.

Water Supply Specialists Private Ltd. Sole Agents for Myer's Pumps, 8, Hamam Street, Fort, Bombay 1.

**WATUMULL INDUSTRIES PVT. LTD.**

*Manufacturers of :*

**Fleet**

QUALITY REFILLS & BALL PENS

"Delstar", 1st Floor, 9-9/A, Hughes Road, Bombay 26 WB.
Telephone : 74425.
Telegrams : "KHUBBROS".

Weldwell Electrodes Private Ltd., Mfrs. of Arc Welding Electrodes and Welding Accessories. 341, Tardeo Buildings, Tardeo, Bombay 34. Phone : 71494. Grams : "WELDMASTER".

**WEST END WATCH CO.,** 49, Mahatma Gandhi Road, P.O. Box No. 504, Bombay 1. Watch and Clock makers, Jewellers and Silversmiths. Tel. Address : "HOROLOGY," Bombay. Phone Office : 255644, Showroom : 252728.

**Waco**

**WESTERN AGENCIES CO.,** Sukh Sagar Building, Hughes Road, Bombay 7. Phone : 71051. Grams : "WESTCOY". Engineers, Manufacturers' Representatives for RADIO, T.V., Electronic Components, Electronic & Communication Equipments and Instruments.

**WESTERN INDIA ENGINEERING CORP. PRIVATE LTD.,** Manufacturers' Representatives, Electrical Engineers and Contractors. *Registered Office :* Cama Chambers, 23, Medows Street, Fort, Bombay.

*Directors :*—D. N. Purandare, Jayant L. Desai and N. N. Purandare.

Phone No. 252610. Tel. Address : "WIECOL" Bombay.

**WESTERN INDIA MANUFACTURERS' AGENCY PRIVATE LTD.,** Dealers in Leather Cloth, Oil Cloth and Bus Body Building Materials, Speciality Seat Covers for Motor Cars. 190, R. K. Building, Khetwadi Main Road, Bombay 4. Phone : 71615. Grams : "ARTLEATHER". P.O. Box 574, Bombay 1. Branches : Calcutta, Delhi & Madras.

## WESTERN INDIA STRIP MILLS

*Re-Rollers of :*
M. S. Bars & Flats, Squares, Angles and Steel Window Sections
*Manufacturers of :*
Steel Windows and Sections
*Address :* Agra Road, Bhandup, Bombay 78
Phone : 592244 - 592533
Grams : "WESTSTRIP" Bombay.

**WESTERN INDIA TANNERIES LTD.,** Manufacturers of every kind of Shoe upper and sole leather. Specialists in the manufacture of Textile Leathers, Chrome Picking Bands, Leather Beltings, Buffers, Washers, Roller Skins, Pickers, Laces, etc. Address :—Dharavi, Bombay 17. Phones : 62621 & 62622. Telegrams : "Eastkip."

Western India Trading Co., Hague Building, Sprott Road, Ballard Estate. Stockists of all well-known Printers' requisites. Sole Agents for Coates of India Ltd., Lithographic and Printing Inks. American Type Founders Sales Corporation, World's Largest Manufacturers of types. Hunter Penrose Ltd., Marinoni Offset Machines. Tel. Address : "Sargonco." Phone No. 26-3366.

**WESTERN MACHINERY CO.,** 22, Basement, Commerce House, Medows Street (Nagindas Master Road), Bombay 1. Stockists of Oil Seals and Circlips.

**WESTINGHOUSE TRADING CO. (ASIA) LTD.,** "The International", 16 Queen's Road, Bombay 1 ; Grams : 'WESTASIA,' Phone : 241094/95. 43, Ring Road, Lajpatnagar III, New Delhi 14 ; Grams : 'WESTASIA,' Phone : 74534-76530. 8 & 12 Chittaranjan Avenue, Calcutta 13 ; Grams : "WESTEAST," Phone : 234875.
*Regional Director :* Mr. V. M. White, New Delhi.
*Regional Representative :* Mr. G. B. Sujan, Bombay.
*Regional Representative :* Mr. C. L. Parks, Calcutta.

Westrex Company, (Prop. : Cinerama Private Ltd.)—Metro House, Mahatma Gandhi Road, Bombay 1. P.O. Box No. 1232, Tel. Address : "Westrex." Phone Nos. 242273 & 242274.

**WHARTON, H. W., & CO., PRIVATE LTD.,** Importers and Manufacturers of "Kleanwell" Brand Circular Wire Brushes & Shaft Machines and accessories, Lubricating Oils & Greases, Welding Rods, Toilet papers, Adding Machine Coils, Iron, Cement, "Silica Gel" etc. Alice Building, Dr. Dadabhai Naoroji Road, Fort, Bombay 1. Phone : 255771.

**WIGGINS TEAPE & ALEX PIRIE (BRANCH OF TRIBENI TISSUES PVT. LTD.),** Kamani Chambers, 32, Nicol Road, Ballard Estate, Bombay. Stockists of High Grade GATEWAY and Light Weight Tissue Papers manufactured at the Group Mills in the United Kingdom and by Tribeni Tissues Pvt. Ltd., Calcutta. Agents for Charles Morgan & Co., Ltd., London, Paper Merchants.
Telegrams : "Winchmore." Phone No. 261622.

**WILLIAMS, G. & CO. PRIVATE LTD.,** Advent, 8th Floor, 12-A, Foreshore Road, Bombay 1. Post Box No. 1736. Phone Nos. 213281 & 213282. Grams: "BLANWIRE".

*Representing in :—*

The Paper, Board, Asbestos, Cement. Industries and Textiles, Printing and Filtration Trades.

Porritts & Spencer, Ltd., Bury, England, Haslingden Office: Broadway, Haslingden, Rossendale, Lancashire, England. Manufacturing: Paper Machine Felts. and all Types of Mechanical and Filter Cloths.

United Wire Works Ltd., Granton Edinburgh 5, Scotland. Manufacturing: Machine Wires & Covers.

W. Green Son & Waite Ltd., Invicta Works, Chalk Pit Avenue, St. Paul's Cray, Kent, England. Manufacturing: Dandy Rolls, "Electronic" Dandy Drives, Cylinder Mould Covers, Dandy Brackets and Drives, Hand Moulds, Dandy Type Table Rolls.

Price & Pierce Ltd., 27, Clements Lane, London, E.C. 4, England; Price & Pierce (Canada) Ltd., 1058, Sun Life Building. Montreal 2, Canada; Price & Pierce Sales Inc., 60 East 42nd Street, New York, 17, N.Y. Manufacturing: Canadian, American, Scandinavian Wood pulp.

Vickerys Limited, 53, Norman Road, Greenwich, London S.E. 10, England. Manufacturing: Stock Cleaning System, Felt Conditioners, Doctor Blades, etc.

Spooner Dryer & Engineering Co. Ltd., Ilkley, Yorkshire, England. Manufacturing: Paper Machine Hoods and Coating Dryers.

G. Durrant & Sons Ltd., Bury Street, Stockport, England. Manufacturing: Paper Camber Rollers.

Deloro Stellite Ltd., Highlands Road, Shirley, Solihull, Warwickshire, England. Manufacturing: All kinds of Stellite Faced Knives & Chippers.

Asbestos Corporation Ltd., Thetford Mines, Quebec, Canada. Manufacturing: Asbestos Fibre.

Langworthy, Bros. & Co. Ltd., 12, Charlotte Street, Manchester 1, England. Manufacturing: Moleskin and Blowing Wrapper Cloths & Cotton Twill Flannel.

Dunlop Rubber Co., Ltd., Post Office Box No. 151, Cambridge Street, Manchester 1. England. Manufacturing: Offset Rubber Printers Blankets, Rubber Blankets for Controlled Compressive Shrinkage Machines (Sanforizing) and Spreading Jackets for proofing Industries.

Boyles Bros. Drilling Co., Ltd., 1291, Parker Street, Vancouver-6, B.C. Canada. London Office: Newcastle-Upon-Tyne 3, England. Manufacturing: Diamond Core Drills and Operating Equipment.

The Federal Machinery & Mfg. Co., Ltd., 72, Queen Street, Lennoxville, Quebec, Canada. Manufacturing: Phosphor Bronze, Brass & Copper Strainer Plates.

H. J. G. McLean Ltd., P.O. Box No. 202, Brantford, Ontario, Canada. Manufacturing: Stainless Steel Refiners & Beater Bars.

James Bertram & Son Ltd., Leith Walk, Edinburgh 6, Scotland. Manufacturing: Stock Preparation, Paper & Board Machines.

Ernest Scott & Co., Ltd., Leven, Fife, Scotland. London Office: Artillery House, Artillery Row, London S.W. 1, England. Manufacturing: Pulping & Chemical Recovery Plants.

Manning Maxwell & Moore Inc., Muskegon, Michigan (U.S.A.): *Export Division:* A Division of DRESSER Industries Inc., 122 E. 42nd Street, New York, N.Y.; *Canadian Subsidiary:* Manning Maxwell & Moore of Canada Ltd., 200, Avenue Road, Galt, Ontario, Canada; *Swiss Subsidiary:* Manning Maxwell & Moore S.A., 18, Rue St. Pierre, Fribourg, Switzerland. Manufacturing: Material handling equipment such as Show Box and Load Lifter E.O.T. Cranes, Budgit Electric hoists, Chain Blocks, etc.

The Butler—Larkin Co. Inc., P. O. Box 664, Wellsville, New York (U.S.A.). Manufacturing: Oil Well Production Equipment such as Packers, Cementing Equipment, Tubing Filling and production tools, etc.

*Selling Agents for :—*

Bertrams-Scott (India) Ltd., 13, Camac Street, CALCUTTA 16.

Manufacturing: Paper, Cellulose and Board Making Machines.

Industrial Supplies Corporation, Sakinaka, Kurla Andheri Road, Bombay-70. Recovering of Rubber Rolls for the Paper & Allied Trades.

Partners in the Managing Agents of Paper Mill Plant & Machinery Manufacturers Limited. Swami Vivekanand Road, Jogeshwari, Bombay-60.

**WILLIAMSONS (INDIA) PRIVATE LTD.,** Textile Mill Stores & Machinery, Suppliers, 10, Veer Nariman Road, Fort, Bombay. *Directors:* K. B. Parekh (*Mg. Director*); A. Summersgil, A. P. Williamson, C. U. N. Swami. Phones: 252415 & 254243. Tel. Address: "BELTMAKERS." Post Box No. 1176. *Secretaries:* Messrs. Gillanders Arbuthnot & Co., Ltd., Bombay and Calcutta, *Branches:* 670/22, Motilal Hirabhai Market, Railwaypura Post, Ahmedabad. 8, Netaji Subhas Road, Calcutta. *Agent:* Mr. A. P. Jaganathan, Coimbatore. Also Messrs. Gillanders Arbuthnot & Co. Ltd., at New Delhi, Madras and Kanpur.

*Representing :—*

**Williamson & Co. (Rochdale) Ltd., Rocndale, Lancashire, England.** Leather Beltings, Roller Skins, Pickers, Picking Bands, Buffers, Laces, Cone Belts, Condenser Rubbing Leathers, Tapes, etc.

**Tom Briggs, Cleckheaton, England.** Manufacturers of Card Clothing for Cotton Waste and Wool.

**Machinenfabrik Arbach G. Grozinger 14b, Reutlingen, Germany.** Raising, Folding, Inspecting Machines for other Fabrics and Finishing and Calendering Machinery for HosieryFabrics.

**H. Schirp, Wuppertal Vohwinkel W. Germany.** Manufacturers of Opening and Cleaning Machines, Rag Grinders, Hard Waste Devils, Washing and Cleaning Machines for Cotton Waste and Wool.

**Ernest Scragg & Sons Ltd., Macclesfield, England.** Manufacturers of Complete Plants for Processing both Natural and Synthetic Yarns, Uptwisting, Ring Doubling, Winding and Crimp-Spinning Machinery.

**Chadwick Machine Co., Ltd., Cleckheaton, England.** Woollen Opening and Carding Machinery.

**WOOD-WORTHS,** Home and Office Furniture Manufacturers. Show-Room: Commerce Centre, Tardeo, Bombay-7 (W.B.).

**WYETH LABORATORIES LTD.,** Regd. Office: Steelcrete House, Dinshaw Wacha Road, Backbay Reclamation, Bombay 1. Phone: 246171 (4 lines), Grams: "WYELABS". *Factory:* Agra Road, Ghatkopar, Bombay 77. Phones: 55373, 55386 and 51271. Grams: "WYELABS".

Y. A. Hazare & Bros., Silversmiths and Machinery Merchants. 1st, Panjrapole Lane, Bombay 1.

**Y. A. MAMAJI & SON (PRIVATE) LTD.** Estd. 1885. Manufacturers' Representatives in. P.V.C. leather cloth. 136-38, Sir Ebrahimtulla Road, Bombay-3. Phone: 33228 Grams: "MAMAJISON".

Y. M. Pathare & Co., Engineers, 41, Medows Street, Post Box No. 1428, Bombay 1.

Yusufali Goolamhoosen Arsiwalla, Dealers in Glasses, Plywood and Hardboard, Stockists of all kinds of glasses, Window Sheet, Plate, Wired, Ribbed, Figured, Opal, Vitrolite, Triplex, Mirrors, Hardboard, Steel Folding Chairs, etc., 105, Abdul Rehman Street, Bombay 3; Grams: "GLASSAGE." Phone: 324464.

Zenith Assurance Co., Ltd. Head Office: Mehta House, Apollo Street, Fort, Bombay. Jal H. Mehta, *Chairman;* M. S. Dastur, *General Manager.* Tel. Address: "Zenithlife," Bombay. Telephone No. 252364.

**ZENITH ELECTRIC STORES,** Electrical Goods Manufacturers & Stockists, 51, Ahmed Building, Lohar Chawl, Bombay 2. Phone: 23125.

Zenith Surgical Co., Surgical Goods Merchants. 206/3C, Mangaldas Road, Bombay 2.

**ZENITH TIN WORKS PRIVATE LTD.,** Manufacturers of Plain & Lithographed Tin Containers, Sanitary Cans, Collapsible Tubes & Pilfer Proof Caps, Opp. Race Course, Clerk Road, Mahalaxmi, Bombay 34. Phone: 70375. Grams: "ZENITHTINS". *Directors:* M. S. Barodawala & S. S. Barodawala. Res.: 126, Cadell Road, Mahim, Bombay 16. Phone: 452041 and H. A. Barodawala. Res.: Mohamadi Chambers, Clerk Road, Byculla Bridge, Bombay 8.

Zenith Varnish Works.—Zenith House, Dhobi Street, Bombay 3. Phone: 323059. Grams: "Zenekcide". Disinfectants, Insecticides & Paint Manufacturers.

ZEPHYR

**ZEPHYR LEATHER WORKS,** Advertising Plastic & leather goods Mfrs., 1st floor, Sethna Building, Kitchen Garden Lane, Sheikh Memon St., Bombay 2. Phone: 23803. Grams: "LOOSELEAF".

# CLASSIFIED LIST OF TRADES AND PROFESSIONS

## ABRASIVES

Abdeally, B. M., & Co.—127, Sarang Street, Bombay 3. Phone: 29990.

**ABRAWHEEL PRIVATE LTD.—107, Sarang Street, Bombay 3. Phone: 323214. Sole Distributors for States of Maharashtra & Gujarat, for coated abrasive made by Messrs. John Oakey & Mohan Ltd.; Branches: 173, Gondal Road, Rajkot & Relief Road, Ahmedabad.**

**BABULAL & BROS.—26, Nagdevi Cross Lane, Bombay 3. Phone: 323930. Grams: "FIREFLY." Stockists of Abrasives, Asbestos Goods, Engineering Tools, Hardware, Mill Gin Stores & Pipes—Pipe Fittings.**

Bharat Engineering Stores.—113, Nagdevi Street, Bombay 3.

**CARBORUNDUM UNIVERSAL LTD.—Mfrs. of Bonded and Coated Abrasives, Grains and Super Refractories, United India Buildings, 3rd Floor, Sir Phirozeshah Mehta Road, P.B. No. 962, Bombay 1.**

Cox & Co., Ltd., H. S.—24, Rampart Row, Fort, Bombay.

Gaytee & Co.—Janmabhoomi Chambers, Fort Street, Bombay 1.

Gillanders Arbuthnot & Co., Ltd.—16, Queen's Road, Bombay 1.

Grind-Well Abrasives Limited.—Karim Chambers, 40, Hamam Street, Fort.

**HINDUSTAN TOOLS & ENGINEERING CO.—Post Box 2311, 9/13, Picket Cross Road, Lohar Chawl, Bombay 2. Grams: "DRILLTAPS"; Manufacturers of Stainless Steel Pipes Fittings, Cock & Valves.**

**INDUSTRIAL ABRASIVE CO-OP. SOCIETY LTD.—Kassam Chambers, 163, Frere Road, Bombay-1. Phone: 261372. Grams: "INDABRA" Factory: Mora-Uran, District Kolaba. Manufacturers of Superior quality Grinding wheels, Blocks, Mounted Parts Etc.**

Jacks, William & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Fort.

Jairamdas & Sons.—163, Narain Dhuru Street, Bombay 3.

**M. DESAI & CO.—163, Narayan Dhuru Street, Bombay 3. Phone: 323248. Grams: "EMDESAICO." Authorised Stockists for Grinding Wheels by Carborundum Universal Ltd.**

**M. GASSER & CO.—Importers and Exporters Himalaya House, Phalton Road, Bombay 1. Phone: 263978; Grams: "GASSERCO." Manufacturers' Representatives for Silicon Carbide and Alluminium Oxide from West Germany.**

**MODERN MACHINE TOOLS CO.—88, Nagdevi Cross Lane, Bombay 3. Grams: "MONKEYGRIP"; Phone: 322456. Stockists: Grindwell Abrasive Wheel, Dressers and Cutters.**

**NAGDEVI TOOL-STEEL MART.—186-88, Nagdevi Street, Bombay 3. Phones: 323023 and 327058. Grams: "TENDERERS."**

**PROGRESSIVE INDUSTRIES.—36, Sutar Chawl, Bombay 2. (BR); Phone: 325797; Grams: "PRIMEPAPER"; Kalbadevi. Manufacturers of Sand Paper and Emery Papers.**

P. Ratilal & Co.—43, Dhanji Street, Moti Mahal, Bombay 3.

Rasiklal Shah & Co.—93, Narayan Dhuru Street, Bombay 3.

Shah Trading Corporation.—Oomrigar Building, opp. Crawford Market, Bombay 3.

William Jacks & Co., Ltd.—Bharat House, Apollo Street, Fort, Bombay.

## ACCOUNTING MACHINES

Hollerith (India) Private Ltd.—See International Computers and Tabulators (India) Private Ltd. (Commercial Firms Section).

**IBM WORLD TRADE CORPORATION.—Head Office: CBT Building, 4, Bahadur Shah Zafar Marg, New Delhi-1. Phone: 277881 (10 Lines). Grams: "INBUSMACH." Offices at New Delhi, Bombay, Calcutta, and Madras. IBM Electric and Electronic Data Processing Machines.**

Imanes.—94, S. V. Road, Erla, P.O. Box 8002, Bombay 56. Phone: 571634, Gram: "BELLIBONE(SZ)." Springs and Forms out of Spring wires and Strips for your Industry.

**NATIONAL CASH REGISTER CO.—Steelcrete House, Dinsha Wacha Road, Backbay Reclamation, Bombay 1. Phone Nos. 245955, 245168.**

## ACETYLENE & OXYGEN GAS GENERATOR MFRS.

**VISHWA BHARATI TRADING CO.—45, Mint Road, Post Box No. 1052, Bombay 1. Phones: 266371, 264555 & 263795. Grams: "VIBHACO." Branch: G.P.O. Box 2628, Calcutta 1. Phone: 336680; Manufacturers of Welding Transformers, Acetylene & Oxygen Gas Generators and Accessories.**

## ACID & ALKALI RESISTING CHEMICAL STONEWARE

**BASSEIN CERAMICS PVT. LTD.—Manufacturers of Chemical, Stoneware and Porcelain Tower Packings, Fire Bricks, Acid Proof Bricks & Insulation Refractories, 324, Cook's Building, 2nd Floor, Dr. Dadabhoy Naoroji Road, Bombay 1. Phone: 252644. Grams: "KARDWEB."**

## ACIDS AND ALLIED PRODUCTS

**C. M. VORA & CO.—160, Dr. Dadabhoy Naoroji Road, Fort, Bombay. Phone: 261609. Importers & Stockists of Chemicals for all Industries.**

**PRAVIN BROTHERS & CO.—501, Commerce House, Medows Street, Bombay 1. Phone: 251748, 252419; Grams: "WIDESCOPE." Importers, Exporters and Agents: Sulphur, Chemicals, Solvents, Pyridene Base, Fertilizers, Minerals, Lime, Jute Products. Polysol S-5, Polysol S-6, Gypsum.**

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**UNION ACID & CHEMICAL CO.,**

88, Jambli Mohalla, Bombay 3

*Stockists of :*

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Mehta, H. M., & Co.—Mehta House, Apollo Street, Fort.
Milford Bros.—7-11, Elphinstone Circle, Fort.
Millars' Timber & Trading Co., Ltd.—Victoria House, Victoria Road, Mazagon.
Minerva Trading Agency.—58, Forbes Street, Fort.
Morison, J. L., Son & Jones (India), Ltd.—Post Box No. 258, Contractor Building, Ballard Estate.
Muller & Phipps (India) Ltd.—Queen's Mansions, Bastion Road, Fort.
Nanji V. Dossa & Co.—Jan Mansion, Sir Phirozshah Mehta Road, Fort.
Narielwala, B. P., & Sons.—101, Apollo Street, Fort.
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Overseas Chemical & Trading Co.—Jan Mansion, Sir Phirozshah Mehta Road, Fort.
Pan Asiatic Overseas Co., Ltd.—Bell Building, Sir Phirozshah Mehta Road, Fort.
Patel Bros.—10, Veer Nariman Street, Fort.
Patell, P. R., & Co., Ltd.—Mherwan Building, Sir Phirozshah Mehta Road.
Pavri Sons & Co.—95-97, Bazargate Street, Fort.
Phillips & Co.—Waterloo Mansions, Mayo Road, Fort.
Phipsone & Co. Private Ltd.— 6, Apollo Street, Fort.
Poonjiajee, J. M. Jehangir.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort, Bombay.
Precious Electric Co.—Yusuf Building, Churchgate Street, Fort.
Premchand Roychand & Sons, Ltd.—63, Apollo Street, Fort.
Printer Bros.—Beaumon Chambers, Medows Street, Fort.
Progressive Corporation, Ltd.—Jehangir Wadia Building, 51, Mahatma Gandhi Road, Fort.
Rallis India Ltd.—21, Ravelin Street, Fort.
Ramdas Khimji Bros.—Warden House, Sir Phirozshah Mehta Road, Fort.
Ratilal, R., & Co.—111, Mahatma Gandhi Road, Bombay 1.
Richardson Cruddas & Co., Ltd.—Byculla Iron Works, Byculla.
Roberts, McLean & Co., Private Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Fort.
Roneo, Ltd.—Navsari Chambers, 39, Bastion Road, Fort.
Sankalchand G. Shah & Co.—Hanuman Building, Tambakanta, Pydhownie.
Salemahomed Padamsee & Co.—141, Chuckla Street, Bombay 3.
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Sarabhai & Co.—Western India House, Sir Phirozshah Mehta Road, Fort.
Sepulchre Brothers (India) Private Ltd.—Taj Building, 210, Hornby Road.
Shanks & Co., Ltd.—Jeroo Building, next to Cornalia, Mahatma Gandhi Road, Fort.
Shapurji & Co., B. K.—319, Hornby Road, P. B. 1065, Fort.
Shaw, Wallace & Co. Ltd.—3, Wittet Road, Ballard Estate.
Shroff Bros. & Co.—4, Botawalla Building, 7-9, Elphinstone Circle, Fort.
Soho House.—Vithal Sayana Building, Lohar Street.
Sorabji Hormusji & Co.—22, Mangaldas Road, opp. P. O., Juma Masjid.
Sorabji Kharas & Co.—Fort Chambers, 65, Tamarind Lane, Fort.
Sorabji Pestonji & Co.—105, Apollo Street, Fort.
Spencer & Co., Ltd.—Spencer's Building, Forjett Street, Bombay 26.
Spinner, E., & Co.—8, Tamarind Lane, Fort.
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Suren, W. T., & Co.—United India Building, Sir Phirozshah Mehta Road, Fort.
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Turner Hoare & Co., Ltd.—Gateway Building, Apollo Bunder.
Turner Morrison & Co., Ltd.—16, Bank Street, Fort.
United Steel Companies (India), Ltd., The.—Himalaya House, Junction of Hornby Road and Palton Road, Bombay 1.
Valiram Sons.—Patel Building, Bomanji Master Road, Kalbadevi.
Vasantlal Vadilal & Co.—215-17, Samuel Street, Vadgadi.
Vikram Padamsey & Co.—Rustom Building, 29, Vir Nariman Street, Fort.
Vissanji, Sons & Co.—9, Wallace Street, Fort.
Vulcan Trading Co. Private Ltd.—Indian Mercantile Chambers, Nicol Road, Ballard Estate.
Wallace & Co.—9, Wallace Street, Fort.
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Arvinda Trading Co., Private Ltd.—105, Apollo Street, Fort.
Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Fort.
Bhiwandiwalla, H. M. D. H., & Co.—583, Chira Bazar.
Brady, W. H., & Co., Ltd.—Veer Nariman Street, Fort.
Chandulal T. Shah, Hon. Presidency Magistrate and J.P.—Jehangir Bldg., 133, Mahatma Gandhi Rd., Bombay 1.
Chinubhai Kalidass & Bros.—20, Hamam Street, Fort.
Fakirchand Keshrichand Shroff.—Advani Chambers, Sir Phirozshah Mehta Road.
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Kooverjee V. Curumsey & Co.—Lentin Chambers, Dalal Street, Fort.
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Lee & Muirhead (India) Ltd.—12, Rampart Row, Fort.
Mohan Sons & Co.—125, Mahatma Gandhi Road, Fort, Bombay 1.
Motishaw, R. K.—Bhansilal Motilal Mansion, Hamam Street, Fort.
Nanji V. Dossa & Co.—Jan Mansion, Sir Phirozshah Mehta Road, Fort.
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Larsen & Toubro Ltd.—I.C.I. House, Dougall Road, Bombay 1.

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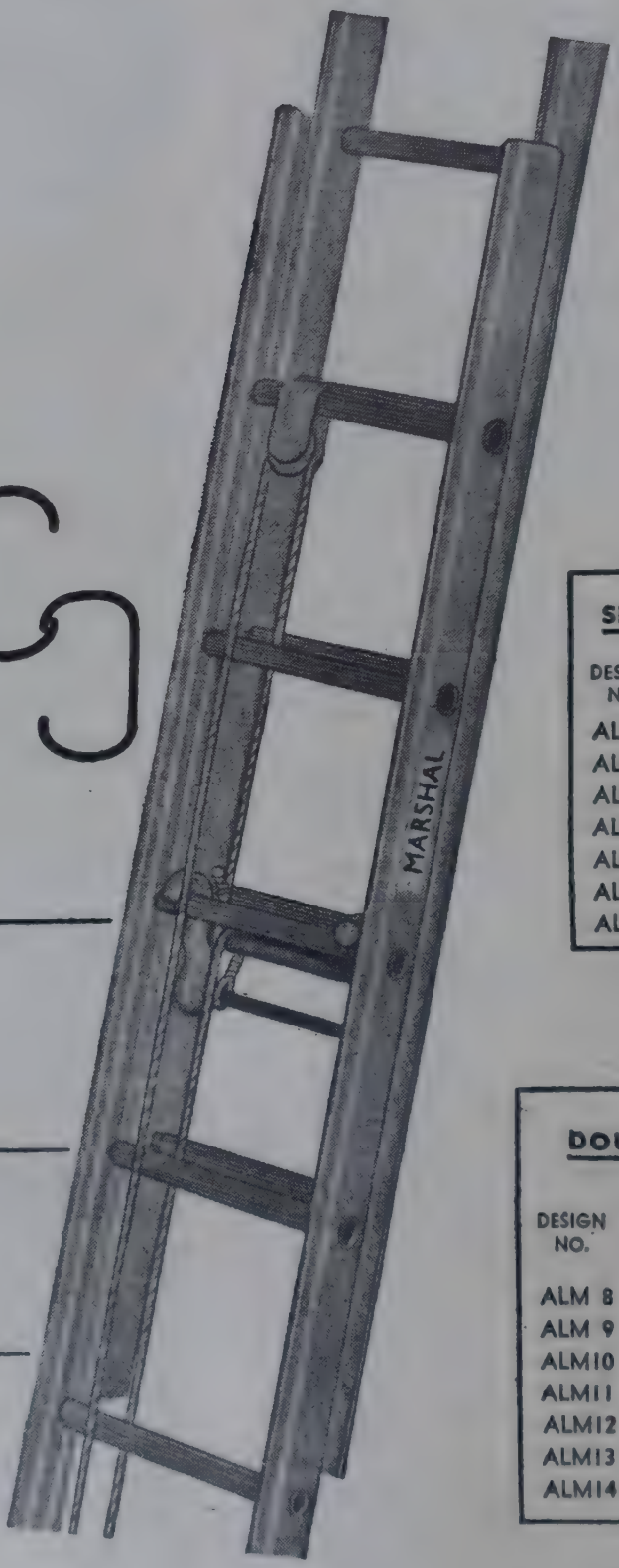


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|---|---|---|
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| ALM 9 | 12 | 21 |
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Hiralal M. Mehta & Co.—Cama Chambers, Medows Street, Fort.
Jamshetjee Rustomji & Devidas.—Laigir Chambers, Junction of Dean Lane and Tamarind Lane, Fort.
Jehangir, Gulabbhai & Billimoria.—Solicitors, 14, Hamam Street, Fort.
Jehangir & Seerval.—Opp. Bombay University Building, 107, Mahatma Gandhi Road, Fort.
Jhavery & Co.—40-44, Hamam Street, Fort.
Joshi & Co.—34-36, Alli Chambers, Medows Street, Fort.
Kamdar & Co.—Medows House, Medows Street, Fort.
Kanga & Co.—Readymoney Mansion, next to Mongini Ltd., Churchgate Street, Fort.
Kharas & Co.—Bansilal Building, Bruce Street, Fort.
Khunderao, Laud & Co.—101, Mahatma Gandhi Road, Fort. Partners: K. S. Rele, D. J. B. Kamdin. Tel.: 20947.
Lakhia & Co.—6, Bell Lane, Medows Street, Fort.
Lala & Co.—Ismail Building, Hornby Road, Fort.
Little & Co.—Central Bank Building, Mahatma Gandhi Road, Fort.
Madhavji & Co.—Examiner Press Building, 35, Dalal Street, Fort.
Mahimtura & Co.—66, Tamarind Lane, Fort.
Mahomed Ali & Co.—15, Military Square Lane, Fort.
Majmudar & Dalal.—Ismail Building, 381, Hornby Road.
Malvi, Ranchoddas & Co.—27-29, Mahatma Gandhi Road, Fort.
Manilal, Kher, Ambalal & Co.—Jehangir Wadia Building, 51, Mahatma Gandhi Road, Fort.
Mankodi & Co.—Fort Chambers, Tamarind Lane, Fort.
Mansukhlal, Hiralal & Co.—5, Military Square Lane, Fort.
Manubhai & Co.—Cama Building, 24-26, Dalal Street, Fort.
Matubhai, Jamietram & Madan.—Lentin Chambers, Dalal Street, Fort.
Mazagonwalla & Co.—Lentin Chambers, Dalal Street, Fort.
Mehta, Lalji & Co.—2-4, Oak Lane, Fort.
Merwanji, Kola & Co.—14, Hamam Street, Fort.
Minocheher Hiralal & Co.—41-45, Medows Street, Fort.
Mody & Co.—381, Ismail Building, Hornby Road, Fort, Bombay 1.
Mohile & Parekh.—65, Mahatma Gandhi Road, Fort.
Motichand & Devidas.—31, Nanabhai Lane, Fort.
Mulla & Mulla and Craigie Blunt & Caroe.—Jehangir Wadia Building, 51, Mahatma Gandhi Road, Bombay.
Nagindas, Hooseinally & Co.—Yusuf Building, Churchgate Street, Fort.
Nanu Hormasjee & Co.—Fort Chambers, Hamam Street, Fort.
Narielvala & Framroze.—Central Bank Building, Mahatma Gandhi Road, Fort.
Pandia & Co.—Hamam House, Hamam Street, Fort.
Papa, R. E., & Co.—41, Hamam Street, Fort.
Pathare & Liladhar.—38, Tamarind Lane, Fort.
Pereira, Fazalbhoy & Co.—Fazalbhoy Building, 45-47, Mahatma Gandhi Road, Fort.
Raghavayya, Nagindas & Co.—94, Medows Street, Fort.
Ranchhoddas & Co.—Examiner Press Building, Medows Street, Fort.
R. H. Dadyburjor.—Rustom Building, 29, Churchgate Street, Fort.
Rege, D. N., & Co.—Yusuf Building, Mahatma Gandhi Road, Fort.
Romer Dadachanji Sethna & Co.—1st Floor, Raja Bahadur Motilal Bansilal Mansion, 14K, Hamam Street, Fort. Solicitors and Notaries Public.
Rustomji & Ginwalla.—Old French Bank, Mahatma Gandhi Road, Fort.
Sabnis, Goregaoker & Rele.—11, Bruce Street, Fort.
Samant & Co.—381, Hornby Road, Fort.
Shah & Chinubhai.—Ebrahim Building, 98, Medows Street, Bel Lane, Fort.
Shah & Mehta.—7, 2nd Carpenter Street, Bombay 4.
Shah & Co.—Yusuf Building, Mahatma Gandhi Road, Fort.
Shastri & Co.—77, Medows Street, Fort.
Shroff & Co.—375, Hornby Road, Fort.
Smetham, Byrne & Lambert.—Jehangir Wadia Building, 51, Mahatma Gandhi Road, Fort.
Solomon & Co.—Spinner Building, Tamarind Lane, Fort.
Sukthanker & Gupte.—Yusuf Building, 35-43, Mahatma Gandhi Road, Fort.
Surajmal & Co.—Mahendra Mansions, Mahatma Gandhi Road, Fort
Surveyor & Co.—Central Bank Building, Mahatma Gandhi Road, Fort.
Taher & Co.—Solicitors, Examiner Press Building, 2nd Floor, 35, Dalal Street, Fort.
Thakordas, Daru, Hemany & Co.—Alli Chambers, Tamarind Lane, Fort.
Thatte & Co.—Examiner Press Building, 33, Medows Street, Fort.
Tyabji, Dayabhai & Co.—Lentin Chambers, Dalal Street, Fort.
Vachha & Co.—Yusuf Building, Mahatma Gandhi Road, Fort.
Vakil, B. H., & Co.—Karim Chambers, Hamam Street, Fort.
Vakil, Dadabhoy & Bharucha.—Cama Building, 24-26, Dalal Street, Fort.
Vrajlal & Co.—41, Medows Street, Fort.
Wadia, Ghandy & Co.—123, Mahatma Gandhi Road, Fort.
Wallace, J. P., & Co.—Shale Building, 28-32, Bank Street, Fort.
Win & Co.—Bansilal Mansions, 41A, Bruce Street, Fort.
Zaiwalla & Co.—Readymoney Mansion, 43, Churchgate Street, Fort.

## AUCTIONEERS

Bennett & Co.—120, Apollo Street, Fort.
Crawford & Co.—122, Apollo Street, Fort.
Eastern Auction & Co.—Babulal Mansion, Chowpatty Sea Face, Bombay 7.

**GANDHI & CO.—72, Medows Street, Fort, Bombay 1. Phone: 254937.**

**GILBERT-LODGE & CO.—Elphinstone Building, Veer Nariman Street, Fort, Bombay. Phones: 251819 & 252607. Grams: "READINESS."**

Menesse & Co.—Great Western Building, 3, Apollo Street.
Mistry & Co.—75, Apollo Street, Fort.
Mody, J. S., & Co.—Raja Bahadur Shivlal Motilal Mansion, 20, Hamam Street, Fort.
Sorabjee Cowasjee & Co.—123, Medows Street, Fort.

## AUTOMATIC CONTROLS & RECORDING INSTRUMENTS

Botliboi & Company Private Limited.—Regd. Office: Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR.). Phones: 255451 (6 lines). Grams: BATLIBOICO. Telex: 234 City Branch: BATLIBOI HOUSE, 59/61, Nagdevi Cross Lane, Bombay-3 (BR.). Branches: Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate: Bangalore 2. Resident Representatives: ERNAKULAM, RANCHI.

## AUTOMOBILE ENGINEERS

Automotive Mfgrs. Ltd.—108, Bazar Ward, Kurla, Bombay 37.

**BOMBAY CYCLE & MOTOR AGENCY LTD.—Service Stations, Tardeo Road, Tardeo, Bombay 7. Phones: 73411 and J. Tata Road, Churchgate, Bombay 1. Phone: 246134. Authorised Repairers of Dodge Cars & Trucks, and Fiat cars.**

Bombay Garage Ltd.—Meher Building, Chowpatty, Bombay 7.
Car Mart Ltd.—Pratt's Building, Hughes Road.
French Motor Car Co. Ltd.—9-11, Hughes Road, Bombay.
International Motor Co.—Sandhurst Bridge.


**JANATA AUTO SALES & SERVICE**

**CHOPRA GARAGE**

**54, P. D'Mello Road, Near Princess Dock, Bombay-9.**

*Specialists in :*

Reconditioning of Fuel Injection Pumps,
Servicing of Automizer & Nozzles etc.

Phone : **331908.** Grams : **"GREENLINE".**


Lucas Indian Service Ltd.—15, New Queen's Road, Bombay 14.
Metro Motors.—The Motor House, Hughes Road, Bombay.
National Garage Private Ltd., The.—Warden Road, Bombay 26.
Premier Automobiles Ltd.—H.O. Construction House, Ballard Estate. Factory:—Agra Road, Bombay 37.
Regal Motors.—Victoria Mill Compound, Gamdevi, Bombay 7.

**RELIABLE MOTOR REPOWERING SERVICE PRIVATE LTD.—Opera House T.T., Bombay 4. Phone: 27241. Workshops at: Mathew Road and Benham Hall Lane. Specialists in Crankshaft Grinding, Cylinder Sleeve Fitting, Bearing, Remetalling, Mainline Boring, Cylinder Head Grinding, Valve Seat Inserting, etc., for Automobiles, Diesel Engines, Tractors, Marine and Stationary Engines. Manufacturers of Cylinder Sleeves, Valves, Valve Guides, Pistons and Pistonrings, etc.**

Royal Auto Works.—Tanker Villa Estate, 200, Gowalia Tank Road, Bombay 26.
Sam Ruston & Company.—31-33, Mangalore Street, Ballard Estate.
Shanghi Motors (Bombay) Ltd.—9, Mathews Road, Bombay 4.

**UNITED ENGINEERS.—104, Apollo Street, Fort. Phone: 253204. Grams: "POWEREQUIP." Importers of Fuel Injection Equipment, Spare Parts for Automobiles and Diesel Engines, Multicylinder fuel pumps Test Benches, Nozzle Grinding and Lapping Machines & Electric Motor Starters.**

United Motors (India) Ltd.—Hughes Road, Bombay.

## AUTOMOBILE PARTS AND ACCESSORIES (MFRS.) & DEALERS

**AGRA ENGINEERING CO.—40, Bank Street, Fort, Bombay 1. Phone: Office: 256541. Res.: 532906. Grams: "RAJSPARES". Manufacturers of "MG" Brand Pistons and other automobile Spares.**

Ajay Traders.—Purshottam Bldg., Tribhuvan Road, Bombay 4.
Allied Automobiles.—Laxmi Building, Sandhurst Road, Bombay 4.
Allied Exporters.—Kumud House, 267, Dr. Dadabhoy Naoroji Road, Fort, Bombay.
American Automobile Co.—Purshottam Bldg., Opera House, Bombay 4.

**AMERICAN AUTO CO.—Next to Dena Bank Co., Opera House, Bombay 4. Phone: 41323. Largest dealers in Italian and Local Spares for all models of Fiat 1100 1954 Onwards.**

**"ARIFTA."—Die Tool & Consulting Engineers, Soho House, Lohar Street, Bombay 2. Phone: 20779. Manufacturers of "Cheel" Brand Steel lorry locks.**

**ASBESTOS, MAGNESIA & FRICTION MATERIALS LTD. (Incorporated with Limited Liability in England).—A member of the Turner & Newall Group. Bombay-Agra Road, Ghatkoper, Bombay 77. Sales Offices: Calcutta, Madras & New Delhi. Grams: "ASMAFRIC." Phones: Bombay 51491. Calcutta 232012, Madras 85610 & New Delhi 274046/7.**

Asiatic Automobiles.—1, New Bhatwadi Street, Sandhurst Road, Bombay 4.

**ASSOCIATED AUTO PARTS PRIVATE LTD.—445, Lamington Road, Bombay 4. Phone: 22047. Grams: "CHEVPARTS." Distributors of G.M. Parts & Accessories, Hella Horns, Flashers & Head Lamps, Tex Wiper Arms & Blades QHR Tie Rod Ends, Dunlop Wheels, Banco Royal Gaskets, AN Brand Fancy Wheel & Diamond Timing Chains.**

Auto Agency.—Congress House, Vithalbhai Patel Road, Bombay 4. Grams: "RIVET". Phone: 71481.

Auto Equipment Ltd.—68-C, Bansilal Motilal Building, Opera House Tram Terminus, Bombay 4.

**AUTOMAT ENGINEERING PRIVATE LTD.—Goregaon East, Bombay 63, and Kurla Industrial Estate, Agra Road, Bombay 77. Phone: 51581 and 692151. Manufacturers of quality metal fastners Pcs. and Rolls. All types of machined Parts of for automobile industry in all Standards.**

**AUTO PARTS DIE-CASTING INDUSTRIES PRIVATE LTD.—82/84, Zaveri Bazar, Bombay 2. Phone: 20102; Grams: "DIECASTERS". Factory: 114A, Pokharan Road, Panchpa-Khadi, Thana. Phone: 592104. Manufacturers of die-casting Components.**

Auto Sales Company.—Purshottam Building, Opera House Road, Bombay 4.

**AUTOMOBILE & AGRICULTURAL INDUSTRIES CORP.—497/3, Roop-Raj, Sardar V. Patel Road, Bombay 4. Phone: 39347. Grams: "REACHROD." Manufacturers of "Double Life" Automobile and Agricultural Parts. Factory at Ghodbunder Road, Borivli, Bombay 66. Phone: 661173.**

Automotive Corporation (India).—431, Lamington Road, Bombay 4. Phone: 70743. Grams: 'RITESET.'
Automotive Hardware Corporation.—93, Narayan Dhuru Street, Bombay 3.

**AUTOMOTIVE MANUFACTURERS' AGENCIES.—Automobile Parts & Accessories Dealers. Head Office: Vandekar Mansion, 443, Lamington Road, Post Box No. 4061, Bombay 4-BR. Phone: 20046. Grams: "YUNKEY." Branches: 6, Saklat Place, Calcutta 13; 42-E, General Patters Road, Madras 2 and 2610, Hamilton Road, Delhi 6.**

**BHARAT ELECTRIC & ENGINEERING CORPORATION.—Free Press Building, Ground Floor, 21, Dalal Street, Fort, Bombay. Phone: 255374. Grams: "GODGRACE."**

**BHOPAL TOUGHENED GLASS WORKS.—139, Abdul Rehman Street, Bombay 3. Grams: "TEKCORP." Phone: 323329. Manufacturers of TAFTANGLAS Brand Bent & Straight Toughened Glasses for Windscreens, Automobiles, Buses, Railway Coaches, Gauge Glass, etc. Phone: Res.. 453817.**

**BOMBAY CYCLE & MOTOR AGENCY LTD.—534, Sardar Vallabhbhai Patel Road, Bombay 7. Dealers for Mopar Parts and Accessories for Dodge Cars and Trucks. Also Dealers for Fiat Car Genuine Spare Parts and Accessories. Phone: 70684.**

Bombay Garage Private Ltd.—Meher Bldg., Chowpatty, Bombay 7.
Bombay Motor House.—479, Banji Nivas, Sandhurst Road, Bombay 4. Phone: 71937. Grams: "Autoprince".
Bombay Motor Trading Co.—Cutch Castle, near Opera House, Bombay 4.

**C. VAKIL & CO. PRIVATE LTD.**—497/3, Roop-Raj, Sardar V. Patel Road, Bombay 4. Phone : 39347. Grams : "REACHROD." Dealers in Automobile Spare Parts and Genuine Tata Mercedes Benz Spare Parts.

Central India Trading Company.—Ramchandra Mansion, Bhatwadi Street, Sandhurst Road, Bombay 4.

**CHAMPION AUTO BOLT MANUFACTURING CO.**—4, Modi Chambers, Kennedy Bridge, Bombay 4. Phone : 72664, Grams : "CHAMBOLT." Factory : Plot No. 40, Road 2-B, Udhna (Surat), Phone : 66. Manufacturers of all kinds of Auto Bolts, Nuts, etc.

Champion Auto Parts Co.—Avantikabai Gokale Road, Bombay 4. Phone : 30624. Grams : "CHAMPAUTO."

Chandulal Mehta & Co.Private Ltd.—New Queen's Road, Bombay 4.

**CHEAP MOTOR STORES.**—Stockists of Genuine 'Ford' Parts and other Automobile Accessories, Opera House Tram Terminus, Bombay 4. Phone : 30675. Grams : 'CHEAPMOTOR'.

Chimanlal Desai & Co.—Gool Mansion, Homji Street, Fort.

Commercial Auto Store.—Mani Bhuvan, French Bridge, Bombay 7.

Continental Automobiles Ltd.—Luxmi Bhuvan, 466, Sandhurst Road, Bombay 4. Phone : 72866. Grams : "CONAUTO."

Conwest Ltd.—Opera House, Bombay 4.

Dadajee Dhackjee & Co. Private Ltd. (Motor Dept.)—Shree Pant Bhuwan, Sandhurst Bridge, Bombay.

**DAHYALAL KARIA & CO.**—Precision Turned Spare Parts on Automats and Capston. Shri Ram Industrial Estates, 13, Katrak Road, Wadala, Bombay-31.

D. Walker & Sons.—Prospect House, New Bhatwadi, Sandhurst Road, Bombay 4.

Deisel (India).—105, Apollo Street, Fort, Bombay 1.

Eastern Motor Corporation.—Indra Nivas, Bhatwadi Road, Bombay 4.

**ECHJAY INDUSTRIES PRIVATE LTD.**—Office & Factory: Kanjur Village Road, Bhandup, Bombay-78. Phone : 581211 & 581678. Grams : "ECHJAY," Bhandup. Manufacturers of Accessories & Equipments for Machine Tools, General steel Forgings—including Forged Flanges, Diesel & Automobiles Engine Forged Parts, Jigs & Fixtures, Hand Tools : Hand Hammers, Chisels & Punches, Spanners, Pliers (Forged), Press Tools, Dies & Punches.

**ELVE BUSINESS CONTACTS CORPORATION.**—Elve Chambers, Green Street, Bombay 1. Phone : 252088 and 254655. Grams : "ELBUSCON." Importers & Dealers in Spares Parts for Diesel Engines, Tractors and Automobiles.

Empire Automobile.—New Queen's Road, Bombay 4.

**EXIM TRADERS.**—Manufacturers of Automobile Leaf Springs and Parts. Office : Minerva Mansion, 359, Sardar V. P. Road, Bombay 4. Phone : 71047. Factory : Ram Baug, G. B. Road, Malad, Bombay 64. Phone : 692531.

**EXPRESS AUTOMOBILES.**—Importers and Stockist of Automobiles Accessories & Spare parts for Cars & Trucks, Mercedes, Perkin Dodge, Bedford, Chevrolet & all English & American Cars. 495, Sandhurst Road, Bombay-4. Phone : 38654.

**FAZALBHAI & BROS.**—26, Sarang Street, Bombay 3. Direct Importers & Dealers in Automobile Parts. Specialists in "T.M.B." & "JEEP" Parts. Suppliers to various Government Departments. Phone : 327280. Grams : "SAZEFEM."

Fleming, John & Co., Private Ltd.—P. B. No. 76, Bombay 1. Phone : 261153.

**FOREIGN PRODUCTS DISTRIBUTING CO.**—491, Sandhurst Road, Bombay 4. Phone : 22351. Grams : "PRODISCO."

**GABRIEL INDIA LTD.**—Agra Road, Mulund, Bombay 80. Phone Nos. 591751 & 591728. Grams : "GABRIEL", Bombay —Mulund. Manufacturers of Shock Absorbers for Cars, Trucks, Motor Cycles, Scooters & Three-Wheelers.

George Oakes Private Ltd.—Swadeshi Mills Compound, New Queen's Road, Bombay 4.

**GREENLAND ENGINEERS.**—64, Podar Chambers, Parsi Bazar Street, Fort, Bombay. Phone : 252932. Grams : "GREND." Manufacturers of Radiator Caps, Dynomo Pulleys, Diaphragm, etc.

Hind Equipment Corporation Private Ltd.—24/B, Hamam Street, Fort, Bombay.

**HINDUSTAN FERODO LTD. (A member of the Turner & Newall Group).**—Registered Office & Factory : Bombay-Agra Road, Ghatkopar, Bombay 77. Grams : "FERODOSTAN." Phone : Bombay : 51491, Calcutta 232012, Madras 85610 and New Delhi 274046/47. Sales Offices : Calcutta, Madras and New Delhi. Manufacturers of "FERODO" Brake & Clutch Linings.

H. S. Chaddha & Sons.—483, Sandhurst Road, Bombay 4.

Himco (India) Private Ltd.—Kurla Road, Andheri, Bombay 41.

**IMANES.**—94, S.V. Road, Erla, P.O. Box No. 8002, Bombay 56. Phone : 571634. Grams : "BELLIBONE (SZ)." For Springs & Forms out of Wires & Strips for your Industry.

India Electric Works Ltd.—6, Sir Phirozshah Mehta Road, Fort, Bombay.

**INDIA RUBBER PRODUCTS.**—Kasturchand Mills Estate, Dadar, Bombay-28. Manufacturers of Industrial & Moulded Rubber Products.

International Motor Co.—Sandhurst Bridge.

**INDO IRANO JAPAN TRADING CO.**—363F, Vithalbhai Patel Road, Bombay-4. Phone : 41895. Grams : "IRANJAPCO." Specialists in Car Parts. Stockists for Payen Oil Seals, Fiat Parts & Elevite Engine bearings for Cars & Trucks.

**J. C. VORA & CO.**—Modi Chambers, French Bridge, Bombay 4. Phone : 72575. Godown : 331770. Grams : 'GODISALL'. Specialists : Auto Bolts & Nuts, Parts & Accessories, etc.

Jay Kay Automobiles.—19, Mohanlal Mehta Market, Grant Road, Bombay.

**J. V. MEHTA & CO.**—Opera House, Bombay 4. Phone : 38255/56 Partners Res. 74178. Grams : "JEVIMEHTA."

**JYOTI MOTOR ACCESSORIES.**—Contractor Bldg., No. 1, Opp. Prarthana Samaj, Bombay 4. 138, New Charni Road, Bombay 4; 342, Sardar V.P. Road, Bombay 4; Grams : "JAGJYOTI." Phone : C/o 22550; Importers & Stockists of Jagger's Bus Body Fittings, PVC Leather Cloth, Upholstery, Materials, Rubber Mattings, etc. Distributors of Jyoti Brand P.V.C. Leather Cloth, Manufactured by Jyoti Industries, Bombay 62.

**K. L. ANAND & SONS.**—Parts of Austin Hindustan, Fiat, Standard, Morris, Hillman and Latest Accessories—Luggage Carriers, Wheel Covers, Spot Lamps & Sun visors, Powells Building, Opera House, Bombay-4. Phone : 76083.

**KATARA MOTOR CO.**—Modi Chambers, Bombay 4. Phone : 72097. Grams : "KATARAMOTO." Importers & Stockists of Spares for Perkins—T.M. Benz, Dodgekew Bedford—J-4, Austin—Fiat—Hillman—Hindustan Series, etc.

Kandawalla & Co.—13, Hughes Road, Bombay 7.

Kothari Brothers & Co.—Prospect House, Sandhurst Road, New Bhatwadi, Bombay 4.

**MANOHAR BROTHERS.**—4, Commerce House, Medows Street, Fort, Bombay. Phone : 254496. Grams : "LOCOMOTIVE". Branch : 37, Errabalu Chetty Street, Madras. Phone : 23274.

**MEHTA MOTOR STORES.**—497, Sardar Vallabhbhai Patel Road, Banji Nivas, Bombay 4. Phone : 30856. Grams : "METAMOTORS." Everything in Automobiles.

**METROPOLITAN SPRINGS PRIVATE LTD.**—Antop Hill, Wadala, Bombay 31. Phone : 62003/60752. Manufacturers of laminated springs for automobiles and Railways, Suppliers to several automobile manufacturers, all important State Transports and large Government Organizations. Specialists in Trailor Springs.

**MOTOR INDUSTRIES CO., LTD.**—Manufacturers of Mico-Licence-Bosch Diesel Fuel Injection Equipment and spark Plugs, Distributors of Bosch Automobile Parts and Accessories, 41, Queen's Road, Bombay 2. Phones : 38328 and 38329. Grams : "ELEMENT." Head Office : Post Box No. 93, Bangalore. Branches : 1/155, Mount Road, Madras 2 and 91/A Park Street, Calcutta 16.

**NATIONAL AUTOMOBILE CO. (PRIVATE) LTD.**—Nagindas Mansion, Opera House, Bombay 4. Phone : 20570. Grams : "NEWAUTO." Stockists of Genuine spare parts of Dodge & Leyland Trucks.

**NATIONAL METAL INDUSTRIES.**—15/A, Parel Village Road, Parel, Bombay 12. Phone : 62400. Grams : "MANMUL." Office : 26/A, Behind Mumbadevi Post Office, Bombay 2. Phone : 325434. Manufacturers of "NAMI" Oil-Bath, Air Cleaners, Exhaust Silencers andFuel Filters for Oil Engines. Also for Trucks and Car Engines.

**NEW HAVEN STEEL BALL CORPORATION PRIVATE LTD.**—Office : Pandyan House, 309, Frere Road, Bombay-1. Phone : 261523. Grams : "GULDASTA." Factory : 38, Pawai Lake Road, Sakl Naka, Kurla, Bombay-70. Phone : 581185. Manufacturers of Steel, Alloy Bolts, Grinding Media & Automobile Parts.

**NEW HAVEN ENGINEERING CO. PRIVATE LTD.**—Nanjee Building, 17-B, Horniman Circle, Bombay 1. Phone : 261523. Grams : "GULDASTA." Manufacturers of Automobile Parts, Machinery Spares, Bright polished bolts and nuts, Socket head cap Screws, Precision turned automatic parts, etc.

New Pioneer Trading Co.—459, Sandhurst Road, Bombay 4. Phone : 76289.

**NISHAT TRADING CO.—461, Sandhurst Road, Bombay 4. Phone : 20585. Grams : "NISHAT." Importers & Industrialists. 52, General Patters Road, Madras 2. Phone : 86065. Factory : 1. Nishat Industries. Government Industrial Estate, Guindy, Madras 32. Phone : 80540. Automobile Parts Manufacturers. 2. Nishat Industries. Government Industrial Estate, Palayad, Tellicherry, Kerala State. Manufacturing Auto Bulbs and Transistor Radios.**

**P. RAI & CO.—121, Commerce House, Medows Street, Fort, Bombay 1. Phone : 252436. Grams : "PIRAICO".**

Paramount Automobiles Ltd.—14, New Bhatwadi Lane, Sandhurst Road, Bombay 4.

**PARAMOUNT AUTOMOBILES (PRIVATE) LTD.—14, Avantikabadi Gokhle Road, Bombay-4. Wholesale & Retail dealers in Motor Parts and Accessories—Tools—Machine tools—Novelties—for all types of Cars and Trucks. Phone : 23754.**

**PARAMOUNT COMMERCIAL CORPN. PRIVATE LTD.—Prospect Chambers Annexe, 317-320, Dr. Dadabhoy Naoroji Road, Bombay 1. Phone : 251830. Grams : "COCOASS." Manufacturers of "Paramount" Automobile Luggage Carriers.**

Paramount (India) Ltd.—Kermani Building, Sir Phirozshah Mehta Road, Fort.

Pradeep & Co.—Kothari Mansion, Parekh Street, Bombay 4.

**PREMIER AUTO ELECTRIC LTD.—Specialists on Sales and Service to Automobile Electrical and Fuel Systems. Distributors in India for Autolite, Prestolite, Carter, G.E., Marelli, and the popular Prakash Automobile products like, Spark Plugs, Wires, Fan Belts, Horns, Sealed Beams, etc. Guaranteed Diesel Fuel Injection Service in Bombay, Calcutta, Madras, Delhi and Ahmedabad. Branches at Bombay : 69, Tardeo Road; Calcutta : 45/1, Rafi Ahmed Kidwai Road; Madras : 4, Patullo Road, Mount Road; Delhi : 1/E, Jhandewala Extension, Link Road; Ahmedabad : 114/1, Outside Shahpur Darwaja.**

**PRECION RUBBER CO. (INDIA).—Guaranteed Silent Block Bushes for Cars, Jeeps and Scooters. 114, Dr. Dadabhoy Naoroji Road, (3rd Floor), Fort, Bombay. Phone : 261276.**

**PREMIER AUTOMOBILES LTD.—Office : Construction House, Ballard Estate, Bombay-1. Phone : 262125-26. Grams : "PERMBOILES." Factory : Agra Road, Kurla, Bombay-70. Phone : 55111. Manufacturers of Dodge, Plymouth & Fiat Cars & Dodge & Fargo Trucks.**

Provincial Motor Car Co., Ltd.—Opp. Opera House, New Queen's Road, Bombay 4.

Regal Motors.—Old Victoria Mills Compound, Gamdevi, Bombay 7.

**RELIABLE MOTOR REPOWERING SERVICE PRIVATE LTD. Opera House T.T., Bombay 4. Phone : 27241. Workshops at Mathew Road and Benham Hall Lane. Specialists in Crankshaft Grinding, Cylinder Sleeve Fitting, Bearing Remetalling, Mainline Boring, Cylinder Head Grinding, Valve Seat Inserting, etc. for Automobiles, Diesel Engines, Tractors, Marine and Stationary Engines. Manufacturers of Cylinder Sleeves, Valves, Valve Guides, Pistons and Piston-rings, etc.**

Reliance Automobiles.—Manu Mansion, 475, Sandhurst Road, Bombay 4.

Replacement Parts Co.—457/15, Dwarkadas Mansion, Sandhurst Road, Bombay 4.

Sethi Trading Co.—New Bhatwadi, Sandhurst Road, Bombay 4.

Shetty Automobiles.—Opera House Tram Terminus, Bombay 4.

**SIGIL (INDIA) SERVICES PRIVATE LTD.—Ismail Building, 381, Dr. Dadabhoy Naoroji Road, P.O. Box 952, Bombay-1. Phone : 253688 & 254531. Grams : "SIGIL." Branch : P.O. Box 1961, Madras-1. Manufacturers, Exporters and Distributors & Diesel Engines, Diesel Pumping sets and Compotent Part's Thereof also Automobile Parts.**

**SINGH & SINGH.—Victoria Mills Estate, Gamdevi, Bombay 7. Phone : 75552. Grams : "BAKINGCO." Manufacturers of Gears, Cylinders, Liners and Spares for Cars and Diesel Engines. Specialists in Crankshaft Grinding, Roll Grinding upto 12 in. by 72 in. Branch at Shivaji Nagar, Poona 5. Phone : 57597.**

Skf Ball Bearing Co. Private Ltd.—Mustafa Building, 19, Sir Phirozshah Mehta Road, Fort, P.O. Box No. 71, Bombay.

S. S. Prabhu.—Ghamat Terrace, opp. Dadar W. Rly. Station, Bombay 14.


# RADIATORS

## FUEL & OIL FLEX-HOSES

*Sole Selling Agents :*

**THE STANDARD GARAGE**

**BOMBAY 4**

Cables : "ACCESORIES" Phone : 40073


Tata Locomotive & Engineering Co. Ltd.—Bombay House, 24, Bruce Street, Fort, Bombay.

Teka Hardware & Eng. Corpn.—82/86, Abdul Rehman Street, Bombay 3. Phone : 326886. Grams : "TEKATOOLS". Agents for TEKROM Nickelled Tubes, 'Lion Brand' 12 ft. long for Buses & Coaches : Dia. ⅜, ½, ⅝, ¾ & 1 Standard thickness. Approved by State Transports and leading Coach Builders.

**UNITED ENGINEERING WORKS.—Opp. Shangani Estate, Off Agra Road, Ghatkopar, Bombay 77. Grams : "MALLEABLE", Ghatkopar. Specialists in Malleable Iron Casting for Automobile, Railways & General Machinery as per I.S.S. & B.S. Specifications.**

United Industries of India.—82, Opera House Tram Terminus, Bombay 4.

**Universal Automobiles.—461, Sandhurst Road, Bombay 4.**

**UNIVERSAL SERVICE CORPORATION PRIVATE LTD.—3, Modi Chambers, French Bridge, Bombay 4. Phone : 71083. Grams : "MOTORCYCLE." Importers, Wholesalers and Retailers of Motor Vehicle Parts.**

**VICTOR GASKETS INDIA LTD.—Agra Road, Mulund, Bombay 80. Phone Nos. 59175 & 591728. Grams : "VICGASKET," Bombay-Mulund; Manufacturers of Gaskets for Cars, Trucks, Motor Cycles, Scooters, Three Wheelers, Industrial Engines, etc.**

### AUTOMOBILE SPRING LEAVES, 'U' BOLTS & CENTRE BOLTS MFRS.

**DELTA PRODUCTS CORPORATION (INDIA).—3, Modi Chambers, French Bridge, Bombay 4. Phone : 71083. Grams : "MOTORCYCLE." Manufacturers of Laminated Road Springs for all Vehicles, Trucks, Tractors and Trailers. Suppliers to Government and States.**

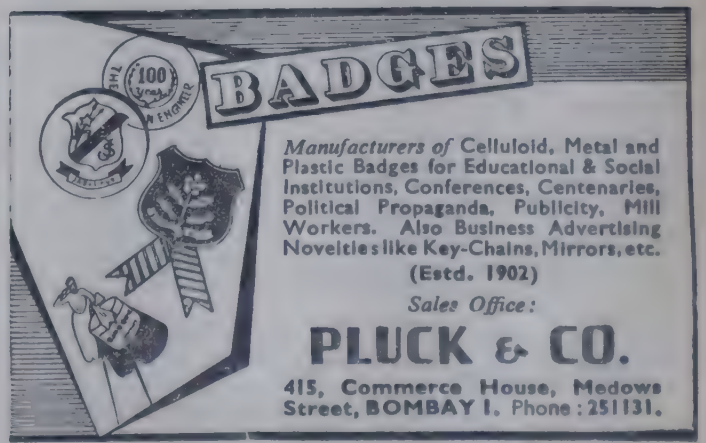
### AUTOMOBILE TEMPERED AND TESTED SPRINGS AND SPRING LEAVES

**UNITED SPRING MANUFACTURING CO.—82, Opera House Tram Terminus, Bombay 4. Phone (Office) : 30219. Grams : "MECSPARES," Girgaum, Bombay 4. Factory at : 234, Ripon Road, Bombay 8. Phone : 76707.**

### AVERAGE ADJUSTERS

**V. N. C. NARICHANIA (PRIVATE) LTD.—P.O. Box 207-A, 22, Sir Phirozshah Mehta Road, Fort, Bombay (India). Phones : 265098, 212676 and 245329. Grams : "SURVEYLOSS."**

### BADGES


*Manufacturers of* Celluloid, Metal and Plastic Badges for Educational & Social Institutions, Conferences, Centenaries, Political Propaganda, Publicity, Mill Workers. Also Business Advertising Novelties like Key-Chains, Mirrors, etc.

(Estd. 1902)

*Sales Office :*

**PLUCK & CO.**

415, Commerce House, Medows Street, BOMBAY 1. Phone : 251131.

**EXCEL PROCESS PVT. LTD.**—Leading Manufacturers of Metal labels, Advertising Novelties—Radio & Clock Dials-Scales-Badges-Tokens-Charts, Conversion Discs & Tables in Anodised Aluminium, Brass, Stainless Steel & Plastic. Office: 117, Andheri-Kurla Road, Andheri, Bombay-69. Phone: 572743 & 573327.

## BAKELITE

Embi Desai & Co.—Dadyseth House, Cawasji Patel Street, Fort, Post Box No. 1116, Bombay 1.

Hardcastle, Waud & Co., Ltd.—Alice Buildings, Hornby Road, Fort.

**PRESTO INDUSTRIES.**—Manufacturers of Bakelite and Urea Articles. Specialists in Screw Caps for Bottles and Phials. 106, Kansara Chawl, Kalbadevi, Bombay 2. Phone: 333259.

Rubako Industries.—Behramji Mansion, Sir Phirozshah Mehta Road, Fort.

**SHAH PRATAP & CO.**—64, Old Custom House Road, Fort, Bombay. Phones: 255615 and 255616. Grams: "VINPRA."

**VIJAY BAKELITE TRADING CO.**—8, Chakla Street, Bombay 3. Phone: 323145. Grams: "BESTCAP." Manufacturers and distributors of all kinds of Caps, and Stoppers of Plastic Bakelite and Rubber.

## BAKERS AND CONFECTIONERS

Akbarally Ebrahimji Pharmacy & Department Store.—45/47, Veer Nariman Road, Fort, Bombay.

American Express Bakery.—A. E. B. House, Clare Road, Byculla.

Britannia Biscuit Co., Ltd.—Reay Road Bridge, East.

Clare Road Bakery.—"Win-Villa," 9, Clare Road, Byculla.

Hiscocks, E., & Co.—"Win-Villa," 9, Clare Road, Byculla.

J. B. Mangharam & Co.—12, Gunbow Street, Fort, Bombay.

Kyani & Co.—Jer Mahal Estate, Dhobi Talao.

Mahajan Bros.—Anand Nivas, Girgaum Road.

Marosa & Co.—13, Medows Street, Fort.

Pahelavi Bakery.—101, Umerkhady.

Palmer, A., & Co.—C-123, Cumballa Hill.

Parle Products Mfg. Co. (Private) Ltd.—Thackersey House, Graham Road, Ballard Estate, Bombay.

Raj, H., & Company.—93, Princess Street, Bombay 2.

Renown Biscuit Co.—Contractor Building, Connaught Road, Byculla.

Shaikh & Co.—94, Ali Umar Street.

Standard Bakery.—62, Nizam Street, Bhendi Bazar, Bombay 3.

Star Bakery.—180, Naigaum Cross Road, Dadar.

## BAKERY & CONFECTIONERY REQUISITES

**ROYAL TRADERS.**—283, Nagdevi Street, Bombay 3. Phone: C/o 326671. Dealers in Bakery goods & Cardboard Trays & Fancy Paper Decorations & Provisions. Paper Ice-Cream Cups, Paper Napkins, Drinking Straws & Toilet Rolls, Christmas Novelties a speciality. Partner: H. N. Shah. Phone: Res. 38133.

**T. ALIMAHOMED & CO. (Estd. 1924).**—Stockists of all Sorts of Essences & Other Baking Requisites, 144-46, Sarang Street, Bombay 3. Phone: 327131. Grams: "AERATORS." Sole Agents for Diamond Aerating Gas Works Ltd., Bombay 3.

## BALL AND ROLLER BEARINGS

Agarwal Machine & Engineering Stores.—55/57, Nagdevi Cross Lane, P. Box 3262, Bombay 3.

Ajmera & Bros., V. G.—103, Narayan Dhuru Street, Bombay 3-BR.

**ANIL BEARING STORES.**—163, Narayan Dhuru Street, Bombay 3. Phone: Office: 323552. Residence: 23293. Tel. Address: "CHEAPSTORE." Authorized Stockists: SKF and NBC Bearings, Ball Bearings, Taper Roller Bearings, Steel Balls.

**ANTIFRICTION BEARINGS CORPORATION LTD., THE.**—Marshalls Building, 20, Ballard Road, Bombay 1 (BR.). Phone: C/o 261647. Manufacturers of Roller Bearings in Technical Collaboration with Messrs. Steyr-Daimler-Puch AG., Austria and Ball Thrust Bearings.

Associated Export-Import Corporation.—381, Dr. D. N. Road, Bombay 1.

**BALL BEARINGS & MACHINERY CORPORATION.**—172-74, Nagdevi Street, Bombay 3. Grams: "BUSYAR." Stockists & Sole Agents: of SEALMASTER, Federal U.S.A. and SRO Swiss hearings. Also Stockists: Precision NORMA & NBC Bearings, R & M, SKF, MAB & OVR Ball Bearings.

**B. CHOWDHURY & CO.**—Indian Globe Chambers, Fort Street, Bombay 1. Phone: 26-3479. Grams: "BISUKHI." Sole Agents for Kugelfischer Georg Schafer & Co., West Germany.

**BHARAT TRADING CO.**—Importers & Stockists of Industrial & Automobile Bearing. 71, Nagdevi Cross Lane, Bombay 3. Phones: 323250, 324338.

**BOMBAY BALL BEARING HOUSE.**—All kinds of SKF, FAG, Russian, RIV, R & M. FBC, Pollard & Timken Ball Bearing and Taper Roller Bearings. 24, Nagdevi Cross Lane, Bombay-3. Phone: 323124 & 55138 (Res.). Grams: "BEST-"SUPPLY."

**BOMBAY BALL BEARING SUPPLYING CO.**—349/353, Samuel Street, Bombay 3. Phone: 321151. Grams: "GOLABADAM."

Bombay Bearing Co.—126-28, Nagdevi Street, Bombay 3.

**MERCER**
**Thrust Bearings**
**and**
**MERCER**
**Dubi Bearings**

*Manufacturers:*

**DEEPAK INDUSTRIES**

26B, Udyognagar, Rajkot-2.

*Trade Inquiries:*

88, Nagdevi Cross Lane, Bombay-3.

Phone: 322456 Grams: "MONKEYGRIP"

**DHIRAJLAL & CO.**—15, New Queen's Road, Bombay 4. Phone No. 23112, Res.: 473703. Grams: "RICEMILL." Importers and Distributors of Ball and Roller bearings, Stockholders of F.A.G. and SKF bearings and Distributors of TIMKEN & STEYR AUSTRIA Bearings.

**DHIRAJLAL MORARJI.**—37-A, Sarang Street, Bombay-3. Phone: 323283-32-7231 and 321367. Grams: "SELFMADE". Stockists of Ball, Roller and Taper Roller Bearings in brands: R & M, SKF, Timken, FAG, Steyr, RIV, DURKOPP, USSR, NBC, ABC & BBL.

**EAST ASIATIC CO. (INDIA) LTD., THE.**—Wavell House, Graham Road, Ballard Estate, Bombay. Phone: 262711 (8 lines). Manufacturers' Representatives and Sole Distributors for Precision Bearings India Ltd. in the States of Delhi, Jammu and Kashmir, Himachal Pradesh, Uttar Pradesh, West Bengal, Assam, Tripura, Manipur, Sikkim, Andhra Pradesh, Mysore, Madras, Kerala, Andamans, Bangalore, Secunderabad and Lucknow.

Great Western Engineering Work.—"Sea View," 1st Pasta Lane, Colaba, Bombay 5.

Greentose Corporation (India).—24-26, Dalal Street, Fort, Bombay.

Harchadrai Sons.—170-174, Nagdevi Street, Bombay 3.

Heatly and Gresham Ltd.—9, Forbes Street, Fort.

**INTERNATIONAL BALL BEARING CORPORATION.**—151, Mutton Street, Bombay 3. Phone: 331899. Grams: "ATOZ-ROLLER," Mandvi, Bombay (BR); Dealers in Ball, Roller and Thrust Bearings for Industrial & Automobile purposes.

**INTERNATIONAL BEARING CO.**—61, Commercial Chambers, Masjid Bunder Road, Bombay 3. Tel. Address: "INTERDEAL." Phone No. 324712. Importers & Stockists of all kinds of Ball, Roller, Taper Roller and Thrust Bearings.

Jairamdas & Sons.—163, Narain Dhuru Street, Bombay 3.

Jayant Engineering & Mill Stores.—39, Nagdevi Cross Lane, Bombay 3.

Jahala, R. T., & Co.—9, Forbes Street, Fort, Bombay 1.

**MACHINE TOOLS & IMPLEMENTS.**—93-95, Narayan Dhuru St., Bombay 3. Phones: 322268 & 322269; Grams: "MACHTOOLS." Telex: 292. By.

Mehta, J. V., & Co.—Opera House Tram Terminus, Bombay 4.

**MODERN MACHINE TOOLS CO.**—68, Nagdevi Cross Lane, Bombay 3. Phone: 322456. Grams: "MONKEYGRIP." Micrometers, Varnier Callipers, Dial Gauges, Feeler, Thread, Wire, Radius Gauges, etc.

**MOTOR TRADE SUPPLY CO., THE.**—Parikh Mansion, Sardar V. P. Road, Bombay-4. Telegram: "MOTRASUPCO." Stockists of Timken, SKF, RIV, R & M, Baltzer and Pollard Bearings. Phone: 71119.

**NUTAN TRADING CORPORATION.**—83, Nagdevi Cross Lane, Post Box No. 3238. Bombay-3. B.R. Grams: "NUTAN-TRADE." Phones: 323357 (Office) & 474485 (Res.) Manufacturers of "KAUSHIK" Brand Tools. Such as Reamers, Callipers, Dividers, Tool Holders, Engineering Squares etc. Dealers in Tool Bits, End Mills, Centre Drills, Slotting and side & Face Cutters etc. Branch at: 3350, People Mahadev, Hauz Kazi, Delhi-6.

New Hind Engineering Co.—63, Nagdevi Cross Lane, Bombay 2.

**P. K. JOSHI & CO.**—1st Floor, 72/80, Nagdevi Cross Lane, Bombay 3. Phone: 323487; Grams: "PLAYASEAL." Consulting Bearing Engineers, Importers & Stockists of Automobile Tractor and Industrial Ball, Roller & Taper Roller Bearings.

**PRECISION BEARINGS INDIA LTD.**—Regd. Office: 15, Graham Road, Wavell House, Ballard Estate, Bombay 1. Phone No. 262711. Factory: Zambuva, P.O. Makarpura, Baroda, Gujarat State. Manufacturers & "Norma" Ball & Bearings, Licenced to manufacture 8 lakh pieces per year on single shift basis—8 mm to 100 mm internal bore diameter, Technical collaborators. Normo-Hoffmann Bearings Company, a division of Universal American Corporation, U.S.A. Sole Selling Agents: The East Asiatic Company (India) Private Limited, Delhi, Jammu & Kashmir, Himachal Pradesh, Uttar Pradesh, West Bengal, Assam, Tripura, Manipura, Sikkim, Andhra Pradesh, Mysore, Madras, Kerala, & Andaman and Punjab. Universal Bearing Company Private Ltd.: Rajasthan, Gujarat, Maharashtra, Goa, Madhya Pradesh, Orissa & Bihar.

**PARRYS (EASTERN) PRIVATE LTD.**—"Amrita" Nepean Road, Bombay-6. "GPZ" USSR-Ball & Roller Bearings. Sole Agents for Maharashtra, Gujarat, Madhya Pradesh and Rajasthan.

**PURUSHOTTAM SOMABHAI & CO.**—36, Sarang Street, Post Box No. 3014, Bombay 3. Grams: "FORESIGHT". Importers & Stockists of wide range, all brands of world renowned Ball & Roller Bearings for Automobiles, Textile & Paper Mills, Sugar Mills and all other industries.

R. Mohanlal & Co.—38, Bibijan Street, Bombay 3.

Rasiklal Shah & Co.—93, Narayan Dhuru Street, Bombay 3.

**RAMESH TRADING CORPORATION.**—51/53, Nagdevi Cross Lane, Bombay 3. Phone: 325189 (Office) & 473862 (Res.). Grams: "RAMESHCO." Dealers in all kinds of Ball, Roller, Taper Bearings, Authorised Stockists, NBC and BBL Bearings "WARRIOR" Taps and Dies & "GEDORE" Hardware Tools.

Roberts McLean & Co., Private Ltd.—Ilaco House, Sir Phirozshah Mehta Road, P. O. Box 452, Fort.

**SANJAY BALL BEARING CENTRE.**—43, Bibijan Street, Bombay-3. Phone: 322485. Importers, Stockists & Dealers in Ball, Roller, Tapper Bearings, Engineering and Precision Measuring Tools.

**SHAH BROTHERS.**—Sandhurst Building, 524, Sandhurst Road, Bombay 4. Grams: "TAPEROLLER." Tapered, Ball and Roller Bearings.

**SHAH PATEL & CO.**—111, Nagdevi Street, Bombay 3. Phones: 324309 & 321377. Grams: "LUCKYCHAP." Stockists of Ball, Roller & Taper Roller Bearings of various make.

*On approved list of Government & Railways*

**SHETH STORES TRADING CO.,**

| | |
|---|---|
| *Specialists in :* | Ball & Roller Bearings |
| *Authorised stockists in :* | SKF, NBC, NORMA Bearings |
| *Distributors :* | ARUN & ASHOK Plummer Blocks |
| *Bombay Office :* | 238, Masjid Bunder Road, Bombay-3 |
| Telephone : 322757 | Grams: "TROLLEY" |
| *Ahmedabad Office :* | Deepak Chambers, Station Road, Ahmedabad. |
| Phone: 23470 | Grams : "LUCID" |

Skf Ball Bearing Co. Private Ltd.—Mustafa Building, 19, Sir Phirozshah Mehta Road, Fort, P.O. Box No. 71, Bombay.

Thakorlal & Co.—47, Nagdevi Cross Lane, Bombay 3.

Trade (India) Corporation.—58, Mohamedalli Road, P.O. Box No. 3231, Bombay.

Universal Services Corporation Ltd.—457/9, Sandhurst Road, Bombay 4.

Upper India Trading Co., Ltd.—Ravel Building, Lamington Road, Bombay 4.

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate.

## BALL PEN AND REFILLS MANUFACTURERS

**IMANES.**—94, S.V. Road, Erla, Bombay 56. Phone: 571634. Grams: "BELLIBONE" (SZ). For Springs & Forms out of Wires and Strips for your Industry.

**WATUMULL INDUSTRIES PRIVATE LTD.**—Manufacturers of "Fleet" Quality Refills & Ball Pens in Four Ink Colours—Blue, Green, Red & Black. "Delstar," 1st Floor, 9-9A, Hughes Road, Bombay 26-WB. Phone: 74425. Grams: "KHUBBROS."

## BALLOONS (RUBBER) MANUFACTURERS

**KAMAL RUBBER WORKS PRIVATE LTD.**—71, Bank of Baroda Building, Palton Road, Bombay 1. Phone: 262775. Grams: "GUBBARA." Factory: Mahul Road, Chembur. Phone: 521254. Manufacturers of High Class Rubber Balloons, Toys, etc.

## BARRELS & CASKS (WOODEN)

Bharat Barrel & Drum Manufacturing Co. Private Ltd.—Prakash Cotton Mill's Compound, Off Fergusson Road, Bombay 13.

**COOPER & SONS, DHANJIBHAI NAOROJI.**—78/80, Kika Street (Gulalwadi), Bombay 4. Phone: 333759. Manufacturers of Wooden Casks, Barrels, Vats, Tubs, Flower Tubs, Oblong Tubs, Ice Cream Tubs of any size & shape. Regular suppliers to Chemical & Textile mills.

Imperial Cask Co.—New Sun Mill Compound, Sun Mill Road, Lower Parel, Bombay 13.

## BATTERIES

**AMZEL PRIVATE LTD.**—Nusser House, New Queen's Road, Bombay 4. Main Agents for Exide Batteries for Maharashtra State. Distributors for Prestolite ignition parts and Auto-Gen. armatures and MSP bushings.

Balmer Lawrie & Co. Ltd.—5, Graham Road, Ballard Estate, Fort.

**BATTERY SERVICE PRIVATE LTD. (Estd. 1925).**—1-1/A, New Queen's Road, Bombay 4. Agents for Solar Heavy duty Batteries, Stockists for Redex Additive for oils and fuels. Phone: 39400. Grams: "FASTSPEED", Bombay.

Bombay Garage Ltd.—Meher Building, Chowpatty, Bombay 7.

Boiner Battery Mfg. Co. Private Ltd.—Shri Niwas Building, 335, Sandhurst Road, Bombay.

**CHLORIDE & EXIDE BATTERIES (EASTERN) LTD.**—Head Office: 59C, Chowringhee Road, Calcutta-20. Branches: Savoy Chambers, Wallace Street, Bombay-1. Exide House, 3-E/1, Jhandewala Extension, Link Road, New Delhi. Exide House, 150B, Mount Road, Madras-2. Telegraphic Address: "CHLORIDIC"—Calcutta, Bombay, Delhi CEBEASTERN-Madras.

Estrela Batteries Limited.—Yusuf Building, Veer Nariman Road, Fort, Bombay 1.

General Radio & Appliances Private Ltd.—Opera House, Bombay 4.

Himco (India) Private Ltd.—Head Office: Gandhi Building, 542, Sandhurst Bridge, Bombay 7.

Industrial Machinery & Tools Corp.—Indira Nivas, 1st Floor, Anantikabai Gokhale Street, Bombay 4.

Mehta Motor Stores.—Banji Nivas, Sandhurst Road.

Modern Electric Corporation.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort.

Provincial Motor Car Co., Ltd.—New Queen's Road, opp. Opera House, Bombay 4.

Ruby Battery Corporation (Private) Ltd.—31, French Bridge, Lila House, Chowpatty, Bombay 7.

Sarabhai & Co.—Western India House, Sir Phirozshah Mehta Road, Fort.

Standard Batteries Ltd.—Vakola, Bombay 25.

Union Carbide India Ltd.—Laxmi Building, Sir P. M. Road, Fort, Bombay 1.

Universal Services Corporation Ltd.—457/9, Sandhurst Road, Bombay 4.

UNIVERSAL BATTERY COVERS

MANUFACTURERS OF BATTERY PARTS

**UNIVERSAL TRADING CO.**

**Churi Wadi, Goregaon (East), Bombay 62**

Phone : 691369 Gram : "UNIVERSAL"

## BATTERY OPERATED FORK LIFT TRUCKS

**INDIA METAL AGENCIES.—"India House," Opp. G.P.O., Bombay 1. Phone: 261978, 265456. Grams: "WIDEEYE." Engineers, Manufacturers' Representatives, Importers & Dealers in Electrical Machinery.**

## BEARINGS AND SHAFTINGS

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone: 326980. Grams: 'ALERTDEAL'.**

**AJMERA BROTHERS.—192/A, Panjrapole Road, Near Madhav Baugh, Post Office, Bombay 4. Phone: 333828 & 334379. Grams: "PULLEYBELT." Specialists in M. S. Bright-Bars (Shaftings) Commercial & also free cutting quality in sizes, round, squares & Hexagons.**

Essential Engineering Co.—11, Botawalla Building, Elphinstone Circle, Fort.

Great Western Engineering Works.—"Sea View," 1st Pasta Lane, Colaba, Bombay 5.

Mehta Nanavati & Co.—Barbhai Moholla, 96, Narayan Dhuru Street, Bombay 3.

P. Ratilal & Co.—43, Dhanji Street, Moti Mahal, Bombay 3. Phone: 32700.

**NUTAN TRADING CORPORATION.—83, Nagdevi Cross Lane, Post Box No. 3238, Bombay-3. BR. Grams: "NUTANTRADE." Phones: 323357 (Office) & 474485 (Res.) Manufacturers of: "KAUSHIK" Brand Tools. Such as Reamers, Callipers, Dividers Tool Holders, Engineering Squares etc. Dealers in Tool Bits, End Mills, Centre Drills, Slotting and Side & Fale Cutters etc. Stockists of Hardware, Bearing etc. Branch at: 3350, People Mahadev, Hauz Kazi, Delhi-6.**

## BELTING (TEXTILE) MANUFACTURERS AND SUPPLIERS

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone: 326980. Grams: 'ALERTDEAL'.**

Allied Exporters.—Kumud House, 267, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

**ALTEX LIMITED.—147, Esplanade Road, Fort, Bombay 1. Phone: 251082, Grams: "BETEX."**

Arvinda Trading Co. Private Ltd.—105, Apollo Street, Fort.

Ashok Engineering Co.—24, Noble Chambers, Parsi Bazar Street, Fort.

Associated Machine & Tool Co.—130, Medows Street, Fort.

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate.

Bharat Electric & Engineering Corporation.—28, Apollo Street, Fort.

Birkmyre Brothers.—12, Rampart Row, Fort.

**BOMBAY MERCANTILE CORPORATION.—211-217, Nagdevi Street, Bombay 3. Phone: 325982. Grams: "CORPBOMBER." Distributors for "STAR" Brand Transmission Beltings and Hoses. Distributors of Good Year Flat Belts and V-Belts.**

Bombay Mill Store Supply Co., Ltd.—Western India House, Sir Phirozshah Mehta Road, Fort.

Brady, W. H., & Co., Ltd.—Royal Insurance Building, Vir Nariman Street, Fort.

Card Clothing & Belting Ltd.—J. K. Building, Graham Road, Ballard Estate, Fort.

**DIWAN BROS.—51, Nagdevi Street, Bombay 3. Phone: 321361. Grams: "ALLBELT." Beltings of all varieties, Hair—Cotton—Elevator—Conveyor—Rubber Transmission Belts, Flat & Round & Leather beltings. Anything & Everything in Beltings & Ball-bearings, V-Belts, Hose Pipes, Flexible Coupling.**

Edgar Handley & Co. Private Ltd.—135, Medows Street, Fort, Bombay.

Gannon Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Fort.

General Trading Corporation.—86-B, Tamarind House, Tamarind Lane, Fort.

Greentose Corporation (India).—24-26, Dalal Street, Fort, Bombay.

Hardcastle, Waud & Co., Ltd.—Alice Building, Hornby Road, Fort.

Herman & Mohatta, B. R., Ltd.—People's Building, Sir Phirozshah Mehta Road, Fort.

Hiralal Gokaldas Dalal & Co.—45, Nagdevi Cross Lane, Bombay 8.

Honesty Trading Corporation.—27, Bombay Mutual Annexe, Gunbow Street, Fort.

Jashwantlal Manekial & Co.—40, Veer Nariman Street, Fort.

Jayant Engineering & Mill Stores.—39, Nagdevi Cross Lane, Bombay 3.

Jhala, R. T., & Co.—9, Forbes Street, Fort, Bombay 1.

Laxminarayan Mill Supply Co.—Noble Chambers, 116, Parsi Bazar Street, Fort.

**LEWIS & TYLOR (PRIVATE) LTD.—Manufacturers, Distributors and Importers of "LANTEE" solid Woven Hair Belting: "R. C. F." Hair Belting, Element at V. Ropes: Conveyors: Gripoly Drop Stamp Belting: 'Fortfex' Rubber Transmission Beltings and "Lantee Super Vee Belts". Ilaco House, Sir Phirozshah Mehta Road, Post Box 949, Bombay-1. Phone 263339. Grams: "BELTHOUSE." Bombay. Bombay Manager: N. N. Desai, Manager for India: Chass R. Wallace.**

Mangaldas & Sons.—Lentin Chambers, Dalal Street, Fort, Bombay.

Mehta & Co., S.—Anees Chambers Annexe, Carnac Road, Bombay 1.

Merchants Bros.—151, Nagdevi Street.

M. Kantilal & Co.— 70, Nagdevi Cross Lane, Bombay 3.

Modern Machine Tools Co.—88, Nagdevi Cross Lane.

Modern Mill Stores.—97, Nagdevi Street, Bombay 3.

**NEW HIND ENGINEERING CO.—63, Nagdevi Cross Lane, Bombay-3. Phone: 324223. Grams: "HINDENCO". Largest Stockists of Textile Beltings (Hair, Leather, Rubber, Canvas, Asbestos Textiles and Jointing Sheets.)**

New India Hardware Mart.—152, Narayan Dhuru Street, Bombay 3.

**P. RATILAL & CO.—43, Dhanji Street, Moti Mahal, Bombay 3. Phone: 325980. Grams: "ETERNAL." Cockills' V-Belts, Blue Star V-Link Belting, Endless Woven Belts.**

Paradise Trading Corp.—73/75, Tamarind Lane, Fort, Bombay 1.

**PICON PRIVATE LTD.—Manufacturers of Sensitive Adhesive Tapes and Rubber Canvas Belts. 50, Nesbit Road, Mazgaon, Bombay-10. Phone: 78817.**

R. Mohanlal & Co.—38, Bibijan Street, Bombay 3.

Roberts McLean & Co., Private Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Fort.

**ROYAL HARDWARE MART.—108, Nagdevi Street, Bombay 3. Phone: 325221. Grams: "MANILAROPE." Distributors for Dunlop Beltings and Hoses.**

Sheth, S. C. & Co., Private Ltd.—Raja Bahadur Mansion, 14, Hamam Street, Fort, Bombay.

Sizing Materials Co., Ltd.—Jeroo Building, 137, Mahatma Gandhi Road, Fort.

**SUN STORES PRIVATE LTD.—61, Churchgate Reclamation, Bombay 1. Phone: 242174. Grams: "SUNMART." Manufacture of "SUN" Brand Leather, Lattice Belts, Condensor Rubbing Leathers, Tapes. Stockists of Maize Starch, Beta Pickers, Fibre Card Cans, Aluminium Springs.**

Techno Industrial Co.—107, Sir Vithaldas Chambers, 16, Apollo Street, Fort.

Textile Supplies Syndicate (India) Private Ltd.—India House, Fort Street, Bombay 1.

Textile Works Ltd.—49/55, Apollo Street, Fort.

Thakorlal & Co.—47, Nagdevi Cross Lane, Bombay 3.

**VIKRAM & CO.—258, Nagdevi Street, P.O. Box No. 3266, Bombay 3 B.R. Phone: 322981. Manufacturers' Representatives, Mill Gin Stores, Pipe Fittings & Hardware Merchants. Authorised distributors for "GOODYEAR" Transmission Beltings, Vee Belts, Link Belts, Hoses, etc.**

**V. N. MEHTA.—Lotus Chambers, 159, Narayan Dhuru Street, Bombay 3. Phone: 322858 and 173, V. P. Road, Bombay 4. Phone: 74429. Dunlop Vee Belts, Beltings, Water, Air & Pneumatic Hoses.**

Voltas Limited.—19, Graham Road, Ballard Estate, Fort.

Western India Tanneries Ltd.—Dharavi, Bombay 17.

## BILLIARD TABLE MANUFACTURERS

**D. S. COUTINHO.—Billiard Table Manufacturer. 91-93, D'Lima Street, Mazagaon, Bombay 10.**

Dawson & Co.—24, Parsee Bazar Street, Fort, Bombay 1.

**SHERATON & CO.—Works & Office: 131, Medows Street, Fort. Phone: 255430. Furniture & Billiard Table Manufacturers.**

**S. GANDY & CO.—22/D, Parsi Bazar Street, Fort, Bombay 1. Phone: 251657. Grams: "SEABORN." Billiard Table Makers and Manufacturers of Drawing Tables, Drawing Boards, Artist Tables, Furniture, etc.**

## BISCUIT MANUFACTURERS

Akbarally Ebrahimji Pharmacy & Department Store.—45/47, Veer Nariman Road, Fort, Bombay 1.

Britannia Biscuit Co., Ltd., The.—Bombay Office and Factory: Reay Road Bridge, East.

Carr & Co., Ltd.—Imperial Chambers, Ballard Estate.

**HUNS DEWAN & CO.—P. B. No. 4518, 158, Maulana Azad Road, Byculla, Bombay 8. Telegraphic Address: "BISCUITS."**

J. B. Mangharam & Co.—12, Gunbow Street, Fort, Bombay.

**MONITA BAKING CORPORATION.—66, Off Haines Road, Worli, Bombay 18. Grams: "MONICONES." Manufacturers of Ice Cream Cones and Wafer Biscuits.**

Parle Products Manufacturing Co. (Private) Ltd.—Thackersey House, Graham Road, Ballard Estate, Bombay.
Renown Biscuit Co., The.—Connaught Road, near Victoria Gardens, Bombay 27.
Shangrila Food Products Ltd.—Great Social Building, Sir Phirozshah Mehta Road, Fort.
Spencer & Co. Ltd.—Spencer's Building, Forjett Street, Bombay 26.

## BLOCKS (PROCESS) MAKING MACHINERY SUPPLIERS

**GUNVANTRAY & CO.—Crescent Chambers, 1st Floor, Tamarind Lane, Bombay 1. Grams: "GUNARAYCO." Phone: 254684. H.O. Khadia, Ahmedabad 1. Phone: 4068.**

## BLOWERS

Batliboi & Company Private Limited.—Reg. Office: Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR.). Phones: 255451 (6 lines). Grams: BATLIBOICO. Telex: 234. City Branch: BATLIBOI HOUSE, 59/61, Nagdevi Cross Lane, Bombay-3 (BR.) Branches: Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate: Bangalore 2. Resident Representatives: ERNAKULAM, RANCHI.

**BHARAT ELECTRIC & ENGINEERING CORPORATION.—Free Press Building, Ground Floor, 21, Dalal Street, Fort, Bombay. Phone: 255374. Grams: "GODGRACE."**

**MANEKLAL & SONS.—Showroom & Sales Division: 277, Nagdevi Street, Bombay 3-BR. Grams: "KIRTIRAJNI." Phone: 321925. Foreign Division—115/116, Narayan Dhuru Street, Bombay 3-BR. Phone: 321924. Associates: Calcutta 13. Agency: Madras 1. Importers, Exporters & Stockists of Workshop Machines, Wood Working Machines, Sheet Metal Working Machines, Electrical Tools & Cottage Industry Machines.**

**UNITED INDIA ENGINEERING CO.—6, Commerce House, Medows Street, Fort, Bombay 1. Phone: 251492. Grams: "UNICONARAM." Engineers and Machinery Dealers. Sales & Show Room: 78, Old Custom House Road, Fort, Bombay.**

## BOBBINS AND SHUTTLES

Acme Bobbins & Shuttles Private Ltd.—Raja Bahadur Mansion, 14, Hamam Street, Fort.
Allied Exporters.—Kumud House, 267, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

**ALTEX PRIVATE LIMITED.—147, Esplanade Road, Fort, Bombay 1. Phone: 251082. Grams: "BETEX."**

Arvinda Trading Co. Private Ltd.—105, Apollo Street, Fort.
Empire Trading Co.—76-A, Ali Chambers, Tamarind Lane, Fort.
Greentose Corporation (India).—Cama Buildings, 24-26, Dalal Street, Fort.
Imanes.—87, Ghodbunder Road, Erla, Post Box No. 8002, Bombay 56. Grams: "BELLIBONE". Manufacturers of Springs for your Industry to Specification.
Indo-Textile Stores, The.—16, Apollo Street, Fort, Bombay 1.
Industrial Trading Agency.—Tamarind House, Tamarind Lane, Fort, Bombay.
Laxminarayan Mill Supply Co.—Noble Chambers, 116, Parsi Bazar Street, Fort.
Mangaldas & Sons.—Lentin Chambers, Dalal Street, Fort.
Mehta Parikh & Co.—45-47, Apollo Street, Fort.
Modern Mill Stores.—97, Nagdevi Street, Bombay 3.
Modern Shuttles Manufacturing Co., Ltd.—15, Forbes Street, Fort.
National Trading Company.—263, Hornby Road, Fort, Bombay 1.
N. Kishore & Co.—39, Podar Chambers, Parsee Bazar Street, Bombay.
Paramount Textile Agency.—45/47, Apollo Street, Fort, Bombay.
Piroz N. Motabhoy & Co., Ltd.—Motabhoy Building, Corner of Medows and Forbes Street, Fort, Bombay.

**R. R. JINDE & CO.—14, Mohan Nivas, Chandavarkar Road, Bombay 19. Phone: 472267. Grams: "GOLDENHILL."**

Roberts McLean & Co., Private Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Fort.
Sardesai & Company.—14, Murzban Road, Fort, Bombay.

**SHAH BROS. & CO.—Raja Bahadur Compound, 24B, Hamam Street, Fort, Bombay 1. Phone: 254590. Grams: "MILLVEPARI." Specialists in Bobbins, Shuttles & Textile Mill accessories and Yarn Merchants & Exporters. Agents for S. M. Mark Bobbin Holders & Tension Pulleys and Spindles of Approved quality.**

Shamsun & Co.—11, Bruce Street, Fort.
Sheth, S. C., & Co., Ltd.—Raja Bahadur Mansion, 14, Hamam Street, Fort.
Texmaco (Gwalior) Ltd.—Gwalior. Sales Office: 254-A, Annie Besant Road, Bombay 18.
Universal Textile Bobbin Co.—164, Lohar Street, Bombay 2.
Voltas Ltd.—19, Graham Road, Ballard Estate.
Wilson Brothers Bobbin Co., Ltd.—Seksaria Chambers, 139, Medows Street, Fort.

## BOILER MOUNTINGS & FITTINGS

Autogenous Weldings Repair Co. Private Ltd.—63, Ferguson Road, Bombay 13.

**CRESCENT TRADING CO.—48-50, Bhajipala Lane, Bombay 3. Phones: 325140 and 327004. Grams: "WATERMETER." Stockists of Pipes, Fittings, Cocks, Acid Resisting Valves, Water Meters, etc.**

**JIVRAJ & VRAJLAL.—122, Nagdevi Street, Bombay 3. Phone: 325138 (Shop) & 30932 (Res.). Grams: "SANIPIPES."**

**KILBURN & CO. LTD.—Gresham Assurance House, Phirozshah Mehta Road, Fort, Bombay 1. Phone: 251908. Grams: "TASCONIUM."**

**MEHTA NANAVATI & CO.—96, Narayan Dhuru Street, Bombay 3. Phone: 324645. Grams: 'REDJOINT'.**

**R. OCHHAVLAL & CO.—86, Nagdevi Street, Bombay 3. Phone: 32114, Grams: "VALVES." Pipe Fittings, Asbestos Goods, "VALCO" Valves & Cocks & Boiler Mountings.**

## BOILER REPAIRERS

**EMPRESS WELDING & REPAIRING WORKS.—130, Trimbak Parashram Street, Bombay 4. Approved Boiler Repairers, Engineers & Contractors, Manufacturers of Pressure Oil Firing Equipment, Erection of all Boilers & Fabrication of Steam Pipes Undertaken.**

## BOILER TUBES & ACCESSORIES

**A. VALLABHDAS & SONS.—37, Nagdevi Street, Bombay 3. Phone: 324281. Grams: "GINSPARE". Stockists of Boiler Tubes, Accessories, Cocks & Valves & Sugar Mill requirements.**

Imanes.—87, Ghodbunder Road, Erla, Post Box No. 8002, Bombay 56. Grams: "BELLIBONE". Manufacturers of Springs for your Industry to Specification.

**GASKET CORPORATION OF INDIA.—7/10 Botawala Building, Horniman Circle, Bombay-1. Phone: 256623. Grams: "GASKETS". All types of Gaskets for Boilers, Diesel Engines, Marine Engines, Motor Cars, Tractors, etc. Manufactured as per Original Specifications.**

**M. J. PATEL & CO.—177, Nagdevi Street, Bombay 3. Phone: 327931. Grams: "REDTEE." Direct Importers & Stockists: G.I. & Steam Pipes, Boiler Tubes & Valves, C. I. Pipes & Specials, Hydraulic Pressure Tubes. Manufacturers of Steam Flanges.**

**PATEL BROTHERS & CO.—41, Nagdevi Cross Lane, Bombay-3. Phone: 321606. Grams: "HASTY." All imported and indigenous high Pressure Cocks, Valves and other boiler Accessories.**

P. Ratilal & Co.—43, Dhanji Street, Moti Mahal, Bombay 3. Phone: 32700.

**R. OCHHAVLAL & CO.—86, Nagdevi Street, Bombay 3. Phone: 321114, Grams: "VALVES." Pipe Fittings, Asbestos Goods, "VALCO" Valves & Cocks & Boiler Mountings.**

Shalebhoy Tyebjee & Sons.—22, Bruce Street, Bombay.

**R. V. SHAH & CO.—62, Bhajipala, Bombay-3. Stockists of all kinds of Pipe and Pipe Fittings also Specialist of forged Steel Flanges of DE. F & H. Table & Boiler Tubes of E.R.W. Phone: 327049, 324663.**

## BOILERS

**NESTLER BOILERS PRIVATE LTD.—Manufacturers of Boilers. Head Office & Works: Love Lane, Cross Lane, Byculla, Bombay 27. Phones: 76264 & 72818. Grams: "NESTLER."**

**ORIENTAL ENGINEERING CO.—25, Forbes Street, Fort, Bombay 1. Phone: 253057. Grams: "ADIVISHNU." Dealers in Second-hand Boilers, Vertical, Lancashire, Loco-type & Multi-Tubular Boilers, etc.**

## BOILERS—AGENTS, PRESERVATIVES AND COMPOSITIONS

Ardeshir D. Wadia & Sons.—93, Apollo Street, Fort.
Autogenous Welding & Repair Co., Private Ltd.—63, Ferguson Road, Bombay 13.
Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Fort.
Brady, W. H., & Co., Ltd.—Royal Insurance Building, Churchgate Street, Fort.
Daver, B. F., & Co.—Appa Baug Estate, 41, Queen's Road, Bombay 4.
Greentose Corporation (India).—Cama Buildings, 24-26, Dalal Street, Fort.
Hardcastle, Waud & Co., Ltd.—Alice Buildings, Hornby Road, Fort.
Heatly and Gresham Ltd.—9, Forbes Street, Fort, Bombay.
Kooverji Devshi & Co. Private Ltd.—164, Lohar Street.
Moloobhoy, Ahmed S., & Sons.—281, Nagdevi Street.

Pioneer Magnesia Works Ltd.—113, Mahatma Gandhi Road, Fort, Bombay.

**PUNEGAR, N. E., & CO.—" ACME " Compounds for descaling Boilers & Economiser " ACME " Anti-corrosive, Application (Block Paint) for Metallic Plants, Union Bank New Building, Dalal Street, Fort, Bombay 1. Phone : 253178. Telegrams : " ACMECOMPO," Bombay.**

Richardson & Cruddas.—Byculla Ironworks, Parel Road.

Roberts McLean & Co. Private Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Fort.

Shalebhoy Tyebjee & Sons.—12, Bruce Street, Bombay.

**STARIT ENGINEERING CO.—Designers & Manufacturers of all types of Complete Water Treatment Plant, Boiler descaling material, water conditioning compound, Ion-Exchange resin & Consulting Engineers. Rangoonwala Building, 4th Floor, Mohammedali Road, P.O. Box 3191, Bombay 3. Phone: 327296. Grams : " ORIBIRD."**

Thos. W. Ward (India) Ltd.—Marshall Building, Ballard Road, Ballard Estate, Fort.

## " BOLINJKAR " BELT LACINGS

**NAGDEVI TOOL-STEEL MART.—186-88, Nagdevi Street, Bombay 3. Phones : 323023 and 327058. Grams : "TENDERERS."**

## BOLTS, NUTS, SCREWS AND NAILS

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone : 326980. Grams : 'ALERTDEAL'.**

Abdulkhadar Shamsuddin & Co.—48, Khoka Bazar, Bombay 3.

Abdullabhai Faizullabhai Ltd.—Khoka Bazar, Bombay 3.

Adamally Sons Ltd.—277, Nagdevi Street, Bombay 3.

**ARJANSINGH KHEMCHAND.—1st Floor, 118, Commerce House, Medows Street, Bombay-1. Phone : 253752.**

**AUTOMOTIVE HARDWARE CORPORATION.—93, Narayan Dhuru Street, Bombay 3. Phone : 322507. Grams : " NUTS-AUTO." High Tensile Bolts, Nuts, SAE, BSF, BSW & MILLIMETER. Stockists of Bhutan Bolts.**

Bharat Trading Co.—316-A, Vithalbhai Patel Road.

Bhutt Brothers.—163, Nagdevi Cross Lane, Bombay 3.

Bombay Engineering & Metal Works.—Dehgamwalla Chambers, Nesbit Road, Bombay 10.

**BOMBAY HARDWARE TRADERS.—79, Narayan Dhuru Street, Masjid Bunder Road, Bombay 3. Phone Nos. 323042 & 327153. Grams : " SISTACHAR." Stockists of Hardware, Screws, Bolts, Nuts, Shoe Materials, Woodworking & Metal Cutting Saws, Engineering Stores & Saw Files.**

**BOMBAY TOOLS & HARDWARE MART.—123, Narayan Dhuru Street, Bombay 3. Grams : " BOTAPS." Phone : 327122.**

Brady, W. H., & Co., Ltd.—Churchgate Street, Fort.

C. Amichand & Co.—46/A, Abdul Rehman Street, Bombay 3.

C. Parekh & Co.—103, Bhajipala Lane, Bombay 3.

Dhani Ram & Sons.—236, Musjid Bunder Road, Bombay 3.

**EVERGREEN CORPORATION.—9/15, Picket Cross Road, P.O. Box No. 2733, Bombay 2. Grams : " GREENLEAVE." Phone : 22162. Manufacturers of all shapes, sizes, bolts, nuts, rivets, screws and washers in all metals.**

Fazalbhai & Bros.—26, Sarang Street, Bombay 3.

**FIT-TIGHT NUTS And BOLTS LTD.—Old Ashram, Andheri-Kurla Road, Andheri, Bombay 58. Phone : 573053, 573385/6/7. Grams : " FITTIGHT ", Andheri. Manufacturers of Cold Forged High Tensile Precision Nuts, Bolts & Socket Head Cap Screws to B. S. DIN & SAE Specifications.**

**FREE INDIA METAL PRODUCTS CO.—65-67, Bhajipala Lane, Bombay 3. Phone : 326924. Grams : " ROUNDBOLT." Manufacturers & Stockists of Bolts, Nuts, Rivets, Washers, Screws & Hardware Materials.**

Gaytee & Co.—Janmabhoomi Chambers, Fort Street, Fort, Bombay 1.

Great Eastern Hardware Stores Private Ltd.—132, Sarang Street, Bombay 3. Phone : 29663. Grams : "WINGROVE."

**GUEST, KEEN, WILLIAMS, LTD.—Wakefield House, Sprott Road, Ballard Estate, Post Box No. 575, Bombay 1. Phone : 261302 (3 Lines). Grams : "POINTSMAN."**

Harjimal Kidarnath & Co.—87, Nagdevi Cross Lane, Bombay 3.

Herman & Mohatta, B. R., Ltd.—People's Building, Sir Phirozshah Mehta Road, Fort.

**JAIRAMDAS & SONS.—163, Narayan Dhuru Street, Bombay 3. Phone : 323616. Grams : " JAIRAMDAS." Manufacturers of M. S. Bolts & Nuts. Factory : Industrial Area, Azamabad, Hyderabad.**

Jaswantlal Manekial & Co.—40, Churchgate Street, Fort.

Jayaukhlal & Bros.—82-86, Abdul Rehman Street, Bombay 3.

Kadakia Trading Corporation.—23, Bibijan Street (Nagdevi), Bombay 3. Phone : 29493. Grams : "STEAMTRAP."

**MAHARASHTRA HARDWARE STORES.—94, Sarang Street, Bombay 3. Phone : 327991. Grams : " BOLTARM." Stockists of/or GKW Products—Bolts, Nuts-Screws, (Sheet Metal) Screws, Quarter Pins, Washers, Rivets, Rose Nails, Wire Nails, Coach Screws, etc.**

**MANILAL SHETH & BROS.—Congress House, Vithalbhai Patel Road, Bombay 4. Phone : 71481. Importers of SAE Bolts and Nuts and Spring Centre Bolts. Grams : " RIVET."**

**MOHANLAL & CO.—144, Diamond Bldg., Lohar Street, Bombay 2. Phone : 30916. Grams : " HARDSTOCK." Bolts, Nuts and Screws and Everything Hardware.**

**MOHANLAL JAICHAND & CO.—100, Narayan Dhuru Street, Bombay 3. Phone : 322380. Grams : " ATMARTHI." Importers & Stockists of SAE, BSF, BSW, NC, METRIC THREAD Bolts, Nuts, Rivets, Allen Cap, Grub Screws, Spring, Washers, Coach Screws, Sheet Metal Screws, etc.**

**MULLA TAYEBALI MULLA NOORBHOY.—175, Janjikar Street, Bombay 3. Phone : 325934. Grams : " TANOOR ". Specialists in Hinges, Screws and Sole Selling Agents for Brass Cups & square hooks No. 110, Curtain Wire " MEDORA " and " 457 " Red Tin; M.S. Corrugated Corner, Door Tracks of all kinds, M.S. Washers of all sizes.**

**NAGDEVI TOOL-STEEL MART.—186-88, Nagdevi Street, Bombay 3. Phone : 323023 and 327058. Grams : " TENDERERS."**

**NEW HAVEN ENGINEERING CO. PRIVATE LTD.—Nanjee Building, 17-B, Horniman Circle, Bombay 1. Phone : 261523. Grams : " GULDASTA." Manufacturers of Automobile parts, Machinery Spares, Bright Polished bolts and nuts, Socket head Cap Screws, Precision turned automatic parts etc.**

**ORIENT PAINT & HARDWARE MART.—67, C. P. Tank Road, Bombay 4. (BR). Importers, Agents, Stockists, Suppliers. Dealers in Iron, Hardware, Bolts, Nuts & Screws. Specialists in " Steel Wood Screws." Stockists of Nettlefolds Screws, Rivets & G.K.W. Bolts & Nuts. Agents for National Screws. Phone : 333768. Grams : " ADHIKAR."**

Patel, U. D., & Co.—11, Bank Street, Fort.

P. Ratilal & Co.—43, Dhanji Street, Moti Mahal, Bombay 3. Phone : 32700.

Shah Chhaganlal Ladhubhai.—58, Mudi Bazar (Mandvi), Bombay 3. Phone : 34522.

Shums Trading Agency.—26, Tara Lane, Bombay 3. Phone : 322231.

Siriram & Co.—97, Narayan Dhuru Street, Bombay 3.

**S. MOHANLAL & CO.—Tawawalla Building, 34, Pathakwadi, Bombay 2-BR. Phones : 30240, 20915. Grams : " SOCKETREWS." Direct Importers and Manufacturers of Bolts, Nuts & Screws.**

Soho House.—Vithal Sayana Building, Lohar Street.

Sulemanjee Valijee Kutiyanawalla & Co.—Kika Street, Null Bazar.

**TARASINGH HARBINDERSINGH.—Manufacturers of Bright polished steel Nuts, Studs, Bolts & Automobile parts, 190, Princess Street, Bombay 2.**

Teka Hardware & Engineering Corp.—82/86, Abdul Rehman Street, Bombay 3.

Tyebally Dawoodji.—(Estd. 1865), 87, Sarang Street, Bombay 3. Phone : 325362. Grams : "FOOTRULES." Stockists of John Baker's J.K.'s and Hindustan's Files. Stockist of Indian " Dowidat " Tools.

Vora Brothers.—34, Bibijan Street, Bombay 3.

**V. CHUNILAL & CO.—19, Bibijan Street, Bombay 3. Phone : 328370. Bolts, Nuts, Hardware & Tool Merchants.**

## BOOK-BINDING MACHINERY SUPPLIERS

**GUNVANTRAY & CO.—Crescent Chambers, 1st Floor, Tamarind Lane, Fort, Bombay 1. Phone : 254684. Grams : " GUNARAYCO." H.O. Khadia, Ahmedabad 1. Phone : 4068.**

## BOOKBINDING CLOTH MANUFACTURERS & DEALERS

**BHOR INDUSTRIES LTD.—Sales Department, 392, Cadell Road, Bombay 28. Phone : 451418, 451967, 451978. Grams : " COVERCLOTH." Mfrs. of " Raja " Brand Plastic Cloth & " Natraj " brand Plastic Films & Sheetings.**

Gandhi Brothers.—4th Floor, Bhatia Building, 203, Dr. Dadabhoy Naoroji Road, Bombay 1.

**GANDHI, R., & CO.—50, Sheriff Devji Street (Chakla), Bombay 3. Wholesale Distributors of Book Binding Cloth & P.V.C. Leather Cloth. Phone : 322897.**

Leather Cloth Processors & Printers.—Moghul Lane, Matunga, Bombay 16.

**ROYAL PAPER STORES.—187-89, Abdul Rehman Street, Mapla Bldg., Bombay 3. Phone : 321103.**

## BOOKS ( ACCOUNTS & EXERCISES ) MANUFACTURERS

**CRYSTAL STATIONERY MART.**—Manufacturing Stationers such as Excise Books, Note Books, Files, Account Books, etc. 146, Abdul Rehman Street, Bombay 3. Grams: "CRIS-MART." Phone: 325853 & 324461.

**FIDVI PRINTING PRESS.**—179, Abdul Rehman St., Bombay 3. Manufacturers, Dealers & Exporters of Accounts and Exercise Books, Office Files, New Year Diaries, Calendars and Refills and other advertising Novelties. Phone: 325915. Grams: "FIDVIPRESS."

**HIROO MANUFACTURING CO.**—93, Bhajipala Lane, Bombay 3. Manufacturers of "EAGLE" Brand Exercise books, note books, etc. "EAGLE" Table & Pocket Diaries and Complimentary Articles.

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Phone : 326707

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**SHAH BOOK MFG. DEPOT**
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## BOOKSELLERS, PRINTERS AND PUBLISHERS

**A. H. WHEELER & CO. PRIVATE LTD.**—Eruchshaw Building, 249, Dr. Dadabhoy Naoroji Road, Bombay 1. Phone: 263915. Grams: "BOOKSTALLS."

Allibhoy Sharafally & Co., Ltd.—373, Ebrahim Rahimtullah Road.

**ALLIED PUBLISHERS PRIVATE LTD.**—Head Office: 15, Graham Road, Ballard Estate, Bombay 1. Phone: 261959. Grams: "FOLIO." Branches: 17, Chittaranjan Avenue, Calcutta 13; 13/14, Asaf Ali Road, New Delhi and Mohan Mansions, 38/C, Mount Road, Madras 6.

Allied Publishers and Stationery Manufacturers, Ltd.—Stronach House, 15, Graham Road, Ballard Estate.

**ASIA PUBLISHING HOUSE PRIVATE LTD.**—Calicut Street, Ballard Estate, Bombay. Phones: 262831-32-33. Cables: "BOOKLORE." Branch Offices: 67, Ganesh Chandra Avenue, Calcutta 13; "East View," 199, Mount Road, Madras 2; Indra Palace, Connaught Circus, New Delhi 1; Mull Building, Ashok Marg, Lucknow; 621-622, Avenue Road, Bangalore-2; 447, Strand, London W.C. 2; 119, West 57th Street, New York 19, N.Y.

**ASIAN TRADING CORPORATION.**—P.O. Box No. 1505, 310, The Mirabelle, 33/A, Marine Lines, Bombay 1. Phone: 242672. Grams: "AJPIPAS." Importers of all types of books including children's and Religious books.

**BENNETT, COLEMAN & CO., LTD.**—Times Building, Dr. Dadabhoy Naoroji Road, Fort.

**BHARAT BOOK CORPORATION, MEDICAL BOOKSELLERS & PUBLISHERS.**—Kitab Mahal, 190, Dadabhai Naoroji Road, Fort, Bombay 1. Importers of Medical Books from U.K. & U.S.A. Phone: 261528. Grams: "MEDIBOOK." Interested in Imports of Large Quantity, Loose Sheets of Books on Sole Agency Basis.

**BLACKIE & SON (INDIA) LTD.**—103/5, Fort Street, Bombay 1. Phone: 261410. Grams: "BLACKIE."

Bombay Book Depot, The.—217 Charni Road, P.O. Girgaum, Bombay 4.

**CLARIDGE, G., & CO., LTD.**—Frere Road, Fort, Bombay 1. Phones: 263201 & 263202. Grams: "EGDIRALC." Security Printers, Photo-Offset, Transfer ( Decals ) Book-Binders, Carton and Packaging Experts.

Co-operators' Book Depot (Estd. 1935).—9, Bakehouse Lane, Fort, Bombay 1.

Current Book House.—Maruti Lane, Raghunath Dadaji Street, Bombay 1.

Educational Publishing Co.—17, Benham Hall Lane, Girgaum, Bombay 4.

Hind Kitabs Ltd.—261-263, Hornby Road, Fort.

International Agencies (Regd.).—195, Dr. Dadabhoy Naoroji Road, Bombay 1.

International Book House Ltd.—Ash Lane, Mahatma Gandhi Road, Fort.

**JAICO'S.**—125, Mahatma Gandhi Road, Bell Lane, Bombay 1. Phone: 252164. & 256958. Grams: "JAICOBOOKS." Booksellers and Publishers.

Karimi Litho Press.—2nd Anjeer Wadi, Mazagaon. Sale Dept.—Karimi Book Agency. Kolsa Mohalla, Bombay 3. For all kinds of Abrabic, Persian and Urdu Literature.

Khemraj Shrikrishnadass.—7th Khetwadi, Bombay 4.

Kitab Mahal.—Publishers & Booksellers, Sohrab House, 235, Hornby Road, Fort.

Lakhani Book Depot.—Girgaum, Bombay.

**MACMILLAN & CO., LTD.**—"Macmillan Building," 276, Dr. Dadabhoy Naoroji Road, Bombay 1. Phone: Nos. 261185 & 261184. Grams: "BIBLICOS", Bombay Publishers.

Magazine Agency.—4, Nanabhai Lane, Fort, Bombay 1.

Model Art Printery Ltd.—4, Nanabhai Lane, off Churchgate Street, Fort.

Nadkarni, D. A., & Co., Private Ltd.—(Incorporating Ideal Books Co.), 22, Gowalia Tank Road, Bombay 26.

**NEW BOOK CO. PRIVATE LTD.**—"Kitab Mahal," 188-190, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Phone: 263544/45.

New India Trade Library.—(Buying, Selling & Advertising Agents), No. 6641, P.O. Matunga, Bombay 19.

**NEW LITERATURE PUBLISHING CO.**—12, Bakehouse Lane, Fort, Bombay 1. Booksellers.

**NEW PHOTOPLAY CO.—11, Yusuf Bldg., Mahatma Gandhi Road, Bombay-1. Phone: 256381. Grams: "NEWPHOTO." Wholesale Distributors of Books & Magazines and Subscription Agents.**

New Popular Book Shop.—Nana's Chowk, Gowalia Tank Road, P.O. Grant Road, Bombay 7.

Orient Longmans Ltd.—Indian Mercantile Chamberr, 53, Nicol Road, Ballard Estate.

**OXFORD UNIVERSITY PRESS.—Oxford House, Apollo Bunder, Post Box No. 31, Bombay 1. Phones: 213104 & 213105.**

Padma Publications Ltd.—53/55, Lakshmi Building, Sir Phirozshah Mehta Road, Fort.

Pioneer Book Depot.—181/3, Hornby Road, Fort.

**POPULAR BOOK DEPOT (Regd.).—Booksellers and News Agents, Dr. Bhadkamkar Road, Bombay-7. Phone: 71356. Stockists of latest Technical, Medical, Educational, Law & General Books. Grams: "QUIXOTE."**

**PROGRESSIVE CORPORATION PRIVATE LTD.—51, Mahatma Gandhi Road, Fort, Bombay 1. Booksellers, Publishers, Stockists for well known Publishing Houses of Technical, Commercial, Educational, Management & Humour Books. Phone: 251634.**

Rajkamal Publications Ltd.—Himalaya House, Hornby Road, Bombay 1. Phone No. 20996.

Roy & Co.—176, Princess Street, Bombay 2.

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**NARIMAN B. BHARUCHA & SONS.**—Kalakdina Terrace, B, Gowalia Tank Road, Bombay-26. Phone: 40914. Builders, Sanitary Engineers, Specialists in Shells & Prestressed Concrete.

**NATIONAL ASPHALT PRODUCTS & CONSTRUCTION CO.**—Hill View, Mahul Road, Chembur, Bombay 74 AS. Phones: 521637 & 521795. Contractors for: Earthwork, Rock Cutting, Asphalt & Concrete Roads and Reinforced Concrete Work.

**NENSHI MONJI.**—123, Mahatma Gandhi Road, Bombay 1. Contractors, Stone and Sand Suppliers. Phones H.O.: 251054 and 255048, Bhoiwada Quarry 61150, Kurla Quarry: 581844, Sand Depot: 72626.

**NEW BHARAT BUILDERS.**—Central Bank Bldg., Bruce Street, Fort, Bombay. Phone: 254122. Grams: "NISC." Engineers and Building Contractors.

**NEW ERA TRADING AGENCY.**—No. 6, Chawl No. 4, Saboo Siddique Road, Behind Musafirkhana, Bombay-1. Phone: 264329. Grams: "NETACRIMP." Undertake any type of Compound Fencing Job with G.I. Chain Link (inter link) Fencing. Remember Compass Brand Neta Chain Link is Cheaper, economical and attractive too.

**P. DINSHAW & CO.**—Spinner Building, 8/10, Tamarind Lane, Fort, Bombay. Phone: 253404. Builders & Contractors.

Premier Construction Co., Ltd.—Construction House, Ballard Estate, Fort, Bombay.

**RECONDO PRIVATE LIMITED.**—"The International", 16, Queen's Road Estate, Bombay 1. Road Construction Contractors, Specialists in Asphalt Surfacings. Phone: 242026. Grams: "CONDO", Bombay 1. Manager: T. H. Peshori, B.E. (Mech.). Technical Adviser: N. H. Taylor, M.Sc. (Lond.), A.M.I.C.E.

**SHAH CONSTRUCTION CO. LTD.**—198, Jamshedji Tata Road, Bombay 1. Phone: 245044 (3 lines). Grams: "SUPERTRADE." Engineers & Contractors. Specialists in Prestressed Concrete, Roads, Dams and Canals. R. C. C. Multistoreyed Buildings.

**SHALIMAR TAR PRODUCTS (1935) LTD.**—16, Bank Street, Fort, Bombay 1. Phone: 254643. Grams: "TARSTIL." Specialists in Prestressed Concrete Design and Construction.

Shapoorji Pallonji & Co.—70, Medows Street, Fort.

**SHUBHDWAR ROLLING SHUTTERS & ENGINEERING CO.**—15, Bank Street, Fort, Bombay. Phones: 254445 & 254185. Grams: "SHUBHROLL." Manufacturers of Steel and Aluminium Rolling Shutters, Window Grills, Collapsible Gates, Fire Proof Doors, Compound Gates, Platform Trolleys, Wheel Barrows, Steel Doors & Windows, all types of Steel fabrication works, Dealers in Machinery & Tank Manufacturers.

Simplex Concrete Works & Construction Co.—"La Citadelle", 32, Queen's Road.

Tejoo Kaya & Co.—Tejoo Kaya Park, Vincent Road, Matunga, Bombay 19.

Timber Wood Syndicate.—Ghodbunder Road, Andheri, Bombay. Phone: 86673.

United Construction Corporation.—Shrinivas House, 3rd Floor, Waudby Road, Fort.

Victoria Sanitary Stores, 3rd Bhoiwada, 54, Bhuleshwar, Bombay 2.

**VADILAL & CO.**—473, Falkland Road, Bombay-4. Licensed Plumbers, Sanitary Engineers & Building Contractors. Specialists in Water Supply & Drainage, Undertaking New Installation, Repairs & Maintenance Work of any magnitude. Phone: 334981. Residence: 38009.

## BUILDERS HARDWARE

**ABDEALLY, B. M. & CO.**—127, Sarang Street, Bombay 3. Phone: 326980. Grams: "ALERTDEAL".

A. K. Porbandarwalla Sons.—Ruby Mansion, 19, Parsee Bazar Street, Bombay 1.

**ELECTRIC BRASS WORKS FACTORY.**—(Prop.: G. Chimanlal & Co.), 91, Sarang Street, Bombay 3. Phone: 326137. Grams: "SCISSOR". Manufacturers of high quality Builders Hardware. Factory: 1st Panjrapole Lane, C.P. Tank Road, Bombay.

Elliott Waud & Hill Private Ltd.—Lakshmi Bldg., Sir P. M. Road, Bombay 1.

**M. FAIZULLABHOY & CO.**—37/39, Bhajipala Street, Bombay 3. Manufacturers & Exportors of Ferrous & non-ferrous Builders Hardware. Only Export Enquiries solicited for Brass Aldrops, Hinges, Cocks & Tower Bolts, etc.

**MEHTA MANUFACTURERS**
Shop No. 25-A, Sarang Street, Khokha Bazar, Bombay-3

**ALWAYS USE**
M. M. BUILDING HARDWARE

Micro Metal Works.—22, Narayan Dhuru Cross Lane, 1st Floor, Bombay 3.

**ORIENT PAINT & HARDWARE MART.—67, C. P. Tank Road, Bombay No. 4 (BR). Importers, Agents, Stockists, Suppliers. Dealers in Iron, Hardware, Bolts, Nuts, Screws, Specialists in "Steel Wood Screws". Stockists of Nettlefolds Screws, Rivets, G.K.W. Bolts and Nuts. Agents for National Screws. Grams: "ADHIKAR". Phone: 333768.**

Stanley Works, The.—44, Lakshmi Bldg., Sir Pherozshah Mehta Road, Bombay 1. Phone: 262737. Grams: "STANLEYWORK".

Teka Hardware & Engineering Corp.—82-86, Abdul Rehman Street, Bombay 3. Phone: 326886. Grams: "TEKATOOLS", Agents for Tekrom Railing Patti (Door Tracks) in 10 ft. lengths Iron Coppered, English Heavy Type, and Brass Rod Brackets Nickel Plated for Curtain Rod, also Nickel Plated & Tubes 'Lion Brand' 12 ft. long Standard thickness.

**VANGUARD ENGINEERING WORKS.—54/56, Tamkar Street, Bombay 8. Phone: 74277. Manufacturers of Stove legs, Iron Spoons, Building Material, Hinges, Brackets, Uscotype, Burners, egg beaters & Stove top rings, Stove Flame rings etc.**

**VERTEX MANUFACTURING CO. LTD.—222, Sir Mathuradas Vissanji Road, Andheri (East), Bombay 69. Phone: 572438. Manufacturers of "Vertex" Builders' Hardware such as brass hinges, barrel bolts, mortice locks, handles, etc.**

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**A. M. LAKDAWALLA.—23, Dhaboo Street, Bombay 3. Phone: 332066. Grams: "STRONGTEAM." Authorised Stockists for "Everest" Asbestos Cement Big Six and Trafford sheets and accessories, Building Boards, Pipes, Cutters & Fittings. Supply Fabrication & Erection steel for Industrial sheds and building contractors.**

Abba Gani & Co.—1-2, Victoria Road, Mazgaon, Bombay 10.

**ACME TILES MFG. CO.—494, Duncan Road, Bombay 4. Phone Nos.: 333387 & 65610. Grams: "EKMITILE." Manufacturers of "ACME" Brand Marble Mosaic, Terazzo, Plain & Non Slippery Cement Tiles.**

Alsales Ltd.—9, Wallace Street, Bombay 1.

Amir & Sons.—70, Pydhonie Road, Khadak, Bombay 9; Dealers in Timbers, Bamboos and Bamboo Mats of all sizes; Scaffolding Materials like Bamboos, Planks, Ladders, Mundas and Bullies, etc. can be had on hire.

**ARANHA AGENCIES.—190, Cadell Road, Mahim, Bombay 16. Phone: 453504. Official Stockists of "EVEREST" Asbestos Cement "Big Six" Corrugated Sheets & "Trafford Sheets", Building Boards, Cutters, Pipes & Fittings. Mfrs., Roof Bolts, Cutter & Pipe Clamps & Accessories—Specialists in the erection of Asbestos Cement Roofs & all Asbestos Cement Products.**

Arco Steels.—Prospect Chambers Annexe, Hornby Road, Fort.

**BOMBAY BUILDING MATERIALS TRADING CO.—Dealers in Sanitarywares & Manufacturers of 'Bilmat' Bathroom Fittings, 73, Medows Street, Fort, Bombay 1. Phone: 253042. Grams: "BILMAT."**

Chandulal Narandas.—96, Kika Street, Bombay 4.

Heatly and Gresham Ltd.—9, Forbes Street, Fort, Bombay.

**INDOPLAST LTD.—Kasturi Buildings, Jamshedji Tata Road, Bombay 1 (Post Bag 10076). Grams: "STYROPOR." Phone: 38071. Manufacturers of Thermocole Boards for false Ceilings and Accoustical Tiles.**

**INDUSTRIAL MINERALS & CHEMICAL CO.—125, Narayan Dhuru Street, Bombay 3. Phone: 323721 (3 lines). Grams: "IMCHEL." Chemicals & Mineral Merchants and Stockists of Raw Material for all Industries.**

**J. HARILAL & CO.—Tank Bunder, Reay Road, Bombay 10. Phone: 42834. Grams: "FIRWOOD." Stockists of Mangalore Roofing Tiles and Ridges. All kinds of Timber and packing materials.**

J. N. Raja & Co.—51, C. P. Tank Road, Bombay 4. Phone: 334429.

Kanakia Corporation.—163, Nagdevi Cross Lane, Bombay 3.

Mahomed Janmahomed.—68, Pydhonie Road, Khadak, Bombay 9.

**NATSON MANUFACTURING CO. PRIVATE LTD.—Bombay Mutual Chambers, 19, Hamam St., Fort, Bombay. Phone: 254221. Grams: "GLOBULAR". Works: Odhav, Ahmedabad. Grams: "DAMPROOF." Manufacturers of Concrete Hardener, "Rite-Sil" Waterproof Cement Paint, Natson Cement Waterproofer, Acid & Alkali Resisting Cements, 'Prontocet' Rapid Hardening & Quick Setting Liquid for Cement, Cement retarders Smooth-on-Iron & Foundry Cements & "Mineralead" pipe Jointing Compound for Bell & Spigot Type Cast Iron Pipes.**

**NENSHI MONJI.—123, Mahatma Gandhi Road, Bombay 1. Contractors, Stone and Sand Suppliers. Phone H.O.: 251054 and 255048. Bhoiwada Quarry: 61150; Kurla Quarry: 581844; Sand Dept.: 72626.**

**P. Ratilal & Co.—43, Dhanji Street, Bombay 3.**

R. Moolchand & Co.—44, Nagdevi Cross Lane, Bombay-3. Direct Importers, Sanitarywares, Tiles, Bath Tubs, Fancy Bathroom Fittings. Grams: "POTTERY." Phone: 324207. Res.: 78837.

Simplex Timber Mart.—64-66-68, Ibrahim Mohd. Merchant Road, Khadak, Bombay 9 (India). Phone: 331794. Grams: "LADDERMAN". Municipal Contractors, Dealers in Bamboos and Bamboo Mats, Mangalore Tiles, etc. Manufacturers of all kinds of Single, Folding, Sliding, Extension and wheeled tower ladders, boat oars and flag poles etc.

**TANDUR & SHAHABAD STONE CO., THE.—(Estd. 1911). Stockists of Building Materials and Building Contractors, Round Temple, Sardar V. Patel Road, Bombay 4 (BR). Grams: "STONESLAB." Phones: 332575-332065. Registered Stockists: The Cement Marketing Co., of India Ltd. (A.C.C. Cement); Iron and Steel (M.S. Bars, Round, etc.); H. & R. Johnson (India) Pvt. Ltd. (Glazed Tiles, etc.). Distributors: ACC Special Products—'Silvicrete' White cement, 'Accoset-50,' Refractory Cement, 'Acid Proof Bricks,' Fire Bricks. Sole Stockists: Dholpur Stone Co. (Red & White stones), "Buff Coloured" Acid and Alkali Proof Stoneslabs. S. J. Madan & Co. ("Dampsal" Water proofer). Selling Agents: Bombay Stone Syndicate (Pvt.) Ltd. (Tandur, Shahabad and other varieties of stoneslabs); "PEPSU" coloured marble; Dixie Products Pvt. Ltd. (Acid, Alkali and Corrosion Resistant Cements); Special Stones Corporation (Acid and "Fire Proof Vegastones."**

Teamsan Traders.—Post Box No. 3162, Nagdevi Street, Bombay 3.

**WADIA, B. F. & SONS.—Timber, Mangalore Roofing Tiles and Woodwool—The Ideal Packing Material. Reay Road, Bombay 10. Phone: 71934. Grams: "TIMBERSALE."**

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay.

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Begraj Gupta.—207, Kalbadevi Road, Bombay 2.

Hemchand Mohanlal & Co.—Deoki Bhuwan, Dhanji Street, Bombay 3.

Khimji Poonja & Co.—Wadia Building, 17/19, Dalal Street, Fort.

Merwanjee Bomanjee Dalal.—45-47, Apollo Street, Fort, Bombay.

**MOTILAL VIJBHUKHANDAS.—155, Shaikh Memon Street, Bombay 2. Dealers & Refiners. Ready Gold, Silver, Sovereigns, Commission Agents. Brokers in Securities & Shares and General Merchandise. Importers of Chemicals. Exporters—Pearls—Stones and Electrical Meters, etc. Phone: 326537. Grams: "AMIABILITY".**

Pyarelal Gupta & Co.—207, Kalbadevi Road, Bombay 2.

Ramsarup Gupta & Co.—705, Cotton Exchange, Kalbadevi Road, Bombay 2.

## BULLION SMELTERS & SHEET MAKERS

Dosabhai Rustomji Choksi & Co.—1st Agiary Lane, Kharakuva, Zaveri Bazar, Bombay.

## BUTTER & GHEE (MFRS.)

**POLSON, LTD.—Jn. of Belvedere and Dockyard Roads, Bombay 10. Phone: 73245 (2 lines); Grams: "POLSON," Mazagaon, Bombay.**

## CABLES & WIRE MFRS.

**ASIAN CABLES CORPORATION LTD.—Manufacturers of Rubber and Plastic Insulated Electric Wires & Cables. *Office:* Navsari Building, 240, Dr. Dadabhoy Naoroji Road, Fort. Grams: "KOTAKASIAN." Phone Nos.: 263334 & 263335. *Factory:* Pokhran Road, Majiwade, Thana. Products: Rubber Insulated and Plastic Insulated Wires & Cables.**

including Special Cables; Underground Paper/Plastic Insulated Power Cables; Super Synthetic Enamelled Wires, etc. Sole Distributors : Asian Machinery & Equipment Co. Private Ltd., Navsari Bldg., 240, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

**B. MANIAR & CO.**—9, Mani Bhavan, 2nd floor, Lohar Chawl, Pathak Wadi, Bombay 2. Phone: 20802. Grams: "CARTFUSE." TROPODUR, P. V. C. Insulated Cables for Power & Control, Wires of all sizes, Trailing Flexible Cables. Stockists of Imported D.Z. and T.D.Z. Cartridge Fuse Units.

**BILLION PLASTICS PRIVATE LTD.**—101, Himalaya House, Palton Road, Bombay 1. Phone : 265573. Grams : "BILLION." Manufacturers of P.V.C. Insulated Wires and Cables Sheets, Films, Sleevings and Tubings, etc.

**BHARAT CABLES PRIVATE LTD.**—Office: 11, Bruce Street, Bombay-1. Phone: 252167. Factory: Agra Road, Bhandup, Bombay-78. Phone: 592406. Selling Agents: All India Electric Co., Mangaldas Road, Lohar Chawl, Bombay-2.

**BIPINKUMAR ELECTRIC CORPORATION.**—14, Tavawala Building, Lohar Chawl, Bombay 2. Dealers : M.E.M. Copperwires, Fans, Meters, Accessories & Everything Electrical. Grams : "BIPINDEV." Phones: 30684 & 22185. Sole Agents for "TROPEX CABLES," VIR-CTS and Weather Proof and Super Deluxe Plastic Cables and Philco Rosin Cored Solder Wire.

Bombay Cable Co. Private Ltd.—United Bank of India Bldg., 6th Floor, Post Box 1859, Sir Phirozshah Mehta Road, Fort, Bombay 1. Phone : 254028. Grams : "BISIKO."

Bombay Insulated Cables & Wires Co.—10, Himalaya House, 79, Palton Road, Bombay 1.

British Insulated Callender's Cables Ltd.—Esplanade House, Waudby Road, Bombay 1.

**COSMIC TRADERS.**—Yusuf Bldg., Veer Nariman Road, Bombay 1. Phone : 253224. Grams : "YANTRAYUG." Underground Cables, Wires and Accessories.

**DASWANI BROS.**—53, Queen's Road, Opp. Marine Lines Station, Bombay 2. Phone: 20117. Grams : "CIRCLINE." Agents : "TPI" Plastic Wires, GNE Electric Brass Holders, Bakelite Switches, "RECORD" Electrical Accessories.


**DEVIDAYAL CABLE INDUSTRIES LTD.**

Gupta Mills Estate, Reay Road, Bombay - 10

Telegrams : "TRIMEL"

Telephones :

Office : 70001 & 72371-72 - Factory : 591336

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**ELDE CORPORATION.**—Ismail Building, 381, Dadabhai Naoroji Road, Fort, Bombay 1. Phone: 254661. Grams: "CAXTONE." Sole Distributors for India for Electrical Cables & Wires—Rubber Insulated and P.V.C. upto 660 Volts; Cables, V.I.R. — C.T.S. and Weather Proof Manufactured by Swastik Rubber Products, Ltd., Poona 3. "CF" Black insulating Adhesive tape manufactured by Coated Fabrics, Dadar, Bombay 14.

**ELECTRIC POWER DEVICES CORPORATION.**—111/A, Mahatma Gandhi Road, Bombay-1. Phone: 251413. Suppliers of I.C. Switches Cutouts, Kit-kat Fuses, Insulators, ACSR Accessories, Electrical Measuring Instruments, Cables & Cable Boxes.

**FINLAY, JAMES & CO., LTD.**—Chartered Bank Building, Mahatma Gandhi Road, Fort, Post Box 73, Bombay. Phone Nos. 251255-59.

Fleming, John, & Co., Private Ltd.—P. B. No. 76, Bombay 1. Phone: 261153.

**INDIA METAL TRADERS.**—92/94, Kika Street (Gulalwadi), Bombay 4. Manufacturers of Copper Conductors, Copper Strips and bus bars, stranded Copper Wires, binding Copper Wires, tinned Copper Wires and Aluminium conductors. Phone : 334093. Grams : "METALDRAW." (GG).

Indian Cable Co., Ltd.—Esplanade House, Waudby Road, Bombay 1.

**HIND INDUSTRIAL & MERCANTILE CORP. PVT. LTD. (HINDCO.).**—27, New Queen's Road, Bombay 4. Grams: "ADEK". Phone: 30061-2. Importers & Distributors. Branch at Calcutta, Delhi, Bangalore and Madras.

**JOHNSON & PHILLIPS LTD.**—Kaiser-i-Hind Building, Currimbhoy Road, Ballard Estate, Bombay. Phones : 262457 & 265379. Grams : "JOHNPHIL."

National Supply & Distributing Agency.—Jay Mahal, 20-48, Lohar Chawl, Bombay 2.

**PLASTICABLES PRIVATE LTD., THE.**—Lentin Chambers, 34, Dalal Street, Fort, Bombay. Phone : 254893. Grams: "POLYPLAST." Manufacturers of "VINOLITE" Brand : P.V.C. insulated wires & cables, Auto-Cables, P.V.C. Insulation tape, Sleevings and Transparent Tubings and all types of Thermoplastic extruded products.

**POWER CABLES PVT. LTD.**—24, Brelvi Sayed Abdulla Road, Bombay-1. Phone: 251017 & 254593. Manufacturers of: "INSULAST CABLES." The Superior Synthetic insulation of Insulast Cables ensures perfect insulation indoors, outdoors, overhead or underground. Available both with armoured and unarmoured Aluminium and Copper Conductors; high Chemical and weather resistance greater mechanical strength and Flexibility, Simplified Jointing and terminating procedures Suitable for Industrial and domestic use. Manufactured in collaboration with General Electric, U.S.A., approved by the Alipore Test House, ISI and Insurance Association of India, Fire Sectional Committee.

**PREMIER RUBBER & CABLE INDUSTRIES.**—Jamal Building, 211, Nagdevi Street, Bombay 3. Phone : 326551. Grams : "RUBBERGOODS." Manufacturers of Rubber Insulated Cables (V.I.R.-C.T.S. and Weather Proof etc.).

**PYROTENAX INDIA LIMITED.**—9, Wallace Street, Fort, Bombay 1. Manufacturers of PYROTENAX Mineral Insulated Copper or Aluminium Covered Cables.

**RAVAL & CO.**—Shreeji Bhavan, Lohar Chawl, Post Box No. 2279, Bombay 2. Phone : 23720. Grams : "GODSPEED." Branch Office: 12-B, Lower Chitpur Road, Calcutta. Phone: 345651. Dealers in everything electrical, stockists of I.C.C. & C.C.I. Wires, Trailing Flexibles, PILCOSTA Power & P.V.C. Tropodur Control Cables & Transformers.

**RAVIN TRADING COMPANY.**—5, Mohatta Market, Palton Road, P.O. Box No. 1969, Bombay 1. Grams : "BEWITCH." Phone : 26-4883. Specialists in HT & LT underground cables, PVC insulated cables for Power and Control, Wires of all sizes Ravin Trading Company. Mody Chambers, Dharmendra Road, Rajkot. Regional Distributors for "TROPODUR". Wires, "TROPODUR" Cables & APLSTS Cables for Saurashtra & Kutch.

**SEMLANI & CO.**—162, Hill Road, Bombay-50 AS. All sorts of Electrical Wires & Cables including HT LT Underground Cables, Power & Control Cables etc. etc. Grams: "SEMLANICO." Phone: 533701.

**SHAKTI INSULATED WIRES PRIVATE LTD.**—22, Apollo Street, Fort, Bombay 1. Phone: 254823, 253551. Grams: "THANKGOD." Manufacturers of Paper/Cotton Covered Wires & Strips, Super Enamelled Wires, Hard Drawn and Bright Annealed Wires and Copper bars.

Thermo Plastic Industries.—78, Kalachowkie Road, Lalbaug, Bombay 33. Phone : 78608. Grams : "KAYANDBEE."

**UNIQUE ELECTRO TRADERS.—Post Bag: 2788, 97, Lohar Chawl, Bombay 2. Phone: 30407. Grams: "SOLIDRAWN" for everything Industrial electrical UNIK Conduits & Fitting. VIR. PVC. Insulated TROPODUR Underground Cables & Wires, HDBC Wires, IC Switchgears, Winding, Insulating Materials and Power Plugs, also Industrial Transformers, H.S. Meters, H.T. Overhead Line Equipment, also Carbon-bushes.**

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**GUNVANTRAY & COMPANY.—Crescent Chambers, 1st Floor, Tamarind Lane, Fort, Bombay 1. Phone: 254684. Grams: "GUNARAYCO." H.O. Khadia, Ahmedabad 1. Phone: 4068.**

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**CROWN ELECTRIC PRINTING WORKS.—111-A, Mahatma Gandhi Road, Fort, Bombay 1. Phone: 251437. Fine Art Printers, Calendar & Diary Manufacturers.**

**DE LUX CALENDAR CORPORATION.—23, Goa Street, Ballard Estate, Bombay 1. Phone: 263147. Grams: "LAXPIC-PLAY." Manufacturers of Calendar & Date Pads.**

Everest Calendar Co.—45/47, Princess Street, Bombay 2.

**FIDVI PRINTING PRESS.—179, Abdul Rehman Street, Bombay 3. Phone: 325915. Grams: "FIDVIPRESS." Manufacturers, Dealers & Exporters of New Year Diaries, Desk Calendar Refills & Stands of various qualities. Daily Tear-off Blocks and other advertising Novelties.**

S. R. Brothers.—406 & 412/A, "Commerce House," Medows Street, Fort, Bombay 1.

**TAJ PRINTING WORKS.—46/A, Cawasji Patel Street, Fort, Bombay 1. Phone: 252432. Commercial & Art Printers, Manufacturers of Invitation Cards, Greeting Cards and Calendars.**

**UNIVERSAL**
**CALENDAR MFG. CO.**

Manufacturers of:
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SHOW CARDS • REFILLS
ADVERTISING FANS

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Phone: 254443

Vakil & Sons (Private) Ltd.—Narandas Building, Sprott Road, 18, Ballard Estate, Bombay 1. Phone: 262177-78 and 263204. Grams: "BLADE".

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★ POSTERS
★ LABELS
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Bhavanidas Gangadas & Co.—233/35, Samuel Street, Vadgadi, Bombay 3.

Gopaljee & Co.—218, Samuel Street, Vadgadi, Bombay 3.

Madhavji Mavji & Co.—207, Vadgadi, Bombay 3.

## CANNERS (FRUITS & VEGETABLES)

Akbarally Ebrahimji Pharmacy & Department Store.—45/47, Veer Nariman Road, Fort, Bombay.

D. & P. Products Private Ltd.—Bombay Agra Road, Bombay 78.

**DR.WRITER'S CHOCOLATES & CANNING CO.—(Proprietors, F. D. Mehta & Co.), Manufacturers of High Grade Confectionery, Chocolates, Fruits in Tins, Vegetables, Jams, Food Products, etc. Bhavanishankar Road, Dadar, Bombay 28. Phone: 451403.**

Fruit Farm Products Co.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort.

**KALVERT, A., & CO.—90/92, Mazagaon Road, Bombay 10. Phone: 72444. Grams: "CURROSAUCE." Manufacturers of Mango Chutney, Pickles, Curry Powder, Condiments, Squashes, Vinegar, Sauce, Syrups, Prumto, Canned Alphonso Mango Slices and Pulp, Prawn Balchow, Jams, Canned Vegetables, Moglai Mutton, Biryani & Curry.**

Panama Distributing Co.—38C, Cowasji Patel Street, Fort, Bombay.

**PURE PRODUCTS & MADHU CANNING LTD.—Fruit, Vegetable and Fish Canners. Manufacturers of Jams, Jellies, Marmalades, Squashes, Crushes. Suppliers to Defence Services. Office: Sion-Trombay Road, Chembur, P.O. Bag No. 7201, Bombay 71. Grams: "PUPRO."**

**R. N. RUSTOMJI & CO. (Props.: James Smith & Co.).—Canners and Manufacturers of 'SIL' Brand Preserved Fruits, Vegetables, Juices, Syrups, Pickles, Curry Powders and all other items of Provisions, etc. of guaranteed quality under hygienic conditions. Office: Sreenivas House, Waudby Road, Fort. Telegrams: "HEROINE." Phones: 261334 & 261704.**

## CANTEEN STORES & EQUIPMENT SUPPLIERS

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone: 326980. Grams: "ALERTDEAL."**

Akbarally Ebrahimji.—38/c, Cowasji Patel Street, Fort, Bombay.

**ANIL METAL MART.—Mulji Nivas, 166, C.P. Tank Road, Bombay 4. Specialists in the Manufacture and Dealers of Varieties of Stainless Steel Spoons and Utensils.**

**KHIRA STEEL WORKS PRIVATE LTD.—Factory: Swami Vivekananda Road, Santa Cruz, Bombay 54. Grams: "STEEL-CASE." Phones: 533226 (4 lines). Regd. Office & Showrooms: Khira Bhavan, Sandhurst Bridge, Bombay 7. Grams: "SWAKALA." Phones: 30097 & 30098. Showroom: Fulchand Nivas, Chowpatty Sea Face, Bombay 7. Grams: "SWA-KALA." Phone: 30408.**

**LALLUBHAI AMINCHAND PRIVATE LTD.—Proprietors: Dun Aluminium Factory: 225/227, Tardeo Road, Bombay 7. Manufacturers of "Cycle" Brand Aluminium Wares & "Queen" Brand Stainless Steel Utensils & Other Non-Ferrous metalware. Phones: 41618, 77175, 334049 & 331888. Grams: "CYCLEBRAND."**

Mahemed Husain & Bros.—106, Kansara Chawl, Kalbadevi, Bombay 2.

**NATIONAL STEEL EQUIPMENT CO.—8, Katrak Road, Wadala, Bombay 31 (DD). Phone: Office: 61755. Factory:**

**62973. Grams: "BEDLOCKER (DR)" Bombay. Manufacturers of Pressure Steam Sterilizers & Autocloves, Pyrogen-free Water Stills, Premature Baby's Incubators, Complete Range of Industrial Heavy-duty Catering (Kitchen) Equipment and fully Automatic Packaged Boilers. Branches: Delhi, Calcutta, Madras.**

**PUNJAB METALS.—20, Wadi Bunder Road, Mazagaon, Bombay-10. Phone: 79093. Manufacturers of "PM" Brand Stainless Steel Utensils.**

Salemahomed Padamsee & Co.—141, Chakla Street, Bombay 3.
Vazirmalli, Ltd.—Prospect Chambers, Hornby Road, Fort.

## CARBON PAPER MANUFACTURERS

**JAGJIWANDAS NANDLAL & CO.—237, Abdul Rehman Street, Bombay 3. Phone: 323634. Grams: "SWANHOUSE." Sole Distributors for Electric Pen-Pencil, Wax-Backed, Typewriting Carbon Papers, Elecceric Staples in Sizes 24/6, 26/6 and B. 8.**

Kores (India) Ltd.—Plot No. 10, off Haines Road, Worli, Bombay 18, W.B.

## CARBONIC ACID GAS DEALERS

Akbarally Mahomedally & Co.—Dawoodi Building, 316, Abdul Rehman Street.
Eastern Bunkerers, Ltd.—Scindia House, Dougall Road, Ballard Estate, Fort.
Esoofally Mahomedally & Co.—102-104, Bhusari Moholla, Bombay 3.
Sirdar Carbonic Gas Co., Ltd.—Connaught Road, Mazagaon.

## CARD CLOTHING

Eastern Card Clothing Co. Private Ltd., The.—Lamington Road North, Lal Chimney, Bombay 11.
Voltas Ltd.—19, Graham Road, Ballard Estate.

## CARD BOARD & CORRUGATED BOXES MFRS. (CARTONS)

**AFZAL PAPER BOX FACTORY.—43, Foras Road, Bombay 8. Phone: 72338. Manufacturers of Card Board Boxes and Corrugated Paper Rolls and Sheets.**

**APCA PACKING PRIVATE LIMITED.—151, Upper Duncan Road, Bombay 8. Phone: 41596. Grams: "APCAPACK". Quality Cardboard box, Corrugated box and Carton Manufacturers. Also exporters of special greeting cards.**


Grams: "BOXPACK" Phone: 266233

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*Registered Office:*
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**BOMBAY ART PRINTERS.—Kurla Road, Bombay 70. Phones: 55367 & 55798. Cartons, Labels, Literature, Booklets, etc.**

**CIEM TRADING CO.—Manufacturers & Government Contractors. Manufacturers of Paper Sleeves, Insulated Tubes, Centres for Reeling, Postal Tubes, Cartons, Discs, etc. 7, Cross Road, No. 3, Mamlatdar Wadi, Malad, Bombay 64. Phone: 692226 and 692473, Grams: "CIEMITE."**

**CLARIDGE, G., & CO., LTD.—Frere Road, Fort, Bombay 1. Phones: 263201 & 263202. Grams: "EGDIRALC." Security Printers, Photo-offset, Transfer (Decals), Book-Binders, Carton & Packaging experts.**

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JAYANT'S
FIBREBOX CORRUGATED CARDBOARD CONTAINERS

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*Office:* 30 Western India House, Sir Pherozeshah Mehta Road, Bombay 1. Phones: 253145, 252478. Gram: "FIBREBOX".

*Factory:* Jayant House, Bail Bazar, Andheri-Kurla Road, Kurla, Bombay 70. Phones: 55237, 55238.


**KADRI PAPER BOX FACTORY.—Noor Manzil, Mohamedali Road, Bombay 3. Phone: 332856. Plain and Fancy boxes of every size and description with printing if required and Cardboard Tubes for Calendars. Grams: "BOXWORK".**

**MOHAMADI FINE ART LITHO WORKS.—Proprietors: Allibhoy Sharafally & Co. Private Ltd. (Estd. 1876: Incorporated 1938), Mohamadi Building, Mazagon, Bombay 10 (DD). Lithographers, Offset and Letterpress Printers, Carton & Box Manufacturers and Bookbinders. Phones: 78148 and 78149. Grams: "KORAN".**

**PARADISE PAPER PRODUCTS.—78/A, Princess Street, Bombay 2. Phones: 20016 (Office) & 65042 (Factory). All kinds of card & corrugated Board Boxes Mfrs. Suppliers to leading Firms and Govt. Depts. Competitive rates and entire satisfaction assured. Trial solicited.**

**STANDARD PAPER BOX MANUFACTURING CO.—51, Mangaldas Road, Lohar Street, Bombay 2. Phone: 20774. Grams: "ROSYTONE." Manufacturers of Card Board & Corrugated boxes.**

## CARD-BOARD BOX MAKING MACHINERY SUPPLIERS

**A. A. MORBIWALA & CO.—109/111, Abdul Rehman Street, Bombay 3. Phone: 323280. Grams: "VARNISH (MD)." Direct Importers & Stockists of Stitching Wires of all kinds.**

**GUNVANTRAY & CO.—Crescent Chambers, 1st Floor, Tamarind Lane, Bombay 1. Grams: "GUNARAYCO." Phone: 254684. H.O. Khadia, Ahmedabad 1. Phone: 4068.**

## CARGO SUPERINTENDENT AND SURVEYORS

**THERAPEUTICS CHEMICAL RESEARCH CORPORATION.—95, Morland Road, Byculla, Bombay 8. Phone: 78207-8. Grams: "THERASERCH."**

## CARPETS MANUFACTURERS & DEALERS

Bombay Swadeshi Co-operative Stores Co., Ltd.—Western India House, Sir Phirozshah Mehta Road, Fort.
Carpets Palace.—Opp. The Taj, Apollo Bunder, Fort, Bombay.

**E. PEERBHOY & SONS.—Prop., Indian Durries Emporium. 64, Mohamedali Road, Sahru Castle, Bombay 3. Phone: 323806. Grams: "INDIAWEAVE."**

Hassaram, K., & Co.—New Silk Bazar, Kalbadevi, Bombay 2.
Hotchand Motumal.—331, Hornby Road, Fort.
Indian Durries Emporium.—64, Mahomedali Road, Bombay 3.
Kabul and Kashmir Store.—15, Lansdowne Road, Apollo Bunder, Fort.
Kashmir Govt. Arts Emporium.—Sir P. M. Road, Bombay 1.

Mirzapur Carpet Industries.—"Nishat," 24, Mangalore Street, Fort, Bombay. Phone: 27349.

Modern Indian Art Crafts.—Sambava Chambers, Sir Phirozshah Mehta Road, Fort.

Noorbhai Jivaji.—Tyebi Manzil, Bhendy Bazar, near Tram Junction.

Royal Carpet & Tapestry Emporium.—Dina Buildings, 58, Queen's Road, opp. Marine Lines Station.

Royal Carpets & Cane-Furniture Manufacturing Co.—Mani Bhuwan, Hughes Road, Bombay 7.

## CASEIN IMPORTERS

**EAST ASIATIC CO. (INDIA) PRIVATE LTD.—Wavell House, Graham Road, Ballard Estate, Bombay. Phone: 262711 (8 lines). Machine Works: Tank Road, Bombay 33-DD. Phone: 78544. Offices at Madras, Calcutta, New Delhi, Bangalore, Secunderabad & Lucknow.**

## CASEIN MANUFACTURERS AND DEALERS

Akbarally Ebrahimji.—Kamer Building, 38-C, Cawasji Patel Street, Fort.

Akbarally Ebrahimji Pharmacy & Department Store.—45/47, Veer Nariman Road, Fort, Bombay.

**CHAMPION DAIRY COMPANY (Estd. 1903).—New Petit Mansion, Sleater Road, Grant Road, Bombay 7. Phone: 73383. Dealers in "CASEIN."**

Latham Abercrombie & Co. Private Ltd.—Forbes Building, Home Street, Fort.

**POLSON, LTD.—Jn. of Belvedere & Dockyard Roads, Bombay 10. Phone: 73245 (2 lines). Grams: "POLSON," Mazagaon, Bombay.**

Poonjiajee, J. M. Jehangir.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort, Bombay.

## CASTINGS (Ferrous & Aluminium Mfrs.)

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**HERCULES INDUSTRIES.—Plot No. A/17, 15th Road, Wangle Industrial Estate, Thana (C. Rly.). Phone: Office: 39929 Works: 591783. Specialists in Non-ferrous Castings, Aluminium and Wooden Pattern making. Also available Spare Capacity for Turning, Shaping & Centerless grinders, Gunmetal Bushing and Bearing our Speciality.**

**PRASON METALLICS PRIVATE LTD.—Regd. & Head Office: 67, Nagdevi Street, Bombay 3 (BR). Phone: 321428. Grams: "CASTIRON". Works: Manpada Road, Dombivili (Dist. Thana). Phone: 75. Grams: "SHITALKA." Manufacturers of C.I graded castings and Sanitary and Drainage Equipments. Cast under specialised Technical Supervision.**

**SHREE RAM MILLS LTD.—(Engineering Dept.) Fergusson Road, Lower Parel, Bombay 13. Phone: 75221-2-3. Grams: "FINETEXTURE." Manufacturers of Lathe Chucks, Air-Compressors, Multi-stage Pumping Sets, Grey Iron and Alloy Castings.**

**UNITED ENGINEERING WORKS.—Opp. Shangani Estate, Off Agra Road, Ghatkopar, Bombay 77. Grams: "MALLEABLE," Ghatkopar. Specialists in Malleable Iron Casting for Automobile, Railways & General Machinery as per I.S.S. & B.S. Specifications.**

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**JIVRAJ & VRAJLAL.—122, Nagdevi Street, Bombay 3. Phone: 325138 (Shop) & 30932 (Res.). Grams: "SANIPIPES."**

## CATERERS, PURVEYORS & BAZAR SUPPLIERS

**BRANDON & CO. PRIVATE LTD.—Elphinstone Building, Churchgate Street, Fort. Phone: 252433.**

Carim, E. A.—138-40, Samuel Street, Khoja Mohalla, Bombay.
Pyrke's Provision Stores.—378, Hornby Road.
Babadi, K. N., & Sons.—19, Bopa Lane, Chandanwadi.
Tambe, B. Private Ltd.—Sanzgiri Sadan, Girgaum Road.
Wayside Inn.—88, Rampart Row, Fort.

## CEMENT AND CONCRETE COMPANIES

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Associated Cement Companies, Ltd.—Opp. Churchgate Station, Fort.
Balmer Lawrie & Co., Ltd.—8, Graham Road, Ballard Estate, Fort.
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**GAMMON INDIA LTD.—Civil Engineers & Contractors, Regd. Office: Gammon House, Cadell Road, Prabhadevi, Bombay 28 DD. Phone: 454261. Grams: "GAMMON" Bombay-Dadar.**

Gannon Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Fort.

Jacks, William & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Fort.

McKenzies Ltd.—Sewri.

Modern Concrete Art Industries.—Opp. Cave, Bombay 42.

Raval & Co.—21, Bank Street, Fort.

Simplex Concrete Works & Construction Co.—"La-Citadelle," 32, Queen's Road.

## CEMENTS IMPORTERS & DEALERS

Hardcastle Waud & Co. Private Ltd.—Alice Building, Hornby Road, Bombay 1.

Killick Nixon & Co. Private Ltd.—Killick Building, Home Street, Bombay 1.

## CEMENT AND SOIL TESTING INSTRUMENTS

**ASSOCIATED INSTRUMENT MANUFACTURERS (INDIA) PRIVATE LTD.—India House, Fort Street, Bombay 1. Phone: 261658. Grams: "AIMILBOM".**

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## CEMENT TILES MANUFACTURING MACHINERY

**JASHVANT C. SHAH & CO.—Navroz Baug, Navrozi Lane Ghatkopar, Bombay 77. India's Foremost Indenting House. Sole Agents for India for Messrs. Enrico Longinotti Frienze, Italy. (For details please see Commercial Firms Section.).**

## CENTRIFUGES MANUFACTURERS

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.—Wavell House, Graham Road, Ballard Estate, Bombay. Phone: 262711 (8 lines). Machine Works: Tank Road, Bombay 33-DD. Phone: 78544. Offices at: Madras, Calcutta, New Delhi, Bangalore, Secunderabad & Lucknow.**

## CHAIN PULLEY BLOCKS

**ABDULHUSEIN PEERBHAI & SONS.—66-68/A, Peerbhai Building, Bhandari Street, Bombay 3. Phone: 323956. Grams: "STUDCHAIN". Stockists of Marine Stores, Chains, Wire Ropes, Chain Pulley Blocks, Ship Tackles, Winches, etc.**

**BHARAT ENGINEERING STORES.—113, Nagdevi Street, Bombay 3. Grams: "UNIONTOOLS." Phone: 323193. Stockists of Elephant Brand Chain Pulley Blocks.**

**ESOOFALLI ESMAILJI KARACHIWALLA & CO.—43-45, Bhandari Street, Bombay 3. Phone: 321617. Grams: "SLING". Stockists of Best Indian Make and Imported Chain Pulley Blocks of all types—Worm Gear, Triple Gear, Spur Gear. Also manufacturers of overhead "SWIFT" brand Monorail Trolleys to suit all Chain Blocks.**

**HEMANT TOOLS TRADING CO.—33, Bibijan Street (Barbhai Mohalla), Bombay 3. Grams: "LACING." Phone: 321174. Importers & Stockists of Chain Pulley Blocks, Garage Tools, Fibre Sheets, Rods, etc.**

**HEPTOOLA NOORUDDIN & CO. (Estd. 1910).—154, Nagdevi Street, Bombay 3. Phone: 326787. Grams: "IMMUNITY." Stockists of and dealers in Marine—Mill Gin—Industrial Stores.**

Jairamdas & Sons.—163, Narain Dhuru Street, Bombay 3.

## CHAINS (POWER TRANSMISSION & CONVEYORS)

**FULABHAI & CO.—134, Medows Street, Fort, Bombay 1. Manufacturers' Representatives & Milling Engineers. Specialise in all types of Driving, Conveyor and Elevator Chains, Pinions and Wheels. Phone: 255488. Grams: "GRINDMILL."**

**STANDARD MATERIALS AGENCIES.**—45/46, Podar Chambers, Parsi Bazar Street, Bombay 1. Phone : 252638. Grams : "STANSIZE", Bombay. Power Transmission Roller, Conveyor Chains and Sprockets—Specialists, Importers and largest Stockists of 'Renold,' 'Kobo,' 'Diamond' Brands. Textile Machinery Spare Parts Manufacturers, Stockists and Dealers.

## CHAINS (SHORT LINK AND CABLE)

**ABDEALLY, B. M., & CO.**—127, Sarang Street, Bombay 3. Phone : 326980. Grams : 'ALERTDEAL'.

**ABDULHUSEIN PEERBHAI & SONS.**—66-68/A, Peerbhai Building, Bhandari Street, Bombay 3. Phone : 323956. Grams : "STUDCHAIN". Stockists of Marine Stores, Chains, Wire Ropes, Chain Pulley Block, Ship Tackles, Winches, etc.

**AMIRUDIN SHALEBHOY TYEBJEE & SONS.**—Shale Building, 2nd Floor, Bank Street, Fort, Bombay 1. Phone : 25-2952, Grams : "PILOTACE."

**ESOOFALLI ESMAILJI KARACHIWALLA & CO.**—43-45, Bhandari Street, Bombay 3. Phone : 321617. Grams : "SLING". Stockists of Best Indian Make and Imported Chain Pulley Blocks of all types—Worm Gear, Triple Gear, Spur Gear. Also manufacturers of overhead "SWIFT" brand Monorail Trolleys to suit all Chain Blocks.

Fleming, John & Co., Private Ltd.—P.B. No. 76, Bombay 1. Phone : 261153.

**INDIAN LINK CHAIN MFRS. LTD.**—Bombay-Agra Road, Bhandup, Bombay 78. Manufacturers of "HERCULES" brand electrically welded steel chains. Chains manufactured strictly according to Indian, British and German standards. Also manufacturers of precision calibrated chains for chain pulley blocks, Hoists, and Conveyors, all types of slings and other lifting equipment. Phone : 581832. Grams : "INLINCH," Bhandup.

**JUPITER TRADERS.**—5, New Queen's Road, Jer Mansion, Bombay 4. Roller chains for Diesel Engines, Jeep & Truck Parts, Jute, Tea Machinery, Textile, sugar & other machinery, asphalt & Concrete mixers, commercial vehicles, Motor Cars, Cycles, Bicycles, etc. Grams : "EXPORTERS," Bombay 4.

Shalebhoy Tyebjee & Sons.—12, Bruce Street, Bombay 1.

## CHEMICAL ENGINEERING EQUIPMENT

**ASSOCIATED ENGINEERING CO.**—Sane Building, Nanabhai Lane, Fort, Bombay-1. Telegram : "STELLIDES." Telephone : 252597 Office ; 571880 Works. Manufacturers of : Glucose and Starch Plants—Pharmaceutical and Chemical Plants. Industrial Machinery—Chemical Process Equipments and Sugar Machinery.

**BASSEIN CERAMICS PVT. LTD.**—Manufacturers of Chemical Stoneware and Porcelain Tower Packings, Fire-Bricks, Acid Proof Bricks & Insulation Refractories. 324, Cooks Bldg., 2nd Floor, Dr. Dadabhoy Naoroji Road, Bombay 1. Phone : 252644. Grams : "KARDWEB."

**COOPER & SONS DHANJIBHAI NAOROJI,**—78/80, Kika Street, (Gulalwadi), Bombay-4. Phone : 333759. Manufacturers of Wooden Casks, Barrels, Vats, Tubs, Flower Tubs, Oblong Tubs, Ice Cream Tubes of any Size & Shape. Regular Suppliers to Chemical & Textile Mills.

**INDIA RUBBER PRODUCTS.**—Kasturchand Mills Estate, Dadar, Bombay-28. Manufacturers of Industrial & Moulded Rubber Products.

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.**—Wavell House, Graham Road, Ballard Estate, Bombay. Phone : 262711 (8 lines). Machine Works : Tank Road, Bombay 33-DD. Phone : 78544. Offices at Madras, Calcutta, New Delhi, Bangalore, Secunderabad & Lucknow.

**EMMES METALS PRIVATE LTD.**—Lead Lined/Bonded, P.V.C. Lined, Rubber Lined, Pickling Tanks, Reaction Vessels, Heating & Cooling Coils, Lead Bonded M.S., Copper and Steel Pipes and Fittings, Lead Valves, Lead Sheets and other Chemical Auxiliaries. 11, Worli Road, Bombay 18-WB. Phones : 75432-3-4. Grams : "METAMELT."

Great Western Engineering Works.—Sea View, 1st Pasta Lane, Colaba, Bombay 5.

**HINDUSTAN ENGINEERING WORKS.**—7-C, Pitamber Lane, Mahim, Bombay-16. Telephone No. : 451408. Grams : "DICHROMATE." Air Compressors, Chemical Engineering Equipment, Founders and Foundry Equipment, Industrial Engineers, Material Handling and Conveyors, Moulding Machines and Boxes, Steel Doors and Windows and Tank Manufacturers.

**INDUS ENGINEERING COMPANY.**—Office & Works : opp. Worli D.D. Chawl No. 114, Bombay 13 (B.C.). Telephone : 40342. Telegraphic Address : "INDUSINDH." Manufacturers of Pressure Vessels, Auto-claves, Reaction tanks, Vats, Kettles & Stills, Dryers—Vacuum, Tray & Rotary type, Mixers for Powders & Pastes, Heat Exchangers, Condensers—Coil & Tubular type, Steam Jacketted Evaporating pans, Sterilisers, Stainless Steel Vessels (welded by argon arc welding process), all Industrial Machinery according to customer's requirements and according to their drawings and specifications.

**K. MAHADEV & CO. PRIVATE LTD.**—Datta Mandir Road, Bhandup, Bombay-78. Phone : 581920. Manufacturers of Chemical & Pharmaceutical Machinery.

**KILBURN & CO. LTD.**—Gresham Assurance House, Phirozshah Mehta Road, Fort, Bombay 1. Phone : 251908. Grams : "TASCONIUM."

**METTALLICA WORKS PRIVATE LTD.**—79/83, Dr. Annie Besant Road, Bombay 18. Phones : 15432, 75433, 75434. Makers of Non-Ferrous Metals, Alloys, Castings, Anodes, Lead linings of Acid Resisting Containers, Crucibles.

National India Engineering Co. Ltd.—7-10, Elphinstone Circle, Fort.

**RAJ-DER-KAR & CO.**—Sadhana Rayon House, Dr. Dadabhai Naoroji Road, Fort, Bombay. For Research Industries. Phone : 262304 (P.B. X — 4 lines). Grams : "TECHLAB."

Regal Trading Co. (Bombay).—Rajabahadur Bansilal Mansion, 11, Bruce Street, Fort, Bombay 1.

Saif Welding & Engineering Works.—130, Suklaji Street, Bombay 8.

Techno Industrial Co.—107, Sir Vithaldas Chambers, 16, Apollo Street, Fort.

Thos. W. Ward (India) Ltd.—Marshall Building, Ballard Road, Ballard Estate, Fort.

**UNION CARBIDE INDIA LIMITED.**—Kasturi Building, Jamshedji Tata Road, Bombay 1. Phones : 245584 & 245775. Grams : "INDUSCHEM." For "KARBATE" Impervious Graphite Equipment for Chemical Industry.

**V. PAMLAYS PRIVATE LTD.**—Sunderbaug Estate, Agra Road, Bombay-70 (AS). Factory at : Pokharan Road, No. 2, Panchpakhadi, Thana. Phone : (1) Kurla 55578; (2) Thana 591560. Grams : "VEEPAMLAYS." Manufacturers of Autoclaves, Reaction Kettles, Pressure Vessels, Mixers, Heat Exchangers, Condensers, Domestic Stoves, Special defence Equipments, etc.

**YAJNIK ENGINEERING WORKS.**—64, Podar Chambers, 3rd Floor, Parsi Bazar Street, Fort, Bombay 1. Phone : 251471. Grams : "GREND". Chemical & Mechanical Engineers. Tanks, Vessels and Industrial Equipments of Stainless Steel, Aluminium, Copper, Mild Steel, also lining of Rubber, Lead and Polyethylene for Chemicals, Pharmaceuticals, Food, Fertilizer and Dairy Industries.

## CHEMICAL ENGINEERS

**MOTWANE PRIVATE LTD.**—127, Mahatma Gandhi Road, P.O. Box No. 1312, Bombay 1-BR. Phone : 252337. Grams : "CHIPHONE," Bombay.

## CHEMICAL MANUFACTURERS

**AHURA CHEMICAL PRODUCTS PRIVATE LTD.**—84, Sion Road, Bombay 22. Manufacturers of all Textile Auxiliaries, Surface-active Agents, Turkey Red Oil, Synthetic Anionic Detergents and Wetting Agents, Non-ionic Emulsifiers for various industries, Cationic Germicides and Softeners, Cosmetic Raw Materials and other general Chemical Products. Mg. Director : S. M. Mistry. Phones : 471394, 471911. Grams : "AHURACHEM," Bombay-Sion.

**AJANTA CHEMICALS CORPORATION.**—64 E, Old Hanuman Lane, Dhabliwala Bldg., Bombay-2. Phone : C/o 39051. Manufacturers of : Calcium Chloride Fused, Iron Sulphide A.R. & C. P. ACIDS, Sulphuric, Hydrochloric, Nitric, Picric, Hydrobromic & Other Laboratory Chemicals.

Alembic Chemical Works Co. Ltd., Baroda.—Distributors in Bombay : Alembic Distributors, Ltd., Lakshmi Building, Sir Phirozshah Mehta Road, Fort.

Amar Dye-Chem Ltd.—11, Sprott Road, Ballard Estate, Bombay 1.

Ariabs Private Ltd.—6, 2nd Floor, India House, Fort Street, Bombay 1.

**ASHOK INDUSTRY.**—(Chemical Division) 62, Dontad Street, Bombay-9. Phone : 327359 (Office) : Manufacturers of Chemicals for Metal Pretreatment such as Cleaning, Phosphating & Rust Preventives, Discaling & Water Softening Compounds. Works : Masrani Estate, Bombay-70. Phone : 55393 (Works).

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**Chemical House, Agra Road, Post Box No. 2, Thana (Bombay)**

Thana Phone: 591257 Grams : "CHEMICAL"

**BAYER (INDIA) LIMITED.—Nagin Mahal, Vir Nariman Road, Bombay-1. Manufacturers of Agro-Chemicals, Rubber Chemicals, Pharmaceuticals, etc.**

Bengal Chemical & Pharmaceutical Works Ltd.—502, Cadell Road, Worli.

**B. F. DAVER & CO. (ESTD. 1868).—Chemical Engineers, Sizing Stores Manufacturers, Pioneers in the making of Boiler Preservatives and Compositions and Soap Makers, Appa Baug Estate, 41, Queen's Road, opp. Catholic Gymkhana, Bombay 2.**

Bock, F., & Co.—Shale Building, Bank Street, Fort.

Bombay Chemicals Private Ltd.—129, Mahatma Gandhi Road, Bombay-1.

Bombay Drug House Private Ltd.—Tulsipipe Road, Mahim, Bombay 16.

**BOMBAY GAS CO., LTD.—214, Dr. Dadabhoy Naoroji Road, Bombay 1. Phone : 261271. Grams : " CHRISTOLITE."**

**BOMBAY SEWREE CHEMICALS MANUFACTURING CO. PRIVATE LTD.—Manufacturers of Activated Fuller's Earth. Managing Agents :—F. Bock & Co., P.O. Box 1288, Bombay. Phone : 255033 (Office) and 61336 (Factory).**

**BORAX MORARJI LIMITED.—Manufacturers of "20 MULETEAM" Borax and Boric Acid, Mahatma Gandhi Road, Ambarnath (C. Rly.), Dist. Thana.**

Chemical, Industrial & Pharmaceutical Laboratories Ltd.—289, Bellasis Road, Byculla, Bombay-8.

Chemo-Pharma Laboratories Ltd.—Plot No. C.S. 215, Sewri, Bombay 15. Phone : 63231. Grams : "CHEMOLABS."

Dharamsi Morarji Chemical Co., Ltd.—Prospect Chambers, Annexe, 317-21, Dr. Dadabhoy Naoroji Road, Fort.

**DRD CHEMICALS.—Raja Bahadur Bansilal Building, 11, Bruce Street, Fort, Bombay. Phone : 251409. Manufacturers of Water Treatment Specialities, Boiler Compound, Radiator & Carbon Clearing Compounds, Di-Azo Textile Colours. Factory : Plot No. E-1, Sonawala Estate, Goregaon (East), Bombay 62. Phone : 691445.**

Dumex Private Ltd.—Wavell House, Graham Road, Ballard Estate, Bombay 1.

**ESKAY CHEMICAL CORPORATION.—Manufacturers of SKAYWHIT-BV Optical. Whitening Agent, 22-D-Parsi Bazar Street, Fort, Bombay-1.**

Excel Industries.—184-187, Ghodbunder Road, Jogeswari, Bombay 42.

Fairdeal Corporation (Private) Ltd.—'Lakshmi Bldg.', Sir Phirozshah Mehta Road, Post Box No. 1925, Fort, Bombay 1.

Glaxo Laboratories (India) Private Ltd.—Worli, Bombay 18.

**GOLDEN CHEMICALS PRIVATE LTD.—'Tobacco House', Vile Parle, Bombay 56. Manufacturers of Bichromates, Chromates, Glauber's Salt Calcined and Chromic Acid. Phone : 572032. Grams : "IMPORTERS." Bombay-Vile Parle.**

Hardcastle Waud & Co., Private Ltd.—Alice Building, Hornby Road, Fort.

Hindusthan Chemical Works Ltd.—Advani Chambers, Sir Phirozshah Mehta Road, Fort, Bombay. Grams : "DICHROMATE."

**HOECHST DYES & CHEMICALS LTD.—Parekh Mahal, Vir Nariman Road, Churchgate, Bombay 1. Phone : 242345/46, 242453. Grams : "HOSTACHEM." Manufacturers of Polyvinyl acetate dispersions, "Mowilith," "Mowicoll," "Appretan" under licence from Farbwerke Hoechst AG., W. Germany.**

I.C.I. (India) Private Ltd.—P.O. Box 310, Bombay 1.

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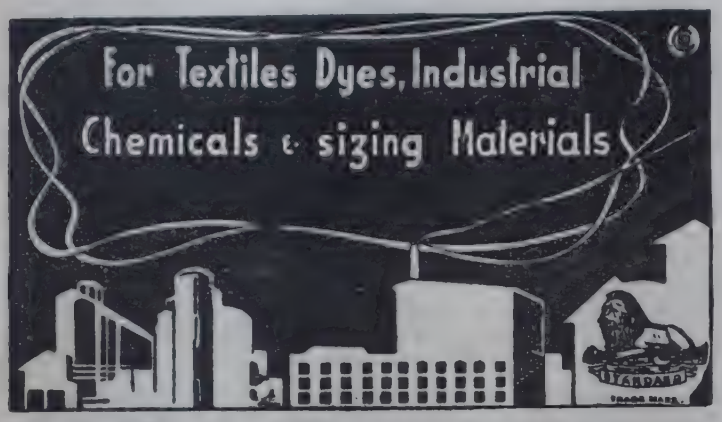


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**TALATI, P. H.—55, New Bardan Lane, Vadgadi, Bombay 3. Phone: 324110 & 79193 (Res.). Importers & Stockists of Heavy & Fine Chemicals such as Caustic Soda, Ash, Hydrosulphite of Soda, Acetic Acid, Bleaching Powder, Copper Sulphate, Rosin, Sizing Materials, etc.**

**TECHNO-INDUSTRIAL SYNDICATE.—Sole Distributors for W. Marshall (Hessle) Ltd., through the Cement Marketing Co., Ltd., England. N.V. "LITHOS," Holland. The Murarka Paint & Varnish Works Private Ltd., Calcutta. 19-B, Noble Chambers, Parsi Bazar Street, Fort. Importers and Exporters of Heavy and Industrial Chemicals, Oils, Zinc Oxide, Pigments and Paint Materials. Marshalls' English Whiting. Phone: 251220. Grams: "TEINSY."**

Texdyes Corporation.—Manekji Wadia Buildings, 127, Mahatma Gandhi Road, Fort, Bombay.

Textile Dye-Chem Corporation.—Vincent Court, 3rd floor, Vincent Road, Bombay 14.

**UNION ACID & CHEMICAL CO.—H.O. 88, Jambli Mohalla, Bombay 3. Phone: 332652. Grams: "UNIONACID." Kurla Branch: Phone: 55464; Goregaon Branch 691249. Stockists of Nitric, Sulphuric & Hydrochloric Acids, Hydrochloric & Sulphuric Acids supplied to upcountry customers by Road Tankers.**

Union Chemical Agency.—231, Samuel Street, Vadgadi.

United Import Co.—67-69, Mahomedally Road.

**VASANTRAI GOVERDHANDAS & BROS.—75, Mohamedali Road, Bombay 3. Phone: 321209. Grams: "VIGIBROS."**

**VELU & CO. (PVT.) LTD., P. K.—P.O. Box No. 514, 111, Mahatma Gandhi Road, Bombay 1. Phones: 253141 & 641326. Grams: "LACQUER."**

Vijay Trading Corporation.—297-B, Old Post Office Lane, Mangaldas Market, Bombay-2.

Vikram Padamsey & Co.—Rustom Building, Vir Nariman Street, Fort.

Vinod Colour & Chemical Co.—11, Chakla Cross Lane.

Voltas Ltd.—19, Graham Road, Ballard Estate, Fort.

**VORA TRADING CO.—357-A, Samuel Street, Vakil Bldg., Vadgadi, Bombay 3. Telephone: 325289. Telegram: "MULTISALES," Bombay Mandvi.**

Windmere (India) Ltd.—Sir Vithaldas Chambers, 16, Apollo Street, Bombay.

Yacoob Ahmed Brothers.—Topiwalla Mansion, Mahomedalli Road.

## CHEMICALS (PHARMACEUTICALS)

**B. M. SHAH & CO.—40, Princess Street, Bombay 2. Phone: 29915. Grams: "BONAFIDE." Direct Importers of Drugs, Pharmaceutical & Laboratory Chemicals.**

**BENGAL CHEMICAL & PHARMACEUTICAL WORKS LTD.—502, Cadell Road, Bombay 28. H.O. 6, Ganesh Chunder Avenue, Calcutta 13. Pharmaceuticals, Heavy & Fine Chemicals, High Class Toilet Products, Coal Tar Distillation Products, Fire Extinguishers, Printing Inks, Driers, etc. Branch Office: Kanpur.**

**CHEMICAL INTERNATIONAL.—3, Princess Street, Bombay 24. Phone Nos. 23694 & 20540. Grams: "CHEMINTER." Direct Importers & Stockists of Photographic Laboratory, Industrial, Heavy & Fine Chemicals, Solvents, Pharmaceutical Drugs, Sizing Material and all sorts of Textile Requisites, Acids C.P. and A.R. Cosmetic Wax Distilled Water C.P. College Chemicals, etc.**

**CHEMISOL INDUSTRIES.—41, Princess Street, Bombay 2. Phone: 29086. Grams: "BAYCITY." Importers and Manufacturers of Industrial Organic Chemicals, Solvents & Adhesives.**

**CHUDGOR & CO. PVT. LTD.—Regd. Office: Anand Bhuvan, Princess Street, Bombay 2 (BR). Phones: C/o 30023, 30024, 20419. Grams: "CHUDGORECO," Bombay 2 (B.R.). Dealers in Chemicals, Dyes, Sizing Materials & Waxes, etc.**

**C. J. SHETH & CO.—48, Mangaldas Road, Post Box No. 2199, Bombay 2. Phone: 38111. Grams: "PAGODA." Manufacturers' Representatives, Dealing in Chemicals & Drugs & Pharmaceuticals.**

**COMMERCIAL SOLVENTS CORPORATION.—Commissariat Building, 5th Floor, 231, Dadabhoy Naoroji Road, Bombay 1. Phone : 265446, 262762. Grams : "SOLVO." Stockists of Chemicals, Solvents etc.**

I.C.I. (India) Private Ltd.—P.B. No. 310, Bombay 1.

**KANTILAL MANILAL & CO.—16, Princess Street, P.B. No. 2162, Bombay 2. Phones : 38530 & 20230. Suppliers of Pharmaceuticals, Industrial Laboratory Chemicals, Solvents, Preservatives, Fatty Acids, etc. Grams : "DAYLIGHT."**

**K. MAHADEV & CO. PRIVATE LTD.—Bhavani Shankar Cross Road, Dadar, Bombay 28. Phone : 62629. Manufacturers of Fine Chemicals.**

**LYKA LABS.—Subhas Road—'A', Vile Parle (East), Bombay-57. Manufacturers of Pharmaceutical Specialities and Fine Chemicals. Phone : 571141.**

N. Jivanlal & Co. Private Ltd.—50, Princess Street, Bombay 2.

**PRAVIN BROTHERS & CO.—501, Commerce House, Medows Street, Bombay 1. Phones : 251748, 252419; Grams : "WIDESCOPE." Importers, Exporters and Agents : Sulphur-Chemicals-Solvents, Pyridene Base, Fertilizers, Minerals-Lime-Jute Products.**

Premji Vishram & Co.—310, Sheikh Memon Street, Bombay 2. Phone : 23644. Grams : "PREMAL".

**ROYAL DRUG & PHARMACEUTICALS CO.—Sharaf Mansion, 38, Princess Street, Bombay 2. Phone : 38749. Grams : "RODPHAR." Wholesale Dealers & Direct Importers of Solvents, Drugs, Pharmaceuticals, Vitamins & Laboratory Chemicals (Mostly useful in College & Research Institutes).**

**S. JAVERI & CO.—Mangaldas Building, No. 3-A, B-267, 2nd Floor, Mangaldas Road, Bombay 2. Grams : "QUINACRINE", Grant Road, Bombay. Indentors and Agents for Import of Pharmaceutical Chemicals and Raw Materials, Sulpha Drugs, Vitamin Essential Oils, Gums, Crude Drugs, Waxes, Industrial Chemicals and Raw Materials for the Pharmaceutical Chemicals, Dyes and Paint Industries. Foreign connections all over the world.**

**S. MATHURADAS & CO.—P.O. Box No. 2113, Princess Street, Bombay 2. Grams : "SMATHURCO." Phone : 30273. Stockists of Laboratory & Fine Chemicals, Analytical & Laboratory Re-agents, Amino-Acids, Stains, Drugs, Vitamins, etc. manufactured by E. Merck & other renowned products.**

**VELU & CO. (PVT.) LTD., P. K.—P.O. Box No. 514, 111, Mahatma Gandhi Road, Bombay 1. Phones : 253141 & 641326. Grams : "LACQUER."**

**WANDER PHARMED LIMITED.—Lotus House, 33A, New Marine Lines, Bombay-1. Phone : 244030. Manufacturers of Chemicals (Anti T. B. Drugs) and Pharmaceuticals. Factory : Sion-Trombay Road, Deonar-Chembur, Bombay-71. Phone : 521807.**

Voltas Ltd.—19, Graham Road, Ballard Estate.


# WHEITO CORPORATION

Light Foot Compound, 16A, Hansraj Lane,
Byculla Bridge, Bombay 27

Phone : 70408

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PURE ACIDS (C. P., B. P., A. R., and Regent quality). Also Commercial Acids, Sulphuric Acid 98 per cent, Battery grade Acid 1·84, Hydrochloric Acid 30 to 32 per cent, Nitric Acid 69/72 per cent as per Indian standard specification.


**WYETH LABORATORIES LIMITED.—Regd. Office : Steelcrete House, Dinshaw Watcha Road, Backbay Reclamation, Bombay 1. Phone : 246171 (4 lines), Grams : "Wyelabs." Factory : Agra Road, Ghatkopar, Bombay 77. Phone : 67271, 55373, 51271 and 55386. Grams : "WYELABS."**

## CHEMISTS AND DRUGGISTS

Adani Brothers : Associated Importers.—Mulchand Mansion, Princess Street, Bombay 2.

Addy Pharmacy.—Har Ganga Mahal, Khodadad Circle, Dadar, Bombay 14.

**AKBARALLY EBRAHIMJI PHARMACY & DEPARTMENT STORE.—45/47, Veer Nariman Road, Fort, Bombay. Phones : 253921/22/23. Grams : "TUSSIBAR."**

**ALEMBIC DISTRIBUTORS LTD.—Laxmi Building, Sir Phirozshah Mehta Road, Fort, Bombay 1. Phone : 264951/52. Grams : "ALDISTA."**

**ALL INDIA MEDICAL CORPORATION.—185, Princess Street, Bombay 2. Phone : 39390 (Office); 355178 (Resi.). Grams : "PARAVION," Kalbadevi, Bombay 2. Approved Government contractors and manufacturers of drugs, chemicals, Surgical instruments, Hospital requisites and Laboratory equipments, X-Ray Chemicals, Insecticides, Weedicides, Fungicides, etc. Partners : Dr. P. S. Dave, S. P. Dave & J. P. Dave. Branches at Madras, Calcutta, Delhi, Trivandrum.**

Allied & Co.—Devkaran Mansion, Princess Street, Bombay 2.

Amersey Khimji & Co.—56, Varjivan Mansion, Princess Street, Bombay 2.

**AMRUTLAL BHURABHAI & CO.—P.O. Box No. 2379. Anand Bhuvan, Princess Street, Bombay 2 (B.R.). Phones : 30023, 30024, 20419. Grams : "CHEMDRUGS," Bombay 2 (B.R.). Direct Importers and Dealers of all kinds of Laboratory Chemicals, Drugs & Essential Oils.**

Amulakh Kalyanji.—14, Mangaldas Road, Princess Street, Bombay 2.

Anglo-French Drug Co. (Eastern) Ltd.—Yusuf Building, Vir Nariman Street.

Anglo-Indian Drug & Chemical Co.—285, Jumma Masjid, Bombay 2.

Arun & Co.—Shop No. 5, Bulakhidas Building, Mangaldas Road, Bombay 2.

Asian Trading Co.—Bode Chawl, Princess Street, P.B. No. 2398, Bombay 2.

Asiatic Stores.—72, Churchgate Street, opp. Churchgate Station, Fort, Bombay.

Atlantic Stores.—Western Breeze Building, Colaba Causeway, Fort.

Badroodin Mohomedally & Sons.—238, Nagdevi Street, Bombay 3.

**B. A. & BROTHERS (BOMBAY) PRIVATE LTD.—98, Princess Street, Bombay 2. Phone : 22939. Grams : "BABULINE."**

B. Babulal & Co.—Devkaran Mansion, Princess Street, P.B. No. 2409, Bombay 2.

B. C. Shah & Co.—8, Devkaran Mansion, Vithaldas Road, Bombay 2.

B. Jayantilal & Co.—15, Mangaldas Road, Princess Street, Bombay 2.

B. M. Shah & Co.—40, Princess Street, Bombay 2.

B. Vrajlal & Co.—28, Princess Street, Bombay 2.

Beliram & Sons.—306, Princess Street, Bombay 2.

Beliram Chimanlal & Co.—308, Princess Street, Bombay 2.

Benjamin & Sadka.—Anand Bhuvan, 2nd Floor, Princess Street, P.B. No. 2419, Bombay 2.

**BHAGUBHAI & BROS.—Importers & Wholesale dealers of Drugs, Medicines & Toilets, Shurruf Mansion, 32-A, Princess Street, Bombay 2.**

Bhagwandas Maganlal & Co.—295, Jumma Masjid, Bombay 2.

Bharat Agencies.—31, Forbes Street, Kirti Building, Fort, Bombay 1.

Bharat Drug House.—Devkaran Mansion, Mangaldas Road, Bombay 2.

Bhogilal Premchand & Co.—Mulchand Mansion, 24, Princess Street, Bombay 2.

Bill & Co.—Imperial Mahal, Tram Terminus, Dadar.

Bimex & Co.—43, Forbes Street, Fort, Bombay 1.

Bole Brothers.—P.B. No. 2072, Princess Street, Bombay 2.

Bombay Drug Distributors.—Chhotani Bldg., 54-B, Proctor Road, Bombay 7.

Bombay Pharmacy, The.—Sonawala Building No. 1, Tardeo Road, Bombay 7.

Bombay Surgico Medical Agency, Ltd.—P.O. Box 2093, Bharucha Building, Princess Street.

British Drug Houses (India) Ltd.—Imperial Chemical House, Ballard Estate.

Burroughs Wellcome & Co.—Cook's Building, Hornby Road.

C. Himatlal & Co.—89, Princess Street, Bombay 2.

C. J. Sheth & Co.—48 Mangaldas Road, Princess Street, Bombay 2.

C. K. Reshamwala & Co.—Shuruf Mansion, Princess Street, Bombay.

C. K. Shah & Co.—101, Princess Street, Bombay 2.

C. P. Thakkar & Co.—89, Peerbhai Mansion, Princess Street, Bombay.

Champaklal D. Shah & Co.—Devkaran Mansion, Block No. 1, Princess Street, P.B. No. 2404, Bombay 2.

Champsi Narsee & Co.—4, Princess Street, Bombay 2.

Chhaganlal T. Kanani & Co.—Ruxmani Nivas, Opp. Jumma Masjid, 298, Sheikh Memon Street, Bombay 2.

Chimanlal Chunilal & Co.—Mangaldas Road, Princess Street, P.B. No. 2209, Bombay 2.

Chimanlal Maganlal & Co.—4, Mangaldas Road, Princess Street, Bombay 2.

Chimanlal, N., & Co.—Shroff Mansion, Princess Street.

Chimanlal Saralal & Co.—Mangaldas Road, Princess Street, Bombay.

Choksey & Co., Props. : Manilal Narbheram & Co.—Champsey Building, 78, Princess Street, Bombay 2.

Choonilal Dahyabhai & Co. Private Ltd.—70 Princess Street, Bombay.
Chunilal Ootamchand & Co.—79, Princess Street, Bombay 2.
Continental Drug Stores.—Damodar Building, 115, Princess Street,
Crookes Laboratories Ltd.—Court House, Carnac Road, Bombay 2.
Dadha & Co.—63, Princess Street, P.B. No. 2274, Bombay 2.
Dawawala Brothers.—102, Girgaum Road, Bombay 4.
Dawawala & Co.—Shuruf Mansion, 9, Old Hanuman Lane, Bombay 2.
Dilip & Co.—Devkaran Mansion, Block No. 1, Princess Street, Bombay 2.
Dinshaw Khodad & Co.: (Empire Stores).—Crawford Market, Fort, Bombay 1.
Dongre, K. T., & Co.—384, Lamington Road, Bombay 4.
D. Macedo & Co.—251, Budhwarpeth, Poona 2.
D. Manilal.—52-58, Babu Genu Road, Bombay 2.
D. Ratilal & Co.—Mangaldas Building, Mangaldas Road, Bombay 2.
Empire Chemists.—Fida Building, Princess Street, Bombay 2.
General Drug & Chemical Co.—Fida Building, Sheikh Memon Street, Bombay 2.
Girdhar Javer & Co.—Devkaran Mansion, Princess Street.
Girdharlal & Co.—195, Mangaldas Building, Mangaldas Road, Bombay 2.
Globe Medicine Co.—Bode Chawl, New Hanuman Lane, Bombay 2.
Gopaldas Visram & Co.—8, Fida Building, opp. Mangaldas Market, Bombay 2.
Gujarat Essence Mart.—Keshavbaug, 126, Princess Street, Bombay 2.
Hardinge & Co.—Charni Road Junction, Grant Road.
Haribhai Jeebhai & Co.—22, Princess Street.
Hira, P. H., & Co.—18-20. Princess Street.
H. Banker & Co.—16, Old Hanuman Lane, Bombay 2.
H. Chandulal & Co.—Mangaldas Building No. 1, Mangaldas Road, Princess Street, Bombay 2.
I. G. Gajjar & Co.—17-19, Princess Street, Bombay 2.
Imperial Stores.—Mahad, Dist. Kolaba.
Jadavjee Goverdhandas & Co.—58-60, Princess Street, Bombay 2.
Jadavji Keshavji & Co.—26, Princess Street, Bombay 2.
Jagjivandas & Co.—Keshav Baug, Princess Street, Post Box No. 2125, Bombay.
Jayakumar Chandulal & Co.—Mangaldas Road, Kitchen Garden Lane, P.B. No. 2337, Bombay 2.
Jayantilal & Co., B.—15, Mangaldas Road, Princess Street, Bombay 2.
Jayantilal Natwarlal Vaidya & Co.—Station Road, Petlad.
J. & J. De Chane.—Star Mansion, 30, Clare Road, Byculla. Bombay.
Jitendra & Co.—18, Fida Building, Princess Street, Bombay 2.
Jiva Kuka & Co.—Princess Street.
J. Kundan & Co.—Mulchand Mansion, Princess Street, Bombay 2.
J. M. Sheth.—65, Kitchen Garden Lane, Vithal Sayana Building No. 2, P.B. No. 2550, Bombay 2.

**KANCHANLAL MAGANLAL & CO.—Bode Chawl, Princess Street, P. Box No. 2029, Bombay 2. Phone: 22392. Grams: "TABLETS." Importers & Dealers in Pharmaceutical Drugs, Medicines, Chemicals, Antibiotics, Surgical Dressings, Sera & Vaccines, Laboratory Chemicals. Scientific Apparatus for Laboratory, Hospitals & Colleges and Specialists in Surgical Instruments, Dairy Appliances.**

Kanchanlal Vadilal & Co.—41-43, Mangaldas Road, Princess Street, Bombay 2. Phone No. 25735.
Kantilal & Bros.—Vithal Sayana Building, Lohar Chawl, Bombay 2.
Kantilal Chimanlal & Co.—Mangaldas Road, Princess Street, P.B. No. 2296, Bombay 2.
Kantilal Manilal & Co.—16, Princess Street.
Karnik Bros.—2nd Dubash Lane, Girgaum Back Road.
K. A. Zaveri & Co.—89, Princess Street, P.B. No. 2018, Bombay 2.
K. F. Mody & Co.—Oomrigar House, Mangaldas Road, Bombay 2.
K. J. Panachand & Co.—100, Sarang Street, P.B. No. 3264, Bhusari Moholla, Bombay 3.
K. P. Motilal & Co. Ltd.—Mangaldas Road, Princess Street, Bombay.
K. Sevantilal & Co.—Mulchand Mansion, Princess Street, P.B. No. 2553, Bombay 2.
Kelkar, S. H., & Co.—Devkaran Mansions, Princess Street.
Kemp & Co., Ltd.—Elphin House, Cadell Road, Bombay 28.
Keshavji C. Thaker & Co.—14, Princess Street, Bombay 2.
Khushru & Sons.—Sunnoo Lodge, Khodadad Circle, Dadar.
Kikani Medicine Supply Co.—Kapol Nivas, 414, Sandhurst Road.
Kishorchandra & Co.—Keshaw Baug, 102, Princess Street, Bombay 2.
Komol Pharmacy.—Commissariat Building, Dr. D. N. Road.
Krishna Medical Stores.—290, Sheikh Memon Street, Bombay 2.
Kulkarni & Co.—176, Princess Street, Bombay 2.
Kumar & Company.—34, Mangaldas Road, Princess Street, Bombay 2
Lavchand Varajdas & Co.—Pratap Mansion, Princess Street, Bombay 2.
Little's Oriental Balm & Pharmaceuticals, Ltd.—Head Office: Western India House, Sir Phirozshah Mehta Road, Bombay.
L. C. Attarwalla & Co.—269, Sheikh Memon Street, Bombay 2.
L. Lachhmandas & Co.—91, Princess Street, Bombay 2.
Lavchand Varajdas & Co.—64-66, Princess Street, Bombay 2.

**MAC Laboratories Private Ltd.—Great Social Building, Sir P. M. Road, G.P.O. Box No. 1831, Bombay 1.**
Madhav Agency.—Girgaum, Bombay 4.
Madon, M. T., & Co.—"The Corner Shop," 346, Abdul Rehman Street,

**MADON SONS & CO.—67, Hughes Road, Bombay 7. Phone: 42508. Grams: "SQUIBB." Day & Night Dispensing Chemists.**

Mahasukhlal Chimanlal & Co.—Mangaldas Road, Princess Street, P.B. No. 2088, Bombay 2.
Mahendrakumar & Co.—32, Shuruf Mansion, Princess Street, Bombay.
Maneklal & Bros.—61-A, Princess Street, Bombay 2.
Maneklal & Co.—Ramban Patent Depot, Shuruf Mansion, 32, Princess Street, Bombay 2.
Manilal & Bros.—Mulchand Mansions, Princess Street.
Manohar Singh & Sons.—Wholesale Dealers in Drugs and Medicines, 587, Chira Bazar, Bombay 2; Grams: "SINGHSONS".
Martin & Harris Ltd.—Savoy Chambers, Wallace Street, Fort.
Manilal Motichand Kanani & Co.—Dawawalla Building, 99, Princess Street, Bombay 2.
Mansukhlal Tribhowandas & Co.—Princess Street, Vithaldas Road, Devkaran Mansion, Block 8, P.B. No. 2189, Bombay 2.
Mira Chemical Works.—Chinchpokli Cross Lane, Parel.
M. H. Javerian & Co.—67, Princess Street, Bombay 2.
Minerva Medical Stores.—11, Mangaldas Road, Princess Street, Bombay 2.
M. M. Bharwada.—Mulchand Mansion, Princess Street, Bombay 2.
Model Chemists.—Mapia Mahal, Thakurdwar, Bombay 4.
Mohanlal & Co.—61, Princess Street, Bombay 2.
Mukundlal & Co.—Anand Bhuvan, Princess Street, Bombay 2.
Narbheram & Sons.—Mangaldas Building No. 1, Princess Street, Bombay 2.

**NATH & CO.—Parekh Building, Old Hanuman Lane, Princess Street, Bombay 2. Wholesale Chemists, Druggists, Surgical, Sundries, Dealers and Manufacturers Representatives.**
Nath & Co.—Parekh Building, Old Hanuman Lane, Bombay 2.
National Aniline & Chemical Co., U.S.A.—Patel House, Churchgate Street, Fort.
Natvarlal & Co.—Fida Building, Princess Street, Bombay 2.
N. Himatlal & Co.—P. O. Box No. 2004, Princess Street, Bombay 2.
N. Sunderlal & Co.—89, Princess Street, P.B. No. 2276, Bombay 2.
N. Uttamlal & Co.—Bode Chawl, Princess Street, P.B. No. 2049, Bombay 2.
N. Vasantrai & Co.—55, Princess Street, Devkaran Mansion, Bombay.
Odhawjee Lawjee & Co.—Chikhal House, 144-B, Princess Street, Bombay 2.
Orient Homœopathic Pharmacy.—Pannalal Terraces, Lamington Road, Bombay 7.
Oriental Medical & Surgical Stores, Ltd.—Anand Bhuvan, Princess Street, Bombay 2.
Oriental Pharmacy.—Kapoli Nivas, near State Bank, Sandhurst Road.
Pannalal Ramdayal Chindak.—153, Princess Street.
Paradkar, K. A., & Co.—Dindaisy Building, Gaiwadi, Girgaum, Bombay 4.
Patani Bros. & Co.—Mangaldas Road, Princess Street.
Patel Ruby & Co.—Cumballa Hill, Bombay 26.
Padder Brothers.—245, Princess Street, Bombay 2.
Parekh & Co.—Parekh Building, Old Hanuman Lane, Bombay 2.
P. C. Sheth & Co.—Bode Chawl, New Hanuman Lane, Princess Street, Bombay 2.
P. D. Doshi & Co.—38, Old Hanuman Lane, P.B. No. 2422, Bombay 2.
P. M. Zaveri & Co.—10, Fida Building, Princess Street, Bombay 2.

**P. N. VORA & CO.—P.B. No. 2039, Varjivan Mansion, 1st Floor, Princess Street, Bombay 2. Grams: "INJECTION," Kalbadevi, Bombay 2. Dealers in everything in Medical, Surgical & Laboratory Requisites & Sundries.**

Phillimore & Co.—Cumballa Hill, Bombay 6.
Phillips & Co.—Waterloo Mansion, Mayo Road, Fort.
Pioneer Magnesia Works Ltd., The.—Chartered Bank Building, Mahatma Gandhi Road, Fort.

**POPULAR PHARMACY (REGD.), THE.—Dhun Building, 310, Lamington Road, Grant Road, Bombay 7. Dispensing Chemists. Phone: 71884.**

Poona Drug Stores.—324, Mahatma Gandhi Road, Poona 1.
Prabhudas Gulabchand Shah.—Mulchand Mansion, Princess Street, Bombay 2.
Premier Chemists.—Shuruff Mansion, Princess Street, near Juma Masjid.
Purshottam Laxmichand.—Balakhidas Building, Mangaldas Road, Bombay 2.
"Queenie."—11-B, Hughes Road, Bombay 7.
Queen's Chemists, The.—Queen's Chambers, Queen's Road (opp. Marine Bridge), Bombay.
Rajnikant Brothers.—P.B. No. 2053, Princess Street, Bombay 2.
Rasiklal & Co. Ltd.—Varjivan Mansion, 60-62, Princess Street, P.B. No. 2228, Bombay 2.

Ratilal Hemraj.—Mulchand Mansion, Princess Street, Bombay 2.
R. K. Mehta & Co.—Champsey Building, Princess Street, Bombay 2.
R. Nandlal & Co. (Pharmaceuticals).—72-A, Champsey Building, Princess Street, Bombay 2.
Rele, K. B., & Sons.—Anand Bhuvan, Vithalbhai Patel Road.
Reshamwala, C. K., & Co.—Shuruff Mansion, Princess Street, Bombay.
Rose Pharmacy.—Anand Bhuvan, Princess Street, Bombay 2.
Roy & Company.—176, Princess Street, Bombay 2.
Royal Chemists.—Queen's Chambers, Queen's Road.

**ROYAL DRUG & PHARMACEUTICALS CO.—Sharaf Mansion, 38, Princess Street, Bombay 2. Phone: 38749. Grams: "RODPHAR." Wholesale Dealers & Direct Importers of Solvents, Drugs, Pharmaceuticals, Vitamins & Laboratory Chemicals. (Mostly useful in Colleges & Research Institutes).**

Rustom, K., & Co.—69, Wodehouse Road, Colaba.

**S. MATHURADAS & CO.—P.O. Box No. 2113, Princess Street, Bombay 2. Grams: "SMATHURCO." Phone: 30273. Stockists of Laboratory & Fine Chemicals, Analytical & Laboratory Reagents, Amino-Acids, Stains, Drugs, Vitamins etc. manufactured by E. Merck & other Renowned products.**

Scientific Chemists, The.—105, Princess Street, Bombay 2.
Sevantilal Kantilal & Co.—84, Mangaldas Building, Mangaldas Road.
Shah Brothers.—32, Princess Street, "Jintan" Agency, Bombay 2.
Shah & Co.—Anand Bhuvan, Princess Street.
Shantilal Ltd.—Princess Street, P.B. No. 2140, Bombay 2.
Sheth, C. J., & Co.—192, Mangaldas Building, Mangaldas Road, Bombay 2.
Simplex Chemical Co.—103-C, Chhaktewadi, Tardeo.
Sinora Chemical Works.—531, Chira Bazar, Girgaum.
Standard Pharmacy.—Anand Bhuvan, Princess Street, Bombay 2.
Stewart's Laboratories.—327, Hornby Road, Fort.
S. Shantilal & Co.—35, Kika Street, Gulalwadi, Bombay 4.
Standard Medical Agencies.—18, Anand Bhuvan, Princess Street, P.B. No. 2426, Bombay 2.
Tarachand & Co.—5, Sleater Road, Grant Road.
Thakkar Bros.—32, Princess Street, Bombay 2.

**THE BOMBAY MEDICINE SUPPLY CO.—46, Old Hanuman Lane, Princess Street, P.B. No. 2340, Bombay 2. Dealers in Drugs and Medicines, Chemicals, Laboratories Chemicals, Surgicals, Hospital Sundries and order Suppliers, etc., etc.**

Thomson & Taylor Ltd.—117-119, Mahatma Gandhi Road, Bombay 1.
T. J. Shah & Brothers.—Mulchand Mansion, Princess Street, P.B. No. 2180, Bombay 2.
Tribhovandas Khimji & Bros.—13, Princess Street.
Umeschandra Jayantilal & Co.—Mahendra Mansion, New Hanuman Lane, Bombay 2.
Union Drugs & Pharmaceutical Co.—Old Hanuman Lane, Jayabai House, Near Angania's Chawl, P.B. No. 2559, Bombay 2.
Vally, J. H.—Mangaldas Road, Princess Street, Bombay 2.
Vanmali Bhika & Co.—Devkaran Mansion, Princess Street, Bombay 2.
Vijay Trading Corporation.—297-B, Old Post Office Lane, Mangaldas Market, Bombay 2.
Vinchhi Bros. & Co.—Old Small Causes Court Building, Princess Street.
Vora, B. P., & Co.—126, Princess Street.

**VORA BROTHERS.—Chemists and Druggists, Wholesale Dealers and direct importers of Laboratory Chemicals and Glassware. 214-B, Princess Street, Bombay-2. Phone: 20256 & 30204. Grams: "MISTOL."**

Vora Bros.—218, Princess Street.
Vora, M. J., & Co.—423, Kalbadevi Road, Bombay 2.
V. Rajkotia & Co.—Varjivan Mansion, 52, Princess Street, Bombay 2.
Vyas Brothers Ltd.—Devkaran Mansion, Princess Street, Bombay 2.
Wagh, T. A., & Co.—Kshatriya Dnyati Nivas, New Charni Road, Girgaum.
Wagh & Sons.—Poibawdi, Parel.
Western Trading Corporation.—439, Kalbadevi Road, 1st Floor, Bombay 2.
Zill & Co.—Princess Street.

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Alankar Chitra.—19, Prem Court, Sir Jamshedji Tata Road, Churchgate Reclamation, Bombay 1.
All India Pictures.—Ratan Villa, Vincent Square, Dadar, Bombay 14.
Anand Films.—4-B, Naaz Bldg., Lamington Road, Bombay 4.
Anupam Chitra.—Ranjit Studios, Main Road, Dadar, Bombay 14.
Art Films of Asia Ltd.—Olympia House, Warden Road, Bombay 26.
A. R. Films.—3rd Floor, Hasan Mansion, Dhobi Street, Corner of Masjid Bunder Road, Bombay 3.
Ashok Pictures.—Rattan Villa, Vincent Square, Bombay 14.
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Basu Chitra Mandir Private Ltd.—Shree Sound Studios, Dadar, Bombay 14.
B. B. Cine Corporation, Ltd.—Whiteaway Building, Hornby Road, Fort.
Bhagwan Art Productions.—Care Films, Walkar House, Lamington Road, Bombay 4.

Bimal Roy Productions.—Mohan Studios, Andheri, Bombay.
B. K. Patel & Co.—106, Medows Street, Fort.
Bombay Film Labs. (Private) Ltd.—149, Portuguese Church Street, Bombay 28.
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Bombay Movietone Private Ltd.—2-B, Naaz Bldg., Lamington Road, Bombay 4.
B. R. Films.—4, Chinoy Colony, Juhu Road, Santa Cruz, Bombay 23.
Central Cine Corporation.—68, Tardeo Road.
Central Studios.—74-94, Tardeo Road, Bombay 7.
Chandra Films.—4-G, Naaz Bldg., Lamington Road, Bombay 4.
Chitra Bharati, C/o Shrikant Studios.—Chembur, Bombay.
Chowdhry Art Productions.—252, Ripon Road, Byculla, Bombay 8.
**Columbia Films of India Ltd.—Imperial Chambers, Ballard Estate.**
**Dawlat Corporation Ltd.—Patel Chambers, French Bridge, Bombay 7.**
De Lux Films.—103, Famous Cine Bldg., Mahalaxmi, Bombay 11.
Deepshikha Chitra Niketan.—59, Bhatia Bhavan, Asha Lane, Gokhale Road, Dadar, Bombay.
Deep & Pradeep Productions.—250, Famous Cine Building, Mahalaxmi, Bombay 11.
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Dossi Films Ltd.—Manik Villa, Saraswati Road, Santa Cruz, Bombay 23.
**Eagle Lion Distributors (India) Ltd.—" Dhan Nur," Sir Phirozshah Mehta Road, Fort.**
Eagle Films.—220, Famous Cine Bldg., Mahalaxmi, Bombay 11.
**Educational Films of India.—195, Hornby Road, Fort.**
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Famous Cine Labs. & Studios Ltd.—Haines Road, Mahalaxmi, Bombay 11.
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Filmco.—5, Habib Park, Clare Road, Byculla, Bombay 8.
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Global Film Bureau.—245, Famous Cine Bldg., Mahalaxmi, Bombay 11.
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Harish Productions.—Famous Cine Building, Mahalaxmi, Bombay 11.
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Kala Kendra.—Shrikant Studios, Chembur, Bombay.
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National Education & Information Films Ltd.—National House, Tulloch Road, Apollo Bunder, Bombay. Grams: "EDUFILMS." Phone: 35159.
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Novel Productions.—9, Krishna Ashram, Jogeshwari East, Bombay 42.
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**Poonjiajee J. M. Jehangir.—Byramji Mansion, Sir Phirozehah Mehta Road, Fort, Bombay 1.**
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Republic Films Corporation.—257, Famous Cine Bldg., Haines Road, Mahalaxmi, Bombay 11.
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Roopkamal Chitra.—201-B, Khetwadi Main Road, Bombay 4.
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Roopanjali.—Central Avenue, Chembur, Bombay.
Roshni Films.—309-E, Famous Cine Bldg., Mahalaxmi, Bombay 11.
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Sami Pictures.—2nd Floor, No. 8, Rustom Baug, Byculla, Bombay 8.
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**Shree Sound Studios.—10, Gokuldas Pasta Road, Dadar.**
Sippy Films Ltd.—3-G, Naaz Bldg., Lamington Road, Bombay 4.
Solar Films.—Shree Sound Studios, Dadar, Bombay.
Sterling Investment Corpn., Ltd.—160, Kurla Road, Andheri, Bombay.
S. P. Pictures.—205, Famous Cine Bldg., Mahalaxmi, Bombay 11.
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**Supreme Film Distributors.—85, Main Road, Dadar.**
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Talwar Films.—217, Famous Cine Bldg., Mahalaxmi, Bombay 11.
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**Vanguard Pictures.—365, Girgaum Road, opp. Thakurdwar P. O., Bombay 2.**
Vakil Productions.—3-F, Naaz Bldg., Lamington Road, Bombay 4.
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**N. S. GUZDER & CO. PRIVATE LTD.—Head Office : Neville House, Ballard Estate. Branch : Bombay House, Bruce Street, Fort. General Shipping and Forwarding Contractors, Cotton Commission and Purchasing Agents. Phone Nos. 263414/15 and 251501, Extn. 480.**

**ODHARAM BULCHAND & CO.—Licensed Clearing, Shipping & Travel Agents to the Government of India, 19, Bank Street, Fort, Bombay 1. Phone : 253705. Grams : "CLEAR-GOODS."**

**OTA INDIA.—Clearing, Shipping and Stevedoring Agents, 12, Rampart Row, Bombay 1. Phones : 254772, 256592. Grams : "OTAIND." Central Office : 159, Colaba Road, Bombay 5. Grams : "CENOTA". Phone : 212602. Branches : Bombay (Phones : 254712, 256592) ; Calcutta (Phones : 236781-2) : Kandla (Phone : 2145 Gandhidham) and New Delhi (Phone : 43799).**

Overseas Shipping Agency.—76, Bhandari Street, Bombay 2.

**P. CAWASJI & CO.—18, Karwar Street, Fort, Bombay 1. Phones : 263025/261679. Grams : "PICOSJICO." Storage facilities available. Despatches by Rail, Sea and motor transport arranged.**

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Adarsha Vastralaya.—7/8, Swadeshi Market, Kalbadevi Road.

Allied Exporters.—Kumud House, 267, Dr. Dadabhoy Naoroji Road, Bombay.

Arvinda Trading Co., Ltd.—105, Apollo Street, Fort.

**A TO Z TEXTILE DEPARTMENTAL STORES.—412, Sheikh Memon Street, "Lalsingh" Building, Opp. Crawford Market, Bombay 2. Phone : 30046. Branch : Parekhs' Textile Emporium, T.T. Dadar, Bombay 14. Phone : 60642.**

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Bawa Parduman Singh & Sons.—Chandra Chowk, Mulji Jetha Market, Bombay No. 2.

Bhavani Prasad Girdharlal.—Jai Hind Building No. 4, Bhuleshwar, Bombay 2. Tel. Add. : "Tandaco."

Bombay Swadeshi Co-operative Stores Co., Ltd.—Western India Building, Sir Phirozshah Mehta Road, Fort.

Calcutta Sola Hat Agency.—Dwarkadas Building, Mangaldas Road.

Cawnpore Mills Depot.—Churchgate Street, Fort, Bombay No. 1.

Chamnaklal & Bros.—Sayee Bhuvan, 143, Princess Street, Bombay 2.

Chimanlal Mulchand & Co.—Waterloo Mansion, Mayo Road, Fort, Bombay.

Dilaj & Co.—20, Hamam Street, Fort.

Goolamally Hasanjee.—78, Sheriff Devjee Street, Bombay 3.
Grand Bazar.—25, Colaba Causeway, Bombay 1.
K. Metharam.—491-3, Kalbadevi Road.
Kumar & Co.—37, Swadeshi Market, Kalbadevi Road.
Maganlal Haribhai Vyas.—418, Kalbadevi Road, Bombay 2.
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Morarji Vrindavan & Co.—Krishnaraj Chowk, Mulji Jetha Market, Bombay 2.
Mulchand Shyamlal.—19, Swadeshi Market, Kalbadevi Road.
Nandram Jabarmal.—27, Swadeshi Market, Kalbadevi Road.
Parmanand Gordhandas & Co.—280, Carnac Road, Bombay 2.
Prakash Store.—52-53, Swadeshi Market, Kalbadevi Road, Bombay No. 2.
Rastriya Swadeshi Bhandar.—50/51, Swadeshi Market, Kalbadevi Road, Bombay No. 2.
Sampat Stores.—28-30, Swadeshi Market, Kalbadevi Road.
Shahade Athavle Ltd.—Shahade Building, Lady Jamshedji Road, Dadar, Bombay 14.
Sohani Brothers & Co.—Kale Building, Shivaji Park Road 3, Dadar, Bombay 28.
Sorabji Nowroji & Co.—16, Horniman Circle, Fort.
Thacker Rameschandra Ramdas.—14-15, Swadeshi Market, Kalbadevi Road.
Thakorlal Chhotalal.—76, Swadeshi Market, Kalbadevi Road.

**VALIA & COMPANY.—Leading Cloth Merchants, Dadar T.T. Bombay 14. Phone : 440801. Grams : "SUPERSTYLE".**

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Yacoob Ahmed Bros.—Topiwalla Mansion, Mahomedally Road.

## CLOTHING IMPORTERS AND DEALERS (SECOND-HAND)

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Hoosein, M. A., & Bros.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort.

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Bombay Uniform Clothing Co.—15, Borbhat Street, Girgaum.
Calcutta Sola Hat Agency.—Dwarkadas Building, Mangaldas Road.
Indian Clothing Co.—Vithal Sayana Building, Lohar Chawl, Bombay 2.
Shree Krishna Trading Co., Ltd.—11, Ali Chambers, Tamarind Lane, Fort.

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Andrew Yule & Co., Ltd.—No. 32, Nicol Road, Ballard Estate.
Arvinda Trading Co. Private Ltd.—105, Apollo Street, Fort.
Bai Velbai Widow of Keshavji Bhimji.—Coal Depot, Byculla, Bombay.
Bhagwanlal P. Worah.—14, Hamam Street, Fort.

**BOMBAY GAS CO., LTD.—214, Dr. Dadabhoy Naoroji Road, Bombay 1. Phone : 261271. Grams : "CRISTOLITE."**

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Chhaganlal Kothari.—31-35, Tribhuvan Road, Girgaum, Bombay.
Chhotalal & Co.—38, Prospect Chambers, Hornby Road, Bombay.
Chhotalal S. Joshri.—11, Bank Street, Fort, Bombay.
Chhotalal Jamnadas & Co.—311, Sandhurst Road, Bombay 4.
Chhotalal Tricumji & Co.—Vithaldas Chambers, Fort, Bombay.

**CHOONILAL MANILAL PRIVATE LTD.—Yusuf Building, Veer Nariman Road (Churchgate Street), Fort. Phone : 255161 (3 lines). Grams : "CHOONIMANI."**

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Dhirajlal Harilal Shah.—94, Ghod Bunder Road, Borivli.
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Girdharilal & Co.—48, Podar Chambers, Parsi Bazar Street, Fort.
Gorden & Co.—Forbes Street, Fort, Bombay.
Govindjee Madhowjee & Co. Ltd.—Sir Vithaldas Chambers, 16, Apollo Street, Fort.
Jairam Keshavji.—Coal Depot, Byculla, Bombay.
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Joshi & Co.—Kermani Building, opp. National City Bank of New York, Sir Phirozshah Mehta Road, Fort.
Kalyanji Mavji & Co.—55, Apollo Street, Fort.
Kanji Karsandas.—Coal Depot, Byculla, Bombay.
Karamchand Thapper & Bros. Ltd.—Maher House, Fort, Bombay.
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Khimji Dayalji.—Coal Depot, Byculla, Bombay.
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Mitchell Cotts & Co.'s Natal Coal.—Agents : Killick, Nixon & Co., Home Street, Fort.
Narottam & Pereira Ltd.—Scindia House, Dougall Road, Ballard Estate, Bombay 1.
Natwarlal Shamaldas & Co.—Noble Chambers, Parsi Bazar Street, Fort.
Nusservanji Ruttonji Nazir & Sons.—5, Hamam Street, Fort.
Padhar & Sons.—Vithaldas Chambers, Fort, Bombay.
Patel, M. K., & Co.—Wakefield House, 16, Sprott Road, Ballard Estate, Fort.
Patel & Co.—Byculla Goods Depot, Byculla, Bombay.
Premji Madhavji Sethia.—Coal Depot, Byculla, Bombay.
Purshotam Devchand & Co. Ltd.—Coal Depot, Byculla, Bombay.
Shah Brothers.—Tamarind Lane, Bombay 1.

**SHETHIA, S. D. & CO. PRIVATE LTD.—Head Office : F/2 Gillander House, No. 8, Netaji Subhas Road, Calcutta. Phone : 229933 (5 lines). Grams : "SCHETHIACO." Bombay Office : Podar Chambers, Parsi Bazar Street, Fort, Bombay. Phone : 255505/6. Gram : "SHETHIACO."**

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New Era Construction Co.—8, Botawala Building, Elphinstone Circle, Fort.
R. D. Sharma & Co.—14, Moreshwar Building, Napoo Road, Matunga, Bombay 19.

**SHALIMAR TAR PRODUCTS (1935) LTD.—16, Bank Street, Fort, Bombay 1. Phone : 254643. Grams : "TARSTIL." Manufacturers of Tarfelt, Tarmastic Roofing, Tarstil Tarplastic and anti-Corrosives, Wood preservatives and other Coal Tar Products.**

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**A. VALLABHDAS & SONS.—37, Nagdevi Street, Bombay 3. Phone : 324281. Grams : "GINSPARE". Stockists of Boiler Tubes, Accessories, Cocks & valves, & Sugar Mill requirements.**

**CRESCENT TRADING CO.—48-50, Bhajipala Lane (Nagdevi), Bombay 3. Phones : 325140, 327004. Grams : "WATER-METER." Stockists of Acid Resisting Valves, Cocks for Water, Steam & Air and Water Meters.**

Edgar Handley & Co. Private Ltd.—135, Medows Street, Fort, Bombay.

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**CIBA OF INDIA LTD.—Royal Insurance Bldg., 14, Jamshedji Tata Road, Bombay 1. Phones: 245031-3; 246084-6.**

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Gandhi & Sons.—232, Vadgadi, Bombay 3.
I.C.I. (India) Private Ltd.—P.B. No. 310, Bombay 1.
Kalapi Colour Trading Co.—42, Dadysheth Agiary Lane, near G. T. High School, Bombay 2.
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Manubhai Shah & Co.—297, Samuel Street, Bombay 3.
Odhavji Devidas & Co.—857-A. Vakil Building, Samuel Street, Bombay 3.
Vasav & Co.—238, Samuel Street, Vadgadi, Bombay 3.

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Modern Art Salon.—Yusuf Building, 49 Churchgate Street, Fort.
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Bombay Trading Co.—Dhan-Nur, Sir Phirozshah Mehta Road, Fort.

Fruit Farm Products Co.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort.

Gandhi Sons Ltd.—232, Samuel Street, Vadgadi.

Jussawala, N. K.—22, Arab Street, Bombay 8. Manufacturers of Indian Condiments.

**K. T. KUBAL & CO., PRIVATE LTD. (Estd. 1926).—40, Foras Road, Bombay 8. Phone: 41179. Manufacturers of Electrical Welded Drums and containers. Manufacturers and Exporters of Famous "KUBAL" Masala curry Powder.**

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**MERWANJEE POONJIAJEE & SONS PRIVATE LTD. (ESTD. 1876).—Poonjiajee Building, Prince's Dock, Frere Road, Bombay 9. Manufacturers & Exporters of Sun Brand, Indian Condiments. Phone: 332933. Grams: "CHUTNEY," Bombay.**

**POONJIAJI, M. M., & CO.—40/42, First Marine Street, Bombay 2. Manufacturers & Exporters of "Ship Brand" Green Label Indian Condiments, Mango Chutneys, Pickles, Madras Curry Powder & Curry Paste, Bombay Ducks, Pappadams & Sugar-cane Vinegar. Grams: "PRESERVE." Phone: 22412. Res. Phone No. 241846.**

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**GARGI INDUSTRIES (Foundry Products Division).—18, Union Park, Chembur, Bombay 71. Works: Kirki Rubber Works Compound, 205/207, Ghodbunder Road, Jogeshwari, Bombay 60. Grams: "GARGI." Phone: 521545.**

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Liladhar Karsondas & Co.—Aga Khan Building, Dalal Street, Bombay.
Lohia Sultania Company.—Anand House, 158/64, Kalbadevi Road, Bombay 2.
Loknath Tibrewala & Co.—11, Krishna Bhuvan, Bhuleshwar, Bombay 2.
Madhavdas Amersey & Co.—Feltham House, 10, Graham Road, Ballard Estate, Bombay.
Madhavlal, S., & Co.—Noble Chambers, Parsi Bazar Street, Fort.
Mafatlal Gagalbhai & Co. Private Ltd.—Mafatlal House, Back Bay Reclamation.
Maganlal & Co.—C/o Messrs. Narandas Dwarkadas & Co., 411, Cotton Exchange Bldg., Kalbadevi Road, Bombay.
Mahipatrai Jadavji & Co.—Chinai Building, Masjid Bunder Road, Bombay No. 3.
Manalal Bhagirathdas & Sons.—C/o Messrs. Laxminarayan Mansukhrai & Co., Govind Chawk, Moolji Jetha Market, Bombay No. 2.
Manilal Patel & Co.—Kamer Building, Cowasji Patel Street, Fort, Bombay 1.
Manharlal, K., & Co.—19, Chinch Bunder, Bombay 9.
Mehta & Co.—Yusuf Building, 2nd Floor, 43, Mahatma Gandhi Road, Bombay No. 1.
Mehta & Co., H. M.—Mehta House, Apollo Street, Fort, Bombay.
Mohanlal Lallubhai & Co.—C/o Mr. Hirachand Dayal, Vithal Sadan, 3rd Floor, Room No. 80/90, 342, Kalbadevi Road, Bombay 2.
Mohanlal Motilal.—Yusuf Building, Mahatma Gandhi Road, Fort, Bombay 1.
Mooljee Jaitha & Co.—185, Princess Street, Bombay 2.
Motabhoy Gulabdas & Co.—Bharat House, 104, Apollo Street, Fort, Bombay 1.
Moolchand Vissonji & Co.—C/o Messrs. Liladhar Karsondas & Co., 9, Dalal Street, Agakhan Bldg., Fort, Bombay.
Murlidhar & Co.—4th Floor, Madan Mansion, 57-59, Sheikh Memon Street, Marwari Bazar, Bombay No. 2.
Nanji & Co., C.—406, Cotton Exchange Building, Kalbadevi Road, Bombay 2.
Nansey & Co. T. H.—7-11, Elphinstone Circle, Fort, Bombay.
Narandas Dwarkadas & Co.—Cotton Exchange Building, Room No. 411, Kalbadevi Road, Bombay.
Narandas Rajaram & Co., Ltd.—Navsari Chambers, Outram Road, Fort.
Narayandas Pokarmal Co.—Bullion Exchange Building, Bombay No. 2.
Narbheram Naranjee & Sons.—709, Cotton Exchange Building, 7th Floor, Kalbadevi Road, Bombay.
Narendrakumar R. Kanji & Co.—116, Keshavji Naik Road, 2nd Floor, Bombay 9.
Narsee Nagsee & Co.—French Bank Building, 62, Homji Street, Fort, Bombay 1.
Nathalal Bechardas & Co.—809, Cotton Exchange Building, Marwari Bazar, Bombay, No. 2.
Nathmal Somani & Co.—158/64, Anand House, 4th Floor, Kalbadevi Road, Bombay 2.
Natverlal Chandulal & Co.—Navsari Chambers, Outram Road, Fort, Bombay.
Navnitlal Chunilal Shah.—37, Marwari Bazar, Bombay.
Navpush & Co.—37, Marwari Bazar, Bombay 2.
Nevatia Brothers.—C/o Messrs. Hardayal Nevatia, 3rd Floor, Marwari Chamber Building, 226, Kalbadevi Road, Bombay.
New City of Bombay Mfg. Co. Ltd.—Brady House, Veer Nariman Road, Fort, Bombay 1.
New Great Eastern Spg. & Wvg. Co. Ltd.—Brady House, Veer Nariman Road, Fort, Bombay 1.
Odhavjee Shivjee & Co.—Room No. S-48, Cotton Green Bldg., Sewri, Bombay No. 15.
Onkarmal Meghraj & Co.—Bullion Association Bldg., 3rd Floor, Sheikh Memon Street, Bombay 2.
Parakh & Co. (India) Private Ltd., C.—28, Apollo Street, Fort, Bombay.
Parmanand Maneklal & Co.—Maskati Mahal, Lohar Chawl.
Parsram Parumal & Co.—104-114, Frere Road, 7, Sugar Market, Bombay No. 9.
Patel Brothers.—Elphinstone Building, 10, Churchgate Street, Fort, Bombay.
Patel Cotton Co. (Private) Ltd.—Elphinstone Building, Veer Nariman Road, Fort, Bombay 1.
Patel Cotton Co., Ltd., The.—New Cotton Depot, Sewree.
Phoenix Mills Ltd.—State Bank Building Annexe, Bank Street, Fort, Bombay 1.
Podar Brothers.—384M, Kalbadevi Road, Bombay 2.
Podar Mills Ltd., The.—Podar Chambers, Parsee Bazar Street, Fort, Bombay.
Podar Trading Co., Private Ltd., The.—Podar Chambers, Parsee Bazar Street, Fort, Bombay.
Pranjiwandas Dwarkadas & Co.—C/o Messrs. Hariprasad Amritlal's Jetha, Iron Jetha, Carnac Bunder, Bombay No. 3.
Premchand Trading Ltd.—7, Dhanji Street, Bombay 3.
Premji Haridas & Co.—Bhanushali Chambers, 168, Argyle Road, Bombay 9.
Punjab Cloth Mills Ltd.—Bullion Exchange Building, Zaveri Bazar, Bombay 2.
Purshotam Govindji & Sons.—612, Cotton Exchange, Marwari Bazar, Bombay 2.
Pyarelal Gupta & Co.—207, Kalbadevi Road, Bombay 2.
Radhakishan Anandeshwar.—2nd Floor, Bullion Assn. Building, Bombay 2.
Raghavji Kanji & Co.—116, New Chinch Bunder Road, Bombay.
Rajnikant & Co., C.—C/o Messrs. Chaitanyalal & Co., 808, Cotton Exchange Building, Kalbadevi Road, Bombay 2.
Rallis India Limited.—21, Ravelin Street, Fort, Bombay.
Ramkisandas Sagarmal.—Kalyan Bhuvan, 354, Kalbadevi, Bombay.
Ramakishan Totla & Co.—Girdhar Jiva Building, 2nd Floor, Bhuleshwar, Bombay 2.
Ramanlal & Sons.—Babulal Mansion, Chowpatty Sea Face, Bombay 7.
Ramirldas Nandlall.—Wakefield House, 3rd Floor, Sprott Road, Ballard Estate.
Ramchandra Satyanarain.—43, Ram Wadi, 3rd Floor, Bombay 2.
Ramchandra Hanuman & Co.—144-46, Kalbadevi Road, 3rd Floor, Bombay No. 2.
Ramdas Dossa & Co.—Cotton Exchange Building, Kalbadevi Road, Bombay No. 2.
Ramdas Khimji Brothers.—Warden House, 2nd Floor, Sir Pherozshah Mehta Road, Fort, Bombay.
Ramdas Tulsidas & Co.—86, Marwari Bazar, Bombay.
Ramdayal Somani & Co.—158-164, Kalbadevi Road, Opp. Cotton Exchange Building, Bombay.
Ramkumar & Co.—C/o Messrs. Basesarlal Bubbna, 259, Kalbadevi.
Ramnaram Son, Private Ltd.—Imperial Bank Bldg., Bank St., Fort, Bombay 1.
Ramrikhdas Perasram Puria & Co.—Rajmahal, Bhuleshwar, Bombay.
Ramsarup Gupta & Co.—705, Cotton Exchange, Kalbadevi Road, Bombay 2.
Ranchhoddas Khimji & Co.—288, Narshi Natha Street, Bombay 9.
Ranchhoddas Purshotam & Co.—406, Cotton Exchange, Marwari Bazar, Bombay 2.
Ratansey K. Khona.—Noble Chambers, 116, Parsi Bazar Street, Fort, Bombay.
Ratilal & Co.—1-3, Bhuleshwar Corner, Bombay.
Robertson & Son, Edward T.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort, P. B. No. 306, Bombay.
Rodocanachi & Co.—Jiji House, 17, Ravelin Street, Fort.

R. Popatlal & Co.—17, Tara Mansion, opp. Rly. Station, Bombay 19.
Rustomji Framji & Co.—C/o Messrs. Chatarbhuj Piramal, 60, Marwari Bazar, Bombay.
Sant Ram & Sons Ltd.—77, Medows Street, Fort.
Satyanarayan Sekhsaria & Co.—19, Bhuleshwar, Bombay 2.
Savaldas Madhavadas.—Prospect Chambers Annexe, Dadabhoy Naoroji Road, Fort, Bombay 1.
Seksaria Cotton Mills, Ltd.—139, Medows Street, Fort, Bombay.
Sethia R. K. (India) Private Ltd.—Himalaya House, Palton Road, Bombay 1.
Shah Sarabhai Hatising.—Maskati Mahal, Lohar Chawl, Bombay 2.
Shobhagchand Jethabhai & Co.—C/o Messrs. Chandulal Kasturchand Shah, 506, Cotton Exchange, Marwari Bazar, Bombay No. 2.
Sholapur Spg. & Wvg. Co., Ltd., The.—Standard Bldg., 346, Hornby Road, Fort, Bombay.
Shree Niwas Cotton Mills, Ltd., The.—DeLisle Road, Parel, Bombay No. 13.
Shree Madhav Mills Ltd.—Foras Road, Bombay 8.
Shree Ram Mills Ltd.—Fergusson Road, Parel, Bombay 13.
Shree Sitaram Mills, Limited.—15A, Elphinstone Circle, Fort, Bombay.

**SHROFF COOPER & CO.—New Stock Exchange Building. Room No. 67, Apollo Street, Fort, Bombay 1. Phone : 251849, Grams : "SROFCOOPER." Cotton Merchants & Commission Agents.**

Sree Krishna Trading Co., Ltd.—11, Alli Chambers, Medows Street, Fort.
Svadeshi Mills Co. Ltd.—Bombay House, Bruce Street, Fort, Bombay 1.
Swadeshi Cotton Mills Co. Ltd.—357, Kalbadevi Road, Bombay 2.
Swan Mills, Ltd., The.—Chartered Bank Building, Esplanade Road, Fort, Bombay.
Tata Mills, Ltd., The.—Bombay House, 24, Bruce Street, Fort, Bombay.
Thakersey Chunilal Parikh & Co.—C/o Messrs. Amulakh Amichand, R. No. 810-811 CTNEXGE.
Tiwari & Co.—15, Bullion Exchange, Bombay No. 2.
Trambaklal Uttarwar & Co.—Bansilal Abirchand Building, 1st Floor, 18, Marwari Bazar, Bombay 2.
Universal Cotton Trading Co., The.—Bombay Mutual Building, Hornby Road, Fort, Bombay.
Vakharia Bros.—R. No. 410, CTNEXGE.
Valji Ladha & Co.—Valji Vurdhaman's House, Opp. Police Chowki, 288, Dongri Street, Mandvi, Bombay.
Vallabhdas Dayal & Sons.—E. D. Sassoon Building, Ballard Estate, Fort, Bombay.
Vasonjee Morarjee.—Ewart House, Bruce Street, Fort, Bombay 1.
Vasanji Mavji & Co.—27, Chinch Bunder, Bombay 9.
Vassanji Sons & Co. Private Ltd.—9, Wallace Street, Fort, Bombay.
Vasantlal & Co., C.—Commissariat Bldg., 5th Floor, 231, D. Naoroji Road, Bombay No. 1.
Vassonji Khimji & Co.—C/o Chandulal Keshavlal Shah, 88, Masjid Road, Bombay No. 9.
Vinaya Trading Co. Ltd.—State Bank Building Annexe, Bank Street, Fort, Bombay 1.
Viram Ladha & Co.—288, Narsee Natha Street, Bombay 9.
Virji Ladha & Co.—57-59, Chinch Bunder Road, Mandvi, Bombay.
Vishindas Pribhdas & Co.—57-59, Madan Mansion, Marwari Bazar, 5th Floor, Bombay.
Volkart Brothers.—Volkart Building, Graham Road, Ballard Estate, Bombay 1.
Vrajlal Purshotam & Brothers.—Yusuf Bldg., 4th Floor, Mahatma Gandhi Road, Fort, Bombay 1.
Vulabhdas Narandas & Co.—C/o Messrs. Govindji Bhanji, 1st Floor, Shanti Bhuvan, Old Hanuman Lane, Bombay.
Western India Spg. & Mfg. Co., Ltd., The.—Sir Vithaldas Chambers, 16, Apollo Street, Fort, Bombay.

## COTTON MILLS

**AHMEDABAD JUPITER SPG., WVG. & MFG. CO. LTD. (Mg. Agents : M. Parakh & Co. Private Ltd.). JUPITER MILLS NO. 2 : at Carrol Road, Parel, Bombay 13. (Formerly : Hind Mills Ltd., Bombay). Spindles 76,296; Looms 1,345. Manufacturers of Shirtings, Sheetings, Longcloths, Dhoties, Sarees, Drill, Sucies, Mulls, Poplins, Lenos, Coatings & Furnishing Fabrics, in grey, Bleached and Dyed varieties. Also Cotton Yarn in Grey, Bleached and Dyed in Counts of 6s to 100s Single & Double and FIBRO YARN 20s to 40s Single and Double.**

**APOLLO MILLS LTD., THE.—Delisle Road, Chinchpokli, Bombay 11 (BC). Managing Agents: The Rajputana Textiles (Agencies) Private Limited. Seth Gokulchand Morarka, Director, Manufacturers of Grey, Bleached, Mercerised, Dyed and Printed poplins, Printed Superfine Voils, Mulls, Dorias, Bleached and Printed Poplins, Shirtings, Grey and Bleached Long Cloth, Sheetings; Grey Sarees, Dyed and Printed Coatings etc. Directors: Shri C. P. Wadia, Chairman, Shri Dwarkadas Shrinivas, Shri Shantilal L. Thar, Shri Keshardeo Shrinivas, Shri Basantilal Ramkumar (Ex-Officio), Mill Superintendent, Shri R. S. Bhotika; Manager, Shri V. Ananthan; Secretary: Shri K. K. Krishnan.**

Beharilal Ramcharan Cotton Mills Ltd. (formerly Meyer Mills Ltd.).—Managed by Board of Directors, Empire House, Dr. Dadabhoy Naoroji Road, Bombay. Mills at Fergusson Road, Lower Parel.

**BOMBAY DYEING & MANUFACTURING CO., LTD. (Spring Mills).—Managing Agents, Nowrosji Wadia & Sons Private Ltd., Neville House, Graham Road, Ballard Estate, Bombay. Mills at Naigaum Road, Dadar. Manufacturers of Cotton Textiles. Office Phone : 268071. Grams : "DYEING" and "TEXTILES." Mills Phone : 60118-9; 60343.**

**BOMBAY DYEING & MANUFACTURING CO., LTD. (Textile Mills).—Managing Agents, Nowrosji Wadia & Sons Private Ltd., Neville House, Graham Road, Ballard Estate, Bombay. Mills at Elphinstone Road, Parel. Manufacturers of Cotton Textiles. Office Phone : 268071. Grams : "DYEING" and "TEXTILES." Mills Phone : 60091-2-3.**


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Phone : 324401 (Office) Grams : "BHARCHEM" (MD).
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Bradbury Mills, Ltd.—Agents, Ramnarain Sons, Ltd., State Bank Bldg., Bank Street, Fort. Mills at Ripon Road, Jacob Circle.

**CENTRAL INDIA SPG., WVG. & MFG. CO. LTD.—Regd. Office: Bombay House, 24, Bruce St., Fort, Bombay 1. Phone Nos. 259141 and 251501. Grams : Bombay Office : "CHORALTAR," Nagpur Office : "EMPRESS." Looms : 2,064 ; Spindles : 1,08,688 Mills at Nagpuro, known as Empress Mills. Manufacturers of Cotton Textiles, Longcloth, Drills, Mulls, Voiles, Dhoties, Sarees, Counterpanes, Prints & Cotton blankets. The Company exports cloth to Africa, U.K., U.S.A., Australia and other centres.**

**Colaba Land & Mill Co., Ltd. (Jehangir Wadia Mill).—Office on Mill premises. Mills at Victoria Bunder, Colaba.**

Coorla Spinning & Weaving Co., Ltd.—Secretaries, Treasurers & Agents, Messrs. Cowasjee Jehangir & Co., Private Ltd., 23, Readymoney Mansion, Veer Nariman Road. Mills at Coorla.

Crown Spinning & Manufacturing Co., Ltd. (formerly Dhun Mills) —Secretaries, Treasurers & Agents, Purshotam Vithaldas & Co., Sir Vithaldas Chambers, Apollo Street, Fort. Mills at New Parbhadevi Road, Parel.

**DAWN MILLS CO. LTD.—State Bank Building, Bank Street, Fort. Phone : 252231. Grams : "RAMNARYE", Bombay. Manufacturers of Yarn, Cotton Waste Yarn, Cotton Yarn carded and Combed, grey, gassed, Bleached, mercerised, Sewing Thread and Embroidery yarn, Warp yarn on beams and waft yarn on pirns, Folded yarn, double and multifold in cable twist and fish net twist, count range, upto 100s singles, folded, 2/10s, 2/28s, 2/30s, 2/36s, 2/60s, 2/80s, 2/100s Staple fibre yarn. Hosiery : Manufactured from Cotton, rayon and nylon, Vests, Drawers, Sportswear, Fancy garments, Socks, plain, printed and design, Upholstery, net cloth and stockinette. Directors : Ramniwas Ramnarain, Madanmohan Ramnarain, Radakrishna Ramnarain, Shriyans Prasad Jain, S. N. Vakil, Lalitkumar M. Khatau and Nirmal Kumar Ram Nivas.**

Dhanraj Mills, Ltd. (formerly Assur Virji Mills, Ltd.).—Agents, Ramgopal Ganpatrai & Sons, Private Ltd. Office on Mill premises. Mills at Sun Mill Road, Lower Parel.

Digvijaya Spinning & Weaving Co., Ltd. (formerly Dinshaw Petit Mills).—Office on Mill premises. Mills at Lalbaug, Parel.

**EDWARD TEXTILES LTD., (Estd. 1910).—Regd. Office : Indu House, 15, Dugall Road, Ballard Estate, Bombay-1. Grams : "SUNDERTEX." Manufacturers of Cotton Piecegoods. Agents : Puranmal Radhakrishna & Co.**

**ELPHINSTONE SPINNING & WEAVING MILLS CO. LTD.—Managed by Board of Directors, Kamani Chambers, 32, Nicol Road, Ballard Estate, Bombay. Phone: 262568. Grams: "ELMILCOL". Mills at Elphinstone Road, Parel. Manufacturers of "Cheeta Brand" Leather Cloth. Factory at: Tulsi Pipe Road, Bombay 13.**

Finlay Mills, Ltd.—Agents, James Finlay & Co., Ltd., Chartered Bank Buildings, Fort. Mills at Government Gate Road, Parel.

Gold Mohur Mills, Ltd.—Agents, James Finlay & Co., Ltd., Chartered Bank Building, Fort. Mills at Main Road, Dadar.

Hind Mills Ltd. (formerly David Mills Co., Ltd.) (Mills Nos. 1 and 2).—Agents, Hind Agents Ltd., 15, Indu House, Dougall Road, Ballard Estate, Fort. Mills at Carroll Road, Parel.

Hindoostan Spinning & Weaving Mills Co., Ltd.—Agents, Thackersey Mooljee & Co., Sir Vithaldas Chambers, Apollo Street, Fort. Mills at Ripon Road, Jacob Circle.

Indian Manufacturing Co., Ltd.—Agents, Damodar Thackersey Mulji & Co., Sir Vithaldas Chambers, Apollo Street, Fort. Mills at Lamington Road, North, Jacob Circle.

India United Mills, Ltd., Mill No. 1 (formerly Jacob Mill).—Agents, Agarwal & Co., Dougall Road, Ballard Estate, Fort. Mills at Suparibaug Road, Parel.

India United Mills Ltd., Mill No. 2 (formerly Alexandra Mill).—Agents, Agarwal & Co., Dougall Road, Ballard Estate, Fort. Mills at Ghorupdeo Road, Chinchpokly.

India United Mills Ltd., Mill No. 3 (formerly E. D. Mill).—Agents, Agarwal & Co., Dougall Road, Ballard Estate, Fort. Mills at Ghorupdeo Road, Chinchpokly.

India United Mills, Ltd., Mill No. 4 (formerly Rachel Mill) (formerly Hongkong Mills).—Agents, Agarwal & Co., Dougall Road, Ballard Estate, Fort. Mills at Chinchpokly Road, Kalachowki.

India United Mills, Ltd., Mill No. 5 (formerly Manchester Mill).—Agents, Agarwal & Co., Dougall Road, Ballard Estate, Fort. Mills at Chinchpokly Cross Lane, Kalachowki.

Jam Mfg. Co., Ltd., Mill No. 1.—Secretaries, Treasurers and Agents, Tricumdas Vandravan & Co. Office on Mill premises. Mills at Lalbaug, Parel.

Jam Mfg. Co., Ltd., Mill No. 2 (formerly Birla Mills, Ltd. No. 2).—Secretaries, Treasurers & Agents, Tricumdas Vandravan & Co., Lalbaug, Parel. Mills at Tokersey Jivraj Road, Sewree.

Jubilee Mills, Ltd.—Secretaries, Treasurers and Agents, Chamanlal Mehta & Co. Private Ltd., Bharat House, Apollo Street, Fort. Mills at Tokersey Jivraj Road, Sewree.

Kamala Mills, Ltd. (formerly Ebrahimbhoy Pabaney Mills).—M. L. Tapuriah, Esq., Director. Office: Kilachand Devchand Building, Apollo Street, Fort. Mills at Tulsi Pipe Road, off DeLisle Road.

**KHATAU MAKANJI SPINNING & WEAVING CO., LTD.—Regd. Office: Laxmi Buildings, 6, Ballard Road, Fort, Mills at Haines Road, Byculla.**

Kohinoor Mills Co., Ltd., Mills Nos. 1, 2 & 3.—Agents, Killick Industries, Ltd., Killick Building, Home Street, Fort. Two Mills at Naigaum Cross Road, Dadar and third at Lady Jamshedji Road, Dadar.

Modern Mills, Ltd., Mill No. 1 (formerly Mysore Spinning & Manufacturing Co., Ltd. No. 2).—Agents, N. Sirur & Co., Ltd., Temple Bar Building, 70, Forbes Street, Fort. Mills at Elphinstone Road, Parel.

Modern Mills, Ltd., Mill No. 2 (formerly Bomanji Petit Mills).—Agents, N. Sirur & Co., Ltd., Temple Bar Building, 70, Forbes Street. Mills at Mahaluxmi.

Moon Mills, Ltd.—Managed by Board of Directors, General Assurance Building, Hornby Road, Fort. Mills at Tokersey Jivraj Road, Sewree.

**MORARJEE GOCULDAS SPINNING & WEAVING CO., LTD.—Agents, Messrs. Piramal Sons Private Ltd.—Office: Mill No. 1 at Dr. Ambedkar Road, Parel, Bombay 12. Mill No. 2 at Planet Mill Street, Fergusson Road, Bombay 13. Spindles: 1,56,581 and Looms: 2,982.**

**MUKESH TEXTILE MILLS PRIVATE LTD.—Regd. Office: 6-B, Vulcan Insurance Building, Churchgate, Bombay 1. Head Office & Mills: Victoria Bunder Road, Colaba, Bombay 5. Phone Nos. 213137/38—213032. Dr. 212054. Grams: "COLABATEX." Products: Bleached Long Cloths, Dyed and Bleached Poplins. Striped and Check Shirtings, Pyjama Cloths, Towelling Cloth & Prints. Yarn: 10s & 80s, Board of Directors: Jayant M. Madhvani, B.Sc., LL.B., Manubhai M. Madhvani, Pratap M. Madhvani, Surendra M. Madhvani, Shivjibhai H. Suchde, Gokuldas H. Suchde, Jamnadas Gokaldas Rayvadera and Natverlal T. Parekh. General Manager: J. J. GAJJAR, Manager: C. H. Shah, Wvg. Master: G. R. Vyas, Chief Engineer: J. R. Kotwal, Dyeing, Bleaching & Printing Master: B. B. Katwala.**

New City of Bombay Manufacturing Co., Ltd.—Agents, W. H. Brady & Co., Ltd., Brady House, 12-14, Vir Nariman Road, Fort. Mills at 63, Chinchpokly Road.

New Great Eastern Spg. & Wvg. Co., Ltd.—Head Office: 15/A, Horniman Circle, Bombay 1. Mills at Victoria Garden Road, Byculla.

New Kaiser-I-Hind Spinning & Weaving Co., Ltd.—Lala Kailashpat Singhania, Managing Director, J. K. Building, Dougall Road, Ballard Estate, Bombay. Mills at Gorupdeo Road, Chinchpokly.

New Prahlad Mills (formerly Planet Mills).—Proprietors, Amrit Banaspati Co., Ltd., East and West Building, Apollo Street, Fort. Mills at Ferguson Road, Lower Parel.

**PHOENIX MILLS LTD., THE.—Tulsi Pipe Line Road, Lower Parel, Bombay 13. Manufacturers of Textiles. Board of Directors: Ramnivas Ramnarain, Madanmohan Ramnarain; Radhakrishna Ramnarain; S. N. Vakil, Chandrakant M. Khatau and Ashokkumar Radhakrishna.**

Podar Mills, Ltd. (formerly Toyo Podar Cotton Mills, Ltd.)—Agents, Podar Sons Ltd., Podar Chambers, Parsee Bazar Street. Mills at DeLisle Road.

Prakash Cotton Mills Private Ltd. (formerly Seksaria Cotton Mill No. 2).—Managed by Board of Directors, Seksaria Chambers, 139, Medows Street, Fort. Mills at Ferguson Road, Lower Parel.

**RAGHUVANSHI MILLS, LTD.—11-12, Haines Road, Mahalaxmi, Bombay 13. Managing Agents, Messrs. Ravindra Maganlal & Co. Private Ltd. Office or Mill premises. Mills at Haines Road, Mahalaxmi, Bombay 13. Phone: 77425-6-7. Grams: "Raghubir," Spindles: 44,000; Cotton Looms: 119; Art Silk Looms: 144; Manufacturers of Cotton Yarn 8s to 12 os., Terene Shirtings and Suitings, Sewing Threads and Embroidery Yarn Art Silk Fabrics.**

Ruby Mills Ltd.—Lady Jamshedji Road, Dadar, Bombay 28.

**SASSOON SPINNING & WEAVING CO., LTD.—Mafatlal House, Back Bay Reclamation, Bombay. Phone No. 246281. Grams: "UNISOON." Manufacturers of Cotton & Staple fibre Yarn and Cotton Textiles.**

Sayaji Mills Ltd.—Props., Kathwada, Ahmedabad. Sayaji Mills No. 2 (formerly Hirjee Mills, Ltd.).—Mills at Ferguson Road, Lower Parel.

**SEKSARIA COTTON MILLS LTD.—DeLisle Road, Lower Parel, Bombay 13. Phone Nos. 60111-12-13. Grams: "LABHSUBH". Manufacturers of Sheeting, Shirting, Coating, Poplin, Gadlapatt, Mulls, Flannel, Raised Malida Chaddar—in course and medium counts—Grey, Dyed as well as mercerised. Yarn from 10 to 100 counts—Combed as well as Carded. Processors of Power Loom Goods. Board of Directors: B. L. Bajoria, Sumat Prasad, H. C. Wilkie, S. C. Mitter, S. N. Bhalotia.**

Shree Madhav Mills Ltd. (formerly Madhavji Dharamsi Mfg. Co., Ltd.)—Agents, Puranmal Radhakishan & Co., Office on Mill premises. Mills at Foras Road.

**SHREE MADHUSUDAN MILLS LTD.—DeLisle Road, Bombay 13. Regd. Office: 31, Chowringhee Road, Calcutta-16; H.O.: Shree Niwas House, Waudby Road, Bombay-1; T. No. Office, Bombay, 268241; Mill 60331-32. R. N. Bangur, Chairman, J. K. Somani, B. G. Bangur, M. L. Somani, S. K. Majeji and S. M. Basu, Directors; Estd. 1950; Mill's Shop at: Govind Chowk, M. J. Market, Bombay-2, T. No.: 30849; Spindles: 91692; Looms: Ordinary 1532 and Automatic-48; Counts: 13 NF to 85 NF. Single or double yarn; Tex Mark No. 1592; Cloth Width from 66 Cm. to 165 Cm.; Varieties: Grey, Mercerised, Bleached, Dyed or Printed; Mulls, Voils, Dress material, Dhoty, Saree, Poplin, Cambric, Shirting, Umbrella Cloth, Checks, Drill, Coating, Shirting Long Cloth, Buck-ram etc.; K. N. Shah, Gen. Manager; V. T. Chokshi, Factory Manager: D. P. Mehta, Asst. Manager: R. N. Kabra, Mill Secretary: B. L. Bisawa, L.W.O.; J.; D. Patel, Salesman: R. K. Rathi; Sales in Charge: K. S. Mahal; Spg. Supt.: G. S. Pillay; Wvg. Supdt.; Dr. S. V. Patwardhan; Processing Consultant: B. C. Shroff; Dyg. & Mtg. Master: M. P. Dandekar, Chief Engineer.**

Shree Nivas Cotton Mills, Ltd. (formerly Fazulbhoy Mills, Ltd.).—Agents, The Marwar Textiles (Agency), Ltd., Shreenivas House, Waudby Road, Fort, Bombay. Mills at DeLisle Road.

**SHREE RAM MILLS, LTD.—Agents, Bhogilal Menghraj & Co., Pvt. Ltd. Office on Mill premises. Mills at Fergusson Road, Lower Parel, Bombay 13. Phone: 75221-2-3. Grams: "FINETEXURE."**

Shree Sitaram Mills Ltd.—Office: 15-A, Horniman Circle, Fort. Mills: Chinchpokli, DeLisle Road, Bombay.

Simplex Mills Company, Ltd.—Agents, Forbes, Forbes Campbell & Co., Ltd., Forbes Building, Home Street, Fort. Mills at Clerk Road, Jacob Circle, Byculla.

Standard Mills Co., Ltd.—Agents, Mafatlal Gagalbhai & Sons, Mafatlal House, Back Bay Reclamation, Bombay 1. Standard Mills at Parbhadevi Road, Lower Parel. Spindles: 54,796 and Looms 16,332. New China Mills at Sewree.

Swadeshi Mills Co., Ltd.—Agents, Tata Industries, Ltd., Bombay House, 24, Bruce Street, Fort. Mills at Kurla.

Swan Mills, Ltd.—Agents, James Finlay & Co., Ltd., Chartered Bank Building, Hornby Road, Fort. Mills at New Sewree Road.

Swastik Textile Mills Ltd.—Managing Agents: Messrs. P. Kashinath & Co., Dubash Market, Sheikh Memon Street, Bombay. Mills at Ferguson Road, Lower Parel.

**TATA MILLS, LTD.—Agents, Tata Industries Private Ltd., Bombay House, 24, Bruce Street, Fort. Mills at Dr. B. Ambedkar Road. Spindles 68,696 and Looms 1,767, including 92 automatic looms.**

Victoria Mills Ltd. (formerly Satya Mill, Ltd.).—Agents, Mangaldas Mehta & Co., Private Ltd., Bharat House, Apollo Street, Fort. Mills at DeLisle Road, Parel.

Western India Spinning & Manufacturing Co., Ltd.—Agents; Thackersey Mooljl Sons & Co., Sir Vithaldas Chambers, Apollo Street, Fort. Mills at Kalachowki Road, Chinchpokli.

## COTTON PIECEGOODS EXPORTERS

Ahmed Ebrahim Bros.—88, Chuckla Street, Bombay 3.

Allied Exporters.—Kumud House, 267, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

Arvind Trading Co. Private Ltd.—105, Apollo, Street, Fort.

**ASIAN TRADING CORPORATION.—P.O. Box 1505. The Mirabelle, 33/A, Marine Lines, Bombay 1. Phone: 242672. Grams: "AJPIPAS." Exporters of Cotton Piecegoods.**

Askay & Co. Ltd.—Great Social Building, Sir Phirozshah Mehta Road, Fort, Bombay.

Bajaj Brothers Ltd.—Round Building, Kalbadevi Road, Bombay 2.

Beardsell, W. A., & Co., Ltd.—15-16, Sir Phirozshah Mehta Road, Fort.

Begraj Gupta & Co.—Niru Villa, 387, Linking Road, Khar.

Bhagwandas Chatrabhuj & Co.—20, Hamam Street, Fort.

B. Naraindas & Co.—Court House, Carnac Road, Bombay 2.

Bulchand, Co., L.—Moos Building, 510, Kalbadevi Road.

**CAWASJI MANCHERJI KAPADIA & SONS.—241-43, Sheikh Memon Street, Post Kalbadevi.**

Chimanlal Patel & Co.—174, Hornby Road, Fort.

Chinoobhai & Bros., Ltd.—Churchgate House, Churchgate Street, Fort.

Consolidated Trading Corporation.—Advani Chambers, Sir Phirozshah Mehta Road, Bombay 1.

Devidas Mulji Kapadia.—Yusuf Building, Hornby Road, Fort.

Dilaj & Co.—20. Hamam Street, Fort.

Dinanath Sons.—466, Kalbadevi Road, Bombay 2.

D. Ram & Co.—Krishna Nivas, New Silk Bazar, P.O. Box 2376, Bombay 2.

Gore & Co.—Great Social Building, Sir Phirozshah Mehta Road, Fort.

Govias (India) Ltd.—Bombay Mutual Building, Hornby Road, Fort.

Haji Ahmed Husan & Co.—Topiwala Mansion, Mohamedally Road, Bombay 3.

Harilal Manilal & Co.—346, Kalbadevi Road, Bombay 2.

Hassaram, K., & Co.—New Silk Bazar, Kalbadevi Road.

Hazarat & Co.—Warden House, Sir Phirozshah Mehta Road, Fort.

Himatlal Manilal & Sons.—346, Kalbadevi Road, Bombay 2.

Hindustan Export & Import Corpn. Ltd.—Albert Building, Hornby Road, Fort.

Hoosein, M. A., & Bros.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort.

India Textile Agencies.—Noble Chambers, Parsi Bazar Street, Fort.

Italindia Cotton Co., Ltd. (Estd. 1922).—Indian Globe Chambers, Fort Street, Fort, Bombay.

Jassawala & Co., R. M.—105, Apollo House, Apollo Street, Fort.

**JAYANT TRADING CO.—Sir Vithaldas Chambers, Apollo Street, Fort. Exporters & Importers and Cotton Merchants. Phone: 253018. Grams: "BEACHWAY."**

Jesangial V. Shah.—Dwarkesh Gully, 1st Floor, Mulji Jetha Market, Bombay 2.

Kapadia & Co.—19. Sir Phirozshah Mehta Road, Fort, Bombay.

Kapadia Trading Co.—Botawalla Building, New Silk Bazar, Kalbadevi Road.

**KESHAVLAL TALAKCHAND (PRIVATE) LTD.—India House, Opp. G.P.O., Fort, Bombay 1. Phone: 262934. Grams: "CHANDRODAY." Branches at Ahmedabad, Sholapur, Coimbatore and Madras.**

Kimatrai & Co., G.—New Silk Bazar, Bomanji Master Road, Bombay 2.

Kishinchand Chellaram.—Guzder House, Dhobi Talao.

Kotak & Co.—Navsari Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

Kotecha & Co.—Commissariat Building, 231, Hornby Road, Fort.

K. Metharam.—491-3, Kalbadevi Road.

Mansukhlal Kantilal & Co.—Mulji Jetha Building, 185, Princess Street, Bombay 2.

Mata Lachhmi Company.—Husseni Chambers, Nanabhai Lane, Fort.

**NAKIMPEX TRADERS.—24, Veer Nariman Road, Bombay 1. Phone: 252906. Grams: "NAKIMPEX".**

Narandas Rajaram & Co., Ltd.—Navsari Chambers, Outram Road, Fort.

Patell, P. R., & Co., Ltd.—Mherwan Building, Sir Phirozshah Mehta Road, Fort.

Podar Trading Co., Ltd.—Podar Chambers, Parsi Bazar Street, Fort.

Poonjiajee J. M. Jehanjir, J. P.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort, Bombay.

Premji Haridas & Co.—Bhanushali Chambers, Argyle Road, Bombay 9.

Ramdas Khimji Bros.—Warden House, Sir Phirozshah Mehta Road, Fort.

Ramjee Samjee Virani (India) Ltd.—185, Bazargate Street, Fort.

Ramchand Ambiram.—Above Govind Chowk, M. J. Market, Bombay 2.

Rowe & Rowe.—381, Hornby Road, Fort.

Seabee Export Import Co.—9, Waudby Road, Fort. Phone: 34678.

Shree Krishna Trading Co., Ltd.—11, Alli Chambers, Medows Street, Fort.

Steel Brothers & Co., Ltd.—Allahabad Bank Building, Apollo Street, Fort.

**SUDAN TRADING CO.—Dhan-Nur, Sir Phirozshah Mehta Road, Bombay 1. Phones: Office: 262788; Res.: 62089. Grams: "VANSOBHA."**

Tarachand Parsram.—Court House, Carnac Road, Bombay 2.

Tavaria Brothers.—Dhan-Nur, Sir Phirozshah Mehta Road, Fort.

Trading Co., L. R.—Navsari Chambers, opp. Lloyds Bank, Fort.

**TRANS-UNION COMMERCIAL CORPORATION PRIVATE LTD.—Prospect Chambers Annexe, 319, Dr. Dadabhai Naoroji Road, Fort, Bombay. Grams: "TRANSMETER." Phone: 251610.**

Tulsidas V. Patel.—Morarji Goculdas Market, Kalbadevi Road, Bombay 2.

T. Vrajlal & Co.—405, Kalbadevi Road, Bombay 2.

Utoomal & Assudamal Co.—Bombay Mutual Annexe, Gunbow Street, Fort.

Vaswani (India) Ltd.—496, Kalbadevi Road, Bombay 2.

Windmere (India) Ltd.—Sir Vithaldas Chambers, 16, Apollo Street, Bombay.

Yacoob Ahmed Brothers (Estd. 1895).—Topiwalla Mansion, Mohamedali Road.

## COTTON PIECEGOODS IMPORTERS

Allied Exporters.—Kumud House, 267, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

Arthur Import Export Co.—166, Hornby Road, Fort, Bombay.

Kapadia & Co.—19, Sir Phirozshah Mehta Road, Bombay 1.

Mahendralal, B.—Muljee Jetha Market, Dwarkesh Gully, Bombay 2. Cotton, Woollen and Art Silk and Piece-goods Merchants and Importers.

Windmere (India) Ltd.—Sir Vithaldas Chambers, 16, Apollo Street, Bombay.

## COTTON AND YARN MERCHANTS

Amersey & Sons.—Feltham House, Ballard Estate.

Askay & Co. Ltd.—Great Social Building, Sir Phirozshah Mehta Road, Fort, Bombay.

Associated Services, Ltd.—Alli Chambers, Medows Street, Fort.

Bhaidas Cursondas & Co.—Sir Vithaldas Chambers, 16, Apollo Street, Fort.

Bhaidas Mawji & Co., Ltd.—Neptune Building, 166, Hornby Road, Fort.

Birla Brothers Private Ltd.—Branch Office: Industry House, 159, Churchgate Reclamation, Bombay 1.

Bombay Co., Ltd.—9, Wallace Street, Fort.

Bombay Import & Export Agency.—Cama House, opp. Lloyds Bank, Hornby Road, Fort.

Breul & Co.—Taj Building, Hornby Road, Fort.

Champaklal R. Sheth.—Khetwadi 9th Lane, Bombay 4.

Chimanlal Mohanlal & Co.—Hanuman Building, Tamba Kanta, Pydhownie.

Chinubhai Madhowlal & Co.—Noble Chambers, Parsi Bazar Street, Fort.

Cotton Agents Private Ltd.—Industry House, 159, Churchgate Reclamation, Bombay 1.

Drennan & Co.—Neville House, Currimbhoy Road, Ballard Estate.

Finlay, James, & Co., Ltd.—Mahatma Gandhi Road, Fort.

Gill & Co.—E. D. Sassoon Building, Dougall Road, Ballard Estate.

Goculdass Dossa & Co.—55, Apollo Street, Fort.

Greaves Cotton Co., Ltd.—1, Forbes Street, Fort.

Haji Jiva Haji Khamisa & Co.—119-139, Tamba Kanta, Mumbadevi Road.

Hansraj Harji & Sons.—118, Kansara Chawl.

Hirji Nensey & Co.—Horniman Circle, Fort.

Jassawalla, R. M., & Co.—105, Apollo Street, Fort.

Jaybharat Yarn Trading Co.—77, Tamba Kanta, Bombay 3.

Kanji Shivji & Co.—Cotton Exchange, Sewree.

Khimji Visram & Sons.—Kitab Mahal, Hornby Road, Fort.

Kilachand Devchand & Co., Ltd.—45/47, Apollo Street, Fort.

Kishinchand Chellaram.—Guzdar House, Dhobi Talao.

Kooverjee V. Curumsey & Co.—Lentin Chambers, Dalal Street, Fort.

**KOTAK & CO.—Navsari Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay. Grams: "KOTAKANDCO." Phone Nos. 263331 (3 Lines).**

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Louis Dreyfus & Co.—Nicol Road, Ballard Estate.
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Motabhoy Gulabdas & Co.—Mubarak Manzil, 104, Apollo Street, Fort.
Nanji V. Dossa & Co.—Jan Mansion, Sir Phirozshah Mehta Road.
Patel Brothers.—Elphinstone Building, 10, Churchgate Street, Fort.
Patel Cotton Co., Ltd., The.—New Cotton Depot, Sewree.
Patuck Sons & Co.—Ismail Building, Hornby Road, Fort.
Pavri Sons & Co.—95-97, Bazargate Street, Fort.
Raghavji Kanji & Co.—116, New Chinch Bunder Road.
Ralli Brothers, Ltd.—21, Ravelin Street, Fort.
Ramkisandas Sagarmal.—Kalyan Bhuvan, 354, Kalbadevi Road.
Ratilal Dayabhai Shah.—Tambakanta, Pydhownie, Bombay 3.
Raw Cotton Co., Ltd.—111, Mahatma Gandhi Road, Fort, Bombay.
Robertson & Son, Edward T.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort.
Sankalchand G. Shah & Co.—Hanuman Building, Tamba Kanta.
Sapt Textile Products (India) Ltd.—J. K. Building, Dougall Road, Ballard Estate.
Sarabhai & Sons.—Prospect Chambers, Hornby Road, Fort.
Sarupchand Prithiraj & Co.—401, Cotton Exchange Building, Kalbadevi Road.
Sassoon, E. D., & Co., Ltd.—E. D. Sassoon Building, Dougall Road, Ballard Estate.
Sewaram Girdharilal.—354, Kalbadevi Road.
Shewakram & Sons, K.—Next to Kalbadevi Post Office, P. O. Box 2344, Bombay.
Spinner, E., & Co.—8, Tamarind Lane, Fort.
Suleman & Co., Ltd.—27, Kolsa Mohoila.
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Kotecha & Co.—Commissariat Building, 281, Hornby Road, Fort.
Premji Haridas & Co.—Bhanushali Chambers, Argyle Road, Bombay 9.

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Bawa Crockeries Ltd.—89, Mohamedali Road, Bombay.
Bombay Potteries & Tile Ltd.—Pipe Road, Kurla, Bombay.

**CRYSTAL HOUSE.—99C-D, Mohamedali Road, Bombay 3. Phone: 327030. Dealers in Glassware, Crockery, Enamelware, Kitchenware, Cutlery, Plasticware, Thermos Flask, Presentation Articles, etc.**

Currimbhoy L., & Co.—156, Chakla Street, Bombay 3.
Kanthawala, N., & Co.—77, Medows Street, Fort.
Matani Bros.—84, Mahomedally Road, Bombay 3.
Moosa Omer & Co.—Junction of Mahomedally Road & Carnac Road.
Saify Glass Palace.—Ebrahim Building, Mohamedally Road.
Salemahomed Padamsee & Co.—141, Chakla Street, Bombay 3.
Shivji, K. S., & Co.—144/146, Chakla Street, Bombay 3.

**S. R. DOSSA, & CO.—186, Sheriff Devji Street (Chakla), Bombay 3. Phones: 321548 (Office); 24591 (Residence). Dealers & Stockists of Crockery & Glassware.**

### CROWN CORKS MFRS.

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**BOMBAY MACHINE TOOLS & HARDWARE CORP.—103, Narayan Dhuru Street, Bombay 3. Phone: 322702. Grams: "WIREGRIP." Importers & Stockists of Crucibles, Engineering Small Tools, Electrodes and Electric Portable Drills, Grinders, etc.**

**BOMBAY TOOLS & HARDWARE MART.—123, Narayan Dhuru Street, Bombay 3. Grams: "BOTAPS." Phone: 327122.**

Choksi Brothers.—315, Sandhurst Road, Bombay 4.

**INDIAN CRUCIBLE CO., THE—Manufacturers of highly Refractory Graphite Crucibles and Accessories. Head Office: A/9/252, Sardar Vallabhbhai Patel Road, Bombay 4. Phone: 71538, Grams: "RUSTPROOF," Factory at 4, Ghodbunder Road, Malad. Phone: 691535.**

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**P. RATILAL & CO.—43, Dhanji Street, Moti Mahal, Bombay 3. Phone: 325980. Grams: "ETERNAL." Importers of "Morgan" English, 'Colisit' German, "Comet" Indian Crucibles.**

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**BOMBAY KIRYANA INDUSTRIES.—204, Samuel Street, Vadgadi, Bombay 3. Phone : 327466. Grams : "RAWDRUGS" (Bombay—Mandvi).**

**FRUIT FARM PRODUCTS CO.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort, Bombay-1. Phone : 262120.**

## CURIO DEALERS

Akbarally Ebrahimji Pharmacy & Department Store.—45/47, Veer Nariman Road, Fort, Bombay.
Carpets Palace.—Opp. Tajmahal Hotel, Merewether Road, Bombay 1.
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Grand Bazar.—25, Colaba Causeway, Bombay 1.
Hotchand Motumal.—331, Hornby Road, Fort.
Indian Art Museum (Regd.).—Carnac Bridge, Bombay 3.
Indian Arts Emporium.—Bombay Mutual Annexe, 2-C, Cawasji Patel Street, P.O. Box No. 1716, Fort, Bombay.
Kashmir Govt. Arts Emporium.—Sir P. M. Road, Bombay 1.
Maganlal N. Maniar.—63, 3rd Bhoiwada, Bombay 2.
M. Dialdas & Sons.—190, Princess Street.
Punsram, U. N.—Standard Building, 336, Hornby Road, Fort.
Salemahomed Padamsee & Co.—141, Chakla Street, Bombay 3.
Sharda Stores.—104-106, Swadeshi Market, Kalbadevi Road.

## CUTLERY MFRS. & MERCHANTS

Abdulkayum Esufally & Bros.—193, Abdul Rehman Street, Akbarally Ebrahimji.—38/C, Cowasji Patel Street, Fort, Bombay 1.
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Esmail Tarmohamed & Bros.—222, Cutlery Bazar.
Esoofally Rahimbhoy.—205, Cutlery Bazar, Bombay 3.
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Haji Ahmed Mohamed & Co.—219, Cutlery Bazar.
Hamir Jamal & Co.—Showroom : 14/16, Lohar Chawl, Bombay 2.
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Mahomadally Esoofbhoy Kaderbhoy Motiwalla.—88, Sarang Street, Bhusari Mohalla, Bombay 3.
Manseta, N., & Bros.—165, Lohar Chawl, Fort.
Mansukhlal Kantilal & Co.—185, Mulji Jetha Building, Princess Street.
Matani Bros.—84, Mohamedali Road, Bombay 3.
Mohamedally Abdullaly.—75-77, Bhusari Mohoila, Bombay 3.
Moosa Essa & Co.—Corner, Kalbadevi Road, 6, Maniar Building, Pydhownie Tram Junction, Bombay 3.
New India General Stores.—33, Medows Street, Fort, Bombay.
Punjab Metals.—20, Wadi Bunder Road, Mazagon, Bombay 10.
Salemahomed Padamsee & Co.—141, Chukla Street, Bombay 3.
Sanghani & Co.—178-80, Abdul Rehman Street.
S. G. Kothari & Co.—88-90, Abdul Rehman Street, Bombay 3.
Shaikh & Co.—94, Ali Umar Street, Bombay 3.
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Agarwal Traders.—Vasantwadi, Bombay 2.
Allied Exporters.—Kumud House, 267, Dr. Dadabhoy Naoroji Road, Fort, Bombay.
Allied Industries Producers.—Orient Hotel Building, opp. Crawford Market, Fort.
Ashok Overseas Trading Co. Ltd.—543, Kalbadevi Road, Bombay 2.
Bharat Commercial Co. of Lahore.—103/4, Medows Street, Bombay 1.
Bharat Cycle Co.—Bharucha Bldg., Princess Street, Bombay 2.
Bharat Cycle Importing Co.—Kalbadevi Road, Bombay 2.
Bharat Motor Co.—298, Vithalbhai Patel Road, Bombay.
Bombay & Calcutta Cycle Co.—413-G, Vasantwadi, Kalbadevi Road, Bombay 2.
Bombay Cycle & Motor Co.—451, Kalbadevi Road, Bombay 2.
Bombay Cycle Trading Co.—385, Kalbadevi Road, Bombay 2.
Bombay Electric & Cycle Co.—Bombay 2.
B. Parekh & Co.—H.O. : 383, Kalbadevi Road, Bombay.
Capital Cycle & Motor Co.—445-51, Kalbadevi Road, Bombay 2.
C. Raman & Co.—181, Princess Street, Bombay 2.
Cycle Trading Co.—425, Kalbadevi Road, Bombay 2.
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Mohanlal Motilal—Yusuf Building, Hornby Road, Bombay 1.
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**National Manufacturing Co.—105, Bazargate Street, Fort.**
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Nishat Trading Co.—461, Sandhurst Road, Bombay.
Oriental Import Export Co.—441, Kalbadevi Road, Bombay 2.
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Prem Brothers.—Kitab Mahal, 192, Hornby Road, Fort, Bombay.

**PREMIER RUBBER & CABLE INDUSTRIES.—Jamal Building, 211, Nagdevi Street, Bombay-3. Phone : 326551. Grams : "RUBBERGOODS." Manufacturers of "Premier" Cycle & Rickshaw Tyres.**

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Punjab Motor Co.—342-48, Vithalbhai Patel Road, Bombay.
Ranjan Cycle Importing Co.—445, Kalbadevi Road, Bombay 2.
Rapid Cycle & Motor Co., Ltd.—Kalbadevi Road, Bombay 2.
Royal Cycle & Motor Co.—Whiteaway Laidlaw Bldg., Hornby Road, Bombay 1.
Saurashtra Cycle Co.—Bombay 2.
Shah Cycle Importing Co.—Vasantwadi, Kalbadevi Road, Bombay 2.

**SHAH INDUSTRIES.—8, Ebrahim Mansion, 366/68, Kalbadevi Road, Bombay 2. Phone : 39038. Grams : "CYCLEBELL." Manufacturers of 'DIMOND' brand Cycles and Rickshaws, Spokes, Nipples, Washers and Steel Balls.**

Shah Trading Co. Ltd.—157-61, Princess Street, Bombay 2.
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Sorabji D. Daruwalla.—Round Building, Kalbadevi Road. Phone : 30348.
Standard Cycle Co.—429, Kalbadevi Road, Bombay 2.
S. S. Corporation.—Kerawala Bldg., Lohar Chawl, Bombay 2.
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Union Cycle Co.—Kalbadevi Road, Bombay 2.
Upper India Cycle & Motor Co.—New Hanuman Lane, Bombay 2.
Victory Cycle Trading Co. Ltd.—503, Kalbadevi Road, Bombay 2.
V. S. Brothers & Co. Ltd.—Bhangwadi, Kalbadevi Road, Bombay 2.

## CYCLES & MOTOR CYCLES

**GLOBE STORES CO. (Estd. 1896).—Sitaram Building, 1st Floor, Dadabhoy Naoroji Road, Bombay 1. Phone : 262502. Grams : "GLOSTOCO." Sole Agents for "MAICO" Motor Cycles & Scooters, "ULMA" Italian Accessories for Lambretta & Vespa Scooters. Manufacturers of side cars for Lambretta & Vespa Scooters in collaboration of Josef Steib (W. Germany). Stockists of Accessories, Spare Parts for Lambretta & Vespa Scooters.**

## DAIRY COMPANIES

Baker's Dairy Farm.—Rusikesh Bhuvan, Gell Street, Jacob Circle.

Champion Dairy Co. (Estd. 1903).—New Petit Mansion, Sleater Road, Grant Road, Bombay 7.

Clifton Dairy.—288, Frere Road, Fort, Bombay 1.

Empress of India Dairy Co.—180, Lamington Road.

Hiscocks, E., & Co.—"Win-Villa," 9, Clare Road, Byculla.

Indian Express Dairy.—49, Kapur Mansion, Hughes Road.

Infants & Public Milk Supply Co.—11, Calicut Street, Ballard Pier.

Palmer, A., & Co.—C-123, Cumballa Hill.

Parisian Dairy Co.—1, Tamarind Lane, Fort.

**PARSI DAIRY FARM.—Head Office : 261/63, Princess Street, Bombay 2. Phone: 23634. Branches : 1. Lalbaug; 2. Poibavdi; 3. Dadar. Dealers & Mfrs., Milk, Dairy Products & Sweetmeats.**

Rezashah Dairy Farm, The.—Dubash Building, Sleater Road, Grant Road.

Royal Hygiene Dairy Farm.—Gool Mansion, Wadia Street, Tardeo.

Sarosh Dairy Farm.—Chandavarkar Road, Borivli.

Shapur Dairy Farm.—Mount Road, Opp. P.O., Mazagaon.

Victor Supply Co.—Taher Mansion, Nepean Sea Road.

Wiltshire Dairy Farm.—"Win-Villa," 23, Clare Road, Byculla.

## DAIRY MACHINERY

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.—Wavell House, Graham Road, Ballard Estate, Bombay. Phone : 26-2711 (8 lines). Machine Works : Tank Road, Bombay 33 DD. Phone : 78544. Offices at Madras, Calcutta, New Delhi, Bangalore, Secunderabad & Lucknow.**

Imanes.—94, S. V. Road, Erla, P.O. Box 8002, Bombay 56. Tel. 571634. Grams : "BELLIBONE(SZ)". Springs and Forms out of Spring Wires and Strips for Your industry.

Raj-Der-Kar & Co.—Commissariat Building, Hornby Road, Fort. Phone : 27304.

## DAMP COURSING

**GLADSTONE LYALL & CO., LTD.—21, Lansdowne Road, Apollo Bunder, Bombay 1. Phone : 212805 & 211241. Grams: "GLADSWILL." Bombay Manager : Cmdr. J. B. Simmons. Regd. Office : 4, Fairlie Place, Calcutta.**

## DEAF APPLIANCES

General Radio & Appliances Ltd.—Opera House, Bombay.

Modern Electric Corporation.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort.

Westrex Co., India.—Metro House, Mahatma Gandhi Road, Bombay 1.

## DEBT COLLECTORS

**INDO-FOREIGN TRADE SERVICE.—505, Kalbadevi Road, 2nd Floor, opp. Edward Cinema, Bombay 2. Phone : 22848.**

## DECORATORS (INTERIOR)

Amzel Private Ltd.—Lotus House, Marine Lines, Bombay 1.

**BHARAT FURNITURE WORKS (ESTD. 1921).—Swadeshi Mills Estate, 78, Girgaum, Bombay 4. Phone: 39449. Manufacturers and Suppliers of household Office Fittings, Furniture, etc. Specialists in designing, Furnishing & Interior Decorating in the latest styles of Office, Commercial and other special purposes.**

Cooper & Co.—53, Abdul Rehman Street.

**DAVAR, N., & CO.—Syndicate Bank Building, Sir Phirozshah Mehta Road, Fort, Bombay. Phone : 26-1680. Interior Decorators and Painting Contractors. Showroom : Commerce Centre, Tardeo, Bombay-7 (W.B.).**

**INTERFURN.—Interior Decorators and Furniture Manufacturers, 361, Dr. Dadabhai Naoroji Road, Fort, Bombay 1. Phone : 253222.**

Jayanand Khira & Co., Ltd.—Kothare Building, Sandhurst Bridge.

Kalabhai Karson & Sons.—256, Sandhurst Road.

Kamdar Ltd.—Industrial Building, Opp. Churchgate Station, Fort.

**KANTILAL KARIA & CO.—Furnishers & Interior Decorators, Chowpatty View, Chowpatty, Bombay 7. Phone : 20983.**

**KABE ARTS.—36B, Sleater Road, Bombay-7. Always at your service for exhibition Pavilions, Stalls, Display Decoration, Animating Publicity, Working Models and Tableaus & Floats etc. Phone : 42875.**

**KHANNA & COMPANY, S.—Mustafa Building, Sir Phirozshah Mehta Road, Fort, Bombay. Grams : "CRETECO," Bombay. Phone : 251162. Specialist in Coloured Cement Rendering, Artificial Malad Stone facing, Terrazzo Flooring & Victorite plastering.**

**LA "DECORS" (INDIA) 1958.—Dahanukar Building, 480, Kalbadevi Road, Bombay 2. Phone : 39936. Interior Decorators & Furnishers for Office, Residence, etc.**

McKenzies, Ltd.—Interior Decorators, Sewri.

**MHATRE PATIL & CO., B.—Bombay Mutual Building, Corner of Dr. Dadabhoy Naoroji Road and Sir Phirozshah Mehta Road, Fort. Phone : 263570.**

Mistry Ebrahim Suleman & Co.—116, Esmail Curtay Road, Bombay 3.

Modern Furniture Works.—141, 3rd Cross Road, Shivaji Park Road, Bombay 28.

**NEW COLOUR SCHEME.—Painters & Decorators, 18, Commercial Chambers, Masjid Bunder Road, Bombay 3. Specialists in Oil Paintings, Distempering, White Washing, Spray Painting, etc. Phone : 324668 and 534739.**

New Era Paint Works.—Opp. Byculla Station, Byculla.

**NOORMOHAMEDS.—House of Fine Furniture—(Estd. 1885). 109/A-111/B, Mohamedally Road, Bombay 3. Phone: 325124. Grams: "NOORDECOR." Furnishers—Cabinet Makers & Interior Decorators, Importers & Exporters. Branch at Mahim Causeway.**

**Premier Furnishing & Decorating Ltd.—7, Brabourne Stadium, Churchgate Street Extension, Fort.**

Roberts, John & Co., Ltd.—Jorawar Bhuwan, 93/B, Queen's Road.

**S. MANCHERSHA & CO.—Senior Certified Painting & Decorating Contractors of Messrs. Jenson & Nicholson (India) Ltd., Navsari Chambers, Outram Road, Fort, Bombay 1. Phone : 262373.**

S. More & Co.—34/38, Hamam Street, Fort, Bombay 1. Phone : 252019. Gram : "PACKWELL." (FT.) Decorators, Painting Contractors, Metal Letters and Plaques, Architectural Models, Sculptural Murals and Exhibition Stalls.

Simplex Art Floorings Ltd.—"La-Citadelle," 32, Queen's Road.

**WAKEFIELD PAINTS PRIVATE LIMITED.—"Dhan-Nur," 15/16, Sir Phirozshah Mehta Road, Fort, Bombay 1 (India). Grams : "WAKEPAINT". Phone : 264061.**

## DECORATORS & CONTRACTORS (MANDAP, FURNITURE, CARPETS, ETC.)

**PAVRI & SONS, FRAMROZ HORMUSJI.—Pavri House, 20, Gunbow Street, Fort, Bombay. Phones : 264158 & 262539. Government & Municipal Contractors, Shamianas, Mandap, Stands, Exhibitions, Electric Light & Fans, Suppliers on hire of glassware, Furniture, Crockery & Decorations of all Sorts.**

**VIJAY DECORATORS.—156, Chakla Street, Bombay 3. Phone : 321660. Mandap Decorators & Contractors. Hire of Sofas, Chairs, Crockery, etc.**

## DENTAL GOODS

**ASSOCIATED DENTAL & MEDICAL SUPPLY CO.—26, Yusuf Bldg., Mahatma Gandhi Road, Opp. Flora Fountain, Fort, Bombay. Wholesale & Retail dealers in Dental and Medical goods. Manufacturers of "PRESTIGE" Brand Dental Equipment, i.e. Chairs Units, Operating Stools, Pedestal Spittoons, etc. Phone : 251495. Grams : "SODAWATER."**

**BHARAT DENTAL SUPPLY CO.—Standard Building, 346, Dr. Dadabhai Naoroji Road, Fort, Bombay 1. Phone : 252775. Direct Importers of Dental equipment, Artificial Teeth, Plaster of Paris, etc.**

Dental Corporation of India.—121, Esplanade Road, Fort.

J. L. Morrison Son & Jones (India) Ltd.—Contractor Bldg., Nicol Road, Ballard Estate, Bombay 1.

**KOTHARI TRADING CORPORATION.—Evans Fraser Annexe, 38, Police Court Lane, Bombay 1. Phone : 265174. Wholesale and Retail Distributors for every kind of Dental and Surgical Goods.**

**DR. K. PATEL & SONS.—Eruchshaw Building, 249, Dadabhoy Naoroji Road, Fort, Bombay 1—(BR). Phone : 263762. Direct Importers of Dental Equipment & Sundries.**

Mazda Dental Depot.—Navsari Chambers, Outram Road, opp. Lloyds Bank, Fort.

Rawal Shankerlal & Co.—Esplanade High School Building, 1st Floor, 160, Hornby Road, Fort, Bombay 1.

**TODI & CO.—Vishwa Mahal, C Road, Backbay Reclamation, Bombay 1. Phone: 244061. Grams: "OFFER." Manufacturers of Driving Cotton Ropes, Bandings, Cordages, Twines, Spindle Tapes, Webbings, Cotton Tapes, Wicks, Tabular and Bundle Bandings, Braidings and Art Silk Tapes, Nylon Radio Dial Cord, Dawn Nylon Dental Engine Cord and Braiding Tinner Copper.**

## DEXTRINES

**C. M. VORA & CO.—160, Dr. Dadabhoy Naoroji Road, Fort, Bombay. Phone: 261609. Importers and Stockists of Chemicals for all Industries.**

## DIALS

**EXCEL PROCESS PVT. LTD.—Leading Manufacturers of Metal Labels, Advertising Novelties, Radio & Clock Dials—Scales, Badges—Tokens—Charts, Conversion Discs & Tables in Anodised Aluminium, Brass, Stainless Steel & Plastic. Office: 117, Andheri-Kurla Road, Andheri, Bombay-69. Phone: 572743 & 573327.**

## DIAMOND DRESSING TOOLS

**BHARAT ENGINEERING STORES.—113, Nagdevi Street, Bombay 3. Grams: "UNIONTOOLS." Phone: 323193.**

Jairamdas & Sons.—163, Narain Dhuru Street, Bombay 3.

William Jacks & Co., Ltd.—Bharat House, Apollo Street, Fort, Bombay.

**HEMANT TOOLS TRADING CO.—33, Bibijan Street, (Barbhai Mohalla), Bombay-3. Grams: "LACING." Phone: 321174. Importers & Stockists of Chain Pulley Blocks, Garage Tools, Fibre Sheets, Rods, etc.**

## DIAMOND, PRECIOUS STONE AND PEARL MERCHANTS

Abdul Kayum Ebrahim Jhaveri & Co. (Estd. 1902).—Mama Chembers, 93, Cumballa Hill Road, Bombay 26.

**Anandlal Becharlal & Co.—177-119, Sheik Memon Street.**

**Bechardas Harichand & Co.—Poonamchand House, Kharakuva, Marwari Bazar.**

Bhogilal Leherchand.—134-136, Zaveri Bazar, Bombay 2.

**Bhojwani Brothers.—24, Munira Lodge, Colaba Causeway, Bombay 1.**

Chimanlal Manchand & Co.—Queen's Road, Bombay 4.

**CHUNDULAL T. SHAH.—59, L. K. Market Bldg., 156, Zaveri Bazar, Bombay 2. Phone: 327065.**

**CULTURE PEARLS DEALING CO.—Madrasi Building, 2nd Floor, 148, Mumbadevi Road, Bombay 2. Phone: 321658. Wholesale and Retail dealers in (Real) Culture Pearls, ornaments and other Jewels.**

**DAHYALAL MAKANJEE ZAVERI.—Precious Stones, Diamonds, Pearls and manufacturing Jewellers; also authorised valuers under the Estate Duty Act. 98, Sheikh Memon Street, Bombay 2. Phone: 23218. Grams: "JAYKUBER."**

Dalchharam Nanchand & Co.—7, Dhanji Street.

Dhamanmal Isardas.—Mulji Sicca Building, China Baug, Vithalbhai Patel Road.

Fulchand Kasturchand.—163-165, Sheikh Memon Street.

Gazdar Ltd. (Jewellers).—Taj Mahal Hotel, Colaba.

Godedji Dosji & Co.—10, Dhanji Street.

Harilal Lalji & Co.—149, Sheikh Memon Street, Bombay 2.

Hemchand Mohanlal & Co.—Devki Bhuvan, Dhanji Street, Bombay 3.

Jhaveri Bros. & Co.—Medows Street, Fort.

**Keshavlal Dalpatbhai Zaveri.—Mumbadevi, Zaveri Bazar, Bombay 2.**

K. Wadia & Co.—324, Grant Road, Bombay 7.

Lallubhai Gulabchand Jhaveri.—149, Shroff Bazar.

**MAGANBHAI & LALLUBHAI.—Jewellers, Direct Importers and Exporters of Real and Cultured Pearls, Precious & Semi-Precious Stones, Rough and Cut. 184-186, Sheikh Memon Street, Bombay 2. Phones: 23785. Grams: "MOTI-BUTTON."**

Nagindas Virchand Jhaveri.—44-46, Dhanji Street, Bombay 3.

Narotamdas Bhau (Estd. 1864).—Lamington Road, Bombay.

New Pearls Trading Agency.—Patel Building, 76-A, Sheikh Memon Street, Zaveri Bazar.

Pearls, Gems & General Agency Ltd.—General Assurance Building, Hornby Road, Fort.

**PITAMBERDASS MOHANLAL & SONS (ESTD. 1880).—4, Mandlik Road, Causeway, Opp. Colaba Police Station, Bombay 1. Phone: 212276. Grams: "GEMLEADER." Dealers and Exporters in all kinds of cut & rough Precious & Semi-Precious Stone.**

Punemchand Ghasilal.—126-128, Javeri Bazar.

Pursram, R. V.—Manufacturing Jewellers, Diamond and Pearl Merchants, 62, Medows Street, Fort. Phone: 24645. Grams: "FAIRVALUE."

Ramesh Jewellers.—Jai Hind Building No. 3-A, Bhuleshwar, Bombay 2.

Roopchand Jewellers.—Sandhurst Bridge, Bombay 4.

Ruby & Co.—Cutch Castle, opp. Opera House.

Surajmal Lallubhai & Co.—859, Kalbadevi Road.

## DIE CASTING

**NANNY ENTERPRISES.—For Casting and Die-Castings in Aluminium. Brass C-I, Alloys. Nawab Building, 327, Dr. Dadabhai Naoroji Road, Bombay-1. Phone: 251793, 38406 & 78894. Grams: "GRAPEJUICE."**

## DIESEL ENGINES & SPARES

**AGRA ENGINEERING CO.—40, Bank Street, Fort, Bombay 1. Phone: Office: 256541; Res.: 532906. Grams: "RAJSPARES." Manufacturers of Diesel Engines Spares—"ARROW" & "DISPA" Brand Liners & Pistons and "SUPERMAN" Brand Piston Rings.**

**ARJANSINGH KHEMCHAND.—1st Floor, 118, Commerce House, Medows Street, Bombay 1. Phone: 253752.**

**APOLLO INDUSTRIAL CORPORATION.—Warden House, Basement, Sir Phirozeshah Mehta Road, Fort, Bombay 1. Manufacturers: Diesel Engine Spares, Fuel Injection Tubings, Fuel Oil Filters and M. S. Tubes in various gauges.**

Crescent Agencies (Private) Ltd.—Beaumon Chambers, 27/33, Medows Street, Fort, Bombay.

**DEELIPKUMAR & CO.—313, Commerce House, 3rd Floor, Medows Street, Bombay 1. Branch: Madras. Grams: "HITUADHIYA". Phone: 254996.**

**EASTERN INDUSTRIAL SYNDICATE.—Seksaria Chambers, 135/37, Medows Street, Fort, Bombay 1. Phones: 251561-2. Grams: "EXPLAIN."**

**ECHJAY INDUSTRIES PRIVATE LTD.—Office & Factory: Kanjur Village Road, Bhandup, Bombay-78. Phone: 581211 & 581678. Grams: "ECHJAY," Bhandup. Manufacturers of Accessories & Equipments for Machine Tools, General Steel Forgings including forged Flanges, Diesel & Automobile Engine forged Parts, Jigs & Fixtures, Hand Tools: Hand Hammers, Chisels & Punches, Spanners, Pliers (forged), Press Tools, Dies & Punches.**

**ELVE BUSINESS CONTACTS CORPORATION.—Elve Chamber, Green Street, Fort, Bombay 1. Phones: 252088 & 254655. Grams: "ELBUSCON." Importers and Dealers in Spare Parts for Diesel Engines, Tractors and Automobiles.**

**EVEREST ENGINEERING CORPORATION.—12, Hornby View Building, Gunbow Street, Fort, Bombay 1. Phone: 261691. Grams: "EXPOCORP." Specialists in Diesel Engines & Spares, Fuel Injection Equipment, Electric Motors, Small Engineering Tools, Warkshops Machinery, Graphite Crucibles, Ball & Roller Bearings, Steel Shafting, Circlips, etc. (Allied concern of Messrs. Khimandas Jagumal & Sons).**

Everest Engineering Corporation.—12, Hornby View Building, Gunbow Street, Fort, Bombay.

George Oakes Private Ltd.—Swadeshi Mills Compound, New Queen's Road, Bombay 4. Phone: 27051-6.

**HARRY'S TRADING CO.—Spares for Industrial Engines, "Fuel Injection Equipments," "Bryce", "Bosch", "Cav", and "FIL" Specially for Diesel and Tractor Engines' Electric Motors & Allied Machinery. 501A, Commerce House, Medows Street, Bombay-1. Phone: 256605 & 535023 (Res.).**

**HINDUSTAN ENGINEERING CO.—(Machinery Dept.), "ABAN HOUSE", 25/31, Ropewalk Street, Fort, Bombay 1. Phone: 253583. Grams: "VIDOOALL." Sole Agents: "New Hindustan" Diesel Engines 5/6 HP to 50/55 HP.**

**HONESTY TRADING CORPORATION.—Beaumon Chambers, Medows Street, Fort. Phones: 253534 and 252018. Grams: "HOTRACO." Sole Agents for Spare Parts for Hercules Diesel Engines fitted to Cletrae Tractors and other machineries.**

**IMANES.—94, S.V. Road, Erla, P.O. Box 8002, Bombay 56. Phone: 571634. Grams: "BELLIBONE (SZ)." For Springs & Forms out of Wire and strips for your Industry.**

Khimandas Jagumal & Sons.—12, Hornby View Building, Gunbow Street, Fort, Bombay 1.

Kumar Commercial Co.—Nadirshaw Sukhia Street, Opp. Cawasji Patel Street, G.P.O. Box No. 1525, Bombay 1.

**MACHINERY SALES CORPORATION.—5, Tamarind, House, Tamarind Lane, Fort, Bombay 1. Grams: "ENGESPARES." Phone: 254480. Stockists of Imported Spare Parts for Diesel Engines, Tractors, Road-Rollers & Spares.**

**NAREN KUMAR MACHINERY CO.**—9, Oak Lane, Off Medows Street, Fort, Bombay. Phone: 251868. Grams: "NEW-KUMAR," Bombay. Importers of Diesel Engine Spares & Stockists of "Vera" Engine Valves.

**SIGIL (INDIA) SERVICES PRIVATE LTD.**—Ismail Building, 381, Dr. Dadabhoy Naoroji Road, P.O. Box 952, Bombay-1. Phone: 253688 & 254531. Grams: "SIGIL." Branch: P.O. Box 1961, Madras-1. Manufacturers, Exporters and Distributors of Diesel Engines, Diesel Pumping Sets and Component Parts thereof, also automobile parts.

**SUPREME INDUSTRIAL WORKS.**—196/K, Gaiwadi, Girgaum, Bombay 4. Manufacturers of Gears and Specialists in all kinds of Worms and Worm Wheels.

**T. M. TYABJI & BROTHERS.**—Hamam House, 32/38, Hamam Street, Fort. Diesel Engine Spares, Hardware, Refrigeration and Electrical Specialists. Grams: "TRUEWAY." Phone: 254285.

**UNITED ENGINEERS.**—104, Apollo Street, Fort. Phone: 253204. Grams: "POWEREQUIP." Importers of Spare Parts for all types of popular Diesel Engines.

Voltas Ltd.—19, Graham Road, Ballard Estate, Bombay 1.

## DIESEL ENGINES MANUFACTURERS, IMPORTERS & DEALERS

Batliboi & Company Private Limited.—Regd. Office: Forbes Street, P.O. Box 190A, Fort, Bombay 1 (BR). Phones: 255451 (6 lines). Grams: "BATLIBOICO." Telex: 284. City Branch: Batliboi House, 59/61, Nagdevi Cross Lane, Bombay-3 (BR). Branches: Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate: Bangalore 2. Resident Representatives: ERNAKULAM, RANCHI.

**BHARAT ELECTRIC AND ENGINEERING CORPORATION.**—Free Press Building, Ground Floor, 21, Dalal Street, Fort, Bombay. Phone: 255374. Grams: "GODGRACE."

**BOMBAY MERCANTILE CORPORATION.**—211-217, Nagdevi Street, Bombay 3. Phone: 325982. Grams: "CORPBOMBER". Sole Agents for "ROOPA" Diesel Engines.

British Engineering Co.—103, Apollo Street, Fort.

**CHOONILAL MOHANLAL & CO.**—Shop No. 54, Kika Street (Gulalwadi), Bombay 4. Stockists of Flexible Metallic Tubes used for Perkins 6 and Leyland Comet, Diesel Engines and Oil Refineries. Phone: 333904 & 335886 (Res.).

Cooper Engineering Ltd.—Construction House, Ballard Estate, Bombay 1.

Drewet Chowna & Co.—Lentin Chambers, Medows Street, Fort.

Eastern Machinery and Trading Co.—Imperial Chambers, Wilson Road, Ballard Estate, Fort.

Greaves Cotton & Co., Ltd.—Forbes Street, Bombay 1.

**H.T.C. DIESEL ENGINES PRIVATE LTD.**—Beaumon Chambers, Medows Street, Fort. Phones: 253534 and 252018. Grams: "HOTRACO." Manufacturers of H.T.C. Diesel Engines.

Indian Commercial Co., Ltd.—45-47, Apollo Street, Fort, Bombay.

**JAYEMS BEECHEY CO. PRIVATE LTD.**—Warden House, Sir Phirozshah Mehta Road, Bombay 1. Phone: 256251. Grams: "JAYEMS." Works: Near Bhandup Station. Manufacturers of "NITU", "Russel Newberry" and "Clayes" Diesel Engines.

**INDO UNIVERSAL ENGINEERING CO., PRIVATE LTD.**—"Shantiniketan," 95-A, Marine Drive, Bombay 2. Post Box 1615, Bombay 1. Phones: 24-1235. Grams: "NEW-POWER." Agents: General Motors Detroit Diesel Industrial Engines, Diesel Marine Engines, Diesel Generating Sets, related spare Parts and Accessories—Enfield Marine & Industrial Diesel Engines & Spare Parts, Service after Sale.

Investa Machine Tools and Engineering Co., Ltd.—Ewart House, Bruce Street, Bombay 1.

Jhala, R. T., & Co.—9, Forbes Street, Fort, Bombay.

Khimandas Jagumal & Sons (Estd. 1910), Sind.—12, Hornby View Building, Gunbow Street, Fort.

Killick, Nixon & Co. Private Ltd.—Killick House, Home Street, Bombay 1.

Mahindra & Mahindra Ltd.—Gateway Building, Apollo Street, Fort.

**MANOHAR BROTHERS.**—4, Commerce House, Medows Street, Fort, Bombay. Phone: 254496. Grams: "LOCOMOTIVE". Branch: 37, Errabalu Chetty Street, Madras. Phone: 23274.

Marshall Sons & Co. (India) Ltd.—Marshall Bldg., Ballard Road, Bombay 1.

Paramount Industrial Stores.—15, Ropewalk Street, Bombay 1.

Power Machines Corporation.—31, Forbes Street, Fort, Bombay 1.

Protos Engineering Co., Ltd.—173, Jamshedji Tata Road, Churchgate, Bombay.

**RUSTON & HORNSBY (INDIA) LTD.**—1, Forbes Street, Bombay 1. Phone: 259171. Grams: "RUSTONIND." Manufacturers of Horizontal Diesel Engines, Vertical Water-Cooled and Air-Cooled Diesel Engines, Diesel Alternator Sets' Propellers and Sterngear, Deepwell Turbine Pumps and Centrifugal Pumps. Works: Chinchwad, Poona-19. Phone: 88231. Grams: "RUSTONIND." Chinchwad.

**SINGH & SINGH.**—Victoria Mills Estate, Gamdevi, Bombay 7. Phone: 75552. Grams: "BAKINGCO." Manufacturers of Gears, Cylinders, Liners and Spares for Cars and Diesel Engines. Specialists in Crankshaft grinding and Rolling upto 12 in. by 72 in. Branch at Shivaji Nagar, Poona 5. Phone: 57597.

Standard Spares & Machinery Co.—105, Apollo Street, Fort, Bombay.

William Jacks & Co. Ltd.—Hamilton House, Ballard Estate, Bombay 1.

## DIPENTINE & PINE OIL

**PRABHAT GENERAL AGENCIES.**—195, Kalbadevi Road, Bombay 2. Phone: 20359. Grams: "EXPANSION."

## DISC SPRINGS

**B. CHOWDHURY & CO.**—Indian Globe Chambers, Fort Street, Bombay 1. Phone: 26-3479. Grams: "BISUKHI." Sole Agents for: Adolf Schnorr, West Germany.

## DISINFECTANTS AND INSECTICIDES MFRS.

Akbarally Ebrahimji Pharmacy & Department Store.—45/47, Veer Nariman Road, Fort, Bombay.

**ALL INDIA MEDICAL CORPORATION.**—185, Princess Street, Bombay 2. Phone: 39390 (Office); 535178 (Resi.).

Amritlal & Co. Private Ltd.—Sprott Road, Ballard Estate, Fort.

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Fort.

Bharat Pulverising Mills Private Ltd.—38/A, Sayani Road, Parel, Bombay 28.

**BOMBAY CHEMICALS PRIVATE LTD.**—Maneckji Wadia Bldg., 129, Mahatma Gandhi Road, Fort, Bombay. Manufacturers of Pyrethrum extracts, Pip Insecticides & Disinfectants, Agricultural Insecticides.

Burmah-Shell Oil Storage & Distributing Co. of India Ltd.—Ballard Estate, Bombay 1.

Chimanlal Patel & Co.—174, Hornby Road, Fort.

Chlorogen Co.—Princess Street, Bombay 2.

Din Products Ltd.—9-A, Ash Lane, Off Medows Street, Fort, Bombay 1.

**FLINTROCK PRODUCTS PRIVATE LTD.**—Belvedere Road, Mazagon, Bombay 10. Mfrs. & Suppliers of Pesticides Formulations Based on Active Ingredients such as BHC, DDT, Chlordane, Toxaphene, Aldrin, Dieldrin, Endrin, Lindane, etc. Phone: Nos. 70304 & 321238.

Hardcastle, Waud & Co. Private Ltd.—Alice Building, Hornby Road, Fort.

Holmes Laboratory.—Upper Forjett Hill, Bombay 26.

Industrial Minerals & Chemical Co.—125, Narayan Dhuru Street, Bombay 3.

Jones, J. D., & Co. (Bombay) Ltd.—Rustom Bldg., Veer Nariman Road, Bombay 1.

Latham Abercrombie & Co. Private Ltd.—Forbes Building, Home Street, Fort.

Pest Control (India) Private Ltd.—36, Yusuf Building, Mahatma Gandhi Road, Fort, Bombay 1.

Sardesai Brothers Private Ltd.,—14, Murzban Road, Fort, Bombay.

**SHAH PRATAP & CO.**—64, Old Custom House, Road, Fort, Bombay. Phones: 255615 and 255616. Grams: "VINPRA."

Spencer & Co., Ltd.—Forjett Street, Bombay 26.

**STANDARD CHEMICAL & PHARMACEUTICAL CO.**—Atlas Mills, Reay Road, Bombay 10. Phone: 73542. Grams: "GERMOL." Manufacturers of disinfectant fluids, Household Insecticides and Pyrethrum Extract.

**TATA FISON INDUSTRIES LIMITED.**—(*Registered Office*) Ralli House, 21, Ravelin Street, Bombay 1. (*Head Office*): Union Bank Building, Dalal Street, Bombay 1. Grams: "TATFISON", Bombay. Phones: Head Office: 256284. Spraying Service Station: 268221. Manufacturers of Pest Control Products and Ethical Pharmaceuticals. (Sole Distributors in India): Pesticides: Rallis India Limited. Pharmaceuticals: Martin & Harris (India) Private Limited.

**VELU & CO. (PVT.) LTD., P. K.**—P.O. Box No. 514, 111, Mahatma Gandhi Road, Bombay 1. Phones: 253141 & 641326. Grams: "LACQUER."

**VERMIT CO. (INDIA).**—107, Wodehouse Road, Bombay 5. Phone No. 211723. Manufacturers and Importers of Insecticides, Disinfectants, Detergents and Polishes.

## DOMESTIC ELECTRIC APPLIANCES

**BAJAJ ELECTRICALS LTD.**—45-47, Veer Nariman Road, Bombay 1. Electrical Engineers, Manufacturers and Contractors. Phone: 25-3841. Grams: "SOFTLITE." Branches at Delhi, Madras, Kanpur, Patna, Indore, Wardha, Gauhati, Hyderabad, Jaipur, Jullunder & Bangalore.

**KANTILAL KESHAVLAL & CO.**—80-82, Vithalwadi, Bombay 2. Phones: 38200/22043. Grams: "SPEREHOT." Storage type Water Heaters, Laundry Irons, Immersion Heaters, Domestic & Industrial Heating Appliances. Agents: Batliboi & Co. at Bombay, Calcutta, Madras, Delhi, Kanpur & Coimbatore.

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Shri Laxmi Cloth Trading Co.—135, Zaveri Bazar, Bombay 2.

Usha Dyeing & Printing Works.—Sir Shapurji Bharucha's Bungalow, Khetwadi 12th Lane, Bombay No. 4.

Vasudev Dyeing Works.—316, Dr. Cowasji Hormusji Street, opp. Sonapur Church, New Marine Lines Railway Station, Bombay 2.

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Asiatic Dyestuffs Agency.—306, Samuel Street, Vadgadi, Bombay 3.

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**Kumar Colour Trading Co.—79, D'Souza Street. Bombay 3.**

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**HERCULES HOISTS LIMITED.—Manufacturers of "INDEF" brand chain Pulley Blocks and Electric Hoists. Bombay-Agra Road, Bombay 78.**

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**ANIL ELECTRIC CO.—125, Vithalwadi, Bombay 2. Fans of all kinds available on hire basis. Electrical installation and repairs to fans and other appliances undertaken. Phone: 39921.**

## ELECTRIC FLAME & EXPLOSION PROOF MATERIALS

**ASIATIC ELECTRIC CORPORATION.—Beaumon Chambers, Ground Floor, Medows Street, Bombay 1. Phone: 251761. Grams: "DHOOTBIJE." Leading Importers & Stockists of Flame & Explosion Proof Installation Material. Sole Agents for India: HEIM ELECTRIC, Berlin, C2, East Germany.**

## ELECTRIC FURNACES

**CRAFTSMAN ELECTRONIC CORPORATION PRIVATE LTD.—Sethna Hall, Nesbit Road, Bombay 10. Grams: "CRAFTONIC," Phone: 73346. Manufacturers of all types of Industrial and Laboratory Furnaces.**

Gordhandas Desai Private Ltd.—Kermani Bldg., Sir P. M. Road, Bombay 1.

Himco (India) Private Ltd.—Kurla Road, Andheri, Bombay 41.

Pioneer Equipment Co., Private Ltd.—139, Medows Street, Bombay 1.

Thos. W. Ward (India) Ltd.—Marshall Building, Ballard Road, Ballard Estate, Fort.
Voltas Ltd.—19, Graham Road, Ballard Estate.

**HINDUSTAN ELECTRIC CO., LTD., THE.—(In Collaboration with Brown, Boveri & Co. Ltd., Baden, Switzerland) Importers and Manufacturers of Induction Arc Melting Furnaces. Sales & Engineering Division: Mahatma Gandhi Memorial Building, North Netaji Subhas Road, Bombay-2; Phone: 38221-22. Grams: "HECSALES." Branches all over India. Works: Baroda, Faridabad, Ghaziabad and Howrah.**

## ELECTRIC GENERATORS (DEALERS)

East Asiatic Co. (India) Private Ltd.—Shreenivas House, Waudby Road, Bombay. Phone: 26-2711. Offices at Madras, Calcutta, New Delhi.
Kilburn & Co. Private Ltd.—Gresham Assurance House, Sir Phirozshah Mehta Road, Fort, Bombay 1.
Minerva Machinery Corporation.—Advani Chambers, Sir Phirozshah Mehta Road, Fort. Grams: "Mimacorp".

## ELECTRIC GOODS (IMPORTERS, STOCKISTS & DEALERS)

**AHMED & COMPANY.—69-71, Lohar Chawl, Bombay 2. Phone: 23388. Grams: "CALLBELL." Manufacturers of "ACO" Multipurpose Table Fans. Stockists and dealers in everything Electrical.**

Akbarally Ebrahimji Pharmacy & Department Store.—45/47, Veer Nariman Road, Fort, Bombay.

**ASIATIC ELECTRIC TRADING CO.—46-48, Lohar Chawl, Bombay 2. Phone: 29886. Grams: "ASIALIGHT."**

Atlas Electric Co.—243, Bazar Gate Street, Bombay 1. Phone: 263159. Grams: "DEALWELL."

**B. MANIAR & CO.—9, Pathak Wadi, Mani Bhavan, 2nd Floor, Lohar Chawl, Bombay 2. TROPODUR P.V.C. Insulated Cables for Power & Control Wires of all sizes, Trailing Flexible Cables. Stockists of imported D.Z. & T.D.Z. Cartridge Fuse Units.**

Balmer Lawrie & Co., Ltd.—8, Graham Road, Ballard Estate, Fort.
B. B. Electric & Auto Stores.—98, Princess Street, Bombay 2.

**BOMBAY INSULATED CABLES & WIRES CO.—10, Himalaya House, Gr. Floor, 79, Palton Road, Bombay 1. Phone: 261383. Armature Winding Wires and other Accessories for Winding purposes. V.I.R., C.T.S., Wires and Flexibles Paramite & Henley's etc. and jointing materials for underground Cable, its Accessories PILC/PVC underground Cables.**

Chandra Trading Co., P.—2, Bhajekar Street, Khetwadi Main Road, Bombay 4.
Chicago Telephone & Radio Co., Ltd.—127, Mahatma Gandhi Road, Fort.
Choksi Electric Co.—148, Princess Street, Bombay 3.
Chunilal Desai & Co.—Gool Mansion, Homji Street, Fort.
C. K. Shah & Co.—35, Vithaldas Road, Lohar Chawl, Bombay 2.

**DAVE SHAH & CO.—13, Picket Cross Road, Lohar Chawl, Bombay 2. Phone: 22322. Grams: "ARRESTOR." Specialists in Switch Fuse & Motor Control Gear.**

Diarvi Trading Co.—64, Old Custom House Road, Fort.
Doctor Shah & Co.—Swadeshi Mills Estate, Bombay 4.

**EAST ASIATIC ELECTRIC CORPORATION.—Manhar Bldg., 187, Lohar Chawl, Bombay 2. Phones: 29348 and 29387. Grams: "TABLELIGHT." Everything in Electricals.**

Economic Electric Co., Ltd.—Jail Road (East), Dongri, Bombay 9.
Electricals (India) Ltd.—24 B, Hamam Street, Fort, Bombay.
Empiria (India) Ltd.—Sai Bhuvan, Princess Street, Bombay 2.
G. K. Trading Co.—Nawab Bldg., Dr. D. Naoroji Road, Bombay 1.
Great Eastern Trading Co.—107, Cawasji Patel Street, Fort, Bombay 1.
Harda Electric Supply Co., Ltd.—17-19, Bastion Road, Fort.
H. T. Shah & Co.—Ahmed Building, Golpitha Bombay 4.
Hindustan Electric & Radio Corporation.—Khambata Lane, Bombay 4.

**INDO EUROPEAN TRADING AGENCIES.—Behramji Mansion, 4th Floor, Sir Phirozshah Mehta Road, Fort, Bombay. P.O. Box 1344. Phone: 262664. Grams: "MUSKETEERS." Specialists in Thermostats and heating Elements. Agents for Harsha Hot Plates.**

**INTERNATIONAL ELECTRIC TRADING CO.—Direct Importers and Distributors of M.E.M. I.C. Switches, Fuse units and Motor Control gears, Conduit pipes and Conduit accessories, Fans, Meters, Wires and Cables, Fluorescent tubes and its accessories and Electric Accessories, Lamps, etc., Devkaran Mansion, Block No. 2, 1st Floor, 63, Princess Street, Bombay 2. Grams: "INTERLITE," Bombay 2. BR. Phone: Office: 20613 & Res.: 472289.**

Jacks, William & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Fort.
Jostle Trading Corporation Ltd.—Maskati Mahal, Lohar Chawl Bombay 2.
Kilburn & Co., Private Ltd.—Gresham Assurance House, Sir Phirozshah Mehta Road, Fort, Bombay.
Manseta, N., & Bros.—165, Lohar Chawl, Fort.
Metrogold Electric Stores.—60, Lohar Chawl, Bombay 2.
Minerva Machinery Corporation.—22, Apollo Street, Fort.
Modi & Modi Co.—16, Hamam Street, Fort.
Oriental Traders Corporation.—Makharia House (opp. Parekh Hospital), 327, Sandhurst Road, Bombay 4.
Paramount (India) Ltd.—Kermani Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.
Pavri, J. K.—Karim Chambers, Hamam Street, Fort.
Raichand & Sons.—5, Picket Cross Road.

**RAVAL & CO.—Shreeji Bhuvan, Lohar Chawl, Post Box No. 2279, Bombay 2. Phone: 23720. Grams: 'GODSPEED'. Branch Office: 12/B, Lower Chitpur Road, Calcutta. Phone: 345651. Dealers in Everything Electrical, Stockists of ICC and CCI Wires, Trailing Flexibles, PILCOSTA Power & PVC Tropodur Control Cables & Transformers.**

Regal Trading Co. (Bombay).—Rajabahadur Bansilal Mansion, 11, Bruce Street, Fort, Bombay 1.

**Refrigerator & Appliances Co. Ltd.—Victory Court, 34, Queen's Road, Bombay 1.**

Sharda Electric & Radio Co.—Lohar Chawl, Bombay 2. Phone: 20478. Grams: "TEAKCASING".
Shivlal Shah & Co.—Mahakali Chawl, Pydhownie, Bombay 3.
Simplex Electric Trading Corporation.—Great Eastern House, 249, Frere Road, Fort.

**S. K. & CO.—Gopal Nivas, 133, Princess Street, Bombay 2. Dealers in everything Electrical and Fluorescent Lamps.**

Solar Electric Trading Co.—11, People's Bldg., Sir Phirozshah Mehta Road, Fort.
Stork Electric Co.—6, Proctor Street, Grant Road, Bombay 7.

**SUNSHINE TRADERS.—3, Hamam Street, Fort, Bombay. Phone: 251631. Grams: "SUBHMANGAL." (1) Manufacturers of Spindle tapes, Cotton listings, Venetian blind tapes, Zip Tapes, Bleached Tapes, Cotton and Manila Ropes, tubular bandings, bundle bandings and cotton bandings. (2) Manufacturers of Spindle tapes and listings and textile stores suppliers. (3) Manufacturers of Egyptian cotton tapes and webbings.**

Sunil Electric Co.—Kanji Goculdas Building, 158, Lohar Chawl.
T. M. Tyabji & Bros.—32-38, Hamam House, Hamam Street, Fort.
Trade (India) Corporation.—58, Mohamadali Road, P.O. Box No. 3231, Bombay 3.
Venus Electric Co.—Keravala Building, Mangaldas Road, Bombay 2.

**UNIQUE ELECTRO TRADERS.—97, Lohar Chawl, Bombay 2. For everything Industrial Electricals, Wires & TROPODUR Cables, Insulating & Winding materials, I.C. Switchgears, Conduit Pipes & Fittings, L. T. Transformers. Phone: 30407 & 79194 (Res.).**

**VEEJAY'S ELECTRIC CORP.—Ahmed Bldg., Room No. 5, Lohar Chawl, Bombay 2, Phone: 39637. Grams: "LAXELEC". Sole Agents for "MARLEX" Sirens, Gong Bells, Musical Bells, Switches upto 800 AMPS, Distribution Boards upto 100 AMPS, Knife Switches upto 1000 AMPS. Bus Bar Chambers upto 500 AMPS. Gas Lights & Soldering Irons.**

Westrex Co., India.—Metro House, Mahatma Gandhi Road, Bombay 1.

**ZENITH ELECTRIC STORES.—51, Ahmed Building, Lohar Chawl, Bombay 2. Phone: 23126. Grams: "ALILANABANDA." Manufacturers of "SUNRISE" Electrical goods.**

## ELECTRIC LAMPS (BULBS) MANUFACTURERS

**BAJAJ ELECTRICALS LTD.—45-47, Veer Nariman Road, Bombay 1. Electrical Engineers, Manufacturers and Contractors. Phone: 25-3841. Grams: "SOFTLITE." Branches at Calcutta, Delhi, Madras, Kanpur, Patna, Indore, Wardha, Gauhati, Hyderabad, Jaipur, Jullunder & Bangalore.**

**BIJLEE PRODUCTS (I) PRIVATE LTD.—(Estd. 1935). 36, A. L. Nair Road, Byculla, Bombay 8. Phone: 78629. Grams: "BIJBULB." Manufacturers of Electric Lamps.**

**U. K. AGENCIES.—2/16, Western India House, Sir Phirozshah Mehta Road, Bombay 1. Phone: 253195. Grams: "BEBELT." Agents for Bengal Electric Lamp Works Ltd., Calcutta.**

## ELECTRIC LIGHTING EQUIPMENT

**FINLAY, JAMES & CO., LTD.—Chartered Bank Building, Mahatma Gandhi Road, Fort, Post Box No. 73, Bombay-1. Phone Nos.: 251255-59.**

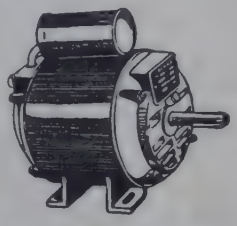
## ELECTRIC MEASURING INSTRUMENTS

**INDIA METAL AGENCIES.—"India House," Opp. G.P.O., Bombay 1. Phones: 261978, 265456. Grams: "WIDEEYE." Engineers, Manufacturers' Representatives, Importers & Dealers in Electrical Machinery.**

## ELECTRIC MOTORS, GENERATORS AND SETS


Alpha FRACTIONAL H.P. MOTORS tested to IS 996

1/8 H.P. to 1 H.P. single phase and 3 phase Motors



*Contact:*

**ALPHA ELECTRIC & ENGINEERING COMPANY**

30, Calicut Street, Ballard Estate, Bombay 1

Phone : 263881 Grams : "BREAKDOWN"


**ARJANSINGH KHEMCHAND.—1st Floor, 118, Commerce House, Medows Street, Bombay-1. Phone: 253752.**

**Arvinda Trading Co. Private Ltd.—105, Apollo Street, Fort.**

**Associated Machine & Tool Co.—130, Medows Street, Fort, Bombay.**

**Auto & Electric Stores.—Bhangwadi, Kalbadevi Road, Bombay 2.**

Batliboi & Company Private Limited.—Regd. Office: Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR). Phones: 255451 (6 lines). Grams: "BATLIBOICO" Telex: 248. City Branch: BATLIBOI HOUSE, 59/61, Nagdevi Cross Lane, Bombay-3 (BR). Branches: Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate: Bangalore 2. Resident Representatives: ERNAKULAM RANCHI.

**Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Fort.**

**BHARAT ELECTRIC & ENGINEERING CORPORATION.—Free Press Building, Ground Floor, 21, Dalal Street, Fort, Bombay. Phone: 255374. Grams: "GODGRACE."**

**Bhutt Bros.—163, Nagdevi Cross Lane, Bombay 3.**

**British Engineering Co.—105, Apollo Street, Fort.**

Cassinath M. Bomonjee Eduljee—17/19, Bastion Road, Fort.

Crescent Agencies (Private) Ltd.—Beaumon Chambers, 27/33, Medows Street, Fort, Bombay.

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE—Wavell House, Graham Road, Ballard Estate, Bombay. Phone: 26-2711 (8 lines). Machine Works: Tank Road, Bombay 33 DD. Phone: 78544. Offices at Madras, Calcutta, New Delhi, Banglore, Secundrabad & Lucknow.**

**Eastern Electric & Refrigeration Co.—14, Hamam Street, Fort.**

**EASTERN INDUSTRIAL SYNDICATE.—Seksaria Chambers, 135/37, Medows Street, Fort, Bombay 1. Phones: 251561/2. Grams: "EXPLAIN."**

**Eastern Trading & Engineering Co.—Alice Building, 4th Floor, 339, Hornby Road, Fort.**

**Economic Electric Co., Ltd.—Jail Road (East), Dongri, Bombay 9.**

**ENGINEERING PRODUCTS LIMITED.—Office & Factory: Swami Vivekananda Road, Jogeshwari, Bombay 60. Phone Office & Factory: 571230. Grams: "ENPROSKILL," Jogeshwari, Bombay-60. Manufacturers of A.C. Induction, Electric Motors, Textiles & Special Motors.**

**English Electric Co., Ltd.—249, Dr. Dadabhoy Naoroji Road, Fort, Bombay.**

**ESSENTIAL ENGINEERING CO.—11, Botawala Building, Elphinstone Circle, Fort. Phone: 252940. Grams: 'ESSENCE'. Importers, Exporters, Commission Agents and Manufacturers' Representatives.**

**Field Engineering Co., Private Ltd.—65, Apollo Street, Fort, Bombay.**

**General Radio & Appliances Private Ltd.—(Formerly Fazalbhoy Ltd.).—Opera House, Bombay 4.**

**Harda Electric Supply Co., Ltd.—17/19, Bastion Road, Fort.**

**HERBERTS & GROVERS ENGINEERING CO.—Opp. Share Bazar, Hamam Street, Fort, Bombay 1. Phone: 254836. Sole Agents for India for H.G. PUMPS & Hagwins Electric Motors. Agents for: Electric Motors, H.G. Self Priming Pumps, Herberts Vacuum Pumps, Suppliers of Chemical Machinery, Chemical Pumps, Reduction Gears, Air Blowers, Air Compressors, Scientific instruments, Flexible Couplings, Centrifugal Switches and ball bearings.**

**HINDUSTAN ELECTRIC CO., LTD., THE.—(In Collaboration with Brown, Boveri & Co., Ltd., Baden, Switzerland) Importers and Manufacturers of Electric Motors. Sales & Engineering Division: Mahatma Gandhi Memorial Building, North Netaji Subhas Road, Bombay-2. Phone: 38221-22. Grams: "HECSALES."**

**HINDUSTAN ENGINEERING CO.—(Machinery Dept.), ABAN-HOUSE, 25-31. Ropewalk Street, Fort, Bombay 1. Bake House Lane, Fort, Bombay 1. Telephone: 253583, Grams: "VIDOOALL."**

**HINDUSTAN KLOCKNER SWITCHGEAR LTD.—Manufacturers of Electric Motor Starters, Sequence Control Panels. Prospect Chambers, 317/21, Dr. Dadabhoy Naoroji Road, Fort, Bombay. Phone: 254265 (Office) and 73138 & 37380. (Works).**

**Ina Machinery Corporation.—65, Mahatma Gandhi Road.**

**Industrial & Agricultural Equipment Co.—29, Hamam Street, Fort, Bombay 1.**

**INDUSTRIAL ELECTRICAL EQUIPMENT CO.—Minerva Movitone Compound, Bunder Road, Sewri, Bombay 15. Manufacturers of Industrial Motors (3 phase totally enclosed, all speeds, Squirrel Cage, and Slip-ring).**

**Jacks, William, & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Fort.**

**Janak Engineers.—4th Floor, Lentin Chambers, Dalal Street, Fort.**

**Jayems Engineering Co.—Warden House, Sir Phirozeshah Mehta Road, Fort.**

**Karachi Electric Stores (Bombay) Ltd.—537, Sandhurst Bridge, Bombay 7.**

**Khimandas Jagumal & Sons.—12, Hornby View Building, Gunbow Street, Fort, Bombay 1.**

**Kilburn & Co. Private Ltd.—Gresham Assurance House, Sir Pherozeshah Mehta Road, Fort, Bombay.**

**Mahindra & Mahindra Ltd.—Gateway Building, Apollo Bunder, Fort.**

**MANEKLAL & SONS—(Showroom & Sales Division).—277, Nagdevi Street, Bombay 3-BR. Grams: "KIRTIRAJNI." Phone: 321924; Export-Import Division: 115/116, Narayan Dhuru Street, Bombay 3-BR. Phone: 321924. Associates: Calcutta 13. Agency: Madras 1. Importers, Exporters & Stockists of Workshop Machines, Wood Working Machines, Sheet Metal Working Machines, Electrical Tools & Cottage Industry Machines.**

**Manohar Bros.—Hussaini Chambers, Nanabhai Lane, Churchgate Street, Fort.**

**Marshall Sons & Co. (India) Ltd.—Marshall Building, Ballard Estate, Fort.**

**Modi & Modi Co.—16, Hamam Street, Fort, Bombay.**

**MORARJI DORMAN SMITH LTD.—Prospect Chambers, 317/21, Dr. Dadabhoy Naoroji Road, Post Box No. 1270, Bombay 1. Phone: 254265. Manufacturers of Miniature Circuit Breakers and Distribution Boards.**

**MOTOR & MACHINERY MANUFACTURERS LTD.—32, Apollo Street, Bombay 1. Phone: 256044. Grams: "MOTMAC-MAN." Manufacturers of all types of Single phase and 3-phase motors including carding, reeling and loom motors, and other motors used in Textile industry, polishing lathes, Scratch brush lathes, bench grinders, and heavy duty centrifugal pumping sets. Regd. Office: 31, Chittaranjan Avenue, Calcutta 12. Branches at Delhi and Madras.**

**NATIONAL ELECTRICAL ENGINEERING CO.—19-21, Hamam Street, Bombay 1. Grams: "DISCIPLINE." Phone: 254348. Distributors of "NATIONAL" Electric Motors & "S.E.W." Oil Loom Switch and D. C. Motors, Generating Sets & Rotary Convertors.**

**National Electrical Industries, Ltd.—Lalbaug Industrial Estate, Lalbaug, Bombay 12.**

**NEW ERA ENGINEERING CO.—128, Medows Street, Bombay 1. Phone: 253492 & 254136. Grams: "NEECOMOTOR." Importers and Stockists of Electric Motors, Generators, Starters, Switchgears, Pumps and Pumping Sets, Slippering Motors all sizes available. Also all types of Capacitors.**

**ORIENTAL ENGINEERING CO.**—25, Forbes Street, Fort, Bombay 1. Phone: 253057. Grams: "ADIVISHNU." Dealers in Second-hand Diesel & Steam Alternating Sets, Electric Motors, Transformers, etc.

**PANDIT & CO.**—15, Forbes Street, Fort, Bombay 1. Phone: 251779. Grams: "SPECTATION." Dealers in Ogales' Motor and all Electrical Engineering Goods. Proprietors: IGATPURI ELECTRIC SUPPLY CO.

Paramount Industrial Stores.—15, Ropewalk Street, Bombay 1.

**P. Rai & Co.**—105, Apollo Street, Fort.

Patel Electric Co., Ltd.—Vithal Sayana Building No. 2, Lohar Chawl, Bombay 2.

**Popular Electric Stores.**—414, Harharwalla Building, Corner Golpitha, Bombay 4.

Power Machines Corporation.—31, Forbes Street, Fort, Bombay 1. Grams: "POWERMACO."

Protos Engineering Co. Ltd.—173, Jamshedji Tata Road, Churchgate, Bombay.

**RADIANT ELECTRIC & MACHINERY CO.**—Sir Vithaldas Chambers, Bruce Street, Bombay 1. Phone: 255296-7. Grams: "RADICAL".

**Radiant Engineering Co.**—79, Medows Street, Bombay 1.

**Royal Machinery & Trading Co.**—6, Bell Lane, Fort, Bombay 1.

**R. S. Traders.**—16, People's Building, Sir Pherozshah Mehta Road, Fort.

**TALWARKER BROTHERS PRIVATE LTD., W. R.**—Lentin Chambers, Dalal Street, Fort, Bombay. Phones: 253367. Grams: "PUMPENAMEL".

Thakar Brothers.—301/A, Commerce House, 140, Medows Street, Fort, Bombay.

**UNITED INDIA ENGINEERING CO.**—6, Commerce House, Medows Street, Fort, Bombay. Phone: 251492. Grams: "Uniconaram". Engineers and Machinery Dealers. Sales & Showroom: 78, Old Custom House Road, Fort, Bombay.

**Voltas Ltd.**—19, Graham Road, Ballard Estate, Bombay 1.

Vulcan Trading Co. Pvt.—Indian Mercantile Chambers, Nicol Road, Ballard Estate, Bombay.

## ELECTRIC MOTOR STARTERS

**FINLAY JAMES & CO., LTD.**—Chartered Bank Bldg., Mahatma Gandhi Road, Fort, Post Box No. 73, Bombay 1. Phone Nos. 251255-59.

**IMANES.**—94, S.V. Road, Erla, P.O. Box 8002, Bombay 56. Phone: 571634. Grams: "BELLIBONE (SZ)" for Springs & Forms out of Wires and strips for your Industry.

Larsen & Toubro Limited.—I. C. House, Dougall Road, Ballard Estate, Bombay 1.

Regal Trading Co. (Bombay).—Rajabahadur Bansilal Mansion, 11, Bruce Street, Fort, Bombay 1.

Voltas Ltd.—19, Graham Road, Ballard Estate, Bombay 1.

## ELECTRIC MOTORISED—GRINDERS & POLISHERS

**FINLAY, JAMES & CO., LTD.**—Chartered Bank Building, Mahatma Gandhi Road, Fort, Post Box 73, Bombay. Phone: 251255-59.

## ELECTRIC SWITCHGEARS MANUFACTURERS

**FINLAY, JAMES & CO., LTD.**—Chartered Bank Building, Mahatma Gandhi Road, Fort, Post Box 73, Bombay 1. Phone Nos. 251255-59.

**HIMATLAL & CO.**—19-21, Hamam St., Bombay. Authorised Dealer of "SIEMENS" Tropodur Power and Control Cables. Stockists of H.T. & L.T. Underground Cables & Dealers in Transformers Motor & O.C.B. Grams: "HOMELIGHT." Phone: 254716. Residence: 474404.

**KIRON TEXTILE INDUSTRIES.**—Yusuf Bldg., Mahatma Gandhi Road, Bombay 1. Phone: 253224. Grams: "YANTRAYUG." Manufacturers of L.T. & H.T. Electrical Switch and Control Gears, Switch Board Panels, Circuit Breakers, H.T. Gang Operated Air Break Switches, Dropout Fuses etc.

**NATIONAL SUPPLY & DISTRIBUTING AGENCY.**—Jay Mahal, 20-48, Lohar Chawl, Bombay 2. Phone: 39274, Grams: "ELECTLAMPS." Manufacturers of "NSDA" Switchgears & Instruments. Stockists of Cables, Instruments & Insulating Materials.

## ELECTRIC TIME SWITCHES

**ASIATIC ELECTRIC CORPORATION.**—Beauman Chambers, Ground Floor, Medows Street, Bombay 1. Phone: 251761. Grams: "DHOOTBIJE." Importers & Stockists of Electric Time Switches. Sole Agents in India: DIA ELEKTROTECHNIK, Berlin N. 4, East Germany.

## ELECTRICAL ACCESSORIES

**BAJAJ ELECTRICALS LIMITED.**—45-47, Veer Nariman Road, Bombay 1. Electrical Engineers, Manufacturers & Contractors. Phone: 253841. Grams: "SOFTLITE." Branches at Calcutta, Delhi, Madras, Kanpur, Patna, Indore, Wardha, Gauhati, Hyderabad, Jaipur, Jullunder and Bangalore.

Imanes.—94, S. V. Road, Erla, P.O. Box 8002, Bombay 56. Phone: 571634. Grams: "BELLIBONE" (SZ). Springs and Forms out of Spring Wires and Strips for your Industry.

**U. K. AGENCIES.**—2/16, Western India House, Sir Phirozshah Mehta Road, Bombay 1. Phone: 253195. Grams: "BEBELT." Agents for UKA Bakelite Accessories for electric wiring.

## ELECTRICAL CONTRACTORS (LICENSED)

**ALLIED ENGINEERS (Associates of N. Dinshaw & Co.).**—Licensed Electrical Contractors & Engineers, 14, Ismail Building, Flora Fountain, Bombay-1. Phone: 253488.

**ANIL ELECTRIC CO.**—125, Vithalwadi, Bombay 2. Fans of all kinds available on hire basis. Electrical installation and repairs to fans and other appliances undertaken. Phone: 39921.

Arunodaya Engineering Corporation.—Navsari Chambers, Outram Road, Fort, Bombay 1.

**Balmer Lawrie & Co., Ltd.**—5, Graham Road, Ballard Estate, Fort.

**CHANDRAKIRAN.**—Neon Signs Manufacturers, Electrical Dealers and Engineers & Government Electrical Contractors. Dhan-Nur, 4th Floor, Sir Phirozshah Mehta Road, Bombay 1. Phone: 263660 & 266428. Grams: "LITELORDS," Showroom: 88, Sion Circle, Bombay 22, Phone: 471606.

Damania Electrical & Engineering Works.—171, Lohar Chawl, Bombay 2.

**ECONOMIC ELECTRIC CO. PRIVATE LTD., THE.**—Kareem Manzil, Jail Road, Dongri, Bombay 9. Phone: 331137.

**ELECTRIC CORPORATION OF INDIA.**—19/21, Hamam Street, Fort, Bombay 1. Phone: 254398.

F. R. Patel & Co.—Holland House, next to Hotel Majestic, Colaba Causeway, Bombay 1. Water Heater Repairers and Specialists in Reconditioning Everything Electrical, Auto Electricians.

**Gopani Electric Stores.**—Bharat Bhuvan, 171, Princess Street, P. O. Box No. 2063, Bombay 2.

**Greaves Cotton & Crompton Parkinson Ltd.**—1, Forbes Street, Fort.

Harda Electric Supply Co. Ltd.—17-19, Bastion Road, Fort, Bombay.

Huge Engineering Co.—Imperial Chambers, Wilson Road, Ballard Estate.

**JOSTLE TRADING CORPORATION PRIVATE LTD.**—Maskati Mahal, Lohar Chawl, Bombay 2. Phone: 20823. Grams: "CORPJOSTLE". Direct Importers & Stockists of Electrical goods, Cables, Accessories, Switchgears, Conduit pipes and Fittings, Fluorescent Tubes and Fixtures, Industrial Reflectors and overhead Line materials and Licensed Contractors & on the approved list of Railways, D.G.S. & D., Municipalities, P.W.D., etc.

Kantilal Keshavlal & Co.—80-82, Vithalwadi, Bombay 2.

Minerva Trading Agency.—58, Forbes Street, Fort.

**MODERN ELECTRIC CO.**—(Estd. 1935), Dady House, 50, Veer Nariman Road, Fort, Bombay. Phone: 252403. For Power & Lighting Installations, Cable laying, Temporary Illuminations.

**MODERN ELECTRICAL TRADE SYNDICATE.**—Electrical Engineers and Licensed Contractors. 182, Yusuf Maherally Road, (Masjid Bunder Road), Bombay 3 (BR). Phone: 325673.

National Electric Company.—11, Elphinstone Circle, Fort, Bombay 1. Phone: 28762. Grams: "ELECTRICAL."

**RAJA ELECTRIC WORKS, THE.**—Commerce House, 2nd Floor, 140, Medows Street, Fort, Bombay 1. Air-conditioning Plants, Factories and Building Wiring Specialists. Grams: "SEEUMARJ." Phone: 254762. Prop.: Shri C. M. Rajashekar.

**RAJGOR TRADING CO.**—Dahanukar Building, 480, Kalbadevi Road, Bombay 2. Phone: 39936. Govt. Licensed Wiring Contractors, Dealers and Electrical Engineers. Specialists in Erection of H.T. Lines, Electrification of L. T. Distribution Lines, Electrical Installation, Illumination & Maintenance of Buildings, Factories, Mills, Offices, etc.

**SHELL ELECTRIC WORKS.**—11-13, Horniman Circle, Bombay 1. Phones: 25-5315 (Office), 213233 (Res.). Grams: "SHELLWORKS".

Trinity Electric Syndicate.—Princess Street, Bombay 2.

Vikram Electric Co.—Advani Chambers, Sir Phirozshah Mehta Road, Fort.

Western India Engineering Corpn. Ltd.—Cama Chambers, 88, Medows Street, Fort.

## ELECTRICAL DRYERS MRFS.

**SURESH ENGINEERING WORKS.—Bombay Cotton Mill Estate, Bombay-33. Manufacturers of Dryers, Electrical Steam heated or Vaccum with Thermostatic Controls, Reaction Vessels, Steel and Stainless Steel Fabrication by Argon Arc Welding. Phone: 77887.**

## ELECTRICAL ENGINEERS, MFRS. & DEALERS IN ELECTRIC GOODS

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**ALLIANCE ELECTRIC MART.—67, Lohar Chawi, Bombay 2. Phone: 39229.**

Alladin Virjee Nathani.—Darukhana, Mazagaon, Bombay 10.
Arvind Trading Co. Private Ltd.—105, Apollo Street, Fort.

**AMERICAN ELECTRIC & ENGINEERING CO.—11-12, "Himalaya House", Corner of Hornby & Palton Roads, Bombay-1. Phone: 263575. Grams: "AMERCTRIC."**

**ASEA ELECTRIC INDIA, PRIVATE LIMITED.—Yaffi Building, Goa Street, Bombay 1.**

**ASHOK ENGINEERING CO.—24, Noble Chambers, Parsi Bazar Street, Fort, Bombay 1. Phone: 253309. Grams: "REVOLUTION." Importers, Dealers and Stockists of Electric Motors, Starters, Switches, Generators, Pumping Sets, Blowers, Exhaust Fans, etc. Diesel Engines & Spare parts and Motor Vehicle parts.**

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Automatic Electric Devices Company, "Rectifier".—Naigaum Cross Road, Bombay 31.

Babcock & Wilcox, Ltd.—16, Queen's Road Estate, Bombay 1.

**BAJAJ ELECTRICALS LIMITED.—45-47, Veer Nariman Road, Bombay 1. Electrical Engineers, Manufacturers and Contractors. Phone: 25-3841. Grams: "SOFTLITE." Branches at Calcutta, Delhi, Madras, Kanpur, Patna, Indore, Wardha, Gauhati, Hyderabad, Jaipur, Jullunder and Bangalore.**

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Fort.

**B. B. ELECTRIC & AUTO STORES.—98, Princess Street, Bombay 2. Phone: 30795. Grams: "BIBIELECT."**

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Brady, W. H., & Co., Ltd.—Royal Insurance Building, Vir Nariman Street, Fort.
British Electric Insulating Co.—88, Forbes Street, Fort.
British Engineering Co.—105, Apollo Street, Fort.
British Insulated Callender's Cable Ltd.—Esplanade House, Waudby Road, Fort.
Candy Filters (India), Ltd.—Forbes Building, Home Street, Fort.
Cassinath M. Bomonjee Eduljee.—17/19, Bastion Road, Fort.

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Chotani Electric & Engineering Co., Ltd.—57, Apollo Street, Fort, Bombay.

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Dinshaw, M. H., & Co.—Apollo Street, Fort, P.O. Box No. 448, Bombay. Phone: 25-1458. Grams: "AHOORAT."

Dodsal Limited.—Mafatlal House, Backbay Reclamation, Bombay 1.

Eastern Electric & Engineering Co.—Established 1909. 127, Mahatma Gandhi Road, Fort, Post Box 459, Bombay.

Eastern Radio & Refrigeration Co.—8, Beaumon Chambers, Medows Street, Fort, Bombay.

Economic Electric Co., Ltd., The.—Jail Road (East), Dongri, Bombay 9.

Electric and General Traders Ltd.—Bombay Mutual Annexe, Gunbow Street, Fort.

**ELECTRIC POWER DEVICES CORPORATION.—111/A, Mahatma Gandhi Road, Bombay-1. Phone: 251413. Suppliers of I.C. Switches, Cutouts, Kit-Kat Fuses, Insulators, ACSR accessories, Electrical measuring instruments, Cables & Cable Boxes.**

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English Electric Co., Ltd., The.—249, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

**EXPRESS TRADING CO.—Sai Bhuvan, Ground Floor, 141, Princess Street, Bombay 2. Phone: 22152.**

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General Electric Co. of India, Ltd., The.—"Magnet House," Dougall Road, Ballard Estate.

**GENERAL ELECTRICAL INDUSTRIES.—Office: Hamam House, Hamam Street, Bombay 1. Phone: 251892. Factory at 113/B, New Parbadevi Road, Bombay 28. Phone: 452626. Grams: "LIGHTUDYOG." Manufacturers of bakelite 'GEI' brand Electrical Accessories.**

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**Netaji Subhas Marg, Daryaganj, Delhi, Phone : 274721 ; Bangalore Office : Rajaji Nagar, Bangalore, Phone : 74091 ; Calcutta Office : Mookerjee House, Brabourne Road, Calcutta. Phone : 224616. Managing Director : K. C. Maitra. Phones : Bombay : 261758/9 ; Bhandup : 581248 ; Residence : 42206. Grams : "LOWLOSS." Bombay, Calcutta, Bangalore, Delhi.**

**Harda Electric Supply Co., Ltd.—17/19, Bastion Road, Fort.**

**Herman & Mohatta, B. R., Ltd.—People's Building, Sir Phirozshah Mehta Road, Fort.**

Himco (India) Private Ltd.—Kurla Road, Andheri, Bombay 41.

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**KERSONS MANUFACTURING CO. OF INDIA LTD., THE.—Gopal Nivas, Lohar Chawl, Bombay 2. Phone : 22347. Grams : "SNIPE." Manufacturers of quality "KERSONS" brand, Electrical Accessories.**

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Maneckji, G. B., & Co. Ltd.—Mehta House, Apollo Street, Fort.
Manu Electric & Engineering Works.—Kanji Goculdas Building, 160, Lohar Chawl.
Mather & Platt, Ltd.—Hamilton House, 8, Graham Road, Ballard Estate.
Mehta & Co., Private Ltd., K. L.—35, Bhangwadi, Kalbadevi Road, Bombay 2.

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Surya Prakash Engineering Co.—21, Forbes Street, Fort.

Tata Hydro-Electric Agencies Ltd.—Bombay House, 24, Bruce Street.

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**TERRA TRADING CORPORATION.—Gopal Nivas, Lohar Chawl, Bombay 2. Phone : 20479. Grams : "TERRA." Dealers in everything Electrical.**

Thaker Electric Stores.—37, Vithalwadi, Kalbadevi.

T. M. Tyabji & Bros.—32-38, Hamam House, Hamam Street, Fort.

Trinity Electric Syndicate.—Princess Street, Bombay 2.

Turner, Hoare & Co., Ltd.—Gateway Building, Apollo Bunder.

United Eastern Agencies, Ltd.—144-146, Mahatma Gandhi Road, Fort.

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Voltas Limited.—Ballard Estate, Bombay 1.

Western Agencies Co.—421, Lamington Road, Bombay 4.

Western Engineering Co.—Western India Building, Sir Phirozshah Mehta Road, Fort.

Western India Electric Co., Ltd.—Tambuwala's Building, 96, Upper Duncan Road, Byculla.

Western India Engineering Corp., Ltd.—Cama Chambers, 23, Medows Street, Fort.

Western Traders (India), Ltd.—Post Box No. 9, Bombay.

**WESTINGHOUSE TRADING CO. (ASIA) LTD.—"The International," 16, Queen's Road, Bombay 1. Phone : 241094/95. Grams : "WESTASIA." 43, Ring Road, Lajpatnagar III, New Delhi 14 ; Grams : "WESTASIA". Phone : 74534/76530. Grams : "WESTASIA." 8 & 12, Chittaranjan Avenue, Calcutta 13, Phone : 234875. Grams : "WESTEAST."**

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate.

## ELECTRICAL & ELECTRONIC INDUSTRIES

**CHAMPAKLAL & COMPANY.—Lohar Street, Bombay-2 BR. Sole Representatives for Wilbur B. Driver Co., U.S.A. Manufacturers of Ni-Chrome Resistence Wires and other Resistence Alloys. Indents accepted against D.L.F./AD Import License. 38836 (Bombay).**

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- Electric Heating & Cooking Appliances.
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- Perfect Lighting Equipment—of general nature.
- Wires & Cables and Switchgear.

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**ASIATIC ELECTRIC TRADING CO.—46/48, Lohar Chawl, Bombay 2. Phone : 29886. Grams : "ASIALIGHT."**

**CRAFTSMAN ELECTRONIC CORPORATION PRIVATE LTD.—Sethna Hall, Nesbit Road, Bombay 10. Phone : 73346. Grams : "CRAFTRONIC." Importers & manufacturers of all types of control and measuring equipment.**

Economic Electric Co. Ltd.—Jail Road (East), Dongri, Bombay 9.

**JASVANT C. SHAH & CO.—Navraz Baug, Navrozi Lane, Ghatkopar, Bombay 77. India's Foremost Indenting House. (For Details please see Commercial Firms Section).**

J. V. Mehta & Co.—Opera House Tram Terminus, Lamington Road, Bombay 4.

Kilburn & Co. Private Ltd.—Gresham Assurance House, Sir Phirozshah Mehta Road, Bombay.

Scientific Instrument Co., Ltd.—Navsari Building, 240, Dr. Dadabhai Naoroji Road (Hornby Road), Fort.

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Agrawal Metal Works Private Ltd.—207, Kalbadevi Road, Bombay 2.

Ahmed & Co.—Lohar Street, Bombay 2.

Ahmed A. Fazalbhoy.—30, Queen's Road, Bombay 1.

Ahoora Trading Co.—22D, Parsi Bazar Street, Fort.

**ALLIANCE ELECTRIC MART.—67, Lohar Chawl, Bombay 2. Phone : 39229.**

Allied Exporters.—Kumud House, 267, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

All India Trading Corporation.—25, Bank Street, Fort. Grams : "Autoglass." Agents for Paisa Fund Opal Globes.

Arvinda Trading Co. Private Ltd.—105, Apollo Street, Fort.

Auto & Electric Stores.—Bhangwadi, Kalbadevi Road, Bombay 2.

Balmer Lawrie & Co., Ltd.—Graham Road, Ballard Estate, Bombay 1.

B. B. Electric & Auto Stores.—98, Princess Street, Bombay 2.

Bharat Electric Supply Traders.—542, Sandhurst Bridge, Chowpaty, Bombay 7.

Bhargava & Co., K. L.—94, Medows Street, Fort.

Bijlee Products (India) Ltd.—36, Lamington Road, Byculla, Bombay 8.

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Candy Filters (India), Ltd.—Forbes Building, Home Street, Fort.

Cassinath M. Bomonjee Eduljee.—17/19, Bastion Road, Fort.

Chandrodaya Electric Co.—Bhangwadi, Kalbadevi Road, Bombay 2.

Chimanlal Desai & Co.—Gool Mansion, Homji Street, Fort.

Chotani Electric & Engineering Co. Ltd.—57, Apollo Street, Fort, Bombay.

Cinefones.—Opp. Opera House, 3, New Queen's Road, Bombay 4.

Cinesales.—Tutorial School Building, Kennedy Bridge, Bombay 7

**CRAFTSMAN ELECTRONIC CORPORATION PRIVATE LTD.—Sethna Hall Nesbit Road, Bombay 10. Phone : 73346. Grams : "CRAFTRONIC." Manufacturers of all types of measuring and control equipment.**

Crescent Agencies (Private) Ltd.—Beaumon Chambers, 27/C33, Medows Street, Fort, Bombay.

Damania Electrical Engineering Works.—171, Lohar Chawl, Bombay 2.

Deepak Electric Corporation.—44, Bhangwadi, Kalbadevi.

Eastern Electric & Radio Corpn.—Lohar Chawl, Bombay 2.

Eastern Trading Co.—Vithal Sayana Building, Lohar Chawl, Bombay 2.

Economic Electric Co., Ltd.—Jail Road (East), Dongri, Bombay 9.

Electric & General Trades, Ltd.—Bombay Mutual Annexe, Gunbow Street, Fort.

**ELECTRICALS (INDIA) PRIVATE LIMITED.—24-B, Hamam Street, Fort, Bombay, P.O. Box No. 1458. Grams : 'BIJLIHIND'. Phone : 252009. Importers and Dealers in all Electrical Goods, Overhead line materials and Motor Winding materials. Agents for L. P. S. Electrical Co., Ltd., England, Lindner & Co., Germany and Midland Electric Manufacturing Co., England.**

Essential Engineering Co.—11, Botawala Building, Elphinstone Circle, Fort.

Gangaram Sharma & Co.—Kanchan Bhawan, 15, Dadiseth Agiari Lane, Bombay 2.

Gannon, Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Fort.

Gaytee & Co.—Janmabhoomi Chambers, Fort Street, Bombay 1.

General Electric Co. (India) Ltd.—Magnet House, Dougall Road, Ballard Estate.
General Radio & Appliances Ltd.—Opera House, Bombay 4.
Greaves Cotton & Crompton Parkinson Private Ltd.—Forbes Street, Bombay 1.
Harda Electric Supply Co.—17/19, Bastion Road, Fort.
Herman & Mohatta, B. R., Ltd.—People's Building, Sir Phirozshah Mehta Road, Fort.
Himco (India) Private Ltd.—Kurla Road, Andheri, Bombay 41.

**HINDCO LIGHTING INDUSTRIES LTD.—Hind Light House, Subhash Nagar, Jogeshwari East, Bombay 60, India. Phone: 572320, 572622. Grams: "HINDLIGHT." Manufacturers, Distributors and Exporters of Flourescent Lighting Fittings, Ballasts, Low Voltage Transformers, M. V. Lanterns and Accessories of all kinds.**

Hindustan Electric & Radio Corporation.—Khambata Lane, Bombay 4.
Huge Engineering Co.—Imperial Chambers, Wilson Road, Ballard Estate, Fort.
India Electro Traders.—157, Princess Street, Bombay 2.
Indian Electric Stores.—123, Lohar Chawl, Bombay 2.
Industrial Machinery & Tools Corporation.—Indira Nivas, 1st Floor, New Bhatwadi Street, Bombay 4.
Jayems Engineering Co.—Warden House, Sir Phirozshah Mehta Road, Fort, Bombay 1.
J. Mody & Co.—97, Nagdevi St., Bombay 3.
Johnson & Phillips Ltd.—Currimbhoy Road, Ballard Estate, Bombay 1.
Jostle Trading Corporation.—Maskati Mahal, Lohar Chawl, Bombay 2.

**KESBO (PRIVATE) LTD., (Formerly known as the Karachi Electric Stores (Bombay) Ltd.).—Office: Bombay Mutual Terrace, 534, Sandhurst Bridge, Bombay 7. Grams: "RECTIFIERS." Phone—Office: 71643.**

Killick Nixon & Co. Private Ltd.—Home Street, Bombay 1.

Kirtikumar Electric Corporation.—12, Tavawala Bldg., Lohar Chawl, Bombay 2.

Markel & Co.—Makharia House, 327, Sandhurst Road, Bombay 4.
M. C. Mody & Bros.—Maskati Mahal, 125-A, Lohar Chawl, Bombay 2.
Mehta, J. V., & Co.—Opera House, Tram Terminus, Bombay 4.
Modern Electric Co.—46, Cawasji Patel Street, opp. Hongkong Bank, Fort, Bombay 1.
Modern Electrical Trade Syndicate.—Wassiamul Building, 182, Musjid Bunder Road, Bombay 3.
Modern Radio & Electric House.—381, Hornby Road, Fort.
Motiram & Co.—79, Himalaya House, Paltan Road, Bombay 1.

**MOTWANE PRIVATE LTD.—127, Mahatma Gandhi Road, P.O. Box No. 1312, Bombay 1-BR. Phone: 252337. Grams: "CHIPHOME."**

Narendra Electric Stores.—158, Lohar Chawl, Bombay 2.
National Ekco Radio & Engineering Co. Ltd.—Ewart House, Bruce Street, Fort, Bombay 1.
National Supply & Distributing Agency.—250, Kalbadevi Road, Bombay 2.
New India Trading Corporation.—Vithal Sayana Building No. 2, Lohar Chawl, Bombay 2.
Oriental Trading Corporation.—Makharia House, 327, Sandhurst Road, Bombay 4.
Patel Electric Co., Ltd.—Vithal Sayana Building No. 2, Lohar Chawl, Bombay 2.
Patel, U. D., & Co.—Bank Street Building, Fort.
Pavri, J. K.—10, Karim Chambers, Hamam Street, Fort.
Pavri Sons & Co.—93-97, Bazar Gate Street, Fort.
Pestonji & Co.—570, Sultan Manzil, Chira Bazar, Bombay 2.
Photophone Equipments, Ltd.—Fazalbhoy House, 9, Marine Lines, Bombay.
Pioneer Electricals (India) Ltd.—16, Hamam Street, Fort. Phone: 28050. Grams: "VIRCABLES."
Precious Electric Co.—Yusuf Building, Churchgate Street, Fort.
Premier Electric Co., Ltd., The.—Mehta House, Apollo Street, Fort.
Protos Engineering Co., Ltd.—173, Jamshedji Tata Road, Churchgate, Bombay.
R. S. Traders.—16, People's Building, Sir Pherozshah Mehta Road, Fort.
Raichand & Sons.—5, Picket Cross Road, Bombay 2.

**RAJ-DER-KAR & CO. — Sadhana Rayon House, Dr. Dadabhoy Naoroji Road, Fort, Bombay. For Research Industries. Phone: 262304 (P.B. X—4 lines). Grams: "TECHLAB."**

Refrigeration & Appliances Co. Private Ltd.—Pravin Court, 95, Queen's Road, Bombay.
Rhythm House Ltd.—40, Rampart Row, Fort.
Royal Electric Co., The.—Muljee Jetha Building, 139, Princess Street, Bombay 2.

**RUBY ELECTRICAL INDUSTRIES.—15, Vanka Mohallo, Kolbhat Lane, P.B. No. 2730. Phone: 23267. Manufacturers & Exporters of Bakelite & Porcelain Electrical Accessories, 'RUBY' Brand Wall Stockists, Plug-Pins, Ceiling Roses, etc.**

Sawhney & Co.—Shahpur House, Cowasji Patel Street, Fort, P.O. Box 148-A, Bombay.
Scientific Instrument Co., Ltd.—Navsari Building, 240, Hornby Road, Fort.
Sealite Electric Co.—Manhar Building, 173, Lohar Chawl, Bombay 2.

**SELMANI & CO.—162, Hill Road, Bombay-50 AS. Stockists and Authorised dealers for all types of Geysers, Bells, Lighters, Lamps, Water-Boilers, Soldering Irons, Mixers, Liquidizers, Cooking Rangers, Toasters, Irons, Ovens, & Grillers, Kettles, Hot plates, Heating Elements, Thermostats, Pressure Cookers etc. etc.**

Sentinel Electric Co.—Advani Chambers, Sir Phirozshah Mehta Road, Fort.
Shah Trading Agencies.—19, Hamam Street, Fort.
Shah Trading Co.—Lawyers' Chambers, Picket Road, Lohar Chawl.

**SHAH COMMERCIAL CORPORATION.—For Industrial Electric Materials, Authorised Dealers: Insulant PVC Single & Multi-Core Cables, Sentinel Switch-Gears, Gloster Cables, L.K/L.T. Starters, Darflex Tubing, G.I. Flexible Pipe & Airon Remote Control Station. Stockists of: M.E.M. Switches, Fuse units & Spares, Distribution Boxes, Conduit Pipe & Fittings, Tropodur & Underground Cable & Cable End boxes, Overhead Materials, I.C.C. Aluminium & Copper Jointing Materials, Winding Wire & Insulating Materials. 58, Mangaldas Road, Lohar Chawl, Bombay-2. Grams: "HATHIKHANA." Phone: 22723.**

**SHANTILAL & BROTHERS.—Shreeji Bhuvan, 50/52 54, Lohar Chawl, Bombay 2. Grams: "TABLESTAND." Phone: 30003 & 30004.**

Standard Trading Co.—Vittal Sayana Building No. 2, 43-45, Lohar Street, Bombay 2.
Thanawalla & Co.—192, Hornby Road, Fort. Phone: 25118.
Trinity Electric Syndicate.—Princess Street, Bombay 2.
Turf Electric Co.—24-26, Dalal Street, Fort.
Unique Trading Corporation.—Mustafa Building, Sir Phirozshah Mehta Road, Fort.
Venus Electric Co.—Keravala Building, Mangaldas Road, Bombay 2.
Voltas Ltd.—19, Graham Road, Ballard Estate, Bombay 1.
Western Agencies' Co.—421, Lamington Road, Bombay 4.
Westrex Co. India.—Metro House, Mahatma Gandhi Road, Bombay 1.
Western India Engineering Corporation, Ltd.—Cama Chambers, 23, Medows Street, Fort.
William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay.
Zenith Electric Stores.—51, Ahmed Building, Lohar Chawl, Bombay No. 2. Phone: 23125. Grams: "ALLANABANDA."

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**ASIATIC ELECTRIC TRADING CO.—46-48, Lohar Chawl, Bombay 2. Sole Representatives in India for "GRIMWOOD" Australian make Electric Heating Elements for all types of Appliances—designed or tailor made for any use e.g. for Cookers, Baking Ovens, Boiler Grills, Immersion Heating Elements for Water, or Oil, Acids and Gases, Far Infra-Red Heating Elements for Industrial drying and other purposes, Strip Heaters, etc.**

**ELMANI & CO.—162, Hill Road, Bombay-50-AS. Authorised dealers for "BAJAJ" 'RACOLD' 'KLEERTONE,' Storage Type Water Heaters—Installation and Repairs Undertaken for all types of Water heaters. Grams: "SEMLANICO." Phone: 533701.**

**SUSHRA & CO.—Tulsi Pipe Road, next to G.E.I. Girls' School, Dadar, Bombay 28. Phone No.: 454424. Embedded—"Heat Beam," Strip Heaters, Finned Heaters, Curing Heaters for Textiles, Rubber & Leather, Cartridge Heaters, Immersion Heaters for Water, Oil, Chemical Baths and for Electro-platings. Available for any Watts & Volts.**

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**BAJAJ ELECTRICALS LIMITED.—45-47, Veer Nariman Road, Bombay 1. Electrical Engineers, Manufacurers and Contractors. Phone: 25-3841. Grams: "SOFTLITE." Branches at Calcutta, Delhi, Madras, Kanpur, Patna, Indore, Wardha, Gauhati, Hyderabad, Jaipur, Jullunder & Bangalore.**

Eastern Electric & Engineering Co.—127, Mahatma Gandhi Road, Bombay 1.

**ESSENTIAL ENGINEERING CO.—11, Botawala Building, Elphinstone Circle, Fort, Bombay. Grams: "ESSENCE." Phone: 252940. Importers, Exporters, Commission Agents and Manufacturers' Representatives.**

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**GAUMONT KALEE LIMITED.—Ashok Chakravati Road, Ashok Nagar, Kandivli East, Bombay-67. Phones: 691271 2 & 3. Grams: "GAUMKALEE." Manufacturers of Meters Electronic Test Equipments and Cinema Projectors. Branches: Delhi, Calcutta and Madras.**

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**8, Gazdar Street, Thakurdwar, BOMBAY 2.**

Telegrams : " GYROSTATIC." Phone: 39002

**INDIA METAL AGENCIES.—" India House," Opp. G.P.O., Bombay 1. Phone Nos. 261978, 265456. Engineers, Manufacturers' Representatives, Importers & Dealers in Electrical Machinery.**

**INDIAN ENGINEERING CO.—Worli Naka, Post Box 16551, Bombay 18. Phone : 73490. Grams.: " AMPVOLT " (JC). Also at Calcutta, New Delhi & Madras.**

**INDIAN INDUSTRIAL ENGINEERS.—43, Tamarind Lane, Fort. Phone : 254972. Grams : " NEWLIGHT."**

Kerala Industries (India).—17, Hornby Building, 174, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

**NATIONAL SUPPLY & DISTRIBUTING AGENCY.—Jay Mahal, 20/48, Lohar Chawl, Bombay 2. Phone : 39274. Grams : " ELECTLAMPS." Manufacturers of " NSDA " Switchgears & Instruments, Stockists & Cables, Instruments & Insulating Materials.**

Toshniwal Industries Private Ltd.—198, Jamshedji Tata Road, Bombay 1.

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**MODERN ELECTRIC CO.—(Estd. 1935), Dady House, 50, Veer Nariman Road, Fort, Bombay. Phone : 252403. For Power & Lighting Installations, Cable laying, Temporary Illuminations.**

National Electric Company.—11, Elphinstone Circle, Fort, Bombay.

## ELECTRICAL LIGHTING FITTINGS

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**INDUSTRIAL ELECTRICAL ENGINEERING CO.—10, Hamam Street, Fort. Specialists in Insulating Materials & Armature Wires. Phone : 252836.**

## ELECTRODES

Batliboi & Company Private Ltd.—Regd. Office : Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR). Phones : 255451 (6 lines). Grams : BATLIBOICO. Telex : 284. City Branch: Batliboi House, 59/61, Nagdevi Cross Lane, Bombay 3 (BR.). Branches : Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate : Bangalore 2. Resident Representatives : ERNAKULAM, RANCHI.

Bombay Machine Tools & Hardware Corporation.—103, Narayan Dhuru Street, Bombay 3.

**DATSON RAVIRAJ & CO. (PRIVATE) LTD.—43, Tamarind Lane, Fort. Phone : 254433. Grams : " DATNARE."**

Guest, Keen, Williams, Ltd.—Wakefield House, Ballard Estate, Bombay 1.

**INDUSTRIAL GASES LTD., THE.—Bombay. Grams : " INDUSGASES ". Head Office : P.O. Box 853, Calcutta 1. Mild Steel-Cast Iron, Stainless and Alloy Steels, Non-ferrous Metals, Hard-facing Electrodes for Automatic Welding.**

**POWER CABLES PVT. LTD.—24, Brelvi Sayed Abdulla Road, Bombay 1. Phone : 251017. Manufacturers of " POWERARC ELECTRODES."—Stronger, Faster Welding with Powerarc Electrodes—Available in wide range for you to choose from —Iron Powder, Low Hydrogen, Mild Steel, Cast Iron, Hard Surfacing and Low Alloy Electrodes for manual welding in sizes 2.5 mm to 7.0 mm. Manufactured with technical know-how and licence of Westinghouse, U.S.A. Powerarc Electrodes are under rate contract with the Directorate General of Supplies and Disposals. Powerarc Electrodes are on approved list of Lloyd's Register of Shipping.**

Vishwa Bharati Trading Co.—14, Kumpta Street, Ballard Estate, Bombay 1.

Voltas Ltd.—19, Graham Road, Ballard Estate, Bombay 1.

**WELDWELL ELECTRODES PRIVATE LTD.—341, Tardeo Buildings, Tardeo, Bombay 34. Phone : 71494. Grams : " WELDMASTER." Manufacturers of Arc Welding Electrodes and Welding Accessories.**

## ELECTRONIC COMPONENTS

**HEATEX PRODUCTS PRIVATE LTD.—11, Bank Street, Fort, Bombay. Phone : 254736. Grams : " FLUDRIVE ". Dealers in Electrical and Electronic Instruments.**

**NETRONICS PRIVATE LTD.—Manufacturers of Capacitors, Resistors and Other Electronic Components. 21-B, Noble Chambers, 3rd Floor, Parsee Bazar Street, Bombay-1.**

## ELECTRONIC INSTRUMENTS MFRS.

**ELECTRONIC PRODUCTS.—Office : Bombay Mutual Annexe, Gunbow Street, Bombay 1. Phone : 263466. Grams : " ROHMEEPEE ". Manufacturers of Film Carbon Resistors, Testing Instruments, Radio and Transistor Parts & Polythene Packaging Material. Factory : Plot A-27, Road No. 10, Wagle Industrial Estate, Thana, Bombay. Phone : 591340.**

**HIND INDUSTRIAL & MERCANTILE CORP. PVT. LTD. (Hindco).—27, New Queen's Road, Bombay-4. Grams : " ADEX." Phone : 30061-2. Importers & Distributors. Branches at : Calcutta, Delhi, Bangalore and Madras.**

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Acme Manufacturing Co., Ltd.—Construction House, Wittet Road, Ballard Estate.

**ARTYTOYS.—Sir Ratan Tata Welfare Centre, Sir Ratan Tata Road, Tardeo, Bombay 34. For Silver, Nickel and Copper plating at competitive rates. Phone : 74873.**

**DIAMOND ELECTRO-GILDERS & GALVANIZERS.—Specialists for Electroplating in Chrome, Nickel, Silver, Copper, Bright Nickle Anodizing, Bronze, Oxidising, Barrel Plating, Galvanizing & Tanning. Office : Anand Bhuvan, 6, Islampura, Bombay 4. Factories at : 39, 2nd Carpenter Street, Bombay 4 and Bunder Road, Sewri, Bombay 15.**

**KOHINOOR ELECTRO GILDERS.—Khetwadi 10th Lane, Bombay 4. Phone : 71786 ; Electroplaters, Barrel-Platers, Electro-Tinners & Galvanisers ; Specialists in Chrome, Silver, Nickel, Bronze, Brass, Tin Cadmium. Oxidising and Galvanizing and Anodising aluminium.**

Lund & Blockley.—Sassoon Institute, 150-154, Mahatma Gandhi Road, Fort.

New Sun Electro Gilder & Metal Manufacturing Co.—250, Belasis Road, opp. Alexandra Cinema, Bombay 8.

R. Liladhar & Brothers.—Shinde Wadi, 220-D, Vincent Road, Dadar Central Railway, Bombay 14.

**S. R. MANDAWKER & CO.—Military Square Lane, Fort, Bombay 1. Phone : 253687. Electro Platers & Gilders, Copper Plate Printers, General Engravers and Die Sinkers, Relief Stampers & Rubber Stamp Makers.**

**SAIFEE ELECTROPLATING WORKS.—Electroplaters in Chromium, Bright Nickel, Bright-Zinc and Silver, Also Bronzing and Oxidisers in any Colour, 139, Bhendi Bazar, Bombay 3. Phone No. 331937.**

Scientific & Industrial Supplies Corporation.—Princess Street, Bombay 2.

## ELECTROPLATING MATERIAL MFRS. & DEALERS

Associated Machine & Tool Co.—130, Medows Street, Fort.

Batliboi & Company Private Limited.—Regd. Office : Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR.). Phones : 255451 (6 lines) Grams : " BATLIBOICO." Telex : 284. City Branch : Batliboi

House, 59/61 Nagdevi Cross Lane, Bombay-3 (BR.). Branches: Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate: Bangalore 2. Resident Representatives: ERNAKULAM, RANCHI.

Choksi Brothers.—Kanji Mansion, 315, Sandhurst Road, Bombay 4.

**FLINTROCK PRODUCTS PRIVATE LTD.—Belvedere Road, Mazagon. Bombay 10. Mfrs. & Suppliers of Batch Bricks, Pumice Blocks, Pumice—Tripoli Silica Powders, Emery Flour and in Grains Rouge Powder, etc. Phone Nos. 10304 & 321238.**

**GRAUER & WELL (INDIA) LTD.—"SUKHSAGAR," Corner of Hughes Road, Chowpatty, Bombay-7. Grams: "WISHWELL." Manufacturers of Plating Equipments, Plating Salts, Polishing Materials, Polishing Wheels, Mops, etc. in foreign Technical Collaboration.**

Hardcastle Waud & Co. Private Ltd.—Alice Building, Hornby Road, Bombay 1.

**HIND RECTIFIERS LTD.—Lake Road, Bhandup, Bombay 78. Grams: "HIRECT," Bombay 78. Licensees of Westinghouse Brake & Signal Co., Ltd., London for Manufacture of Rectifiers, Battery Chargers, Electroplating sets, Silicon Power Plants. Selling Agents: Kaycee Industries Ltd., Kamani Chambers, Nicol Road, Ballard Estate, Bombay 1. Phone: 264030. Grams: "KAYCE."**


**CANNING MITRA PHOENIX LTD.**

*Manufacturers of:*

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*Regd. Office:* Bachoobai Building, 187, Dr. Dadabhai Naoroji Road, Bombay-1.

Phone: 262342. Grams: "NAMSAMPAT".

*Products manufactured in Technical collaboration with Messrs. W. Canning & Co. Ltd. of U.K.*


**K. B. Gandhi & Co.—277, Sandhurst Road, Bombay 4.**

**KAYCEE INDUSTRIES LTD.—Agents for Hind Rectifiers Ltd. Manufacturers of Selenium and Silicon Semiconductors, Electroplating Rectifiers, Battery Chargers Silicon Power Plants for Electro-Chemical Industries, Manufacturers of "Santon" Rotary Switches, "Kaycee" Toggle Switches "Kaycee" Water Meters. Head Office: Kamani Chambers, Nicol Road, Ballard Estate, Bombay. Phone: 263521. Grams: "TURNRITE." Branches: Delhi, Calcutta, Madras & Kanpur.**

**MACHSONS PRIVATE LIMITED.—Electroplating Engineers, 28, 1st Agiary Lane, Karakuva, Zaveri Bazar, Bombay 3. Phone: 322144. Grams: "MACHPLATE." Manufacturers of Single Cyanides, Double Cyanides, Electroplating Salts, and Chemicals and Anodes of Silver, Gold, Copper, Nickel, Zinc and Cadmium.**

**MATHURADAS BROS. & CO.—76/78, Thakurdwar Road, Bombay 2-BR. Phone Nos. 30974 (Office) & 452075 (Res.). Grams: "PEERLESS," Bombay. Dealers in Electroplating Chemicals, Polishing Materials and Allied Equipments, Jewellery Enamels, Goldsmith Tools, etc. Leading Stockists for: Ronuk Industries Ltd., Bombay.**


**All Types of Metal Finishing:**
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in chrome & nickel.
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in jet black and multi-colours.
**Bright Barrel Plating of all types.**
and
Oxidizing, Passivation, Anodizing & Phosphatizing
**QUALITY ELECTRO-METALLIZING INDUSTRIES,**
B. M. K. Industries compound, Kalina Road, Behind Wadia Estate, Near Bell Bazar, Old Kurla, Bombay-70 (AS).
Phone: 55130


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Hindustan Export & Import Corporation Ltd.—Albert Building, Hornby Road, Fort.
Khatau Chhatrabhaj.—40-41, Swadeshi Market, Kalbadevi Road.
**PIONEER ENAMELLING WORKS, THE.—24, Laxmi Building, Sir Phirozshah Mehta Road, Post Box 1130, Fort, Bombay 1. Phone: 26-3464. Grams: "NAVJOT."**
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**A. M. MOTIWALLA & CO.—213, Nagdevi Street, Bombay 3. Phone : 326760. Shipchandlers, Engineering Tools, Hardware & Pipe Fittings Merchants & General Stores Suppliers.**

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Abdullabhai Faizullabhai, Ltd.— Khoka Bazar, Bombay 3.
Adamally Gulamhusein.—191, Khoka Bazar, Sarang Street, Bombay 3.

Agarwal Commercial Corporation.—35, Bibijan Street, Bombay 3.
Agarwal Machine & Engineering Stores.—55/57, Nagdevi Cross Lane, P. Box 3262, Bombay 3.
Ahmedally Jiwabhai & Co.—86-88, Lohar Street, Bombay 2.

**AMIRUDIN SHALEBHOY TYEBJEE & SONS.—Shale Building, 2nd Floor, Bank Street, Fort, Bombay 1. Phone : 25-2952/ 25-4103. Grams : "PILOTACE."**

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Ardeshir D. Wadia & Sons.—93, Apollo Street, Fort.

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**BHARAT ENGINEERING STORES.—113, Nagdevi Street, Bombay 3. Grams : "UNIONTOOLS". Phone: 323193.**

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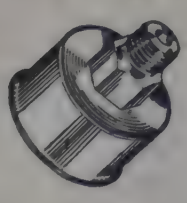
Bombay Machine Tools & Hardware Corporation.—103, Narayan Dhuru Street, Bombay 3.

**BOMBAY TOOLS & HARDWARE MART.—123, Narayan Dhuru Street, Bombay 3. Grams : "BOTAPS." Phone : 327122. Direct Importers-Stockists of Engineering & Precision Tools.**

**BOMBAY TOOLS SUPPLYING AGENCY.—50, Nagdevi Cross Lane, Bombay 3. Phone : 20326. Grams : "TERRATOOLS."**

Brady, W. H., & Co. Ltd.—Royal Insurance Building, Churchgate Street, Fort.
C. Bole & Co.—61, Narayan Dhuru Street, Bombay.
Central Tool & Equipment Co.—32, Sarang Street, Bombay 3.
Chhabildas & Bros.—163, Narayan Dhuru Street, Bombay 3. Phone : 34860.
Chadha, B. M., & Co. Ltd.—Jan Mansion, Sir Phirozshah Mehta Road, Fort, P. O. Box No. 671, Bombay.
Choksi, H., & Co.—106, Medows Street, Fort.

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Great Eastern Trading Co.—107, Cawasji Patel Street, Fort.
Greaves Cotton & Co., Ltd.—Forbes Street, Bombay 1.
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Hardcastle Waud & Co. Private Ltd.—Alice Building, Hornby Road, Bombay 1.

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**HINDUSTAN TOOLS & ENGINEERING CO.—Post Box 2311, 9/13, Picket Cross Road, Lohar Chawl, Bombay 2. Grams : "DRILLTAPS." Stockists of Drills, Tapes, all kinds of cutters, Abrasives, Steel Files, & precision measuring tools.**

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Jayant Engineering & Mill Stores.—51/53 Industrial House, Nagdevi Cross Lane, Bombay 3.
John Fleming & Co. Private Ltd.—Bastion Road, Bombay 1.
Jones, J. D., & Co. (Bombay) Ltd.—Rustom Building, Churchgate Street, Fort.
Kadakia Trading Corporation.—25, Bibijan Street (Nagdevi), Bombay 3. Phone : 29493. Grams : "STEAMTRAP."
Kantilal Bhogilal & Co.—68, Nagdevi Cross Lane, Bombay 3.

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New India Hardware Mart.—152, Narayan Dhuru Street, Bombay 3.

Panalal Mohanlal & Co.—89, Nagdevi Street, Bombay 3.

Patel, U. D., & Co.—Bank Street Building, Fort.

**PRAFULCHANDRA & CO.—106, Lohar Street, Bombay 2. Phone : 39007. Grams : "ELECTOOLS." Importers & Stockists of Engineering, Precision and Garage and Machine Tools.**

P. Ratilal & Co.—48, Dhanji Street, Moti Mahal, Bombay 3. Phone: 32700.

**RASIKLAL SHAH & CO.—93, Narayan Dhuru Street, Bombay 3. Phone : 321759. Grams : "PRECISION". Stockists of Engineering Tools of all types.**

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Shah & Brothers.—234, Nagdevi Street, Bombay 3.

Shah Patel & Co.—109-111, Nagdevi Street, Bombay 3.

**SHAH PRATAP & CO.—64, Old Custom House Road, Fort, Bombay. Phones : 255615 and 255616. Grams : "VINPRA."**

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Vora, J C., & Co.—107, C. P. Tank, Bombay 4.

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay.

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Babcock & Wilcox, Ltd.—16, Queen's Road Estate, Bombay.

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate.

Batliboi & Co.—Forbes Street, Fort.

Bhagat & Sons, Ltd.—Mahatma Gandhi Road, Fort, Bombay.

Bharat Electric & Engineering Corporation.—28, Apollo Street, Fort.

Billington, W., & Co., Ltd.—Imperial Chambers, Wilson Road, Ballard Estate.

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British Steel Piling Co. (India) Ltd.—Hamam House, Hamam Street, Fort.

Candy Filters (India), Ltd.—Forbes Building, Home Street, Fort.

Cementation Company Ltd.—Kasturi Building, Jamshedji Tata Road, Bombay 1.

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Choksi, H., & Co.—106, Medows Street, Fort.

Chotani Electric Engineering Co. Ltd.—57, Apollo Street, Fort.

Curtis, & Co., Ltd. J.,—36-40, Mahalaxmi Bridge Arcade, Bombay 11.

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Essential Engineering Co.—11, Botawalla Building, Elphinstone Circle, Fort.

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Fleming Shaw & Co., Ltd.—Sorab House, 235, Hornby Road.

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Gagrat & Co.—160, Nagdevi Street, Bombay 3.

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**Modern Textile Engineering Works.**—194-A, Trimbak Parashram Street, Golpitha, Bombay 4.

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**Motichand & Co.**—United India Building, Sir Phirozshah Mehta Road, Fort.

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Poonager, Bilimoria & Co.—Cama Building, 24-26, Dalal Street, Fort. Phone No. 23625.

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**Protos Engineering Co., Ltd.**—173, Jamshedji Tata Road, Churchgate, Bombay.

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**Reliance Trading Co.**—Vithal Sayana Building, Lohar Street, Bombay 2.

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**SIMPLEX CONCRETE WORKS AND CONSTRUCTION CO.**—Engineers, Contractors and Manufacturers, "La-Citadelle," 99, Queen's Road, Next to Central Government Offices, Bombay. Tel. Address : "SIMPLEX." Tel. No.: 241340.

SKF Ball Bearing Co. Private Ltd.—Mustafa Building, 19, Sir Phirozshah Mehta Road, Fort, P.O. Box No. 71, Bombay.

Smidth & Co. (Bombay) Ltd., F. L.—Eros Cinema Bldg., 124/D, Queen's Road, Bombay 1.

Stewarts & Lloyds of India, Ltd.—Himalaya House, Palton Road, Fort, Bombay 1.

**Structural Engineering Works Ltd.**—Prospect Chambers, Hornby Road, Fort.

**Surveyors & Co., Ltd.**—Prospect Chambers Annexe, Fort.

Swastik Rolling Shutters Engineering Works.—Parel Station Road, Bombay 12. Phone : 62041. Grams : "SWASTIKROL".

**Taherbhoy Goolamhusein & Bros.**—Mazagaon Dock.

**Tata Hydro-Electric Agencies, Ltd.**—Bombay House, 24, Bruce Street.

**Techno-Industrial Co.**—107, Sir Vithaldas Chambers, 16, Apollo Street, Fort.

**Thos. W. Ward (India) Ltd.**—Marshall Building, Ballard Road, Ballard Estate, Fort.

**Trinity Electric Syndicate.**—Princess Street, Bombay 2.

**Turner, Hoare & Co. Ltd.**—Gateway Building, Apollo Bunder, Bombay 1.

**United Engineering Corporation.**—Datoobhoy Building, 5, New Queen's Road.

**Universal Asphalt Products & Construction Co.**—"La-Citadelle," Queen's Road.

**Universal Construction Co.**—Sir Vithaldas Chambers, 16, Apollo Street, Fort.

**Verma, Ramlal G.**—Bell Building, 4th Floor, 6, Sir Phirozshah Mehta Road, Fort.

**Vickers (India), Ltd.**—Killick Building, Home Street, Bombay.

Victoria Sanitary Stores.—54, 3rd Bhoiwada, Bhuleshwar, Bombay 2.

**Voltas Ltd.**—19, Graham Road, Ballard Estate.

**Western Engineering Co.**—Western India Building, Sir Phirozshah Mehta Road, Fort. P.O. Box 75.

**Western India Engineering Corpn. Ltd.**—Cama Chambers, 23, Medows Street, Fort.

**William Jacks & Co., Ltd.**—Hamilton House, Graham Road, Ballard Estate.

## ENGINEERING TOOLS

**MECHAIDS CORPORATION**
**Elar Building, 524, Tulsi Pipe Road,**
**Behind Swastik House, Bombay 28.**

*Manufacturers of :*

**MACUT** universal cut-off, cuts rapidly anything. **Ferrous**—Mild, Alloy, Hardened, Magnetic, Steels, Wire Ropes. **Non-Ferrous**—Brass, Al. Bronze & Alloys. **Refractories**—Bricks, Tiles, Ceramics, Carbides. **Others**—Glass, Bakelite, Cables, Fibre glass, Plastics, Nylon, Carbon, Brake Lining.

*MACUT is made in 18 Models from 2 H.P. to 10 H.P. In all types & Special Machines to Suit.*

## ENGRAVERS AND DIE-SINKERS

Commercial Art Engravers Ltd.—4th Floor, Tutorial School Building, Grant Road, Bombay.

**CLARIDGE, G., & CO., LTD.—Frere Road, Fort, Bombay 1. Phones : 263201 and 263202. Grams : "EGDIRALC." Security Printers, Photo-Offset, Transfer (Decals), Book-Binders, Carton & Packaging experts.**

Ghaisas, G. J., & Co.—Ramchandra Building, Tram Terminus, Girgaum.

**MANKAME BROS.—Rubber Stamp Manufacturers, Engravers and Die-Sinkers, 405, Kalbadevi Road, Bombay 2. Phone : 23950.**

Mitbawkar, G. A., & Co.—Jehangir Wadia Building, 30, Bruce Street, Fort.

Mitra, H. P., & Co.—Krishna Cinema Building, New Charni Road.

**MODERN DIE STAMPERS & ENGRAVERS.—10, Homji Street, Fort, Bombay. Specialists in Die & Copper plate Embossed Printing. Phone: 251118. Proprietor : Jayantilal A. Parikh.**

Shah Trading Corporation.—Oomrigar Building, 1st Floor, opp. Crawford Market, Bombay 3.

Studio Ratan Batra Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Fort.

Thacker & Co., Ltd.—Rampart Row, Fort.

**TIMES OF INDIA PRESS, THE.—Dr. Dadabhoy Naoroji Road, Fort.**

## ENVELOPE MANUFACTURERS

**CHETAN PAPER INDUSTRIES.—Associates Himatlal & Company, 26, Noble Chambers, Parsee Bazar Street, Fort, Bombay-1. Grams: "HIMS."**

**EXCELSIOR STATIONERY MART.—Tamarind House, Tamarind Lane, Bombay 1. Phone : 252763. Manufacturers of Envelopes, Invitation & Visiting Cards.**

## ENGINEERING STORES (Importer & Exporter)

**NAGDEVI TOOL-STEEL MART.—186-188, Nagdevi Street, Bombay 3. Phone Nos.: 323023 & 327056. Grams: "TENDERERS."**

## ESSENCES

**A. BOAKE, ROBERTS & CO. (INDIA) LTD.—4th Floor, Harileela House, Mint Road, Fort, Bombay No. 1—(BR). Grams : "FLAVAROM." Suppliers of Flavouring Essences to Manufacturers of Aerated Waters. Confectionery, Ice cream and Pharmaceuticals, etc. Head Office : Madras, Branch : Calcutta.**

Akbarally Ebrahimji.—38/C, Cawasji Patel Street, Fort, Bombay.

Akbarally Ebrahimji Pharmacy & Department Store.—45/47, Veer Nariman Road, Fort.

Akbarally Mohamedally & Co.—316, Abdul Rehman Street, Bombay 3.

Carls Aerating Machinery Co.—Diamond Building, Lohar Street, Bombay 2.

General Import Co. (India).—Keshav Baug, 102, Princess Street, Bombay 2.

**GOLDENSUN MANUFACTURING CO.—Distillers & Manufacturers of Highly Concentrated Fruit & Flower Essences & Essential Oils, Perfume Compounds, etc. Bansilal Building, 64/C, Girgaum Road, Bombay 4. Sales Office : Mulchand Mansion, Princess Street, Bombay 2.**

Gujrat Essence Mart.—126, Princess Street, Bombay 2.

Indiana Chemical Works (India) Ltd.—Atlas Mills Compound, Reay Road, Bombay 10.

New Chemical Industries.—Antia House, Edalji Road, Thana, Bombay.

**T. ALIMAHOMED & CO.—(Estd. 1924), Stockists of all sorts of Essences & other Baking Requisites. 144-46, Sarang Street, Bombay 3. Phone : 327131. Grams : "AERATORS." Sole Agents for the Diamond Aerating Gas Works Ltd., Bombay 3.**

T. S. Abdullabhoy & Co.—290-92, Abdul Rehman Street, Bombay 3.

## ESSENTIAL OILS

Akbarally Mohamedally & Co.—Dawoodi Building, 316, Abdul Rehman Street.

**AMRUTLAL BHURABHAI & CO.—P. O. Box No. 2379, Anand Bhuvan, Princess Street, Bombay 2 (B.R.). Phones : 30023, 30024 & 20419. Grams : "CHEMDRUGS." Bombay 2 (B.R.). Direct Importers & Dealers of all kinds of Laboratory Chemicals, Drugs & Essential Oils.**

Anil Trading Co.—Sharaf Mansion, 32, Princess Street, Bombay 2.

**AROMATIC PRODUCTS & CHEMICALS PRIVATE LTD.—Importers and Indentors of Essential Oils, Aromatic Chemicals and Perfumery Raw Materials. 42, Prospect Chambers Annexe, Dr. Dadabhai Naoroji Road, Fort. Grams : "DISCOVERY." Phone : 253151.**

Balumal Santsaram.—204, Samuel Street, Vadgadi, Bombay 3.

**B. C. PATEL & CO.—Devkaran Building, Princess Street, Bombay 2. Stockists of Aromatic Chemicals, Essential Oils and Perfumery Compounds. Phone : 20366. Grams : "SNEHALATA."**

**CALCUTTA ESSENCE SUPPLY CO.—Mulchand Mansion, 1st Floor, Princess Street, Bombay 2. Grams : "SUPRALUX." Phone : 22623. Dealers and Importers of Essential Oils, Aromatic Chemicals and Perfumery Compounds. Branch at 41, Ezra Street, Calcutta 1.**

Carls Aerating Machinery Co.—Diamond Building, Lohar Street, Bombay 2.

Cox & Co., Ltd., H. S.—24, Rampart Row, Fort, Bombay.

D. D. Shah & Co.—Damodar Bldg., 105, Princess Street, Bombay 2.

Dhamdhere, K. H.—45-47, Princess Street, Bombay No. 2.

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.—Wavell House, Graham Road, Ballard Estate, Bombay. Phone : 26-2711 (8 lines). Machine Works : Tank Road, Bombay 33-DD. Phone : 78544. Offices at Madras, Calcutta, New Delhi, Bangalore, Secunderabad & Lucknow.**

F. Bock & Co.—Shale Building, Bank Street, Bombay 1.

**FIDAALLI ABDULRASUL ATTERWALLA & CO. (Estd. 1890).—12-14, Mirza Street, Bombay 3. Phone : 326341. Grams : "PALMAROSA." Manufacturers and Exporters of Palmarosa Oil and other Essential Oils.**

**GENERAL IMPORT CO. (INDIA).—Keshav Baug, 102, Princess Street, Post Box No. 2376, Bombay 2. Phone : 38497. Grams : "SODALEMON." Aromatic Chemicals, Essential oils, Aerated water requisites, Essences, Harmless Food Colours and Saccharine.**

Gujrat Essence Mart.—126, Princess Street, Bombay 2.

Kantilal Sanghvi & Co.—Mherwan Building, Sir Phirozshah Mehta Road, Fort.

Kapadia & Co.—19, Phirozshah Mehta Road, Fort, Bombay 1.

K. Metharam.—491-3, Kalbadevi Road.

**Kirtikumar & Co.—80, Bhandari Street, Mandvi, Bombay 3.**

**Latham Abercrombie & Co., Private Ltd.—Forbes Building, Home Street, Fort.**

Mercantile Essential Oil Company.—5, Mint Road, Fort, Bombay. Phone : 261357. Grams : "MESORIHA." Stockists of Palma Rosa Oil (Motia & Sofia), Ginger Grass Oils. Dealers in Indian Essential Oils.

**M. C., DAVAR,& CO.**—143, Princess Street, Bombay 2. Phone: 39752. Grams: "EMCIDAVAR." Aromatic Chemicals, Essential Oils and Perfumery materials. Agents for:—Esrolko Ltd. (Flora), Switzerland.

**N. R. SHAH & COMPANY.**—Mulchand Mansion, Princess Street, Bombay-2. Phone No.: 20093. Grams: "WALFLOWER." Perfumers and Perfumery Raw Material Dealers. Dealing in Aromatic Chemicals, B. P. Natural, Synthetic, Essential Oils and Perfumery Compounds.

Narandas G. Bhatia.—157, 5th Cavel Cross Lane, Gaiwadi.

Narendra & Co.—Bansilal Mansion, 11, Bruce Street, Fort.

New India Pharmacy.—Shroff Mansion, 32, Princess Street.

Odhawji Lawji & Co.—Chikhal House, 144/B, Princess Street, Bombay 2.

Oriental Aromatics.—Sharaf Mansion, 32, Princess Street, Bombay 2.

Parekh Bros., Ltd.—65, Mahatma Gandhi Road, Fort.

**PRAVIN BROTHERS & CO.**—501, Commerce House, Medows Street, Bombay 1. Phones: 251748, 25-2419. Grams: "WIDESCOPE." Importers, Exporters and Agents: Sulphur-Chemicals-Solvents, Pyridene Case, Fertilizers, Minerals, Lime, Jute Products. POLYSOL-S.5, POLYSOL-S.6, GYPSUM.

R. H. Mody & Co.—8, Khanderao Wadi, 1st Floor, Kalbadevi Road, Bombay 2.

**ROSHANLAL & SONS.**—133, Princess Street, Gopal Nivas, Bombay 2. Phone: 38579. Grams: "BERGAMOT". Importers & Dealers in Essences, Food Colours, Saccharine, Soda Bottles & Crown Corks, Distributors for "ABRAC". Agents for "CROWN" Brand Patchouli Oil & H. Reynaud Et Fils (France).

Scientific & Industrial Supplies Corporation.—Princess Street, Bombay 2.

**S. H. KELKAR & CO. PRIVATE LTD. (Estd. 1928).**—36, Mangaldas Road, Bombay 2. Phone: 29130. Grams: "SACHEWORKS," Dadar, Bombay. Manufacturers of Essential Oils, Aromatic Chemicals & "COBRA" Brand Perfumes.

**SIKRI BROTHERS.**—79-E, Princess Street, Bombay 2. Phone: 29393. Grams: "OILMAN."

Shapurji & Co., R. K.—Prospect Chambers, 319, Hornby Road, Fort, Bombay.

T. Alimahomed & Co.—144-46, Sarang Street, Bombay 3.

Voltas Ltd.—19, Graham Road, Ballard Estate, Bombay 1.

## EXHAUST FANS

**FINLAY, JAMES & CO., LTD.**—Chartered Bank Building, Mahatma Gandhi Road, Fort, Post Box 73, Bombay. Phone Nos. 251255-59.

**EAST ASIATIC CO. (INDIA) PRIVATE LTD.**—Wavell House, Graham Road, Ballard Estate, Bombay. Phone: 262711 (8 lines). Machine Works, Tank Road, Bombay 33-DD. Phone: 18544. Offices at Madras, Calcutta, New Delhi, Bangalore Secundrabad, & Lucknow.

**RADIANT ELECTRIC & MACHINERY CO.**—Sir Vithaldas Chambers, Bruce Street, Bombay 1. Phone: 255296-7. Grams: "RADICAL".

## EXPANDED METAL AND WIRE NETTING

**ABDEALLY, B. M., & CO.**—127, Sarang Street, Bombay 3. Phone: 326980. Grams: 'ALERTDEAL'.

Alsales Ltd.—9, Wallace Street, Bombay 1.

**CHUNILAL & CO.**—74, Abdul Rehman Street, opp. State Bank, Bombay 3. Expanded Metal, Perforated Brass, Copper and Zinc Sheet, G.I. Square and Hex. Wire Netting and Stainless Steel, and Monel Metal Netting Merchants. Phone: 326710. Grams: "HIRCHUNGI."

Excel Importers.—89, Princess Street, Bombay 3.

**FAKRUDDIN & CO.**—43, Abdul Rehman Street, Post Box No. 3066, Bombay 3. Phone No. 325837 and 322725. Grams: "WOODPLY."

Great India Net Industry.—10, Bruce Street, Bombay.

**HARISHCHANDRA & CO., JALIWALA.**—233, Abdul Rehman Street (opp. Sutar Chawl), Bombay 3. Manufacturers of perforated metal sheets of all kinds, and stockist of welded mesh. Expanded metals, Wire Netting of all kinds. On Govt., Railway & Municipal Lists. Phones: 322907 & 323161. Grams: "HARIJALI".

Phone: 22461. Gram: "WIREMESH", Bombay 2.

**EVERGREEN WIRECLOTH FACTORY**

*Head Office:*
**Bhabha Building, 151-55, Princess Street, Bombay 2.**

STAG BRAND WIRENETTING

*Leading Manufacturers of:*
Welded Wire Mesh, Wire Gauze, Hex. Wirenettings, Chain Link Fencing, Crimped Wire Net, Barbed Wire, Panel Pins and other Wire Products.

Factory:— Goregaon (East), Bombay 62.
Phone: 691321.

Branch:—182, Nainiappa Naick Street, Madras 3.
Phone: 32846 Grams: "WIRECLOTH", Madras 3.

Hindustan Wire Netting Co., Ltd.—55-57, Nagdevi Cross Lane, Bombay 3.

Hoosein, M. A., & Bros.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort.

Indian Expanded Metals Ltd.—2nd Floor, Prospect Chambers, Hornby Road, Fort, Bombay.

**INDIAN HARDWARE CO.**—Bhabha Building, 151, Princess Street, Bombay 3. Dealers in Wire Gauze, Hex. Wire Nettings, Chain Link Fencing, Crimped Wire Net, Panel Pins, Barbed Wire & other Wire Products & Expanded Metal, Welded Mesh, etc. Tel. No. 29904.

Jacks, William & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Fort.

Kantilal Sanghvi & Co.—Mherwan Building, Sir Phirozshah Mehta Road, Fort.

M. Moiz & Co.—Nakhoda Roghay Market, 8, Nagdevi Street, Bombay 3.

Mehta & Co.—35, Abdul Rehman Street, Bombay 3.

**METAL NET DEPOT.**—113, Abdul Rehman Street, Bombay 3. Phone: 321618. Dealers in G.I. Wire Nettings, Brass & Copper Wire Gauge, Expanded Metals, Cement Sheets, Plywoods, Hard Boards, Decorative Laminated Sheets, Chair Sets and other Building Materials, etc.

**NASH & COMPANY.**—103, Abdul Rehman Street, Bombay 3. Phone: 324968. Steel Expanded Metal. Crimped Wire Netting and Welded Mesh Fabric.

Parsee Trading Co.—Vithal Sayana Building No. 2, Lohar Chawl, Bombay 2.

Reliance Trading Co.—25-47, Lohar Street, Bombay 2.

**S. MEHTA & CO.**—Anees Chambers, Carnac Road, Bombay 1. Phone: 263001. Grams: "DUTYBOUND". Industrial Wire Netting and Perforated Metals, Stainless Steel Wire Nettings and Monel Metal Wire Nettings; Importers, Exporters and Merchants.

Saify, T. A., & Bros. (India).—20, Sarang Street, Bombay 3.

Shah & Co., Jaliwala.—"Jay Nivas", 36, Abdul Rehman Street, near Pydhonie, corner of Sutar Bazar, Bombay 3.

Siriram & Co.—97, Narayan Dhuru Street, Bombay 3.

**THE NEW ERA TRADING AGENCY.**—Everything in Wire-netting, Square, Hexagonal, Crimp and interlink, Chainlink, Fencing, No. 6, Chawl No. 4, Saboo Siddik Road, Bombay-1. Phone: 264329. Grams: "NETACRIMP."

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Bellard Estate.

## FACTORY AND CALENDAR CLOCKS

**ESSENTIAL ENGINEERING CO.—11, Botawala Building, Elphinstone Circle, Fort. Phone: 252940. Grams: "ESSENCE." Importers, Exporters, Commission Agents and Manufacturers' Representatives.**

## FACTORY TIME SAVING DEVICE

Batliboi & Company Private Limited.—Regd. Office: Forbes Street, P.O. Box 190A, Bombay-1 (BR.). Phones: 255451 (6 lines). Grams: "BATLIBOICO." Telex: 284. City Branch: Batliboi House, 59/61, Nagdevi Cross Lane, Bombay-3 (BR.). Branches: Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate: Bangalore 2. Resident Representatives: ERNAKULAM RANCHI.

## FELTS (WOOLLEN) PRESSED

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone: 326980. Grams: 'ALERTDEAL'.**

**JAFFERBHAI & CO.—106-108, Bhendi Bazar, P.O. Box No. 3055, Bombay 3. Phone: 333324. Grams: "NECESSITY." Dealers in P.V.C. Leather Cloth, Canvas, Motor Accessories, Felt, Celluloid, Aluminium Sections, Rubber Sections, Sponge & Foam Cushion, etc.**

Voltas Ltd.—19, Graham Road, Ballard Estate, Bombay 1.

**WILLIAMS, G., & CO. PRIVATE LTD.—"Advent", 8th Floor, 12A, Foreshore Road, Backbay Reclamation, Bombay 1. Phones: 213281 and 213182. Grams: "BLANWIRE."**

## FENTS (CUTPIECES)

Ahmed Ebrahim Bros.—88, Chuckla Street, Bombay 3.

Allied Exporters.—Kumud House, 267, Hornby Road, Fort.

Bajaj Bros. Ltd.—Round Building, Kalbadevi.

Bhagwandas Chatrabhuj & Co.—20, Hamam Street, Fort.

Ebrahim Allibhoy & Sons.—260-64, Abdul Rehman Street, Bombay 3.

Hoosein, M. A., & Bros.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort.

Kantilal Sanghvi & Co.—Mherwan Building, Sir Pherozshah Mehta Road, Fort.

Yacoob Ahmed Bros.—Topiwalla Mansion, Mahomedally Road.

## FERTILISERS

**BHARAT FERTILISER INDUSTRIES LTD.—12, Nanabhoy Lane, Fort, Bombay 1. Phone: 254819; Factory: Majiwadi, Thana, Phones: 592230, 591116. Grams: "PARASAGE." Use "Bharat" brand N.P.K. Mixed Fertilisers in Granular form introduced for the first time in India by the Company.**

**CHEMBUR BONE & FERTILISER CO., PRIVATE LTD.—Managing Agents: Anderson Dawn & Co., Darabshaw House, Ballard Road, Bombay 1. Phones: Office: 263839; Factory: 521821. Grams: "BYPRODUCT."**

Nanavati & Co., Ltd.—16, Apollo Street, Fort.

National Fertilisers Ltd.—Shale Building, Bank Street, Fort.

Poonjiaji, J. M. Jehangir.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort, Bombay.

**PRAVIN BROTHERS & CO.—501, Commerce House, Medows Street, Bombay 1. Phones: 251748, 252419. Grams: "WIDESCOPE." Importers, Exporters and Agents: Sulphur, Chemicals Solvents, Pyridene Base, Fertilisers, Minerals, Lime-Jute Products. POLYSOL-S.5, S.6, GYPSUM.**

Premji Haridas & Co.—Bhanushali Chambers, Argyle Road, Bombay 9.

T. T. Krishnamachari & Co.—Vulcan Insurance Building, Veer Nariman Road, Bombay 1.

Western Chemical Industries.—Goregaon (East), Bombay.

## FILM STUDIO EQUIPMENT IMPORTERS

**INTERNATIONAL TALKIE EQUIPMENT CO. (PRIVATE) LTD.—Assemblers, Manufacturers and Exclusive Importers of Bauer Projectors Klang Film Sound Systems, Iskra Projector, Conradty Carbons Blaupunkt Hearing Aids. 4, Tata Road, Swadeshi Mills Compound, Bombay-4. Phone: 20892.**

Patel India Ltd.—190, Hornby Road, Fort.

Photophone Equipments, Ltd.—9, Marine Lines, Bombay.

**WESTREX COMPANY (Prop.: Cinerama Private Ltd.).—Metro House, Mahatma Gandhi Road, P.O. Box 1232, Bombay 1. Phones: 242273 & 242274. Grams: "WESTREX."**

## FILTER CLOTH MANUFACTURERS

**NEW ORIENTAL SILK MILLS PRIVATE LTD.—27, Picket Cross Road, Bombay 2. Manufacturers & Suppliers of "Terylene" filter Cloth for all kinds of Industries such as Oil Mills, Pharmaceutical firms, Petroleum Industries, Polishing, Electroplating and other Chemical Industries.**

## FILTERS

**JOHN FOWLER (INDIA) LTD.—Marshalls Building, Ballard Road, Bombay 1. Phone: 263059. Grams: "TRACTION." Sole Selling Concessionaires of "VOKES" Filtration Equipment.**

**STARIT ENGINEERING CO.—Designers & Manufacturers of all types of complete water treatment Plant, Boiler Descaling material, water conditioning compound, Ion-Exchange resin & Consulting Engineers. Rangoonwala Building, 4th Floor, Mohamedali Road, P.O. Box 3191, Bombay 3. Phone: 327296. Grams: "ORIBIRD."**

**UNIVERSAL FILTRATION CO. PRIVATE LTD.—Office: 202, Commerce House (2nd Floor), Medows Street, Fort, Bombay 1. Phone: 254364. Works: Saki Vihar Road, Bombay 70. Manufacturers of Filtration Equipments.**

## FIRE-BRICKS & REFRACTORIES

**ALEXANDER & RAYMOND (BOMBAY).—Manufacturers of refractory Materials, Sitaram Building, "G," Phalton Road, Bombay 1. Phone: Office: 262150 & Res.: 573040. Grams: "REFRACTORY."**

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Fort.

Datson Raviraj & Co.—43, Tamarind Lane, Fort.

**ISHWAR INDUSTRIES LTD., THE.—Sales Office: 11, Bank Street, Bombay 1. P.O. Ishwar Nagar, New Delhi. Manufacturers of Fire Bricks of all grades and shapes, Fire clays, Fire Cements, Insulating Compounds, Castable Refractories, Acid Resisting Bricks, and Cements, S.W. Pipes & Fittings, etc. Phone: 76241 (3 lines).**

**J. CHANDRAVADAN & CO.—53, C. P. Tank Road, Bombay 4. Phone: 334403. Grams: "COLORSTONE." Stockists of "A.C.C." Fire Bricks & Clays. Fire Cement, Acid Proof Cement, Tiles & Bricks.**


**FIRE BRICKS & REFRACTORIES**

Standard size Fire Bricks, special size Fire Bricks, Insulation Bricks, Acid Proof Bricks, Fire Cement, Fire Clay, with High Alumina and High Temperature.

*Available from ex-stock at most competition rate.*

**MAHAVIR REFRACTORIES CORPORATION**

133, Princes Street, Gopal Nivas, 2nd floor, Bombay-2.

Phone: Office: 30939, Res.: 335358.


**NOWROJI N. VAKIL & CO.—Shahru Castle, Mohamedalli Road, Bombay 3. Phone: 322803. Head Office and Factory at Naroda Road, Ahmedabad. Manufacturers of Fire Bricks & Clay & Rasching Rings.**

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate.

## FIRE FIGHTING APPLIANCES (MANUFACTURERS AND DEALERS)

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone: 326980. Grams: "ALERTDEAL".**

Armstrong Smith Private Ltd.—Gresham Assurance House, Sir P. M. Road, Bombay 1.

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Bombay 1.

**BENGAL CHEMICAL & PHARMACEUTICAL WORKS LTD.—502, Cadell Road, Bombay 28. H.O. 6, Ganesh Chunder Avenue, Calcutta 13. Pharmaceuticals, Heavy and Fine Chemicals, High Class Toilet Products, Coal Tar Distillation Products, Fire Extinguishers, Printing Inks, Dryers, etc. Branch Office : Kanpur.**

Crescent Trading Co.—48, Bhajipala Lane, Bombay 3.

**EASTERN STORES & TRADING CO. PRIVATE LTD.—115, Nagdevi Street, Bombay 3. Phones : 322215/16. Grams : "ENERGY."**

## FYRFO PRIVATE LTD.

(Fire Protection Engineers)

Head Office :

**1, Kurla Industrial Estate,**

**Agra Road, Ghatkopar, Bombay-77.**

Phone : 55342

Grams : "FOGNOZZLE"

*Branch Office :* AGURCHAND Mansion, 6/35 Mount Road, Madras-2. Phone : 84190.

*Manufacturers & Dealers in:*

- All types of Fire Extinguishers.
- Fire Engines, Trailer Pumps, and Fire fighting equipments.

Fleming, John & Co. Private Ltd.—P. B. No. 76, Bombay 1.

Imanes.—94, S. V. Road, Erla, P.O. Box 8002, Bombay 56. Phone : 571634. Grams : "BELLIBONE (SZ)." Springs and Forms out of Spring Wires and Strips for your Industry.

**INDUSTRIAL COMMERCIAL CORPORATION.—157-59, Narayan Dhuru Street, Bombay 3. Phone : 321937. Manufacturers of Terylene, Hose, Plain/Rubber lined Fire Hose Pipes with full range of Fire Fighting Equipment.**

**Kilburn & Co. Private Ltd.—Gresham Assurance House, Sir Phirozshah Mehta Road, Fort, Bombay 1.**

Kooverji Devshi & Co. Private Ltd.—164, Lohar Chawl, Bombay 2.

Phones : 265028 / 39508 ESTD. 1818 Grams : "FIREX"

## KOOVERJI DEVSHI & CO. PRIVATE LTD.

232, General Assurance Bldg., Dr. D. N. Rd., Fort, Bombay 1 & 164, Lohar Chawl, Bombay 2.

FIRE PROTECTION ENGINEERS.

*Manufacturers of :*

"FIREX" Fire Extinguishers—Soda Acid, Foam, $CO_2$/Water & "AUTO-FIREX" C.T.C. types, "Firex Deluxe", "Fire-Master" & Jeep Fire Engines, Fire Fighting Equipments of all types.

*Direct Importers and Stockists of :*

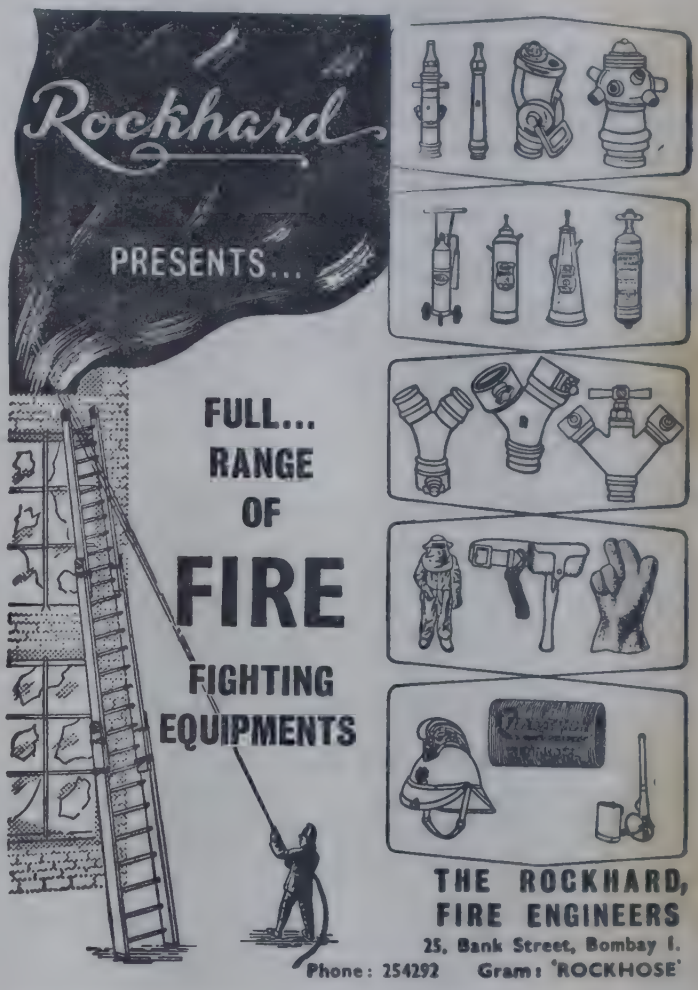
Fire Engines, Trailer Pumps "Coventry Climax", Hendry's Helmets, Waterloo Dry Powder Extinguishers, Firewater, Firemen's Wheat Spotlights, "Extinguisher" Fire Hoses and other auxiliaries.

Merchant Bros.—151, Nagdevi Street.

**MINIMAX LTD.—Janmabhoomi Chambers, 29, Fort Street, Bombay 1. Phone : 26-2879. Head Office : Mercantile Buildings, 12, Lall Bazar Street, Calcutta 1. Phone : 22-3675.**

**NATIONAL FIRE EQUIPMENT CO.—11, Bank Street, G.P.O. Box No. 1430, Bombay 1. Grams : "STORESUPPLY." Phone : 254635. Manufacturers & suppliers of entire range of Fire Fighting equipments. Sole agents for Messrs. Albin Motor Co., Kristinehamn, Sweden. Makers of Fire Engines & Trailer Pumps, Messrs. Mandals Reberbane Ch. & Co. Oslo, Norway. Makers of Fire Hosepipes, Messrs. H. Christoferson & Co., Gotheburg, Sweden. Makers of Glass Fibre Fire Resisting suits.**

**RADIANT ELECTRIC MACHINERY CO.—Sir Vithaldas Chambers, Bruce Street, Bombay 1. Phone : 255296-7. Grams: "RADICAL."**




Roberts, McLean & Co. Private Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Bombay.

**SHAH PRATAP & CO.—64, Old Custom House Road, Fort, Bombay. Phones : 255615 & 255616. Grams : "VINPRA."**

Shalebhoy Tyebjee & Sons.—12, Bruce Street, Bombay 1.

**SIMPLEX TIMBER MART.—64-68, Ibrahim Mohd. Merchant Road, Khadak, Bombay 9. Phone : 331794. Grams : "LADDERMAN." Manufacturers of "AJAX" Extension Ladders, "Scaling" Ladders & Wall Extension Ladders for Fire Fighting.**

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay 1.

**ZENITH FIRE SERVICE.—127/129, Mody Street, Bombay 1. Phones : 265416 & 264006. Manufacturers of Dry Chemical Fire Extinguishers for the First Time in India. Soda Acid Foam Type C.T.C. approved by the Govt. Test House Alipore. Also by Fire Insurance Association of India.**

### FIRE PROOF DOORS

**RADIANT ELECTRIC MACHINERY CO.—Sir Vithaldas Chambers, Bruce Street, Bombay 1. Phone : 255296-7. Grams: "RADICAL."**

### FIRE WORKS MANUFACTURERS AND DEALERS

**DADA FIRE WORKS PRIVATE LTD. (Inc. 1953).—H. O. : 240-42, Juma Masjid, Bombay 2. Phone : 325662. Grams : "DADASPARKS (KB)." Manufacturers & Exporters of "DADA" Sparklers & Crackers. Factory : Dadanagar, Fursungi, Taluka Haveli, Dist. Poona.**

Kaka Fire Works.—244, Juma Masjid, Bombay 2.

**SHAMA FIREWORKS INDUSTRIES.—142, Samuel Street, Bombay 9. Phone : 325521. Grams : "PHULJHARI." H. O. Jalgaon M. S. Grams : "SHAMA". Manufacturers of "SWAN" Brand High Class Sparklers, Crackers, Snakes, Aeroplanes, Chakkars, etc.**

## FISHING REQUISITES

**INDOPLAST LTD.**—Kasturi Building, Jamshedji Tata Road, Bombay 1. Grams: "STYROPOR. Phone: 38071. Manufacturers of Thermocole Plastic Fishing Floats.

Rasiwalla & Co., M. M. A.—17, Janjikar Street, Mandvi, Bombay 3.

## FLASHLIGHT TORCHES, DRY BATTERIES AND TORCH BULBS

**EASTERN TRADING CO.**—Mahakali Chawl, Pydhonie, Bombay 3. Light Merchants & Manufacturers' Agents.

**LIGHT HOUSE.**—51, Kitchen Garden Lane, Shrijee Bhuvan, Bombay 2. Phone: 30351. Grams: "GRAATWALL." Sole Selling Agents of "BL" Brand Miniature Bulbs, Electrical Bulbs, Distributors for Domestic Appliances, Eveready Batteries, Bulbs and Torches.

**UNION CARBIDE INDIA LTD.**—Laxmi Building, Sir P. M. Road, Fort, Bombay 1. Phones: 264521 & 264522. Grams: "EVEREADY."

## FLEXIBLE SHAFT GRINDERS AND SHAFTS

**BHARAT ELECTRIC & ENGINEERING CORPORATION.**—Free Press Building, Ground Floor, 21, Dalal Street, Fort, Bombay. Phone: 255374. Grams: "GODGRACE."

## FLEXIBLE SHAFT MACHINES

**DATSON RAVIRAJ & CO. (PRIVATE) LTD.**—43, Tamarind Lane, Fort, Phone: 254433. Grams: "DATNARE."

## FLEXIBLE TUBES (For ELECTRICAL WIRING)

**INDIAN FLEXIBLE TUBE MFG. CO. PRIVATE LTD., THE.**—504, Vithaldas Chambers, 16, Apollo Street, Bombay. Phone: 252627. Grams: "BESTCLAY." Manufacturers of Flexible Conduit for Electrical Wiring.

## FLORISTS AND SEEDSMEN

**Apollo Florist.**—5, Colaba Causeway, Fort.

**PALEKAR & CO. (Estd. 1870).**—Sitaram Bldgs., near Crawford Market, Bombay 1. Phone: 262236. Grams: "RUDRA." Stockists of Flower & Vegetable seeds Garden Tools.

**SORABJEE A. M. ERANEE (FLORIST).**—Opp. Karanjia & Co., 171-175, Dr. Dadabhoy Naoroji Road, Bombay 1. Phone: 262540. Largest Suppliers of Wreaths, Crosses and Bridal Requisites in fresh and artificial flowers. Stockists: Pocha's Seeds, Garden Implements, Fertilizers, etc.

Victoria Gardens.—Byculla.

## FLOORING TILE & COMPOSITIONS MFRS.

**ACME TILES MFG. CO.**—494, Duncan Road, Bombay 4. Phone Nos. 333387 & 65610. Grams: "EKMITILE." Manufacturers of 'ACME' brand Marble, Mosaic, Terazzo, Plain & Non-Slippery Cement Tiles.

Bharat Pulverising Mills Private Ltd.—38/A, Sayani Road, Parel, Bombay 28.

**DUNCAN STONE CO.**—500, Maulana Azad Road, Bombay 4. (B.R.). Phones: Res.: 20985; Office: 332409. Grams: "TILERIES." Stockists of Marble & Tiles & Sanitarywares.

**FLINTROCK PRODUCTS PRIVATE LTD.**—Belvedere Road, Mazagon, Bombay 10. Manufacturers and suppliers of Flooring Composition "POLYSHINE" Bath Bricks, Artificial Pumice Rubbing Blocks, etc. Phone: 70304 & 321238.

**OXY-CHLORIDE FLOORING PRODUCTS LTD., THE.**—Arthur Bunder, Colaba, Bombay 5. Phone: 211571. Grams: "STONETTE."

**STONOLITE MONOLYTHIC PRODUCTS.**—Jiji House, Ravelin Street, Bombay 1. Manufacturers of "STONOLITE" Brand Flooring Composition. Phone: 264296.

## FLUORESCENT TUBES AND FITTINGS MFRS.

**BAJAJ ELECTRICALS LTD.**—45/47, Veer Nariman Road, Bombay 1. Electrical Engineers, Manufacturers and Contractors. Phone: 253841. Grams: "SOFTLITE." Branches at Calcutta, Delhi, Madras, Kanpur, Patna, Indore, Wardha, Gauhati, Hyderabad, Jaipur, Jullunder & Bangalore.

*For Light that leads*

# 'CHATAK' & 'KISAAN'

# TORCHLIGHTS

★

*Sole Distributors:*

**EASTERN TRADING CO.,** *Exporters, Railway & Government Contractors*

47, Mahakali Bldg., Pydhonie, Bombay-3. Phone: 326510
55, Canning Street, Calcutta-1.

**FLUORESCENT FIXTURES MFG. CO.**—Manufacturers of "COOLITE" Fluorescent Lighting Fixtures & Accessories, and Electric Bells & Buzzers. 195-197, Abdul Rehman Street, Bombay 3. Phone : Office : 326974, Factory : 68597. Grams : "GENINS."

**HINDCO LIGHTING INDUSTRIES LTD.**—Hindlight House, Subhash Nagar, Jogeshwari East, Bombay 60, India. Phone : 572320, 572622. Grams : "HINDLIGHT." Manufacturers, Distributors and Exporters of fluoresent lighting fittings ballast Law, Voltage transformers, M. V. Lanterns and Accessories of all kinds.

**PREMIER LIGHTING INDUSTRIES PRIVATE LTD.**—Manufacturers of "Daylight" Fluorescent Light Fittings, Ballasts and Accessories, Mercury Vapour Lanterns and their Ballasts. Regd. Office : Jhaveri Building, 348/352, Abdul Rehman Street, Bombay 3. Phones : 323743-4. Grams : "DAYFIX." Factory : Old Sunderdas Mills Compound, Anandrao Nair Road, Bombay 11. Phone : 73010.

## FLUSH DOORS

**NASH & COMPANY.**—103, Abdul Rehman Street, Bombay 3. Phone : 324968. Commercial & Decorative Flush Doors, Black Boards and Formico.

## FOOTWEAR MFR.

**CARONA SAHU CO., LTD.**—"Fort House," 221, Dadabhoy Naoroji Road, Bombay-1. Manufacturers of Canvas, Rubber, Shoes & Chappals, Leather Shoes with Moulded Rubber Soles Chappals with Microcellula Soles and Children's Leather Sandals with Rubber Soles.

## FORGINGS & CASTINGS

**ECHJAY INDUSTRIES PVT. LTD.**—Office & Factory: Kanjur Village Road, Bhandup, Bombay-78. Phone : 581211 & 581678. Grams : "ECHJAY," Bhandup. Manufacturers of Accessories & Equipments for Machine Tools, General Steel Forgings—including Forged Flanges, Diesel & Automobile Engine Forged Parts, Jigs & Fixtures Hand Tools, Hand Hammers, Chisels & Punches, Spanners, Pliers (Forged), Press Tools, Dies & Punches.

## FORMICA DECORATIVE LAMINATE

**PLYNET TRADERS.**—Shahur Castle, Mohamedali Road, Bibijan Street, Bombay 3. Phone : 32733. Grams : "NETPLY." Authorised Dealers for Formica Decorative Laminate.

## FORMICA & SUNWOOD

**HINDUSTAN PLYWOOD & METAL DEPOT.**—Wholesale and Retail Dealers in Teak Walnut & Champ Faced Black Board & Plywood, Hard Board, Masonite, Plywood, Teak Plywood, Insulation, Insulation Soft Board, Chair Seats, Cement Sheets, Formica & Sunwood Sheets, etc. 301, Shree Ram Nivas, Corner of Abdul Rehman Street & Masjid Bunder Road, Bombay 3. Phone : 324544. Grams : "PLYDEPOT."

## FOUNDERS AND FOUNDRY EQUIPMENT

Amar Brass and Iron Works.—Office and Works : 6, Sewree Cross Road, Bombay 15. Grams : "SEWREEIRON."

**ART METAL WORKS (Estd. 1882).**—35-C, Jeraijbhoy Street, Foras Road, Bombay 8. Phone : 71692. Brass & Iron Founders, Builders, Hardware Manufacturers and Engineers & Contractors.

Central Metal & Wire Products.—60, Lamington Road, Bombay 8.

**DATSON RAVIRAJ & CO. (PRIVATE) LTD.**—43, Tamarind Lane, Fort. Phone : 254433. Grams : "DATNARE."

Greaves Cotton & Co., Ltd.—Forbes Street, Bombay 1.

Guest, Keen Williams Ltd.—Wakefield House, Ballard Estate, Bombay 1.

**HARDCASTLE & WAUD MANUFACTURING CO. PRIVATE LTD.**—Alice Building, 339, Dr. Dadabhai Naoroji Road, Fort, Bombay 1. Phone : 255771. Tel. Address : "WAUDCO."

**HINDUSTHAN ENGINEERING WORKS.**—7/C, Pitamber Lane, Mahim, Bombay 16. Phone : 451408. Grams : "DICHROMATE." Air Compressors, Chemical Engineering Equipment, Founders and Foundry Equipment Industrial Engineers, Material Handling and Conveyors, Moulding Machines and Boxes, Steel doors and Windows and Tank Manufacturers.

**INDUSTRIAL MINERALS & CHEMICAL CO.**—125, Narayan Dhuru Street, Bombay 3. Phone : 323721 (3 lines). Grams : "IMCHEL". Chemicals & Mineral Merchants and stockists of raw material for all Industries.

J. D. Jones & Co. (Bombay) Ltd.—Rustom Building, Veer Nariman Road, Bombay 1.

**JAYEMS ENGINEERING CO.**—Warden House, Sir Phirozshah Mehta Road, Bombay-1. Engineering, Machinery Merchants & Manufacturers' Representatives, direct importers of Machine Tools, Wood Working Machinery, Sheet-metal Working Machinery, Welding Equipment, Foundry Equipment etc. Phone : 256251. Grams : "JAYEMS."

**METALLICA WORKS PRIVATE LTD.**—79/83, Dr. Annie Besant Road, Bombay 18. Phones : 75432, 75433, 75434. Makers of Non-Ferrous Metals, Castings, Alloys Anodes, Lead Linings of Acid Resisting Containers, Crucibles.

**MUNCHERJEE BYRAMJEE & CO. (Estd. 1882).**—35-C, Jeraijbhoy Street, near Municipal Workshop, Bombay 8. Phone : 71692. Brass & Iron Founders and Structural & Mechanical Engineers.

Nadirshaw & Bros.—"Silver Talkies" Building, Khetwadi Back Road.

**NASH & COMPANY.**—103, Abdul Rehman Street, Bombay-3. Phone : 324968. Commercial & Decorative flush doors Black Boards & formico.

**PIONEER EQUIPMENT CO. PRIVATE LTD.**—139, Medows Street, P.O. Box No. 1909, Bombay 1. Phone : 251882. Also at Calcutta, New Delhi, Madras & Baroda. Manufacturers of Foundry Equipment and Stores—e.g. Cupolas & Mechanical Chargers, Reverberatory & Electric Furnaces, Sand Conditioning Plants, Moulding Machines, Core Blowers, Pouring Ladles, Conveying Systems, Moulding Boxes, Tumbling Barrels, Foundry Fluxes & Stores, etc., and Dealers in Ore Dressing Equipment, Industrial Furnaces, Laboratory Control & Research Instruments.

**P. RATILAL & COMPANY**

**Moti Mahal, 43, Dhanji Street, Bombay 3**

*Importers & Stockists :*

Morgan English & "Colisit" German Crucibles. Manufacturers of superior quality "Comet" Brand Indian Crucibles. Also stockists of Cockills' V-Belts, V-Link Belting, all types of Endless belts, Rubber & Asbestos goods and mill stores.

Telegrams : "ETERNAL" 'Phone : 325980

**SHREE KARNATAK AGENCIES.**—48, Western India House, Sir Phirozshah Mehta Road, Fort, Bombay. Phone : 254220. Controlled Stockists of "FERRO-SILICON." Grams : 'SACHOTI.'

Testeels Limited—Prospect Chambers, Dr. Dadabhoy Naoroji Road, Bombay 1.

Ward Thos. W. (India) Ltd.—Marshall Building, Ballard Road, Fort.

William Jacks & Co., Ltd.,—Hamilton House, Graham Road, Ballard Estate.

## FOUNDRY FLUXES & STORES

**DATSON RAVIRAJ & CO. (PRIVATE) LTD.**—43, Tamarind Lane, Fort. Phone : 254433. Grams : "DATNARE."

**GARGI INDUSTRIES (Foundry Products Division).**—18, Union Park, Chembur, Bombay 71. Works : Kirti Rubber Works Compound, 205/207, Ghodbunder Road, Jogeshwari, Bombay. Phone : 521545.

**PIONEER EQUIPMENT CO. PRIVATE LTD.**—139, Medows Street, P.O. Box No. 1909, Bombay 1. Phone : 251882. Also at Calcutta, New Delhi, Madras and Baroda. Agents in India for "Fusite" Fused Sodium Carbonate Blocks of Tata Chemicals—a TATA Product, and for "HARMARK" Foundry Chemicals & Fluxes. Also now manufacturing in India "PMC" Foundry Chemicals & Fluxes, under licence from "HARMARK" of England.

Vishwa Bharati Trading Co.—14, Kumpta Street, Ballard Estate, Bombay 1.

## FOUNTAIN PENS IMPORTERS, MFRS. & DEALERS

Dhiraj Pen Manufacturing Co., Ltd.—Nagardas Road, Andheri (East), Bombay.

**ENAYATALI & CO.—262-264, Abdul Rehman Street, Bombay 3. Dealers in all Famous makes Fountain Pens, Inks & Spare Parts including "ENACO" Fountain Pens, Inks, Gum, Carbon Papers, Stationers & Fountain Pen Merchants. Phone: 321769. Grams: "ENAYAT."**

Hornby Fountain Pen Depot.—204, Dr. Dadabhai Naoroji Road, Bombay 1. Phone: 263967. Grams: "CAMELPEN".

**INDIA PEN HOUSE.—234, Abdul Rehman Street, Bombay 3. Dealers in Fountain Pens, Ball Pens, Pencils, Carbon Papers, Pen Holders, Inks and all kinds of Stationery.**

Kiron & Co., Ltd.—73-75, Chhipi Chawl (Shamshet Street), Near Zaveri Bazar, Bombay 2.

Khokhani & Co.—Sutar Chawl, Ismail Building, Bombay 2.

Mhatre Pen & Plastic Industries.—182, Gaiwadi, Girgaon, Bombay 2.

New Type Fountain Pen Depot.—116-18, Narayan Dhuru Street, Barbhai Moholla, Bombay 3.

Oriental Traders.—Anand Bhuvan, Princess Street.

Premier Fountain Pen Depot.—296, Sheikh Memon Street, Bombay 2.

Raja Fountain Pens Depot.—115, Shamshet Street, Bombay 2.

Ramniklal C. Kothari & Co.—16, Apollo Street, Bombay 1.

**RITESHARP PEN MFG. CO.—7, Sutar Chawl, Bombay 2. Phone: 324771. Mfrs. of High quality Fountain Pens, Nibs, Ball-Point Pens & other Spare Parts.**

R. Punjabi & Co.—Sharuf Mansions, Princess Street, Bombay 2.

United Commercial Co.—48, Mangaldas Building, 1, Princess Street.

## FREIGHT BROKERS

**ABRAHAM, SHAH & SONS.—Hague Building, Ballard Estate, Sprott Road, Bombay 1. Phones: 26-1837, 26-2379 & 26-3994.**

**KANJI JADHAVJI & CO.—Musjid Bridge, Mandvi, Bombay 9. Phone: 323681 & 321412. Grams: "GITA." Freight Brokers, Clearing, Forwarding, Shipping, Landing & Travel Agents.**

Lionel Edwards Ltd.—Nicol Road, Ballard Estate, Bombay 1. Phone: 261241/43. Grams: "LIONWARDS."

**N. JAMNADAS & CO.—16, Bank Street, Fort. Phones: 253871 (5 lines). Grams: "BAXICO." Freight Brokers and Travel Agents. Recognised by I.A.T.A./I.A.C., Govt. of India & All Steamship Companies. Members: A.S.T.A., F.I.A.V., T.A.A.I., P.A.T.A. & Freight Brokers Association.**

**PITAMBER & CO.—Scindia House, Ballard Estate, Bombay 1. Freight and Chartering Brokers. Brokers to the Scindia Steam Navigation Co., Ltd. Phone: 261066, Res.: 572663. Gram: 'SAGARNUR'.**

**PITAMBER LALJEE & SONS.—Bharat House, 104, Apollo Street, Bombay 1. Phones: Office: 255426 & 254230. Res.: 72050. Grams: "SAFESHIP." Freight and Chartering Brokers and House Brokers, Bharat Line Ltd.**

**PRABHULAL L. PANDYA & CO.—26, Podar Chambers, Parsi Bazar Street, Fort, Bombay 1. Phone: 251794. Grams: "PRAPANDYA." Salt Merchants, Stevedores and Dubashes, Freight and Chartering Brokers, Steamship Clearing and Forwarding Agents. Branches: Okha, Jamnagar, Bhavnagar, Veraval, Porbunder, Navlakhi, Gandhidham (for Khandhla).**

Purdie & Co.—Freight Brokers, 16, Elphinstone Circle, Fort.

## FRESH AND FROZEN FISH AND MEAT (EXPORTERS AND IMPORTERS)

**FRUIT FARM PRODUCTS CO., THE.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort, Bombay 1. Phone No. 262120.**

Spencer & Co., Ltd.—Spencer Bldg., Forjett Street, Bombay 26.

## FRESH VEGETABLES AND FRUITS (EXPORTERS AND IMPORTERS)

**FRUIT FARM PRODUCTS CO., THE.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort, Bombay 1. Phone No. 262120.**

## FUEL INJECTION EQUIPMENT

**BHARAT ELECTRIC & ENGINEERING CORPORATION.—Free Press Building, Ground Floor, 21, Dalal Street, Fort, Bombay. Phone: 255374. Grams: "GODGRACE."**

**EVEREST ENGINEERING CORPORATION.—12, Hornby View Building, Gunbow Street, Fort, Bombay 1. Phone: 261691. Grams: "EXPOCORP." Specialists in Diesel Engines & Spares, Fuel Injection Equipment, Electric Motors, Small Engineering Tools, Workshops Machinery, Graphite Crucibles, Ball & Roller Bearings, Steel Shafting, Circlips, etc. (Allied Concern of Messrs. Khimandas Jagumal & Sons).**

**HARRY'S TRADING CO.—Quality Sirens from 1/2 Mile to 5 Miles Range and Portable Electric Blowers Suitable for Cleaning etc. Fuel injection Equipments for Diesel and Tractor Engines. 501, Commerce House, Medows Street, Bombay-1. Phone: 256605 & 535023 (Res.).**

**HONESTY TRADING CORPORATION.—Beaumon Chambers, Medows Street, Fort. Phone: 253534 and 252018. Grams: "HOTRACO." Sole Agents for H.T.C. Brand and MPD Brand Fuel Injection Equipment for all types of Diesel Engines and Tractors.**

**IMANES.—94, S.V. Road, Erla, P.O. Box 8002, Bombay 56. Phone: 571634. Grams: "BELLIBONE (SZ)." For Springs & Forms out of wires and strips for your Industry.**

Khimandas Jagumal & Sons.—12, Gunbow Street, Bombay 1.

Kumar Commercial Co.—Nadirshaw Sukhia Street, Off Cawasji Patel Street, Bombay 1.

**MACHINERY SALES CORPORATION.—5, Tamarind House, Tamarind Lane, Fort, Bombay 1. Grams: "ENGESPARES." Phone: 254480. Stockists of Imported Spare Parts for Diesel Engines, Tractors, Road Rollers & Spares.**

**MOTOR INDUSTRIES CO., LTD.—Manufacturers of Mico—Licence—Bosch Diesel Fuel Injection Equipment & Spark Plugs. Distributors of Bosch Automobile Parts & Accessories, 41, Queen's Road, Bombay 2. Phones: 38328 & 38329. Grams: "ELEMENT." Head Office: Post Box No. 93, Bangalore, Branches: 1/155, Mount Road, Madras 2 and 91-A, Park Street, Calcutta 16.**

**NAREN KUMAR MACHINERY CO.—9, Oak Lane, Off Medows Street, Fort, Bombay. Phone: 251868. Grams: "NEW-KUMAR," Bombay. Importers of Diesel Engines spares & Stockists of "Vera" Engine valves.**

**SUPREME INDUSTRIAL WORKS.—196/K, Gaiwadi, Girgaum, Bombay 4. Manufacturers of Gears & Specialists in all kinds of Worms & Worm Wheels.**

**UNITED ENGINEERS.—104, Apollo Street, Fort. Phone: 253204. Grams: "POWEREQUIP." Sole Agents in India for FM Fuel Injection Equipment manufactured by Friendman & Maier, Austria.**

## FUEL TESTING INSTRUMENTS

**ASSOCIATED INSTRUMENT MANUFACTURERS (INDIA) PRIVATE LTD.—India House, Fort Street, Bombay 1. Phone: 261658. Grams: "AIMILBOM."**

## FURNISHING FABRICS

**"DECORA" RAVAL TILES AND MARBLE PRIVATE LTD.—Edena, 97-A, Queen's Road. Phone: 242310.**

Kashmir Govt. Arts Emporium.—Sir P. M. Road, Bombay 1.

## FURNITURE DEALERS AND MANUFACTURERS

**ALIMOHAMED PREMJI.—Dial 331451 any advise in the Furniture Problem. We design most artistically the requirements of Flats & Offices Furnitures. Splt. in Kitchen Units & Film set Decorations. 124, Mutton Street, Bombay-3.**

**ANAND TIMBER TRADERS.—170, Reay Road, Bombay 10. Office Phone: 42203. Res. 60144.**

Apollo Furnishing Co.—Harishankar Lodge, opp. Charni Road Railway Station, 23, Queen's Road.

Art Flooring & Construction Co.—16, Sleater Road, near Grant Road.

Amzel Private Ltd.—Lotus House, Marine Lines, Bombay 1.

**BHAGAT BROTHERS.—Patel Chambers, Sandhurst Bridge, Bombay 7. Phone: 72725. Grams: "SHOWINDOW". Furniture & Interior Decorators.**

Bhagwandas J. Mistry.—16, Banaji Street, Fort.

**BHARAT FURNITURE WORKS (Estd. 1921).—Swadeshi Mills Estate, 78, Girgaum, Bombay 4. Phone: 27349. Manufacturers and Suppliers of household Office Fittings, Furniture, etc. Specialists in designing, Furnishing & Interior Decorating in the latest styles of office, Commercial and other special purposes.**

Bombay Furniture House.—132-138, Mutton Street, Null Bazar.

Brijmohan Banwarilal.—61, Reay Road, Mazagaon, Bombay 10.

**D. C. BATLIWALA & CO.—12, Bruce Street, Fort, Bombay 1. Phone: 253732. Furniture Hirers and for sale.**

Dawson & Co.—24, Parsee Bazar Street, Bombay 1.

Dewjee Canjee & Co.—156, Sheriff Dewjee Street & Mohamedali Road.

Ebrahim Jaffer & Co.—208, Chuckla Street, Bombay 8.

**E. PEERBHOY & SONS.—Prop., Indian Durries Emporium, 64, Mohamedali Road, Shahru Castle, Bombay 3. Phone: 323806. Grams: "INDIAWEAVE".**

Eyres, E., & Co.—Bellasis Road, Bombay 8.
Gujarat Furniture Works.—Satar Sea View, 45, Chowpatty Sea Face.

**INTERFURN.—Interior Decorators and Furniture Manufacturers, 361, Dr. Dadabhoy Naoroji Road, Fort.**

Jamshedji F. Billimoria & Co.—290, Lehri Building, Sandhurst Road.

**JAYANAND KHIRA & CO. PRIVATE LTD.—Office & Showroom : Khira Bhavan, Sandhurst Bridge, Bombay 7. Phone : 30097-98. Grams : "SWAKALA." Manufacturers of Bus Bodies, Bus Body Kits and K-plan Wooden furnitures. Laminated Blackboards and Flush doors.**

**KAMDAR PRIVATE LTD.—Opp. Churchgate Station, Bombay 1. Phone : 242347/8. Grams : "SIMKIE," Bombay. Interior Decorators & Furniture Makers. Mg. Director : B. M. Kamdar. Director : Mrs. Pushpa B. Kamdar.**

**KANTILAL KARIA & CO.—Furnishers and Interior Decorators, Chowpatty View, Chowpatty, Bombay 7. Phone : 20983.**

Kay & Co.—42, Custom House Road, Fort.
Khira Steel Works Private Ltd.—H.O. & Factory : Ghodbunder Road, Santa Cruz, Bombay 23. Grams : 'STEELCASE'; Phones: 88002 & 89569.
Mahomedally Dadabhai & Son.—Jamnadas Building, 70-72, Mutton Street, Null Bazar, Bombay 3.
Maroo & Co.—Noble Chambers, 13, Ghogha Street, Fort, Bombay 1.
Mayfair Furnishing Company.—Great Western Buildings, Apollo Street, Fort.
McKenzies, Ltd.—Sewri.

**MINERVA FURNITURE WORKS.—Furniture Makers and Interior Decorators, 67-71, Queen's Road, opp. Marine Lines Station, Bombay 2. Phone : 29708.**

Mitha & Co.—Opp. Suryodaya Mills, Tardeo Road.

**NOORMOHAMEDS.—House of Fine Furniture—(Estd. 1885), 109/A-111/B, Mohamedally Road, Bombay 3. Phone : 325124. Grams : "NOORDECOR." Furnishers, Cabinet Makers & Interior Decorators, Importers & Exporters. Branch at Mahim Causeway.**

**PREMIER FURNISHING & DECORATING PRIVATE LTD.—7, Brabourne Stadium, Churchgate Street Extension, Fort. Phone : 245632. Manufacturers & Suppliers of all kinds of Furniture. Stockists of DUNLOPILLO Products.**

Raja Furniture Mart.—Foolchand Nivas, Chowpatty Sea Face, Bombay 7.
Roberts & Co. Private Ltd., John.—Jorawar Bhuvan, 93-B, Queen's Road.
Royal Carpets & Cane-Furniture Manufacturing Co.—Mani Bhuvan, Hughes Road, Bombay 7.

**SHERATON & CO.—Works & Office: 131, Medows Street, Fort, Bombay. Phone: 25-5430. Furniture & Billiard Table Manufacturers.**

SteelAge Industries Ltd.—Opp. Post Office, Mazagaon, Bombay.
Sunderdas Saw Mills.—Opp. Reay Road Station, Bombay 10.
Tahilsingh Hanspal & Co.—Lady Hardinge Road, Bombay 28.

## GALVANIZERS

Repute Engineering & Galvanizing Works.—Andheri Road, White Bridge, Old Kurla, Bombay 70.

Saifee Bucket Factory Private Ltd. (Estd. 1915).—156, Nagdevi Street, Bombay 3. Phone : 362902. Grams : "BUCKET."

**SOLEM HARDWARE MART.—155, Nagdevi Street, Bombay 3, Phone : 326896. Grams : "QUICKFIRE." Works : 50, Nesbit Road, Bombay 10. Phone : 79148. Galvanising carried out on any kind of mild steel and Cast Iron Products very efficiently by hot Dip Process and to B.S.S. & Admiralty Specifications. Also Government & Railway Contractors.**

## GAMELLAS MANUFACTURERS

**AMRITLAL & CO.—Iron & Hardware Merchants, Stockists of Kadai, Ghamellas, T-Hinges, 233, Nagdevi Street, Bombay 3. Phone : 326651.**

**HINDUSTAN METAL PRESSING WORKS.—181, Mazagaon Road, Noorbaug, Bombay 9. Manufacturers of Machine Pressed Gamellas (Motor pans), Towas, Stove Top Rings, Hinges, Water & Grain containers. Phone : 331854.**

## GARAGE TOOLS & EQUIPMENT

**AJMERA & BROS., V. G.—103, Narayan Dhuru Street, Bombay 3 (BR). Phone : 323337. Importers of Hardware, Garage, Precision & Measuring Tools, Wrenches DIE Ring & Tubular Spanners, Sockets & Sets and Speed Chain Pulley Blocks. Authorised Stockists for Gedore Tools & Turner Asbestos Products.**

**BOMBAY ENGINEERING STORES.—C-16, Bihari Baug, 3rd Bhoiwada, Bombay 2. Stockists of Engineering Tools of all kinds.**

**DEEPAK TRADING CO.—137, Narayan Dhuru Street, Bombay 3. Machine Tools, Metal Cutting Tools and all sorts of Precision & Engineering Tools.**

**DODGE & SEYMOUR (INDIA) PRIVATE LTD.—Laxmi Building, 6, Ballard Road, Bombay. Phone Nos. 263674 & 265479. Grams : "EXIMCO".**

**HEMANT TOOLS TRADING CO.—33, Bibijan Street, Bombay 3. Grams : "LACING". Phone : 321114. Importers & Stockists of Chain Pulley Blocks, Garage Tools, Fibre Sheets, Rods, etc.**

**JAIRAMDAS & SONS.—163, Narayan Dhuru Street, Bombay 3. Phone : 323616. Grams : "JAIRAMSONS". Importers & Stockists of all sorts of Garage Tools. Sole Agents for Pendleton Tools Industries International, Los Angeles, U.S.A.**

Jayant Engineering & Mill Stores.—51/53, Industrial House, Nagdevi Cross Lane, Bombay 3.

**PARAMOUNT TOOLS CO.—5, Narayan Dhuru Cross Lane, Bombay-3. Grams : "PARATOOLS." Dealers in Engineering, Metal Cutting Precision Tools, and General Hardware Suppliers, Garage Tools, Devetls, Taps, Dies, Fils, Blades, Plastic Wire mesh. Phone : 321860.**

**PRAFFULCHANDRA & CO.—106, Lohar Street, Bombay 2. Phone : 39007. Grams : "ELECTTOOLS." Importers & Stockists of Engineering, Precision and Garage & Machine Tools.**

## GARDENING REQUISITES

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone : 326980. Grams : 'ALERTDEAL.'**

Dattatraya Industries Private Ltd.—Sitaram Building, Dadabhai Naoroji Road, Bombay 1.
Dhani Ram & Sons.—236, Musjid Bunder Road, Bombay 3.
Marine Sports.—101, 1st Marine Street, Dhobi Talao, Bombay.

**PALEKAR & CO. (Estd. 1870).—Sitaram Building, near Crawford Market, Bombay 1. Phone : 262236. Grams : "RUDRA." Flower & Vegetable Seeds, Lawn Mowers, Garden Tools, Insecticides & Fertilizers. Specialists in Garden Lay-outs.**

Reliance Trading Co.—Vithal Sayana Building, Lohar Street, Bombay 2.

Saifee Bucket Factory Private Ltd. (Estd. 1915).—156, Nagdevi Street, Bombay 3. Phone : 362902. Grams : "BUCKET."

## GASES

**INDUSTRIAL GASES LTD., THE, BOMBAY.—Grams : "INDUSGASES". Head Office : P.O. Box 853, Calcutta 1. Industrial Gases—Oxygen, Liquid Oxygen, Acetylene, Nitrogen, Argon, Neon and Helium, Medical and Refrigerant.**

## GASKETS & PACKINGS MANUFACTURERS

**GASKET CORPORATION OF INDIA.—7/10, Botawala Building, Horniman Circle, Bombay 1. Phone : 256623. Grams : "GASKETS". All types of Gaskets for Boilers, Diesel Engines, Marine Engines, Motor Cars, Tractors, etc. Manufacturers as per original specifications.**

## GAS PLANTS

**GANSONS PRIVATE LTD.—Adm. Office at Industry Manor, 2nd Floor, Off Cadell Road, Bombay 28. DD. Phone : 45-3154. Grams : "INMAG". Manufacturers of "Gansons" Gas Plants, Chemical & Pharmaceutical Plants, Laboratory Equipments.**

**INDUSTRIAL GASES LTD., THE, BOMBAY.—Grams : "INDUSGASES". Head Office : P. O. Box 853, Calcutta 1. Complete Plants for the Manufacture of Gases, Oxygen, Nitrogen, Carbon Dioxide, Hydrogen, Liquid Oxygen, Acetylene & Ammonia.**

## GAUGES & INSTRUMENTS

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone : 326980. Grams : 'ALERTDEAL.'**

Fleming, John & Co., Private Ltd.—P. B. No. 76, Bombay 1. Phone : 261153.

**EVERGREEN CORPORATION.—9/15, Pickett Cross Road, P.O. Box No. 2733, Bombay 2. Phone: 22162. Grams: "GREENLEAVE." Pressure Gauges for Gas, Air & Vacuum, Dail Gauges, Indicators, Industrial Thermometers & Hygrometers.**

Gordhandas Desai Private Ltd.—Kermani Bldg., Sir P. M. Road, Bombay 1.
Greaves Cotton & Co., Ltd.—1, Forbes Street, Bombay 1.

**INDUSTRIAL GASES LTD., THE, BOMBAY.**—Grams : "INDUSGASES". Head Office : P.O. Box 853, Calcutta 1. Gauges—Pressure—Vacuum—Vacuum Single, Duplex, Steam, Ammonia, Oxygen, Acetylene, Oil.

**GUJARAT TUBE & HARDWARE MART, THE.**—24, Nagdevi Cross Lane, Bombay 3. Phone : 326616. Grams : "GAUGECOCK." Direct Importers and Stockists of Gauge Glasses and Sight Glasses. Pressure, Vacuum & Compound Gauges. All sorts of Boiler Mountings and Accessories. Rubber Insertion, Sheets and other Rubber Goods, Asbestos Goods, Pipes and Fittings of types and grades for Steam, Water and Gases.

**INDUSTRIAL MILL GIN STORES.**—Industrial House, 51/53, Nagdevi Cross Lane, Bombay 3. Grams : "WIREGOODS." Phone : 321246.

Jairamdas & Sons.—163, Narain Dhuru Street, Bombay 3.

**M. SOMNATH & CO.**—94, Lohar Chawl, Bombay 2. Phone : 20375. Grams : "SAMARTHYA," Bombay 2. Importers & Stockists of Surface Plates Slip Gauges, Micrometers, Calipers, Ring & Plug Gauges, Dial Testing Indicators, Straight Edges, Internal Dial Gauges, Measuring Instruments, Precision Water Levels, and all sorts of measuring Instruments & Engineering Tools.

**VASI SHUMS & CO. PRIVATE LTD.**—165/67, Nagdevi Street, Bombay 3. Phone : 327381. Grams : "WIREROPE." Sole Agents for Maharashtra & Gujarat States for G.P.I.F. Brand Water Meters, Microscopes and Pressure Gauges.

## GEARS MFRS. & GEAR CUTTING SPECIALISTS

**GAJRA GEARS.**—Elve Chambers, Green Street, Bombay 1. Phones : 252088 & 254655. Grams : "ELBUSCON." Works : Station Road, Dewas (M.P.). Manufacturers of all types of Precision Gears, Spur, Helical, Spiral Internal, External, Worms, Worm Wheels etc. upto 32" Diameter.

**HINDUSTHAN ENGINEERING WORKS.**—7/C, Pitambir Lane, Mahim, Bombay 16. Phone : 451408. Grams : "DICHROMATE." Air-Compressors, Chemical Engineering Equipment, founders and foundary Equipment, Industrial Engineers, Material Handling Conveyors, Molding Machines and Boxes, Steel Doors and Windows and Tank Manufacturers.

**SUPREME INDUSTRIAL WORKS.**—196/K, Gaiwadi, Girgaum, Bombay 4. Manufacturers of Gears and Specialists in all kinds of Worms & Worm Wheels.

## GELATINES & COSMETIC RAW MATERIALS

Phones: 322752
89262-533462

Grams: "JAMKEM"

### JAAM CHEMIE-COLOUR CO.

*Sole Representatives :*

LEINERS' — GELATINES, French HYDROCOLL, Bone & Hide GLUE, Technical GELATINES (Sheets-Powder).

WHITTAKER'S — COSMETIC RAW MATERIALS—Food Colours, Titanium-Dioxide & other USP. Chemicals & Vitamins. Exporters of Minerals & Guar Gum-splits—Powder.

15, Shree Ram Market, Vadgadi, Bombay 3 (B.R.)

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**LALLUBHAI AMICHAND PRIVATE LTD.**—Proprietors : Dun Aluminium Factory, 225/27, Tardeo Road, Bombay 7. Manufacturers of "Queen" Brand Aluminiumwares & "Queen" Brand Stainless Steel Utensils and other non-ferrous metalware. Phones : 41618, 77175, 334049 & 331888. Grams : "CYCLEBRAND."

## GLASS

**ABDOOLALLY NOORBHOY.**—122-124, Abdul Rehman Street, Bombay 3. All kinds of Glass & Plywood Merchants. Government & Railway Contractors. Phone : 327156. Grams : "PATTYMART." Works : 248-A, Duncan Road, Bombay 8. Phone : 41980.

**ALIBHOY KADIBHOY KACHWALLA (Estd. 1922).**—84, Abdul Rehman Street, Bombay 3. Direct Importers and Stockists of all kinds of Glass, Mirrors, Glass Tiles, Glass Block and Glass Cutters, Welding Glass, etc. Phone: 326803. Grams : "BELGLASS."

Bawa Glass Co.—Ratan Building, Nagdevi Street, Bombay 3.

**BHOPAL TOUGHENED GLASS WORKS.**—139, Abdul Rehman Street, Bombay 3. Grams : "TEKCORP." Phone : 323329. Manufacturers of TAFTANGLAS brand Bent and Straight Toughened Glasses for Windscreens, Automobiles, Buses, Railway Coaches, Gauge Glass etc. Phone : Res. 453817.

Budhabhoy Noorbhoy & Co.—199, Abdul Rehman Street, Bombay 3.

**DAUDBHOY M. TAYEBALLY.**—110, Abdul Rehman Street, Bombay 3. Phone : 325236 & 332067 (Office); 333159 (Res.). Grams : "SAFEGLASS."

### GOOLAMHOOSEIN VALIJI ARSIWALLA

116, Abdul Rehman Street, Bombay 3.

DEALERS IN :

Glass Sheets, Wired, Figured Mirrors, Table Glasses, Show-case Glasses, Toughened Guage Glasses, Motor-Glasses, Specialists at Glazing Windows and Northlights.

Phone : 326643 - Grams : "NEWHOPE".

**HARGOVIND DHARAMSI.**—35, Mirza Street, Off Abdul Rehman Street, Bombay 3. Phone : 325228. Grams : "PLATEGLASS." Glass Merchants, Plate Glass, Sheet Glass, Looking Glass, Safety Glass, Plywood, Picture Moulding, Glass Cutters and everything in Flat Glass and mirror manufacturers.

**KESHOWDAS HASSANAND KARACHIWALA.**—256, Yusuf Meherally Road, (Masjid Bunder Road), Bombay 3. Phones : Office : 321855, Godown : 332229 and Res. : 471641. Grams : "KESHOGLASS." Direct Importers and Stockists of all kinds of Sheet and Plate Glasses, Hardboards, Plywood, Diamond Glaziers, Motor Glasses, etc.

**M. A. KACHWALLA & SONS.**—97-99, Dhanji Street, Bombay 3. Phone : 324395. Grams : "DIADEM". Direct Importers & Stockists of Glass, Plates, Vibrolite Sheets, Window Mirrors figured, Triplex (Safety) and all Sorts of Glasses & Hardboards. Manufacturers' Representatives for "Glasef" Indian Toughened Safety Glass.

**MAHALAKSHMI GLASS WORKS PRIVATE LTD., THE.**—Dr. E. Moses Road, Jacob Circle, Bombay-11. Grams : "RACEVIEW." Mfrs. of all kinds of bottles for Cosmetics, Aerated Water, Milk and Pharmaceuticals including Penicillin vials. Phone : 72458 & 79239.

**MAHOMEDALLY VALIJI ARSIWALA.**—76, Abdul Rehman Street, Bombay 3. Phone : 325900 and 145, Jambli Mohalla, Bapu Khote Street, Bombay 3. Phone : 332467. Direct Importers and Dealers in all kinds of Glasses, Plywood and Picture Mouldings : Government & Railway Contractors. Godowns at 2/4, Temkar Street, New Nagpada, Bombay 8 and at 145, Jamli Mohalla, Bapu Khote Street, Bombay 3.

On Approved List of D.G.S. & D. & Rlys. etc.

### MODERN GLASS MART

63, Abdul Rehman Street, Bombay 3.

DEALERS IN : Glass Sheets, Mirrors, Table Glasses, Show-case Glasses, Sunmica, Hardboard, Plywood and Chairs

*Manufacturers' Representatives for:*

**BENT AND TOUGHENED GLASS FOR CARS**

Office: Phones: { 327709 / 328589 — Godown: Phone: 334082

**Premier Glass Traders.**—Importers and Stockists of all kinds of Glass, Frames, Plywood, Mounts, Glazier's Diamonds, etc. 76/78, Dhanji Street, Bombay 3. Grams: "REASON." Phone: 326845 (Office); 71837 (Res.).

**SAMIR GLASS TRADERS.—21-23, Dhanji Street, Parsi Gully, Bombay 3. Phone: 326785. Grams: "SAMIRGLASS." Wholesale and Retail dealers in all kinds of Glasses, Glass Cutters & Hardboards.**

Salemahomed Padamsee & Co.—141, Chukla Street, Bombay 3.

**TEK TRADING CORPORATION.—139, Abdul Rehman Street, Bombay 3. Dealers of Sheet & Plate Glasses of all Types and Toughened Glass & Government Suppliers. Grams: "TEK-CORP." Phones: Office: 323329. Res.: 453817.**

Tyebali Ebrahimjee & Co.—166, Abdul Rehman Street, Bombay 3.

**V. GOPALDAS & CO.—299, Krishna Niwas, Masjid Bunder Road, Bombay 3. Phone: 324364. Grams: "VICTORGLASS." Wholesale & Retail Dealers in Sheet Glass of all Thickness, Mirrors, Safety Glass, Wire Glass, Toughened Glass and all other kinds of Imported Glass.**

**YUSUFALI GOOLAMHOOSEN ARSIWALLA.—105, Abdul Rehman Street, Bombay 3. Grams: "GLASSAGE." Phone: 324464. Dealers in Glasses, Plywood & Hard Board. Stockists of all kinds of glasses, Window sheets, Plate, Wired, Ribbed, Figured, Opal, Vitrolite, Triplex, Mirrors, Hard Board, Steel Folding Chairs, etc.**

## GLASS FACTORIES

**AJIT GLASS WORKS PRIVATE LTD.—Office: 99, Haji Ahmed Devji Bldg., 2nd Floor, Mohamedally Road, Bombay 3. Phone: 324702. Grams: "AJITWORKS". Factory: Ghodbunder Road, P.O. Jogeshwari, Bombay 60. Phone: 572584. Manufacturers of Pressed ware, Glass Tumblers, Glass Jars, Bottles of all kinds suitable for Pharmaceutical Trade, Cosmetic, Ink, Milk, Squashes and Aerated Water Trade, etc.**

Pearl Glass Manufacturing Co.—Office at: 44, Cawasji Patel Street, Fort, Bombay 1.

Safeglas Corporation Private Ltd.—95, Dhanji Street, Bombay 3.

**VAZIR GLASS WORKS LTD.—Manufacturers of superior quality glass containers in neutral and other types of glass, T. B. Nagar, Andheri, Bombay 59. Phones: 572589, 573981. Grams: "VAZIRGLASS".**

## GLASS MFRS. AND INDENT OPERATORS

Chunilal Khanna & Co.—Sarasvati Nivas, Thakurdwar Road, Bombay 2.

International Chemical Co.—Tulsi Pipe Road, Matunga, Bombay 16.

Oriental Import & Export Agency.—52, Shri Krishna Nivas, New Silk Bazar, Kalbadevi Road, Bombay 2.

**The Safeglas Corporation Private Ltd.**

Grams: DIADEM
Phone: 324395

*Member:*
INDIAN STANDARDS INSTITUTION

*Manufacturers of*
"GLASEF" Brand Toughened SAFETY GLASS used in Windows of Buses, Automobiles, Cars, Furniture, Glazing-Windows, North Light Fittings, etc.

95, DHANJI STREET, BOMBAY 3

Salemahomed Padamsee & Co.—141, Chuckla Street, Bombay 3.

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YOU NEED NOT TAKE SUBSTITUTES NOW!

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## GLASSWARE MFRS. & MERCHANTS

**ALL INDIA GLASS WORKS PRIVATE LTD.—326, Bail Bazar, Old Kurla, Bombay 70. Phone: 322381-3. Grams: "WHEEL-BRAND." Glassware Mfrs. & Exporters.**

**All-India Trading Corporation.—25, Bank Street, Fort. Grams: "Autoglass". Agents for Paisa Fund Glass Products.**

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Fort.

Chunilal Desai & Co.—Gool Mansion, Homji Street, Fort.

**CRYSTAL HOUSE.—99C/D, Mohamedali Road, Bombay 3. Phone: 327030. Dealers in Glassware, Crockery, Enamelware, Kitchenware, Cutlery, Plasticware, Thermos Flasks, Presentation Articles, etc.**

**Currimbhoy, L., & Co.—156, Chuckla Street, Bombay 3.**

Embi Desai & Co.—Office: Dadyseth House, Cawasji Patel Street, Fort, Bombay 1.

**GANDHI LAHERCHAND NANCHAND.—182, Sheriff Devji Street, Bombay 3. Phone: 324695. Grams: "GLASSWARE." Glassware Merchants and Distributors for Ogale Glass Works Ltd. for Bombay.**

Getz Bros. & Co.—Western India House, Sir Phirozshah Mehta Road, Fort.

**H. AHMED & CO.—Dr. Annie Besant Road, Worli, Bombay-18. Phone: 75863.**

M. Dialdas & Sons.—190, Princess Street.

Moosa Omer & Co.—Junction of Mahomedally & Carnac Roads.

**S. R. DOSSA, & CO.—186, Sheriff Devji Street (Chakla), Bombay 3. Phones: 321548 (Office), 245491 (Residence). Dealers & Stockists of Crockery & Glassware.**

**Saify Glass Palace.—Ebrahim Building, Mohamedalli Road, Bombay 2.**

Salemahomed Padamsee & Co.—141, Chakla Street, Bombay 3.

**Saubhagya Kankan Store.—27/A, Swadeshi Market, Kalbadevi Road.**

**Scientific Instrument Co., Ltd.—Navsari Building, 240, Hornby Road, Fort.**

Shivji, K. S., & Co.—144-46, Chakla Street, Bombay 3.

**TALWARKER BROTHERS PRIVATE LTD., W. R.—122, Commerce House, Medows Street, Fort, Bombay 1. Phones: 254710. Grams: "PUMPENAMEL."**

**UNITED GLASS WORKS PRIVATE LTD.—326, Bail Bazar, Old Kurla, Bombay 70. Phone : 322381-3, Grams : "GLASSBOTS." Mfrs. of Glassware, Bottles & Exporters.**

Universal Glass & Industrial Corporation.—327, Hornby Road, Fort.

Vazir Glass Works, Ltd.—Prospect Chambers, Hornby Road, Fort.

## GLOVES & GOGGLES FOR INDUSTRIAL WORKERS

**ASHA RUBBER INDUSTRIES.—Shamwadi, 2nd Floor, Ranade Road, Dadar, Bombay-28. Manufacturers of 100% Acid and Alkali Proof Light & Heavy Duty and Fabric Lined Industrial Rubber Gloves. "Meditex" Surgeon Gloves our speciality.**

**FRANCIS LESLIE & CO.—105, Apollo Street, Fort, Bombay 1. Phones : 25524-65315. Manufacturers of Industrial safety products, Goggles, Plastic Face Shields, Respirator Helmets & Protective Clothing, for ensuring safety with maximum comfort, efficiency, economy and quality.**

**VISHWA BHARATI TRADING CO.—45, Mint Road, Post Box No. 1052, Bombay 1. Phones : 266371, 264555 & 263795. Grams: "VIBHACO." Branch : G.P.O. Box 2628, Calcutta 1. Phone : 336680. Manufacturers of Industrial Safety Equipments, such as Goggles, Gloves, Dust Masks, Gas Protection Respirators, Aprons, etc.**

## GLYCERINE

I.C.I. (India) Private Ltd.—P. B. No. 310, Bombay 1.

Swastik Oil Mills Ltd.—Saltpan Road, Wadala, Bombay 31.

Tata Oil Mills Co., Ltd.—Bombay House, Bruce Street, Fort, Bombay.

## GOLDSMITH AND JEWELLERS TOOLS

**MANEKLAL & SONS (Showroom & Sales Division).—277, Nagdevi Street, Bombay 3 (BR). Grams : "KIRTIRAJNI." Phone : 321925 ; Export-Import Division, 115/116, Narayan Dhuru Street, Bombay 3 (BR). Phone : 321924. Associates : Calcutta 13. Agency : Madras 1. Importers, Exporters & Stockists of Workshop Machines, Wood Working Machines, Sheet Metal Working Machines, Electrical Tools & Cottage Industry Machines.**

**SHAH TRADING CORPORATION.—Oomrigar Building, 1st Floor, opp. Crawford Market, Bombay 3. Phone : 322873. (Office) & Residence 691632. Goldsmith Tools and Hardware Merchants.**

## GRAIN AND SEED MERCHANTS

Bhanushali Brothers Ltd.—Bhanushali Chambers, 168, Argyle Road, Bombay 9.

Birla Bros., Ltd.—State Bank Annexe, Bank Street, Fort.

Damji Mavji & Co.—177, Khoja Gulli, Mandvi, Bombay 9.

Dewji Dhanji & Co.—Kilachand Mansion, 284, Kalbadevi Road.

Dhanpatmal Jawaladas.—Court House, Carnac Road, Dhobi Talao.

Grain Merchants' Association.—Musjid Bunder, Mandvi.

Gulam Rasul Allahbux.—1-B, Bachooali House, Nowroji Hill Road No. 1, Bombay.

Haji Sattar Haji Peermahomed.—91, Rangoonwalla Building, Mahomedali Road, Bombay 3.

Hariram Gopalji & Co.—110, Chinch Bunder.

Hashambhoy Aloo Mahomed & Son.—Dostmahomed Building, Nishanpada Road, Khadak, Bombay 9.

Husein Mussa Virjee & Co.—Sheriff Hasam Building, Khoja Mohalla.

Joshi Jivandas Gangaram & Co.—282, Narsi Natha Street, Bombay 9.

Khimji Poonja & Co.—Wadia Building, 17/19, Dalal Street, Fort.

Kilachand Devchand & Co., Ltd.—45-47, Apollo Street, Fort.

Manekji Nensey & Co.—172/86, Argyle Road, Bombay 9.

Meghji Hirji & Co.—21, Chinch Bunder Road.

Nappoo Nensee & Co.—83, Clive Street, Bombay 9.

Narandas Rajaram & Co.—Navsari Chambers, Outram Road.

Oomedchand Kashiram & Co.—Mudi Bazar, Mandvi, Bombay 3.

Padamshi Pancharia & Co.—Laxmidas Narsi Building, 182-184, Walkeshwar Road.

Pavri Sons & Co.—95/97, Bazargate Street, Fort.

Premchand Trading Ltd.—7, Dhanji Street, Bombay 3.

Premji Bhanji & Co.—Ardeshir Mansion, Bhat Bazar, Bombay 9.

Premji Haridas & Co.—Bhanushali Building, 168, Argyle Road, Bombay 9.

Ralli Bros., Ltd.—21, Ravelin Street, Fort.

Sarvajanik Grain Stores.—190, Doctor Street, Null Bazar.

Shah Ravji Jivraj.—282, Narshi Natha Street, Bombay 9.

Shamji Velji & Co.—Anand Bhuvan, Narshi Natha Street, Bhat Bazar.

Shivjee Bhara & Co.—107, New Chinch Bunder Road.

Vasantlal Vadilal & Co.—215-17, Samuel Street, Vadgadi.

Vaziralli Ltd.—Prospect Chambers, Hornby Road, Fort.

Velji Kalidas & Sons.—177, Samuel Street, Mandvi.

Yuvak Stores, Shri.—399A, New Hanuman Lane, Kalbadevi Road.

## GRAMOPHONE DEALERS AND MANUFACTURERS

Anandji Kalyanji Vara.—Hathi Building, 448, Kalbadevi Road.

Bombay Phono and General Agency.—520-22, Kalbadevi Road.

Britannia Talking Machine Co.—407, Kalbadevi Road, Bombay 2.

Columbia Gramophone Company Ltd.—Universal Building, Sir Phirozshah Mehta Road, Fort, P. O. Box 1163, Bombay.

Ghaisas, G. J., & Co.—Ramchandra Building, Tram Terminus, Girgaum.

Gramophone Co., Ltd.—Universal Fire & General Insurance Co.'s Building, Sir Phirozshah Mehta Road, Fort.

Jawahar & Company.—133, Princess Street, Bombay 2.

Masters Trading Co.—Advani Chambers, Sir Phirozshah Mehta Road, Fort.

Metro Musics.—545, Kalbadevi Tram Junction, Dhobi Talao.

National Gramophone Record Manufacturing Co., Ltd.—110, Medows Street, Fort.

Oriental Watch & Gramophone Co., The.—Opp. Western Rly. Station, Dadar, Bombay 14.

Rhythm House, The.—Opp. Army & Navy Stores, Fort.

Rose, S., & Co.—28, Rampart Row, Fort.

## GREETING CARDS

**GANDHI STATIONERY MART.—165, Bazargate Street, Bombay 1. Manufacturers of Comet Visiting, Invitation, Greeting, Wedding Cards, Inland/Air Letters. Phone : 26-5248.**

**SHABBAR TRADING CORPORATION.—212, Abdul Rehman Street, Bombay 3. Manufacturers of Greeting Cards, such as X'mas, New Year, Divali, Idd, Sankrant, Papeti, Birthday and Wedding Invitation Cards. Phone: 321893. Grams : "GREETCARDS."**

**TAJ PRINTING WORKS.—46-A, Cawasji Patel Street, Fort, Bombay 1. Phone : 252432. Commercial and Art Printers and Manufacturers of Invitation Cards, Greeting Cards and Calendars.**

Thackersons.—104/106, Green Street, Behind State Bank of India, Fort, Bombay 1.

Vakil & Sons (Private) Ltd.—Narandas Building, Sprott Road, 18, Ballard Estate, Bombay 1. Phones : 262177-78, 263204. Grams : "BLADE."

**VALABDAS TIRATHDAS.—60, Kamla Nehru Cross Road, Kandivli, Bombay 67. Grams : "GREETINGS," Kandivli, Bombay 67. Manufacturers of Greeting Cards.**

## GREY BOARDS

**CARDBOARD SUPPLIERS.—6, Tank Street, Surti Mohalla, Bombay 8. Phone : 76824. Grams : "RAOOF". Dealers in Grey Boards Manufactured by Western India Paper and Board Mills Private Ltd., Vikhroli.**

## GRINDING MEDIA

**NEW HAVEN STEEL BALL CORPORATION PRIVATE LTD.—Office : Pandyan House, 309, Frere Road, Bombay-1. Phone : 261523. Grams : "GULDASTA." Factory : 38, Pawai Lake Road, Saki Naka, Kurla, Bombay-70. Phone : 581185. Mfrs. of Steel & Alloy Balls, Grinding Media & Automobile Parts.**

## GRINDING & PULVERISING (POWDERING)

Arvinda Trading Co. Private Ltd.—105, Apollo Street, Fort.

Batliboi & Company Private Limited.—Regd. Office : Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR.). Phones : 255451 (6 lines), Grams : BATLIBOICO. Telex : 284. City Branch : Batliboi House. 59/61, Nagdevi Cross Lane, Bombay-3 (BR.). Branches : Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate : Bangalore 2. Resident Representatives : ERNAKULAM, RANCHI.

Bharat Pulverising Mills Private Ltd.—38A, Sayani Road, Parel, Bombay 28.

D. Kaniyalal & Co.—45, 3rd Cavel Cross Lane, Kalbadevi Road, Bombay 2.

Gujarat Clay Mills.—246, Reay Road, Bombay 10.

Jayems Engineering Co.—Warden House, Sir Phirozshah Mehta Road, Fort.

**MANEKLAL & SONS—(Showroom & Sales Division).—277, Nagdevi Street, Bombay 3 (BR). Grams : "KIRTIRAJNI." Phone : 321925 ; Export-Import Division, 115/16, Narayan Dhuru Street, Bombay 3 (BR). Phone : 321924. Associates : Calcutta 13. Agency : Madras 1. Importers, Exporters & Stockists of Workshop Machines, Wood Working Machines, Sheet Metal Working Machines, Electrical Tools & Cottage Industry Machines.**

Roberts, McLean & Co., Private Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Fort.

Standard Pulverising Co.—Atlas Mills Compound, Reay Road, Bombay 10.

William Jacks & Co., Ltd.—Bharat House, Apollo Street, Fort.

## GUMS WHOLESALERS

**BOMBAY KIRYANA INDUSTRIES.—204, Samuel Street, Vadgadi, Bombay 3. Phone No. 327466. Grams: "RAW-DRUGS," Bombay-Mandvi.**

Champaklal Morarji & Co.—193, Samuel Street, Vadgadi, Bombay.
Chandulal & Co., Lakhwala.—313, Samuel Street, Vadgadi.

**DAMJI MAVJI & CO.—177, Khoja Gally, Mandvi, Bombay 9. Phone No. 325413. Grams: "GHATTY." Dealers and Exporters of all kinds of Indian Gum.**

**DEVIDAS VIRCHAND.—22-26, Dariasthan Street. Phone: 325284. Grams: "EVERGUM," Bombay 3. Importers & Exporters. Dealers in all sorts of Gums, Spices, Textile & Wool.**

Dhirren & Co.—Lakhani Building, 34, Cawasji Patel Street, Fort.
Gopaljee & Co.—218, Samuel Street, Vadgadi.
Hashambhoy Aloo Mahomed & Son.—Dostmahomed Building, Nishanpada Road, Khadak, Bombay 9.
Javeri Traders.—P.O. Box No. 1977, Lakhani Building, 34, Cawasji Patel Street, Fort, Bombay 1.
Joshi Jivandas Gangaram & Co.—282, Narshi Natha Street, Bombay 9.
Kirtikumar Chandulal & Co.—313, Samuel Street, Vadgadi, Bombay.
Lalit Kumar & Co.—86, Kazi Sayed Street, Bombay 3.
Laljee Godhoo & Co.—218, Samuel Street, Vadgadi.

**N. DEVIDAS & CO.—44, Dariyasthan Street, Bombay 3. Phone: 325284. Grams: "ENGUM." Dealers in all sorts of GUMS, Saffron, Cassia, Cloves & Spices.**

Narandas Kesurdas & Sons.—222/24, Vadgadi.
Premji Haridas & Co.—Bhanushali Chambers, Argyle Road, Bombay 9.
Ram Agency.—200, Kazi Sayed Street, Bombay 9.
Sizing Materials Co., Ltd.—Jeroo Building, 137, Mahatma Gandhi Road, Fort.
Stewart's Laboratories.—327, Hornby Road, Fort.

**SUDAN TRADING CO.—Dhan-Nur, Phirozshah Mehta Road, Bombay 1. Phones: Office: 262788; Resi.: 62089. Grams: "VANSOBHA".**

Valabhdas Tejpal.—219, Vadgadi, Bombay 3.
Varjiwandas Hirjee & Co.—240, Samuel Street, Vadgadi.
Vasantlal Vadilal & Co.—215/17, Samuel Street, Vadgadi, Bombay 3.
Vijaysinh Virchand.—248, Samuel Street, Vadgadi, Bombay 3.

## GUNNY BAGS, HESSIAN CLOTH & TWINE MERCHANTS

**JOSHI TRIBHOVAN MOOLSHANKAR & CO.—222, Samuel Street, Vadgadi, Bombay-3. Dealers in Gunny Bags, Hessian Cloth, Jute, Twine and Canvas. Phone: 324202. Office at Calcutta at 18-B, Sukeas Lane, Calcutta-1. Tel.: 222073.**

**KORJI DAMJI.—Katha Bazar, Oos Gally (Syed Mukri Street), Bombay 9. Phones: 321529 and 591745 (Res.). Grams: "PUNYAGANGA." Dealers in old and new gunny bags, hessian cloth, jute twins, canvas tarpaulins, etc.**

**NATHALAL & BROTHERS.—113, New Chinch Bunder Road, 1st Floor, Bombay-9. B.R. Dealers in Hessian Cloth, Old and New Gunny Bags, Twine, Cotton Baling Hoops, Rivet Sand Box Strappings etc. Grams: "DUDHGANGA." Phone: 331659, 331135.**

**SHAMJI KALYANJI & CO.—67, Bhandari Street (Koliwada Mandvi), Bombay 3. Phone: 324737 & 328436. Grams: "SHAMKALYAN." Manufacturers, Suppliers & Commission Agents: New and Second-hand Gunny bags, Hessian Cloth/Jute Twine and empty Cement bags, Tarpaulins, Polythene and Paper lined Waterproof Bags. Branches at Poona and Nagpur.**

## HACKSAW BLADES

**ANGLO AMERICAN MARINE CO. LTD.—Manufacturers of Hacksaw Blades, Boat Hard Road, Coal Bunder, Mazagaon, Bombay-10. Phone: 42841.**

**BHARAT ENGINEERING STORES.—113, Nagdevi Street, Bombay 3. Grams: "UNIONTOOLS." Phone: 323193.**

**JAIRAMDAS & SONS.—163, Narain Dhuru Street, Bombay 3. Phone: 323616, Grams: "JAIRAMSONS". Largest Stockists of "SAP" and Imported Hacksaw Blades.**

## HANDLOOM & POWERLOOM ACCESSORIES

**KRISHNA TEXTILE STORES.—19/21, Hamam Street, Fort, Bombay 1. Grams: "DISCIPLINE." Phone: 254348. Mill & Handloom Stores Suppliers.**

Indo-British Trading Bureau.—7/10, Elphinstone Circle, Fort, Bombay 1.

## HANDLOOM TEXTILES

**E. PEERBHOY & SONS.—Prop., Indian Duries Emporium, 64, Mchamedali Road, Shahru Castle, Bombay-3, Phone: 323806. Grams: "INDIAWEAVE".**

## HARD BOARD

Anil Hardboards Ltd.—Lakshmi Insurance Building, Sir Phirozeshah Mehta Road, Fort, Bombay 1.

**HINDUSTAN PLYWOOD & METAL DEPOT.—Wholesale & Retail Dealers in Teak, Walnut & Champ faced Black Board & Plywood, Hard Board, Masonite, Plywood, Teak Plywood, Insulation Soft Board, Chair Seats, Cement Sheets, Formica & Sunwood Sheets, etc. 301, Shree Krishna Niwas, Corner of Abdul Rehman Street & Masjid Bunder Road, Bombay 3. Phone: 324544. Grams: "PLYDEPOT."**

**MAHOMEDALLY VALIJI ARSIWALA.—76, Abdul Rehman Street, Bombay 3. Phone: 325900 and 145, Jambli Mohalla, Bapu Khote Street, Bombay 3. Phone: 332467. Dealers in all kinds of Hard Boards.**

**NASH & CO.—103, Abdul Rehman Street, Bombay 3. Phone: 324968. "Jolly" Hardboards, Insulex Insulation Boards & Ceiling Tiles and Formica.**

Samir Glass Traders.—21-23, Dhanji Street, Parsi Gully, Bombay 3.

**SUNDERLAL & CO.—121, Abdul Rehman Street, Bombay 3. Phone: 325204. Grams: "SUNDERJALI." Direct Importers and Stockists of Plywood, Teak Plywood Block Boards, Asbestos Cement Sheets, Hard Boards, Masonite Boards, etc. Folding Chairs & Chair Seats our speciality.**

Tek Trading Corporation.—139, Abdul Rehman Street, Bombay 3.
Yusufali Goolam Hoosen Arsiwalla.—105, Abdul Rehman Street, Bombay 3.

## HARDWARE DEALERS AND IRONMONGERS

**A. M. MOTIWALLA & CO.—213, Nagdevi Street, Bombay 3. Phone: 326760. Shipchandlers, Engineering Tools, Hardware & Pipe Fittings Merchants and general stores suppliers.**

Abbas & Brothers.—51, Bhajipala Street, Bombay 3.
Abbas, A., & Brothers.—127, Nagdevi Street, Bombay 3.
Abbasbhoy Akbarally & Co.—Kika Street, 85, Gulalwadi.
Abbasbhoy Kaderbhoy & Co.—97, Bhajipala Lane, Bombay 3.

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone: 326980. Grams: "ALERTDEAL".**

Abdulhusein Esoofally Contractor.—91/93, Bapu Khote Street, Bombay 3.
Abdool Hoosein Jiwajee & Co.—241, Nagdevi Street, Bombay 3.
Abdulhusain Kamrudin.—183, Janjikar Street, Khokha Bazar, Bombay 3.
Abdulla A. Baker & Co.—89, Bhajipala Street, Bombay 3.
Abdullabhai Faizullabhai Ltd.—Khokha Bazar, Bombay 3.
Acme Manufacturing Co., Ltd.—Construction House, Wittet Road, Ballard Estate.
Adamally Gulamhusein.—Sarang Street, 191, Khokha Bazar, Bombay 3.
Adamji Lookmanji (Iron & Steel) Ltd.—Rahimtoola House, Homji Street, Fort.
Ahmedally Jivabhai & Co.—86-88, Lohar Chawl.
Akbarally, F. H., & Co.—58, Bhajipala Lane, Bombay 3.
Akbarally Mohamedally & Co.—316, Abdul Rehman Street, Bombay 3.
Alcock Ashdown & Co., Ltd.—Defence Works, Mazagaon.
Alladin Virjee Nathani.—Darukhana, Mazagaon Street, Bombay 10.
Allied Engineering & Trading Co.—Asian Building, Nicol Road, Ballard Estate.
Arco Steels.—Prospect Chambers Annexe, Hornby Road, Fort.
Arvinda Trading Co. Private Ltd.—105, Apollo Street, Fort.


**ASGARALI & COMPANY**
(Established 1922)
HARDWARE TOOLS AND MACHINERY MERCHANTS
•
Best Guaranteed Tools Makers
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BURNS
•
Office: 166, Saifee Jubilee St., Null Bazar, Bombay-3 BR
**SHOP: 171, Mutton Street, Null Bazar, Bombay 3.**
Phones: 331847 & 333646 (Res.) Grams: "HANDBLOWER". Mandvi, Bombay.


Ashwin Traders.—35/A, Carnac Siding Road, Iron Market, Bombay 9.
Asian Engineers.—Nagdevi Cross Lane, Bombay 3.
Associated Machine & Tool Co.—130, Medows Street, Fort.
B. C. Hardware Mart.—38, Bibijan Street, Nagdevi, Bombay 3.

**BABULAL & BROS.—26, Nagdevi Cross Lane, Bombay 3. Phone : 323930. Grams : "FIREFLY." Stockists of Abrasives, Asbestos Goods, Engineering Tools, Hardware, Mill Gin Stores, Pipe Fittings.**

Baker, A. M., & Co.—218, Nagdevi Street.
Bakhshiram & Co.—Ahmed Building, 129, Modi Street, Fort.
Baiasinor Trading & Industrial Corporation.—Umrigar Building, 82, Lohar Chawl.
Balmer, Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate.
Bashimal Kanahyalal.—124, Narayan Dhuru Street, Bombay 3.
Batliboi, C. J., & Co.—319, Hornby Road, Fort.

Batliboi & Company Private Limited.—Regd. Office : Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR.). Phones : 255451 (6 lines). Grams : BATLIBOICO. Telex : 284. City Branch : Batliboi House, 59/61, Nagdevi Cross Lane, Bombay-3 (BR.). Branches : Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate : Bangalore 2. Resident Representatives : ERNAKULAM, RANCHI.

**Beardsell, W. A., & Co., Ltd.—15-16, Sir Phirozshah Mehta Road, Fort**

Bharat Engineering Stores.—113, Nagdevi Street, Bombay 3.
Bhasin Brothers.—Court House, 1st floor, Dhobi Talao, Bombay 2.
Bhukhanvala & Sons.—Medows House, Medows Street, Fort.
Bhutt Bros.—163, Nagdevi Cross Lane, Bombay 3.
Bombay-Burma Hardware Store.—128, Nagdevi Street, Bombay 3.

**BOMBAY HARDWARE TRADERS.—79, Narayan Dhuru Street, Masjid Bunder Road, Bombay 3. Phone Nos. : 323042 & 327153. Grams : "SISTACHAR." Stockists of Hardware, Screws, Bolts, Nuts, Shoe Materials, Woodworking & Metal Cutting Saws, Engineering Stores & Saw Files.**

**BOMBAY TOOLS & HARDWARE MART.—123, Narayan Dhuru Street, Bombay-3. Grams : "BOTAPS." Phone : 327122.**

**BOMBAY TUBE & HARDWARE MART PRIVATE LTD.—284, Nagdevi Street, Bombay 3. Phone : 326604.**

**Brady, W. H., & Co., Ltd.—Royal Insce. Building, Veer Nariman Street, Fort.**

Brothers, J. D.—29-33, Lohar Street, Fort.
Budhabhoy Noorbhoy & Co.—199, Abdul Rehman Street.
Builders & Engineers Co.—Amaralville, 3, Lady Jamshedji Road, Bombay 16.
Calcutta Iron & Steel Co., Ltd.—68/D Mohamedalli Road, Bombay 3.

**C. AMICHAND & CO.—46A, Abdul Rehman Street, Bombay 3. Dealers in Hardware and Non-Ferrous Metals. Phone: 323601. Grams : "SHIPCOCK" Bombay-Mandvi.**

C. Bole & Co.—61, Narayan Dhuru Street, Bombay 3.
Central Machine Tools Agency.—43, Nagdevi Cross Lane, Bombay 3.
Chadha, B. M., & Co., Ltd.—Jan Mansion, Sir Phirozshah Mehta Road, Fort, P. O. Box 671, Bombay.
Chandulal & Co.—Kathawalla, 313, Samuel Street, Bombay 9.
Chandulal Jethalal & Co.—2, Mirchi Gali, Katha Bazar.
Chandulal Narandas.—96, Kika Street, Bombay 4.
Chasman & Co.—Bell Building, Sir Phirozshah Mehta Road, Fort.

Chhaganlal & Co.—Carnac Bunder, Bombay No. 9. Phone : 20751. Grams : "CONTRACTS."

Chimanlal Desai & Co.—Gool Mansion, Homji Street, Fort.

**CHIMANLAL VRAJLAL & CO.—Iron, Steel and Hardware Merchants, Latif House, Iron Market, Bombay 9. Phone : 321265 & 321298.**

Choksi Brothers.—315, Sandhurst Road, Bombay 4.
Choksi, H., & Co.—106, Medows Street, Fort.

**CHUNILAL KHANNA & CO.—Saraswati Niwas, Thakurdwar Road, Bombay 2. Phone : 23513. Grams : "BABALALU".**

**C. P. Doshi & Co.—Bombay Mutual Building, Hornby Road, Fort.**

**CURRIM, E. A., PRIVATE LTD.—Hardware Merchants & Ironmongers, 97, Apollo Street, Fort, Bombay 1. Phone: 253216. Grams : "CAIM." Branch at Calcutta.**

**Curtis, J. & Co., Ltd.—36-40, Mahalaxmi Bridge Arcade, Bombay 11.**

**Dawoodbhai, M., & Bros.—Hararwalla Building, Lohar Chawl.**

**DAWOODI HARDWARE MART.—84, Bhajipala Lane, Bombay 3. Phone : 323674. Grams : "AVAILABLE."**

**Desai, M. S., & Co.—77, Nagdevi Cross Lane, Bombay 3.**

**DESAI TUBE & HARDWARE MART.—41, Nagdevi Cross Lane, Bombay 3. Phone : 321606. Grams : "HASTY". Importers of pipe fittings, Engineering Stores & Tools, Mill gin Stores & Packings & Jointings.**

Deviprasad Khandelwal & Co., Ltd.—Iron Jatha, Carnac Bunder.
Dewanchand Hansraj.—105, Narayan Dhuru Street, Bombay 3.
Dewanchand Budhumall.—53/55, Bibijan Street, Bombay 3.
Dohadwalla, R. H., & Co.—145, Nagdevi Street.
Drewet Chowna & Co.—Lentin Chambers, Medows Street, Fort.
Dubash Freres & Co.—Victoria Building, Parsi Bazar Street, Fort.
Duncan Stratton & Co. Ltd.,—5, Bank Street, Fort.
Eastern Tube & Hardware Mart.—123, Narayan Dhuru Street, Bombay 3.

**E. TYEBALLY & CO.—13, Khoka Bazar, Bombay 3. Phone: 322717. Grams : "CHEAPSHOP." General Hardware, Tool Merchants & Order suppliers. Sole Agents for Eagle Brand "Door Sheaves," Door Tracks, Piano Hinges, Allen Cap & Gurb Screws, Cording Sets & Aluminium Curtain Rails & Fittings, etc.**

Esufally Adamji & Co.—134, Nagdevi Street.
Esufally Kamrudin.—34, Khokha Bazar, Bombay 3.
Fairdeal Hardware Stores.—206-A, Abdul Rehman Street, Bombay 3.

**FAZALBHAI & BROS.—26, Sarang Street, Bombay 3. Specialists in Bolts & Nuts, S.A.E., B.S.F., M.M., B.S.W. and Auto parts and Tools. Also exclusively dealing in Cotton Waste and Machinery Parts. Suppliers to various Government Departments. Grams : "SAZEFEM." Phone : 327280.**

**FIDAALY GULAMALI.—Hardware Dealers, Weighing Machines & Scales. 163, Janjikar Street, Bombay 3. Phone : 326133. Show Room : 41, Sarang Street, Bombay 3.**

**F. H. AKBARALLY & CO.—58, Bhajipala Lane, Bombay 3. Phone : 322421. General Hardware Merchants, Dealers in Buildings and Workshop Meterials Wholesale & Retail Suppliers and Commission Agents.**

Fleming, John & Co., Ltd.—Sukhadwala Building, 21, Bastion Road.
Gannon, Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Fort.
Garlick & Co.—Haines Road, Jacob Circle.
G. C. Vora & Co.—107, C. P. Tank Road, Bombay 4.
General Trading Corporation.—36-B, Tamarind House, Tamarind Lane, Fort.
General Tubes Ltd.—142-144, Nagdevi Street, Bombay 3.
Globe Stores Co., The.—Sitaram Building, near Crawford Market, Hornby Road.
Gowardhanlal Sethi & Sons.—159, Narayan Dhuru Street, Bombay 3.
Great Eastern Trading Co., The.—107, Cawasji Patel Street, Fort.
Greaves Cotton & Co., Ltd.—1, Forbes Street.
Greentose Corporation (India).—Cama Buildings, 24-26, Dalal Street, Fort.
Gulamhusain Sulemanji & Co.—Manu Bhuvan, 24, Kika Street, Gulalwadi.
Haiderbhoy Esmailji & Co.—168, Nagdevi Street, Bombay 3.
Hardware & Sundries Importing Agency.—Hanshaw Building, 19, Bank Street, Fort.
Harjimal Kidarnath & Co.—87, Nagdevi Cross Lane, Bombay 3.
Harjimal Nand Lal (Estd. 1811).—75, Nagdevi Cross Lane, Bombay 3.
Hatimbhoy, A., & Co.—Argyle Road, Bombay 9.
Hatimbhoy Goolamhussein & Bros.—193, Nagdevi Street.

**HATIMBHOY MOHAMEDALLY.—Importers of Engineering Precision, Carpentry, Smithy, Goldsmiths, Garage and Cutting Tools, Suppliers to Governments & Semi-Government Dept. & Technical Institutes. 132, Lohar Chawl, Bombay 2. Phone : 22587.**

Heptoola Noorudin & Co.—152-54, Nagdevi Street, Bombay 3.
Hiralal Gokaldas Dalal & Co.—45, Nagdevi Cross Lane, Bombay 3.
Hoossin & Bros., M. A.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort.
Husein Mussa Virjee & Co.—Sheriff Hasam Building, Khoja Mohalla, Bombay 9.

**INDIAN COMMERCIAL CO.—86, Sarang Street, Bombay 3. Phone : 326885. Hardware Merchant Contractors, Dealers in Building Materials and Mill Gin Stores Supplier.**

Industrial Syndicate.—Lentin Chambers, Dalal Street, Fort.
Iron & Hardware (India) Co.—98, Nagdevi Cross Lane, Bombay 3.
Jacks & Co., Ltd., William.—Hamilton House, Graham Road, Ballard Estate.

**JAIRAMDAS & SONS.—163, Narayan Dhuru Street, Bombay. Grams : "JAIRAMDAS." Phone : 323616.**

James Tools & Hardware Co.—109-11, Nagdevi Street, Bombay 3.
Jayant Engineering & Mill Stores.—51/53, Industrial House, Nagdevi Cross Lane, Bombay 3.
Jayant Metal Manufacturing Co.—152, Lohar Street, Bombay.
Jayantilal & Brothers.—38, Bibijan Street, Nagdevi, Bombay 3.
Kanakia Corporation.—163, Nagdevi Cross Lane, Bombay 3.
Kantilal Bhogilal & Co.—68, Nagdevi Cross Lane, Bombay 3.
Kantilal Sanghvi & Co.—Mhorwan Building, Sir Phirozshah Mehta Road.

**KERMANI & SONS, F. B.—132, Sarang Street, Bombay 3. Phone : 326663. Grams : "GAROGAR".**

Keshavlal Narsidas Jaliwalla.—157, Abdul Rehman Street, Bombay 3.
Khambatty, H. A., & Co., Ltd.—45-47, Lohar Street, Bombay 2.
K. Kirtanlal & Co.—114-16, Zaveri Bazar, Bombay 2.
Kirtilal & Company.—31, Bibijan Street (Barbhai Mohalla), Bombay 3.

**KISHORECHAND OMPRAKASH.—101, Narayan Dhuru Street, Bombay 3. Phones : 322059, 322325 (Office) & 78.01 (Res.). Grams : "CHAINPULLY". Importers of Mill Gin Stores & Hardware. Authorised Stockists of "GEDORE", Tools, "WARRIOR" Taps & Dies. "NETTLEFOLDS" Products and "SPEED" Chain Pulley Blocks.**

Kishor Trading Co.—145, Narayan Dhuru Street, Bombay 3.
Lookmanji Moosaji.—Diamond Building, Lohar Chawl, Bombay 2.
M. Moiz & Co.—Nakhoda Roghay Market, 8, Nagdevi Street, Bombay 3.

**MACHINE TOOLS & IMPLEMENTS.—93-95, Narayan Dhuru St., Bombay 3. Phones : 322268 & 322269. Grams : "MACH-TOOLS." Telex : 292 BY.**

Maneckchand Jivraj & Co.—Darukhana, Mazagaon, Bombay.
Mangaldas & Sons.—Lentin Chambers, Dalal Street, Fort, Bombay.
Manseta, N., & Bros.—165, Lohar Chawl.
Marine & Mills Agencies.—197, Nagdevi Street, Bombay 3.
Mashruwalla, C. M., & Co.—172/74, Nagdevi Street, Bombay 3.

**M. DAWOODBHAI & BROS.—102, Lohar Chawl, Bombay 2. Phone : 20179. Manufacturers of Stainless Steel Bolts & Nuts; Star Washers; Cap Screws; Grub Screws; M. M. Bolts & Nuts in all Metals.**

**MEHTA & COMPANY.—Latif House, Argyle Road, Iron Market, Bombay-9. Phones: 321265 & 321298. Grams: "NICERODS." Importers and Stockists of Iron, Steel, Hardware & Metals.**

Mehta & Co., S.—Anees Chambers Annexe, Carnac Road, Bombay 1.
Mehta Hardware Mart.—81-83, Nagdevi Street, Bombay 3.
Mehta, H. P., & Co.—112, Nagdevi Street, Bombay 3.
Mehta Textile & Hardware Stores.—158/160, Narayan Dhuru Street, Bombay 3.
Modern Machine Tools Co.—88, Nagdevi Cross Lane.
Modern Mill Stores.—97, Nagdevi Street, Bombay 3.
Modi Trading Co.—163, Nagdevi Cross Lane, Bombay 3.
Moloobhoy, Ahmed S., & Sons.—281, Nagdevi Street.

**MULLA TAYEBALI MULLA NOORBHOY.—175, Janjikar Street, Bombay 3. Phone: 325934. Grams: "TANOOR." Specialists in hinges, screws, and sole selling Agents for Brass Cups & Square hooks No. 110, Curtain Wire "MEDO-RA" and "457" Red Tin, M.S. Corrugated Corner, Door Tracks of all kinds, M. S. Washers of all sizes., etc.**

Nanalal Ambalal & Co.—69, Nagdevi Street.

**Naterwalla & Co., S. R.—Bombay Mutual Annexe, Gunbow Street, Fort.**

**NEW INDIA HARDWARE MART.—152, Narayan Dhuru Street, Bombay 3. Grams : "FREETRADE." Phone : 321465.**

Ochhavlal, R., & Co.—86, Nagdevi Street, Bombay 3.
Odhavji, B., & Co.—Carnac Bunder, Argyle Road, Bombay 9.

**ORIENT PAINT & HARDWARE MART.—67, C. P. Tank Road, Bombay 4 (BR). Phone : 333768. Grams :"ADHIKAR," Bombay. Importers, Agents, Stockists, Suppliers, Dealers in Iron, Hardware, Bolts, Nuts, Screws, Specialists in "Steel Wood Screws." Stockists of Nettlefolds Screws, Rivets, G.K.W. Bolts & Nuts. Agents for National Screws.**

Paradise Trading Corp.—73/75, Tamarind Lane, Fort, Bombay 1.
Paramount Hardware Mart.—Carnac Bunder, Bombay 9.
Paramount Tools Company.—3, Narayan Dhuru Cross Lane, Bombay 3.
Parekh & Parbhoo Ltd.—Khetwadi Back Road, Bombay 4.
Parekh, P. S., & Co.—108, Nagdevi Street.
Patel, U. D., & Co.—11, Bank Street Building, Fort.
Pavri, J. K.—10, Karim Chambers, Hamam Street, Fort.
P. Ratilal & Co.—43, Dhanji Street, Moti Mahal, Bombay 3. Phone : 32700.

**RAMCHAND MATHRADAS AGGARWAL.—30, Khokha Bazar, Bombay 3. Phone : 326075 & 328942. Grams : "PIPEDIE." Hardware, Tools, Fittings, Pipes, Compressors, Machinery, Iron & Steel, etc.**

**RAMESH TRADING CORPORATION.—51/53, Nagdevi Cross Lane, Bombay 3. Phone : 325189 (Office) & 473862 (Res.). Grams : "RAMESHCO". Dealers in all kinds of Ball, Roller, Taper Bearings. Authorised Stockists : NBC and BBL Bearings, "HARRIOR" Tapes and Dies. "GEDORE" Hardware Tools.**

Rasiklal, K., & Co.—Mehta Building, Medows Street, Fort.
Rasiklal Shah & Co.—93, Narayan Dhuru Street, Bombay 3.
R. C. Traders.—Lentin Chambers, Dalal Street, Fort.
Real Paint & Hardware Mart.—105, C. P. Tank Road, Bombay 4.

**RELIANCE TRADING CO.—Vithal Sayana Building No. 1, Lohar Street, Bombay 2. Phone : 38751. Grams : "STORE-TRADE." Engineering Stores, Hardware & Taps & Die Merchants.**

Reliance Iron & Hardware Co.—11, Narayan Dhuru Cross Lane, Bombay 3.
Repute Engineering Co.—165, Narayan Dhuru Street, Bombay 3.
Richardson & Cruddas Ltd.—Byculla Iron Works, Byculla.
R. Vadilal Desai & Co.—15-27, Ratan Building, Bibijan Street, Nagdevi, Bombay 3.
Sanghani & Co.—178-180, Abdul Rehman Street.
Sant Ram Biasdev Co.—6, Narayan Dhuru Cross Lane, Bombay 3.
Shah Chhaganlal Ladhubhai.—58, Mudi Bazar (Mandvi), Bombay 3.

**SHUMS TRADING AGENCY.—26, Tava Lane, Bombay 3. Exporters, Dealers in Hardware, Tools, Bolts, Nuts, Rivets, Files, Spring Washers, Nails, Pipe-Fittings, Non-Ferrous Metals' Mfrs. of Allen Bolts, Screws, etc. Phone : 322231.**

Shantilal H. Kamdar & Co.—59, Bibijan Street, Bombay 3.
Sharafally & Sons.—73/75, Bhajipala Lane, Bombay 3.
Shivdayal Bilbhaderdas.—96, Narayan Dhuru Street, Bombay 3.
**Shree Krishna Trading Co., Ltd.—Alli Chambers, Medows Street, Fort.**
**Siriram & Co.—97, Narayan Dhuru Street, Bombay 3.**
Sivramkrishnan, M.—Hazi Manzil, 82-86, Abdul Rehman Street, Bombay 3.
Soho House.—Vithal Sayana Building, Lohar Street, Bombay 2.
Solem Hardware Mart.—155, Nagdevi Street.
Somnath, C., & Co.—Dr. D'Silva Road, Dadar (Western Railway), Bombay.
**Standard Metal Works Ltd.—17, Falkland Road, Low Level, Tardeo.**
Standard Trading Co.—Vithal Sayana Building No. 2, Lohar Street, Bombay 2.
**Standard Tube Co., Ltd., The.—123, Nagdevi Street, Bombay 3.**
**Stanley Works, The.—43-44, Lakshmi Building, Sir Phirozshah Mehta Road, Fort.**
**Steelyard Limited.—Rahimtoola House, Homji Street, Fort.**
**Talib & Co.—Talib House, 104, Nagdevi Street, Bombay 3.**
Tarachand Gupta & Bros.—Narayan Dhuru Street, Bombay 3.

Teka Hardware & Engineering Corp.—82/86, Abdul Rehman Street, Bombay 3. Phone : 326886. Grams : "TEKATOOLS", Agents for Tekrom Railing Patti (Door Tracks) in 10 ft. lengths iron coppered. English heavy Type and Brass Rod Brackets Nickel Plated for curtain rod, also nickel plated tubes 'Lion Brand' 12 ft. long standard thickness.

**Textile Stores & Hardware Mart.—32, Bibijan Lane, Nagdevi Street.**
Thakorlal & Co.—47, Nagdevi Cross Lane, Bombay 3.
T. M. Tyabji & Brothers.—Hamam House, 32-38, Hamam Street, Fort.
Tirathram Kashmirilal.—89, Nagdevi Cross Lane, Bombay 3.
Trade (India) Corporation.—58, Mohamedalli Road, P.O. Box No. 3231, Bombay.
**Trivedi & Co.—Navsari Chambers, Hornby Road, Fort.**
**Turner, Hoare & Co., Ltd.—Gateway Building, Apollo Bunder.**
Tyebally Dawoodji.—(Estd. 1865), 87, Sarang Street, Bombay 3. Phone : 325362. Grams : "FOOTRULES." Stockists of John Baker's J.K's and Hindustan's Files. Stockist of Indian "Dowidat" Tools.
U. D. Patel & Company.—11, Bank Street, Fort, Bombay.
**United Tube & Hardware Co.—146, Nagdevi Street, Bombay 3.**

**UNIVERSAL TRADING CO.—General Hardware Merchants and Order Suppliers, Stockists of Rubber Goods, Asbestos Goods, Jointing Sheets, Shovels, Ebonite and Fibre Sheets and Rods, Engineering Tools, Twist Drills, Hammers, Spanners, Grinding Wheels, etc. Mohamedi House, 79, Mohamedalli Road, Bombay 3. Phone : 322537. Grams : "IRONMART." Sales Office : No. 4, Narayan Dhuru Cross Lane, Bombay 3.**

**Vasi Shums & Co.—Vasi Building, 165-167, Nagdevi Street.**
Vinod Mehta & Co.—22B, Noble Chambers, Parsi Bazar Street, Fort.
Viswabharati Trading Co.—Kumpta Street, Ballard Estate, Bombay 1.
Vithaldas G., & Co.—60, Nagdevi Cross Lane, Bombay 3.
Vora Brothers.—34, C. P. Bibijan Street, Bombay 3.
Vora, J. C., & Co.—107, Tank, Bombay 4.

**V. CHUNILAL & CO.—19, Bibijan Street, Bombay 3. Phone : 328370. Bolts, Nuts, Hardware & Tool Merchants.**

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate.
Zaveri, C. A., & Co.—44, Abdul Rehman Street.

## HARDWARE IMPORTERS

**A. A. MORBIWALA & CO.—109/111, Abdul Rehman Street, Bombay 3. Phone : 323280. Grams : "VARNISH" (MD). Direct Importers & Stockists of Stitching Wires of all kinds.**

**ABDEALLY, E. M., & CO.—127, Sarang Street, Bombay 3. Phone : 326980. Grams : "ALERTDEAL."**

**AJMERA & BROS., V. G.—103, Narayan Dhuru Street, Bombay 3 BR. Phone : 323337. Importers of Hardware, Garage, Precision & Measuring Tools, Wrenches Die Ring & Tubular Spanners, Sockets & Sets and Speed Chain Pulley Blocks. Authorised Stockists for Gedore Tools & Turner Asbestos Products.**

**ASGARALI NURUDDIN & CO. (ESTD. 1916).—95, Nagdevi Street, Bombay 3. Phone: 322609, Res. 532753. Sanitaryware, Hardware & Pipe Fittings Merchants.**

C. Parekh & Co.—103, Bhajipala Lane, Bombay 3.

Dinkar Trading Co.—95/97, Bhandari Street, Bombay 3.

Gaytee & Company.—Janmabhoomi Chambers, Fort Street, Fort, Bombay. Grams: "IMPENG." Phone: 32449.

**HEMANT TOOLS TRADING CO.—33, Bibijan Street, Bombay 3. Grams: "LACING." Phone: 321174. Importers & Stockists of Chain Pulley Blocks, Garage Tools, Fibre Sheets, Rods, etc.**

**HINDUSTAN TOOLS & ENGINEERING CO.—Post Box No. 2311, 9/13, Picket Cross Road, Bombay 2. Grams: "DRILLTAPS." Dealers & Stockists of all kinds of Bolts, Nuts & Screws.**

**HINDUSTAN TOOLS & HARDWARE MART.—126, Lohar Chawl, Bombay 2. Phone: 20666. Grams: "FAKIRSAI." Importers, Stockists & Government & Railway Suppliers of General Engineering, Precision, Measuring & Carpenter Tools. Also Suppliers to Technical Colleges & Institutions. Branch Office: 154, Narayan Dhuru Street, Bombay 3.**

Industrial Development Corporation.—73, Bank of Baroda Building, Phalton Road, Bombay 1. Phone: 265529.

International Tools & Hardware Stores.—84, Kika Street, Bombay 4. Phone: 73636; Grams: "SANITARY."

Ispat Traders.—129, Sarang Street, Bombay 3.

**JAIRAMDAS & SONS.—163, Narain Dhuru Street, Bombay. Grams: "JAIRAMDAS." Phone: 323616.**

**James Tools & Hardware Co.—109-111, Nagdevi Street, Bombay 3.**

Kantilal Bhogilal & Co.—68, Nagdevi Cross Lane, Bombay 3.

**M. Moiz & Co.—Nakhoda Roghay Market, 8, Nagdevi Street, Bombay 3.**

Mangaldas & Sons.—Lentin Chambers, Dalal Street, Fort, Bombay.

**NAGDEVI TOOL-STEEL MART.—186-88, Nagdevi Street, Bombay 3. Phone Nos.: 323023 and 327058. Grams: "TENDERERS."**

**NATVERLAL & BROS.—Hardware Tools & Pipe Fittings Merchants and Direct Importers, 180, Nagdevi Street, Bombay 3. Phone: 325910. Grams: "NATVERBROS."**

New India Hardware Mart.—152, Narayan Dhuru Street, Bombay 3.

Shah Trading Corporation.—Oomrigar Building, opp. Crawford Market, Bombay 3.

Shalebhoy Tyebjee & Sons.—12, Bruce Street, Bombay 1.

## HATS AND CAPS MFRS. AND DEALERS

**Calcutta Sola Hat Agency.—Dwarkadas Building, Mangaldas Road, Bombay 2.**

**Delhi Hat Works.—206-208, Carnac Road, Bombay 2.**

Kashmir Govt. Arts Emporium.—Sir P. M. Road, Bombay 1.

**LUIZ.—Opp. G. T. Hospital, 280, Carnac Road, Bombay 2. Hatters, Uniform Cap & Badge Makers. Contractors to Bombay State Police, The Indian Navy and Railways.**

**Noormahomed Manji Topiwalla.—255, Ibrahim Rahimtoola Road. Dealers in Furs, Caps and Materials.**

Popular Sola Hat Works.—Baria Building, opp. Crawford Market.

## "HAULAGE EQUIPMENT"

**INDUSTRIAL GASES LTD., THE.—Bombay. Grams: "INDUSGASES". Head Office: P.O. Box 853, Calcutta 1. Design, Supply & Erection of Mobile, Portal, Overhead Travelling and Gantry Cranes, Winches and Crabs, Wire Ropes and Locomotives.**

## HEAT RESISTING PAINTS

**STAR PAINT & OIL INDUSTRIES.—Crescent Chambers, Tamarind Lane, Bombay 1. Mfrs. of Industrial & Marine Paints & Synthetic Enamels. Specialists in Aluminium Paint, General purpose, High Temperature Heat Resisting upto 1200°F. & Metallic Paint upto 1800°F. & Rubberex Rubber Paint (for Chemical Resisting). Grams: "STARPAINT." Phone: 253493.**

## HEAT TREATMENT AND METAL PROCESSING PRODUCTS

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Fort.

Datson Raviraj & Co.—43, Tamarind Lane, Fort.

**HARDCASTLE & WAUD MANUFACTURING CO. PRIVATE LTD.—Alice Building, 339, Dr. Dadabhai Naoroji Road, Fort, Bombay 1. Phone: 255771. Grams: "WAUDCO".**

**HARDCASTLE, WAUD & CO., PRIVATE LTD.—Alice Buildings, Dr. Dadabhai Naoroji Road, Fort, Bombay 1.**

Imperial Chemical Industries (India) Ltd.—Imperial Chemical House, Ballard Estate.

Pioneer Equipment Co. Private Ltd.—139, Medows Street, P.O. Box No. 1909, Fort.

**Thos. W. Ward (India) Ltd.—Marshall Building, Ballard Road, Ballard Estate, Fort.**

## HESSIAN CLOTH, CANVAS, JUTE & TWINE, ETC.

**NATHALAL & BROTHERS.—113, New Chinch Bunder Road, 1st Floor, Bombay-9. B.R. Dealers in Hessian Cloth, Old and New Gunny Sags, Twine, Cotton Baling Hoops, Rivets, and Box Strappings etc. Grams: "DUDHGANGA." Phones: 331659 & 331135.**

## HIDES AND SKINS

Edgar Handley and Co. Private Ltd.—135, Medows Street, Fort,

Govias, Basil M. P.—P. O. Box 263-A, Bombay Mutual Building, Hornby Road, Fort.

Hashambhoy Aloo Mahomed & Son.—Dostmahomed Building, Nishanpada Road, Khadak, Bombay 9.

Mahomedali Esmail.—Stock Exchange Bldg., Apollo Street, Fort.

Western Mercantile Co.—38, Western India House, Sir Phirozshah Mehta Road, Fort.

## HOISTING MACHINERY (LIFTS & HOISTS)

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone: 326980. Grams: "ALERTDEAL."**

Batliboi & Company Private Limited.—Regd. Office: Forbes Street, P.O. Box 190-A, Fort, Bombay-1 (BR.). Phones: 255451 (6 lines). Grams: BATLIBOICO. Telex: 284. City Branch: Batliboi House, 59/61, Nagdevi Cross Lane, Bombay-3 (BR.). Branches: Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate: Bangalore 2. Resident Representatives: ERNAKULAM, RANCHI.

**CONSOLIDATED ENGINEERING EQUIPMENT CO.—Union Co-Operative Insurance Society Building, Sir Phirozshah Mehta Road, Bombay 1. Phone: 255333. Grams: "CONEQUIP." Direct Importers of Overhead Electric Cranes & Hoists of all types.**

**DODGE & SEYMOUR (INDIA) PRIVATE LTD.—Laxmi Bldg., 6, Ballard Road, Bombay. Phone: Nos. 263674 & 365479. Grams: "EXIMCO."**

**ELECTRIC CONSTRUCTION & EQUIPMENT CO., LTD.—Neelkanth, Opp. Marine Lines Station, 98, Marine Drive, Bombay-2. Phone: 243406. Grams: "COECELL." Sole Agents in India for Schindler & Co., Ltd., Lucerne, Ebikon, Switzerland.**

Fleming John & Co., Private Ltd.—P. B. No. 76, Bombay 1. Phone: 261153.

**Gujarat Trading Syndicate.—India House, Fort, Bombay 1. Grams: "GUTRASY."**

**HERCULES HOISTS LIMITED.MANUFACTURERS OF "INDEF" Brand Chain Pulley Blocks & Electric Hoists. Bombay-Agra Road, Bombay 78.**

Voltas Ltd.—19, Graham Road, Ballard Estate, Bombay 1.

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate.

## HOMOEOPATHIC MEDICINES

**ROY & CO.—HOMOEOPATHS.—(Estd. 1889), 176, Princess Street, Bombay 2. Phone: 20504. Grams: "HOMOPATHS." The leading and the largest house in Western India for Homoeopathic medicines, Books and Physicians' requisites, Medical Publishers Matties Electro Homoeopathic Medicines, German Homoeopathic Injections and Patents, Homoeopathic Journal—Specimen copy & catalogue free on request.**

## HOSES (RUBBER & CANVAS)

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone: 326980. Grams: "ALERTDEAL."**

**AMIRUDIN SHALEBHOY TYEBJEE & SONS.—Shale Building, 2nd Floor, Bank Street, Fort, Bombay 1. Phone: 25-2952 25-4103. Grams: "PILOTACE."**

**AMRATLAL CHHAGANLAL & CO.—143, Nagdevi Street, Bombay 3. Phone: 326008. Grams: "EKADASHI." Dealing in Suction, Delivery & Fire Hoses, Surgical, Rubber & Plastic Tubings & Sheetings.**

**BOMBAY MERCANTILE CORPORATION.—211-217, Nagdevi Street, Bombay 3. Phone: 325982. Grams: "CORPBOMBER." Distributors for "STAR" Brand Transmission Beltings and Hoses and distributors of Goodyear Hoses.**

Calcutta Iron & Steel Co. Ltd.—68/D, Mohamedalli Road, Bombay 3.

**DIWAN BROS.—51, Nagdevi Street, Bombay 3. Phone: 321361. Grams: "ALLBELT". Stockists of Hoses Goodyear, Garden Water Deilivery, Air Pneumatic, Suction, etc.**

**EASTERN STORES & TRADING CO. PRIVATE LTD.—115, Nagdevi Street, Bombay 3. Phones: 322215/16. Grams: "ENERGY."**

Fleming John & Co., Private Ltd.—P. B. No. 76, Bombay 1. Phone: 261753

**JIVRAJ & VRAJLAL.—122, Nagdevi Street, Bombay 3. Phone: 325138 (Shop) & 30932 (Res.). Grams: "SANIPIPES."**

P. Ratilal & Co.—43, Dhanji Street, Moti Mahal, Bombay 3.

**PREMIER RUBBER & CABLE INDUSTRIES.—Jamal Building, 211, Nagdevi Street, Bombay 3. Phone: 38551. Grams: "RUBBERGOODS." Manufacturers of "Premier" Rubber Hose, Pipes (Delivery & Suction), Petrol & Oil.**

Richardson & Cruddas Ltd.—Byculla Iron Works, Bombay.

**ROYAL HARDWARE MART.—108, Nagdevi Street, Bombay 3. Phone: 325221. Grams: "MANILAROPE." Distributors for "VENUS" Brand Hoses, suction, delivery, garden, Pneumatic, acid and oil resisting "NEOPRENE" Hoses and also Dunlop Hoses.**

Shalebhoy Tyebjee & Sons.—12, Bruce Street, Bombay 1.
Tahira Industries (India) Private Ltd.—53, Queen's Road, Bombay 2.

**VIKRAM & CO.—258, Nagdevi Street, P. O. Box No. 3266, Bombay 3-BR. Phone: 322981. Manufacturers' Representatives, Mill Gin Stores, Pipe Fittings & Hardware Merchants, Authorised Distributors for "GOODYEAR". Transmission Beltings, Vee-Belts, Link Belts, Hoses, etc.**

## HOSIERY MANUFACTURERS AND DEALERS

Ahmed Ebrahim Bros.—882, Chuckla Street, Bombay 3.
Akbarally Ebrahimji Pharmacy & Department Store.—45/47, Veer Nariman Road, Fort, Bombay.
Bhagvandas Chatrabhuj & Co.—20, Hamam Street, Fort.

**BOMBAY HOSIERY WORKS.—Manufacturers of Hosiery, Lahiri House, 14, Bhajipala Street, Bombay 3. Phone: 324601. Grams: "GOODSELLER."**

**BORIVLI HOSIERY MILLS (Estd. 1920).—Office: Dahanukar Building, 480, Kalbadevi Road, Bombay 2. Phone No. 20414. Mills at Borivli, Western Rly. Phone No. 661135.**

Cawnpore Mills Depot.—Churchgate House, Churchgate Street, Fort.
Chhaganlal Vishram & Co.—107-109, Chakla Street.
"Crawfords."—280, Carnac Road, Bombay 2.
Chunilal Mulchand & Co.—Waterloo Mansion, Mayo Road, Fort, Bombay.
Dave, J. M., & Co.—Kanta Terrace, Silk Bazar, Kalbadevi Road.
Haji Ebrahim Haji Mohammad B.—13, Bhajipala Lane, Bombay 3.
Haroon & Co.—19, Zakeria Musjid Road.
Hassaram & Co., K.—New Silk Bazar, Kalbadevi Road, Bombay 2.
Hukamchand Chanderbhan.—1st Floor, Hira Building, opp. Crawford Market, Carnac Road.
Jewan Bukhsh Mohammed Jan.—99, Chakla Street, Bombay 3.
Katrak Hosiery Works.—167, Lamington Road, Bombay 7.
Ladhabhai Ravji & Bros.—41, Advani Chambers, Sir Phirozshah Mehta Road, Fort.
Mansukhlal Kantilal & Co.—185, Mulji Jetha Building, Princess Street.
M. Dialdas & Sons.—190, Princess Street.

**MENORA HOSIERY WORKS PRIVATE LTD.—75, Nehru Road, Vile Parle (East), Bombay 57. Phone: 571378-79. Grams: "MENORWORK," Bombay—Vile Parle.**

Modern Hosiery Works.—Dhobiwadi, Thakurdwar.
Mohanlal, D., & Co.—Nariman Building, near P. O., Kalbadevi.
Parmanand Gordhandas & Co.—280, Carnac Road, Bombay 2.
Patel Hosiery Mills.—7-10, Botawala Building, Elphinstone Circle, Fort.
Pavri Sons & Co.—93-97, Bazar Gate Street, Fort.
Popular Hosiery Works.—98B, Lady Hardinge Road, Matunga (Western Rly.), Bombay 16.
Pratapraj & Co.—4, Swadeshi Market, Kalbadevi Road, Bombay 2.
Rajsi Bros.—Opp. Electric House, Colaba Causeway.
Shanghvi & Sons, N. H., (Estd. 1929).—47-48, 65-66, Swadeshi Market, Kalbadevi Road.

**SHREE JAM HOSIERY WORKS PRIVATE LTD.—30, Old Hanuman Lane, Bombay 2. Factory: Borivli, Bombay. Phone: Office: 38954. Factory: 661157. Grams: "SUGOPHI," Bombay. Mg. Directors: Jayraj Kanji & Pranjivandas Sunderdas. Cotton & Rayon vests, drawers, shorts, cardigans and jumpers in interlock, net, Airtex and terry qualities; equipment: 43 Knitting machines; own bleaching, dyeing and finishing plant.**

Sultan Haji Mahomed & Co.—Kanta Terrace, 529, Kalbadevi Road, Bombay 2.
Surat Hosiery & Printing Works.—Sayee Bhuwan, 143, Princess Street.
Trivedi, R., & Co.—28, Lalsingh Building, Lohar Chawl.
Utoomal & Assudamal Co.—Bombay Mutual Annexe, Gunbow Street, Fort.
Vashani Cloth Stores.—Prospect Chambers, 313, Hornby Road, Fort.
Vasi Bros. & Co.—Topiwala Mansion, Mohamedally Road, Bombay 3.
Vaswani (India) Ltd.—496, Kalbadevi Road, Bombay 2.
West End Shop.—234-236, Carnac Road, Kerawalla Mansion, opp. Police Commissioner's Office, Bombay 2.
Western Link Co.—19, Bank Street, Fort.
Yacob Ahmed Bros.—Topiwalla Mansion, Mahomedally Road.

## HOSPITAL EQUIPMENT & SUPPLIES

Akbarally Ebrahimji.—38/C, Cawasji Patel Street, Fort, Bombay.

**BENGAL CHEMICAL & PHARMACEUTICAL WORKS LTD.—502, Cadell Road, Bombay 28. H.O.: 6, Ganesh Chunder Avenue, Calcutta 13. Pharmaceuticals, Heavy & Fine Chemicals, High Class Toilet Products, Coal Tar Distillation Products, Fire Extinguishers, Printing Inks, Dryers, etc. Branch Office: Kanpur.**

Bole Brothers.—49, Princess Street, Bombay 2. Phone: 25316.

**BRIGHT BROTHERS PRIVATE LTD.—156-A, Tardeo Road, Bombay 34. Grams: "BRIBOS." Phones: 78548, 48549, 78540. Manufacturers of Polythene Buckets, Basins, Mugs and Carboys for Acids and Chemicals.**

**DIAMOND SURGICAL DRESSINGS WORKS, THE.—381, Arthur Road, Bombay 11. Phone: 74636. Manufacturers of Surgical goods & Hospital Equipment.**

**DOCTOR & CO.—Bombay Mutual Terrace, 534, Sandhurst Road (Near Sandhurst Bridge), Bombay 7. Phone: 40907. Grams: "DIATHERMY." Suppliers of all Hospital Equipments, Apparatus and Appliances.**

**D. SHAH & CO.—24, Sardar Griha Bldg., Carnac Road, Bombay 2. Phone: 30054. Grams: "SCIENCAID." Hospital & Laboratory Furnishers. Distributors for Karl-Kaps, Wetzer Microscopes. Specialists in Bacteriological Laboratory Equipment.**

Fairdeal Surgical Corporation.—106, New Citizen Bank House, Palton Road, Bombay 1.
G. K. Kansara.—118, Kansara Chawl, Kalbadevi, Bombay 2.
I.C.I. (India) Private Ltd.—P. B. No. 310, Bombay 1.

**INDIAN OXYGEN LTD.—Ghatkopar (Bombay Agra-Road). Bombay. Phone: 55241 (7 lines) & 55180, 55382, 55340; Grams: "INDOXCO." Suppliers of Medical Apparatus for Anaesthesia, Analgesia & Oxygen Therapy and Medical Oxygen.**

Jagkumar & Co.—Prospect Chambers Annexe, Hornby Road, Fort

**JANAK MANUFACTURING WORKS.—Antop Hill, Wadala, Bombay 31. Manufacturers of Complete range of Hospital Steel Furniture which includes Ward Furniture, Operation Tables and Invalid Equipments. Phone: 60171. Grams: "JANAKBED" (MT). Showroom at Kastur Nivas, 26/B, French Road, Off Hughes Road, Chowpatty, Bombay 7.**

Kanchanlal Maganlal & Co.—Bode Chawl, Princess Street, P.B. No. 2029, Bombay 2.
Kapadia Brothers.—Kalan Building No. 3, Kandewadi, Bombay 4.

**KHIRA STEEL WORKS PRIVATE LTD.—Factory: Swami Vivekananda Road, Santa Cruz, Bombay 54. Grams: "STEELCASE." Phones: 533226 (4 lines). Regd. Office & Showrooms: Khira Bhavan, Sandhurst Bridge, Bombay 7. Grams: "SWAKALA." Phones: 30097 and 30098. Showroom: Fulchand Nivas, Chowpatty Sea Face, Bombay 7. Grams: "SWAKALA." Phone: 30408.**

**NATIONAL STEEL EQUIPMENT CO.—8, Katrak Road, Wadala, Bombay 31 (DD). Phone: Office: 61755; Factory: 62973. Grams: "BEDLOCKER," Bombay-Wadala. Manufacturers of Pressure Steam Sterilizers & Autoclaves, Pyrogen-free Water Stills, Premature Baby's Incubators, Complete range of Industrial Heavy-duty Catering (Kitchen) Equipment and fully automatic Packaged Boilers. Branches: Delhi, Calcutta, Madras.**

**POLAR INDUSTRIAL CORPORATION.—Shree Laxmi Woollen Mills Estate, Off Haines Road, Bombay 11. Phone: 71937. Grams: "COVERSLIPS". Manufacturers of Precision Laboratory Hot Air Ovens, Incubators, Water Stills (Automatic), Water Bath (Electrical), Kjeldahl Assemblies, Sand Bath, Industrial Dryer, "Blue Star" Micro Slides, Cover Glass & Microscope, etc.**

Raj-Der-Kar & Co.—Commissariat Building, Hornby Road, Fort. For Research and Industries. Phone: 27304.

Reliance Electric & Hardware Stores.—55, Krishna Bhuvan, Lohar Chawl.

Salemahomed Padamsee & Co.—141, Chakla Street, P.O. Box 3131, Bombay 3.

**SHAH & CO., M.—Kanji Mansion, Sandhurst Road, Bombay 4. Phone : 71834.**

Steelmade, Dr. Annie Besant Road, Worli, Bombay 18.

Williams Jack & Co., Ltd.—Hamilton House, Ballard Estate, Bombay 1.

## HOTELS AND RESTAURANTS

Airlines Hotel.—Churchgate Reclamation, Bombay 1.

Ajanta Restaurant.—9, Mangalore Street, Ballard Estate, Bombay 1.

**AMBASSADOR HOTEL.—Churchgate Extension, Bombay 1. Phone : 241131 (10 lines). Grams : "EMBASSY." Most modern & up-to-date hotel in the East.**

Aryanivas Hindu Lodging and Boarding House.—Opp. Vithalwadi, Kalbadevi Road.

Astoria Hotel.—Churchgate Reclamation, Bombay 1.

Bentley's Hotel.—17, Oliver Road, Colaba, Bombay 1.

Berrys Restaurant.—Churchgate Extension, Bombay 1.

Bombay Lodge.—Borbhat Lane and Girgaum Road Junction, Girgaum, Bombay 4.

Bombelli's Swiss Confectionery.—63, Warden Road, Bombay 26.

Brandon & Co., Ltd.—Elphinstone Bldg., Veer Nariman Road, Bombay 1.

Bristol Grill Private Ltd.—Laxmi Buildings, Sir Phirozshah Mehta, Road, Fort.

Chetana.—34, Rampart Row, Fort.

Chez Caroline.—Dhanraj Mahal, Apollo Bunder, Bombay 1.

Elphinstone Hotel.—Gulshan Chambers, Hornby Road, Fort.

Empire Hindu Hotel.—Hornby Road.

Eros Theatre & Restaurant Private Ltd.—Cambata Building, Queen's Road, Churchgate Reclamation.

Faletti's Italian Cafe.—Cusrow Baug, Causeway, Bombay 1.

Frederick's Hotel.—Lansdowne Road, Apollo Bunder, Fort.

Gaylord Restaurant.—May Fair, Churchgate Street, Bombay 1.

George Restaurant.—20, Apollo Street.

Girgaum Lodge.—47F, Khotachi Wadi, Opp. Majestic Cinema, Bombay 4.

**GODWIN GUEST HOUSE.—Jasmine Building, 2nd Floor, 41, Garden Road, Apollo Reclamation, P.O. Box 191, Bombay 1. Phone : 212782. Grams : "HOSHEE." Lodging & Boarding. (1st Grade—Approved by the Bombay Municipal Corporation).**

Gourdon & Co.—Rehmat Manzil, Churchgate Reclamation, Bombay 1.

Grand Hotel (Bombay), Ltd.—Ballard Estate, Fort.

**GREEN'S HOTEL—Apollo Bunder, Grams: "CATERERS". Phone : 219101.**

Hotel Regal.—233, Frere Road.

**HOTEL WALDORF.—Arthur Bunder Road, Colaba, Bombay. Luxurious Hotel on Continental System of Room and Breakfast, Meals Optional, Spacious airy rooms, attached private Baths with Shanks Fittings, hot and cold showers twenty-four hours. Each room with separate entrance, balcony and telephone. Dining room, Permit room and some residential rooms air-conditioned. Ladies hair-dressing, air-conditioned Beauty Parlour, Luggage room, Weighing machine, Laundry and Taxies available on Premises. Phones; 211033-34-35. Grams: "HOMELINESS."**

Ideal Restaurant.—Alice Building, Hornby Road, Fort.

Juhu Country Hotel.—Juhu, near Santa Cruz.

**JUHU HOTEL PRIVATE LTD.—Juhu Beach, Bombay 54. Open air Restaurant, sea bathing facilities. Phone : 571321, 571322 572071, 572723. Grams : "SANDYBEACH," Bombay 54. Board of Directors : Mr. Roshanlal and Mr. Chamanlal. Manager : K. Raghavan.**

Kamling Chinese Restaurant.—"Nagin Mahal", Churchgate Reclamation.

Kashmir Hotel.—Dhun Mahal, Dhobi Talao.

Kerawalla Chamber's Guest House.—Strand Road, Bombay 1.

**KEHYBER, RSTAURANT.—For the best Indian food, in Town "KABAB" is a speciality. Continental Food, Tandoori Chicken, Moglai and Punjabi Dishes served. Outside Catering Undertaken, 145, Mahatma Gandhi Road, Opp. Kala Ghoda, Bombay-1. Phone : 251016.**

King George VI Restaurant.—Noor Mahal, King's Circle, Matunga.

Kwality Restaurant & Ice Cream Company.—Causeway, Colaba, Bombay 1.

Ladies Hostel.—Maher, Gokhale Road, Cross Street II, Opp. Dadar Portuguese Church, Bombay 28.

Lawrence Hotel.—Ashokumar House, Rampart Row, Bombay 1.

Lentin Court Hotel.—Strand Road, Apollo Bunder, Bombay 1.

Leopold Cafe & Stores.—No. 6, Colaba Causeway, Apollo Bunder.

Lessers Boarding House.—Soona Mahal, Marine Drive, Bombay 1.

London Hotel.—323, Grant Road, Bombay 7.

Madhavashram.—18, Parekh Street, Girgaum, Bombay 4.

Majestic Hotel.—Esplanade, Museum.

Mama Kane's Swatchha Upahar Griha.—Dadar B.B., Bombay 28.

**METROPOLE HOTEL.—Palton Road, Opp. Crawford Market, Bombay 1. Approved by the Bombay Municipal Corporation as 1st Grade Hotel, Air-conditioned rooms also available. Telephone in each room. Phones: 264040, 262086 and 266338-9. Grams : "MYHOTEL."**

Modern Hindu Hotel.—12, Wallace Street, Fort.

Morenas & Co.—69, Mahatma Gandhi Road, 22, Medows Street, Fort.

National Hindu Hotel.—Frere Road, opp. Tram Junction, Fort.

New Coronation Durbar Hotel.—Near Novelty Cinema, Grant Road Tram Terminus.

New Empire Restaurant, Stores & Bakery.—134, Hornby Road.

New Empire Stores & Restaurant.—Rustom Mahal, Tram Terminus, Dadar.

New Welcome Hindu Restaurant.—Medows House, Tamarind Lane, Fort.

New World Chinese Restaurant.—Gulestan, opp. Metro Cinema, Dhobi Talao.

Nrisinha Hindu Lodge.—177-179, Hornby Road, Fort.

Orient Hotel.—Orient Hotel Building, Crawford Market.

Outram Private Hotel.—Menkwa Building, Outram Road, Fort.

Parisian Dairy Company.—Soona Mahal, Marine Drive, Bombay 1.

Picnic Cottages Restaurant.—Versova, near Andheri.

Purohit Hotel.—Parekh Mahal, Churchgate Street.

Purohit Restaurant & Stores.—Krishna Building, Fort Street, Fort.

Pyrke's Apollo Hotel.—Lansdowne Road, Apollo Bunder.

Railway Hotel.—Charni Road.

Regent Hotel.—Ballard Pier.

Ritz Hotel and Restaurant.—Churchgate Reclamation, near Eros Cinema, Bombay.

Royal Guest House (Lodging & Boarding).—Lady Hardinge Road, opp. Rivoli Cinema, Mahim, Bombay 16.

Royal Hotel.—Hassam Chambers, Parsi Bazar Street, Fort.

Santacruz Airport Restaurant.—Santacruz, Bombay 29.

Sardar Griha (Private) Ltd.—Carnac Road, Bombay 2.

Savoy Hotel & Restaurant.—Lamington Road, next to Bombay Central.

**SEA FACE HOTEL.—Dar-ul-Habib, 29, Marine Drive, Bombay. Tel. : 245821 & 246195.**

Sea Green Hotel.—Marine Drive, Bombay 1.

Sea Green South (Hotel).—Marine Drive, Bombay 1.

Sea View Hotel.—221-225, Frere Road, opp. G.P.O., Fort.

Sea View Restaurant.—Juhu, Santacruz.

Sher-E-Punjab Restaurant.—Near G.P.O., Frere Road, Bombay 1.

Chemanlal Popatlal Minawala.—255, Zaveri Bazar, Ghia Mansion, Bombay 2.

Ship Hotel.—Opp. General Post Office, 219, Frere Road, Fort.

Shree Krishna Boarding House.—Girgaum Tram Terminus, Bombay 4.

Sidhwa Guest House.—Soona Mahal, Marine Drive, Bombay 1.

Simla and Calcutta Hotel.—Mangalore Street, Fort.

Soona Service Suites.—Soona Mahal, Marine Drive, Bombay 1.

Strand Hotel.—Strand Road, Apollo Bunder, Bombay 1.

**TAJ MAHAL HOTEL.—Apollo Bunder. Grams: "PALACE". Phone: 219101.**

Tambe, B., Private Ltd.—Sanzgiri Sadan, Girgaon Road, Bombay 4.

Veerkar Ahar Bhavan.—Girgaum Corner, Bombay 4.

Volga Restaurant.—46, Churchgate Street, Bombay 1.

Wayside Inn.—Rampart Row, Fort.

Welcome Hindu Restaurant.—Medows Street, Fort.

Welcome Hotel.—Frere Road, Fort.

West End Hotel.—(Proprietors : West End Hotel Ltd.), 45, New Marine Lines, Bombay.

## HOUSE AND ESTATE AGENTS

**ADVANI & CO., R. & G.—Estate Agents, Sindhu House, Nanabhoy Lane, Fort, Opp. Flora Fountain, Bombay 1. Phones: Office : 251521; Res. : 72233. Grams: "SATGURU."**

Brijmohan Reayag Banwarilal.—61, Road, Mazagon, Bombay 10.

Dastur & Sons, M. B.—Ismail Building, Hornby Road, Fort.

**GILBERT LODGE & CO.—"Elphinstone Bldg.", Veer Nariman Street, Fort, Bombay. Phones : 251819 and 252607. Grams : "READINESS."**

Mayfair Furnishing Co.—Great Western Building, Apollo Street, Fort.

Narayanrao Kulkarni & Co.—20, Hamam Street, Fort.

Properties & Estates Management Private Ltd.—11, Bank Street, Bombay 1.

**RAM DADLANI.—506, Commerce House, 140, Medows Street, Fort, Bombay 1. Phone : 251508 & 256601. Estate and Commission Agent. Consult for purchase Sale and Renting of Land, Flats, Offices, Shops and Godowns.**

Rao Saheb Rawji Sojpal & Sons.—322, Shanti Niketan, Vincent Road, Kingsway, Matunga.

**ROYAL HOUSE AGENCY (Estd. 1936).—24, Vir Nariman Road, Fort, Bombay 1. Phones : 255759. Res. : 51314. Transact every type of accommodation Residential Office Premises, Factory, Godown, buy and sell land, properties, etc. Partners A. K. Mehta, Shashikant Mehta & Suresh Mehta.**

## HUMIDIFICATION—VENTILATION

Asea Electric India, Limited.—Tafti Building, Goa Street, Bombay.

Bakubhai Ambalal Private Ltd.—Sahibaug Bldg., Wittet Road, Ballard Estate, Bombay.

**C. DOCTOR & CO. PRIVATE LTD. (Estd. 1915).—11, Bruce Street, Bombay 1. Phone : 252277. Grams : "QUALITY." Humidification & Ventilation Engineers & Textile Stores Suppliers.**

**INDUSTRIAL AIR CONTROL (INDIA) PRIVATE LTD.—Karimjee House, 2nd Floor, 59, Sir Phirozshah Mehta Road, Fort, Bombay. Phone : 262475. Grams : "COOLAIR." Specialists in all air Handling Equipments, Textile Dust and Fume Removal and Oil Spraying.**

Voltas Ltd.—19, Graham Road, Ballard Estate, Bombay 1.

## ICECREAM MFRS.

**For Kwality Ice Cream**

**PURE ICE CREAM Co.**

**9, Lovegrove Road, Bombay 18**

Phones : 72775 & 70559

## ICE FACTORIES

**AMBICO ICE WORKS COLD STORAGE & REFRIGERATION.—H.O. : 35-C, Jeirajbhoy Street, Bombay 8. Phone : 71692. Factory : 10-12, Cochin Street, Ballard Estate, Bombay 1. Phone : 263308.**

Bakhtawar Ice Factory.—Kumbharwada, Dadar.

Bombay Crystal Ice Works.—179, Motisha Lane, Mazagaon.

Central Ice & Cold Storage Co.—Saboo Sidick Road, Crawford Market, Bombay.

City Ice Supplying & Cold Storage Ltd.—298, Bazargate Street, Fort.

Dhunjibhoy's Ice Factory.—Mount Road, Mazagaon.

**HOMILA ICE WORKS, COLD STORAGE AND REFRIGERATION.—Manufacturers of Pure and Colourless Ice. 33-C, Jeirajbhoy Street, Near Municipal Workshop, Foras Road, Bombay 8 (India). Phone Nos. 71692 & 71314.**

Siddley Ice Factory.—505A, Arthur Road, Tardeo.

Sitaram Industries.—Byculla Bridge, Hansraj Lane, Byculla.

**SUNAWALA ICE FACTORY & COLD STORAGE (Estd. 1918).—Jeirajbhoy Street, Next to Municipal Workshop, Byculla, Bombay 8. Phone : 71692. Factory : 188, Lamington Road, Bombay 7.**

## IMPORT AND EXPORT FIRMS (GENERAL)

**A. A. MORBIWALA & CO.—109/111, Abdul Rehman Street, Bombay 3. Phone : 23280. Grams : "VARNISH" (MD). Direct Importers & Stockists of Stitching Wires of all kinds.**

Abdool Hoosein Jivajee & Co.—241, Nagdevi Street, Bombay 8.

Abdoola Joosab Calcuttawalla & Co.—137-41, Samuel Street, Bombay 9.

Abdul Karim & Co.—Mohomed Manzil, 59-59A, Memonwada Road.

Abdulkarim, M. H.—272, Abdul Rehman Street, Bombay 3.

Abdul Razak & Co.—Opp. Juma Masjid, Takiaward, Kurla.

Abdulkhadar Shamsuddin & Co.—48, Khoka Bazar, Bombay 8.

A. A. Baker & Co.—89, Bhajipala Street, Bombay 8.

Adamally Sons Ltd.—277, Nagdevi Street, Bombay 8.

Advani & Co., G. V.—Prospect Chambers, Hornby Road, Fort, Bombay.

**SORABJI NOWROJI & CO.**

**16, HORNIMAN CIRCLE — FORT — BOMBAY 1**

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**Distillers of 'Crown' Brand Sandalwood Oil.**

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Advani, J. B., & Co., Ltd.—Advani Chambers, Sir Phirozshah Mehta Road.
Ahoora Trading Co.—22D, Parsi Bazar Street, Fort, Bombay.
Ahuja, C. M., & Co.—People's Building, Sir Phirozshah Mehta Road, Fort.
Akbarally Ebrahimji & Co.—38/C, Cawasji Patel Street, Fort, Bombay.
Akbarally Ebrahimji Pharmacy & Department Store.—45/47, Veer Nariman Road, Fort, Bombay.
Akbarally Mohamedally & Co.—316, Abdul Rehman Street, Bombay 3.

**AKSON TOOL & STEEL CO.—119, Nagdevi Street, Bombay 3. Phone : 324786. Grams : "AKSONTOOL ". Importers of all kinds of Steel, Sheets & Brass and Exporters of Small Tools.**

Alfa Sports.—Metro House, Bombay 1. Phone : 27549. Grams : "ALFASPORTS."
Alfred Herbert (India), Ltd.—Kaiser-i-Hind Buildings, Ballard Estate.
Alliance Stores & Trading Co.—Princess Street, Bombay 2.
Allied Exporters.—Kumud House, opp. Lloyds Bank, 267, Dr. Dadabhoy Naoroji Road (Hornby Road), Fort, Bombay.
All India Trading Corporation.—25, Bank Street, Fort.
Almeida, J. C.—National Insurance Building, 1st Floor, 27, Bastion Road, Fort, Bombay. Phone : 263708. Grams : "GROTTO".

**AMALGAMATED UNIVERSAL AGENCIES.—306, Lotus House, 33/A, New Marine Lines, Bombay 1. Phone : 244138. Grams : "DETAMAG." Importers of Stainless Steel, Tool & Alloy Steel, Stationery, Paints, Raw Materials, Provisions, Paper, Machine Tools, Textiles and Chemicals. Exporters of Leather Cloth, Stainless Steel Utensils, Cutlery, Toys, Jute Carpets, Spectacle Frames, Textile & Sundries.**

Amin Importers.—7-10, Elphinstone Circle, Fort.
Amin & Sons.—180-82, Samuel Street, Vadgadi.
Amrut Trading Co.—44, Kumar Vilas, Mangalwadi, Girgaum.
Anand Trading Co.—234, Masjid Bunder Road, Bombay 3.
Anil Brothers.—44/46, Dhanji Street, Bombay 3.
Anil Kumar & Co., Ltd.—121-123, Princess Street, Bombay 2.
Arthur Import Export Co.—166, Hornby Road, Fort, Bombay.
Ashok Brothers.—327, Dr. Dadabhoy Naoroji Road, Bombay.
Asian Trading Corporation.—1-A, Nazir Building, Calicut Street, Bombay 1. Phone : 262575.
Askay & Co., Ltd.—Great Social Building, Sir Phirozshah Mehta Road, Fort, Bombay.
Asok Bros., Ltd.—Mubarak Manzil, 104, Apollo Street, Fort.
Badat Ltd.—105, Sir Vithaldas Chambers, 16, Apollo Street, Fort.
Bakshi Ram & Co.—129, Modi Street, Fort.
Balmer Lawrie & Co. Ltd.—5, Graham Road, Ballard Estate, Fort.
Bardiya, W. K., & Company.—155, Modi Street, Fort.
Batlibhoi, C. J., & Co.—319, Hornby Road, Fort.
Beardsell, W. A., & Co., Ltd.—15-16, Sir Phirozshah Mehta Road, Fort.
Begraj Gupta & Co.—207, Kalbadevi Road, Bombay 2.
Bhagwandas Chatrabhuj.—20, Hamam Street, Fort.
Bhagwandas Devshi, Ltd.—87, Princess Street.
Bhagwandas Sant Parkash.—50, Nakhuda Street, Bombay 3.
Bhaidas Cursondas & Co.—Sir Vithaldas Chambers, 16, Apollo Street, Fort.
Bhandari Brothers Ltd.—Dadyseth House, 44, Cawasji Patel Street, Fort.
Bhanji Lavji Porbandar Ghee Supply Agency.—Shroff Mansion, 258, Kalbadevi Road.
Bhanoo Trading Co.—29, Imperial Chambers, Wilson Road, Ballard Estate.
Bharat Industrial Co.—77-79, Nagdevi Cross Lane, Bombay 3.
Bheroomal Ghanoomall.—42, Dhanukar Building, Kalbadevi Road.
Bhukanwala & Sons.—Medows House, Medows Street, Fort.
Birla Bros., Ltd.—Imperial Bank Annexe, Bank Street, Fort.
Bock, F. & Co.—Shale Building, Bank Street, Bombay 1.
Bombay Importing Agency.—75-77, Sarang Street, Bombay 3.
Bombay Machine Store Co., The.—Laxmi Building, 43, Nagdevi Cross Lane, Bombay 3.
Bombay Steel Supplies Private Ltd.—410, Loha Bhavan, P. D'Mellow Road, Bombay 9. Phone : 321512. Grams : "STEELSUPPLY."
Brady, W. H., & Co., Ltd.—Royal Insurance Buildings, Churchgate Street, Fort.
Brigg Bros. & Co.—Podar Chambers, Parsee Bazar Street.
Brijlal, H. R., & Co.—Beaumon Chambers, 27-33, Medows Street, Fort.
Bulchand Co., L.—Moos Building, 510, Kalbadevi Road, Bombay 2.
Burrows, & Co., W. J.—Khatau Building, 40-44, Old Custom House Road, Fort.
Byramji, T. & Co.—Central Bank Building, Mahatma Gandhi Road, Fort.
Calico General Export Co.—12, Rampart Row, Fort.
Cambata Industries Private Ltd.—Cambata Building, 42, Queen's Road, Bombay 1.
Capital Colour & Chemical Co.—77-87, Mirchi Street, Vadgadi, Bombay 3.
Central Syndicate Ltd.—16/18, Custom House Road, Fort.
Champaklal Morarji & Co.—193, Samuel Street, Vadgadi, Bombay 9.
Chavannes & Co., Private Ltd.—Menkwa Building, 10, Outram Road.
Chimanlal & Co.—38/42, Shamsett Street, Bombay.
Chimanlal Vadilal & Co.—80, Abdul Rehman Street.
Chinoobhai & Bros., Private Ltd.—Churchgate House, Churchgate Street.
Chokhani Brothers.—59, Forbes Street, Fort.
Chotirmall & Co., K. A. J.—501, Kalbadevi Road, Bombay 2.

**CHUNILAL PRABHUDAS & CO. (BOMBAY) PRIVATE LTD.—410-414, Himalaya House, 4th Floor, Dr. Dadabhoy Naoroji Road, Fort, Bombay. Phone : 26-2720. Grams : "HEMANICO." Importers & Manufacturers' Representatives. Specialists in Iron & Steel, Non-Ferrous Metals, Celluloid Sheets & Plastics & Chemicals. Exporters of Textiles, Hardware & Plastics.**

Clarke & Smith (India), Ltd.—Esmail Building, Hornby Road, Fort.
Collinson & Co., Ltd.—Standard Building, Hornby Road, Fort.

**CONSOLIDATED TRADING CORPORATION.—Advani Chambers, Sir Phirozshah Mehta Road, Fort, Bombay. Phones : 264259 and 265297. Grams : "ONTRAC." Exporters of Cotton, Woollen, Rayon Textiles, Readymade garments and general order suppliers to Middle East Countries and Governments. Sole Export Agents for Bombay Dyeing & Mfg. Co., Ltd.**

Continental Export & Import Co.—Mehta Building, 47, Medows Street, Fort.
Cotton Agents Ltd.—Imperial Bank Annexe, Bank Street, Fort.
Curmally Jan Mahomed.—160-162, Samuel Street, Bombay 9.
Dadajee Dhackjee & Co., Ltd.—Shree Pant Bhuvan, Sandhurst Bridge.
Daiichi Bussan Kaisha Ltd.—4th Floor, Navsari Chambers, Outram Road, Fort, Bombay. Phones : 261667 and 262148. Grams : "DAITIBUSAN".
Dali B. Shroff & Co.—361, Dr. Dadabhai Naoroji Road, Fort.
Daruwalla, M. N., & Co.—20, Apollo Street, Fort.
Das & Co.—59, Apollo Street, Fort.
Dave, J. M., & Co.—Kanta Terrace, Silk Bazar, 529, Kalbadevi Road, Bombay 2.
Devidas Mulji Kapadia.—Yusuf Building, Hornby Road, Fort.

**DEVIDAS VIRCHAND.—22-26, Dariasthan Street, Bombay 3. Phone : 325284. Grams : "EVERGUM ", Importers & Exporters. Dealers in all sorts of Gums, Spices, Textile & Wool.**

Dilaj & Co.—20, Hamam Street, Fort.

**DINANATH SONS.—466, Kalbadevi Road, Bombay 2. Phone : 39619. Grams : "PROCESSOR." Importers, Exporters and Manufacturers of Silks, Art Silk, Piecegoods and Manufacturers' Representatives.**

Dossa Ltd., G.—Jan Mansion, Sir Phirozshah Mehta Road, Fort.
D. Manilal & Co.—Harischandra Nivas, 419-A, Kalbadevi Road, Bombay 2.
Drennan & Co.—Allahabad Bank Building, Fort, Bombay.
Dubash Freres & Co.—Victoria Building, Parsee Bazar Street, Fort.
Dwarkadas & Sons, Ltd.—Mehta House, 89, Apollo Street, Fort.
Dwarkadas Velji Talpatriwalla.—36, Issaji Street, Bombay 3.

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.—Wavell House, Graham Road, Ballard Estate, Bombay. Phones : 26-2711 (8 lines). Machine Works : Tank Road, Bombay 33 DD. Phone : 78544. Offices at Madras, Calcutta, New Delhi, Banglore, Secundrabad & Lucknow.**

Eastern Import & Export Co.—Jan Mansion, Sir Phirozshah Mehta Road, Fort.
Eastern Import & Export Bureau.—3-5, Vithalwadi, Bombay 2.
Ebrahim Allibhoy & Sons.—260-64, Abdul Rehman Street, Bombay 2.
Ebrahim Manji & Co., Ltd.—Kamar Building, Cawasji Patel Street, Fort.
Ebrahim Noorudin & Co.—" Kagdy Manzil," 119, Bazar Gate Street, Fort.

**ECHKE PRIVATE LIMITED.—43, Tamarind Lane, 4th Floor, Fort, Bombay. Phone : 251817. Grams : "ECHKE."**

Edanmal Sons, L.—Krishna Nivas Building, New Silk Bazar, Bombay 2.
Empee Agencies.—40, Cawasji Patel Street, Fort, Bombay.
Engineer Bros.—Sir Vithaldas Chambers, 16, Apollo Street, Fort.
Engineer, S. D., & Son.—Imperial Chambers, 32, Wilson Road, Ballard Estate.
Excel Importers.— 89, Princess Street, Bombay 2.
Ex-Import Mercantile Corporation.—229, Nishanpada Road, Bombay 9.
Eximport Trading Co.—Queen's Mansion, Prescot Road, Fort.
Ezra Bros.—Mustafa Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.
Fazalbhai Ibrahim & Co., Ltd.—Ismail Building, Hornby Road.
Fillunger, H., & Co.—16, Ormiston Road, opp. Electric House, Bombay 1.

**FINLAY, JAMES & CO., LTD.—Chartered Bank Building, Mahatma Gandhi Road, Fort, Post Box No. 73, Bombay 1. Phone Nos. 25125S-59.**

Firoz Trading Co.—Kamer Building, Cawasji Patel Street, Fort. Phone No. 33832. Grams: "Polestar."

Framroz M. Chinoy & Sons.—Motiwala Mansions, Gowalia Tank, Bombay 26.

Frank Rose & Co.—"Kalam Kutir", 211-219, Frere Road, Fort, Bombay 1.

Fruit Farm Products Co.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort, Bombay 1.

**GANDHI STATIONERY MART.—165, Bazar Gate Street, Bombay 1. Manufacturers of Comet Visiting, Invitation, Greeting, Wedding Cards, Inland Air Letters, Phone: 265248.**

Gangaram & Co.—313, 3rd Floor, Himalaya House, Paltan Road, Bombay 1.

G. Arjan (India) Co.—108, Himalaya House, Paltan Road, Bombay 1.

Gannon, Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Fort.

Gaytee and Company.—Janmabhoomi Chambers, Fort Street, Fort.

Getz Bros. & Co.—Western India House, Sir Phirozshah Mehta Road, Fort, Bombay.

Ghadiali, J. P., & Co.—12, Rampart Row, Fort.

Gin Store Co., The.—76, Nagdevi Cross Lane, Bombay 3.

Girdharlal & Co.—48, Podar Chambers, Parsi Bazar Street, Fort. G.P.O. Box 820.

Gladwyn & Co.—251, Hornby Road, Fort, Bombay 1.

Goodwill Trading Co.—34, Nagdevi Street, Bombay 3.

Goolabkhan Peerkhan Co.—178, Nagdevi Street, Bombay 3.

Gore & Co.—Great Social Insurance Building, Sir Phirozshah Mehta Road, Fort.

Govindram Dwarkadas.—Kermani Building, Sir Phirozshah Mehta Road, Fort.

Grahams Trading Co., Ltd.—16, Bank Street, Fort.

Great Eastern Trading Co.—107, Cawasji Patel Street, Fort.

**GREENLAND ENGINEERS.—64, Podar Chambers, Parsi Bazar Street, Fort, Bombay. Phone: 252932. Grams: "GRENO." Exporters of Indian Handloom Textiles, Ladies Jari Handbags, Plastic Bangles with Gold Lacquer, Agarbatti, Pickles, Moradabad Brassware, Rolled Gold and Anodised Jewellery, etc.**

Habib Rawjee, G., & Co.—Hamam House, Hamam Street, Fort.

Haji Ahmed Husain & Co.—Topiwalla Mansion, Mohamedally Road, Bombay 3.

Haji Janmohamed Moosa.—27-29, Zakaria Bazar, Sheriff Dewji Street.

Hales Bros. (India) Ltd.—K. Lekhraj Building, Carnac Bridge, Bombay 3.

Halindia Cotton Co., Ltd.—71-73, Apollo Street, Fort.

Hansraj Hariram & Co.—Fazalbhoy Building, opp. Flora Fountain, Fort.

Harda Electric Supply Co., Ltd.—17-19, Bastion Road, Fort.

Hardcastle, Waud & Co. Private Ltd.—Alice Buildings, Hornby Road, Fort.

Harilal Mamlal & Co.—(Established 1919).—346, Kalbadevi Road, Bombay 2. Phone: 39717.

**HASSAMAL BROS.—538, Kalbadevi Road, P.O. Box 2236, Bombay 2. Direct Importers and Exporters of Art Silk and Cotton Piecegoods and General Merchandise. Grams: "HASSABROS." Phones: 22001 & 22002.**

Hassamal Dalamal.—538, Kalbadevi Road, Bombay 2.

Hazarat & Co.—Warden House, Sir Phirozshah Mehta Road, Fort.

Herbertsons Ltd.—11-13, Elphinstone Circle, Fort.

Herman & Mohatta, B. R., Ltd.—People's Building, Sir Phirozshah Mehta Road, Fort.

**HIMATLAL & CO.—Importers and Manufacturers' Representatives. Representing in India: The Nationalized Paper Industries of German Democratic Republic. Head Office: 26, Noble Chambers, Parsi Bazar Street, Fort. Phone Nos. 255663 and Residence: 471596. Grams: "HIMSHAH."**

Himatlal Mamlal & Sons.—346, Kalbadevi Road, Bombay 2.

Hindustan Export & Import Corporation Ltd.—Albert Building, Hornby Road, Fort.

Holland-Bombay Trading Co., Ltd.—E. D. Sassoon Bldg., Dougall Road, Ballard Estate.

Hotchand Jawharmal.—3rd Floor, Round Building, Kalbadevi Road, Bombay 2.

Hukamchand Chanderbhan.—1st Floor, Hira Building, opp. Crawford Market, Carnac Road.

Husein Abdulkarim Panju.—Panju House, 138-40, Samuel Street, Khoja Mohalla, Bombay 9.

Husein Ebrahim.—76, Mahomedally Road, Bombay 3.

Husein Ladjee Dewraj.—Jamal Building, 213, Nagdevi, Bombay 3.

Husein Mussa Virjee & Co.—Sheriff Hasam Building, Khoja Mohalla, Bombay 9.

India Manufacturing Agencies.—16/18, Custom House Road, Fort.

India Overseas Trading Co.—38, Western India House, Sir Phirozshah Mehta Road, Fort.

Indian Exporter.—Sir Vithaldas Chambers, 16, Apollo Street, Fort.

Indo Europa Trading Co.—7, Dalal Street, Fort.

Indo-Overseas Representatives.—73, Bombay Mutual Bldg., Fort.

Industrial Engineering Co.—45, Apollo Street, Fort.

Industries Service Corporation.—11, Bruce Street, Fort.

Inter-Asia Commercial Co.—111, Tamba Kanta, Bombay.

International Corporation.—12-A, Nanabhai Lane, Flora Fountain, Fort.

International Imports & Exports Ltd.—259, Kalbadevi Road, Bombay 2.

International Mercantile Corporation.—313, Himalaya House, 3rd Floor, Junction of Hornby Road and Palton Road, Bombay 1.

International Traders.—People's Building, Sir Phirozshah Mehta Road, Fort.

Italindia Cotton Ltd. (Estd. 1922).—Indian Globe Chambers, Fort Street, Fort, Bombay.

Jafferbhoy Salebhoy & Co.—201, Nagdevi Street, Bombay 3. Grams: "Wingfish". General Merchants, Exporters & Importers.

Jagkumar & Co.—Prospect Chambers Annexe, 317-321, Hornby Road, Fort. Phone No. 21569.

Jagmohandas Shamaldas & Sons.—11, Tamarind Lane, Fort.

Jani & Co.—Vora Mansions, New Chinch Bunder.

Jashwantlal Manecklal & Co.—40, Vir Nariman Street, Fort.

Jassawala & Co., R. M.—105, Apollo House, Apollo Street, Fort.

Jeena & Co.—Elphinstone Building, 10, Vir Nariman Street, Fort.

Joshi Jivandas Gangaram & Co.—282, Narsi Natha Street, Bombay. Estd. 1923.

J. S. Eliezer.—6, Moti Mahal, Churchgate Reclamation. Phone: 21138.

**JUPITER TRADING CO.—203/205, Zaveri Bazar, 3rd Floor, Bombay 2. Phone: 325834. Grams: "PEARLMOON." Exporters of Cotton and Rayon Textiles of all descriptions.**

K. A. Singh & Co.—Minthi Mansion, Sitladevi Road, Mahim, Bombay 16.

Kanji Morarji.—285-87, Narsi Natha Street, Bombay 9.

Kamat & Co. (Bombay).—134, Medows Street, Fort.

**KANTILAL SANGHVI & CO.—23, Sir Phirozshah Mehta Road, Fort. Phones: 253628, 255636 and 78473 (Res.). Grams: "EXPIM."**

Kapadia & Co.—Bell Building, Sir Phirozshah Mehta Road, Bombay.

Karia Brothers.—Sethna Building, Princess Street, Bombay 2.

Karim Gulam Husain.—Bell Building, Sir Phirozshah Mehta Road, Fort.

Karimjee Trading Co., Ltd.—Rahimtoola House, 7, Homji Street, Fort.

Kashandas Private Limited.—43, Tamarind Lane, Fort, Bombay.

Kavarana, E. F., & Co.—Botawala Building, Bomanji Master Road, Bombay 2.

Kavarana, Muncherji Heerjibhoy.—New Silk Bazar, opp. Kalbadevi P.O., Kalbadevi.

Keshavji Virji & Co.—8, Elphinstone Circle, Fort.

**KESHAVLAL TALAKCHAND (PRIVATE) LTD.—India House, opp. G.P.O., Fort, Bombay 1. Phone: 262934. Grams: "CHANDRODAY." Branches at Ahmedabad, Sholapur, Coimbatore and Madras.**

Keshavlal, J., & Co.—Saheb Building, 195, Hornby Road, Fort.

Khanna & Hari Raj.—166, Hornby Road, Fort.

**KHARAS BROS.—14, Hamam Street, Fort. Merchants, Importers & Exporters, Grams: "KHAYA." Phone: 251805.**

K. Hassaram & Co. (Estd. 1881).—New Silk Bazar, Kalbadevi Road, Bombay 2.

Khatau Vallabhdas & Co.—Indian Globe Chambers, Fort Street Bombay 1. Tel. Address: "SCARLET."

Khazzam, E. S., & Co., Ltd.—Bombay Mutual Building, Hornby Road, Fort.

Khosla & Co., L. C.—39, Prospect Chambers Annexe, Hornby Road, Fort.

Khoury, N., & Company.—Western India House, Sir Phirozshah Mehta Road, Fort.

**KIDARNATH KISHANCHAND PRIVATE LTD.—(Recognised by the Govt. of India as Export House). Navsari Chambers, 4th Floor, Outram Road, P.O. Box No. 1579, Bombay 1. Phone: 264960 & 262842. Grams: "SHURBIR." Exporters of Industrial Cloth and allied lines. All Cotton Piecegoods, Grey & Processed, Specialising in Poplins, Drills, Sheetings, Wider Widths, Tickings, Canvas, Ducks and also Cotton Yarns, Handloom Textiles & Handicrafts.**

Kidarnath Kishanchand.—Navsari Chambers, Outram Road, Fort.

Kilachand Devchand & Co., Ltd.—45-47, Apollo Street, Fort.

Kirti Trading Corporation Ltd.—Fazalbhoy Building, opp. Flora Fountain, Fort.

Kishinchand Chellaram.—Guzdar House, Dhobi Talao.

Komet Merchandising Corporation.—38, Devkaran Mansion, 43, Princess Street.

Kotak & Co.—Navsari Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

Kros & Co.—Podar Chambers, Parsi Bazar Street, Fort.

Kundanmal Ramlal.—78/80, New Hanuman Lane, Bombay 2.

Kumudchandra & Co.—Examiner Press Building, Dalal Street, Fort.
Lalitkumar & Co.—86, Kazi Sayed Street, Bombay 3.
Laljee Devraj & Co.—168/70, Sheriff Dewji Street, Bombay 3.
Lalji Dayal.—Near Gopal Lane, Mulji Jetha Market, Bombay 2.
Lallubhai Gulabchand Jhaveri.—149, Shroff Bazar.
Leories Trading Co.—23, Hamam Street, Fort, Bombay.
Liladhar P. Shah & Co.—335, Samuel Street, Vadgadi, Bombay 3.
Loeffler & Co., E.—Noble Chamber, Parsi Bazar Street.
Loucatos, G., & Co.—Menkwa Building, Outram Road, Fort.
L. R. Trading Co.—Navsari Chambers, opp. Lloyds Bank, Outram Road, Fort.

Lusob Trading Co.—Bell Building, Sir Phirozshah Mehta Road, Fort.

M. R. Varma & Sons.—60, Lakshmi Bldg., Sir P. Mehta Road, Bombay 1.

Macropolo, D., & Co., Ltd.—Kermani Building, Hornby Road, Fort.
Madan Mohan Jain & Sons.—215-17, Kalbadevi Road.
Madhav Agency.—Mohan Building, Girgaum Road.
Madhavlal, S., & Co.—Noble Chambers, Parsi Bazar Street, Fort.
Madhoram Moolchand.—80/82, Nagdevi Street, Bombay 3.

**MAGANBHAI & LALLUBHAI.—Jewellers, Direct Importers and Exporters of Real & Cultured Pearls, Precious & Semi-Precious Stones, Rough and Cut. 184-186, Sheikh Memon Street, Bombay 2. Phone No. 23785. Grams: "MOTI-BUTTON."**

Mahendra, A. C., & Co.—12, Noble Chambers, Parsi Bazar Street, Fort.
Mahomedali Esmail. (Estd. 1924.)—Stock Exchange Building, Apollo Street, Fort.
Mahomedally Hebatbhoy & Co.—15, Mirza Street, Parsi Gully.
Manekji Nensey & Co.—172-186, Argyle Road, Bombay 9.
Maneklal & Co.—166, Hornby Road, Fort, Bombay.

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Mehta & Co., P. N.—Cook's Building, 324, Hornby Road, Fort.
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Mehta Mody & Co.—Devkaran Mansion, No. 5, Mangaldas Road, Bombay 2.
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Mohanlal Motilal.—4th Floor, Yusuf Building, Mahatma Gandhi Road, Fort.
Morarji Vandravan & Co.—Krishnaraji Chawk, Mulji Jetha Market, Bombay 2.
Morrison, Son & Jones (India) Ltd., J. L.—Universal Building, Sir Phirozshah Mehta Road, Fort.
Motiram & Co.—79, Himalaya House, Paltan Road, Bombay 1.
Murlidhar and Khemchand & Co.—Rehem Mansion, 50, Colaba Causeway, Bombay.
Murugappa & Sons.—3rd Floor, United India Building, Sir Phiroshah Mehta Road.

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Narotamdas Chunilal & Co.—51, Tamarind Lane, Fort, Bombay.
Narsee Nagsee & Co.—3, Chinch Bunder, Bombay No. 9.
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Partabsingh Jagatsing & Sons.—People's Building, Sir Phirozshah Mehta Road, Fort.
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Pavri Sons & Co.—93-97, Bazargate Street, Fort.
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Pyarally Gulamhusen & Co.—106, Tantanpura Street, Khoja Mohalla, Bombay 9.
Rahimtoola Dhunji & Co.—93, Tantanpura Street, Khadak, Bombay 9.
Raichand Brothers (India) Ltd.—11-B, Noble Chambers, Ghoga Street, Fort.
Rajal Corporation.—30, Rampart Row, Fort.
Rajgor, S. M., & Co.—Hanuman Building, Tambakanta, Pydhownie, Bombay 3.
Ralli Bros., Ltd.—21, Ravelin Street, Fort.
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Reliance Trading Co.—25/47, Lohar Street, Bombay 2.

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Sethisons Ltd.—12, Rampart Row, Fort.

Sewaram Girdharilal.—354, Kalbadevi Road, Bombay 2.

Shah, C. J. & Co.—Churchgate House, Vir Nariman Street.

Shah Narotamdas Harjivandas Co. (Estd. 1880).—480, Kalbadevi Road, Bombay 2.

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Shah Trading Agencies.—19, Hamam Street, Fort, Bombay 1.

Shaikh & Co.—94, Ali Umar Street, Bombay 3.

Shalebhoy Tyebjee & Sons.—12, Bruce Street, Bombay 1.

Shamsun & Co.—11, Bruce Street, Fort.

Shapurji & Co., B. K.—319, Hornby Road, P. B. 1065, Fort.

Sharad Brothers.—Nehru Road, Bombay 24.

Sheralli Nanjee.—178, Samuel Street, Vadgadi, Bombay 9.

Shree Navjivan Kagdi & Co.—110, Zaveri Bazar, Bombay 2.

Sir Kasturchand Ltd.—Kodak House, Hornby Road, Fort, Bombay.

Sobraj Reloomal.—Silk Bazar, Kalbadevi Road.

Soho House.—Vithal Sayana Building, Lohar Chawl.

Sorabji Khursetji & Co.—Calicut Street, Ballard Estate, Bombay.

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Techno-Industrial Syndicate.—19/B, Noble Chambers, Parsi Bazar Street, Fort.

Tejbhandas & Co.—65, Princess Street, Bombay 2.

Textile Export (Private) Ltd.—Queen's Mansion, Prescot Road, Fort.

Textile Industrial Trading Agency.—Western India House, Sir Phirozshah Mehta Road, Fort.

Thakker Sonderjee Nanjee & Sons (India) Ltd.—146, Kalbadevi Road, Bombay 2.

Thakore, T. M., & Co.—Readymoney Mansion, 43, Vir Nariman Street, Fort.

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United India Trading & Manufacturing Co., Ltd.—Shale Building Bank Street, Fort.

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**GWALANI BROS. & CO. (INDIA) PRIVATE LTD.—Gopal Bhuwan, 199, Princess Street, Bombay 2. Phone : 29276. Specialists in Insulating Materials and armature Winding Wires and Eureka Wires.**

Hardcastle, Waud & Co., Ltd.—Alice Building, Hornby Road, Fort.

Heatly & Gresham Ltd.—9, Forbes Street, Bombay 1.

Hindustan Corporation, Ltd.—Kermani Building, Sir Phirozshah Mehta Road, Fort.

Hindustan Plywood & Metal Depot.—301, Shree Krishna Nivas, Corner of Abdul Rehman Street & Masjid Bunder Road, Bombay 3.

Indianite Insulation Co. of India.—139, Medows Street, Fort.

**INDOPLAST LTD.—Kasturi Building, Jamshedji Tata Road, Bombay 1. Phone : 38071. Grams : "STYROPOR." Manufacturers of Thermocole for Cold Insulation. Blocks, Slabs and Pipe Sections.**

**INDUSTRIAL ELECTRICAL ENGINEERING CO.—10, Hamam Street, Fort. Specialists in Insulating Materials and Armature Wires. Phone : 252836.**

Jack, William & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Fort.

**Khambatty, H. A., & Co. Ltd.—45-47, Lohar Street, Bombay 8.**

Killick, Nixon & Co. Private Ltd.—Killick House, Home Street, Fort, Bombay.

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**PERMALI WALLACE LIMITED.—9, Wallace Street, Fort, Bombay 1, India. Grams : "PERMALIWAL". Manufacturers of Permali and Hy-Dulignum, Laminates for Electrical Insulation, General and Chemical Engineering use, Rail Track Insulation, Textile Accessories and Silent Gears.**

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Reliance Trading Co.—25/47, Lohar Street, Bombay 2.

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay.

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All India General Insurance Co., Ltd.—Podar Chambers, Parsi Bazar Street, Fort.

**ALLIANCE ASSURANCE CO., LTD.—Co-operative Insurance Building, Sir Phirozshah Mehta Road, Fort, Bombay. Fire—all Classes of Accident and Marine Insurance. Branch Manager: S. K. Divecha. Phones: 255467/254903. Grams: "SOCIETATE," Bombay.**

**AMERICAN FOREIGN INSURANCE ASSOCIATION FINANCE CORPORATION (Incorporated in the U.S.A. Liability of Shareholders Limited).—Principal Office in India: Universal Insurance Building, Sir Phirozshah Mehta Road, P.O. Box 1707, Annex Fort Chamber "C" 60, Tamarind Lane, Fort, Bombay. Phones: 252301, 252302. Grams: "AFIAINDIA."**

**AMERICAN INSURANCE CO., THE.—(Incorporated in the U.S.A. Liability of Shareholders Limited)—Universal Insurance Building, Sir Phirozshah Mehta Road, Fort, Bombay. Phone: 255638 (Three lines). Grams: "AFIAINDIA." P.O. Box 977. Manager for India: P. B. Dastur. Bombay Regional Manager, P. N. Medora.**

American International Underwriters (India) Private Ltd.—Warden House, Sir Phirozshah Mehta Road, Fort.

**ATLAS ASSURANCE CO., LTD.—Indu House, Dougall Road, Ballard Estate, Bombay 1. (Fire—Marine—Motor—Accident and General). Branch Manager: M. M. Chakrabarty.**

Aundh State Provident Insurance Co., Ltd.—Jiji House, 15, Ravelin Street, Fort, Bombay.

Baloise Marine Insurance Co., Ltd., The.—of Basle (Switzerland), Principal Office for India: French Bank Building, Homji Street, Bombay 1. Telegrams: "BASLER." Telephone: 25-5121. Transacts Fire, Marine, Miscellaneous Insurance and Reinsurance.

Bombay Fire and General Insurance Co., Ltd.—Henley House, Graham Road, Ballard Estate, Bombay 1.

**British India General Insurance Co., Ltd.—Mehta House, Apollo Street, Fort, Bombay.**

**British Traders' Insurance Co., Ltd.—Hongkong Bank Building, Veer Nariman Road, Fort.**

**Central Insurance Co., Ltd.—Canada Building, Home Street. (Fire—Accident and General).**

**Clive Insurance Co., Ltd.—Elphinstone Building, Veer Nariman Road, Fort. Chief Agents: Gillanders Arbuthnot & Co. (Fire—Motor—Accident and General).**

**COMMERCIAL UNION ASSURANCE CO., LTD.—9, Wallace Street, Fort, Bombay. Phone: 264841. Grams: "CUACO."**

**Commonwealth Assurance Co., Ltd., Poona.—Bombay Branch: Commonwealth Building, 82, Medows Street, Fort.**

Concord of India Insurance Co., Ltd., The.—Hongkong Bank Building, 16, Veer Nariman Road, Fort. (Fire—Marine—Accident and General).

Crescent Insurance Co,, Ltd., The.—Crescent Chambers, Tamarind Lane, Fort.

Deepak General Insurance Co., Ltd., The.—8-10, Tamarind Lane, Fort.

**DEVKARAN NANJEE INSURANCE CO., LTD.—Devkaran Nanjee Buildings, Horniman Circle, Fort. Phone: 253938/9. Grams: "DEVINSURE." (Fire, Miscellaneous and Marine).**

Eagle Star Insurance Co., Ltd.—Standard Building, Dr. Dadabhoy Naoroji Road, Fort.

**Economic Insurance Co., Ltd.—Settling Agents: W. H. Brady & Co., Ltd., Veer Nariman Street, Fort. (Marine).**

Employers' Liability Assurance Corporation Ltd., The.—Bombay Branch: Brady House, Veer Nariman Road, Bombay 1.

**General Assurance Society, Ltd.—General Assurance Building, Hornby Road, Fort, Bombay.**

Goodwill Assurance Co., Ltd.—Head Office: 113, Mahatma Gandhi Road, Opp. Clock Tower, Fort, Bombay.

**GREAT AMERICAN INSURANCE COMPANY (Incorporated in the U.S.A. Liability of Shareholders Limited).—Universal Insurance Building, Sir Phirozshah Mehta Road, Fort, Bombay. Phone: 255638 (Three lines). Grams: "AFIA-INDIA." P.O. Box 977. Manager for India, P. B. Dastur. Bombay Regional Manager, Mr. P. N. Medora.**

Gresham Fire & Accident Insurance Society Ltd.—Gresham Assurance House, Sir Phirozshah Mehta Road, Fort, Bombay.

Hanover Fire Insurance Co. of New York.—Warden House, Sir Phirozshah Mehta Road. Fort.

**HARTFORD FIRE INSURANCE COMPANY (Incorporated in the U.S.A. Liability of Shareholders Limited).—Universal Insurance Building, Sir Phirozshah Mehta Road, Fort, Bombay. Phone: 255638 (Three lines). Grams: "AFIA-INDIA." P.O. Box 977. Manager for India, P. B. Dastur. Bombay Regional Manager, P. N. Medora.**

**Hercules Insurance Co., Ltd. (Incorporated in India).—Branch Office: 21, Ravelin Street. (Fire—Marine—Motor—Accident and General).**

**HINDUSTHAN IDEAL INSURANCE CO., LTD.—6, Bell Lane, Bombay 1. Phone: 251665 & 251746. Transacting Fire—Marine—Motor & Miscellaneous Insurance.**

**HOME INSURANCE CO., THE (Incorporated in the U.S.A. Liability of Shareholders Limited).—Universal Insurance Building, Sir Phirozshah Mehta Road, Fort, Bombay. Phone: 255638 (Three lines). Grams: "AFIAINDIA." P.O. Box 977. Manager for India, P. B. Dastur. Bombay Regional Manager, P. N. Medora.**

Indian Globe Insurance Co., Ltd.—Prospect Chambers, 315-321, Hornby Road, Fort. (Fire—Marine and Accident).

Indian Guarantee & General Insurance Co., Ltd.—Oriental Buildings, Mahatma Gandhi Road, Fort, Bombay.

Indian Mercantile Insurance Co., Ltd.—Indian Mercantile Chambers, Nicol Road, Ballard Estate. (Fire—Motor—Workmen's Compensation—Marine and Riot Insurers).

**INDIAN TRADE & GENERAL INSURANCE CO., LTD.—Principal Office: Jehangir Building, Mahatma Gandhi Road, Fort, Bombay. Grams: "ADASTRA". Phone: 255101. Regd. Office: 25, Brabourne Road, Calcutta 1. Business Transacted: —Fire, Marine, Motor and Miscellaneous. Branches: (1) Agra; (2) Ahmedabad; (3) Allahabad; (4) Alleppey; (5) Amritsar; (6) Bangalore; (7) Baroda; (8) Bombay; (9) Calcutta; (10) Calicut; (11) Cochin; (12) Coimbatore; (13) Indore; (14) Jaipur; (15) Lucknow; (16) Ludhiana; (17) Madras; (18) Nagpur; (19) New Delhi; (20) Quilon; (21) Raipur; (22) Rajkot; (23) Secunderabad; (24) Surat; (25) Trichur. Overseas Branches: (1) Aden; (2) Dar-es-Salam; (3) Kampala; (4) Kuala Lumpur; (5) Mombassa; (6) Nairobi; (7) Penang. Management: Surender Lall—Managing Director, B. B. Sawhney—General Manager, A. T. Shimpi—Jt. General Manager,**

**JAYABHARAT INSURANCE CO., LTD., THE.—French Bank Building, Homji Street, Fort. (Fire—Marine—Motor and all other general Insurance). Phones: 253941, 253942, 253943, 253944, 253945.**

Jupiter General Insurance Co., Ltd.—State Bank Bldg. Annexe, Bank Street, Fort.

Kaiser-I-Hind Insurance Co., Ltd.—Head Office: Sassoon Building, 141, Mahatma Gandhi Road.

**LEGAL AND GENERAL ASSURANCE SOCIETY LTD.—Gresham Assurance House, Sir Phirozshah Mehta Road, Fort. Phone: 255088. Acting Manager: J. F. S. P. Fernandes. (Fire, Marine and Miscellaneous).**

**LIVERPOOL & LONDON & GLOBE INSURANCE CO., LTD., THE.—(Incorporated in England; Shareholders' Liability Ltd.)—12, Jamshedji Tata Road, Bombay. (Fire—Loss of Profits—Motor—Accident (all classes)—Engineering—Aviation—Marine). Branch Manager: R. A. Isaac. Tel. Address: "GLOBANCE." Phone No. 246226 (5 lines). Post Box No. 1848. Head Office: 1, Dale Street, Liverpool, England.**

London Assurance, The.—Principal Agents: Anglo-Thai Corporation Ltd., Ewart House, Bruce Street, Bombay. (Fire & Marine).

**LONDON & LANCASHIRE INSURANCE CO., LTD., THE.—(Incorporated in England; Liability of the Members of the Company is Limited). 12, Jamshedji Tata Road, Bombay. (Fire—Loss of Profits—Motor—Accident (all classes)—Engineering—Aviation—Marine). Branch Manager: R. A. Isaac. Tel. Address: "LONDLANC." Phone: 246226 (5 lines). Post Box No. 117. Head Office: 45, Dale Street, Liverpool, England.**

**LONDON & PROVINCIAL MARINE & GENERAL INSURANCE CO. LTD.—10, Bruce Street, Fort. Phone: 252321. Grams: "YORKSHIRE."**

**MANUFACTURERS LIFE INSURANCE COMPANY OF CANADA.—123, Mahatma Gandhi Road, Fort, Bombay. Phone: 253282. Grams: "MANULIFE." Resident Secretary, G. R. Shroff.**

Marine & General Insurance Co. Ltd.—Standard Building, Dr. Dadabhoy Naoroji Road, Bombay 1.

**NATIONAL EMPLOYERS' MUTUAL GENERAL INSURANCE ASSOCIATION LTD.—Kamani Chambers, 32, Nicol Road, Ballard Estate, P.O. Box 730. Phone: 26-2823/4 (2 Lines). Grams: "EMPLOMUTUA."**

**National Fire & General Insurance Co., Ltd.—National Insurance Building, Hornby Road. (Fire, Marine and Accident).**

**NATIONAL INSURANCE COMPANY OF NEW ZEALAND LIMITED, THE.—(Incorporated in New Zealand with Limited Liability). Head Office: Dunedin, New Zealand. Principal Office for India: Rahimtoola House, Homji Street, Fort, Bombay 1. Transacts Fire, Marine and Miscellaneous Business. Principal Officer for India: S. R. Idgunji, A.C.C.I. (Lond.), F.F.I.I. Phones: 251537-9. Grams: "OTAGO," Bombay.**

Neptune Assurance Co., Ltd.—104, Apollo Street, Fort, Bombay 1.

New Asiatic Insurance Co., Ltd.—Bombay Branch: Imperial Bank Building Annexe, Bank Street, Fort.

**NEW GREAT INSURANCE CO. OF INDIA, LTD.—Principal Office: 45-47, Apollo Street, Fort, Bombay. General Manager: Shri M. G. Mody.**

New Hampshire Fire Insurance Co. of Manchester, New Hampshire.—Warden House, Sir Phirozshah Mehta Road, Fort.

New India Assurance Co., Ltd.—New India Assurance Building, Mahatma Gandhi Road, Fort, Bombay.

New Zealand Insurance Company, Ltd.—Hongkong Bank Building, 16, Veer Nariman Road, Bombay.

**NORTH BRITISH AND MERCANTILE INSURANCE CO.,LTD.—9, Wallace Street, Fort, Bombay. Phone: 264841, Grams: "NORBRIT." Business Transacted: Fire—Marine—Accident & Miscellaneous. Branch Manager: E. H. Toovey.**

North China Insurance Co., Ltd.—Hongkong Bank Building, Veer Nariman Street, Fort. (Marine).

Northern Assurance Co. Ltd.—Empress Building, "E" Road, Churchgate, Bombay 1.

**NORWICH UNION FIRE INSURANCE SOCIETY, LTD.—16, Bank Street, Post Box No. 49, Fort, Bombay. Western Zone Manager: K. M. Dastur. Grams: "NUFAM". Phones: 251985 and 255052.**

**OCEAN ACCIDENT & GUARANTEE CORPORATION, LTD.,—9, Wallace Street, Fort, Bombay. Phone: 264841. Grams: "NAECO."**

**PANDYAN INSURANCE CO., LTD.—Gresham Assurance House, Sir Phirozshah Mehta Road, Fort. Phone No. 255088 (2 lines). Grams: "LEGRESH."**

Pearl Assurance Co., Ltd.—Construction House, Nicol Road, Ballard Estate.

Phoenix Assurance Co., Ltd.—Principal Agents: Castlemuir Ltd., Alice Building, 339, Dr. Dadabhoy Naoroji Road, Fort, Bombay. (Fire and Marine).

Presidency Provident and General Insurance Co., Ltd.—Mherwan Building, Sir Phirozshah Mehta Road, Fort.

Royal Exchange Assurance Corpn.—Indu House, Dougal Road, Ballard Estate, Bombay 1.

**ROYAL INSURANCE CO., LTD.—(Incorporated in England; Stockholders' Liability Ltd.). 12, Jamshedji Tata Road, Bombay. (Fire—Loss of Profits—Motor—Accident (all classes)—Engineering—Aviation—Marine). Branch Manager: R. A. Isaac. Tel. Address: "ROYAL." Phone: 246226 (5 lines). Post Box No. 1847. Head Office:—1, North John Street, Liverpool, England.**

Ruby General Insurance Co., Ltd.—Imperial Bank Annexe, Bank Street, Fort.

Scottish Alliance Insurance Co.—9, Wallace Street, Fort (Fire).

**SCOTTISH UNION AND NATIONAL INSURANCE CO.—16, Bank Street, Post Box No. 49, Fort, Bombay 1. Western Zone Manager: K. M. Dastur. Grams: "NUFAM." Phones: 251985 & 255052.**

Sea Insurance Co., Ltd., The.—Head Office for India: Standard Building, Dr. Dadabhoy Naoroji Road, Fort.

Sentinel Assurance Co., Ltd.—Janmabhumi Bhavan, Ghoga St., Fort. (Fire—Motor—Marine—etc.)

**SOUTH BRITISH INSURANCE CO. LTD.—(Incorporated in New Zealand), Canada Building, Dr. Dadabhoy Naoroji Road, Bombay 1. Manager: J. S. Bramley. Assistants: A. L. Gabriel, M. S. Ramalingam; V. Srinivasan; B. P. Talati; R. D'Souza; C. H. Shahani. Phone No. 264711. Grams: "BRITISH." Branches at: Calcutta, Bombay, Madras, Ahmedabad and Poona.**

**SOUTH INDIA INSURANCE CO., LTD.—Regd. Office: Moti Mahal, Jamshedji Tata Road, Fort, Bombay. Phone: 211051/2. Business Transacted: Fire, Marine, Motor, Miscellaneous.**

**SUN INSURANCE OFFICE LTD.—Co-operative Insurance Building, Sir Phirozshah Mehta Road, Fort, Bombay. Fire, All Classes of Accident and Marine Insurance. Manager: S. K. Divecha. Phone: 255467/254903. Grams: "SOCIETATE," Bombay.**

Triton Insurance Co., Ltd.—United India Life Building, 3rd Floor, Sir Phirozshah Mehta Road, Fort, P.O. Box No. 115, Bombay 1.

**UNION ASSURANCE SOCIETY LTD.—9, Wallace Street, Fort, Bombay. Phone: 264841. Grams: "CUACO." Business Transacted: Fire—Accident.**

Union Insurance Society of Canton, Ltd.—Hongkong Bank Building, 16, Veer Nariman Road, Fort. (Fire—Marine—Motor—Accident and General).

United India Fire & General Insurance Co., Ltd.—Warden House, Sir Phirozshah Mehta Road, Fort.

United India Life Assurance Co., Ltd.—United India Life Building, Sir Phirozshah Mehta Road, Fort.

Universal Fire & General Insurance Co., Ltd.—"Universal Insurance Building," Sir Phirozshah Mehta Road, Fort.

Uplift of India Provident Society Ltd.—Advani Chambers, Sir Phirozshah Mehta Road.

Vanguard Fire and General Insurance Co. Ltd., The.—Head Office: Madras. Bombay Branch: Sailor Building, 373, Hornby Road, Fort, Bombay.

Warden Insurance Co. Ltd. (Estd. 1933).—Warden House, Sir Phirozshah Mehta Road, Fort.

Western India Life Insurance Co., Ltd.—(H.O.: Satara City). Bombay Branch: Western India House, Sir Phirozshah Mehta Road, Fort.

Yorkshire Insurance Co., Ltd.—10, Bruce Street, Fort.

Zenith Assurance Co., Ltd.—Mehta House, Apollo Street, Fort, Bombay.

## IRON, STEEL AND BRASS WORKS

Acme Manufacturing Co., Ltd.—Construction House, Wittet Road, Ballard Estate.

Adamally Sons Ltd.—277, Nagdevi Street, Bombay 3.

Adamji Lookmanji & Co.—Rahimtoola House, Homji Street, Fort.

Alibhoy Mahomedali & Co.—28, Kika Street, Gulalwadi.

Anandji Haridas & Co., Ltd.—Frere Road, Bombay.

**ART METAL WORKS (Estd. 1882).—35/C, Jeraijbhoy Street, Foras Road, Bombay 8. Phone: 71692; Brass & Iron Founders, Builders, Hardware Manufacturers & Engineers & Contractors.**

Bolinjkar Metal Works Ltd.—Nana Chowk, Bombay 7.

Bombay Iron Works.—Ripon Road Cross Lane, Byculla.

Brady, W. H., & Co., Ltd.—Royal Insurance Building, Churchgate Street, Fort.

Burjorji Pestonji & Sons, Private Ltd.—Sussex Road, Victoria Gardens, Bombay 27.

Chadha, B. M., & Co., Ltd.—Jan Mansion, Sir Phirozshah Mehta Road, Fort, P. O. Box 671, Bombay.

Chhotalal Keshawji & Co.—Carnac Bunder.

Chimanlal Vadilal & Co.—80, Abdul Rehman Street.

Curtis & Co., Ltd., J.—6, Mahalaxmi Bridge Arcade, Bombay 11.

Deviprasad Khandelwal & Co., Ltd.—Iron Jetha, Carnac Bunder.

**GARLICK & CO. PRIVATE LTD.—Haines Road, Jacob Circle. Also at Maskati Market, Kapasia Bazar, Ahmedabad; 42/1, Silver Jubilee Park Road, Bangalore 2; 6/365, Trichy Road, Coimbatore; 5, Green Gates, Saifabad, Hyderabad (A.P.); 58/3, Mount Road, Madras 6; G/4, Nizamuddin West, New Delhi 13.**

Hariprasad Amratlal & Co.—Iron Market, Carnac Bunder.

Hatimbhoy, A., & Co.—Iron Jetha, Carnac Bunder, Bombay 9.

Herman & Mohatta, B. R., Ltd.—People's Building, Sir Phirozshah Mehta Road, Fort.

Joshi & Co.—207, Kumbharwada 6th Lane, Golpitha, Bombay 4.

Kothari P., & Sons.—2nd Kumbharwada, Bombay 4.

Manekchand Jivraj & Co.—Old Iron Jetha, Darukhana.

Mapara Engineering Co.—381, Dadabhoy Naoroji Road, Bombay 1. Phone: 253398. Manufacturers in mild steel and stainless steel of chemical and Pressure Vessels, Storage Tanks and all Kinds of Sheet Metal and Structural Works.

Mehta & Co.—35, Abdul Rehman Street.

Miakhan Adamji & Co.—Carnac Bunder.

Modern Textile Engineering Works.—194-A, Trimbak Parashram Street, Golpitha, Bombay 4.

**MUKAND IRON & STEEL WORKS LTD.—Agra Road, Kurla, Bombay 70.**

**MUNCHERJEE BYRAMJEE & CO. (ESTD. 1882).—35-C, Jeraijbhoy Street, near Municipal Workshop, Bombay 8. Phone: 71692. Brass & Iron founders & structural & Mechanical Engineers.**

Murlimal Santram & Co.—Iron Jetha, Carnac Bunder.

Nadirshaw & Bros.—"Silver Talkies" Building, Khetwadi Back Road, Bombay 4.

New Standard Engineering Co., Ltd.—222, Bellasis Road, Byculla.

Pioneer Iron Foundry.—11, Sukhlaji Street, Corner of Grant Road.

Prabhudas, C., & Co.—247, Argyle Road, Carnac Bunder.

Ramniklal Maganlal & Co.—Iron Market, Carnac Bunder.

Ramsaran Dass Aggarwal & Sons.—163, Nagdevi Cross Lane, Bombay 3.

Richardson & Cruddas Ltd.—Byculla Ironworks, Byculla.

Ripon Foundry, New.—286, Ripon Road, Byculla.

Saif Welding & Engineering Works.—130, Suklaji Street, Bombay 8.

Samartha Engineering & Weaving Co., Ltd.—Neville House, Ballard Estate.

Shantilal Parmanand & Co.—47A, Carnac Siding Road.

**SHAPARIA DOCK & STEEL CO. PRIVATE LTD.—Shipbuilders, Engineers & Contractors—Suppliers to D.G.S. & D., Director of Industries & C.P.O., Railways, P.W.D., Port Trusts, Electricity Boards, Municipalities, etc., specialising in Corrugated Steel Pale Fencing, Ornamental Compound Gates, Rolling Shutters (Ordinary & Fireproof), Rolling Grilles, Fire Proof Steel Doors, Collapsible Gates, Tipping**

**Wagons, Light Railway Equipments, Wheel Barrows, Refuse Hand Carts, Platform Trucks, Light Structural Steel Works, Roof Lights, Lead-Ulite (Lead Wool), Steel Rollers, Garden Benches, Tree Guards, Steel Tanks, etc., Works at: Parel Road Cross Lane, Bombay 12. Gram: "SHAPARIA." Phone: 70808.**

Standard Metal Works.—17, Falkland Road Low Level, Bombay 7.

**STANDARD ROLLING SHUTTERS & ENGINEERING WORKS PRIVATE LTD.—On Government & P.W.D. List. Office: 101, Mahatma Gandhi Road, Opp. Bombay University, Fort, Bombay 1. Grams: "ROLSHUTTER." Call: 251468. Manufacturers of: M. S. Rolling Shutters, Ventilated Rolling Grilles, Collapsible Gates, Patent Shutter Gates, Alligator Doors—all Manually and Electrically Operated, Fire Proof Rolling Shutters and Fire Proof Doors—Sliding, Hinged and Automatic (approved by Fire Sectional Committee) and also Ornamental Grilles and Compound Gates, etc. of any size. Install our famous Standard Rolling Shutters.**

Sun Metal Works.—Factory, Ghodbunder Road, Malad.

**SURESH ENGINEERING CO. (P) LTD.—414-B, Walbhat Road, Goregaon (East), Bombay 62. Phone: 692832. Manufacturers of Grey Iron Castings to ISI grades upto 3 tons individual Casting, Equipment & Process Plants—Engineering, Construction & Fabrication Single Units or Complete Plants Chemical, Petrochemical, Process and Manufacturing industries.**

Suresh Engineering Works.—Bombay Cotton Mills Estate, Kalachowki Road, Bombay 33. Phone: 77887. Ferrous & Non-Ferrous Castings, Steel Fabrication, Electrically heated Driers and Stainless Steel Fabrication.

Swastik Rolling Shutters & Engineering Works.—Parel Station Road, Bombay 12. Phone: 62041. Grams: 'SWASTIKROL'.

**Tata Iron & Steel Co., Ltd.—Bombay House, 24, Bruce Street, Fort.**

**United Steel Companies (India) Private Ltd., The.—Himalaya House, Junction of Hornby Road and Palton Road, Bombay 1.**

Vithal Purushotum & Sons, Ltd.—2nd Khetwadi Lane, Bombay 4.

Vithaldas, D., & Co.—76, 1st Pathan Street, Golpitha, Bombay 4.

**WESTERN INDIA STRIP MILLS.—Agra Road, Bhandup, Bombay 78. Re-rollers of M. S. Bars, Flats, Squares, Angles and Steel Windows Sections. Also manufacturers of Steel Windows. Phones: 592244 & 592533. Grams: "WESTSTRIP." Bhandup, Bombay 78.**

Yahya & Company.—123, Abdul Rehman Street, Bombay 3.

## IRON & STEEL MERCHANTS

**A. A. MORBIWALA & CO.—109/111, Abdul Rehman Street, Bombay 3. Phone: 323280. Grams: "VARNISH (MD)." Direct Importers & Stockists of Stitching Wires of all kinds.**

Adamally Sons Ltd.—277, Nagdevi Street, Bombay 3.

Adamji Lookmanji (Iron & Steel) Ltd.—Rahimtoola House, Homji Street, Fort.

Amratlal V. & Co.—Carnac Bunder, Bombay 9.

Amritlal Popatlal & Son.—Darukhana, Mazagaon, Bombay 10.

Anandji Haridas & Co., Ltd.—Frere Road, Bombay.

Arvinda Bros.—165, Vithalbhai Patel Road, Bombay 4.

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Fort.

**BOMBAY STEEL CORPORATION.—Importers & Stockists of Alloy & Tool Steels. Head Office: 140, Medows Street, Bombay 1. Phone Nos. 254756 & 255077.**

**BOMBAY STEEL TRADERS.—Iron & Steel Merchants & Stockists of R. S. Joints, Channels, Angles Plates, Rounds, Flats, etc. Latif House, Iron Market, Bombay-9. Phones: 321275 & 322397. Branch: Laxmipuri, Kolhapur.**

**CHAMANLAL & BROS.—Importers, Exporters & Stockists of Iron & Steel Materials, Nagindas Chambers, 167, P. D'Mello Road, Fort, Bombay 1. Phone Nos. 261928 and 261929. Grams: "GRACE."**

Chhaganlal & Co.—Carnac Bunder, Bombay 9. Phone: 20751, Grams: "CONTRACTS."

Chimanlal Devchand & Co.—2nd Kumbharwada Lane, Bombay 4.

**CHIMANLAL VRAJLAL & CO.—Iron, Steel and Hardware Merchants, Latif House, Iron Market, Bombay 9. Phones: 321265 & 321298.**

Deviprasad Khandelwal & Co., Ltd.—Iron Jetha, Carnac Bunder.

**DEWANCHAND HANSRAJ.—105, Narayan Dhuru Street, Bombay 3. Phone: 324024. Grams: "CHAINGUPT." Iron, Steel, Hardware & Pipe Merchants.**

Francis Klein & Co. (Bombay) Ltd.—Shale Building, Bank Street, Fort, Post Box No. 777, Bombay.

Harbanslal Aggarwal (India) Ltd.—184, Narayan Dhuru Street, Bombay 3

Hatimbhoy, A., & Co.—Iron Jetha, Carnac Bunder, Bombay 9.

Herman & Mohatta, B. R., Ltd.—People's Building, Sir Phirozshah Mehta Road, Fort.

Hindustan Iron & Steel Co.—20-22, Tava Lane, Bombay 3.

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**MANUBHAI SHAH & CO.—297, Samuel Street, Bombay 3; Iron Market, Bombay 9. Phone: 322655. Res. 471884. Grams: "CHAKOR." Dealers in Iron, Steel, Metals, Chemicals, Dyes, Starches & Mill Stores.**

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Parikh & Co., K.—Iron Market, Carnac Bunder, Bombay 9.

P. L. Bhatt & Co.—5, Bharat House, 104, Apollo Street, Fort, Bombay.

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Richardson & Cruddas.—Byculla Iron Works, Byculla.

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**TEJPAULS PRIVATE LTD.—Head Office : Nagindas Chambers, 167, P. D'Mello Road, Bombay 1. Phone : 266365 and Sales Office : 225, Sant Tukaram Road, Iron Market, Bombay 9. Phone : 328875. Grams : "STEELDEPOT." Iron & Steel Merchants. Also Manufacturers of H. B. Wires, Spring Steel Wires, Galvanised & Copper Coated Wires, Barbed Wires & Wire Nails.**

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**TIRATHRAM KASHMIRILAL (INDIA) PRIVATE LTD.—229, Argyle Road, Iron Market, Bombay 9. Phones : 321623 and 328060 (Office) & 212447 (Res.). Grams : "GIRDERS." Government Controlled Stockists and Importers of Iron & Steel Light and Heavy Structural Reinforcing Bars, Sheets, Plates, Wires, etc.**

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United Steel Companies (India) Private Ltd.—Patel House, Churchgate Street, Fort.

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Nanubhai Jewellers.—115, Mahatma Gandhi Road, Fort.

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Shanfi Vishrar Zaveri.—Sheikh Memon Street, Bombay 2.

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M. Dialdas & Sons.—190, Princess Street.

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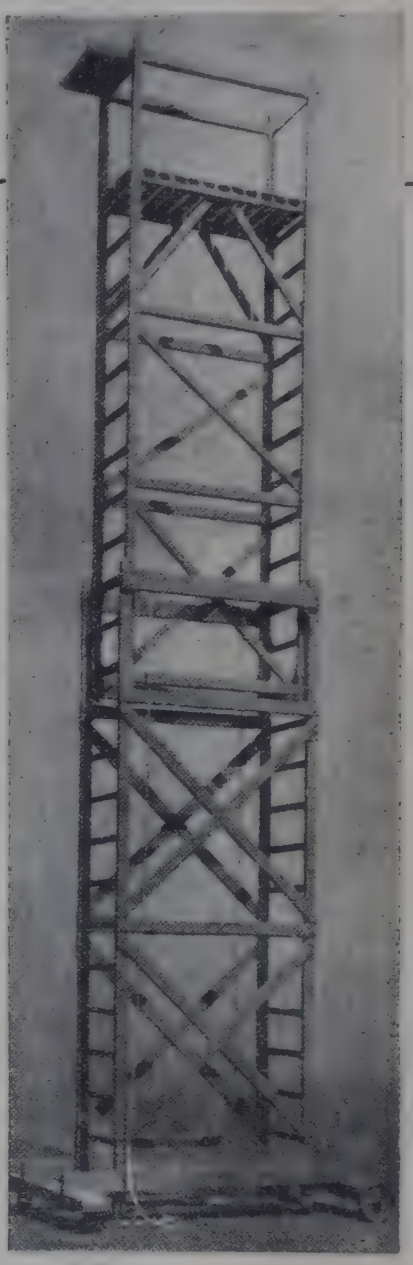
Simplex ladders are used all over India and abroad by the Government departments, M.E.S., P.W.D., Railways, Power Houses, Heavy Steel Plants, Textile Mills, Factories, Theatres and Hotels, etc.



Telescopic Tower Ladder—Design No. 20

Wheeled Tower Ladder—Design No. 10

(On Govt. List)

## SIMPLEX TIMBER MART

MUNICIPAL CONTRACTORS

Manufacturers of all kinds of wooden single, folding and extension ladders, Bamboo ladders, Boat oars, Flag poles, etc. Dealers in Bamboos, Mats and Mangalore Tiles, etc. Also Manufacturers of Aluminium Ladders.

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**P. O. BOX No. 5012**

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Grams : "LADDERMAN" Phone : 331794

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Clubwalla & Co.—27-29, Hamam Street, Fort, Bombay.

**FAMOUS LADDERS MANUFACTURING CO.—Office and Works: 128/130E, Victoria Road, opp. Masina Hospital, Byculla, Bombay 27. Phone: 76447. Grams: "SAFELADDER."**

**SIMPLEX TIMBER MART.—64-66-68, Ibrahim Mohd. Merchant Road, Khadak, Bombay 9. Phone: 331794. Grams: "LADDERMAN." Manufacturers of all kinds of Wooden & Aluminium Single, Folding, Extension and Tower Ladders, Boat Oars & Bamboo Ladders. Dealers of Bamboos & Bamboo Mats, Mangalore tiles, etc.**

## LADIES' HANDBAGS

**ARTISTIC LEATHERGOODS & ACCESSORIES.—Phiroz Building, Apollo Pier Road, Fort, Bombay 1. Manufacturers of Ladies' Handbags in Leather and also Evening Bags in Brocades.**

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Eastern Leather Works.—Corner of Vithalbhai Patel Road and Sandhurst Road, Prarthana Samaj, Bombay 4.
Elgin Leather Wares Ltd.—Nawab Building, 327, Hornby Road, Fort.
Kashmir Govt. Arts Emporium.—Sir P. M. Road, Bombay 1.
Railship Stores.—39, Medows Street, Fort.
Tolaram's.—Rehem Mansion, 36, Colaba Causeway.
United Cottage Industries Ltd.—Near Central Bank of India Ltd., Abdul Rehman Street, Bombay 3.

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Abdul Rahim & Co., C.—151, Chackla Street, Bombay 3.
Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Bombay 1.
Currimbhoy, L., & Co.—156, Chakla Street, Bombay 3.
Dossa, S. R. & Co.—186, Sheriff Devji Street (Chakla), Bombay 3.
Eastern Lights Company.—78, Lohar Chawl, Bombay 2.
K. B. Mehta & Bros.—Lohar Chawl, Shriji Bhuvan, 2nd Floor, Bombay 2.
L. C. Trading Co.—62, Lohar Chawl, Bombay 2.
Light House.—51, Kitchen Garden Lane, Shrijee Bhuvan, Bombay 2.
New India Trading Co.—46, Vir Nariman Road, Fort.
Racek, F. & Co., Ltd.—Lohar Street, Bombay 2.
Roberts McLean & Co., Ltd.—Ilaco House, Sir P. Mehta Rd., Bombay 1.
Salemahomed Padamsee & Co.—141, Chakla Street, Bombay 3.
Shah, H. T. & Co.—Ahmed Building, Golpitha, Bombay 4.
Star Incandescent Light Co., The.—P.B. No. 2089, Shreeji Bhavan, 68, Lohar Chawl, Bombay 2.

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Arco Agencies.—Bam House, Gunbow Street, Fort, Bombay 1.
Arvinda Trading Co. Private Ltd.—105, Apollo Street, Fort.
Beardsell, W. A., & Co., Ltd.—Dhan-Nur Building, Sir Phirozshah Mehta Road, Fort.
Birkmyre Brothers Ltd.—12, Rampart Row, Fort, Bombay.
Brady, W. H., & Co., Ltd.—Royal Assurance Building, Vir Nariman Road, Fort.
Edgar Handley and Company Private Limited.—135, Medows Street, Fort, Bombay.
Elgin Leather Wares Ltd.—Nawab Building, 327, Hornby Road, opp. Thos. Cook & Sons, Fort.
Empire Trading Company.—76/A, Alli Chambers, Tamarind Lane, Fort, Bombay.
Gannon, Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Fort.
Indo-Textile Stores, The.—16, Apollo Road, Fort, Bombay.
Indusco (India).—Ibrahim Building, 6, Bell Lane, Fort, Bombay.
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Jashwantlal Manecklal & Co.—40, Veer Nariman Road, Fort.


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*All are worth attention*

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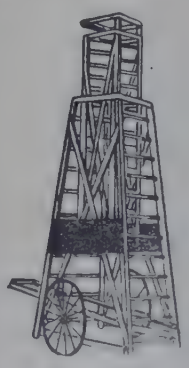

No. 555

Famous Republic Collapsible Tower.

No. 777 Self-supporting Extension Ladder.

No. 666

Famous Sliding Roadster.

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Phone: **76447** Grams: **"SAFELADDER"**

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National Trading Co.—263, Hornby Road, Fort.
Ormerods (India) Ltd.—Bank of Baroda Building, Apollo Street, Fort, P. O. Box No. 410, Bombay.
Paradise Trading Corporation.—73/75, Tamarind Lane, Fort, Bombay 1.
Paramount Textile Agency.—45/47, Apollo Street, Fort, Bombay.
Parikh Brothers & Co.—45-47, Apollo Street, Fort.
Techno Industrial Co.—107, Sir Vithaldas Chambers, 16, Apollo Street, Fort.
Textile Supplies Syndicate (India) Ltd.—Kermani Building, Sir Phirozshah Mehta Road, Fort.
Union Textile Agency.—55, Laxmi Building, Sir Phirozshah Mehta Road, Fort.
Venus Textile Syndicate.—Sambava Chambers, Sir Phirozshah Mehta Road, Fort.

## LEATHER GOODS MFRS. AND DEALERS

**ARTISTIC LEATHER GOODS & ACCESSORIES.—Phiroz Building, Apollo Pier Road, Fort, Bombay 1. Manufacturers of Brief and Document Cases.**

Bharat Leather Works.—183, Abdul Rehman Street, Bombay 3.
Bhogilal Shah & Co.—Mehta Building, Medows Street, Fort.

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Gold Filled Leather Works.—Princess Street and Sandhurst Road, Bombay.
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India Goatskin Corporation Ltd.—Dharavi.
L. R. Trading Co.—Navsari Chambers, opp. Lloyds Bank, Outram Road, Fort.
Natwar Trading Co.—395, Kalbadevi Road, Bombay 2.
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**PIONEER LEATHER WORKS, THE.—Sitaram Building, Crawford Market, P.O. Box No. 1950, Bombay 1. Phone : 263618.**
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Railship Stores.—Medows House, 39, Medows Street, Fort, Bombay 1.
Sardesai & Company.—14, Murzban Road, Fort, Bombay.
Shree Krishna Trading Co., Ltd.—11, Alli Chambers, Medows Street, Fort.
Suraiya, M., & Co.—Prospect Chambers, Hornby Road, Post Box 439, Bombay 1.
Textile Works Ltd.—49-55, Apollo Street, Fort.
United Cottage Industries.—Near Central Bank of India Ltd., Abdul Rehman Street, Bombay 3.
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Greaves Cotton & Co., Ltd.—Forbes Street, Bombay 1.
Guest, Keen, Williams, Ltd.—Ballard Estate, Bombay 1.
Heatly & Gresham Ltd.—9, Forbes Street, Bombay 1.

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**TIMES OF INDIA PRESS, THE.—Dr. Dadabhoy Nowroji Road, Fort.**

**UNIVERSAL CALENDAR MANUFACTURING CO.—Calendar Manufacturers, Lithographers and Tin Printers, 23-25, Hamam Street (Opp. Post Office), Bombay 1. Phone : 254443.**

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Govin's Safe Manufacturing Co.—266-68, Kalbadevi Road, Bombay 2.

Gurjar Steel Products.—20, Dadyseth Agiary Lane, Kalbadevi Road.

**KHIRA STEEL WORKS PRIVATE LTD.—Factory : Swami Vivekananda Rd., Santa Cruz, Bombay 54. Grams : "STEELCASE." Phone : 533226 (4 lines). Regd. Office and Showrooms : Khira Bhavan, Sandhurst Bridge, Bombay 7. Grams : "SWAKALA." Phones : 30097 & 30098. Showroom : Fulchand Nivas, Chowpatty Sea Face, Bombay 7. Grams : "SWAKALA." Phone : 30408.**

Regal Safe Manufacturing Co.—248, Kalbadevi Road, Hira Mahal, Bombay 2.

Soho House.—Lohar Street, Bombay 2.

Steel Age Industries Ltd.—Opp. Post Office, Mazagaon, Bombay.

Swadeshi Steel Products.—Zaver Baug, Kalbadevi Road, Bombay 2.

Vertex Manufacturing Co., Ltd.—Fort, Bombay 1.

Zenith Safe Mfg. Co.—249, Kalbadevi Road.

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**Burmah-Shell Oil Storage & Distributing Co. of India Ltd.—Ballard Estate, Bombay.**

Caltex (India) Limited.—Caltex House, 8, Ballard Road, Bombay.

Cox & Co., Ltd., H. S.—24, Rampart Row, Fort, Bombay.

**EXCELLENT PETROLEUM CO.—Opp. J. J. Hospital Tram Junction, Bombay 8. Dealers in Burmah-Shell Motor-Spirit, H.S.D. and other Lubricants.**

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Greaves Cotton & Co., Ltd.—Forbes Street, Bombay 1.

**GULF OIL (INDIA) PRIVATE LTD.—Steelcrete House, 3, Dinsha Wacha Road, Bombay 1. P.O. Box 1943. Phone : 245131 (3 lines). Grams : "GULFINDIA." Importers and Distributors of High Grade Lubricants. Area Offices : Ahmedabad, Hyderabad & Indore.**

Hardcastle, Waud & Co., Ltd.—Alice Building, Hornby Road, Fort.

**INTERNATIONAL LUBRICANTS PRIVATE LTD.—Court House, Dhobi Talao, Bombay 2. Phone : 29109. Grams : "LUBRICANTS", Bombay, and 12-A, Ashutosh Mukerjee Road, Calcutta 20. Grams : "VISCOSITY", Calcutta. Importers of Highgrade Motor Oils, Lubricating Oils & Petroleum Jellies.**

Kilburn & Co. Private Ltd.—Gresham Assurance House, Sir Phirozshah Mehta Road, Bombay.

Killick, Nixon & Co. Private Ltd.—Home Street, Bombay 1.

Leach & Co. Ltd., H. J.—Asian Building, Ballard Estate.

**NAROTTAMDAS KARSANDAS & CO.—278, Dr. Dadabhoy Naoroji Road, Bombay 1. Direct Importers of Lubricating Oils & Indentor Agents for Chemicals & General Merchandise. Phone : 262215. Grams : "NAROTTAMCO" (F.T.).**

**PETRO-CHEM INDUSTRIES.—313, Sardar V.P. Road, Bombay 4. Manufacturers of all kinds of Lubricating Greases, Cutting Oils, etc. Phone : 70983.**

**PIONEER OIL COMPANY.—Importers & Distributors, Petroleum Products—Transformer Oil—Lubricating Oils—Petroleum Jelly & Greases. 354, Narsi Natha Street, Kantha Bazar, Bombay 9. Phone : 325994.**

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**HEMCO CORPORATION.—308, Bazargate Street, P.B. 1645, Bombay 1. Phone : 254237. Dealers in Engraving Machines, Air Compressors, Spray Guns, Sheet Metal Machinery, Flexible Shafts, Planer Blades & Other Tools.**

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**JAYEMS ENGINEERING CO.—Warden House, Sir Phirozshah Mehta Road, Bombay 1. Engineers, Machinery Merchants & Manufacturers' Representatives, direct importers of Machine Tools, Wood working machinery, Sheet metal working machinery, Welding Equipment, Foundry Equipment etc. Phone : 256251. Grams : "JAYEMS."**

**KERRY JOST TOOLS LTD.—Manufacturers of Machine Tools, Great Social Building, Sir Phirozshah Mehta Road, Fort, Bombay 1. Post Box No. 243, Bombay 1. Phone : 262697 & 262698. Grams : "JOST." Factory at Ambattur Estate, Madras 53.**

**MACHINERY IMPEX CORPORATION.—271-A, Nagdevi Street, Bombay 3 (BR). Phone : 324886. Grams : "MASINMICOR". Manufacturers of "MICOR" Progressive Machine Tools.**

**MANEKLAL & SONS—Showroom & Sales Division.—277, Nagdevi Street, Bombay 3—BR. Grams : "KIRTIRAJNI." Phone : 321925; Foreign Division—115/116, Narayan Dhuru Street, Bombay 3—BR. Phone : 321924. Associates : Calcutta 13. Agency : Madras 1. Importers, Exporters & Stockists of Workshop Machines, Wood working machines, Sheet metal working machines, Electrical Tools & Cottage Industry Machines.**

**PARKEEN BROTHERS.—Industry House, Bake House Lane, off Forbes Street, Fort, Bombay 1. Phone : 254862. Grams : "METALWARE." For Flexible Shaft grinders and Tool post grinders.**

**PETRO-CHEM INDUSTRIES.—Manufacturers of all kinds of Lubricating Greases, Cutting Oils, etc. 313, Sardar V. P. Road, Bombay-4. Phone : 70983.**

Pattani Industrial Corporation.—19/21, Hamam Street, P.O. Box No. 796, Bombay 1.

Praffulchandra & Co.—106, Lohar Street, Bombay 2.

Pravin & Co.—85/92, Nagdevi Street, Bombay 3.

**P. RAI & CO.—121, Commerce House, Medows Street, Fort, Bombay 1. Phone : 252436. Grams : "PIRAICO."**

William Jacks & Co., Ltd.—Bharat House, Apollo Street, Fort.

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*Secretary :* Kumari R. D. Cama

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Alcock, Ashdown & Co., Ltd.—16, Bank Street, Fort.

Alfred Herbert (India) Ltd.—Kaiser-i-Hind Buildings, Ballard Estate.

Altex Private Limited.—147, Esplanade Road, Fort.

Apollo Engineering Co.—84, Apollo Street, Fort.

Armstrong Smith Private Ltd.—Gresham Assurance House, Sir Phirozshah Mehta Road, Fort.

Art Metal Works (Estd. 1882).—Office and Factory : 100, Foras Road, near Municipal Workshop, Bombay 8.

Asea Electric Ltd.—Yaffi Building, Goa Street, Fort.

**ASHOK ENGINEERING CO.—24, Noble Chambers, Parsi Bazar Street, Fort, Bombay 1. Phone : 253309. Grams : "REVOLUTION." Importers, Dealers and Stockists of Electric Motors, Starters, Switches, Generators, Pumping Sets, Blowers, Exhaust Fans, etc. Diesel Engineer & Spare parts & Motor Vehicle Parts.**

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Associated Machine & Tool Co.—130, Medows Street, Bombay 1.

Automatic Electric Devices Company.—'Rectifier House', Naigaum Cross Road, Bombay 31.

Babcock & Wilcox of India, Ltd.—16, Queen's Road Estate, Bombay.

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate.

Batliboi & Company Private Limited.—Regd. Office : Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR.). Phones : 255451 (6 lines). Grams : BATLIBOICO. Telex : 284. City Branch : Batliboi House, 59/61, Nagdevi Cross Lane, Bombay-3 (BR.). Branches : Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate : Bangalore 2. Resident Representatives : ERNAKULAM, RANCHI.

**BHARAT ELECTRIC & ENGINEERING CORPORATION.—Free Press Building, Ground Floor, 21, Dalal Street, Fort. Phone : 255374. Grams : "GODGRACE."**

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Brady, W. H., & Co., Ltd.—Royal Insurance Buildings, Churchgate Street, Fort.

British Engineering Co.—105, Apollo Street, Fort.

Cambata Industries Private Ltd.—Cambata Building, 42, Queen's Road, Bombay 1.

**CAPRI ENGINEERING CO.—296, Frere Road (Near Fort Market), Bombay 1. Phone : 266438. Grams : "CAPRIENG."**

Chimanlal Patel & Co.—174, Hornby Road, Fort.

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Cooper Engineering Ltd.—Construction House, Ballard Estate, Bombay.

**CRAFTSMAN ELECTRONIC CORPORATION PRIVATE LTD.—Sethna Hall, Nesbit Road, Bombay 10. Phone : 73346. Grams : "CRAFTRONIC." Mfrs. and Importers of all types of Industrial Machinery.**

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Drewet, Chowna & Co.—" Lentin Chambers," Medows Street, Fort.

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Dwarkadas & Sons Ltd.—Mehta House, 89, Apollo Street, Fort, Bombay.

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Eastern Machinery & Trading Co.—Wilson Road, Ballard Estate, Fort, Bombay.

Edgar Handley Company Private Limited.—135, Medows Street, Fort, Bombay.

Electric Cable & Machinery Co.—46-47, Forbes Street, Fort.

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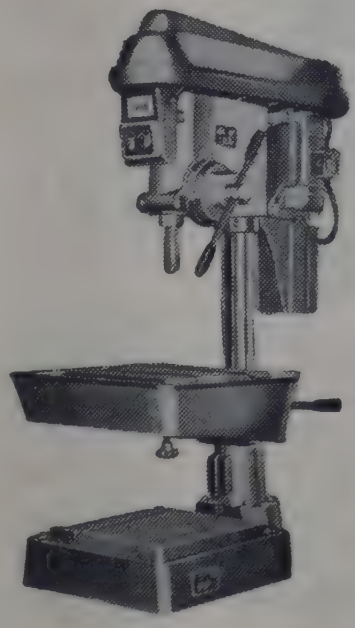

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**MANOHAR BROTHERS.—4, Commerce House, Medows Street, Fort, Bombay. Phone: 254496. Grams: "LOCOMOTIVE." Branch: 37, Errabalu Chetty Street, Madras. Phone: 23274.**

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Mather & Platt, Ltd.—8, Graham Road, Ballard Estate.

**MILLARS' TIMBER & TRADING CO., LTD.—Victoria House, Victoria Road, Bombay 27. Phones: 72103 & 72104. Grams: "JARRAH." Bombay.**

Modern Engineering Co.—107, Apollo Street, Fort.

National Electrical Industries Ltd.—Industrial Estate, Lalbaug, Bombay 12.

**NATIONAL TRADERS.—Advani Chambers, 1st Floor, Sir Phirozshah Mehta Road, Fort, Bombay. Phone: 261459. Grams: "WETFARM." Distributors for "Gorman-Rupp," Pumping Sets and Wisconsin Engines spares.**

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Oriental Engineering Co.—25, Forbes Street, Fort, Bombay 1.

Parry & Co., Ltd.—United India Building, Sir Phirozshah Mehta Road, Bombay 1.

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Ravi Industries Private Ltd.— Office: 68, Shamset Street, Zaveri Bazar Road, Bombay 2.

Richardson & Cruddas Ltd.—Byculla, Bombay 8.

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**Shah Patel & Co.—109-111, Nagdevi Street, Bombay 3.**

Suryodaya Trading Co.—Behind Reserve Bank, Ground Floor, Fort, Bombay-1. Phone No. 251823, Machinery Merchants & Stockists of imported portable drilling machine blowers, shearing machine, tapping attachments, wood working lathes & spares, Coventry die head & chasers, reversing switch, quick change chuck, etc. Managing Partner: A. K. Zaveri, B.Sc. (Eng.), A.M.I.P.E.

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Textile Machinery Corporation Ltd.—254A, Annie Besant Road, Worli.

Textile Works Ltd.—49/55, Apollo Street, Fort.

Turner, Hoare & Co., Ltd.—Gateway Building, Apollo Bunder, Bombay.

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Vasant Industrial & Engineering Works.—" Vasant Vijay ", 470-471, Worli Road, Bombay 18.

Voltas Ltd.—19, Graham Road, Ballard Estate.

Zenith Textile Engineering Co.—250, Ripon Road, Byculla.

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Baldota Brothers.—43, 2nd Bholwada, Bombay 2. Phone: 22787.

Industrial Minerals & Chemicals Co.—125, Narayan Dhuru Street, Bombay 3.

Ishwarlal P. Patni & Co.—Mherwan Building, Sir Phirozshah Mehta Road, Bombay 1.

Kemka & Co., (Agencies) Private Ltd.—Vulcan Insurance Bldg., Vir Nariman Road, Bombay 1.

**NAKIMPEX TRADERS.—24, Veer Nariman Road, Bombay 1. Phone: 252906. Grams: " NAKIMPEX."**

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Bharat Tiles & Marble Private Ltd.—32, Apollo Street, Fort, Bombay.

**C. BHOGILAL & CO.—Hanuman Building, Behind Reserve Bank, 310, Bazargate Street, Fort, Bombay 1.**

Central India Stone Co.—503-505, Duncan Road, Null Bazar.

**CHUNILAL PARIKH & CO.—Marble, Tiles, Stones, Sanitaryware & Building Materials, etc. Merchants & Contractors, 476-478, Duncan Road, Bombay 4. Phone: 72547. Grams: " ARASPAHAN."**

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Gigabhai, K., & Sons.—8/10, Green Street, Fort, Bombay.

Gopal Chand Puri & Bros.—70, Mahomedali Road, Bombay

Himalayan Tiles & Marbles.—Himalaya Baug, Lady Jamshedji Road, Mahim.

**HINDUSTAN TILES & CEMENT INDUSTRIES.—(Estd. 1946). Manufacturers of Flooring Tiles, Synthetic Marble, Mosaic, Terrazzo, Art, Coloured, etc., 89, Princess Street, Bombay 2. Phone: 23951. Grams: " MARMOSAIC." Head Office and Factory: Gulabnagar, P.O. Box 3, Jamnagar Gujarat (India). Phone: 269 & 427. Grams: " TILES." No other Branches.**

Hodiwalla, A. P., & Co.—Bank Street, Fort, Bombay 1.

Indian Stone & Marble Work.—2nd Pasta Lane, Colaba, Bombay 5.

**INDIANA TILES & MARBLE CORPORATION.—Office & Factory: 4, Amboli Road, Andheri West, Bombay 58. Phone: Office: 572413. Showroom: 264112.**

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Mehta, N. M., & Co.—6-10, Old Custom House Road, Fort, Bombay.

Mistry Kamruddin Badruddin & Co.—Duncan Road, Null Bazar, Bombay 4.

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Natverlal, & Son.—Hanuman Building, Near Reserve Bank, Elphinstone Circle, Bombay 1.

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R. Moolchand & Co.—44, Nagdevi Cross Lane, Bombay-3. Direct Importers, Sanitarywares, Tiles, Bath Tubes, Fancy Bathroom Fittings. Grams: " POTTERY." Phone: 324207. Res.: 78837.

**Sajan & Co.—18, Custom House Road, Fort, Bombay.**

Shah, A. H., & Co. Ltd.—Jan Mansion, Sir P. Mehta Road, Fort, Bombay 1.

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Stone Supplying Co., (Private), Ltd.—494, Duncan Road, Bombay 4.

Tandur & Shahabad Stone Co.—Round Temple, Sandhurst Road, Bombay 4.

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Elliott Waud & Hill Private Ltd.—Lakshmi Bldg., Sir P. M. Road, Bombay 1.

Hemant Tools Trading Co.—33, Bibijan Street, Bombay 3.

**INDUSTRIAL MILL GIN STORES.—Industrial House, 51-53, Nagdevi Cross Lane, Bombay 3. Grams : "WIREGOODS." Phone : 321246.**

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Desai & Co., M. S.—77, Nagdevi Cross Lane, Bombay 3.

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Edgar Handley & Co.—Seksaria Chambers, 139, Medows Street, Fort.

Hindustan Tools & Hardware Mart.—126, Lohar Chawl, Bombay 2.

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Jairamdas & Sons.—163, Narayan Dhuru Street, Bombay 3. Phone: 323616. Grams : "Jairamsons." *Offices :* Delhi, Madras, Bangalore and Secunderabad (A.P.) On the Approved list of DGS & D, New Delhi and other Govt. Depts.

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**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.—Wavell House, Graham Road, Ballard Estate, Bombay. Phone : 26-2711 (8 lines). Machine Works : Tank Road, Bombay 33 DD. Phone : 78544. Offices at : Madras, Calcutta, New Delhi, Bangalore, Secundrabad & Lucknow.**

## MILL AND GIN STORE SUPPLIERS

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone : 326980. Grams : "ALERTDEAL."**

**ACME MANUFACTURING & AGENCIES (INDIA).—Post Box No. 1732, Bombay 1. Manufacturers, Importers & Stockists of Textile Stores & Machinery Accessories.**

Acme Manufacturing Co., Ltd.—Construction House, Wittet Road, Ballard Estate, Fort.

Adamji Kaderbhoy.—337, Katha Bazar, Bombay 9. Stockist of Heald Cord, Dobby Twine, etc.

Adarsha Trading Corporation.—Ismail Building, 2nd Floor, Room No. 9-H, 381, Hornby Road, Fort, Bombay. Phone : 32404.

Agarwal Commercial Corp.—35, Bibijan Street, Nagdevi, Bombay 3.

Allied Exporters.—Kumud House, 267, Hornby Road, Fort.

**ALTEX PRIVATE LIMITED.—147, Esplanade Road, Fort, Bombay 1. Phone : 251082. Grams : "BETEX."**

Apollo Engineering Co.— 84, Apollo Street, Fort.

**Ardeshir D. Wadia & Sons.—93, Apollo Street, Fort. Importers of "V" Tex Ropes Drives, Clutches and Gearing.**

Arvinda Trading Co. Private Ltd.—105, Apollo Street, Fort, Bombay 1.

Asave Mehta & Co.Bahadur—24-B, Raja Compound, Hamam Street, Fort.

Associated Machine & Tool Co.—130, Medows Street, Fort.

**A. VALLABHDAS & SONS.—37, Nagdevi Street, Bombay 3. Phone : 324281. Grams : "GINSPARE". Stockists of Boiler Tubes, Accessories, Cocks and Valves & Sugar Mill requisites.**

**BABULAL BROS.—26, Nagdevi Cross Lane, Bombay 3. Phone : 323930. Grams : "FIREFLY." Stockists of Abrasives, Asbestos Goods, Engineering Tools, Hardware, Mill Gin Stores, Pipe Fittings.**

Baker, A. M., & Co.—218, Nagdevi Street.

Balkrishna & Bros.—71, Nagdevi Street.

Balmer Lawrie & Co., Ltd.— 5, Graham Road, Ballard Estate, Fort.

**BELTEX LIMITED.—Managing Agents : Karaka & Co. Head Office : Ellis Bridge, Ahmedabad 6. Phones—Office: 7205; Works : 5289. Grams : "LEATEX", Ahmedabad. Manufacturers of Leather Beltings, Buffers, Picker Savers, Check Straps, Check ends, Laces, and other Sundry Loom Fittings. Manufacturers of Olive green Picking Bands. Bombay Branch : 43, Tamarind Lane, Bombay 4. Phone : 253707. Grams : "PUSHNABAND," Bombay.**

Bhagvandas Chatubhuj & Co.— 20, Hamam Street, Fort.

Bharat Industrial Co.—77-79, Nagdevi Cross Lane, Bombay 3.

Bhathena, B. N., & Co.—100, Nagdevi Street.

Bhogilal Shah & Co.—Mehta Building, Medows Street, Fort.

Bombay Burma Hardware Store.—128, Nagdevi Street, Bombay 3.

Bombay Machine Store Co., The.—Laxmi Building, 48, Nagdevi Cross Lane. Bombay 3.

Bombay Mill Stores Supplying Co., Ltd.—Western India House, Sir Phirozshah Mehta Road, Fort.

Bombay Pulley Marketing Co.—30, Nagdevi Cross Lane, Bombay 3.

**BOMBAY TOOLS & HARDWARE MART.—123, Narayun Dhuru Street, Bombay 3. Grams : "BOTAPS." Phone : 327122.**

Bombay Tools Supplying Agency.—50, Nagdevi Cross Lane, Bombay 3.

Brady, W. H., & Co., Ltd.—Royal Insurance Building, Churchgate Street. Fort.

British Mill Stores Co.—Sir Vithaldas Chambers, Bruce Street. Fort.

B. R. Jnide & Co.—14, Mohan Niwas, Chandavarkar Road, Bombay 19. Phone : 472267. Grams : "GOLDENHILL."

C. Bole & Co —75, Nagdevi Cross Lane. Bombay 3.

C. R. Contractor & Co.—82, Nagdevi Cross Lane, Bombay 3.

Central Machine Tools Agency.—43, Nagdevi Cross Lane, Bombay 3.

Central Tool & Equipment Co.—32, Sarang Street, Bombay 3.

Chhabildas & Co.—78-A, Abdul Rehman Street.

Chimanlal Desai & Co.—Gool Mansion, Homji Street, Fort, Bombay 1.

Collinson & Co., Ltd.—Standard Building. Hornby Road, Fort.

Commissariat, H. M., & Co.—7, Elphinstone Circle, Fort.

**CONCORD CORPORATION PRIVATE LTD.—16, Apollo Street, Fort, Bombay. Manufacturers of "SILVER STAR." Brand Wire Healds. Phone : 255261. Grams : "ALTRADCO."**

Consolidated Mill Supplies, Ltd.—Co-operative Insurance Building, Sir Phirozshah Mehta Road.

Damania & Co.—25, Bank Street, Fort.

**DARUWALLA, M. N. & CO.—Dealers in Tallow and all kinds of Mill Stores. 32, Apollo Street, Fort. Phone No. 252715. Tel. Address : "TALLOW."**

Desai, M. S., & Co.—77, Nagdevi Cross Lane, Bombay 7.

**DESAI TUBE & HARDWARE MART.—41, Nagdevi Cross Lane, Bombay 3. Phone : 321606, Grams : "HASTY." Mill Gin Store Suppliers. Pipe Fittings and Hardware Merchants.**

Dewanchand Nikkamall & Co.—126, Narayan Dhuru Street, Bombay 3.

Dinshaw Master & Co., Ltd.—247, Nagdevi Street.

Diwan Bros.—51, Nagdevi Street, Bombay 3.

Dulabhdas, P., & Co.—Samuel Street, Vadgadi.

Duncan Stratton & Co., Ltd.—5, Bank Street, Bombay 1.

Dwarkadas Khetan & Co.—139, Medows Street, Fort.

Eastern Stores & Trading Co.—115-A, Nagdevi Street

Edgar Handley and Company Private Limited.—135, Medows Street, Fort, Bombay.

Ekbal & Co.—Lucky Mansion, Mahomedally Road, Bombay 3.

Empire Trading Co., The.—76-A, Ali Chambers, Tamarind Lane, Fort.

**ENGINEER BROS.—16, Apollo Street, Fort, Bombay. Phone: 251009. Grams : "SHRIJIBAVA." Importers and Manufacturers of Textile Mill Machinery Accessories.**

Engineer, Eruch D., & Co.—Crossley House, Apollo Street, Fort.

Engineering & Agencies Ltd.—Dena Bank Building. Elphinstone Circle.

Esufally Adamji & Co.—134, Nagdevi Street.

Excelsior Mill Supply Co.—Alli Chambers, Medows Street, Fort.

Fulabhai & Company.—134, Medows Street, Fort, Bombay.

Gannon Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Fort.

General Tube Ltd., The.—142-44, Nagdevi Street, Bombay 3.

General Stores Co.—154, Narayan Dhuru Street, Bombay 3.

Getz India Ltd.—Western India House, Sir Phirozshah Mehta Road, Fort.

Ghia, M. C., & Co.—Raja Bahadur Motilal Mansion, 28, Apollo Street, Fort.

The Gin Store Company.—76, Nagdevi Cross Lane, Bombay 3.

Great Eastern Trading Co.—107, Cowasji Patel Street, Fort.

Greaves Cotton & Co., Ltd.—Forbes Street, Bombay 1.

Greentose Corporation (India).—Cama Buildings, 24-26, Dalal Street, Fort.

Haiderbhoy Esmailji & Co.—168, Nagdevi Street, Bombay 3.

Hardcastle, Waud & Co., Ltd.—Alice Building, Hornby Road. Fort.

Harjimal Kidarnath & Co.—87, Nagdevi Cross Lane, Bombay 3.

Hazarat & Co.—People's Building, Sir Phirozshah Mehta Road, Fort.

Hindustan Engineering Co. (Machinery Dept.).—25, Ropewalk Street, Fort, Bombay 1.

Hindustan Tube Company.—163, Nagdevi Cross Lane, Bombay 3.

Hiralal Gokuldas Dalal & Co.—45, Nagdevi Cross Lane, Bombay 3.

Hiralal T., Co.—72-80, Nagdevi Cross Lane, Bombay 3.

Hoosein & Bros., M. A.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort.

Imperial Trading Syndicate.—Podar Chambers, 54, Parsi Bazar Street, Fort.

Indian Commercial Agency.—Regd. Office : Rahimtoola House, 7, Homji Street, Fort.

Indian Commercial Co.—86, Sarang Street (Bhusari Mohalla), Bombay 3. Phone : 30885.

Indian Stores Trading Co.—Sir Vithaldas Chambers, 10, Apollo Street, Fort.

Indo-Bobbins & Textile Co., Ltd.—Jan Mansion, Sir Phirozshah Mehta Road, Fort.

Indo-Bombay Trading Co.—34, Nagdevi Street.

Indo-British Trading Bureau.—7/10, Elphinstone Circle, Fort, Bombay 1.

Indo-Commercial Co., Ltd.—Hamam House, Hamam Street, Fort.

Industrial Engineering Co.—45-47, Apollo Street, Fort.

Industrial Leather Co., Ltd., The.—9, Ash Lane, Fort.

Industrial Machine & Tools Co.—347, Lamington Road, Bombay 7.

Industrial Stores Co.—Seksaria Chambers, 139, Medows Street, Fort.

Industrial Textile Stores.—55-57, Nagdevi Cross Lane, Bombay 3.

Industrial Textile Stores Co.—7-10, Elphinstone Circle, Fort.

**INDUSTRIAL TRADING AGENCIES.—248, Masjid Bunder Road, Bombay 3. Phone : 325838. Grams : "HOSEPIPE." Mill Gin Stores, Hardware, Tools, Pipes & Fittings Merchants, Distributors for "Rocket" Brand Hose Pipes.**

Ishverdas Jugmohandas & Co.—Mubarak Manzil, Apollo Street, Fort.

Ispat Traders.—129, Sarang Street, Bombay 3.

J. Champaklal & Co.—44, Nagdevi Cross Lane, Bombay 3.

Jagmohandas Shamaldas & Sons.—11, Tamarind Lane, Fort.

Jairam Jadhavji & Sons.—74, Nagdevi Cross Lane, Bombay 3.

**JAIRAMDAS & SONS.—163, Narain Dhuru Street, Bombay 3. Grams : "JAIRAMDAS." Phone : 323616.**

James Tools & Hardware Co.—109-11, Nagdevi Street. Bombay 3.

Jamnadas Chaturbhuj & Bro.—92, Vithalwadi, Bombay 2.

Jayashankar Nathalal & Co.—5, Alli Chambers, Tamarind Lane, Fort.
Jhaveri Brothers.—149, Shroff Bazar, Bombay 2.
Jones & Co. (Bombay) Private Ltd., J. D.—Rustom Building, Churchgate Street, Fort.

**JUGMOHANDAS SAMULDAS & SONS.—45, Tamarind Lane, Fort, Bombay 1. Phone : 252100, Grams : "CHEMISTRY." Specialities : Shuttles, Bobbins, Textile Leather Goods Bandings, Twines, & Tapes, etc.**

Kanchan Brothers & Co.—45/47, Apollo Street, Fort.
Kantilal Bhogilal & Co.—Nagdevi Cross Lane.
Khusaldas, J., & Co.—77, Nagdevi Street.

**KISHORECHAND OMPRAKASH.—101, Narayan Dhuru Street, Bombay-3. Phones : 322059, 322325 (Office) & 78707 (Res.). Grams : "CHAINPULLY." Importers of Mill Gin Stores & Hardware. Authorised Stockists of "GEDORE" Tools, "WARRIOR" Taps and Dies, "NETTLEFOLDS", Products and "SPEED" Chain Pulley Blocks.**

Kishor Trading Co.—145, Narayan Dhuru Street, Bombay 3.

**KRISHNA TEXTILE STORES.—19-21, Hamam Street, Fort, Bombay 1. Grams : "DISCIPLINE." Phone : 254348. Mill & Handloom Stores Suppliers.**

**MACHINE TOOLS & IMPLEMENTS.— 93/95, Narayan Dhuru Street, Bombay 3. Phones : Office : 322268 & 322269. Grams : "MACHTOOLS." Telex : 292 BY.**

Maganlal Pranlal & Sons.—105, Nagdevi Street, Bombay 3. Phone : 23015. Grams : "ARMPIPE." Pipe Fittings, Sanitary Wares & Mill Gin Stores. Specialists in Water Meter.
Maganbhai Amin & Co.—105, Apollo Street, Fort.
Mahendraral Textile Stores Co.—Sir Vithaldas Chambers, 16, Apollo Street, Fort.
Mangaldas Jesingbhai & Co.—49, Tamarind Lane, Fort.
Mangaldas & Sons.—Lentin Chambers, Dalal Street, Fort.

**MANOHAR BROTHERS.—4, Commerce House, Medows Street, Fort, Bombay. Phone : 254496. Grams : "LOCOMOTIVE." Branch : 37, Errabalu Chetty Street, Madras. Phone : 23274.**

Mayashanker Thacker & Co.—65, Apollo Street, Fort.
Mehta Brothers.— Hamam House, Hamam Street, Fort.
Mehta Bros. & Co.—78, Apollo Street, Fort.
Mehta, H. P., & Co.—112, Nagdevi Street, Bombay 3.
Mehta Nanavaty & Co.—Barbhai Moholla, 96, Narayan Dhuru Street, Bombay 3.
Mehta Textile & Hardware Stores.—158-160, Narayan Dhuru Street, Bombay 3.
Menty, Naterwalla & Co.—Bombay Mutual Annexe, Gunbow Street, Fort.
Mills Store Co., The.—43, Nagdevi Cross Lane, Bombay 3.

**MILL STORES TRADING CO. OF INDIA PRIVATE LTD.—Mehta House, 79-91, Apollo Street, Bombay 1. Phone : 253354. Grams : "MISTCOLINE."**

Minerva Engineering Stores.—76, Nagdevi Street.
Modern Mill Stores.—97, Nagdevi Street, Bombay 3.
Modern Shuttle Manufacturing Co., Ltd.—15, Forbes Street, Fort, Bombay.
Mody Trading Co.—163, Nagdevi Cross Lane, Bombay 3.

**MOOLCHAND JEYKISHANDAS & CO.—306, Green House, Green Street, Bombay. Phone : 254797 Quality dyestuffs and Optical Whitening agent for textile and Paper Industries and Tanneries. Head Office : Reid Road, Railwaypura Post, Ahmedabad 2. Phone : 22325.**

**MULJIBHAI & CO.—76-78, Nagdevi Street, Bombay 3. Phone : 321891. Grams : "BANDSAWS." Pipes, Fittings, Mill & Gin Stores, Hardware, Tools Merchants & Suppliers.**

Narandas G. Bhatia & Bros.—167, 5th Cavel Cross Lane, Gaiwadi, Bombay 2
Narielwala, B. P., & Sons.—101, Apollo Street, Fort.
Narotamdas Chunilal & Co. (Estd. 1903).—51, Tamarind Lane, Fort, Bombay.

**NEW HIND ENGINEERING CO.—63, Nagdevi Cross Lane, Bombay 3. Phone : 324223. Grams : "HINDENCO." Largest Stockists of Textile Beltings (Hair-Leather-Rubber Canvas, Asbestos Textiles & Jointing Sheets.**

New India Hardware Mart.—152, Narayan Dhuru Street, Bombay 3.
Noble Mill Stores Co.—Western India House, Sir Phirozshah Mehta Road, Fort.
Noble Trade Co.—141, Nagdevi Street, Bombay 3.

**NUTAN TRADING CORPORATION.—83, Nagdevi Cross Lane' Post Box No. 3238. Bombay-3 BR. Grams : "NUTANTRADE." Phones : 323357 (Office) & 474485 (Res.). Manufacturers of "KAUSHIK" Brand Tools—Such as Reamers, Callipers, Dividers, Tool Holders, Engineering Squares etc. Dealers in Tool Bits, End Mills, Centre Drills, Slotting and Side & Face Cutters etc. Stockists of Hardware, Bearings, etc. Branch at : 3350, People Mahadev, Hauzkazi, Delhi-6.**

Ochhavlal, B., & Co.—86, Nagdevi Street, Bombay.
Ormerods (India), Ltd.—Bank of Baroda Building, Apollo Street, Fort.
P. Mohanlal & Company.—44, Nagdevi Cross Lane, Bombay 3.

**PANALAL MOHANLAL & CO.—89, Nagdevi Street, Bombay 3. Direct Importers of Copper, Brass, Galvanised Black Pipes & Fittings and Gun Metal Fitting & Valves. Phone : 323071.**

## P. RATILAL & CO.

**Moti Mahal, 43, Dhanji Street, Bombay 3.**

*Distributors :* "COCKILL'S V-Belts" Manufactured by Fenner Cockill Ltd. Blue-Star : V-Link Belting (Tested quality) Endless Solid Woven Canvass/ Linen/Terylene Belts. Also Importers and Stockists of Crucibles ; All Types of Beltings, Rubber and Asbestos goods.

Telegrams : **"ETERNAL"** 'Phone : **325980**

Paradise Trading Corporation—73/75, Tamarind Lane, Fort, Bombay.
Paramount (India) Ltd.—Kermani Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

**PARAMOUNT TEXTILE AGENCY.—Importers & Manufacturer's Agents. Specialist in Textile Leather Goods, Machine Cloth and Loom Sundries, 45 47, Apollo Street, Fort, Bombay. Phone : 256319. Grams : "BHOPO". Bombay. Head Office : Haridas Acharatlal Market, Kapasia Bazar, Ahmedbad. Phone : 24742. Grams : "PARATEX", Ahmedbad.**

Parekh Bros.—Sangli Bank Building, Behind Reserve Bank, 296, Bazargate Street, Fort, Bombay.
Parikh Brothers & Co.—45-47, Apollo Street, Fort.

**PATEL BROTHERS & CO.—41, Nagdevi Cross Lane, Bombay 3. Phone : 321606. Grams : "HASTY." Mill Gin Stores Suppliers, Pipe Fittings and Hardware Merchants.**

Patel, U. D., & Co.—11, Bank Street, Fort.
Phiroz N. Motabhoy & Co., Ltd.—Motabhoy Building, Corner of Medows and Forbes Streets, Fort, Bombay.
P. Ratilal & Co.—43, Dhanji Street, Bombay 3.

**PICKERS LIMITED.—Manufacturers of Quality Pickers of all Sizes and descriptions, 43, Tamarind Lane, 4th Floor, Fort, Bombay. Head Office : Ellis Bridge, Ahmedabad 6. Grams : "COWSIE," Bombay & Ahmedabad. Bombay Office Phone No. 253707.**

Pioneer Hardware & Engineering Corporation.—Sangli Bank Building, 296, Bazargate Street, Fort, Bombay.
Printer, D. P., & Co.—1, Bruce Street, Fort.

**PUNEGAR, N. E. & CO.—"ACME" Compounds for Descaling Boilers & Economical "ACME" Anti-corrosive Application (Block Paint) for Metallic Plants, Union Bank New Building, Dalal Street, Fort, Bombay 1. Phone No. : 253178. Grams : "ACMECOMPO," Bombay.**

R. C. Traders.—Lentin Chambers, Dalal Street, Fort, Bombay.

**R. R. JINDE & CO.—14, Mohan Nivas, Chandavarkar Road, Bombay 19. Grams : "GOLDENHILL." Phone : 472267.**

Reliance Stores & Trading Co.—Raja Bahadur Building, 43, Tamarind Lane, Fort.
Reliance Trading Co.—25/47, Lohar Street, Bombay 2.
Repute Engineering Co.—165, Narayan Dhuru Street, Bombay 3

**R. MOHANLAL & CO.—38, Bibijan Street, Bombay 3. Phone : 324929. Grams : "HANDTAPS." Speciality : All kinds of Asbestos Packings, Jointings, Leather & Rubber Beltings, Vulcanised Fibre Sheets and allied Accessories.**

Roberts, McLean & Co. Private Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Fort.
Ruby Trading Co.—Sambava Chambers, Sir Phirozshah Mehta Road, Fort.
Sardesai & Company.—14, Murzban Road, Fort, Bombay.

**SAURASHTRA WIRE HEALDS MFG. CO. PRIVATE LTD.—Manufacturers of Wire Healds. Sole Selling Agents : Madhu Corporation, Sanghavi Chambers, 27, Ghoga Street, Fort, Bombay. Phones : 253502 (Office) & 40634 (Resi.). Grams : "VIRVANDAN" and "MADHUCORP." Factory : 18, Udyoganagar, Bhaktinagar Station Road, Rajkot (Saurashtra). Phone : 943. Grams : "WIREHEALDS," Rajkot. Managing Directors : M. K. Sanghavi ; Madhu Sanghavi.**

Sethna, Katrak & Co.—Tamarind House, 30, Tamarind Lane, Fort.

**SHAH PATEL & CO.—111, Nagdevi Street, Bombay 3. Phones: 324309 and 321377. Grams: "LUCKYCHAP." Manufacturers of Flat & Grooved Pulleys, and shaft couplings. Stockists of Ball Bearings, Shafts, Beltings, etc. "Nirmill" Rubber Beltings.**

Shamsun & Co.—11, Bruce Street, Fort.
Shantilal Sheth & Co.—Bansilal Mansion, Bruce Street, Fort.
Sheth, S. C., & Co., Ltd.—Raja Bahadur Mansion, 14, Hamam Street, Fort.
Shree Vijay Trading Corporation.—71/73, Apollo Street, Fort.
Shri Shakti Trading Co.—22, Apollo Street, Fort.
Shroff Bros. & Co.—7-9, Elphinstone Circle, Fort, Bombay.
Siraj, A. H., & Co.—145, Janjikar Street, Bombay 3.
Sizing Materials Co., Ltd.—Jeroo Building, Mahatma Gandhi Road, Fort.
S. Sevantilal & Co.—246, Masjid Bunder Road, Bombay 3.
Standard Mill Stores Co.—41, Bruce Street, Fort.
Standard Trading Agency.—Seksaria Chambers, 139, Medows Street, Fort.
Standard Trading Co.—Vithal Sayana Building No. 2, 43-75, Lohar Street, Bombay 2.

**STAR TRADING CO. PRIVATE LTD., THE.—Bank of Baroda Building, 12, Apollo Street, Fort, Bombay. Textile Engineers and Merchants. Phones: 253480 and 251357. Grams: "STARTRADE." Importers of Textile Machinery.**

**SUN STORES PRIVATE LTD.—61, Churchgate Reclamation, Bombay 1. Phone: 242174. Grams: "SUNMART." Manufacturers of "SUN" Brand Leather, Lattice Belts, Condensor Rubbing Leathers, Tapes, Stockists of Maize, Starch Beta Pickers, Fibre Card Cans, Aluminium Springs.**

Sunderlal & Sons.—Narayan Dhuru Cross Lane, Pranjivan Building, Bombay 3.

**SUNSHINE TRADERS.—3, Hamam Street, Fort, Bombay. Phone: 251631. Grams: "SUBHMANGAL." (1) Manufacturers of Spindle tapes, Cotton listings, Venetian blind tapes, Zip Tapes, Bleached Tapes, Cotton & Manila Ropes, Tubular bandings, Bundle bandings and Cotton bandings; (2) Manufacturers of spindle tapes and listings and textile stores suppliers; (3) Manufacturers of Egyptian tapes and webbings.**


**SUPREME MILL STORES**

**36, Bhajipala Lane, Bombay-3.**

**Phone: 325150. Grams: "SUPMILISTO"**

AUTHORISED STOCKISTS

**Of Hindustan Ferodo Fire Fly Asbestos Packings, Jointings, Sheets.**

MANUFACTURERS:—

**"SUMISTO" 85% Magnesia, "SUPREME" Red Liquid Indicator for remote controlled water level of boilers.**


Talib & Co.—Talib House, 104, Nagdevi Street, Bombay 3.
Teamsan Traders.—Post Box No. 3162, Nagdevi Street, Bombay 3.
Techno-Industrial Co.—107, Sir Vithaldas Chambers, 16, Apollo Street, Fort, Bombay.
Textile Machinery Corporation, Ltd.—254-A, Annie Besant Road, Worli, Bombay 18.
Textile Supplies Syndicate (India), Private Ltd.—India House, 1st Floor, Opp. G.P.O., Bombay.

**THAKORLAL & CO.—47, Nagdevi Cross Lane, Bombay 3. Phone: 321498. Grams: "PIPEWARE." Dealers in Pipes, Fittings & Mill Gin store.**

Tribhovandas Sons Ltd.—70, Dadyseth Agiary Lane, off Kalbadevi Road, Bombay 2.
Trinity Industrial Stores.—72-74, Nagdevi Street, Bombay 3.
Trinity Textile Traders.—Seksaria Chambers, 139, Medows Street, Fort.
Trivedi Textilaties & Company.—9, Ash Lane, Fort. Mill Gin Stores Suppliers & Machinery Merchants.
T. U. Patel & Sons, Ltd.—Huseini Chambers, 33, Nanabhai Lane, Fort, Bombay 1.

**U. D. PATEL & COMPANY PRIVATE LTD.—11, Bank Street, Fort, Bombay. Phone: 254554. Grams: "UDIPATEL," Bombay & Akola. Mill Gin Stores and Hardware Dealers. Sole Agents for: M.L.F. Brand Chrome Composite Ginning Washers, Eccentric drive Ball Bearing Conversion Sets for single Roller gins; "Pagoda" & "Sun" brand Leather Beltings; Oil Engines, Pumps, Electric Motors, etc.**

Universal Supply & Trading Co.—Ismail Building, 381, Hornby Road, Fort.
Universal Tanneries, Ltd.—Dharavi, Bombay 17.
Universal Trading Co.—79, Mohamedi House, Mohamedalli Road, Bombay 3.

**V. CHUNILAL & CO.—19, Bibijan Street, Bombay 3. Phone: 328370. Bolts, Nuts, Hardware & Tool Merchants.**

Vadilal, H., & Co.—13, Tamarind Lane, Fort.
Vasantlal Vadilal & Co.—215-17, Samuel Street, Vadgadi.
Victor Trading & Engineering Co. Pvt. Ltd.—Victor House, Jacob Circle, Bombay 11.
Vinod Mehta & Co.—22-B, Noble Chambers, Parsee Bazar Street, Fort.
Viswabharati Trading Co.—Kumpta Street, Ballard Estate, Bombay 1.
Vithaldas, G., & Co.—60, Nagdevi Cross Lane.
Voltas Ltd.—19, Graham Road, Ballard Estate, Bombay 1.
Waghji Lakhmidas & Co.—206, Samuel Street, Vadgadi.
Wallace, P. R., & Sons, Ltd.—Elphinstone Building, 10, Vir Nariman Street, Fort.
Western Engineering Co.—Western India House, Sir Phirozshah Mehta Road, Fort. P. O. Box 75.
Western Textile Corporation.—Prospect Chambers Annexe, Hornby Road, Fort.

## MINE OWNERS

**NAKIMPEX TRADERS.—24, Veer Nariman Road, Bombay-1. Phone: 252906. Grams: "NAKIMPEX."**

## MINERAL MERCHANTS

**AMAR MINERALS PRIVATE LTD.—Alice Buildings, 339, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Phone: 255771. Factory: Netivali Baug, Kalyan. Dealers in all kinds of Minerals such as 85 per cent Asbestos Magnesia, Barytes, Bentonite, Red Oxide, Talc, etc.**

Bajaj Textile Mills Ltd.—384M, Kalbadevi Road, Bombay 2.
Baldota Brothers.—43, 2nd Bhoiwada, Bombay 2.
Bapusaheb M. & Co.—Bharat House, 3rd Floor, Apollo Street, Fort, Bombay.
Bhiwandiwalla A. H. & Co. (Bombay) Ltd.—93-95, Kazi Syed Street, Bombay 3.
Central Hindusthan Italian Trading Co. Ltd.—C/o G. Atherton & Co. Ltd., 28, Apollo Street, Bombay.
Champaklal Morarji & Co.—193, Samuel Street, Bombay 9.
Chimanlal Patel & Co.—124, Hornby Road, Fort.
Coal Mining & State Minerals Ltd.—Alice Bldg., Hornby Road, Fort.
Dandekar Company.—Bombay Mutual Annexe, Fort, Bombay 1. Phone: 261038. Grams: "SHEKHAR".
Dayashanker Bhatt & Co.—Manu Mansion, 16, Custom House Road, Bombay 1.
Devidayal (Sales) Private Ltd.—Tulsiram Gupta Mills Estate, Mazagaon, Bombay 10
Ferro Metal & Chemical Corporation.—Bhupat Bhuvan, 80, Nepean Sea Road, Bombay 6.

**GANPAT HARJIVAN.—114, Nagdevi Street, Bombay 3. Phone: 321238. Grams: "CLAY."**

Gujarat Clay Mills.—246, Reay Road, Bombay 10.
Hariram Dinanath.—Oriental Bank Building, 65, Mahatma Gandhi Road, Fort, Bombay.
Hindustan Manganese Mines Ltd, The—93-95, Kazi Syed Street, Bombay 3.
Hindusthan Mineral Products Co. Private Ltd., The.—111, Industrial Area, Sion, Bombay 22DD.
Indian Mineral Supply Co.—14, Western India House, Sir Phirozshah Mehta Road, Fort.

**INDUSTRIAL MINERALS & CHEMICAL CO.—125, Narayan Dhuru Street, Bombay 3. Phone: 323721 (3 lines). Grams: "IMCHEL." Chemicals & Mineral Merchants and Stockists of raw material for all Industries.**

Iron & Metal Traders Ltd.—Off Magazine Street, Near Reay Road Station, Mazagaon, Bombay 10
Jagannath Gupta & Co. Ltd.—(Manganese Department), 7, Vishnu Mahal, 'D' Road, Churchgate Extension, Bombay.
Javeri Traders.—Lakhmi Building, 34, Cawasji Street, Fort, Bombay.
Kajaria Traders (India) Ltd.—325, Kalbadevi Road, Bombay 2.
Kerala Trading Co.—35, Bombay Mutual Annexe Building, Gunbow Street, Fort, Bombay 1.
Khandelwal Brothers Private Ltd.—Khandelwal Bhavan, 166, Dadabhai Naoroji Road, Bombay.
Khandelwal Mining Corporation.—6, Itola Street, Opp. Argyle Road, Carnac Bunder, Bombay 9.
Khemka (Agencies) Private Ltd.—Vulcan Insurance Building, 202-A, Veer Nariman Road, Churchgate Reclamation, Bombay 1.

Kirtikumar & Co.—80, Bhandari Street, Mandvi, Bombay 3. Phone: 20583. Grams: "LALITKIRTI."
Mercantile Trading Co.—Gulzare Kasim, Mazagaon, Bombay 10.
Mineral Mining Co., Private Ltd., The—111, Industrial Area, Sion, Bombay 22DD.
Nagri Mining Co. Private Ltd.—Sambava Chambers, Sir P. M. Road, Fort, Bombay.

**NAKIMPEX TRADERS.—24, Veer Nariman Road, Bombay 1. Phone No. 252906. Grams: "NAKIMPEX."**
National Industries of India.—Sambava Chambers, Sir Phirozshah Mehta Road, Fort.
Natwarlal Shamaldas & Co.—94, Medows Street, Fort, Bombay.
New Bharat Grinding Mills.—Near Animal Hospital, Govt. Gate Road, Parel, Bombay 12.
Overseas Trade & Agencies (India).—Beaumon Chambers, Medows Street, Fort, Bombay.

**PRABHULAL L. PANDYA & CO.—26, Podar Chambers, Parsi Bazar Street, Fort, Bombay 1. Phone: 251794. Grams: "PRAPANDYA." Mineral and Salt Merchants, Stevedores and Dubashes, Freight and Chartering Brokers, Steamship, Clearing & Forwarding Agents, Branches: Okha, Jamnagar, Bhavnagar, Veraval, Porbander, Navlakhi, Gandhidam (for Kandla).**

**PRAVIN BROTHERS & CO.—501, Commerce House, Medows Street, Bombay 1. Phones: 251748 & 252419. Grams: "WIDE-SCOPE." Importers, Exporters and Agents: Sulphur-Chemicals-Solvents, Fertilizers, Pyridene Base, Minerals-Lime-Jute-Products. POLYSOL. S-5, POLYSOL. 6, Gypsum.**

Pitty Brothers Ltd.—20, Hamam Street, Bombay.

**QUALITY MINERAL SUPPLY SYNDICATE.—44, Old Custom House Road, Fort, Bombay. Phone: 251835. Grams: "SYMPATHY." Dealers in all kinds of Minerals such as Asbestos, Barytes, Bentonite, Calcite, China Clay, Soapstone, Activated Fullers Earth, etc.**

Ram Bahadur Thakur & Co.—11-B, Noble Chambers, Ghoga Street, Bombay.

**RAJ CORPORATION.—207, Samuel Street, Bombay-3. Mine Owners and Suppliers of Bentonite and other minerals to Industrial Concerns and Retail and Wholesale Dealers. Phone: 327664.**

**S. RATILAL & CO.—268, Frere Road, Bombay 1. Mfrs. of China Clay, Calcium Carbonate, French Chalk, whiting Calcite, Barytes Red, Oxide, Limestone, Graphite, Bentonite, Bauxite, Silica-Gel etc. for Textile mills, Rubber, Paints, Foundries etc. Phone: 264666.**

Sepulchre Brothers (India) Ltd.—Taj Building, D. Naoroji Road, Bombay.
Sharma & Sharma.—Oriental Bank Building, 65, Mahatma Gandhi Road, Bombay.
Shethia & Co., S. D., Ltd.—Podar Chambers, Parsi Bazar Street, Bombay 1.
Shivrajpur Syndicate Ltd., The.—Home Street, Fort, Bombay.

**SHREE SATYA & CO.—For Industrial Minerals—Dolomite, Graphite, Coal-Dust, Fire-Clay, Fire-Bricks, Black Lead, Silica Powder and all Foundry Materials. 2, Pittalwala Building, Batliwala Road, Parel, Bombay 12. Phone: 60451. Grams: "BHOOMAYA".**

Standard Pulverising Co.—Atlas Mill Compound, Reay Road, Bombay 10.
Tavaria Bros.—Dhan-Nur, Sir Phirozshah Mehta Road, Fort.

**UNIVERSAL MINERALS & CHEMICAL CO.—7/10, Horniman Circle, Fort, Bombay 1. Phones: 255110 and 254145. Grams: "UNIVERSAL." Dealers & Manufacturers of Minerals for Paints, Rubber, Textile Engineering, Glass and Paper Industries.**

Vaswani (India) Private Ltd.—496, Kalbadevi Road, Post Box No. 2009, Bombay 2.

**VORA TRADING CO.—357-A, Samuel Street, Vakil Bldg., Vadgadi, Bombay 3. Phone: 325289. Grams: "MULTI-SALES", Bombay, Mandvi.**

Wallem & Co.—India House, Opp. G.P.O., Bombay.
Western India Trading Co., The—Jan Mansion, Sir P. M. Road, Bombay.

## MINING MACHINERY & EQUIPMENT

**KILBURN & CO. LTD.—Gresham Assurance House, Pherozshah Mehta Road, Fort, Bombay 1. Phone: 251908. Grams: "TASCONIUM".**

## MONSOON REQUISITES

Arco Agencies.—Bam House, Gunbow Street, Fort, Bombay 1. Phone: 26-1208.

**PRAMODKUMAR & CO.—Prospect Chambers, 4th Floor, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Dealers in Rain Coats, Gum Boots, Umbrellas & Tarpauline, Winter Wear & Footwear.**

## MOTORS AND TRUCKS (AUTOMOBILES)

Advance Trading Corporation.—Bhangwadi, Kalbadevi Road, Bombay 2.

**AGARWAL FINANCE CORPORATION.—Hire Purchase of all motor Vehicles, Tata Mercedes, Dodge, Bedford Chassis and Cars, Brand New and Second Hand. 123, Mahatma Gandhi Road, Bombay-1. Phone: 256653. Grams: "RITE-WEL."**

Allibhai Premji Tyrewalla.—211, Lamington Road, Bombay 7.
Asian Motor Car Co.—Ramchandra Mansion, Sandhurst Road.
Automobile Co., Ltd.—41, Queen's Road.
Bombay Garage Ltd.—Meher Building, Chowpatty, Bombay 7.
Bombay Motors & Radios Ltd.—33, New Queen's Road.

**BOMBAY SCOOTER & MOTOR AGENCY.—43, Queen's Road, Bombay 2. Phone: 20086. Grams: "SRETOOCS." Distributors for Lambretta Scooters, Three Wheelers and Scooterettes.**

Car Mart Ltd.—Pratt's Building, Hughes Road.
Continental Auto Stores.—Tram Terminus, Opera House.

**DADAJEE DHACKJEE & CO. PRIVATE LTD.—Automobile Engineers; Dealers for HINDUSTAN Tractors, Tractor Accessories and attachments; Distributors for Lambretta Scooters, Scooterettes & Three-Wheeler Delivery Van & Rickshaw Chassis; Patenteer of Specially designed "PR" type streamlined Vans on Lambretta Three-Wheeler Chassis; Distributors for Rolls-Royce, Bentley, Hillman, Humber & Sunbeam Cars & Commer & Karrier Commercial Vehicles; Importers & Dealers of Automobile Spare Parts & Accessories; Distributors for "WOLF" Electric Tools & Equipment; Manufacturers of "NULIFE" Automobile Batteries. Distributors for Pentol Additive. Sandhurst Bridge, Bombay 7. Grams: "PROMPT," Bombay 7. Phones: 22021/23. Workshop: 74629.**

Eastern Motor Corporation.—Indira Nivas, Bhatwadi, Girgaum.
Empire Automobiles.—Junction of New Queen's Road and Lamington Road.
Foreign Products Distributing Co.—491, Sandhurst Road, Bombay 4.
French Motor Car Co., Ltd.—9-11, Hughes Road, Bombay.
Garware Motors Engineering Private Limited.—Chowpatty Chambers, Sandhurst Bridge, Bombay 7.
Harvan Motor House.—"Kapol Nivas", Sandhurst Road.

**IDEAL MOTORS SERVICE DEPT.—Bombay Mutual Annexe, Cawasji Patel Street, Fort. Phone: 262660 and Office: Sitaram Building, Dr. Dadabhoy Naoroji Road, Bombay 1. Phone: 263485. Distributors of Jawa Motor Cycles, Cycles & Spare Parts. Grams: "IDEALMOTOR."**

Imperial Motors.—Parekh House, 14, New Queen's Road.
Indian Automobile Co., Ltd.—2-4, Apollo Street, Fort.
Lincon Motors.—Marina Mansion, Sandhurst Bridge.
Lucas Indian Service Ltd.—15, New Queen's Road.
Mahindra & Mahindra Ltd.—Gateway Building, Apollo Bunder, Bombay 1.
Metro Motors, The.—Motor House, Hughes Road, Bombay 7.
Nizel Motors.—7-A, Princess Avenue, Bandra, Bombay.
Noble Cycle & Motor Co.—Commissariat Building, Hornby Road.
Patel, F. M., & Co.—Ramchandra Mansion, Sandhurst Road, Bombay 4.
Patel, N. D., & Co.—180-82, Princess Street.
Premier Automobiles Ltd.—Agra Road, Bombay 37.

**PREMIER AUTOMOBILES LTD.—Office: Construction House, Ballard Estate, Bombay-1. Phones: 262125-26. Grams: "PREMBOILES." Factory: Agra Road, Kurla, Bombay-70. Phone: 55111. Manufacturers of Dodge, Plymouth & Fiat Cars & Fargo Trucks.**

Rapid Cycle & Motor Co., Ltd.—Opp. Edward Theatre, Kalbadevi Road.
Shetty Automobiles.—Opera House Tram Terminus.
Society of Motors Manufacturers and Traders, Ltd.—National Insurance Building, 27, Bastion Road, Fort.
Tata Locomotive & Engineering Co. Ltd.—148, Mahatma Gandhi Road, Bombay 1.
United Motors (India), Ltd.—Hughes Road.
United Overseas Service.—16, New Queen's Road, Bombay 4.

## MOTOR BODY BUILDERS

**ANAND AUTOMOBILES.—Bus and Truck Body Builders, Bombay Agra Road, Mulund, Bombay 80. Phone: 583151.**

**BHARATI WORKSHOP.—Office: 20, Wadi Bunder Road, Mazagaon, Bombay 10. Phone: 76129. Factory: 167, Central Salsette Road, Kalina, Santa Cruz (East), Bombay 55. Phone: 531371. One of the Oldest Motor Body Builders in Bombay. Accredited Motor Body Builders & Central and Maharashtra State Governments, Factories and Leading Firms.**

Hiralal & Company (Estd. 1927).—Petit Compound, Kennedy Bridge, Bombay 7.

**JAYANAND KHIRA AND CO. PRIVATE LTD.—Office & Showroom: Khira Bhavan, Sandhurst Bridge, Bombay 7. Phones: 30097-98. Grams: "SWAKALA." Manufacturers of Bus Bodies and Bus Body Kits and K-plan Wooden Furniture. Laminated Block boards and Flushdoors.**

Regal Motors.—Old Victoria Mills Compound, Gamdevi, Bombay 7.

Royal Auto Works.—Tanker Ville Estate, 200, Gowalia Tank Road.

**RUBY INDUSTRIES.—Motor Body Builders (on Government & Municipal List), 75, Dr. Annie Besant Road, Worli, Bombay 18. Phone: 70538. Grams: "MOTORBODY." Associates: Ruby Industries (Ahmedabad).**

Sam Ruston & Co.—31/33, Mangalore Street, Ballard Estate.

Sewri Engineering Works.—234, Sewri Road, Bombay 15.

## MOTOR (BUS & COACH) BODY BUILDING MATERIALS

**Associated Auto Parts Ltd.—445, Lamington Road, Bombay 4.**

**JEFFERBHAI & CO.—106-108, Bhendi Bazar, P.O. Box No. 3055, Bombay 3. Phone: 333324. Grams: "NECESSITY." Dealers in P.V.C. Leather Cloth, Canvas, Motor Accessories, Felt, Celluloid, Aluminium Sections, Rubber Sections, Sponge and Foam Cushion, etc.**

**JYOTI MOTOR ACCESSORIES.—Contractor Bldg., No. 1, Opp. Prarthana Samaj, Bombay 4. 138, New Charni Road, Bombay 4. 342, Sardar V. P. Road, Bombay 4. Grams: "JAGJYOTI." Phone: C/o 22550. Importers & Stockists of Jagger's Bus Body Fittings, PVC Leather Cloth, Upholstery Materials, Rubber Mattings, etc. Distributors of Jyoti Brand P.V.C. Leather Cloth, Manufactured by Jyoti Industries, Bombay 62.**

Mamaji & Son (Private) Ltd., Y. A. (Estd. 1885).—136/38, Sir Ebrahim Rahimtulla Road, Bombay 3.

McKenzies Ltd.—Sewri.

**MOHAMEDALLY NOORBHAI & CO.—144-148, Ibrahim Rahimtoola Road, Bombay 3. Phone Nos.: 333068 & 333763. Grams: "CABRUBBER. Direct Importers, Dealers in Motor Carriage, Bus Body Fittings & Accessories, Hood & Upholstery materials, P.V.C. Leather Cloth, Aliminium section & Circles, Celluloid Sheets, Rubber Mattings, Flag Brand Cab Tyres. Branches at Calcutta, Madras & Lucknow.**

Mehta, J. V., & Co.—Opera House Tram Terminus, Bombay 4.

Motor Hood Depot.—Nair Building, 480, Sandhurst Road, Bombay No. 4.

N. B. Fadia & Co.—493, Sandhurst Road, Bombay 4.

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Safeglas Corporation Private Ltd.—95, Dhanji Street, Bombay 3.

Shah & Sunder.—7/10, Horniman Circle, Bombay 1.

S. S. Prabhu.—Ghamat Terrace, opp. Dadar (Western Rly.) Station, Bombay 14.

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Automobile Resort Co.—Corner of Wittet Road, Ballard Estate.

Batliboi & Sons.—Standard Vacuum Service Station, Hughes Road.

Bombay Tyre Service.—28, Ibrahim Rahimtoola Road, Near J. J. Hospital, Bombay 3.

Dunlop Rubber Co. (India), Ltd.—"Dunlop House," Hughes Road.

Empire Automobiles.—Junction of New Queen's Road & Lamington Road.

Firestone Tyre & Rubber Co. of India, Ltd.—Hay Bunder Road, Sewree.

Goodyear Tyre and Rubber Co. (India), Ltd.—7-9, Mathew Road.

Greaves Cotton & Co., Ltd.—1, Forbes Street.

Harvan Motor House.—Kapole Nivas, Sandhurst Road.

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Indian Automobile Co., Ltd.—4, Apollo Street, Fort.

J. V. Mehta, & Co.—Opera House Tram Terminus, Lamington Road, Bombay 4.

Lucas Indian Service, Ltd.—New Queen's Road.

Mehta Motor Stores.—Banji Nivas, Sandhurst Road, Bombay 4.

Modern Auto Stores.—Vallabh Terrace, Sandhurst Road.

Mody Brothers.—Raval Building, 430, Lamington Road.

Motor Trade Supply Co.—Parekh Mansions, Sandhurst Road.

Noorbhai Jivaji.—Tyebi Manzil, Bhendy Bazar, near Tram Junction.

Overseas Trading Corporation.—Nusser House, New Queen's Road.

Patel, J. B., & Co.—Contractors Building, 6, Lamington Road.

Provincial Motor Car Co., Ltd.—Opp. Opera House, New Queen's Road, Bombay 4.

Rane, Limited.—New Queen's Road.

Royal Cycle & Motor Works.—Jariwala Mansion, Hughes Road.

United Motors (India), Ltd.—Arthur Bunder, Colaba.

Victoria Motor Stores.—Dwarkadas Mansions, Sandhurst Road.

## MOULDING MACHINES AND BOXES

Batliboi & Co. Private Limited.—Regd. Office: Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR.). Phones: 255451 (6 lines). Grams: "BATLIBOICO." Telex: 284. City Branch: Batliboi House, 59/61, Nagdevi Cross Lane, Bombay-3 (BR.). Branches: Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate: Bangalore 2. Resident Representatives: ERNAKULAM, RANCHI.

**HINDUSTHAN ENGINEERING WORKS.—7/c, Pitambir Lane, Mahim, Bombay 16. Phone: 451408. Grams: "DICHROMATE." Air Compressors, Chemical Engineering Equipment, Founders and Foundry Equipment, Industrial Engineers, Material Handling and Conveyors, Moulding Machines and Boxes, Steel Doors and Windows and Tank Manufacturers.**

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**B. Ardeshir & Co.—438, Kalbadevi Road, Bombay 2.**

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**Furtado, B. X., & Sons.—Jer Mahal Estate, Dhobi Talao.**

**Gramophone Company Ltd.—(Inc. in England with Limited Liability). Bombay Office: Universal Building, Sir Pherozshah Mehta Road, Fort.**

**Haribhaoo Vishwanath Co.—Opp. Dadar (Western Rly.) Station, Dadar, Bombay 14.**

**HIRO MUSIC HOUSE.—23/C, Sir Phirozshah Mehta Road, Bombay 1. Phone: 257352 & 253690. Dealers in Records & Radios.**

**James & Co.—Navsari Building, Hornby Road, Fort.**

**Mehta, J. V., & Co.—Opera House Tram Terminus, Bombay 4.**

**Rose, S., & Co. Ltd.—Rampart House, Rampart Row, Fort.**

**Ruby Record Company.—8/10, Tamarind Lane, Fort.**

## MYROBALANS

Badheka & Co.—Noble Chambers, Parsi Bazar Street, Fort.

Bhagwandas, H. & Co.—104/108, Clive Road, Dana Bunder, Bombay 9.

Bholaram Agarwal—220, Bhat Bazar, Bombay 3.

Capitol Colour & Chemical Co.—77/87, Mirchi Street, Vadgadi, Bombay 3.

General Trading Co.—220, Bhat Bazar, Bombay 3.

Jivanlal, C., & Co.—Azad Bhuvan, Masjid Bunder Road, Bombay 3.

Joshi Jivandas Gangaram & Co.—282, Narshi Natha Street, Bombay 9.

Karsandas Haridas.—Argyle Road, Bombay 9.

Karsandas, Ramdas—Argyle Road, Bombay 9.

Karamsee Tricamji—51/55, Clive Foad, Dana Bunder, Bombay 9.

Lalji Birji & Co.—Argyle Road, Bombay 9.

Laxmi Trading Co.—86, Vir Nariman Road, Fort, Bombay 1.

Mansukhlal, R. & Co.—51/55, Clive Road, Bombay 9.

Narayan Anant.—Khand Bazar, Bombay 3.

Poonjiajee Jehangir, J. M.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort.

Purshotam Mathradas & Co. Private Ltd.—3, Mherwan Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Rex Commercial Corporation, Ltd.—Central Bank Building, Bruce Street, Fort, Bombay 1.

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## NEON LIGHTINGS

Brilliant Neon Signs Co.—Readymoney Mansion, Vir Nariman Road, Bombay 1.

**"CHANDRAKIRAN".—Neon Signs Manufacturers, Electrical Dealers & Engineers & Govt. Electrical Contractors. Dhan-Nur, 4th Floor, Sir Phirozshah Mehta Road, Bombay 1. Phones: 263660 & 266428. Showroom: 88, Sion Circle, Bombay 22. Phone: 471606. Grams: "LITERODS."**

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**GUNVANTRAY & COMPANY.—Crescent Chambers, 1st Floor, Tamarind Lane, Bombay 1. Phone: 254684. Grams: "GUNARAYCO."**

## NEWSPAPERS (OVERISSUED & OLD)

Gulabchand Nathalal & Co.—45, Mirchi Lane, Bombay 3.
Indian Commercial Co., Ltd.—45-47, Apollo Street, Fort, Bombay.

## NEWSPAPERS AND PERIODICALS

### ENGLISH

#### DAILY

**"ECONOMIC TIMES."—Times Building, Dr. Dadabhoy Naoroji Road, Fort.**

**"EVENING NEWS OF INDIA."—Times Building, Dr. Dadabhoy Naoroji Road, Fort.**

'Financial Express."—Newspaper House, Sassoon Dock, Colaba.

**"Free Press Bulletin."—21, Dalal Street, Fort.**

"Hindusthan Standard" (English Daily from Calcutta).—Bombay Office: United Bank of India Bldg., Sir Phirozshah Mehta Road, Bombay 1.

"Indian Express."—Standard Press, Colaba.

**"TIMES OF INDIA."—Times Building, Dr. Dadabhoy Naoroji Road, Fort.**

#### WEEKLY

"Bharat Jyoti."—21, Dalal Street, Fort.
"Blitz."—Blitz Publications Private Ltd., 17/17-H, Covasji Patel Street, Fort.
"Commerce."—Brady House, Veer Nariman Road, Fort.
"Current."—Meher House, Cawasji Patel Street, Bombay 1.
"Economic Weekly."—Sonawala Building, 65, Apollo Street, Fort.

**EVE'S WEEKLY (India's Premier Women's Magazine).—Sanj Vartaman Press, Apollo Street, Fort, Bombay. Price: 25 P. per Copy (pp. 48). Annual Subscription Rs. 12 (Inland), Rs. 24 (Foreign). Editor: M. D. Japheth. Advt. Manager: B. R. Chopra. Advertisement Rates: Casual. Full Page Rs. 1,000, Half Page Rs. 500, Quarter Page Rs. 250. Contract. Full Page Rs. 900, Half Page Rs. 450, Quarter Page Rs. 225. Colour Page Rs. 1,500. Phones: 255361-2-3. Grams: "EVES-WEEKLY."**

"Examiner."—35, Dalal Street, Fort.
"Film Polities."—208, Vincent Road, Dadar.

**"ILLUSTRATED WEEKLY OF INDIA."—Times Building, Dr. Dadabhoy Naoroji Road, Fort.**

"Janata."—National House, 6, Tullock Road, Apollo Bunder.
"Racing Times."—A/31, Anand Nagar, Forjett Street, Cumballa Hill, Bombay 26.
"Screen."—Newspaper House, Sassoon Dock, Bombay 5.
"Sunday Standard."—Newspaper House, Sassoon Dock, Bombay 5.
"Tide."—143, Mahatma Gandhi Road, Bombay 1.

**"TIMES OF INDIA" (Sunday Edition).—Times Building, Dr. Dadabhoy Naoroji Road, Fort.**

#### FORTNIGHTLY

"Bhavan's Journal."—Bharatiya Vidya Bhavan, Chowpatty, Bombay 7.

**"FEMINA."—Times Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay.**

**"FILMFARE."—Times Building, Dr. Dadabhoy Naoroji Road, Fort.**

"Goan Tribune."—Kamani Chambers, Nicol Road, Ballard Estate.

"Industrial Times."—Sanj Vartaman Press, Apollo Street, Fort.

"Onlooker."—Seervai Building, 20-G, Sleater Road, Bombay 7.

#### MONTHLY

"Imprint."—F. & S. Distributors (P) Ltd., C/o Little & Co., Central Bank Building, Bombay 1.

"India's Stamp Journal."—Standard Building, Dr. Dadabhoy Naoroji Road, Fort.

'Indian Journal of Medicine Sciences."—Khetwadi Main Road, Bombay 4.


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"Journal of the Indian Medical Profession."—United India Building, Sir Phirozeshah Mehta Road, Fort.

"Mirror."—Eve's Weekly (P) Ltd., Sanj Vartaman Press, Apollo Street, Fort, Bombay 1.

**"MOTHER INDIA" (Formerly Filmindia).—The Most Exciting Magazine in the World. The largest circulated Monthly Magazine in India, Sir Phirozshah Mehta Road, Fort, Bombay, India. Price Rs. 3 per copy. Annual subscription Rs. 35 (Inland); Rs. 48 or 70 Shillings (Foreign); Mg. Editor: Baburao Patel, Editorial Director: Mrs. Sushila Rani Patel, Manager: Mr. Suryakant Patel. Advt. rates Rs.7.20 per col. cm. (5 cm.) and Rs. 9.60 per col. cm. (7 cm.). For 1st and 4th Cover 3 Colours, Centre Spread 2 Colours and other Special Advertisement, Special quotations will be given from month to month. Phone No.: 261752.**

**"RADIO TIMES OF INDIA."—29, New Queen's Road, Bombay 4. Phone No. 30081-82. Grams: "ETHERWAVE." Edited by D. D. Lakhanpal, B.A., B.Sc. (Tech.) (Manchester), A.M.C.T., M.I.E. (India), M.I.E.E. (London), M., Britt I.R.E. Published monthly on the 5th of every month.**

"Readers Digest."—5, Lotus Court, Jamshedji Tata Road, Bombay 1.

"Students Digest."—22, Apollo Street, Bombay 1.

"Trend."—Sanj Vartaman Press, Apollo Street, Fort, Bombay 1.

#### QUARTERLY & HALF-YEARLY

"Bombay Hospital Journal."—Bombay Hospital, 10, Marine Lines, Bombay 1.

"Links."—(Bi-Monthly), The State People Press, Ghogha Street, Bombay 1.

**"OCEANITE."—The Maritime Magazine of India, 204, Dr. Dadabhai Naoroji Road, Fort, Bombay 1. Phone No. 26-3052.**

"Probe."—(Bi-Monthly) The Himalaya Drug Co., 251, Dr. D. N. Road, Bombay 1.

"Quest."—(Quarterly) Army & Navy Building, 148, Mahatma Gandhi Road, Bombay 1.

ANNUAL

"Industrial India Annual."—United India Building, Sir Phirozeshah Mehta Road, Fort, Bombay.

"Onlooker Annual."—Onlooker Publications Private Ltd., 20-G, Sleater Road, Bombay 7.

**"TIMES OF INDIA DIRECTORY AND YEAR BOOK."—Times Building, Dr. Dadabhoy Naoroji Road, Fort.**

**"THE TIMES OF INDIA ANNUAL."—Times Building, Dr. Dadabhoy Naoroji Road, Fort.**

"Textile Age Annual."—56/57, Lakshmi Building, Sir Phirozeshah Mehta Road, Fort, Bombay 1.

**ANGLO-GUJARATI**

WEEKLY

**"Parsi Avaj."—R. F. Joshi P. Press, Mangalore Street, Fort.**

**ANGLO-MARATHI**

WEEKLY

**"Subodh Patrika."—Prarthana Samaj, Charni Road, Girgaum.**

**ANGLO-PORTUGUESE & KONKANI**

WEEKLY

**"Ave Maria."—New Sonapur Street.**

**"Goa Mail."—322, Girgaum Road, Thakurdwar.**

**"Goa Times."—84-86, 1st Marine Lines, Dhobi Talao.**

**"Udentichem Neketr" (Konkani).—Examiner Press, Medows Street, Fort.**

**MARATHI**

DAILY

"Loksatta."—Newspaper House, Sassoon Dock, Colaba.

"Lucky Star."—Bombay Printing Press, 5th Cross Lane, Falkland Road, Bombay 4.

**"MAHARASHTRA TIMES."—Times Building, Dr. Dadabhoy Naoroji Road, Fort.**

"Maratha."—Maharashtra Papers (P) Ltd., Love Grove Road, Worli.

**"Navakal."—13, Shenviwadi, Kandewadi, Girgaum.**

**"Navshakti."—Navshakti Printing Press, 21, Dalal Street, Fort.**

"Praja Mitra."—211-219, Frere Road, Bombay 1.

"Sampatti."—New Amar Printery, 262, Madhavji Bhuwan, 3rd Khetwadi, Bombay 4.

"Sandhyakal."—13, Shenvewadi, Khadilkar Road, Bombay 1.

"Sanj Maratha."—Maharashtra Papers (P) Ltd., Love Grove Road, Worli, Bombay 18.

"Zunjar."—31, Tribhuwan Road, Bombay 4.

WEEKLY

"Alamgeer."—11, Tribhuvan Road, Bombay 4.

"Film Kesri."—Altas Printing Press, Fancy Market, Wylie Street, Bombay 11.

"Janawani."—Servants of India Society's House, Sardar Vallabhai Patel Road Girgaum.

"Marmik."—77/A, Ranade Road, Shivaji Park, Bombay 28.

"Raviwaracha Nawakal."—13, Shenvewadi, Khadilkar Road, Bombay 4.

"Sahitya Swapna."—Nitin Mansions, Khetwadi 7th Lane, Bombay 4.

"Vivek."—310, Cadell Road, Prabha Devi, Bombay 29.

FORTNIGHTLY

"Konkan Vaibhav."—2/4, Topiwala Lane, Lamington Road, Bombay 7.

MONTHLY

"Anuradha."—525, Tulsi Pipe Road, Dadar, Bombay 28.

"Daryawardi."—2/4, Dharmshala Road, Bombay 9.

"Dipavali."—40-42, Kennedy Bridge, Bombay 4.

"Gamnat-Jammat."—37, Western India House, Sir Phirozshah Mehta Road, Fort, Bombat 1.

**"INDRAJAL COMICS".—Times Building, Dr. Dadabhoy Naoroji Road, Fort.**

"Kalyan Yatra."—Old Custom House, 2nd Floor, Fort, Bombay 1.

"Kathasagar."—14, Tribhuvan Road, Bombay 4.

"Lalana."—Rukmini Niwas, Maurbag Road, Dadar, Bombay 14.

"Nava Neet (Marathi Digest)."—341, Tardeo Bombay 7.

"Parchure."—Parchure Prasad, Block No. 5, 144, Shivaji Park, Road No. 2. Bombay 28.

"Phool-Baag."—A/1, Bhaveshwar Mansion, Shivaji Park, Cross Road No. 3, Mahim, Bombay 16.

"Prafulla Mala."—E/Block, Himraj Wadi, Thakurdwar, Bombay 2.

"Rahasyamala."—E/Block, Hemraj Wadi, Thakurdwar, Bombay 2.

"Rambha".—Om Printing Press, Rangwala Market, Wylee Street, Agripada, Bombay 11.

"Sahitya Asha."—Shah Bldg. No. 3. Lady Hardinge Road, Mahim.

"Samaj Seva."—C.K.P. Dnyatigriha, Ram Maruti Road, Dadar, Bombay 28.

"Sanjaya."—525, Tulsi Pipe Road, Dadar, Bombay 28.

"Satya Katha."—Khatar Wadi, Bombay 4.

"Shree Deeplaxmi."—9/10-B, Zaoba Wadi, Thakurdwar, Bombay 2.

"Suwarta."—Examiner Press, 35, Dalal Street, Fort.

"Vasant."—87, Charni Road, Bombay 4.

ANNUAL

"Avaz."—Modi Chambers, French Bridge, Bombay 4.

"Manoranjan."—Abhyankar Building, Sleater Road, Grant Road, Bombay 7.

"Prabha."—22/B, Nirmala Nivas, Merwanji Street, Parel, Bombay 12.

"Ratnadeep."—461/A, Rama Niwas, Opp. Kings' Circle Garden, Matunga.

"Sugandha."—292, V. P. Patel Road, Bombay 4.

**GUJARATI**

DAILY

"Bombay Samachar."—Red House, Parsi Bazar Street.

"Jam-e-Jamshed."—Ballard House, Mangalore Street, Fort.

"Janmabhumi."—Janmabhoomi Bhavan, Ghoga Street, Fort, Bombay.

"Kutchbhumi."—Keshav Bhuvan, 1st Parsiwada, V. P. Road, Bombay 4.

"Loktantra."—31, Tribhuwan Road, Bombay 4.

"Praja-Tantra" (Gujarati Evening Daily).—Kalam Kutir, 211/19, Frere Road, Fort, Bombay.

WEEKLY

"Begum."—2/A, Naaz Building, Lamington Road, Bombay 4.

"Chitralekha."—Star Printery, 62, Karwar Stret, Off Mint Road, Bombay 4.

"Janmabhumi Pravasi."—Janmabhoomi Bhawan, Ghoga Street, Fort, Bombay 1.

"Paras."—Atlas Press, Rangwalla Market, Wylie Street, Agripada, Bombay 11.

"Sukani."—Gul-Bahar, Barrack Road, Bombay 1.

"Vatan."—2/A, Naag Building, Lamington Road, Bombay 4.

MONTHLY

"Beej."—The Star Printery, 62, Karwar Street, Bombay 1.

"Chetan."—23/A, Zaoba Wadi, Thakurdwar, Bombay 2.

"Chhupi Police."—Tinwala Building, Tribhuvan Road, Bombay 4.

"Dwij Jivan."—Sharaf Mansion, 32, Princess Street, Bombay 2.

"Gayatri Vignan."—206, Jawahar Nagar, Goregaon (West), Bombay 62.

"Gujarati Hindu Stree Mandal Patrika."—123, Vithalbhai Patel Road, Bombay 4.

"Gunjam."—Commerce House, Medows Street, Fort, Bombay 1.

"Gup Sup."—Ballard House, Mangalore Street, Fort.

"Jee."—The Star Printery, 62, Karwar Street, Bombay 1.

"Jeewan Madhuri."—Gulbahar, Barrack Road, Bombay 1.

"Kismet."—397-B, Sir Mangaldas Wadi, Naaz Compound, Lamington Road.

"Kutch Vikas."—547, B. DeLisle Road, Laxmi Bhuvan, Bombay 11.

"Mahendi."—Kismet Printery, Naaz Cinema Compound, Lamington Road.

"Mukti Samachar."—Salvation Army, Morland Road, Byculla, Bombay 8.

"Navaneet (Gujarati Digest)."—341, Tardeo, Bombay 34.

"Ramakdum."—211-19, Kalam Kutir, Frere Road, Fort.

"Samarpan."—Bharatiya Vidya Bhavan, Chowpatty, Bombay 7.

"Savita."—Premier Printery, 73, Tulsibaug-Tabela, Tardeo Road, Bombay 34.

"Varsha."—37, Abdul Rehman Street, Bombay 3.

ANNUAL

"Bombay Samachar Dipotsavi Ank."—Red Building, Parsi Bazar Street, Bombay 1.

**HINDI**

DAILY

**"NAVBHARAT TIMES."—Times Building, Dr. Dadabhoy Naoroji Road, Fort.**

**"Vishwamitra".—Noble Chambers, Parsi Bazar Street, Fort.**

WEEKLY

"Blitz Hindi Edition."—Blitz Publications Private Ltd., 17/17-H, Cawasji Patel Street, Fort, Bombay 1.
"Cinevani."—5-F, Naaz Cinema Building, Bombay 4.
**"DHARMAYUG"—Times Building, Dr. Dadabhoy Naoroji Road, Fort.**
"Urvashi."—Manek Chambers, Lamington Road, Bombay 4.
"Vikrant."—Shukla Printers, Dr. Deshmukh Lane, Vithalbhai Patel Road, Bombay 4.

FORTNIGHTLY

**"MADHURI".—Times Building, Dr. Dadabhoy Naoroji Road, Fort.**

MONTHLY

"Bharati."—Bharatiya Vidya Bhavan, Chowpatty, Bombay 7.
"Chitrawali."—BK. 17/2, Muland Colony, Bombay 82.
"Gajara."—47, Laxmi Insurance Building, Sir Phirozeshah Mehta Road, Fort,
**"INDRAJAL COMICS."—Times Building, Dr. Dadabhoy Naoroji Road, Fort.**
"Navaneet (Hindi Digest)."—341, Tardeo, Bombay 7.
**"PARAG."—Times Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.**
**"SARIKA."—Times Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.**

ANNUAL

"Dipavali Annual."—40/42, Kennedy Bridge, Near Opera House, Bombay 4.
"Ratnadeep."—461/A, Ram Niwas, Opp. King's Circle Gardens, Matunga.

**URDU**

DAILY

"Aaj."—242, Ripon Road, Bombay 8.
"Ajmal."—Princess Building, Ebrahim Rahimtullah Road, Bombay 3.
"Hindustani."—259, Ripon Road, Bombay 8.
"Inquilab."—Inquilab Press, 6/10, Tamkar Street, Bombay 8.
"Khilafat."—Khilafat House. Love Lane. Bombay 27.
"Qyadat."—107, Jail Road (North), Bombay 9.
"Shaam."—Inquilab Press, 6/10, Tamkar Street, Bombay 8.
"Urdu Times."—Guzarea Building, 243, Moulana Azad Road, Bombay 8.

WEEKLY

"Kahkasen."—6/10, Temkar Street, Bombay 2.
"Nai Roshni."—Hindusthan Press, 32, Sukhlaji Street, Bombay.
"Salasil."—259, Ripon Road, Bombay 8.

MONTHLY

"Akkas."—21, Ali Umer Street, Bombay 3.
"Film Line."—H/No. 471, Ghodbunder Road, Khar, Bombay 52.
"Film Sansar."—11, Motishah Jain Trust Building, Love Lane, Bombay 27.
"Shakila."—36, Imamwada Road, Bombay 9.

**SINDHI**

DAILY

"Hindustan."—23, Hamam Street, Fort.

WEEKLY

"Bharat Jiwan."—163, Dongri Street, Bombay 9.
"Hindvasi."—23, Hamam Street, Fort, Bombay 1.
"Jagriti."—546, Bazar Road, Bandra, Bombay 50.

MONTHLY

"Kahani."—Chandan Printing Press, Hanali Tank Road, Bombay 28.
"Raj Filmstan."—163, Dongri Street, Bombay 9.
"Shanti."—Flat No. 11, Plot No. 424, 14th Road, Bandra, Bombay 50.

**PUNJABI**

DAILY

"Ranjit."—40, Goa Street, Fort.

WEEKLY

"Punjabi Samachar."—14/D, Allana Compound, Agripada, Bombay 11.
"Ranjit."—40, Goa Street, Fort.

**KONKANI**

WEEKLY

"Ave Maria."—303, Ground Floor, New Sonapur Street, Bombay 2.
"Goan Express."—63, Portuguese Church Street, Dadar, Bombay 28.
"Goa Times."—84/86, First Marine Street, Bombay 22.
"Poinnari."—209, Frere Road, Boimbay 1.

## NON-ALCOHOLIC PERFUMERY COMPOUNDS

**S. H. KELKAR & CO., PRIVATE LTD. (Estd. 1928).—36, Mangaldas Road, Bombay-2. Phone: 29130. Grams: "SACHEWORKS," Dadar, Bombay. Manufacturers of Essential oils, Aromatic Chemicals and "COBRA" Brand Perfumes.**

## NON-FERROUS DIE CASTING

**GENCO INDUSTRIES PRIVATE LTD.—Die Making & Non-Ferrous Die-Casting for Automobile & Motor Cycle parts, Electrical Components, Builders, Furniture, Plumbing, Textile and Railway Hardware. Regd. Office: Cama Chambers, 23, Medows Street, Fort, Bombay. Phone: 252610. Grams: "WIECOL." Works: A-52, A-53, Government Industrial Estate, Wagle Wadi, Agra Road, Thana, Bombay. Phone: 591733.**

## NON-FERROUS METALS

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Fort. Bombay Company Ltd.—9, Wallace Street, Fort.

**C. AMICHAND & CO.—46A, Abdul Rehman Street, Bombay 3. Dealers in Hardware & Non-Ferrous Metals. Phones: 323601. Grams: "SHIPCOCK." Bombay (Mandvi).**

**CHOONILAL MOHANLAL & CO.—Shop No. 54, Kika Street (Gulalwadi), Bombay 4. Importers & Dealers in Ferrous & Non-Ferrous Metals & Alloys. Phone: 333904 and 335886 (Res.).**

**DEVIDAYAL METAL INDUSTRIES.—Gupta Mills Estate, Reay Road, Bombay 10. Phone: 78561 (4 lines). Grams: "GINGER." Manufacturers of Aluminium, Copper & Brass Sheets, Sheathings, Strips, Circles, etc.**


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**DINESHCHANDRA KESHAVLAL & CO.—209, Kika Street, Bombay 2. Phones: 33-3205 and 335187 (Shop) and 71236, 70669 (Res.), Importers, Stockists and Dealers in Copper & Brass Rods, Pipes, Sheatings, Sheets, Strips and other Non-Ferrous Metal Merchants.**

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.—Wavell House, Graham Road, Ballard Estate, Bombay. Phone: 26-2711 (8 lines). Machine Works: Tank Road, Bombay 33 DD. Phone: 78544. Offices at Madras, Calcutta, New Delhi, Bangaloro, Secunderabad & Lucknow.**

Great Western Engineering Works.—"Sea View," 1st Pasta Lane, Colaba, Bombay 5.

Greaves Cotton & Co., Ltd.—Forbes Street, Bombay 1.

Guest, Keen Williams, Ltd.—Sprott Road, Ballard Estate, Bombay 1.

**HINDUSTAN METAL MANUFACTURING CO.—Lal Chimney Compound, Near Nair Hospital, Lamington Road (North), Bombay 11 (BC). Phones : 333205, 332809 & 335224 (Office) ; and 71236 and 70669 (Res.). Grams : "METALRAAJ." Manufacturers of Copper Pipes Specially for Refrigeration, Air Conditioning, Automobile, Oil Engines and Petroleum Industries.**

**H. P. MITRA & CO.—25, Parsi Bazar Street, Bombay 1. Phone : 253109. Grams : "MITRAMET." Representing Anaconda Sales Co., 25, Broadway, New York 4 and New Jersey Zinc Co., 160, Front Street, New York 38. Non-Ferrous Metals Scrap, Residue, Ores, Mineral—Minor Metals, Stainless Steel.**

India Metal Agencies.—"India House", Opp. G.P.O., Bombay 1.

Indian Standard Metal Co., Ltd.—Chinchpokli Cross Lane, Bombay 27.

James Finlay & Co., Ltd.—Mahatma Gandhi Road, Bombay 1.

Jayant Metal Manufacturing Co.—152, Lohar Street, Bombay 2.

Kamani Engineering Corpn., Ltd.—Kamani Chambers, Nicol Road, Ballard Estate, Fort.

Kamani Metals & Alloys Ltd.—Kamani Chambers, Nicol Road, Ballard Estate.

**KAMANI TUBES PRIVATE LTD.—Kamani Chambers, Nicol Road, Ballard Estate, Bombay 1. Phone : 261744. Manufacturers of Non-ferrous Rods, Pipes & Tubes. Works : Agra Road, Kurla, Bombay 70. AS Phone : 55661 (6 lines).**

**MARDIA METALS AGENCY.—90, Kika Street, Bombay 4. Phone : 332793 & 335672. Sole Selling Agents for Maharashtra for "ALCOBEX" Brand Extruded and Drawn Brass & Copper Rods, Flats and Sections confirming to BSS & ISS Standards. Associates, Mardia Metals Co. 40, Strand Road, Calcutta 1. Phone : 226915 & 229871.**

**METAL DISTRIBUTORS LTD.—12-18, Vithalbhai Patel Road, Bombay 4. Importers, Exporters & Indentors of Metals, Scrap & Virgin. Grams : "DHATUBANA." Telex No. 315. Phones : 333600, 333609, 334280, 334291.**

**METALLICA WORKS PRIVATE LTD.—79/83, Dr. Annie Besant Road, Bombay 18. Phones : 75432, 75433, 75434. Makers of Non-Ferrous Metals, Castings, Alloys, Anodes, Lead lining of Acid Resisting Containers, Crucible.**

Montana Ltd.—Rahimtoola House, Homji Street, Fort.

Non-Ferrous Metal Refinery.—24, Sitafalwadi, New Anjirwadi, Mount Road, Mazagaon, Bombay 10.

**POPULAR METAL WORKS & ROLLING MILLS.—Sion, Bombay 22. Manufacturers of Aluminium Brass, Copper Sheets, Circles Utensils and Copper and Brass Cold Rolled Industrial Sheathings.**

**PRAVINCHANDRA D. BROS.—105, Kika Street, Gulalwadi, Bombay 4. Phone : 332419. Grams : "RODSBRASS." Dealers & Stockists of Non-Ferrous Metals & Semi Finished products. Copper & Brass Rods, Pipes, Sheets, Sheathing, Wire Strips, etc. Phospher Bronze, Rods & Wires. Aluminium Sheets, Rods, Wires & Tubes, Stainless Steel Sheets, Tubes & Rods.**

**SHANTILAL HIRALAL & CO.—63/65, Kika Street, Bombay-4. Phone : 331459, 334479. Grams : "LESSPROFIT". Dealers in all kinds of Non-Ferrous Metal, Scraps, Rods, Tubes & Pipes in all sizes and 'K' Brand Brass Sheets. Phone : 331762.**

**STANDARD METAL WORKS PRIVATE LTD.—17, Tardeo Bridge (Low Level), Bombay 34 (W. R.). Phone : 75108. Grams : "BRASSLEAD." Manufacturers of Non-Ferrous Metal Goods and Specialists in Lead Sheets, Lead Pipes, Lead Wool, Lead Strips Washer, Tape, Brass & Copper Wires, Brass Chains (Toda), etc. Lead Lining & Lead Bonding Job Undertaken.**

**V. M. METAL CO. (Estd. 1950).—180, Kika Street, Bombay 4. Phone: 334543. Grams : "SHAKAGO" Girgaum. Dealers in Brass, Copper, Aluminium, Specialised in Industrial Sheets.**

**VORA TRADING CO.—357-A, Samuel Street, Vakil Bldg., Vadgadi, Bombay 3. Phone : 325289. Telegram : MULTI-SALES :" Bombay-Mandvi.**

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate.

## NON-FERROUS METALWARE MANUFACTURERS

Bombay Brass & Metal Works.—Panjrapole 2nd Street, Bombay 4.

Eastern Aluminium Works.—60, Bapu Khote Cross Lane, Kika Street, Bombay 3.

G. K. Kansara.—Kansara Chawl, Bombay 2.

Gupta Metal Industries Ltd.—Gupta Mills Estate, Reay Road, Darukhana, Bombay 10.

Kamani Engineering Corporation Ltd.—Kamani Chambers, Nicol Road, Ballard Estate, Bombay 1.

Kandivli Metal Works, C/o Messrs. Natwarlal & Co.—Dhobi Wadi, Thakurdwar, Bombay 2.

**LALUBHAI AMINCHAND PRIVATE LTD.—Proprietors, "Dun Aluminium Factory," 225/27, Tardeo Road, Bombay 7. Manufacturers of "QUEEN" Brand Stainless Steel Utensils & "QUEEN." Brand Brasswares & Other non-ferrous Metalware. Phones : 41618, 77175, 334049 & 331888. Grams : "CYCLEBRAND."**

Oriental Metal Pressing Works Private Ltd.—131, Worli, Bombay 18.

Pitamberdas Lallubhai & Co.—86, Kansara Chawl, Kalbadevi Road, Bombay 2.

**Standard Metal Works Ltd.—17, Falkland Road, Low Level, Bombay 7.**

Tarkar, B. A.—50, Kansara Chawl, Kalbadevi Road, Bombay 2.

Vajeram Devchand & Bros.—21-22, Chirabazar, Dukerwadi, Bombay.

## NOVELTIES

Akbarally Ebrahimji Pharmacy & Department Store.—45/47, Veer Nariman Road, Fort, Bombay.

Aurora Toys and Novelties.—"Parimal", Keluskar Road, South, Shivaji Park, Dadar, Bombay 28.

Ebrahim Allibhoy & Sons.—260-64, Abdul Rehman Street, Bombay 3.

**Excel Process Works.—Manufacturers of Advertising Gift Items,** Excel House, Ghodbunder Road, Irla, Vile-Parle, Bombay 24.

**Grand Bazar.—25, Colaba Causeway, Bombay 1.**

Noble Jewellery Mart.—Capitol Cinema Bldg., Bori Bunder, Bombay 1.

**Sammaho Paleeddamsee & Co.—141, Chakla Street, P.O. Box 3131, Bombay 3.**

## OFFICE EQUIPMENT & SUPPLIES

Apex Enterprises.—17/5th Floor, Mohatta Market, Palton Road, Bombay 1.

Ashok Typewriters.—40, Cowasji Patel Street, Ground Floor, Savoy Chambers, Fort, Bombay.

Artytoys.—Sir Ratan Tata Road, Tardeo, Bombay 7.

**BELLARES PRIVATE LIMITED.—Chequewriters, Office Systems & Equipment Specialists. Sole Distributors, Ames Supply Company (U.S.A.). Spare Parts, Tool & Accessories for Typewriters, Adding & Calculating Machines, Manufacturers of Heavy duty "Magnolia" Paper Punch and CHEQUEWRITERS. 210-A, Lamington Road, Post Box No. 4101, Bombay 7. Grams : "INSPIRON." Factory : A-374, Thana Industrial Estate, Thana (Maharashtra).**

Bombay Safe Manufacturing Co.—307-9, Kalbadevi Road, Bombay 2.

Bombay Typewriting Institution.—Opp. The General Post Office, Bhatia Mitra Mandal, Fort Street, Fort, Post Box No. 936, Bombay 1.

General Equipment Merchants, Ltd.—People's Building, Sir Phiroshah Mehta Road, Fort.

**GENERAL OFFICE EQUIPMENT COMPANY.—Anand Bhuvan, 3rd Floor, Dr. D. Naoroji Road, Fort, Bombay. Phone : 254346. Repairs and Maintenance of Typewriters and other office Machines.**

General Typewriters (Bombay) Co., Private Ltd.—375, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

Gestetner Duplicators Ltd.—Construction House, Ballard Estate, Bombay.

Gillanders Arbuthnot & Co., Ltd.—16, Queen's Road Estate, Bombay 1.

**GOVIN'S SAFE MANUFACTURING CO.—266-68, Kalbadevi Road, Bombay 2. Phone : 29869; Grams : "GOVINSAFE." Manufacturers of Steel Cabinets, Safes, Steel Furniture & Padlocks.**

James Manufacturing Co.—407, Kalbadevi Road, Bombay 2. Phone : 22874.

**JANAK MANUFACTURING WORKS.—Antop Hill, Wadala, Bombay 31. Manufacturers of Steel Shelving Racks. Phone : 60171. Grams : "JANAKBED" (MT). Show Room at : Kastur Nivas, 26/B, French Road, Off Hughes Road, Chowpatty, Bombay 7.**

Jhaveri Bros. & Co. Private Ltd. (Estd. 1914).—Novelties and Gift Specialists—Manufacturers of "J. B. Monymatic" Coin Changer, A must for every Cashier. 345, Abdul Rehman Street, Near Crawford Market, Bombay 3. Grams : "GIFTS." Phone : 326196.

**KHIRA STEEL WORKS PRIVATE LTD.—Factory : Swami Vivekananda Rd., Santa Cruz, Bombay 54. Grams : "STEELCASE." Phone : 533226 (4 lines). Regd. Office & Showrooms : Khira Bhavan, Sandhurst Bridge, Bombay 7. Grams : "SWAKALA." Phones : 30097 & 30098. Showroom : Fulchand Niwas, Chowpatty Sea Face, Bombay 7. Grams : "SWAKALA." Phone : 30408.**

**LATHAM ABERCROMBIE DIVISION OF FORBES FORBES CAMPBELL & CO. LTD.—Forbes Building, Home Street, Fort, Bombay. Phone : 268081. Grams : "LATHAM."**

National Cash Register Co.—Steelcrete House, Backbay Reclamation. Bombay 1.

National Steel Equipment Co.—Naigaum Road (Near Spring Mills), Dadar, Bombay 14.

**NOBLE STATIONERY MART.—Parsi Bazar Street, Fort, Bombay 1. Phone : 254748. Grams : "CELLOTAPE." Manufacturing Stationers, Suggest Filing System, Ceeda Regd. Files.**

Prince, H. I. & Son.—9, Lily Court, Churchgate Reclamation, Bombay.

**REMINGTON RAND OF INDIA LIMITED.—Manufacturers of Remington Rand Business Equipment. Thackersey House, Graham Road, Ballard Estate, Bombay. Phones : 265591/92/93. Grams : "REMINGTONS."**

**SOCIAL STATIONERY MART.—Victoria Building, 27/H, Parsi Bazar Street, Fort, Bombay 1. Phone : 251466. Specialists in "Social" Files, Typewriters & Pencil Carbon Papers, Account Books & Office Requisites.**

Steel Age Industries Private Ltd.—Opp. Post Office, Mazagaon, Bombay 10.

Steelmade, Dr. Annie Besant Road, Worli, Bombay 18.

Universal Typewriter Co.—31, Nawab Bldg., 327, Hornby Road, Bombay 1. Phone : 251949.

## OFFSET PRINTERS

**LAXMI OFFSET & PRINTING WORKS.—23, Goa Street, Ballard Estate, Bombay 1. Phone : 26147. Grams : "LAXPICPLAY." Art Lithographers and Printers.**

## OIL AND LEATHER CLOTH MANUFACTURERS AND DEALERS

Dharamshi Ramji.—241, Masjid Bunder Road, Bombay 3.

Hariram Bhawanji Co.—156, Masjid Bunder Road, Bombay 3.

Hindustan Plastic Co.—95, Abdul Rehman Street, Bombay 3.

Jivanlal & Company (Estd. 1937).—464, Sardar Valabhbhai Patel Road, Bombay 4.

Kapadia & Co.—19, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Leather Cloth Processors & Printers.—Moghul Lane, Matunga, Bombay 16.

Mamaji & Son (Private) Ltd., Y. A. (Estd. 1885).—136-38, Sir Ebrahim Rahimtoola Road, Bombay 3.

Menty, S. M., & Co.—13, Horniman Circle, Fort, Bombay 1.

National Leather Cloth Manufacturing Co.—480, Sandhurst Road, Bombay 4.

Regal Trading Co. (Bombay).—Rajabahadur Bansilal Mansion, 11, Bruce Street, Fort, Bombay 1.

Western India Manufacturers' Agency Private Ltd.—190, R. K. Building, Khetwadi Main Road, Bombay 4.

## OIL BURNERS

Heatly & Gresham Ltd.—9, Forbes Street, Bombay 1.

**NESTLER BOILERS PRIVATE LTD.—Mfrs. of Oil Burners. Head Office & Works : Love Lane, Cross Lane, Byculla, Bombay 27. Phone : 76264 & 72818. Grams : "NESTLER."**

William, Jacks & Co., Ltd.—Hamilton House, Ballard Estate, Bombay 1.

## OIL ENGINES AND SPARES

Acme Manufacturing Co., Ltd., The.—Construction House, Ballard Estate, Bombay.

**AGRA ENGINEERING CO.—40, Bank Street, Fort, Bombay 1. Phone : Office : 256541 ; Res. : 532906. Grams : "RAJSPARES." Manufacturers of Diesel Engines Spares—"ARROW" & "DISPA" brand Liners & Pistons.**

Associated Machine & Tool Co.—130, Medows Street, Fort.

**B. KUMAR METAL WORKS.—Sitafalwadi, Mount Road, Mazagaon, Bombay 10. Phone : 40384. Grams : "BEKUMAR." Manufacturers of Oil Engines Crank Shafts, Connecting Rods and other spares, Crankshaft grinding Jobs accepted.**

**BHARAT ELECTRIC & ENGINEERING CORPORATION.—Free Press Building, Ground Floor, 21, Dalal Street, Fort, Bombay. Phone : 255374. Grams : "GODGRACE."**

Bharat Industrial Co.—77-79, Nagdevi Cross Lane, Bombay 3.

Brady, W. H., & Co., Ltd.—Churchgate Street, Fort.

**CAPRI ENGINEERING CO.—296, Frere Road, (Near Fort Market), Bombay 1. Phone : 266438. Grams : "CAPRIENG."**

Chhaya Trading Co.—Opp. Share Bazar Building, Hamam Street, Fort.

Drewet Chowna & Co.—Lentin Chambers, Medows Street, Fort, Bombay.

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.—Wavell House, Graham Road, Ballard Estate, Bombay. Phone : 262711 (8 lines). Machine Works : Tank Road, Bombay 33 DD. Phone : 78544. Offices at Madras, Calcutta, New Delhi, Bangalore, Secunderabad & Lucknow.**

Eastern Electric and Refrigeration Co.—14, Hamam Street, Fort, Bombay.

Engineer, Eruch D., & Co.—Crossby House, Apollo Street, Fort, Bombay.

General Commercial and Industrial Co.—Vishram Bhuvan, 1st Floor, 41, Kolbhat Street, Bombay 2.

Greaves Cotton & Co., Ltd.—Forbes Street, Bombay 1.

Gujarat Industrial Corporation.—22, Alli Chambers, Tamarind Lane, Fort, Bombay 1.

India Engineering Works.—Opp. Share Bazar Building, Hamam Street, Fort.

Jacks, William & Co.—Hamilton House, Graham Road, Ballard Estate, Fort.

Jayems Engineering Co.—Warden House, Sir Phirozshah Mehta Road, Fort.

Jhala, R. T., & Co.—9, Forbes Street, Fort, Bombay.

**Khimandas Jagumal & Sons (Estd. 1910), Sind.—12, Hornby View Building, Gunbow Street, Fort.**

Larsen & Toubro Ltd.—I. C. House, Dougall Road, Ballard Estate, Fort.

**NATIONAL METAL INDUSTRIES.—15/A, Parel Village Road, Parel, Bombay 12. Phone : 62400. Grams : "MANMUL." Office : 26/A, Behind Mumbadevi Post Office, Bombay 2. Phone : 325434. Manufacturers of "NAMI" Oil Bath Air Cleaners Exhaust Silencers and Fuel Filters for Oil Engines. Also for Tracks and Car Engines.**

Paramount Industrial Stores.—15, Ropewalk Street, Bombay 1.

Parry & Co., Ltd.—United India Building, Sir P. M. Road, Fort.

Power Machines Corporation.—31, Forbes Street, Fort.

Regal Trading Co. (Bombay).—Rajabahadur Bansilal Mansion, 11, Bruce Street, Fort, Bombay 1.

Small-Diesels Ltd.—36, Western India House, Sir Phirozshah Mehta Road, Fort.

**TALWALKER BROTHERS PRIVATE LTD., W. R.—Lentin Chambers, Dalal Street, Fort, Bombay. Phone : 253367. Grams : "PUMPENAMEL."**

Voltas Limited.—19, Graham Road, Ballard Estate, Bombay 1.

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate.

## OIL EXPELLERS

**SWASTIK ENGINEERING WORKS.—179, Panjrapole Road, Bombay 4. Phone : 332643. Grams : "EXPELLER." Manufacturers of "Swastik" Baby Expellers, Boilers and Fitters and spare parts for all Oil Expellers.**

## OIL MILLS (COMPANIES), IMPORTERS & EXPORTERS

Abmed Oomerbhoy Oil Mills.—Two Tanks, Bombay 8. P.O. Box No. 4511.

Bhavnagar Oil & Chemical Industries Private Ltd.—Sales Office: Bombay Mutual Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1.

Bombay Oil Industries Pvt. Ltd.—285/287, Narshi Natha Street, Bombay 9.

**DAMJI MANJI (Estd. 1940).—208, Sandhurst Road, Bombay 4. Phones : Office : 333333, 333555 & 333777. Branch : 254402. Res. : 41978. Grams : " OILTRADER." Dealers in Groundnut Oil, Coconut Oil, Castor Oil, Linseed Oil, Mustard Oil, Sesame Oil, etc. Importers of Copra, Coconut Oil & Palm Oil. Exporters of Oils, Oil Cakes.**

Hindustan Oil Mills.—Nawab Mansion, 22, Gunbow Street, Fort. Grams. " Paultext." Head Office & Works at Ghat Road, Nagpur.

**INDU OIL & SOAP CO.—Office : 335, Katha Bazar, Bombay 9. Phone : 321476 and 323964. Mills : 5-A, Hansraj Lane, Byculla Bridge, Bombay 27. Phones : 73797; Residence : 62091 & 63534. Grams : "COCOINDU." Manufacturers of guaranteed filtered pure coconut oil Kishti and Motor car Brands. Exporters of Copra Cake Extraction & Expellers.**

Jamnadas Laljee Oil Mills.—Champsi Bhimji Wadi, Old Anjirwadi, Mazagon.

**JAYANT OIL MILLS.—13, Sitafalwadi, Mazagaon, Bombay-10. Phones: 74283 & 76425. Grams: "SWEETOIL." Manufacturers and Exporters of Vegetable Oils and Oil Cakes. Specialised in Castor oil & Allied Products.**

Oomedchand Kashiram & Co.—Mudi Bazar, Bombay 8.

Sonal Rangnow & Co.—41, Hamam Street, Fort, Bombay.

Swastik Oil Mills, Ltd.—Saltpan Road, Wadala, Bombay 31.

Tata Oil Mills, Co., Ltd.—Bombay House, 24, Bruce Street, Fort, Bombay.

Tide Water Oil Co. (India) Ltd.—Nicol Road, Ballard Estate, Bombay.

Wharton, H. W., & Co., Ltd.—339, Hornby Road, Fort.

## OIL SEALS

**AGRA ENGINEERING CO.—40, Bank Street, Fort, Bombay 1. Phones: Office: 256541. Res.: 532906. Grams: "RAJSPARES." Manufacturers of Diesel Engines Spares—" ARROW " & " DISPA " Brand liners & Pistons.**

**B. CHOUDHURY & CO.—Indian Globe Chambers, Fort Street, Bombay 1. Phone : 263479. Grams: "BISUKHI." Sole Agents for Carl Frendenberg, West Germany. cFw Simmering Oil Seals.**

Kumar Commercial Co.—Nadirshaw Sukhia St., off Cawasji Patel St., Bombay 1.

Oil Seals Mfg. Co. (India)—Ratan House, Tribhuwan Road, Bombay 4.

**WESTERN MACHINERY CO.—22, Basement Commerce House, Medows Street, Bombay-1. Stockists of oil seals & Cir Clips.**

## OILS, OIL CAKES & OILSEEDS

**DAMJI MANJI (Estd. 1940).—208, Sandhurst Road, Bombay 4. Phone Nos. Office : 333333, 333555 & 333777. Branch : 454402. Res. : 41978. Grams : " OILTRADERS." Dealers in Groundnut Oil, Coconut Oil, Castor Oil, Linseed Oil, Mustard Oil, Sesame Oil, etc. Importers of Copra, Coconut Oil, Palm Oil; Exporters of Oil, Oil Cakes.**

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.—Wavell House, Graham Road, Ballard Estate, Bombay. Phone : 26-2711 (8 lines). Machine Works : Tank Road, Bombay 33 DD. Phone : 78544. Offices at Madras, Calcutta, New Delhi, Bangalore, Secunderabad & Lucknow.**

Kotak & Co.—Navsari Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

Swastik Oil Mills Ltd.—Saltpan Road, Wadala, Bombay 31.

Sorabji Nowroji & Co.—16, Horniman Circle, Fort.

Uttamlal, V., & Co.—P.O. Box No. 1531, Bombay.

## OIL MILLS MACHINERY MANUFACTURERS & DEALERS

**BHARAT ELECTRIC & ENGINEERING CORPORATION.—Free Press Building, Ground Floor, 21, Dalal Street, Fort, Bombay. Phone : 25537. Grams : " GODGRACE."**


# BHAVNAGAR OIL & CHEMICAL INDUSTRIES PRIVATE LTD.

*Manufacturers of :*

**Refined and High Grade Castor Oils, Medicinal Castor Oil, Perfumed Castor Oil, Hydraulic Brake Fluids, Refined Groundnut Oil, Salad Oil, etc.**

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*Head Office & Factory :*
Mahatma Gandhi Road,
Bhavnagar (Gujarat).
Telephone : 223
Telegrams : "BOCIL"

*Sales Office :*
Bombay Mutual Building,
Dr. Dadabhai Naoroji Road, Bombay.
Telephone : 261359
Telegrams : "BOCIL"

**BHARAT INDUSTRIAL CORPORATION.**—Manufacturers of Oil Expellers—Spares thereof, Allied Machinery, Elevators, Conveyors & Solvent Extraction Plant under Foreign Technical Collaboration. Petit Compound, Grant Road, Bombay 7. Phone : 41361. Grams : "EXPELPART."

**B. KUMAR METAL WORKS.**—Sitafalwadi, Mount Road, Mazagaon, Bombay 10. Phone : 40384. Grams : "BEKUMAR." Engineers, Manufacturers and Contractors; Specialists in Oil Mill Machinery & Spares.

**ESSENTIAL ENGINEERING CO.**—11, Botawala Building, Elphinstone Circle, Fort. Grams : "ESSENCE." Phone : 252940. Importers, Exporters, Commission Agents and Manufacturers' Representatives.

Hindustan Engineering Co. (Machinery Dept.).—25, Ropewalk Street, Rampart Row, Fort.

Jayems Engineering Co.—Warden House, Sir Phirozshah Mehta Road, Fort.

Kilburn & Co. Private Ltd.—Gresham Assurance House, Sir Phirozshah Mehta Road, Bombay.

**KUMAR METAL INDUSTRIES.**—50, Nesbit Road, Mazagon, Bombay 10. Manufacturers & Exporters of Oil Expellers, Filter Presses, Elevators, Conveyors, Baby Boilers and spare parts of oil expellers. Phone : 72954. Grams : "CRANK." Bombay-Mazagon.

Laxmi Engineering Works.—40, Khetwadi 10th Lane, Bombay 4.

Marshall Sons & Co. (India) Ltd.—Ballard Road, Bombay 1.

Oriental Engineering Co.—25, Forbes Street, Fort, Bombay 1.

Paramount Industrial Stores.—15, Ropewalk Street, Bombay 1.

**SWASTIK ENGINEERING WORKS.**—179, Panjrapole Road, Bombay 4. Phone : 332643. Grams : "EXPELLER." Manufacturers of Swastik Baby Expellers, Boilers & Filters and spare parts for all oil expellers.

**UNITED ENGINEERS.**—104, Apollo Street, Fort, Bombay. Phone : 253204. Grams : "POWEREQUIP." Importers of Fuel Injection Equipment, Spare Parts for Automobiles and Diesel Engines, Multicylinder fuel Pumps Test Benches, Nozzle Grinding and Lapping Machines & Electric Motor Starters.

Voltas Limited, Ballard Estate, Bombay 1.

Western India Engineering Co.—Signal Hill Avenue, Sewree, Bombay 15.

## OPTICAL GOODS

Artbangle Private Ltd.—204, Dr. Dadabhai Naoroji Road, Bombay 1.

**MONTEX CORPORATION.**—Yusuf Bldg., Mahatma Gandhi Road, Fort, Bombay 1. Manufacturers of Spectacle Frames & Sun-Glasses & Lenses.

**OPTI-PLAST CORPORATION.**—183, Girgaum Road, Opp. Gaiwadi, Bombay 4. Micro-lenses, moulded, spherical, Cosmetic lenses, Life-like Eyes, wonderful Invisible spects etc. made & Fitted. Take a successful trial in Rs. 50 only. Phone : 23356.

## OPTICIANS

Ballwalla & Homi Ltd.—365, Hornby Road, Fort.

Bharat Optical Company.—Kalbadevi Road, 366/68, Ibrahim Mansion, Bombay 2.

Darbar Singh & Sons.—166, Hornby Road, Fort.

Ghaswala, Dr. K. S., L.M.&S.—Dr. Ghaswala's Eye Hospital, "Edena," 105, Queen's Road.

Hatim Brothers.—302, Abdul Rehman Street.

Helms-Optics.—Qualified German Sight Testing Opticians, 8, Esplanade Mansions, Fuller Road, Fort, Bombay 1.

Homi & Co.—Dhootpapeshwar Prasad, Girgaum Road, Bombay 4.

Kataria Optical Factory.—104, Clarke Road, Jacob Circle, Bombay 11.

**LAWRENCE & MAYO (INDIA) PT. LTD.**—274, Dr. Dadabhoy Navroji Road, Fort, Bombay. Phone : 261827.

Lund & Blockley.—Sassoon Institute Building, 150, Mahatma Gandhi Road, Fort.

Mansukhlal & Co.—356, Kalbadevi Road.

Patson Ocularium.—2, Regal Cinema Building, Apollo Pier Road, Fort, Bombay 1.

**PHIROZE M. DASTOOR & CO.**—(Manufacturing Opticians), Next to Eastern Bank Ltd., Opp. Flora Fountain, 379, Dr. Dadabhai Naoroji Road, Fort.

**P. S. SHIRODKAR & SONS.**—Dealers in Optical goods, Ranade Road, Dadar, Bombay 28.

**REMEDIOS OPTICIANS.**—Ophthalmic and Consulting Opticians. Consulting Optician : I. R. Lobo. 255, Dr. Dadabhoy Naoroji Road (Hornby Road), Fort, Bombay. Phone : 263336.

Takandas H. Kataria.—Showroom : 323-325, Abdul Rehman Street, Bombay 3.

**VARTAK BROTHERS.**—187, Dr. Dadabhoy Naoroji Road, Fort. Phone : 262915.

## ORTHOPAEDIC APPLIANCES MANUFACTURERS

**SMO ORTHOPAEDIC APPLIANCES.**—183, Girgaum Road, Opp. Gaiwadi, Bombay 4. Suppliers to Surgeons & Govt. Hospitals, Thompson Heads, S. P. Pins & Plates and all types of K nails, etc. made of EN 58 J as per Br. Std. Specifications. Phone : 23356.

## OVENS (HOT AIR)

**KILBURN & CO. LTD.**—Gresham Assurance House, Pherozshah Mehta Road, Bombay. Phone : 251908. Grams : "TASCONIUM."

## OVERHEAD LINE MATERIALS

**EVERGREEN CORPORATION.**—9/15, Picket Cross Road, P.O. Box No. 2733, Bombay 2. Phone : 22162. Grams : "GREENLEAVE", Electrical Poles, Stay Rods, Wires, High and Low Tension Insulators, Overhead Line Materials, Bolts, Nuts & Hardware.

**JINDAL ENGINEERING WORKS.**—Darukhana, Kasara Street, Bombay 10-DD. Phone : 78720. Grams : "JINDALSHIP." "Manufacturers of Cable Carrying Trays, Barbed Wires, "U" Staples, and A.C.S.R. Accessories and overhead transmission line Tools. (Viz. Stringing rollers, Snatch Blocks, Sheave Pulleys, Come along clamps," D " Shackles, " U " Bolts, Bird Guards, etc.).

**KOTAK & CO.**—Navsari Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay. Grams : "KOTAKANDCO." Phone : 263331 (3 lines).

## OXYGEN AND GAS FACTORIES

Bombay Gas Co., Ltd.—Empire House, 214, Dr. Dadabhoy Naoroji Road (Hornby Road).

**BOMBAY OXYGEN CORP. LTD.**—Regd. Office : Great Western Building, 130-132, Apollo Street, Bombay 1. Depot : Arched Bungalow Road, Bombay 33. Factory : Bombay-Agra Road, Mulund, Bombay 80.

Chapman & Co., K.—Opp. Marwari Vidyalaya, Sandhurst Road.

**INDIAN OXYGEN LTD.**—Ghatkopar (Bombay-Agra Road), Bombay. Phone : 55241 (7 lines) & 55180, 55382, 55340. Grams : "INDOXCO" Ghatkopar. Manufacturers of Oxygen, Dissolved Acetylene, Nitrous Oxide, Nitrogen gases, etc.

Lightfoot Ice & Cold Storage Co.—Hansraj Lane, Byculla Bridge.

Sirdar Carbonic Gas Co., Ltd.—Connaught Road, Mazagaon.

## PACKAGING

**AFZAL PAPER BOX FACTORY.**—43, Foras Road, Bombay 8. Phone : 72338. Manufacturers of Card board Boxes and Corrugated Paper Rolls & Sheets.

**APCA PACKAGING PRIVATE LTD.**—151, Upper Duncan Road, Bombay 8. Phone : 41596. Grams : "APCAPACK". Quality cardboard box, corrugated box and Carton Manufacturers. Also exporters of special greeting cards.


*ARTYTOYS*

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*Manufacturers of*

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*ANY ARTICLE OF WOOD MADE TO ORDER*

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Phone : 74873


Arvinda Trading Co. Private Ltd.—105, Apollo Street, Fort.

Grams:
"BOXPACK"

Phone:
266233

BOXPACK PAPER INDUSTRIES PRIVATE LIMITED
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**BOXPACK PAPER INDUSTRIES PRIVATE LIMITED**

*Manufacturers of*

"ZEBRA" Brand Corrugated Paper Rolls and Double Faced Corrugated sheets.

*Registered Office:*

**81/83, Mint Road, Fort, BOMBAY.**

**CLARIDGE, G., & CO., LTD.**—Frere Road, Fort, Bombay 1. Phones: 263201 & 263202. Grams: "EGDIRALC." Security Printers, Photo-Offset, Transfer (Decals) Book-Binders, Carton & Packaging Experts.

**COLOUR CARTONS LIMITED.**—Specialists in the manufacture of packaging materials for pharmaceutical and allied industries and engineering industry. Head Office: Tiecicon House, Haines Road, Bombay 11. Phone: 40642. Factory: Lake Road, Bhandup, Bombay 78. Phone: 592560.

**EVEREST PACKAGING CORPORATION.**—Chopra Estate, Agra Road, Bhandup, Bombay-78. Phone: 581736, 581909. Manufacturers of Corrugated Shipping Containers, Cartons, Corrugated Paper & Boards. Outer boxes and Paper Packing requisites.

Jaydip & Co.—Sambava Chambers, Sir Phirozshah Mehta Road, Fort, Bombay.

**KADRI PAPER BOX FACTORY.**—Noor Manzil, Mohamedali Road, Bombay 3. Phone: 332856. Plain and Fancy boxes of every size & description with Printing if required and Cardboard Tubes for Calendars. Grams: "BOXWORK."

**LESLIE, E. & CO.**—Botawalla Building, 7-10, Horniman Circle, Fort, Bombay. Professional Packers of Household effects, movings, transporting, warehousing, insurance & Custom House Licensed Agents. Packers of Household Effects. Phone: 255540. Grams: "RITTA."

Mansukhlal Jechandbhai & Co.—181/183, Samuel Street (Khoja Galli), Bombay 9.

**MOHAMADI FINE ART LITHO WORKS.**—Proprietors: Allibhoy Sharafally & Co., Private Ltd. (Estd. 1878; Incorporated: 1938). Mohamadi Building, Mazagon, Bombay 10 (DD). Lithographers, Offset and Letterpress Printers, Carton & Box Manufacturers and Bookbinders. Phone: 78148 and 78149. Grams: "KORAN".

New Jack Printing Works.—Seksaria Mills Compound, Globe Mills Passage, off DeLisle Road, Bombay 13.

New Pack Industries.—Lotus House, 33A, Marine Lines, Bombay 1.

Packers (India) Co.—34-38, Hamam Street, Fort, Bombay. Phone No. 252019. Grams: "PACKWELL"(FT). Packing Consultants and Packing Material suppliers. Manufacturers' Representatives.

**PAPER PRODUCTS LTD.**—Vaswani Mansions, 5th Floor, 120, Dinshaw Vachha Road, P.O. Box No. 732, Bombay-1. Phones: Office: 246116, 245852, 245341. Factoy: 592129, 592130.

**PARADISE PAPER PRODUCTS.**—78/A, Princess Street, Bombay 2. Phones: 20016 (Office) & 65042 (Factory). All kinds of Card & Corrugated Board Boxes Mfrs. Suppliers to leading firms and Govt. Depts. Competitive rates and entire satisfaction assured. Trial solicited.

**PARIKH & CO.**—105, Apollo Street, Bombay 1. Phone: 255224. Suppliers of Quality Packaging and wrapping materials.

**RYLAND PAPER BOX MANUFACTURING CO.**—Box Manufacturers and Carton Boxes Manufacturers. Industrial House, Near Paradise Talkies, Lady Jamshedji Road, Mahim, Bombay 16. Phone: 453020.

Standard Paper Box Manufacturing Co.—51, Mangaldas Road, Lohar Street, Bombay 2.

Swastik Paper Bag Co.—168/80, Bhimpura, Chinch Bunder Road, Bombay 9.

**WADIA, B. F. & SONS.**—Timber, Mangalore Roofing Tiles and Woodwool—the Ideal Packing Material, Reay Road, Bombay 10. Phone: 71934. Grams: "TIMBERSALE."

## PACKAGED BOILERS

**NATIONAL STEEL EQUIPMENT CO.**—8, Katrak Road, Wadala, Bombay 31 (DD). Phone: Office: 61755. Factory: 62973. Grams: "BEDLOCKER," Bombay-Wadala. Manufacturers of Pressure Steam Sterilizers & Autoclaves, Pyrogen Free Water Stills, Premature Baby's Incubators, Complete range of Industrial Heavy-duty Catering (Kitchen) Equipment and fully automatic Packaged Boilers. Branches: Delhi, Calcutta, Madras.

## PACKING CASES

Abba Gani & Co.—1-2, Victoria Road, Mazagon, Bombay 10.

**ANAND TIMBER TRADERS.**—170, Reay Road, Bombay 10. Phone: Office: 42203. Res.: 60144.

Artytoys.—Sir Ratan Tata Road, Tardeo, Bombay 34.

Brijmohan Banwarilal.—61, Reay Road, Mazagaon, Bombay 10.

Godse & Company.—Sitaram Bldg., Palton Road, Bombay 1.

Indian Commercial Agency.—Regd. Office: Nasir Palace, opp. Dockyard Railway Station, Mazagaon, Bombay 10.

Northern India Timber Corp.—63, Reay Road, Bombay 10.

Packers (India) Co.—34-38, Hamam Street, Fort, Bombay.

Plastic Extruders Private Ltd.—204, Dr. Dadabhai Naoroji Rd., Fort, Bombay.

Podar Saw Mills.—61, Reay Road, Bombay 10.

Processed Timber Products.—104, Ghodbunder Road, Chunabhatti, Santa Cruz (West), Bombay 23.

**WADIA, B. F. & SONS.**—Reay Road, Bombay 10. Phone: 71934. Grams: "TIMBERSALE." Timber, Mangalore Roofing Tiles and Woodwool—The Ideal Packing Material.

## PACKINGS AND JOINTINGS

**ABDEALLY, E. M., & CO.**—127, Sarang Street, Bombay 3. Phone: 326980. Grams: "ALERTDEAL."

**AMIRUDIN SHALEBHOY TYEBJEE & SONS.**—Shale Building, 2nd Floor, Bank Street, Fort, Bombay 1. Phone: 25-2952/25-4103. Grams: "PILOTACE."

**ASBESTOS PACKING & MANUFACTURING CO.**—15/A, Bruce Street, Bombay 1. Phone: 251605. Grams: "FERRYLIGHT." Manufacturers of Asbestos Yarns & Packings, Steam Hydraulic & Acid Proof Packings.

Desai Tube & Hardware Mart.—41, Nagdevi Cross Lane, Bombay 8.

**HIRALAL GOKULDAS DALAL & CO.**—45, Nagdevi Cross Lane, Bombay 3. Phone: 321594. Grams: "HIRAGOCUL" "Firefly" Asbestos Textiles, Packings, Jointings, Millgin Stores, Engineering Hardware Tools.

**MEHTA NANAVATI & CO.**—96, Narayan Dhuru Street, Bombay 3. Phone: 324645. Grams: "REDJOINT."

R. Mohanlal & Co.—38, Bibijan Street, Bombay 3.

**SHALEBHOY TYEBJEE & SONS (Estd. 1840).**—12, Bruce Street, Fort, Bombay 1. Phones: 252357 and 252358. Grams: "ROTATOR." Packing, Jointings "Beldams."

**VASI SHUMS & CO. PRIVATE LTD.**—165-67, Nagdevi Street, Bombay 3. Phone: 327381. Grams: "WIREROPE".

## PAINTING CONTRACTORS

**COOPER & CO.**—53, Abdul Rehman Street, Bombay 3. Phone: 323908. Grams: "COPPEROIL." Manufacturers of Paints, Enamels, Varnishes, Distempers, Emulsion Paints & Industrial Finishes.

Cooverji Hormusji & Sons, N.—298, Wadia Bldg., Girgaum Road, Bombay 2.

**DAVAR, N. & CO.—Syndicate Bank Building, Sir Phirozshah Mehta Road, Bombay. Phone : 26-1880. Interior Decorators and Painting Contractors. Showroom : Commerce Centre, Tardeo, Bombay 7 (WB).**

Fleming John & Co., Private Ltd.—P.B. No. 76, Bombay 1. Phone: 261153.

**KAPADIA BROTHERS.—81, Abdul Rehman Street, Bombay 3. "Painting Contractors of Repute" also Dealers in : Paints Enamels, Distempers, Plastic Emulsion Paints, etc. Chief Stockists of "NOBLE PAINTS." Phone : 324108. Grams : "DECORATORS."**

**MACFARLANE & CO., LTD.—34, Lamington Road (North), Bombay 8. Phones : 74868 & 74265. Grams : "TAURUS."**

**NEW COLOUR SCHEME.—Painters & Decorators, 18, Commercial Chambers, Masjid Bunder Road, Bombay 3. Specialists in Oil Painting, Distempering, Whitewashing, Spray Painting, etc. Phone : 324668.**

**PRAVIN DECORATORS.—Artistic Paintings Contractors, Colour Scheme Specialists for Buildings, Flats, Offices, Factories, Mills, etc. Inquiries Invited. Contact 81, C. P. Tank Road, Bombay 4. Phone : 33394.**

S. More & Co.—34/38, Hamam Street, Fort, Bombay 1. Phone : 252019. Grams : "PACKWELL" (FT). For quality painting of Flats, Bungalows, Factories, Mills, Hotels, Palaces. Also Decorators, Sign Makers, Displays, Shop Fronts, Architectural Models for last 25 years.

**S. MANCHERSHA & CO.—Senior Certified Painting & Decorating Contractors of Messrs. JENSON & NICHOLSON (India) LTD., Navsari Chambers, Outram Road, Fort, Bombay 1. Phone : 26-2373.**

Vibgyor (India) Private Ltd.—143, Mahatma Gandhi Road, Fort, Bombay.

**WAKEFIELD PAINTS PRIVATE LIMITED.—'Dhan-Nur', 15/16, Sir Phirozshah Mehta Road, Fort, Bombay 1 (India). Grams :"WAKEPAINT." Phone: 264061.**

## PAINT RAW MATERIALS

**GUJRAT PAINT & CHEMICAL INDUSTRIES.—Manufacturers of Quality Zinc-Oxide as per ISI Specifications. 70, Dhanji Street, Bombay 3. Tel. : 324905. Grams : "KLINPRO".**

**INDUSTRIAL MINERALS & CHEMICAL CO.—125, Narayan Dhuru Street, Bombay 3. Phone : 323721 (3 lines). Grams : "IMCHEL". Chemists & Mineral Merchants and Stockists of raw material for all Industries.**

**KANTILAL SANGHVI & CO.—23, Sir Phirozshah Mehta Road, Fort. Phones : 253628, 255636 and 78473 (Res.). Grams : "EXPIM."**

**MURARILAL BALKISHAN.—30, Commerce Chambers, Masjid Bunder Road, Bombay 3. Phone: 328028. Grams : "DANVEER." Importers & Suppliers of Paint Raw Materials, Solvents, Pigments & Chemicals for Textiles, Sugar, Glass & Ceramic Industries & Dyes Intermediates.**

## PAINT SHADE CARDS

**KADAM & CO.—Makers of Shade Cards, for Paint Manufacturers. Girdhari Bhawan, Sadashiv Cross Lane, Girgaum, Bombay-4.**

## PAINT TESTING MACHINES

**PIONEER EQUIPMENT CO. PRIVATE LTD.—139, Medows Street, P. O. Box 1909, Bombay 1. Phone : 251882. Also at Calcutta, New Delhi, Madras and Baroda. Agents for "REL" Research Equipments Ltd., U.K.**

## PAINTS, ENAMELS AND VARNISHES

Abdeally, B. M., & Co.—127, Sarang Street, Bombay 3.

Abdeali Mohamedali Rangwala.—148, Nagdevi Street, Bombay 3.

Adamally Kikabhai Rangwalla.—309, Shaik Memon Street, Bombay 3.

Allied Trading Co.—Importers & Stockists of all kinds of Enamels, Varnishes, etc., 39, Nagdevi Street, Bombay 3.

Advance Paints Ltd.—125, Medows Street, Fort.

Ahmed Moosa Motiwalla & Sons.—Tank Road, Parel.

Ahmed Oomerbhoy.—Two Tanks, Grant Road.

Akbarally Sharfally Zaveri.—25, Ebrahim Rahimtoola Road, Bombay 3.

**AMIRUDIN SHALEBHOY TYEBJEE & SONS.—Shale Building, 2nd Floor, Bank Street, Fort, Bombay 1. Phone : 25-2952/25-4103. Grams : "PILOTACE."**

Amritlal & Co., Ltd.—Sprott Road, Ballard Estate, Fort.

**AMZEL PRIVATE LTD.—Nusser House, New Queen's Road, Bombay 4. Distributors for Spartan Paints manufactured by Addisons Paints & Chemicals Ltd., Madras.**

**ASIAN OIL & PAINT CO. (INDIA) PRIVATE LTD.—Das Chambers, Dalal Street, Fort, Bombay 1. Manufacturers of Quality Paints, Varnishes, Enamels, Brushes, Syn. Resins, etc., etc. Phones : 255671-2-3-4. Grams : "REDLEAD," Bombay.**

**BAKER BROTHERS.—31, C. P. Tank Road, Bombay 4. Phone : 334421. Grams : "BAKERCOLOR." Paints, Enamels, Varnishes, N.C. Lacquers and thinners for all purposes.**

Baker, M. & Co.—35, Nagdevi Street, Bombay 3.

Bassein Paint & Varnish Co.—Magazine Street, near Reay Road Station, Mazagaon.

Beardsell, W. A., & Co., Ltd.—15-16, Sir Phirozshah Mehta Road, Fort.

**BLUNDELL EOMITE PAINTS LIMITED.—Bombay Division & Bombay Industrial Division, Rustom Building, Veer Nariman Road, Bombay 1. Phones : 251246-7. Grams : "BLUNPAINTS".**

**BOMBAY PAINTS & ALLIED PRODUCTS LIMITED.—Regd. Office : Factory : Corridor Road, Gavanpada Village, Chembur, Bombay 74 AS. Grams : "KANGAROO" BOMBAY. Manufacturers of Kangaroo Brand Paints, Pentolite Synthetic Oil Bound Distemper, Pentolite Enamel and all kinds of Industrial Paints, Hempel Marine Paints under licence from Hempel Marine Paints of Denmark. Polifac Car Polishes and other products in collaboration with Siegel Werke GMBH Koln, Germany. Phone : 521691, 521673.**

**BRIGHT & CO. PRIVATE LTD.—18, Commercial Chambers, Masjid Bunder Road, Bombay 3. Phone : 324668. Factory : Saki-Vihar Road, Kurla, Bombay 70. Phone : Factory : 581125. Grams : "PAINTMAKER." Manufacturers of all kinds of Paints, Enamels, Distempers, Varnishes, Lithographic & Paper Varnishes, Linseed oils, etc.**

**CHEMIDYE TRADING CO., PRIVATE LTD.—Kamer Building, Cawasji Patel Street, Fort, Bombay-1. Phone : 251034.**

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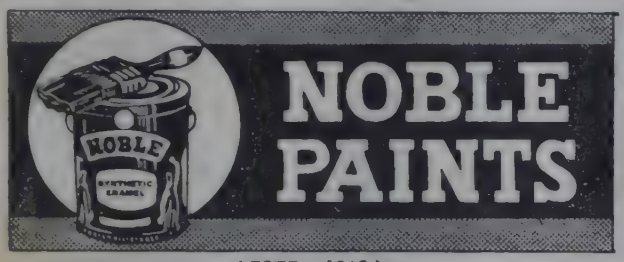
Ishverdas Jugmohandas & Co.—Mubarak Manzil, Apollo Street, Fort.
Jenson & Nicholson (India), Ltd.—Mackinnon Mackenzie Building, Ballard Estate, Bombay.
Kalapi Colour Trading Co.—42, Dadysheth Agiary Lane, near G.T. High School, Bombay 2.
Kanthawala, N., & Co.—77, Medows Street, Fort.

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Turner, Morrison & Co., Ltd.—16, Bank Street.

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Akbarally Abdulhussain & Co.—19, Sutar Chawl, Bombay 2.

Ambalal Dharamchand & Co.—1, Esaji Street, Vadgadi, Bombay 3.

**AMOL PAPER SYNDICATE.—26/A, Sir Phirozshah Mehta Road, Bombay 1. Phone : 261880, 266132. Grams : "GRISPROOF."**

Amritlal, K., & Co.—27-29, Mirza Street, Parsi Galli.

Asiatic Paper Company.—56, Sutar Chawl, Bombay 2.

**ASOK BROTHERS PRIVATE LTD.—104, Apollo Street, Fort. Phone : 254329. Grams : "ASOKBROS". Importers of all sorts of Paper and Boards.**

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Bansi Dhar Kapoor & Sons.—73-75, Mirza Street, 3rd Floor, Bombay 3.

Beardsell, W. A., & Co., Ltd.—15-16, Sir Phirozshah Mehta Road, Fort.

Bhargava & Co., K. C.—P. Box No. 19, Bombay 1.

**BHARAT PAPER MART (Estd. 1932).—Bharat Bhuvan, 51, Sutar Chawl, Bombay 2. Grams : "GLAZE." P.O. Box No. 2245. Phone : Office : 325329. Res. : 75727. Distributors for Titaghur Paper Mills, India Paper Pulp Co. and Bengal Paper Mill Co. Ltd. Calcutta.**

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Bombay Stationery Mart.—7-A, Sir Phirozshah Mehta Road, Fort.

Bombay Trading Co.—"Dhun-Nur," Sir Phirozshah Mehta Road, Fort.

Bombay United Agencies, Ltd.—21, Western India House, Sir Phirozshah Mehta Road Fort.

Cama, Norton & Co.—23, Medows Street, Fort.
Chalasani & Co.—Noble Chambers, Parsi Bazar Street, Fort.
Chhaganlal Keshavjee.—22-A, Parsi Bazar Street, Fort.
Chimanlal & Co.—38/42, Shamsett Street, Bombay.

**CHIMANLAL PAPER COMPANY.—Importers of High Grade Papers, Boards and Mill Representatives. 1st Floor, Macmillan Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay. Grams : "SELECTION." Phones : 262041/42, 262210 and 532060 (Residence).**

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D. R. Patodia & Co.—Warden House, Sir Phirozshah Mehta Road, Fort, Bombay.

Deccan Paper Mart.—52, Mirza Street.
Dharia, R., & Co.—Sutar Chawl, Bombay 2.
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Hlof Hansson Agency Ltd.—Adelphi House, 3, Queen's Road, Bombay.

Empire Traders.—Stationers, Printers & Paper Merchants, 18, Hassan Chambers, Parsi Bazar Street, Fort.

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Friends Paper Stores.—299, Abdul Rehman Street, Opp. Safe Co-operative Bank Ltd., Bombay 3. Phones : Office : 324096 and C/o 326343 and Factory : 65313. Grams : "AZADPAPER."

**GANDHI BROTHERS.—203, Dr. Dadabhoy Naoroji Road, Bombay 1. Phone : 261345. Wholesale Dealers in all kinds of Paper & Boards & Manufacturers of Gum, Vynatite allied Coated Papers.**

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Great Eastern Trading Co.—107, Cawasji Patel Street, Fort.

Hardcastle, Waud & Co., Ltd.—Alice Building, Hornby Road.

Haveliwala Paper Mart.—"Zainab House," 34-36, Mirza Street, Bombay 3.

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Hoosein & Bros., M. A.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort.

India Paper Corporation.—64, Sutar Chawl, Bombay 2.

International Impex Corporation.—18, Motibai Jamnadas Building, 64, Sutar Chawl, Bombay 2. Phone: 23566. Grams: "INTIMEX-COR."

International Paper Co.—26, People's Building, Sir Phirozshah Mehta Road, Fort.

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**KOSMOS PAPER STORES, THE.—87-A, Khadilkar Road, Bombay 4. Phone: 71901. Grams: "KOSMOSPAP." Importers of Paper and Boards.**

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R. B. Shivdasani & Co.—73, Bombay Mutual Building, Hornby Road, Fort, Bombay 1.

R. Gulambusen & Bros.—41-43, Mirza Street, Parsi Gully.

R. Kantilal & Co.—Zaveri Bhuvan, 2nd Agiary Lane, Parsi Gully, Bombay 3.

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S. Kumar & Co.—People's Buildings, Sir Phirozshah Mehta Road, Fort, Bombay 1.

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Shambhulal A. Shah & Co.—Podar Chambers, Parsi Bazar Street, Fort.

Shantilal Shah & Co.—Bombay Mutual Annexe, 17, Gunbow Street, Fort.

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Standard Paper Co.—72-74, Sutar Chawl.

Subodh Indent Agency.—44, Kumar Villas, Mangalwadi, Girgaum.

Sultanali Mohamadali (Estd. 1895).—148, Sarang Street, Bombay 3.

**SUPERIOR STATIONERY MART LTD.—117, Nagindas Master Road, (Medows Street), Fort. Phone: 25-2398. Grams: "LOVELINESS." Printers and Paper Merchants.**

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United Company.—Peerbhoy Building, 89, Princess Street, Bombay 2.

United Corporation.—National Indian Life Building, 59, Forbes Street, Fort.

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**WIGGINS TEAPE & ALEX. PIRIE BRANCH OF TRIBENI TISSUES PVT. LTD.—Paper Merchants, Kamani Chambers, Nicol Road, Ballard Estate. Telegrams: "WINCHMORE." Phone No. 26-1622.**

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**S. MEHTA & CO.—Anees Chambers, Carnac Road, Bombay 1. Phone: 263001. Grams: "DUTYBOUND". Industrial Wire Netting and Perforated Metals, Stainless Steel Wire Nettings, Monel and Metal Wire Nettings; Importers, Exporters and Merchants.**

## PERFUMERS & PERFUMERY RAW MATERIALS

**A. BOAKE, ROBERTS & CO. (INDIA) LTD.—Fourth Floor, Harilela House, Mint Road, Fort, Bombay No. 1 BR. Grams: "FLAVAROM." Suppliers of Quality Perfumes for Agarbathies, Hair Oils, Face Powders, Handkerchiefs, Perfumes and all types of Cosmetics, etc. Head Office: Madras. Branch at Calcutta.**

Ahmed, D., & Sons.—Teher Mansion, 10-A, Nepean Sea Road, Bombay 26.

Akbarally Ebrahimji Pharmacy & Department Stores.—45/47, Veer Nariman Road, Bombay.

Allwyns Private Ltd.—92-94, Ardeshir Dady Street, Vithalbhai Patel Road, Bombay 4.

Anil Trading Co.—Sharaf Mansion, 32, Princess Street, Bombay 2.

**AROMATIC PRODUCTS & CHEMICALS PRIVATE LTD.—42, Prospect Chambers Annexe, Dr. Dadabhai Naoroji Road, Fort. Phone: 253151. Grams: "DISCOVERY." Stockists of Imported Perfumery, Raw Materials and Manufacturers of Perfume Compounds.**

**B. C. PATEL & CO.—Devkaran Building, Princess Street, Bombay 2. Stockists of Aromatic Chemicals, Essential Oils & Perfumery Compounds. Phone: 20366. Grams: "SNEHALATA."**

Bhagat & Sons.—21-23, Shamset Street, Bombay 2.

Bhaichandra Upasani.—338, Samuel Street, P.B. No. 3268, Bombay 3.

Bombay Agarbatti Co.—Simplex Building, Pawwalla Street, near Krishna Cinema, Bombay 4.

Bombay Chemicals Private Ltd.—129, Mahatma Gandhi Road, Bombay 1.

Bombay Perfumery Co.—Devkaran Mansion, Princess Street.

**CALCUTTA ESSENCE SUPPLY CO.—Mulchand Mansion, 1st Floor, Princess Street, Bombay 2. Grams: "SUPRALUX." Phone: 23623. Dealers & Importers of Essential Oils, Aromatic Chemicals & Perfumery Compounds. Branch at: 41, Ezra Street, Calcutta 1.**

Chavannes & Co., Private Ltd.—P.B. No. 552, Mercantile Chambers, Graham Road, Ballard Estate, Bombay 1.

Chimanlal Maganlal & Co.—4, Mangaldas Road, Princess Street, Bombay 2.

Chunilal Prabhudas & Co., (Bombay) Private Ltd.—211-12, Himalaya House, Palton Road, Bombay 1.

Colaba Drug Stores.—Namdar Manzil, Colaba Road, Bombay 5.

Coryse-Salome, Paris.—Regal Building, Apollo Bunder.

Dalal Bros.—74, Swadeshi Market, Kalbadevi Road, Bombay 2.

**M. C. DAVAR & CO.—143, Princess Street, Bombay 2. Phone: 39752. Grams: "EMCIDAVAR." Aromatic Chemicals, Essential Oils and perfumery materials. Agents for Esrolko Ltd. (Flora), Switzerland.**

D. D. Shah & Co.—Damodar Building, 105, Princess Street, Bombay 2.

Derby & Co.—P. B. Press Building, 299, Frere Road, Fort.

D. G. Gore.—31, Mangaldas Road, Princess Street, Bombay 2.

**EAST ASIATIC CO. (INDIA) PRIVATE LTD.—Wavell House, Graham Road, Ballard Estate, Bombay 1. Phone: 26-2711 (8 lines). Machine Works: Tank Road, Bombay 33 DD. Phone: 78544. Offices at Madras, Calcutta, New Delhi, Bangalore, Secunderabad & Lucknow.**

Eastern Aromatics.—105, Hindu Colony, 4th Road, Dadar, Bombay 14.

Enamdar Trading Co.—Devkaran Mansion, 63, Princess Street, Bombay 2.

Ethical Products (India) Private Ltd.—Advani Chambers, Sir Phirozshah Mehta Road, Bombay 1.

Eve Fabrics Private Ltd.—Indu House, Dougall Road, Ballard Estate, Bombay.

Fedco Private Ltd.—Mafatlal House, Backbay Reclamation, Bombay 1.

Foreign Scent Supplying Syndicate.—Santa Cruz, Bombay 23.

General Import Co. (India).—Keshav Baug, 102, Princess Street, Bombay 2.

**GOLDENSUN MANUFACTURING CO.—Distillers & Manufacturers of Highly Concentrated Fruit & Flower Essences & Essential Oils, Perfume, Compounds, etc. Bansilal Building. 64-C, Girgaum Road, Bombay 4. Sales Office: Mulchand Mansion, Princess Street, Bombay 2.**

Gore, D. G.—31, Mangaldas Road, Bombay 2.

Grand Bazar.—25, Colaba Causeway, Bombay 1.

Gujarat Essence Mart.—Keshav Baug, 25, Princess Street, Bombay 2.

Gulab Singh Johrimal.—62-62A, Marwari Bazar, Bombay 2.

G. P. Patel & Co.—Mansoor Building, 98, Princess Street, Bombay 2.

**GUPTA & CO.—Shroff Mansion, Princess Street, Bombay 2. Phone: 29859. Grams: "AROMATIC," Bombay 2. Manufacturers & Suppliers of high class Perfumes for Scents, Hair Oil, Snow, Powders, Vaselines, Soaps, Agarbatti, Zarda, Tobacco. Scented Supari, Panmasala and Snuffs, etc. Our Specialities—Kashmir Flower, Glory, Phool Chameli, Indian Jasmine with all its delicacy recreated. "PANBILAS" (A tasteful perfume for all sorts of Panmasala & Scented Supari).**

Hami & Co.—Perfumers. Cutlery Market, Jumma Masjid, Bombay 2.

Harrison & Co.—168-170, Cumballa Hill.

Hasanali Kamroodin.—10, Shamset Street, Chippi Chawl, Bombay 2.

Hira, P. H., & Co.—18-20, Princess Street, Bombay 2.

H. M. Zakaria & Bros.—Perfumers, 299, East Sandhurst Road, Bombay 3.

Ina Trading Co.—35 Vithaldas Road, Princess Street, Bombay 2.

International Import Export Co.—Botawala Building, Elphinstone Circle, Churchgate Street, Bombay 1.

**INDUSTRIAL PERFUMES LTD.—Head Office: 3rd Floor: Army & Navy Building, Mahatma Gandhi Road, Bombay 1. Phone: 255526/9 Extn. 3 & 4. Factory: Hay Bunder Road, (Tata Oil Mills Compound), Sewri, Bombay 33. Phone: 73331. Manufacturers of Aromatic Chemicals and Perfumery Compounds.**

Jayantilal & Co., B.—15, Mangaldas Road, Princess Street, Bombay 2.

J. L. Morison Son & Jones (India) Ltd.—Contractor Bldg., Ballard Estate, Bombay.

Kalapi Store.—53-56, Swadeshi Market, Kalbadevi Road, Bombay 2.

Kapadia & Co.—Bell Building, Sir Phirozshah Mehta Road, Bombay 1.

K. H. Dhamdhere.—Devkaran Mansion, 45-47, Princess Street, Bombay 2.

Madon, M. T., & Co.—The "Corner-shop", 346, Abdul Rehman Street.

Madon, Sons & Co.—Madon Mansion, 67, Hughes Road, Bombay 7.

Manek Chemical Company—Bhadaran Nagar, Ghodbunder Road, Malad, Bombay.

**MANILAL MOTICHAND KANANI & CO.—99, Princess Street, Bombay 2. Phone: 38078. Sole Agents for "Chinese Girl" Brand Synthetic Essential Oils.**

M. B. Thakkar.—105, Princess Street, Bombay 2.

M. D. Patel & Co.—Devkaran Mansion, Princess Street, 1st Floor, Block No. 1, Bombay 2.
Mehta Nariman & Co.—'K' Building, Fort Street, Bombay 1.
Mercantile Essential Oil Co.—5, Mint Road, Fort, Bombay 1.
M. M. Khambatwala, C/o C. Narottam & Co.—Mangaldas Road, Bombay 2.

**MOHINI AGENCY.—Jakaria Building, Masjid Bunder Road, Bombay 3. Manufacturers of Perfume Compounds "OTTO MOHINI," "PHUL-TORA," etc. and long-lasting "INDIA GATE," "MOHINI ROSE," "MISS INDIA," Agarbattis, Exporters and Importers.**

M. R. Mody.—Mangaldas Building, Mangaldas Road, Bombay 2.
Mysore Products Ltd.—191, Princess Street, Bombay 2.
Mysore Sugandhi Dhoop Factory.—Post Box No. 3178, Masjid Bunder Road, Bombay 3.
Naarden Chemical Works (India) Private Ltd.—Sevna House, 84, Annie Besant Road, Worli, Bombay 18.
National Overseas Corporation.—105, Princess Street, 2nd Floor, Bombay 2.
National Trading Co.—190-191, Mangaldas Road, Bombay 2.

**N. R. SHAH & COMPANY.—Mulchand Mansion, Princess Street, Bombay 2. Phone No. 20093. Grams: "WALFLOWER". Perfumers and Perfumery Raw Material Dealers. Dealing in Aromatic Chemicals, B.P., Natural, Synthetic Essential Oils and Perfumery Compounds.**

New Chemical Industries, The.—Antio House, Edalji Road, Thana.

**NEW INDIA AROMATICS CO.—Devkaran Mansion No. 3, 45/47, Princess Street, Bombay 2. Grams: "PANBILAS", Bombay 2. Manufacturers of Synthetic Essential Oils (industrial Perfumes) used in Perfuming: Hair Oils, Brilliantine, Face Cream, Scents, Agarbattis, Zarda, Snuff, Chewing Tobacco, Face Powder, Toilet Soaps, etc., etc.**

Otto Manz.—14, Hamam Street, P.O. Box 1550, Bombay 1.

**PATANWALA PRIVATE LTD.—182-84, Abdul Rehman Street, Bombay 3. Phone: 322899. Grams: "OTTODUNYA." Dealers in Cosmetics, Toilet Goods and Perfumery.**

P. Chunilal & Co.—Mulchand Mansion, 2nd Floor, Princess Street, Bombay 2.
Pearline (Paris).—Rahman Building, Vir Nariman Street, Fort.
P. Muncherji & Co.—10, Hamam Street, Bombay 1.
Purshottam Laxmichand.—Bulakhidas Building, Princess Street, Bombay 2.
Rayon Industries.—Shree Hari Nivas, 20, Gowalia Tank Road, Bombay 26.
R. H. Mody & Co.—8, Khanderao Wadi, 1st Floor, Kalbadevi Road, Bombay 2.
R. K. Shapurji & Co.—Prospect Chambers, 319, Hornby Road, Bombay 1.
R. Randow.—Kitab Mahal, Hornby Road, Bombay 1.
Sepulchre Brothers (India) Private Ltd.—Import Dept., Taj Building, Hornby Road, Bombay 1.
S. G. Kothari & Co.—88-90, Abdul Rehman Street, Bombay 3.

**SIKRI BROTHERS.—79-E, Princess Street, Bombay No. 2. Phone No. 33494. Grams: "OILMAN".**

S. Javeri & Co.—Devkaran Mansion, Block No. 3, 3rd Floor, Princess Street, Bombay 2.
S. Parth & Co.—7, Chandra Mahal, Girgaum, Bombay 2.

**SYNOFLOR COMPANY.—Sharaf Mansion, 32, Princess Street, Bombay-2. Can undertake to manufacture Cosmetic Compounds against Customers' specific needs.**

Trading Co. Late Hegt. & Co., Ltd.—Indu House, Dougall Road, Ballard Estate, Bombay 1.
Tata Oil Mills Company Ltd.—Bombay House, Bruce Street, Bombay.
V. Harkishandas & Co.—Sharaf Mansion, 32, Princess Street, Bombay 2.
Voltas Limited.—Graham Road, Ballard Estate, Bombay 1.
Vrajlal, B., & Co.—28, Princess Street.
Weil Company.—Stadium House, 2nd Floor, Veer Nariman Road, Bombay 1.

## PEST CONTROL

**CHEMAFUMES PRIVATE LTD.—Dena Bank Building, 17, Horniman Circle, Bombay 1. Phone: 251627. For White Ants, Household Insect Pests, Fumigation & General Pest Control Service.**

**FLINTROCK PRODUCTS PRIVATE LTD.—Belvedere Road, Mazgaon, Bombay 10. Mfrs. of "Lethalrock" Insecticides, Spray, Dust in various Grades and "Bugnash." Insecticide Spraying Service under Expert Supervision. Phones: 70304 & 321238.**

**PEST CONTROL (INDIA) PRIVATE LTD.—36, Yusuf Bldg., Mahatma Gandhi Road, Fort, Bombay 1. Phones: 251546-7. Grams: "PESTCIL". Consulting Entomologists, Termite Controls, Disinfection & Fumigation Service. Member, National Pest Control Association Inc., U.S.A. & Entomological Society of India. Branches: Ahmedabad, Delhi, Calcutta, Madras, Coimbatore, Hyderabad and Ernakulam.**

**PEST CONTROL CORPORATION.—203, Dr. Dadabhoy Naoroji Road, Bombay 1. Tel. No.: 261777. H.O. 27, Bentick Street, Calcutta 1. Marine, Industrial & Domestic Pest Control Specialists & Manufacturers of Pest Control Aids for Do-It-Yourselfers.**

## PETROLEUM & OIL COMPANIES

**ANDREW YULE & CO. LTD.—32, Nicol Road, Ballard Estate, Bombay 1. Phone: 261355. Grams: "YULETIDE." Calcutta Office: 8, Clive Row, Calcutta-1.**

Balmer Lawrie & Co. Ltd.—5, Graham Road, Ballard Estate, Bombay.

Burmah-Shell Oil Storage and Distributing Co. of India Ltd.—Burmah-Shell House, Currimbhoy Road, Ballard Estate, Bombay.

**CALTEX (INDIA) LIMITED.—Caltex House, Ballard Road, Ballard Estate, Bombay 1—BR.**

Esso Standard Eastern Inc.—Esso Bldg., 17, Jamshedji Tata Road, Bombay 1.

**GULF OIL (INDIA) PRIVATE LIMITED.—Steelcrete House, 3, Dinsha Watcha Road, Bombay 1. P.O.Box No. 1943. Phone: 245131 (3 lines). Grams: "GULFINDIA." Importers and Distributors of High Grade Lubricants. Area Offices: Ahmedabad, Hyderabad & Indore.**

Indian Oil Company Ltd.—Clarke Road, Mahalaxmi, Bombay 34. Marketing and Distribution of Petroleum Products.

Indo-Burma Petroleum Co. Ltd.—Allahabad Bank Building, Apollo Street, Fort, Bombay.

## PETROLEUM PRODUCTS

**GENERAL OIL TRADING CO.—111/115, Khand Bazar, Randerian House, Bombay 3. Phone: 321376. Grams: "GENOTRADCO", Bombay. Importers of all grades of Lubricating Oils & Motor Oils & Petroleum Jellies.**

**INTERNATIONAL LUBRICANTS PRIVATE LTD.—Court House, Dhobi Talao, Bombay 2. Phone: 29109. Grams: "LUBRICANTS," Bombay and 12-A, Ashutosh Mukerjee Road, Calcutta 20. Grams: "VISCOSITY," Calcutta. Importers of High grade Motor Oils, Lubricating Oils & Petroleum Jellies.**

**PIONEER OIL COMPANY.—Importers & Distributors, Petroleum Products, Transformer Oil, Lubricating Oils, Petroleum Jelly & Greases. 354, Narsi Natha Street, Katha Bazar, Bombay 9. Phone: 325994.**

**SUDAN TRADING CO.—Dhan-Nur, Phirozshah Mehta Road, Bombay 1. Phone: Office: 262788. Resi.: 62089. Grams: "VANSOBHA."**

## PHARMACEUTICALS

**ABBOTT LABORATORIES (INDIA) PRIVATE LTD.—Manufacturing Pharmaceutical Chemists, Jehangir Building, Mahatma Gandhi Road, Fort, G.P.O. Box No. 1334, Bombay. Phone No. 253637. Grams: "ABBOTTLAB." Madras Depot: Ebrahim Mansion, 3rd Floor, 3, Errabalu Chetty Street, P.O. 1224, Madras 1. Grams: "ABBOTTLAB," Madras. Phone: 24792. Calcutta Depot: 6/1, Lindsay Street, Calcutta 16. Grams: "ABBOTTLAB." Phone: 233907.**

Alembic Chemical Works Co., Ltd., Baroda.—Distributors in Bombay: Alembic Distributors Ltd., Lakshmi Building, Sir Phirozshah Mehta Road, Fort.

**AMRUTANJAN LIMITED.—249, P. D'Mello, Fort, Bombay. Phone: 261673. Grams: "AMRUTANJAN." Head Office: Madras. Other Branches: Calcutta and Delhi. Manufacturers of Amrutanjan Pain Balm, Anoleum, Dermal Ointment, Inhalers and Gripe Mixture.**

Anglo-Thai Corporation Ltd.—Ewart House, Bruce Street, Bombay 1.

Asian Drug Corporation.—Podar Chambers, Parsi Bazar Street, Fort.

Asiatic Pharmaceutical and Chemical Corpn.—19, Bank Street, Fort, Bombay.

**ATUL DRUG HOUSE.—85, Dr. Annie Besant Road, Worli, Bombay 18. Phone: 76722. Grams: "ATULDRUG." Sole Agents and Manufacturers in India for:—Laboratoires VIFOR S. A., Geneva, Switzerland; Laboratoires HOUDE, Paris, France; COMTECK Laboratories, Bombay, India.**

**BEECHAM (INDIA) PRIVATE LTD.—Manufacturers of Pharmaceuticals and Toiletry Products. Beecham House, Pitamberwadi, Off Lady Jamshedji Road, Mahim, Bombay-16. Phones: 453286 and 453287.**

**BENGAL CHEMICAL & PHARMACEUTICAL WORKS LTD.—502, Cadell Road, Bombay 28. H.O. 6, Ganesh Chunder Avenue, Calcutta 13. Pharmaceutical Heavy and Fine Chemicals, High Class Toilet Products, Coal Tar Distillation Products, Fire Extinguishers, Printing Inks, Driers, etc. Branch Office: Kanpur.**

# B-TEX OINTMENT MFG. CO.

B-Tex House, 80, B.C.D. Kandivli Govt. Industrial Estate, Kandivli, Bombay-67 N.B.

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WHITE OINTMENT

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ALL KINDS OF SKIN OINTMENTS

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**B. A. & BROTHERS (BOMBAY) PRIVATE LTD.**—98, Princess Street, Bombay 2. Phone : 22939. Grams : " BABULINE."

**BIOLOGICAL EVANS PRIVATE LIMITED.**—Phone: 256561, 256907. Manufacturers of Anti-T.B. Drugs, Sera & Bacterial Vaccines together with other fine Chemicals, Glandular Products and a Selection of Evans medical specialities.

**BIOLOGICAL PRODUCTS (PRIVATE) LTD.**—3rd Floor, Lakshmi Bldg., Sir Phirozshah Mehta Road, Bombay 1. Phone : 265311. Mfrs. of Liver Extracts (Oral and Injectable Grades), Glycerophosphate, P.A.S.I.N.H., Heparin and Bacteriological Peptone.

Bock, F., & Co.—Shale Building, Bank Street, Fort.

**BOEHRINGER-KNOLL LIMITED.**—Head Office : United India Bldg., P. M. Road, Bombay-1. Phone: 256485 & 254571. Grams: "ALCALOID." Factory: Phone: 591363. Manufacturers of Fine Chemicals and Pharmaceutical Specialities.

**BOMBAY TABLET MANUFACTURING CO.**—Sales Depot : 304, Princess Street, Bombay 2. Grams : "SACCHARIN." Factory : Tablet House, Near Goregaon Talkies, Goregaon (East), Bombay 62. Manufacturers of Pharmaceutical Products.

**BOOTS PURE DRUG CO. (INDIA) PRIVATE LTD.**—Registered Office : 17, Nicol Road, Bombay 1 BR. Phone : 261436. Grams : "DRUGBOOTS," Bombay. Factory : Sion, Bombay 22DD. Phone: 472444 and 472445. Grams : "BURNOL."

**BRITISH DRUG HOUSES (INDIA) PRIVATE LTD.**—8, Graham Road, Bombay. Phones : 263138, 263139. Grams : "TETRADOME."

**CAMA, NORTON & CO.**—Cama Chambers, 23, Medows Street, Fort. Phone : 255354. Grams : " CAMANORTON."

**CASTOPHENE MANUFACTURING CO.**—Manufacturers of Fine Household Remedies such as Castophene Laxative, Capirin, Gripe Mixture, Cough Syrups and Tablets, Ointments etc. 85, Dr. Annie Besant Road, Worli, Bombay 18. Phone : 72456. Grams : " CASTOPHENE ". Branch at Delhi 6, and Agencies throughout India.

**CHARAK PHARMACEUTICALS.**—Manufacturers of Ayurvedic Pharmacopoeal Medicines, Specialists & Specific remedies. Factory & Office : Evergreen Industrial Estate, Shakti Mills Lane, Off Haines Road, Near Mahalaxmi Station, Bombay 11. Phone No. 42909. Sole Selling Agents : Messrs. Charak Bhandar. Head Office : Evergreen Industrial Estate, Shakti Mills Lane, Off Haines Road, Near Mahalaxmi Station, Bombay 11. Phone No. 42909. Grams : " FIRST." Branch Sales Depot & Clinic : Kapoor Mansion, 49, Hughes Road, Bombay 7. Phone No. 42898.

**CHEMICAL, INDUSTRIAL & PHARMACEUTICAL LABORATORIES, LTD. (CIPLA).**—289, Bellasis Road, Byculla, Bombay 8. Phones : 75211, 75212 and 75213.

**CHEMIDYE TRADING CO., PRIVATE LTD.**—Kamer Building, Cawasji Patel Street, Fort, Bombay-1. Phone: 251034.

**CHEMO-PHARMA LABORATORIES LTD.**—Manufacturers of Ethical Pharmaceuticals and Fine Chemicals. Office : 75, Dr. Annie Besant Road, Worli, Bombay 18. Phone: 76952. Factory : Plot No. C.S. 215, Sewri, Bombay 15. Phone : 63231. Grams : " CHEMOLABS." Managing Agents : Nadkarni & Co.

Chunilal Desai & Co.—Gool Mansion, Homji Street, Fort.

**CIBA OF INDIA LIMITED.**—Royal Insurance Building, 14, J. Tata Road, Bombay 1. Phones : 245031-3 & 246084-6.

Crookes Laboratories Ltd.—Court House, Carnac Road, Bombay 2.

**CYNAMID INDIA LTD.**—Producers of Broad Spectrum Antibiotics and other Pharmaceutical Products, Veterinary Products, Antibiotic Feed Supplements as well as Insecticides—Registered Office : " 254-D(2), Dr. Annie Besant Road, Worli, Bombay 18 WB. Grams : " CYANAMID ", Bombay. Western Regional Office & City Sales Depot : " The International," 16, Queen's Road, Bombay 1 BR. Grams : " LEDERSALES." Factory at P.O. Atul, Via Bulsar. Phone : 29. Grams : " CYANAMID," Bulsar.

**DEY'S MEDICAL STORES PRIVATE LTD.**—Manufacturers and Distributors of Pharmaceuticals. Exclusive distributors of Winthrop products, London & New York. Head Office : 6/2B, Lindsay Street, Calcutta, 16. Bombay Office : Raj Mahal, 3rd Floor, Churchgate Street, Bombay 1. Delhi Office : Netaji Subhas Marg, Daryaganj, Delhi 6. Madras Office : 302, Linghi Chetty Street, Madras 1. Patna Office : Jamal Road, Patna 1. Gauhati Office : Gopal Road, Pan Bazar, Gauhati. Cuttack Office : Ziaullh Building, Buxi Bazar, Cuttack. Branches at: (1) Dey's Medical Stores P. Ltd., 3-5-815, Hydergudd, Hyderabad ; (2) Dey's Medical Stores P. Ltd., Agarwaka Bldg., ' The Mall,' Kanpur.

**DR. BHALCHANDRA LABORATORY.**—215, Charni Road, Girgaum, Bombay 4. Phone : 23321. Grams : " BHALABS." Manufacturers of High Quality Pharmaceuticals and Ethical Specialities.

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.**—Wavell House, Graham Road, Ballard Estate, Bombay. Phone : 26-2711 (8 lines). Machine Works : Tank Road, Bombay 33 DD. Phone : 78544. Offices at Madras, Calcutta, New Delhi, Bangalore, Secunderabad & Lucknow.

Evans Medical Supplies (India) Ltd.—Lakshmi Building, Sir Phirozshab Mehta Road, Fort.

**FAIRDEAL CORPORATION (PRIVATE) LTD., THE.**—Lakshmi Building, Sir Phirozshah Mehta Road, Fort. Phone : 263593. Pharmaceutical Laboratories : 142-48, Swami Vivekananda Road, Jogeshwari, Bombay 60 (NB). Phone: 572408. Branches: Laha Paint House, 7, Chittaranjan Avenue, Calcutta 13. Phone: 23-3157; 2, Errabalu Chetty Street, Madras 1. Phone : 24835.

**GEOFFREY MANNERS & CO., LTD.**—Manufacturers, Importers & Distributors of Pharmaceuticals, Fine Chemicals, Toilet Requisites and allied products. Head Office : Magnet House, Dougall Road, Ballard Estate, Bombay. Phone Nos. 26-1361-2-3. Bombay Sales Office : Cadell Road, Dadar, Bombay. Phone No. 453428. Factory : Hattersley Mills Estate, Bombay Agra Road, Ghatkopar, Bombay. Phones : 51414, 51753, 55682, 55683 and 55760. Sales Offices : Calcutta, New Delhi, Madras, Bangalore, Gauhati, Kanpur, Faridabad and Patna.

**GERMAN REMEDIES PRIVATE LTD.**—Manufacturers and Importers of Pharmaceuticals, " Adelphi," 119, Queen's Road, G.P.O. Box No. 1945, Bombay 1. Cables : " CHEMAGENT." Telephones : 242293/4. Factory : Andheri Kurla Road, Bombay 69. Phone : 571660.

Gillanders Arbuthnot & Co., Ltd.—16, Queen's Road, Bombay 1.

**GLAXO LABORATORIES (INDIA) PRIVATE LTD.**—Worli, Bombay 18. P.O. Box 202, Bombay 1. Phones : 454311 (7 Lines). Branches : P.O. Box 2257, Calcutta. Phone : Alipore : 452015 (3 lines). P.O. Box 3211, Madras 32. Phone : 43013 (2 Lines). P.O. Box No. 510, New Delhi. Phone : 76203 (3 lines). Grams : " GLAXOLABS," Bombay, Calcutta, Madras, Delhi. Associates in India of Glaxo Group Ltd., London, England. Manufacturers of Baby Foods, Pharmaceuticals, Antibiotics and Fine Chemicals.

**HIMALAYA DRUG CO.**—Pharmaceutical Manufacturers, 251, Dr. Dadabhai Naoroji Road, Bombay 1. Phones : 262222 and 262223. Grams : " SERPINA " and at 22-24, Mahatma Gandhi Road, Dehra Dun, U.P. Grams : " SERPINA." Phone : 339.

Hoechst Pharmaceuticals Private Ltd.—Dugal House, Backbay Reclamation, Bombay.

Imperial Chemical Industries (India) Private Ltd.—Imperial Chemical House, Dougall Road, Ballard Estate.

**IPCA LABORATORIES LIMITED.**—95, Morland Road, Byculla, Bombay-8. Phone : 78208. Grams : " IPCAPHARM." Manufacturers of Pharmaceutical & Biological Products.

Indo-Pharma Pharmaceutical Works Private Ltd.—Kohinoor Road, Dadar, Bombay 14 ; Managing Director : J. R. Parikh ; Tech. Dir.: E. Schlesinger.

International Chemical Co. Ltd.—Magnet House, Dougall Road, Ballard Estate.

J. & J. De Chane.—Star Mansion, 30, Clare Road, Byculla, Bombay.

J. L. Morison Son & Jones (India) Ltd.—Contractor Building, Ballard Estate, Bombay 1.

**JOHN WYETH & BROTHER LTD.**—(Incorporated in England with Limited Liability). Steelcrete House, Dinshaw Wachha Road, Backbay Reclamation, Bombay 1. Grams : "WYETHICAL." Phone : 246171 (4 lines).

**JUGGAT SINGH'S SON & BRO.**—Regal Cinema Building, 41, Apollo Pier, Bombay 1. Phone: 211812. Grams: "PHYDRUGCO." Manufacturers & Exclusive Distributors for:—E. Tosse & Co., Hamburg, Germany; Maggioni & Co., Milan, Italy; Calmic Ltd., London; Ejice-Bruxelles; Instituto Sieroterapico E. Vaccinogeno 'Scalvo' Institute, Italy; Meinicke Extrakte, Germany; Sessi (Nylon Syringes), France; Lister Institute of Preventive Medicine, England; Pharmaton S.A., Lugano (Switzerland); Montavit Ltd., Austria; U. Ravizza, Italy.

**KEMP & CO., LTD.**—88/C, Old Prabhadevi Road, Bombay 28. Phone: 62251. Grams: "PHARMACY."

Khatau Valabhdas & Co.—Indian Globe Chambers, Fort Street, Bombay 1.

Little's Oriental Balm & Pharmaceuticals Ltd.—11, Western India House, Sir Phirozshah Mehta Road, Bombay 1.

**LABORATORIES GRIMAULT PRIVATE LTD.**—20, Haines Road, Bombay-11. Manufacturers of Cosmetic, Toiletries and Pharmaceuticals. Phone: 70121-70122-70123. Grams: "SIROGRIMO."

**LYKA LABS.**—Subhash Road (A), Vile Parle (East), Bombay 57. Manufacturers of Pharmaceutical Specialists and Fine Chemicals. Phones: 571141 & 573211.

**MAC LABORATORIES PRIVATE LTD.**—Great Social Building, Sir Phirozshah Mehta Road, G.P.O. Box No. 1831, Bombay 1. Phone: 265051, Grams: "MACLON." Manufacturing Chemists.

Manufacturing Analytical & Research Chemists Ltd.—Esplanade House, Waudby Road, Fort, Bombay.

**MARTIN & HARRIS (PRIVATE) LTD.**—Savoy Chambers, Wallace Street, Bombay 1. Phones: Office 263473/4, Stores 261270. Grams: "ROWLETTE."

May & Baker (India) Private Ltd.—Karimjee House, Sir Phirozshah Mehta Road, Fort, Bombay.

**MONJI VISHRAM & CO.**—Manufacturers of Monison's Brand Pharmaceutical specialities, Exporters, Importers, Chemists, Druggists. 306, Sheikh Memon Street, Bombay 2. Grams: "TINCTURES." Phone: 20205.

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Dharamsi Ranchhoddas & Co.—Navi Gulli, Mulji Jetha Market, Bombay 2.
Dhirajlal Hirjee.—Madhavrai Gulli, Mulji Jetha Market, Bombay 2.
Dhirajlal S. Shah & Co.—Navi Gulli, Mulji Jetha Market, Bombay 2.
Dhirajlal Vrajlal & Co.—Champa Gulli, Bombay 2.
Dilipkumar & Co.—Ghadial Gully, Mulji Jetha Market, Bombay 2.
Dineshchandra & Co.—Pragraj Gulli, Mulji Jetha Market, Bombay 2.
Doctor C., & Co. Ltd.—12, Bruce Street, Fort, Bombay 1.
Doshi A. M., & Co.—Chandra Chowk, 2nd Gulli, Mulji Jetha Market, Bombay 2.
D. P. Bros.—Lakhmidas Market, 1st Gulli, Bombay 2.
Dwarkadas & Co.—Gaumukh Gulli, Mulji Jetha Market, Bombay 2.
Dwarkadas Keshavlal & Co.—86, Sugar Chawl, Bombay 2.
Dwarkadas Meghji (Private) Ltd.—Swadeshi Market, Bombay 2.
Fajalbhai & Tulsidas.—Sheikh Memon Street, Bombay 2.
Farasram Chatrabhuj & Co.—Mangaldas Market, 5th Gulli, Bombay 2.
Fulchand Odhavji & Co.—Chandra Chowk, 5th Gulli, Mulji Jetha Market, Bombay 2.
Ganesh Dyeing & Printing Works.—Bombay Cotton Mill Compound, Kala Chowki, Bombay 12.
Ganesh Gangaram & Sons.—Krashna Chowk, Mulji Jetha Market, Bombay 2.
Ganeshshanker & Co.—10/12, Thakersi Building, Old Hanuman Gulli, Bombay 2.
G. H. Bros. & Co.—Lakhmidas Market, 1st Gulli, Bombay 2.
Ghanshyamdas K., & Co.—Dharamraj Gulli, Mulji Jetha Market, Bombay 2.
Girdharlal Khusaldas & Co.—Narayan Chowk, Mulji Jetha Market, Bombay 2.
Girdharlal Navnitlal & Co.—Govind Chowk, Mulji Jetha Market, Bombay 2.
Gobhai M. N., & Co.—Building No. 505, Kalbadevi Road, Bombay 2.
Gokuldas & Co. Ltd.—Building No. 453/457, Kalbadevi Road, Bombay 2.
Gokulesh Cloth Co.—Office Gulli, Mulji Jetha Market, Bombay 2.
Gordhan P., & Co.—Sheikh Memon Street, Bombay 2.
Gordhandas Amratlal & Co.—Building No. 28, Champa Gulli, Bombay 2.
Gore & Co.—Fort, Bombay 1.
Govindji & Sons.—Narayan Chowk, Mulji Jetha Market, Bombay 2.
Govindram Hasanand & Co.—Chandra Chowk, 3rd Gulli, Mulji Jetha Market, Bombay 2.
Great India Investment Co. Ltd., The.—70/72, Bombay Mutual Building, Fort, Bombay 1.
Gunvantrai Chunilal & Co.—Lakhmidas Market, 2nd Gulli, Bombay 2.
Hajimusa T. S., & Co.—Karim Building, Mahamadali Road, Bombay 3.
Hansraj Tricumdas.—Chandra Chowk, Mulji Jetha Market, Bombay 2.
Haridas N., & Co.—Ghadial Gully, Mulji Jetha Market, Bombay 2.
Hareshkumar Jamnadas & Co.—Lakhmidas Market, 2nd Gulli, Bombay 2.
Harilal Kantilal & Co.—Swadeshi Market, Radha Gulli, Bombay 2.
Harischandra Ratilal & Co.—Gordhan Gulli, Mulji Jetha Market, Bombay 2.
Harjivan L., & Co.—Narayan Chowk, Mulji Jetha Market, Bombay 2.
Harjivandas Gordhandas & Co.—Sancha Gulli, Mulji Jetha Market, Bombay 2.
Harkishandas Mohanlal & Co.—Vithalwadi, Bombay 2.
Harsukhlal, J., & Co.—Lakhmidas Market, 2nd Gulli, Bombay 2.
Hasmukhlal & Bros.—Navi Gulli, Mulji Jetha Market, Bombay 2.
Hasmukhlal & Co.—Navi Gulli, Mulji Jetha Market, Bombay 2.
Hasmukhlal & Co.—Chikhal Gulli, Mulji Jetha Market, Bombay 2.

Himatlal Bapulal & Co.—Navi Gulli, Mulji Jetha Market, Bombay 2.
Himatlal, H., & Co.—Sunder Chowk, Mulji Jetha Market, Bombay 2.
Hind Commercial Co. Ltd., The,—Building No. 72, Champa Gulli, Bombay 2.
Hirachand Gopalji & Co.—Pragraj Gulli, Mulji Jetha Market, Bombay 2.
Hiralal Ramanlal & Co.—Champa Gulli, Bombay 2.
Hiralal Harakhchand & Co.—129, Bazar Gate Street, Fort, Bombay 1.
H. Valimamad H. Jamal., Noormahamed Sons.—223, Ali Cottage, Chakala Street, Bombay 3.
H. V. & Co.—Krashnaraj Gulli, Mulji Jetha Market, Bombay 2.
Ibrahim Haji Eliyas & Sons.—Building No. 65, Chakala Street, Bombay 3.
Inasu, C. L.—Building No. 418, 2nd Floor, Kalbadevi Road, Bombay 2.
Indravadan Chunilal & Co.—Dharamraj Gulli, Mulji Jetha Market, Bombay 2.
Ishwarlal & Co.—9, Amar Nivas, Prarthana Samaj, Vithalbhai Patel Road, Bombay 4.
Jagdish & Co.—Champa Gulli, Bombay 2.
Jagjivan Pragji & Co.—Mangaldas Market, 5th Gulli, Bombay 2.
Jagjivan Uttamchand & Co.—No. 45-47, 1st Floor, Bazar Gate Street, Fort, Bombay 1.
Jamnadas, D., & Co.—Mangaldas Market, New Gulli, Bombay 2.
Jamnadas, R., & Co.—Krashnaraj Gulli, Mulji Jetha Market, Bombay 2.
Jamnadas Brothers.—37, Sutar Bazar, Tambakanta, Bombay 3.
Jamnadas Bros.—Sancha Gulli, Mulji Jetha Market, Bombay 2.
Jamnadas Narandas Bros.—Parsottam Nivas, 3rd Floor, Block No. 20, Dadysheth Agiary Lane, Kalbadevi, Bombay 2.
Jashvantlal Dhansukhlal & Co.—Champa Gulli, Bombay 2.
Javerilal & Bros.—Chandra Chowk, Mulji Jetha Market, Bombay 2.
Jawaharsing Shobhasingh & Co.—Gaumukh Gulli, Mulji Jetha Market, Bombay 2.
Jayantilal Haridas.—Lakhmidas Market, 1st Gulli, Bombay 2.
Jayantilal Bros.—Vaghwadi, Kalbadevi Road, Bombay 2.
Jayantilal Chhotalal & Co.—Shyam Bhuvan, 4th Floor, Chira Bazar, Gazder Park, Thakurdwar, Bombay 4.
Jayantilal Nanalal.—Ghadial Gulli, Mulji Jetha Market, Bombay 2.
Jayantkumar & Co.—Dwarkesh Gulli, Mulji Jetha Market, Bombay 2.
Jayant & Co.—Swadeshi Market, Maniar Gulli, Bombay 2.
Jaynarayan & Co.—Krashnaraj Gulli, Mulji Jetha Market, Bombay 2.
Jaybharat Mills Cloth Shop.—Gordhan Gulli, Mulji Jetha Market, Bombay 2.
Jaysinh Morarji & Co.—Sancha Gulli, Mulji Jetha Market, Bombay 2.
Jashwantlal & Co.—Sir Vithaldas Gulli, Mulji Jetha Market, Bombay 2.
Jechand, N., & Co.—Champa Gulli, Bombay 2.
Jesukhlal & Co.—Swadeshi Market, New Gulli, Bombay 2.
Jethabhai Khatau & Co.—Krashna Chowk, Mulji Jetha Market, Bombay 2.
Jethalal V. Dave & Co.—Building No. 295, Masjid Bunder, Bombay 3.
Jitendrakumar & Co.—82, 3rd Bhoiwada, Bhuleshwar, Bombay 2.
Jitendra & Co.—Chandra Chowk (4th Gulli), Mulji Jetha Market, Bombay 2.
Jivandas Bhanji & Co.—Dwarkesh Gulli, Mulji Jetha Market, Bombay 2.
Jivandas Dayalji & Co.—Govind Gulli, Mulji Jetha Market, Bombay 2.
Jivandas Jamnadas & Co.—Chandra Chowk (3rd Gulli), Mulji Jetha Market, Bombay 2.
Joshi & Mandali.—226, Charni Road, Bombay 4.
Jupiter Mills Cloth Shop.—Gordhan Gulli, Mulji Jetha Market, Bombay 2.
Kajaria, R., & Co.—Mangaldas Market, New Gulli, Bombay 2.
Kakubhai & Co.—Lakhmidas Market, 1st Gulli, Bombay 2.
Kanayalal Navnitlal & Co.—Sir Vithaldas Gulli, Mulji Jetha Market, Bombay 2.
Kantilal & Co.—Chandra Chowk (1st Gulli), Mulji Jetha Market, Bombay 2.
Kantilal Raichand & Co.—Chandra Chowk, Mulji Jetha Market, Bombay 2.
Kantilal Vithaldas & Co.—Ganeshwadi, Mulji Jetha Market, Bombay 2.
Kapad Traders Co.—Champa Gulli, Bombay 2.
Karasia Textile Trading Co.—Silver Mansion, 2nd Floor, 45, Dhanji Street, Bombay.
Karsandas Premji & Sons.—Dharamraj Gulli, Mulji Jetha Market, Bombay 2.
Kathiawar Textile Mills.—Chhipi Chawl, Bombay 2.
Kavasji Mancherji Kapadia & Sons.—Chhipi Chawl, Bombay 2.
Keshavlal Maganlal & Co.—Madhavji Dayal's Building, Old Hanuman Gulli, Bombay 2.
Keshavlal & Co.—Sheikh Memon Street, Bombay 2.
Kikabhai, J., & Sons.—Chikhal Gulli, Mulji Jetha Market, Bombay 2.
Kimatrai, J., & Co.—Bomanji Master Road, Princess Street, Bombay 2.
Krashnalal Gordhandas & Co., C/o Messrs. Bhaichand Rugnath & Co.—Narayan Chowk, Mulji Jetha Market, Bombay 2.
Krashnakumar Jethabhai & Co.—Champa Gulli, Bombay 2.
Kripaldas & Co.—Sir Vithaldas Gulli, Mulji Jetha Market, Bombay 2.
Krushna, S., & Co.—Building No. 30/32, Champa Gulli, Bombay 2.
Kumarpal, K., & Co.—Navi Gulli, Mulji Jetha Market, Bombay 2.
Lakhani & Co.—Building No. 12, Champa Gulli, Bombay 2.
Lalitkumar Muiraj Khatau & Co.—Bhangwadi, Kalbadevi Road, Bombay 2.
Lallubhai, V., & Co.—Champa Gulli, Bombay 2.
Laxminarayan Mansukhlal & Co.—Govind Chowk, Mulji Jetha Market, Bombay 2.
Madhavji, D., & Sons.—Sancha Gulli, Mulji Jetha Market, Bombay 2.
Madhavsinh, J., & Co.—Krashna Chowk, Mulji Jetha Market, Bombay 2.
Madhavsi Thakersi & Sons.—Govind Chowk, Mulji Jetha Market, Bombay 2.
Madhusudan Gordhandas.—Ganeshwadi, Mulji Jetha Market, Bombay 2.
Madhusudan Kalyanji.—Krashna Chowk, Mulji Jetha Market, Bombay 2.
Madhukar Upendrakumar Co.—Building No. 98-100, Champa Gulli, Bombay 2.
Maganlal Umaji.—Madhavrai Gulli, Mulji Jetha Market, Bombay 2.
Mahavir Silk Mills.—Chippi Chawl, Dharamraj Gulli, Mulji Jetha Market, Bombay 2.
Mahendrakumar, K., & Co.—Lakhmidas Market, 3rd Gulli, Bombay 2.
Mahendrakumar Bros. (Private) Ltd.—20, Lawyers Chambers, Lohar Chawl, Bombay 2.
Mahendralal, B.—Dwarkesh Gulli, Mulji Jetha Market, Bombay 2.
Mahendralal Mansukhlal.—Sancha Gulli, Mulji Jetha Market, Bombay 2.
Mangaldas Jeshangbhai & Bros.—Dharamraj Gulli, Mulji Jetha Market, Bombay 2.
Mangaldas Lallubhai & Co.—Dharamraj Gulli, Mulji Jetha Market, Bombay 2.
Manharlal Kanayalal & Co.—Sunder Chowk, Mulji Jetha Market, Bombay 2.
Manilal Anandji & Co.—Lakhmidas Market, 1st Gulli, Bombay 2.
Manilal Gordhandas & Co.—Gordhan Gulli, Mulji Jetha Market, Bombay 2.
Manilal Mulji, D., & Co.—Sir Vithaldas Gulli, Mulji Jetha Market, Bombay 2.
Manilal Keshavji & Co.—Chandra Chowk, Mulji Jetha Market, Bombay 2.
Mansukhlal, L., & Co.—Govind Chowk, Mulji Jetha Market, Bombay 2.
Mansukhram, N., & Co.—Office Gulli, Mulji Jetha Market, Bombay 2.
Mansukhlal, R. M., & Co.—Gordhan Gulli, Mulji Jetha Market, Bombay 2.
Mathuradas Natverlal & Co.—Dadar Gulli, Mulji Jetha Market, Bombay 2.
Mehta, H. P., & Co.—Swadeshi Market, New Gulli, Bombay 2.
Mehta, J. P., & Co.—Ganeshwadi, Mulji Jetha Market, Bombay 2.
Mehta Parekh & Co.—Building No. 98-100, Champa Gulli, Bombay 2.
Minis, K. M., & Co.—Jal Chambers, Charni Road, Bombay 4.
Mohanlal & Sons.—Building No. 78-84, Champa Gulli, Bombay 2.
Mohanlal Gokaldas & Co.—Umakant Mansion, Dabholkar Wadi, Kalbadevi Road, Bombay 2.
Mohanlal Maganlal.—Chandra Chowk (6th Gulli), Mulji Jetha Market, Bombay 2.
Mohanlal Vallabhdas & Co.—Pragraj Gulli, Mulji Jetha Market, Bombay 2.
Motilal Kanchanlal & Co.—Sir Vithaldas Gulli, Mulji Jetha Market, Bombay 2.
Morarji & Sons Private Ltd.—Building No. 259, Kalbadevi Road, Bombay 2.
Morarji Vandravan & Co.—Krashna Chowk, Mulji Jetha Market, Bombay 2.
Morarji Velji & Sons.—Govind Chowk, Mulji Jetha Market, Bombay 2.
Mukul, R., & Co.—Champa Gulli, Bombay 2.
Mulchand & Co.—Chandra Chowk (3rd Gulli), Mulji Jetha Market, Bombay 2.
Mulchand Hirachand & Sons.—Madhavrai Gulli, Mulji Jetha Market, Bombay 2.
Mulchand Vimalchand & Co.—Govind Chowk, Mulji Jetha Market, Bombay 2.
Mulji Jetha & Co.—Vithalwadi, Bombay 2.
Nagin Bros.—Lakhmidas Market, 2nd Gulli, Bombay 2.
Nagindas, B., & Co.—Narayan Chowk, Mulji Jetha Market, Bombay 2.
Nagindas, D., & Co.—Govind Gulli, Mulji Jetha Market, Bombay 2.
Naginlal, S., & Co.—Sancha Gulli, Mulji Jetha Market, Bombay 2.
Nanalal Amarchand.—Ghadial Gulli, Mulji Jetha Market, Bombay 2.
Nanchand Mulchand & Co.—Office Gulli, Mulji Jetha Market, Bombay 2.
Nandlal & Bros.—Pragraj Gulli, Mulji Jetha Market, Bombay 2.
Nandlal & Co.—Sancha Gulli, Mulji Jetha Market, Bombay 2.
Nandlal P., & Co.—Swadeshi Market, Radha Gulli, Bombay 2.
Nandlal Ladhabhai & Co.—Ghadial Gulli, Mulji Jetha Market, Bombay 2.
Narandas, H. B., & Co.—Chandra Chowk (5th Gulli), Mulji Jetha Market, Bombay 2.
Narbheram, R., Co.—Pragraj Gulli, Mulji Jetha Market, Bombay 2.
Narendra & Co.—Krashnaraj Gulli, Mulji Jetha Market, Bombay 2.
Narandas Maneklal & Co.—Dadar Gulli, Mulji Jetha Market, Bombay 2.

Narottamdas Chimanlal & Co. Ltd.—Dadar Gulli, Mulji Jetha Market, Bombay 2.
Narottamdas Nanchand & Co.—Dadar Gulli, Mulji Jetha Market, Bombay 2.
Narottam Hansraj.—Swadeshi Market, New Gulli, Bombay 2.
Nasher, D. M., & Co. Ltd.—Manek Chamber, 1st Marine Lines, Bombay 1.
Narsidas, D., & Co.—Dadar Gulli, Mulji Jetha Market, Bombay 2.
Natverlal Chunilal & Co.—Sancha Gulli, Mulji Jetha Market, Bombay 2.
Nautamlal Zaverchand & Co.—Gaumukh Gulli, Mulji Jetha Market, Bombay 2.
Navalchand, P., & Co.—Chandra Chowk (2nd Gulli), Mulji Jetha Market, Bombay 2.
Navinchandra Bipinkumar & Co.—Madhavrai Gulli, Mulji Jetha Market, Bombay 2.
Navinchandra & Co.—Madhavrai Gulli, Mulji Jetha Market, Bombay 2.
Navnitlal & Co.—185, Mulji Jetha Building, Princess Street, Bombay 2.
Navnitlal, M., & Co.—Swadeshi Market, Radha Gulli, Bombay 2.
Near East Trading Co. (India), The.—Sancha Gulli, Mulji Jetha Market, Bombay 2.
Nemchand, M., & Bros.—Building No. 381E, 1st Floor, Kalbadevi Road, Bombay 2.
New Bombay Dyeing & Printing Works, The.—153/155, C. P. Tank, Vithalbhai Patel Road, Bombay 4.
New Rajpur Mills Co. Ltd., The.—Dharamraj Gulli, Mulji Jetha Market, Bombay 2.
New Textile Ltd., The.—Dharamraj Gulli, Mulji Jetha Market, Bombay 2.
Niranjan, P., & Co.—Sunder Chowk, Mulji Jetha Market, Bombay 2.
N. M. Bros.—Vithalsayna Building, Luhar Chawl, Bombay 2.
Non, B. C., & Bros.—Madhavrai Gulli, Mulji Jetha Market, Bombay 2.
Nyalchand Ratanji & Co.—Ghadial Gulli, Mulji Jetha Market, Bombay 2.
Ochhavlal & Sons.—Krashnaraj Gulli, Mulji Jetha Market, Bombay 2.
Omkarmal & Co.—Goraj Gulli, Mulji Jetha Market, Bombay 2.
Pendse, L., & Co.—196, Charni Road, Bombay 4.
Parekh Bros.—Madhavrai Gulli, Mulji Jetha Market, Bombay 2.
Parikh, P. J., & Co.—Vithalwadi, Bombay 2.
Parsottam Govindji & Sons—Krashna Chowk, Mulji Jetha Market, Bombay 2.
Parsottam Jamnadas & Co.—Govind Chowk, Mulji Jetha Market, Bombay 2.
Parsottam Lalji.—Ghadial Gulli, Mulji Jetha Market, Bombay 2.
Parsottam Surchand & Co.—Mangaldas Road, Bombay 2.
Patel Ghanshyamdas & Co.—Dharamraj Gulli, Mulji Jetha Market, Bombay 2.
Pioneer Piecegoods Co.—Goraj Gulli, Mulji Jetha Market, Bombay 2.
Popatlal Juthabhai.—Lakhmidas Market, 3rd Gulli, Bombay 2.
Prabhodhchandra & Co.—Ghadial Gully, Mulji Jetha Market, Bombay 2.
Prabodhchandra Himatlal & Co.—Dadar Gulli, Mulji Jetha Market, Bombay 2.
Prabhat Patel Depot.—Champa Gulli, Bombay 2.
Prabhat Thread Co.—33, Dukkar Wadi, Chira Bazar, Gazder Park, Thakurdwar, Bombay 4.
Prabhudas Vrajlal.—Goraj Gulli, Mulji Jetha Market, Bombay 2.
Prabhulal, P., & Co.—Whiteaway Laidlaw Building, 2nd Floor, Hornby Road, Fort, Bombay 1.
Pragdas Mathuradas Bombay Private Ltd.—28/30, Anantwadi, Bhuleshwar, Bombay 2.
Pragji, J., & Co.—Lakhmidas Market, 1st Gulli, Bombay 2.
Pratapsinh Karansinh & Co.—Shop No. 10, Chandra Chowk, Mulji Jetha Market, Bombay 2.
Pratapsinh & Co.—Dwarkesh Gulli, Mulji Jetha Market, Bombay 2.
Pravin Brothers.—145, Kavel Street, Kalbadevi Road, Bombay 2.
Pravinchandra, M., & Co.—Ghadial Gulli, Mulji Jetha Market, Bombay 2.
Premchand Gomaji Sons & Co.—Vithalwadi, Bombay 2.
Premchand Kachrabhai & Co.—Champa Gulli, Bombay 2.
Premji Khushal & Co.—Chandra Chowk, Mulji Jetha Market, Bombay 2.
Radheshyam Shambhunath.—Chandra Chowk (6th Gulli), Mulji Jetha Market, Bombay 2.
Raghunath & Co.—Govind Gulli, Mulji Jetha Market, Bombay 2.
Raghunath & Co.—Champa Gulli, Bombay 2.
Raghunath Ramchandra Samant & Bros.—Champa Gulli, Bombay 2.
Rajnikant Bros.—Dharamraj Gulli, Mulji Jetha Market, Bombay 2.
Rajiv & Co.—Sir Vithaldas Gulli, Mulji Jetha Market, Bombay 2.
Ramanlal Ratilal & Co.—Chandra Chowk (2nd Gulli), Mulji Jetha Market, Bombay 2.
Ramesh & Co.—Girilila Building, Champa Gulli, Bombay 2.
Rameshchandra & Co.—Vithalwadi, Bombay 2.
Rameshchandra Jamnadas & Co.—Krashnaraj Gulli, Mulji Jetha Market, Bombay 2.
Rameshchandra Kantilal & Co.—Chikhal Gulli, Mulji Jetha Market, Bombay 2.
Rameshkumar Dawda & Co.—Chandra Chowk, Mulji Jetha Market, Bombay 2.
Ramnarain Morarji & Co.—Building No. 20, Vithalwadi, Bombay 2.
Ramniklal & Bros.—Ghadial Gulli, Mulji Jetha Market, Bombay 2.
Ramniklal Bhikhabhai & Co.—Gaumukh Gulli, Mulji Jetha Market, Bombay 2.
Ramniklal Chhotalal.—Navi Gulli, Mulji Jetha Market, Bombay 2.
Ranchhoddas, B., & Co.—Narayan Chowk, Mulji Jetha Market, Bombay 2.
Ranchhoddas Bhanji & Co.—Pragraj Gulli, Mulji Jetha Market, Bombay 2.
Ranjitsinh Dharamsi.—Building No. 105/107, Old Hanuman Gulli, Bombay 2.
Rasiklal & Co.—Krashnaraj Gulli, Mulji Jetha Market, Bombay 2.
Rasiklal & Co.—Building No. 30, Ramwadi, Kalbadevi Road, Bombay 2.
Rasiklal Chandrakant & Co.—Sancha Gulli, Mulji Jetha Market, Bombay 2.
Rasiklal & Co.—Office Gulli, Mulji Jetha Market, Bombay 2.
Rasiklal Jethalal & Co.—Dadar Gulli, Mulji Jetha Market, Bombay 2.
Rasiklal Nagindas & Co.—Dadar Gulli, Mulji Jetha Market, Bombay 2.
Rasiklal Manilal & Co.—Chandra Chowk (4th Gulli), Mulji Jetha Market, Bombay 2.
Ratansi Gopalji.—Sir Vithaldas Gulli, Mulji Jetha Market, Bombay 2.
Ratilal Harilal & Co.—Building No. 261, Masjid Bunder, Bombay 3.
Ratilal Kantilal & Co.—63/65, Cathedral Street, Bhuleshwar, Bombay 2.
Ratilal, R., & Co.—Chandra Chowk, Mulji Jetha Market, Bombay 2.
Sameshwar, V. D., & Co.—Chandra Chowk, Mulji Jetha Market, Bombay 2.
Sanghvi Bros.—29, Bhangwadi, Kalbadevi Road, Bombay 2.
Sanghvi Mody & Co.—Lentin Chambers, Dalal Street, Fort, Bombay.
Sarabhai, M., & Sons.—Office Gulli, Mulji Jetha Market, Bombay 2.
Saralal Laxmichand (Textile).—Sheikh Memon Street, Bombay 2.
Shah & Co.—Sancha Gulli, Mulji Jetha Market, Bombay 2.
Shah, N. M., & Co.—Lakhmidas Market, 1st Gulli, Bombay 2.
Shah, S. B., & Co.—Lakhmidas Market, 2nd Gulli, Bombay 2.
Shashikant Jayant & Co.—Navi Gulli, Mulji Jetha Market, Bombay 2.
Shamaldas, N. V., & Co.—Chandra Chowk (8th Gulli), Mulji Jetha Market, Bombay 2.
Shantilal & Co.—Lakhmidas Market, 3rd Gulli, Bombay 2.
Shantilal Chhotalal & Co.—Shyam Bhuvan, 3rd Floor, Chira Bazar, Gazder Park, Thakurdwar, Bombay 4.

**SHANTILAL KALIDAS & BROS.—Sancha Gulli, Mulji Jetha Market, Bombay 2. Phone: 22410. Grams: "BHADRA-VIJAY."**

Shantilal Manilal & Co.—Mangaldas Market, 2nd Gulli, Bombay 2.
Shantilal Parshottamdas & Co.—Dharamraj Gulli, Mulji Jetha Market, Bombay 2.
Shantilal Vithaldas & Co.—1st Floor, Lakhmidas Market, 3rd Gulli, Bombay 2.
Shapurji & Co.—Sir Vithaldas Gulli, Mulji Jetha Market, Bombay 2.
Shashikant & Brothers (India) Ltd.—Building No. 52, Dadysheth Agiary Lane, Kalbadevi Road, Bombay 2.
Sheth & Co.—Building No. 72, Champa Gulli, Bombay 2.
Shreekant Textile.—New Citizen Bank Building, 2nd Floor, Palton Road, Carnac Road, Bombay.
Shree Krashna Agency.—Chandra Chowk, Mulji Jetha Market, Bombay 2.
Shree Ram Mills Cloth Shop.—Dharamraj Gulli, Mulji Jetha Market, Bombay 2.
Sunderdas Shreechand.—Building No. 117/119, Old Hanuman Gulli, Bombay 2.
Sunderdas Thakershi & Bros.—Chandra Chowk, Mulji Jetha Market, Bombay 2.
Surajmal & Sons Ltd.—Vithalwadi, Bombay 2.
Surat Cotton Spg. & Wvg. Mills Co. Ltd.—Govind Gulli, Mulji Jetha Market, Bombay 2.
Suresh & Co.—Champa Gulli, Bombay 2.
Sureshbhai & Co.—Chandra Chowk (8th Gulli), Mulji Jetha Market, Bombay 2.
Surendra Rasiklal & Co.—Krashnaraj Gulli, Mulji Jetha Market, Bombay 2.
Surendra Somalal & Co.—Chikhal Gulli, Mulji Jetha Market, Bombay 2.
Suryakant Jamnadas.—Champa Gulli, Bombay 2.
Suryakant, K., & Co.—Pragraj Gulli, Mulji Jetha Market, Bombay 2.
Sushilkumar & Co., C/o Messrs. Ramniklal Bhikhabhai & Co.—Govind Chowk, Mulji Jetha Market, Bombay 2.
Tayabmamad Haji Musa & Co.—Karim Building, Mohamadali Road, Bombay 3.
Thakersi Mulji & Co.—Krashna Chowk, Mulji Jetha Market, Bombay 2.
Thakkar, M. R., & Co.—Lakhmidas Market, 1st Gulli, Bombay 2.
Thana Stores.—Building No. 72, Champa Gulli, Bombay 2.
Tribhowan Nemchand & Co.—67, Bazar Gate Street, Fort, Bombay 1.
Tulsidas Mohanlal & Co.—Daya Mandir, Masjid Bunder, Bombay 3.
Tulsidas V. Patel.—Swadeshi Market, New Gulli, Bombay 2.
Udhavdas Mulchand.—Krashna Chowk, Mulji Jetha Market, Bombay 2.
Vadilal Limited.—Champa Gulli, Bombay 2.

Vadilal Vrajlal & Co.—186, Pirbhai Mansion, 2, Princess Street, Bombay 2.
Vallabhram, N., & Co.—Lakhmidas Market, 2nd Gulli, Bombay 2.
Vallabhdas Mathuradas & Co.—Sancha Gulli, Mulji Jetha Market, Bombay 2.
Vallabhdas Madhavji & Co.—Gaumukh Gulli, Mulji Jetha Market, Bombay 2.

**VALLABHDAS MOHANLAL & CO.—Ghia Building, 1st Floor, 119-23, Princess Street, Bombay 2. Phone : 23993. Grams : "VALLABHCO." Exporters, Importers & Commission Agents for Textile Piecegoods.**

Varjivandas Padamsi & Co.—Govind Gulli, Mulji Jetha Market, Bombay 2.
Vasani, K., & Co.—Goraj Gulli, Mulji Jetha Market, Bombay 2.
Vasanji & Co. Private Ltd.—Building No. 259, Kalbadevi Road, Bombay 2.
Vasantkumar Natverlal & Co.—Lakhmidas Market, 1st Gulli, Bombay 2.
Vasantrai, N., & Co.—Building No. 30, Champa Gulli, Bombay 2.
Vasantrai Nagji & Co.—Thakarsi Gopalji Building, Old Hanuman Gulli, Bombay 2.
Vasantlal, J., & Co.—Chandra Chowk, Mulji Jetha Market, Bombay 2.
Vashanji Lalji & Sons.—Building No. 103, 2nd Floor, Princess Street, Bombay 2.
Vasudev Manilal & Co.—Chandra Chowk, Mulji Jetha Market, Bombay 2.
Vijaykumar & Co.—Ganeshwadi, Mulji Jetha Market, Bombay 2.
Vikas Ltd.—Madhavrai Gulli, Mulji Jetha Market, Bombay 2.
Vinayak Bros.—Sancha Gulli, Mulji Jetha Market, Bombay 2.
Vinaychandra Durlabhdas & Co.—Building No. 67, Tambakanta, Bombay 3.
Vinaychand & Co.—Chhipi Chawl, Bombay 2.
Vinaykant Trading Co.—Madhavrai Gulli, Mulji Jetha Market, Bombay 2.
Vinodrai & Co.—Sir Vithaldas Gulli, Mulji Jetha Market, Bombay 2.
Vinodchandra & Co.—Pragraj Gulli, Mulji Jetha Market, Bombay 2.
Vishvnath Bhagwanji.—Chandra Chowk (6th Gulli), Mulji Jetha Market, Bombay 2.
Vithaldas, C., & Co.—Parekh Building, Old Hanuman Gulli, Bombay 2.
Vithaldas & Co. Ltd.—No. 16-18, Cross Lane, Champa Gulli, Bombay 2.
Vithaldas Vashanji.—Ghadial Gulli, Mulji Jetha Market, Bombay 2.
Vithaldas Vishram & Sons.—Ghadial Gulli, Mulji Jetha Market, Bombay 2.
Yarn Trading Co.—95, Tambakanta, Bombay 3.
Zaveri Bhagwanji Premchand.—Chikhal Gulli, Mulji Jetha Market, Bombay 2.
Zaveri Hemchand Zaverchand.—Sancha Gulli, Mulji Jetha Market, Bombay 2.

## PIPES AND FITTINGS MERCHANTS

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone : 326980. Grams : "ALERTDEAL."**

Abdulhusein Escofaly Contractor.—91-93, Bapu Khote Street, Bombay 3.
Abdullabhai Faizullabhai Ltd.—Khokha Bazar, Bombay 3.
Adamji Lookmanji & Co.—Rahimtoola House, Homji Street, Fort.

**ADVANCE TUBE CO.—99, Nagdevi Street, Bombay 3. Phone: 323522. Grams : "ELBOWS."**

**A. G. KARIMJI CALCUTTAWALA.—Pipes Fittings and Sanitarywares, 82/84, Gulalwadi, Kika Street, Bombay 4. Phone : 333626. Grams : "SANITARY."**

A. Vallabhdas & Sons.—37, Nagdevi Street, Bombay 3.

**ALEXANDRA ENGINEERING WORKS PRIVATE LTD.—29, Quay Street, Darukhana, Bombay 10. Phone : 76359. Grams : "ALEXWORKS." Mechanical & Structural Engineers & Contractors. Manufacturers of Pipes, Fittings to all Specifications and "Alex" solder wire for Radio & Electrical uses.**

**AMARCHAND MADHAVJI PAREKH.—135, Narayan Dhuru Street, Bombay 3. Stockists of all kinds of Pipes & Fittings and Mill Gin Store Suppliers. Phone : 322573. Grams : "AMARTUBE."**

**ASAM INDUSTRIAL CORPORATION.—53, Bhajipala Lane, Bombay 3. Phone : 322734. Grams : "ASIANIRON." One of the largest stockists of Galvanised and Block Pipes of Light, Medium & Heavy Quality.**

**ASIAN PIPES & HARDWARE CO.—30, Nagdevi Street, Bombay 3. Phone : 324158 and 327625 (Office) and 325647, 573573. (Res.) Grams : "NEWASIAN."**

**ASGARALI NURUDDIN & CO. (Estd. 1916).—95, Nagdevi Street, Bombay 3. Phone : 322609, Res.: 532753. Sanitarywares, Hardware & Pipe Fittings Merchants.**

**BABULAL & BROS.—26, Nagdevi Cross Lane, Bombay 3. Phone : 323930. Grams : "FIREFLY." Stockists of Abrasives, Asbestos Goods, Engineering Tools, Hardware, Mill Gin Stores, Pipe Fittings.**

Badruddin Hasanali & Co.—43, Gulalwadi, Kika Street, Bombay 4.
Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Fort.
Bharatkumar & Co.—Carnac Siding Road, Iron Market, Bombay.

**BHATHENA, B. N., & CO.—100, Nagdevi Street, Bombay 3. Stockists of Copper, Brass, Galvanized and Steam Pipes and Fittings, Asbestos Goods, Flax Fire Hose, G.M. and C.I. Valves and Cocks, etc. Phone : 323155. Grams : "TEENAZ."**

Bombay Burma Hardware Store.—128, Nagdevi Street, Bombay 3.

**BOMBAY TUBE AND HARDWARE MART PRIVATE LIMITED, THE.—284, Nagdevi Street, Bombay 3. Phone : 326604. Importers, Stockists and Dealers of Pipes, Tubes and Fittings, Valves, Gauges, Thermometers, Boiler Plants, Pumps, Instruments, Industrial Meters, Steam Traps, Textile and Industrial Machinery, Packing and Jointings. Agents for TRACTA Ball Roller Bearing Extractors, STANWIN and SHACKLETON Rotary Gear Pumps for Viscous Liquids, Alkali, Acids, Oils, etc. and for U.K. & French Make Pipe Bending Machinery. K.P.M. Textile Moisture Meters, Hydraulic Equipment, Electronic & Boiler House Instruments. Contractors for Steam Mains, Insulation and Boiler Work for Steam & Condescite Lines. Fuel Economy Consultants.**

Brady, W. H., & Co., Ltd.—Royal Insurance Building, Churchgate Street, Fort.

**C. CHAMPAKLAL & CO.—205, Nagdevi Street, Bombay 3. Phone : 326073. Stockists of Pipes, Fittings & Valves for Steam, Water, Gas and Air, Water Meter.**

Calcutta Iron & Steel Co. Ltd.—68/D, Mohamedali Road, Bombay 3.
Central Tool & Equipment Co.—32, Sarang Street, Bombay 3.
Chhabildas & Co.—78-A, Abdul Rehman Street.

**CRESCENT TRADING CO.—48-50, Bhajipala Street, Bombay 3. Phone : 325140 & 327004. Grams : "WATERMETER." Stockists of pipes, fittings, Acid Resisting Valves, Cocks, C. I. Sluice Valves and Water Meters.**

C. R. Contractor & Co.—82, Nagdevi Cross Lane, Bombay 3.
Daulatram Ratanji & Company.—208, Nagdevi Street, Bombay No. 3.
Dewanchand Hansraj.—105, Narayan Dhuru Street, Bombay 3.
Doshi Brothers & Co.—77, Medows Street, Fort.

**ECHJAY INDUSTRIES PRIVATE LTD.—Office and Factory: Kanjur Village Road, Bhandup, Bombay-78. Phone: 581211 & 581678. Grams: "ECHJAY," Bhandup. Manufacturers of Accessories & Equipments for Machine Tools, General Steel Forgings, including forged Flanges, Diesel & Automobile Engine Forged Parts, Jigs & Fixtures, Hand Tools, Hand Hammers, Chisels & Punches, Spanners, Pliers (forged), Press Tools, Dies & Punches.**

**ESUFALLY ADAMJI & CO. (ESTD. 1885).—134, Nagdevi Street, Bombay 3. Phones : 323775 and Res.: 212141. Grams : "TRAVELLER." Burmah-Shell Agents for Maharashtra.**

**EVERGREEN CORPORATION.—9/15, Picket Cross Road, P.O. Box 2733, Bombay 2. Phone : 22162. Stockists of E.R.W. Pipes, Seamless Steel Pipes & Fittings, Cocks valves, Plumber Requirements.**

Fakhrudin Noorbhai & Co.—105, Kika Street, Bombay 4.
Fidahusein Hasanali.—46, Gulalwadi, Kika Street, Bombay 4.
Gannon, Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Fort.
Garlick & Co. Private Ltd.—Haines Road, Jacob Circle.

**GEMSONS & CO.—121, Nagdevi Street, Bombay-3. Phone: 324506. Dealers & Stockists of Pipes, Fittings, Valves, Cocks for Water, Steam, Oil and Chemicals. Steam Traps, Pressure Gauges, Water meters etc.**

General Tube Ltd., The.—142-44, Nagdevi Street, Bombay 3.
Gin Stores Co.—76, Nagdevi Cross Lane, Bombay 3.
Gokaldas Shivlal & Co.—76, Kika Street, Bombay 4.

**GENERAL TUBES PRIVATE LTD.—142/44, Nagdevi Street, Bombay-3. Grams: "GENTUBES." Phone Nos.: 322894, 328390. Manufacturers and Exporters C. I. Pipes, Specials, Water Meters Valves of various types: Steel Pipes & Fitting for Water Gas & Steam. Also Fabrication of Steel Pipes Fittings Suitable for Rubber Linings for Special Chemical Industries. Pressure Vessel, Steam Separators and Heating Coiles to Customers Specifications.**

**GUJARAT TUBE & HARDWARE MART THE.—24, Nagdevi Cross Lane, Bombay 3. Phone : 326616. Grams : " GAUGE-COCK ". Direct Importers and Stockists of Gauge Glasses, Sight Glasses, Pressure, Vacuum & Compound Gauges. All sorts of Boiler Mountings and Accessories. Rubber Insertion, Sheets and other Rubber Goods, Asbestos Goods, Pipes and Fittings of types and grades for Steam, Water and Gases.**

**HATIMBHOY GOOLAMHUSEIN & BROS.—(Estd. 1894), 193-A, Nagdevi Street, Bombay 3. Phone : 326752. Grams: " FITTINGS."**

Heptoola Nooruddin & Co.—152-54, Nagdevi Street, Bombay 3.

**HINDUSTAN TOOLS & ENGINEERING CO.—Post Box No. 2311, 9/13, Pickett Cross Road, Bombay 2. Grams : " DRILL-TAPS." Manufacturers of Stainless Steel Bolts, Nuts & Fittings for Chemical Laboratories.**

Hindustan Tube Company.—163, Nagdevi Cross Lane, Bombay 3.

Hiralal Gokaldas Dalal & Co.—45, Nagdevi Cross Lane, Bombay 3.

**INDUSTRIAL TRADING AGENCIES.—248, Masjid Bunder Road, Bombay 3. Phone : 325838. Grams : " HOSEPIPE ". Mill Gin Stores, Hardware, Tools, Pipes & Fittings Merchants. Distributors for " ROCKET " Brand Hose Pipes.**

Jai Bharat Steel Syndicate.—Iron Jetha, Carnac Bunder, Bombay 9.

Jayantilal & Brothers.—38, Bibijan Street, Nagdevi, Bombay 3.

**JAYANTILAL GOKALDAS & SONS.—232, Masjid Bunder Road, Bombay 3. Phones : 325495 (Office) and 473550 (Res.). Stockists of Galvanised Pipes & Fittings, Cast Iron Rainwater & Soil Pipes & Fittings, Cast Iron Spigot & Socket Pipes, Special Fittings, Brass BIB Cocks and Stop cocks, Sanitarywares and Sanitary Fittings, Gunmetal wheel valves and Gate Valves, Lead Pipes and Lead Traps, Stoneware Pipes & Fittings, Cast Iron Manhole Covers & Gratings.**

J. Champaklal & Co.—44, Nagdevi Cross Lane, Bombay 3.

**JIVRAJ & VRAJLAL.—122, Nagdevi Street, Bombay 3. Phone: 325138 (Shop) & 30932 (Res.). Grams : " SANIPIPES."**

Joshi & Co.—207, Kumbharwada 6th Lane, Golpitha, Bombay 4.

K. Chimanlal & Co.—107-A, Nagdevi Street, Bombay 3.

K. S. Parikh & Co.—40, Hararwalla Building, Golpitha, Bombay.

Kutch Sanitary & Plumbing Works.—Matunga, Bombay 19.

M. K. Palia & Sons Pvt. Ltd.—Palia Bldg., 189, Nagdevi Street, Bombay 3.

**KAPADVANJ TRADING CORPORATION.—61, Nagdevi Street, Bombay-3. Phone : 328165. Stockists for G.I. Pipes, Fittings, Brass Cocks, Copper Ball Cocks, C.I. Strainers, G.M. Check Valves our Speciality, Brass Cocks and Water Meters.**

Machine Tools & Implements.—24, Nagdevi Cross Lane, Bombay 3.

Mangaldas Ranchhoddas & Co.—Iron Market, Carnac Bunder, Bombay 9. Phone : 29884.

**MAGANLAL PRANLAL & SONS.—105, Nagdevi Street, Bombay 3. Phones : 327121, 327715 & 321428. Grams : " ARMPIPE." Dealers in Pipe Fittings, Sanitary Wares, Hardware & Plumbers Requisites.**

Mashruwala, C. M., & Co.—172-74, Nagdevi Street, Bombay 3.

**MEHTA NANAVATI & CO.—96, Narayan Dhuru Street, Bombay 3. Phone : 324645. Grams : "REDJOINT."**

**M. N. PADIA & CO.—70, Kika Street (Gulalwadi), Bombay 4. Phone : 334283.**

**M. J. PATEL & CO.—177, Nagdevi Street, Bombay 3. Phone : 327931. Grams : " REDTEE ". Direct Importers & Stockists. G. I. & Steam Pipes, Boiler Tubes & Valves, C. I. Pipes & Specials. Hydraulic Pressure & Tubes. Manufacturers of Steam Flanges.**

Muljibhai Chhotalal & Co.—76-78, Nagdevi Street, Bombay 3.

**N. G. PARANJAPE & CO.—67, Nagdevi Street, Bombay 3 (BR). Phone : 321428. Grams : " CASTIRON ". Leading Stockist & Wholesale Dealers in Cast Iron Rainwater & Soil, Stoneware & G. I. Pipes & Fittings. Distributors for " TIGER 61 " Flushing Tanks.**

**NAGDEVI TOOL-STEEL MART.—186-88, Nagdevi Street, Bombay 3. Phone Nos. : 323023 & 327058. Grams : " TENDERERS."**

**NANALAL AMBALAL & CO. (ESTD. 1917).—69, Nagdevi Street, Bombay 3. Phone : 322754. Grams : " VILVALHIRO." One of the leading Wholesalers of Galvanised Iron, Cast Iron & Asbestos Cement Pipes & Fittings and Sanitaryware. Sole Regional Distributors for (1) Stoneware, Glazed Pipes manufactured by the Perfect Pottery Co., Ltd., Jabalpur and (2) Parry's Superior Indian Sanitaryware.**

**NECET TRADING CORPORATION PRIVATE LTD.—94, Nagdevi Street, Bombay 3. Grams : " NECETPIPES." Phone : 323945. Cast Iron S/S & Double-Flanged Pipes, Specials, Sluice Valves, G.I. Pipes, Fittings and G.M. Valves available in large stock.**

New India Hardware Mart.—152, Narayan Dhuru Street, Bombay 3.

New India Pipes Ltd.—50, Bhajipala Lane, Bombay 3.

Noble Tube Co.—141, Nagdevi Street, Bombay 3.

## NOMANBHAI ABDEALLI & COMPANY

**96-98, Nagdevi Street, Bombay 3-BR.**

★

Phone :
322620

Grams :
" INTEGRITY "
(Mandvi), Bombay.

Galvd. Black Pipes, Tubes, Wire Ropes, Gun Metal Fittings, Pipe Fittings, Brass Cocks, Asbestos Goods, 'INDOFLEX' flexible tubings, etc.

**NOWROJI N. VAKIL & CO.—Shahru Castle, Mohamedalli Road, Bombay 3. Phone : 322803. Head Office and Factory at Naroda Road, Ahmedabad. Manufacturers of Stoneware, Drainage Pipes & Fittings, Fire Bricks and Clay & Raschig Rings.**

**PANKAJ TRADING CORPN.—25, Bibijan Street, Bombay-3. Stockists of : Galvanised & Black M.S. Pipes in all Classes, Era & Seamless Boiler Tubes, " Leader " & " GMCI " valves & Cocks, Stainless Steel (304 & 316 quality) Valves & Fittings. Branch : 254, Nagdevi Street, Bombay-3. Phone : 321434.**

**PANALAL MOHANLAL & CO.—89, Nagdevi Street, Bombay 3. Direct Importers of Copper, Brass, Galvanised Black Steam Pipes, Fittings and Gun Metal Fittings & Valves. Phone : 323071.**

**PATEL BROTHERS & CO.—41, Nagdevi Cross Lane, Bombay 3. Phone : 321606. Grams : 'HASTY'. Importers of Copper, Brass, Galvanised & black steam pipe fittings & Gunmetal fittings & Valves.**

**RAMCHAND MATHRADAS AGGARWAL.—30, Khokha Bazar, Bombay 3. Phones : 326075 & 328942. Grams : " PIPEDIE." Hardware, Tools, Fittings, Pipes, Compressors, Machinery, Iron & Steel, etc.**

R. Moolchand & Co.—44, Nagdevi Cross Lane, Bombay-3. Direct Importers, Sanitary wares, Tiles, Bath Tubs, Fancy Bathroom Fittings. Grams : " POTTERY." Phone : 324207. Res. : 78837.

Ranpal & Son.—436, Shradhanand Road, Bombay 19. Sanitary Wares and Pipe Fitting Merchants.

R. Babulal & Co.—163, Nagdevi Cross Lane, Bombay 3.

**R. V. SHAH & CO.—Bhajipala Street, Bombay-3. G.I. Black & Steam Pipes of all Classes A, B and C, and Boiler Tubes of E. R. W. D. Steamless. Phones : 327049 : 324663.**

**R. OCHHAVLAL & CO.—86, Nagdevi Street, Bombay 3. Phone : 321114. Grams : " VALVES." Pipe Fittings, Asbestos Goods, " VALCO " Valves & Cocks & Boiler Mountings.**

Royal Tube Corporation.—94, Nagdevi Street, Bombay 3.

**SHAH PATEL & CO.—111, Nagdevi Street, Bombay 3. Phones : 324309 and 321377. Grams : " LUCKYCHAP." Water & Steam Pipes and Boiler Tubes, Fittings, Valves & Cocks manufacturers of Slip-on-weldable and screwed M.S. Flanges.**

**SHARMAN SONS (Estd. 1949).—10, Nagdevi Street, Bombay 3. Phone : 321589. Stockists of G.I. Pipes, M. S. Steam Pipes & Boiler Tubes. All types of Fittings including G.M. Peet Valves, Wheel Valves, Stop Cock, etc.**

**STANDARD PIPES & FITTINGS CO.—93-A, Nagdevi Street, Bombay 3. Grams : " STANDPIPES ". Phone : 323444. Importers & Stockists of Pipes & Fittings, Sanitary Wares, Hardware & Mill Stores.**

Standard Trading Co.—Vithal Sayana Building No. 2, 43-75, Lohar Street, Bombay 2.

Steel Industries of Hindustan Ltd.—Magazine Street, Darukhana, Bombay 10.

Grams : "RUBBERTUBE". Estd.: 1948

*For Reputed Rubber Products*

**SWASTIK INDUSTRIAL MILL STORES**

159, Nagdevi Street, 1st Floor, Bombay 3. (BR).

*Specialities :*

**Hoses • Hand-Gloves • Trolley Wheels • Ebonite • Beltings Transmission • Packing Sheets • Hose Fittings • Cotton Hoses • Tubes and other Rubber Goods & Allied Products.**

Phones : **326751** (Res.) & **322575** (Office).

**TALIB & CO.**—Talib House, 104, Nagdevi Street, Bombay 3. Phone No. 321977. Grams : "TALIBCO." Pipes, Fittings & General Hardware Merchants.

**THAKORLAL & CO.**—47, Nagdevi Cross Lane, Bombay 3. Phone: 321498. Grams: "PIPEWARE." Dealers in Pipes, Fittings & Mill Ginstore.

**TIRATHRAM KASHMIRILAL (INDIA) PRIVATE LTD.**—229, Argyle Road, Iron Market, Bombay 9. Phone : 321623 & 328060 (Office) & 212447 (Res.). Grams : "GIRDERS." Specialists in Casing Boring Pipes.

Trivedi. S. G.—90, Nagdevi Street, Bombay 3.

United Tube & Hardware Co.—146, Nagdevi Street.

**WESTERN INDIA TUBE SYNDICATE.**—Carnac Siding Road, Bombay-9. Branch: Bunder Road, Bhavnagar. Stockists of Galvanised & Black Pipes of Light, Medium & Heavy quality and Boiler Tubes. Phones: Office: 322947 & 324353. Residence: 472528.

**VASUDEV & COMPANY.**—48, Bibijan Street, Bombay 3. Phone : 321677. Grams : "VASU METALS."

Venus Trading Co.—122, Barbhai Moholla, Narayan Dhuru Street, Bombay 3. Phone : 32147.

Victoria Sanitary Stores.—54, 3rd Bholwada, Bhuleshwar, Bombay 2.

**VINUBHAI CHANDULAL & CO.**—63, Nagdevi Street, Bombay 3. Phones : Shop : 324282 & 329141 & Res. : 38869. Grams : "STONEWARE."

**ZENITH STEEL PIPES LIMITED.**—Manufacturers of ERW Black and Galvanised Steel Pipes in the Size 1/2" to 3" in accordance with IS 1239/1964; also of Oval, Square and Rectangular Pipes, Moti Mahal, 195, Churchgate Reclamation, Bombay-1.

## PISTONS, RINGS & LINERS

**AGRA ENGINEERING CO.**—40, Bank Street, Fort, Bombay 1. Phone : Office : 256541. Res. : 532906. Grams : "RAJSPARES." Manufacturers of Diesel Engines Spares—"ARROW" & "DISPA" brand Liners & Pistons.

## PLANT & MACHINERY SUPPLIERS

**INTERNATIONAL EQUIPMENT CORPORATION PRIVATE LTD.**—317/321, Prospect Chambers, Dr. Dadabhoy Naoroji Road, Bombay 1. Grams : "FRECIFA." Phone : 253484. Branches at New Delhi, Calcutta, Madras and Secunderabad.

## PLASTIC MACHINERY MFRS.

**BOOLANI ENGINEERING CORPORATION.**—524, Sayani Road, Bombay-28. Phone: 452825. Machinery for Plastic Industry, BEC Thermoplastic Extruders and Extrusion Systems for manufacture of Polythene lay-flat Tubings, Monofilament, P.V.C.Cables, Sleevings and other extrudates. Hand operated Injection Moulding Machines for small component moulding, Hand operated Blow Moulding Machines for Hollow Toys, Umbrella Handles and Bottles, Hand operated Hot Stamping Machines, Scrap Grinders. Also Extrusion Dies and Injection Moulds made to order.

**BRIMCO PLASTIC MACHINERY CORPORATION.**—Plot No. 55, Govt. Industrial Estate, Kandivli (West), Bombay-67. Phone: 692818. Grams: "BRIMSEAL", Bombay, Kandivli. Machinery and Equipments for Processing Plastics, Brimco Thermo-plastic Extruders and Equipments for Extrusion of Tubular Film (Layflat Tubes), Rods, Strips, Sections, Plastic Cane, Monofilamanet, and Covering Wires and Cables, etc. From Polyethylene, Polystylene, PVC, Celulose Acetate, High Density Polyethylene, Polypropylene, etc. Also Injection Moulding Machines, Granulators, Palletiving, Colouring, Reprocessing Equipments and Automatic Bag Making Machines. Sole Selling Agents for Whole of India: William Jacks & Company Limited.

**LATHAM ABERCROMBIE DIVISION OF FORBES FORBES CAMPBELL & CO. LTD.**—Forbes Building, Home Street, Fort, Bombay 1. Phone : 268081. Grams : "LATHAM."

**RADIO ELECTRICAL CORPORATION.**—Mamlatdar Wads Road, Malad (West), Bombay-64. NB. Phone : 692470. Manufacturers of "R.E.C." Electric Plastics Welding Machine: for making fine articles from P.V.C. Plastic Sheets viz. Rainwear, Wallets, Inflatable Toys, etc.

Universal Mechanical Works Private Ltd.—Opp. Worli B. D. D. Chawl No. 114, Bombay 13.

William Jacks & Co., Ltd.—Bharat House, Apollo Street, Fort, Bombay.

## PLASTIC MOULD MANUFACTURERS

**MUTUAL STEEL INDUSTRIES.**—47, Kandivli Industrial Estate, Kandivli, Bombay 67 N.B. Phone : 692843. Plastic Moulding in compression and injection Compression, Manufacturers of Bakelite & Plastic Radio Cabinets, and "TIDY HOME" Plastic Housewares.

## PLASTIC (RAW MATERIAL)

Imperial Chemical Industries (India) Private Ltd.—Crescent House, Wittet Road, Ballard Estate.

**POLYCHEM LIMITED.**—Manufacturers of Polystyrene Plastic Moulding Meterial, 'Polynite' High Impact Sheets, Styrene Monomer, Toluene, Ethylbenzene, Poly Ethylbenzene, Industrial Alcohol and Fuel Oil. 45/47, Apollo Street, Bombay 1. Phones : 254259, 254752, 251301. Grams : "POLYCHEMIC."

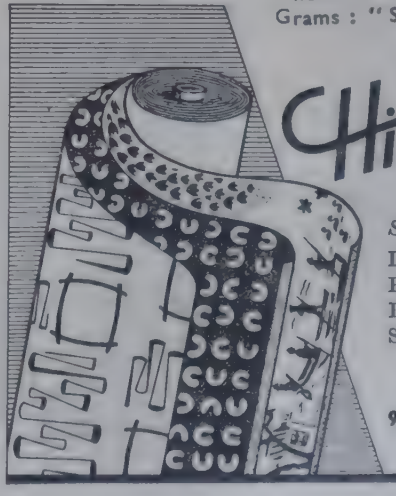
**UNION CARBIDE INDIA LIMITED.**—Kasturi Building, Jamshedji Tata Road, Bombay 1. Phones : 245584 & 245775. Grams : "INDUSCHEM." For "UNION CARBIDE." Polyethylene Resins, Film, Pipe, PVC Phenolic Resins and Compounds, etc.

## PLASTIC SHEETINGS

**BHOR INDUSTRIES LTD.**—Sales Department, 392, Cadell Road, Bombay 28. Phone: 451418, 451967, 451978. Grams : "COVERCLOTH." Manufacturers of "RAJA" Brand Plastic Cloth & "NATRAJ" Brand Plastic Films & Sheetings.

Phones : **323270 - 328264**

Grams : "SUEDE"



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PLASTIC CO.

*Stockists of :*

Decorative Sheets for Furniture, Phenolic Laminated Sheets, P.V.C. Rigid Sheets, P.V.C. Flexible Sheets, Polythene Sheets, Acrylic Plastic Glass.

**95, ABDUL REHMAN STREET, BOMBAY-3. (BR)**

**HINDUSTAN PLASTIC CO.**—95, Abdul Rehman Street, Bombay 3. Phone : 323270. Grams : "SUEDE." Dealers of : Decorative sheets. "SUNLAM." Phenolic Sheets, "SUNVIC" P.V.C. rigid sheets, "SUNFLEX" P.V.C. Sheets, Acrylic transparent sheets.

**NOBLE PLASTIC WORKS.**—22, Mangesh Senoy Street, Fort, Bombay. Phone : 261172. Grams : "ROLLEDGOLD." Manufacturers of Plastic Umbrella Handles & Handicrafts. Export inquiries invited. Also Sole Indenting Agents of Acrylic Plastic Sheets, M.O.P. & Stain Finish of Spanish origin.

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**AMRATLAL CHHAGANLAL & CO.—143, Nagdevi Street, Bombay 3. Phone: 326008. Grams: "EKADASHI." Dealing in Suction, Delivery, & Fire Hoses; Surgical, Rubber & Plastic Tubings & Sheetings.**

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay.

## PLASTIC WELDING & TORCHES, MACHINES & MATERIALS

**VISHWA BHARATI TRADING CO.—45, Mint Road, Post Box No. 1052, Bombay 1. Phones: 266371, 264555 and 264795. Grams: "VIDHACO". Branch G.P.O. Box 2628, Calcutta 1. Phone: 336680. Manufacturers of Plastic Welding Machines, Plastic Spraying Machines & Torches, Adhesives.**

## PLASTICS

Abdul Kayam Esufally & Bros.—193, Abdul Rehman Street, Bombay 3.

**ACME PLASTICS INDUSTRIES.—Manufacturers of all types of Industrial and Household Injection Moulded Articles. 58/59, Kurla-Andheri Road, J. B. Nagar, Bombay-59. Grams: "ACMEPLAST." Phone: 571251-52, 573348.**

Artbangles Private Limited.—204, Dr. Dadabhai Naoroji Road, Fort.

Ashok Brothers.—187, Abdul Rehman Street, Bombay 3.

Associated Agencies (Bombay).—47, Podar Chambers, Parsee Bazar Street.

Aurora Toys & Novelties.—"Parimal", Keluskar Road South, Shivaji Park, Dadar, Bombay 28.

**BAKER BROTHERS.—31, C.P. Tank Road, Bombay 4. Phone: 334421. Grams: "BAKERCOLOR." Suppliers of Sticking Solution for Polistrene Plastic.**

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**BRIGHT BROTHERS PRIVATE LTD.—156-A, Tardeo Road, Bombay 34. Grams: "BRIBOS." Phones: 78548, 78549, 78540. Manufacturers of Plastic Articles for Home, Industry, Office and Gift advertising.**

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Iwacom Private Limited.—204, Dr. Dadabhai Naoroji Road, Fort, Bombay.

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Kisco India.—315, New Charni Road, Bombay 4.

Kosmek Private Ltd.—Cecil Court, Lansdowne Road, Apollo Bunder, Bombay 1.

Mamaji & Son (Private) Ltd., Y. A. (Estd. 1885).—136-38, Sir Ebrahim Rahimtoola Road, Bombay 3.

**MODERN PACKAGINGS.—201, Kalbadevi Road, Bombay-2. Manufacturers of: Polythene Bags, Liners, Sheets and Sheet Rolls and P.V.C. Flexible or Rigid Tubings, Transparent or Opaque and also Sleevings, Sections, etc., etc. Telephone: 22425.**

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**MUTUAL STEEL INDUSTRIES.—47, Kandivli Industrial Estate, Kandivli (West), Bombay-67. N.B. Phone: 692843. Plastic Moulders in Compression and injection manufacturers of Bakelite and Plastic Radio Cabinets and "TIDY HOME" Plastic Housewares.**

Newpack Industries.—Lotus House, 33A, Marine Lines, Bombay 1.

**NEW INDIA PLASTICS.—Khana Construction House, 44-A, Abdul Gaffar Khan Road, Worli, Bombay-18. Manufacturers of Industrial Purposes Specific Inquiries Solicited.**

**NOBLE PLASTIC WORKS.—22, Mangesh Senoy Street, Fort, Bombay. Phone: 261172. Grams: "ROLLEDGOLD." Manufacturers of Plastic Umbrella Handles and Handicrafts. Export inquiries invited. Also Sole Indenting Agents of Acrylic Plastic Sheets M.O.P. & Satin Finish of Spanish origin.**

Norinco Ltd.—P.O. Box 871, Bombay 1.

Pital Extruders Private Ltd.—204, Dr. Dadabhai Naoroji Road, Fort.

**PODAR PLASTICS PRIVATE LTD.**—Podar Chambers, Fort, Bombay 1. Telephone No. 259261. Grams: "ELECTRA." Manufacturers of Industrial Components in Nylon and other Materials. Advertising and Display items, Household Articles, etc. Custom Moulding a speciality.

**PLUCK & CO. (Estd. 1902).**—Sales Office: 415, Commerce House, Medows Street, Bombay 1. Phone: 251131. Grams: "INTERSEAS." Badges, Advertising Gifts like Key Chains, Paper Weights, Paper Cutters, Table Calendars, everything in soft plastics like wallets, Memo Pads, Files, Diaries, etc.

**PREM BROTHERS.**—Manufacturers of Polythene bags, Sheets, Wardrobes, Shoeracks. Dealers in Plastic Sheeting and Table Cloth. 86, Commercial Chambers, Masjid Bunder Road, Bombay 3.

Rubako Industries.—Behramji Mansion, Sir Phirozshah Mehta Road, Fort.

**RATILAL PAREKH & CO.**—Bombay Mutual Bldg., Sir P. M. Road, Bombay 1. Manufacturers of Plastic Umbrella Handles, Bangles, Novelties, Art Silk Cord, Tapes, Nylon Cordage and Imitation jewellery.

Selwel Corporation.—Nakhuda Rogbay Market, 8, Nagdevi Street, Bombay 3.

**SHAH PRATAP & CO.**—Manufacturers of Components from laminates and Moulders of Plastics. 64, Old Customs House Road, Fort, Bombay. Phones: 255615 and 255616. Grams: "VINPRA."

Sonal Rangnow & Co.—41, Hamam Street, Fort.

**SRINIVAS BROTHERS PRIVATE LTD.**—Karim Chambers, 40, Hamam Street, Fort, Bombay 1. Phones: 254659 (Office) and 473768 (Res.). Grams: "PLASMOULD." Managing Director: J. N. Iyer. Sole Agents for B.I.P. Chemicals Ltd., London for U.F. Moulding Powders and Resins; B.I.P. Engineering for Bipel Moulding Presses; Rattanchand Harjas Rai Plastics Private Ltd., 54, Industrial Area, Faridabad for Presrite Urea Formaldehyde Moulding Powder.

Sunder Mehta & Co.—413G, Vasantwadi, Kalbadevi Road, Bombay 2.

**SUPREME INDUSTRIES LTD.**—Wadala Bombay 31. Manufacturers of Plastics Machinery, Moulds, Articles for Household & Industry, Industrial Paints, Adhesives & Waterproofing Compounds. Phones: 62181-2. Grams: "SI/PRODUCT," Bombay (Dadar).

Totaldas. T.—Botawala Building, 61, Picket Road, Bombay 2.

Trading Co., L. R.—Navsari Chambers, opp. Lloyds Bank, Fort.

**TRINITY PLASTICS.**—Manufacturers of Plastic Moulds and Plastic Injection & Compression Moulders. Office: 238, Nagdevi Street, Bombay 3-BR. Grams: "AIRCOCK," Bombay. Phones: Office: 324243, Factory: 692160. Res.: 77759.

United Corporation.—National Indian Life Building, 59, Forbes Street, Fort.

United Cottage Industries.—Near Central Bank of India Ltd., Abdul Rehman Street, Bombay 3.

Vibha Industries.—Arches 2-3-4 under Mahalaxmi Bridge, opp. Race Course, Bombay 11.

**VIJAY BAKELITE TRADING CO.**—8 Chakla Street, Bombay 3. Phone: 323145. Grams: "BESTCAP." Manufacturers & Distributors of all kinds of Caps and Stoppers made of Plastic Bakelite & Rubber.

**ZEPHYR LEATHER WORKS.**—1st Floor, Sethna Building, Kitchen Garden Lane, Sheikh Memon Street, Bombay 2. Phone: 23803. Grams: "LOOSELEAF." Manufacturers of Plastic and Leather Goods, Specialists in Pocket Diaries, Wallets, Note Books, Telephone Books, Loose Leaf Files, Tender Files, and all sorts of Ultra-Modern Publicity cum Presentation Novelties. Also made to order according to specification.

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**LAXMI PLAYING CARDS MFG. CO.**—23, Goa Street, Ballard Estate, Bombay 1. Phone: 263147. Grams: "LAXPICPLAY." Manufacturers of quality Playing Cards.

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Sahu Printers Ltd.—15/A, Elphinstone Circle, Fort, Bombay.

Sharda Paper Box Mfg. Co.—Motisha's Chawl, Gangadas Hall, Sheikh Memon Street, Bombay 2.

## PLUMBERS REQUISITES

**MAGANLAL PRANLAL & SONS.**—105, Nagdevi Street, Bombay 3. Phones: 327121, 327715 & 321428. Grams: "ARMPIPE." Dealers in Pipe Fittings, Sanitarywares, Hardware & Plumbers Requisites.

**R. MOOLCHAND & CO.**—44, Nagdevi Cross Lane, Bombay 3. Direct Importers Sanitarywares, Tiles, Bath Tubs, Fancy Bathroom Fittings, Grams: "POTTERY." Phones: 324207. Res.: 78837.

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Abdoolally Noorbhoy.—122, Abdul Rehman Street, Bombay 3.

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Fort.

**ESMAIL ESSAK & CO.**—87/89, Masjid Street, Kazi Mohalla, Bombay 3. Phone: 332347. Timber Merchants, General Contractors and Suppliers of Plywood & Hardboard.

**FAKHRUDDIN & CO.**—43, Abdul Rehman Street, Post Box No. 3066, Bombay 3. Phones: 325837 and 322725. Grams: "WOODPLY." Stockists of Okal Board "FORMICA", Plastic Laminated Sheets, Insulating Boards, "Anchor" Novateak, Asbestos Electrical Insulatings for Arc and heat-resisting sheets, tempered press boards, Plywood block boards, Asbestos Cement Sheets, Veneer, decorative teak plywood, Expanded Metals, perforated Metal Sheets, Welded Wire Mesh.

Getz (India) Ltd.—Western India House, Sir Phirozshah Mehta Road, Fort.

**HINDUSTAN PLYWOOD & METAL DEPOT.**—301, Shree Krishna Nivas, Corner of Abdul Rehman Street & Masjid Bunder Road, Bombay 3. Phone: 324544. Grams: "PLYDEPOT." Wholesale & Retail Dealers in Teak, Walnut & Champ Faced Black Board & Plywood, Hard Board, Masonite, Plywood, Teak Plywood, Insulation Soft Board, Chair Seats, Cement Sheets, Formica & Sunwood Sheets, etc.

**INDIAN PLYWOOD MANUFACTURING CO. LTD.**—9, Wallace Street, Post Box 1175, Fort, Bombay 1. Phones: 26-3381. Grams: "INDPLYWOOD." Manufacturers of Decorative Plywood, Veneers, Marine and other Special types of Plywood OKAL. Veneered Boards, Anchor Flush Doors, Anchor Concrete Shuttering Plywood, Anchor Particle Boards, Anchor Nova Doors, Anchor Veneered Boards Commercial and Decorative, Anchor Nova Tops, Anchor Nova Mounts.

Kantilal Sanghvi & Co.—Mherwan Building, Sir Phirozshah Mehta Road.

Karimji Ebrahimji Arsiwala.—118-20, Abdul Rehman Street, Bombay 3.

**KERBADJI BEJANJI & SONS.**—Opp. Silk Mill, Mustafa Bazar, 51/A, Victoria Road, Bombay 10. Phone: 78871. Stockists of Asbestos Cement Sheets, Plywood & Hardboard.

Keshowdas Hassanand Karachiwala.—256, Masjid Bunder Road, Bombay 3.

**MEHTA & CO.**—35, Abdul Rehman Street, Pydhonie, Bombay 3. Phone: 322394. Grams: "QUALIFIED." Dealers & Stockists of Plywood, Teak Plywood, Block Boards and Decorative Boards, "Jolly" Board, Anil Hardboards, Insulation Board, Melmica Sheet and Sunmica Sheets, etc. Expanded Metal and all sorts of Wire nettings.

**MAHOMEDALLY VALIJA ARSIWALA.**—76, Abdul Rehman Street, Bombay 3. Phone: 325900; and 145, Jambli Mohalla, Bapu Khote Street, Bombay 3. Phone: 332467. Dealers in all kinds of Plywood, Teakwood, Furniture Wood and also folding chairs.

**MYSORE COMMERCIAL UNION LTD.**—Manufacturers of Mysoply and Mysobord. 28, Apollo Street, Fort, Bombay-1. Phone: 252251.

Mody & Co., R. E.—Reay Road. Tank Bunder, Bombay 10.

**NASH & CO.**—103, Abdul Rehman Street, Bombay 3. Phone: 324968. Commercial & Decorative Plywood, Block-Boards, Okal Boards, Flush Doors & Formica.

Phoenix Plywood Depot.—Prospect Chambers Annexe, Hornby Road, Fort

**PLYNET TRADERS.**—Shahru Castle, Mohamedali Road, Bibijan Street, Bombay 3. Phone: 327334. Grams: "NETPLY," Bombay. Stockists & Dealers in Plywood, Hardboard, Insulation Board, Flush Door, Block Board (Commercial & Decorative), Teak Plywood, Cement Sheets (Plain & Roofing), and other allied building materials.

Premier Glass Traders.—74/78, Dhanji Street, Bombay 3.

Shah & Co., Jaliwala.—"Jaynivas," 86, Abdul Rehman Street, near Pydhonie, corner of Sutar Bazar, Bombay 3.

**SUNDERLAL & CO.**—121, Abdul Rehman Street, Bombay 3. Phone: 325204. Grams: "SUNDERJALI." Direct importers & Stockists of Plywood, Teak Plywood Block Boards, Asbestos Cement Sheets, Hard Boards, Masonite Boards, etc. Folding Chairs & Chairseats our speciality.

Tek Trading Corporation.—139, Abdul Rehman Street, Bombay 3.

Yusufali Goolamhoosen Arsiwalla.—105, Abdul Rehman Street, Bombay 3.

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**KAUSHIK ENGINEERING CO.**—Sole Representative "WATTS" U.S.A. for Compressed Air Line Filters Pressure, Regulators, Oil fog Lubricators etc. Also pressure Switches, Pressure Gauges, Mini Motors, Diesel/Petrol Engines & Spares, Domestic Pumpsets, Compressor sets, Flexible Shafts, Solenoid Valves etc., etc. 99, Apollo Street, 1st Floor, Bombay 1.

## POLYTHENE BAGS & SHEETS

**MODERN PACKAGINGS.**—201, Kalbadevi Road, Bombay 2. Manufacturers of: Polythene Bags—Plain or Gusseted Liners, Sheets and Sheet Rolls. Telephone No.: 22425.

**NATIONAL PAPER BAG CO.**—168, Bhimpura, Chinch Bunder, Bombay 9. Phone: 333239. Grams: "PAPERBAG." Manufacturers of Paper Bags, Plastic Bags, Carrier Bags, etc. Also Plastic Sealing Machines & Gum Tape Machines.

**NEW PACK INDUSTRIES.**—Lotus House, 33-A, New Marine Lines, Bombay-1. Phone: 241711. Grams: "NUPACK." Manufacturers of: "NEWPACK" Polythene Bags Sheetings & Rolls, Etc.

**POLYMER CORPORATION.**—Manufacturers & Printers of 'HIPACK' brand Polyethylene bags and Liners, Tubular Film Sheeting and Cane. The only manufacturers of Treated Polythene film. 70, Kansara Chawl, Kalbadevi Road, Bombay 2. Phones: Office: 334557 & Factory: 692019. Grams: "WALKAL."

**TRIBHOVAN NEMCHAND & CO.**—51, Bazargate Street, Fort, Bombay 1. Estd. 1911. Phone: 262261. Grams: "HONEYMOON."

## PORCELAINWARE

National Scientific Instruments Co.—257, Frere Road, Fort, Bombay 1.

Nowroji N. Vakil & Co.—Branch at Shahru Castle, Mohamedalli Road, Bombay No. 8.

Scientific Instrument Co., Ltd.—Navsari Building, 240, Hornby Road, Fort.

United Potteries & Glassware Mart.—Noble Chambers, Parsi Bazar Street, Fort.

## PORCELAIN & STONEWARE TOWER

**BASSEIN CERAMICS PRIVATE LTD.**—Manufacturers of Chemical Stoneware and Porcelain Tower Packings like Rashing and Kessing Rings, Berl and Sector Saddles, Metallic Packings, Lining Bricks and Porcelain Balls, Also Acid proof Bricks and Tiles.

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**KILBURN & CO. LTD.**—Gresham Assurance House, Phiroz-shah Mehta Road, Bombay. Phone: 251908. Grams: "TASCONIUM."

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**INDUSTRIAL GASES LTD., THE.**—Bombay. Grams: "INDUSGASES". Head Office: P. O. Box 853, Calcutta 1. Design, Supply & Erection of complete Power Stations, Turbines, Generators, Motors, Transformers, Switchgears, Lightning Arresters, Voltage Regulators, Relays, Insulators, Conductors and Cables.

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Agarwal Commercial Corporation.—35, Bibijan Street, Nagdevi, Bombay 3

**AJMERA & BROS., V. G.**—103, Narayan Dhuru Street, Bombay 3-BR. Phone: 323337. Importers of Hardware, Garage, Precision & Measuring Tools, Wrenches, Die, Ring & Tubular Spanners, Sockets & sets and Speed Chain Pulley Blocks. Authorised Stockists for GEDORE TOOLS & TURNER Asbestos Products.

**"ARIFTA".**—Die Tool & Consulting Engineers. Soho House, Lohar Street, Bombay 2. Phone: 20779. Designers & Manufacturers of Multi-operation, Combination type Dies for Sheet Metal Products. Phone: 20779.

**BHARAT ENGINEERING STORES.**—113, Nagdevi Street, Bombay 3. Grams: "UNIONTOOLS." Phone: 323193.

**BOMBAY ENGINEERING STORES.**—C-16, Behari Baug, 3rd Bhoiwada, Bombay 2. Stockists of Engineering Tools of all kinds.

**BOMBAY TOOLS SUPPLYING AGENCY.**—50, Nagdevi Cross Lane, Bombay 3. Phone: 20326. Grams: "TERRATOOLS". Direct Importers—Stockists of Engineering & Precision Tools.

**DEEPAK TRADING CO.**—137, Narayan Dhuru Street, Bombay 3. Machine Tools, Metal Cutting Tools & all sorts of Precision & Engineering Tools.

**HEMANT TOOLS TRADING CO.**—33, Bibijan Street (Barbhai Mohalla), Bombay 3. Grams: "LACING." Phone: 321174. Importers & Stockists of Chain Pulley Blocks, Garage Tools, Fibre Sheets, Rods, etc.

**INDUSTRIAL MILL GIN STORES.**—Industrial House, 51-53, Nagdevi Cross Lane, Bombay 3. Grams: "WIREGOODS." Phone: 321246.

**INDUSTRIAL TOOLS TRADING CO.**—101, Narayan Dhuru Street, Bombay 3. Stockists of Precision Tools of "MITUTOYO". Moore & Wright Helios "MITUTOYO", Moorex & Wright, Baty, Helios & Steinmeyer, etc. Grams: "MITUTOYO." Phone: 328193.

**JAIRAMDAS & SONS.**—163, Narain Dhuru Street, Bombay 3. Phone: 323616. Grams: "JAIRAMSONS." Importers & Largest Stockists of "Starrett", "M & W", "Mercer", "Baty", "Steinmeyer" Brand Precision Measuring Tools.

**M. MAHASUKHLAL & CO.**—93, Narayan Dhuru Street, Bombay 3. Phone: 321898. Grams: "STEELBALL." Dealers in Engineering Tools, Precision and Measuring Instruments.

**MODERN MACHINE TOOLS CO.**—88, Nagdevi Cross Lane, Bombay 3. Phone: 322456. Grams: "MONKEY GRIP." Micrometers, Vernier Callipers, Dial Gauges, Feeler, Thread, Wires Radinus Gauges, etc.

**PRAFULCHANDRA & CO.**—106, Lohar Street, Bombay 2. Phone: 39007. Grams: "ELECTOOLS." Importers & Stockists of Engineering, Precision and Garage and Machine Tools.

**PARAMOUNT TOOLS CO.**—5, Narayan Dhuru Cross Lane, Bombay 3. Grams: "PARATOOLS." Dealers in Engineering Metal-cutting precision tools and General Hardware Suppliers. Phone: 321860.

Rasiklal Shah & Co.—93, Narayan Dhuru Street, Bombay 3.

**UNIVERSAL TRADING CO.**—Stockists of Micrometers, Callipers, V. Blocks, Height & Depth Gauges, Planers, Wrenches, Pliers, Spanners, Cutters, Reamers, Drills, Vices, Chucks, Tipped Tools, Taps and Dies, Pressure and Vacuum Gauges and General Engineers Requisites. Mohamedi House, 79, Mohamedali Road, Bombay 3. Phone: 322537. Grams: "IRONMART." Sales Office: No. 4, Narayan Dhuru Cross Lane, Bombay 3.

## PRECISION PARTS MFRS.

**INDIA AUTOMATICS**—Factory: Universal Nut and Bolt Co.'s Compound, Falkland Bridge, Tardeo, Bombay-7. Phone: 244061. Manufacturers of Precision Work on Auto Screw Machines & Capstan Lathes for Air Craft, Automobiles, Radios, etc.

**NEW HEVAN ENGINEERING CO. PRIVATE LTD.**—Nanjee Building, 17-B, Horniman Circle, Bombay 1. Phone: 261523. Grams: "GULDASTA", Manufacturers of Automobile Parts, Machinery Spares, Bright Polished bolts and nuts, Socket head cap Screws, Precision Turned Automatic Parts, etc.

Telstar-KI-3

## PRESENTATION ARTICLES

**BRIGHT BROTHERS PRIVATE LTD.—156/A, Tardeo Road, Bombay 34. Grams: "BRIBOS." Phones: 78548, 78549, 78540. Specialists in Plastic Gift Advertising Novelties.**

**CHIMANLAL MANCHAND & CO.—Silverwares, Antiques, Presentation Articles, Engine-turned Silverware. Central Government's Certified Valuers. Show Room:—Opera House, New Queen's Road. Phone: 30321. Grams: "PLATINUM."**

Dattatray Industries Private Ltd.—Sitaram Bldg., Dadabhai Naoroji Road, Fort, Bombay.

**EBRAHIM ALLIBHOY AND SONS (ESTD. 1934).—Exporters & Stockists, 260-64, Abdul Rehman Street, Bombay 3. Phone: 325163.**

Gazdar Ltd.—Taj Mahal Hotel, Bombay.

Grand Bazar.—26, Colaba Causeway, Bombay 1.

Jagatiani, M. K., & Sons.—Moolji Jetha Market, Ganeshwadi, First Floor, Shaik Memon Street.

Jhaveri & Co., Gordhandas K.—Oomrigar Building, opp. Crawford Market.

Jhaveri Bros. & Co. Pvt. Ltd. (Established 1914).—Novelties and Gift Specialists. 345, Abdul Rehman Street, Near Crawford Market, Bombay 3.

Kashmir Govt. Arts Emporium.—Sir P. M. Road, Bombay 1.

Lalit Jewellery Mart.—435, Lamington Road, near Opera House.

L. R. Trading Co.—Navsari Chambers, opp. Lloyds Bank, Outram Road, Fort.

Lund & Blockley Ltd.—150, Mahatma Gandhi Road, Fort, Bombay.

Marine Sports.—101, 1st Marine Street, Dhobi Talao, Bombay 2.

Motilal, M. Shah & Co.—Opp. Crawford Market, Bombay.

**NAROTAMDAS BHAU (ESTD. 1864).—Jewellers, Specialists in Presentation and all possible novelty articles. Lamington Road, Bombay No. 4. Phone: 30833. Grams: "DASNAROTAM (GG)".**

Noble Jewellery Mart.—Capitol Cinema Bldg., Bori Bunder, Bombay 1.

**NOBLE PLASTIC WORKS.—22, Mangesh Senoy Street, Fort, Bombay. Phone: 261172. Grams: "ROLLEDGOLD." Manufacturers of Plastic Umbrella Handles & Handicrafts. Export inquiries invited. Also Sole Indenting Agents of Acrylic Plastic Sheets M.O.P. & Stain Finish of Spanish origin.**

Novelties, The.—Hughes Road, Bombay.

**PLUCK & CO. (Estd. 1902).—Sales Office: 415, Commerce House, Medows Street, Bombay 1. Phone: 251131. Grams: "INTERSEAS." Badges, Advertising Gifts like Key Chains, Paper Weights, Paper Cutters, Table Calendars, everything in soft plastics like Wallets, Memo Pads, Files, Diaries, etc.**

**THACKER & CO., LTD.—Rampart Row, Bombay 1. Grams: "BOOKNOTES." Phone Nos.: 252722 & 253355.**

Ruby & Co.—Opera House, Bombay No. 4.

Sharada Novelty House.—96, 3rd Bhoiwada, Bombay 2.

Sharda Stores.—Swadeshi Markets, Kalbadevi Road, Bombay 2.

Shewakram & Sons (Jewellers).—315-317, Prospect Chambers, Hornby Road, Fort.

Spencer & Co., Ltd.—Forjett Street, Bombay 26.

United Cottage Industries.—Near Central Bank of India Ltd., Abdul Rehman Street, Bombay 3.

**ZEPHYR LEATHER WORKS.—1st Floor, Sethna Bldg., Kitchen Garden Lane, Sheikh Memon Street, Bombay 2. Phone: 23803, Grams: "LOOSELEAF." Manufacturers of Plastic and Leather Goods. Specialists in Pocket Diaries, Wallets, Note Books, Telephone Books, Loose Leaf Files, Tender Files, and all sorts of Ultra-Modern Publicity-cum-Presentation Novelties. Also made to order according to specifications.**

## PRESSURE STOVES

Anglo-Oriental Light Co.—Peerbhoy Building, 89, Princess Street, Bombay 2.

K. B. Mehta & Bros.—Lohar Chawl, Shreeji Bhuvan, 2nd Floor, Bombay 2.

L. C. Trading Co.—62, Lohar Chawl, Bombay 2.

Light House.—51, Kitchen Garden Lane, Shrijee Bhuvan, Bombay 2.

**OPTIMOHAR INDUSTRIES PRIVATE LTD.—Manufacturers of Pressure Stoves, Pressure Lanterns, Blow Lamps, Paint Spray Guns. Export enquiry Solicited. Phone Nos.: 256871-72. Address: 16, Custom House Road, Bombay-1. Grams: "SNUFLAMES."**

Racek, F., & Co.—Lohar Street, Bombay 2.

Rasiklal & Co.—Peerbhoy Building, 89, Princess Street, Bombay 2.

Salemahomed Padamsee & Co.—141, Chakla Street, P.O. Box 3131, Bombay 3.

Shah, H. T., & Co.—Ahmed Building, Golpitha, Bombay 4.

## PRESSURE VESSELS

**HINDUSTHAN ENGINEERING WORKS.—7/c, Pitamber Lane, Mahim, Bombay 16. Phone: 451408. Grams: "DICHROMATE." Air Compressors, Chemical Engineering Equipment, Founders and Foundry Equipment, Industrial Engineers, Material Handling and Conveyors, Moulding Machines and Boxes, Steel doors and Windows and Tank Manufacturers.**

## PRINTING INK MANUFACTURERS

**BENGAL CHEMICAL & PHARMACEUTICAL WORKS LTD.—502, Cadell Road, Bombay 28. H.O. 6, Ganesh Chunder Avenue, Calcutta 13. Pharmaceuticals, Heavy and Fine Chemicals, High Class Toilet Products Coal Tar Distillation Products, Fire Extinguishers, Printing Inks, Driers, etc. Branch Office: Kanpur.**

Gripoli Printing Inks.—10/A, Sarvodaya Mill Compound, Tardeo, Bombay 9.

J. B. A. Printing Inks Private Ltd.—Bombay-Agra Road, Bhandup, Bombay 78.

## PRINTING PRESS MATERIAL & MACHINERY

**A. A. MORBIWALA & CO.—109/111, Abdul Rehman Street, Bombay 3. Phone: 323280. Grams: "VARNISH (MD)." Importers & Stockists of Stitching Wires in all Gauges used in Printing Presses.**

Batliboi & Company Private Limited.—Regd. Office: Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR.). Phones: 255451 (6 lines). Grams: "BATLIBOICO." Telex: 284. City Branch: Batliboi House, 59/61, Nagdevi Cross Lane, Bombay-3 (BR.). Branches: Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associates: Bangalore 2. Resident Representatives: ERNAKULAM, RANCHI.

**BOMBAY LETTER FOUNDRY LTD.—7/A, Nikadwary Lane, Kandewadi, Girgaum, Bombay-4. Phone: 23589.**

**CAMA, NORTON & CO.—Cama Chambers, 23, Medows Street, Fort. Phone: 255354. Grams: "CAMANORTON."**

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.—Sole Agents for Northern, Southern and Central India for Original Heidelberg Printing Machinery, Wavell House, Graham Road, Ballard Estate, P.O. Box No. 639, Bombay 1. Phones: 26-2711 (8 lines). Offices at Madras, Calcutta, New Delhi, Bangalore, Secunderabad & Lucknow.**

Gujarat Trading Syndicate.—India House (Opp. G.P.O.), Fort Street, Fort, Bombay 1.

**GUJARATI TYPE FOUNDRY.—196-B, Gaiwadi Girgaum, Bombay 4 BR. Phone: 22942. Grams: "GUTYFO." Type Founders & Printing Press Material Dealers.**

**GUNVANTRAY & COMPANY.—Crescent Chambers, 1st Floor, Room No. 2, Tamarind Lane, Fort, Bombay 1. Phone: 254684. Grams: "GUNARAYCO." Importers and Dealers in Letter Press, Litho, Offset, Process & Box Making Machineries, Materials, Spare Parts and Rubber Rollers suppliers.**

Indo-Europa Trading Co.—9, Dalal Street, Bombay 1. Phone: 252124.

**J. B. A. PRINTING INKS PRIVATE LTD.—Manufacturers of Quality Printing Inks and Varnishes under the supervision of foreign-trained technicians. Regd. Office: Advani Chambers, Sir Phirozshah Mehta Road, Fort, Bombay. Phone: 261204. Factory: Bombay-Agra Road, Bhandup, Bombay 78. Phone: 591866-67.**

**METALLICA WORKS PRIVATE LTD.—79/83, Dr. Annie Besant Road, Bombay 18. Phones: 75432, 75433, 75434. Makers of Non-Ferrous Metals, Castings, Alloys, Anodes, Lead Linings of Acid Resisting Containers, Crucibles.**

**PAPER PULP & MACHINE CO.—7, Kumpta Street, Ballard Estate, Bombay 1. Phones: 263386 & 263387. Grams: "LION BRAND." Sole Importers into India of the Products of John Dickinson & Co., Ltd., London.**

Printing Materials Store.—89, Princess Street, Bombay 2.

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Subodh Indent Agency.—44, Kumarvillas, Mangalwadi, Girgaum.
Voltas Ltd.—19, Graham Road, Ballard Estate.
Yeshanand & Co.—Podar Chambers, Parsi Bazar Street, Fort.

### PRINTING PRESSES

**AFZAL PAPER BOX FACTORY.—43, Foras Road, Bombay 8. Phone: 72338. Manufacturers of Card Board Boxes and Corrugated Paper Rolls & Sheets.**

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**AJANTA PRINT ARTS.—52, Khottar Galli, Bombay 4. Phone: 30524. For Prompt Service. Artists & Colour Printers.**

Ajmal Printing Press.—Princess Building, J. J. Hospital.
Albert Printing Works.—Podar Chambers, Parsi Bazar Street, Fort.
Alliance Art Printing Works.—17, Benham Hall Lane.
Amrut Sagar Press.—54-58, Sheikh Memon Street.
Army & Navy Press.—21, Forbes Street, Bombay 1.

**ASHOK PRINTING WORKS.—(Job Printers), 22/A, Parsee Bazar Street, Fort, Bombay 1—BR. Phone: 255347.**

Associated Advertisers & Printers Ltd.—505, Arthur Road, Tardeo, Bombay 7.

**BOMBAY ART PRINTERS.—Kurla Road, Bombay 70. Phones: 553667 & 55798. Cartons, Labels, Literature, Booklets, etc.**

Bombay Chronicle Press.—Red House, Parsi Bazar Street, Elphinstone Circle.
Bombay Press.—15 Store Lane, Homji Street, Opp. French Bank, Fort, Bombay.
Bombay Printing Works.—Podar Chambers, Parsi Bazar Street, Fort.
Bombay Samachar Press.—Parsi Bazar Street, Elphinstone Circle.
Bowen Press.—Sambava Chambers, 2nd Floor, Sir Phirozshah Mehta Road, Fort.
Caslon Printing Works.—Grahams Building, 74, Homji Street, Fort.
Caxton Printing Works.—Frere Road.
Central Printing Works.—Lalgir Chambers, Tamarind Lane, Fort.

**COMMERCIAL PRINTING PRESS LTD.—34/38, Bank Street, Bombay 1. Phones: 253891-92. Grams: "TATAPRESS."**

Competition Press.—Dwarkadas Building, Benham Hall Lane.

**CROWN ELECTRIC PRINTING WORKS.—111-A, Mahatma Gandhi Road, Fort, Bombay 1. Phone: 251437. Fine Art Printers, Calendar and Diary Manufacturers.**

Crystal Stationery Mart.—109, Dhanji Street, Bombay 3.
Evergreen Syndicate.—19, Hamam Street, Fort.
Examiner Press.—Medows Street, Fort.
Fezisons.—Quality Printers, Rahimtoola House, Homji Street, Fort, Bombay.

**FIDVI PRINTING PRESS.—179, Abdul Rehman Street, Bombay 3. Manufacturers, Dealers & Exporters of Accounts & Exercise Books, Office Files, New Year Diaries, Calendar & Refills and other Advertising Novelties. Phone: 325915. Grams: "FIDVIPRESS."**

Fort Office Printing Press.—94, Mint Road, Fort.
Gangadhar Printing Press.—Haroon Rangari Chawl, near Western Rly. Station, Dadar.
Gem Printing Works.—Marine Chambers, Marine Lines.
Government Central Press.—Gardens, Charni Road.
Gutenberg Printing & Commercial Co., Ltd.—Raja Bahadur Bansilal Motilal Mansion, Apollo Street, Fort.
Hind Printing Works.—Opposite Kandewadi B.E.S.T. Sub-station, Girgaum.

**IDEAL PRINTERS PRIVATE LIMITED.—Regd. Office & Works Unit No. 1. Bell Building, Sir Phirozshah Mehta Road, Bombay. Phone: 253626. Works Unit No. 2, Asok Press, Zandu Pharmacy Compound, Gokhale Road South, Bombay 28. Phone: 61976.**

India Printing Works.—9, Bakehouse Lane, Fort.
Industrial Press.—9, Bastion Road, Fort.
Ismaili Printing Press.—Bhimpura, Dongri Street.
Jaiprakash Printing Press.—191-93, Samuel Street, Khoja Gully, Bombay 9.
Jam-e-Jamshed Printing Press.—Ballard House, Mangalore Street, Fort.
Jawahir Printing Press.—12, Kesowji Naik Road, Bombay 9.
Jawahir Printing Press.—234-36, Narsi Natha Street.
Kagzi Electric Printing Works.—Pydhonie Road, Khadak.
Kaiser-i-Hind Printing Press.—Old Sassoon Building, Elphinstone Circle, Fort.
Karnatak Art Printing Works.—Prospect Chambers Annexe, Hornby Road, Fort.
Karnatak Printing Press.—Karnatak House, Chira Bazar, Bombay 2.
Kothari Printing Press.—67, Apollo Street, Fort.
Lal Printing Press.—302, Kalbadevi Road.
Lalit Printing Press.—Shantinath Jain Temple Building, Pydhownie, Bombay 3.
Leaders' Press Private Ltd.—108, Love Lane, Mazagon, Bombay 10.
Lotus Art Printery.—7, Prospect Chambers, Hornby Road, Fort.
Marzban, J. B., & Co., Ltd.—Ballard House, Fort.
Mebasser Printing Works.—Laxmi Building, Ballard Road.
Mehta Printing Press.—73-77, Medows Street, Fort.
Mekda Corporation.—407, Kalbadevi Road, Bombay 2.
Metro Printing Press.—East & West Building, 49, Apollo Street.
Minerva Printing Press.—31, British Hotel Lane, Fort.

**MODEL ART PRINTERY PRIVATE LTD.—Commercial & Multicolor Printers. 4, Nanabhai Lane, Fort. Phone: 252725.**

**MODERN STATIONERY & PRINTING WORKS (ESTD. 1941).—Sole Proprietor: Nazerhusein Kaderbhai, Bombay Mutual Annexe, 1st Floor, 17, Gunbow Street, Fort. Phone: 261986.**

Motee Printing Works.—6, Lal Chimney, Lamington Road (North), Bombay 11.
Multiprint.—242-244, Bellasis Road, Byculla, Bombay.
Navyug Printing Press.—Portuguese Church Street, Dadar.
Nesbit Printing Works.—6-A, Nesbit Road (East), Bombay 10.
New Anand Sagar Printing Press.—204, Samuel Street, Vadgadi.
New Apollo Printing Works.—129, Medows Street, Fort.
New Era Printing Press.—7, Chowpatty Road.
Nirnaya Sagar Press & Jawaji Dadaji Type Foundry.—26-28, Kolbhat Street, Bombay 2.

**NOBLE STATIONERY MART.—Parsee Bazar Street, Fort, Bombay-1. Phone: 254748. Grams: "CELLOTAPE." High Class Printers, Stationers and Paper Merchants.**

**PHILPRESS.—Printers, Printing House, 28/D, Police Court Lane, Fort, Bombay 1. Phone: 261775.**

Prakash Printing Press.—73, Apollo Street, Fort.
Premier Offset Works.—Swadeshi Mills Property, Charni Road, Girgaum.
Rafidain Printing Works.—3, Lalgir Chambers, Tamarind Lane, Fort.
Ramkrishna Printing Press.—Judex Building, Tribhuvan Road, Girgaum.

**RELIANCE AGENCY PRIVATE LTD.—(Printing Dept.), Jupiter Printing Works, Raja Bahadur Compound, 24-B, Hamam Street, Bombay 1-BR. Phone: 252187.**

**RISHON PRINTING WORKS.—21-23-25, Kumpta Street, Ballard Estate, Bombay 1. Phone: 262507. Grams: "GATEWAY." Commercial and Art Printers.**

Rising Sun Printing Press.—6, Bodke Building, Dadar, Bombay 14.
Rowlandson Bros. (Estd. 1927).—Parsee Bazar Street, Fort.
Sadbhakti Prakash Printing Press Ltd.—12, Homji Street. Fort.
Sadu Ruling Press.—57, Sutar Chawl, Bombay 2.
Saeed Fine Art Printing Press.—Mahomedali Building, Mahomedali Road, Bombay 3.
Sanap Printing Press.—Sidharud Prasad, 362, Girgaum Road, near P.O., Thakurdwar.
Sanjvartman Press.—Peraj Building, British Hotel Lane, Fort.
Sarap Printing Press.—365, Girgaum Road, near Thakurdwar Post Office.
Sarya Ltd.—Prospect Chambers, Hornby Road, P.O. Box No. 439, Bombay 1.
Satguru Printers Limited.—Podar Chambers, Parsi Bazar Street, Fort. Bombay. Commercial Printers.
Saxon Press.—43, Fort Street, near G.P.O., Bombay 1.
Shree Laxmi Narayan Press.—364, Thakurdwar, Bombay 2.
Shreeram & Co.—Podar Chambers, 109, Parsee Bazar Street, Fort.
Shri Venkateshwar Steam Press.—7th Khetwadi, Bombay 4.
Standard Printing Works.—Rahimtoolla House, Homji Street.
Standard Stationery Mart.—Rahimtoolla House, Homji Street, Fort.

Standard Type Foundry (Private) Ltd.—4 & 5, Himalaya House, Palton Road, Bombay 1. Phone: 26-3151. Grams: "PRINTYPES." Stockists of Printing Press Materials & Machinery. Head Office: Calcutta. Phone: 263151 & 266147. Grams: "PRINTYPES." Branches: New Delhi and Madras.

Superior Stationery Mart.—Examiner Press Building, Medows Street. Fort.
Suryakant Printing Press.—451, Kalbadevi Road, Fort.

**TAJ PRINTING WORKS.—46-A, Cawasji Patel Street, Fort, Bombay 1. Phone: 252432. Commercial & Art Printers, Manufacturers of Invitation Cards, Greeting Cards and Calendars.**

Tatva Vivechaka Printing Press.—Opp. Alexandra Cinema, Bellasis Road.
Thacker & Co., Ltd.—18-20, Rampart Row, Fort.

**TIMES OF INDIA PRESS, THE.—Times Building, Dr. Dadabhoy Naoroji Road, Fort.**

Turf Printing Works.—Tribhuvan Road, off Lamington Road.
Uniform Printing Press.—41, Tamarind Lane.

**UNION PRESS.—13, Homji Street, 16, Horniman Circle, Fort, Bombay 1. Phone: 251354. Commercial Job Printers, Binders & Calendar Manufacturers.**

Union Printing Works.—Jan Mansion, Sir Phirozshah Mehta Road, Fort, Bombay 1.

**UNIQUE PRINTING PRESS PRIVATE LTD.—1, Police Court Lane, Fort, Bombay 1. Printers, Designers, Stationers, Binders. Specialists in Colour Printing. Phones: Press: 23974.**

**UNIVERSAL CALENDAR MANUFACTURING CO.—Calendar Manufacturers, Lithographers and Tin Printers. 23-25, Hamam Street (opp. Post Office), Bombay 1. Phone: 254443.**

**VAKIL & SONS (PRIVATE) LTD.—Hague Building, Sprott Road, Ballard Estate, Bombay-1. Phones: 262177, 263204. Grams: "BLADE." Industry Manor, Chowney Gully, Worli, Bombay-18. Phone: 451960. Grams: "RANGODI." Quality Printers, Greeting Card and Wedding Card Manufacturers.**

Victoria Press.—142-144, Victoria Road, Byculla.

Vijaya Art Printing Bureau.—Podar Chambers, 109, Parsi Bazar Street, Fort.

Vora Bros.—218, Princess Street, Bombay 2.

**WAGLE PROCESS STUDIO & PRESS PRIVATE LTD.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort. Phone: 262923. & 266509. Managing Director: Manik V. Wagle. Director: Mohan V. Wagle.**

Writers Press.—Colaba, Bombay 5.

**ZENITH PRINTING WORKS.—Mody & Mody Building No. 2, 80, Medows Street, Fort, Bombay. Phone: 252983. Highclass Printers, Engravers, Gilders and Account Book Manufacturers. Residential Phone No. 333171.**

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Mitra, H. P., & Co. (Estd. 1920).—Krishna Cinema Building, New Charni Road, Bombay 4.

**NATIONAL BLOCKS, (PROPS: BLOCKWEL PRIVATE LTD.)—Block Makers of line-halftone, multi colour & colour blocks from Colour Transparencies; Quality Printers and Designers. 356, Girgaum Road, Next to Thakurdwar Post Office, Bombay-2. Phone: 23818.**

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Press Process Studio.—Victoria Mills, 2nd floor, Gamdevi, Bombay 7.

Studio Ratan Batra Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Fort.

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**AKBARALLY EBRAHIMJI.—Kamar Building, 38-C, Cowasji Patel Street, Fort. Wholesale and Retail Provision and General Merchants, Perfumers, Dispensing Chemists and Druggists and Manufacturers' Representatives. Phone Nos. 253921-22, 23. Grams: "TUSSIBAR." Branch: 12, Sir Phirozshah Mehta Road. Phone: 26-3716.**

Akbarally Ebrahimji.—Pharmacy & Department Stores, 45/47, Veer Nariman Road, Bombay.
Atlantic Stores.—Western Breeze Building, Colaba Causeway.
Bill & Co.—Empire Mahal, Tram Terminus, Dadar.
Chinoy & Co.—3, Mistry Building, 202, Khetwadi Back Road, Bombay 4.
Empire Stores.—Crawford Market.
Fruit Farm Products Co.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort.
Great Western Stores.—Standard Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay.
Haji Tarmahomed Ahmed & Co.—Inside Crawford Market.
Huns. Dewan & Co.—P. B. No. 4518, 158, Upper Duncan Road, Byculla, Bombay 8.
J. L. Morison Son & Jones Co., Ltd.—Contractor Building, Ballard Estate, Bombay 1.
Kalvert, A., & Co.—90, Mazagaon Road, Bombay 10.
Keshavji Dharsi & Co.—Haji Abdulla Building, opp. Railway Station, Dadar.
Mehta, F. D., & Co.—Standard Building, Dr. Dadabhoy Naoroji Road, Bombay.
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Palel Ruby & Co.—Cumballa Hill.


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Spencer & Co. Ltd.—Spencer's Building, Forjett Street, Bombay 26.
Shah & Co.—Wine & Provision Merchants, Sitaram Building, Dr. Dadabhoy Road, Fort, Bombay-1. Phone: 261998/264618. Grams: "KHORDASAL".

**SULTANALI MOHAMADALI (Estd. 1895).—148, Sarang Street, Bombay 3. Phone: 326609. Grams: "GLASSHONEY." Direct Importers of Provisions, Toilet Requisites and General Merchants. Stockists: Parry's Sweets & Dippy's provision.**

Thomson & Taylor Ltd.—New Department Stores, 177-119, Mahatma Gandhi Road, Bombay 1.
Unity Stores.—Near Portuguese Church, 92-94, Girgaum Road, Bombay 4
Wadhwani & Co.—Botawala Building, 7-10, Elphinstone Circle, Fort, Bombay.
Yazdan Stores and Restaurant.—Imperial Mahal, Tram Terminus, Dadar.

## PULLEYS MANUFACTURERS

**BOMBAY PULLEY MARKETING CO.—164, Nagdevi Street, Bombay 3. Manufacturers & Suppliers of anything in Pulleys Aluminium or Cast Iron Flat or V-Belt Drive Split or Solid to suit individual requirements and all types of Hardware Material. Phone: 327224.**

**DIWAN BROTHERS.—51, Nagdevi Street, Bombay. Phone: 20361. Grams: "ALLBELT." Stockists of Pulleys, Plat C.I., Solid & Split V. Pulleys C.I. & aluminum also made to order.**

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**AGRA ENGINEERING CO.—40, Bank Street, Fort, Bombay 1. Phone: Off. 256541. Res.: 532906. Grams: "RAJSPARES."**

Asiatic Engineers.—Mehta House, Medows Street, Fort.

**ARJANSINGH KHEMCHAND.—1st Floor, 116, Commerce House, Medows Street, Bombay 1. Phone: 253752.**

Batliboi & Company Private Limited.—Regd. Office: Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR.). Phones: 255451 (6 lines). Grams: "BATLIBOICO." Telex: 284. City Branch: Batliboi House, 59/61, Nagdevi Cross Lane, Bombay -3 (BR.). Branches: Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate: Bangalore 2. Resident Representatives: ERNAKULAM, RANCHI.

**BHARAT ELECTRIC & ENGINEERING CORPORATION.—Free Press Building, Ground Floor, 21, Dalal Street, Fort, Bombay. Phone: 255374. Grams: "GODGRACE."**

Bhogilal & Company, R.—261/263, D. Naoroji Road, Fort.
Bhutt Brothers.—163, Nagdevi Cross Lane, Bombay 3.
British Engineering Co.—105, Apollo Street, Bombay, Bombay 1.

**CONSOLIDATED PNEUMATIC TOOL CO., LTD.—301-302, Agra Road, Mulund, Bombay 80. Phone: 592274-6. Grams: "CAULKING", Mulund, Bombay.**

Cresent Agencies (Private) Ltd.—Beaumon Chambers, 27/33, Medows Street, Fort, Bombay.
Diarvi Trading Co.—78, Apollo Street, Fort.

**DODGE & SEYMOUR (INDIA) PRIVATE LTD.—Laxmi Building, 6, Ballard Road, Bombay. Phone: 263674 & 265479. Grams: "EXIMCO."**

Drewet Chowna & Co.—Lentin Chambers, Medows Street, Fort.
Duncan Stratton & Co. Ltd.—5, Bank Street, Bombay.
Eastern Electric & Refrigeration Co.—14, Hamam Street, Fort, Bombay.
Edgar Handley & Company Private Ltd.—135, Medows Street, Fort, Bombay 1.
Gannon, Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Fort.
Garlick & Co.—Haines Road, Jacob Circle.
Greaves Cotton & Co., Ltd.—Forbes Street, Bombay 1.
Heatley & Gresham Ltd.—9 Forbes Street Bombay 1.

**HNIDUSTAN ENGINEERING CO. (Machinery Dept.).—25-31, Ropewalk Street, Fort, Bombay. Phone: 253883. Grams: "VIDOOALL."**

India General Engineering Co. Private Ltd.—1st Floor, 21, Forbes Street, Fort, Bombay 1.
Ingersoll-Rand (India) Ltd.—Devkaran Nanjee Building, Elphinstone Circle, Fort, Bombay.
Investa Machine Tools & Engineering Co., Ltd.—Ewart House, Bruce Street, Bombay 1.
Jacks, William & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Fort.
Jyoti Ltd.—Advani, 12-A, Foreshore Road, Opp. Sachivalaya, Bombay 1.
Kilburn & Co., Private Ltd.—Gresham Assurance House, Sir Phirozshah Mehta Road, Bombay.
Mahindra & Mahindra Ltd.—Gateway Building, Apollo Bunder, Bombay.
Marshall Sons & Co. (India) Ltd.—Marshall's Building, Ballard Road, Fort.
National Traders.—Advani Chambers, 1st Floor, Sir Phirozshah Mehta Road, Fort, Bombay 1.
New Era Engineering Co.—128, Medows Street, Bombay 1.
New Standard Engineering Co. Ltd.—222, Bellasis Road, Bombay 8.

**NIGO'S CORPORATION.—64, Forbes Street, Fort, Bombay. Phones: 253428 and 74102. Grams: "NIGOS." Manufacturers of Nigo's Glandless 'Mono-Block' Electrically Operated Pumping sets for Farmers, Factories, Buildings, Contractors and Chemical Factories.**

**ORIENTAL ENGINEERING CO.—25, Forbes Street, Fort, Bombay 1. Phone: 253057. Grams: "ADIVISHNU." Sole Agents for S. F. Coimbatore. Makers of Centrifugal Pumps and Monoblock Pumping Sets from 1" to 12" sizes.**

Power Machines Corporation.—31, Forbes Street, Fort, Bombay 1.

**RADIANT ELECTRIC MACHINERY CO.—Sir Vithaldas Chambers, Bruce Street, Bombay 1. Phones: 255296-7. Grams: "RADICAL".**

Richardson & Cruddas, Ltd.—Byculla, Bombay 8.

Somani & Company, Ltd.—Mehta Building, Medows Street, Fort, Bombay.

**RUSTOM & HORNSBY (INDIA) LTD.—1. Forbes Street, Bombay-1. Phone: 259121. Grams: "RUSTONIND." Manufacturers of Horizontal Diesel Engines, Vertical Water-Cooled and air Cooled Diesel Engines, Diesel Alternator sets, Propellers and Sterngear, Deepwell Turbine Pumps and Centrifugal Pumps. Works: Chinchwad, Poona-19. Phone: 88231. Grams: "RUSTONIND," Chinchwad.**

**SHREE RAM MILLS LTD. (Engineering Dept.).—Fergusson Road, Lower Parel, Bombay-13. Phones: 75221-2-3. Grams: "FINETEURE." Manufacturers of Lathe chucks, Air-Compressors multi-stage Pumping Sets, Grey Iron and alloy Castings.**

**SIGIL (INDIA) SERVICES PRIVATE LTD. Ismail Building, 381, Dr. Dadabhoy Naoroji Road, P.O. Box 952, Bombay-1. Phone: 253688 & 254531. Grams: "SIGIL." Branch: P.O. Box 1961, Madras-1. Manufacturers, Exporters and Distributors of Diesel Engines, Diesel Pumping sets and Component Parts thereof, also Automobile Parts.**

**TALWARKER BROTHERS PRIVATE LTD. (W. R.).—Lentin Chambers, Dalal Street, Fort, Bombay. Phone No. 253367. Grams: "PUMPENAMEL."**

Tecalemit (India) Ltd.—9, Forbes Street, Bombay 1.

**UNITED INDIA ENGINEERING CO.—6, Commerce House, Medows Street, Fort, Bombay. Phone: 251492. Grams: "UNICONARAM." Engineers and Machinery Dealers. Sales & Showroom: 78, Old Custom House Road, Fort, Bombay.**

Voltas Ltd.—19, Graham Road, Ballard Estate, Bombay 1.

**WATER SUPPLY SPECIALISTS PRIVATE LTD.—8, Hamam Street, Bombay 1. Phone: 252325. Grams: "PUMPMEN." Branches: Calcutta, Madras & New Delhi. Sole Agents for Myers Pumps. Manufacturers of 'WASP' pumping sets etc.**

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**BHOR INDUSTRIES LTD.—Sales Department, 392, Cadell Road, Bombay 28. Phones: 451418, 451967, 451978. Grams: "COVERCLOTH." Manufacturers of "Raja" Brand Plastic Cloth & "Natraj" Brand Plastic Films & Sheetings.**

**DHARAMPUR LEATHER CLOTH CO. PVT. LTD.—Manufacturers of heavy upholstery materials, PVC Handgloves, Industrial and Domestic type. 10, Chowpatty Sea Face, Bombay 7. Phone: 30095. Grams: "PUNEM."**

**ELPHINSTONE SPG. & WVG. MILLS CO. LTD., THE.—(Leather Cloth Division). Sales Office: Kamani Chambers, Nicol Road, Ballard Estate, Bombay 1. Phone: 262568. Grams: "ELMILCOL". Manufacturers of "Cheeta Brand" Leather Cloth. Factory at: Tulsi Pipe Road, Bombay 13.**

**GANDHI, R. & CO.—50, Sheriff Devji Street (Chakla), Bombay 3. Wholesale Distributors of P.V.C. Leather Cloth and Book Binding Cloth. Phone: No. 322897.**

Hindustan Plastic Co.—95, Abdul Rehman St., Bombay 3.

**JAFFERBHAI & CO.—106-108, Bhendi Bazar, P.O. Box No. 3055, Bombay 3. Phone: 333324. Grams: "NECESSITY." Dealers in P.V.C. Leather Cloth, Canvas, Motor Accessories, Felt, Celluloid, Aluminium Sections, Rubber Sections, Sponge and Foam Cushion, etc.**

**MAMAJI INDUSTRIAL CORPORATION.—136/38, Sir Ebrahim Rahimtoola Road, Bombay 3. Phone: 332282. Grams: "MAMAJISON."**

## P. V. C. PLASTIC SHEETINGS

**BOMBAY LEATHER GOODS DEPOT.—14, Shamset Street, (Chippi Chawl), Off Abdul Rehman Street, Bombay 2. Phone: 325649 (Office), 473564 (Res.) and 329201 (Godown).**

## PYROMETERS

**DATSON RAVIRAJ & CO. (PRIVATE) LTD.—43, Tamarind Lane, Fort. Phone: 254433; Grams: "DATNARE."**

## RADIO AND SOUND ENGINEERS

**MOTWANE PRIVATE LTD.—127, Mahatma Gandhi Road, P.O. Box No. 1312, Bombay 1 BR. Phone: 252337. Grams: "CHIPHONE," Bombay.**

## RADIO IMPORTERS, MANUFACTURERS, DEALERS AND PART SUPPLIERS

Acme Radio Corporation, The.—Pitle Mansion, 83, Vithalbhai Patel Road, Bombay 4.

A. M. Talati & Co.—381, Hornby Road, Fort.

Audio Waves.—P.O. Box 480, G.P.O., Bombay 1.

Automobile Co., Ltd.—41, Queen's Road, Bombay 2.

Bell Radio & Electric Co.—Swadeshi Mills Estate, Tata Road, Girgaum.

Bharat Electric Supply Traders.—542, Sandhurst Bridge, Chowpatty, Bombay 7.

Bharat Radio Corporation.—404, Waghwadi, Kalbadevi, Bombay No. 2.

Bombay Motors & Radios Ltd.—33, New Queen's Road.

Bombay Phono & General Agency.—520-22, Kalbadevi Road.

Bombay Radio Service.—First Floor, Prospect Chambers, Hornby Road, Fort.

British Radio & Electric Co.—Prospect Chambers, Hornby Road, Fort, Bombay.

Choice Radio.—Opp. Royal Opera House, Bombay 4.

**CHOPRA RADIO ELECTRIC COMPANY.—Sole Concessionaires for West German. 4 Speed PE Record Changers, Embassy and Hitachi/Chopra Transistor, Radios, Public Address Equipment. Imperial Cinema Building, Lamington Road, Bombay 4. Phone: 40075.**

Cinefones.—Opp. Opera House, 3, New Queen's Road.

City Radio Co.—Malabar Mansion, opp. Cusrow Baug, 37, Garden Road, Colaba.

Dominion Radios.—15, New Queen's Road, Bombay 4.

Eastern Electric & Engineering Co.—127, Mahatma Gandhi Road, Bombay 1.

Eastern Radio Corporation.—99A-2, Jenabai Building, Main Road, Dadar.

**ELECTRONIC RADIO & SOUND CORPORATION.—394-B, Lamington Road, Lamington Chambers, Bombay 4. Phone: 72056. Grams: "TRANSOCEAN." Electronic Components for Trade, Industry, Education & Research.**

Economic Electric Co., Ltd., The.—Jail Road (East), Dongri, Bombay 9.

General Radio & Appliances Private Ltd. (Formerly Fazalbhoy Ltd.)—Opera House, Bombay 4. Phone: 26204.

Gramophone Co., Ltd.—Sir Phirozshah Mehta Road, Fort.

**HIND INDUSTRIAL & MERCANTILE CORP. PRIVATE LTD. (HINDCO).—27, New Queen's Road, Bombay 4. Grams: "ADEK". Phones: 30061-2. Importers & Distributors. Branches at Calcutta, Delhi and Bangalore.**

Imanes.—94, S. V. Road, P.O. Box 8002, Bombay 56 AS. Phone: 571634. Grams: "BELLIBONE (SZ)". Springs and Forms out of Spring Wires and Strips for your Industry.

Impex Trading Co.—Kothari Mansion, opp. G.P.O.

Indian Electric Equipment Co.—220, Khetwadi Main Road, Tara Mansion, Bombay 4.

Indo-American Radio & Electronic Corporation.—Allana Compound, Opp. Agripada Police Station, Lamington Road (North), Bombay 11.

**J. V. MEHTA & CO.—Opera House, Bombay 4. Phones: 38255-56. Partners Res.: 74178. Grams: "JEVIMEHTA."**

Lakhanpal Private Ltd.—29, New Queen's Road, Bombay 4.

**LALWANI RADIO CORPORATION.—Office: Tinwala Building, Tribhuvan Road, Bombay 4. Phone: 76324; Grams: "LALRADIO." Showroom Address: 352, Lamington Road, Opp. Police Station, Bombay 7. Branches: Calcutta 13; Madras 2; Bangalore 2. Factory: Advance Industries, 11, Tinwala Building, Tribhuvan Road, Bombay 4.**

**LAXMIDAS & DWARKADAS (Estd. 1914).—466, Sardar V. P. Road, Bombay 4. Phone: 40692. Grams: "THYMOL." Makers of "Omega" Radios & Electronic Products.**

**METRO MUSICS.—545, Kalbadevi Road, Bombay 2. Phone: 23775. Grams: "METMUSICS." Sole Distributors for METZ (German) Radios and "TRIOTRON" Valves & Radio parts.**

Modern Electric Corporation.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort.

Monitor Radios.—24, New Queen's Road, Opp. Roxy Talkies, Bombay 4.

Motwane (Private) Ltd., Incorporating Chicago Telephone & Radio Co. Private Ltd. (Estd. 1909).—127, Mahatma Gandhi Road, P. B. No. 1312, Fort, Bombay.

Murphy Radio of India Ltd.—Dr. Shirodkar Road, off Hospital Avenue, Parel, Bombay.

**NATIONAL EKCO RADIO & ENGINEERING CO. LTD.—Ewart House, Bruce Street, Fort, Bombay 1. Phone : 253015. Grams : "ENNAREE."**

Paradise Radio Electric & Engineering Co.—Opp. Swimming Bath, 39, Seaface, Chowpatty, Bombay.

Parakh & Sons.—483, Kalbadevi Road, Bombay 2.

**PARSRAM & CO.—"Kailash Darshan," Kennedy Bridge, Nana Chowk, Bombay 7. Phone: 770109; Grams : "REKAM."**

**PRECIOUS ELECTRIC CO.—Yusuf Building, Veer Nariman Road, Bombay 1. Phone Nos. 252447 & 251981; Grams : "PRECIOUS." For Philips Lamps & Radios.**

Radio Services.—417-21, Lamington Road, next to Powells Ltd., Bombay No. 4.

**RADIOCRAFTERS, THE.—Radio and Sound Engineers, Laud Mansion, opp. Charni Road Station, 21-C-D, Queen's Road. Phone No. 23006.**

Ragavji & Co.—427, Kalbadevi Road, Bombay 2.

**RAMESH TRADING CORPORATION.—419, Lamington Road, Bombay 4. Dealers in Radio Spare Parts.**

Rex Radio Amplifier & Cinema Service.—23, Kennedy Bridge, near Opera House.

Rhythm House Private Ltd.—40, Rampart Row, Bombay.

**SHAH PRATAP & CO.—Manufacturers of Components from Laminates and moulders of Plastics. 64, Old Custom House Road, Fort, Bombay. Phones : 255615 and 255616. Grams: "VINPRA."**

Star Radio Service.—Bhivandivala House, Gowalia Tank.

Star Radio & Engineers Ltd.—Parekh House, New Queen's Road, Bombay.

Sundarlal, C., & Co.—Manhar Building, 189, Lohar Chawl, Bombay 2.

Super Simplex Radio Co.—16, Harinivas, Lady Jamshedji Road, Bombay 28.

Supreme Electrical Engineering Co., Ltd.—Lady Jamshedji Road, Mahim, Bombay 16.

Surendra Trading Corporation.—159-2, Khetwadi Back Road, Bombay 4.

Talati, A. M., & Co.—Esmail Building, Hornby Road.

**TELEFLUTE RADIO AGENCY.—Homji Street, off Sir Phirozshah Mehta Road, Fort, Bombay. Phone : 253358.**

Unique Trading Corporation.—Mustafa Building, Sir Phirozshah Mehta Road, Fort.

United Engineering Corporation.—Datoobhoy Building, 5, New Queen's Road.

United Radio Service.—Padhye Wadi, Bhawani Shanker Road, Dadar.

Universal Radio Co.—6, Ranee Building, Prarthana Samaj, Bombay 4.

**WACO RADIO ELECTRONIC INDUSTRIES.—Office : Sukhsagar Building, Hughes Road, Bombay 7. Phone : 71051. Factory : Ulhasnagar 4, Opp. Vithalwadi, C. Rly. St., Maharashtra State. Mfrs. of Sanyo Transistor Radios, Waco Radios, Amplifiers, Intercom equipments, Hi-Fi amplifiers, Ampligrams, Radiograms, Transformers, Chokes, Ballasts for Fluorescent & H.P.M.V. Lamps and Wooden radio cabinets.**

West End Radio.—385, Kalbadevi Road.

**WESTERN AGENCIES CO.—Sukh-Sagar Building, Hughes Road, Bombay 7. Phone : 71051. Grams : "WESTCOY." Engineers, Importers of Radio Components, P.A. Equipment, Electric Appliances, Telecommunication Equipment, Electronic Components, Electronic and Communication Equipment & Instruments. "WACO" Radios, Amplifiers, Intercoms, Transformers, Chokes.**

## RADIO AND COMPONENT PARTS MANUFACTURERS

**BRIGHT BROTHERS PRIVATE LTD.—156/A, Tardeo Road, Bombay 34. Grams : "BRIBOS". Phones : 78548, 78549, 78540. Manufacturers of Radio Grilles, Knobs, Strips, Cabinets, Transistor Sets, etc., etc. in Plastics against customer specification.**

**DOMINION RADIOS.—15, New Queen's Road, Bombay 4. Phone : 20993. Grams : "DOMIRA." Importers and distributors of all makes of Radio Components, P.A. Equipments, Tape Recorders, Record Changers and Electronic Instruments.**

**MURPHY INDIA LTD. (Formerly M. R. Industries Ltd.).—Dr. Shirodkar Road, Parel, Bombay 12. Phone No. 76574 & 78251. Grams: "RADMURPHY." Manufacturers of Murphy Radio Receivers and Component Parts.**

**MULCHANDANI ELECTRICAL & RADIO INDUSTRIES LTD.—Manufacturers of Bush Radios, Celestion Speakers, Hunts capacitors and Me Murdo Valveholders, Sukh Sagar, Sandhurst Bridge, Hughes Road, Bombay 7. Phones : 74546 and 76755. Grams : "MULRAIN."**

**TELECOM INDUSTRIES PRIVATE LTD.—61, Govt. Gate Road, Parel, Bombay 12. Phone : 63354. Largest Manufacturers of Radio Cabinets & Dials in India. Sole Distributors for Pye RF Dielectric & Induction Heating Equipment for Plywood, Furniture & General Engineering Industries.**

**TELERAD PRIVATE LTD.—Manufacturers of "TELERAD" Radios and component Parts. Atlas Mills Compound, Reay Road, Bombay 10. Phone : 73627-28.**

Todi & Co.—Vishwa Mahal, C Road, Churchgate Reclamation, Bombay 1.

## RAILWAY & WAGON EQUIPMENT

**JINDAL ENGINEERING WORKS.—Darukhana Kasara Street, Bombay 10 DD. Phone : 78720. Grams : "JINDALSHIP." Manufacturers of various Components for M.C.C.R. and Box Type Wagon, Forgings, Hookes, Structural Fabricator, Barbed Wires, "U" Staples, Cable Carrying Trays and A.C. S.R. Accessories and transmission line tools.**

## RAILWAY SPRING MFRS.

**IMANES.—94, S. V. Road, Erla, P.O. Box 8002, Bombay 56 AS. Phone : 571634. Grams : "BELLIBONE (SZ)." For Springs & Forms out of wires and strips for your Industry.**

## RATING ADVISERS

**GILBERT-LODGE & CO.—Elphinstone Building, Veer Nariman Street, Fort, Bombay. Phones : 251819 & 252607. Grams : "READIMESS."**

## RAYON (RAW MATERIALS)

Batliboi & Company Private Limited. Regd. Office : Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR.). Phones : 255451 (6 lines). Grams : "BATLIBOICO." Telex : 248. City Branch : Batliboi House, 59/61, Nagdevi Cross Lane, Bombay-3 (BR.). Branches : Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate : Bangalore 2. Resident Representatives : ERNAKULAM, RANCHI.

## RAYON MACHINERY SUPPLIERS

**DOBSON & BARLOW (RAYON PLANTS) PRIVATE LTD.—3rd Floor, Stadium House, Veer Nariman Road, Bombay 1. Phone : 245878. Suppliers of plants for the production of Continuous Filament Viscose Rayon and Transparent Paper.**

## RAYON YARN MANUFACTURERS

**NATIONAL RAYON CORPORATION LTD., THE.—Sales Office : 42, Queen's Road, Fort, Bombay 1. Phone No. 246043 (Three Lines). Grams : "NARACORP", Bombay.**

## READYMADE CLOTHES

Cawnpore Mills Depot.—"Churchgate House", Churchgate Street, Fort, Bombay.

Karnatak Concerns Ltd.—197, Shivaji Park, Bombay 28.

"Nanjis."—206-208, Carnac Road, Bombay 2.

Railship Stores.—39, Medows Street, Fort, Bombay.

**WEAR (INDIA) PRIVATE LTD.—4th Floor, Nanabhay Mansion, Sir Phirozshah Mehta Road, Fort, Bombay 1. Grams : "READYWEAR." Phone : 265213. Sole Distributors (Bombay) for Samsons Dresses.**

Weldon Shop.—Oomrigar Building, opp. Crawford Market, Bombay 3.

## RECTIFIERS

**HIND RECTIFIERS LTD.—Lake Road, Bhandup, Bombay 78. Grams: "HIRECT," Bombay 78. Licensees of Westinghouse Brake & Signal Co., Ltd., London, for Manufacture of Rectifiers, Battery Chargers, Electroplating Sets, Silicon Power Plants. Selling Agents : Kaycee Industries Ltd., Kamani Chambers, Nicol Road, Ballard Estate, Bombay 1. Phone : 264030. Grams : "KAYCE."**

R. G. Keswani.—Worli Naka, P. B. 16552, Bombay-18. Phone : 73490. For Selenium and Silicon Rectifier Elements & Stacks. Industrial Consultation on Rectifier Installations. Raw Materials and Components.

## REFRACTORIES

**CRAFTSMAN ELECTRONIC CORPORATION PRIVATE LTD.—Sethna Hall, Nesbit Road, Bombay 10. Phone : 73346. Grams : "CRAFTRONIC". Dealers in Refractories for electric and oil fired furnaces.**

**DATSON RAVIRAJ & CO. (PRIVATE) LTD.—43, Tamarind Lane, Fort. Phone : 254433. Grams : "DATNARE."**

**ISHWAR INDUSTRIES LTD., THE.—Sales Office: 11, Bank Street, Bombay 1. P.O. Ishwar Nagar, New Delhi. Manufacturers of Fire Bricks of all grades & shapes, Fire clays, Fire Cements, Insulating Compounds, Castable Refractories, Acid Resisting Bricks & Cements Sillimanite Bricks & Mortars etc. Phones: 76241, 76242 & 76243.**

## REFRIGERATORS (DOMESTIC)

**AIRCONDITIONING & REFRIGERATION CORPORATION.—Repairs of all types of Refrigerators, Air-Conditioners, Water-Coolers, Deep-Freezers, Bottle Coolers, X-Ray Developing Units, Industrial Air Control, Installation, Servicing, Maintenance, Dealers, Manufacturers. 297, S. V. P. Road, Bombay 3. Phone No.: 334795.**

Blue Star Engineering Co.—Kasturi Building, J. Tata Road, Bombay 1.

Bombay Gas Co., Ltd.—214, Hornby Road, Fort.

**BOMBAY REFRIGERATOR INDUSTRIES LTD.—Manufacturers of Domestic Refrigerators, 119, Bhawani Shanker Road, Dadar, Bombay 28. Phone: 60612.**

Eastern Electric & Refrigeration Co.—14, Hamam Street, Fort.

Eastern Radio and Refrigeration Co.—8, Beaumon Chambers, Medows Street, Fort.

Economic Electric Co. Ltd.—Jail Road (East), Dongri, Bombay 9.

**FREEZALL.—Air Conditioning, Refrigeration, Electrical & Mechanical Engineers, Tribhuvan Road, Bombay 4. Phone: 70815. Grams: "FREEZALL."**

**FRIGCOOL ENGINEERING CO.—Zaveri House, Hughes Road, Bombay 7. Room and Packages Type Air-Conditioners, Domestic Refrigerators of all Types, Water-coolers, Heating, Ventilating, Dust Proofing & Humidification service Repairs & Installation undertaken. Phone: 72081.**

Gramophone Co., Ltd.—Universal Fire & General Insurance Co.'s Building, Sir Phirozshah Mehta Road, Fort.

Mangharam & Co.—Jan Mansion, Sir Phirozshah Mehta Road, Fort.

Modern Traders.—Post Box No. 1344, Bombay.

Pab Engineering Corpn.—Zaveri House, Hughes Road, Bombay 7.

**RADIOCRAFTERS, THE.—Refrigeration Engineers, Laud Mansion, opp. Charni Road Station, 21-C-D, Queen's Road, Bombay. Phone: 23006.**

Refrigeration & Appliances Co. Private Ltd.—Pravin Court, 95, Queen's Road, Bombay.

Rhythm House Ltd.—40, Rampart Row, Fort, Bombay 1.

**SPENCER & CO. LTD.—Spencers Building, Forjett Street, Bombay 26. Phones: 73261-62-63. Grams: "PORTEDOS." Sole Distributors throughout India for Kelvinator, Refrigerators & Air-Conditioners, Sales and Service.**

**STAR FREEZ INDUSTRIES.—95, Marine Drive, Bombay-2. Manufacturers of Refrigerators, Water Coolers, Water Filters, Cold Storages, Deep Freezers, Milk Coolers, and Milk Heaters. Importers of Units, Preon Gas, Ammonia Gas, $SO_2$ Gas, Copper Tubings, Fittings, Parts & Tools. Repairers of Domestic, Industrial and Marine Plants. Phone: 241332.**

**UNITED ENGINEERING CO., THE.—Daya Manzil, 27-A, Deorukhkar Road, Bombay 14. Assemblers and Manufacturers of Air-Conditioners, Refrigerators, Water Coolers, Commercial Freezing Plants and Accessories. Also Specialists in Repairs and Maintenance and undertake service contracts. Phone: 63008.**

## REPRESENTATIVES (MANUFACTURERS)

Advani, G. V., & Co.—Prospect Chambers, Hornby Road, Fort.

Advani & Co., Ltd., J. B.—Advani Chambers, Top Floor, Sir Phirozshah Mehta Road, Fort.

Akbarally Ebrahimji.—38/C, Cowasji Patel Street, Fort, Bombay. Grams: "Tussibar."

Associated Agencies (Bombay).—47, Podar Chambers, Parsi Bazar Street, Fort.

Associated Corporation of Industries (India) Ltd.—Commerce House, Currimbhoy Road, Ballard Estate.

Bakshi Ram & Co.—129, Modi Street, Fort.

Batliboi, C. J., & Co.—319, Hornby Road, Fort.

Beardsell, W. A., & Co., Ltd.—Dhan-Nur Building, Sir Phirozshah Mehta Road, Fort.

Bhogilal & Company, R.—261/263, Hornby Road, Fort.

Birkmyre Brothers Ltd.—12, Rampart Row, Fort.

Bock, F., & Co.—Shale Building, Bank Street, Fort, Bombay.

Brady, W. H., & Co., Ltd.—Royal Insurance Building, Churchgate Street, Fort.

British Engineering Co.—105, Apollo Street, Fort.

Byramji, T., & Co.—Central Bank Building, Mahatma Gandhi Road, Fort.

Cambata Industries Private Ltd.—Cambata Building, 42, Queen's Road, Bombay 1.

Chavannes & Co., Ltd.—Mercantile Chambers, Graham Road, Ballard Estate.

Chimanlal Desai & Co.—Gool Mansion, Homji Street, Fort.

Choksi, H., & Co.—106, Medows Street, Fort.

Chotani Electric & Engineering Co. Ltd.—57, Apollo Street, Fort, Bombay.

Corn Products Co. (India), Ltd.—Shreenivas House, Waudby Road, Fort.

Dali B. Shroff & Co.—361, Dr. Dadabhai Naoroji Road. Phone: 21465.

Deeth & Co., W. H.—P. O. Box 320, Bombay 1.

Denis Malcolm & Co., Ltd.—Kumud House, 267, Dr. Dadabhai Naoroji Road, Fort, Bombay.

Dodsal Limited.—Mafatlal House, Backbay Reclamation, Bombay 1.

Drewet Chowna & Co.—Lentin Chambers, Medows Street, Fort.

Dubash Freres & Co.—Victoria Building, Parsee Bazar Street, Fort.

Duncan Stratton & Co., Ltd.—5, Bank Street, Fort.

Dwarkadas & Sons Ltd.—Mehta House, 89, Apollo Street, Fort, Bombay.

**EASTERN TRADING CO.—Mahakali Chawl, Pydhownie, Bombay 3. Light Merchants & Manufacturers' Agents.**

Engineer, Eruch D., & Co.—Cressby House, Apollo Street, Fort, Bombay.

Fairdeal Corporation Ltd., The.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort.

Fazalbhoy Ltd.—16, New Queen's Road, Bombay 4.

Fereshaw, L., & Co.—Shirin Mansion, Sleater Road, Bombay 7.

Forbes, Forbes, Campbell & Co. Private Ltd.—Forbes Building, Home Street, Fort.

Francis Klein & Co. (Bombay) Ltd.—Shale Building, Bank Street, Fort, Bombay.

Gaytee and Company.—Janmabhoomi Chambers, Fort Street, Fort. Grams: "IMPENG."

Gillanders Arbuthnot & Co., Ltd.—16, Queen's Road Estate, Bombay.

Gladwyn & Co.—Powvala Building, 251, Hornby Road, Fort.

Hardcastle, Waud & Co., Ltd.—Alice Building, Hornby Road, Fort.

Heatley and Gresham Ltd.—9, Forbes Street, Fort.

Jayems Engineering Co.—Warden House, Sir Phirozshah Mehta Road, Fort.

Khatau Valabhdas & Co.—Indian Globe Chambers, Fort Street, Bombay 1.

**LATHAM ABERCROMBIE DIVISION OF FORBES FORBES CAMPBELL & CO. LTD.—Forbes Bldg., Home Street, Fort, Bombay. Phone: 268081. Grams: "LATHAM."**

Mahindra & Mahindra Ltd.—Gateway Building, Apollo Bunder.

Marshall Sons & Co. (India) Ltd.—Marshall Building, Ballard Estate, Fort.

Muller & Phipps (India) Ltd.—Queen's Mansions, Bastion Road, Fort.

Narvo.—IC-Hooseini Chambers, 4th Floor, Nanabhai Lane, Fort.

Ormerods (India) Ltd.—Bank of Baroda Building, Apollo Street, Fort, P.O. Box No. 410.

Paramount (India) Ltd.—Kermani Building, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Parry & Co., Ltd.—United India Building, Sir Phirozshah Mehta Road, Fort.

Pioneer Consolidated Co. of India, Ltd.—Botawalla Building, 11-18, Elphinstone Circle, Fort.

Ratansi Morarji Ltd.—Prospect Chambers, 317-21, Hornby Road, Fort.

Refrigeration & Appliances Co. Private Ltd.—Pravin Court, 95, Queen's Road, Bombay 1.

Roberts McLean & Co. Private Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Fort.

Scientific Instrument Co., Ltd.—Navsari Building, 240, Hornby Road. Fort.

Sethisons Ltd.—12, Rampart Row, Fort.

Somani & Company Ltd.—Mehta Building, Medows Street, Fort, Bombay.

Stoessel, W. R., & Co.—63, New Marine Lines, Fort.

Turner Hoare & Co. Ltd.—Gateway Building, Apollo Bunder, Fort, Bombay.

Vikram Padamsey & Co.—Rustom Building, 29, Veer Nariman Road, Fort.

Volkart Brothers.—19, Graham Road, Ballard Estate, Bombay.

Ward, Thos. W. (India) Ltd.—Marshall Building, Ballard Road, Fort.

Western India Engineering Corp. Ltd.—Cama Chambers, 28, Medows Street, Fort.

William Jacks & Co., Ltd.—Hamilton House, Ballard Estate, Fort.

Williams, G., & Co. Private Ltd.—Steelcrete House, Backbay Reclamation, Bombay 1.

Y. M. Pathare & Company.—Post Box 1428, 41, Medows Street, Bombay 1.

Yeshanand & Co.—Podar Chambers, Parsee Bazar Street, Fort.

## RESPIRATORS (DUST PROTECTION) MFRS.

**VISHWA BHARATI TRADING CO.—45, Mint Road, Post Box No. 1052, Bombay 1. Phones: 266371, 264555 and 263795. Grams: "VIBHACO." Branch: G.P.O. Box 2628, Calcutta 1. Phone: 336680. Mfrs. of Industrial Safety Equipments, such as Goggles, Gloves, Dust Masks, Gas Protection Respirators Helmets, Safety Belts, Aprons, etc.**

## RICE MERCHANTS

Abdul Sakur Umar Sahigara & Co.—Haji Habib Building, Kolwada, Mandvi, Bombay 3.
A. H. Bhiwandiwalla & Co.—93-95, Kazi Syed Street, Bombay 3.
Anandji Bhojraj & Co.—116, New Chinch Bunder Road, Bombay 9.
Atul Krishna Dutt.—1, Russel Street, Bombay 9.
Baldeoram Saligram Private Ltd.—307-309, Kalbadevi Road, Bombay 2.
Bhalal Hargovind & Co.—256, Bhat Bazar.
Bhawanji Murji & Co.—220, Narsi Natha Street, Bombay 9.
Bhpatray Chandulal & Co.—75, Javeri Bazar, Bombay 2.
Bhpatray Kalidas & Co.—195, Samuel Street, Bombay 9.
Canji Dwarkadas.—45-47, Modi Street, Bombay 1.
Chhaganlal Tribhuwandas & Co.—104-14, Frere Road, Bombay 9.
Chandulal Kantilal.—725, Cotton Exchange Building, Bombay 2.
Chandulal Mohanlal.—3, Kumbhar Tukda, Ram Building, Bombay 4.
Chaterbhoj Naranji.—108, New Chinch Bunder Road, Bombay 9.
Chunilal Ambalal Patel.—116, Keshavji Naik Road, Bombay 9.
D. H. Bharmal & Co.—27, Chinch Bunder Road, Bombay 9.
Damji Champshi & Co.—Bhat Bazar, Bombay 9.
Damji Devraj & Co.—246, Bhat Bazar, Bombay 9.
Damji Ramji & Co.—116, New Chinch Bunder Road, Bombay 9.
Damji Shamji & Co.—Ardeshir Mansion, Bhat Bazar, Bombay 9.
Devchand Gulabchand.—195, Khoja Galli Naka, Bombay 3.
Devji Khetsey & Co.—116, New Chinch Bunder, Bombay 9.
Devji Murji.—New Chinch Bunder Road, Bombay 9.
Devji Tokersey & Co.—30, Manordas Street, Bombay 1.
Devidayal Tulshiram.—Tulshiram Gupta Mill, Reay Road, Bombay 10.
Devji Dharamshi & Co.—116, New Chinch Bunder, Bombay 9.
Dharamshi Lalji.—305, Kharek Bazar, Bombay 3.
Doongersi Ganpat & Co.—229-231, Bhat Bazar, Bombay 9.
Dwarkadas & Co. Ltd.—Rajmahal, Bhuleshwar, Bombay 2.
Excellent Mercantile Bureau.—27, Chinch Bunder, Bombay 9.
Galla Warehousing & Co.—29, Bhat Bazar, Bombay 9.
Girish M. Katira.—118, Kalbadevi, Bombay 2.
Govindi Bharmal & Co.—77, Clive Road, Dana Bunder, Bombay 9.
Hasham Premji.—5, Ghoga Street, Bombay 1.
Harakhchand Vishanji & Co.—246, Bhat Bazar, Bombay 9.
Hareesh & Co.—116, New Chinch Bunder, Bombay 3.
Hathibhai Bulakhidas.—86, Masjid Bunder, Bombay 3.
Hemchand Premji & Co.—7, Keshavji Naik Road, Bombay 9.
Hirji Gelabhai & Bros.—Gaya Building, Masjid Bunder, Bombay 3.
Hirjee Ladhabhai & Co.—116, New Chinch Bunder, Bombay 9.
Ibrahim Yusuf Zainal Alireza.—Sitaram Building, 'D' Block, 3rd Floor, Bombay 1.
Indo-Asiatic Export & Import Corp.—468, Kalbadevi, Bombay 2.
J. Nagindas & Co.—36, Kazi Syed Street, Bombay 2.
J. Prabhudas & Co.—25, Dabda Galli, Masjid Bunder Road, Bombay 3.
Jamnadas Jivram & Co.—229, Kariyana Bazar, 1st Floor, Bombay 3.
Jayantilal Hansraj & Co.—220, Bhat Bazar, Bombay 9.
Jayantilal Vishanji & Co.—19, Chinch Bunder, Bombay 9.
Jiwanlal Lalubhai & Co.—Jakeria Building, Sherif Dewaji Street, Bombay 3.
Kancharia Mohanrao & Bros.—43 Princess Street, Bombay 2.
Kanji Morarji Thacker.—285-87, Narsi Natha Street, Bombay 9.
Kanji Velji.—74-76, Khand Bazar, Bombay 3.
Khetshi Chaterbhuj & Co.—9, Chinch Bunder Road, Bombay 9.
Khimji Poonja & Co.—19-21, Dalal Street, Bombay 1.
Khimji Ranchhoddas.—Chandra Bhuvan, Narsi Natha Street, Bombay 9.
Kishorchandra & Co.—34, Shri Ram Market, Bombay 3.
Kurpal Harsey & Co.—116, New Chinch Bunder, Bombay 9.
Kusumchandra Kirtikumar.—118, New Chinch Bunder, Bombay 9.
Lalji Devji & Co.—254, Bhat Bazar, Bombay 9.
Lalji Poonshi & Co.—3, Chinch Bunder, Bombay 9.
Manohar & Co.— 229-31, Bhat Bazar, Bombay 9.
Manordas Himatlal.—104-114, Sugar Market, Bombay 9.
Mansukhlal Bhavanji & Co.—278, Narsi Natha Street, Bombay 9.
Murji Devshi & Co.—116, New Chinch Bunder, Bombay 9.
Nagindas Mulji & Co.—35, Esaji Street, Bombay 3
Nanji Hirji & Co.—112, New Chinch Bunder, Bombay 9.
Nanji Shamji & Co.—116, New Chinch Bunder, Bombay 9.
Odhavji Shivji Joshi.—233-35, Bhat Bazar, Bombay 9.
Parekh & Co.—104-40, Sugar Market, Bombay 9.
Parasram Parumal & Co.—104-114, Frere Road, Bombay 9.
Pasu Anand & Co.—4, Chinch Bunder, Bombay 9
Poonja Thakersey & Co.—116, New Chinch Bunder, Bombay 9.
Popatlal Dalpatlal & Co.—28, Moodi Bazar, Bombay 3.
Premji Haridas & Co.—168, Argyle Road, Bansali Chamber, Bombay 9
Premji Karabhai Thaker.—72, Kalyan Street, Bombay 9.
Premji Pragji Dharamshi.—263, Samuel Street, Vadgadi, Bombay 3.
Purushottam Surchand.—126-34, Argyle Road, Bombay 9.
Ranchhoddas Jethabhai & Co.—262-270, Narsi Natha Street, Bombay 9.
Rashiklal Chunilal & Co.—195, Samuel Street, Bombay 3.
Ratanshi Murji.—3, Chinch Bunder Road, Bombay 9.
Ravjibhai Dahyabhai & Co.—109A, Old Hanuman Galli, Princess Street, Bombay 2.
Ravji Javerchand & Co.—75, Javeri Bazar, Bombay 2.
Rawji Dhanji & Co.—21, Chinch Bunder Road, Bombay 9.
Saurashtra Trading Co.—137-141, Samuel Street, 2nd Floor, Bombay 9.
Shamji Rawji & Co.—116, New Chinch Bunder Road, Bombay 9.
Shamji Velji & Co.—228, Narsi Natha Street, Bombay 9.
Shantilal Bros.—77, Clive Road, Dana Bunder, Bombay 9.
Shantilal Hirji & Co.—110, Chinch Bunder Road, Bombay 9.
Shantilal Karamshi & Co.—69, Frere Road, Sugar Market, Bombay 9.
Shantilal Khimji.—Gaya Building, Bombay 3.
Shankerlal Rasiklal.—Diamond Building, Lohar Chawl, Bombay 2.
Shivlal Deshai & Sons.—70, New Stock Exchange Building, Bombay 1.
Talakshi Ramji & Co.—229-31, Bhat Bazar, Bombay 9.
Tarachand Doongershi & Co.—224, Bhat Bazar, Bombay 9.
The Motipur Sugar Factory Ltd.—164-66, Kambekar Street, Bombay 3.
Umiashanker Ramji & Co.—Rayan Grain Market, 'K' Galli, Bombay 9.
Valabdas Jeram & Co.—285, Narshi Natha Street, Bombay 9.
Vasantlal Govindji & Co.—384, Kalbadevi Road, Bombay 2.
Vasantkumar Virji & Co.—21, Keshavji Naik Road, Bombay 9.
Velji Lakhamshi & Co.—83, Clive Road, Dana Bunder, Bombay 9.
Velji Rawji & Co.—12-14, Kazi Syed Street, Bombay 3.
Virji Dahya & Co.—116, New Chinch Bunder Road, Bombay 9.
Virji Devji & Co.—168, Dongri Street, Bombay 9.
Vishanji Ladhabhai.—113, New Ch nch Bunder, Bombay 9.
Vradhichand Shamji & Co.—Dana Bunder, 'E' Galli, Bombay 9.

## ROADS BUILDERS

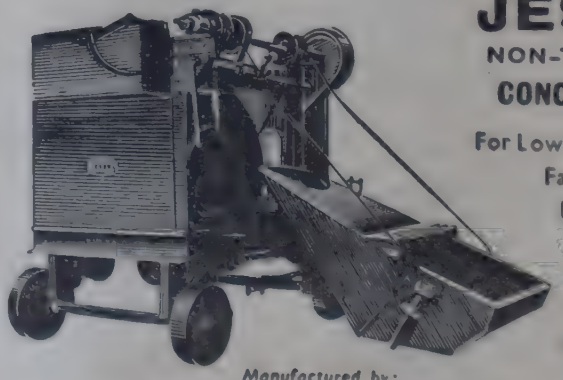
**SHAH CONSTRUCTION CO. LTD.—198, Jamshedji Tata Road, Bombay 1. Phone: 245044 (3 lines). Grams: "SUPERTRADE." Engineers & Contractors. Specialists in Prestressed Concrete Roads, Dams and Canals, R. C. C. Multistoreyed Buildings.**

## ROAD BUILDING & CONSTRUCTION MACHINERY

Associated Machine & Tool Co.—130, Medows Street, Fort.
Balmer Lawrie & Co., Ltd.—Ballard Estate, Bombay 1.

**BATLIBOI & COMPANY PRIVATE LIMITED.—Regd. Office: Forbes Street, P.O. Box 190A, Fort, Bombay 1 (BR). Phones: 255451 (6 lines). Grams: BATLIBOICO. Telex.: 248: City Branch: Batliboi House, 59/61, Nagdevi Cross Lane, Bombay 3 (BR). Branches: Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada.**

Greaves Cotton & Co., Ltd.—Forbes Street, Bombay 1.
Jacks, William & Co. Ltd.—Hamilton House, Graham Road, Ballard Estate, Fort.

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For Lower Maintenance
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Easy to handle
Longer life
GEAR & CHAIN SYSTEM OF DRIVE

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Killick, Nixon & Co., Ltd.—Home Street, Fort, Bombay 1.
Larsen & Toubro Ltd.—I. C. House, Dougall Road, Ballard Estate, Fort.
Lusob Trading Co.—Bell Building, Sir Phirozshah Mehta Road, Fort.

**MILLARS' TIMBER & TRADING CO., LTD.**—Victoria House, Victoria Road, Bombay 27. Phones : 72103 & 72104. Grams : "JARRAH", Bombay.

**NATIONAL ASPHALT PRODUCTS & CONSTRUCTION CO.**—Hill View, Mahul Road, Chembur, Bombay 74 AS. Phone : 521637 & 521795. Dealers in and Hirers of : Bulldozers, Road Rollers Asphalt Mixers, Bowsers & Boilers, Concrete Mixers & Vibrators, Water Pumps, Compressors, etc.

**ORIENTAL ENGINEERING CO.**—25, Forbes Street, Fort, Bombay 1. Phone : 253057. Grams : "ADIVISHNU." Dealers in Second-hand Road Rollers, Stone Crushers, Air-compressors, Concrete & Pan Mixers.

Voltas Limited.—19, Graham Road, Ballard Estate.

Ward, Thos., W. (India) Ltd.—Marshall's Building, Ballard Road, Fort.

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate.

## ROLLING SHUTTERS MANUFACTURERS

**HERCULES ROLLING SHUTTER PRIVATE LTD.**

108, Loha Bhavan, P. D'Mello Road, Bombay-9.

**Manufacturers of Rolling Shutters, Steel Windows & Doors according to individual Specification & Requirements.**

Grams : "HERCUROLL"

Phones : Office : 322698 Works : 581820

**NAVBHARAT ROLLING SHUTTERS & ENGINEERING WORKS.**—For: Strength, Security, Smooth Running and Lasting Service, Manually, Mechanically and Electrically Operated. Manufacturing: M. S. Rolling Shutters, Rolling Grills, Collapsible Compound Gates, Fire Proof Doors, Aligator Doors etc. C. Rly. Parel Station Road, Parel, Bombay-12. Phone: 65835. Grams: "ENBEROL."

National Engineering Works.—Khed Gully, Bombay 28.

Shaparia Dock & Steel Co., Ltd.—Sewri Fort Road, Bombay 15.

Standard Rolling Shutters & Engineering Works.—37, A.B.E. Parel Road Cross Lane, Bombay 12.

**SENTINEL ROLLING SHUTTERS & ENGINEERING CO. PRIVATE LTD.**—96, Bora Bazar Street, Fort, Bombay 1. Phone : 262019. Grams : "DARWAJA". Manufacturers of Rolling Shutters, Collapsible Gates, Fire-proof Doors & Steel Windows, etc.

**SHUBHDWAR ROLLING SHUTTERS & ENGINEERING CO.**—15, Bank Street, Fort, Bombay. Phones : 254445 & 254185. Grams : "SHUBHROLL." Manufacturers of Steel and Aluminium Rolling Shutters, Window Grills, Collapsible Gates, Fireproof Doors, Compound Gates, Platform Trolleys, Wheel Barrows, Steel Doors & Windows, all types of Steel Fabrication Works, Dealers in Machinery and Tank Manufacturers.

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*Manufacturers of:*

All Steel Rolling Shutters—Vertical Rolling Shutters-Gear & Electrically Operated Rolling Shutters - Airy Ventilated Rolling Grills Collapsible Gates - New Type of Shutter Gates, Etc.

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Opp. C. Rly. Parel Station, Bombay-12.

Phone: 62041.

Grams: "SWASTIKROL"

Ahmedabad Branch:

Kothari Mansion, Opp. Shethia Bldg., Relief Rd., Ahmedabad.

## ROOF WATERPROOFING

**GLADSTONE LYALL & CO., LTD.**—21, Lansdowne Road, Apollo Bunder, Bombay 1. Tel. No. 212805 & 211241. Grams : "GLADSWYLL." Bombay Manager : Cmdr. J. B. Simmon, Regd.Office : 4, Fairlie Place, Calcutta.

**INDOPLAST LTD.**—Kasturi Building, Jamshedji Tata Road, Bombay 1. Grams : "STYROPER." Phone : 38071. Manufacturers of the dual-purpose Thermocole which insulates as it waterproofs.

**SHALIMAR TAR PRODUCTS (1935) LTD.**—16, Bank Street, Fort, Bombay 1. Phone : 254643. Grams : "TARSTIL." Specialists in Roof Waterproofing, Damp-proofing, Flooring, Decking, Canal Linings, etc. Contracts executed under guarantee.

## ROPERIES

Adamally Sons Ltd.—277, Nagdevi Street, Bombay 3.

**ADAMJI KADERBHOY.**—Post Box No. 5046, 337, Katha Bazar, Bombay 9. Tel. No. 322485. Grams: "RAJKOTWALA." Manufacturers and Stockists of Cordage, Manila Coir, Hemp & Cotton Ropes. Approved Contractors to Govt., Rlys. and Steamship Companies. Exporters of Coir Products. Selling Agents for: The Ganges Rope Co., Ltd., Calcutta.

**CHANDULAL & CO., KATHAWALA.**—11, Kazi Sayed Street, Bombay 9. Grams : "CORDCOIR". Phone : 325598.

**EVERGREEN CORPORATION.**—9/15, Picket Cross Road, P.O. Box No. 2733, Bombay 2. Phone : 22162. Grams : "GREENLEAVE," Stockists of Manila Ropes, Stay Rods, Pulley Blocks & Tackling, Lifting Stores.

Fatabhai, K. S., & Co.—129, Nagdevi Street, Bombay 3.

**G. J. RASIWALA ROPE FACTORY.**—44, Clare Road, Byculla. Bombay. Market Shop :—Mohamedally Road, Bombay-3. Phone : 40481. Manufacturers of Rope, Twine, Tape, Newar, etc.

**GARWARE FILAMENT CORPORATION PRIVATE LTD.**—Chowpatty Chambers, Sandhurst Bridge, Bombay 7. Phone : 22091.

**GUJRAT ROPE FACTORY, THE.**—57/61, Bhajipala Lane, Bombay 3. Phone : 324768. Grams : "WEBTAPE." Manufacturers of all kinds of Cotton Rope, Hemp, Ropes, Tapes, Newer, etc.

Mohamedbhoy, H., & Co.—114-116, Bhajipala Lane, Bombay 3.

**RASIWALLA & CO., M. M. A. (Estd. 1910).**—17, Janjikar Street, Huseinbhai Bldg., Mandvi, Bombay 3. Phone: 323450. Grams: "TWIST." Manufacturers of Cotton Ropes, Thread and Twine, and Dealing in Fish Hooks and Hemp Twine, Plastic Fishing Lines and Sail Needles.

Star Rope Works, The.—87, Sun Mill Road, Lower Parel, Bombay 13.

**SHA GOVINDJI PADAMSHI KATHAWALA (Katha Dept. Estd. 1931).**—371-73, Katha Bazar, Bombay 9. Phone : 323738. Grams : "KATHAWALA." Dealers in Coir Yarn, Fibre, Ropes, Bamboo Mats, Khajuri Mats, Coir Mats & Strings, Sisal Ropes, etc.

**SHAH SHIVAJI VALJI & CO.**—184, Narshi Natha Street, Bombay-9. Distributors in: All kinds of Grass Brooms Coco (Goa) Brooms, Country Brooms, Brushes, Coir Mats, Bamboo Mats, Grass Mats, etc., Contractor & order Suppliers. Grams : "GURJIDEPOT." Phone : 322488.

Talib & Co.—Talib House, 104, Nagdevi Street, Bombay 3.

**THANA TEXTILE ROPE WORKS.**—"Sun Brand" Pink Ply, Cotton Rope, Spindle Tapes, Bandings & Endless Bands Manufacturers and Merchants. Crescent Chambers, Tamarind Lane, Fort, Bombay 1. T. No. : 257395. Grams : "ROPEDRIVE." Works : Bombay-Agra Road, Thana (C.R.). T. No. : 591889.

Thanawala, B., & Sons, Ltd.—47, Tamarind Lane, Fort.

**TODI & CO.**—Vishwa Mahal, C Road, Backbay Reclamation, Bombay 1. Phone : 244061. Grams : "OFFER." Manufacturers of Driving Cotton Ropes, Bandings, Cordages, Twines, Spindle Tapes, Webbings, Cotton Tape, Wicks, Tubular & Bundle Bandings, Braidings and Art Silk Tapes. Nylon Radio Dial Cord, Dawn Nylon Dental Engine Cord and Braiding Tinner Copper.

## ROSIN AND TURPENTINE

**BOMBAY ROSIN & TURPENTINE CO.**—G.P.O. Box 1512, Bombay 1. Grams : "RAJGANGA." Phone : 253587. Manufacturers, Agents, Suppliers & Exporters of Rosin, Oils, Varnishes, Shellac, Glues, Disinfectants and all Chemicals to Mills & Factories. Agents & Distributors : Haward Rosin Chemicals, Nepal ; National Rosin & Turpentine Factory, Punjab. Local Sales Office : Meghji Building Compound, Near Wallace Flour Mill, Mazagaon Road, Bombay 9.

Bombay Rosin Corporation.—181, Samuel Street, Mandvi, Bombay 9

**EMPEE CORPORATION PRIVATE LTD.—44, Cawasji Patel Street, Bombay 1. Selling Agents of "Chir Brand" Rosin and Turpentine I.S.I. Grade. Grams: "ROSTURP." Phone: 251902.**

Kirtikumar Chandulal & Co.—313, Samuel Street, Vadgadi, Bombay.

**PRABHAT GENERAL AGENCIES.—195, Kalbadevi Road, Bombay 2. Phone: 20359. Grams: "EXPANSION."**

Universal Traders.—Himalaya House, Phalton Road, Bombay 1.

## RUBBER GOODS MANUFACTURERS

**ASSOCIATED RUBBER INDUSTRIES LTD.—Union Bank Bldg., 4th Floor, Apollo Street, Bombay 1. Phone: 254627. Grams: "RUBBERWORK." Manufacturers of Rubber Products for automobile assemblers, Rubber & Ebonite parts, Moulded, Extruded Rubber goods, Rubber Soled Canvas Footwear and Dipped Latex goods such as Surgeon Gloves, etc.**

Bombay Rubber Works Pvt. Ltd.—Powai Point, Agra Road Bombay 79.

**CARONA SAHU CO., LTD.—"Fort House," 221, Dadabhoy Naoroji Road, Bombay 1. Manufacturers of Canvas, Rubber Shoes & Chappals, Leather Shoes with Moulded Rubber Soles, Chappals with Microcellular Soles and Children's Leather Sandals with Rubber Soles.**

Cosmos India Rubber Works, Ltd.—7, Homji Street, Fort.

**DIAL RUBBER WORKS.—Factory: Goregaon East, Bombay 62. Sales Office: 12/14, Champa Galli, Zaveri Bazar, Bombay 2. Manufacturers of Acid & Alkali Proof Rubber Hand Gloves, Post Mortem Gloves, Surgeon's Gloves, Grams: "QUOTATION." Phone: Factory: 692711. Office: 22598.**

Dunlop Rubber Co. (India) Ltd.—Dunlop House, Hughes Road.

**EASTERN STORES & TRADING CO. PRIVATE LTD.—115, Nagdevi Street, Bombay 3. Phones: 322215/16. Grams: "ENERGY."**

**EBRAHIM ALLIBHOY & SONS (ESTD. 1934).—Exporters & Stockists. 260-64, Abdul Rehman Street, Bombay 3. Phone: 325163.**

Empire Industrial Works.—Warden House, Sir Phirozshah Mehta Road, Fort.

Great Eastern Trading Co.—107, Cawasji Patel Street, Fort.

**GENERAL COMMERCIAL CO.—6, Raghavji Trust Bldg., French Bridge, Bombay-7. Dealers in Automobile Rubber Goods as Radiator House, Engine Mountings, Rubber Bushings, Matings, Glass Channels, Sponge Rubber, Surgical Tubes etc. Phone: 76087.**

Gujarat Tube & Hardware Mart, The.—24, Nagdevi Cross Lane, Bombay 3. Phone: 326616. Grams: "GAUGECOCK".

**Harivadan S. Dholabhai.—21A, West View, 10th Khetwadi, Bombay 4.**

Heptoola Noorudin & Co.—152, Nagdevi Street, Bombay 3.

**HIND RUBBER INDUSTRIES PRIVATE LTD.—Suryodaya Mills Compound, Tardeo, Bombay 34 WB. Phone: 41509. Grams: "HINDRUBBER." Manufacturers of Moulded and Extruded rubber goods such as Bicycle Pedal Rubbers, Brake Rubbers, Seat Covers, Reflectors, Solid Tyres and Rubber Accessories for Tricycles & Perambulators, Solid Tyres for Trollies, Complete Trolley Wheels and various industrial rubber goods required by Railways, Mills, Power Houses, etc. Managing Director: Shri Shankarlal G. Jhunjhunwalla.**

**HINDUSTAN RUBBER WORKS.—402, Cadell Road, Bombay-28. Manufacturers of Rubber/Ebonite Rollers, Rubber-lining of Tanks & Industrial Articles of Rubber Ebonite. Phone: 451965.**

**HINDUSTAN TYRES PRIVATE LTD., THE—Manufacturers of all kinds of Rubber and Ebonite Goods and Retreaders of Tyres, Lamington Road (North), opp. Agripada Police Station, Bombay 11. Phone: 77476. Grams: "TYRES."**

**INDIA RUBBER PRODUCTS.—Kasturchand Mills Estate, Dadar, Bombay 28. Manufacturers of Industrial & Moulded Rubber Products.**

International Rubber & General Industries Private Ltd.—24, Argyle Road, Wadi Bunder, Bombay 9.

**JAFFERBHAI & CO.—106-109, Bhendi Bazar, P.O. Box No. 5053, Bombay 3. Phone: 333324. Grams: "NECESSITY." Dealers in P.V.C. Leather Cloth, Canvas, Motor Accessories, Felt, Celluloid, Aluminium Sections, Rubber Sections, Sponge & Foam Cushion, etc.**

**Jai Hind Rubber Products, Ltd.—391F, Grant Road, Bombay 7.**

Kapadia Brothers.—Kalan Building No. 3, Kandewadi, Bombay 4.

Kishore Rubber Industries.—Suryodaya Mills Compound, Tardeo, Bombay 7.

PHONE: 326840 GRAMS: "YOUTH"

**MERCHANT BROTHERS**

**151, NAGDEVI STREET, BOMBAY 3**

*Manufacturers & Manufacturers' Representatives*

**Rubber Hose, Beltings, V-Belts, Trolley Wheels, Fire-fighting Equipment, Mechanical handling Equipment, Rubber Sheets, Insertions, Rubber Gloves, Gum-Boots, Plastic Pipes & Fittings, Oil Resistant Neoprene Sheet & Other Moulded Parts, etc.**

**TRADE INQUIRIES INVITED**

**KORULA RUBBER CO. PRIVATE LTD.—Manufacturers of Latex Foam Cushions, Telecord Cables, Automobile parts, Rubber Lined Tanks, Industrial Rubber Goods, Gloves & Pharmaceutical Rubber Goods. 249, Worli, Bombay 18. Phone: 451750. Grams: "ZIRCON," Worli, Bombay.**

**MODAK RUBBER PRODUCTS PRIVATE LTD.—Managing Director: Dr. K. N. Modak. Registered Office and Factory: Kondivata Road, Opp. Marol Bazar, Andheri-Kurla Road, Bombay 59. Phone: 571216 & 573252. Grams: "MODRUB," Bombay, Andheri. Manufacturers of all types of Industrial and Pharmaceutical moulded and Extruded Rubber goods to specification in Natural and Synthetic Rubber. Also Manufacturers of rubber goods required by automobile, Cement, Rayon, Sugar Industries & Railway.**

**N. MOHANLAL & CO.—Industrial Rubber Goods Merchants, 124, Nagdevi Street, Bombay 3. Phone: 322545. Grams: "JEPIBELT."**

**ORIENTAL RUBBER INDUSTRIES PRIVATE LTD.—Agra Road, Bhandup, Bombay 78. Phone: Office: 254028, Works: 581140 & 254395. Grams: Office: "ORIENRUBER," Bombay. Works: "Oriental," Bhandup. Manufacturers of "Oriental", "LIBRA & "RITTA" Brand Rubber Canvas Ply Conveyor and Transmission Beltings, Suction, Delivery, Pneumatic and Vacuum Hoses, Rubber Sheetings, All types of Rubber Fittings for Railways, Mechanical & Moulded Rubber Goods, Poll Star and Poll Master Cycle Tyres and Cycle Tubes, Chief Technologist & Director V. N. Makar, A. I. R. I. (London).**

Paradise Trading Corporation.—73/75, Tamarind Lane, Fort, Bombay 1.

**PRECISION RUBBER CO. (INDIA).—Rubber Parts for all Industries as per specifications or drawings. 174, Dr. Dadabhoy Naoroji Road, (3rd Floor), Fort, Bombay. Phone: 261276.**

**PREMIER RUBBER & CABLE INDUSTRIES.—Jamal Building, 211, Nagdevi Street, Bombay 3. Phone: 38551. Grams: "RUBERGOODS." Manufacturers of quality Rubber Goods such as 'PREMIER' Cycle and Rickshaw Tyres and "PREMEX" Tubes, Rubber Hose Pipes (Delivery & Suction), Petrol and Oil resisting Hose Pipes, Rubberised Texture Cloth, Rubber Beltings, Moulded and extruded articles. 13/D, Kurla Industrial Estate, off Agra Road, Ghatkopar, Bombay 77. Phone: 68326. Grams: "PURERUBBER", Bombay 77.**

**PUROHIT RUBBER WORKS.—13/D, Kurla Industrial Estate, off Agra Road, Ghatkopar, Bombay 77. Phone: 55326. Grams: "PURERUBBER." Specialists in Automobile Rubber Parts, Sponge & Rubber Channels, Tubings Rubber Extrusions Mouldings, etc.**

**ROYAL HARDWARE MART.—108, Nagdevi Street, Bombay 3. Phone: 325221. Grams: "MANILAROPE."**

**RUBBER INDUSTRIES (INDIA).—Works at Kurla Road, Andheri. Phone: 572214. Office: 243, Abdul Rehman Street, Bombay 3. Grams: "RUBINTEX," Bombay. Phones: 325617.**

**RUB-WELL INDUSTRIES, THE.—272, Abdul Rehman Street, Bombay 3. Phone: 322164 Grams: "YAQUATMEER." Manufacturers of Rubber Moulded Articles in Natural Synthetic, Neoperene & Canvas insertion. Also automobile parts.**

Sandow Traders.—117, Medows Street, Fort, Bombay.

Sorabji D. Daruwalla.—Round Bldg., Kalbadevi Road, Bombay 2.

Standard Rubber Corporation, The.—81, Esplanade Mansion, Mahatma Gandhi Road, Fort, Bombay.

Supreme Industries Ltd.—Sewree Cross Road, Wadala, Bombay.

**TODI INDUSTRIES PRIVATE LTD.**—Vishwa Mahal, "C" Road, Bombay 1. Phone : 244061.

**VITHAL MAHADEO & CO. (ESTD. 1923).**—109, Nagdevi Street, Bombay 3. Phone : C/o 324570. Suppliers to Mills and Factories. Manufacturers of Industrial Rubber, Fibre, Ebonite & Leather goods. Specialists in Boiler Asbestos Rings, Leather-Ram Rings & Leather Buckets.

West India Company.—Behramji Mansion, Sir Phirozshah Mehta Road, Fort.

## RUBBER ( RAW MATERIALS )

**RISHIROOP CHEMICAL COMPANY.**—160, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Phone : 265216. Grams : "TEEROBERTS." Dealers & Stockists of Raw Rubber, Synthetic Rubber, Reclaimed Rubber, Chemicals, Colours, Factice, Stearic Acid, Calcium & Aluminium Silicates and Calcium and Magnesium Carbonates, etc.

## RUBBER STAMP MAKERS

Ghaisas, G. J., & Co.—Ramchandra Building, Tram Terminus, Girgaum.

Goonanath, P.—Nana Shankar Seth's Wadi, Girgaum Road, Thakurdwar.

Kotkar, M. B., Bros.—373, Girgaum Road, Thakurdwar.

**MANKAME BROTHERS.**—Rubber Stamp Manufacturers, Engravers and Die-Sinkers, 406, Kalbadevi Road, Bombay 2. Phone : 23960.

Masani & Co.—91, Medows Street, Fort.

Stewarts Laboratories.—327, Hornby Road, Fort.

Thacker & Co. Ltd.—18-20, Rampart Row, Fort.

Young India Stationery Mart.—43, Ghoga Street, Fort.

## SAFETY WEAR FOR INDUSTRIAL WORKERS

**ASHA RUBBER INDUSTRIES.**—Sham Wadi, 2nd Floor, Ranade Road, Dadar, Bombay-28. Manufacturers of 100 per cent Acid and Alkali proof light & heavy duty and Fabric Lined industrial rubber gloves, "Meditex" surgeon gloves our speciality.

**FIDA TRADERS.**—Manufacturers and Suppliers of Welding and Industrial Safety equipments. Welding Halmets, Screen, Wire Brushes. All types of Gas and Electric Welding Goggles etc. Plastic Face Shields, Plastic Security Badges. (Indentity Badges). For labour, Plastic Letters and sign boards. Dealers in Plastic Acreylic sheets and Allied Materials, 97, Dhaboo Street, Bombay 3 (BR). Phone : 334483. Grams : "UNI-GOGGLE".

**GENERAL LEATHER & PRODUCTS CO.**—82/D, Sherif Building, Koka-Killa, Dharavi Road, Bombay 17. Manufacturers of Handgloves, Aprons, Legguards, Sleeves, Suits & other etc. Safetyware equipments of Asbestos, Canvas & Leather, Phone : 471891.

**PIONEER LEATHER WORKS, THE.**—Sitaram Building, Crawford Market, P.O. Box No. 1950, Bombay 1. Phone : 263618.

**SAFETY EQUIPMENT CORPORATION.**—11, Bank Street, Bombay 1. Phone: 254635. Grams: "STORESUPLY." Safety Engineers & Govt. Contractors. Manufacturers of Safety Equipments & Appliances such as Helmets, Goggles, Gloves, Face-Shields, Respirators, Aprons and Protective Clothings.

**STANDARD EQUIPMENT CORPORATION.**—A/6, Shri Ram Industrial Estate, 13, Katrak Road, (Naigaon Cross Road), Bombay 31 (DD). Specialised in all types of Handgloves, Apron, Safety Goggles, Respirators, Face Guard, Hand Shield, Gum Boots, Leg Guards etc. Also ask for Industrial Trolley Wheels & Tyres, Ebonite Rods & Sheets and Industrial Rubber & Ebonite parts to your specifications.

**UNIVERSAL AGENCIES.**—250, Reay Road, Opp. Railway Bridge, Bombay 10. Phone : 78957. Branch office : 202, Commerce House, Medows Street, Fort, Bombay 1. Phone : 254364. Works : Saki Vihar Road, Bombay 70. Manufacturers and Suppliers of Welding Transformers, Oxy-Acetyane Gas Welding Sets, Accessories & Industrial Safety Equipment, etc.

**VISHWA BHARATI TRADING CO.**—45, Mint Road, Post Box No. 1052, Bombay 1. Phones : 266371, 264555 and 263795. Grams : "VIBHACO." Branch : G.P.O. Box 2628, Calcutta 1. Phone : 336680. Mfrs. of Industrial Safety Equipments, such as Goggles, Gloves, Dust Masks, Gas Protection Respirators, Helmets, Safety Belts, Aprons, etc.

## SAFETY MATCHES

Western India Match Co., Ltd.—Indian Mercantile Chambers, Nicol Road, Ballard Estate, Bombay.

## SAFFRON MERCHANTS

**KHOSLA KESERWALA.**—70, Masjid Bunder Road, Mandvi, Bombay 3. Grams : "KHOSLABROS." Phone : 324932. Sole Importers of "Ramain" Brand 100 per cent pure and best selected Saffron from Spain having largest nett sales in India. Mount Everest Brand Pure Menthol. Wholesale and Retail merchants.

## SALT MERCHANTS

Bhiwandiwalla & Co., H. M. D. H.—583, Chira Bazar, Bombay No. 2.

**MIRA SALT WORKS CO.**—Lalji Mansing Bldg., Lohar Chawl, Bombay 2. Works : Mira Road (W. Rly.). Phone : 22111. Grams : "MIRASALT." Salt Manufacturers.

**ORIENTAL SALT TRADING CO.**—207, Samuel Street, Bombay 3. Manufacturers and Suppliers of Common Salt to Industrial Concerns and Retail and Wholesale Dealers. Phone : 327664.

**PRABHULAL L. PANDYA & CO.**—26, Podar Chambers, Parsi Bazar Street, Fort, Bombay 1. Phone : 251794. Grams: "PRAPANDYA." Salt Merchants, Stevedores and Dubashes, Freight and Chartering, Brokers, Steamship, Clearing & Forwarding Agents. Branches: Okha, Jamnagar, Bhavnagar, Veraval, Porbunder, Navlakhi, Gandhidham (for Kandla).

## SAND, STONE AND CHUNAM MERCHANTS

Atmaram Bros.—Thakurdwar Mortar Mill, 340, Girgaum Road and Duncan Road.

Fazluddin Ibrahim Chunawala.—Near Water Pipe, Chinch Bunder.

Haji Adam Haji Abba & Co.—Reti Bunder, Mazagaon.

Haji Umer Haji Musa.—Near Police Station, Pydhownie.

Harilal Tribhovandas & Bros.—161, Panjrapole Road.

Hasham Joosab.—291-A, Duncan Road.

Industrial Minerals & Chemical Co.—125, Narayan Dhuru Street, Bombay 3.

Laxmi Mortar Mills.—Portuguese Church Street, Dadar.

Mohanlal Jamnadas & Sons.—Opp. Mohan Building, Girgaum.

**NENSHI MONJI.**—123, Mahatma Gandhi Road, Bombay 1. Contractors, Stone and Sand Suppliers, Phones H.O.: 251054 and 255048. Bhoiwada quarry 61150; Kurla Quarry: 581844; Sand Depot: 72626.

Pavri, Kavasjee Bhicaji.—10, Transvaal Terrace, Falkland Road.

Stone Supplying Co. Private Ltd.—494, Duncan Road, Bombay 14.

Taiyabi Mortar Mills.—10, Underia Street, Chokey Mohalla.

Tansukhlal Ratilal & Co.—15, 2nd Sutar Gali, Null Bazar.

Wagle & Sons.—Opp. Congress House, Girgaum Back Road.

Yusuf Dada Chunawalla & Co.—34, Bapu Khote Street, Bombay 3.

## SANDALWOOD MERCHANTS

Bharucha, A. K., & Co.—202, Bora Bazar Street, Fort.

Edulji Rustomji Sukhadwala.—266, Thakurdwar, Bombay 2.

Mysore Products, Ltd.—191, Princess Street.

Sorabji Nowroji & Co.—16, Horniman Circle, Fort.

Sukhadwalla, Manecksha Hormasji.—Opp. Wadia's Fire Temple, 607, Girgaum Road.

Wardens (Mysore) Ltd.—378, Karanjia Building, Grant Road.

## SANITARY ENGINEERS

**ABDUL HUSEIN ESSOFALLY CONTRACTOR.**—Sanitary Engineer, Licensed Plumber and Building Contractor. On the list of Government, P.W.D., B.I.T., Bombay Municipality, M.E.S. Naval and Native States. Office : 91-93, Bapu Khote Street, Bombay-3. Phone No. : 332598. Residence Phone No. : 41539.

Advance Tube Co.—99, Nagdevi Street, Bombay 3.

A. G. Karimji Calcuttawalla.—82/84, Gulalwadi, Kika Street, Bombay 4.

**ASGARALI NURRUDDIN & CO. (ESTD. 1916).**—95, Nagdevi Street, Bombay 3. Phone : 322609 ; Res. 532753. Sanitarywares, Hardware & Pipe Fittings Merchants.

Badrudin Hasanali & Co.—43, Gulalwadi, Kika Street.

**B. BAMBOAT & CO. PRIVATE LTD.**—56, Gowalia Tank Road, Bombay 26. Phone : 41917. Grams : "PILLARTAP." Coppersmiths, Plumbers, Gasfitters and Sanitary Engineers.

Bhathena & Co.—Patel's Bungalow, 187, opp. Grant Road Railway Station (Up).

Bhathena, B. N., & Co.—100, Nagdevi Street, Bombay 3.

Bhole & Co.—Near Fire Temple, Junction of Queen's Road & Thakurdwar Road.

Burjor Framji & Co.—Marine Mansion, Marine Lines, Off Queen's Road.

Chunilal Parikh & Co.—478, Duncan Road, Bombay 4.

Dhamankar, W., & Co.—196A, Girgaum Road, Bombay 4.

Esoofally Dawoodbhoy.—18, Doctor Street, Dhanwadi Moholla.
Esufally Adamji & Co.—134, Nagdevi Street.
Fidaali Rajabali.—165, Hill Road, Bandra.
Fidahusein Hasanali.—48, Kika Street, Gulalwadi, Bombay 4.
Gagrat & Co.—160, Nagdevi Street.
Gannon, Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Fort.
Godbole Bros.—101-103, Mugbhat Street, Girgaum.

**JAFFERJEE HASSONALLY & SONS.—(Licensed Plumbers), 259, Nagdevi Street, Bombay 3. Phone : 326459.**

Keshavlal Laloobhai.—87-89, Parsi Gali, Dhanji Street.
Khambati, G. L.—Hararwalla Building, 5, Ardeshir Dady Street, Sandhurst Road, Bombay 4.

**M. N. PADIA & CO.—70 Kika Street (Gulalwadi), Bombay 4. Phone: 334283.**

Mavani, B., & Co.—187, opp. Grant Road Station (East), Bombay 7.
Minoo Cawasji Press, L. S. E.—Sanitary Engineer, Hamal Wadi, Dhobi Talao.
Mistry, P. M., & Co.—43, Tamba Kanta, Pydhonie.
Mohomedbhoy Esoofally Nulwalla.—78, Bapu Khote Street, Jambli Moholla, Null Bazar, Bombay 3.
Nanalal Ambalal & Co.—69, Nagdevi Street, Bombay 3.
Nanalal Pandya & Co.—302, Angrewada, Kalbadevi Road.

**NARIMAN B. BHARUCHA & SONS.—Kalakdina Terrace, B, Gowalia Tank Road, Bombay-26. Phone: 40914. Builders, Sanitary Engineers, Specialists in Shells & Prestressed Concrete.**

National Engineering Co.—103, Nagdevi Street.

**NEW INDIA SANITATION COMPANY.—Central Bank Building, 3rd Floor, Bruce Street, Fort, Bombay. Phone: 254122. Grams: "NISC." Sanitary Engineers, Licensed Plumbers, Contractors and Hot Water Specialists.**

Patankar, R. A., & Co.—Madhav Wadi, Naigaum Cross Road, Dadar.
Pawar, B., & Co.—Near Madhav Baug, 102, Ardeshir Dady Street.
Press Cowasji Dinshaw.—Hamal Wadi, Dhobi Talao, Bombay 2.

**R. MOOLCHAND & CO.—44, Nagdevi Cross Lane, Bombay 3. Direct Importers, Sanitary Wares, Tiles, Bath Tubs, Fancy Bath-Room Fittings. Grams: "POTTERY." Phones: 324207. Res.: 78837.**

Ratilal & Co.—Madhavji Thakersey Building, Picket Cross Road.
Richardson & Cruddas.—Byculla Ironworks, Byculla.

**SHARMAN SONS (Estd. 1949).—10, Nagdevi Street, Bombay 3. Phone : 321589.**

Simpson, D. R., & Co.—33, Gamdevi Road, Grant Road, Bombay 7.
United Tube & Hardware Co.—146, Nagdevi Street, Bombay 3.
Victoria Sanitary Stores.—54, 3rd Bhoiwada, Bhuleshwar, Bombay 2.
Vidya Sanitary Works.—16-24, Lohar Chawl, Bombay 2.

## SANITARY WARES, PIPES & FITTINGS

**ABDEALLY, B. M. & CO.—127, Sarang Street, Bombay 3. Phone : 326980. Grams : "ALERTDEAL."**

Abdulhusein Esoofally Contractor.—91-93, Bapu Khote Street, Bombay 3.
Advance Tube Co.—99, Nagdevi Street, Bombay 3.

**A. G. KARIMJI CALCUTTAWALLA.—Pipes, Fittings and Sanitarywares, 82/84, Gulalwadi, Kika Street, Bombay 4. Phone : 333626. Grams: "SANITARY."**

**A. H. SHAH & CO., PRIVATE LTD.—Nanabhoy Mansion, Sir Phirozshah Mehta Road, Fort, Bombay. Phone : 261930. Grams : "OCSAH."**

**A. VĀLLABHDAS & SONS.—37, Nagdevi Street, Bombay 3. Phone: 324281. Grams: "GINSPARE" Stockists of Boiler Tubes, Accessories, Cocks, Valves & Sugar Mill requisites.**

Armstrong Smith Private Ltd.—Gresham Assurance House, Sir Phirozshah Mehta Road, Bombay 1.
Badruddin Hasanali & Co.—43, Gulalwadi, Kika Street, Bombay 4.
Batliboi, C. J., & Co.—319, Hornby Road, Fort.
Bharucha & Co.—129, Esplanade Mansions, Mahatma Gandhi Road, Bombay.

**BOMBAY BUILDING MATERIALS TRADING CO.—Dealers in Sanitarywares & Manufacturers of "Bilmat" Bathroom Fittings. 73, Medows Street, Fort, Bombay 1. Phone : 253042. Grams : "BILMAT."**

Bombay Potteries & Tiles Ltd.—Pipe Road, Kurla, Bombay.
Bombay Sanitaryware Association.—Jeroo Building, 1st floor, 137, Mahatma Gandhi Road, Bombay 1.
Calcutta Iron and Steel Co. Private Ltd.—68/D, Mohamedally Road, Bombay 3

**C. BHOGILAL & CO.—Hanuman Building, behind Reserve Bank, 310, Bazargate Street, Fort, Bombay 1.**

**C. CHAMPAKLAL & CO.—205, Nagdevi Street, Bombay 3. Phone : 326073. Stockists of Pipes for Steam, Water, Gas and Air, Water Meters, Sanitarywares and Boiler Tubes.**

Chunilal Parikh & Co.—476-478, Duncan Road, Bombay 4.
Clubwala & Co.—27-29, Hamam Street, Fort.
Domestic Appliances Co., Ltd.—Forbes Building, Home Street, Bombay 1.

**DUNCAN STONE CO.—500, Maulana Azad Road, Bombay 4. Phones: Res.: 20985. Office: 332409. Grams: "TILERIES." Stockists of Marble & Tiles & Sanitary Wares.**

Esufally Adamji & Co.—134, Nagdevi Street, Bombay 3.
Fleming John & Co., Private Ltd.—P. B. No. 76, Bombay 1. Phone: 261153.
F. J. Rehmani & Co.—5, Bank Street, Bombay 1.
Garlick & Co.—Haines Road, Jacob Circle.
Geo. Service & Co.—Byculla Iron Works, Parel Road, Bombay 8.

**GIGABHAI, K. & SONS PRIVATE LTD.—8-10, Green Street, Fort, P.O. Box No. 1180, Bombay 1. Phone : 252453. Grams : "TILESTONE." Importers & Exporters of Tiles, Sanitarywares, "BESTOLITE" W.C. Seats, G.I. Flush Pipes, Water Filters, Marble Slabs, Marble Chips, Fire bricks, Fire Clay, Cement Colours, Cement Mosaic Tiles, etc.**

Gokaldas Shivalal & Co.—76, Kika Street, Bombay 4.
Gopal Chand Puri & Brothers.—70, Mohamedalli Road, Bombay 3.
Gupta, D. P., & Co.—181, Nagdevi Street, Bombay 3.
Hindustan Tube Company.—163, Nagdevi Street, Bombay 3.

**JAYANTILAL GOKALDAS & SONS.—232, Masjid Bunder Road, Bombay 3. Phones: 325495 (Office), 473550 (Res.). Stockists of galvanised Pipes & Fittings, Cast Iron Rainwater & Soil Pipes & Fittings, Cast Iron Spigot & Socket Pipes, Special Fittings, Brass BIB Cocks & Stop Cocks; Sanitarywares and Sanitary Fittings, Gunmetal wheel valves & Gate Valves; Lead Pipes & Lead traps, Stoneware Pipes & Fittings, Cast Iron Manhole Covers & Gratings.**

**JIVRAJ & VRAJLAL.—122, Nagdevi Street, Bombay 3. Phone : 325138 (Shop) & 30932 (Res.) Grams : "SANIPIPES."**

K. Chimanlal & Co.—107-A, Nagdevi Street, Bombay 3.

**M. FAIZULLABHOY & CO.—37/39, Bhajipala Street, Bombay 3. Manufacturers & Exporters of Brass Taper Cocks, Locking Cocks, Bib Cocks, Push Cocks, Stop Cocks, etc. Only Export enquiries Solicited.**

**M. N. PADIA & CO.—70, Kika Street (Gulalwadi), Bombay 4. Phone : 334283.**

**MAGANLAL PRANLAL & SONS.—105, Nagdevi Street, Bombay 3. Phones : 327121, 327717, & 321428 Grams : "ARMPIPE." Dealers in Pipe Fittings, Sanitarywares, Hardware and Plumbers Requisites.**

Marker, S. D. & Co., Ltd.—381, Hornby Road, Fort.

**MOHANLAL & CO.—491, Duncan Road, Bombay 4. Phone: 332431. Dealers in Marble, Tiles, Sanitarywares, Shahbad and Tandur Stones, Colours, White Cement etc., Builders & Contractors.**

**NANALAL AMBALAL & CO. (Estd. 1917).—69, Nagdevi Street, Bombay 3. Phone : 322754. Grams : "VILVALHIRO." Sole Regional Distributors for (1) Parry's superior Indian Sanitaryware (2) Stone Ware pipes of Messrs. Perfect Pottery Co. Ltd., Jabalpur. Also one of the leading Wholesales of all kind of pipes, Fittings & Sanitaryware.**

**NATIONAL METAL INDUSTRIES.—15 A, Parel Village Road, Parel, Bombay 12. Phone : 62400. Grams : "MANMULL." Manufacturers of Metallic Wash Basins and Stainless Steel Sinks.**

Parikh Brothers.—12, Elphinstone Circle, Botawala Building, Fort, Bombay 1.
P. S. Parekh & Co.—108, Nagdevi Street, Bombay 3.
Raval & Co.—21, Bank Street, Bombay 1.
Richardson & Cruddas Ltd.—Byculla Iron Works, Parel Road, Bombay 8.

**R. MOOLCHAND & CO.—44, Nagdevi Cross Lane, Bombay 3. Direct Importers, Sanitarywares, Tiles, Bath Tubs, Fancy Bathroom Fittings. Grams : "POTTERY." Phone : 324207. Res. : 78837.**

Saify Sanitary Stores.—109/114, Nagdevi Street, Bombay 3.
Sajan & Co.—18, Custom House Road, Fort, Bombay.
Shah, A. H., & Co., Ltd.—Jan Mansion, Sir Phirozshah Mehta Road, Fort.
Shapurji & Co., R. K.—319, Hornby Road, P.B. 1065, Fort.

**SHARMAN SONS (Estd. 1949).—10, Nagdevi Street, Bombay 3. Phone : 321589.**

Teka Hardware & Engineering Corp.—82-86, Abdul Rehman Street, Bombay 3. Phone: 226856 Grams: "Tekatools". Stockists of "Tata/SL" Block and Galvanised Pipes & fittings.

Universal Sanitary Engineering Co.—Kitab Mahal, 190/192, Hornby Road, Fort.

Vadilal & Co.—435, Duncan Road, Bombay 4.

Vaseem & Co.—72/74, Nagdevi Street, Bombay 3.

Victoria Sanitary Stores.—54, 3rd Bhoiwada, Bhuleshwar, Bombay 2.

**VINUBHAI CHANDULAL & CO.—63, Nagdevi Street, Bombay 3. Phone: Shop: 324282 & 329141 and Res.: 38869. Grams: "STONEWARE."**

Virba & Co.—Ash Lane, Medows Street, Fort.

V. Pech & Co.—Aludin Building, Dhobi Talao, Bombay.

W. H. Deeth & Co.—Stronach House, Ballard Estate, Bombay 1.

## SAW MILLS

**ANAND TIMBER TRADERS.—170, Reay Road, Bombay 10. Phone: Office: 42203. Res.: 60144.**

Bombay Saw Mills Co.—Connaught Cross Lane, Ghorupdeo.

Brijmohan Banwarilal.—61, Reay Road, Mazagaon, Bombay 10.

Gilder Saw Mills.—40, Victoria Road, Mazagaon, Bombay 10.

Grand Woodworks & Saw Mills.—Connaught Cross Road, Ghorupdeo.

McKenzies, Ltd.—Sewri.

Meherally Saw Mill & Timber Works.—Ghorupdeo, Connaught Road, Bombay 10.

Millar's Timber & Trading Co., Ltd.—Victoria House, Victoria Road, Mazagaon.

Sunderdas Saw Mills.—Opp. Reay Road Station, Bombay 10.

Timber Private Ltd.—Quay Street, Mazagaon, Bombay 10. Phone: 42810.

Western Australia State Saw Mills, Perth.—Agents: Killick, Nixon & Co., Home Street, Fort.

Wood Box Private Ltd.—10, Kurla Industrial Estate, Narayan Nagar, Bombay 77.

## SCIENTIFIC INSTRUMENTS

Adair Dutt & Co. (India) Ltd.—Syndicate Bank Building, Sir Phirozshah Mehta Road, Fort, Bombay.

**ANDHRA SCIENTIFIC CO., LTD.—Janmabhoomi Chambers, Fort St., Bombay 1. Phone: 261540. Grams: "ASINSTS." Regd. Office & Works: Masulipatam (Andhra Pradesh).**

**ASHA SCIENTIFIC COMPANY.—Lotlikar Mansion, 503, Girgaum Road, Bombay 2. Grams: "ASHACOM." Phone: 22855.**

**ASSOCIATED INSTRUMENT MANUFACTURERS (INDIA) PRIVATE LTD.—India House, Fort Street, Bombay 1. Phone: 261658. Grams: "AIMILBOM."**

**BAJAJ ELECTRICALS LTD.—45-47, Veer Nariman Road, Bombay 1. Electrical Engineers, Manufacturers and Contractors. Phone: 253841. Grams: "SOFTLITE." Branches at Calcutta, Delhi, Madras, Kanpur, Patna, Indore, Wardha, Gauhati, Hyderabad, Jaipur, Jullunder & Bangalore.**

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Fort.

**CENTRAL SCIENTIFIC SYNDICATE.—475, Jagannath Shankerseth Road (Chira Bazar), Bombay 2. Grams: "MAXSERVE." Dealers in Scientific and Laboratory requirements, Suppliers of Physics and Biology Instruments.**

**CRAFTSMAN ELECTRONIC CORPORATION PRIVATE LTD.—Sethna Hall, Nesbit Road, Bombay 10. Grams: "CRAFTRONIC". Phone: 42346. Manufacturers and dealers in all types of Scientific Instruments for Industries and laboratories.**

Eastern Electric & Engineering Co.—127, Mahatma Gandhi Road, Bombay 1.

Gordhandas Desai Private Ltd.—Kermani Bldg., Sir Phirozshah Mehta Road, Fort, Bombay.

Hardcastle, Waud & Co., Ltd.—Alice Building, Hornby Road, Fort.

**INDIA SCIENTIFIC TRADERS.—Peerbhoy Mansion, 460, Sardar Vallabhbhai Patel Road, Bombay 4. Phone: 76336. Grams: "ESVIJACK." (G.G.).**

Jagtiani, J. T.—National House, 6, Tulloch Road, Bombay 1.

Larsen & Toubro Ltd.—I. C. House, Dougall Road, Ballard Estate, Fort.

**LABORATORY FURNISHERS.—For every type of Scientific Glassware, Instruments, etc. Manufacturers of Thermocouples and Pyrometers, Temperature Control Equipment, etc. Dhun Mansion, Vincent Road, Opp. Fire Brigade, Dadar, Bombay-14. Phone: 62761.**

**LAWRENCE & MAYO (INDIA) PRIVATE LTD.—274, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Phone: 261827.**

**MARTIN & HARRIS (PRIVATE) LTD.—Savoy Chambers, Wallace Street, Bombay 1. Phone: Office 263473-4, Stores: 261270. Grams: "ROWLETTE."**

**NATIONAL SCIENTIFIC INSTRUMENTS CO.—19, Bank Street, Fort, Bombay. Phone: 252198. Grams: "TELESCOPE." Importers & Manufacturers of Scientific and Medical Apparatus.**

**PIONEER EQUIPMENT CO. PRIVATE LTD.—139, Medows St., P.O. Box 1909, Bombay 1. Phone: 251882. Also at Calcutta, New Delhi, Madras & Baroda. Agents in India for Messrs. Vickers Instruments Ltd., for Microscopes and other optical Instruments; Messrs. Evershed & Vignoes Ltd., for Tinsley; Strohlein & Co., Germany for Chemical Anaylsis equipment. Also Pyrometers, Photo-electric instruments, etc., for industrial & Scientific Research Laboratories.**

**POLAR INDUSTRIAL CORPORATION.—Shree Laxmi Woollen Mills Estate, Off Haines Road, Bombay 11. Phone: 71937. Grams: "COVERSLIPS." Manufacturers of Precision Laboratory Hot Air Ovens, Incubators, Water Stills (Automatic), Water Bath (Electrical), Kjeldahl Assemblies, Sand Bath, Industrial Dryer, "Blue Star" Micro Slides, Cover Glass & Microscopes, etc., etc.**

**RAJ-DER-KAR & CO.—Sadhana Rayon House, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. For Research Industries. Phone: 262304 (P.B. X—4 lines). Grams: "TECHLAB."**

**REMEDIOS & SONS (Registered as Small Scale Industry No. MH/R—311 of 4-4-1962).—Manufacturers of Surveying Instruments, Cama House, 255, Dr. Dadabhoy Naoroji Road, Fort, Bombay-1. Phone: 263336.**

Rohit Industries.—203, Himalaya House, Phalton Road, Bombay 1.

Scientific Apparatus & Chemical Works Ltd.—27, Hamam Street, Fort.

Scientific & Industrial Supplies Corporation.—Princess Street, Bombay 2.

Scientific Instrument Co., Ltd.—Navsari Building, 240, Dr. Dadabhoy Naoroji Road (Hornby Road), Fort.

Shah, M.. & Co.—Kanji Mansion, Sandhurst Road, Bombay 4.

Sonal Rangnow & Co.—41, Hamam Street, Fort, Bombay.

**TEMPO INDUSTRIAL CORPORATION.—Engg. Divn. of Primco (Private) Ltd., Office: Lamington Chambers, 1st Floor, 394, Lamington Road, Bombay-4 BR. Phone: 41233. Manufacturers of Laboratory Equipment and Scientific Apparatus.**

Thermo-Electric Equipment Co.—59, Commercial Chambers, Masjid Bunder Road, Bombay 3. Factory: Tripunithura, Kerala State.

Toshniwal Industries Pvt. Ltd.—198, Jamshedji Tata Road, Bombay 1.

**UNIQUE TRADING CORPORATION.—221, Sheriff Devji Street, Bombay 3. Grams: "UNILAB." Phone: 325611 and 323489.**

**ZENITH SURGICAL CO.—206/3C, Mangaldas Bldg., Mangaldas Road, Bombay-2. Grams: "INSTRUMENT." Dealers in Surgical, Scientific & Laboratory Equipment.**

Zill & Co.—Princess Street, Bombay 2.

## SCIENTIFIC & MARINE INSTRUMENTS

Gaytee & Co.—Janmabhoomi Chambers, Fort Street, Bombay 1.

Gordhandas Desai Private Ltd.—Kermani Bldg., Sir P. M. Road, Bombay 1.

Hardcastle Waud & Co. Private Ltd.—Alice Bldg., Dr. D. Naoroji Road, Bombay 1.

Voltas Ltd.—Ballard Estate, Bombay 1.

## SCRAP IRON

**JINDAL BROTHERS.—3rd Lane, Dharukhana, Bombay 10 DD. Phone: 78720. Grams: "JINDALSHIP." Dealers in Iron, Steel, Re-rolling and other Scraps of all kinds.**

Nathani Steel Yard.—Opp. Sewree Police Station, Darukhana, Bombay 10.

## SEEDS (DEALERS, EXPORTERS & IMPORTERS)

Chimanlal Patel & Co.—174, Hornby Road, Fort.

Laxmi Commercial Agency.—16, Apollo Street, Fort.

Poonjiajee, J. M. Jehangir.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort, Bombay.

Premji Haridas & Co.—Bhanushali Chambers, Argyle Road, Bombay 9.

Tavaria Bros.—Dhun Nur, Sir Phirozshah Mehta Road, Fort.

## SEWING MACHINE DEALERS

Ambica Sewing Machines Co. Pvt. Ltd.—118, Narayan Dhuru Street, Bombay 3.

Bell & Co., Ltd.—6, Sir Phirozshah Mehta Road, Fort.

**ANSON SEWING MACHINES.—Sole Selling Agents for ANSON Sewing Machines of all models. Spare Parts of all makes available and Specialists in repairs of all makes of Sewing Machines. 605, Gorakhpurwala Building, Girgaum Road, Bombay-2. Phone: 23176.**

**BRITISH MACHINERY SUPPLIES CO.—Manufacturers of "Zenith" Sewing Machines. Factories: Shahzada Baug, Delhi 6, and 17/A, Faridabad (Near Delhi). Export enquiries to Delhi office: Nai Sarak, Delhi. Phone: 262773. Offices: 136, Girgaum Road, Bombay-4. Phone: 20374. 85, Lower Mall, Simla. Phone: 3532. 136, Mount Road, Thousand Lights, Madras-6. Phone: 82559.**

Imperial Sewing Machine Co.—Dhutpapeshwar Building, Mangalwadi, Girgaum.

**JAYANTILAL KESHAVLAL & BROS.—Lehri Bldg., 282, Sardar Vallabhbhai Patel Road, Bombay 4. Grams: "GORDIA." Importers and Exporters. Progressive manufacturers of "IMPERIAL" Brand Sewing Machines and "JK" Brand Sewing Machines Parts. Pioneers in Sewing Machines Parts for every model since 1920.**

Khurya Co. Ltd.—Head Office: Beaumon Chamber, 27/33, Medows Street Fort.

Lalchand, R., & Co.—93, Princess Street, Bombay 2.

Mehta Bros. & Co.—Krishna Building, 306, Sandhurst Road, Bombay 4.

Pedneker & Co.—172, Girgaum Road, Bombay 4.

Shah & Co.—Opp. Prarthana Samaj, 161, Charni Road, Bombay 4.

**SINGER SEWING MACHINE CO.—Singer Building, 207, Dr. Dadabhoy Naoroji Road, Fort, P.O. Box No. 176, Bombay 1. Phone: 26-3187 (3 Lines). Grams: "SINGER." "Sellers of SINGER*—Industrial and MERRITT*—Domestic Sewing Machines—MERRITT Fans and Irons. Simac Art Knitter—*A Trade-mark of The Singer Company."**

**TOLARAM RAMDAS & CO.—Sole Distributors: RITA Sewing Machines for Maharashtra and Goa. Authorised Dealers for PFAFF Sewing Machines. Spares available and Repairs Undertaken. Gazdar House, 629-B, Girgaum Road, Near Dhobi Talao, Bombay-2. Phone: 38149.**

## SEWING MACHINES MANUFACTURERS

**BRITISH MACHINERY SUPPLIES CO.—Manufacturers of "Zenith" Sewing Machines. Factories: Shabzada Baugh, Delhi 6 and 17/A, Faridabad (Near Delhi). Export enquiries to Delhi Office: Nai Sarak, Delhi. Phone: 28773. Offices: 136, Girgaum Road, Bombay 14. Phone: 20374. 85, Lower Mall, Simla, Phone: 3552. 136, Thousand Lights, Mount Road, Madras 6. Phone: 83284.**

**IMANES.—94, S. V. Road, Erla, P.O. Box 8002, Bombay 56 AS. Phone: 571634. Grams: "BELLIBONE (SZ)." For Springs & Forms out of wires and strips for your Industry.**

## SEWING THREAD & BUTTONS MERCHANTS

Ahmed, H., & Co.—139, Nagdevi Street.

Allied Exporters.—Kumud House, 267, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

Amratlal & Co.—Sutarwala, 10, Mirza Street (Parsi Gally), Bombay 3.

Fakhri Thread House.—72, Bhajipala Lane, Bombay 3.

Gulam Rasul Allahbux.—1-B, Bachooali House, Nowroji Hill Road No. 1, Bombay 9.

**J. & P. COATS (INDIA) PRIVATE LTD.—81, Palton Road, Bombay 1.**

Kshitiskumar Das.—94, Swadeshi Market, Kalbadevi Road, Bombay 2.

Kulin Industries.—12-13, Swadeshi Market, Kalbadevi.

Lalchand, R., & Co.—93, Princess Street, Bombay 2.

Lukmanji Musaji Sutarwala.—41, Nagdevi Street, Bombay 3.

Narottamdas Bhagwandas & Sons.—32-36, Nagdevi Street, Bombay.

Pralhabhai Nagarbhai.—386, Linking Road, Khar, Bombay 21.

Purshotam Bechar & Bros.—108-9, Swadeshi Market, Bombay 2.

Tolaram Ramdass & Co.—647, Girgaum Road, near Dhobi Talao, Bombay 2.

Vishram Bhagwandas & Co.—31, Sutar Chawl, Bombay 2.

## SEWING THREAD MANUFACTURERS

Acme Thread Company Private Ltd., The—Atlas Mills, Reay Road, Mazagon, Bombay 10

**C. NAROTAMDAS & CO.—185, Upper Duncan Road, Bombay 8. Phone: 79292 and 23926 (Res.) Grams: "BHUJWALA." Specialised in polished Threads and winding it on wooden spools (reels). Trade Mark: "TRIPPLE STAG."**

**HARI THREAD WORKS.—405, Duncan Road, Bombay 4. Phone: 332589. Grams: "TUBEROLLS." Leading manufacturers of all kinds of Sewing Thread and Embroidery goods.**

**ISHWARDAS & CO.—2, Sutar Chawl, Bombay 2. Tel. Office: 323641. Res. 38786. Grams: "BADMINTON." Manufacturers, Exporters & Dealers of all sorts of threads. Sole Agents: Raghuvanshi Mills Ltd., for Sewing, Embroidery & Glazed Threads.**

**LAKHANI INDUSTRIES.—3-5, Syed Mukri Street, Katha Bazar, Bombay 9. Grams: "SIMPLEMEN." Manufacturers of "Jai Somnath" and "Pilot Brand" Thread tubes specially made for all machines.**

Shah Tarachand Shamji.—45, Nagdevi Street, Bombay 3.

Thread House Limited.—Head Office: Beaumon Chambers, 27-33, Medows Street, Fort.

## SHAFTINGS

**AJMERA BROTHERS.—192/A, Panjrapole Road, Near Madhav Baugh Post Office, Bombay 4. Phones: 333828 & 334379. Grams: "PULLEYBELT." Specialist in M. S. Bright Bars (Shaftings) Commercial & also Free Cutting quality in sizes, round, squares and Hexagons.**

**INDIA TUBE MILLS & METAL INDUSTRIES PRIVATE LTD.—126, Narayan Dhuru Street, Bombay 3. Grams: "TUBEMILL". Phone: Office: 322142, Factory: 581541 & 581542. Leading manufacturers of Bright Bars, Free Cutting Commercial & other qualities.**

**TEXTELO ENGINEERING WORKS.—50, 1st Carpenter Street, Bombay 4. Phone: 332765. Importers and Stockists of Free Cutting Bright Bars, Round, Square and Hexagonal, Tool Alloy—Special Steel.**

## SHELLAC

Kirtikumar Chandulal & Co.—313, Samuel Street, Vadgadi, Bombay.

South Indian Shellac Mfg. Co., Ltd.—Jan Mansion, Sir Phirozshah Mehta Road, Fort.

## SHEET METAL WORKING MACHINES

**HEMCO CORPORATION.—308, Bazargate Street, P. B. 1645, Bombay 1. Phone: 254237. Dealers in Engraving Machines, Air Compressors, Spray Guns, Sheet Metal Machinery, Wood Working Machinery, Workshop Machinery, Fexible shafts, Planer Blades & other Tools.**

**JAYEMS ENGINEERING CO.—Warden House, Sir Phirozshah Mehta Road, Bombay-1. Engineers, Machinery Merchants & Manufacturers' Representatives, direct Importers of Machine Tools, Wood Working Machinery, Sheet Metal Working Machinery, Welding Equipment, Foundry Equipment etc. Phone: 256251. Grams: "JAYEM."**

**MANEKLAL & SONS—Showroom & Sales Division.—277, Nagdevi Street, Bombay 3-BR. Grams: "KIRTIRAJNI." Phone: 321925. Export-Import Division—115/116, Narayan Dhuru Street, Bombay 3-BR. Phone: 321924. Associates: Calcutta 13. Agency: Madras 1. Importers, Exporters & Stockists of Workshop Machines, Wood Working Machines, Sheet Metal Working Machines, Electrical Tools & Cottage Industry Machines.**

## SHIP BUILDERS

**AFCO LTD.—(A wholly owned Subsidiary of the Bombay Burmah Trading Corporation Ltd.). Builders of Power and Sailing Craft, Naval Architects, Surveyors, Marine Engineers. Office and Boat Building Yard at Erangal, Madh Island, Post Box 7383, Bombay 58 AS. Phone No. (Office & Boat Yard): 692368, 692369, 692276. Grams: "FEDACRETE," Bombay.**

Alcock, Ashdown & Co. Ltd.—16, Bank Street, Bombay.

Chinese Engineering Works.—Sewri Fort Road, Sewri, Bombay 15.

**MAZAGON DOCK LTD.—Mazagon, Bombay 10. Branch at Goa. Ship Builders, Ship Repairers and Engineers. Cable: "MAZDOCK." Phone: 42011-4. Craft upto 230 ft. in length like passenger Vessels, Coasters, dredgers, tugs, barges, lighters, etc. Repairs to all types of ships. General Engineering work like ferrous and non-ferrous castings, steel forgings, marine electrical installation, pressure vessels, etc.**

**SHAPARIA DOCK & STEEL CO. PRIVATE LTD.—Bombay. Shipbuilders, Engineers & Contractors—Suppliers to D.G.S. & D., Director of Industries & C.P.O., Railway, P. W. D., Port Trusts, Electricity Boards, Municipalities etc., specialising, Steel Cargo & Passenger Vessels, Tugs, Barges, Launches, Life Boats (Ordinary & Motor), Row Boats, Dinghies, Life Saving Appliances, Buoyant Apparatus, Mooring Buoys etc., also Lighterage Contractors to Mineral Ore Exporters—Shipyard: Sewree Fort Road, Bombay 15. Grams: "SHAPARIA" Sewree, Bombay. Phone: 60071/72.**

## SHIPCHANDLERS

**A. M. MOTIWALLA & CO.—213, Nagdevi Street, Bombay 3. Phone : 326760. Shipchandlers, Engineering Tools, Hardware & Pipe Fittings, Merchants & General Store Suppliers.**

Abbas, A., & Brothers.—127, Nagdevi Street, Bombay 3.

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone : 326980. Grams : "ALERTDEAL."**


**ABDULHUSEIN PEERBHAI & SONS**

**SHIPCHANDLERS**

*Stockists of :* MARINE STORES, CHAINS, WIRE ROPES, CHAIN PULLEY BLOCK, CRAB WINCHES, ANCHORS, BINNACLE COMPASS ETC.

*Address :* **66-68A, Peerbhai Building, Bhandari Street, Bombay 3.**

*Phone :* 323956 *Grams :* "STUDCHAIN"


**ABDULHUSEIN PEERBHAI & SONS.—66-68A, Peerbhai Bldg., Bhandari Street, Bombay 3. Phone : 323956. Grams : "STUDCHAIN." Stockists of Marine Stores, Chains, Wire Ropes, Chain Pulley Block, Ship Tackles, Winches, etc.**

**ADAMJI KADERBHOY.—P. B. No. 5046, 337, Katha Bazar, Bombay 9. Phone : 322485. Grams : "RAJKOTWALA."**

**AMIRUDIN SHALEBHOY TYEBJEE & SONS.—Shale Building, 2nd Floor, Bank Street, Fort, Bombay 1. Phones : 252952 and 254103. Grams : "PILOTACE."**

Baker, A. M., & Co.—218, Nagdevi Street.

Bombay Shipchandlery & Engineering Mart.—Shipchandlers, Contractors and General Merchants, Mogul House, 377, Delisle Road, Bombay 11.

Calcutta Iron and Steel Co.—68/D, Mahomedally Road, Bombay 3.

Chadha, B. M., & Co.—Jan Mansion, Sir Phirozshah Mehta Road, Fort. P. O. Box 671, Bombay.

Chandulal & Co.—Kathawalla, 11, Kazi Sayed Street, Bombay 9.

Chatrabhuj & Co.—Lohar Chawl.

Darukhanawalla, F. E., & Co.—244, Nagdevi Street.

Dawoodi H. Vasi & Co.—164, Nagdevi Street.

Doriwalla & Co.—Katha Bazar, next to Union Bank, Bombay 9.

Eastern Stores & Trading Co., Ltd.—115A, Nagdevi Street.

Edgar Handley & Co.—Saksaria Chambers, 139, Medows Street, Fort.

**ESOOFALI ESMAILJI KARACHIWALLA & CO.—43-45, Bhandari Street, Koliwada, Bombay 3. Phone : 321617; Workshop : 261261. Grams : "SLING." Shipchandlers and Stockists of Wire Ropes, Manila Ropes, Hardware, Ship Chains, Pulley Blocks, Shackles, Thimbles, Rope Clamps, Straining Screws, Hooks, Chain Slings, Wire Rope Slings, Wire Rope Nets, Chain Pulley Blocks, Pulley Blocks Chains, Coal Tar, Coal Pitch Felts, Marine Glue, etc. Dealers in : Marine, Mill and Factory Stores. Stockists of "ELDE" Wire Rope, (Indian make).**

Haiderbhoy Esmailji & Co.—168, Nagdevi Street, Bombay 3.

Hatimbhoy Goolamhusein & Bros.—193, Nagdevi Street.


**HEPTOOLA NOORUDIN & CO.**

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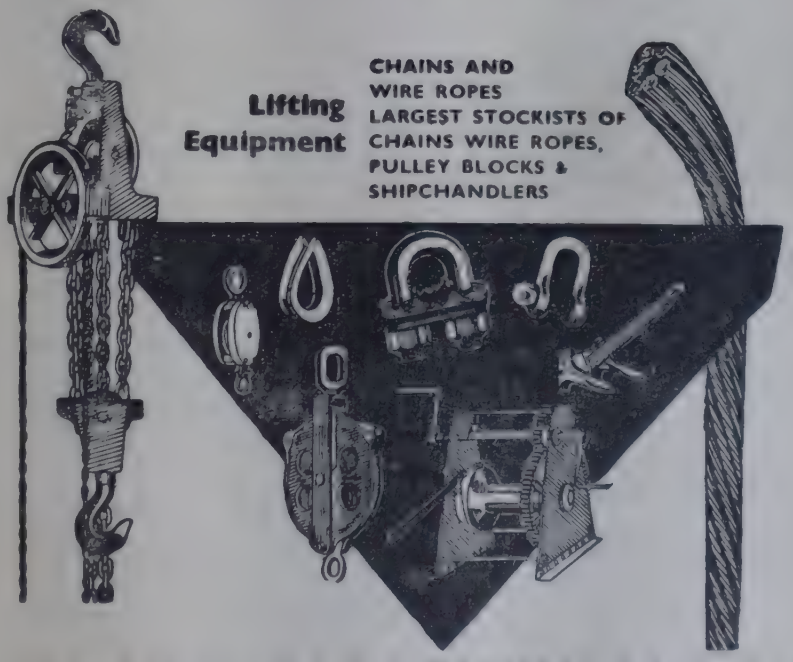
**SHIPCHANDLERS**



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**43, Bhandari Street, Koliwada, Bombay-3**

K. Chimanlal & Co.—107/A, Nagdevi Street, Bombay 3.
Machine Tools & Implements.—24, Nagdevi Cross Lane, Bombay 3.

**M. K. PALIA & SONS PRIVATE LTD.—Palia Building, 189, Nagdevi Street, Bombay 3. Phones : 325922 & 326761. Grams : "MANASNI." Shipchandlers, Government & Railway Contractors, Metal, Hardware, Pipes, Boiler tubes and Marine Stores Suppliers.**

Mackenzies Limited.—Sewri, Bombay.
Mashruwala C. M. & Co.—172-74, Nagdevi Street, Bombay 3.
Mohsinbhai Dawoodbhai.—171-73, Nagdevi Street, Bombay 3.
Moloobhoy & Sons.—281, Nagdevi Street, Bombay 3.
New India Hardware Mart.—152, Narayan Dhuru Street, Bombay 3.
Nomanbhoy Abdeally & Co.—96-98, Nagdevi Street.
Ochhavlal, F., & Co.—86, Nagdevi Street, Bombay 3.
Reliance Trading Co.—25/47, Lohar Street, Bombay 3.
Saify, T. A., & Brothers (India).—20, Sarang Street, Bombay 3.
Salehbhoy Tyebbhoy & Co. (Estd. 1865).—Tyebji Building, 93, Nagdevi Street, Bombay 3.

**SHALEBHOY TYEBJEE & SONS.—(Estd. 1840), 12, Bruce St., Fort, Bombay 1. Phones : 252357 and 252358. Grams : "ROTATOR." Packing & Jointings "Beldams."**

**TALIB & CO.—Talib House, 104, Nagdevi Street, Bombay 3. Phone : 321977. Grams : "TALIBCO." Pipes, Fittings & General Hardware Merchants.**

Textile Store & Hardware Mart.—32, Bibijan Lane, Nagdevi Street.
Vasi Shums & Co., Ltd.—Vasi Building, 165-67, Nagdevi Street.
Vishwa Bharati Trading Co.—14, Kumpta Street, Ballard Estate, Bombay 1.
Zaveri, C. A., & Co.—44, Abdul Rehman Street.

## SHIPPING AGENTS

**ABRAHAM, D., & SONS PRIVATE LTD.—Hague Building, Sprott Road, Ballard Estate, Fort.**

Chinubhai Kalidass & Bros.—19/21, Hamam St., Fort, Bombay.

**COX & KINGS (AGENTS), LTD.—Lloyds Bank Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Phone : 263065, (5 lines). Grams : "COXSHIP."**

**EASTERN BUNKERERS LTD.—Scindia House, Dougall Road, Ballard Estate, Bombay 1. Phone : 262461. Grams: "VAVTO."**

**EXPRESS TRANSPORT PRIVATE LTD.—Western India House, Sir Phirozshah Mehta Road, Bombay 1. Phone : 253864-5. Grams : "MOVEFAST." Clearing, Forwarding & Shipping Agents. Branches at Ahmedabad & Gandhidham.**

**FINLAY, JAMES & CO., LTD.—Chartered Bank Building, Mahatma Gandhi Road, Fort, Bombay 1. Phone Nos. 251255-59. Post Box No. 73.**

Forbes, Forbes Campbell & Co. Private Ltd.—Forbes Bldg., Home Street, Bombay 1.

**KANJI JADHAVJI & CO.—Musjid Bridge, Mandvi, Bombay 9. Phone : 323681 & 321412. Grams : "GITA." Freight Brokers, Clearing, Forwarding, Shipping, Landing & Travel Agents.**

Killick, Nixon & Co. Ltd.—Killick House, Home Street, Bombay 1.

**LESLIE, E., & CO.—Botawalla Bldg., 7-10, Horniman Circle, Fort. Shipping, Clearing, Forwarding, Passenger and Insurance Agents. Packers of Household Effects. Phone : 255540. Grams : "RITTA."**

Lionel Edwards Ltd.—Nicol Road, Ballard Estate, Bombay.
Manilal Patel & Co.—Kamer Building, 38, Cawasji Patel Street, Bombay.
Marine Transport Co. Private Ltd.—Sprott Road, Ballard Estate, Bombay.

**NAROTTAM & PEREIRA LTD.—Scindia House, Dougall Road, Ballard Estate, Bombay 1. Phone : 262461. Grams : "JALATHARG." Shipping & Insurance Agents & Dubashes.**

**NAVBHARAT CORPORATION**

*Licensed Custom House Agents.*

*Clearing, forwarding, shipping & Warehousing Agents.*

**15, Bombay Mutual Annexe, Gunbow Street, Bombay 1.**

Phones : 263794 - 265389. Grams: "DELICATE".

New Dholera Shipping & Trading Co. Ltd.—Bombay Mutual Building, 293, Hornby Road, Bombay 1.

**SHROFF & CO.—Allice Bldg., Dr. Dadabhoy Naoroji Road, Bombay-1. Phone : 253254. Grams : "BONESECKS", Shipping, Clearing, Forwarding & Insurance Agents.**

**TRAVELS & SHIPPING PRIVATE LTD.—Darabshaw House, Dougall Road, Ballard Estate, Bombay 1. Phone : 263548. Grams : "TRAVELAGENT." Travel, Clearing, Forwarding, Shipping and Warehousing Agents.**

Turner Morrison & Co. Ltd.—16, Bank Street, Bombay 1.

Volkart Brothers—Graham Road, Ballard Estate, Bombay 1.

Waliem & Co. (India) Ltd.—India House, Fort Street, Fort, Bombay 1.

## SHIPOWNERS & FREIGHT CARRIERS

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**THE AFRICANA COMPANY (PRIVATE) LTD.,**

**289-93, Narshi Natha Street, Bombay-9.**

*Shipowners—Cargo Services between all Ports on the West Coast of India—also Colombo & Karachi.*

Grams: **"OMFLAG"** Phone : **323825-26** Telex : **335**

## SHIP REPAIRS

**SCINDIA WORKSHOP LTD.—Patent Ship, Dockyard Road, Mazagaon, Bombay-10. Phone: 73484 (3 Lines). Grams: "SLIPWAY" Ship Repairers, Boat Builders, Manufacturers of Solvent Extraction Machinery, Pressure Vessels, Chemical Plants and Fabricators of Structures such as Cranes etc.**

## SHOE MAKING MACHINERY AND MATERIALS

**BOMBAY HARDWARE TRADERS.—79, Narayan Dhuru Street, Masjid Bunder Road, Bombay 3. Phone Nos. 323042 & 327153. Grams : "SISTACHAR." Stockists of Hardware, Screws, Bolts, Nuts, Shoe Materials, Woodworking & Metal Cutting Saws, Engineering Stores & Saw Files.**

**CAPRI ENGINEERING CO.—296, Frere Road (Near Fort Market), Bombay 1. Phone : 266438. Grams : "CAPRIENG."**

**E. PEERBHOY & SONS.—Prop. : Indian Durries Emporium, Shahru Castle, 64, Mohamedali Road, Bombay 3. Phone: 323806. Grams : "INDIAWEAVE".**

## SIGNBOARD PAINTERS

Athavia, N. A. (Estd. 1921).—Lamington Chambers, Lamington Road, opp. West End Cinema, Bombay 4.
Gawade Art Service.—233, Bazargate Street, Fort.
Goonanath, P.—Nana Shankar Seth's Wadi, Girgaum Road, Thakurdwar.
Kotkar, M. B., Brothers.—373, Girgaum Road, Thakurdwar.
More, S. & Co.—34-38, Hamam Street, Fort.
Nagool Bros.—100, Mint Road, Fort.
Pioneer Trading Co., The.—Kanti Bhuvan, Parel, Bombay 12.

## SILK & ART SILK MILLS AND FACTORIES

Adarsh Textile Industries Private Ltd.—Agra Road, Bhiwandi (Dist. Thana).
Aleli & Co., Private Ltd.—Agra Road, Vikhroli, Bombay 40.
Alliance Silk Mills.—538, Kalbadevi Road, Bombay 2.
Amar Silk Mills.—New Islam Mills Compound, Currey Road, Bombay 3.
Amarchand Silk Mills.—6 A, Bruce Street, Sir Vithaldas Chambers, Fort, Bombay 1.
Amar Jyoti Silk Mills.—Nizampura, Bhiwandi (Dist. Thana).

**AMBIKA SILK MILLS CO. LTD., THE.—11-12, Haines Road, Mahalaxmi, Bombay 13. Mg. Agents : Maganlal Bhagwandas & Co., Mills at Haines Road, Mahalaxmi, Bombay 13. Office on Mill premises. Phones : 77425-6-7 (Office). Grams : "QUALITYFAB." Manufacturers of Rayon, Nylon and Terylene Piece goods.**

Amrit Silk Mills.—Shroff Wadi, Mount Road, Mazagon, Bombay 10.

Anis Silk Mills.—Saudagar Moholla, Bhiwandi (Dist. Thana).

Arun Silk Mills.—Umakant Mansion, 2nd Floor, 384, Kalbadevi Road, Bombay 2.

Asha Silk Mills Private Ltd.—Agra Road, Vikhroli, Bombay.

Ashar Silk Mills.—Sonari Road, Vile Parle (East), Bombay 24.

Ashok Silk Mills.—144, Dharavi Road, Sion, Bombay 17.

Asian Rayon Mills.—New Islam Mills Compound, Currey Road, Bombay 13.

B. M. K. Industries Private Ltd.—Kalina Road, Old Kurla, Bombay 37.

Bajaj Textile Mills Private Ltd.—39, Champagalli, New Silk Market, Bombay 2.

Bharat Silk Mills Private Ltd.—Opp. Kurmuri Village, Agra Road, Kurla, Bombay.

Bharat Textiles.—480, Kalbadevi Road, P.O. Box 2320, Bombay 2.

**BHARAT VIJAY VELVET & SILK MILLS.—Kurla-Andheri Road, Bombay 70. Phones: 55146-47 (2 lines). Grams: "CHARUHANS." Manufacturers of Velvet, Terene Suitings, Shirtings, Plush & Fancy Art Silk Fabrics.**

Bhiwandi Textile Works.—Samad Mills Compound, Kumbharwada, Bhiwandi (Dist. Thana).

Bipin Silk Mills Co., Private Ltd.—12, Dadar Road, Kasturchand, Mills Compound, Dadar, Bombay 14

**BISHEN SILK MILLS (THE).—Agra Road, Bhandup, Bombay-78. Phone: 581224 & 255305. Manufacturers & Exporters of: Nylon Georgette "NEEL KAMAL" Bemaorg Georgette, Twinkle Nylon Satin, Crepe 909, Chiffon, Fancy Voils, Doria, Khaka, Nylon etc. Partner: Daljit Singh Bubher, Manager: Mohinder Singh.**

**BOMBAY SILK MILLS LTD., THE.—Industrial Estate, Lalbaug, Bombay-12. Manufacturers of Art Silk Georgette, Crepe, Half Crepe, Nylon Georgette, Twinkle Satin, Polyester Shirtings and Suitings etc., 5800 throwing spindles, 108 Silk and Rayon Looms (all drop Box) with dobbies, Preparatory Machines, Cloth Width 66 to 132 cms., also Bleaching, dyeing and Processing with Stentering and Calendering Machines. G.J. Shah, Manager, G. D. Ved, Secretary, U. M. Bhatt Asst.**

Bombay Textile Mills.—Survodaya Mills Compound, Tardeo Road, Bombay 7.

Bradbury Mills Ltd.—C/o Messrs. Ramnarayan Sons Ltd., Imperial Bank Bldg., Bank Street, Fort, Bombay 1.

Cadell Wvg. Mills Co., Private Ltd.—400, Cadell Road, Bombay 28.

Calico Industrial Engineers.—Sone Baug, Chakala, Andheri (B.S.D.).

Central Wvg. & Mfg. Co.—Swastik Mills Compound, Fergusson Road, Lower Parel, Bombay 13.

Champaklal & Bros.—Sayee Bhuvan, 143, Princess Street, Bombay 2.

Choitram's Silk Mills.—Gandhi Mansion, New Silk Market, Bombay 2.

Chokshi Silk Mills.—61-63, Shamset Road, 1st Floor, Chhipi Chawl, Zaveri Bazar, Bombay 2.

**D. V. INDUSTRIES.—167, Bhavanishankar Road, Dadar, Bombay 28. Phone: 451865. Grams: "TEJCHHAYA." Manufacturers & Exporters of Rayon & Synthetic Fabrics. Partners: V. J. Radia, C. M. Jhaveri. Manager: K. G. Patel. Sales Office: 367-A, Kalbadevi Road, Bombay 2. Phone: 29341.**

Dinesh Silk Industries Private Ltd.—Bombay-Agra Road, Bhandup (C.R.) (Dist. Thana).

**ELDEE VELVET & SILK MILLS PRIVATE LTD.—243/A, DeLisle Road, Bombay 13. Phone: 75070. Grams: "ELDI-SILK." Manufacturers of All Rayon, Silk, Cotton, Woollen—Pile Fabrics such as Velvets, Velveteen, Corduroy, Carpets, Plush, etc. Directors: D. R. Nayar, K. L. Nayar, B.B. Nayar, J. M. Nayar. Works Manager: S. L. Mehra, Textile Engineer: Hans Promper.**

Essardas Silk Mills.—Agra Road, Bhandup (C. Rly.), (Dist. Thana).

Ganga Silk Mills.—C/o Satish Trading Co., Old Hanuman Lane, Parekh Building, 2nd Floor, Bombay 2.

Gauttam Silk Mills.—Ishwarbhai Patel's Estate, Goregaon, Bombay.

Harichand Textile Mills Private Ltd.—Agra Road, Vikhroli, Bombay 40.

Hazari Silk Mills.—Kasara-Basin Road, Darukhana, Mazagaon, Bombay 10.

Hidayatullah Textile Works.—Samad Mills Compound, Khumbharwada, Bhiwandi (Dist. Thana).

**HIND SILK MILL PRIVATE LTD.—Dahanukar Building, Resham Bazar, Bombay 2. Grams: "SHETHSAN." Manufacturers of Artsilk Fabrics, Exporters, Importers & Wholesale Dealers. Board of Directors: K. A. Sheth, R. A. Sheth, H. J. Doshi, D. J. Doshi.**

Indianese Silk Mill Co., The.—Sewri Cross Road, Wadala, Bombay 15.

J. L. Gokani Mills.—Opp. Dak Bungalow, Bhiwandi (Dist. Thana).

**JAGDAMBA FABRICS WVG. WORKS.—Goregaon (East), Bombay 62. Phone: Office: 691512; Res.: 533889.**

Jagmohan Silk Mills Private Ltd.—9, Silk House, 1st Floor, Hamalwadi, Bombay 2.

**JAIFABS RAYON INDUSTRIES PRIVATE LIMITED.—Agra Road, Ghatkopar, Bombay 77. Phones: 51661-2, 74851. Grams: "JAIFAS"— Ghatkopar. Manufacturers of: Terylene Suitings and Shirtings, Polyester Printed Sarees, Nylons, Twinkle Nylons, Crepes, Dyed and Printed Sattins, Taffetas etc.**

Jalem Wvg. Mills.—Village Road, Kurla.

Jasmine Mills Private Ltd.—Mahim, Bombay 16.

Jyoti Silk Mills.—C/o Vanmalidas Zaverchand, 418, Kalbadevi Road, Bombay 2.

Kala Silk Factory.—Ganesh Wadi, Ganesh Building, Bombay 2.

Kamala Mills Ltd.—45-47, Apollo Street, Fort, Bombay 1.

Kapoor Wvg. Works.—Jambulwadi, Kalbadevi Road, Bombay 2.

Kathiawar Textile Mills.—C/o Hasmukh & Co., 58, Chhipi Chawl, Bombay 2.

Khaitan Silk Mills Private Ltd.—St. Mary's Road, Mazagaon, Bombay 10.

Khetan Industries Ltd.—Khetan Bhuvan, 198, Jamsedji Tata Road, Churchgate Reclamation, Bombay 1.

Khetani Textile Industries, Private Ltd.—105/107, Bazar Ward, Old Kurla, Bombay.

Kiran Silk Mills Private Ltd.—Kasturchand Mills Compound, Dadar, Bombay 14.

Kothari Silk Mills.—Atlas Mill Compound, Reay Road, Bombay 10.

Kum Kum Silk Mills.—60, Chhipi Chawl, Shamset Street, Zaveri Bazar, Bombay 2.

Lahoti Wvg. Mills.—Kalyan Road, Bhiwandi (Dist. Thana).

Lajya Silk Mills.—Khatav Nivas, Jambulwadi, Kalbadevi, Bombay 2.

Liberty Silk Mills Private Ltd.—106/107, Bazar Ward, Kurla.

Lotus Silk Mills.—Kumbharwada, Bhiwandi (Dist. Thana).

M. K. Gupta Wvg. Mills.—Behind Electric Power House, Bhiwandi (Dist. Thana).

Madan Mohan Dyeing, Printing & Silk Mills.—419D, Joshi Wadi, Kalbadevi Road, Bombay 2.

**MADHU WARP KNIT INDUSTRIES.—Bombay Glass Works Building, Padmabhai Thakkar Road, Near Kohinoor Mills No. 3, Dadar (W. Rly.), Bombay 16. Manufacturers of Warp Knitted Fabrics. Phones: Mills: 451730. Office: 23760. Res. 473542.**

Mahajan Silk Mills.—3A, Dadaji Dhakjee Bldg., Dr. Annie Besant Road, Worli, Bombay 18.

Maharaj Silk Mills.—Gazdar House, Dhobi Talao, Bombay 2.

Mahavir Silk Mills.—64, Chhipi Chawl, Opp. M. J. Market, Bombay 2.

Manhar Mills Private Ltd.—Framji Petit Mills Compound, Reay Road, Bombay 10.

Model Silk Mills.—Suryodaya Mills Compound, Tardeo, Bombay 7.

Modern Textile Mills.—Opp. 155, D. D. Chawl, Worli, Bombay 18.

Mohanlal Silk Mills.—Atlas Mills Compound, Reay Road, Bombay 10.

Moon Silk Mills.—Suryodaya Mills Compound, Tardeo, Bombay 7.

Mukund Silk Mills.—Bombay Cotton Mills Compound, Kalachowki Road, Parel, Bombay 12.

Narendra Silk Mills.—Atlas Mills Compound, Reay Road, Bombay 10.

**NATIONAL ART SILK MILLS PRIVATE LTD., THE.—Old Kasturchand Mills Compound, Dadar, Bombay 28. Phones: 454440-451530. Manufacturers of High Class Rayon and Synthetic Fabrics.**

National Industrial Works.—Palonji's Chawl, Sussex Road, Bombay 27.

National Rayon Mills.—Mogro, Off Nagardas Road, Andheri (East).

**NEERU SILK MILLS.—Formerly known as Nehru Silk Mills, Mathuradas Mills Compound, Lower Parel, Bombay 13. Managing Partners: Harilal Jechand Doshi; Manager: M. H. Doshi; Office-Mill premises: Phone No. 62459; Grams: "NEHRUMILLS"; (Rayon Shiozi, Sarees, Dobby Spotted Designs; Suitings, Shirtings, Tafettas, coloured stripe satins; mulls, lining cloth, brocades, Sanghai jacquard pyas, nylon, etc.); also twisting, doubling, coning and beaming of rayon yarns from 60 to 200 dnrs.; and staple yarn of 20s to 80s count—both viscose and acetate, 132 looms, jacquard/dobby, high speed sizer and warper; twisting machines with complete preparatory machines; sales office: C/o B. Nagindas & Co., Mulji Jetha Market, Navi Galli, Narayan Chowk, Bombay 2. Phone No. 29597; main stockists—V. Hasmukhlal & Co. Chikhal Galli, Mulji Jetha Market, Bombay 2; and Shyam Trading Co., Swadeshi Market, Kalbadevi, Bombay 2.**

New Era Fabrics, Private Ltd.—Mogal Lane, Tulsi Pipe Road, Bombay 16.

New Hindustan Silk Mills.—Narayan Nagar, Agra Road, Ghatkopar, Bombay.

**NEW INDIA RAYON MILLS CO., PRIVATE LTD.—Office & Mills Premises: Mathuradas Mills Compound, Lower Parel, Bombay 13. Phones: 61226 & 61466. Chairman: Shri Sobhagchand B. Chawla. Director & Manager: Shri Shamubhai P. Patel, Art Silk & Cotton Textile Bleachers, Dyers & Printers.**

New India Textiles.—Block No. 12, Suryodaya Mills Compound, Tardeo, Bombay 7.

New Kaiser-i-Hind Spg. & Wvg. Co., Ltd.—J. K. Building, Dougall Road, Ballard Estate, Bombay 1.

New Oriental Silk Mills Private Ltd.—2nd Floor, New Silk Market, Bombay 2.

New Parbhat Silk Mills.—C/o Messrs. Valiram Sons, New Silk Bazar, Kalbadevi Road, Bombay 2.

New Santosh Silk Mills.—Mahakali Chawl, 2nd Floor, Pydhoni, Bombay 3.

New Shah Silk Mills Private Ltd.—88, Khed Gully, Gokhale Road (South), Dadar, Bombay 28.

New Sun Mills Co., Private Ltd.—Sun Mills Road, Lower Parel, Bombay 13.

New Vinod Silk Mills Private Ltd.—12, Dadar Road, Dadar, Bombay 14.

Nitin Silk Mills.—67, Tambakanta, 2nd Floor, Bombay 3.

Novelty Silk Mills.—Ghodbunder Road, Dahisar (W. Rly.), Bombay.

Orkay Industries Private Ltd.—(Subhash Silk Mills Dept.), 40, Central Bldg., Bomanji Master Road, Bombay 2.

Panalal Silk Mills Private Ltd.—Atlas Mills Compound, Reay Road, Bombay 10.

Panalal Silk Mills Private Ltd. No. 2.—Bombay Cotton Mills Compound, Kalachowki Road, Parel, Bombay 12.

Paragon Textile Mills.—Opp. Century Mills, Off Globe Mills' Passage, Worli, Bombay 13.

Parekh Silk Mills.—Paranjape Scheme Plot B, Sonari Road, Vile Parle (East), Bombay 24.

Parsharam Karwa Mills.—Hafsan Ali, Bhiwandi (Dist. Thana).

Paru Silk Mills.—73-75, Sutar Chawl, Bombay 2.

Phoenix Mills Ltd.—C/o Ramnarain Sons Ltd., Imperial Bank Building, Bank Street, Fort, Bombay 1.

Pratap Silk Mills.—C/o Lallubhai Pittamber, New Silk Market, Bombay 2.

Raghuvanshi Mills Ltd.—11-12, Haines Road, Mahalaxmi, Bombay 13.

Rahath Silk Mills.—Worli, Bombay 13.

Rajkamal Silk Mills.—34-42, Nesbit Road, Mazagaon, Bombay 10.

**RAJRATNA SILK MILLS.—20, Navroji Seth Street, Thakurdwar, Bombay 2—BR. Phones: Office: 29842; Mills: 691331-32. Grams: "PITIMIL," Bombay-2 BR.**

Ramkrishna Silk Mills.—529, Kalbadevi Road, Bombay 2.

Raval Textiles.—Nagardas Road, Andheri (East), Bombay.

Ravi Industries Ltd.—68, Chhipi Chawl, 1st Floor, Zaveri Bazar, Bombay 2.

Rayon Textile Mfg. Co.—771, Mogul Lane, Matunga, Bombay 16.

Resham Textile Mills Private Ltd.—61, Government Gate Road, Lower Parel, Bombay 12.

Sadhana Textile Mills Private Ltd.—Off Globe Mills Passage, Worli, Bombay 18.

Samarth Eng. & Wvg. Co., Ltd.—Gandhi Mansion, New Silk Market, Bombay 2.

Samraat Silk Mills.—Agra Road, Vikhroli, P.O. Bhandup, Bombay.

Saraswati Silk Mills.—1-5, Mount Road, Mazagaon, Bombay 10.

Saroj Silk Mills.—Atlas Mills Compound, Reay Road, Bombay 10.

Sarvodaya Silk Mills.—Agra Road, Old Kurla, Bombay.

**SASSOON & ALLIANCE SILK MILL CO., LTD.—Victoria Road, Mazagaon, Bombay-10. Regd. Office: Podar Chambers, Parsee Bazar Street, Fort, Bombay-1. Phone: Office: 259261 (8 Lines). Mills: 40222. Manufacturers of: Shantungs, Terylene, Nylon, & Bush Shirtings, Satin & Tafetta, Brocades, Nylon Satin Sarees & Twinkle Nylon, Crepes, Gold Silver etc., etc. Directors: Ramnath A. Podar, Chairman; Manoobhai Doongursee, Jayantilal R. Mehta, Kamalnayan J. Bajaj, Ganesh Narayan R. Podar, Kantikumar R. Podar, D. N. Shroff (Director), M. N. Bajaj, B.A., B.Com., General Manager. Zolovan C. Mehta, Mill Manager: J. B. Saldanha, Secretary: P. R. Karkari, Engineer.**

Saudagar Textile Works.—Saudagar Mohala, Bhiwandi (Dist. Thana).

Saurashtra Silk Mills.—C/o Kantilal Manilal Kamdar, 36, Bhangwadi, F Block, 1st Floor, Room No. 17, Kalbadevi, Bombay 2.

Secunder Sari Mills.—Bhiwandi (Dist. Thana).

Seksari Silk Mills.—C/o Seksaria Cotton Mills Ltd., Seksaria Chambers, 139, Medows Street, Fort, Bombay 1.

Shakuntala Silk Mills Private Ltd.—Bombay Cotton Mills Estate, Kalachowki Road, Lalbaug, Bombay 12.

Shanghai Mills Private Ltd.—Great Social Bldg., 3rd Floor, Sir P.M. Road, Bombay 1.

Shanti Rayon Mills.—Tokershi Jivraj Road, Bombay 15.

**SHARDA SILK MILLS PVT. LTD.—Mills: Atlas Mills Compound, Reay Road, Bombay 10. Office: Dahanukar Building, 2nd Floor, Kalbadevi, Bombay 2. Phones: Office: 20515; Mills: 78901. Grams: "REASONABLE". Manufacturers/Wholesalers/Exporters of Rayon Shiozi, Sarees, Dobby Spotted Designs, Suitings, Tafettas, Coloured Stripe Satins, Mulls, Lining Cloth, Brocades, Sanghai Jacquard Flowers, Jacquard Tafetta Brocades & Jacquard Pyas and Nylon Sarees. Sales: Messrs. B. Nagindas & Co., Mulji Jetha Market, Navi Galli, Narayan Chowk, Bombay 2. Tel.: 29597. Stockists: Messrs. V. Hasmukhlal & Co., Chikhal Galli, M. J. Market, Bombay 2 and Messrs. Shyam & Co., Swadeshi Market, Kalbadevi, Bombay 2. Board of Directors: Managing Director: Harilal Jechand Doshi. Directors: Manharlal H. Doshi, A. D. Kothari, S. S. Parekh.**

Shree Ambika Tape Mfg. Co.—2nd Floor, Hanuman Bldg., Tambakanta, Pydhoni, Bombay 3.

Shree Central Silk Mills.—Premji Bhimji, Sir Vithaldas Gally, M. J. Market, Bombay 2.

Shree Hanuman Silk Mills.—Near Powai Cross Road, Agra Road, Vikhroli, Bombay.

**SHREE LAXMI SILK MILLS.—Kasturchand Mills Compound, Dadar, Bombay 28. Phone: 451492. Grams: "LAXSILKS." Manufacturers of Quality Art Silk Fabrics.**

Shree Mohan Dyeing, Ptg. & Wvg. Mills.—Gandhi Mansion, New Silk Bazar, Bombay 2.

Shree Navyug Wvg. & Ptg. Mills.—C/o Popatlal, Mulchand & Co., Dharamraj Galli, M. J. Market, Bombay 2.

Shree Samrath Textile Industries.—Furgusson Road, Lower Parel, Bombay 13.

**SHREE SHAKTI MILLS LTD.—Podar Chambers, Parsee Bazar Street, Fort, Bombay 1. Mills at Mahalaxmi & Parel. Phone: 259261 (8 Lines). Grams: "SHREESAKTI". Manufacturers of Crepes, Taffetas, Satins, Nylons, Bush Shirt Fabrics, Rayon & Terene, Shirtings & Suitings.**

Shree Shakti Mills Ltd. No. 2.—Podar Chambers, Parsee Bazar Street, Fort, Bombay 1.

Shree Shanti Silk Mills.—Lal Chimney Compound, 32F, Lamington Road (North), Bombay.

Shree Shanti Textile Mills Private Ltd.—Agra Road, Ghatkopar, Bombay 39.

Standard Mills Co., Ltd.—29, Churchgate Street, Fort, Bombay 1.

Suryakant Textile Mills.—Building No. 15, Bhuleshwar, Doka Galli, Bombay 2.

Swan Textiles.—Bhiwandi (Dist. Thana).

Tarun Silk Mills.—Yakub Road, Bhiwandi (Dist. Thana).

United Rayon Mills, Private Ltd.—Near Elphinstone Bridge, Parel Tank Road, Parel, Bombay.

**V. R. TEXTILE INDUSTRIES.—Bhiwandi, Dist. Thana, Bombay. Proprietor: Shri H. K. Gokani. Factory: Quarter's Gate, Bhiwandi. Phone: 63. Office: Minawala House, 3rd Floor. 252-58, Shaikh Memon Street, Bombay 2. Phone: 20476. Manufacturers of Rayon, Terylene and Nylon Fabrics of all varieties. Shri P. P. Krishnan, Factory Manager.**

Venus Silk Mills.—Suryodaya Mills Compound, Tardeo, Bombay 7.

Vijay Silk Mills.—Atlas Mills Compound, Reay Road, Mazagaon.

Vikram Industries.—Bhau Saheb Desai's Wadi, Bhavani Shankar Road, Dadar, Bombay 28.

Vinod Silk Mills.—Kasturchand Mills Estate, Tulsi Pipe Road, Dadar.

Vipul Silk Mills.—Ganesh Godown No. 15, Tank Bunder Road, Reay Road, Bombay 10.

Vishnu Silk Mills Private Ltd.—49-55, Apollo Street, Fort, Bombay.

Zaveri Rayon & Silk Mills Ltd.—Darabshaw House, Ballard Road, Bombay 1.

## SILK MILL MACHINERY & STORES SUPPLIERS

**R. R. JINDE & CO.—14, Mohan Nivas, Chandavarkar Road, Bombay 19. Grams: "GOLDENHILL." Phone: 472267.**

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**HARRY'S TRADING CO.—Quality Sirens from 1/2 Mile to 5 Miles Range and Portable Electric Blowers suitable for Cleaning, etc. Fuel Injection Equipments for Diesel and Tractor Engines. 501, A, Commerce House, Medows Street, Bombay-1. Phone: 256605 & 535023 (Res.).**

## SIZING MATERIALS

Adarsha Trading Corporation.—Ismail Building, 2nd Floor, Room No. 9-H, 381, Hornby Road, Fort, Bombay.

Apex Traders.—Advani Chambers, 8ir Phirozshah Mehta Road, Fort, Bombay.

**ASSOCIATED ENTERPRISES.—Suppliers of Sizing Materials to majority of leading rayon Mills. 7, Kailash Kutir, Behind Mysore Chemicals, Scheme No. 6, Road No. 4, Sion East, Bombay 22.**

Bhogilal & Co.—7-10, Elphinstone Circle, Botawalla Building, Fort.

Brady, W. H., & Co., Ltd.—Royal Insurance Building, Churchgate Street, Fort.

**C. M. VORA & CO.—160, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Phone : 261609 Office ; 22572 Res. ; Importers & Stockists of Chemicals for all Industries.**

**CHUDGOR & CO. PRIVATE LTD.—Regd. Office : Anand Bhuvan, Princess Street, Bombay 2 (B.R.). Phones : C/o 30023, 30024 & 20419. Grams : "CHUDGORECO," Bombay 2 (B.R.). Dealers in Chemicals, Dyes, Sizing Materials, Waxes, etc.**

Dandekar Company.—Bombay Mutual Annexe, 17, Gunbow Street, Fort, Bombay 1. Phone : 261038. Grams : "Shekhar".

Daver, B. F., & Co.—Appa Baug Building, 41, Queen's Road.

Gannon, Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Fort.

General Industrial Chemicals.—Beaumon Chambers, 27/33, Medows Street, Fort.

General Textile Stores Ltd.—Beaumon Chambers, 27/33, Medows Street, Fort.

Hardcastle, Waud & Co. Private Ltd.—Alice Building, Hornby Road, Fort.

Imperial Chemical Industries (India), Ltd.—Imperial Chemical House, Dougall Road, Ballard Estate.

Indo-British Chemical Co.—Raja Bahadur Mansion, 11, Tamarind Lane, Fort.

Industrial Minerals and Chemical Co.—25, Narayan Dhuru Street, Bombay 3.

Industrial Trading Agency.—Tamarind House, Tamarind Lane, Fort, Bombay. (Healds, Reeds, Wire healds and Shuttles).

Javeri Traders.—Lakhmi Building, 34, Cawasji Patel Street. Fort, Bombay.

Kirtikumar & Co.—80, Bhandari Street, Mandvi, Bombay 3. Phone : 20583. Grams : "LALITKIRTI."

**Kirtikumar Chandulal & Co.—313, Samuel Street, Vadgadi, Bombay.**

Lalitkumar & Co.—86, Kazi Sayed Street, Bombay 3.

Latham Abercrombie & Co., Private Ltd.—Forbes Building, Home Street, Fort.

**MAIZE STARCH PRODUCTS CORPORATION.—32, Apollo Street, Fort. Dealers in Sizing Materials and Industrial Chemicals. Phone : 252715. Grams : "MAZSTARCH."**

Mehta, J. H., & Co.—106-8, Bazargate Street, Fort.

Mehta, Sanghvi & Co.—303, Samuel Street, Vadgadi, Bombay 3.

Nanavati & Co., Ltd.—16, Apollo Street, Fort.

**NATIONAL TRADING COMPANY, THE.—Manufacturers, Importers & Distributors of Sizing & Finishing Materials and Allied Auxiliaries. 263, Dr. Dadabhai Naoroji Road, P.O. Box 158, Bombay 1. Phone : 265050. Grams : "BHARAT." Branches : Ahmedabad, Calcutta, Coimbatore and Delhi.**

Poonjiajee, Jehangir J. M.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort.

Rasiklal & Co., Ltd.—60-62, Princess Street, P. B. No. 2228, Bombay.

Sheth, S. C., & Co., Ltd.—Raja Bahadur Mansion, 14, Hamam Street, Fort.

Shree Krishna Trading Co., Ltd.—11, Alli Chambers, Tamarind Lane, Fort.

Sizing Materials Co., Ltd.—Jeroo Building, 137, Mahatma Gandhi Road, Fort.

Standard Pulverising Co.—Atlas Mills Compound, Reay Road, Bombay 10.

**VORA TRADING CO.—357-A, Samuel Street, Vakil Building, Vadgadi, Bombay 3. Phone : 325289. Grams : "MULTI-SALES" Bombay, Mandvi.**

Waghji Lakhmidas & Co.—206, Samuel Street, Vadgadi.

## SLOTTED ANGLE

**KILBURN & CO. LTD.—Gresham Assurance House, Phirozeshah Mehta Road, Fort, Bombay 1. Phone : 251908. Grams : "TAGCONIUM."**

**METREX PRIVATE LTD.—Metrex Equipments Unit and slotted angles. India House No. 2, Kemp's Corner, Bombay-26.**

## SOAP FACTORIES

Acme Soap Works.—308, Cadell Road, Bombay 28.

Auxitex.—177-179, Lamington Cross Roads and Calcutta National Bank Buildings, Sir Phirozshah Mehta Road, Fort.

Bombay Soap Factory.—10, Ripon Road Cross Lane, P.B. No. 4508 Bombay 8.

Chemical Engineering Corporation.—22, Apollo Street, Fort.

Daver, B. F. & Co.—Appa Baug Estate, 41, Queen's Road, Bombay 4.

Empire Industrial Works.—Warden House, Sir Phirozshah Mehta Road, Fort.

Lachhmandas & Co.—21, Chinch Bunder, Bombay 9.

Mehta Soap Works.—118-D, Valpakhadi, Mazagaon Road, Bombay 9.

Mira Chemical Works.—Chinchpokli Cross Lane, Parel.

Patang Brand Soap Factory.—380, Shankarset Bungalow, Girgaum Road.

Patanwala, Ltd.—182-84, Abdul Rehman Street.

Saraf Oil Mills Co., Ltd.—325, Kalbadevi Road, Bombay 2.

Swastik Oil Mills Ltd.— Saltpan Road, Wadala, Bombay 31.

Scientific Soap Works.—Hargovind Desai's Wadi, Bhuleshwar.

Simplex Chemical Co.—103-C, Chhaktewadi, Tardeo.

Tata Oil Mills Co., Ltd.—Bombay House, Bruce Street, Fort.

Tooba Products.—91, Bhajipala Street, Bombay 3.

## SOLDERING & BRAZING EQUIPMENTS

**VISHWA BHARATI TRADING CO.—45, Mint Road, Post Box No. 1052, Bombay 1. Phones : 266371, 264555 and 263795. Grams : "VIBHACO." Branch : G.P.O. Box 2628, Calcutta 1. Phone : 336680. Manufacturers of all kinds of Metals, Welding, Brazing & Soldering requirements.**

## SOLDERING IRONS

**BAJAJ ELECTRICALS LTD.—45-47, Veer Nariman Road, Bombay 1. Electrical Engineers, Manufacturers and Contractors. Phone : 25-3841. Grams : "SOFTLITE." Branches at Calcutta, Delhi, Madras, Kanpur, Patna, Indore, Wardha, Gauhati, Hyderabad, Jaipur, Jullundur & Bangalore.**

## SOLVENT EXTRACTION PLANT

**DE SMET (INDIA).—Khana Construction House, 44, Maulana Abdul Gaffar Road, Worli, Bombay-18 (WB). Phone : 77271. Grams : "EXTRAXMET." Manufacturers of Solvent Extraction Plants, Vegetable, Oil Refining Plants, Cotton seed Processing Equipment, Sugar Plant Machineries. Factory : Panch Pakhadi, Eastern Express Highway, Thana.**

**INDUS ENGINEERING COMPANY.—Office & Works : Opp. Worli D. D. Chawl No. 114, Bombay 13 (B.C.). Phone : 40342. Grams : "INDUSINDH." Manufacturers of Tubular Condensers, Evaporators, Cyclonic Separators, Stripping Columns, Brine Coolers, Feed and Discharge Hoppers, etc.**

**SCINDIA WORKSHOP LTD.—Patent Ship, Dockyard Road, Mazagaon, Bombay-10. Phone : 73484 (3 Lines). Grams : "SLIPWAY." Ship Repairers, Boat Builders, Manufacturers of Solvent Extraction, Machinery, Pressure Vessels, Chemical Plants and Fabricators of Structures such as Cranes, etc.**

## SOLVENTS (ORGANIC & INORGANIC)

**C. M. VORA & CO.—160, Dr. Dadabhoy Naoroji Road, Fort, Bombay. Phone : 261609. Importers & Stockists of Chemicals for all Industries.**

**COMMERCIAL SOLVENTS CORPORATION.—Commissariat Building, 5th Floor, 231, Dr. Dadabhoy Naoroji Road, Bombay 1. Phone : 266446, 262762. Grams : "SOLVO."**

**PRAVIN BROTHERS & CO.—501, Commerce House, Medows Street, Bombay 1. Phones : 251748, 252419. Grams : "WIDESCOPE." Importers, Exporters and Agents : Sulphur — Chemicals—Solvents, Pyridene Base, Fertilizers, Minerals Lime—Jute—Products. POLYSOL. S., Polysol-S.6., Gypsum.**

**ROYAL DRUG & PHARMACEUTICALS CO.—38, Princess Street, Bombay 2. Phone : 38749. Grams : "RODPHAR." Contact for your requirements in Trichloroethylene, Perchloroethylene, D.B.P., D.O.P., M.E.K., MIBK., Toluene, Benzene, Acetone, etc. for your Paint, Engineering, Rubber, Plastic & Chemical Industries.**

**SULTANCHAND BIMALPRAKASH & SONS.—30, Commercial Chambers, Masjid Bunder Road, Bombay No. 3. Grams : "DELHICHEM." Importers & Suppliers of Paint, Raw Material, Solvents, Pigments & Chemicals for Textile, Sugar, Glass & Ceramics Industries & Dyes Intermediates. Phones : Office : 323425 & 327636; Res. : 522544.**

## SOUND RECORDING EQUIPMENT

Ama Private Ltd.—Hornby Road, Fort, Bombay.

Chicago Radio & Telephone Co. Ltd.—127, Mahatma Gandhi Road, Fort.

General Radio and Appliances Ltd.—16, New Queen's Road, Bombay 4.

National Education and Information Films Ltd.—National House, Tulloch Road, Apollo Bunder, Bombay. Grams : "Edufilms."

Patel (India) Ltd.—Kitab Mahal, Hornby Road, Fort, Bombay.

Western Agencies' Co.—421, Lamington Road, Bombay 4.

## SPICES AND ASAFOETIDA

Asher & Company.—Vadgadi, Bombay 3.

Bhanushali Brothers Ltd.—Bhanushali Chambers, 168, Argyle Road, Bombay 9.

Bombay Hing Supply Co.—Hansraj Karamsi Building, 66, Musjid Bunder Road.

**BOMBAY KIRYANA INDUSTRIES.—204, Samuel Street, Vadgadi, Bombay 3. Phone : 327466. Grams : "RAWDRUGS" (Bombay, Mandvi).**

Champaklal Morarji & Co.—193, Samuel Street, Vadgadi, Bombay 9.

Damji Mavji & Co.—177, Khoja Gulli, Mandvi, Bombay 9.

Dubash Freres & Co.—Victoria Building, Parsi Bazar Street, Fort.

Ebrahim Manji & Co.—49, Pydhownie Road, Khadak, Bombay 9.

Fruit Farm Products Co.—Byramji Mansion, Sir Phirozshah Mehta Road, Fort, Bombay. Phone : 262120.

Gandhi Sons Ltd.—232, Samuel Street, Vadgadi, Bombay 3.

Gopaljee & Co.—218, Samuel Street, Vadgadi.

Gorakhram Gokalchand (Estd. 1891).—Choksi Chambers, Zaveri Bazar, Bombay 2.

Govindj Padamshi.—317, Narsi Natha Street, Kharek Bazar, Mandvi Bombay 9.

Govindji Ratanji.—84, Mirchi Street, Vadgadi.

Gulabchand Nathalal & Co.—45, Mirchi Lane, Bombay 3.

Hashambhoy Aloo Mahomed & Son.—Dostmahomed Building, Nishanpada Road, Khadak, Bombay 9.

Husein Mussa Virjee & Co.—Sheriff Hasam Building, Khoja Mohalla, Bombay 9.

Jehangir C. Masalawalla.—C. P. Tank Bus Stand, Vithalbhai Patel Road.

Jehangir J. M. Poonjiajee.—Byramjee Mansion, Sir Phirozshah Mehta Road, Fort.

Kanji Morarji.—285-87, Narsi Natha Street, Bombay 9.

**KIKABHAI GULAMHUSEN.—210, Samuel Street, Vadgadi, Bombay 3. Every kind of Glues, Gelatine, Kirana and Catechues Merchants & Commission Agents.**

Lakhmichand Vasanji & Co.—229, Samuel Street, Vadgadi.

Laljee Godhu & Co.—213, Samuel Street, Vadgadi.

Merwanjee Poonjiajee & Sons.—Prince's Dock, Frere Road.

Narandas Kesurdas & Sons.—222-24, Vadgadi.

Narotamdas Harivalabhdas.—80, Khand Bazar, Mandvi.

New India Hing Supplying Co.—215-217, Samuel Street.

Pavri. J. K.—10, Karim Chambers, Hamam Street, Fort.

Shah & Co.—108, New Citizen Bank House, Palton Road, Bombay 1.

Somnath Motiram.—806, Kharek Bazar, Bombay 9.

Sudan Trading Co.—Dhun-Nur, Sir Phirozshah Mehta Road, Fort.

**TRANS-UNION COMMERCIAL CORPORATION PRIVATE LTD.—Prospect Chambers Annexe, 319, Dr. Dadabhai Naoroji Road, Fort, Bombay. Grams : "TRANSMETER." Phone : 251610.**

Valabhdas Tejpal.—219, Vadgadi, Bombay 3.

Varijiwandas Hirjee & Co.—240, Samuel Street, Vadgadi.

Vasantlal Vadilal & Co.—215-17, Samuel Street, Vadgadi, Bombay 3.

Vikaram Padamsey & Co.—Rustom Building, Veer Nariman Street, Fort.

Waghji Lakhmidas & Co.—206, Samuel Street, Vadgadi.

Y. K. Sampat & Co.—382-84, Katha Bazar, Bombay 9.

## SPORTS GOODS MANUFACTURERS AND DEALERS

**A. N. KAPUR & CO.—Court House, Dhobi Talao, Bombay 2. Phone: 22776. Grams : "SANDAL."**

**ALFA SPORTS.—Metro House, Dhobi Talao, Bombay 1. Phone : 242549. Grams : "ALFASPORTS." Metro House, Bombay 1. Specialists in Sports and Games, Presentation Articles, Swimwear and Athletics.**

Artytoys.—Sir Ratan Tata Road, Tardeo, Bombay 7.

Austin Sports Co.—Byculla Bridge, Bombay.

Bombay Sports.—Dhobi Talao, Bombay 2.

Bombay Sports Depot.—Jer Mahal Estate, Dhobi Talao.

**EBRAHIM ALLIBHOY & SONS (ESTD. 1934).—Exporters & Stockists. 260-64, Abdul Rehman Street, Bombay 3. Phone : 325163.**

I.C.I. (India) Private Ltd.—Crescent House, Ballard Estate. Bombay 1.

J. L. Morison Son & Jones (India) Ltd.—Ballard Estate, Bombay 1.

Jhaveri Bros. & Co. (Estd. 1914)—345, Abdul Rehman Street, near Crawford Market.

Jhaveri Sports & Gifts.—Jer Mahal, Dhobi Talao, Bombay 2.

**K. L. MALHOTRA BROTHERS.—WX/83, Basti Nau, Jullundur City, India. Grams : "MALBRO." Branch Office : Mohatta Market, 5th Floor, Palton Road, Bombay 1. Manufacturers & Exporters of Sports Goods, Specialists in Tennis, Squash & Badminton Rackets, Hockey Sticks, Footballs, Hockey and Cricket Balls & Shuttlecocks.**

Mahomedally Noorbhoy.—244-246, Abdul Rehman Street.

Nadkarni & Co.—Ava Chambers, next to Metro Cinema, Dhobi Talao.

**PIONEER SPORTS (INDIA) PRIVATE LTD.—Dhobi Talao, Bombay 2. Phone : 39287. Grams : "SPORTSMAN." Manufacturers, Exporters and Dealers in all Sports goods. Factories at Jullundur. Branches at New Delhi, Calcutta, Madras, Secunderabad and Hyderabad.**

**SYMOND DISTRIBUTORS PRIVATE LTD.—Eruchshah Bldg., 249, Dr. Dadabhoy Naoroji Road, Bombay 1; 18, Netaji Subhas Road, Calcutta 1; and 15, Elgin Road, Allahabad. Sole Distributors in India for the "SLAZENGER" Sports Goods, made in India.**

United Importers Corporation.—Mistry Estate, 15/2, Palton Road, Bombay 1.

Wagle & Co.—Opp. St. Xavier's High School, 290, Carnac Road, Bombay 2.

## SPRAY PAINTING GUNS

**DILIPKUMAR & CO.—455, Kalbadevi Road, Bombay 2. Sole Distributors of "PYRAMID" Spray painting guns.**

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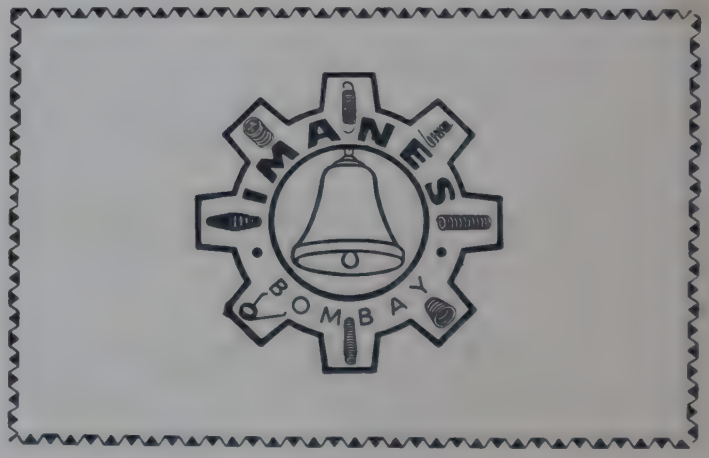
Bombay Spring Works.—Main Road, Bombay 14.

**IMANES.—94, S. V. Road, Erla, P.O. Box 8002, Bombay 56 AS. Phone : 571634. Grams : "BELLIBONE (SZ)." For Springs & Forms out of Wires and strips for your Industry.**




**KEMEN MANUFACTURING CO.—7/10, Horniman Circle, Fort, Bombay. Phone : 251104. Grams : "KEMENGIN." Manufacturers of all kinds of springs, specially for upholstery and Industrial type.**

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## STAINLESS STEEL

**INDUSTRIAL ENGINEERING CO.—H.O.: 45, Apollo Street, Fort, Bombay 1. Phones: 254072, 325156. Direct Importers of Tool, Alloy, special Steel & Stainless Steel Bars, etc.**

**S. MEHTA & CO.—Anees Chambers, Carnac Road, Bombay 1. Phone: 26-3001. Grams: "DUTYBOUND". Industrial Wire Netting and Perforated Metals, Stainless Steel Wire Nettings; and Monel Metal Wire Nettings; Importers, Exporters and Merchants.**

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate.

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**HINDUSTAN TOOLS & ENGINEERING CO.—Post Box 2311, 9 13, Picket Cross Road, Lohar Chawl, Bombay 2. Grams: "DRILLTAPS"; Manufacturers of Stainless Steel Pipes, Fittings Cocks & Valves.**

## STAINLESS STEEL UTENSILS MANUFACTURERS & DEALERS

Agrawal Metal Works Private Ltd.—207, Kalbadevi Road, Bombay 2.

**ANIL METAL MART.—Mulji Nivas, 166, C.P. Tank Road, Bombay 4. Specialists in the Manufacture and Dealers of Varieties of Stainless Steel Spoons and Utensils.**

Bombay Steel Corporation.—241, Kumbharwada, opp. 2nd Sutar Lane, Bombay 4.

**DEVIDAYAL STAINLESS STEEL INDUSTRIES PRIVATE LTD.—Gupta Mills Estate, Reay Road, Bombay 10. Local Sales Office: 39, 2nd Bhoiwada, Bombay 2. Phone No.: 78033, 73586. Grams: "DEVISTEEL." Manufacturers of a wide range of Kitchen utensils, Tableware, Electric Kettles, Pocket-Tiffin Carrier, Fabricated Steel Tanks for Food & Chemical Industries, Wash Basins and Hospital Equipments and Railway Fittings.**

**G. K. KANSARA.—118, Kansara Chawl, 1st Floor, Kalbadevi Road, Bombay 2. Phone: 334925. Manufacturers of Stainless Steel Utensils & Medical Apparatus.**

Great Western Engineering Works.—Sea View, 1st Pasta Lane, Colaba, Bombay 5.

**HARSHADRAY PRIVATE LTD.—Jiji House, Raveline Street, Bombay 1. Phones: 266281 (4 lines). Grams: "FACTORIND." Factory: Pandit Jawaharlal Nehru Road, Santa Cruz, Bombay 54. Phone: 532432.**

**LALLUBHAI AMICHAND PRIVATE LTD.—Proprietors: Dun Aluminium Factory, 225/27, Tardeo Road, Bombay 7. Manufacturers of "CYCLE" Brand Aluminium wares & "QUEEN" Brand Stainless Steel Utensils & other non ferrous metalware. Phones: 41618, 77175, 334049 & 331888. Grams: "CYCLEBRAND."**

**MULCHAND NAROTAMDAS.—Mulchand Niwas, Haines Road, Worli, Bombay-18. Phone: 76139. Manufacturers of Munar brand Stainless Steel Utensils, Cutlery and Specialists in Pressing ferrous and non-ferrous metal holloware articles.**

**NATIONAL METAL INDUSTRIES.—15/A, Parel Village Road, Parel, Bombay 12. Phone: 62400. Grams: "MANMUL." Office: 26/A, Behind Mumbadevi Post Office, Bombay 2. Phone: 325434. Specialists in Stainless Steel & Brass Utensils, Hospitalwares, etc.**

Oriental Metal Pressing Works.—131, Worli, Bombay 18

**PITAMBERDAS LALLUBHAI & CO.—86, Kansara Chawl, Kalbadevi Road, Bombay 2. Phones: 334816 (Office), 75381 (Factory). Grams: "KATORIWALA." Manufacturers of all non-Ferrous Metal Wares.**

**PUNJAB METALS.—20, Wadi Bunder Road, Mazagaon, Bombay 10. Phone: 79093. Manufacturers of "PM" Brand Stainless Steel Utensils.**

**B. A. TARKAR.—50, Kansara Chawl, Kalbadevi, Bombay 2. (Prof. A. B. Tarkar Metal Factory. Phones: 333698, 334249. Office: 39035 Factory. Manufacturers of Copper & Brassware, Non-ferrous & Steelwares.**

## SPRINGS & SPRING LEAVES

**UNITED SPRING MANUFACTURING CO.—82, Opera House, Tram Terminus, Bombay-4. Phone (office): 30219. Grams: "MECSPARES," Bombay-4. Factory at: 234, Ripon Road, Bombay-8. Phone: 76707.**

## STAMP DEALERS


**BOMBAY PHILATELIC CO.**

**Sambava Chambers, Sir Phirozeshah Mehta Road, Fort, BOMBAY-1.**

India's largest dealers in Postage Stamps, Stamp Albums & Philatelic Accessories. Publishers of *Indian Stamp Collector*, India's largest bi-monthly newspaper for stamp collectors.

Phone: 263851.


Imperial Stamp Mart.—C/o Wahid Watch Co., Abubaker Mansion, Causeway.

**JAL, COOPER, F.R.G.S.—Standard Building, Hornby Road, Fort. Tel. 252117. Dealers in Indian & States' Stamps. Philatelic Auctioneer and Valuer. Editor and Publisher, "India's Stamp Journal."**

Liberty Stamp Depot.—166, Dr. Naoroji Road, Bombay 1.

Oriental Collectors' Club.—42, Churchgate Street, Fort.

## STARCH

**C. M. VORA & CO.—160, Dr. Dadabhoy Naoroji Road, Fort, Bombay. Phone: 261609, Importers & Stockists of Chemicals for all Industries.**

Lalitkumar & Co.—86, Kazi Sayed Street, Bombay 3.

Maize Starch Products Corporation.—20, Apollo Street. Bombay 1.

Narendra Starch Products Ltd.—Das Chambers, 25, Dalal Street, Bombay 1.

## STATE JEWELLERS

**CHIMANLAL MANCHAND & CO.—Leading State Jewellers, under Special Appointment to Baroda, Jaipur, Jodhpur, Cooch-Behar, Palanpur, Jubbal and Indore States. Central Government's Certified Valuers. Show Room:—Opera House, New Queen's Road, Fort. Phone: 30321. Grams: "PLATINUM."**

Jhaveri Bros. & Co. (Estd. 1914).—345, Abdul Rehman Street, near Crawford Market. Bombay.

Nanubhai Jewellers.—115, Mahatma Gandhi Road, Fort.

Narotamdas Bhau (Estd. 1864).—Lamington Road.

## STATIONERY (MFRS. & DEALERS)

**A. A. MORBIWALA & CO.—109/111, Abdul Rehman Street, Bombay 3. Phone: 323280. Grams: "VARNISH (MD)." Importers & Stockists of Stitching Wires in all gauges used in manufacturing Stationery.**

Akbarally Ebrahimji.—38C, Cowasji Patel Street, Fort, Bombay 1.

Artytoys.—Sir Ratan Tata Road, Tardeo, Bombay 7.

**BELLARES PRIVATE LTD.—Chequewriters, Office Systems & Equipment Specialists. Sole Distributors: AMES SUPPLY COMPANY (U.S.A.). Spare Parts, Tool & Accessories for Typewriters, Adding & Calculating Machines. Manufacturers of Heavy duty "MAGNOLIA" Paper Punch and CHEQUEWRITERS. 210-A, Lamington Road, Post Box No. 4101, Factory: A-374, Thana Industrial Estate, Thana (Maharashtra), Bombay 7. Grams: "INSPIRON."**

Bharat (Sales) Limited.—People's Building, Sir Phirozshah Mehta Road, Fort.

**BHARAT TRADING CO.—9/A, Nadirsha Sukhia Street, Fort, Bombay. Phone: 255232. Grams: "MAMUBHANJA." Stationers and Paper Merchants. Also Dealers in Drawing Materials; Government & Railway Contractors & Suppliers.**

Bombay Book Depot.—217, Charni Road, P. O. Girgaum, Bombay 4.

Bombay Importing Agency.—75, Sarang Street, Bombay 8.

# BOMBAY STATIONERY MART

*Proprietors :*

**GULAMHUSEIN AHMEDALLY & CO. PRIVATE LTD.**

**7A, Sir Phirozshah Mehta Road, Fort. Phones : 253897/98.**

Tel. Address : "PAPERWALA" - - - - Estd. 1873

*Largest Stockists of :*

PAPER, STATIONERY, ARTIST, DRAWING, ENGINEERING AND SURVEYING MATERIALS AND GIFT NOVELTIES

**NO BRANCH**


Bombay Stationery Stores.—213-217, Abdul Rehman Street, Bombay 3.

Bombay Tape Distributors, 35, Vithaldas Road, Princess Street, Bombay 2.

**BRIGHT BROTHERS PRIVATE LTD.—156-A, Tardeo Road, Bombay 34. Grams : "BRIBOS." Phones : 78548, 78549 & 78540. Plastic Stationery Articles, like Desk Calendars, Memo Pads, Novelties, Paper Weights, etc.**

Cama, Norton & Co.—23, Medows Street, Fort.

Camlin Limited.—210, Ram Baug, Lady Jamshetji Road, Bombay 28.

Central Stationery Mart.—15, Bruce Street, Fort.

Chalasani & Co.—8, Noble Chambers, Parsi Bazar Street, Fort.

Champaklal & Co.—195-7, Abdul Rehman Street, Bombay 3.

**CHHAGANLAL KESHAVJEE (Estd. 1913).—Stationers, Printers and Dealers in Loose Leaf Binders. 22A, Parsee Bazar Street, Fort. Phone : 253008. Grams : "STAPRI."**

City Stationery Stores.—Gool Mansion, Store Lane, Parsi Bazar Street, Fort, Bombay.

**CRYSTAL STATIONERY MART.—Manufacturing Stationers, such as Exercise Books, Note Books, Files, Account Books, etc. 146, Abdul Rehman Street, Bombay 3. Grams : "CRISMART." Phone : 325853 & 324461.**

Deelip Stationery Mart.—299, Abdul Rehman Street, Bombay 3.

**D. JAGJIVANDAS & CO.—177, Abdul Rehman Street, Bombay 3. Phone : 326524. Grams : "VENUS."**

Empire Traders.—Stationers, Printers & Paper Suppliers, 18, Hassan Chambers, Parsi Bazar Street, Fort.

Enayatali & Co.—262-64, Abdul Rehman Street, Bombay 3.

**EVERGREEN SYNDICATE.—19/21, Hamam Street, Fort, Bombay 1. Phone : 252641. Grams : "TAPEKING." Stationers & Printers. Importers & Stockists of all kinds of Office Stationery. Chief Stockists of Cellulose Self-adhesive Tape, Brown Kraft Gummed tape Teliprinter Rolls & Drawing Materials.**

**EXCELSIOR STATIONERY MART.—Tamarind House, Tamarind Lane, Bombay 1. Phone : 252763. Manufacturers of Envelopes, Invitation & Visiting Cards.**

**EXPRESS STATIONERY SERVICE.—12-A, Gunbow Street, Fort, Bombay 1. Phone : 263987. Direct Importers, Stationers, Printers & Envelopes Manufacturers.**

Gandalal & Co.—170, Abdul Rehman Street, Bombay 3.

**GANDHI STATIONERY MART.—165, Bazargate Street, Bombay 1. Manufacturers : Comet Visiting, Invitation, Greeting, Wedding Cards, Inland/Air Letters. Phone : 265248.**

General Equipment Merchants, Ltd.—People's Building, Sir Phirozshah Mehta Road, Fort.

General Stationery Mart.—36, Dhanji Street, Bombay 3.

Godbole & Co., S. K.—74, Khetwadi 10th Lane, Bombay 4.

Gujarat Stationery Mart.—198, Abdul Rehman Street, Bombay 3.

Himalaya Stationery Mart.—Himalaya House, Palton Road and Hornby Road Junction, Bombay 1.

**HINDUSTAN PENCILS PRIVATE LTD.—111/112, Himalaya House, Palton Road, Bombay 1. Phone : 261972. Grams : "WRITESFINE."**

H. M. Shah & Co.—181, Abdul Rehman Street, Bombay 3.

**IMPERIAL STATIONERY CO., THE.—Alli Chambers, 35, Medows Street, Fort. Stationers and Printers.**

Indo-Stationery Mart.—Rahimtoola House, Homji Street, Fort.

International Stationery Stores.—Victoria Building, Parsee Bazar Street, Fort

**JAGJIVANDAS NANDLAL & CO.—237, Abdul Rehman Street, Bombay 3. Phone : 323634. Grams : "SWANHOUSE." Sole Distributors for ELECTRIC PEN-PENCIL, Wax-Backed and TYPEWRITING CARBON PAPERS, ELECTRIC STAPLES in Sizes 24/6, 26/6 & B.8.**

Kashyap & Sons, G. S.—40, Prospect Chambers Annexe, Hornby Road, Fort.

Kilburn & Co. Private Ltd.—Gresham Assurance House, Sir Phirozshah Mehta Road, Fort, Bombay.

Kores (India) Ltd.—Plot No. 10, off Haines Road, Worli, Bombay 18, W.B.

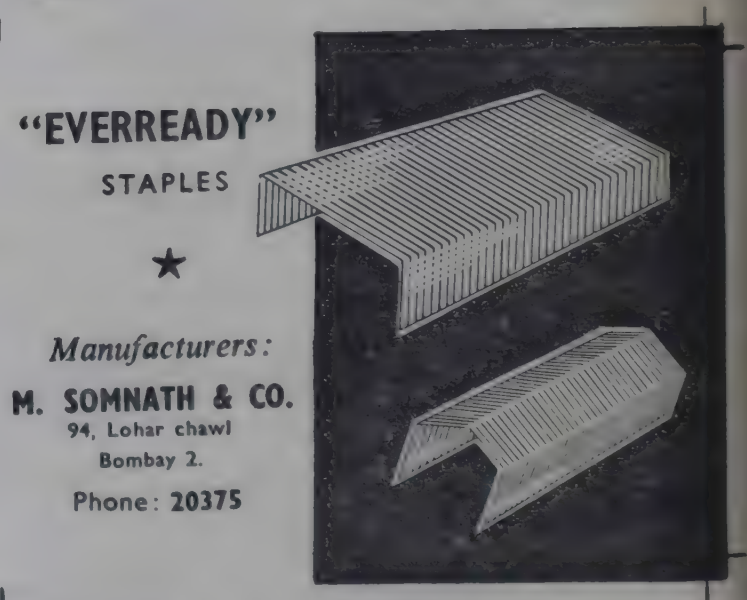
**KUMAR STATIONERY STORES.—9/A, Nadirsha Sukhia Street, Fort, Bombay. Phone : 255232. Grams : "KUMARSTORE." Manufacturers of all kinds of Stationery and Dealers in Stationery, Paper and Drawing Materials.**

**KUMAR STATIONERY MART (Estd. 1942).—Podar Chambers, Store Lane, Parsi Bazar Street, Fort. Importers, Stationers, Paper Merchants and Government and Railway Contractors. Sole Distributors of "Daylight" Brand Pencils and "Planway" Brand Ferro and Ammonia Paper Rolls, and "Projecto" Brand Indian Tracing Cloth and "Excella" Brand Foreign Tracing Paper. "STAPCO" Brand Stapling Machines. Stockists of Gem Clips and Pins. Phone : 255303. Grams : "TRADEMOTO."**

Lalwani Printing Press.—35, Mirza Street, Bombay 3.

Lion Pencils Private Ltd.—Pencil Manufacturers. 95, Marine Drive, Bombay 2.

Longmans, Green & Co., Ltd.—Vulcan House, 53, Nicol Road, Ballard Estate.



**M. SOMNATH & CO.—94, Lohar Chawl, Bombay 2. Phone : 20375. Grams : "SAMARTHYA." Manufacturers of Everready Staples. A quality product made of imported special type of Wire.**

Mahomedally Hebatbhoy & Co.—15, Mirza Street, Parsi Gully, Bombay.

Mazda Printers.—Next to Bharat Tiles Ltd., 32, Apollo Street, Fort.

Mazumdar & Co.—Opp. Krishna Cinema, Tribhuvan Road, Bombay 4.

**MEHRA LEONARDT PENS PRIVATE LTD.—Manufacturers of Steel Pens, Stationers' Sundries, Agra Road, Bombay 79.**

Minerwa Stationery Mart.—32, Apollo Street, opp. Allahabad Bank, Fort.

Model Art Printery Private Ltd.—4, Nanabhai Lane, Fort, Bombay.

Model Stationery Mart.—All kinds of Stationery Goods and Paper Merchants, 44, Cawasji Patel Street, Fort, Bombay.

**MODERN STATIONERY & PRINTING WORKS (ESTD. 1941).—Sole Proprietor : Nazerhusein Kaderbhai, Bombay Mutual Annexe, 1st Floor, 17, Gunbow Street, Fort. Phone : 261986.**

Mohamedali Abdulhusein.—83, Mirza Street, Bombay 3.

**NATIONAL STATIONERY STORES.—Stationers, Printers, Paper Merchants, Government and Railway Contractors, Podar Chambers, 12 A, Store Lane, Fort, Bombay. Godown : 23, Parsee Bazar Street, Fort. Phone : 253416. Grams : "SERVYUTRUE."**

Navalakhi & Co., J. V.—Kalbadevi Road, Bombay 2.

New Book Co. Ltd.—Kitab Mahal, 188-190, Hornby Road, Fort.

New India Stationery Mart.—9, Hummum Street, Fort.

New Popular Book Shop.—Nana's Chowk, Gowalia Tank Road, P.O. Grant Road, Bombay 7.

**NOBLE STATIONERY MART, BOMBAY 1.**

Parsee Bazar Street, Fort

Grams : "CELLOTAPE" Phone : 254748

**Envelopes : White, Brown, Coloured, Cloth, etc. ; Fastener-envelopes too.**

- All kinds of Files
- Cedarwood Pencils
- Cellotape & Dispensers
- All Stationery Items

SUPPLIERS THROUGHOUT THE COUNTRY AND EXPORTERS

Ofip'n Private Ltd.—397, Sheikh Memon Street, Bombay 2.

Paradise Agency.—75, Abdul Rehman Street, Bombay 3.

Pioneer Stationery Mart.—106-108, Cowasji Patel Street, Fort.

Popular Book Depot.—Aabid House, Lamington Road.

Rowland Son Bros. (Est. 1927).—Importers, Exporters, Stationers, Printers, Paper Merchants, Dealers in drawing Materials and Artists Requisites. Manufacturers of Teleprinter Paper Rolls 1 to 4 Ply, Adding Machine Paper-Roll and White and Blue Cloth lined Paper rolls in required Sizes. Podar Chambers, Parsi Bazar Street, Fort, Bombay-1. Phone : 251107 (Office) and 264861 (Res.) Grams : "TELLTRUE."

**S. M. SONI & BROTHERS (Regd.).—54, Abdul Rehman Street, Bombay-3. Phone: 324633. Grams: "DURALONPEN." Wholesale Stationers, Paper Merchants, Direct Importers, Government Contractors, Office Requisites, Typewriters and Duplicator Accessories, Drawing, Surveying and Engineering Materials. Suppliers: Mfrs. of writing Pads, Files, Envelopes, Punching Machines, Pins, Gem Dips, Account Books, Rubber Stamp, etc. of all sorts.**

Regal Stationery Stores.—Lentin Chambers, Dalal Street, Fort, Bombay 1.

Regent Stationery Stores.—Khodram House, New Parsi Bazar, Fort.

**RELIABLE STATIONERY MART, THE.—23/D, Sir Phirozshah Mehta Road, Fort, Bombay. Phone : 252850. Highclass printers & dealers in stationery.**

Reliance Agency, Ltd.—Raja Bahadur Motilal Compound, behind P.O., Apollo Street.

Renown Stationery Stores.—Byramjee Mansion, Sir Phirozshah Mehta Road, Fort.

**ROWLANDSON BROS. (Estd. 1927).—Importers, Stationers, Printers, Paper Merchants, Dealers in Drawing Materials and Artists Requisites. Manufacturers of Teleprinter Paper Rolls 1 to 4 Ply, Adding Machine Paper Roll and White and Blue Cloth-lined Paper Rolls in required sizes. Podar Chambers, Parsi Bazar Street, Fort, Bombay 1. Phone : 251107 (Office) and 264861 (Res.). Grams : "TELLTRUE."**

**S. M. SONI & BROTHERS (Regd.).—54, Abdul Rehman Street, Bombay 3. Phone : 324633. Grams : "DURALONPEN." Wholesale Stationers, Paper Merchants, Direct Importers, Government Contractors, Office Requisites, Typewriter and Duplicator Accessories, Drawing, Surveying and Engineering Materials Suppliers; Mfrs. of Writing Pads, Files, Envelopes, Punching Machines, Pins, Gem Dips, Account Books, Rubber Stamp, etc. of all sorts.**

S. R. Brothers.—406 & 412/A, "Commerce House," Medows Street, Fort, Bombay 1.

**SAIF & CO.—36, Sutar Chawl, Bombay 2. Phone : 325797. Grams : "PRIMEPAPER", Kalbadevi. Importers & Stockists of all kinds of Papers & Boards. Mfrs. of Blue Clothed Lined Papers, Rolls and Envelopes, Gummed Papers and Plastic Coated Papers, etc. and Butterfly Brand Tinsel (Jari) Powder Silver & Coloured.**

Salebhoy, E., & Co.—19, Mangaldas Road, Princess Street.

Sanghani & Co.—178-80, Abdul Rehman Street.

Sayer & Sanghavi.—Kalam Kutir, 211-19, Frere Road, Fort, Bombay.

Shreeman & Co.—Podar Chambers, 109, Parsi Bazar Street, Fort.

**SOCIAL STATIONERY MART.—Victoria Building, 27-H, Parsee Bazar Street, Fort, Bombay 1. Phone : 251466. Specialists in "SOCIAL" Files, Typewriters & Pencil Carbon Papers. Account Books & Office Requisites.**

Sorabji Nowroji & Co.—Horniman Circle, Fort.

Standard Stationery Mart.—Rahimtoola House, Homji Street, Fort.

Stela Equipments.—327, Nawab Building, Hornby Road, Fort.

**SUPERIOR STATIONERY MART LTD.—117, Nagindas Master Road, (Medows Street), Fort, Bombay 1. Phones : 25-2398. Grams : "LOVELINESS." Stationers, Printers and Paper Merchants.**

**SURESH STATIONERY MART.—285, Abdul Rehman Street, Post Box No. 3056, Bombay 3. Phone: 327397. Grams : "SURESHBOOK." Manufacturers of "JOCKEY BRAND" Exercise-Books, Letter Books, Duplicate Books, Examination Papers, Etc.**

Swastik Traders.—282, Pannalal Terraces, Lamington Road, Grant Road.

Taraporevala, D. B., Sons & Co.—210, Hornby Road, Fort.

Taraporevala, Phiroze & Kaikhushru, F. D. B.—Kitab Mahal, 188-190, Hornby Road, Fort.

**THACKER & CO., LTD.—Rampart Row, Fort, Bombay 1. Grams : "BOOKNOTES." Phone Nos. : 252722 & 253355.**

Union Printing Works.—Jan Mansion, Sir Phirozshah Mehta Road, Fort.

United Commercial Co.—48, Mangaldas Building, 1, Princess Street.

Universal Stationery Mart.—Podar Chambers, Parsi Bazar Street, Fort.

Universal Stationery Mart.—Graham Building, 109, Parsi Bazar Street, Fort.

Universal Trading Corporation, The.—Usuf Building, Mahatma Gandhi Road, Fort.

Venus Stationery Co.—Hassan Chambers, Fort.

V. Prabha & Co.—476, Sandhurst Road, Bombay 4.

Young India Stationery Mart.—43, Ghoga Street, Fort.

**ZENITH TYPEWRITING CO. (INDIA).—229, Abdul Rehman Street, Bombay 3. Phone : 23992. Stationers, Stockists of all Foreign Pencils including "Venus" and "Kohinoor" Engineering Instruments, Boxes, Slide Rules, Drawing Papers, Artists Brushes, Table Decoration Stationery, Stapling Machines, Office & School Stationery. Sole Importers of Steadler's German Camel Pencils.**

## STEAM TRAPS AND VALVES

**CRESCENT TRADING CO.—48-50, Bhajipala Street, Bombay 3. Phones : 325140 & 327004. Grams : "WATERMETERS." Stockists of Acid Resisting Valves, Cocks for Water, Steam & Air, C. I. Sluice Valves, Water Meters, etc.**

**JIVRAJ & VRAJLAL.—122, Nagdevi Street, Bombay 3. Phones : 325138 (Shop) & 30932 (Res.). Grams : "SANIPIPES."**

**GENERAL TUBES PRIVATE LTD.—142/44, Nagdevi St., Bombay-3. Grams : "GENTUBES." Phone Nos. : 322894 : 328390. Manufacturers and Exporters. C. I., Pipes Special Water Meters, Valves of various types; Steel Pipes & Fittings for Water Gas & Steam. Also : Fabrication of Steel Pipes Fittings Suitable for Rubber Linnings for Special Chemical Industries. Pressure Vessels, Steam Separators and heating coils to Customers' Specifications.**

**KILBURN & CO. LTD.—Gresham Assurance House, Phirozshah Mehta Road, Fort, Bombay 1. Phone : 251908. Grams : "TASCONIUM."**

**MEHTA NANAVATI & CO.—96, Narayan Dhuru Street, Bombay 3. Phone : 324645. Grams : "REDJOINT."**

## STEAMSHIP AGENTS

**EVERETT STEAMSHIP CORPORATION (Incorporated in Philippines).—Fort House Annexe, 221, Dr. Dadabhoy Naoroji Road, Bombay 1. Phone : 264081-3 (3 lines). Grams : "STARLINER" & "EVORIENT." Shipowners, Brokers Operators & Travel Agents.**

**KANJI JADHAVJI & CO.—Masjid Bridge, Mandvi, Bombay 9. Phones: 323681 & 32142. Grams : "GITA." Freight Brokers, Clearing, Forwarding, Shipping, Landing & Travel Agents.**

Lionel Edwards Ltd.—Nicol Road, Ballard Estate, Bombay 1. Phones : 261241/43. Grams : "LIONWARDS".

Marine Transport Co. Private Ltd.—Wakefield House, Sprott Road, Ballard Estate.

**PRABHULAL L. PANDYA & CO.—26, Podar Chambers, Parsi Bazar Street, Fort, Bombay 1. Phone : 251794. Grams : "PRAPANDYA." Salt Merchants, Freight & Chartering Brokers, Steamship Agents & Stevedores and Dubashes.**

United Liner Agencies of India Pt. Ltd.—Kaiser-i-Hind Bldg., Currimbhoy Road, Bombay 1.

## STEAMSHIP COMPANIES

Ambica Steam Navigation Co. Ltd.—Prospect Chambers, Dr. Dadabhai Naoroji Road, Fort, Bombay 1.

**ANCHOR LINE LTD. (Incorporated in Great Britain).—Neville House, Graham Road, Ballard Estate, Bombay 1. Phone : 262294. Grams : "ANCHOR."**

Bharat Line Ltd.—Bharat House, Apollo Street, Fort, Bombay 1

Bombay Steam Navigation Co. (1953) Private Ltd.—100, Frere Road, Bombay.

Great Eastern Shipping Co. Ltd.—60, Mahatma Gandhi Road, Fort.

Kamal Shipping Co. (Private) Ltd.—Scindia House, Ballard Estate, Bombay.

Killick, Nixon & Co. Private Ltd.—Killick House, Home Street, Fort.

Mackinnon Mackenzie & Co.—Ballard Road, Ballard Estate.

**MALABAR STEAMSHIP CO. LTD.—Darabsha House, Ballard Road, Ballard Estate, Bombay 1. Phones : 263625 & 263626. Grams : "RUBICON." Branches at Calcutta, Cochin, Kozhikode & Alleppey.**

Merchant Steam Navigation Co. (Private) Ltd.—Gaumikh Bhuvan, Masjid Bridge, Bombay 9.

**NATIONAL STEAMSHIP CO. LTD.—Darabsha House, Ballard Road, Ballard Estate, Bombay-1. Phone: 264432. Grams: "RASHTRA." Branches at Cochin, Kozhikode & Alleppey.**

**NEW DHOLERA STEAMSHIPS LTD.—Darabsha House, Ballard Road, Ballard Estate, Bombay. Phone : 263443. Grams : "JAYSHIPS."**

**PRABHULAL L. PANDYA & CO.—26, Podar Chambers, Parsi Bazar Street, Fort, Bombay 1. Phone : 251794. Grams : "PRAPANDYA." Salt Merchants, Stevedores & Dubashes. Freight & Chartering Brokers, Steamship, Clearing & Forwarding Agents. Branches : Okha, Jamnagar, Bhavnagar, Veraval, Porbunder, Navlakhi, Gandhidham (for Kandla).**

**SCINDIA STEAM NAVIGATION CO. LTD.—Scindia House, Ballard Estate, Bombay 1. Phone : 268161. Grams : "JALANATH." Telex: 205.**

**SOUTH EAST ASIA SHIPPING CO. PRIVATE LTD.—Himalaya House, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Phone : 262682-3. Grams : "SOEASIA." Ship Owners, Regular Cargo Service—Indian Coasts.—Also Karachi, Ceylon, Burma.**

## STEARATES (METALLIC SOAP)

**DATSON RAVIRAJ & CO. (PRIVATE) LTD.—43, Tamarind Lane, Fort, Bombay. Phone : 254433. Grams : "DATNARE."**

## STEEL

**AHMED A. FAZELBHOY PRIVATE LTD.—Liberty Building, 41, Marine Lines, Bombay 1. Phone : 242044. Sales Representatives in India for Republic Steel Corporation of U.S.A. for Hot and Cold Rolled Sheets and strips ; Electroplated sheets and strip ; Galvanized sheets ; Plates, Wire, Electrolyticy Tinplate and Tin Mill Block Plate. A complete line of Hot and Cold finished Steel Bars and many others standrad and Special Steels.**

Alsales Ltd.— 9, Wallace Street, Bombay 1.

F. Bock & Co., Ltd.—Shale Building, Bank Street, Bombay 1.

Guest, Keen, Williams Ltd.—Ballard Estate, Bombay 1.

**JAIRAMDAS & SONS.—163, Narain Dhuru Street, Bombay 2. Phone: 323616. Grams: "JAIRAMSONS." Sole Agents for Sanderson Bros. & Newbould Ltd., Sheffield (U.K.).**

**MARCAR STEEL & ENGINEERING LTD.—India House, 4th Floor, Fort Street, Bombay 1. Telegraphic Address : "MARCASTEEL," Bombay. Steel Materials and Engineering Products of all kinds. Branch Offices : Calcutta and Delhi.**

**MORSEL TRADERS & AGENTS.—Stockists, Suppliers and Fabricators of all types of M.S. Steel Materials *viz* Beams, Channels, Rounds, Sheets, Plates, Shaftings, Nails, etc. Nalla Mansion, Napoo Road, Bombay-19. Phone : 321799.**

**RAJASTHAN COMMERCIAL.—Manufacturers, Importers & Stockists of Commercial and free cutting bright steel bars, rounds, hexagons, squares, flats and shaped Sections. Warden House, (3rd Floor), Sir Phirozshah Mehta Road, Post Box No.763, Bombay-1. Phone : 256504. Grams : "SATYASHIV."**

Richardson & Cruddas Ltd.—Byculla, Bombay 8.

**R. SAVATILAL & CO.—39, Sindhi Lane, Bombay-4. Grams: "GLUEACID." Brief Steel Bars & NIA Specification, Round, Hex, Squares, Flats, in all Sizes, ex-Stock. Phones: 333011, 333482.**

**SOCIAL STATIONERY MART.—Victoria Building, 27-H, Parsee Bazar Street, Fort, Bombay-1. Phone : 251466. Specialists in "Social" Files, Typewriters & Pencil Carbon Papers, Account Books & Office Requisites.**

**THACKER & CO., LTD.—Rampart Row, Fort, Bombay-1. Grams: "BOOKNOTES". Phone Nos.: 252722 & 253335.**

**TIRATHRAM KASHMIRILAL (INDIA) PRIVATE LTD.—229, Argyle Road, Iron Market, Bombay 9. Phones : 321623 & 328060 (Office) & 212447 (Res.). Grams : "GIRDERS." Government Controlled Stockists & Importers of Iron & Steel Light and Heavy Structural Reinforcing Bars, Sheets, Places, Wires, etc.**

United Steel Co. (India) Private Ltd.—Himalaya House, Palton Road, Bombay 1.

## STEEL BALLS MANUFACTURERS

**NEW HAVEN STEEL BALL CORPORATION PRIVATE LTD.—Office : Pandyan House, 309, Frere Road, Bombay 1. Phone : 261523. Grams : "GULDASTA." Factory : 38, Pawai Lake Road, Saki Naka, Kurla, Bombay 70. Phone : 581185. Mfrs. of Steel & Alloy Balls, Grinding Media, & Automobile Parts.**

**DANDEKAR G. G. MACHINE WORKS LTD.—Bhiwandi, Dist. Thana, Bombay. Manufacturers of Steel & Alloy Steel Castings. Telegrams : "DANDEKARCO." Bhiwandi. Telephone : "BHIWANDI"—57.**

## STEEL CASTINGS

**IVY TRADERS (INDIA) PRIVATE LTD.—Ferrous, Non-Ferrous and Steel & Alloy Steel Castings. 20, Sir Phirozshah Mehta Road, Fort, Bombay-1. Phone : 264401.**

## STEEL DOORS & WINDOWS

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Bombay.

**BREEZE WINDOW MFG. CO.—Phone : 71946. Grams : "WINDOW." Mfrs. in Steel Windows, Doors & Sashes and Structural Works. Subhash Estate, Oshivra Bridge, G. B. Road, Jogeshwari, Bombay 60.**

**METALS PRIVATE LTD.—269, Dr. Dadabhai Naoroji Road, Bombay 1. Phone : Office : 265309 ; Factory : 534295.**

Richardson & Cruddas Ltd.—Byculla Iron Works, Parel Road, Bombay 8.

**SENTINEL ROLLING SHUTTERS & ENGINEERING CO. PRIVATE LTD.—96, Bora Bazar Street, Fort, Bombay 1. Phone : 262019. Grams : "DARWAJA." Manufacturers of Rolling Shutters, Collapsible Gates, Fire-proof Doors & Steel Windows, etc.**

**SHUBHDWAR ROLLING SHUTTERS & ENGINEERING CO.—15, Bank Street, Fort, Bombay. Phones : 254445 & 254185. Grams : "SHUBROLL". Manufacturers of Steel and Aluminium Rolling Shutters, Window Grills, Collapsible Gates, Fireproof Doors, Compound Gates, Platform Trolleys, Wheel Barrows, Steel Doors & Windows, all types of Steel Fabrication Works, Dealers in Machinery and Tank Mfrs.**

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay.

## STEEL FILES

**HINDUSTAN TOOLS & ENGINEERING CO.—Post Box 2311, 9/13, Picket Cross Road, Lohar Chawl, Bombay 2. Grams : "DRILLTAPS." Stockists of Drills, Taps, all kinds of cutters, Abrasives, Steel Files and precision measuring Tools.**

Jairamdas & Sons.—163, Narain Dhuru Street, Bombay 3. Phone : 323616, Grams : "Jairamsons".

**JOHN BAKER & SONS.—Killick House, Home Street, Bombay 1. Phone : 262311/266326. Manufacturers of Engineer's Steel Files, Plain Irons & Screw Drivers. Grams : "KINDVED." Factory at Kurla-Powai Road, Bombay 70.**

Shah & Brothers.—234, Nagdevi Street, Bombay 3.

**TYEBALLY DAWOODJI.—(Estd. 1865), 87, Sarang Street, Bombay 3. Phone : 325362. Grams: "FOOTRULES." Stockists of John Baker's, J.K's and Hindustan's Files. Dealers in Files, Garrage & Engineering Tools.**

## STEEL FURNITURE

**ART STEEL PRODUCTS.—263, Kalbadevi Road, Bombay 2. Phone : 29869. Grams : "GOVINSAFE." Manufacturers of Steel Cabinets, Safes, Steel Furniture, Padlocks and Specialists in Sofa-cum-Bed.**

Bharat Furniture Works.—Swadeshi Mills Estate, 70, Girgaum, Bombay.

Govin's Safe Manufacturing Co.—266/68, Kalbadevi Road, Bombay 2.

**JANAK MANUFACTURING WORKS.—Antop Hill, Wadala, Bombay 31. Manufacturers of Steel Furniture such as Steel Shelving Racks, Canteen Furniture and Hospital Equipments. Phone : 60171. Grams : "JANAKBED" (MT). Show Room at : Kastur Nivas, 26 B, French Road, Off Hughes Road, Chowpatty, Bombay 7.**

**KHIRA STEEL WORKS PRIVATE LTD.—Factory: Swami Vivekananda Road, Santa Cruz, Bombay 54. Grams: "STEELCASE." Phones: 533226 (4 Lines). Regd. Office and Showrooms: Khira Bhavan, Sandhurst Bridge, Bombay 7. Grams: "SWAKALA." Phones: 30097 and 30098. Showroom: Fulchand Nivas, Chowpatty Sea Face, Bombay 7. Grams: "SWAKALA." Phone: 30408.**

**LIBERTY MANUFACTURING CO.—Steel Furniture Mfrs. 50, Abdul Rehman Street, Bombay 3. Phone: 322975. Grams: "LIBERTYCOT." Steel Furniture & Equipment for Offices, Houses and Hospitals. Specialists in Folding Chairs and Tables.**

Metro Steel Products.—Head Office & Showroom: 277, Kalbadevi Road, Bombay 2.

**NADIRSHAW BURJORJI & SONS.—47, Abdul Rehman Street, Bombay 3. Phone: 321930. Dealers in Crucibles & Steel Furniture.**

Steelmade.—Dr. Annie Besant Road, Worli, Bombay 18.

Sudarshan & Co.—209, Masjid Bunder Road (opp. State Bank), Bombay 3.

## STEEL MANUFACTURERS & MERCHANTS

**GRAHAM FIRTH STEEL PRODUCTS (INDIA) LTD.—Regd. Office: 16, Horniman Circle, Fort, Bombay-1. Phone: 252847. Grams: "GRAMFIRTH". Manufacturers of Narrow Cold Rolled Steel Strips of Plain Carbon, Medium Carbon and Alloy Steel. Factory: Firstee Compound, Behind Jogeshwari Marshalling Yard, Western Express Highway, Goregaon (East), Bombay-62.**

**MODERN STEEL COMPANY.—125/A, Aliumer Street, Off Banian Road, Bombay 3. Dealers in High Speed Steel, Hot Die Steel, Die Steel, Carbon Steels, Constructional Steels, Stainless and other Alloy Steels.**


**SPECIAL STEELS, LIMITED.**

Dattapara Road, Borivli (East), Bombay-66 (NB),

Phones: **661246** ( 4 lines )

Grams: " DRAWNWIRES ", BORIVLI, Bombay.

*Manufacturers of :*

High tensile prestressed concrete wires, High tensile Galvanised Steel wires for acsr conductors, Galvanised cable armour wires, Umbrella ribs wires, Spring steel wires, Cycle spokes wires, Electrode core wires, Cycle accessories wires, Cold heading wires, and all other types of high, low and medium carbon steel wires for wood screws, machine screws, panel pins, rolling shutters, ball bearings, blue tacks, card & gill pin, barbed wires, etc., with the technical know-how of Messrs. Felten & Guilleaume Carlswerk Eisen und stahl ag. Koln-Mulheim, West Germany.


## STEEL (MILD) MANUFACTURERS

**INDUSTRIAL ENGINEERING CO.—H. O. : 45, Apollo Street, Fort, Bombay 1. Phones : 254072, 325156. Grams : "CALLING." Manufacturers of Mild Steel, Commercial & Free Cutting Bars.**

## STEEL TUBULAR POLES (MFRS.)

**BOMBAY TUBES & POLES CO.—Manufacturers of Electric Tubular Poles (on Government & Municipal Lists). Darukhana, 2nd Lane, Mazagon, Bombay 10. Phone: 76866. Grams: "TUBESPOLES."**

**INDIA ELECTRIC POLES MFG. CO.—Farida Villa, 108, Waterfield Road, Bandra, Bombay 50. Phone: 73560 & 78411. On Government and Municipal Lists.**

**JAI BHARAT POLES MANUFACTURING & ENGINEERING CO.—87, Dhanji Street, Bombay 3. Phone: 326581. Grams: "FLANGES." Manufacturers of Steel Tubular Poles of all sizes.**

## STEEL (SHAFTINGS)

**AJMERA BROTHERS.—192/A, Panjrapole Road, Near Madhav Baug Post Office, Bombay 4. Phone: 334379. Grams: "PULLEYBELT." Specialist in M. S. Bright Bars (Shaftings) Commercial and also Free Cutting quality in sizes, round, squares & Hexagons.**

**B. P. STEEL INDUSTRIES PRIVATE LTD.—Bright Bars & Shaftings, 39/44, Sion East, Bombay-22. Phone: 471349.**

**KANCHAN BRIGHT STEEL CORPORATION.—111, Nagdevi Street, Bombay 3. Phone: 324309. Grams: "LUCKYCHAP." Manufacturers of Round, Square, Flat & Hexagon Bright Steel Bars.**

**MODERN STEEL COMPANY.—125/A, Aliumer Street, Off Banian Road, Bombay 3. Manufacturers of Steel Shaftings according to given specifications and Shapes.**

**TEXTELO ENGINEERING WORKS.—50, 1st Carpenter Street, Bombay 4. Phone: 332765. Importers and Stockists of Free Cutting Bright Bars, Round, Square and Hexagonal, Tool Alloy & Special Steel.**

## STENCIL INK MANUFACTURERS

**LATHAM ABERCROMBIE DIVISION OF FORBES FORBES CAMPBELL & CO., LTD.—Forbes Building, Home Street, Fort, Bombay. Phone: 268081. Grams: "LATHAM."**

## STEVEDORES AND DUBASHES

**ARDESHIR B. CURSETJEE & SONS (PRIVATE) LTD.—6, Rampart Row, Fort, Bombay. Phones: 254223, 252543 & 254077. Grams: "GREYHOUND." Master Stevedores & Dubashes, Clearing & Forwarding Agents.**

**BOMANJI DHUNJIBHOY PRIVATE LIMITED (Established 1867).—Registered Office: 24-A-B, Nawab Tank Road, Bombay 10, Fort Office: 17, Murzban Road, Fort, Bombay. Dubashes, Landing & Shipping Contractors for B.I.S.N. Co. Ltd., work of every description pertaining to vessels undertaken, Shipping Contracts for Refrigerated Cargoes, Supply of Skilled & Unskilled Labour & Painting of Vessels in both the Graving Docks Undertaken. Stockists of Ships Bottom Compositions & Various Ready Mixed Paints. Importers of International Bottom Paints & Compositions, London and American & Canadian Lumber & Lignum Vitae and Cork Standard Life Jacket, Toilet Soaps, etc. Exporters of General Goods. Grams: "SHIPWRIGHT." Phones: Registered Office: 73643 and 73644, Managing Director Personal: 79074, Bond Department: 72016. Managing Director Residential: 41256, Senior Director Residential: 533689, Labour Superintendent Residential: 41389, Market Office: 263767, Fort Office: 263418.**

**CASSINATH M. B. EDULJEE SONS.—17, Bastion Road, Fort. Phone: 261657**

Cawasji Behramji & Co.—City Ice Building, 298, Bazargate Street, Fort, Bombay.

Cowasjee Eduljee's Sons.—Elphinstone Circle, Fort.

Darashaw B. Cursetjee's Sons.—Darabshaw House, Ballard Road.

**EASTERN BUNKERERS, LTD.—Scindia House, Dougall Road, Ballard Estate, Bombay 1. Phone: 262461. Grams: "VAVTO."**

Ferns Ships Supply Company.—Post Box No. 1508, Wakefield House, Ballard Estate, Bombay 1.

Hill, Son & Dinshaw Ltd.—Marshall's Bldg., Ballard Road, Bombay 1.

**J. M. BAXI & CO.—Steamship Agents & Stevedores. 16, Bank Street, Bombay 1. Phones: 253021 & 253871. Grams: "BAXICO." Branches at all ports in Gujarat and West Coast.**

**KANJI JADHAVJI & CO.—Masjid Bridge, Mandvi, Bombay 9. Phones: 323681 & 321412. Grams: "GITA." Freight Brokers, Clearing, Forwarding, Shipping, Landing & Travel Agents.**

Maneckji & Jamshedji Company.—Ahmed Building, Gunpowder Road, Mazagaon Tram Terminus, Bombay 10.

**NAROTTAM & PEREIRA LTD.—Scindia House, Dougall Road, Ballard Estate, Bombay 1. Phone: 262461. Grams: "JALATHARG." Shipping & Insurance Agents & Dubashes.**

**NEW DHOLERA SHIPPING & TRADING CO. LTD.—Stevedores, Shipping, Clearing & Forwarding Agents. Darabsha House, Ballard Road, Ballard Estate, Bombay-1. Phone: 263443. Grams: "RAVASIA."**

**NOWROJEE JAMSETJEE DUBASH & CO. (ESTD. 1862).—321, Frere Road, Fort, Bombay. Phone: 262068. Grams: "ROYALASTIC," Bombay.**

Patel, D. C., & Co.—268, Bazar Gate Street, Fort.

**PRABHULAL L. PANDYA & CO.—26, Podar Chambers, Parsi Bazar Street, Fort, Bombay 1. Phone: 251794. Grams: "PRAPANDYA." Salt Merchants, Stevedores and Dubashes, Freight and Chartering Brokers, Steamship, Clearing and Forwarding Agents. Branches: Okha, Jamnagar, Bhavnagar, Veraval, Porbunder, Navlakhi, Gandhidham (for Kandla).**

Purshotamdas Madhavani & Co. Ltd.—Regd. Office: Botawalla Building, 8, Horniman Circle, P.O. Box No. 274, Bombay.

Ruttonjee Bomanjee & Co.—60, Forbes Street.

Shalebhoy Tyebjee & Sons.—12, Bruce Street, Bombay 1.

Sorabji Pestonji & Co.—105, Apollo Street, Fort.

Tookaram Hariba & Sons, R. H.—Sadguru Sadan, 15, Babulnath Road, Bombay 7.

## STITCHING WIRES

**A. A. MORBIWALA & CO.—109/111, Abdul Rehman Street, Bombay 3. Phone: 323280. Grams: "VARNISH (M.D.)." Direct Importers & Stockists of Stitching Wires of all kinds.**

## STONE BREAKERS AND GRANULATORS

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay.

## STONEWARE PIPES

**NOWROJI N. VAKIL & CO.—Sheru Castle, Mohmedalli Road, Bombay 3. Phone: 322803. Head Office & Factory at Naroda Road, Ahmedabad. Manufacturers of Stoneware Drainage Pipes & Fittings, Fire Bricks and Clay & Raschig Rings.**

**SHARMAN SONS (Estd. 1949).—10, Nagdevi Street, Bombay 3. Phone: 321589.**

## STOVES (WICK) & MFRS.

**B. A. TARKAR,—50, Kansara Chawl, Kalbadevi, Bombay 2. (Prof. A. B. Tarkar Metal Factory). Phones: 333683, 334249, Office; 39035 Factory. Manufacturers of Tarkar "NIR-BHAYA" Safety Wick Stoves & Spares.**

**VANGAURD ENGINEERING WORKS.—54/56, Tamkar Street, Bombay-8. Phone: 74277. Manufacturers of Stove Legs, Iron Spoons, Building Material, Hinges, Brackets, Usco types Burners, Egg Beaters & Stove Top Rings, Stove flame Rings etc.**

## STAR WASHERS

**FAIRFIELD MANUFACTURING COMPANY.—Hanuman Building, 4th Floor, Tambakanta, Pydhonie Bombay-3. (BR.). Phones: 324323 & 323758. Grams: "MASRANICOY." Manufacturers of Spring, Washers, Shake proof Washers, Circlips and Precision Strip Forms. Factory at: Masrani Estate, Halay Bridge, Kurla, Bombay-70. (A.S.).**

## STRAW-BOARDS

Abdullabhai Fidally & Co.—24, Sutar Chawl, Bombay 2.

Advani, J. B., & Co. Ltd.—Advani Chambers, Sir Phirozshah Mehta Road, Fort.

Ambalal Dharamchand & Co.—1, Esaji Street, Vadgadi, Bombay 3.

**AMOL PAPER SYNDICATE.—26/A, Sir Phirozeshah Mehta Road, Bombay 1. Phones: 261880 & 266132. Grams: "GRIS-PROOF."**

Ashok Brothers Private Ltd.—Mubarak Manzil, 104, Apollo Street, Fort.

Bombay Paper Marketing Co.—Podar Chambers, Parsi Bazar Street, Fort.

Hardcastle, Waud & Co., Ltd.—Alice Building, Hornby Road, Fort.

India Paper Corporation.—64, Sutar Chawl, Bombay 2.

International Paper Co.—26, People's Bldg., Sir Phirozshah Mehta Road, Fort.

Jayantilal J. Gandhi & Co.—45, Mint Road, near G. P. O., Fort.

Kanthawala, N., & Co.—77, Medows Street, Fort.

Kikabhoy Chandabhoy.—33-35, Mangaldas Road, Bombay 2.

**MAKERS PRIVATE LTD.—59, Forbes Street, Fort, Bombay 1. Phone: 253090. Grams: "LARGEFIELD." Stockists of Paper & Strawboards.**

Mansukhlal Sukhlal & Co.—Ghoga Street, Fort.

Mahomedally Hebatbhoy & Co.—15, Mirza Street, Bombay 3.

Mohanlal & Co.—56, Sutar Chawl, Bombay 2.

Pardiwala Paper Mart.—32/A, Parsi Bazar Street, Fort, Bombay.

Patel, B. K., & Co.—106, Medows Street, Fort.

Prabhat Trading Company.—Vithal Sayana Building No. 2, Lohar Chawl, Bombay 2.

Shantilal Shah & Co.—Bombay Mutual Annexe, 17, Gunbow Street, Fort.

Siddho Mal & Sons.—49, Sutar Chawl, Bombay 2.

Sivramakrishnan, M.—Hazi Manzil, 82-86, Abdul Rehman Street, Bombay 3.

United Import Co., The.—67-69, Mahomedalli Road.

Universal Trading Corporation, The.—43, Mahatma Gandhi Road, Fort.

## STRUCTURAL ENGINEERS & CONTRACTORS

**ALCOCK, ASHDOWN & CO., LTD.—Structural, Mechanical, Marine and Electrical Engineers. Defence Works—Mazagon, Bombay10-DD. Phones: 72584-86 (Works); 251321-26 (Office). Grams: "MORRISONS." Ramasar Works, Bhavnagar. Phone: 415. Grams: "ALCOCKS." Registered Office: 16, Bank Street, Fort, Bombay-1 BR.**

**BHARAT TANK & STEEL CO., THE.—64, Podar Chambers, Parsi Bazar Street, Fort, Bombay. Phone: 251471. Grams: "GREND." Steel and Stainless Steel Fabrication of Industrial Equipment for Chemical, Sugar, Cement, Oil, Dyes and Dairy Industries and Structural Work.**

Bombay Rolling Shutters.—Mansukh Nivas, 2nd floor, 188, Khetwadi Back Road, Bombay 4.

**ELECTRO ENGINEERING CO. PRIVATE LTD.—Sea View, 1st Pasta Lane, Colaba, Bombay 5. Phone: 212016 & 214026. Grams: "GREWENWORK." Structural Engineers & Steel Fabricators of Railway Wagons, Diplorries Axle Guards, Storage Tanks, etc.**

**GENERAL TUBES PRIVATE LTD.—142/44, Nagdevi Street, Bombay-3. Grams: "GENTUBES." Phone Nos.: 322894, 328390. Manufacturers and Exporters C. I. Pipes, Special Water Meters, Valves of various types; Steel Pipes and Fittings for Water Gas & Steam. Also: Fabrication of Steel Pipes Fittings suitable for Rubber Linnings for Special Chemical Industries. Pressure vessel, Steam Separators and heating Coils to Customers Specifications.**

**GREAT WESTERN ENGINEERING WORKS.—Sea View, 1st Pasta Lane, Colaba, Bombay 5. Phones: 212016 & 214026. Grams: "GRENWENWORK." Structural & Mechanical Engineers & Contractors. Tank and Railway Equipment Manufacturers & Suppliers.**

Gupta Manufacturing Works.—Works: Cotton Green, Bombay.

**HIND TANK MANUFACTURING CO.—Trimbak Parsaram Street, Bombay 4. Phone: 331845. Grams: "INDUSPLANT." Designers and Fabricators of complete plants, Machinery & Equipment for all Industries. Also Manufacturers of storage tanks.**

**HINDUSTAN ENGINEERING WORKS.—7-C, Pitamber Lane, Mahim, Bombay-16. Telephone No.: 451408. Grams: "DICHROMATE" Air Compressors, Chemical Engineering Equipment, Founders and Foundry Equipment, Industrial Engineers, Material Handling and Conveyors, Moulding Machines and Boxes, Steel doors and Windows and Tank Manufacturers.**


**REFINERIES FOUNDRIES**

**Chemical and Petro Chemical Industries**

*We Manufacture:* **Pressure Vessels - Chemical Process Vessels - Air Receivers - Foundry Equipments - Storage Tanks and Pressure Pipes and all Steel Structures and Prefabricated Structures**

*Insist on:* **"H.E.W."**

*Contact:*

**HINDUSTHAN ENGINEERING WORKS**

7-C, Pitamber Lane, Mahim, Bombay-16.

Telephone No.: 451408. Telegram: "DICHROMATE".


**INDIA TUBE MILLS & METAL INDUSTRIES PRIVATE LTD.—Agra Road, Vikhroli, Bombay 83. Phone: 581541 & 581542. Grams: "TUBEMILL." Specialists in Tank Fabrication and Erection, Pressure Vessels, Laying of Oil Pipe Lines and Manufacturers of Bright Bars free Cutting and Commercial Quality.**

**INDUS ENGINEERING COMPANY.—Office & Works: Opp. Worli D.D. Chawl No. 114, Bombay 13 (B.C.). Phone: 40342. Grams: "INDUSINDH." Fabricators of Structural Steel, Tanks, Chimneys, Stagings, Floor Gratings, Pipe Lines, Conveyors, Elevators, etc.**

**JAYANT ENGINEERING CORPORATION.—14/D, Kurla Industrial Estate, Bombay 77. Phone: 55503. Specialists in Fabrication & Erection of Factory Shades, Steel Structures, Storage Tanks, Pressure Vessels, Pipes, Chimneys, etc. Work at Site also Undertaken.**

**JINDAL ENGINEERING WORKS.—Darukhana, Kasara Street, Bombay 10 DD. Phone: 78720. Grams: "JINDALSHIP." Manufacturers of various components for M.C., C.R., and Box Type Wagon, Forgings, Hooker, Structural Fabricator, Barbed Wires, "U" Staples, Cable Carrying Trays and A.C.S.R. Accessories and Transmission line tools.**

**JOSHI INDUSTRIAL CORPORATION.—312/313, Loha Bhavan, Frere Road, Bombay 9. Phone: 323055. Grams: "JOSHI-METAL." Structural & Mechanical Engineers, Industrial Structures, Factory Buildings, Storage Tanks, Chimneys, Pressure Vessels, Cranes, M.S. Pipes, Erection of Structures & Machinery and Pipe Lines, Gas Plants.**

Cable : METTICO
Phone Office : 323831 (4 Lines)
Director's Residence : 72125
Works : Kalyan 40

**K. T. STEEL INDUSTRIES PVT. LIMITED**

*Sales Office :*
K. T. Building, Broach Street, Dana Bunder, Bombay-9

*Works :*
Ambernath (Central Rly.)

***Manufacturers of*** Railway Wagons, Steel Structurals, Iron & Steel Castings, Wire Netting, Passenger & Goods Lifts, Cranes, Trailers, Oxygen and Acetylene Gases, Springs, Agricultural Implements, and Re-Rollers of Steel.

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Mapara Engineering Co.—381, Dadabhoy Naoroji Road, Bombay 1. Phones : 25-3398. Manufacturers of Mild Steel and Stainless Steel, Chemical and Pressure Vessels, Storage Tanks and all kinds of Sheet-metal and Structural works.

Metals Private Ltd.—269, Dr. Dadabhai Naoroji Road, Bombay 1.

**MUNCHERJEE BYRAMJEE & CO. (Estd. 1882).—35/C, Jerajbhoy Street, near Municipal Workshop, Bombay 8. Phone : 71692. Brass & Iron Founders and Structural & Mechanical Engineers.**

**RAYLONS METAL WORKS.—293, Bellasis Road, Bombay 8. Manufacturers of Food Canning Machinery, Chemical & Pharmaceutical Plants. All in Stainless Steel. Our Specialities : Stainless Steel Jacketed Kettles, Canteen & Cafeteria Equipments and Raylons Patented Aluminium Solder.**

Richardson & Cruddas Ltd.—Byculla, Bombay 8.

**SIESTA INDUSTRIAL & TRADING CORPORATION**

Office : 33/A Marine Lines, Bombay 1.

Grams : "SEABREEZE". Phone: Office: 241446.

**Structural & Mechanical Engineers and Founders. Specialists in Manufacturing Heart-Lung Machines, and Chemical Engineering Equipment.**

*Fabrication Job undertaken throughout the Country.*

Factory Address: Bail Bazaar, North Kurla, Bombay 70 AS.

Phone: Factory : 51514.

**SHUBHDWAR ROLLING SHUTTERS & ENGINEERING CO.—15, Bank Street, Fort, Bombay 1. Phones : 254445 & 254185. Grams : "SHUBHROLL." Manufacturers of Steel and Aluminium Rolling Shutters, Window grilles, Collapsible Gates, Fire Proof Doors, Compound Gates, Platform Trolleys, Wheel Barrows, Steel Doors & Windows, all types of Steel Fabrication Works, Dealers in Machinery and Tank Manufacturers.**

Steel Industries of Hindustan Ltd.—Magazine Street, Darukhana, Bombay 10.

**STRUCTURAL ENGINEERING WORKS LTD.—Managing Agents : Bhagat & Sons Private Ltd. Registered Office : Maneckji Wadia Building, 127, Mahatma Gandhi Road, Fort, Bombay 1. Grams : "BHAGATSON." Phones : 255601-2-3-4. Chairman: Mr. H. M. Patel. Managing Director: Mr. I. N. Bhagat. Specialists in the Design and Fabrication of Water Pipes, Oil Pipes, Penstocks, Boilers, Pressure Vessels, Transmission Towers, Industrial Buildings, Cranes, etc., etc. Complete Mechanised Automatic Welding.**

**VIJAY INDUSTRIES.—Haji Adam Mansion, 1st Floor, Homji Street, Bombay 1. Phone : 252341. Structural and Mechanical Engineers, Fabricators & Erectors of Vertical & Horizontal Tanks for the Petroleum Industry.**

Western India Engineering Co., The.—Signal Hill Avenue, Sewri, Bombay 15.

## STRUCTURAL WATERPROOFING

**GLADSTONE LYALL & CO., LTD.—21, Lansdowne Road, Apollo Bunder, Bombay 1. Phones : 212805 & 211241. Grams : "GLADSWYLL." Bombay Manager : Cmdr. J. B. Simmons. Regd. Office : 4, Fairlie Place, Calcutta.**

## SUGAR MERCHANTS

A. H. Bhiwandiwalla & Co. (Bombay) Private Limited.—93-95, Kazi Saiyed Street, Bombay 3.
Abdul Satar Mahmad.—Rehmat Bldg., 4th Floor, Koliwada, Bombay 3.
Abdul Shakur Umar.—Sahigara & Co.—Haji Habib Bldg., Koliwada, Bombay 3.
Amratlal Mohanlal & Co.—104-114, Frere Road, Bombay 9.
Arvindkumar Satischandra, C/o Jayantilal Jagjivandas & Co.—104-114, Frere Road, Bombay 9.
Arunkumar Khimji & Co.—311, Kharek Bazar, Bombay 9.
African Trading Co. Ltd., The.—81, Kazi Saiyed Street, Bombay 3.
Bhajanlal Lachmandas Menda.—104-114, Frere Road, Bombay 9.
Bharti Trading Co.—90-92, Kazi Saiyed Street, Bombay 3.
Bhupatrai Kalidas & Co.—195, Samuel Street, Bombay 9.
Bharat Soft Sugar Co.—120, Kazi Saiyed Street, Bombay 3.
Bhairamal Prahladrai.—226, Kalbadevi Road, Bombay 2.
Bhivraj Devichand.—331, Kalbadevi Road, 3rd Floor, Bombay 2.
Bombay Sugar Trading Co.—104-114, Frere Road, Bombay 9.
Chhaganlal Tribhovandas & Co.—104-114, Frere Road, Bombay 9.
Chhanalal Vadilal.—44, Vithalbhai Patel Road, Bombay 4.
Chandulal Kanjibhai.—86, Dontad Street, Masjid Bunder Road, Bombay 3.
Chandulal Mohanlal.—Ram Bldg., 2nd Floor, Bhuleshwar, Kumbhar Wada, Bombay 4.
Chandulal Kantilal.—722, Cotton Exchange Bldg., Kalbadevi, Bombay 2.
Chandulal Rameshwardas.—Mani Mahal, 4th Floor, 353, Kalbadevi Road, Bombay 2.
Chimanlal Punjalal.—29, 3rd Bhoiwada, Bhuleshwar, Bombay 2.
Chinubhai Ambalal & Co.—104-114, Frere Road, Bombay 9.
Chunilal Bhagwandas & Co.—28, Mudi Bazar, Mandvi, Bombay 3.
Deoji Gokaldas & Co.—Gaya Bldg., Musjid Bunder Road, Bombay 3.
Dhirajlal Amratlal.—104-114, Frere Road, Bombay 9.
Dhirajlal Manilal.—104-114, Frere Road, Bombay 9.
Dinesh Amratlal.—Anand Mahal, Babulnath Road, Bombay 7.
E. H. Kathawala & Co.—262-270, Bhat Bazar, Bombay 9.
Girijashanker Revashanker & Co.—104-114, Frere Road, Bombay 9.
Gokalchand Shetty.—54, Brahmanwada Road, Matunga (C. Rly.), Bombay 19.
Gopalshai Motiram.—326, Swadeshi Market, 1st Floor, Bombay 2.
Gordhandas Kirchand & Co.—194, Zaveri Bazar, Bombay 2.
Gordhandas Ranchhoddas.—Shakti Nivas, 287-289, Samuel Street, Bombay 9.
Gulabray Nathoobhai, C/o Manordas Himatlal.—104-114, Frere Road, Bombay 9.
Haji Adamji Sons.—91, Mohamedalli Road, Rangoonwalla Bldg., 2nd Floor, Bombay 3.
**Haji Esmail Nurmahomed Co.—Dada Manzil, 3rd Floor, 67-69, Mohamedalli Road, Bombay 3.**
Haji Shakur Haji Jamal Nurmohamed.—Noor Palace, 1st Floor, 101, Mohamedalli Road, Bombay 3.
Haji Siddik Haji Karim Jiya.—104-114, Frere Road, Bombay 9.
Hansraj Hariram & Co.—Fazalbhoy Bldg., Opp. Flora Fountain, Mahatma Gandhi Road, Bombay 1.
Haridas Vishram & Co.—91, Kazi Saiyed Street, Bombay 3.
Harilal Manmohandas Parekh.—104-114, Frere Road, Bombay 9.
Hariram Velji & Co.—65-67, Damar Galli, Bombay 9.
Hemchand Mohanlal & Co.—Javeri, 20, Dhanji Street, Bombay 3.
Himatlal Dhirajlal & Co.—Laxmi Bldg., 1st Floor, 43, Nagdevi Cross Lane, Bombay 3.
Himatlal Parshotamdas Parekh.—104-114, Frere Road, Bombay 9.
Hindustan Sugar Mills, Ltd.—Jehangir Wadia Building, 51, Mahatma Gandhi Road, Fort.
Hirji Keshavji Kesarwala.—303, Kharek Bazar, Mandvi, Bombay 9.
Hollaram Bikhchand & Sons.—387-89, Narshi Natha Street, Katha Bazar, Bombay 9.
Hussenbhai Jeewanjee.—Currimjee Bldg., Koliwada, Bombay 3.
Indian Sugar Depot.—Shop No. 4, Mapla Masjid, Khand Bazar, Bombay 3.
Jagdeoshanker Sharma.—Hamat Building, New Parbhadevi Road.
Jamnadas Juthabhai & Co.—217, Samuel Street, Bombay 3.
Jayantilal Jagjivandas & Co.—104-114, Frere Road, Bombay 9.
Jayantilal & Co.—335, Samuel Street, Vadgadi, Bombay 3.
Jethabhai Bhanji & Co.—5, Garibdas Street, Vadgadi, Bombay 3.
Jethabhai Gopalji & Co.—361, Duncan Road, Bombay 4.
Jhamandas Thakurdas.—104-114, Frere Road, Bombay 9.
Jitendrakumar & Co.—232, Vadgadi, Bombay 3.
Jivanlal Lallubhai.—805, Cotton Exchange Bldg., Kalbadevi Road, Bombay 2.
Kalidas Harjivan.—195, Khoja Galli, Bombay 9.
Kanji Velji.—74-76, Kazi Saiyed Street, Bombay 3.
Kantilal Dahyabhai.—104-114, Frere Road, Bombay 9.

Kantilal Chhaganlal Zaveri.—Gay Bldg., R. No. 52, 4th Floor, Masjid Bunder Road, Bombay 3.
Kantilal Maganlal Jhaveri.—192, Zaveri Bazar, Bombay 2.
Kantilal Vishnudas.—63-65, Cathedral Street, Bombay 2.
Kassim Haji Tayeb & Co. Ltd.—Karimji Bldg., Katha Bazar, Bombay 9.
Keshavlal Parsram.—104-114, Frere Road, Bombay 9.
Keshavji Dhanji & Co.—Bhailal Bhuvan, 1st Floor, 118, New Chinch Bunder Road, Bombay 9.
Kesar Sugar Works Ltd., The.—104-114, Frere Road, Bombay 9.
Kikabhai Gulamhusen.—210, Samuel Street, Vadgadi.
Kilachand Devchand & Co., Ltd.—45-47, Apollo Street, Fort.
Kolhapur Sugar Mills Ltd., The.—The United Agencies Ltd., Agents, Imperial Bank Bldg. Annexe, Apollo Street, Bombay 1.
Kumarpal Ratanpal, C/o Ratanji Virpal & Co.—104-114, Frere Road, Bombay 9.
Laxmichand Dahyabhai & Co.—32, Kazi Saiyed Street, Bombay 3.
Louis Dreyfus & Co.—Nicol Road, Ballard Estate.
Madhavji Harjibhai & Co.—Station Road, Kalyan.
Madhukar & Co.—311, Narsi Natha Street, Bombay 9.
Maganlal Bhagwandas & Co.—104-114, Frere Road, Bombay 9.
Mahadev Rameshwarlal.—12-14, Parsi Galli, Dhanji Street, Bombay 3.
Mahendrakumar Sevantilal & Co.—378-80, Narsi Natha Street, Katha Bazar, Bombay 9.
Mahipatrai Jadavji & Co.—79, Masjid Bunder Road, Bombay 3.
Manharlal Mohanlal Suratwala.—Patel Bldg., 20, Dady Seth Agiari Lane, P.O. Box No. 2482, Bombay 2.
Manordas Himatlal.—104-114, Frere Road, Bombay 9.
Manordas Parshotamdas Parekh.—104-114, Frere Road, Bombay 9.
Manoharlal Shersinghdas.—Jai Hind Estate No. 2, Bhuleshwar, Bombay 2.
Mansukhlal Hathising & Co.—31, Abdul Raheman Street, Bombay 3.
Motipur Sugar Factory Ltd., The.—164-166, Kambekar Street, Bombay 3.
Mohanlal Chhaganlal.—Suraj Bhuvan, 2nd Floor, 30, 2nd Bhoiwada, Bombay 2.
Mulji Ratanshi & Co.—334, Narsi Natha Street, Bombay 9.
Nagindas Harjivandas Shah, C/o Harjivandas Dipchand.—Dana Pith, Bhavnagar (Saurashtra).
Nanji Shamji & Co.—Ganpat Napu Bldg., 116, New Chinch Bunder Road, Bombay 9.
Nathalal Bahechardas & Co.—809, Cotton Exchange Bldg., 8th Floor, R. No. 809, Bombay 2.
National Confectionery Mfg. Co.—263, Samuel Street, Bombay 3.
Natvarlal Mohanlal & Co.—318, Kharek Bazar, Bombay 9.
Navnitrai Harivallabhdas, C/o Manordas Himatlal.—104-114, Frere Road, Bombay 9.
Navinchandra Nagardas & Co.—67, Essaji Street, Bombay 3.
Navinchandra Tulsidas, C/o Narottamdas Harivallabhdas.—80, Kazi Saiyed Street, Bombay 3.
Paira Singh Balkishen.—79, Kazi Saiyed Street, Bombay 3.
Parikh Vrajlal Narandas.—80-84, Moti Bhuvan, Cathedral Street, Bhuleshwar, Bombay 2.
Parsram Parumal & Co.—Talreja, 104-114, Frere Road, Bombay 9.
Parsram Ramchand.—Nafees Chambers Annexe, Carnac Road, Bombay 1.
Popatlal Dalpatlal & Co.—28, Mudi Bazar, Mandvi, Bombay 3.
Prabhodhan Bhujangilal & Co.—94, Kazi Saiyed Street, Bombay 3.
Punamchand Motilal.—104-114, Frere Road, Bombay 9.
Ranchhoddas Meghji.—288, Bhat Bazar, Bombay 9.
R. B. Jessaram Fatechand.—104-114, Frere Road, Bombay 9.
R. Shantilal.—15, Navi Wadi, 4th Floor, Dady Seth Agiari Lane, Bombay 2.
Rameschandra Prabhudas & Co.—104-114, Frere Road, Bombay 9.
Ramgopal Nandkishore.—Bhuleshwar, Jai Hind Bldg. No. 1, Bombay 2.
Ramniklal Vadilal & Co.—9, Chinch Bunder Road, 1st Floor, Bombay 9.
Rasiklal Himatlal.—104-114, Frere Road, Bombay 9.
Ratanshi Assaria & Co.—99-103, Kazi Saiyed Street, Bombay 3.
Ratanji Virpal & Co.—104-114, Frere Road, Bombay 9.
Ratilal Bhavan & Co.—136, Kazi Saiyed Street, Bombay 3.
Ratilal Madanji.—104-114, Frere Road, Bombay 9.
Rugnath Tricumdas.—324, Kharek Bazar, Bombay 9.
Sankalchand G. Shah & Co. Ltd.—Hanuman Bldg., Tamba Kanta, Pydhonie, Bombay 2.
Sha Harkisondas Jagjivandas.—Mukund Mansion, 105, Vithalbhai Patel Road, Bombay 4.
Shah Govindji Padamshi.—317, Kharek Bazar, Bombay 9.
Shah Kantilal Chunilal & Co.—327, Kharek Bazar, Bombay 9.
Shah Mohanlal Natvarlal Bardoliwalla.—77-79, Vithalwadi, Bombay 2.
Shah Nagindas Jechand.—118-122, Kazi Saiyed Street, Bombay 3.
Shah Pravinchandra Bhikhabhai.—Sai Bhuvan, 143, Princess Street, Bombay 2.
Shah Sevantilal Chunilal & Co.—104-114, Frere Road, Bombay 9.
Shah Sevantilal Chunilal & Co.—71-73, Essaji Street, Bombay 3.
Shankerlal Rasiklal.—Diamond Bldg., Lohar Chawl, Bombay 2.
Shantilal K. Shah & Co.—116, Narayan Dhuru Street, 1st Floor, Bombay 3.
Shantilal Maganlal Nadiadwala.—Laxmidas Chandaramji Bldg., 229-231, Kariana Bazar, Bombay 3.
Sheodialmal Surajbhan.—11-13, Malharrao Wadi, Kalbadevi Road, Bombay 2.
Shivdanmal Agarwal.—336, Kalbadevi Road, Bombay 2.
Shivlal Bhaichand Co.—45-51, Essaji Street, Bombay 3.
Sind National Sugar Mills Ltd.—B 2, Frere Road, Opp. Sugar Market Limited, Bombay 9.
Sobhachand Ramnarayan Khatod.—Gresham Building, Mahatma Gandhi Road, Fort.
Sobhagyachand & Co.—29, Bhat Bazar, Bombay 9.
Sugar Shippers & Buyers' Association.—General Assurance Co. Building, Hornby Road, Fort.
Surajmal Chandrabhan Dakle.—Anand Mahal, Babulnath Road, Bombay 7.
Swasti Produce Co. Ltd., The.—74-76, Kazi Saiyed Street, Bombay 3.
Swastik Confectionery Works, The.—108, Kazi Saiyed Street, Bombay 3.
Teckchand Lakhmichand.—179, 2nd Floor, Samuel Street, Bombay 9.
Tha. Jagjivandas Tulsidas Co.—Santokchand Bldg., 4th Floor, 318, Vadgadi, Bombay 3.
Tha. Jamnadas Haridas.—45, Mudi Bazar, Bombay 3.
Tha. Premji Pragji Dharamshi.—263, Samuel Street, Bombay 3.
Thakurdas Girdharidas.—382-384, Katha Bazar, Bombay 9.
Tricumdas & Co.—R. No. 406, East India Cotton Assn. Ltd., 4th Floor, Kalbadevi Road, Bombay 2.
Vachhraj Premchand, Bhulani & Co.—72, Marine Drive, Bombay 1.
Vashdev Dabrai.—104-114, Frere Road, Bombay 9.
Vasantlal Vadilal & Co.—215-17, Samuel Street, Vadgadi.
Waghji Lakhmidas & Co.—82, Kazi Saiyed Street, Bombay 3.
Zaverilal Gordhandas.—104-114, Frere Road, Bombay 9.

## SUGAR MILL MACHINERY & OTHER REQUIREMENTS SUPPLIERS

**A. VALLABHDAS & SONS.—37, Nagdevi Street, Bombay 3. Phone: 324281. Grams: "GINSPARE". Stockists of Boiler Tubes, Accessories, Cocks & Valves & Sugar Mill Requirements.**

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone: 326980. Grams: "ALERTDEAL."**

**ADVANCE TUBE CO.—99, Nagdevi Street, Bombay 3. Phone: 323522. Grams: "ELBOWS."**

**Asian Textile Engineering Corporation.—Kermani Building, Sir Phirozshah Mehta Road, Fort.**

**ASSOCIATED ENGINEERING CO.—Sane Building, Nababhai Lane, Fort, Bombay-1. Telegram: "STELLIDES." Telephone: 252597. Office: 571880. Works: Manufacturers of: Glucose and Starch Plants, Pharmaceutical and Chemical Plants, Industrial Machinery-Chemical Process Equipments and Sugar Machinery.**

**DEVIDAYAL TUBE INDUSTRIES LTD.—Gupta Mills Estate, Reay Road, Bombay 10. Grams: "DEVITUBE." Phone: 70001 (4 lines). Manufacturers of Seamless Solid drawn bright Annealed Brass Tubes, 70/30, Alloy & Copper Tubes for Sugar and Distillery Industries.**

**DE SMET (INDIA) PVT. LTD.—Khanna Construction House, 44, Maulana Abdul Gaffar Road, Worli, Bombay-18 (WB). Phone: 77271. Grams: "EXTRAXMET." Manufacturers of Solvent Extraction Plants, Vegetable Oil Refining Plants, Cotton seed Processing Equipment, Sugar Plant Machineries. Factory: Panch Pakhadi Eastern Express Highway, Thana.**

**ESSENTIAL ENGINEERING CO.—11, Botawala Bldg., Elphinstone Circle, Fort. Grams: "ESSENCE." Phone: 252601. Importers, Exporters, Commission Agents and Manufacturers' Representatives.**

**INDIA METAL AGENCIES.—"India House," Opp. G.P.O., Bombay 1. Phones : 261978 & 265456. Grams : "WIDEEYE." Engineers, Manufacturers' Representatives, Importers & Dealers in Electrical Machinery.**

**INDUS ENGINEERING COMPANY.—Office & Works : Opp. Worli D.D. Chawl No. 114, Bombay 13 (B.C.). Phone : 40342. Grams : "INDUSINDH." Manufacturers of Evaporators (single or multiple effect), Steam Jacketed Evaporating Pans, Vacuum Pans, Heat Exchangers & Condensers coil or tubular type, Crystallisers, Grass Hoppers, etc., etc.**

India Rubber Products.—Kasturchand Mills Estate, Dadar, Bombay-28. Manufacturers of Industrial & Moulded Rubber Products.

**JIVRAJ & VRAJLAL.—122, Nagdevi Street, Bombay 3. Phone : 325138 (Shop), 30932 (Res.). Grams : "SANIPIPES".**

Kirtikumar & Co.—80, Bhandari Street, Mandvi, Bombay 3. Grams : "LALITKIRTI."

Mahendra Co.—Chatrabhuj Nivas, 70, Vadgadi, Bombay 3.

Oriental Engineering Co.—25, Forbes Street, Fort, Bombay 1.

P. Ratilal & Co.—43, Dhanji Street, Bombay 3.

**PRAVIN BROTHERS & CO.—501, Commerce House, Medows Street, Bombay 1. Phones : 251748, 252419. Grams : "WIDESCOPE." Importers, Exporters and Agents : Sulphur, Chemicals, Solvents, Pyridine Base, Fertilizers, Minerals—Lime—Jute—Products. Polysol, S.5, Polysol, S-6. Gypsum.**

Shah Engineering Stores.—88-92, Nagdevi Cross Lane, Bombay 3.

**SUPREME INDUSTRIAL WORKS.—196/K, Gaiwadi, Girgaum, Bombay 4. Manufacturers of Worm Reduction Gear Units and Specialists in all kinds of Worms and Worm Wheels.**

Vasi Shums & Co. Private Ltd.—165-67, Nagdevi Street, Bombay 3.

Vithal Purshotum & Sons Private Ltd.—2nd Khetwadi Lane, Bombay 4.

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate.

## SUGAR MILLS

Belapur Company Limited.—Brady House, 12/14, Veer Nariman Road, Fort, Bombay 1.

Belwandi Sugar Farm Ltd.—Industrial Assurance Building, Churchgate, Fort, Bombay 1.

Brady, W. H., & Co. Ltd.—Royal Assurance Building, Churchgate Street, Fort.

**GODAVARI SUGAR MILLS LTD., THE.—Fazalbhoy Building, Mahatma Gandhi Road, Fort, Bombay. Phone : 255337-8.**

Hindustan Sugar Mills Ltd.—51, Mahatma Gandhi Road, Fort.

Kolhapur Sugar Mills Ltd.—Fazalbhoy Building, Mahatma Gandhi Road, Bombay 1.

Kopargaon Sahakari Sakhar Karkhana Ltd.—Fazalbhoy Building, Mahatma Gandhi Road, Bombay 1.

Maharashtra Sugar Mills Ltd.—Industrial Assurance Building, Churchgate, Fort, Bombay 1.

**PHALTAN SUGAR WORKS LTD., THE.—Manufacturers of Sugar, Sangli Bank Bldg., 4th Floor, 296, Bazargate Street, Bombay 1. Phone : 253339 & 256866. Grams : "RISINGSUN."**

## SULPHUR

**PRAVIN BROTHERS & CO.—501, Commerce House, Medows Street, Bombay 1. Phones : 251748, 252419. Grams : "WIDESCOPE." Importers, Exporters and Agents : Sulphur—Chemicals—Solvents—Pyridine Base—Fertilizers—Minerals—Lime—Jute—Products. Polysol, S-5, Polysol. S-6, Gypsum.**

## SURGICAL INSTRUMENTS & APPLIANCES

Adair Dutt & Co., Ltd.—Calcutta National Bank Building, Sir Phirozshah Mehta Road, Fort.

Alliance Medical Co.—Dwarkadas Building, 457, Sandhurst Road, Bombay 4.

**ASHA RUBBER INDUSTRIES.—Shamwadi, 2nd Floor, Ranade Road, Dadar, Bombay-28. Manufacturers of 100 per cent Acid and Alkali proof light and heavy duty and Fabric Lined Industrial rubber gloves. "MEDITEX" surgeon gloves our speciality.**

**BENGAL CHEMICAL & PHARMACEUTICAL WORKS LTD.—502, Cadell Road, Bombay 28. H.O. 6, Ganesh Chunder Avenue, Calcutta 13. Pharmaceuticals, Heavy & Fine Chemicals, High Class Toilet Products, Coal Tar Distillation Products, Fire Extinguishers, Printing Inks, Driers, etc. Branch Office : Kanpur.**

Bombay Surgical Co.—New Charni Road, Bombay No. 4.

**DIAMOND SURGICAL DRESSINGS WORKS, THE.—381, Arthur Road, Bombay 11. Phone : 74836.**

Eyres, E., & Co.—Bellasis Road, Bombay 8.

**FAIRDEAL SURGICAL CORPORATION.—106, Bank of Baroda Building, Palton Road, Bombay 1. Grams : "FOLLOWER." Phone : 261340. (Surgical Instruments and Hospital Appliances).**

Girdhar Javer & Co.—Devkaran Mansion, Princess Street.

Gordhandas Desai Private Ltd.—Kermani Building, Sir Phirozshah Mehta Road, Bombay 1.

Government Medical Stores.—Bellasis Road, Byculla.

I.C.I. (India) Private Ltd.—P.B. No. 310, Bombay 1.

**IMPERIAL SURGICAL CO. PRIVATE LTD.—"India House," Opp. G.P.O., Fort, Bombay 1. Leading Manufacturers of Hospital Equipment. Importers of Surgical Instruments, Hospital Sundries, Catguts and Ligatures, Dental Instruments, Electro-Medical Equipment, Microscopes, and Laboratory Furnishers. Grams : "IMPSURGCO." Phone : 26-3468. Branches at : Hazratgunj, Lucknow.**

**INDIAN OXYGEN LTD.—Ghatkopar (Bombay-Agra Road), Bombay. Phones : 55241 (7 lines) & 55180, 55382, 55340. Grams : "INDOXCO," Ghatkoper. Suppliers of Medical Apparatus for Anaesthesia, Analgesia & Oxygen Therapy and Medical Oxygen.**

Jadavjee Goverdhandas & Co.—58-60, Princess Street, Bombay 2.

Jagtiani, J. T.—National House, 6, Tulloch Road, Apollo Bunder, Bombay 1.

J. L. Morison Son & Jones (India) Ltd.—Ballard Estate, Bombay 1.

Kanchanlal Maganlal & Co.—Bode Chawl, Princess Street, Bombay 2.

**K. CHAPMAN & CO.,—462, Sardar Vallabhbhai Patel Road, Bombay 4. Phone : 70448. Grams : "TRUSSWORKS." Manufacturers of Hernia Trusses, Abdominal Belts, Deformity Appliances, and Artificial Limbs.**

Mahomed Husain & Bros.—106, Kansara Chawl, Kalbadevi, Bombay 2.

**MALGHAM BROS.—26, Old Custom House Road, Fort, Bombay 1. Surgical, Electro-Medical & X-Ray Equipment Importers. Phone : 252964. Grams : "MALGHAM."**

Martin & Harris Ltd.—Savoy Chambers, Wallace Street, Fort.

Modern Traders.—Dwarkadas Mansion (Entrance Benham Hall Lane), 457, Sandhurst Road, Bombay 4.

**NEW SURGICAL TRADING CO., THE.—Bulakhidas Building, Mangaldas Road, Princess Street, P.O. Box 2321, Bombay 2. Dealers in Surgical, Scientific and Laboratory Equipments, Hospital Steel Furniture and Sundries. Specialise in soil and cement testing equipment. Agents for Instruments & Chemical Private Ltd., Manufacturers of Equipments for Higher Research in Physiology & Pharmacology. Tel. No. 38138. Telegrams : "COWORKER."**

Patravali, N. P., & Co.—Fort Chambers, Hamam Street, Fort.

Rajni Industrial Corporation.—Kitab Mahal, 192, Hornby Road, Fort.

Reliance Electric & Hardware Stores.—55, Krishna Bhuvan, Lohar Chawl.

Scientific Apparatus & Chemical Works Ltd.—Krishna Building, Bori Bunder.

Scientific & Industrial Supplies Corporation.—Princess Street, Bombay 2.

Scientific Instrument Co., Ltd., The.—Navsari Building, 240, Hornby Road.

Shah, M., & Co.—Kanji Mansion, Sandhurst Road, Bombay 4.

**SHEKASA ENGINEERING CO., PRIVATE LTD.—21-B, Noble Chambers, Parsee Bazar Street, Fort, Bombay-1. (1) Manufacturers of Printers Requirements. (2) Manufacturers of Surgical Instruments—Such as Instrument Sterilisers.**

Thomson & Taylor.—119, Mahatma Gandhi Road.

Universal Supply and Trading Co.—Ismail Building, 381, Hornby Road, Fort.

Visso Trading Co.—462, Sandhurst Road.

Whitten, F. C., & Co.—Commissariat Building, 227, Hornby Road, Fort.

**ZENITH SURGICAL CO.—206/3C, Mangaldas Bldg., Mangaldas Road, Bombay 2. Grams : "INSTRUMENT". Dealers in Surgical, Scientific & Laboratory Equipment.**

Zill & Co.—Princess Street, Bombay 2.

## SURVEYORS

**SORABJI, S. K., & CO.—Army & Navy Bldg., Mahatma Gandhi Road, Bombay 1. Phone : 252726. Accident, Marine & Engineering Surveyors, Assessors and Valuers.**

**V. N. C. NARICHAINA (PRIVATE) LTD.—P.O. Box 207-A. 22, Sir Phirozeshah Mehta Road, Fort, Bombay (India), Phones : 265098, 212676 and 245329. Grams : "SURVEYLOSS."**

## SURVEYING AND MEASURING INSTRUMENTS

**ALLIED INSTRUMENTS PRIVATE LTD.—Himalaya House, 79-C, Palton Road, Bombay-1. Phone : 261403. Manufacturers of Prismatic Compasses Pentagraphs, Dumpy & Eboney Lever, Optical Squares, French & Railway Curves, Set-Squares Protractors etc.**

**ANDHRA SCIENTIFIC CO., LTD.—Janmabhoomi Chambers, Fort Street, Bombay 1. Phone : 261540. Grams : "ASINSTS." Regd. Office & Works : Masulipatam (Andhra Pradesh).**

Bombay Stationery Mart.—Sir Phirozshah Mehta Road, Fort.

**ESSENTIAL ENGINEERING CO.—11, Botawala Building, Elphinstone Circle, Fort. Grams : "ESSENCE." Phone : 252940. Importers, Exporters, Commission Agents and Manufacturers' Representatives.**

**EVERGREEN CORPORATION.—9/15, Picket Cross Road, P.O. Box No. 2733, Bombay 2. Grams : "GREENLEAVE." Phone : 22162. Measuring Tapes, Chains, Refills, Precision Measuring Instruments, Theodolites, Planimeters, Stop-watches, Levels, Compasses & Rulers, Survey & Drawing Instruments.**

**LAWRENCE & MAYO (INDIA) PRIVATE LTD.—274, Dr. Dadabhoy Naoroji Road, Fort, Bombay 1. Phone : 261827.**

Mercantile Stationery Mart.—261, Abdul Rehman Street, Bombay 3.
Navlakhi & Co., J. V.—Kanta Terrace, Kalbadevi Road, Bombay 2.

**PIONEER EQUIPMENT CO. PRIVATE LTD.—139, Medows Street, P.O. Box No. 1909, Fort, Bombay 1. Phone : 251882. Also at Calcutta, New Delhi, Madras & Baroda. Agents for VICKERS INSTRUMENTS LTD., U.K. for Engineers' Block Levels, Gauges, Surveyors' Levels, Theodolites, etc.**

**RAJ-DER-KAR & CO.—Sadhana Rayon House, Dr. Dadabhai Naoroji Road, Fort, Bombay. For Research Industries. Phone : 262304 (P.B.X.—4 lines). Grams : "TECHLAB."**

**REMEDIOS & SONS (Registered as Small Scale Industry No. MH/R-311 of 4-4-62).—Manufacturers of Surveying Instruments, Cama House, 255, Dr. Dadabhoy Naoroji Road, Fort, Bombay-1. Phone No. : 263336.**

## SWITCHBOARD PANELS

**RADIANT ELECTRIC & MACHINERY CO.—Sir Vithaldas Chambers, Bruce Street, Bombay 1. Phone : 255296-7. Grams : "RADICAL".**

## TABLET MAKING MACHINES

Batliboi & Company Private Limited.—Regd. Office : Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR.). Phones : 255451 (6 lines). Grams : BATLIBOICO. Telex : 284. City Branch : Batliboi House, 59/61, Nagdevi Cross Lane, Bombay-3 (BR.). Branches : Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate : Bangalore 2. Resident Representatives : ERNAKULAM, RANCHI.

**KILBURN & CO. LTD.—Gresham Assurance House, Pherozshah Mehta Road, Fort, Bombay 1. Phone : 251908. Grams : "TASCONIUM."**

**MANEKLAL & SONS (Showroom & Sales Division).—277, Nagdevi Street, Bombay 3—BR. Grams : "KIRTIRAJNI." Phone : 321925 Export-Import Division—115/116, Narayan Dhuru Street, Bombay 3—BR. Phone : 321924. Associates : Calcutta 13. Agency : Madras 1. Importers, Exporters & Stockists of Workshop Machines, Wood Working Machines, Sheet Metal Working Machines, Electrical Tools & Cottage Industry Machines.**

## TAILORS, OUTFITTERS AND DRESSMAKERS

Beauforts Ltd.—35, Churchgate Street, Fort.
Bhatt, T. R., Co.—G. S. Mhaskar Ltd., Lady Jamshedji Road, Dadar, Bombay 14.
Cawnpore Mills Depot.—Churchgate House, Churchgate Street, Fort.
Charagh Din & Bros.—Hyder Building, 64, Wodehouse Road.
Charagh Din & Son.—Linden House, Apollo Bunder.
Dean & Sons.—Kulsum Terrace, opp. Cusrow Baug, Colaba.
Dias, A. B., & Bros.—105, Mahatma Gandhi Road, Fort.
Dias & Bros., J.—173, Princess Street.
Dias & Co., A. S.—Commissariat Building, Hornby Road, Fort.
Esquire Limited.—141, Mahatma Gandhi Road, Bombay 1.
Excelsior Drapers, Ltd.—Neptune Building, 170, Hornby Road, Fort.
Gonsalves & Victor.—"Hampton Court", 125, Wodehouse Road, Bombay 5.
Laffans (India) Ltd.—Rustom Building, Churchgate Street, Fort.
Lal & Co.—Lansdowne Road, Apollo Bunder.
Narain & Company.—Opp. Churchgate Station.
New Lord & Co.—Royal Terrace, 58, Wodehouse Road, Colaba, Bombay 5.
Oxford Tailors.—Majestic Hotel, Colaba Causeway, Fort.
S. V. Rao & Sons.—Parel, Bombay 12.
Tropical Tailors.—Waterloo Mansion, Wodehouse Road.
**UPPALS & COMPANY.—Tailors, Outfitters & Contractors, Indian Merchants' Chamber Building, Churchgate Street Extension, Fort. Phone : 241378. Grams : "UPPALMAK."**
Wassiamull Assomull & Co.—3-A, Churchgate, Fort.

## TALLOW IMPORTERS, DEALERS AND MANUFACTURERS

Apex Traders.—Advani Chambers, Sir Phirozshah Mehta Road, Fort.

**DR. YAJNIK'S KEMICOLOR INDUSTRIES.—193/195, Dr. D. Nowroji Road, Bombay 1. Phone : 261192. Grams : "COLORCRAFT." Manufacturers of Conc Textallow. 1 kilo of Textallow replaces 8 kilos of Mutton Tallow.**

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.—Wavell House, Graham Road, Ballard Estate, Bombay. Phone : 26-2711 (8 lines). Machine Works : Tank Road, Bombay 33 DD. Phone : 78544. Offices at Madras, Calcutta, New Delhi, Bangalore, Secunderabad & Lucknow.**

Firoz Trading Co., Private td.—Kamar Bldg., Cowasji Patel Street, Bombay 1.
General Textile Stores, Ltd.—Beaumon Chambers, 27/33, Medows Street, Fort.
Seth, S. C. & Co., Ltd.—Raja Bahadur Mansion, 14, Hamam Street, Fort.

## TANK MANUFACTURERS

Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Fort

**BHARAT TANK & STEEL CO., THE.—64, Podar Chambers, Parsi Bazar Street, Fort, Bombay. Phone : 251471. Grams : "GREND." Manufacturers of Steel & Stainless Steel Oil & Water Tanks, Chimneys, Pressure Vessels and Industrial Processing Equipment.**

**ELECTRO ENGINEERING CO. PRIVATE LTD.—Sea View 1st Pasta Lane, Colaba, Bombay 5. Phone : 212016 & 214026. Grams : "GREWENWORK." Structural Engineers & Steel Fabricators of Railway Wagons, Diplopries Axle Guards, etc. Storage Tanks, etc.**

**EMMES METALS PRIVATE LTD.—M. S. Catch Pots, Wash Tanks, Stainless Steel and Monel Metal Vessels, Lead Lined/Bonded, P.V.C. Lined and Rubber Lined Tanks, Steel Reinforced Wooden Vats. 11, Worli Road, Bombay 18 WB. Phones: 75432/3/4. Grams : "METAMELT."**

Garlick & Co.—Haines Road, Jacob Circle.

**GREAT WESTERN ENGINEERING WORKS.—Sea View, 1st Pasta Lane, Colaba, Bombay 5. Phones : 212016 & 214026. Grams : "GREWENWORK." Structural & Mechanical Engineers & Contractors. Tank & Railway Equipment Manufacturers & Suppliers.**

**Herman & Mohatta Ltd., B. R.—People's Building, Sir Phirozshah Mehta Road, Fort.**

**HIND TANK MANUFACTURING CO.—Trimbak Parsaram Street, Bombay 4. Phone : 331845. Grams : "INDUSPLANT." Designers and Fabricators of Complete plants, Machinery and equipment for all Industries. Also Manufacturers of Storage Tanks.**

**HINDUSTHAN ENGINEERING WORKS.—7/C, Pitamber Lane, Mahim, Bombay 16. Phone : 61408. Grams : "DICHROMATE." Air Compressors, Chemical Engineering Equipment, Founders & Foundry Equipment, Industrial Engineers, Material Handling and Conveyors, Moulding Machines and Boxes, Steel doors and Windows and Tank Manufacturers.**

Industrial Machine & Tools Co.—347, Lamington Road, Bombay 7.

**JAYANT ENGINEERING CORPORATION.—14/D, Kurla Industrial Estate, Bombay-77. Phone : 55503. Specialists in Fabrication & Erection of Factory sheds, Steel Structures, Storage Tanks, Pressure Vessels, Pipes, Chimneys etc. Work at site also undertaken.**

Mapara Engineering Co.—381, Dadabhoy Naoroji Road, Bombay 1. Phone : 25-3398. Manufacturers Mild Steel and Stainless Steel, of Chemical and Pressure Vessels, Storage Tanks and all kinds of Sheet-metal and Structural works.

**METALLICA WORKS PRIVATE LTD.—79/83, Dr. Annie Besant Road, Bombay 18. Phones : 75432, 75433, 75434. Makers of Non-Ferrous Metals, Castings, Alloys, Anodes, Lead Linings of Acid Resisting Containers, Crucibles.**

**Richardson & Cruddas.—Byculla Ironworks, Byculla.**

Steel Industries of Hindustan Ltd.—Magazine Street, Darukhana, Bombay 10.

**VIJAY INDUSTRIES.—Haji Adam Mansion, 1st Floor, Homji Street, Bombay 1. Phone : 252341. Structural & Mechanical Engineers, Fabricators & Erectors of Vertical & Horizontal Tanks for the Petroleum Industry.**

## TANNERS AND TANNERIES

Belting & Leather Products Association (Division of Graton & Knight Co.).—8, Motlibai Street, Jacob Circle.

Elgin Leather Wares Ltd.—Nawab Building, 327, Hornby Road, opp. Thos. Cook.

Fakirmohamed Janmohamed.—Madina Building, Palton Road.

Noorbhai Jivaji.—Tyebi Manzil, Bhendi Bazar, near Tram Junction.

Universal Tanneries Ltd.—Kala-Killa, Dharavi, Bombay 17.

Western India Tanneries, Ltd.—Dharavi, Bombay 17.

## TAPES, TWINES & BANDINGS

**ACME TAPE TWINE & THREAD MANUFACTURING CO.—73/75, Tamarind Lane, Fort, Bombay 1. Mfrs. of all types of Cotton & Silk Tapes & Ribbons, Cotton Ropes, Bandings, Thread, Electric Tapes, etc.**

**GARWARE NYLONS.—Chowpatty Chambers, Sandhurst Bridge, Bombay 7. Phone: 22091. For nylon yarn, Fishnet twine & rope.**

**GUJRAT ROPE FACTORY, THE.—57/61, Bhajipala Lane, Bombay 3. Phone: 324768. Grams: "WEBTAPE." Manufacturers of all kinds of cotton Rope Hemp, Ropes, Tapes, Newar, etc.**

**SUNSHINE TRADERS.—3, Hamam Street, Fort, Bombay. Phone: 251631. Grams: "SUBHMANGAL". (1) Manufacturers of Spindle tapes, Cotton listings, venetian blind tapes, Zip Tapes, Bleached Tapes, Cotton and Manila Ropes, tabular bandings, bundle bandings & Cotton bandings; (2) Manufacturers of Spindle tapes and listings and textile stores suppliers; (3) Manufacturers of Egyptian Cotton tapes and Webbings.**

## TAPE MANUFACTURERS

Eagle Advertising Tape Factory, The.—Eagle Wadi, Kurla (C. Rly.)

**EASTERN TAPE MANUFACTURING CO.—Swastik Mills Compound, Fergusson Road, Lower Parel, Bombay 13. Manufacturers of Spindle Tape and Wicks. Webbings, Cotton Textiles. Phone No.: 73043.**

**GANDHI BROTHERS.—203, Dr. Dadabhoy Naoroji Road Bombay 1. Phone: 261345. Whole sale Dealers in all types of Self-Adhesive Tapes, viz. Cellulose and Polythene Transparent & Coloured, Waterproof Cloth, Insulating, Double-sided Adhesive Tapes and Paper backed Gum-Tapes.**

## TAPS & DIES

Akson Tool & Steel Co.—119, Nagdevi Street, Bombay 3-BR. Stockists of "Pyramid", Taps & Dies. Phone: 324786. Grams.: "AKSONTOOL."

**BHARAT ENGINEERING STORES.—113, Nagdevi Street, Bombay 3. Grams: "UNIONTOOLS." Phone: 33193.**

**JAIRAMDAS UDYOG PRIVATE LTD.—157/159, Narain Dhuru Street, Bombay 3. Mfrs. of "Jesons" Brand Twist Drills, Reamers, Cutters, Thread Forming Taps & Dies.**

**RELIANCE TRADING CO.—Vithal Sayana Building No. 1, Lohar Street, Bombay 2. Phone: 38751. Grams: "STORETRADE." Engineering Stores, Hardware & Taps and Die Merchants.**

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate.

## TAR BOILERS

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay 1.

## TARPAULIN

**ANANDJI V. KAZI.—Manufacturers of all types of Waterproof Tarpaulins and Dealers in Waterproof Canvas. 85, Bazargate Street, Fort, Bombay 1. Phone: 263116. Works: 38/40, Sir Vithaldas Chandan Street, Vadgadi, Bombay 3.**

**DAISY TRADING CORPORATION.—Manufacturers, Exporters & Stockists of Tarpaulins, Canvas, Hessian, Old & New Gunny Bags, Jute, Twine, Ropes, Buturninised Waterproof Hessian Bags & Allied Jute Products. 55, Commercial Chambers, Masjid Bunder Road, Post Box No. 3185, Bombay 3. Phones: 327007 & 661129. Grams: "PROOFTALP."**

**DOSSA HARJEE.—257-59, Masjid Bunder Road, P.O. Box No. 3209, Bombay 3. Phones: 321330 & 328570. Grams: "DOSSAHCO". Manufacturers & Suppliers of Tarpaulins, Waterproof Canvas & Gray Canvas, Filter Cloth, Jute Carpets and Linoleums.**


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**36, Issaji Street, Bombay-3.**

Phone Nos. Office: 323232, 324332—311615-6

Factory: 71271

Grams: **"VELTHAKKER"**


**EVERGREEN CORPORATION.—9-15, Picket Cross Road, P.O. Box No. 2733, Bombay 2. Grams: "GREENLEAVE". Phone: 22162. Stockists of Tarpaulin, Tents & Equipments.**

**GANGJI DAMJI & CO.—Talpatriwala, Makers of Waterproof Tarpaulins & Dealers in all kinds of Canvas. Tarpaulins available on hire. 34-36, Veer Vithaldas Chandan Street, (D'Souza St.) Masjid Bunder Road, Bombay-3. Phone: 326952.**

**HARIRAM BHAWANJI CO.—156, Masjid Bunder Road, Bombay 3. Insist on "TRUCK" Brand Tarpaulins. Tarpaulins on Hire & Sale. Phone: 323671. Grams: "HARIRAMCO."**

**KHIMJI VELJI & CO.—62, Dontad Street, Bombay-9. Phone: 325443. Manufacturers of: Waterproof Tarpaulins, Papers Hessian Paper, Wax Paper, etc. Dealing in: Packing wood, Bailing Hoops, Mattings, Selling Agents for "Gulf Metalcoata."**

**KILBURN & CO., LTD.—Gresham Assurance House, Pherozshah Mehta Road, Fort, Bombay 1. Phone: 251908. Grams: "TASCONIUM."**

**KORJI DAMJI.—Katha Bazar, Oos Gally (Syed Mukri Street), Bombay 9. Phone: 321529 and 591745 (Res.). Grams: "PUNYAGANGA." Dealers in Old and New Gunney bags; Hessian Cloths, Jute Twins, Canvas, Tarpaulins, etc.**

**LAKHMICHAND COOVERJI & CO.—297, Narsi Natha Street, Bombay 9. Phone: 322768. Grams: "WAGONCOVER," Mandvi. Manufacturers of Waterproof Tarpaulins, Dealing in Grey and Waterproof, Cotton & Jute Canvas, Tarpaulins given on hire.**

**PRAMODKUMAR & CO.—Prospect Chambers, 4th Floor, Dr. Dadabhoy Naoroji Road, Fort. Dealers in Tarpaulins, Woollen & Cotton Textiles, Monsoon Wear, Winter Wear & Footwear. Suppliers to Industrial Concerns, Govt. Depts. & Railways.**

Shalebhoy Tyebjee & Sons.—12, Bruce Street, Bombay 1.

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## TEA AND COFFEE MERCHANTS

**AMBER TIPS PRIVATE LTD. (Estd. 1922).—Mandvi, Bombay 3. Phone : 324684. 75, New Bardan Lane, Tea Blenders, Suppliers to Mill Stores, Canteens and Factories. Enquiries for Gift Parcels to U.K. solicited.**

Bhagwandas Chhatrabhuj & Co.—20, Hamam Street, Fort.
Bombay Burmah Trading Corpn. Ltd.—9, Wallace Street, Fort.
Brooke Bond India, Private Ltd.—Gresham Assurance House, Sir Phirozshah Mehta Road, P.O. Box 271, Bombay 1.
Champaklal Morarji & Co.—193, Samuel Street, Vadgadi, Bombay 9.
Desai Dalal & Co.—Duncan Road, Null Bazar.
Dwarkadas Siramdas & Co.—233, Jumma Musjid.
Great Western Stores.—Standard Building, Hornby Road.
Himatlal Jamnadas Dani.—Mandvi, New Bardan Gully, Bombay 3.
Hiralal Raichand & Co.—85, New Bardan Gully.
Impa Tea Corporation.—176, Dongri Street, Bhat Bazar, Bombay 9.
J. E. Mody & Sons Coffee Specialists.—164, Hornby Road.
Lipton (India) Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Fort, Bombay 1.
Mehta & Co., F. D.—Standard Building, Hornby Road, Fort.
Nathubhai Hirji & Co.—68, New Bardan Lane, Mandvi.
Oomrigar & Sons.—80-90, Lohar Chawl Street.
Paradise Tea Co.—Sambava Chambers, Sir Phirozshah Mehta Road, Fort, Bombay.
Poison Ltd.—Jn. of Belvedere & Dockyard Roads, Bombay 10.
Prabodhan Bhujangilal.—Khimjee Meghji House, Essaji Street, Vadgadi.

**SALDANA'S TEA & COFFEE.—26-B, Gunbow Street, Bombay 1. Tel. 26-2087.**

Shah Narotamdas Harjivandas Co. (Estd. 1880).—480, Kalbadevi Road, Bombay 2.
Somnath Motiram.—306, Kharek Bazar, Bombay 9.
Spencer & Co. Ltd.—Spencer's Buildings, Forjett Street, Bombay 26.
Titus George & Co.—45, Polsar Market, Kandivli, Bombay (S.D.).
Vasantlal Vadilal & Co.—215-17, Samuel Street, Vadgadi.

## TELEPHONE ENGINEERS AND CONTRACTORS

British Radio & Electric Co.—Prospect Chambers, Hornby Road, Fort, Bombay.

**HIND INDUSTRIAL & MERCANTILE CORP. PRIVATE LTD. (HINDCO.).—27, New Queen's Road, Bombay 4. Grams: "ADEK". Phone: 30061-2. Importers & Distributors. Branches at Calcutta, Delhi & Bangalore.**

**M. G. ELECTRICAL WORKS.—162, Hill Road, Bombay-50.AS. Intercom Telephone System, Automatic Exchanges, Switch boards etc. Installation, Repairs, Maintenance & Shifting Undertaken. Gram: "SEMLANICO." Phone: 533701.**

**SUPERPHONE INDIA.—Telecommunication Engineers & Contractors. Manufacturers of Superphone Intercommunication Telephones & Exchanges of all system. Suppliers: Spareparts, Accessories and Line Materials. Undertakes complete installation, Repair, Maintenance. Guaranteed Comprehensive service. Phone : 367920. Grams : "PHONSESUPER". P.O. Box 3573. Enquiries Solicited—Local, National and International Interested in Export.**

**SUPER SERVICES (INDIA).—18, New Queen's Road, Bombay-1. Superphone Intercom Telephone, Mfrs. Superphone Record Players, Grunding, Standard, Bush, Pye, Sharp, Sanyo Transistors, Garrad Changers, Telerad Hi-Fi. Radios. Phone : 20876.**

**TELEPHONE ELECTRONIC CORPORATION.—391-A, Girgaum Road, Bombay-2. All types of intercom Telephone Systems, Automatic Exchange, Magneto, CB Switch boards, Radio, Portable, Flame Proof and loud Speaking Telephones, Spare, Telephone Cables, Electronic Apparatus, Installation, Maintenance undertaker. Phone : 20591.**

Western Agencies' Co.—421, Lamington Road, Bombay 4.

## TENTS

**KAMLAKANT CHHOTALAL & CO.—106, Bhandari Street, Near Chakla Street, Bombay 3. Phone : 323085. Tents of all types for work on Projects, Survey, Dams, Picnics & Scouting.**

**LAL SINGH & SONS.—Prop.: New Delhi Tent House, 271, Frere Road, Bombay-1. Mfrs. of Tents, Tarpaulin, Cotton Rope, Newar, Belt, Garden Umbrella (H.O.:) Kamla Market, New Delhi. Phone : 266349, After Office Hours : 333460.**

## TEXTILE AUXILIARIES MANUFACTURERS AND DEALERS

**AHURA CHEMICAL PRODUCTS PRIVATE LTD.—84, Sion Road, Bombay 22. Manufacturers of all Textile Auxiliaries, Surface—active Agents, Turkey Red Oil, Synthetic Anionic Detergents and Wetting Agents, Non-ionic Emulsifiers for various industries, cationic germicides and softeners, cosmetic Raw Materials and other General Chemical Products. Managing Director : S. M. Mistry. Phone : 471394, 471911. Grams : "AHURACHEM." Bombay-Sion.**

**ALTEX PRIVATE LTD.—147, Esplanade Road, Fort, Bombay 1. Phone : 251082. Grams : "BETEX."**

Amritlal & Co., Private Ltd.—Sprott Road, Ballard Estate, Fort.
Anvar Textile Mills Ltd.—Bundeally Building, Sandhurst Road, East, Dongri, Bombay 9.

**ASSOCIATED ENTERPRISES.—Suppliers of the most popular Sizing Materials for Rayon & Synthetic Fibres. 7, Kailash Kutir, Behind Mysore Chemicals, Sion, Bombay 22. Phone : 63895.**

Bakubhai Ambalal Private Ltd.—Wittet Road, Bombay 1.
Bhogilal & Company, R.—261/263, Hornby Road, Fort.
Bhukhanwala & Sons.—Medows House, Medows Street, Fort.
Brady, W. H., & Co., Ltd.—Royal Insurance Building, Churchgate Street, Fort.

**CHEMIDYE TRADING CO., PRIVATE LTD.—Kamer Building, Cawasji Patel Street, Fort, Bombay-1. Phone : 251034.**

**CIBA OF INDIA LTD.—Royal Insurance Bldg., 14, Churchgate Reclamation, Bombay 1. Phones : 245031-3; 246084-6.**

**C. DOCTOR & CO. PRIVATE LTD. (Estd. 1915).—11, Bruce Street, Bombay 1. Phone: 252277. Grams: "QUALITY." Humidification & Ventilation Engineers & Textile Stores Suppliers.**

Durga Laboratories.—71, Bhandari Street, Vadgadi, Bombay 3.

Edgar Handley & Co. Private Ltd.—135, Medows Street, Fort, Bombay.

Firoz Trading Co. Ltd.—Kamar Building, Cawasji Patel Street, Fort.

General Industrial Chemicals.—Beaumon Chambers, 27/33, Medows Street, Fort.

Greentose Corporation (India).—24-26, Dalal Street, Fort, Bombay.

Havero Chemical Industries.—78, Keny Road, P. O. Box 6016, Bombay 12. Stockists of "SWAN" brand Cloth Stamping Paste.

**HICO PRODUCTS PRIVATE LTD.—Mogal Lane, Mahim, Bombay 16. Manufacturers of Textile Auxiliaries, Gums, Ethylene Oxide Condensates, Optical Whitening Agents, Emulsifiers, Quaternary Ammonium Compounds, Rot Proofing Compounds, Textile Preservatives, etc. Phones: 454211-2. Grams: "BATCHINOL."**

I.C.I. (India) Private Ltd.—P. B. No. 310, Bombay 1.

Indo-Bobbins & Textile Co., Ltd.—Jan Mansion, Sir Phirozshah Mehta Road, Fort.

**INDOKEM PRIVATE LTD.—221, Dadabhoy Naoroji Road, Fort, Bombay. Phone: 265151/5.**


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**N. DINSHAW & COMPANY (Estd. 1945).—14, Ismail Building, Flora Fountain, Bombay 1. Phone: 253488. Grams: "DILINOL." Importers and Stockists of all types of Textile Auxiliaries and Accessories on Govt. Railway and Textile Mills list.**

Kirtikumar & Co.—80, Bhandari Street, Mandvi, Bombay 3.

Lalitkumar & Co.—86, Kazi Sayed Street, Bombay 3.

**NATIONAL TRADING COMPANY, THE.—Manufacturers, Importers & Distributors of Sizing & Finishing Materials and Allied Auxiliaries. 263, Dr. Dadabhai Naoroji Road, P.O. Box 158, Bombay 1. Phone: 265050. Grams: "BHARAT." Branches: Ahmedabad, Calcutta, Coimbatore and Delhi.**

**NEW HIND ENGINEERING CO.—63, Nagdevi Cross Lane, Bombay 3. Phone: 324223. Grams: "HINDENCO" Largest Stockists of Textile Beltings (Hair-Leather-Rubber Canvas, Asbestos, Textiles & Jointing Sheets.**

**PERMALI WALLACE LIMITED.—9, Wallace Street, Fort, Bombay 1, India. Phone: 263426. Grams: "PERMALIWAL". Manufacturers of Permali and Hy-Dulignum Laminates for Electrical Insulation; Textile Accessories and Silent Gears.**

Phiroz N. Motabhoy & Co. Ltd.—Motabhoy Building, Corner of Medows and Forbes Streets, Fort, Bombay.

**PICKERS LTD.—Manufacturers of Quality Pickers of all Sizes and descriptions. 43, Tamarind Lane, 4th Floor, Fort, Bombay. Head Office: Ellis Bridge, Ahmedabad 6. Grams: "COWSIE." Bombay & Ahmedabad. Bombay Office Phone No.: 253707.**

Pioneer Textilaties Corporation Ltd.—Lentin Chambers, Dalal Street, Fort.

Sardesai & Company.—14, Murzban Road, opp. New Empire Cinema, Fort.

**SARVODAYA REEDS MANUFACTURING CO.—137-141, Samuel Street, Bombay-9. Grams: "JASJUG." Telephone: 323394. Manufacturers of "SARVODAYA" brand steel Reeds and Striking combs from best imported Steelwire on most modern machineries. Works: Ghatkopar, Bombay-77.**

Sugar Textiles Service.—Third Floor, Bombay Mutual Building, Sir Phirozshah Mehta Road, Bombay 1.

Suppliers & Trading (India) Ltd.—79, Medows Street, Fort.

Textile Machinery Corporation, Ltd.—Annie Besant Road, Bombay 18.

**TRADECO (INDIA).—Importers, Exporters and Mill Store Suppliers, Prospect House, 29, Ragunath Dadaji Street, Bombay 1. Phone: 261641. Grams: "PRODUCTION". Wholesale Importers and Indentors of British and Foreign make Textile Accessories. Specialists in Healds, Reeds, Shuttles, Beltings, Picking Bands, Pickers, Buffers, Picker Savers, Cotton Ropes, Cotton Bandings, Spindle Tapes, Card Cans, Hair Beltings and Wire Healds.**

**VELU & CO. (PVT.) LTD., P. K.—P.O. Box No. 514, 111, Mahatma Gandhi Road, Bombay 1. Phones: 253141 & 641326. Grams: "LACQUER."**

## TEXTILE ENGINEERS AND MACHINERY IMPORTERS

**ALTEX PRIVATE LIMITED.—147, Esplanade Road, Fort, Bombay 1. Phone: 251082. Grams: "BETEX."**

Apollo Engineering Company.—84, Apollo Street, Fort.

Associated Machine & Tool Co.—130, Medows Street, Fort.

Autogenous Welding & Repair Co. Private Ltd.—63, Ferguson Road, Bombay 13.

Batliboi & Company Private Limited.—Regd. Office: Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR.). Phones: 255451 (6 lines). Grams: BATLIBOICO. Telex: 248. City Branch: Batliboi House, 59/61, Nagdevi Cross Lane, Bombay-3 (BR.). Branches: Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate: Bangalore 2. Resident Representatives: ERNAKULAM, RANCHI.

Bharat Electric & Engineering Corporation.—Dalal Street, Bombay 1.

Bracewell Private Ltd.—50/56, Custom House Road, Fort, Bombay.

Brady, W. H., & Co., Ltd.—Royal Insurance Building, Churchgate Street, Fort.

**R. R. JINDE & CO.—14, Mohan Nivas, Chandavarkar Road, Bombay-19. Phone: 472267. Grams: "GOLDENHILL."**

Collinson & Co., Ltd.—Standard Building, Hornby Road, Fort.

Diarvi Trading Co.—64, Old Custom House Road, Fort, Bombay.

**DUESBERG-BOSSON FILS PRIVATE LTD.—Janmabhoomi Chambers, Fort Street, Post Box No. 1679, Bombay 1. Phone: 263010. Grams: "DUBOSS." Textile Engineers and Machinery Importers.**

Duncan Stratton & Co., Ltd.—5, Bank Street, Bombay 1.

Gannon, Dunkerley & Co., Ltd.—Chartered Bank Building, Mahatma Gandhi Road, Fort.

Greentose Corporation (India).—24, Dalal Street, Fort, Bombay.

Gujarat Trading Syndicate.—41, Medows Street, Fort, Bombay 1.

**HINDUSTAN TEXTILE ENGINEERS.—Janmabhoomi Bhavan, Ghoga Street, Fort, Bombay. Tel.: 257304. Grams: "AERIAL". Branches and Representatives at: Ahmedabad, Bangalore, Miraj, Coimbatore, Calcutta, Madurai. Mfrs. of Krischner, Two/Three Bladed Beaters, Card Coilers, High Speed Card Conversion Duo Flat Conversion, Ball Bearing Comb Boxes (Conventional Heavyduty and Highspeed) Undercasings, R.B. Spindles, Spinning Rings, Pneumofils Broken end Collection Machines, Conversion of Ring Frames, Fluted Rollers, Warp Stop Motions, Renovation of Flyers, Leno motions Drop Boxes and Lappet Motions Dobbys-Crank Shafts and Tappet Shafts. Processing Machinery, Reeling Machines, Yarn Building Press, Electric Balling Press, Step Cotton Cleaners, Tensionless Pneumatic Soaper, Ager, Semi Automatic Jiggers, Washing Chemicaling, Padding, Damping, Scutcher, Back Filling, Soaper Baby Cloth Merceriser, Print Blanket, Washing Machines, Cheese Beam Dyeing Plant and Accessories, Folding etc. Also sale and Purchase of Second hand machineries for Textile Industry for every Process.**

**INDIA RAW PRODUCTS SUPPLY CO.—65, Alli Chambers, Tamarind Lane, Fort, Bombay 1. Textile Machinery & Equipment. Phones: 254645 (Office) and 471178 (Res.). Grams: "KATANKUM."**

Indian Commercial Agency.—Regd. Office: Rahimtoola House, 7, Homji Street, Fort.

**INDIAN TEXTILE ENGINEERS PRIVATE LTD.—Stadium House, 81/83, Veer Nariman Road, Bombay 1. Phone: 246238/9. Grams: "INTEXTILE."**

Industrial Equipment Mfg. Co.—Kasturchand Mills Estate, Bhavani Shankar Road, Dadar, Bombay 28.

Industrial Engineering Co.—45-47, Apollo Street, Fort.

**JESVANT C. SHAH & CO.—Navroz Baug, Navrozi Lane, Ghatkopar, Bombay 77. India's Foremost Indenting House. Sole Agents for: The World Famous "E.G.D." Moisture measuring and controlling Automatic Electric Equipment. Made in Austria. (For Details please see Commercial Firms Section.)**

**KOTAK & CO.—Navsari Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay. Grams: "KOTAKANDEO." Phone Nos. 263331 (5 Lines).**

Laxminarayan Mill Supply Co.—Noble Chambers, 116, Parsi Bazar Street, Fort.

Mahendra & Co.—Chatrabhuj Nivas, 70, Vadgadi, Bombay 3.

Mahindra & Mahindra Ltd.—Gateway Building, Apollo Bunder, Fort.

Mehta & Co., P. N.—Cook's Bldg., 324, Hornby Road, Fort.

Mehta Parikh & Co.—45-47, Apollo Street, Fort.

Ormerods (India) Ltd.—Bank of Baroda Building, Apollo Street, Fort, P. O. Box No. 410, Bombay.

Paramount Textile Agency.—45/47, Apollo Street, Fort, Bombay.

Paramount Traders.—Noble Chambers, 1st Floor, Parsee Bazar Street, Fort, Bombay.

Parekh Bros.—Sangli Bank Building, 296, Bazargate Street, Fort, Bombay.

**R. R. JINDE & CO.—14, Mohan Nivas, Chandavarkar Road, Bombay 19. Grams: "GOLDENHILL." Phone: 472267.**

Roberts, McLean & Co. Private Ltd.—Ilaco House, Sir Phirozshah Mehta Road, Fort.

**SHAH TEXTILE PRODUCTS CO.—22, Apollo Street, P.O. Box No. 1958, Bombay 1. Phone: 254039. Grams: "WEAVEWELL." Importers and Manufacturers' Representatives of Textile Machinery & Spare Parts, Leather Goods, Bobbins, etc.**

Shree Vijay Trading Corporation.—71/73, Apollo Street, Fort.

**STANDARD TRADING AGENCY PRIVATE LTD.—139, Medows Street, Fort, Bombay 1. Importers & Manufacturers of Textile Machinery and Stores; Exporters of Machinery, Piece-goods and Yarns. Phone: 251449. Grams: "KUBER."**

**STAR TRADING CO. PRIVATE LTD., THE.—Bank of Baroda Building, 12, Apollo Street, Fort, Bombay 1. Phones: 253480 & 251357. Grams: "STARTRADE." Importers of Textile Machinery. Textile Engineers and Merchants.**

Techno Industrial Co.—107, Sir Vithaldas Chambers, 16, Apollo Street, Fort.

Texind Corporation Ltd.—Kermani Bldg., Sir P. M. Road, Bombay.

**TETCOTEX PRIVATE LTD.—7/10, Horniman Circle, Botawala Bldg., Bombay 1. Offers Complete Machinery for Cotton, Silk, Woollen & Shoddy plants ; Agents for KERALA GEARS, QUILON manufacturers of Spur, Helical, Worm Gears and other Engineering items. Phone: 251687. Grams: "TETCOTEX".**

**TEXMACH SYNDICATE.—Textile Engineers & Machinery Spare Parts, Suppliers. Manufacturers & Suppliers of complete Range of Spare Parts for Carding Engines, Fly Frames, Ring Frames and Plain and automatic Looms. Specialists in perforated Dyeing beams, Cones, Tubes, etc. 45/46, Podar Chambers, Parsi Bazar Street, Fort, Bombay 1. Phone: 252638. Grams: "STANSIZE", Bombay.**

**TEXSPIN PRIVATE LTD.—110, Medows Street, Fort, Bombay 1. Phones: 255701, 255702 (Office); 533097 & 532883 (Res.). Grams: "MAXSPIN."**

Textile Engineering & Trading Co.—7/10, Botawalla Building, Horniman Circle, Bombay 1.

Textile Supplies Syndicate (India) Private Ltd.—India House, 1st Floor, Opp. G.P.O., Bombay.

Textile Works Ltd.—49-55, Apollo Street, Fort.

Vithal Purshotum & Sons Private Ltd.—2nd Khetwadi Lane, Bombay 4.

Voltas Ltd.—19, Graham Road, Ballard Estate, Bombay 1.

Zenith Textile Engineering Co.—250, Ripon Road, Bombay 8.

## TEXTILE GOODS PROCESSORS

**BOMBAY TEXTILE MILLS (Processing House).—Suryodaya Mills Compound, Tardeo, Bombay 34. Phone Nos. Mills: 78541 & 42 ; Shop: 22338. Grams: "AKUMARCO." Processors of Textile Goods. TEXMARK No. 4224. Manager: S. R. Bivalkar. Technical Adviser: Shri P. Banerjee ; Prop.: Messrs. Ajanikumar Company Pvt. Ltd., Director-in-Charge: Shri Shreeram Taparia.**

## TEXTILE MACHINERY MANUFACTURERS & DEALERS

**BILTMORE INDUSTRIES.—Sabu Sadiq Hospital Compound, 84, Imamwada Road, Bombay-9. Textile Engineers and Machinery Spare Parts Manufacturers. Specialists in: Rollers of Brass, Copper, Stainless Steel, Ebonite, Rubber and Boiler Tubes for Sizing, bleaching and Printing. Tin Rollers for Wraping and Winding as per Specifications; Cans; Card, Cans and accessories, Doff Cans, Weft Cans and Comber Cans. All kinds of Sheet tin work.**

**BIPINCHANDRA & CO.—43, Tamarind Lane, 2nd Floor, Fort, Bombay 1. Mill Machineries & Accessories Suppliers, Specialising in Winding Machinery & Spares.**

Bombay Textile Machinery Manufacturers.—12/14, Trimbak Parasram Street, Bombay 4.

**CALICO INDUSTRIAL ENGINEERS.—Office: 41-E, Parel Chawl Road, Bombay-12. Office Phone: 77321-2. Grams: "DYEPRINT." Manufacturers of Textile Net, Processing Machineries. Works: Sone Baug, Chakala, Andheri, Bombay 58, Phone: 572340 & 571611.**

**ESSENTIAL ENGINEERING CO.—11, Botawala Building, Elphinstone Circle, Fort. Grams: "ESSENCE". Phone: 252940. Importers, Exporters, Commission Agents and Manufacturers' Representatives.**

**H. KANTILAL & CO.—Engineers & Founders: Office: 44, Cawasji Patel Street, Bombay-1. Phone: 252635. Factory: Saki Naka, Kurla-Andheri Road, Kurla, Bombay-70. Phone: 581840-581205. Manufacturers of all types of Textile Machinery, Spare Parts, Dobby Complete & Dobby Spares. Trolleys Ferrous and Non Ferrous Castings.**

**JOHN T. HARDAKER (INDIA) PRIVATE LTD.—Office and Works: Ferguson Road, Lower Parel, Bombay 13. Phone: 73469. Engineers, Iron founders, makers of all types of Jacquard Machines for power & Hand Looms, Jacquard Harness Builders, Pattern Cutting Machine Makers, Designers and Card Cutters and Truck Builders. Grams: "JACQUARDS," Bombay. P.O. Box No. 742, Bombay 1.**

**KUMUDCHANDRA & CO.—29, Dalal Street, Fort, Bombay 1. Phones: Office: 253214, Godown: 264437. Grams: "VERYGOOD." Importers of replacement parts for Textile Winding Machinery.**

**MODERN SHUTTLE MFG. CO. LTD., THE.—(Estd. 1944). 15, Forbes Street, Fort, Bombay 1. Oldest Manufacturers of Shuttles of all types for Textile Industry. Tel. 251779.**

**NATIONAL MACHINERY MANUFACTURERS LTD.—Kalwe, Thana, Phone: 641075. Manufacturers of Textile Spinning and Weaving Machinery and spares.**

**RAVI INDUSTRIES PRIVATE LTD.—Founders, Engineers, Textile Machinery and Machine Tool Manufacturers. Office & Works: Bombay-Agra Road, Thana (C. Rly.). Phone: 64-1084. Grams: "ROWEMOTORS," Thana.**

**ROYAL WEAVING STORES.—261, Sandhurst Road, Harihar Nivas, Bombay-4. Loom Sundries, Power Loom Machinery Spare Parts, Shuttles, Bobbins, Pickers, Picking Bands, Leather Belting, Buffers, Steel Reeds, Brass Reeds, Cotton Healds, Wire Healds, Dobby Twine, Jacquard Twine, Reed Hooks of all kinds, Weavers' Combs, Shed Rods, Dobby Lattices and Pegs of all kinds, etc., etc.**

Star Textile Engineering Works Ltd.—12, Apollo Street, Bombay 1. Phone: 251357. Grams: "STARROLLER."

**U. M. MISTRY & SONS.—Crescent Chambers, Tamarind Lane, Fort, Bombay 1. 2783, Pankore Naka, Ahmedabad. Manufacturers of Textile Machinery, Machine Spares; Specialists: Manufacturing of Stainless Steel Dyeing Plant, Barber Colman Dye Sleeves and Carriers for Cones, Tubes and Sleeves, Steel Furniture and Steel Structure.**

## TEXTILE PAPER TUBES & CONES MFRS.

**EVERBLOOM PAPER PRODUCTS.—6, Fancy Markets, Moreland Road, Bombay 11. Manufacturers of variety of Textile paper tubes and cones. Phone: 72007. Grams: "CONEMAKERS."**

## TEXTILE, PRINTING & FILTRATION TRADERS

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Cotton Piece-goods, Art Silk Fabrics, Yarns, Oils and General Merchandise

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Aadarsh Vastralaya.—7/8, Sham Gali, Swadeshi Market, Kalbadevi, Bombay 2.
Arthur Import Export Co.—166, Hornby Road, Fort, Bombay.
Askay & Co., Ltd.—Great Social Building, Sir Phirozshah Mehta Road, Fort, Bombay.
Babubhai Choonilal & Bros.—Next to Swadeshi Market, Kalbadevi Road.
Bajaj Brothers Ltd.—Round Building, Kalbadevi Road.
Batliboi, C. J., & Co.—319, Hornby Road, Fort.
Bhagwandas Chatrabhuj & Co.—20, Hamam Street, Fort.

**BHAGWANDEV ARYA & CO.—19/21, Ladwadi & 45/47, Champagali, Mulji Jetha Market, Bombay 2. Phone : 30553 & 39493. Grams : "KAMALRAJ". Cloth Manufacturers, Merchants, Leading Commission Agents. Specialists in Coloured Voils, Bleached Mulls, Grey & Bleached Dhoties and many other varieties manufactured of your choice.**

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Bombay Co., Ltd.—9, Wallace Street, Fort.
Bombay Swadeshi Co-operative Stores Co., Ltd.—Western India House, Sir Phirozshah Mehta Road.
Bulchand Co., L.—Moos Building, 510, Kalbadevi Road, Bombay 2.
Cawnpore Mills Depot.—Churchgate House, Churchgate Street, Fort.
Chotirmall & Co., K. A. J.—Krishna Nivas, New Silk Bazar, Bombay 2.
Chinoobhai & Bros., Ltd.—Churchgate House, Churchgate Street, Fort.
Chunilal Mulchand & Co.—Waterloo Mansions, Mayo Road, Fort.
Commercial Traders.—23-25, Old Hanuman Lane, Bombay 2.
D. Patel & Co. (Estd. 1916).—Gaumukh Gully, Mulji Jetha Market, Bombay No. 2.
Dubash Freres & Co.—Victoria Building, Parsi Bazar Street, Fort.
Dulabhdas Manilal & Co.—New Silk Bazar, Kalbadevi.
Durlabhji & Co., B.—Shri Krishna Nivas, Kalbadevi Road.
Ebrahim Manji & Co.—49, Pydhownie Road, Khadak, Bombay 9.
Essardas & Sons.—74, Carnac Road, Bombay 2.

**FINLAY, JAMES, & CO., LTD.—Chartered Bank Building, Mahatma Gandhi Road, Fort, Bombay 1. Phone Nos. 251255-59. Post Box No. 73.**

Forbes Forbes Campbell & Co. Private Ltd.—Forbes Building, Home Street, Fort, Bombay.
Framji Ardaseer Davur & Sons.—Navsari Chambers, Outram Road, Fort.
Gaganmal Ramchand.—P. O. Box No. 2133, New Silk Bazar, Bombay 2.
Gobhai, M. N., & Co.—501, Kalbadevi Road.
Gorakhram Gokalchand (Estd. 1891).—Choksi Chambers, Zaveri Bazar, Bombay 2.
Haji Janmohamed Moosa.—27-29, Zakaria Bazar, Sheriff Devji Street.
Hasanali Saleh Mahomed & Co.—Bundeally Building, Sandhurst Road East, Dongri, Bombay 9.
Hassamal Bros.—538, Kalbadevi Road, P. O. Box No. 2236, Bombay 2.
Hassaram & Co., K.—New Silk Bazar, Kalbadevi Road, Bombay 2.
Hazrat & Co.—Warden House, Sir Phirozshah Mehta Road, Fort.
Holland-Bombay Trading Co., Ltd.—E. D. Sassoon Building, Dougall Road, Ballard Estate.
Hoosein, M. A., & Bros.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort.
Hotchand Motumal.—331, Hornby Road, Fort, Bombay.
Hukamchand Chanderbhan.—1st Floor, Hira Building, opp. Crawford Market, Carnac Road.
Husein Ebrahim.—75, Mahomedally Road, Bombay 3.
H. V. M. Moosa Motiwalla & Sons, Ltd.—91, Mahomedalli Road, Bombay 3.
India Corporation Ltd.—Indian Globe Chambers, Fort Street, Fort, Bombay.
Italindia Cotton Co. Ltd.—Indian Globe Chambers, Fort Street, Bombay.
Jamnadas, B.—Mulji Jetha Market, Gaumukh Gully, Bombay 3.
Jamnadas Nanjee Mangrolwalla.—83-85, Bazar Gate Street, Fort, Bombay.
Jassawalla, B. M., & Co.—105, Apollo Street, Fort.
J. A. Thadani & Co.—People's Building, Sir Phirozshah Mehta Road, Fort.
Jeramdas Naumal.—371, Hornby Road, Fort, Bombay.
Jewan Bukhsh Mohammed Jan.—99, Chakla Street, Bombay 3.
Jivandas Bhansji & Co. (Estd. 1925).—Dwarkesh Gully, Mulji Jetha Market, Bombay 2.
Kala Niketan.—Pravin Court, Queen's Road, Bombay.
Kanshi Ram Kidar Nath.—Vulcan Insurance Bldg., Veer Nariman Road, Bombay 1.
Kapadia Trading Co.—Botawalla Building, New Silk Bazar, Kalbadevi Road, Bombay 2.
Kapur & Sons, Ltd.—Chandra Chowk, 8th Lane, Muljee Jetha Market.
Karanjia & Co., Ltd.—Sukhadwala Buildings, 172, Hornby Road, Fort.
Kashmir Govt. Arts Emporium.—Sir P. M. Road, Bombay 1.
Kavarana Muncherji Heerjibhoy.—New Silk Bazar, opp. Kalbadevi P.O., Kalbadevi.
Kavarana, R. S., & Co.—635, Mistry Building, Girgaum Road, Dhobi Talao.
Kedarnath Singhee & Co.—233-34, Sheikh Memon Street, Bombay 2.
Keshavlal Talakchand (Private) Ltd.—Post Box No. 1472, India House, opp. G.P.O., Bombay. Phone No. 261982. Grams : "CHANDRODAY".
Kewalram & Bulchand.—Shree Krishna Nivas, Kalbadevi Road, Bombay 2.
Kidarnath Kishanchand.—106, Medows Street, Fort, Bombay.
Kimatrai, J., & Co.—Mistry Building, Bomanji Master Road.
Kishinchand Chellaram.—Guzdar House, Dhobi Talao.
Kishinchand & Co. (India).—138, Hornby Road, Fort.
K. Metharam.—491-3, Kalbadevi Road.

**KOTAK & CO.—Navsari Building, Dr. Dadabhoy Naoroji Road, Fort, Bombay. Grams : "KOTAKANDCO." Phone No. 263331 (3 lines).**

Kroz & Co.—Podar Chambers, Parsi Bazar Street, Fort.
Kundanmal Ramlal.—78/80, New Hanuman Lane, Bombay 2.
Ladhabhai Ravji & Bros.—41, Advani Chambers, Sir Phirozshah Mehta Road, Fort.
L. N. Mehta & Sons.—Laxmi Building, Sir Phirozshah Mehta Road, Fort.
Madhavdas Ragnathdas & Co.—172, Hornby Road.
Madhusudan Gordhandas & Co.—Ganeswadi, Mulji Jetha Market, P.O. Box No. 2110, Bombay 2.
Mahendrakumar & Co.—Central Bank Building, Mahatma Gandhi Road, Fort.
Mansukhlal Kantilal & Co.—185, Mulji Jetha Building, Princess Street.
Mohanlal & Co.—Chhotalal Bhuvan, 3rd Floor, Kalbadevi Road, Bombay 2.
Mohanlal, D., & Co.—Bomanji Master Lane, near Kalbadevi P.O., Bombay 2.
Mohanlal Goculdas.—Lalsingh Building, opp. Crawford Market.
Moosa Shariff Sons (Estd. 1933).—77, Mohamedali Road, Bombay 3.
Morarji Velji & Sons.—7, Kolbhat Street, Post Box No. 2001, Bombay 2.

**MUSRY, G. N., PRIVATE LTD.—Canada Building, Home Street, Fort, Bombay. Phone : 26-1435. Grams : "DANDELION." Importers and Exporters.**

Mysore Silk Depot.—112, Swadeshi Market, Kalbadevi Road, Bombay 2.
Narandas Girdhardas.—Chandra Chawk Lane, Mulji Jetha Market.
Navnitlal Dayalal.—68, Swadeshi Market, Kalbadevi Road.
N. M. Brothers Co.—Shreeji Bhuvan, Lohar Chawl, Post Box No. 2163, Bombay.
Noormohamed Haji Mohamed Mukatey.—Wassiamull Building, 184, Musjid Bunder Road, Bombay 3.
Panalal Silk Mills Ltd.—Atlas Mills Compound, Reay Road, Mazagaon, Bombay 10.
Pavri Sons & Co.—93/97, Bazargate Street, Fort.
Popatlal Ghelabhai & Co.—104, Chuckla Street, Bombay 3.
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Rajsi Bros.—Opp. B.E.S.T. & Co., Colaba Causeway.
Ralli Brothers, Ltd.—21, Ravelin Street.
Ramchandra Gopal & Co.—Parsi Galli, Dhanji Street.
Ramdas Khimji Bros.—Warden House, Sir Phirozshah Mehta Road, Fort.
Ramkisandas Sagarmal.—Kalyan Bhuvan, 354, Kalbadevi Road.
Ramkishen & Sons.—Opp. Post Office, Kalbadevi.
Rangoonwala, H. N.—Rangoonwalla Building, 91, Mohamedalli Road.
Rasiklal Nagindas & Co.—Dadar Galli, 4th Shop, M. J. Market.
Roop Kala.—Queen's Chambers, Queen's Road, opp. Marine Bridge.
Roshanali D. Nasser & Co.—68/72, Champa Gully, Mulji Jetha Market.
Rowe & Rowe.—38, Hornby Road, Fort.
Rylands & Sons (Overseas) Ltd.—Cook's Building, Hornby Road.
Saleem Hafiz & Brothers.—94, Modi Street, Fort.
Sassoon, E. D., & Co., Ltd.—E. D. Sassoon Building, Ballard Estate.
Shah Chhaganlal Sevachand.—504, Kalbadevi Road, New Silk Bazar.
Shah, L. P., & Sons.—Central Building No. 2, New Silk Bazar, opp. Kalbadevi P.O., Bombay 2.
Shri Laxmi Cloth Trading Co.—135, Zaveri Bazar, Bombay 2.
Spinner, E., & Co.—8, Tamarind Lane, Fort.
Sorabji Nowroji & Co.—16, Horniman Circle, Fort, Bombay.
Subodhchandra Popatlal (Estd. 1915).—Exporters & Importers, 223-25, Sheikh Memon Street, Bombay 2.
Tirathdas Sons.—New Silk Bazar, Kalbadevi Road, Bombay 2.

Tulsidas V. Patel.—Morarji Goculdas Road, Bombay 2; Kalbadevi Road, Bombay 2.

Unimen Industrial Corporation.—5, Parker Building, 10, Cawasji Patel Street, P.B. No. 1179, Bombay 1.

Utoomal & Assudamal Co.—Bombay Mutual Annexe, Gunbow Street, Fort.

Vadilal Vrajlal & Co.—Peerbhoy Building No. 2, 89, Princess Street.

Valia & Co.—Harganga Mahal, Tram Terminus, Dadar, Bombay 14.

Valibhai Kamruddin.—101, Abdul Rehman Street, Bombay 3.

Valiram Sons.—Patel Building, Bomanji Master Road, Kalbadevi.

Vasi Bros. & Co.—Topiwalla Mansion, Mahomedalli Road.

Vasudev Girdharlal.—Central Building No. 2, New Silk Bazar, opp. Kalbadevi P.O., Bombay 2.

Vaswani, D. W.—11, Bharat Bhuwan, New Silk Bazar, 468, Kalbadevi Road, Bombay 2.

Vaswani, K. D., & Co.—New Silk Bazar, 499, Kalbadevi Road, Bombay 2.

Volkart Brothers.—19, Graham Road, Ballard Estate.

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**GLADSTONE LYALL & CO., LTD.—21, Lansdowne Road, Apollo Bunder, Bombay 1. Phone Nos. 212805 & 211241. Grams: "GLADSWYLL." Bombay Manager: Cmdr. J. B. Simmons. Regd. Office: 4, Fairlie Place, Calcutta.**

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Abbaskhan Mahamood Khan & Co.—Ghodbunder Road, Andheri.

Abdul Gani Abdul Latif.—99, Koliwada, Sewri.

Abdulhussain Allibhai.—Tank Bunder, opp. Reay Road Station, Mazagaon.

Aboobakar Mohamed Chhapra & Co.—Islami Bazar, 7, Victoria Road, Byculla.

Alimohammed Ahmed & Co.—55, Dontad Street, Khadak, Bombay 9.

Amratlal, M., & Co.—Tank Bunder, Reay Road.

**ANAND TIMBER TRADERS.—170, Reay Road, Bombay 10. Phone: Office: 42203; Res. 60144.**

Andheri Saw Mill & Timber Works.—Ghodbunder Road, Andheri, Bombay. Timber Merchants and Government Contractors. Phone: 86437.

Barodawalla, A. S., & Co.—Altamont Road, Cumballa Hill.

Bejanji Kerbadji & Sons.—Victoria Road, Tank Bunder.

Bharat Timber Mart.—Jambli Mohoila, Panjrapole.

Bombay-Burma Trading Corporation, Ltd.—9, Wallace Street.

Bombay Saw Mills Co.—Connaught Cross Lane, Ghorupdeo.

Bombay Timber Importing & Landing Co.—148, Middle Colaba.

Brijmohan Banwarilal.—61, Reay Road, Mazagaon, Bombay 10.

Chunilal Maganlal.—Reay Road, Tank Bunder, Bombay 10.

**CENTRAL TIMBER SUPPLYING CO.—156, Victoria Road, Bombay-27. Largest Stockists of C. P. & Dandeli Teak, Deal & Jungle Wood, Chair & Vella Pine, Silver oak, Mango & Rose Wood etc. Phone: 75438.**

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**DARVESH-FAROUK SODAGAR DARVESH & CO.—85-A, Victoria Road, Mustafa Bazar, P. Box No. 6216. Bombay-10. (DD). Timber Merchants, and Commission Agents, Exporters and Importers Stockists of Packing Cases Wood, C. P. Teak Wood, Wooden Poles, Fir Wood Sleepers, Poon Wood, Silver oak, Vellapine, Mango Wood, Jungle Wood, Plywood, Teak Plywoods, Sunmica, Bamboos, Bamboo Stripes, Bamboo Mattings, White Cedar, Red Cedar & Haldu etc. Telephone: Office: 72470 and Residence: 533574. Telegrams: (1) "DARVESHTIM." (2) "CELLPLANK." Bombay (VG.).**

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Faramroze & Co.—Reay Road, Bombay 10.

Fateh Saw Mill & Timber Works.—51, Ismail Curtay Road, Bombay 8.

Fatemahomed Osman Parekh & Co.—77, Victoria Road, Byculla.

Grand Wood Works & Saw Mill.—Connaught Cross Road, Ghorupdeo.

Gulam Husein Meherally & Co.—Ghorupdeo, Connaught Road, Bombay 10.

**HAJI EBRAHIM HAJI OOMER & CO.—65/67, Kazi Street, Bombay 3. Phone: 332560. Grams: "GOODTIMBER." General Contractors, Commission Agents, Importers and Exporters. Dealers in all sorts of Timber. Mark of quality H.E.H.O.**

Haji Ebrahim Haji Suleman Darwesh & Co.—8, Islami Bazar, Victoria Road.

Haji Ebrahim Karim Mohamed & Sons.—64, New Kazi Street.

Haji Janmahomed, H. A., & Co.—Tank Bunder, Reay Road, Bombay 10.

Hargovindas Shivlal & Co.—Opp. Reay Road Station, Tank Bunder, Bombay 10.

**J. HARILAL & CO.—Tank Bunder, Reay Road, Bombay 10. Phone: 42834. Grams: "FIRWOOD." Stockists of Teak Wood, Fir Wood, Dealwood, Chilpine, Jungle wood, Packing wood, Silver Oak and seasoned Silver Oak available from ex-stock.**

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Janmahomed Haji Moosa.—Victoria Road, Byculla.

Janmahomed Moledina.—50, Dontad Street, Khadak.

**JAWAHAR SAW MILLS.—47, Victoria Road, Mustafa Bazar, Bombay 10. Phones: Office: 78801, Res.: 471841 & 471842. Specialists & Huge Stockists of Dandeli Teak Sizes, Dandeli Teak Round Logs, Dandeli Sissum (Rose), Wood Logs Haldu Round Logs and all kinds of Timber, etc.**

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Kantilal Bhaichand & Co.—Opp. Silk Mill, 63, Victoria Road.

Kantilal Ramanlal & Co.—Reay Road, Tank Bunder.

Kassam Abdulla & Co.—Victoria Road, Mustafa Bazar, Byculla.

Kazi, Ebrahim Dawood.—59, Victoria Road.

**KERBADJI BEJANJI & SONS.—Opp. Silk Mill, Mustafa Bazar, 51 A, Victoria Road, Bombay 10. Phone : 78871. Stockists of Plywood, Hardboard and all kinds of Timber.**

Khan Bahadur S. R. Mody.—No. 24, Colaba Chambers, Colaba Road.

Khar Timber Mart.—132, Ghodbunder Road, Old Khar, Bombay 21.

Kohinoor Timber Mart.—Reay Road, Tank Bunder, Bombay 10.

Lalji Dewji Mehta.—Victoria Road, Byculla.

Lumber Industries Limited.—Victoria Road, Byculla.

Khar Timber Mart.—132, Ghodbunder Road, Old Khar, Bombay-21. Timber & Bomboo Merchants; Dealers in Timber, Bamboos and Bamboo Mats. Scaffolding materials likes Bamboos, Planks, Ladders Mundas and Building etc. can be had on hire.

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Mahomed Janmahomed.—68, Pydhoni Road, Khadak, Bombay 9.

Malabar Timber Supplying Co.—Opp. Masina Hospital, Victoria Road, Byculla.

McKenzies, Ltd.—Sewri.

Meherally Saw Mill & Timber Works.—Connaught Road, Ghorupdeo.

**MERWANJI KOLLABHAI & SONS.—Victoria Road, Bombay 10.**

**MILLARS' TIMBER & TRADING CO., LTD.—Victoria House, Victoria Road, Bombay 27. Phones: 72103 & 72104. Grams: "JARRAH." Bombay.**

Modi, R. E. & Co.—Reay Road, Bombay 10.

**NATIONAL FORESTS & GENERAL MILLS CO. PRIVATE LTD.—Signal Hill Avenue Road, Darukhana, Bombay 10. Phone: 42720. Grams: "GHAISTIMER." Forest Lessees, Timber Merchants, Suppliers of Dealwood & Firewood Sleepers, Shooks, Manufacturers of Planks & Built-up cases. Printing of Boxes a speciality. Agents for: Rohtas Saw Mills.**

Noormahomed Oosman.—New Kazi Street.

Northern India Timber Corp.—63, Reay Road, Bombay 10.

**PARAMOUNT TIMBER MART.—64, Ghogari Mohalla, Bombay 3. Mills & Film Studio Suppliers & General Contractors. Stockists of Deal Burma C. P. Teak, Jungle wood, Dandeli, Cedar fire wood, Plywood & Hard board etc. Phone: 335188.**

**PAREKH & CO.—Timber Merchants, Direct Importers & Exporters. Largest Stockists of Vellapine Wood Suitable for Shuttering purpose. 77, Victoria Road, Mustafa Bazar, Bombay 10. Phones: 40782 and 73149 (Office), 332432 (Res.). Grams: "KAMALKING."**

Pestonji Jamasji & Co.—Reay Road, Tank Bunder.

Podar Saw Mills.—61, Reay Road, Bombay 10.

Popatlal Parbhudas.—Near Reay Road Station, Tank Bunder.

Potia, Fidaalli Mohamedally & Bros.—51, Husseiny Lakda Bazar, Bellasis Road.

Quality Timber Trading Co.—The Bombay Timber Market Ltd., Shop No. 78, Signal Hill Avenue, Reay Road, Bombay 10.

Ravishanker P. Acharya.—Reay Road, Tank Bunder.

S. D. D. Gilder & Co.—40, Victoria Road, Mazagaon, Bombay 10. Grams: "TREETOP."

Simplex Timber Mart.—66, Pydhonie Road, Khadak, Bombay 9.

Standard Timber Trading Co.—Islami Bazar, Victoria Road, Byculla.

Sunderdas Saw Mills.—Opp. Reay Road Station, Bombay 10.

Timber Trading Corporation.—Tank Bunder, Reay Road, Bombay 10.

Timber Wood Syndicate.—All kinds of Timber, Bullies, Mundas, Rafters, Bamboos, etc., available in Big Stock. Ghodbunder Road, Andheri, Bombay 41.

Trinity Timber Syndicate —57, Dontad Street, Khadak.

Vaid & Co.—26, New Kazi Street, Null Bazar.

Valimohamed Haji Ahmed & Co.—146, Victoria Road, Byculla, P.O. Box 6953, Bombay 27. Stockists of Burma & C.P. Teak Poon & Jungle Wood of all Species & Dealwood. Phone: 42586. Grams: "WOODPECKER."

Vishnoo Balial & Co.—Opp. Reay Road Station, Bombay 10.

**VINAYAK AGENCIES. N. M. Wadia Building, 123, Mahatma Gandhi Road, Bombay-1. Phone: 253006. Grams: "LUMBERMAN". Leading Exporters of Indian Wood & Timber in Hard wood and Soft woods in logs, Planks, Squares, Strips. Also Bobbins, Spools, Shuttles, Rolls, Rollers, Picking arms etc. for Cotton, Rayon, Woollen Industries.**

**WADIA, B. F., & SONS.—Timber, Mangalore Roofing Tiles and Woodwool—The Ideal Packing Material. Reay Road, Bombay 10. Phone: 71934. Grams: "TIMBERSALE."**

Wallace & Co.—9, Wallace Street.

West Coast Timber & Plywoods.—57, Victoria Road, Mazagaon.

Western Australia State Saw Mills, Perth.—Agents: Killick, Nixon & Co., Home Street, Fort.

Wood Box Private Ltd.—10, Kurla Industrial Estate, Narayan Nagar, Bombay 77.

Zakariy & Dawood Co.—37, Dontad Street, Khadak, Bombay 9.

## TIN PRINTERS & BOX (CONTAINERS) MANUFACTURERS

**BOMBAY TIN PRINTERS.—221-223, Thakurdwar Road, Bombay 2. Grams: "LITHOPRINT." Phone: 30187. Manufacturers of Printed Decorative Tin Boxes, Containers (Readymade & made to order), Metal Signs, Seals; Tin-made of Joints only.**

**H. A. H. BACHOOALLY TIN FACTORY.—Nishan Pada Road, Dongri, Bombay 9. Phone: 331218. Grams: "TINKING," Mandvi. Quality Manufacturers of Plain and Lithographic Tin Containers, Aluminium Sheet printers, Posters, Calendars and other publicity material.**

**INDIAN METAL CAN MFRS. PRIVATE LTD.—Office & Factory: 43-E, Foras Road, Bombay 8. Phone: 251603. Grams: "ECONDUR." Manufacturers of Tin Containers.**

**KIV TRADING CO.—17, 1st Parsiwada, Khetwadi, Bombay 4. Phone: 72180. Grams: "KIVGROUP."**

Kotecha & Co.—231, Dr. Dadabhoy Naoroji Road, Bombay 1.

**ORIENTAL CAN MANUFACTURING CO.—1076, Dr. E. Moses Road, Worli, Bombay-18. Manufacturers of Plain & Lithographed Tin Containers, Showboards, Calendars, etc., Gram: ORCANMAN—Worli. Phones: Manager 40573, Factory: 72355.**

**POYSHA INDUSTRIAL CO. LTD.—Manufacturers of Plain and Litho General line & open Top Sanitary cans. Factory: Messant Road, Bombay 33. Regd. Office: Ticcicon House, Haines Road, Bombay 11. Tel.: 73151/2.**

Grams : " METALPRINT "

Phones : Office : 254416 / Factory : 573056

**THE METAL PRINTERS COMPANY**

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Dalal Street,
P.B. 411, Bombay 1-BR.

*Calcutta Office :*
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Calcutta 13.

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*Factory :*
114, Marol Naka, Andheri
East, Bombay 59-AS.

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CALENDARS,
DECORATED
CONTAINERS,
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**SAIFY TIN FACTORY.—Manufacturers of Tin Containers. 127-135, Maulana Azad Road (Upper Duncan Road), Bombay 8. Phone: 42398. Grams: "SAFETINS", Byculla.**

**ZENITH TIN WORKS PRIVATE LTD.—Opp. Race Course, Clerk Road, Mahalaxmi, Bombay 34. Phone: 70375. Grams: "ZENITHTINS." Manufacturers of Plain & Lithographed Tin Containers, Sanitary Cans, Collapsible Tubes and Pilfer Proof Caps.**

## TOBACCO DEALERS AND MANUFACTURERS

Behram Bros.—Oomrigar Building, opp. Crawford Market.

**BYRAM & CO.—Wakefield House, 11, Sprott Road, Ballard Estate, Bombay.**

Dilaj & Co.—20, Hamam Street, Fort.

Godfrey Phillips (India) Ltd.—Kurla Road, Chakala, Andheri, Greater Bombay.

Hiralal Panachand Shah.—Office: Jai Hind Estate No. 1, Cathedral Street, Bhuleshwar, Bombay 2.

**IMPERIAL TOBACCO COMPANY OF INDIA, LTD., THE.—Factory: P.O. Box No. 6002, Parel, Bombay 12-DD. Phone: 62521 (3 lines). Grams: "BACCYMAKE." (PL) Bombay.**

Khodadad Sheriar & Co.—No. 2, Crawford Market.

Macropolo, D., & Co., Ltd.—Kermani Building, Hornby Road, Fort.
Olympia Cigarette Co. & General Stores.—Metro House, Dhobi Talao.
Pioneer Industrial Tobacco Works.—Imamwada Road, Bombay 9.
Spencer & Co., Ltd.—Spencer's Building, Forjett Street, Bombay 26.
Star Beedi Works.—Keshav Bhuwan, 1st Sutar Gully, Bombay 4.

## TOILETRIES

Abdulla A. Baker & Co.—89, Bhajipala Street, Bombay 3.
Akbarally Ebrahimji.—38/C, Cawasji Patel Street, Fort, Bombay. Grams: "Tussibar."
Alimohamed Husein & Co.—229, Jumma Masjid, Bombay 4.

**BENGAL CHEMICAL & PHARMACEUTICAL WORKS LTD.—502, Cadel Road, Bombay 28. H.O. 6, Ganesh Chunder Avenue, Calcutta 13. Pharmaceuticals, Heavy & Fine Chemicals, High Class Toilet Products, Coal Tar Distillation Products, Fire Extinguishers, Printing Inks, Driers, etc. Branch Office: Kanpur.**

Budroodin Mahomedally & Sons.—238, Nagdevi Street, Bombay 3.
Chesebrough—Pond's Inc.—(Incorporated in U.S.A. with Limited Liability), 13, Gunbow Street, Fort, Bombay 1.
Chic Cosmetics Private Ltd.—91/A, Walkeshwar Road, Bombay 6.

**COLGATE-PALMOLIVE (INDIA) PRIVATE LTD.—Steelcrete House, 3, Dinshaw Vacha Road, Bombay 1-BR. Toilet Articles Mfrs. Phone Nos.: 245071/2/3. Grams: "PALMOLIVE".**

Ebrahim Allibhoy & Sons.—260-64, Abdul Rehman Street, Bombay 3.
Hebertsons Ltd.—Ewart House, Bruce Street, Fort.
Hindustan Lever Ltd.—Scindia House, Ballard Estate.
I.C.I. (India) Private Ltd.—P.B. No. 310, Bombay 1.
Komal Manufacturing Chemists, Ltd.—23-36, Imperial Chambers, Ballard Estate, Fort.

**LABORATORIES GRIMAULT PRIVATE LTD.—20, Haines Road, Bombay-11. Manufacturers of Cosmetic, Toiletries and, Pharmaceuticals. Phones: 70121, 70122-70123. Grams: "SIROGRIMO."**

**Madon, M. T., & Co.—The "Corner-Shop", 346, Abdul Rehman Street, Bombay 3.**

New India General Stores.—33, Medows Street, Fort, Bombay.

**PEARLINE-PARIS PRIVATE LTD.—Rehman Building, 24, Veer Nariman Road, Bombay 1. Phone: 254337. Grams: "PEARLAB."**

Sultanali Mohamadali (Estd. 1895).—148, Sarang Street, Bombay 3.
Swastik Oil Mills Ltd.—Saltpan Road, Wadala, Bombay 31.
Tata Oil Mills Company Ltd.—Bombay House, Bruce Street, Fort, Bombay.

**TOOBA PRODUCTS.—91, Bhajipala Street, Bombay 3. Phone: 324916. Soap Manufacturers & Fine Perfumers. Manufacturers of "TOOBA" Hair Tonic. Stops Falling Hair with two Bottles. Also Manufacturers of Soaps, Liquid Soaps, Agarbatti, Attars & Perfumes.**

## TOOL MANUFACTURERS AND MERCHANTS

**ABDEALLY, B. M. & CO.—127, Sarang Street, Bombay 3. Phone: 326980, Grams: "ALERTDEAL".**

Abdool Hoosein Jiwajee & Co.—241, Nagdevi Street, Bombay 3.

**Abdullabhai Faizullabhai Ltd.—Khoka Bazar, Bombay 3.**

**Adamally Gulamhusein.—191, Khoka Bazar, Sarang Street, Bombay 3.**

**A. H. SHIRAJ & CO.—99, Nagdevi Cross Lane, Bombay 3. Phone: 321614 Shop & Res. Direct Importers & Dealers in Twist Drills, Hand Taps, Dies, Coventry & Landies Chasers, Reamers, Cutters, Chucks, Tool Bits, Saw Blades, Wire Drawing Dies, etc. Agent of "Jesons" Brand Twist Drills & Cutting Tools.**

**AJMERA & BROS., V. G.—103, Narayan Dhuru Street, Bombay 3 BR. Phone: 323337. Importers of Hardware, Garage, Precision & Measuring Tools, Wrenches, Die, Ring & Tubular Spanners, Sockets & Sets and Speed Chain Pulley Blocks. authorised Stockists for Gedore Tools & Turner Asbestos Products.**

Akbarally & Co., F. H.—58, Bhajipala Lane, Bombay 3.

**AKSON TOOL & STEEL CO.—119, Nagdevi Street, Bombay 3. BR. Phone: 324786. Grams: "AKSONTOOL".**

**Asian Textile Engineering Corporation.—Kermani Building, Sir Phirozshah Mehta Road, Fort.**

**ASIAN TOOLS & HARDWARE STORES.—33, Pathakwadi, Lohar Chawl, Bombay 2. Phone: 20067. Grams: "ASIANTOOLS," Kalbadevi. Stockists in Tools for Carpentry, Smithy, Foundry Fittings, Precision, etc., Suppliers to Navy, Engineering Colleges, Polytechnic Institutes and Industrial Training Institutes. Grams: "ASIAN TOOLS", Bombay 2.**

**ASIAN TOOLS TRADING CO.—24, Nagdevi Cross Lane, Bombay 3. Phone: 329447. Manufacturers of "MAXICUT" Carbide Tipped Tools, Cemented with Winiet Tips & Engineering Stories.**

**Asiatic Engineers.—Mehta House, Medows Street, Fort.**

Batliboi & Company Private Limited.—Regd. Office: Forbes Street, P.O. Box 190A, Fort, Bombay-1. (BR.). Phones: 255451 (6 lines) Grams: "BATLIBOICO." Telex: 248. City Branch: Batliboi House, 59/61, Nagdevi Cross Lane, Bombay-3 (BR.). Branches: Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate: Bangalore 2. Resident Representatives: ERNAKULAM, RANCHI.

**BHARAT ENGINEERING STORES.—113, Nagdevi Street, Bombay 3. Grams: "UNIONTOOLS." Phone: 323193.**

Bhogilal & Co., R.—261/263, Hornby Road, Fort, Bombay.

**BOMBAY ENGINEERING STORES.—C-16, Bihari Baug, 3rd Bhoiwada, Bombay 2. Stockists of Engineering Tools of all kinds.**

**BOMBAY MACHINE TOOLS & HARDWARE CORP.—103, Narayan Dhuru Street, Bombay 3. Phone: 322702. Grams: "WIREGRIP." Importers & Stockists of Crucibles, Engineering small tools, Electrodes and electric portable drills, grinders, etc.**

Bombay Steel Corporation.—241, Kumbharwada, opp. 2nd Sutar Lane, Bombay 4.

**BOMBAY TOOLS SUPPLYING AGENCY.—50, Nagdevi Cross Lane, Bombay 3. Phone: 321326. Grams: "TERRATOOLS." Direct Importers—Stockists of Engineering & Precision Tools.**

Cambata Industries Private Ltd.—Cambata Building, 42, Queen's Road, Bombay 1.
C. Bole & Co.—Narayan Dhuru Street, Bombay 3.
Central Machine Tools Agency.—43, Nagdevi Cross Lane, Bombay 3.
Central Tool & Equipment Co.—32, Sarang Street, Bombay 3.
Chasman & Co.—Bell Building, Sir Phirozshah Mehta Road, Fort.
Choksi, H., & Co.—106, Medows Street, Fort.
Cooper Engineering Ltd.—Construction House, Ballard Estate, Bombay.
Crescent Agencies (Private) Ltd.—Beauman Chambers, 27/33, Medows Street, Fort, Bombay.

**DEEPAK TRADING CO.—137, Narayan Dhuru Street, Bombay 3. Machine Tools, Metal Cutting Tools and all sorts of Precision and Engineering Tools.**

Desai, M. S. & Co.—77, Nagdevi Cross Lane, Bombay 3.
Desai Tube & Hardware Mart.—41, Nagdevi Cross Lane, Bombay 3.
Duncan Stratton & Co., Ltd.—5, Bank Street, Bombay 1.
Eastern Machinery Trading Co.—Wilson Road, Ballard Estate, Bombay 1.

**EASTERN STEEL INDUSTRIES.—Manufacturers of Wood working Saws, Circular Saws, Planing Knives etc. 21-B, Noble Chambers, Parsee Bazar Street, Fort, Bombay. Phone: 254476. Grams: "INVICTA."**

Eastern Trading Co.—Mahakali Chawl, Pydhonie, Bombay 3.

**ECHJAY INDUSTRIES PRIVATE LTD.—Office & Factory: Kanjur Village Road, Bhandup, Bombay-78. Phones: 581211 & 581678. Grams: "ECHJAY" Bhandup. Manufacturers of Accessories & Equipments for Machine Tools, General Steel Forgings—including forged Flanges, Diesel & Automobile Engine Forged Parts, Jigs & Fixtures, Hand Tools: Hand Hammers, Chisels & Punches, Spanners, Pliers (Forged), Press Tools, Dies & Punches.**

Electro Technics & Engineering Co.—P. O. Box No. 1356, Fort.
Elliott Waud & Hill Private Ltd.—Lakshmi Bldg., Sir P. M. Road, Bombay 1.

**ENGINEERING TOOLS & HARDWARE MART.—31, Lohar Street, Bombay 2. Phone Nos. 38703 and 20150. Grams: "ENGGTOOLS." Stockists of Tools for Carpentry, Smithy, Foundry Fittings, Precision, etc. Suppliers to Engineering Colleges, Polytechnics, Training Institutes & Railways.**

Francis Klein & Co. (Bombay) Ltd.—Shale Building, Bank Street, Fort.
General Tubes Ltd.—142-144, Nagdevi Street, Bombay 3.
Gin Store Co.—76, Nagdevi Cross Lane, Bombay 3.
Greaves Cotton & Co., Ltd.—Forbes Street, Bombay 1.
Guest, Keen, Williams, Ltd.—Ballard Estate, Bombay 1.
Hans Steel Industries.—105, Narayan Dhuru Street, Bombay 3.
Harjimal Kidernath & Co.—87, Nagdevi Cross Lane, Bombay 3.
Heatly & Gresham Ltd.—9, Forbes Street, Fort.

**HEMANT TOOLS TRADING CO.—33, Bibijan Street (Barbhai Mohalla), Bombay 3. Grams: "LACING." Phone: 321174. Importers & Stockists of Chain Pulley Blocks, Garage Tools, Fibre Sheets, Rods, etc.**

**Hind Hardware Stores.—Pirbhoy Building No. 1, Lohar Chawl, Bombay 2.**

Hindustan Engineering Co. (Machinery Dept.).—25, Ropewalk Street, Rampart Row, Fort.

Hiralal Gokaldas Dalal & Co.—45, Nagdevi Cross Lane, Bombay 3.

**INDIAN TOOL MANUFACTURERS LTD., THE.—101, Sion Road, Bombay 22. Phones : 471273, 471274 & 472292. Grams : "ITOOLS", Sion, Bombay. Manufacturers of Small Tools, Particularly Twist Drills, Reamers, Cutters, Taps & Carbide Tips & Tools and Micrometers.**

**INDO-DANISH ENGINEERING.—Specialists in Press-Tools, Jigs, Fixtures, Dies and Moulds, Manufactured on latest imported Precision machines. R. K. Shah Industrial Estate, Valbhat Madhavji Road, Pahadi, Goregaon (East), Bombay-62.**

Industrial and Agricultural Equipment Co.—29, Hamam Street, Fort, Bombay.

Industrial Machine & Tools Co.—347, Lamington Road, Bombay 7.

Industrial Machinery & Tools Corpn.—Indira Nivas, 1st Floor, New Bhatwadi Street, Bombay 4.

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James Finlay & Co., Ltd.—Mahatma Gandhi Road, Bombay 1.

Kantilal Bhogilal & Co. (Estd. 1933).—68, Nagdevi Cross Lane, Bombay 3.

**KERMANI & SONS, F. B.—132, Sarang Street, Bombay 3. Phone : 326663. Grams : "GAROGAR."**

**KERRY JOST TOOLS LTD.—Manufacturers of Machine Tools, Great Social Building, Sir Phirozshah Mehta Road, Fort, Bombay 1. Post Box No. 243, Bombay 1. Phone Nos. : 262697 & 262698. Grams: "JOST." Factory at Ambattur Estate, Madras 53.**

Kilburn & Co., Ltd.—Gresham Assurance House, Sir Phirozshah Mehta Road, Fort, Bombay 1.

Kirtilal & Co.—31, Bibijan Street, Barbhai Moholla, Bombay 3.

**KISHORECHAND OMPRAKASH.—101, Narayan Dhuru Street, Bombay 3. Phones : 322059, 322325 (Office) & 78707 (Res.). Grams : "CHAINPULLY". Importers of Mill Gin Stores and Hardware. Authorised Stockists of "GEDORE", Tools, "WARRIOR", Taps & Dies, "NETTLEFOLDS" Products and "SPEED" Chain Pulley Blocks.**

Kishor Trading Co.—145, Narayan Dhuru Street, Bombay 3.

**KUMAR COMMERCIAL CO.—12-E, Nadirshaw Sukhia Street, Off Cawasji Patel Street, G.P.O. Box No. 1525, Bombay 1. Importers and Dealers of Spare Parts for all known types of Engines & Distributors of "CFW" German Oil Seals and accredited Dealers for World Famous "Wolf" Electric Tools. Also "EMCO" drills, grinders, etc. Phone : 255719. Grams : "SIZING."**

**MACHINE TOOLS & IMPLEMENTS.—93-95, Narayan Dhuru Street, Bombay 3. Phones : Office : 322268 & 322269. Grams : "MACHTOOLS." Telex 292 BY.**

Machine Tools (India) Ltd.—Imperial Chambers, Wilson Road, Ballard Estate, Bombay.

Machinery Trading Corporation.—68, Medows Street, Fort, Bombay 1.

Mahindra & Mahindra Ltd.—Gateway Building, Apollo Bunder, Fort.


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Mehta Textile & Hardware Stores.—158-160, Narayan Dhuru Street, Bombay 3.

**M. MAHASUKHLAL & CO.—93, Narayan Dhuru Street, Bombay 3. Phone : 321898. Grams : "STEELBALL." Dealers in Engineering Tools, Precision & Measuring Instruments.**

Modern Hardware & Trading Co.—107, Abdul Rehman Street, Bombay 3.

Mody Trading Co.—163, Nagdevi Cross Lane, Bombay 3.

**NEW INDIA HARDWARE MART.—152, Narayan Dhuru Street, Bombay 3. Phone : 321465. Grams : "FREETRADE."**

**NUTAN TRADING CORPORATION.—83, Nagdevi Cross Lane, Post Box No. 3238, Bombay-3. (BR). Grams : "NUTANTRADE." Phones : 323357 (Office) & 474485 (Res.). Manufacturers of "KAUSHIK" Brand Tools—Such as Reamers, Callipers, Dividers, Tool Holders, Engineering Squares etc. Dealers in Tool Bits, End Mills, Centre Drills, Slotting and Side & Face Cutters etc. Stockists of Hardware, Bearings etc. Branch at :— 3350, People Mahadev Hauz Kazi, Delhi-6.**

Oriental Engineering Co.—25, Forbes Street, Fort, Bombay 1.

**P. DALAL & COMPANY—357, Nagindas Building, Opp. Family Planning Centre, Sardar Vallabhbhai Patel Road, Bombay-4. Phone : 70674. Importers of Metal Hardness Testers, Rubber Testers, Tachometers and Precision Measuring Tools.**

**Paramount Tools Company.—3, Narayan Dhuru Cross Lane, Bombay 3.**

P. Ratilal & Co.—43, Dhanji Street, Bombay 2.

**PRAFFULCHANDRA & CO.—106, Lohar Street, Bombay 2. Phone : 39007. Grams : "ELECTTOOLS." Importers & Stockists of Engineering, Precision and Garage & Machine Tools.**

Rajkumar Khanna & Son.—82, Bhajipala Street, Bombay 3.

**RAMCHAND MATHRADAS AGGARWAL.—30, Khokha Bazar, Bombay 3. Phones : 39875 & 328942. Grams : "PIPEDIE." Hardware, Tools, Fittings, Pipes, Compressors, Machinery.**

Rasiklal Shah & Co.—93, Narayan Dhuru Street, Bombay 3. Phone : 321759 & Grams : "PRECISION." Stockists of Engineering Tools of all types.

R. Babulal & Co.—163, Nagdevi Cross Lane, Bombay 3.

Reliance Trading Co.—Vithal Sayana Bldg., Lohar Street, Bombay 2.

Royal Hardware Mart.—108, Nagdevi Street, Bombay 3.

Shah & Brothers.—234, Nagdevi Street, Bombay 3.

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**Mohamadi House, Ist Floor,**
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**STAR DIAMOND TOOLS.—60, Sir Phirozshah Mehta Road, Bombay. Mfrs. of Diamond Tools, Dressers etc. Complete range. Resetting Service Undertaken. Phone: 265051.**

Stanley Works, The.—44, Lakshmi Bldg., Sir Pherozshah Mehta Road, Bombay 1.

Suryodaya Trading Co.—Behind Reserve Bank, Ground Floor, Bombay 1.

Swastic Hardware Stores.—116, Narayan Dhuru Street, 2nd Floor, Room No. 23, Bombay 3.

Tube Tools and Hardware Mart.—94, Nagdevi Street, Bombay 3.

**TYEBALLY DAWOODJI (Estd. 1865).—87, Sarang Street, Bombay 3. Phone: 325362. Grams: "FOOTRULES." Stockists of John Bakers, J. K's and Hindustan's Files. Dealers in Files, Garrage & Engineering Tools.**

**UNIVERSAL TRADING CO.—Stockists of Micrometers, Calipers, V. Blocks, Height & Depth Gauges, Planers, Wrenches, Pliers, Spanners, Cutters, Reamers, Drills, Vices, Chucks, Tipped Tools, Taps & Dies, Pressure and Vacuum Gauges and General Engineers Requisites. Mohamedi House, 79, Mohamedali Road, Bombay 3. Phone: 322537. Grams: "IRONMART". Sales Office: No. 4, Narayan Dhuru Cross Lane, Bombay 3.**

**V. CHUNILAL & CO.—19, Bibijan Street, Bombay 3. Phone: 328370. Bolts, Nuts, Hardware and Tool Manufacturers.**

Vishwabharati Trading Co.—Kumpta Street, Ballard Estate, Bombay.

Vulcan Trading Co. (Pvt.) Ltd.—Indian Mercantile Chambers, Nicol Road, Ballard Estate, Bombay.

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay.

Workshop Engineering & Equipment Co.—30/32, Bhajipala Lane, Bombay 3.

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Phone: 324786
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METALLICA WORKS PRIVATE LTD.—79/83, Dr. Annie Besant Road, Bombay 18. Phones: 75432, 75433, 75434. Makers of Non-Ferrous Metals, Castings, Alloys, Anodes, Lead lining of Acid Resisting Containers, Crucibles.

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ASHOK TYPEWRITERS.—40, Cawasji Patel Street, Ground Floor, Savla Chambers, Fort, Bombay 1. Phone: 256385. Dealers in all kinds of New and Rebuilt Typewriters—Calculating—Adding—Duplicating and Cheque Writing Machines, Typewriters—Bought—Sold—Repaired—Exchanged—Hired.

BOMBAY TYPEWRITING INSTITUTION.—Typewriting Taught, Typewriters & Duplicators bought, sold, repaired & hired, Type-Copying & Duplicating Work undertaken. Opp. The General Post Office, Bhatia Mitra Mandal, Fort Street, Fort. Post Box No. 936, Bombay 1. Phones: 26-2484.

GENERAL OFFICE EQUIPMENT COMPANY.—Anand Bhuvan, 3rd Floor, Dr. D. Naoroji Road, Fort, Bombay 1. Phone: 254346. Repairs and Maintenance of Typewriters and other Office Machines.

IMANES.—94, S. V. Road, Erla, P.O. Box 8002, Bombay 56 AS. Phone: 571634. Grams: "BELLIBONE (SZ)." For Springs & Forms out of Wires and Strips for your Industry.

INTERNATIONAL TYPEWRITER AGENCY.—Wellknown in Typewriters, Sales, Purchase Hire & Repair, Also imported Spare Parts. 5, Bhagwan Mansion, Behind Metro, Bombay 1. Phone: 242741.

Kerala Industries (India).—Manufacturers of Typewriter Spares, 174, Hornby Road, Fort, Bombay.

Kores (India) Ltd.—Plot No. 10, Off Haines Road, Worli, Bombay 18 W.B.

KOTAK BROTHERS.—59, Forbes Street, Bombay 1. Phone: 252963. Typewriters given on Hire—Bought—Sold—Exchanged—Repaired & Serviced under guarantee. Cyclostyling (Duplicating) Job experts.

LATHAM ABERCROMBIE DIVISION FORBES FORBES CAMPBELL & CO., LTD.—Forbes Building, Home Street, Fort, Bombay 1. Phone: 268081. Grams: "LATHAM."

NICOLLS & CO.—Typewriter Experts, Typewriter Sales, Service & Repairs, Carbon and Ribbons. Kermani Building, Sir Phirozshah Mehta Road (above Macropolo's), Fort, Bombay. Phone: 253523.

Office Appliance Corporation.—Hassan Chambers, Parsee Bazar Street, Fort

Oliver Typewriter Agency.—Hassan Chambers, Parsee Bazar Street, Fort.

Premier Typewriter Co.—285, Hornby Road, above Kemp & Co., Fort.

REMINGTON RAND OF INDIA LIMITED.—Manufacturers of Remington Rand Business Equipment. Thackersey House, Graham Road, Ballard Estate, Bombay. Phones: 265591-92-93. Grams: "REMINGTONS."

SUNBEAM CO.—29, Ismail Bldg., 381, Hornby Road, Above Eastern Bank, Opposite Flora Fountain, Bombay-1. Dealers in: Everything in Typewriters. Typewriters—Bought—Sold—Repaired—Exchanged—Given on Hire. Phone: 251673.

SUPREME TYPEWRITER & CO.—94, Medows Street, Bombay-1. Tel.: 251031. For Efficient Repairs of all Typewriters and Prompt Service, Suppliers on hire.

Roneo, Ltd.—Navsari Chambers, 39, Bastion Road, Fort.

Sind Typewriting Co.—242, Abdul Rehman Street.

Standard Typewriting Co.—Cama Building, 257, Hornby Road, Fort.

UNIVERSAL TYPEWRITER CO.—327, Dadabhoy Naoroji Road, Bombay 1. Phone: 251949. Dealers in Typewriters, Accessories and Spare Parts. Specialists in Repairs of all makes of Typewriters.

Voltas Limited.—19, Graham Road, Ballard Estate, Fort.

Western India Typewriter Co.—General Assurance Building, Hornby Road, Fort.

## TYRE DEALERS AND RETREADERS

**HIRJI LADHA & CO.**—Amir House, 245/249, Lamington Road, Bombay. Grams: "DHARANICO." Dealers in all kinds of Tyres & Tubes. Tyre Sales with Service. Retreading of Tyres a Speciality. Phone: 79144. Branch at: Vishnu Bhuvan, 4631, Relief Road, Ahmedabad-1. Grams: "TYREHOUSE." Tel.: 23793.

## TYRE MANUFACTURERS AND DISTRIBUTORS

Bombay Garage Ltd.—Meher Building, Chowpatty, Bombay 7.

**CEAT TYRES OF INDIA LTD.**—Manufacturers of Tyres and Tubes, Registered Office & Factory: Bhandup, Bombay-78. Phones: 581366 (3 lines), 581153, 581144, Grams: "CEATYRES," Bombay. Telex No. 285.

Dunlop Rubber Co. (India) Ltd.—Dunlop House, Hughes Road.

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.**—Wavell House, Graham Road, Ballard Estate, Bombay. Phones: 26-2711 (8 lines). Machine Works: Tank Road, Bombay 33 DD. Phone: 78544. Offices at Madras, Calcutta, New Delhi, Bangalore, Secunderabad & Lucknow.

Firestone Tyre and Rubber Co. of India Ltd.—Hay Bunder Road, Sewree, Bombay.

Goodyear Tyre & Rubber Co. of India Ltd.—7-9, Mathew Road.

India Tyre & Rubber Co. (India) Ltd.—Spencer's Building, Forjett Street, Cumballa Hill, Bombay 26.

Mehta Motor Stores.—Banji Nivas, Sandhurst Road.

New Eastern Traders (India) Private Ltd.—16, Avantikabai Gokhale Street, Bombay 4.

**PREMIER RUBBER & CABLE INDUSTRIES.**—Jamal Building, 211, Nagdevi Street, Bombay 3. Phone: 38551. Grams: "RUBBERGOODS." Manufacturers of "Premier" Cycle & Rickshaw Tyres.

**TYRESOLES CONCESSIONAIRES PRIVATE LTD.**—Sayani Road, Bombay 28. Tel. 454327. H.O. Ewart House, Bruce Street, Bombay 1. Phone: 252261. Retreading and repairs of tyres of all sizes.

## UMBRELLAS, UMBRELLA PARTS MANUFACTURERS & MERCHANTS

Akbarally Ebrahimji.—38/c, Cowasji Patel Street, Fort, Bombay. Grams: "Tussibar."

Arco Agencies.—Bam House, Gunbow Street, Fort, Bombay.

Asiatic Umbrella Manufacturing Co.—Dev Karan Mansion, 22, Mangaldas Road, Bombay 2.

**BHARAT UMBRELLA MFG. CO.**—65, New Hanuman Lane, Bombay 2. Grams: "DHARUV." Exporters, Specialists in "Umbrella" Cloth. Phone: 39319.

**EBRAHIM CURRIM & SONS.**—Rahim Building, Princess Street. Umbrella Merchants & Manufacturers of "STAG" Brand Umbrellas. Tel. No. 22238. Grams: "CANOPY."

Iwacom Private Ltd.—204, Dr. Dadabhai Naoroji Road, Fort, Bombay.

**J. K. & SONS.**—55-A, New Hanuman Lane (Babu Genu Road), Bombay 2. Phone: 22823. Grams: "BRAVERY." Manufacturers of "CHAKRA" Brand quality Umbrellas; Sole Agents for "MMM" Brand Umbrellas & Ribs; Wholesale Dealers & Exporters of Umbrellas and other Accessories.

**NOBLE PLASTIC WORKS.**—22, Mangesh Senoy Street, Fort, Bombay 1. Phone: 261172. Grams: "ROLLED GOLD". Manufacturers of Plastic Umbrella Handles and Handicrafts. Export inquiries invited. Also Sole Indenting Agents of "Acrylic" Plastic Sheets M.O.P. & Stain finish of Spanish origin.

**RAJASTHAN TRADING CO.**—419-C, Joshi Wadi, Kalbadevi, Bombay 2. Manufacturers and Dealers in Umbrellas and Parts. Exporters and Importers. Grams: "REPUTATION." Phone: 39653.

Ramniklal Harilal & Co.—86-90, Sutar Chawl, Bombay 2.

**RATILAL PAREKH & CO.**—Bombay Mutual Bldg., Sir Phiroz-shah Mehta Road, Bombay-1. Manufacturers of Plastic Umbrella Handles, Bangles, Novelties Art Silk Cord, Tapes, Nylon Cordage, Umbrellas and imitation Jewellery.

**SAIT NAGJEE PURUSHOTHAM & CO., PRIVATE LTD.**—94/96, Princess Street, Bombay 2. Phone: 30768. Grams: "LIMDA". Umbrellas, Textiles, Soaps, Glycerine & Plastic.

Senaji Sobhaji & Co.—65, New Hanuman Lane, Bombay 2.

## UNDERTAKERS AND MONUMENTAL SCULPTORS

**Annunciation William & Co.**—425-425A, Girgaum Road, opp. Dukerwadi Lane.

Douglas James & Co.—7, Clare Road, Byculla.

Frank Binks.—Opp. Alexandra Cinema, 246, Bellasis Road, Byculla.

George F. Baptista.—165, Hill Road, Bandra.

Jones Edwards.—Clare Road, Byculla, Bombay 8.

## UNIFORMS & CLOTHING CONTRACTORS

**INDUSTRIAL CLOTHING CO.**—Makers and Contractors of Uniforms for Industrial Workers, Peons, Watchmen etc. 79, Medows Street (2nd Floor), Bombay-1. Phone: C/o 254500.

## UPHOLSTERY MATERIALS

**BHOR INDUSTRIES LTD.**—Sales Department, 392, Cadell Road, Bombay 28. Phones: 451418, 451967, 451978. Grams: "COVERCLOTH." Manufacturers of "RAJA" Brand Plastic Cloth & "NATRAJ" Brand Plastic Films & Sheetings.

**CHEMISOL INDUSTRIES.**—41, Princess Street, Bombay 2. Phone: 29086. Grams: "BAYCITY." Importers and Manufacturers of Industrial Organic Chemicals, Solvents and Adhesives.

**DHARAMPUR LEATHER CLOTH CO. PVT. LTD.**—Manufacturers of heavy upholstery materials, PVC Handgloves, Industrial and Domestic type. 10, Chowpatty Seaface, Bombay 7. Phone: 30095. Grams: "PUNEM."

**GANDHI & CO., R.**—50, Sheriff Devji Street (Colaba), Bombay 3. Wholesale Distributors of Book Binding Cloth & P.V.C. Leather Cloth. Phone: 322897.

**JAFFERBHAI & CO.**—106-108, Bhendi Bazar, P. O. Box No. 3055, Bombay 3. Phone: 333324. Grams: "NECESSITY". Dealers in P.V.C. Leather Cloth, Canvas, Motor Accessories, Felt, Celluloid, Aluminium Sections, Rubber Sections, Sponge & Foam Cushion, etc.

**JYOTI MOTOR ACCESSORIES.**—(1) Contractor Bldg., No. 1, Opp. Prarthna Samaj, Bombay 4. (2) 138, New Charni Road, Bombay 4. (3) 342, Sardar V. P. Road, Bombay 4. Grams: "JAGJYOTI." Phone: C/o 22550. Importers & Stockists

**of Jagger's Bus Body Fittings, P.V.C. Leather Cloth, Upholstery Materials, Rubber Mattings, etc. Distributors of Jyoti Brand P.V.C. Leather Cloth, manufactured by Jyoti Industries, Bombay 62.**

Leather Cloth Processors & Printers.—Moghul Lane, Matunga, Bombay 16.

## VACUUM FLASKS & BOTTLES

**EAGLE VACUUM BOTTLE MFG. CO. PRIVATE LTD.—Manufacturers of "Eagle Brand" Vacuum Flasks, Refills and Insulated Wares. Regd. Office : 144 146, Sheriff Devji (Chakla) Street, Bombay 3. Phones : 322075 & 322096. Grams : "EAGLEFLASK."**

**VICTORY FLASK CO. PRIVATE LTD.**

**208, L. J. Road, Bombay-16.**

BOMBAY * DELHI * CALCUTTA * MADRAS

## VACUUM CLEANING MACHINERY

Batliboi & Company Private Limited.—Regd. Office : Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR). Phones : 255451 (6 lines). Grams : "BATLIBOICO." Telex : 248. City Branch : Batliboi House, 59/61, Nagdevi Cross Lane, Bombay-3 (BR). Branches : Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate : Bangalore 2. Resident Representatives : ERNAKULAM, RANCHI.

**General Radio & Appliances Private Ltd.—16, New Queen's Road, Bombay 4.**

## VACUUM EQUIPMENT

**ASSOCIATED INSTRUMENT MANUFACTURERS (INDIA) PRIVATE LTD.—India House, Fort Street, Bombay 1. Phone : 261658. Gram : "AIMILBOM".**

## VACUUM VESSELS AND PUMPS MANUFACTURERS

**J. B. SAWANT ENGINEERING WORKS.—46, Old Nagardas Road, Bombay 69. Phone : 753352. Manufacturers of JEBIVAK Vacuum Pumps & Suction Pumps for Laboratory & Hospital uses. Specialists in H. P. Sterilizers, Burners, Gas & Water Taps & Stainless Steel Welding with Argon Gas.**

## VALUERS (MACHINERY, BUILDING & LANDS)

**DINSHAW, M.H., & CO.—105, Apollo Street, Fort, P.O. Box 448, Bombay. Gram : "AHOORAT." Phone : 251458. Managing Director : H. Dinshaw Dungor, M.I.S.E., M.M.E.A. (Ind.), A.S.E. (Lond.); Managing Partner : Dinshaw H. Dungor, A.M.I.E.T. (Lond.), Residence, Victory Villa, Turner Road, Bandra.**

## VALVES

**AGRA ENGINEERING CO.—40, Bank Street, Fort, Bombay 1. Phones : Office : 256541 ; Res. : 532906. Grams : "RAJSPARES."**

**CALCUTTA IRON & STEEL CO., PRIVATE LTD.—68/D, Mohamedally Road, Bombay 3. B.R. Grams : "RIVETBOLT", Mandvi, Bombay. Phone : 322182.**

William Jacks & Co., Ltd.—Bharat House, Apollo Street, Fort.

## VEE-BELTS

**AUTO SPARES (INDIA).—Opp. Opera House, Bombay 4. Phone : 76920.**

Batliboi & Company Private Limited.—Regd. Office : Forbes Street, P.O. Box 190A, Fort, Bombay-1 (BR). Phones : 255451 (6 lines). Grams : "BATLIBOICO." Telex : 248, City Branch : Batliboi House, 59/61, Nagdevi Cross Lane, Bombay-3 (BR). Branches : Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate : Bangalore 2. Resident Representatives : ERNAKULAM, RANCHI.

Bharat Engineering Stores.—113, Nagdevi Street, Bombay 3.

**Diarvi Trading Co.—64, Old Custom House Road, Fort.**

**DIWAN BROS.—51, Nagdevi Street, Bombay 3. Phone : 321361. Grams : "ALLBELT." Stockists of Goodyear, India Super, Fenner Link Belts & Plioband Adhesives.**

Edgar Handley & Co. Private Ltd.—135, Medows Street, Fort, Bombay.

Greaves Cotton & Crompton Parkinson Ltd.—1, Forbes Street, Post Box No. 1277, Bombay 1.

Greentose Corporation (India).—24-26, Dalal Street, Fort, Bombay.

Jhala, R. T., & Co.—9, Forbes Street, Fort, Bombay 1.

**N. MOHANLAL & CO.—Industrial Rubber Goods Merchants, 124, Nagdevi Street, Bombay 3. Phone : 322545. Grams : "JEPIBELT."**

Paramount Textile Agency.—54/47, Apollo Street, Fort, Bombay.

**P. RATILAL & CO.—43, Dhanji Street, Moti Mahal, Bombay 3. Phone : 325980. Grams : "ETERNAL." Cockills' V-Belts, Blue Star V-Link Belting. Manufacturers of all types of quality Endless Belts, Cone-Drum & Variable Speed Belts, Flat Belts, Rubber Goods, etc.**

**R. B. ISHWARDAS & CO.—79, Nagdevi Cross Lane, Bombay 3. Phone : 322145. Grams : "STOREWALA". Mill Gin Stores and Hardware Suppliers, Industrial Vee-Belts, Vee Pulleys, Link Belts, "F.M." Brand Trolley Wheels & Solid Rubber Cushion Tyres, Ebonite Rods & Sheets.**

**V. N. MEHTA.—Lotus Chambers, 159, Narayan Dhuru Street, Bombay 3. Phone : 322858 and 173, V. P. Road, Bombay 4. Phone : 74429. Dunlop Vee-Belts, Beltings, Water, Air & Pneumatic Hoses.**

V. S. & Company.—Commerce House, Block 302, 140, Medows Street, Bombay 1.

**VIKRAM & CO.—250, Nagdevi Street, P.O. Box No. 3266, Bombay 3 BR. Phone : 322981. Manufacturers' Representatives, Mill Gin Stores, Pipe Fittings & Hardware Merchants. Authorised distributors for "GOODYEAR" Transmission Beltings Vee-Belts, Link Belts Hoses, etc.**

Voltas Ltd.—19, Graham Road, Ballard Estate, Bombay 1.

## VEE ROPES

**Balmer Lawrie & Co., Ltd.—5, Graham Road, Ballard Estate, Fort.**

Edgar Handley & Co. Private Ltd.—135, Medows Street, Fort, Bombay.

Greaves Cotton & Crompton Parkinson Private Ltd.—Forbes Street, Bombay 1.

## VEGETABLE PRODUCTS (GHEE)

**AMRIT BANASPATI CO., LTD.—Bombay Office : East & West Building, 55, Apollo Street, Bombay 1. Manufacturers of Vegetable Products. Directors : R. B. Girdarilal Bajaj, R. B. Rameshwar Prasad Bagla, Sri Hansraj Gupta, R. B. Nanakchand, Sri Anand Beharilal, Sri D. P. Kanudia. Regd. Office at Grand Trunk Road, Ghaziabad (U.P.). Grams : "AMRIT," Ghaziabad.**

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.—Wavell House, Graham Road, Ballard Estate, Bombay. Phone: 26-2711 (8 lines). Machine Works: Tank Road, Bombay 33 DD. Phone: 78544. Offices at Madras, Calcutta, New Delhi, Bangalore, Secunderabad & Lucknow.**

Hindustan Lever Ltd.—Office: Scindia House, Ballard Estate, Factory at Sewri.

Palanpur Vegetable Products Ltd.—Forbes Building, Home Street.

Tata Oil Mills Co. Ltd.—Bombay House, Bruce Street, Bombay 1.

Western India Vegetable Products Ltd.—5, Ghoga Street, Fort.

## VENETIAN BLINDS

**B. S. MOHINDAR & CO.—45-I, Gowalia Tank Road, Bombay 26. Phone: 42495. Grams: "BIMOHINDAR."**

**PRAFULLAKUMAR & CO.—208, Hira Mahal, Station Road, Wadala, Bombay 31. Manufacturers of Venetian Blinds in attractive colours of imported Aluminium Slats, also of Wooden Slats and Auto-Blinds for cars.**

## VENTILATION

**INDUSTRIAL AIR CONTROL (INDIA) PRIVATE LTD.—Karimjee House, 2nd Floor, 59, Sir Phirozshah Mehta Road, Fort, Bombay 1. Phone: 262475. Grams: "COOLAIR." Specialists in all Air Handling Equipments, Textile Dust and Fume Removal and Oil Spraying.**

## VISUAL EDUCATION

Film Club.—National House, Tulloch Road, Apollo Bunder, Bombay.

National Education & Information Films, Ltd.—National House, Tulloch Road, Apollo Bunder. Grams: "Edufilms."

Ondez (India).—144, Mody Street, Fort, Bombay.

Photo, Cine & Sound Private Ltd.—12, Rampart Row, Bombay 1.

## VETERINARY INSTRUMENTS & APPLIANCES

**CIRUGIA DE LUX PRIVATE LTD.—17, Gunbow Street, Bombay 1. Phones: 263802 & 72687 (Res. Mg. Director). Grams: "SURGIQUIP." Specialists in the Supply of Veterinary Instruments and Appliances, Livestock Artificial Insemination and Sterility Equipment, Poultry Incubators & Brooders. Regd. Office: 24, Chowringhee Road, Calcutta 13. Branches: 1/30, Pantheon Road, Madras 8 and H/89, New Delhi South Extn., Part I, Ring Road, New Delhi 3.**

## WASHING AND DYEING COMPANIES

Band-Box.—145, Mahatma Gandhi Road, Bombay 1.

Comet Cleaners.—Park House, 81, Wodehouse Road Colaba.

Diamond Jubilee Washing Company.—Hamam Street, Fort.

**GARMENT CLEANING WORKS.—The largest Power Laundry in India. 36 Branches in the City. Laundry Contractors to all leading Shipping Companies, Railways & Hotels. Head Office & Worli Factory: 37/43, Dr. Annie Besant Road, Worli, Bombay 18. Phones: 72790, 74187. Malabar Hill Factory: 74110.**

**LEACH & WEBORNEY.—Drycleaners, Dyers, Ship Contractors, Carpet Cleaning & Dyeing a Speciality. 34, Hamam House, Hamam Street, Fort, Bombay. Member of the American Institute of Laundering & British Institute of Launderers. Factory at Worli. Phones: 254100 & 74374 (Factory).**

Vacuum Dry Cleaning Co.—Elysium Mansion, Colaba Causeway.

Vasudev Dyeing Works.—318, Dr. Cowasji Hormusji Street, opp. Sonapur Church, near Marine Lines Railway Station, Bombay 2.

## WATCH AND CLOCK IMPORTERS AND DEALERS

Bhagat & Company, L.—Abdul Rehman Street, Bombay 3.

**BULLION WATCH CO.—215-17, Kalbadevi Road, Bombay 2. Importers and Dealers in Watches, Clocks, Timepieces and Fancy Straps (Repairing Specialists).**

**CHOONILAL CHHAGANLAL (East India Watch Co.).—119, Abdul Rehman Street, Bombay 3. Phone: 323631. Grams: "POSTCARDS." Oldest Importers, Wholesalers and Retail Dealers in Watches, Clocks, Timepieces and Watch Bands. Agents for "Wyler" and "Record" High Grade Swiss Watches.**

Crown Watch Co.—Nanavati Building, 16/18, Abdul Rehman Street, Bombay 3, near Pydhownie.

D. P. Pundole & Co.—44, Nagdevi Street, Bombay 3.

**D. R. PUNDOLE & SONS.—369-371, Dr. Dadabhai Naoroji Road, Fort, Bombay. Sole Manufacturers of "Beaumont" Watches and Clocks and also Agents for 'Cyma' Watches and "Chemould" Picture Frames.**

**EASTERN WATCH.—231-3, Dr. Dadabhoy Naoroji Road, Fort. Clocks and Watches, Electric Clocks Specialists. P.O. Box 263. Phone: 261962.**

**E. M. M. GHADIALI & SONS (REGD.) ESTD. 1860.—59, Abdul Rehman Street, Bombay 3. H.O. Ahmedabad. Importers of Watches & their parts.**

**EXCELSIOR WATCH CO. PRIVATE LTD.—64/64A, Abdul Rehman Street, P. O. Box No. 3001, Bombay 3. Grams: "EXCELWATCH." Phone: 324085. Dealers in Watches, Clocks, Timepieces, Watch Materials, Watchmaker tools, etc. Sole Distributors for Well-known "AWCO" Minister—Norexa Watches and "RIVEX"—"SEVAK" Wall clocks.**

**EXPRESS WATCH COMPANY.—78, Abdul Rehman Street, Bombay 3. Importers, Wholesalers and Retailers of Watches, Clocks and Timepieces. Grams: "PRIMEWATCH." Phone: 325938.**

Geneva Watch Co.—97, Abdul Rehman Street, Bombay 3. Grams: "ZEILER."

**JAMSHEDJI NOWROJI & CO. PRIVATE LTD.—90, Abdul-rehman Street, Bombay 3. Phone: 327342. Grams: "TIME-HOUSE." Manufacturers of Electrical and Non-Electrical Watch Cleaning Machines, Watch Maker's Tools, Direct Importers and Wholesalers of Watches, Clocks and Time-pieces.**

Jawahir Watch Co.—Opp. Western Rly. Station, D'Silva Road, Dadar, Bombay 14.

Jayco Watch Co.—Opp. Crawford Market, Oomrigar Building, Bombay 3.

**KOTHARI WATCH CO.—199A, Princess Street, Bombay 2. Manufacturers' Representatives and Importers of Watches, Timepieces, Clocks and Spare Parts.**

**LAWRENCE WATCH CO.—Empire Bldg., 150, Dadabhoy Naoroji Road, Fort, Bombay 1. Phone: 264318. Grams: "HAIRSPRING." Direct Importers of Watches, Clocks, Timepieces, etc. Repairing is our Speciality.**

Leon Watch Co.—20, Abdul Rehman Street.

**LOKAMANYA WATCH CO.—26-C, Gunbow Street, Fort. Importers of Lowaco & Kisan Watches. Phone: 264378.**

Lund & Blockley Ltd.—Sassoon Institute Building, 150-154, Mahatma Gandhi Road, Fort.

Maganbhai & Lallubhai.—184-186, Sheikh Memon Street, Bombay 2.

Nazar Watch Co.—320, Abdul Rehman Street, Bombay 3.

Nelson Watch Co.—43, Abdul Rehman Street, Bombay 3.

Novelties, The.—Hughes Road, Bombay.

**ORIENTAL WATCH & GRAMOPHONE CO., THE.—218E, Tulsi Pipe Road, Opp. Western Rly. Station, Dadar, Bombay 28. Phone: 452439. Grams: "TIKAM", Bombay-Dadar.**

Packard Watch Co.—52-54, Nakhoda Street, near Pydhownie.

Parekh Watch Service.—375-77, Sandhurst Road, Bombay.

Peoples Watch Co. Private Ltd.—177, 179A, Dr. Dadabhai Naoroji Road, Fort, Bombay 1.

**PHOENIX WATCH CO. (Estd. 1930).—Showroom: 169, Dr. Dadabhai Naoroji Road. Office: 166, Dr. Dadabhai Naoroji Road, Fort, Bombay 1. Phone: 263433. Grams: "NEW-TEX." Promoters of the First Watch Manufacturing Project in Private Sector. Branches: Calcutta 1; Delhi 6. Representatives in India for: Enicar, S.A., Lengnan, Switzerland, Buren Watch Co. S.A., Buren S./A., Switzerland, Wehrle Uhrenfabrik, G.m.b.H., Schoenwald, Black Forest, West Germany (for famous Wehrle alarm Clocks and Clocks).**

Pioneer Watch Co.—89, Abdul Rehman Street, Bombay 3.

Popular Watch Co.—Near Western Rly. Station, Ranade Road, Dadar, Bombay 14.

Prabhat Watch Co.—Prarthana Samaj Corner, Bombay 4.

Precision Watch Co., Private Ltd.—127, Abdul Rehman Street, Bombay 3.

Precious Watch.—233, Hornby Road, next to Kemp & Co., Fort.

Pundole Watch Co.—Opp. Lloyds Bank, 263, Hornby Road, Fort. Dealers in Watches, Clocks, Timepieces and Jewellery.

Rogers Watch Co.—Prospect Chambers, Hornby Road, Fort, Bombay.

**SANGHVI WATCH CO.—Khandelwal Bhavan, 170, Dr. Dadabhai Naoroji Road, Fort, P. O. Box 112, Bombay 1. Phone: 263738. Grams: "DICTATOR." Branch: 47, Abdul Rehman Street, Bombay 3. Phones: 322964 and 51628 (Res.). Direct Importers, Wholesalers and Retailers in Watches, Clocks and Timepieces.**

Shakti Watch Co.—48, Abdul Rehman Street, Bombay 3.

**SHREE BOMBAY WATCH CO.—160, Dr. Dadabhai Naoroji Road. Bombay 1. Phone: 262694. Grams: "SHRIBOW." House for Reliable Watches, Clocks & Time Pieces, Straps and Jewellery. Our famous Trade Marks: Shritex, Selecta, Shriman, Sevenstars, Sundar, Sparrow, Saturn, Jalpari, Shribow Alarm, Sovereign Clocks. All kinds of Watch Repairing Undertaken.**

**SWISS INDIA WATCH CO.—(Props.: G. Bhagat & Sons), 457, Kalbadevi Road, Bombay 2. Phone: 23732. Grams: "WATCHDEPOT". Direct Importers & Wholesale Dealers in Watches, Clocks & Timepieces.**

**TIME EQUIPMENT CO.**—55, Abdul Rehman Street, P.O. Box 3086, Bombay 3. Manufacturers' Representatives, Importers and Distributors of Watches, Watch parts, Watch makers Tools, Equipment, etc.

**Trinity Watch Co.**—40A, Abdul Rehman Street, Bombay 8.

**VOG & CO.**—Empire Building, Dr. Dadabhai Naoroji Road, Bombay 1. Phone: 264068. Grams: "VOGSTRAPS." Manufacturers of quality Nylon Watch Straps, Bracelets in Stainless Steel & Rolled Gold & Clocks.

**WEST END WATCH CO.**—49, Mahatma Gandhi Road, P.O. Box No. 504, Bombay 1. Watch & Clock Makers, Jewellers & Silversmiths. Tel. Address: "HOROLOGY," Bombay. Phones: Office: 255644 and Showroom: 252728.

Wilson Watch Co.—144, Dr. Dadabhoy Naoroji Road, Fort, Bombay.

## WATCH STRAPS & BRACELETS MANUFACTURERS

**COLLINS & CO.**—Bentex Building, Tulsiwadi, Off Tardeo Road, Bombay 34. Phone: 76196-7. Grams: "BENTEXBAND." Manufacturers of quality Watch Straps & Bracelets in Stainless Steel, Gold-plated, Leather, Nylon, Plastic etc., under the Trade Mark "BENTEX."

**DESAI TRADING CO.**—189, Abdul Rehman Street, Bombay 3. Phone: Office: 321170. Grams: "MAN PRAN". Manufacturers of "ARISTO" Straps & Bracelets.

Swiss Trading Corpn.—14, Sadashiv Street, Bombay 4.

**VOG & CO.**—Empire Bldg., Dr. Dadabhai Naoroji Road, Bombay 1. Phone: 264068. Grams: "VOGSTRAPS". Manufacturers of quality Nylon Watch Straps, Bracelets in Stainless Steel & Rolled Gold & Clocks.

## WATER METERS

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**HINDUSTHAN WIRE NETTING CO., PRIVATE LTD.—Mfgrs. of Wire Gauze, Hexagon Wire Netting, Galvanized Chain Link Fencing, Galvanized Stranded Stay Wires, Galvanized**

**Signal Wires, Stranded Copper Conductors and Panel pins. Works: Agra Road, Thana. City Office: 55-57, Nagdevi Cross Lane, Bombay 3. Grams: "WIREGAUZE," Bombay. Phones: 324008 & 326646.**

Jayant Metal Manufacturing Co.—152, Lohar Street, Bombay 2.

**JOSHI INDUSTRIAL CORPORATION.—New Iron Market, Carnac Bunder, Bombay 9. Phones: 323055 & 63524. Grams: "JOSHIMETAL." Manufacturers of Barbed Wire, Buckets, Drums & Dust Bins.**

Kantilal Sanghvi & Co.—Mherwan Building, Sir Phirozshah Mehta Road, Fort.

**NASH & COMPANY.—103, Abdul Rehman Street, Bombay 3. Phone: 324968. Commercial & Decorative Flush Doors, Block Boards and Formica.**

**NATIONAL WIRE HEALD WORKS PRIVATE LTD.—Manufacturers of all types of Wire healds and flat healds. Regd. Office: Lakshmi Building, Block 70, 4th Floor, Sir Phirozeshah Mehta Road, Fort, Bombay 1. Phones: 26-2166/67. Grams: "TROPICALS." Works: 54/56, Hill Side, Tardeo Road, Bombay 7 and Mohili, Andheri-Kurla Road, Bombay. Directors: R. B. Gotla, M. A. Hoosein, B. R. Daver, J. B. Gotla.**

Parsee Trading Co.—Vithal Sayana Building No. 2, Lohar Chawl Bombay 2.

Shah & Co., Jaliwala.—"Jay Nivas," 36, Abdul Rehman Street, near Pydhonie, Corner of Sutar Bazar, Bombay 3.

**S. MEHTA & CO.—Anees Chambers, Carnac Road, Bombay 1. Phone: 263001 Grams: "DUTYBOUND". Industrial Wire Netting and Perforated Metals, Stainless Steel Wire Nettings, and Monel Metal Wire Nettings, Importers, Exporters and Merchants.**

**TEJPAULS PRIVATE LTD.—Head Office: Nagindas Chambers, 167, P. D'Mello Road, Bombay 1. Phone: 266365. and Sales Office: 225, Sant Tukaram Road, Iron Market, Bombay 9. Phone: 328875. Grams: "STEELDEPOT." Iron & Steel Merchants. Also Manufacturers of H.B. Wires, Spring Steel Wires, Galvd. & Coppercoated wires, Barbed wires & wire Nails.**

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate.

## WIRE ROPES

**ABDULHUSEIN PEERBHAI & SONS.—66-68-A, Peerbhai Bldg., Bhandari Street, Bombay 3. Phone: 323956. Grams: "STUDCHAIN." Stockists of Marine stores, chains, wire ropes, Chain Pulley Blocks, Ship Tackles, Winches, etc.**

**AMIRUDIN SHALEBHOY TYEBJEE & SONS.—Shale Building, 2nd Floor, Bank Street, Fort, Bombay 1. Phone: 25-2952/25-4103. Grams: "PILOTAGE."**

**AMRATLAL CHHAGANLAL & CO.—143, Nagdevi Street, Bombay 3. Phone: 326008. Grams: "EKADASHI." Stockists of Wire Ropes, Pully Blocks, Slings, Nets, Shackles, Thimbles and Clamps.**

Calcutta Iron & Steel Co., Ltd.—68/D, Mohamedali Road, Bombay 3.

**EASTERN STORES & TRADING CO. (PRIVATE) LTD.—115, Nagdevi Street, Bombay 3. Phones: 322215/16. Grams: "ENERGY."**

**EASTERN TRADING & ENGINEERING CO.—Alice Building, 3rd Floor, 339, Hornby Road, Fort, Bombay. Phone: 251659. Grams: "HIGSTEL." Manufacturers of Bright drawn Steel Bars, Rounds, Hexagons and Squares, Commercial and Free Cutting Qualities. Importers and Stockists of Steel Wire Ropes, M.S. Shaftings, Freecutting Steel Bars, Rounds and Hexagons, Steel Strips, Stainless Steel Strips, etc. Sole Representatives for Maharashtra & Gujarat States for: Indian Link Chains Manufacturers Ltd., Bombay. Manufacturers of "Hercules" Brand Electrically Welded Steel Chains, Hercules Mechanical Works, Bombay. Manufacturers of "Elephant" Brand Chain Pulley Blocks. Seshasayee Wire Ropes Ltd., Edathala. (Alwaye), Kerala. Manufacturers of Steel Wire Ropes.**

**ELDEE WIRE ROPES PVT. LTD.—Eldee Chambers, 3, Broach Street, Bombay-9. Grams: "ELDEEROPES." Phone Nos. Office: 321141, 32784 & 327689. Works: 581150. Manufacturers of quality Steel Wire Ropes & Stranded Wire. Works at: Lekhraj Devraj Industrial Estate, Saki Naka, Kurla-Vihar Road, Bombay 70. Registered with D.G.S. & D. Railways & State Governments.**

**ESOOFALI ESMAILJI KARACHIWALLA & CO.—43-45, Bhandari Street, Koliwada, Bombay 3. Phone: 321617. Workshop Phone: 261261. Grams: "SLING." Shipchandlers and Stockists of: Wire Ropes, Manila Ropes, Hardware, Ship Chains, Pulley Blocks, Shackles, Thimbles, Rope Clamps, Straining Screws, Hooks, Chainslings, Wire Rope Slings, Wire Rope Nets, Chain Pulley Blocks, Pulley Blocks Chains, Coal Tar, Coal Pitch Felts, Marine Glue, etc. Dealers in:—Marine, Mill & Factory Stores. Stockists of "ELDE" Wire Ropes (Indian Make).**

**HEPTOOLA NOORUDDIN & CO. (Estd. 1900).—154, Nagdevi Street, Bombay 3. Phone: 326787. Grams: "IMMUNITY." Stockists of and Dealers in Marine—Mill Gin—Industrial Stores.**

James Finlay & Co., Ltd.—Mahatma Gandhi Road, Bombay 1.

**JIVRAJ & VRAJLAL.—122, Nagdevi Street, Bombay 3. Phone: 325138 (Shop) & 30932 (Res.). Grams: "SANIPIPES."**

**KISHORE & CO.—16, Noble Chambers, Parsi Bazar Street, Bombay 1. Grams: "FASHFAB." Phone: 256477. Stockists of "USHA MARTIN BLACK" Wire Ropes.**

Modi & Modi & Co.—16, Hamam Street, Fort, Bombay 1.

Shaw Wallace & Co., Ltd.—Ballard Estate, Bombay 1.

**UNITED WIRE ROPES LIMITED.—Regd. Office: 43, Tamarind Lane, Fort, Bombay 1. BR. Telephones: 251817/254458. Telegram Address: "HIGHTENSIL." Works: Marutikumar Road, Panchpakhadi, Thana (Maharashtra). Telephone: 59-2050/59-2403. Branches: (1) Mehta Building, 55, Canning Street, Calcutta 1. Telephone: 34-4505. Telegrams: "HIGHTENSILE." (2) 44/5, Regal Buildings, Connaught Place, New Delhi, Telephone: 48764. Manufacturers of Steel Wire Ropes used for Mining, Shipping, and General Engineering purpose in all standard sizes and constructions, galvanised and ungalvanised conforming to International/Indian Standard Specification.**

**VASI SHUMS & CO. PRIVATE LTD.—165-67, Nagdevi Street, Bombay 3. Phone: 327381. Grams: "WIREROPE."**

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate.

## WIRES (ALUMINIUM, BRASS & COPPER)

**A. A. MORBIWALA & CO.—109/111, Abdul Rehman Street, Bombay 3. Phone: 323280. Grams: "VARNISH" (MD). Direct Importers of all kinds of wires & all types of gauges**

**INDIA METAL TRADERS.—92/94, Kika Street (Gulalwadi), Bombay 4. Manufacturers of Copper Conductors, Copper Strips and bus bars, Stranded Copper Wires, binding Copper Wires, tinned Copper Wires and Aluminium Conductors. Phone: 334093. Grams: "INDTALDRAW." (GG).**

**VYAS BROTHERS.—Manufacturers of Traction & Signalling Materials, Loco Parts, Carriage & Wagon Fittings, Copper Conductors, Arsenic Copper Rods, Hot Dip Tinned Copper Wires, T.C. Fuse Wires, Valves & Cocks, Non-Ferrous Castings a Speciality. 65, Tamba Kanta, Bombay 3. Phone: 325687. Grams: "CUPROCABLE." Factory: Bombawadi, Katargam, Surat. Phone: 845.**

## WOOD SCREWS

**ORIENT PAINT & HARDWARE MART.—67, C. P. Tank Road, Bombay No. 4 BR. Importers, Agents, Stockists, Suppliers, Dealers in Iron, Hardware, Bolts, Nuts, Screws, Specialists in "Steel Wood Screws" Stockists of Nettlefold Screws, Rivets & G.K.W. Bolts & Nuts Agents of National Screws. Grams: "ADHIKAR." Phone: 333768.**

## WOOD PRESERVATIVES

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate, Bombay.

## WOOD WORKING TOOLS, SAWS AND MACHINERY

**ABDEALLY, B. M., & CO.—127, Sarang Street, Bombay 3. Phone: 29990. Grams: "ALERT EAL."**

Agarwal Commercial Corporation.—35, Bibijan Street, Nagdevi, Bombay 3.

Batliboi & Company Private Limited.—Regd. Office: Forbes Street, P.O. Box 190A Fort, Bombay-1 (BR.). Phones: 255451 (6 lines). Grams: BATLIBOICO. Telex: 248. City Branch: Batliboi House, 59/61, Nagdevi Cross Lane, Bombay-3 (BR.). Branches: Ahmedabad, Bhopal, Calcutta, Coimbatore, Delhi, Jaipur, Kanpur, Ludhiana, Madras, New Delhi, Secunderabad, Vijayawada. Associate: Bangalore 2. Resident Representatives: ERNAKULAM, RANCHI.

**BOMBAY HARDWARE TRADERS.—79, Narayan Dhuru Street, Masjid Bunder Road, Bombay 3. Phone Nos. 323042 & 327153. Grams: "SISTACHAR." Stockists of Hardware Screws, Bolts, Nuts, Shoe Materials, Woodworking & Metal Cutting Saws, Engineering Stores & Saw Files.**

Eastern Steel Industries.—Manufacturers of Wood Working Saws, Circular Saws, Planing Knives etc. 21B, Noble Chambers, Parsee Bazar Street, Fort, Bombay. Phone: 254476. Grams: 'INVICTA."

Elliott Waud & Hill Private Ltd.—Lakshmi Bldg., Sir P. M. Road, Bombay 1.

Excellent Engineering Co.—11, Botawala Building, Elphinstone Circle, Fort.

Hemant Tools Trading Co.—33, Bibijan Street, Bombay 3.

**HEMCO CORPORATION.—308, Bazargate Street, P. B. 1645, Bombay 1. Phone : 254237. Dealers in Engraving Machines, Air Compressors, Spray Guns, Sheet Metal Machinery, Wood Working Machinery & Workshop Machinery, Flexible Shafts, Planer Blades & other Tools.**

Jairamdas & Sons.—163, Narain Dhuru Street, Bombay 3. Phone : 323616. Grams : "Jairamsons".

James Tool & Hardware Co.—109-11, Nagdevi Street, Bombay 3.

**JAYEMS ENGINEERING CO.—Warden House, Sir Phirozshah Mehta Road, Bombay-1. Engineers, Machinery Merchants & Manufacturers & Representatives, Direct Importers of Machine Tools, Good Working Machinery, Sheet Metal Working Machinery, Welding Equipment, Foundry Equipment, etc. Phone: 256251. Grams: "JAYEMS."**

**HINDUSTAN ENGINEERING CO.—(Machinery Dept.), 25/31, Ropewalk Street, Fort, Bombay 1. Telephone : 253583. Grams : "VIDOOALL." Dealers in Imported and Indigenous Bandsaws, Jigsaws, Circularsaws, Jointers, Planers, Spindel Moulders etc.**

Janak Engineers.—4th Floor, Lentin Chambers, Dalal Street, Fort.

Laxmi Engineering Stores.—154, Kadakia Mansion, Narayan Dhuru Street, Bombay 3.

**MANEKLAL & SONS (Showroom & Sales Division).—277, Nagdevi Street, Bombay 3—BR. Grams : "KIRTIRAJNI." Phone : 321925 Export-Import Division—115/116, Narayan Dhuru Street, Bombay 3 BR—Phone : 321924. Associates : Calcutta 13. Agency : Madras 1. Importers, Exporters & Stockists of Workshop Machines, Wood Working Machines, Sheet Metal Working Machines, Electrical Tools & Cottage Industry Machines.**

New India Hardware Mart.—152, Narayan Dhuru Street, Bombay 3.

**SHUBH MACHINERY CORPORATION PRIVATE LTD.—(A Shubhdwar Enterprise), 15, Bank Street, Fort, Bombay 1. Phone : 254185 ; Grams : "SHUBHROLL." Dealers and Manufacturers of machine tools, sheet metal and wood working machines, Manufacturers of Electrical Contacts of a l types, silver tipped contacts a speciality. Electrical Repairs & Rewinding of Motors undertaken.**

Sunderlal & Sons.—11, Narayan Dhuru Cross Lane, Bombay 3.

Thos. W. Ward (India) Ltd.—Marshall Building, Ballard Road, Ballard Estate, Fort.

William Jacks & Co., Ltd.—Bharat House, Apollo Street, Fort.

## WOODWOOL

**WADIA, B. F. & SONS.—Timber, Mangalore Roofing Tiles and Woodwool—The Ideal Packing Material. Reay Road, Bombay 10. Phone : 71934. Grams : "TIMBERSALE."**

## WOOL AND HAIR

Beardsell & Co., Ltd., W. A.—"Dhan-Nur", 15/16, Sir Phirozshah Mehta Road, Bombay 1.

Bombay Co., Ltd.—9, Wallace Street, Fort.

**DOONGURSEE & SONS.—Maneckji Wadia Building, 127, Mahatma Gandhi Road, G.P.O. Box No. 890, Fort, Bombay 1. (Estd. 1855). Branches : Poona, Bikaner & Madras; Associates at Rajkot. Cables : "SATYA." Codes Acme, Bentlys 2nd, A.B.C. 5th & 6th Ed. Phone : 252771. Exporters of Wool & Hair.**

Husein Mussa Virjee & Co.—Sheriff Hasam Building, Khoja Mohalla, Bombay 9.

## WOOLLEN MILLS

Eastern Woollen Mills Ltd.—Bhawanishanker Road, Dadar, Bombay.

Nagpal Woollen Mills.—Darukhana, Reay Road, Mazagaon.

P. Parbhulal & Co. Ltd.—Metropolitan Assurance Building, Hornby Road, Fort.

**RAYMOND WOOLLEN MILLS LTD., THE.—Registered Office : J. K. Building, Dougall Road, Ballard Estate, Bombay 1. Mills : P. O. Jekegram, Thana (Maharashtra). Phone Nos. : Regd. Office : 263931-5, Mill Office : 591242 & 591243. Grams : "RAYOLAGRAM."**

Usha Woollen Mills, Ltd., The.—Bhawanishanker Road, Dadar.

## WOOLLEN PIECE-GOODS

Beardsell, W. A., & Co., Ltd.—15-16, Sir Phirozshah Mehta Road, Fort.

Cawnpore Mills Depot.—Churchgate House, Churchgate Street, Fort.

**GOOLAMALLY HASANJEE (ESTD. 1889).—78, Sheriff Dewjee Street, Bombay 3. Phone : 323960. Grams : "WARMCLOTH." Importers & Exporters.**

Grand Bazar.—25, Colaba Causeway, Bombay 1.

**HAJEE ABDULREHMAN HAJEE SOOMAR & CO.—Woollen & Cotton Piece Goods Merchants, Agents for Raymond Woollen Mills, Gwalior Rayon & Silk Mfg. Co. Ltd., Dinesh Woollen Mills, Paragon Textile Mills. 63, Chakla Street, Bombay 3. Phone : 323011. Grams : "SUMARCO."**

Jivral, A. M., & Co.—171, Khoja Moholla, Bombay 9.

Kanshi Ram Kidar Nath.—Vulcan Insurance Bldg., Veer Nariman Road, Bombay 1.

Madhusudan Gordhandas & Co.—Ganeswadi, Mulji Jetha Market, P.O. Box 2110, Bombay 2.

P. Prabhulal & Co., Ltd.—Whiteaway Laidlaw Building, Hornby Road, Fort.

Rooshanalli D. Nassur & Co.—68-72, Champagalli.

Sampat Store.—28-30, Swadeshi Market, Kalbadevi Road.

Sharafally Lookmanji & Sons (Estd. 1893).—H.O. Chakla Street, Bombay 3.

Yacoob Ahmed Brothers.—Topiwalla Mansion, Mahomedally Road.

## WORKSHOP MACHINERY

**AMIRUDIN SHALEBHOY TYEBJEE & SONS.—Shale Bldg., 2nd Floor, Bank Street, Fort, Bombay. Phone : 25-2952/25-4103. Grams : "PILOTACE."**

**CAPRI ENGINEERING CO.—296, Frere Road (near Fort Market), Bombay 1. Phone : 266438. Grams : "CAPRIENG."**

**EASTERN INDUSTRIAL SYNDICATE.—Seksaria Chambers, 135/37, Medows Street, Fort, Bombay 1. Phones : 251561/2. Grams : "EXPLAIN."**

Everest Engineering Corporation.—12, Hornby View Bldg., Gunbow Street, Fort.

**HINDUSTAN ENGINEERING CO.—(Machinery Dept.), 25/31, Ropewalk Street, Fort, Bombay 1. Telephone : 253583. Grams : "VIDOOALL." Dealers in Imported and Indigenous Lathes, Lathe Chucks, Drills, Hacksaws Grinding, Shaping, Shearing Machines, Power Press, etc.**

**INTERSTATE ENGINEERING COMPANY.—132, Medows Street, Fort, Bombay 1. Phone : 256469. Grams : "ANEKANT". Importers, Exporters and Stockists of Machine Tools, Sheet Metals, & Workshop Machines, Pneumatic Tools, Rock Drills, Die Filers (U.S.A. make) and other Machineries.**

Khimandas Jagumal & Sons.—12, Hornby View Building, Gunbow Street, Bombay 1.

**MACHINERY & SPARES.—30, Apollo Street, Fort, Bombay 1. Phones : 252176, 256606 and 71997 (Res.). Grams : "SAHABZADE." Dealers in all kinds of spare parts for Diesel Oil Engines, Electric Motors, Generators, Pumping Sets, Workshop Machinery, Lathes, Shapers, Milling, Slotters, Grinders and Sheet Metal Machines.**

**MACHINERY TRADING CORPORATION.—68, Medows Street, Fort, Bombay 1. Phone : 253647. Dealers, Mfrs. and exporters of workshop machinery, drill machine, lathe, shaper, planer, power press, oil engines, oil expellers, milling machines, dog chucks, Centreless Grinders and Plants, etc., etc.**

**MALHOTRA TRADING CORPORATION.—Basement 4, Commerce House, Medows Street, Bombay 1. Phone : 256328. Grams : "LOHVASTU." Dealers in Lathes, Shapers, Milling Machines, Drill Machines, Hand Presses, Power Presses, Printing and Paper Cutting Machines, Electric Motors, Switches, Starters, Grinders, Polishing Lathes, Reversible Switches, True Chucks, Dog Chucks, other Machine Tools & Spares of all description.**

**MANEKLAL & SONS (Showroom & Sales Division).—277, Nagdevi Street, Bombay 3—BR. Grams : "KIRTIRAJNI." Phone : 321925 Export-Import Division—115/116, Narayan Dhuru Street, Bombay 32—BR. Phone : 321924. Associates : Calcutta 13. Agency : Madras 1. Importers, Exporters & Stockists of Workshop Machines, Wood Working Machines, Sheet Metal Working Machines, Electrical Tools & Cottage Industry Machines.**

Oriental Engineering Co.—25, Forbes Street, Fort, Bombay 1. Phone : 253057. Grams : "ADIVISHNU."

**RUB-WELL INDUSTRIES, THE.—272, Abdul Rehman Street, Bombay 3. Phone : 322164. Grams : "YAQUATMEER." Mfrs. of Machinery spares parts & Railway Equipments and Automobile spare parts made to order as per drawings & samples.**

William Jacks & Co., Ltd.—Hamilton House, Graham Road, Ballard Estate.

Workshop Engineering & Equipment Co.—30/32, Bhajipala Lane, Bombay 3.

## X-RAY & ACCESSORIES

**ILFORD-SELO (INDIA) PRIVATE LIMITED.—Cook's Building, Dr. Dadabhai Naoroji Road, Branches: Calcutta, Madras.**

## X-RAY AND ELECTRO-MEDICAL EQUIPMENT

Fairdeal Corporation Ltd., The.—Lakshmi Building, Sir Phirozshah Mehta Road, Fort.

Forbes, Forbes Campbell & Co. Private Ltd.—Forbes Building, Home Street, Fort.

Gordhandas Desai Private Ltd.—Kermani Bldg., Sir P. M. Road, Bombay 1.

**INDUSTRIAL GASES LTD., THE.—Bombay. Grams: "INDUSGASES". Head Office: P.O. Box 853, Calcutta 1. Oxygen and X-Ray Therapy Equipment—Iron Lungs, Resuscitators, Humidifiers, Oxygen Tents, Masks, Anaesthesia Equipment and Parts.**

**SHAH & CO., M.—Kanji Mansion, Sandhurst Road, Bombay 4. Phone: 71834.**

## X-RAY MACHINERY IMPORTERS

General Radio & Appliances, Ltd. (Formerly Fazalbhoy Ltd.).—16, New Queen's Road, Bombay 4.

Gordhandas Desai Private Ltd.—Kermani Bldg., Sir P. M. Road, Bombay 1.

**MALGHAM BROS.—26, Old Custom House Road, Bombay 1. Surgical, Electro-Medical & X-Ray Equipment Importers. Phone: 252964. Grams: "MALGHAM."**

## YARN MERCHANTS & EXPORTERS

Allied Exporters.—Kummud House, 267, Hornby Road, Fort.

Amritlal Hiralal & Co.—2nd Floor, Mahakali Chawl, Pydhonie, Bombay 3.

Arthur Import Export Co.—166, Hornby Road, Fort, Bombay.

Asahi Chemical Distributing Company.—National Insurance Building, 1st Floor, 27, Bastion Road, Fort, Bombay.

Beardsell & Co., Ltd., W. A.—15/16, Sir Phirozshah Mehta Road, Fort.

Eastern Trading Co.—Mahakali Chawl, Pydhonie, Bombay 3.

Firoz Trading Co. Ltd.—Kamar Building, Cawasji Patel Street, Fort.

Gorakhram Gokalchand (Estd. 1891).—Choksi Chambers, Zaveri Bazar, Bombay 2.

Gore & Co.—Great Social Building, Sir Phirozshah Mehta Road, Fort.

Gurdial Naraindass & Co.—Patel Building, New Silk Bazar, Bombay 2.

Hazarat & Co.—Warden House, Sir Phirozshah Mehta Road, Fort.

Hemandas Dolumal.—56/A, Abdul Rehman St., 1st Floor, Bombay 3.

Herbertsons Ltd.—11/13, Elphinstone Circle, Fort.

Hindersingh & Co.—36, Abdul Rehman Street, Bombay 3.

Hind Trading Co.—Alli Chambers, Tamarind Lane, Fort.

Hindustan Export & Import Corpn. Ltd.—Albert Building, Hornby Road, Fort.

Italindia Cotton Co., Ltd.—(Estd. 1922), Indian Globe Chambers, Fort Street, Fort, Bombay.

**JAY BHARAT YARN TRADING CO. PRIVATE LTD.—77, Tamba Kanta, Sutar Bazar, Bombay 3. Phone: 324710. Grams: "SUTARKING." Dealing in all kinds of Rayon Yarn, Cotton Yarn & Staple Fibre Yarn.**

Jayashankar Nathalal & Co.—5, Alli Chambers, Tamarind Lane, Fort.

Jehangir J. M. Poonjiajee.—Byramjee Mansion, Sir Phirozshah Mehta Road, Fort.

Kanshi Ram Kidar Nath.—Vulcan Insurance Building, Churchgate Street, Bombay.

Kapadia Trading Co.—Botawalla Building, New Silk Bazar, Kalbadevi Road, Bombay 2.

Kavarana, E. F., & Co.—Botawala Building, Bomanji Master Road, Bombay 2.

Keshavji Virji & Co.—8, Elphinstone Circle, Fort.

**KESHAVLAL TALAKCHAND (PRIVATE) LTD.—India House, Opp. G.P.O., Fort, Bombay 1. Phone: 262934. Grams: "CHANDRODAY." Branches at Ahmedabad, Sholapur, Coimbatore and Madras.**

**Kishinchand & Co. (India).—188, Hornby Road, Fort.**

**Kotak & Co.—Menkwa Building, Outram Road, Fort.**

**Kroz & Co.—Podar Chambers, Parsi Bazar Street, Fort.**

**K. Motilal & Co.—Sayee Building, 143, Princess Street, Bombay 2.**

**Latham Abercrombie & Co. Private Ltd.—Forbes Building, Home Street, Fort.**

**Mehta & Co., P. N.—Cook's Building, 324, Hornby Road, Fort.**

**Maganlal Parbhudas.—Nakhoda Street, Pydhonie.**

**Manekji & Co.—17, Gunbow Street, Fort.**

**Manubhai Gokaldas.—89, Old Vora Mala, Tambakanta, Bombay 3.**

**Morarji Velji & Sons.—7, Kolbhat Street, Post Box 2001, Bombay.**

**Pannalal Ramdayal Chindak.—153, Princess Street, Bombay 2.**

**Pavri Sons & Co.—93/97, Bazargate Street, Fort.**

Pestonjee, B.N.—Halcyon Lodge, Vaccha Gandhi Road, New Gamdevi, Bombay 7.

Podar Trading Co., Ltd.—Podar Chambers, Parsi Bazar Street, Fort.

Pralhadbhai Nagarbhai.—386, Linking Road, Khar, Bombay 21.

Ramdas Khimji Bros.—Warden House, Sir Phirozshah Mehta Road, Fort.

**Ramkisandas Sagarmal.—Kalyan Bhuvan, 354, Kalbadevi Road.**

Rangoonwalla, H. N.—Rangoonwalla Building, 91, Mohammedally Road.

Ratilal Dahyabhai Shah.—Hanuman Building, Tambakanta, Pydhonie, Bombay 3.

Sapt Textile Products (India) Ltd.—Sapt Building, Graham Road, Ballard Estate.

Shah Bros. & Co.—Raja Bahadur Compound, 24/B, Hamam Street, Fort, Bombay.

**SOBHRAJ PRITAMDAS.—54, Abdul Rehman Street, Bombay 3. Phones: 323567 & 60499 (Res.). Grams: "DESIYARN." Dealers in all types of Yarns such as Cotton Yarns, Sewing & Embroidered Threads, Art Silk Yarns, Staple Fibre Yarns and Synthetic Yarns, Hosiery Yarns a Speciality.**

Sorabji Nowroji & Co.—16, Horniman Circle, Fort.

**Suchin & Co.—65, Lakshmi Building, Sir Phirozshah Mehta Road, Fort.**

Surat Yarn Exchange Co.—141, Princess Street, Bombay 2.

Tavaria Brothers.—Dhun Nur, Sir Phirozshah Mehta Road, Fort.

Textile Works Ltd.—49-55, Apollo Street, Fort.

Vadilal Vrajlal & Co.—Peerbhoy Building No. 2, 89, Princess Street, Bombay 2.

Yacoob Ahmed Brothers.—Topiwalla Mansion, Mohamedally Road.

Yarn Trading Co.—95, Tamba Kanta, Bombay 3.

## ZINC CHLORIDE

**VORA TRADING CO.—357-A, Samuel Street, Vakil Bldg., Vadgadi, Bombay 3. Phone: 325289. Grams: "MULTISALES". Bombay, Mandvi.**

## ZIP FASTENER MFRS.

**FLEET FASTENERS (PRIVATE) LTD.—"Delstar", 1st Floor, 9-9A Hughes Road, Bombay 26 WB. Phone: 74425. Grams: "FLEETFAST". Manufacturers of FLEET—the Quality Zipper.**

**HOME INDUSTRIES CORPORATION.—64, Commercial Chambers, Masjid Bunder Road, Bombay 3. Phone: 34997. Grams: "DESIHUNAR." Mfrs. of "HOMCO" Brand Zip Fasteners of all sizes and lengths.**

**L. R. TRADING CO.—Manufacturers of 'FLASH' & 'BEST' Zip Fasteners, Navsari Chambers, Outram Road, Fort, Bombay 1. P.O. Box 72. Phones: 263141 & 264073. Grams: "SHAHANICO."**

**MADHU FASTENERS CO.—(Member of Madhu Group of Industries). Manufacturers of Zip Fasteners. Sole Distributors: Madhu Corporation, Sanghavi Chambers, 27, Ghoga Street, Fort, Bombay 1. Phones: 253502 (Office) & 40634 (Res.). Grams: "VIRVANDAN" & "MADHUCORP." Factories at: 250, D, Worli, "Udyog Bhavan," Bombay 18. Phone: 454519 and Udyognagar, Bhaktinagar Station Road, Rajkot (Saurashtra), Phones: 201 & 943. Proprietors: M. K. Sanghavi; Madhu Sanghavi.**

# AHMEDNAGAR DISTRICT

*Headquarters :* Ahmednagar.

*Talukas :* Nagar, Rahuri, Newasa, Shrirampur, Sangamner, Akola, Kopergaon, Sheogaon, Pathardi, Jamkhed, Shrigonda, Parner, Karjat.

Ahmednagar, a centrally situated District in the Marathi speaking area of the Deccan, lies between North Lat. 18°20′ and 20° and East Long. 73°43′ and 75°41′. It is bounded on the north and north-west by Nasik District, on the north-east by the river Godavari and Aurangabad District, on the south-east and south-west by Bhir, Sholapur and Poona Districts. The principal geographical feature is the chain of Sahyadri Hills and the river Godavari and her two major tributaries Mula and Prawara both rising from the Western Ghats. Despite the fertility of its soil the District is liable to famine owing to uncertain and scanty rainfall. A large part of the District is irrigated by the confluence of the rivers Godavari and Pravara which has encouraged sugar-cane plantation on a wide scale.

The area of the District is 6,586 sq. miles. Population: 1,775,969 (1961 Census) (Males 905,313; females 870,656). The language spoken is Marathi.

The staple food grains are jawar and bajra. Wheat and gram are grown in the vicinity of the rivers and rice in the westernmost Akole Taluka including other irrigated areas. Vari and ragi are cultivated in soils which are suited to coarser grain. The pulses are tur, mug, math and kulith. Among the cash crops may be mentioned cotton, hemp, safflower, sesamum, linseed, sugarcane, tobacco, kardi, pan, groundnut, tomatoes, bananas and potatoes. Sweet lime orchards are also grown. Recently sisal fibre crop plantations are undertaken on an extensive scale.

The chief historical places of interest to visitors are the Ahmednagar Fort and the residential palaces of the Shindyas and the Peshawas at Jamgaon and Kopergaon respectively. The tomb of Mughal Emperor Aurangzeb is situated on the outskirts of Ahmednagar town. The temple of Dnyaneshwar, the saint poet of Maharashtra, is situated at Newase on the banks of river Pravara. Here Dnyaneshwar wrote his famous commentary on Gita. Excavations undertaken in the vicinity of this town have yielded valuable finds of prehistoric import.

Among industries sugar is now one of the most important. There are twelve sugar factories in the District. Of these six are co-operative societies of sugarcane cultivators, which conduct sugar factories. Gur making, handloom weaving, iron foundries and bidi making are the other important industries. Popular Ayurvedic medicines and a number of allopathic drugs are manufactured on a large scale by a pharmaceutical concern at Ahmednagar.

There are ten irrigation tanks in the District. The Godavari and Prawara Canals provide irrigation to about one lakh acres in Kopergaon, Rahuri and Shrirampur Talukas. The Ghod Weir and Canals Project, which is nearing completion, has extended irrigation facilities to about 55,000 acres of dry land in the usually famine affected Shrigonde and Karjat talukas of the district.

The Ahmednagar Borough Municipality has constructed a cosmopolitan swimming pool at a cost of Rs. 90,000 which is open to all communities of both sexes.

The State Government has constructed a Holiday home at a cost of Rs. 5 lakhs at Bhandardara a summer resort and hill station situated on the foot hills of the Mount Kalasubai, the highest peak of the Western Ghats and by the side of the Bhandardara irrigation tank in the Akola taluka about 104 miles by road from Bombay.

### EDUCATIONAL INSTITUTIONS

Arts and Commerce College, Sangamner. Ahmednagar Arts, Commerce and Science College, Ahmednagar. Adivasi Ashram School, Rahuri. Puntamba Agricultural School, Puntamba. Ayurveda Mahavidyalaya College, Ahmednagar. Government Technical School and Training Centre, Ahmednagar. Pemaraj Sarda Arts, Science and Commerce College, Ahmednagar. Rayat Shikshan Society's Arts, Science and Commerce College, Shrirampur.

There are five Primary Training Colleges, of which one is run exclusively for women and two are conducted by missionaries and all aided by Government.

There are about 98 Secondary High Schools in the district out of which three high schools are exclusively for girls.

Seven Marathi Weeklies and an evening daily are published from Ahmednagar. One Marathi Weekly each is published from Kopergaon, Sangamner and Shrirampur.

### LITERARY AND OTHER ASSOCIATIONS

Rotary Club, Ahmednagar; American Marathi Mission, Ahmednagar; Ahmednagar Education Society, Ahmednagar; Hind Seva Mandal, Ahmednagar; Ahmednagar Vachanalaya District Central Library, Ahmednagar; Ahmednagar Jilha Maratha Vidya Prasarak Samaj, Ahmednagar; Ahmednagar Jilha Saksharta Prasarak Mandal, Ahmednagar; Sanatan Dharam Sabha, Ahmednagar; District Co-operative Board, Ahmednagar; The Big Bagaitdar's Multipurpose Co-operative Society Ltd., Kopergaon; The District Agricultural Show Committee, Kopergaon; District Probation and Aftercare Association, Ahmednagar; Sarvodaya Centre, Rajur, Akola; Ahmednagar Pressowners' Association, Ahmednagar; Government Beggars Home, Visapur; Ahmednagar District Leprosy Relief Association, Ahmednagar; Indian Red Cross T.B. Sanatorium, Arangaon, Ahmednagar; Ahmednagar District Council for Child Welfare, Ahmednagar; Women's Reception Centre, Ahmednagar; Women's Rescue Home, Ahmednagar; Anath Vidyarthi Griha, Ahmednagar; District Development Board, Ahmednagar; Ahmednagar District Farmers' Union, Ahmednagar; Mahila Mandal, Ahmednagar; Ahmednagar District Central Cooperative Bank, Ahmednagar; Balikashram Harijan Girls' Hostel, Ahmednagar; Ahmednagar Medical Association, Ahmednagar; Satya Niketan Village Industries Association, Rajur; Jilha Vidhayak Samiti, Ahmednagar; Ahmednagar Jilha Co-operative Milk Supply Union, Ahmednagar; Ahmednagar Adat Bazar Merchants' Association, Ahmednagar; Balasaheb Deshpande Charitable Hospital, Ahmednagar.

*Approved Govt. & Military Contractors*
**RIJHUMAL THAKURDAS KARACHIWALA**
2593 M. G. Road, Ahmednagar.
*Stockists of* Metal Furniture for Offices, Home & Hospitals.
*Stockists :* GODREJ STEEL FURNITURE
Phone : 11 Grams : "HONESTY"

# AKOLA DISTRICT

*Headquarters :* Akola.

*Talukas :* Akola, Balapur, Murtjapur, Akot, Mangrulpir, Washim.

Akola is a district in Berar with an area of about 4,095 square miles. It lies roughly between North Latitude 19° 50′ and 21° 16′ and East Longitude 76° 45′ and 77° 52′. It is bounded on the north by the Satpura Hills, on the south by the Ajanta and Satmal Hills, on the east by Amravati and Yeotmal Districts, and on the west by Buldana District. Population: 1,189,354 (1961 Census) (Males 613,832; females 575,522).

The greater part of it is fertile alluvial land but the Satpura plateau rises abruptly on its northern border with the ancient fort of Narnala nestling on one of the hills and commanding the whole Poorna plain. Also a range of steep hills runs across the middle of the southern Taluqs. The average rainfall is 30 inches and the temperature in summer rises in certain places to 118 degrees during the day.

The District is mainly agricultural but there are cloth mills, a number of cotton ginning and pressing factories & oil mills.

The total cropped area extends to about 22 lakhs of acres—one-third of which is generally under cotton and two-thirds under other Kharif crops.

### COTTON MILLS

R. S. RECKCHAND GOPALDAS MOHOTA SPG. & WVG. MILLS PRIVATE LTD., Akola.

SAVATRAM RAMPRASAD MILLS CO., LTD., Akola.

VIDARBHA CHAMBER OF COMMERCE, Akola.

*President :* Narayandas V. Bhatia; *Vice-Presidents :* Natwarlal C. Chaudhary; Radhakisan B. Rathi; *Hon. Secretary :* Shrikisan Bumb; *Hon. Jt. Secy. :* Madhavrao E. Mahajani.

# AMRAVATI DISTRICT

*Headquarters :* Amravati.

*Tahsils :* Amravati, Chandur, Morsi, Achalpur, Daryapur, Melghat.

Amravati District lies roughly between North Latitude 20°30′ and 21°40′ and East Longitude 76°55′ and 78°30′. It is bounded on the north by Betul District, on the east by the Wardha River, on the south by the Districts of Yeotmal and Akola, and on the west by Buldana and Nimar Districts. The area of the District is 4,723 sq. miles. The language spoken is Marathi. Population: 1,232,780 (1961 Census) (Males 637,861 ; females 594,919).

Amravati is a plain about 800 feet above sea-level.

## AGRICULTURE, INDUSTRY

The staple food grain is jawar. Other food grains are wheat and pulses. Cash crops include cotton and oilseeds, of which cotton is the more important.

Cotton cloth and yarn are manufactured but the principal industry is the preparation of cotton for the market.

Raw cotton is the chief export, the only other exports worthy of mention being oilseeds, grain and pulses. The chief imports are grain and pulses, coal and coke, salt and sugar.

## ASSOCIATIONS

### SHARADA UDYOG MANDIR

Near Jaystambha, Amravati.

It is a charitable cottage industry institution to help widows and poor women by teaching handicrafts, tailoring, embroidery, etc.

The institution has been running the Badnera Rly. Canteen for the last 7 years and the profits go to the good cause of the institution.

*President :* Smt. Hirabai Boke ; *Founder Secretary :* Smt. Tarabai Padhey ; *Joint Secretary :* Smt. Chandrakalabai Ganorker.

### SHRI SHIVAJI LOKA VIDYAPITHA (PEOPLE'S UNIVERSITY OF LITERATURE, ARTS, CRAFT AND CULTURE)

Shivaji Nagar, Morshi Road, Amravati.

### VIDARBHA MAHAROGI SEVA MANDAL

Tapovan, Amravati.

A social organisation started mainly for the treatment of leprosy patients and eradication of leprosy from the State. The Mandal started a rehabilitation centre for the cured cases of leprosy. A Training class is being conducted for the leprosy Social Workers. The Mandal publishes a paper *Jeevan* for educating the public on the subject.

*President :* Dr. S. G. Patwardhan ; *Secretary :* Smt. Parwatibai Patwardhan.

## COTTON MILLS

**BERAR MANUFACTURING CO. LTD., Badnera.**

**VIDARBHA MILLS BERAR, LTD., Ellichpur.**

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# AURANGABAD DISTRICT

*Headquarters :* Aurangabad.

*Talukas and Mahals :* Aurangabad, Kannad, Vaijapur, Gangapur, Bhokardan, Ambad, Paithan, Jalna, Jafferabad (Mahal), Khuldabad (Mahal), Sillod, Soegaon (Mahal).

Area : 6,314 sq. miles. Population: 1,532,341 (1961 Census) (Males 781,635 ; females 750,706).

The most important cave temples in India — at Ellora and Ajanta— are found in this District. The great fort of Daulatabad is an extraordinary structure ; the village of Khuldabad has the tombs of the Emperor Aurangzeb and of Asaf Jah, the founder of the former ruling dynasty.

Aurangabad is now the headquarters of the Marathwada University.

## MARATHWADA UNIVERSITY

The Marathwada University is a teaching and affiliating University, established in 1958 by the Marathwada University Act passed by the State* Legislature in May 1958. It is situated at Aurangabad with jurisdiction over five districts of Marathwada *i.e.*, Aurangabad, Bhir, Parbhani, Nanded and Osmanabad. It has 27 colleges, one recognised institution affiliated to it, of which eleven are situated at the seat of the University.

There are eight Faculties in which provision for teaching courses of study leading to the following degrees has been made :—

Faculty of Arts : B.A., M.A., Ph.D. ; Faculty of Science : B.Sc., M.Sc., Ph.D. ; Faculty of Law : LL.B., LL.M. ; Faculty of Medicine : M.B., B.S., M.D., & M.S. ; Faculty of Commerce : B.Com., M.Com. ; Faculty of Agriculture : B.Sc. (Agriculture), M.Sc. (Agriculture) ; Faculty of Education : B.Ed., M.Ed. , Faculty of Engineering : B.E. (Civil), B.E. (Electrical), B.E. (Mechanical), M.E. (Civil).

The University has also allowed persons gainfully employed and women within the Marathwada University area to appear as private students, i.e., without having to undergo instruction in any college, for the Pre-University Course (Humanities) B.A. and M.A. Examinations.

All the Colleges affiliated to this University are following the three-year degree course in faculties of Arts, Science and Commerce.

The University has so far instituted the Departments of (*i*) Marathi Language and Literature, (*ii*) Economics, (*iii*) Chemistry, (*iv*) Zoology, (*v*) Political Science, (*vi*) History and Ancient Indian Culture, (*vii*) Botany, (*viii*) Mathematics, (*ix*) Physics.

The post-graduate teaching has been instituted in the following subjects :—English, Marathi, Hindi, Sanskrit, History, Economics, Urdu, Education, Medicine, Law, Mathematics, Chemistry, Botany, Commerce, Engineering, Political Science and Zoology.

Research : Facilities exist for research in Economics, Chemistry, Zoology, Botany, Political Science, Marathi language and literature, History and Ancient Indian Culture, Mathematics and Physics.

*Chancellor :* Governor of Maharashtra.

*Vice-Chancellor :* Dr. N. R. Tawde, B.A. (Hons.), B.Sc. (Bombay), M.Sc. (Bombay), Ph.D. (Lond.), F. Inst. P., F.N.I., F.A.Sc.

*Registrar :* M. B. Chitnis, M.A.

*Dy. Registrar (Administration) :* V. K. Dhamankar, M.A.

*Secretary, Universities Information Bureau :* M. B. Chitnis, M.A.

*Secretary, University Board of Sports :* B. K. Sohani, M.A., B.Ed., D.P.Ed.

*Heads of the Departments :*

*Economics :* Dr. V. V. Borkar, M.A., Ph.D.
*Marathi language and literature :* Prof. W. L. Kulkarni, M.A.
*History and Ancient Indian Culture :* Dr. R. S. Gupte, M.A., Ph.D.
*Political Science :* Dr. G. N. Sharma, M.A., Ph.D.
*Zoology :* Dr. Syed Mehdi Ali, M.Sc., Ph.D.
*Chemistry :* Dr. D. D. Khanolkar, M.Sc., Ph.D.
*Botany :* Dr. K. B. Deshpande, M.Sc., Ph.D.
*Mathematics :* Dr. V. Laxmikantham, M.A., Ph.D.

*Affiliated Colleges :* There are at present 28 colleges affiliated to this University. The names of Colleges are as follows :

Government College of Arts and Science, People's College, Nanded, Government College of Education, Aurangabad, Government Medical College, Aurangabad, Manikchand Pahade Law College, Aurangabad, Yogeshwari Mahavidyalaya, Ambejogai, J. E. S. Arts and S.B.L. Commerce College, Jalna, Shri Chhatrapati Shivaji College, Omerga (District : Osmanabad), Shri Shivaji College, Kandhar (District : Nanded), Govt. College of Agriculture, Parbhani, Government College of Engineering, Aurangabad, Deogiri College, Aurangabad, Dr. Ambedkar College of Commerce, Aurangabad, S.V.S. Sanstha's College of Education, Osmanabad, M. S. P. Mandal's Shivaji College, Parbhani, Dayanand College, Latur, Balbhim College of Arts and Science, Bhir, Milind College of Science, Aurangabad, Nanded Education Society's Science College, Nanded, S. B. E. Society's The Yeshwant Mahavidyalaya, Nanded, S.B.E. Society's College of Arts, Science and Commerce, Aurangabad, Ramakrishna Mahavidyalaya, Osmanabad, The Maharashtra Udayagiri Mahavidyalaya, Udgir, The Maulana Azad College of Arts and Science,

* Bilingual.

Aurangabad, The Milind College of Arts, Aurangabad, Janata Science College, Jalna, A. V. E. Society's Degloor College, Degloor, Eknath Sanshodhan Mandir, Aurangabad, Jalna Sanskrit Mahavidyalaya, Jalna, Sanskrit Mahavidyalaya, Nanded, Jalna Sanskrit Mahavidyalaya, Jalna.

Total number of students in University Departments and all the affiliated Colleges : Nearly 12,900.

Budget Estimates for 1965–66

*Grants from the State Government :* Rs. 18,75,563.

*Grants by the University Grants Commission and the Government of India :* Rs. 24,95,397.

*Other Income :* Rs. 16,98,006.

*Expenditure :* Rs. 60,68,966.

MARATHWADA SAHITYA PARISHAD

Aurangpura, Aurangabad.

COTTON MILLS

AURNAGABAD MILLS LTD., Kothwalpura, Aurangabad.

# BHANDARA DISTRICT

*Headquarters :* Bhandara.

*Tahsils :* Bhandara, Gondia, Sakoli.

The District lies roughly between North Latitude 20° 31′ and 21° 44′ and East Longitude 79° 29′ and 80° 43′. It is bounded on the north by Balaghat District, on the east by the former States of Khairagarh and Nandgaon, on the south by Chanda District, and on the west by Nagpur District. The area of the District is 3,582 sq. miles. Population : 1,268,286 (1961 Census) (Males 635,174 ; females 633,112). The chief language is Marathi but Hindi is also spoken by a considerable section of the population.

The principal food crops are rice, jawar, wheat, gram, linseed and pulses. Ginger, oranges and plantains are also grown and sent to Nagpur.

Mineral deposits include those of manganese, iron and a little gold.

The chief industries are weaving, making of brass vessels and stone jars, of soft grass matting for bedding, and of bamboo baskets.

# BHIR DISTRICT

*Headquarters :* Bhir.

*Talukas and Mahals :* Mominabad, Manjlegaon, Gevrai, Bhir, Ashti, Patoda (Mahal), Kaij.

*Area :* 4,268 sq. miles. Population : 1,001,466 (1961 Census) (Males 508,827 ; females 492,639).

There are forts and buildings at Bhir which are of archaeological interest. Amba has a temple dedicated to Jogai. The temple of Baijnath at Parli is a celebrated place of Hindu pilgrimage.

The soil is mostly black cotton. On this are grown cotton, white jawar, gram, gingelly and wheat, while on the masab and kharab soils are grown white bajra, yellow jawar, pulses and oilseeds. Cotton and linseed are produced extensively in the District. The staple food crops are jawar and bajra. Wheat and rice are next in importance.

The District has no minerals of economic value. Granite, basalt and limestone which are found everywhere are used for building.

# BULDANA DISTRICT

*Headquarters :* Buldana.

*Tahsils :* Chikhali, Mehker, Malkapur, Khamgaon, Jalgaon.

This Berar District lies roughly between North Latitude 19° 45′ and 21° 17′ and East Longitude 76° 20′ and 77° 10′. The area of the District is 3,751 sq. miles. Population : 1,059,698 (1961 Census) (Males 541,026 ; females 518,672). The language spoken is Marathi.

Jawar is the chief food crop, though wheat is also grown. The most profitable cash crop is cotton with oilseeds coming next.

The principal industry is the preparation of cotton for the market. Exports consist of raw cotton, oilseeds, grain and pulses, and the imports include grain and pulses, coal and coke, sugar and salt.

# CHANDA DISTRICT

*Headquarters :* Chanda.

*Tahsils :* Chanda, Warora, Brahmapuri, Gardchiroli, Sironcha, Rajura.

The District lies roughly between North Latitude 18° 42′ and 20° 45′ and East Longitude 78° 48′ and 80° 45′. The area of the District is 9,200 sq. miles. Population : 1,238,070 (1961 Census) (Males 623,681 ; females 614,389). The languages spoken are Marathi, Hindi, Telugu and Gondi.

Except in the open country on the west and north, the whole District is thickly wooded.

The forest vegetation in the District is of a mixed character. Teak is fairly general but is not anywhere very plentiful. The principal trees are Saj, Bijasal, Rohan, Kaddan, Haldu, Semal, Mahua, Dhaura, Tendu, Garari and Palas. Salai is very abundant on the dry hills and plateau. Other trees met with are Satin-wood, Reunjha, Bahera and Siris. Near villages tamarinds and mangoes abound, and in the south of the District groves of the palmyra palm occur. The forests are well distributed, and very few villages are more than three miles from some part of them.

The annual rainfall averages about 51 inches at Chanda Town and 46 at Warora. Failure of rainfall is very frequent.

Rice which is the most important crop is grown in the centre and east of the District. Jawar is the chief crop in Sironcha and the Warora Tahsils, while linseed, gram and wheat are grown principally in the black-soil lands of the Chanda Haveli and those adjoining the Wardha river. Cotton is also an important cash crop.

Coal-mines occur and there are match factories, ceramic industries and paper manufacture.

# DHULIA DISTRICT

*Headquarters :*—Dhulia.

*Talukas and Mahals :*—Shirpur, Shahada, Taloda, Sindkheda, Nandurbar, Nawapur, Dhulia, Sakri, Akrani, Akal-kuva.

Area : 5,022 ; Population : 1,351,236 (1961 Census) (Males 686,942 ; females 664,294).

Dhulia District lies roughly between 20° 38′ and 22° North Latitude and 73° 35′ and 75° 17′ East Longitude. It is bounded on the north by Khargone District in Madhya Pradesh, on the east by Jalgaon District, on the south by Nasik District and on the west by Surat District.

The languages spoken are Marathi, Gujarati and Bhil.

The main crops of this District are cotton, wheat, bajra, jawar and groundnut. Sugar-cane and chillies form the main irrigated crops. Lately many more sugar-cane crushing factories and gur manufacturing factories have been started in the District. There are two agricultural research stations—one for Cereal research and another for Cotton research at Shahada and Dhulia respectively.

There are two types of irrigation in this District : (1) Well irrigation and (2) Bandhara irrigation. The rivers used for irrigation are chiefly the Panjara, Kan, Burai and Gomi, which are bunded at a number of places. Each bund irrigates about 100 to 200 acres. The total area under Bandhara is about 4,000 acres. The main crops grown on these Bandharas are sugar-cane, wheat and paddy, in this rotation. This system is known as Fad System.

The Government has also opened a Sarvodaya centre at Khandbara for the uplift of the Bhil community.

### EDUCATIONAL INSTITUTIONS

The King Edward VII Technical School at Dhulia gives technical education to students. The Institute of Engineering Technology run by the Dhulia Education Society, Dhulia, started coaching students for Diploma in Civil Engineering, since June 1954. It has accommodation for about 125 students every year. There is also a Government Agricultural Institute, where Gram Sewaks are trained.

The Bhil Seva Mandal and the Bhil Sudhar Samiti work for the social and educational uplift of the Bhil community.

Two more institutions are the Gandhi Tatwadnyan Mandir, teaching Gandhian philosophy, and the Sanskrit Patashala teaching Sanskrit. There is a Historical Research Institute called Rajwade Sanshodhan Mandal where important manuscripts and historical articles and records are available for research and study. In Wak-Dewata Mandir, all works of Sant Ramdas and literature pertaining to him are carefully preserved and further studies are being pursued.

There is the century old Garud library along with Prani Raksha Grantha Sangrahalaya.

Dhulia is the Divisional Headquarters of the Maharashtra Transport Corporation, of the Khandesh Division. A direct bus service runs to Indore in Madhya Pradesh, also to Surat in Gujarat and one to Poona and Aurangabad. There is also a big repair workshop.

DHULIA EDUCATION SOCIETY.—The Society owns three high schools : (1) The J. R. City High School, (2) The New City High School and (3) The Madhyamik Vidyalaya, Deopur—Dhulia. The Society started an Institute of Commerce in 1955, an Institute for Secondary Teachers' Certificate Course in 1957, College of Education in 1961 and a primary and a pre-primary school in 1962.

The Shivaji Vidya Prasarak Sanstha owns and conducts Arts, Science and Commerce College, College for Physical Education besides two High Schools for Boys and Girls, and S.T.C. Training Institutions.

Besides the Government Garud High School, there are Kamalabai Girls' High School, Dudhedia Girls' School, Abhinav Vidya Mandir High School run by private societies.

Recently an Arts College was started at Shirpur.

### ASSOCIATIONS

MAHARASHTRA HARIJAN SEVAK SANGH

Dhulia.

THE INDIAN RED CROSS SOCIETY, DHULIA DISTRICT BRANCH, DHULIA.—

MAHATMA GANDHI TATWADNYAN MANDIR, DHULIA

### BANKS

DHULIA URBAN CO-OPERATIVE BANK, LTD.—

RAJWADE MANDAL PEOPLE'S CO-OPERATIVE BANK LTD., DHULIA.—

TEXTILE ASSOCIATION (INDIA)

Khandesh Branch.

C/o New Pratap Mills, Dhulia.

*Chairman :* S. N. Vithal ; *President :* G. S. Kulkarni ; *Hon. Secretary :* P. P. Hasabnis ; *Hon. Librarian :* D. N. Ranade ; *Hon. Treasurer :* M. K. Oza. *Central Managing Cttee. Member :* M. G. Dave.

### INDUSTRIES

Dhulia is the biggest cotton centre in the Dhulia District and has a well regulated Cotton Market. There is also another regulated Cotton Market at Dondaicha in the Sindkheda Taluka on the Tapti Valley Section of the Western Railway. There are Spinning and Weaving Factories. The number of cotton ginning and cotton pressing factories is 47.

Dhulia has also been lately developing into a groundnut oil industry centre. There are about 42 oil mills, including 14 at Dhulia, which together produce about 2,000 tons of groundnut cake. One of these mills uses the latest type of expeller machinery. There are also saw mills.

The newly built hill station of Toranmal, about 90 miles away from Dhulia in Shahada Taluka, is situated on the Satpura range plateau at an altitude of 4,200 feet by the side of a spacious lake of great depth and having a crystal tasty water. The climate is very salubrious. Transport arrangements and accommodation have been provided.

The Rotary Club has opened its branch at Dhulia, so also the Lions Club.

There is the "Dhulia District Board of Cricket" which is affiliated to the Maharashtra Cricket Association.

Mahila Sadan and Vanita Samaj are the two prominent ladies Institutions where women find entertainment and scope for Social Service.

There is a Vijay Swimming Tank at Dhulia, which is open to the public.

### SPINNING AND WEAVING MILLS

NEW PRATAP SPG., WEAVING AND MFG., CO., LTD., Dhulia.

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# JALGAON DISTRICT

*Headquarters :* Jalgaon.

*Talukas :* Chalisgaon, Amalner, Parola, Chopda, Erandol, Pachora, Jamner, Jalgaon, Yaval, Raver, Bhusawal.

*Mahals :* Edlabad, Bhadgaon.

Jalgaon District, with Jalgaon as capital, is one of the northernmost Districts in Maharashtra.

The area of the District is 4,573 sq. miles. Population : 1,765,047 (1961 Census) (Males 902,001 ; females 863,046). The main population of the District is composed of Levas and Marathas, with a good percentage of Bhils, Vanjaris and other hill tribes. Their language is a peculiar mixture of Gujarati, Marathi and Hindi and is called Ahirani. The District has very rich black soil, specially in the trans-Tapti Talukas, and is among the Districts which yield the highest revenue.

### AGRICULTURE

The most important crops are cotton, groundnuts, jawar, bajri, gram, millet, linseed and sesamum. The most important garden crops are chillies, corriander, melons, watermelons, betel leaf, bananas, mosambis, santra and sugarcane. North India is a lucrative export market for bananas for the sale of which eleven Co-operative Fruit Sale Societies have been established in the District. The bananas are now marketed by the State Co-operative Marketing Board in Delhi and are exported.

Cotton and groundnut are even more important. The cotton is classed as 197-3, better known as Vir Nar, which new variety replaced the old variety Jarila in 1952. It is a cross breed of Verrum and N. R. Cotton. Vir Nar is finer than Broach and fetches a higher price. It gives 4 per cent more ginning. This cotton is now

compulsorily sown in districts of Jalgaon, Dhulia and Nasik, and 93 villages in Aurangabad District. Government have a special agricultural farm at Jalgaon for research in cotton breeding for improving the staple and ginning percentage. Higher rates for cotton and reduced acreage under groundnut have led to an increase in acreage under cotton.

There is a large export trade in groundnut oil and hydrogenated oil or vanaspati.

Jalgaon is the biggest town and District headquarters, a great trade centre, and also an educational centre. The town is 37 miles from Ajanta Caves and a regular State Transport bus traffic exists from Jalgaon to Ajanta. Govt. of India has opened a Tourist Office at Jalgaon Railway Station. Accommodation is also available at Traveller's Bungalow and retiring rooms at Jalgaon Rly. Station. Amalner is the biggest cotton centre in the District.

The rainfall (mean annual is 28·27 inches) is usually both general and regular, which fact in itself discourages irrigation.

### INDUSTRIES

The main industry is based on agriculture. There are about 40 oil mills in the District, besides several bullock driven presses. Two vegetable factories employ 350 workers each. There is a silk mill in the District. There is also a factory, which manufactures crackers and fireworks, employing 100 workers during the season.

There are in the whole District four spinning and weaving factories, about 100 cotton ginning and pressing works, about ten dyeing factories, three big railway workshops (at Bhusawal) all employing more than 26,000 people.

### INDIAN INSTITUTE OF PHILOSOPHY

Amalner.

*President :* Shrimant Pratapshet ; *Director :* Prof. G. R. Malkani, M.A., M.Litt. (Cambridge) ; *Professor :* M. R. Oak, M.A. (Punjab), M.A. (Calcutta) ; *Shastri :* Pandit Atmaram Shastri Jere.

### VYAPARI MAHAMANDAL

Baher Pura, Amalner.

### COTTON MILLS

KHANDESH SPG. & WVG. MILLS CO., LTD., Jalgaon.

PRATAP SPG., WVG. & MFG. CO., LTD. (Nos. 1 & 2), Amalner.

CHHAGANLAL TEXTILE MILLS PRIVATE LTD., Chalisgaon.

**CHHAGANLAL TEXTILE MILLS PRIVATE LTD.,**
Chalisgaon, East Khandesh.
Manufacturers of general cloths, sheetings, longcloth, chaddars, kadi, F.B. dhotis, sarees, gadlapat, dosuties, coatings, grey dhoties, sarees, long cloth, chaddars, sheetings; bleached-longcloth, chaddarsdhoties, sarees ; dyed-madra, parmetas, aster cloth, umbrella cloth, raising cloth, etc.
*Managing Director:* Raiseth Chhaganlalji, H. O. Chowk, Bhopal.
Telephone : 4 Telegrams : "ASHOK" Chalisgaon.

# KOLABA DISTRICT

*Headquarters :* Alibag.

*Talukas and Mahals :* Alibag, Pen, Panvel, Karjat, Roha, Mangaon, Mahad, Khalapur, Uran, Poladpur, Murud, Shrivardhan, Mhasala and Sudhagad.

Kolaba District in the Konkan area of Maharashtra lies between North Latitude 17°52′ and 19°3′ and East Longitude 73°7′ and 73°42′.

The total area of the District is 2,716 sq. miles. Population : 1,058,855 (1961 Census) (Males 514,534 ; females 544,321).

Notable places in the District are Raigarh near Mahad, once the capital of the great Shivaji and Kanakeshwara near Alibag, which is fast growing into a holiday resort as it is a hill 1,100 feet above sea-level and gives a complete view of Bombay. Matheran is another well-known hill station. Elephanta near Bombay is also in this District. Alibag has a magnetic observatory which is devoted to research in magnetic and electric currents which circulate in the interior of the earth.

The historical sea-fort Kolaba, at Alibag, which was the naval capital of Shivaji, has recently been taken over by the Archæological Department of the Government of India. The Hingulja hill near Revdanda, about nine miles from Alibag, is growing into a holiday resort.

### AGRICULTURE, POWER

On the flat lands of the District rice is grown, and the sea-front is fringed by a belt of coconut and arecanut palms. There is large-scale plantation of mango grafts and the produce is exported to Bombay. Lorry loads of melons from Panvel are also sent to Bombay. The teak forests are very valuable and there is a considerable fishing industry. Salt is also produced in large quantities in Pen, Panvel talukas and Uran petas. Nachni. Vari, Udid and Val are varieties of crops which agriculturists produce at their second crop. Tondlies are produced in large quantities and are taken to Bombay.

The District has three Power Houses : The Tata Power Co.'s Power House at Bhira (Patuns), the Tata Hydro-Electric Power Supply Co.'s at Khopoli and the Andhra Valley Power Supply Co.'s at Bhivpuri.

Uran and Pen are big salt-producing centres. Panvel contains a large ayurvedic pharmacy, the Shri Dhootapapeshwar Panvel Ltd. ; Mora in Uran Mahal has a big tile factory which manufactures tiles worth two lakhs a year.

## MATHERAN (HILL STATION)

Matheran is a hill station and sanitarium, about three hours' journey from Bombay and Poona. Visitors are conveyed up the hill from Neral (Central Rly.) by the Matheran Steam Tramway and Rail Motors. The town is about 2,500 feet above sea-level, and is a favourite hot weather resort. The maximum and minimum temperatures range between 65 and 80 ordinarily and the average rainfall is 200 inches. The place has an agreeable climate.

# KOLHAPUR DISTRICT

*Headquarters :* Kolhapur.

*Talukas and Mahals :* Karwir, Panhala, Shahuwadi, Radhanagari, Bhudargad, Hatkanangle, Gadhinglaj, Kagal, Shirol, Bavada, Ajra, Chandgad.

The undulating country, in which the District is situated, is about 2,000 feet above sea-level in proximity to the eastern slope of the Sahyadris which renders the greater part of the District free from famine. The six large rivers of the District, namely, the Krishna, the Panchaganga, the Warna, the Dudhaganga, the Vedganga and the Hiranyakeshi, with their several tributaries flow through and drain the District, facilitating extensive irrigation of lands in several parts of the District. The hills are the main feature of the District. They include the main range of the Sahyadris running north to south for about 100 miles and form the western boundary of the District. They contain some of the finest and most abundant supplies of bauxite in the world situated at places, where an unlimited and very profitable exploitation with the aid of cheap hydro-electric power is a practical proposition.

The total area of the District is 3,141 square miles. Population : 1,596,493 (1961 Census) (Males 811,693 ; females 784,800).

The language spoken is mostly Marathi, though Kannada is also spoken in a few parts. Kolhapur city, the headquarters, is a great trading centre for jaggery.

The chief agricultural products are jawar, rice, cotton, nagli, bajra, wheat, tobacco, sugarcane and ground-nut.

Besides 3 cotton mills, there are ginning and pressing factories. There are also ginning and powdering mills, groundnut crushing and oil mills, a sugar mill, cinema-film producing companies and soap factories and repair workshops.

### SHIVAJI UNIVERSITY

KOLHAPUR 3.

The Shivaji University was established in September 1962 by the Shivaji University Act passed by the Maharashtra Legislature in August 1962. The University was formally inaugurated by the President of India, Dr. S. Radhakrishnan, on November 18, 1962. It is situated at Kolhapur with jurisdiction over the five districts of Southern Maharashtra, i.e. Kolhapur, Sangli, Satara, Sholapur and Ratnagiri. There are 43 colleges and institutes within the area of the

University, of which eight are situated at the seat of the University. The University has the following Faculties. 1. Faculty of Arts and Social Sciences : B.A. ; M.A. ; Ph.D. (Dip. Lib. Sc.). 2. Faculty of Science : B.Sc. ; M.Sc. ; Ph.D. 3. Faculty of Law : LL.B. ; LL.M. 4. Faculty of Commerce : B.Com. ; M.Com. 5. Faculty of Education : B.Ed. ; M.Ed. ; Ph.D. ; T.D. (Dip. in Teaching). 6. Faculty of Engineering : B.E. (Civil) ; B.E. (Mechanical) ; B.E. (Electrical) ; M.E. 7. Faculty of Medicine : M.B., B.S. 8. Faculty of Agriculture : B.Sc. (Agri.).

The University is both a teaching and affiliating body and lays greater emphasis on Post-Graduate instruction and research. It proposes to devote special attention to Extra-Mural Studies, Physical Culture, Students' Welfare, Military Science, Marathi Language and Literature and History of Marathas.

*Chancellor :* Dr. P. V. Cherian, M.B.B.S., D.L.O. (R.C.S.), F.R.F.P.S.G., F.R.C.S.E.

*Vice-Chancellor :* Dr. A. G. Pawar, M.A., LL.B., Ph.D., Bar-at-law.

*Registrar :* M. Y. Vaidya, M.A., LL.B. : *Dy. Registrar :* Dr. (Mrs.) U. G. Ithape, M.A., Ph.D.

### PRINCE SHIVAJI EDUCATION SOCIETY

Sykes Extension, Kolhapur.

### KOLHAPUR UDYAM COOPERATIVE SOCIETY LTD.

Shivaji Udyam Nagar, Kolhapur 2.

*Chairman :* Ramdas Narayandas Samani; *Vice-Chairman :* Yashwant Pandurang Powar.

### SHRI MOUNI VIDYAPEETH

Gargoti, Kolhapur.

The Vidyapeeth was founded on April 4, 1952. It is a research and experimental centre in the field of rural education. It has a research wing affiliated to the Shivaji University, Kolhapur, a teaching wing and an extension wing. It conducts the following institutions namely the Govindrao Korgaonkar Institute of Rural Education, a Social Education Organisers' Training Centre, a Rural Institute, Teachers' Training College (both Graduate and Primary), Multi-purpose High School, Primary School and Pre-Primary School. A Gram Sevak Training Centre, a Panchayat Raj Training Centre, ten village centres under the Central Social Welfare Board and a Medical Centre with a Family Planning unit which works with a mobile unit presented by CARE, U.S.A.

*Founder-President :* V. T. Patil, B.A., LL.B. ; *Director :* B. M. Save, M.A., M.Ed.; *Secretary :* J. P. Naik, B.A.

### COTTON MILLS

SHRI NARAYAN WEAVING MILLS, Ichalkaranji.
SHRI SHAHU CHHATRAPATI MILLS, Shahupuri, Kolhapur 2.
VENKATESH RANG TANTU MILLS, Ichalkaranji.

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# NAGPUR DISTRICT

*Headquarters :* Nagpur.

*Talukas :* Nagpur, Ramtek, Katol, Saoner, Umrer.

The area of the District is 3,842 sq. miles and the population 1,512,807 (1961 Census) (Males 784,161 ; females 728,646). The language spoken is Marathi.

The richest part of the District is the western half of the Katol Tehsil. It possesses a soil profusely fertile and teems with the richest garden cultivation. From Pilkapar Hills in the Katol Tehsil the plains extend to the eastern border. Its surface is scarcely ever level, but it is closely cultivated, abounds in mango groves and trees of all sorts, and towards the east is studded with small tanks which form a feature of the landscape. The elevation of the plain country is from 900 to 1,000 feet above sea-level.

The forests are mainly situated in a large block on the Satpura Hills to the north-east, while isolated patches are dotted on the hills, extending along the south-western border. The forest growth varies with the nature of the soil, teak on good well-drained slopes, salai on the steep hillsides and ridges, and satinwood on the sandy levels. In the open country mango, tamarind and bastard date-palms are common.

The annual rainfall averages about 47·5 inches.

Cotton and jawar are the chief produce of the District which is also famous for its oranges. During the cold weather wagonloads of oranges are exported daily to Bombay and other parts of India.

The District is not badly off in the matter of mineral deposits. There are some manganese mines and limestone quarries in the District and coal-mines at Kamptee.

The National Coal Development Corporation has started the exploitation of rich cold seams around Umrer, which is being linked up with Nagpur with a broad gauge line.

There are five textile mills in Nagpur City, 2 steel Rerolling Mills, a number of oil mills, a pottery concern, saw mills, a rubber factory, a thriving frame making industry, a large fruitcanning industry and a large number of handloom factories. Nagpur saris are in great demand in all parts of the country.

In addition to an industrial estate on the Kamptee Road, work has started on developing a functional estate near the Ambajhari lake. Other notable developments in the offing are the construction of a defence project and of a ring rail track around Nagpur. The H.Q. of the Maintenance Command, I.A.F. has also been now shifted here.

### NAGPUR UNIVERSITY

Year of Foundation : 1923.

*Chancellor*, Governor of Maharashtra.

*Treasurer*, P. P. Deo.

*Registrar*, S. V. Bhagat.

Teaching affiliating & University Colleges 3, University Teaching Departments 9 ; affiliated Colleges 71.

*Students* (1963-64) :

University Colleges : 704 (Men 630 ; Women 74).

University Teaching Departments : 852 (Men 666 ; Women 186).

Affiliated Colleges : 32,809 (Men 28,216 ; Women 4,593).

*Budget Estimates* (1963-64) :

Central Government Grants : Rs. 1,08,493·12
State Government Grants : Rs. 8,88,565·35
University Grants Commission : 4,24,595·95
Total Income : Rs. 89,17,283·48
Total Expenditure : Rs. 88,05,897·45

*University Teaching Departments* (1964-65) :

Biochemistry ; Geology ; Political Science, Public Administration and Local Self-Government ; Ancient Indian History and Culture ; Pharmacy ; Library Science ; Post-graduate Deptt. in Humanities. Post-graduate Teaching in Science and Post-graduate Studies in Law.

*University Colleges :* Laxminarayan Institute of Technology, Nagpur. University College of Law, Nagpur. University Training College, Nagpur.

*Affiliated :* Nagpur Mahavidyalaya, Nagpur. College of Science, Nagpur. Hislop College, Nagpur. S. B. City College, Nagpur. Smt. Binzani Mahavidyalaya, Nagpur. M. M. College of Science, Nagpur. Dhanwate National College, Nagpur. Lady Amritbai Daga College for Women, Nagpur. Government Polytechnic, Nagpur. Visvesvaraya Regional Engineering College, Nagpur. College of Agriculture, Nagpur. Medical College & Hospital, Nagpur. G. S. College of Commerce and Economics, Nagpur. St. Francis de Sales College, Nagpur. Nagpur Veterinary College, Nagpur. C. P. & Berar Society's Arts College, Nagpur. Dharampeth Mahavidyalaya, Nagpur. School of Social Work for Women, Nagpur. Dr. Ambedkar College of Arts & Commerce, Nagpur. Vidarbha Mahavidyalaya, Amravati. Shri ShivajiCollege, Amravati. Shri Shivaji College of Science, Amravati. Shri Shivaji College of Edn., Amravati. Govt. Dip. Training Institute for Men, Amravati. Govt. Dip. Training Institute for Women, Amravati. Govt. Post-Graduate Basic Training College, Amravati. Raj Mahavidyalaya, Amravati. Vidarbha Ayurved Mahavidyalaya, Amravati Bharatiya Mahavidyalaya, Amravati. Diploma College of Physical Edn., Amravati. Govt. Engineering Coll., Amravati. Sitabai Arts College, Akola. College of Agriculture, Akola. Govt. Training College, Akola. Shri Shivaji College of Arts & Commerce, Akola. Laxmibai Radhakisan Toshriwal Coll. of Com., Akola. G. S. College of Commerce, Wardha. Swavalambi College of Education, Wardha. Yeshwant Arts College, Wardha. Amolak Chand Mahavidyalaya, Yeotmal. Vanijya Mahavidyalaya, Yeotmal. Prashikshan Mahavidyalaya, Chanda. Janata Mahavidyalaya, Chanda. Janata College of Education, Chanda. Phulsing Naik Mahavidyalaya, Pusad. Rajasthan Aryan College,

Washim. G. S. College of Science and Arts Khamgaon. Jijamata Mahavidyalaya, Buldana N. M. D. College of Arts and Commerce, Gondia. Shri Shivaji College, Akot. Mahatma Fule Mahavidyalaya, Warud. Nabira Mahavidyalaya, Katol. R. S. Bidkar College of Arts and Commerce, Hinganghat. Adarsh Mahavidyalaya, Dhamangaon. Arts College, Mehkar. K. N. College of Commerce and Arts, Karanja. Arts & Commerce College, Daryapur. S. P. M. Mahavidyalaya, Wani. D. V. S. P. College, Digras (1963). Janata Kala Vanijya Mahavidyalaya, Malkapur. Newajabai Hitkarini College, Brahmapuri. Shri Jagadamba Mahavidyalaya, Achalpur City. Shri Gadge Maharaj Mahavidyalaya, Murtizapur. Shri J. B. Murarka College of Arts & Com., Shegaon (1964). Arts and Commerce College, Arvi (1963). S. P. Arts and Commerce College, Pulgaon (1964). J. M. Patel Arts & Commerce College, Bhandara (1964). P. P. College of Education, Gondia (1963). Samartha Mahavidyalaya, Lakhani (1964).

**Associations and Institutions**

BLIND RELIEF ASSOCIATION
South Ambazari Road, Nagpur.

*President :* K. T. Mangalmurti ; *Treasurer :* D. V. Chitaley ; *Secretary :* M. R. Shrivastava.

CENTRAL EMERGENCY RELIEF TRAINING INSTITUTE
Nagpur.

The Institute, first of its kind in India, trains both official and non-official nominees of the various State Governments and the Departments of Government of India, in techniques of Emergency Relief Operations. It was started in April 1957 and is run by the Government of India under the Ministry of Home Affairs.

*Director :* M. G. Pradhan.

CHATUR SANGEET MAHAVIDYALAYA
Mahal, Nagpur 2.

THE CHRISTIAN MEDICAL ASSOCIATION OF INDIA

*Office :* Christian Council Lodge, Nagpur.

The Association has assisted in the development of the Christian Medical Colleges at Vellore and Ludhiana, and through its Nurses Auxiliary has played a large part in development of Nursing Education.

*President :*—G. R. D. Daniel, M.B.B.S.

*Vice-President :*—R. B. McClure, M.D., F.R.C.S.(E).

*Editor :*—J. C. David, M.B.B.S., Ph.D.

*Secretary-Treasurer :*—J. C. David, M.B.B.S., Ph.D., Christian Council Lodge, Nagpur 1.

*Secretary, Christian Nurses League :* Miss Alice Zachariah.

INSTITUTION OF ENGINEERS (INDIA)
North Ambazari Road, Nagpur.

*Chairman :* R. M. Tarkunde. *Hon. Secy. :* J. M. Dave.

JOURNALISM DEPARTMENT
(Hislop College).
Temple Road, Nagpur 1.

The Department has started a degree course from July 1964. This B. J. degree will be of a year's duration and is open only to graduates.

KHADI GRAMODYOGA EMPORIUM
Gandhi Sagar, Nagpur-2.

KRIDA MANDAL
C/o S. D. Dhanwate Nagar Vidyalaya, Mahal, Nagpur 2.

MAHAVIDARBHA CHAMBER OF COMMERCE & INDUSTRIES
Vohuman Lodge, Byramji Town, Nagpur 1.

*President :* V. B. Bhave.
*Vice-President :* F. K. Mehta.
*Secretary :* K. S. Aurora.

MENTAL HOSPITAL
Nagpur.

MINERAL INDUSTRY ASSOCIATION
'Mineral House', Nagpur.

*Chairman :* U. S. Agrawal ; *Vice-Chairma :* R. A. Trivedi ; P. K. Bajpaie : *Hon. Secretary :* T. R. Goenka.

NAG-VIDARBHA CHAMBER OF COMMERCE
Surya Vilas, Temple Road, Civil Lines, Post Box No. 33, Nagpur.

*President :* Vithaldas Rathi.
*Sr. Vice-President :* Abbas Ali Kamal.
*Junior Vice-President :* Govindlal Agarwal.
*Hon. Secretary :* K. J. Bajaj.

THE NAGPUR CHAMBER OF COMMERCE LTD.
Cotton Market, Nagpur 2.

NAGPUR GENERAL MERCHANTS ASSOCIATION
Jethalal Chimanlal Bldg., Bhandara, Nagpur.

NAGPUR HARDWARE & STEEL MERCHANTS' ASSOCIATION
C/o Raj Traders, Lohaoli, Itwari Bazar, Nagpur 2.

NAGPUR KHADI MANDAL
Gandhi Sagar, Nagpur 2.

*President :* S. L. Pandharipande, M.A. ; *Vice-President :* Hiralalji Bhagat ; *Secretary :* Dindayalji Gupta, B.A., LL.B. ; *Treasurer :* D. V. Date.

THE NAGPUR ORANGE GROWERS' CO-OPERATIVE ASSOCIATION LTD.
Motibagh, Nagpur.

*Administrator :* M. V. Phadnis.

THE NAGPUR SHIKSHAN MANDAL'S RADIO INSTITUTE
Mahal, Nagpur.

NATIONAL ASSOCIATION OF PHYSICAL EDUCATION AND RECREATION, INDIA
Mahal, Nagpur 2.

NATIONAL COUNCIL OF WOMEN IN INDIA
Dolly Dale, Byramji Town, Nagpur

*President :* Mrs. Kamalrukh D. Cassad ; *Vice-Presidents :* Rani Ramkumar Bhargava, Mrs. Nibha Walawalkar, Mrs. Annie Basil, Mrs. Mary Clubwala-Jadhav, Mrs. P. Kutar, Miss Avi J. Cama ; *Hon. General Secretary :* Mrs. S. R. Tarkunde ; *Treasurer :* Mrs. Padmavati K. Chitnavis.

OCCUPATIONAL THERAPY SCHOOL
Medical College Hospital, Nagpur.

SANSKRIT BHASHA PRACHARINI SABHA
Mor-Hindi-Bhavan, North Ambazari Road, Nagpur 1.
Publishes Sanskrit Weekly *Bhavitavyam.*

SEVA SADAN
North Ambazari Road, Nagpur.

THE SOUTH INDIA ASSOCIATION (REGD.)
Modi Line 1, Sitabuldi, Nagpur.

SHRI RAMAKRISHNA ASHRAMA
Dhantoli, Nagpur 1.

SHRI SHRADHANAND ANATHALAYA
Shradhanand Peth, Nagpur.

THE TEXTILE MILLS' ASSOCIATION
Subedhar's Bungalow, Road B, Street 4, P.O. No. 3, Dhantoli, Nagpur.

VIDARBHA HINDI SAHITYA SAMMELAN
Fatechand Mor Hindi Bhavan, North Ambazari Road, Nagpur 1

VIDARBHA SAHITYA SANGH
North Ambazari Road, Nagpur 1.

VIDARBHA SAMSHODHANA MANDAL (VIDARBHA RESEARCH SOCIETY)
Near Law Coll., West High Road, Nagpur 1.

*President :* Dr. M. B. Niyogi, M.A., LL.M., LL.D. ; *Chairman, Executive Committee :* Mahamahopadhyaya Dr. V. V. Mirashi, M.A., D.Litt. ; *Secretary :* Prof. L. R. Kulkarni, M.A.

VIDARBHA SMALL SCALE INDUSTRIES ASSOCIATION
Liberty Bldg., Sadar, Nagpur 1.

WHOLESALE GRAIN AND SEED MERCHANTS' ASSOCIATION
Itwari, Nagpur.

YOUTH HOSTELS' ASSOCIATION OF INDIA
87, West Park Road, Dhantoli, Nagpur.

COTTON MILLS

CENTRAL INDIA SPINNING, WEAVING & MANUFACTURING CO., LTD. (EMPRESS MILLS), Nagpur.

MODEL MILLS, NAGPUR LTD., Under the Authorised Controller, Nagpur.

OSMANSHAHI MILLS LTD., Nanded.

# NANDED DISTRICT

*Headquarters :* Nanded.

Talukas and Mahals : Deglur, Kandhar, Biloli, Nanded, Hadgaon, Bhokar (Mahal), Mukhed (Mahal). Kinwat.

Area : 4,806 sq. miles. Population : 1,070,674 (1961 Census) (Males 547,974 ; females 531,700).

Two Talukas Kinwat and Rajura are separated from the main body of the District by Yeotmal District.

The District is on the whole dry and healthy. The annual temperature varies between 100° and 60°. The average rainfall is about 35 inches.

There are tombs of Muslim saints and Nanded has the Gurudwara of the Hyderabad Sikhs where Guru Govind was buried.

Rabi crop consists of jawar, gram, wheat, oilseeds. The Kharif crop consists of bajra, linseed, cotton and maize. The staple food crop is jawar and the main cash crop cotton.

# NASIK DISTRICT

*Headquarters :* Nasik.

*Talukas and Mahals :* Kalwan, Dindori, Niphad, Yeola, Igatpuri, Nandgaon, Nasik, Sinnar, Baglan, Malegaon, Chandor, Peint, Surgana.

Nasik District is a historic place in Maharashtra and the city one of the oldest in the Deccan and a place of pilgrimage. The area of the District is 6,020 sq. miles. Population : 1,855,246 (1961 Census) (Males 953,531 ; females 901,705). The language spoken is Marathi.

With the exception of a few villages in the west the whole District lies on a tableland at an elevation of 1,800 to 2,100 feet above sea-level.

The main food crops are rice, wheat and bajra. Nagli is used as food by the poor.

### BARNES HIGH SCHOOL

Deolali (Central Rly.).

This Anglican school with separate boarding for boys and girls admits children of all communities and prepares them for the Indian School Certificate Examination (Cambridge).

### BHONSALE MILITARY SCHOOL, NASIK

Residential in nature, recognised by the Education department and S.S.C. Examination Board, Maharashtra. Prepares boys for S.S.C. examination. Standards VII to XI.

*Chairman of the Governing Body :* Seth Motilal Manekchand.
*General Secretary :* M. J. Dikshit, M.A., B.Sc.
*Principal :* H. K. Mokashi, M.A., B.T., M.Ed.
*Officer Commanding :* Major (Retd.), M. D. Dawande.

### OTHER INSTITUTIONS

Hansraj Pragji Thackersey College, Nasik ; Government Training College for Women, Nasik ; Boys' Town (formerly Parsi High School), Nasik ; Government Girls' High School, Nasik ; National High School, Nasik ; Maratha High School, Nasik ; New High School, Nasik ; Ramrikhdas Parasharam Puria Vidyalaya, Panchvati ; Pethe High School, Nasik ; Police Training College, Nasik ; Rungtha High School, Nasik ; St. Philomena's High School, Nasik Road ; St. Xavier's High School, Nasik Road ; Sarvajanik Wachanalaya (General Library), Nasik ; Security Printing Press, Nasik Road ; Convalescent Home (H. M. Phipson), Nasik Road ; Pushpavati Rungtha Kanya Vidyalaya (attached to Rungtha High School), Nasik ; N. E. I. Girls' High School, Nasik (attached to New High School); Purshottam High School, Nasik Road ; Deolali Cantonment High School, Deolali ; Yashwant Vyayam Mandir, Nasik ; Niranjan Durlabhji Khetan Bal-Mandir, Panchvati ; Maharshi Shinde Training College, Nasik ; Radionic Institute, Main Road, Nasik ; Anath Mahila Ashram, Tilabhandeshwar Lane, Nasik ; Beggars' Home, Gadge Maharaja Dharmashala, Nasik ; Kushta Dhama and Shishu Vihar, Panchavati, Nasik. Institution takes care of children of lepers ; Lokahitavadi Mandal, Arya Vaibhav, Nasik. Institution devoted to cultural activities ; Nasik Saraf Association, Saraf Bazar, Nasik ; Red Cross Society, Ambedkar Colony, Nasik ; Hansraj Pragji Thackersy College (Arts & Science), Nasik ; B. Y. K. College of Commerce, Nasik ; Bhonsale Military School, Nasik ; Government of India Printing Press, Gandhi Nagar ; Hindi Madhyamik Vidyalaya, Gandhi Nagar ; Adarsha Montessori School, Nasik ; Dandekar Tailoring College, Nasik ; Sadhana Typewriting School, Nasik ; Government Technical-cum-Commercial School, Nasik ; Hindi Vidyalaya (attached to M. Rashtra Bhasha, Poona) ; Madhyamik Adhyapan Vidyalaya (attached to New High School, Nasik) ; Hindi Shikshak Sanad (Junior & Senior) (attached to New High School, Nasik) ; Khadi Gramodyog Vidyalaya, Post Trimbak Vidyamandir, Nasik.

### MAHARASHTRA ENGINEERING RESEARCH INSTITUTE

Nasik-Dindori Road, Nasik.

This is under the administrative control of the Maharashtra Irrigation and Power Department.

### DR. K. N. BAHADURJI MEMORIAL SANATORIUM FOR PARSIS

Lam Road, Deolali.

### MANAJI RAJOOJI H. SANATORIUM

Nasik Road.

For information, please apply to the Managing Trustee, Kalewar Mansion, Babulnath Road, Bombay 7.

### THE NASIK DISTRICT CHAMBER OF COMMERCE

896, Ravivar Peth, Nasik City.

### RADIONIC INSTITUTE

Rajendra Engineering College, Main Road, Nasik.

### HOSPITALS

Civil Hospital, Nasik ; Hospital for Lepers, Panchvati, Nasik ; Sir D. M. Petit Hospital for Animals, Nasik.

### HOTELS

Gujrat Lodge, Nasik ; Bhagwantrao Lodge, Main Road, Nasik (Vegetarian) ; Badshahi Gujrat Lodge, Nasik ; Bombay Gujrat Lodge, Nasik ; Coronation Hotel, Deolali ; Edward Hotel, Deolali ; Grand Hotel, Deolali ; Hotel Greens, Nasik ; Hotel Liberty, Nasik ; Mazd Hotel, Nasik ; Meher Restaurant, Nasik ; Royal Hotel, Deolali ; Rugby Hotel, Deolali ; Nasik Bakery and Restaurant, Agra Road, Nasik ; Diamond Lodge, Agra Road ; Nasik Ashram, Main Road (Lodging House) ; Raja Mahal, Opp. Central Bus Station (Lodging and Boarding—Vegetarian).

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# OSMANABAD DISTRICT

*Headquarters :* Osmanabad.

*Talukas and Mahals :* Latur, Tuljapur, Osmanabad, Kalam, Omerga, Owsa, Bhoom (Mahal), Parendah, Ahmadpur, Nilanga, Udgir.

Area : 5,504 sq. miles. Population : 1,477,656 (1961 Census) (Males 758,235 ; females 719,421).
The average annual rainfall is about 32 inches.

Six places of archaeological interest are the fort of Naldrug, the Jumma Masjid in Owsa Taluka, the caves around the town of Osmanabad, the two caves at Hasangaon, the old fortress at Parendah. Tuljapur is a place of Hindu pilgrimage.

The staple food grain is jawar. Wheat, rice and bajra are next in importance. Cotton is grown everywhere, while sugarcane is sometimes grown with well irrigation.

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# PARBHANI DISTRICT

*Headquarters :* Parbhani.

*Talukas:* Parbhani, Gangakhed, Pathri, Jintur, Hingoli, Basmat, Kalamnuri, Partur.

Area : 4,854 sq. miles. Population : 1,206,236 (1961 Census) (Males 611,787 ; females 594,449).

The climate is healthy from February to May but it is feverish during the monsoon and the cold weather. The annual range of temperature is from 105° to 60°. The average annual rainfall is about 35 inches.

Structures of note in the District are the temple of Nagnath at Aundh, the Jain temple of Parsnath near Jintur, the temple near Bamu and the shrine of Ramzan Shah.

The soil is partly black cotton and partly masab and kharab. On the black soil are grown white jawar, wheat, gram, tuar, while on the kharab soils are grown jawar, bajra, indigo, sesamum, oilseeds and pulses. The kharab soils also bear garden crops. The staple food crops are jawar, wheat and bajra. Cotton is grown throughout the District. About one-twentieth of the land is under forest.

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# POONA DISTRICT

*Headquarters :* Poona.

*Talukas or Mahals :* Ambegaon, Baramati (Bhimtadi), Dhond, Haveli, Indapur, Junnar, Khed, Mawal, Mulshi, Poona City, Purandhar, Sirur, Bhor, Velhe.

The population according to 1961 census is 2,466,880 and the area of the District is 6,032 sq. miles. Number of males : 1,268,710 ; females 1,198,870. The language spoken is Marathi.

The city proper extends along the Mutha river for about 1¼ miles inland ; its length is about 2 miles from east to west and its breadth about 1¼ miles, the total area being about 2¼ square miles. However, with the fast springing satellite colonies as a result of rapid growth of various types of industries, the urban parts of the City now extend as far as Pimpri and Chinchwad on the Poona–Bombay road, Hadapsar on Poona-Sholapur road, Arenyeshwar and beyond on the Poona-Bangalore national highway and Yeravda and Koregaon on the North-East of the city and along the Poona-Ahmednagar road.

The rainfall varies considerably in different parts of the District. In the western parts it is heavy and regular, in the central belt moderate, and in the east very irregular. The main crops are paddy and jawar. But the District is a deficit area in the matter of food grains. One of the products of which the District has an exportable surplus is jaggery produced from sugarcane.

The city of Poona lies at the confluence of two small rivers, the Mutha and the Mula, on the Western margin of the Deccan plateau at a height of about 1,800 ft. above sea-level. Only 30 miles separate the city from the main range of the Western Ghats and 119 miles from the State capital, Bombay.

The importance of Poona from the military point of view is growing. It is the headquarters of the Southern Command and also of the Poona Sub-Area. The National Defence Academy is located in Khadakvasla. Some of the other military establishments around Poona are : the Ordnance Depot and the Arsenal at Kirkee and the Vehicles Depot at Dehu Road. The Indian Navy Mechanical Training establishment I.N.S. "Shivaji" is located at Lonavla, 40 miles from Poona and the newly established Naval Engineering College, first of its kind in India, in the precincts of I.N.S. "Shivaji".

A new Officers Training School (O.T.S.), one of the three such schools started early this year in the country to train officers for Emergency Commission in the Indian Army to meet the Chinese threat to the country is located in Poona.

Armed Forces Medical College for post-graduate training in military medical science is also located in Poona. A Medical College for degree course run by the Army, which is perhaps the only one of its kind in the world from the point of view that the Army is running it, is located in Poona.

Yet other institutions are the Institute of Armament Studies and the Artificial Limbs Centre, the only one of its kind not only in India but also in South & West Asia and the fourth largest in the world. A gliding centre is also located near Poona. The Army School of Physical Training, wherein Army instructors in Physical Training are trained and prepared to serve with various military units all over the country. The National Cadet Corps Academy on Purandhar Fort, 22 miles South-East of Poona. Queen Mary's Technical School for disabled soldiers. The office of the Controller of Defence Accounts (Officers) at Golibar Maidan. The office of the Controller of Defence Accounts (Southern Command).

Other important institutions of All-India character located in Poona are given below :

*Meteorological Office :* The technical headquarters of the India Meteorological Department, the Meteorological Office in Poona, is located on the Ganeshkhind Road at Shivajinagar, in a magnificent building with a conspicuous clock tower.

A new institution known as the Institute of Tropical Meteorology to study and do research in meteorological phenomena in the tropics started working from last year. It is located in a separate building adjoining to the Meteorological Department premises in Poona.

*Central Water and Power Research Station ; National Chemical Laboratory ; Overseas Communications' Beam Wireless Station at Dighi ; Headquarters of the Servants of India Society ; Bhandarkar Oriental Research Institute ; Penicillin Factory, Pimpri ; Virus Research Centre, the only one of its kind in India ; The Film Institute of India.*

Haffkine Institute, Bombay, runs a Stud Farm at Pimpri near Poona, for its research in medicinal drugs.

The Zoological Survey of India (Western Circle) ; The Botanical Survey of India (Western Circle) and the Poona Station of All India Radio are located in Poona.

The University of Poona and the Maharashtra State S.S.C. Examination Board are also located in Poona.

Poona, which was till recently predominantly an educational centre, is fast developing as an industrial area as well. Besides the two industrial estates at Hadapsar and Pimpri, the whole belt along the Bombay-Poona Road from Kirkee, Dapodi, Pimpri, Chinchwad upto Lonavla is fast attracting industries of various types.

A new co-operative sugar factory near Nira has gone into production in February 1963, bringing the number of sugar factories in the district to four, three on co-operative basis and one privately owned.

The Poona Municipal Corporation is setting up a third industrial estate near Golibar Maidan exclusively for small industries. Engineering Industry is expanding rapidly in the Dist., particularly around Poona.

The district can also boast of important places of historical and archaeological interests. Shivneri fort, birth place of the great Maratha Hero, Chhatrapati Shivaji, the famous Karla caves which constitute a fine example of Buddhist architecture of 1st Century B.C., Samadhis of Kasturba Gandhi and Mahadevbhai Desai are located in the district.

## LONAVLA

This hill station is situated at the top of the Bhore Ghat incline about 2,030 feet above sea-level.

Among the lakes may be mentioned the ' Tata Sons Hydro-Electric Works Lake ' at Valvan (walking distance and drive over a built road), their smaller lake called Lonavla Lake near the Raiwoods and situated on the cement concrete road leading to I.N.S. "Shivaji". About 2½ miles north of the Railway Station is situated the Lonavla Municipal Borough's Tungarli Lake which is the main source of water supply to Lonavla and Khandala. Fishing is allowed both at the Bhushi and the Valvan lakes, the latter being the more suited for the purpose.

There is a Municipal rest-house and Dharmashalla on the Lonavla-Bhangarwadi Road. The Raiwoods are suitable for picnics and are also a camping ground for Government Officers during the hot season.

About 3½ miles from the Railway is situated the " Tiger's Leap," a promontory which commands a picturesque view of the valley below. The famous Karla Caves are situated on a hill about five miles from Lonavla, and are reached by a built road up to the foot of the hill, and visitors either walk up or are carried up by means of chairs. From the Railway Station of Malawali, nearly three miles from Lonavla, visitors can proceed to view the Lohgadh Fort (now partially demolished) on the top of a hill.

The Govt. of Maharashtra has started a holiday camp at Karla at a distance of about 1½ miles from Malawali Railway Station. The State Transport runs a passenger bus starting from Lonavla Railway Station to the holiday camp. The Lonavla Municipal Borough has constructed a swimming pool on the Bombay-Poona road near old Khandala level crossing gate, and two gardens 'Shivaji Park' at Lonavla and 'Rajmachi Rock Garden' at Khandala.

The following are some of the Forts and places of interest :—

Fort of Lohgadh, Fort of Visapur, Fort of Rajmachi which stands on the top of the Sahyadri Range and commands a grand view of Matheran, Konkan and even part of Bombay, Duke's Nose, Tungarli Municipal Lake.

The temperature varies from 65 in the cold weather to 85 in the hottest month. The rainfall varies from 160 to 250.

One of the best naval establishments and training schools I.N.S. "Shivaji" is about four miles from Lonavla Station and visitors may contact the Commanding Officer on phone for permit to visit.

A bathing place known as "Kuna Point" is situated on the road leading to Kuna mission. "Dr. Gajanan Mahimtura Swimming Pool" near old Khandala level crossing is open to the public. The thick Rye-Woods Forest also is being developed by the State Govt. Rye-Woods is just near "Shivaji Park".

### HOTELS

Central Hotel ; Lonavla Hotel ; Jai Hind Hotel ; Giri Vihar Hotel ; Bharatya Lodge ; Happy Home ; Cafe Golistan.

### SANITARIA

Krishna Arogya Bhavan ; Jaya Baug ; Divali Baug ; Vasanji Manji ; Khoja Sanitarium ; Bhori Sanitarium ; Mody Sanitarium ; Lady Thakersey Sanitarium ; Haji Saboo Siddik Kachhi Sanitarium ; Shantilal Jamnadas Morarji Sanitarium.

## KHANDALA

Khandala, a health resort, 78 miles from Bombay by rail and 71 by road lies in Mawal Taluka. It is situated at the top of the Bhor Ghat at an elevation of about 2,000 feet above sea-level, and has an agreeable and bracing climate all through the year.

Among places worth a visit in and around the town are Tata Electric Supply Company's reservoir called Forbay Dam, Byramjee's Point, the Duke's Nose, Tiger's Leap, all of which provide magnificent views of the surrounding country. About nine miles from Khandala are the Karla caves considered to be the oldest specimen of Buddhist caves in India. In Walwan lake which is about four miles from Khandala good mahashir fishing is available. At Khandala "Rajmachi Park" is one of the most beautiful spots. The Municipality has made arrangements for one Cafetaria there and during hot seasonal months, there is daily bus service to Rajmachi Point.

### HOTELS

Khandala Hotel; Empress Hotel; Government Inspection Bungalow.

### INSTITUTIONS

D. Cowasji Zoroastrian Girls' Boarding School; Marzban Sanitarium; Kotkar Sanitarium; Khoja Sanitarium; Kune Mission.

# EDUCATIONAL INSTITUTIONS

## UNIVERSITY OF POONA

Ganeshkhind, Poona 7.

The University of Poona was established by the Poona University Act, 1948 of the Government of Bombay* passed in pursuance of its policy to create Universities in the State for different linguistic regions. The Universty area at present comprises the following Districts of Maharashtra State namely, Poona, Nasik, Thana, Jalgaon, Dhulia, Ahmednagar.

The University is both teaching and affiliating in character. The teaching activity is confined to Post-graduate classes in the whole University area and also post-intermediate classes in the Poona area (which comprises Poona and some area in the Poona City Taluka, Mulshi Petha and the Haveli Taluka).

It has the following nine Faculties and has provision for courses for the following degrees:

*Faculty of Arts:* B.A., M.A., Ph.D., D.Litt., B.A. (External), M.A. (External); *Faculty of Mental, Moral and Social Sciences:* B.A., B.A. (External), M.A., M.A. (External), B.T., M.Ed., Ph.D., D.Litt.; *Faculty of Commerce:* B.Com., B.Com. (External), M.Com., M.Com. (External), Ph.D., D.Litt.; *Faculty of Science:* B.Sc. (General), M.Sc., M.Sc. (Maths.), M.Sc. (Maths) (External), Ph.D.; *Faculty of Law:* LL.B., LL.M., LL.M. (External), LL.D., Ph.D.; *Faculty of Medicine:* M.B.B.S., M.D., M.S., Ph.D., B.Sc. (Nursing), M.Sc. (Med.); *Faculty of Engineering:* B.E. (Civil, Mechanical, Electrical, Telecommunications and Metallurgy), M.E., M.Sc. (Engg.), Ph.D.; *Faculty of Agriculture:* B.Sc. (Agri.), M.Sc. (Agri.), Ph.D.; *Faculty of Ayurvedic Medicine:* B.A.M. & S., M.A.Sc.

The University has instituted external degrees for the benefit of employed persons and married women, the B.A. (External), M.A. (External), B.Com. (External) and M.Com. (External) degrees in the Faculties of Arts and Mental, Moral and Social Sciences and Faculty of Commerce, M.Sc. (Maths.) (External) in the Faculty of Science, LL.M. (External) in the Faculty of Law to which students can qualify by appearing for the examinations direct without having to undergo instruction in a College or the University.

The University has also instituted a Faculty of Fine Arts and Music and the degree of Bachelor of Music, but it has not started functioning so far.

The following diplomas and certificates have been instituted: (1) Diploma in Oriental (Sanskritic) Learning; (2) Certificate and Lower and Higher Diploma Courses in Modern Foreign Languages (French and German); (3) Diploma in Public Health; (4) Diploma in Psychological Medicine; (5) Diploma in Anaesthesia; (6) Diploma in Music: (7) Diploma in Clinical Pathology; (8) Diploma in Library Science; (9) Diploma in Teaching.

The University has in all 37 affiliated colleges and 5 recognized research institutions. Of them, 14 colleges and all recognized institutions are in the Poona area and they are called the Constituent Colleges and the Constituent Recognized Institutions of the University. The distribution of colleges is as follows: one Law College, two Medical Colleges (in Poona), one Engineering College (Poona), two Agricultural Colleges (one in Poona and the other at Dhulia) and one College of Ayurvedic Medicine and Surgery.

The rest are Colleges for Arts, Social Sciences and Science.

The total strength of students in all the colleges and the University is in the neighbourhood of 26,600.

The University has its own Departments in the following subjects, each headed by a University Professor or Reader and mainly intended for post-graduate instruction and research. Marathi, Hindi, English, Linguistic, Sanskrit, Politics, Experimental Psychology, Mathematics and Statistics, Physics, Chemistry, Zoology, Geography and Botany.

### CHANCELLOR

Governor of Maharashtra.

### ACTING VICE-CHANCELLOR

N. R. Kulkarni.

### REGISTRAR

W. H. Golay, B.A. (Bom.), Dip. Eng., Dip. in Journalism (Lond).
*Dy. Registrar*, R. S. Sardeshpande, B.A.
*Asstt. Registrar*, R. B. Manerikar, M.A., LL.B.
*Librarian*, K. S. Hingwe, M.A., Dip.Lib.Sc.

### SECRETARY, FOREIGN UNIVERSITIES INFORMATION BUREAU AND UNIVERSITY EMPLOYMENT BUREAU

A. B. Arlick, B.Sc. (N.D., U.S.A.).

### SECRETARY, BOARD OF EXTRA-MURAL STUDIES

Dr. A. V. Naik, M.A., Ph.D.

### SECRETARY, UNIVERSITY BOARD OF SPORTS

V. N. Bhide, B.Sc.

### THE COURT

This corresponds to the Senate of the Bombay University and is the main policy-making body of the University. Its membership is about 166 and besides the registered graduates, it has also representatives of the District Local Boards and Municipalities in the Districts in it.

### ACADEMIC COUNCIL

This is the main academic body and has powers in respect of all academic matters of the University. Its total membership is about 130.

### EXECUTIVE COUNCIL

This is the main administrative body of the University, comprised of representatives from the Court and the Academic Council. Its total membership is 16.

### BOARD OF UNIVERSITY TEACHING

This is concerned with the organization, co-ordination and conduct of post-intermediate teaching in the Poona area and the post-graduate teaching in the whole University area. Its total membership is about 43.

### BOARDS OF STUDIES

These are 44 in number in all the Faculties together. Their main function is to frame courses of Studies and to draw up panels of examiners. Total membership of the Boards is 450.

### ESTIMATED INCOME AND EXPENDITURE (1964-65)

*Income:* Rs. 72,07,749.

Expenditure: Rs. 77,45,960.

*Constituent Degree Colleges.*—College of Engineering, Poona 5; Fergusson College, Poona 4; College of Agriculture, Poona 5; Sir Parashurambhau College, Poona 2; Law College, Poona 4; Nowrosjee Wadia College, Poona 1; Armed Forces Medical Coll., Poona 1; Shri Shahu Mandir Mahavidyalaya, Poona 2; St. Mira's College for Girls, Poona 1; Tilak College of Education, Poona 2; Brihan Maharashtra College of Commerce, Poona 4; M. E. Society's College of Arts & Sciences, Poona 4; B. J. Medical College, Poona 1; Tilak Ayurved Mahavidyalaya, Poona 2.

*Affiliated Degree Colleges.*—Hansraj Pragji Thackersey College, Nasik; Mooljee Jaitha Arts & Science College, Jalgaon; Pratap College, Amalner (Dist. Jalgaon); Ahmednagar College, Ahmednagar; Arts, Science & M.F.M.A. Commerce College, Dhulia; Bhikusa Yamasa Kshatriya College of Commerce, Nasik; Maharaja Sayajirao Gaekwad Arts & Science College, Malegaon (Dist. Nasik); Shri Shivaji Mahavidyalaya, Barsi (Dist. Sholapur); R. B. Narayanrao Borawake College, Shrirampur (Dist. Ahmednagar); College of Agriculture, Dhulia; J. S. M. College, Alibag (Dist. Kolaba); Arts College, Ulhasnagar (Dist. Thana); Arts & Science College, Faizpur (Dist. Jalgaon); College of Education, Dhulia; Arts, Science and Commerce College, Chalisgaon (Dist. Jalgaon); Dr. Babasaheb Ambedkar College of Arts, Science and Commerce, Mahad (Dist. Kolaba); Sangamner College, Sangamner (Dist. Ahmednagar); Baramati College, Baramati (Dist. Poona); Arts & Commerce College, Shirpur (Dist. Dhulia); Pemraj Sarda College, Ahmednagar; Chandrarup Dakle Jain College of Commerce, Shrirampur (Dist. Ahmednagar); Graduates Basic Training Centers, Dhulia, Karjat College, Karjat; Arts & Commerce College, Kopargaon; Arts & Commerce College, Nandurbar; Science College, Kopargaon; Science College, Ulhasnagar.

*Recognised Institutions.*—Gokhale Institute of Politics & Economics, Poona 4; Bhandarkar Oriental Research Institute, Poona 4; Armed Forces Medical College, Poona 1; Maharashtra Association for the Cultivation of Science, Servants of India Society's Bldg., Poona 4; Deccan College Post-graduate and Research Institute, Poona 6.

* Bilingual.

# LITERARY, SCIENTIFIC AND OTHER INSTITUTIONS

## ARMY CADET COLLEGE
Poona.

The College trains selected young men from other ranks of the army in officer-like qualities. It was established at Nowgong in May 1960.

## BHANDARKAR ORIENTAL RESEARCH INSTITUTE
Poona 4.

The Institute was inaugurated on the 6th of July 1917, the 80th birthday of late Dr. Sir R. G. Bhandarkar. Its objects are to publish critical editions of texts and original works bearing on Oriental antiquities, to provide an up-to-date Oriental library, to train students in the methods of research and to act as an information bureau on all points connected with Oriental studies. The valuable library of Dr. Sir R. G. Bhandarkar, which he had bequeathed to the institute, is now located in the central hall of the Institute. Since April 1918 the Government of Bombay* have transferred to the custody of the Institute the unique collection of nearly 20,000 manuscripts together with a maintenance grant of Rs. 3,000 a year. It has been increased to Rs. 8,000 from 1st April 1964. Manuscripts from this collection are lent out to scholars in all parts of the world. Government have likewise entrusted to the Institute a grant of Rs. 18,000 a year for the publication of the B.S.S. and the Government Oriental Series (the latter including, amongst others, Dr. Kane's History of Dharmashastra in five Volumes). The Institute has also started a series called the Bhandarkar Oriental Series in which several works have been already published and others are in progress. The Institute has undertaken to edit Mahabharata critically at the initiation of the late Raja of Aundh who donated a grant of Rs. one lakh for that purpose. The Institute has also received so far about Rs. 33,615 from the trustees of the Mahabharata publication fund, London, earmarked for the publication of the Virata, Udyoga and Karna parvans. Seventeen out of the eighteen parvans of the Mahabharata have been published so far and the remaining parvan, *viz.*, the Anusasa parvan, is nearing completion. Further, the Institute, with the support of the Ministry of S.R.C.A., has undertaken the critical edition of the Harivamsa to be completed by 1972, and the work on the same has already commenced. On 25th March 1944, the Institute inaugurated its Mahabharata printing department with a view to expediting the printing of the Mahabharata edition. The institute issues a journal called *Annals* of the Bhandarkar Oriental Research Institute published normally four times a year. It also held under its auspices the first oriental conference on the 5th, 6th and 7th of November 1919 under the patronage of Sir George Lloyd and the presidency of Sir R. G. Bhandarkar. The Post-graduate and Research Department of the Institute has been recognized as a Constituent Institution of the University of Poona for Post-graduate instruction and research in Sanskrit, Prakrit and Ancient Indian Culture.

*Hony. Secy.*, Dr. R. N. Dandekar; *Curator :* Dr. A. D. Pusalker; *Gen. Editor of Mahabharata*, Dr. P. L. Vaidya.

## BHARATA ITIHASA SAMSHODHAKA MANDALA, POONA
1321, Sadashiva Peth, Poona 2.

Founded in 1910 by the late V. K. Rajwade and Sardar K. C. Mehendale and registered under Act XXI of 1860 in 1916 with the object of collecting and conserving historical material in its broadest sense, erecting suitable buildings for preserving and exhibiting it, publishing such materials and other works of historical and cultural interest and generally to encourage and foster critical study of, and research in, Indian History and Culture. Possesses the best collection of Persian and Marathi historical records owned by any public society. Has a collection of about twenty-seven thousand manuscripts and over 1,200 old Indian paintings now housed in a special building. Maintains a coin cabinet and an armoury of old weapons. Has a section of copper-plates, sculptures, archaeological finds and a library of general, historical and rare books. Holds weekly and annual meetings where notes and papers based on original material are presented, discussed and afterwards published. The Poona City research branch of the Mandala does research on the city and publishes the findings. Has published several volumes of original historical letters and other historical and literary works whose total number exceeds 103. Conducts a quarterly journal devoted to research running into 43 volumes. Has done some excavation work at Karad and got finds of the 2nd Century B.C.-2nd Century A.D. Work done mostly in Marathi. Has been receiving some annual grants from the Governments of Maharashtra and India.

*President :* Malojirao Naik Nimbalkar; *Vice-Presidents :* S. B. Dhavale, Sardar G. B. Patwardhan and Raja S. R. Panta Sachiva of Bhor; *Chairman :* Mahamahopadhyaya Prof. D. V. Potdar, B.A.; *Secretaries :* Prof. G. H. Khare, V. T. Shete, Dr. B. M. Kanitkar; *Treasurer :* G. N. Mujumdar.

## CAMP EDUCATION SOCIETY
Poona 1.

*President :* Raja Dhanrajgirji Narsingagirji; *Chairman, Managing Board :* D. B. Agarwal, M.L.C.; *Headmaster : C. E. S. High School and Secretary :* V. K. Bavare.

## D. V. APTE MEMORIAL INSTITUTE
C/o B.I.S. Mandal, 1321, Sadashiv Peth, Poona 2.

*President :* MM. D. V. Potdar; *Secretaries :* Prof. R. V. Oturkar, D. V. Kale.

## DECCAN COLLEGE POST-GRADUATE AND RESEARCH INSTITUTE
Yeravda, Poona 6.

The institute is a constituent recognised institute of the Poona University. The property vests in the Deccan College Poona Trust created by the Government of Bombay* in 1938. Its administration is vested in a Council of Management consisting of four ex-officio members and nine others nominated by Government. The Vice-Chancellor, Poona University, is the ex-officio Chairman of the Council.

The Institute conducts post-graduate research in Linguistics, History, Anthropology and Sociology, having in all forty chairs in these subjects. In the department of Linguistics, the Institute has embarked upon a monumental project of preparing a Dictionary of Sanskrit on Historical Principles comparable to the great Oxford English Dictionary. Fundamental training in field methods and descriptive linguistics is also being given through organising of summer and winter schools of linguistics. The Department is now recognised as a Centre of Advanced Studies in Linguistics by the University Grants Commission. In the department of History, Prehistoric Archaeology, Caste Surveys and Anthropometric work are some of the principal features.

The American Institute of Indian Studies and a branch of the Ecole Francaise of d'Extreme-Orient are also located in the Deccan College Campus.

The Institute publishes its researches in its Bulletin issued about four times a year and in the Monograph, Dissertation and Handbook series, as well as the *Vak*—a special bulletin of the Sanskrit Dictionary Department from time to time. To mark the centenary of the college building (1864-1964) a Building Centenary and Silver Jubilee Series is being published in addition.

*Director :* Dr. S. M. Katre, M.A., Ph.D. (Lond.).

*Jt. Director :*—Dr. H. D. Sankalia, M.A., LL.B., Ph.D. (London).

## DECCAN EDUCATION SOCIETY
Poona

The object of the Society is " to facilitate and cheapen education by starting, affiliating and incorporating at different places, as circumstances permit, schools and colleges under private management or by any other way best adapted to the wants of the people." The Society has now 31 life members.

*Chairman of the Council and the Governing Body :*— Prof. D. D. Kapadia, M.A., B.Sc., I.E.S. (Retd.); *Secretary:*—Dr. V. R. Karandikar, M.A., Ph.D., Fergusson College, Poona.

The Society's Institutions are the following :—The Fergusson College, Poona; The Willingdon College, Sangli; The Brihan Maharashtra College of Commerce, Poona; The D. E. Society's Kirti M. Doongursee College, Bombay; Chintamanrao College of Commerce, Sangli; The New English School, Tilak Road, Poona; The New English School, Ramanbag, Poona; The New English School, Satara; Maoji Madhavji High School, Umbargaon; Dravid High School, Wai; Ahilyadevi High School for Girls, Holkar Wada, Poona; The Navin Marathi Shala, Poona; Justice M. G. Ranade Balak Mandir, Poona; Technical Institute (attached to Fergusson College), Poona.

The total number of students in the institutions of the Society exceeds 16,000.

## FILM INSTITUTE OF INDIA
Law College Road, Poona 4.

*Nature of Body :* Technical Education. The objects of the Institute have been described in the article " Film Industry."

The Govt. of India have set up a Committee to advise the Ministry of Information and Broadcasting on all matters of policy regarding the institute. The Minister for Information and Broadcasting is the Chairman of the Committee and the Principal of the Institute the Secretary.

*Principal :* Jagat Murari; *Vice-Principal :* Ritwick Ghatak.

## GANDHARVA MAHAVIDYALAYA
Academy of Indian Music.
495, Shanwarpeth, Poona 2.

## INDIA CHILD EVANGELISM FELLOWSHIP
2, Jubilee Road, Poona 1.
Also at 9 Bronson Garden Road, Kilpauk, Madras 10.

*Bilingual.

### INDIA FOUNDATION

595, Budhwar Peth, Poona 2. *Phone :* 55000.

India Foundation is a public trust. Grant of scholarships and financial aid, gifts or loans, to students of outstanding merit in education, in India and abroad, irrespective of caste, creed, religion or language.

1. *For Post-Graduate Education abroad :* Scholarships, generally interest-free loans, refundable after completion of studies. The aid is further enlarged with the help of scholarships, assistantships, fellowships or grants obtained abroad for students of India Foundation from Universities, Professional Bodies, individual donors, Industries, and Institutions of higher learning.

2. *Outside Academic Field :* Aid or assistance for short-term is secured for professional men and women to acquire latest knowledge and technical know-how abroad, from institutions and sources interested in international promotion of education and understanding.

3. *Smaller Stipends :* For gifted needy students, of Rs. 10 per month for high school and Rs. 25 per month for college level.

4. *American Field Service (AFS) International Scholarships :* India Foundation participates in the Programme of American Field Service International Scholarships in which students in pre-degree class between 16 and 18 years of age are sent to America, where they stay one year in selected American homes, study in the top class of American High Schools and after seeing the country return to India. The entire expense is met from the Scholarships award of the American Field Service. First fifteen students were sent in 1962-63, seventy-six in 1963-64 and forty-eight in 1964-65. The programme remains suspended for the present due to Government of India's objection to sending teen-agers abroad. The foundation is negotiating with Government of India to continue this excellent programme.

Applications are to be on the printed form of the Foundation for scholarships publicised from year to year through newspapers.

*President :* Dr. N. B. Parulekar, M.A., Ph.D. (Columbia, U.S.A.).
*Vice-President :* F. D. Wadia.
*Honorary Secretary & Treasurer :* Dr. Mrs. B. J. Coyaji.

### INDIAN BUDDHIST SOCIETY

207, Ghorpadepeth, Poona 2.

(*Head Office :* 7, Ferozeshah Road, New Delhi).

### INDIAN INSTITUTE OF GERMAN STUDIES GOETHE INSTITUTE, BRANCH POONA

14/3B, Boat Club Road, Poona-1.

### LINGUISTIC SOCIETY OF INDIA

C/o Deccan College, Poona 6.

(Head Office at Ashutosh Building, Calcutta).

### KARVE INSTITUTE OF SOCIAL SERVICE

Karvenagar, Poona 4.

*President :* Smt. Vijaya Lakshmi Pandit ; *Vice-Presidents :* S. K. Patil, Y. B. Chavan, M. C. Chagla, Shantilal H. Shah, Dr. Smt. Premlila V. Thackersey ; *Chairman :* S. G. Barwe ; *Vice-Chairman :* B. K. Gokhale ; *Secretary :* B. D. Karve ; *Director :* G. N. Harshe.

### LOCAL SPIRITUAL ASSEMBLY OF THE BAHA'IS OF POONA

P.O. Box No. 8, National Hotel, Opp. Railway Station, Poona 1.

### LORD REAY MAHARASHTRA INDUSTRIAL MUSEUM

Ghole Road, Poona 5.

Founded in 1890 and revived in 1930, the Museum serves as an educative institution for the general public with a view to illustrating various branches of Science and in particular their application to industry, agriculture and commerce. The Museum is managed by a Board of Trustees incorporated by Bombay Act No. XXXII of 1947 and consists of fifteen members.

The Museum has collections on Industry, Agriculture, Forestry, Minerals, Handicrafts of India, Armoury etc. The Museum conducts educational programmes for the Students like lectures, film shows, excursions, guided tours etc. The Museum organises educational exhibitions.

Museums' Technical Library receives about 100 periodicals and contains more than 9,000 books. It is an inspection Centre for literature on patents published by the Government of India.

*Curator :* G. B. Sardesai, B.Sc. (Hons.), B.Sc. (Ind. Chem.).

### MAHARASHTRA KARKHANDAR SANGH

82/5, Sadashiv Peth, P.B. No. 533, Poona 2.

*President :* N. G. Apte ; *Secretary :* N. K. Paranjape.

### MAHARASHTRA MUDRAN SHALA

1786, Sadashiv Peth, Poona 2.

*Chairman :* Dr. G. S. Khair, M.A., Ph.D. ; *Superintendent :* P. B. Kulkarni, B.A. (Hons.), B.Ed., C.P.Ed.

### MAHARASHTRIYA KALOPASAK, POONA

Appa Balawant Chowk, Poona 2.

### POONA UNIVERSITY EMPLOYMENT BUREAU

Ganeshkhind, Poona 7.

### PROGRESSIVE EDUCATION SOCIETY

Shivajinagar, Poona 5.

The society's institutions are : The Modern High School was started in 1934 ; The "Prathamik Vidyamandir" is a primary school ; The Sir Sassoon David Hostel and The Girls' High School.

### QUEEN MARY'S TECHNICAL SCHOOL FOR DISABLED INDIAN SOLDIERS

Park Road, Kirkee, Poona 7.

*Superintendent :*—Col. Dracup, I.M.S. (Retd.). Training is free as are food, accommodation and clothing. Allowance of Rs. 12 p.m. in addition to pension. Journey expenses from home and back.

The following trades are taught :—

(1) Oil Engine Driving and Gas & Electric Welding ; (2) Tailoring ; (3) Electricity ; (4) Hosiery Knitting ; (5) Weaving ; (6) Dyeing & Printing.

### SHIKSHANA PRASARAKA MANDALI

S. P. College Bldgs., Poona 9.

The main object of the Society is to give education at moderate cost, by starting schools, Colleges, etc. and to encourage Marathi Literature.

The Mandali (Society) now conducts the following institutions :—

N. M. V. Marathi Shala, Poona ; N. M. V. High School, Poona ; Sir Parashurambhau College, Poona ; Haribhai Deokaran High School, Sholapur ; Mimamsa Vidyalaya, Poona ; Ramnarain Ruia College, Bombay ; Ramniranjan Anandilal Podar College of Commerce and Economics, Bombay ; Tilak College of Education, Poona ; Shareerik-Shikshana Vidyalaya, Poona ; S.T.C. Institute, Poona ; Vinaykumar Ramniwas Ruia Mook-Badhir Vidyalaya, Poona ; Nutan Marathi Vidyalaya Shishu-Shala, Poona ; Nutan Marathi Vidyalaya Girls' High School, Poona ; Department of Extension Services Project, Poona ; Shree Chandrasekhar Vidyalaya Primary School & High School, Shreepur (Dist. Sholapur) ; N. M. V. Primary School, Sholapur ; Institute of Commerce, Bombay.

The total number of staff and students in the Institutions of the Mandali is about 900 and 15,500 respectively.

*President :* Chief Justice P. B. Gajendragadkar, of the Supreme Court of India ; *Chairman of Managing Council :* Mahamahopadhyaya D. V. Potdar, B.A. ; *Secretary :* Prof. K. P. Mangalvedhekar, M.A., B.T.

### SHRI SHIVAJI PREPARATORY MILITARY SCHOOL

Poona 5

The school, which was founded in September 1932, is a member of the Indian Public Schools' Conference. Admission is open to boys of all castes and creeds, from the age of 5 to 13 years. There is a Montessori Section, a Primary School consisting of four standards, and the Secondary School which prepares the boys for the Maharashtra State's S.S.C. examination. Training is also given to prepare the boys for the U.P.S.C. examination for entry into the N.D.A. The School has 460 boys. The State Govt. have endowed three scholarships every year and six full freeships. The Union Govt. scholarships for public schools are also tenable here. Terms begin in June and November.

The school has extensive playgrounds covering 25 acres. There is a riding school, hockey, football and cricket fields, a swimming pool, tennis courts, and a miniature rifle range. The school runs two (Junior Wing) National Cadet Corps troops.

*President :*—H. H. The Chhatrapati Maharaja of Kolhapur.
*Principal :*—N. L. Khanolkar, M.A.

### TILAK AYURVEDA MAHAVIDYALAYA, POONA

583(2), Rasta Peth

POONA 2

The Institution is affiliated to the Poona University for the B.A.M. & S. (Bachelor of Ayurvedic Medicine and Surgery) degree course and for M.A.Sc. (Master of Ayurvedic Science) post-graduate course which covers a period of 4½ years after Inter Science B Group and 2 years after B.A.M. & S. respectively.

The Institution also conducts a two years' Post-Graduate course —Ayurvidya Parangat of the Tilak Maharashtra Vidyapeeth.

The attached hospital known as the Seth Tarachand Ramnath Ayurvedic Hospital has 200 beds (84 medical, 65 surgical & 51 maternity) and has a well equipped operation theatre, a Pathological Laboratory, an X-ray department and an out-patient department treating 400 patients daily. It has its own pharmacy, manufacturing both Ayurvedic and Allopathic medicines.

* Bilingual.

VAIDIKA SAMSODHANA MANDALA
Tilak Vidyapeeth Nagar, Poona 9.

A literary institution for the study, research and publication of Vedic and Iranian literature.

*President :* Dr. M. S. Aney ; *Vice-Presidents :* MM. D. V. Potdar, Prof. H. D. Velankar ; *Secretaries :* N. S. Sontakke, C. G. Kashikar.

VIRUS RESEARCH CENTRE (INDIAN COUNCIL OF MEDICAL RESEARCH)
20A, Wellesley Road, Poona 1.

*Director :* Dr. T. Ramachandra Rao.

YOGIC RESEARCH, TRAINING AND THERAPEUTIC INSTITUTE
Aided by the Union and State Governments, KAIVALYADHAMA S.M.Y.M. SAMITI, Lonavla (C. Rly.).

## ASSOCIATIONS ETC.

ALL INDIA NON-EDIBLE OIL INDUSTRY ASSOCIATION
'Taru Sneha', 1153, Ganeshkhind Road, Shivajinagar, Poona 16.
(Sponsored by Khadi & Village Industries Commission, Bombay.)
*Chairman :* R. Srinivasan ; *Secretary :* Devendra Kumar Gupta.

CENTRAL MENTAL HOSPITAL
Yeravda, Poona 6.

CENTRAL WATER AND POWER RESEARCH STATION
Khadakvasla South, Poona 4.
*Director :* C. V. Gole, B.E., A.M.I.E.

HANDLOOM PAPER RESEARCH INSTITUTE
Agricultural College Compound, Poona 5.

HINGNE STREE-SHIKSHAN SAMSTHA
Karvenagar, Poona 4.

Founded in 1896 by Dr. Dhondo Keshav Karve for social and educational work.

*Hingne Centre :*—Mahilashram High School.
Parvatibai Training College for Women.
Anandibai Karve Primary School.
Mahilashram (4 units), hostels. Udyan Mandal.
*Poona :* Nursery School ; Nursery Training Institution ; Mahila Niwas (Hostel for Working Women).
*Satara :* High School for Girls.
*Wai :* High School for Girls.
Annual Expenditure : Rs. 6,27,000.
Deficit of about Rs. 63,000 to be met from contributions.
*Secretary*, K. R. Palkar.

MAHARASHTRA ASSOCIATION FOR THE CULTIVATION OF SCIENCE
Poona 4.

*Founder :* Dr. S. P. Agharkar.

Non-official Institution aided by the State and Union Governments through the Ministry of Education and affiliated to the University of Poona as a centre for Post-graduate research in Botany, Mycology, Zoology, Entomology, Cytology, Genetics, Microbiology and Agricultural Bio-chemistry.

*Director :* Dr. G. B. Deodikar.

MAHARASHTRA STATE HORTICULTURAL DEVELOPMENT ASSOCIATION
Horticultural Section, College of Agriculture, Poona 5.

MAHARASHTRA STATE POULTRY ASSOCIATION
C/o Poultry Development Officer, Government of Maharashtra, Poona 3.

MAHARASHTREEYA MANDAL
Tilak Road, Poona 2.

The Mandal conducts Physical Training Classes, Swimming Classes, Rifle Club and Coaching Classes for entry to the National Defence Academy.

MAHILA KALA MANDIR
623/33, Sadashiv Peth, Deshmukh Wadi, Poona.
*Superintendent :* Smt. Indirabai Pendse.

MAHRATTA CHAMBER OF COMMERCE AND INDUSTRIES
Tilak Road, Post Box No. 525, Poona 9.

Founded in 1934, it has its representatives among others on the Board of Trustees of the Lord Reay Maharashtra Industrial Museum, Poona, State Industries Advisory Council, Zonal Railway Users Consultative Committee of S. Rly. and Cen. Rly., Post and Telegraphs Advisory Committee, etc. Members numbering 930 of the Chamber are drawn from different parts of Maharashtra and a few from Gujarat, Karnatak and West Bengal. It conducts a commercial monthly in Marathi, "The Sampada." The Chamber runs an Export Wing to help exporters from this region and a Labour Advisory Service to advise members on labour matters. It also offers library service, employment service, statistical service etc. etc.

The Chamber has recently promoted the Poona Divisional Productivity Council which assists in carrying on its productivity drive.

*President*, S. L. Kirloskar ; *Chairman*, D. V. Potdar ; *Vice-Presidents*, G. P. Upadhye ; M. S. Parkhe ; V. N. Somvanshi ; *Treasurer*, C. V. Joag ; *Hon. Secretaries*, A. R. Bhat, V. M. Deval ; *Secy.*, B. R. Sabade ; *Asstt. Secys. :* D. N. Deshpande, V. G. Date.

NAGARIK SANGHATANA SAMITI
Ration Godown, Lahore Shed No. 2, Poona 5.

A social welfare organization interested in slum welfare.

POONA ANATH VIDYARTHI GRIHA
1786, Sadashiv, Poona 2 and Panchvati, Nasik.

THE POONA BLIND MEN'S ASSOCIATION
82, Rasta Peth, Poona 2.

*President :* N. M. Merchant ; *Vice-Presidents :* S. P. Limaye, P. R. Shah ; *Hon. Treasurer :* Dr. J. B. Jagos ; *Hon. Secretaries :* T. S. Bamankar, V. N. Naidu.

THE POONA MERCHANTS' CHAMBER
185, Bhavani Peth, Poona 2.

*President :* U. B. Pokarna ; *Vice-President :* Narayandas Govinddas; *Secretary :* C. P. Shah ; *Joint Secretary :* K. P. Runwal.

POONA PAPER TRADERS' ASSOCIATION
495, Shanwar Peth, Poona 2.

*President :* N. P. Gandhi ; *Vice-President :* Y. L. Thatte ; *Hon. Secretary :* E. D. Mane ; *Asst. Hon. Secretary :* C. Talati ; *Treasurer :* B. N. Vaidya.

THE POONA PRESS OWNERS' ASSOCIATION LTD.
'Mudrak Bhavan,' 1078, Sadashiv, Poona 2.

*President :* A. A. Kulkarni ; *Vice-President :* M. S. Kirloskar ; *Secretaries :* D. M. Kamat, C. S. Latkar.

POONA SEVA SADAN SOCIETY
613-614, Sadashiv Peth, Poona City.

The principal objects are :—(1) to impart to women instruction of a religious, literary, scientific, medical and industrial character and (2) to widen the range of their knowledge by various agencies and to make them self-reliant. The Society has two hostels in Poona accommodating about 300 women. There are 8 different departments. The total number of women on the rolls at the various centres of the society is about 3,085.

SASSOON HOSPITALS
Poona.

*Dean, B. J. Medical College & Sassoon General Hospitals :* Dr. F. J. Mendonca, M.B., M.S., F.C.P.S., F.C.C.P. ; *Dy. Supdt. :* Dr. K. M. Pisolkar, M.B.B.S., D.G.O., M.D.

*Civil Surgeon, Poona :* Dr. V. A. Khare.

SERVANTS OF INDIA SOCIETY, POONA 4.

Its objects are to train national missionaries for the service of India and to promote, by all constitutional means, the interests of the Indian people. Its present strength is 16. The Society has its headquarters in Poona with branches at Madras, Bombay, Allahabad and Nagpur, and other centres of work at Calicut in Kerala State ; Shendurjana in Maharashtra ; Cuttack and Raigada in Orissa.

The Society's work is primarily political but it has always laid equal emphasis on social, economic, educational, labour and depressed class activities and has worked in these fields.

The Society also does tribal welfare work in the Mirzapur Dist. (U.P.), Madras, Andhra Pradesh, Orissa and in Malabar on a considerable scale. During recent years several members of the Society have paid special attention to rural reconstruction, including rural education.

Dr. H. N. Kunzru is the President, and S. G. Gokhale, the Secretary.

STATIONERY, CUTLERY AND GENERAL MERCHANTS' ASSOCIATION
794, Sadashiv Peth, Poona 2.

SPINNING AND WVG. MILLS

RAJA BAHADUR MOTILAL POONA MILLS, LTD., 5, Raja Bahadur Motilal Road, Poona 1.

RAJA RAGHUNATHRAO MILLS, P.O. Bhatgar, Dist. Poona.

SHRI SHIVAJI WORKERS' CO-OPERATIVE SPG. MILLS LTD., Bhatgar, Dist. Poona.

## TRADES & PROFESSIONS

Abubhai Ibrahim.—368, Nana Peth, Poona-2.
Africa Drug House.—Laxmi Road, Poona-2.
Agarwal & Co.—775, Ganesh Peth, Poona-2.
Agarwal Cloth Stores.—130/131, New Bazar, Kirkee.
All India Motor Transport Co.—63, Nana Peth, Poona-2.
Allied Electronics Ltd.—2435/2, East Street, Poona-1.
Anand Cloth Stores.—9-B, Budhwar Peth, Poona-2.
Bakre & Co.—204, Mangalwar Peth, Poona-2.
Buldota & Co.—391, Raviwar Peth, Poona-2.
Bhagade & Co.—3, Ganesh Peth, Poona.
Bombay Garage (Poona) Private Ltd.—East Street, Poona-1.
Chandrakant & Co.—990/2, Shukrawar Peth, Poona-2.
Cresswell & Co.—5, Elphinstone Road, Poona-1.
Dhanji Harji & Co.—110, Nana Peth, Poona-2.

**FORMICA INDIA LTD.,**

H.O. & Factory: P.O. Box 64, Poona.

Mfrs. of FORMICA decorative and Industrial Laminates.

Hindustan Sheet Metal Works.—602, Sadashiv Peth, Poona-2.
Mavjibhai & Co.—534, Raviwar Peth, Poona-2.

**N. MEHTA & CO.,**

648, Shukhrawar Peth, Poona-2.

Dealers in Chemical, Pumps, etc. etc. Phone: 25331-2.
Branches: Bhavani Peth, Satara, Shahganj, Aurangabad.

Oriental Metal Pressing Works Ltd.—780/2, 8' Nagar, Poona-4.

**SUDARSHAN CHEMICAL INDUSTRIES PRIVATE LTD.,**

27, Shankarshet Road, Poona-9

Manufacturers of Organic & Inorganic Pigments
Sole Selling Agents: Rathi Brothers
A. 27, Shankarshet Road, Poona-2.
B. 7-A, Elgin Road, Calcutta-20.
C. 5619, Basant Road, Paharganj, New Delhi-1.
D. Neelkanth, 98, Marine Lines, Bombay-2.

**SEEMCO BALL BEARING CORPORATION,**

4, East Street, Cawas Villa, Camp-Poona-1.
Phone: 25418

Dealers in Ball, Roller & Thrust Bearings for Industrial & Automobile Purposes.

**UNITED HOSIERY WORKS,**

Poona-2.

'Pioneers in India'

In the Manufacture of 'DOUBLE LOCK' underwears, soft-absorbent-durable keep shape.

## RATNAGIRI DISTRICT

*Headquarters:* Ratnagiri.

*Talukas:* Dapoli, Mandangad, Khed, Chiplun, Guhagar, Sangameshwar, Ratnagiri, Rajapur, Devgad, Sawantwadi, Malwan.

*Petas:* Lanja, Vengurla, Kankavli, Kudal.

The District may be described generally as rocky and rugged. Near the coast the land consists of a bare elevated plateau, intersected by numerous creeks and navigable rivers flowing between steep hills. These rivers have along their banks the chief sea-ports and almost all the fertile land of the District. The banks of the rivers produce fine crops of rice in the rains, and of pulse in the cold weather and some of the inland valleys exhibit the utmost fertility even though the soil is, as a rule, poor and barren. The District is densely populated and a large proportion migrate to Bombay in the fair season. The hill slopes are flooded with plantation of Alphonso and other mango grafts. Alphonso mango, the king of fruits, is exported on a very large scale to Bombay and other markets and forms the main money crop of the District. Ratnagiri, the headquarters town, is open and faces the sea.

There are about 967 co-operative Societies in the district out of which there are 28 Fishing, one Dairy, 10 Housing, 14 Weavers, 9 Labour Contracts.

There is no Railway communication; and communication was until very recently by sea and by Rail *via* Kolhapur 82 miles away. Since 1949, however, the connection with Bombay has been made by State Transport Buses which caters to a very large bulk of passenger traffic. Bombay-Konkan-Goa Road of total length of about 192 miles is now being converted into a national highway. This whole highway is estimated to cost about 8 crores of rupees. This coastal line contains many fine ports such as Dabhol, Jaygad and Vijaydurg and Panjim (Goa). Ratnagiri, midway between Bombay and Goa is going to be converted into an all weather port at Mirya Bay. Other minor ports are undergoing considerable improvement. To the west of Agargula village in Ratnagiri Taluka about 8 to 10 miles to the south of Ratnagiri, there is a hill with highest height about 500 feet from the sea level (more than double the height of the Ratnagiri Fort). This coast line has got two or three important Forts—JAYGAD, VIJAYDURG and SINDHUDURGA. The last of these was constructed by Shivaji 300 years ago on sea rocks near Malwan Port.

With the inauguration of the Koyna Hydel Project, immense possibilities are envisaged in the near future for the development of small scale and large scale industries by means of electric power. Several schemes are already afoot and are expected to take shape soon. The total number of weekly newspapers published is about 12. One Co-operative Industrial Estate has already started functioning at Ratnagiri, while the second one at Sawantwadi is under proposal.

The area of the District is 5,025 sq. miles. Population: 1,827,203 (1961 Census) (Males 816,804; females 1,010,399).

### EDUCATIONAL INSTITUTIONS

R. P. Gogate College, Ratnagiri; Government Polytechnic, Ratnagiri; Industrial Training Institute, Ratnagiri; Fisheries School & Training Centre, Ratnagiri; Patwardhan High School, Ratnagiri; Phatak High School, Ratnagiri; R. B. Shirke High School, Ratnagiri; Mahila Vidyalaya, Ratnagiri; National High School, Ratnagiri; Shri Shiwaji High School, Ratnagiri.

Besides, there are High Schools at every Taluka place in the Ratnagiri District. There are also High Schools numbering about seventy-five in big villages in the district, the total number in the district being 116.

There is a Hospital each at Sawantwadi, Vengurla, Malwan, Chiplun, Guhagar and Khed. Ratnagiri has got the Civil Hospital, Kasturba Arogya Kendra at Lanja and Matrumandir at Devrukh. At Sawantwadi a Nivara Kendra has been started for the relief of the distressed and uncared for ladies.

Marine Biological Research Station, Ratnagiri; Cocoanut Research Station, Bhatya, Ratnagiri; N. C. C. Unit and Naval Unit, R. P. Gogate College, Ratnagiri; Canned Food Products, Ratnagiri; Co-operative Tile Factory, Kasheli Tlq., Ratnagiri; Co-operative Cashew Processing Factory, Vengurla; Kamal Cashew Factory, Malwan; New India Mining Corpn. (Pvt.) Ltd., Reddi.

# SANGLI DISTRICT

*Headquarters* :—Sangli.

*Sub-Divisions* :—Miraj, Khanapur.

*Talukas and Mahals* :—Miraj, Tasgaon, Walva, Khanapur, Jath, Shirala (Mahal).

Area : 3,299 square miles. Population : 1,230,716 (1961 Census) (Males 628,754 ; females 601,962).

The climate of the District is generally dry and healthy, with an average rainfall ranging from 15 to 25 inches.

The Krishna, the Verala, the Warana, and the Agarani are the four important rivers flowing through the District. The soil on the banks of these rivers is very fertile, yielding rich sugarcane crops. Starting from the river Nandhi in the Khanapur Taluka is a canal called Chickli.

The principal crops grown in the District are jowar, millets, pulses, wheat, ground-nut, turmeric, tobacco, sugarcane and a little cotton and rice and some oil-seeds.

Sangli, which is the headquarters of the District, is an important centre of trade and commerce specially for tobacco, groundnuts, turmeric, jaggery, chillies, ghee, and cotton trade. It has ginning, weaving and spinning mills, groundnut, turmeric, iron and steel factories represented chiefly by firms like Kirloskar Bros. at Kirloskarwadi, Dandekar Bros. and Bhide & Sons at Sangli. The town has also oil mills and ice factory. It is also known for its silver, copper and brassware and gold ornaments. There are cloth mills. Bidi making is another big Industry.

Besides, Sangli is a big centre of forward-delivery transactions in groundnut-kernel. Sangli Spices and Oil-seeds Exchange Ltd. is the only Government recognised centre for forward delivery contracts in turmeric in India. It has a Chamber of Commerce and a number of trade Associations.

The Government of India has opened a warehouse at Sangli to store agricultural produce. One Co-operative Sugar Factory (the first of its kind in this District), named "Shetkari Sahakari Sakhar Karkhana", with a working capital of more than Rs. 1¼ crores was started in 1958 at Sangli.

Being a railway junction, Miraj is now commercially developing. It has a weaving mill, an oil mill, an ice factory and industrial works called The Yeshvant Industrial Works. Another town Malgaon is famous for its beetle-leaves, which are exported throughout the year to all parts of India.

Sangli, Madhavnagar and Miraj especially which are in close proximity to one another are now rapidly developing into important educational and industrial centres in Southern Maharashtra. The Raja of Sangli has established at Sangli the "Adhytma Vidya Mandir", an institution solely devoted to the study of Philosophy, Religion and allied pursuits. In 1947 the Maharashtra Technical Education Society, Poona, started at Sangli the New Engineering College which is now named as Walchand College of Engineering, Sangli.

Because of the Mission Hospital (Wanless Hospital), run by the American Presbyterian Mission and founded by the late Sir William Wanless, Miraj has become one of the most up-to-date and efficient medical centres in India. The Sir William Wanless Tuberculosis Sanatorium, at Wanlesswadi, is now the largest among first grade sanatoria in India. Besides the T. B. Sanatorium there is a Leprosarium at Miraj. The Miraj Medical Centre also runs a Nursing School and a Compounding School. The Deccan Education Society of Poona has opened Chintamanrao College of Commerce and Maharashtra Technical Education Society of Poona has opened Atreya Ayurvedic College at Sangli. The Maharashtra State Government has opened a Medical College at Miraj from June 1962. There are Arts and Science Colleges at Sangli, Islampur and Tasgaon. There is one college of Physical Education at Miraj run by Ambabai Talim Sanstha.

### DECCAN MANUFACTURERS' ASSOCIATION

"Rose Cottage", opp. Mal Bungalow, Sangli-Madhavnagar Road, Sangli.

*President* : N. W. Gurjar ; *Vice-President* : S. B. Bhirangi ; *Hon. Secretaries* : G. R. Ranade, V. M. Ghatage.

### DISTRICT INDUSTRIAL CO-OPERATIVE ASSOCIATION LTD. SANGLI

### CHAMBER OF COMMERCE, SANGLI

*President* : R. B. Shah ; *Vice-President* : A. R. Ghode, *Secretaries* : G. N. Shah, A. B. Patil.

### MADHAVNAGAR POWERLOOMS OWNERS' ASSOCIATION

292, Main Road, Madhavnagar.

### THE SANGLI INDUSTRIAL ESTATE CO-OPERATIVE SOCIETY LTD.

Madhavnagar Road, Sangli.

### MIRAJ MEDICAL CENTRE, MIRAJ

411 beds in Hospital. Cooperating with Miraj Medical College. Teaches Nurses, Laboratory Technicians and Radiographers.

### SPICES AND OILSEEDS EXCHANGE LTD., WAKHAR BHAG, P. BAG No. 105, SANGLI

The only Exchange in India recognised for forward trading in Turmeric and the second one for forward trading in Groundnuts-in-Shell.

*Chairman* : B. P. Nemani.

*Vice-Chairman*: R. K. Adke ; *Secretary*: M. R. Purandare, B.A., LL.B.

### WALCHAND COLLEGE OF ENGINEERING, SANGLI

### WILLINGDON COLLEGE, SANGLI

### Y.M.M.E. SOCIETY, SANGLI

The Society conducts a full-grade High School, a Primary School, a Rifle Club and a social and cultural centre called 'Sanskar-Mandir' which publishes a monthly in Marathi called *Sanskar*.

### THE SIR WILLIAM WANLESS CHEST HOSPITAL WANLESSWADI

The Hospital is situated in the western Deccan two miles west of Miraj and three miles east of Sangli, and is 160 miles south of Poona on the metre gauge section of the Southern Railway. It has its own railway station Wanlesswadi—just at the main gate and a Posts and Telegraphs Office, Wanlesswadi, with trunk telephone facilities within its premises.

Up-to-date surgical and medical treatment, including all types of pulmonary resections, is given for all types of tuberculosis to patients irrespective of caste, creed or nationality. Open Heart Surgery and Surgery of the esophagus are also done here.

*Medical Superintendent* : Dr. L. P. Servid ; *Director of Surgery* : Dr. R. K. Padhi.

*Secretary* : D. S. Gorde. *Nursing Supdt.* : Mrs. S. Martin.

### RICHARDSON LEPROSY HOSPITAL

Miraj Mission Hospital P.O., Miraj.

*Hony. Medical Supdt.* : Dr. C. L. Bissell, M.D.

### COTTON MILLS

JANATA SPINNING MILLS PRIVATE LTD.—Sangli.

MADHAVNAGAR COTTON MILLS PRIVATE LTD.—P.O. Madhavnagar (Southern Rly.).

MARATHE TEXTILE MILLS—Near Railway Station, Miraj.

SHREE BALAJI SPINNING & WEAVING MILLS—Shivajinagar, Sangli.

SHRI GAJANAN WEAVING MILLS—Sudamapuri, Sangli.

# SATARA DISTRICT

*Headquarters :* Satara.

*Talukas and Mahals :* Wai, Satara, Koregaon, Khatau, Karad, Patan, Jaoli, Man, Phaltan, Khandala, Mahableshwar.

The area of the District is 4,041 sq. miles. Population : 1,430,105 (1961 Census) (Males 698,555 ; females 731,550). The language spoken is Marathi.

The chief agricultural produce are jawar and bajri. Others include ragi, wari, wheat, rice and pulses. Cash crops which are a minor item include tobacco, groundnut and sugar-cane.

Forests in the Sahyadri range have considerable store of timber and fire-wood. Sandalwood and bamboo are occasionally found.

Government have undertaken the Koyna river project envisaging the construction of a gigantic Dam close to Helwak village (Patan Taluka) water from which can be used for agricultural purposes by people from Satara, Sholapur and Bijapur Districts and for generating electricity for industrial purposes.

This being a martial District, Free Boardings are run by Government at Satara and Karad for the sons and dependents of the Defence Forces in the Army, Navy and Air Forces. 'The After Care Association' and 'The Soldiers' Board' do useful work under the supervision of the Collector.

There is a large engineering concern manufacturing farm implements, machine tools, and textile machinery at Satara Road Station. Another engineering concern has been established at Udyamnagar near Karad while the one at Karad proper has been expanded with State aid. At Ogalewadi near Karad are the well-known glass works. The Sugar Works at Phaltan also deserve special mention. The Plastic Products of India, Ltd., Satara, a new industry, in the Deccan, has secured State aid.

### INSTITUTIONS, ETC.

ARYANGLA VAIDYAK MAHAVIDYALAYA
6, Shukrawarpeth, Satara City.

DHARMAKOSHA MANDAL
P.O. Wai.

To conduct research in ancient Indian religion, philosophy and culture and edit and publish encyclopaedic works such as Dharmakosha, Mimamsakosha, etc.

MAHARASHTRA STATE BOARD FOR LITERATURE AND CULTURE
Vishwakosha Unit Office, C/o Prajna Pathshala, Wai, P.O.

RAYAT SHIKSHAN SANSTHA, SATARA
*(Educational Society for Masses)*

Founded in 1919 by the late Karmveer Bhaurao Pail, D.Litt., Padma Bhushan.

*Regional Offices :* Satara, Sangli, Poona and Ahmednagar.

*Objects & Scope :* To spread education, primary, secondary, technical, and higher, among rural masses and particularly poverty stricken backward and Scheduled Class communities, on the basis of selfhelp and as far as possible free of charge.

It conducts 11 Colleges, 233 Secondary Schools, 7 Primary Teachers' Training Colleges, 82 Cosmopolitan Hostels, 5 Kindergarten Schools, 6 Sanskar Kendras, 3 Primary Schools, One Sheep Breading Research Centre, One Panchayati Raj Training Centre, 13 other Institutions in twelve districts of Maharashtra State and in one district of Mysore State.

Budget of the Sanstha for the year 1965-66 :—Rs. 10,55,610.

*President :* Y. B. Chavan ; *Chairman :* R. M. Nalawade, B.A., LL.B. (Ex. M.P.) ; *Organizer :* Appasaheb Bhaurao Patil ; *Hon. Secretary :* I. M. S. Mulla, B.A., LL.B.

NAGAR VACHANALAYA, SATARA

THE SATARA EDUCATION SOCIETY, SATARA

SATYABHAMABAI KALE STREE SHIKSHANA MANDIR, SATARA

*Superintendent.*—P. V. Gole, B.Sc., B.T.

THE SHIKSHAN MANDAL, KARAD

SHRI SITA RAMCHANDRA VAIDIC DHARMA PRASARAK MANDAL, SATARA

THE VYAYAM MANDAL, SATARA

## MAHABLESHWAR

Mahableshwar, 75 miles from Poona, is called the queen of the hill stations in Maharashtra. It is situated on one of the great slopes of the Sahyadri range at an elevation of 4,700 feet above sea-level. During the 8 months from October to May the climate is most agreeable. By day the temperature varies between 80 and 86, while the nights are cool and pleasant. But during the monsoon the rainfall is so heavy, the average being about 250 inches a year, that the place is almost uninhabitable.

It is now possible for people of moderate means to go to the hill station for a comparatively inexpensive holiday and change in the newly opened Holiday Camp set up by the Maharashtra Govt. The Camp is located in the Government House property on the way to the Bombay Point and one-room, two-room and three-room accommodation is available to the public at purely nominal rent. The stay of visitors at the Camp is limited to one week so that the facilities offered are taken advantage of by as many people in need of a change as possible.

The Camp is served by a vegetarian canteen, tap water and electric lighting. It is normally thrown open during the months October to May, and applications for accommodation have to be addressed to the Executive Engineer, Poona Division, Poona.

### HOTELS

Hotels are open only eight months in the year and are closed during the monsoon.

Aram Lodging & Boarding House (Vegetarian) ; The Club (Non-Vegetarian) ; Dream Land Hotel (Vegetarian) ; Fredrick Hotel (Non-Vegetarian) ; Guest House (Vegetarian) ; Happy Home (Vegetarian) ; Krishna Bhuvan Hotel (Vegetarian) ; Paradise Hotel (Vegetarian) ; Race View Hotel (Non-Vegetarian) ; Rippon Hotel (Vegetarian) ; The Ritz (Non-Vegetarian) ; Fountain Hotel (Non-Vegetarian) ; Dinu Hotel (Non-vegetarian).

House Agents and "Times" Agents : Adurjee & Bros. (Estd. 1896).

## PANCHGANI

Panchgani is a well known hill station in Satara District, situated 63 miles from Poona. It is 4,300 feet above sea-level and has a cool, salubrious and comparatively dry climate. The average rainfall is about 80 inches a year. Panchgani is thus a well known sanatorium.

Panchgani is habitable throughout the year, and there are excellent shops for provisions and oilman stores. The town is electrified and the roads are well lighted.

Panchgani can be reached from Poona from where there is regular bus service.

The town has a large and up-to-date tuberculosis sanatorium—Bel Air Sanatorium.

### SCHOOLS

Panchgani is famous for its schools. They all have their own buildings with laboratories, dormitories and hospitals.

St. Joseph's Convent High School for Girls ; Kimmins High School for Girls ; Sanjivan Vidyalaya ; Billimoria High School ; Union High School ; New Era School for Girls ; St. Peter's High School ; Young Zoroastrian School for Girls.

# SHOLAPUR DISTRICT

*Headquarters :* Sholapur.

*Talukas :* Sholapur South, Sholapur North, Barsi, Pandharpur, Sangola, Malshiras, Karmala, Akalkot, Mangalwedha, Mohol, Madha.

The languages spoken are mainly Marathi and also Telugu and Kannada.

Area : 5,809 square miles. Population : 1,860,119 (1961 Census) (Males 960,655 ; females 899,464).

LOCAL SPIRITUAL ASSEMBLY OF THE BAHA'IS OF SHOLAPUR

Post Box 39, Vasant Villas, Station Road, Sholapur.

DAYANAND COLLEGE, SHOLAPUR

D. A. V. VELANKAR COLLEGE OF COMMERCE, SHOLAPUR

DAYANAND COLLEGE OF EDUCATION, SHOLAPUR.

DAYANAND KASHINATH ASHWA HIGH SCHOOL, SHOLAPUR.

DAYANAND COMMITTEE'S R. J. HIGH SCHOOL, KARKAMB.

DAYANAND COLLEGE,
Latur.

THE TEXTILE ASSOCIATION (INDIA) LTD.
(SHOLAPUR BRANCH)

THE LAKSHMI COTTON MFG. CO., LTD.
Sholapur.

*President :* E. A. Dodwell.
*Chairman :* S. B. Dutta ; *Secretary :* G. G. Chakradeo.

WASSOODEW BABAJEE NOWRUNGAY ORPHANAGE AND FOUNDLING ASYLUM, PANDHARPUR
Secretary's Office :—Prarthana Samaj, Girgaum, Bombay 4.

COTTON MILLS

JAM SHRI RANJITSINGHJI SPG. & WVG. MILLS CO., LTD., Station Road, Sholapur.

JAYASHANKAR MILLS, BARSI LTD., Barsi Town.

LAKSHMI COTTON MFG. CO., LTD., Sholapur.

LOKAMANYA MILLS (BARSI), LTD., Arangaon Road, Barsi Town.

NARSINGGIRJI MFG. CO., LTD. (Unemployment Relief Scheme). On lease from Official Liquidator, Mr. J. P. Maroo runs the Mill on behalf of Government. Mills at Station Road, Sholapur.

RAJEN (TEXTILE) MILLS PRIVATE LTD., Barsi Town.

SHOLAPUR SPG. & WVG. CO., LTD., Station Road, Sholapur.

VISHNU COTTON MILL, LTD., Sholapur.

# THANA DISTRICT

*Headquarters :* Thana.

*Talukas and Mahals :* Thana, Kalyan, Bhiwandi, Shahapur, Murbad, Wada, Jawhar, Bassein, Palghar, Dahanu, Mokhada Peta.

Area : 3,658 sq. miles. Population : 1,652,678 (1961 Census) (Males 861,117 ; females 791,561).

The languages spoken are Marathi, Gujarati and Urdu. The Christians of Salsette and Bassein, a very numerous community, are the descendants of the converts of St. Francis Xavier.

In the north-east the hills are covered with wood, and the valleys are but partially cultivated. The villages are seldom more than scattered groups of huts, and the population consists mainly of uncivilised aboriginal tribes, many of whom still wander from place to place as they find water or to suit their fancy.

Thana District is fast developing into a prominent industrial area. Hundreds of acres of land are being converted into sites for factories. Scores of factories have already been set up particularly along the railway track and the Bombay-Agra and Bombay-Poona Roads. Mulund village, which was in Thana Taluka and is now part of Greater Bombay, has been developed into a modern suburb with all the usual amenities.

Bhiwandi, a Taluka town nine miles from Thana situated on the Bombay-Agra Road is noted for handloom and powerloom fabrics. The "Bhiwandi" variety of Indian saris is very popular among Deccani women. The town is mostly inhabited by Momins and in some parts of the town every house has a spinning wheel. Bhiwandi Taluka is also famous for its timber and charcoal trade.

Kalyan, the biggest and the most thickly populated town in the District, is 34 miles from Bombay and is a junction on the Central Railway's north-east and south-east sections. "Ulhasnagar" the largest refugee township in Maharashtra is situated in Thana District two miles from Kalyan near the Ulhas River. The township is designed to accommodate 90,000 people.

The main produce of the District is rice which is of superior Kolamb variety.

Dahanu and Bassein Talukas are specially famous for fruit garden and the bulk of Bombay's fruit supply comes from these areas. Bassein plantains and betel leaves are very much in demand.

At Thana, Bhyandar and Belapur there are extensive salt works.

The chief articles of export from Thana District are paddy, rice, vegetables, salt, betel-leaves, plantains, bricks, grass, firewood, charcoal, lime, fish fresh or dried, timber, coconuts, mangoes, flowers, saris, handloom fabrics, woollen cloth and milk.

Tansa and Vihar lakes and the Vaitarna river which are the main sources of Bombay's water supply are situated in Thana District and are connected with Bombay by a special trolly line.

The Thana District Prison is one of the major prisons in the State and there is also a mental hospital on the outskirts of Thana town.

Thana, the chief town, 21 miles north of Bombay, is as already mentioned a station on the Central Railway. The Fort, the Portuguese Cathedral, a few carved and inscribed stones, and several reservoirs are now the only signs that Thana was once an important city. Bassein, on the Western Railway, contains the famous ruins of the ancient Portuguese dominion in Salsette.

There is a 10-year development plan prepared by the Thana Municipality.

Following the bifurcation of Bombay State, 16 villages of Umbergaon Taluka in Thana District, were transferred to Gujarat State and the remaining 26 villages were merged with Dahanu Taluka.

The Thana District Local Board has been reconstituted with a total number of 56 councillors.

INSTITUTIONS : Marathi Granth Sangrahalaya, Thana ; Remand Home, Bhiwandi ; Industrial School, Bordi.

HOSPITALS : Civil Hospital, Thana ; Mental Hospital, Thana.

INDUSTRIES : Western India Match Factory, Ambernath ; Aluminium Factory, Kalwa, Thana ; Raymond Woollen Mills, Thana ; Wadia Woollen Mills, Thana ; Castle (Woollen) Mills, Thana ; National Machinery Manufacturers Ltd., Kalwa, Thana ; National Rayon Corporation, Mohone, near Kalyan ; Century Rayon Corporation, Shahad, near Kalyan ; Amar Dye-Chem. Factory, Shahad, near Kalyan ; Sandoz Products Private Ltd., Thana ; Krishna Silicate and Glassworks, Thana ; National Dyes Ltd., Thana ; Hindustan Wire Melting Co., Thana ; Ravi Industries Ltd., Thana ; Lion Pencils Private Ltd., Andrewnagar, S. Vivekananda Road, Thana ; Indian Dyestuff Industries Ltd., Kalyan Camp No. 1 ; K. T. Steel Industries Ltd., Kalyan Camp No. 1 ; Dharamsi Morarji Chemicals, Ambernath.

SPINNING AND WVG. MILLS

ABDULSAMAD HAJILAL MOHAMMAD WEAVING FACTORY, Bhiwandi.

SECUNDER SARI MILLS—Sowadagar Mohulla, Bhiwandi.

# WARDHA DISTRICT

*Headquarters :* Wardha.

*Tahsils, Sub-Divisions :* Wardha, Hinganghat, Arvi.

The area of the District is 2,429 sq. miles. Population : 634,277 (1961 Census) (Males 322,894 ; females 311,388). The languages spoken are Marathi and Hindustani.

Wardha is noteworthy in that it has been the seat of a number of Gandhian institutions concerned with village uplift and the ideals of self-sufficiency and self-service.

Wardha has black cotton soil and the most important cash crops grown are jawar and cotton. Though there are rivers like Wainganga, agriculture depends on rain. There is thus an elaborate programme today for sinking new wells and deepening old ones. There are pressing and ginning mills in the District and also textile mills.

### ASSOCIATIONS

JAMNALAL BAJAJ CENTRAL RESEARCH INSTITUTE FOR VILLAGE INDUSTRIES
Maganwadi, Wardha

*Aims and Objects* :—The Research Institute was established in 1955 under the First Five Year Plan for research and investigation for the improvement of the tools and techniques of village industries.

It is under the Research Committee consisting of the nominees of the Council of Scientific and Industrial Research and of the Khadi and Village Industries Commission. The Institute is in charge of the Chairman of the Research Committee. Senior scientists at the Institute are :—

*Director*, Dr. C. Chenna Reddy ; *Senior Scientific Officers :* Dr. R. K. Shrivastava, Dr. Mrs. P. Annapurna Rao, V. H. Lulla and B. Y. Rao.

### COTTON MILLS

PULGAON COTTON MILLS LTD., Pulgaon.

RAI BAHADUR BANSILAL ABIRCHAND SPG. & WVG. MILLS, Hinganghat.

RAI SAHEB REKHCHAND MOHATA SPG. & WVG. MILLS, PRIVATE LTD., Hinganghat.

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# YEOTMAL DISTRICT

*Headquarters :* Yeotmal.

*Tahsils :* Yeotmal, Darwha, Kelapur, Wuni, Pusad.

The area of the District is 5,246 sq. miles. Population : 1,098,470 (1961 Census) (Males 557,010 ; females 541,460). The language spoken is Marathi.

The staple foodgrain is jawar ; other foodgrains are wheat and pulses. As elsewhere the most profitable cash crops are cotton and oilseeds. Forests cover a larger area than in any other District in the State and yield considerable quantity of timber and fuel. The principal industry is the preparation of cotton for the market. Exports include raw cotton, oilseeds, cereals and pulses, and the chief imports include cereals and pulses, salt and sugar.

*For notes on Employees' Insurance Scheme and Irrigation in Maharashtra State, see Late Particulars.*

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# MANIPUR

*Chief Commissioner*, Baleswar Prasad.

Area : 8,628 sq. miles ; Population : 7,80,037 ; Density : 90 ; Sex Ratio : 1,015 females per 1,000 males ; Literacy : 30·4 per cent. Capital : Imphal ; Strength of Legislative Assembly : 32 including two nominated members.

Popular ministry consisting of Chief Minister and two other ministers started functioning from July 1, 1963. Two Deputy Ministers were added to the Ministry from Nov. 2, 1964.

For details, about area and population of sub-divisions, see under "*Population*".

Manipur bounded on the east and south by Burma and on the north and west by the Naga Hills and the Cachar District of Assam, is a highly strategic territory on the eastern frontier of India. Two land routes from Burma pass through its territory. It was formally proclaimed a Chief Commissioner's Province of the Indian Union on the 15th of October, 1949, and became a Part C State when the Constitution of 1950 came into force. Following the reorganization of States in India, Manipur became a Union Territory from 1st November 1956 and it is now administered as a Union Territory under the provisions of the Union Territories Act, 1956.

In the Legislative Assembly there are 32 members consisting 24 Congress members including 2 nominated members, Socialist Party 3 and Independents 5.

The Congress enjoys absolute majority.

Seven hundred square miles of the Territory form a central valley, 2,6000 feet above sea-level, which is shut in on all sides by extensive hill tracts at places over 6,000 feet, covering the rest of the Territory. The climate varies from temperate in the valley to cold in the high hills. The rainfall on the average is 65 inches in a year.

The main population is "Meitels" inhabiting the valley with some 40 tribes and sub-tribes known by the generic names of Nagas and Kukis. Though a number of different dialects are spoken in the Territory, Manipuri and English are the official languages. The people are carefree and healthy, with a passion for religious festivals involving community dances in which both sexes join.

The soil is fertile. Rice is the principal crop.

The area under cultivation is about three lakh acres.

Handloom weaving is a popular industry throughout the Territory and Manipuri cloth of various picturesque and indigenous designs is in demand throughout India and even outside.

There are 10 colleges, 122 high, junior high & higher secondary schools, and 2,206 primary and junior basic schools. The total number of students for the year ending 31st March 1965 was nearly 1,65,000.

There are 12 hospitals, 64 dispensaries, 10 primary Health Centres, 26 Sub-Centres, one UNICEF aided T. B. Clinic, 4 Leprosy sub-centres, one V. D. Clinic and one dental clinic.

**Budget—1965-66**
(*See* '*Late Particulars*')

**Institutions**

JAWAHARLAL NEHRU MANIPUR DANCE ACADEMY, IMPHAL

*Chairman :* Baleswar Prasad, Chief Commissioner, Manipur.

*Secretary :* S. Gourahari Singh, Secretary (R & M), Government of Manipur.

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# MYSORE STATE

*Area :* 192,203 sq. kms. (74,210 sq. miles).

*Population :* (1961 census) : 23,586,772 (males 12,040,923 ; females 11,545,849). Percentage increase 1951-61: 21·57. Sex ratio : 966 females for 1,000 males. Density : 318 per sq. mile. Literacy : 25·4 per cent. 5·4 per cent of the whole India population and area 6·5 per cent of the whole of India.

Per capita income : Rs. 289·6 (1961).

*Capital :* Bangalore.

The State is divided into four Divisions for administrative purposes.

The Divisions as well as the Districts which make up each Division are shown below. The names of the District headquarters are given in brackets after the names of the Districts.

1. Bangalore Division : Bangalore (Bangalore—Urban and Rural), Kolar (Kolar), Tumkur (Tumkur), Chitaldurga (Chitaldurga), Bellary (Bellary).

2. Mysore Division : Mysore (Mysore), Mandya (Mandya), Hassan (Hassan), Chikmagalur (Chikmagalur), Shimoga (Shimoga), South Kanara (Mangalore), Coorg (Mercara).

3. Belgaum Division : Belgaum (Belgaum), Dharwar (Dharwar), Bijapur (Bijapur), North Kanara (Karwar).

4. Gulbarga Division : Gulbarga (Gulbarga), Bidar (Bidar), Raichur (Raichur).

There are 21 Districts, 172 Talukas, 288 towns and 25,880 inhabited villages.

The Mysore Village Panchayat and Local Boards Act, 1959, came into force on November 1, 1959. Under the Act, a village or a group of villages with a population of 1,500, has an elected village panchayat, every taluk an elected taluk board and every district a district development council, consisting of the Deputy Commissioner, M.P.s, members of the State Legislature, presidents of taluk boards and Government Officers. Reservation for women and scheduled castes, has been made at all levels.

Certain developmental activities have been assigned to the above bodies. Elections for village panchayats and taluk boards were held simultaneously from January 15, 1960 and the elected bodies together with the district development councils have begun to function. Changes in the Panchayati Raj system, with the constitution of the Zilla Parishads instead of District Development Councils, and measures to widen the scope of other panchayati institutions, are in the offing (May 1965).

The separation of the judiciary from the executive has been completed. All revenue officers presiding over Magistrates' Courts have been replaced by judicial officers.

### Facts and Figures

Taluks 172 ; Hoblis 662 ; Inhabited villages 26,377 ; Towns 231 ; Density (Population) per k.m. 123 ; Birth-rate (*a*) per '000 : 19·8 ; Death rate (*a*) per '000 : 8·0 ; Total geographical area (*b*) 18,785,300 hectares ; Net area sown (*b*) : 10,264,306 hectares ; Fallow land (*b*) 1,330,653 hectares ; Other cultivable land (*b*) 2,740,150 hectares ; Forests (*b*) 2,700,830 hectares ; Land not available for cultivation (*b*) 1,749,361 hectares ; Rainfall (*c*) 1,610·9 ; Net area irrigated (*b*) 919, 836 hectares ; Area under rice (*d*) 100,850 hectares ; Area under ragi (*d*) 945,711 hectares ; Area under bajra (*d*) 502,620 hectares ; Area under millets (*d*) 406,245 hectares ; Area under minor wheat (*d*) 305,298 hectares ; Area under sugarcanes (*d*) 68,090 hectares ; Area under cotton (*d*) 1,038,937 hectares ; Land revenue (*b*) Rs. 44,947,249 ; Land revenue per capita (*b*) Rs. 1·90 ; Cattle (*e*) 9,673,001 ; Buffaloes (*e*) 3,025,890 ; Sheep (*e*) 4,764,972 ; Goats (*e*) 2,894,355 ; Poultry (*e*) 8,841,027 ; Veterinary institutions (*f*) 534 ; Hospitals (*g*) 190 ; strength of beds in hospitals (*g*) 17,717 ; Dispensaries (*g*) 760 ; Primary health units (*b*) 347 ; Family Planning clinics (*b*) 91 ; Literacy (*e*) 25·4% ; No. of factories (*h*) 1,837 ; No. of engineering factories (*h*) 215 ; No. of textile factories (*h*) 331 ; No. of chemical factories (*h*) 138 ; No. of persons employed in mines (*a*) 42,118 ; No. of persons employed in Govt. Service (*i*) 162,397 ; No. of persons employed in Municipalities (*i*) 21,230 ; No. of persons in factories (1959) 88,829 ; No. of Village panchayats (*i*) 7,452 ; No. of municipalities including Corporations (*i*) 174; No. of Post Offices (April 1964) 6,722 ; No. of Telephone exchanges (*j*) 144 ; No. of telephones in use (*j*) 27,224 ; No. of radios in use (*j*) 193,656 ; No. of Police stations including outposts (*j*) 806 ; No. of jails including lock-ups (*j*) 105 ; No. of towns and villages electrified (*j*) 4,193 ; Length of roads (*j*) 47,770 kilometres ; Length of railway line (1956) 2,699 kilometres ; No. of registered motor vehicles (*j*) 56,761 ; C. D. Blocks (1-3-1964) 268.

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(*a*) 1962 ; (*b*) 1961-62 ; (*c*) 1962 ; (*d*) final forecast 1962-63 ; (*e*) 1961 census ; (*f*) as on 1-4-1962 ; (*g*) 31-12-1962 ; (*h*) 1958 ; (*i*) as on 31-3-1962 ; (*j*) as on 31-12-1962.

## AGRICULTURE

Second Plan outlay Rs. 384 lakhs.

Third Plan outlay Rs. 1,020 lakhs.

Out of the total geographical area of about 45 million acres, 6·6 million acres are covered by forest, 2·1 million acres are put to non-agricultural use, 2·1 million acres are barren and uncultivable land, 4·3 million acres are pasture and grazing lands, 3·3 million acres are fallow lands. The net area sown is about 25·2 million acres. The gross area irrigated is 2·1 million acres.

About 71 per cent of the total population derive their livelihood from agriculture and allied occupations. Owner cultivators 47·7 per cent ; Tenant cultivators 9·3 per cent ; Cultivating labourers 10·8 per cent ; Non-cultivating owners 3·4 per cent.

The important cereal crops that are grown in the State are rice, jowar, ragi and wheat. Important cash crops include coffee, cotton, tobacco, oilseeds, sugarcane, cocoanut, cashewnut and castor. Among the States, Mysore ranks first in respect of the production of coffee, ragi and cardamom.

For area and production of cash crops, see article on "Agriculture".

The various "Grow More Food Schemes" included in the Third Plan are estimated to create an additional production potential of 10 lakh tons.

The Government has launched on a massive food procurement policy under which about five lakh tons are to be stock-piled. Informal rationing was introduced in Bangalore in Nov. 1964 and is being extended to other big towns, particularly those with a sizeable labour population.

*Reclamation of Land by Tractors and Bulldozers :*—With the help of tractors and bulldozers an extent of over 20,000 acres was reclaimed during the First Five Year Plan at a cost of Rs. 23·36 lakhs resulting in an additional production of nearly 3,800 tons of grains. During the Third Plan 55 bulldozers are proposed to be maintained departmentally and 100 tractors under the hire-purchase system are proposed to be supplied to the farmers. Up to the end of 1964,, 6,442 diesel oil engine pump sets and 5,541 electrical pump sets were supplied by the Government.

*Irrigation Wells and Pumpsets :* During the First Plan 3,555 irrigation wells at a cost of Rs. 22·51 lakhs were completed, benefiting over 7,000 acres which gave an additional production of over 3,000 tons of foodgrains. Nearly 4,000 irrigation wells were completed during the Second Plan at a cost of Rs. 229·55 lakhs which resulted in an additional food production of nearly 4,000 tons at the end of the Second Plan. The target for the Third Plan is to complete 12,500 wells. In the First Plan nearly 2,400 pumpsets, costing Rs. 25·16 lakhs, were distributed to benefit nearly 8,600 acres of land. In the Second Plan 1,705 pumpsets, at a cost of Rs. 25·94 lakhs, were distributed to irrigate an area of nearly 8,000 acres. During the Third Plan increased provisions are being made and the demand for more pumpsets is being met to a considerable extent.

*Development of Local Manurial Resources :* During the Second Plan, nearly 56 lakh tons of both urban and compost manure was produced. The Third Plan sets a target of production of 60 lakh tons of compost. In the Second Plan, 3 lakh acres were brought under green manuring. The Third Plan embarks on a programme to cover 7 lakh acres under green manuring and to distribute Glyricidia seeds free of cost for raising seedlings.

*Chemical Fertilizers :* In 1964-65, a total quantity of nearly 4·3 lakh tons of chemical fertilizers was distributed in the State.

*Improved Seeds :* By the end of the Second Plan, the target of establishing 56 State seed farms under the Department had been achieved and the Third Plan aims at establishing 53 more seed farms. 5,575 tons of improved seeds were produced during the First Plan, 8,600 tons in the Second Plan and 14,604 tons in the first four years of the Third Plan.

*Adoption of Improved Agronomic Practices :* To popularise improved agronomic practices, various measures have been taken up like the Japanese Method of Paddy Cultivation and the Rabi and Khariff Campaigns. During the Third Plan, up to March 31, 1965, 3·05 lakh acres have been brought under the Japanese method and 31·25 lakh acres, under Rabi and Kharif compaigns.

*Control of Pests and Diseases :* Sprayers and dusters are being distributed at 50 per cent concessional rates to enable the farmers to take up plant protection measures themselves. It is proposed to cover 18 lakh acres during the Third Plan and to distribute 40,000 units of spraying and dusting equipment at a total cost of Rs. 60 lakhs. An extent of 70,000 acres was treated against grasshopper pest under a mass campaign in the Dharwar Division. About 11,008 units of sprayers nd dusters have been supplied so far.

*Soil Conservation :* During the Second Plan, an area of 1·75 lakh acres was contour bunded which accounted for an enhanced production of 8,750 tons of foodgrains. During the Third Plan, an area of nearly 2·7 lakh acres will be contour bunded. The progress at the end of the fourth year was 1·24 lakh acres which will result in an additional production of 6,000 tons.

*Other Notable Features :* Launching of the Package Programme in Mandya District where production is expected to go up by 1·18 lakh tons of foodgrains by the fifth year of the Third Plan which means an increase of 60 per cent over the production at the beginning of the implementation of the project. A package programme has been sanctioned for South Kanara District for intensive cultivation of rice. A special Package Programme is also being taken up in Koppal and Gangavathi Taluks in the District of Raichur for oilseeds. The Third Plan target under cotton is to achieve seven lakh bales, under sugarcane 33 tons per acre. An additional area of 8·75 lakh acres is to be brought under oilseeds.

The target and achievement of additional food production were as follows :—

| | Target lakh tons | Achievement lakh tons |
|---|---|---|
| 1961-62 .. .. | 2·13 | 0·60 |
| 1962-63 .. .. | 2·2 | 1·4 |
| 1963-64 .. .. | 1·0 | 1·66 |

For 1964-65, the anticipated additional production is 2·239 lakh tons as against the target of 2·99 lakh tons.

*Vegetables and Fruits :* The area under vegetables is proposed to be increased during the Third Plan period from 1,40,000 acres to 1,55,000 acres. It is also proposed to undertake research on vegetables and fruits in different regions.

*Horticulture :* The annual output of the various nurseries will be 4 lakh fruit plants. A master plan costing Rs. 9,91,266 has been prepared for the development of horticulture. In partial execution the plan encourages intensive vegetable and quick growing fruits in Bangalore and Mysore.

*Cash Crops :* Out of a total cultivated area of 280·8 lakh acres, nearly 64·3 lakh acres are under cash crops and out of a total agricultural income of Rs. 276·34 crores generated in the State, Rs. 90 crores are by cash crops. They form an important part also of the State's foreign export trade.

*Pepper :* The estimated area under pepper in Mysore State is about 10,000 acres. The estimated production of pepper is about 1,000 tons as compared to the all-India production of 26,500 tons.

*Cashew :* The total requirement of cashew for factories throughout the year is 35,000 tons. But the production of cashew nuts is only about 8,000 tons. During the Second Plan, new planting had been done to the extent of 39,130 acres by the Agriculture Department and another 8,362 acres by the Forest Department. It is expected that an area of about 75,000 acres would be brought under cashew in the private sector by the farmers themselves with the aid of loans proposed to be given to them. It is also estimated that an additional area of 8,000 acres would be brought under cashew cultivation by the Forest Department by the end of the Third Plan.

*Cardamom :* Cardamom is one of the most important plantation crops in the State occupying an estimated area of about 49,000 acres. The estimated production is about 1,000 tons which is nearly 45 per cent of the national production. During the Third Plan it is proposed to raise disease-free cardamom seedlings and to replace the diseased clumps.

*Tobacco :* Tobacco cultivation in Mysore State is mainly confined to Belgaum, Mysore, Kolar and Mandya Districts. It is cultivated in an area of about 1 lakh acres and the annual estimated production is about 25,000 tons. During the Third Plan it is proposed to increase the area from 1 lakh acres to 1,05,000 acres. By the end of the Third Plan it is estimated that the production of tobacco would be of the order of 31,700 tons valued at Rs. 1,398 lakhs.

*Sugarcane :* Sugarcane occupies an area of about 1·5 lakh acres in Mysore producing about 4,12,500 tons of gur. By the end of the Third Plan, it is expected that an area of 1·70 lakh acres would be brought under this crop.

*Oilseeds :* The area under oilseeds in Mysore is about 29·5 lakh acres. The important oilseeds are groundnut, castor, linseed and safflower. The production is about 7·00 lakh tons per year. The area under groundnut alone is 22 lakh acres and the total annual production about 6 lakh tons. The area under oilseeds will be increased from 29·5 lakh acres (at the end of the Second Plan) to 30 lakh acres by the end of the Third Plan, the total production being raised from 7·00 lakh tons to 8·75 lakh tons.

*Arecanut :* The production is about 25,000 tons of nut which is nearly 27 per cent of the annual production in India. The Third Plan provides for planting of new arecanut seedlings.

*Cocoa :* Experiments are in progress to grow cocoa.

*Rubber :* Plantations extended over 785 acres, cinchona plantations over 44 acres and eucalyptus over 20,125 acres.

*Agricultural Research :* During the Second Plan, new research stations were started for sugarcane, pepper, cardamom, coconut and arecanut.

In the Third Plan significant achievements have been registered in the evolution of improved strains. These include Deccan Hybrid Maize, Hybrid Jowar, Hybrid Indo-Japanese paddy and a high yielding strain of Ragi known as "Cauvery".

*Agricultural Education :* An agricultural University has been established at Hebbal, Bangalore. This covers all the agricultural and veterinary colleges in the State.

**Estimates of Area & Production of Cash Crops for quarter ending Sept. 1964.**

| Crops | Area in acres | | Production (in Tons) | |
|---|---|---|---|---|
| | 1963-64 | 1962-63 | 1963-64 | 1962-63 |
| 1 | 2 | 3 | 4 | 5 |
| Bananas .. .. .. .. .. | 42,977 | 42,147 | 110,932 | 108,576 |
| Tapioca .. .. .. .. .. | 1,457 | 1,464 | 1,395 | 1,405 |
| Papaya .. .. .. .. .. | 186 | 216 | 959 | 851 |
| Sweet Potatoes .. .. .. .. | 17,452 | 17,176 | 36,910 | 37,110 |
| Cashewnuts .. .. .. .. | 19,535 | 19,345 | 5,105 | 5,193 |
| Garlics .. .. .. .. .. | 7,323 | 7,664 | 4,871 | 5,026 |
| Betelnuts .. .. .. .. .. | 83,250 | 80,129 | 87,178 | 82,343 |
| Cardamom .. .. .. .. .. | 54,824 | 54,784 | 1,513 | 1,559 |
| Coconut .. .. .. .. .. | 264,983 | 239,475 | 353,349 | 369.598 |
| Nigerseed .. .. .. .. .. | 57,759 | 59,548 | 3,390 | 3,405 |
| Turmeric .. .. .. .. .. | 2,441 | 2,578 | 1,802 | 1,846 |
| Safflower .. .. .. .. .. | 320,041 | 317,899 | 20,374 | 20,363 |
| Coffee .. .. .. .. .. .. | N.A. | 205,609 | N.A. | 30.150 |
| Onion .. .. .. .. .. .. | 36,395 | 36,433 | 48,737 | 50,429 |
| Tobacco .. .. .. .. .. | 90,864 | 93,937 | 22,427 | 22,649 |

(N.A. = Not available).

*Animal Husbandry :* (Figures in million): Cattle 9·67; Buffaloes 3·02; Sheep 4·76; Goats 2·89; Poultry 8·84.

The State has a network of about 600 Veterinary Institutions comprising 19 District Hospitals, 175 Taluk Dispensaries and 400 Rural Veterinary Dispensaries. The Mysore Serum Institute produces all the necessary biologicals to combat and prevent contagious diseases among livestock. Two Clinical Laboratories—one at Belgaum and the other at Mangalore—are under construction and they will be commissioned before the close of the Third year.

Mass castration of scrub bulls and buffalo calf rearing schemes have been undertaken in the various parts of the State. There is also a network of Artificial Insemination Centres and Sub-Centres. A Centrally sponsored scheme for the improvement of Malnad cattle has been undertaken and is being implemented in the four Districts of the State, *viz.*, Managalore, Hassan, Chickmagalur and Shimoga. One hundred breeding bulls are being distributed free every year.

*Bangalore Dairy Project :* The Bangalore Dairy Project, which was to replace the Bangalore Milk Supply Scheme, though formally inaugurated in Jan. 1965, has yet to take up city-wide distribution of milk and milk products. (May 1965.)

*Fisheries* (Marine): Fishable area 10,000 Sq. miles. Fishermen population 1,00,000 (engaged in fishing 20,000); Fishing sailboats 20,000; Mechanised boats 191; Capital invested Rs.2·50 crores. *Inland Fisheries :* No. of minor tanks 30,000; major tanks 2,700; Large lakes and reservoirs 17; Length of rivers and channels 3,800 miles.

For other details see article on 'Fisheries'.

*Prohibition :* (See article Prohibition).

*Canada-Mysore Project :* This project is designed to fight hunger in S.-E. Asia and provides for the creation of a training centre in Mysore for students from the S.E. Asian countries concerned. They will be taught practical methods of food conservation and distribution. The centre is being set up close to the Mysore Food Technological Research Institute.

## COMMUNITY DEVELOPMENT PROGRAMME

For the Third Plan period a provision of Rs. 1,535·00 lakhs has been made. The Plan allocation, the amount actually allotted and the expenditure incurred respectively in each of the first four years of the Third Plan period are indicated below (Rs. lakhs): 1961-62: 249·00; 249·00; 266·79; 1962-63: 261·00; 250·00; 252·14; 1963-64: 322·00; 267·00; 263·07; 1964-65: 336·00; 224·00; 131·21 (upto end of Dec. 1964).

(For more details see article "Community Development Projects & Panchayats").

The Village Volunteer Force and Defence Labour Banks Scheme were inaugurated in 1962-63 with the three-fold object of encouraging production, mass education and defence efforts. So far, 6,19,243 volunteers have been enrolled in the Volunteer Force and 3,078 Labour Banks have been constituted. A scheme to ensure panchayat agricultural production plans has also been inaugurated.

## LAND REFORMS

The Mysore Land Reforms Act (1961) came into force in Oct. 1965.

Under the Act, the ceiling is 27 standard acres on present holdings and 18 standard acres on future acquisitions. Plantations, orchards, specialised farms, sugar-cane farms operated by sugar factories, and efficiently managed farms are exempted.

Possession is confirmed on tenants holding lands on September 1, 1961. Tenants, whose number is not known, will acquire ownership rights in an area of about 50 lakh acres.

It is estimated that the Government will have to pay as compensation about Rs. 50 crores to landlords who surrender their surplus lands to the Government. Compensation will be limited to Rs. 2,000 in cash, the remainder being paid in

bonds. Genuine partnership and transfers made by landlords to their own tenants since November 1961 will be honoured for the purpose of calculating the ceiling area and also area available for resumption. The Act does not apply to Government lands and lands held by religious and charitable institutions.

Special provisions have been made to protect the ownership rights of members of the Armed Forces and also of the Merchant Navy.

The State Legislature has enabled the Government to fix the standard rate of the land revenue on dry lands and irrigated and rain-fed wet and garden lands at 4 per cent of the average yield. The standard rate for plantation will be 1 per cent.

The fixation of standard rates, based upon settlement reports, will increase the annual land assessment from Rs. 3·47 crores to Rs. 4·42 crores.

**Particulars of Assessment**

| | Extent in Acres. | Existing Assessment in Rs. excluding assessment for water, advantage in respect of irrigated wet and irrigated Garden Lands. | Proposed assessment in Rs. |
|---|---|---|---|
| Dry .. .. .. .. .. .. | 2,30,58,025 | 2,40,65,246 | 3,12,41,521 |
| Irrigated wet .. .. .. .. | 13,97,054 | 14,35,071 | 20,44,365 |
| Irrigated Garden .. .. .. .. | 3,91,897 | 4,06,423 | 5,76,694 |
| Rain-fed wet .. .. .. .. | 9,67,500 | 33,01,400 | 43,97,133 |
| Rain-fed Garden .. .. .. .. | 1,15,955 | 7,55,928 | 23,35,436 |
| Plantation crops .. .. .. .. | 2,99,393 | 5,15,440 | 36,40,616 |
| TOTAL .. .. | 2,62,29,824 | 3,04,79,508 | 4,42,35,765 |

### Consolidation of Holdings

The object of the scheme is to bring together scattered holdings of multiple holders into compact blocks and thereby help land holders to increase agricultural production. The scheme has been enforced in respect of 657 villages covering an area of 14·95 lakhs of acres of lands up to December 1964, since the inception of the scheme.

### Cadastral Survey of Inam Villages

There were 2,103 Inam villages in the old Mysore area. Out of them, 2,091 villages have been surveyed and 1,405 villages have been settled up to the end of December 1964. For expeditious completion of Inam Survey work, this scheme is included in the III Five Year Plan, from 1961-62.

### Revision Settlement

Revision settlement enquiries have been completed in 38 zones covering 169 taluks in the State.

As on 1st November 1956, roughly a total extent of 17,42,092 acres and 15 guntas of Government unoccupied land was available for disposal out of which an extent of 9,46,976 acres 15 guntas has been disposed of up to the end of April 1964. The balance of cultivable land available for disposal as on 1st May 1964 was 7,95,116 acres.

By way of rationalisation of Government lands, Government appointed local committees for each Taluk for determining the areas which might be disposed of for cultivation and the areas which might be transferred for afforestation to the Forest Department. It is expected that the bulk of the Government lands which are available for disposal will be disposed of and that a large number of landless poor persons would be able to secure lands in the not distant future.

As a result of the recommendations received from the Taluk Committees from 17 districts out of 20, the Government has ordered the transfer of an extent of 56,397 acres of forest land from the Forest Department to the Revenue Department and an extent of 3,31,186 acres from the Revenue Department to the Forest Department for afforestation purposes.

## FOREST

**Area : 13,575 sq. miles (18·4 per cent of the State area).**

*Classifications and area :* **Wet evergreen and Semi-evergreen 1,315 sq. miles ; Moist Deciduous 843 sq. miles ; Dry Deciduous 3,020 sq. miles ; Dry Thorn 8,397 sq. miles.**

The Forest Department is in charge of systematic exploitation of the forest wealth. The following statement gives an idea of the efforts made by the Department and the targets achieved in this direction.

| Species | Plantations as on 31-3-56 | Plantations raised during the II Plan | Plantations raised during 1964-65 of the III Plan | Total (Up to date) |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| | (Acres) | (Acres) | (Acres) | (Acres) |
| Teak .. .. .. .. | 91,060 | 30,592 | 37,996 | 1,59,648 |
| Fuel and Miscellaneous species. | 46,324 | 72,528 | 1,32,647 | 2,51,499 |
| Soft Woods .. .. .. | 430 | 7,622 | 11,797 | 19,849 |
| Cashew .. .. .. .. | 3,143 | 8,362 | 13,252 | 24,757 |
| Rubber .. .. .. .. | .. | .. | 785 | 785 |
| Linaloe .. .. .. .. | .. | 150 | 1,015 | 1,165 |
| TOTAL .. | 1,40,957 | 1,19,254 | 1,97,492 | 4,57,703 |

Development schemes costing Rs. 289·00 lakhs under the Forestry Sector, Rs. 71·00 lakhs under Soil Conservation and Rs. 9·93 lakhs under Agricultural Production are under implementation during the Third Plan. Under the scheme Economic Plantations, it is programmed to plant teak in 52,000 acres, and softwood species for match, plywood and packing cases in 12,000 acres. It is also envisaged to undertake plantations of fuel species on a large scale in the drier parts of the State over an area of 42,000 acres under the scheme "Rehabilitation of Degraded Forests". Plantations over 1,000 miles are also proposed to be raised along the canal sides with a view to compensating for the areas submerged under the river valley projects. Under the Soil Conservation Scheme, the areas subjected to soil erosion are proposed to be improved by Soil Improvement Works such as staggered trenching, nalla bunding and gully plugging followed by planting of suitable tree species over an area of 65,000 acres. Under agricultural production, Cashew plantations over an area of 18,500 acres are proposed to be raised under "Cashew Development Scheme". Intensive plantations of eucalyptus hybrid have been taken up in North Kanara and Shimoga forests and every year 10,000 acres are being covered. These plantations will not only cater to pulp industries but will also meet the large-scale demand for firewood for other industries such as Mysore Iron and Steel Limited.

Net revenue from forests has risen from Rs. 334·59 lakhs in 1957-58 to Rs. 371·71 lakhs in 1964-65.

Resources Survey of a large tract of unorganised forests of North Kanara is nearing completion with a view to their being organised and exploited on a scientific and sustained yield basis.

To open up large areas of virgin forests in Bhadra Valley, construction of a road from Kalsa to Mala is nearing completion. This will also bring in more revenue to the Department.

*Wild Life Preservation :* **A Wild Life Committee for Mysore State, to implement the recommendations of the Indian Board for Wild Life and to protect the valuable fauna that are on the verge of extinction has been constituted. A new enactment for the protection of wild life was passed by the State Legislature in 1963.**

## IRRIGATION

**Percentage of irrigated area to the total crop area : 7·3.**

**An area of 1,02,000 acres was benefited from minor irrigation projects and about 2,56,849 acres under major and medium irrigation projects during the Second Plan. About 81 per cent of the total outlay of Rs. 3,299 lakhs for major and medium irrigation scheme was spent during the Second Plan period.**

*Minor irrigation :* During the Second Plan, an expenditure of Rs. 673·72 lakhs was incurred which benefited an area of 1,53,400 acres (bringing 41,960 acres under fresh irrigation and assuring water supply to an extent of 1,11,400 acres of existing atchkat).

During the Third Five Year Plan the total provision for minor irrigation works (tanks including restoration, etc.) is Rs. 850 lakhs.

*Irrigation Wells :* Out of 34,909 wells sanctioned during 1960-61 and 1963-64, 22,000 wells were completed, resulting in an increase of 33,000 tonnes in food production.

The number of wells already sanctioned and those proposed to be sanctioned till the end of the Third Five Year Plan would be as follows :— 1960-61 : 16,700 wells ; 1961-62 : 5,009 wells ; 1962-63 : 10,500 wells ; 1963-64 : 2,700 wells ; 1964-65 : 2,500 wells ; 1965-66 : 10,000 wells. Total 42,900 wells.

Thus about 43,000 wells will be sanctioned by the end of the Third Five Year Plan subject to availability of funds.

If this Scheme is implemented as proposed, about 63,000 acres would be brought under irrigation before the end of the Third Five Year Plan resulting in an increased food production of 42,900 tons.

*Major and Medium Irrigation :* The pre-plan irrigation was of the order of 1·7 million acres forming 4·9 per cent of the 35 million acres of total available land in the State.

During the Second Plan period, the 11 Schemes of the I Five Year Plan were continued and 14 new schemes were also taken up of which 3 were major and 11 were medium projects. The estimated cost of all the 25 projects amount to Rs. 129·28 crores. The expenditure incurred on these 25 projects during the II Plan period was Rs. 26·69 crores. Thus the total outlay on the Major and Medium Irrigation projects to end of II Five Year Plan period was Rs. 63·97

crores. The gross potential under I and II Five Year Plan Schemes is 14·68 lakh acres. The actual achievements of creation of potential and utilisation to the end of II Five Year Plan was 4·63 and 2·91 lakh acres respectively.

In addition to the 25 Projects taken up during I and II Plan period, 7 new schemes—3 Major and 4 Medium—have been included in the III Five Year Plan. The estimated cost of the 7 new schemes included in the III Five Year Plan is Rs. 99·41 crores with an irrigation potential of 10·52 lakh acres. Thus the total estimated cost of I, II and III Plan schemes amounts to Rs. 228·69 crores with a gross potential of 25·14 lakh acres. There is a provision of Rs. 40·66 crores in the III Five Year Plan (Rs. 31·27 crores for the I and II Plan schemes, and Rs. 9·39 crores for the III Plan schemes).

Under the 32 Major and Medium Irrigation Projects included under I, II and III Five Year Plans the gross irrigation potential available is 25·14 lakh acres. The targets and achievements and potential and utilisation are as under :—

| | Potential (cumulative in lakh acres) | Utilisation (cumulative in lakh acres) |
|---|---|---|
| Achievements up to end of Second Five Year Plan | 4·63 | 2·91 |
| Targets set out up to end of Third Five Year Plan— | | |
| (*a*) as per Plan book . | 13·58 | 11·74 |
| (*b*) as per realistic programme .. | 8·90 | 7·17 |
| Actual achievements to end of 1963-64 .. | 6·82 | 4·58 |
| Anticipated achievement to end of 1964-65 | 7·48 | 5·59 |

*New Irrigation Projects :* Technical clearance has been received from the Planning Commission for the Upper Krishna and Malaprabha Projects and preliminary work has started. It is proposed to start preliminary works in respect of Chandrampalli Project in Gulbarga District and of Harangi and Hemavathi Projects in Coorg and Hassan Districts, respectively.

The progress achieved in some of the projects is as under :—

| | Potential created Acres | Area developed Acres |
|---|---|---|
| Tungabhadra (L.B.) | 3,40,000 | 2,16,668 |
| Ghataprabha Project, I Stage .. | 1,20,000 | 41,537 |
| Do. II Stage .. | 32,320 | 10,353 |
| Bhadra Project .. | 63,610 | 32,075 |
| Tungabhadra Project (R.B.) .. .. | 92,000 | 57,178 |

**Particulars of Major and Medium Irrigation Projects**

| Name of the Project. | Location. | When started. | When to be Completed. | Area to be irrigated in Acres. | Total cost in lakhs. | Estimated rise in output of food-grains after completion in Tons. |
|---|---|---|---|---|---|---|
| (*a*) Tungabhadra Project Left Bank .. | Mallapuram site near Hospet. | 1945 | 2nd year of IV Plan. | 3,59,545 | 3,220·00 | 9,200 |
| (*b*) Tungabhadra Project Right Bank .. Contribution to T.B. Board LLC Spl. Irrigation under TBP Bellary. | —do.— | 1945 | End of III Plan. | 20,825 | 121·40 | 9,000 |
| Ghataprabha Project Stage I .. .. | Dupdal Weir. | 1949 | 2nd year of IV Plan. | 78,463 | 567·40 | 14,000 |
| Bhadra Project .. .. .. .. | Across river Bhadra near Lakkavalli in Chickmagalur Dist. | 1947 | —do.— | 1,96,443 | 3,193·00 | 18,000 |
| Ghataprabha Project Stage II .. .. | Hidkal. | 1956 | By the end of IV Plan. | 1,87,610 | 2,468·00 | 20,000 |
| Chickhole Project .. .. .. .. | Chamarajan a g a r Taluk, Mysore Dist. | 1957 | 1969-70. | 3,238 | 78·00 | 650 |
| Rajolibunda .. .. .. .. | Rajolibunda village, Manvi Taluk, Raichur Dist. | 1947 | By the end of III Plan. | 1,411 | 433·00 | 1,176 |
| Tunga Anicut .. .. .. .. | Anicut across Tunga river near Sacrebyle, Shimoga Dist. | 1946 | —do.— | 7,534 | 296·86 | 5,440 |
| Nugu Reservoir .. .. .. .. | Near Birwal, H. D. Kote, Mysore Dist. | 1947 | —do.— | 2,000 | 311·14 | 4,000 |
| Ambligola Project.. .. .. .. | Shikaripur Taluk, Shimoga Dist. | 1953 | —do.— | 3,182 | 104·00 | 1,500 |
| Tungabhadra H.L.C. Stage II .. .. | Near Hospet, Bellary Dist. | 1959 | —do.— | 70,339 | 224·00 | 10,000 |
| Kabini Project .. .. .. .. | At Beedarahalli Beechanahalli, H. D. Kote taluk, Mysore Dist. | 1958 | By the end of IV Plan. | 50,000 | 1,000·00 | 10,000 |
| Hagaribommanahally .. .. .. | Bellary Dist. | 1960 | 1968-69 | 7,350 | 85·41 | 1,500 |
| Jambadahalla .. .. .. .. | Near Duglapur in Tarikere taluk, Chickmagalur Dist. | 1959 | 1969-70 | 6,000 | 115·00 | 1,200 |
| Hathikoni .. .. .. .. .. | Near Hathikoni Village, Gulburga Dist. | 1959 | 1970-71 | 5,300 | 57·84 | 800 |
| Dharma Project .. .. .. .. | Near Yamagalali Mudgad taluk, N. K. Dist. | 1958 | 1970-71 | 3,200 | 95·48 | 2,400 |
| Hebbahalla.. .. .. .. .. | Near H. D. Kote, Mysore Dist. | 1958-59 | End of IV Plan. | 1,570 | 58·00 | 325 |
| Lakshmanathirtha Project .. .. | Coorg Dist. | 1958 | 1969-70 | 7,000 | 161·61 | 1,400 |
| Kanakanala .. .. .. .. | Mahapur village, Raichur Dist. | 1960 | End of III Plan. | 5,100 | 75·00 | 750 |
| Arkavathi .. .. .. .. .. | Arobele village, Bangalore Dist. | Not yet finalised | 1969-70. | 6,000 | 85·00 | 1,200 |
| K.R.S. Works .. .. .. .. | Mysore Dist. | | 1970-71. | — | 300·00 | 29,000 |
| Harangi Project .. .. .. .. | Near Hardur, Frazerpet Taluk, Coorg Dist. | Not started | Spillover to V Plan. | 81,000 | 1,105·84 | 16,200 |
| Upper Krishna Project* .. .. .. | Between villages of Narayanapur, Shorapur Taluk of Gulburga Dist. 2) Almatti Dam, Bijapur Dist. | | —do.— | 6,00,000 | 5,820·00 | 1,20,000 |
| Malaprabha Project .. .. .. | Belgaum Dist. | 1960-61 | 1970-71 | 3,00,000 | 2,000·00 | 40,000 |
| Hemvathi .. .. .. .. .. | Near Gorur, Hassan Dist. | — | Spillover to V Plan. | 33,000 | 390·00 | 6,600 |
| Kambadakada .. .. .. .. | At Kambadakada village in Coorg Dist | — | —do.— | 22,500 | 190·00 | 4,500 |
| Harinala .. .. .. .. .. | — | 1961-62 | 1969-70 | 10,750 | 88·41 | 1,800 |
| Bijjur .. .. .. .. .. | South Kanara Dist. | — | 1968-69 | 45,000 | 51·80 | 900 |
| Investigation of Projects | | | | | | |
| Chandramapalli Project .. .. | Gulburga Dist. | — | 1970-71 | 20,62,001 | 99·84 | 2,100 |

* Work at Narayanapur has been suspended in preference to a site at Siddapur which is being examined.

## CO-OPERATION

**The structure of co-operative credit in the State consists of three tiers: the primary, the intermediate and the apex. At the apex level, there is the Mysore State Co-operative Apex Bank which has been re-constituted as a federal body and whose jurisdiction is extended to the whole of the State. At the end of the Second Plan (1961), the share capital of the Apex Bank was Rs. 1·24 crores, deposits Rs. 3·68 crores and working capital Rs. 14·22 crores. The advances made during the Second Plan period was Rs. 13·80 crores. Its paid up share capital was Rs. 1·70 crores.**

### Apex Bank

The Mysore State Co-operative Apex Bank has been reconstituted as a Federal body and its jurisdiction has been extended to the whole State. At the end of the Second Five-Year Plan the share capital of the Apex Bank was of the order of Rs. 1·24 crores, deposits Rs. 3·68 crores and working capital of Rs. 14·22 crores. The borrowings from the Reserve Bank of India were of the order of Rs. 9·08 crores whereas its advances were of the order of Rs. 15·80 crores including cash credits and over-drafts.

### Land Mortgage Bank

The Central Land Mortgage Bank has been reorganised and reconstituted with the entire State as its jurisdiction. At the end of the II Five-Year Plan there were 118 primary land mortgage banks and 1 Central Land Mortgage Bank. The Central Land Mortgage Bank had a membership of 118 primary land mortgage banks. Its share capital and working capital stood at Rs. 45·69 lakhs and Rs. 4·85 crores respectively.

Similarly, there were 118 primary Land Mortgage Banks with a membership of 1,11,390. Their share capital stood at Rs. 34·28 lakhs whereas working capital was of the order of Rs. 4·39 crores.

There were at the end of the Second Plan 208 primary marketing societies and one apex marketing society at the State level. The primary marketing societies had a membership of 1·05 lakhs and a paid up share capital of Rs. 80·87 lakhs and a working capital of Rs. 3·82 crores.

### Processing Societies

The particulars of 34 processing units that have so far been established are as under:—

Cotton ginning 6; Groundnut decorticating and Oil crushing 1; Paddy husking 15; Cotton-seed crushing 1; Coffee curing 1; Sugarcane crushing 3; Paddy husking and Groundnut decorticating 1; Oil crushing 3; Cotton ginning and Oil crushing 2; Cold Storage 1.

### Agricultural Credit

An amount of Rs. 15·34 crores was disbursed by way of short and medium term loans to agriculturists during the year 1963-64 and the figure was expected to reach about 18·47 crores by the end of 1964-65.

### Rural Godowns

Besides 475 rural godowns set up during the Second Plan, it was expected that 650 more godowns would have been set up in the rural areas by the end of 1964-65.

### Co-operative Sugar Factories

Nine Co-operative Sugar Factories are in existence in the State of which 3 have gone into production and 5 have secured industrial licence. These factories have crushed 4·04 lakh metric tonnes of sugarcane and have produced 46,171 metric tonnes of sugar.

### Co-operative Farming

In accordance with the recommendations made by the Working Group on Co-operative Farming, it is programmed to start 19 pilot projects and organise 190 farming societies in the State. So far 192 farming societies have been established in 19 pilot projects whereas 121 societies have been established in non-pilot areas. These have a membership of 6,935 and own lands to the extent of 33,778 acres. They have brought under plough 19,000 acres, reclaimed 6,521 acres, sunk 56 wells, installed 36 pumpsets and irrigated 1,265 acres besides bunding 26,880 feet of land. It is expected that about 26 more farming societies will be organised before the close of the year 1965-66.

### Consumers' co-operatives

As a result of the implementation of the Centrally sponsored scheme and also the recent food scarcity many consumers' societies have been organised both in urban and rural areas. There are at present 13 whole-sale stores and 759 primary stores with an aggregate membership of 70,086 and share capital of Rs. 50·49 lakhs.

**The Third Plan is expected to bring sixty per cent of the agricultural population under the co-operative fold. Two thousand more service co-operatives, 50 primary land mortgage banks, 44 processing units and 900 godowns will be started and 160 marketing societies will be re-organised. The Plan outlay on co-operation is Rs. 475 lakhs.**

## ELECTRIC POWER

### Hydro-Electric Projects

| Name of Project. | Location. | Commencement. | Completion. | Installed capacity. | Cost in crores of Rs. |
|---|---|---|---|---|---|
| Sharavathi Valley Project .. .. | 15 miles from Talaguppa Rly. Station near Jog (Linganamakhi). | 1956 | 1964 (I Stage) | 178,200 Kw.(*a*) | 56 (Revised) (I Stage) |
| Bhadra Hydro Electric Project .. | 18 miles from Bhadravathi (Lakkavalli). | 1956 | 1962 | 33,200 Kw.(*b*) | 3·8 |
| Tungabhadra Hydro Electric Project Right Bank. | 4 miles from Hospet Rly. Station. | 1953 | 1962 | 36,000 Kw.(*c*) | 1·44 (Mysore's share) |
| Tungabhadra Hydro Electric Project Left Bank. | 3 miles from Munirabad Rly. Station (Mallapuram). | 1955 | 1961 | 27,000 Kw.(*d*) | 6·042 |

Estimated rise in output after completion is about 1,466 million units over the 1956–57 figure. (a) 891.000 Kw. ultimate capacity. (b) 40,400 Kw. ultimate capacity. (c) Ultimate capacity 72,000 Kw. Two units of 9,000 Kw. installed and two more units being installed at the dam and canal power house. (d) Ultimate capacity 36,000 Kw.

Names of power stations now in operation, their location, installed capacity and production:

| Name | Installed capacity (Kw.) | Location |
|---|---|---|
| Sivasamudram .. | 42,000 | 28 miles from Maddur Rly. Stn. towards South East. |
| Shimshapura .. | 17,200 | 28 miles from Maddur Rly. Stn. towards South East. |
| Jog (M.G.H.E. Works) .. | 120,000 | 12¼ miles from Talaguppa Rly. Stn. towards north. |
| Tungabhadra Hydro Elec. Works* .. | 9,000 | 4 miles from Hospet Rly. Station. |

* Right Bank (Andhra and Mysore) Dam Site and canal stations. Mysore share 1/5th (only two units of 9,000 Kw. now in service). This is Mysore's share of 25 per cent.

*Villages electrified*:—1961-62: 135; 1962-63: 252 and in 1963-64: 232.

Diesel Stations showing within brackets the installed capacity in Kw. and units generated in millions in 1964-1965 respectively: Mercara (414; 0·705); Somwarpet (150; 0·146); Virajpet (240; 0·242); Shorapur (100; 0·065); Gourikoppal (80; 0·111); Raichur (1,240; 2·916); Gulbarga (826; 1·944); Yadgir (400; 0·537); Bailhongal (200; 0·197); Guledgud (567; 1·027); Hukeri (500; 0·975); Ilkar (200; 0·322); Chittapur (50; 0·047); Humnabad (200; 0·055); Aland (100; 0·015); Kushtagi (50; 0·001).

The following are some of the other diesel stations with the installed capacity in Kw.:—Udipi 110 Kw; Karkala 32 Kw; Mangalore 1,017 Kw.

### POWER

The following are the Projects which were included for implementation during the II Five Year Plan and are being continued during the III Five Year Plan.

(*i*) Sharavathi Valley Project—I stage with the associated 220 KV Transmission Lines.

(*ii*) Bhadra Hydro Electric Project.

(*iii*) Tungabhadra Hydro Electric Project (Left Bank).

(*iv*) Investigation of Hydro Electric Projects.

In addition, the following new Projects were also included for implementation during the III Five Year Plan period.

(*i*) Sharavathi Valley Project—II Stage with associated 220 KV Transmission lines.

(*ii*) Kalinadi Hydro Electric Project.

A brief review of all the Hydro Electric projects under construction and investigation at the end of 1964 is given below project-wise.

A brief note of work done on all the Projects and the stage reached at the beginning of December 1963 are given below project-wise.

**Sharavathi Valley Project:**—The Sharavathi Valley Project now under execution is the biggest and one of the most economical projects in the State and one of the few economical projects in India. The River Sharavathi though only 82 miles in length has a tremendous power potential amounting to about 1·35 million kilo watts. This project is being executed in three stages. The first stage consists of installation of two units of 89,100 KW each, the second stage six additional units of 89,100 KW each

and the final stage the last two units of 89,100 KW each. The project also contemplates construction of an extensive system of 220 KV Transmission lines to transmit the power generated in this station to the major load centres in the State. The first and second stages of the project have already been sanctioned and one under execution. The estimated cost of the Receiving Stations and Transmission lines is Rs. 15·06 crores and for the installation of the last two units Rs. 7·27 crores. The estimate for the transmission lines has been cleared technically.

The first generating unit of 89,100 KW has been commissioned and is already supplying power to Bangalore. Erection of the second generating unit is on hand and this unit was expected to be commissioned during April '65. Additional units two of 89,100 KW each under the second stage are expected to be commissioned at yearly intervals commencing from March 1966. Erection of the 227-mile long 220KV line from Sharavathi to Bangalore for transmitting the power generated under the first stage has also been completed and the line charged. Work on the Receiving Station at Shimoga is in full swing. The Receiving Station at Bangalore has been completed and the station commissioned.

The estimated cost of the first stage of the project including 220 KV Transmission lines is Rs. 56·08 crores against which an expenditure of about Rs. 47·77 crores has been incurred up to the end of December 1964. The estimated cost of the second stage (six units) including erection of 220 KV Transmission lines is Rs. 40·24 crores against which an expenditure of about Rs. 4·55 crores has been incurred up to the end of December 1964.

**Bhadra Hydro-Electric Project :**—The Bhadra Hydro-Electric Project is mainly an irrigation project and the power generation here is only incidental. The installed capacity of this station is 33,200 KW comprising 2 units of 12,000 KW each in the River bed station, one unit of 2,000 KW in the left bank station and one unit of 7,200 KW in the right bank station.

Work on the project was completed during the year 1963-64. The 2,000 KW Left Bank unit was commissioned in November 1962, the two 12,000 KW River Bed units were commissioned in April and June 1963 and the last unit of 7,200 KW was commissioned in January 1964. Under the commissioning of the Right Bank unit, work on this project has been completed and the full benefits are being derived.

The estimated cost of this project is Rs. 3·80 crores and the expenditure incurred up to the end of December '64 was about Rs. 3·25 crores.

**Tungabhadra Hydro-Electric Project (Left Bank) :**—The Tungabhadra Hydro-Electric Project on the Left Bank of the Tungabhadra Dam at Hospet was taken over by the Government of Mysore from the erstwhile Government of Hyderabad in 1956. This project contemplates installation of 3 units each of 9,000 KW and transmission of power by means of 110 KV transmission line from Munirabad to Shahabad. The present stage of progress is that the first and second units of 9,000 KW each were commissioned during January 1962 and June 1962 respectively. The 190-mile long, 110 KV line from Munirabad to Shahbad has also been charged. Erection of the third unit of 9,000 KW is progressing well and is expected to be commissioned during 1965.

The estimated cost of this project is Rs. 6·042 crores and the expenditure incurred up to the end of December '64 was about Rs. 4·30 crores.

**Kalinadi Hydro Electric Project :**—Provisions have been made for carrying out the preliminary works on the Kalinadi scheme during the III Plan period. The project report for Supa Dam and Dam Power House which is a part of the Kalinadi project has been forwarded to Government for approval. The Central Water and Power Commission have suggested to the State Government to investigate an alternative scheme to harness the Kalinadi valley. The investigation of this alternative scheme is under rapid progress.

**Mysore State Electricity Board :** *III Five Year Plan :* The Third Five Year Plan of the Mysore State Electricity Board is a further projection of the Second Plan Schemes *viz.*, Extension of Main and Sub-transmission lines, erection of step down stations, extension of power supply to villages and power supply to Irrigation Pumpsets etc. to distribute the power to various parts of the State from the Power Projects like Bhadra, Munirabad and Sharavathi Valley Project. The total provision for the Third Plan Projects of the Board under the head "Power" is Rs 2,067·98 lakhs besides a provision of Rs. 1,075 lakhs for power supply to Irrigation Pumpsets under 'Minor Irrigation'. An expenditure of Rs. 305·17 lakhs has been incurred under power and Rs. 155·04 lakhs under power supply to Irrigation Pumpsets during the first two years of the Third Plan. It was expected that the outlay on the schemes during the year 1963-64 would reach Rs. 300 lakhs under both the heads. 532 villages have been electrified and 8,400 pumpsets have been serviced so far during the first 2½ years of the Third Plan against a target of 700 villages and 8,000 pumpsets upto end of third year of the Plan.

To relieve the acute power shortage in the State to some extent the Board has purchased 2 gas turbine generating sets of 10 Megawatts capacity each and the same have been installed at Bangalore at a total cost of Rs. 17·5 crores. The sets were expected to be commissioned by the end of March 1964.

The proposed plan provisions for the year 1964-65 for the various Plan Schemes were as follows: Power Rs.467·00 lakhs ; Minor Irrigation Rs. 390·00 lakhs.

## INDUSTRIES

Production in some of the important industries for 1962-63 and 1963-64 :—

| Industry | Unit | 1962–63 | 1963–64 |
|---|---|---|---|
| Pig Iron .. | M. Tons | 90,870 | 102,324 |
| Crude and Semi-finished Steel. | ,, | 45,741 | 47,780 |
| Finished Steel. | ,, | 40,104 | 41,831 |
| Sugar .. .. | ,, | 129,356 | 119,094 |
| Paper .. .. | ,, | 41.127 | 49,981 |
| Cement '000 .. | ,, | 754·7 | 859·6 |

Main large-scale industries in the State with location : Textiles (Bangalore, Davangere, Bellary, Mysore, Hubli, Gadag, Gokak, Gulbarga); Engineering (Bangalore, Harihar) ; Mineral and Metal (Bangalore, Bhadravati, Bellary, Kolar, Shimoga) ; Food, drink and tobacco (Bangalore) ; Chemicals, dyes, etc. (Bangalore, Mysore) ; Paper and printing (Bhadravati, Nanjangud, Dandeli, Mandya and Bangalore) ; Process relating to wood, stone and glass (all over the State) ; Process connected with hides and skins (Bangalore) ; Gins and presses (Davangere, Belgaum, Bellary, Dharwar, Gulbarga & Raichur) ; Fisheries (Mangalore, Karwar)

Major industries owned by the Union Government located in Bangalore : The Hindustan Machine Tools Ltd. ; Bharat Electronics Ltd. ; The Hindustan Aeronautics Ltd., Bangalore ; The Indian Telephone Industries, Bangalore. Total capital in all these industries amounts to about Rs 35 crores (March 1963). The Kolar Gold Mining Undertakings are also owned by the Govt. of India.

Among the major Mysore Govt. Undertakings are the Mysore Iron and Steel Works at Bhadrawathi. The Mysore Government has been urging the Central Government to locate India's fifth Steel Plant at Hospet in view of abundant and rich ore available there.

An official committee, headed by the Chief Secretary has been appointed to speed up the processing of applications by industrialists seeking to establish new industries. The Government has promised grant of land at concessional rates, water supply and other facilities in order to attract entrepreneurs, so that power produced at the Sharavathi Project is fully utilised.

Government Aided Concerns : Radio & Electrical Manufacturing Co., Bangalore ; Mysore Lamp Works, Bangalore ; Mysore Paper Mills, Bhadravati ; Mysore Sugar Company, Mandya and Mysore Industrial & Testing Laboratory Ltd., Bangalore ; Mysore Spun Silk Mills, Channapatna ; Mysore Chemicals and Fertilisers, Belagula ; Mysore Tobacco Co. curing centres at Mandya, Mysore, Kolar ; Mysore Stoneware Pipes and Potteries, Soladevanahalli, near Chikbanavar Railway Station ; Mysore Coffee Curing Works, Chikmagalur ; Mysore Chrome Tanning Co., Bangalore ; Mysore Water Proofs Ltd. ; H.A.L. Post, Bangalore ; Mysore Match Co. Ltd., Shimoga ; Mysore Vegetable Oil Products, Bangalore ; Mysore Kirloskars Ltd., Harihar ; Mysore Cements, Ammasandra, Tumkur ; Mysore National Paper Mills, Bilgola ; Mysore Lac and Paints, Mysore ; Mysore Fruit Products, Bangalore.

In the public sector are the New Government Electric Factory, Bangalore and the Government Porcelain Factory, Malleswaram, Bangalore. For details see under the main article "Government Industrial Undertakings".

In the private sector the Radio and Electrical Manufacturing Co., Bangalore has taken up an expansion programme to step up production of electricity meters from the existing level of 1,70,000 to 2,75,000 per annum. The Mysore Chemicals and Fertilisers Ltd., Belagula has undertaken the expansion programme to step up the existing capacity of sulphuric acid.

*Electric Lamps :* The Mysore Lamp Works in which Government have been participating both in equity capital as well as management, has also undertaken an expansion scheme involving an outlay of about Rs. one crore. This programme covers, besides stepping up of present production of G.L.S. lamps from 39 lakhs to 80 lakhs per annum, taking up of new production lines such as glass shells, tubes, fluorescent lamps, automobile lamps, telephone switch board lamps, photo flash lamps, cycle dynamo, torch and radio lamps, mercury vapour lamps, etc.

A watch factory has been set up at Bangalore in the Public Sector (as an adjunct to Hindustan Machine Tools) designed to manufacture about half a million full lever watches annually. The Bangalore factory has the collaboration of the Japanese firm, Citizen Watch Company.

### Employment

According to the Planning Commission, the employment situation in the State during the Second Plan period was as follows. The Plan started with an unemployment backlog of 84,000 persons in the urban sector and 1,40,000 persons in the rural sector, or a total of 2·24 lakhs.

The growth of labour force during the Second Plan period was estimated at 5·17 lakhs.

According to present indications, during the Third Plan period there will be an addition of about 9·39 lakh persons to the labour force in the State.

During the Third Plan period, the total outlay on Central Government schemes proposed to be executed in the State (like the Mangalore-Hassan Railway, development of Mangalore Port, West Coast Roads, etc.) is expected to be of the order of Rs. 57 crores. The total additional employment likely to be created on account of these shemes is estimated to be about 1·10 lakhs.

The overall additional employment opportunities likely to be generated during the Third Plan period by Plan investment (both Central and State) may, therefore, be placed at about 5·07 lakhs.

## LABOUR

The Labour Department has taken up several schemes during the Second and Third Five Year Plan periods, and the progress achieved in respect thereof is indicated briefly in the following paras :—

*Labour Welfare Centres :* Six Labour Welfare Centres were started at Mysore, Gulbarga, Bijapur and Yeshwantpur to extend Labour Welfare activities and provide recreation to the workers. These centres worked under the supervision of the Labour Officers of the respective places. The Centres are provided with musical instruments, Radio, indoor and outdoor games materials, sewing machines and toys.

It is contemplated to start nine additional Labour Welfare Centres during the Third Plan period. Four Centres have been started and are functioning at Bijapur, Dandeli, Siddapur and Raichur.

**Expansion of Labour Welfare Activities.**

With a view to educating the working class by means of audio-visual methods such as film shows on improved method of productivity, safety measures, training within industry, etc. 243 shows were arranged during the IInd Plan period. During the Third Plan period, it is proposed to construct buildings to house the Labour Welfare Centres.

*Banking Facilities to the Industrial Workers :* With a view to affording relief to the Industrial Workers indebted to money-lenders, a scheme to provide credit facilities at reasonable rates of interest on co-operative basis was taken up and it is now under the charge of a co-operative officer deputed by the Co-operative Department.

*Apprenticeship Act :* The Apprenticeship Act, 1961 has come into force and the provisions are being implemented in the State in consultation with the Government of India. Under this scheme by 1st July 1965, 916 candidates would have received training.

*Employment Exchanges :* In order to provide quick employment assistance to employment seekers both in private and public sector, a net work of employment exchanges, one in each district has now been established and they are functioning. A Special Employment Exchange exclusively for the physically handicapped persons has been started in Bangalore. With a view to extending the employment assistance to rural areas, four units of Employment Information and Assistance Bureau have also been started at Pavagada, Yadavgiri, Shirhatti and Nagamangala Taluks.

*Factories and Boilers :* The number of factories has increased steadily and there are 3,100 factories on the registers of the Department.

*The Employees' State Insurance Scheme :* In Mysore State, the Scheme was introduced in Bangalore on 28th July 1958 and was extended subsequently to Mysore, Mangalore, Hubli, Dandeli and Belgaum. The total number of beneficiaries so far is 1,50,000 family units. During 1963-64, the scheme was extended to casbew workers at Mangalore. It was brought into effect in Gulbarga and Gokak in 1964. In 1966 another 15,000 workers will come under its coverage with the starting of the scheme at Davangere. Harihar and Kollegal and at a few more smaller centres.

The E.S.I. Corporation meets $\frac{7}{8}$th of the total cost of the medical benefit while $\frac{1}{8}$th of the cost is met by the State Government since provision of medical benefit is the responsibility of the State.

*The Rural Manpower Utilisation Works :* The Scheme for Utilisation of Rural Manpower was first launched in February 1961 with the sanction of 2 projects under the I Series. The II Series of 13 projects was sanctioned in April 1962 while the III series of 25 projects was sanctioned in March 1963. This is a centrally sponsored scheme, with 50 per cent grant and 50 per cent loan given by the Central Government to the State Government.

The main schemes undertaken in this programme are Minor Irrigation, Soil Conservation, Afforestation, Development, Repairs to Field Channels and Road Works.

## HOUSING

The allocation for the four years of the Third Plan under housing was Rs. 261 lakhs.

During 1965-66 i.e. the last year of the Third Plan a sum of Rs. 110 lakhs is provided under Housing Schemes. Thus the total investment for the five years would be about Rs. 371 lakhs under the Plan. Apart from this the Government of India makes available loans out of the L.I.C. of India Fund for the implementation of some housing schemes. So far, a sum of Rs. 4,68,95,000 has been made available by the Government of India from the funds of L.I.C. of India.

**Subsidised Industrial Housing Scheme :—** A provision of Rs. 80 lakhs was made under this scheme for the Third Plan period and the target fixed was 2,250 houses. In the first three years of the Third Plan 1,154 houses had been constructed at an expenditure of Rs. 41·50 lakhs. A sum of Rs. 14 lakhs was provided during 1964-65 with a physical target of 450 houses. The total number of houses completed upto the end of December during 1964-65 is 369 (including those constructed in the Co-operative and Employers' Sector). A sum of Rs. 12·16 lakhs was spent. A sum of Rs. 32 lakhs is provided for 1965-66 with a physical target of 600 houses.

**Low Income Group Housing Scheme :—** The Third Plan provision under the scheme is Rs. 275 lakhs for achieving the target of 3,300 houses. In the first three years of the Plan period about 1,800 houses were completed; a sum of Rs. 110-50 lakhs was spent under the scheme. During 1964-65 a sum of Rs. 28 lakhs was allotted for the construction of 750 houses. An expenditure of Rs. 25·87 lakhs was incurred, 184 houses have been completed upto the end of December 1964. 525 houses were under various stages of construction. A provision of Rs. 52 lakhs is made during 1965-66 and the physical target proposed to be achieved is 750 houses.

**Subsidised Rental Housing Scheme :—** This scheme was introduced by the Government of India during 1962-63 for the benefit of the weaker section of the community. The scheme contemplates allotting houses on rental basis to persons whose annual income does not exceed Rs. 2,400. The Government of India have permitted to utilise about $\frac{1}{3}$ of the provision made under the Low Income Group Housing Scheme for this scheme. The scheme carries 25% of subsidy and 75% of loan. About Rs. 14 lakhs will be spent under this scheme during 1965-66.

**Plantation Labour Housing Scheme :—** The total provision for the Third Plan was Rs. 8 lakhs for constructing about 416 houses. During the year 1963-64 three projects involving a loan of Rs. 1·15 lakhs were sanctioned for the construction of 60 tenements. During 1964-65 sanction has been accorded for the construction of 50 houses involving an assistance of Rs. 96,000. A sum of Rs. 70,000 was disbursed upto December 1964 under the scheme. 50 houses are under various stages of construction. The provision for 1965-66 under the scheme is Rs. 4 lakhs for the construction of 200 houses.

**Slum Clearance Scheme :—** This is a Centrally Sponsored Scheme. The Third Plan provision was Rs. 80 lakhs of which Rs. 20 lakhs was the share of the State.

So far projects costing about Rs. 75·9 lakhs and envisaging the construction of 907 tenements and 2,965 plots were sanctioned. 807 dwelling units have been completed and about 700 dwelling units—plots and tenements are under construction. During 1964-65 an amount of Rs. 6 lakhs has been spent under the scheme.

There has been a set back in the implementation of the scheme as the High Court of Mysore have declared the Mysore Slum Clearance Act as void and inoperative. But the question of providing alternative sites to slum dwellers by private negotiations is however being pursued.

**Land Acquisition and Development Scheme :—** In the first year of the Third Plan, the Government of India released Rs. 10·5 lakhs out of its own resources. From 1962-63 onwards amounts are being made available from L.I.C. of India. A total amount of Rs. 70 lakhs has been received upto 31st March 1965. The City Improvement Trust Board, Bangalore and Mysore, the Hubli-Dharwar Municipal Corporation and the Mangalore Municipality have taken up the implementation of the scheme. 440 acres of land have been acquired and 50 acres have been developed under the scheme.

**Rural Housing Project Scheme :—** For the Third Plan a provision of Rs. 100 lakhs has been made with a target of 10,000 houses spread over 750 villages. The Government of India have authorised to implement the scheme only in 300 villages and in addition permission has also been accorded to take up 50 more villages which are affected by flood and fire. At present the scheme is in implementation in 320 villages, including 18 flood affected villages.

For the year 1964-65 a provision of Rs. 8 lakhs has been made for implementing the scheme.

At the end of December, 1964, the overall position was :—

| | |
|---|---|
| (1) Total number of houses taken up for construction from the inception .. .. .. | 6,375 |
| (2) Total number of houses completed from the inception .. | 3,515 |
| (3) Total number of houses at various stages of construction .. | 2,860 |

A loan of Rs. 5 lakhs has been obtained from the Life Insurance Corporation. This provision is intended to implement the scheme in flood and fire affected villages only. Up to the end of Dec. 1964, a sum of Rs. 0·62 lakhs has been spent out of the provision of Rs. 5 lakhs.

## SMALL-SCALE INDUSTRIES

Important cottage industries showing their centres in Mysore State within brackets: Lacquerware (Chennapatna, Gokak, Nelamangala, Chikmagalur and Shimoga); Sandalwood carving (Sagar, Sorab, Mysore); Ivory and Inlay works (Sagar, Sorab, Mysore); Brass works (Nelamangala); Rattan work (Mysore, Chikmagalur, Shimoga and Sagar); Bidriware (Bidar); Glass Bangle making (Yeshwantpur and Ghodgeri); Mat weaving (Kengeri, Amruthur, Nagamangala, Hassan, Kumblur, Anandapuram and Hiriyur); Leather stitching (Birur, Sagar, Doddasiddavanahally, Indi, Ramdurg, Ashani, Sandatti and Karwar); Pottery (Ramanagaram, Khanapur, Madikebeedu and Krishnarajapura); Tile-making (Mangalore); Coir Industry (Mangalore, Karwar); Agarbatti (Mysore, Bangalore); Cotton Hosiery (Shahapur).

The important centres for small scale industries are Bangalore, Belgaum, Tumkur, Hubli, Hospet, Bhadravati and Mangalore. All these industries have an investment less than Rs. 5 lakhs each.

Among the important products that have got all-India market, the following are noteworthy: Cycle Dynamo Lamps; Centre lathes; Wood working machinery; Punch presses; Ornamental lamps; Charcoal Irons; Pooja articles of non-ferrous metals.

Apart from the above, the State also produces oil-engines, pressed-metalware and components for large-scale industries located in the State.

During 1959, a firm manufacturing pressure cookers entered the field.

There are 8 industrial estates in the State located at Bangalore, Mysore, Hubli, Belgaum, Harihar, Mangalore, Gulbarga, and Ramnagaram. 200 sheds were available for industries by April 1962. The estates at Bangalore, Mysore and Hubli have commenced work and the other estates are getting accommodation ready for industrialists to move in.

Thirty new industrial estates were sanctioned during 1962 to be taken up during the Third Plan, besides 19 development areas. Construction work at Jamkhandi, Bijapur, Mercara, Bellary, Shiralkoppa, K.G.F. and Chickmagalur, had been taken up during 1963-64.

During the Second Plan a sum of Rs. 125·178 lakhs was spent against the Plan provision of Rs. 107·68 lakhs in giving training to artisan in model carpentry and smithy centres, giving financial assistance to industrial co-operatives and small-scale industrialists, etc. During the Third Plan, the total expenditure during the first three years would be of the order of about Rs. 90 lakhs as against the target of about Rs. 103 lakhs.

*Sericulture :* The area under mulberry will reach more than 2 lakhs before the end of the Third Plan. Similarly there has been corresponding increase in respect of families engaged in the industry.

The production of silk which was round about 10 lakhs of pounds before the Plans started, is now nearly 22·5 lakhs of pounds and the most noteworthy feature is that as against production of nearly 75,000 pounds of quality silk in the over-all production before the Plans started, it is now nearly 9 lakh pounds and this indeed is a remarkable achievement of the industry in the State.

The State has a programme to increase the production of filature silk from the normal 1·25 lakhs per annum to 4 lakhs pounds and steps have been taken already by the State to increase the production steadily. The year 1963-64 was expected to end with a total production of 2·5 lakhs of pounds of filature silk and before the end of the Third Plan, this State would have reached a production of 3·5 lakh pounds.

The number of Seed Stations came up to 38 at the end of the Second Plan and in the middle of the Third Plan the number was 48.

The scheme of running Chawki Centres requires special mention. Now there are at least 60 Centres functioning and before the end of the Third Plan period there will be nearly 108 centres.

For the utilisation of the bye-product of the industry, namely, silk waste, Government's Spun Silk Mills has been functioning satisfactorily and a programme has been planned to replace 1,500 spindles with imported ones so as to improve the quality of what is produced and also reduce the cost of production.

## MINERALS

*Mineral Production :* **Minerals showing, within brackets, the location, average annual quantity in tons and value in Rs. respectively ; (Figures for gold and silver are given earlier).** Asbestos (Hassan ; 170 : 25,000) ; Chromite (Hassan ; 4,000 : 3,00,000) ; Felspar (Kolar ; 600 : 15,000) ; China Clay (Bangalore, Hassan, Shimoga and Tumkur ; 30,000 : 4,10,000) ; Limestone (Shimoga, Gulbarga and Bijapur ; 8,00,000 : 8,00,000).

Total number of men employed : About 45,000.

Number of men employed in each mineral industry : Gold (30,000) ; Other minerals (15,000).

*Second Five Year Plan :* Plan provision Rs. 7,77,700 ; Expenditure Rs. 7,63,556.

*Third Five Year Plan :* Plan provision Rs. 25,00,000 ; Provision for two years Rs. 12,20,500.

## MINES AND GEOLOGY

During the Second Five-Year Plan two schemes namely (*a*) Investigation for sulphide ore near Ingaldhal, Chitradurga District, and (*b*) Investigation for iron ore in the West Coast areas of the State were taken up.

The investigation under sulphide scheme has been helpful in proving the reserves of iron pyrites at about 2 million tons.

Under the iron ore investigation schemes survey and prospecting conducted in parts of South Kanara, North Kanara and Shimoga Districts has resulted in the location of iron ore deposits estimated at about 90 million tons within a distance of 50-60 miles from the West Coast Ports of the State.

During the first three years of the Third Plan period, the following minerals have been located and their reserves assessed :—

(1) *Iron ore.*—Iron ore deposits estimated at about 500 million tons of exportable grade have been proved in the Bababudan Hill, Chikmagalur District ; near Kodachadri and Kotebore, Shimoga District ; near Kalche, Kodalgadde, Sunksal, etc., North Kanara District ; near Karekurchi, Habbigegudda, Janehar, Tumkur District and Vajra, Lakkihalli Bheemasamudra, etc., Chitradurga District. This is in addition to the ore reserves in the Bellary-Hospet area, where a reserve of about 1,000 million tons is assessed.

(2) High Calcium Limestone—occurring between Bagalkot and Yadwad, Bijapur-Belgaum Districts have been mapped in detail and some of them have also been prospected by drilling. So far about 600 million tons of limestone are assessed. Further prospecting is under progress. The high calcium limestone deposits near Nagargali, North Kanara District and those in Hosadurga Taluk, Chitradurga District, were also mapped in detail and the reserves are assessed at 30 million tons and 50 million tons, respectively.

(3) *Fuller's Earth.*—Fuller's Earth deposits suitable for refining of mineral and vegetable oils occurring near Korvi and other villages, Chincholi Taluk, Gulbarga District, have been prospected and estimated to contain about 2 million tons.

(4) *Bauxite.*—The surveys conducted for Bauxite deposits in Belgaum District have revealed the occurrence of about 2 million tons of Bauxite.

### Hutti Gold Mines (Raichur Dist.)

The Hutti Gold Mines Company in which the Government of Mysore holds a controlling interest has taken up the implementation of the exploratory development scheme at an estimated cost of Rs. 251 lakhs. The scheme, in general, covers initial exploration of the known reefs and any further reefs discovered during the scheme down to a maximum depth below surface of 1,500 feet and latterly throughout the known length of the reefs with periodical assessment of the payable ore exposed by this development.

**Board of Mineral Development :**—The Board of Mineral Development is a Departmental venture of the Government in the field of mining and export. Besides export of Iron Ore and Manganese Ore, it deals with the mining and sale within India of commodities like Chrome Ore, Clay, Graphite, Quartz, Feldspar, Soapstone, etc. The export is at present restricted to Iron Ore and Manganese Ore. This commercial venture is a foreign exchange earner, and during the year 1963-64 the export of Iron Ore and Manganese Ore to foreign markets totalled up to 4·62 lakh tonnes, securing a foreign-exchange component equivalent to Rs. 126 lakhs.

During 1964-65 the sales were expected to touch Rs. 1·5 crores.

## PUBLIC HEALTH (1964-65)

Mysore State has 208 hospitals, with 19,000 beds, 800 dispensaries, 4,500 registered doctors, 1,700 registered nurses, 1,750 midwives, 450 primary health units, 19 national malaria eradication programme units, one national filaria control unit, 10 subsidiary leprosy units, 12 district medical laboratories and 92 family planning centres.

Ayurvedic hospitals 8, Ayurvedic dispensaries 500 ; Unani dispensaries 71 and Homeopathic dispensaries 10.

### Third Plan—Physical Targets and Achievements

Total III Plan Provision Rs. 432·850 lakhs. Total expenditure for the period from 1st April '61 to 31st Dec. '64 : Rs. 307·991 lakhs.

*Hospitals and Dispensaries :* **The main feature of the proposed development was to provide increased in-patient accommodation in hospitals, in order to meet the needs of the rapid increase in the population in the urban areas. Accordingly, it was proposed to establish 2,500 additional beds in Hospitals, of which 1,167 have been established upto Dec. 1964. Buildings are under progress for providing about 1,300 more beds.**

240 more beds have been provided at the Mental Hospital, Bangalore.

180 additional beds have been established for T.B. patients out of the target of 300 beds.

In all about 3,000 additional beds are likely to be established by the end of the IIIrd Plan, raising the total number from 14,000 to 17,000 beds. But, for a population of 240 lakhs at least 24,000 beds have to be provided and hence this scheme is proposed to be continued in the IV Plan also, to provide another 3,000 additional beds.

As against III Plan target of establishing 5 Blood Banks, 5 Dental Clinics, 8 T.B. District Centres, 5 V. D. Clinics, and 3 Children Guidance Clinics, it has been possible to achieve 2 Dental Clinics, 3 T.B. Clinics, 6 T.B. District Centres, 1 V.D. Clinic, and 1 Child Guidance Clinic. Sanction has been received for 3 Blood Banks and one more Dental Clinic, which are under the process of being started.

Against the proposal to provide 13 Ambulance Vans, only one could be provided. Steps are being taken to purchase the required number.

**Medical Education :**—At the commencement of the Third Plan, the total admission capacity of the four Medical Colleges in the State was 640, which has since been raised to 1,220 by providing 140 additional seats in existing colleges, and 440 seats in four new Medical Colleges. Out of these four new Colleges, three are maintained by private agencies at Bangalore, Belgaum, and Gulbarga, and one run by Government at Bellary.

It is anticipated that roughly about 2,224 doctors would pass out during the III Plan period and about 3,400 during the IV Plan period.

Nine Full-time Teaching Units have been started in Medical Colleges, as against 15 proposed. Post-Graduate courses have been started as per target in two Medical Colleges, in M.S., M.D., D.O.M.S., M.Sc., (Anatomy), and M.Sc., (Pharmacology), with 40 seats in all.

With a view to providing teachers for Medical Colleges, and specialist services at District Hospitals, 168 Officers have been deputed for higher studies in India and abroad.

The Dental College of the State has an admission capacity of 30 students.

*Training :* As per target 300 additional candidates have been admitted for Nurses' Training Course.

In addition to continuing the training course for para-Medical personnel such as Radiographers, X-ray Technicians, Laboratory Technicians, compounders, etc., the following new courses for Physio-Therapists, Orthopists, Opticians and Refractionists and Health Visitors (TB) were started.

*Control of Diseases (Tuberculosis) :* The ten B.C.G. teams continued functioning during the III Plan period, with a target of testing 2 million persons. At the end of Dec. 1964 about 1·78 million have been tested.

The All-India Mental Health Institute and the National Tuberculosis Institute are located in Bangalore. These are national institutions.

*Venereal Diseases :* Five Special V. D. Clinics have been established at Gulbarga, Kolar, Shimoga, Mandya and Bijapur. A Mobile V. D. Clinic has been functioning at Ankola in North Kanara District.

*Family Planning :* A State Family Planning Board was constituted in the year 1957 and a full-time Officer, designated as the "State Family

Planning Officer" was appointed. A large number of Family Planning Centres were started in the various parts of the State during the First and Second Plan periods.

In May 1965, there were 114 rural family planning welfare organisations and 8 urban family planning units.

No. of mobile vasectomy units: 4; no. of operations upto 1963-64 : 10,536.

Three Regional Family Planning Training Centres have been established at Ramanagaram, Mysore and Mangalore.

*Laboratories :* The Public Health Laboratory at Bangalore has been up-graded and 12 District Laboratories have been established in the Districts. The Vaccine Institutes at Bangalore and Belgaum have been expanded to cope with the increasing demand for smallpox vaccine.

## EDUCATION

A Women's polytechnic with 80 seats was started in 1960-61. Besides, a Sainik school has been established at Bijapur.

Compulsory education for the age-group 6-7 was introduced during 1961-62 and for the age-group 7-8 in 1962-63.

**Third Plan :** The total outlay under General Education for the Third Plan is Rs. 1,451·72 lakhs of which the provision for Elementary Education is Rs. 1,051·21 lakhs.

It has been announced that secondary education will be made totally free by the first year of the IVth Plan. It is estimated that nearly five lakh pupils will be covered by the free secondary education scheme. Already 85 to 90 per cent of secondary school pupils receive free education which is available to children of parents whose annual income is less than Rs. 2,400.

There are four universities in Mysore State : (1) Bangalore University, Bangalore ; (2) Mysore University, Mysore ; (3) Karnatak University, Dharwar ; (4) Agricultural University, Hebbal, Bangalore.

*Primary Education :* An Institute of Education started functioning at Dharwar from 1963-64. The aim of the institution is to raise the standard of teaching in the primary school giving training to the Primary School teachers.

*Secondary Education :* As many as 522 high schools have been established during the four years of the Third Plan.

Four Youth Vocational Training Centres have been established during 1964-65 under Central Govt. scheme aided by UNICEF. This scheme will impart vocational training to students who do not continue high school education after the VIIth standard.

*Hindi Education :* The Third Plan saw the establishment of 3 Hindi Shikshak Training Colleges in the State. 4,375 Hindi Teachers' posts have been sanctioned for teaching of Hindi as a compulsory subject in senior primary schools. 240 Hindi teachers for high schools have also been sanctioned.

*Technical Education :* During the Third Plan period upto Dec. 1964 two polytechnic for women, one school of arts and crafts and two junior technical schools were started.

There is now at least one polytechnic in each District of the State.

**Third Plan Out-lay and Expenditure** Rs. in lakhs

| Detailed Head of Development | State Plan Outlay for the III Five Year Plan | Expenditure incurred till 31-12-64 | Remarks |
|---|---|---|---|
| VI—Social Services | | | |
| 1. *General Education* | | | |
| (*a*) Primary Education, Secondary Education and other Educational Schemes .. .. .. .. | 1,422·05 | 670·08 | |
| (*b*) N. C. C. .. .. .. .. | 29·67 | 19·82 | |
| (*c*) Karnatak University .. .. | 35·00 | 30·25 | These represent the State's share of expenditure on the development schemes of the two Universities. The U.G.C.'s share is received by them direct. |
| (*d*) Mysore University .. .. .. | 35·00 | 29·25 | |
| (*e*) Bangalore University .. .. | 10·00 | 1·00 | |
| (*f*) Collegiate Education.. .. .. | 68·50 | 34·31 | |
| (*g*) Law College .. .. .. .. | 1·50 | 0·90 | |
| Total—1 General Education .. | 1,601·72 | 785·61 | |
| 2. Technical Education .. .. .. | 435·60 | 186·14 | |

## REGIONAL INSTITUTE OF ENGLISH, MYSORE

6-A, Cunningham Road, Bangalore.

Established by the Governments of the four Southern States—Viz., Mysore, Andhra Pradesh, Madras and Kerala with the cooperation of the British Council to offer intensive training to key personnel in the field of English language teaching in these States.

The Institute gives training in the teaching of English in the first six years of school to graduate teachers and Deputy Inspectors of Schools. The trainees are selected and deputed by the respective State Governments. Admission is not open to any one not deputed by the State Governments.

The Board of Governors of the Institute comprises the Secretaries of Education of the four States, Directors of Public Instruction of the four States, a representative of the Union Ministry of Education, a representative of the British Council, the Director of the Central Institute of English, Hyderabad and the Director of Studies of the Institute.

*Chairman :* T. R. Jayaraman, Education Secretary, Mysore.

*Other functions :* (*i*) to improve the standards of teaching of English in Primary and Secondary Schools in the four sponsoring States ; (*ii*) to train English teachers ; (*iii*) to undertake and facilitate conferences, seminars, etc., in the teaching of English ; (*iv*) to prepare suitable textbooks, guidance and other material for teachers at various levels ; (*v*) to afford help to the four States in drawing up the syllabus in English.

The courses at the Institute are of 5 months' duration. The first course started on 7th October 1963 with 85 trainees.

## MYSORE STATE ROAD TRANSPORT CORPORATION

Bangalore 1.

The Mysore State Road Transport Corporation has recorded considerable progress during 1964. The fleet strength of the Organisation was 1,922 passenger vehicles and 106 departmental vehicles and the labour force 13,320 as on 1st January 1965. The Passenger Transport Services are operated on 1,600 routes covering a route mileage of 49,951 miles and catering to the transport needs of more than 5·27 lakh passengers every day all over the State. With the nationalisation of services in Hassan and Mysore pockets and augmentation of services in the old pockets, the Road Transport Operations of the Corporation are spread over more than ⅘ of the Mysore State.

The capital investment in the Road Transport Corporation has increased to Rs. 12·79 crores as on 31st March 1964. The Corporation has earned a gross revenue of Rs. 9·59 crores during the year 1963-64 and the operations have yielded a net surplus of about Rs. 54 lakhs after meeting all the working expenses during the year, compared with Rs. 52·76 lakhs in 1962-63.

The programme of the Corporation during 1965-66, envisages a plan outlay of Rs. 171 lakhs made up of Rs. 30 lakhs to be provided by the Government of Mysore under the Plan Budget and a matching contribution of Rs. 10 lakhs by the Central Government and the remaining amount to be financed from the internal sources of the Corporation.

Total length of Railway : 2,699 kilometres ; Broad gauge 483 kilometres ; Metre gauge 2,062 kilometres ; Narrow gauge 154 kilometres.

The most significant development regarding Mysore's ports during the past few years has been the development of the mineral ore export programme in the State. Large resources of iron and manganese ore deposits spread over Hassan, Tumkur, Bellary, Chickmagalur, South Kanara and Belgaum Districts. The ports in Mysore State are, therefore, ideally situated for the export of these iron and manganese ores westwards towards Europe. Since it has been estimated that the capacity of the ports to ship mineral ore during the Third Plan will fall short of actual requirements by about three million tons towards 1965-66, top priority has been given for the development of Mangalore and Karwar into all weather deep draft ports. Simultaneously with the development of capacity at these ports, five main feeder roads to Karwar, Mangalore and Honnavar from the Mysore plateau and the ore mining areas are being constructed at a cost of over Rs. 9 crores in order to facilitate the transport of mineral ore to these ports. In addition, the 123-mile Hassan-Mangalore rail link has also been included under the Central Sector of the Third Five-Year Plan.

The development of Mangalore port into a major port at a cost of Rs. 13 crores has been taken up.

In regard to communications, the P.W.D. has exceeded the Plan ceiling of Rs. 9 crores in the first two years of the Plan period.

Number of minor ports : 2 ; Coastline : 200 miles.

No. of airports 3 ; No. of airstrips 4.

## TOURISM

No. of foreign tourists : 1962-63 : 1,846 ; 1963-64 : 2,244 ; 1964-65 : 2,768.

Rest houses and roads have been built in places of tourist importance. A new scheme known as the "fair price shops scheme," has been sponsored in order to sell articles of indigenous origin, which are of special interest to tourists, at reasonable prices. A hospitality scheme has been sponsored under which foreign tourists are entertained by the local people. There is a State Tourist Development Council, headed by the Home Minister.

## MYSORE STATE FINANCIAL CORPORATION

(*See "Under State Corporations".*)

## PLAN PROGRESS

Mysore has just completed four years of the Third Plan (April 1965). As against the Plan outlay of Rs. 250 crores, an expenditure of nearly Rs. 200 crores is anticipated so far, leaving a programme of about Rs. 50 to be fulfilled in 1965-66, according to the original target.

Expenditure under certain heads like minor irrigation, communications, fisheries and large and medium industries will have exceeded the Plan outlay.

For 1965-66, the State government prepared a plan of Rs. 56·16 crores. On present calculations, the Plan will in effect be of the order of Rs. 48·16 crores.

A preliminary memorandum of Mysore's Fourth Plan shows an outlay of Rs. 500 crores. The allocations broadly in Rs. crores are: Agricultural programmes including Community Development 125; Irrigation and power 203·50; Transport and communications 35; Industries 35; Social services 100; Miscellaneous 1·50; Total 500.

The State income at the end of the Third Plan is expected to be Rs. 771·66 crores and per capita income Rs. 304.

### Agricultural Production

One of the foremost objectives of the Third Plan of the State is the achievement of self-sufficiency in food and increasing agricultural production in general. The Plan had fixed the additional targets of foodgrains at 10 lakh tons, taking the total food production from 38·5 lakhs to 48·5 lakh tons. In addition to food-production target, the production of oil seeds is targeted to increase from 7 lakh tons to 8·75 lakh tons, Sugarcane Gur from 4·1 lakh tons to 5·6 lakh tons and Cotton from 5 lakh bales to 7·5 lakh bales.

During the first three years of the Third Plan, agricultural production had increased only by 6 per cent.

The production of important agricultural commodities for 1963-64 is given along with the targets for 1965-66.

(000 Tons)

| Commodities | 1963-64 | 1965-66 (target) |
|---|---|---|
| Cereals .. .. .. | 3,719 | 4,580 |
| Pulses .. .. .. | 308 | 374 |
| Sugarcane (Gur) .. | 618 | 560 |
| Cotton (000 bales) .. | 436 | 750 |

1963-64 figures are final forecast estimates.

During 1963-64 the level of food production has been 40·27 lakh tons and the target at the end of the Third Plan period is of the order of 48·54 lakh tons. The Third Plan target in respect of Sugarcane production has already been fulfilled. For 1964-65 preliminary forecast estimates available indicate that the level of food production is likely to reach the level of about 41·35 lakh tons.

### Industrial Development

The performance in the industrial sector has been a bit brighter. The figures of production in m. tons for 1963-64 and 1964-65 of some selected industries are given in the following table.

| Industry | 1963-64 | 1964-65* |
|---|---|---|
| Pig Iron .. .. | 102,324 | 75,087 |
| Crude and semi-finished Steel .. .. .. | 47,780 | 31,256 |
| Finished Steel .. .. | 41,831 | 43,154 |
| Sulphuric Acid .. .. | 5,342 | 3,861 |
| Superphosphate .. | 6,797 | 6,245 |
| Sugar .. .. .. | 119,094 | 75,159 |
| Paper .. .. .. | 49,981 | 37,827 |
| Cement† .. .. | 859·6 | 622·5 |

* Figures for 1964-65 relate to 9 months from April to December. †Figures are in '000 m. tons.

# EDUCATIONAL INSTITUTIONS

## BANGALORE UNIVERSITY

Bangalore 1.

*Chancellor:* V. V. Giri, Governor of Mysore.

*Vice-Chancellor:* T. R. Jayaraman (Provisional).

*Registrar:* P. Mallikarjunappa, M.Sc.

The Bangalore University established under Mysore Act No. 26 of 1964 was inaugurated on July 10, 1964 but the Act came into full operation on 26-11-1964 when 32 Colleges located in the Bangalore City came under its jurisdiction. Previously these Colleges were affiliated to Mysore University. Jurisdiction of the University extends over the Bangalore Urban District but Colleges of Agriculture and Veterinary Sciences are excluded.

Total enrolment in the University and Colleges constituent is 17,803, consisting of 12,989 men and 4,814 women. There are 1,064 teachers (808 Men, 256 Women) giving a Teacher-pupil ratio of 1 : 16·7.

The University provides facilities for training and research in the faculties of: (*a*) Humanities and Social Sciences, (*b*) Science, (*c*) Engineering and Technology, (*d*) Law, (*e*) Medicine.

There are 32 departments of study. Post graduate facilities are available in Medicine, Surgery, Structural Engineering, Mechanical Engineering, Home Science, Chemistry, Physics, Mathematics, Botany, Zoology, Geology, English, Kannada, Economics, Sociology and Law (Jurisprudence and Contracts).

Undergraduate training is available both at Pass and Honours level (in some subjects).

A new campus of the University is likely to come up over an extensive site covering 1,100 acres of land on the Bangalore-Mysore Road.

### Constituent Colleges

*Arts, Science and Commerce Colleges:* Central College; Government Arts & Science College; V. H. D. Institute of Home Science; R. C. College of Commerce; Maharani's College for Women; National College; Vijaya College; St. Joseph's College; Sri Renukacharya College; Mount Carmel College; M. E. S. College of Arts and Science (1956); Acharya Pathashala College of Arts, Science and Commerce; K. L. E. Society's College of Arts and Science; Dayananda College of Science; B. M. S. College for Women.

*Law Colleges:* Government Law College; Sri Renukacharya Law College; B. M. S. Law College (1963); K. L. S. College of Law (1963).

*Teachers Training Colleges:* R. V. Teachers College; Vijaya Teachers College; M. E. S. Teachers College (1958).

*Medical Colleges:* Bangalore Medical College; Medical School, Bangalore. Dental College; All India Institute of Mental Health: St. John's Medical College.

*Engineering Colleges:* University College of Engineering; B. M. S. College of Engineering; M. S. Ramaiah College of Engineering; R. V. College of Engineering.

*Technological Institute:* Sri Krishnarajendra Silver Jubilee Technological Institute.

## KARNATAK UNIVERSITY

Dharwar 3.

Founded in 1949. A Teaching and Affiliating University having jurisdiction over the districts of Belgaum, Bellary, Bidar, Bijapur, Dharwar, Gulbarga, North Kanara, in Mysore State.

Faculties: Humanities, Physical Sciences, Social Sciences, Law, Agriculture, Engineering and Medicine; Medium of Examination is English; Teaching departments 23; Affiliated Colleges 44; Recognised Institutions, nil; Constituent Colleges 4.

*Chancellor*, V. V. Giri, Governor of Mysore.

*Vice-Chancellor*, D. C. Pavate, M.A. (Cantab.).

*Registrar*, S. S. Wodeyar, M.A., LL.B.

Total number of students (1963-64): 20,459; (1964-65): 23,403.

BUDGET—1964-65 (ESTIMATES)

| | Rs. |
|---|---|
| Income (including Govt. Grant) .. .. .. .. | 49,05,429 |
| Expenditure .. .. .. .. .. .. | 50,89,112 |
| State Govt. Grant .. .. .. .. .. .. | 21,70,000 |

### UNIVERSITY TEACHING DEPARTMENTS

Names of the departments with courses offered within brackets: Kannada (M.A., PhD.); Statistics (M.A. (Stat.), M.Sc. (Stat.), Ph.D.); Physics (M.Sc., Ph.D.); Chemistry (M.Sc., Ph.D.); Geology (M.Sc., Ph.D.); History (M.A., Ph.D.); Economics (M.A., Ph.D.); English (M.A., Ph.D.); Philosophy (M.A., Ph.D.); Politics (M.A., Ph.D.); Kannada Research Institute, Dharwar (M.A. Ancient Indian History and Culture, Archaeology, Epigraphy, Ph.D.); Sociology (M.A., Ph.D.); Mathematics (M.A. and M.Sc., Ph.D.); Sanskrit (M.A., Ph.D.); Geography (M.Sc., Ph.D.); Anthropology and Social Welfare (M.A., Ph.D.); Botany (M.Sc., Ph.D.); Zoology (M.Sc., Ph.D.); Commerce (M.Com., Ph.D.); Education (M.Ed., Ph.D.); Law (LL.M., Ph.D.).

School of Foreign Languages (Certificate and Diploma courses in French and German); University Library (Diploma in Librarianship).

### CONSTITUENT COLLEGES

Karnatak Arts College, Dharwar—Courses—B.A., M.A., Ph.D.; Karnatak Science College, Dharwar—Course—B.Sc.; University College of Education, Dharwar—f. 1962; Course—B.Ed.; University Law College, Dharwar—f. 1962; Course—LL.B. } f. 1917 and as constituent colleges 1958.

### AFFILIATED COLLEGES

Basaveshwar College, Bagalkot ; B. V. B. College of Engineering and Technology, Hubli ; College of Agriculture, Dharwar ; Arts and Science College, Honawar ; Government College, of Arts and Science, Gulbarga ; Govt. B.Ed. College, Gulbarga ; Janata Shikshana Samiti's Law College, Dharwar ; Janata Shikshana Samiti's Science and Banashankari Arts College, Dharwar ; J. G. College of Commerce, Hubli ; Kanara College, Kumta ; Karnatak Law Society's College of Commerce, Belgaum ; Veerashaiva College, Bellary ; Lingraj College, Belgaum ; R. L. Law College, Belgaum ; R. P. D. College, Belgaum ; Shankar College, Yadgiri ; Sharan Basaveshwar College, Gulbarga ; Sri Kadasiddheshwar College, Hubli ; Shri Laxmi Venkattesh Desai College, Raichur ; P. C. Jabin Science College, Hubli ; S. T. College, Belgaum ; K. L. E. S. J. N. Medical College, Belgaum ; L. V. D. College. of Commerce, Raichur ; V. M. V. Society's Arts and Scicnec College, Ilkal ; Medical Coll., Bellary ; Vijay College, Bijapur ; Vijayanagar College, Hospet ; Shri Kotturswamy Secondary Training College, Bellary. ; Karnatak Medical College, Hubli ; Raja Lakhamagouda Science Institute, Belgaum ; Jagadguru Tontadarya Arts and Science College, Gadag ; Engineering College, Gulbarga ; Shri Shankarlal Lahoti Law College, Gulbarga ; B. V. Bhoomaraddi Arts and Science College, Bidar ; K. L. E.'s Arts & Science College, Nipani ; The Arts & Science College, Karwar ; The Commerce College, Bijapur ; The Commerce College, Gulbarga and The Arts and Science College, Sirsi (N.K.) ; K.L.E. Society's Arts & Science College, Haveri ; The Arts & Science College, Jamkhandi ; Shri Gavisiddheshwar College, Koppal ; Basaveshwar Engineering College, Bagalkot ; H.K.E. Society's Medical College, Gulbarga.

### UNIVERSITY OF AGRICULTURAL SCIENCES

XI Main, 16th Cross Road, Malleswaram, Bangalore-3.

*Chancellor :* V. V. Giri, Governor of Mysore.

*Vice-Chancellor :* Dr. K. C. Naik, B.Ag., M.Sc., Ph.D. (Bristol).

*Registrar :* K. A. Jalihal, B.Sc. (Ag.), M.S. (U.S.A.).

The University was inaugurated in 1964. It is not a teaching and affiliating University, but a residential University, with constituent colleges responsible for resident teaching, research and extension education thoughout the State of Mysore.

Estimates *† (1965-66) :

Govt. Grant : Rs. 30,33,500.

Govt. of India Grant : Rs. 20,83,000.

Other sources : Rs. 1,63,500.

Opening balance : Rs. 9,12,000.

Total : Rs. 61,92,000.

Expenditure : Rs. 61,25,500.

Closing balance : Rs. 66,500.

*List of colleges proposed to be established or transferred :* College of Agriculture, Hebbal ; College of Agriculture, Dharwar ; College of Veterinary Service, Hebbal ; College of Dairying ; College of Fisheries ; College of Agricultural Engineering ; College of Horticulture ; College of Home Science ; College of Forestry ; College of Basic Sciences and Humanities ; Post-Graduate College.

### UNIVERSITY OF MYSORE

CHANCELLOR

V. V. Giri, Governor of Mysore.

PRO-CHANCELLOR

S. R. Kanthi, Minister for Education.

VICE-CHANCELLOR

Dr. K. L. Shrimali, M.A., Ph.D.

REGISTRAR

K. R. Ramachandran, I.A.S.

This is a teaching and affiliating University.

No. of University Colleges : 3.

No. of affiliated colleges : 63.

Total No. of students during 1964-65 : 29,187.

Estimates (1965-66) :

Government Grant : Rs. 63,37,000.

Grant from University Grants Commission : Rs. 29,12,000.

University (fees, etc.) : Rs. 26,89,500.

Opening Balance : Rs. 7,60,264.

Total : Rs. 1,26,98,764.

Expenditure : Rs. 1,21,67,010.

Closing Balance : Rs. 5,31,754.

LIST OF COLLEGES AFFILIATED TO UNIVERSITY : Maharani's College for Women, Mysore ; St. Philomena's College, Mysore ; D. Banumiah's College of Arts and Commerce, Mysore ; Saradavilas College, Mysore ; First Grade College, Mandya ; First Grade College, Tumkur ; Sahyadri College, Shimoga ; First Grade College, Chitradurga ; D. R. M. College, Davangere ; First Grade College, Chikmagalur ; First Grade College, Hassan ; First Grade College, Kolar ; M. M. Sethy First Grade College, Konanur ; Rural College, Kanakapara ; Government College, Mercara ; St. Philomena's College, Puttur ; St. Agnes College, Mangalore ; St. Aloysius College, Mangalore ; Government College, Mangalore ; M. G. M. College, Udipi ; Sri Poornapragna College, Udipi ; Sri Bhuvanendra College, Karkala ; First Grade College, K. G. F., Robertsonpet ; Kalpatharu College, Tiptur ; Teresian College, Nazarbad, Mysore ; Bhandarkar's College of Arts and Science, Coondapur ; Vijaya College, Mulki ; J. S. S. College of Commerce and Science, Mysore ; A. E. S. National College, Gowribidanur ; First Grade College, Sagar ; Sri Jagadguru Chandrasekhara Bharathi Memorial College, Sringeri ; Mahaveera College, Moodabidri ; Vivekananda College, Puttur ; Kamala Nehru Memorial College for Women, Shimoga ; Municipal First Grade College, Chintamani.

*Teachers' Colleges.* Teachers' College, Mysore ; Institute of Education, Nazarbad, Mysore ; St. Ann's Training College, Mangalore ; Saradavilas Teachers' College, Mysore ; Regional College of Education, Mysore ; Govt. College of Education, Davanagere ; National College of Education, Shimoga.

*Engineering Colleges :* National Institute of Engineering, Mysore ; B. D. T. College of Engineering, Davangere ; Malnad College of Engineering, Hassan ; Karnataka Regional Engineering College, Suratkal ; Sri Siddagauga College of Engineering, Tumkur ; Sri Jayachamarajendra College of Engineering, Mysore ; P. E. S. College of Engineering, Mandya ; Manipal Engineering College, Manipal.

*Medical Colleges :* Medical College, Mysore ; Kasturba Medical College, Manipal.

*Other Professional Colleges :* Agricultural College, Hebbal, Bangalore ; Mysore Veterinary College, Hebbal, Bangalore ; Saradavilas Law College, Mysore ; Vidyodaya Law College, Tumkur ; Law College, Udipi ; Saraswati Law College, Udipi.

LIST OF UNIVERSITY COLLEGES : Manasa Gongothri, Mysore ; Maharaja's College, Mysore ; Yuvaraja's College, Mysore.

### ASSOCIATIONS, SOCIETIES, ETC.

ALL INDIA DENTAL ASSOCIATION

(Mysore State Branch & Bangalore Local Branch)

Dental College, Fort, Bangalore 2.

ALL INDIA INSTITUTE OF MENTAL HEALTH

P. Bag No. 15, Bangalore 11.

*Director :* Dr. N. C. Surya ; *Registrar :* K. S. Panikkar.

ALL KARNATAKA CHILDREN'S ASSOCIATION

Children's Playgrounds, Fort, Bangalore 18.

*President :* Rajasevasakta D. C. Subbarayappa ; *Secys. :* M. Gopalakrishna ; K. T. Banasankaramma, B.Sc., B.Ed.

ALL-MYSORE HOTELS ASSOCIATION

Sivaji Bldgs., Mysore Road, Bangalore 2.

*President :* G. P. Gupta ; *Vice-President :* G. S. Ghantoji ; *Hon. Secy. :* B. S. Gupta.

ANDHRA GRANTHA PARISHAT

"DHAMMAPADA", 28, 1st Main, V Block, Kumarpark West Extension, Bangalore 20.

Non-profit Literary Organisation for the publication of books in Telugu Language ; conducts Reading Room & Library. Carries out research on the relationship of Kannada and Telugu.

*Patron :* Tinneti Vishwanadam.

*President :* D. V. M. Rao ; *Vice-Pres.:* E. Surendranath ; *Hony. Research Director :* Smt. Leelavati Devi. *Treasurer :* K. Mallikarjun Rao.

BANGALORE TRADES ASSOCIATION

(Founded 1899).

21A, Mahatma Gandhi Road, Bangalore 1.

*Master :* D. N. Hosali ; *Dy. Master :* S. K. Sippy ; *Hon. Secretary :* M. Sadananda Rao ; *Hon. Treasurer :* R. Venugopal.

THE BANGALORE WHOLESALE PIECEGOODS MERCHANTS' ASSOCIATION

Rukmini Building, Chickpet, Bangalore 2.

*President :* Jeenabhai Davidoss ; *Vice-President :* P. Sampangiramiah Setty ; *Hon. Secretary :* B. Ramaswamy ; *Hon. Treasurers :* Devichand Misrimal & Co.

THE BIBLE SOCIETY OF INDIA & CEYLON

*Office :*—A/1, Mahatma Gandhi Road, Bangalore 1.

*Objects :* To circulate the Holy Scriptures of the Old and New Testaments throughout India and Ceylon and so far as may be possible in other lands. It has offices and depots in Delhi, Allahabad, Calcutta, Shillong, Bombay, Secunderabad, Bangalore, Madras, Kottayam and Colombo.

* Excluding the colleges and research institutes to be transferred.

† Provisional.

### BOARD OF CONTROL FOR CRICKET IN INDIA
No. 34, 16th Cross Road, Malleswaram, Bangalore-3.

### CENTRAL LEPROSARIUM
Magadi Road, Bangalore 2.

### CENTRAL MACHINE TOOL INSTITUTE
(*A Government of India Society*)
Tumkur Road, Bangalore 22.

This Institute which is established by the Government of India with the financial and technical collaboration from the Government of Czechoslovakia, has commenced its technical activities in July 1965. Some of the technical staff of the Institute have been trained by the Research Institute for Machine Tools and Cutting Tools, Prague, Czechoslovakia. There are Czech experts to initiate the work of the Institute in the early stages. The main objectives of the Institute are :—

I. DEVELOPMENT OF MACHINE TOOLS: (a) to design and develop machine tools, (*b*) to standardise machine tool elements, (*c*) to standardise tools, (*d*) to undertake the manufacture of prototypes, (*e*) to undertake testing and assessment of proto-types for the machine tool industry, and (*f*) to make available the facilities of a measuring laboratory to the industry. II. TRAINING: To train designers and design personnel for the machine tool industry. III. MACHINE TOOL RESEARCH: (*a*) to conduct research on the methods of calculation used in the design of machine tools, (*b*) to conduct research on the behaviour of machine tools and their elements and (*c*) to conduct research on hydraulic, elctrical and electronic control systems of machine tools. IV. RESEARCH IN METAL CUTTING: (*a*) to study machineability, (*b*) to undertake tool research and (*c*) to undertake research in production processes; V. INFORMATION AND DOCUMENTATION: (*a*) To undertake documentation of machine tools and cutting tool literature and patents and (*b*) to undertake dissemination of technical information. VI. To collaborate with other institutes in allied fields.

The Institute has developed a ring type dynamometer which can measure applied force upto 1,000 Kg. and can be used for example, in the testing of drilling machines and other machine tools. One of the important activities of the Institute is to test existing models of machine tools which are under production in the country as well as to undertake a systematic study of the prototypes of machine tools which are being developed by the machine tool industry. Design work and fabrication of prototypes of simple machine tools such as drilling machine, grinder, threading machine are already on hand.

*President :* Prof. M. S. Thacker; *Jt. Director :* R. V. Ramiah.

### CHILDREN'S BOOK COUNCIL
Jayanagar, Mysore-5.

*President,* Rajasevaprasakta Rao Bahadur M. Ramaswamy; *Vice-President,* Dr. D. Javare Gowda; *General Secretary,* N. Nagesa Rao, M.A.

### COMMONWEALTH INSTITUTE OF BIOLOGICAL CONTROL
(Indian Station)
P.O. Box 1503, Bangalore 6.

*Entomologist in Charge :* Dr. V. P. Rao.

### THE ELECTRICAL MERCHANTS' ASSOCIATION
Shankara Bldgs., Chickpet, Bangalore 2.

*President :* H. G. Mehta, D.M.E.; *Hon. Secretary :* J. Sumermal; *Hon. Treasurer :* L. K. Jain.

### FEDERATION OF INDIAN PHOTOGRAPHY
50, Sri Rama Mandir Road, Bangalore 4.

*President :* Dr. K. L. Kothary; *Vice-President:* P. N. Mehra; *Secretary:* Dr. G. Thomas.

### GOKHALE INSTITUTE OF PUBLIC AFFAIRS
Narasimharaja Colony, Basavangudi, Bangalore 4.

Education of public for democratic citizenship through cultural and civic activities. (Lib. 20,000 vols.); Sunday Classes; Popular Saturday lectures; Civic Vigilance; Memoranda on Public Grievances, Legislative Measures, etc. *Publication :* Monthly *Public Affairs* (Subscn. Rs. 4/-).

*Hon. Secretary :* Dr. D. V. Gundappa, D.Litt. *Hon. Treasurer :* M. P. Somasekhara Rau, B.A., LL.B.

### HANDLOOM CLOTH MERCHANTS' ASSOCIATION (Regd.)
Marwadi Temple Lane, Chickpet, Bangalore 2.

### "HOME MANAGEMENT"
"DHAMMAPADA", 1st Main V Block, Kumarapark West Extension, Bangalore 20.

Conducts practical class for women in Home Management. Voluntary-non-profit making organisation.

*Organising Director :* Mrs. Leelavati M. Rao, M.A., M.Ed., Dip. Montessori.

### THE INDIAN ACADEMY OF SCIENCES
Hebbal P.O., Bangalore 6.

*President :* Sir C. V. Raman.

### INDIAN DAIRY SCIENCE ASSOCIATION
Hosur Road, Bangalore.

*President :* V. Kurien; *Hon. Jt. Secretaries :* S. R. Sampath, Dr. H. L. Mathur.

### INDIAN INSTITUTE OF SCIENCE
Bangalore 12.

The departments of the Institute provide facilities for post-graduate research in : Inorganic Chemistry, Physical Chemistry, Organic Chemistry, Biochemistry, Physics, Aeronautical Engineering, Internal Combustion Engineering, Metallurgy, Electrical Engineering, Mechanical Engineering, Civil and Hydraulic Engineering, High Voltage Engineering, Electrical Communication Engineering, Chemical Engineering, Pharmacology, Fermentation Technology and Applied Mathematics. Facilities for research in Industrial Engineering and Administration, Economics and Industrial Psychology also exist.

There is also provision for post-graduate instruction in : 1. Aeronautical Engineering—(a) Aircraft Structures, (b) Aerodynamics. 2. Civil Engineering—(a) Structural Engineering, (b) Hydraulics, (c) Soil Mechanics and Foundation Engineering. 3 Electrical Communication Engineering—(a) Advanced Electronics, (b) Line Communication and Broadcast Engineering. 4. Electrical Engineering—(a) Applied Electronics and Servomechanism, (b) Power System Engineering, (c) High Voltage Engineering. 5. Mechanical Engineering—(a) Heat Power Engineering, (b) Foundry Science and Engineering, (c) Machine Design, (d) Internal Combustion Engineering, (e) Automobile Engineering. 6. Chemical Engineering—(a) Chemical Processes and Plant Design, (b) Transfer Processes. 7. Metallurgy—(a) Physical Metallurgy, (b) Chemical Metallurgy, and for background teaching in Economics and Social Sciences and instruction in French and German. The departments are well equipped and have adequate staff.

A fuels and lubricants laboratory was started on July 2, 1955.

The Library of the Institute contains about 89,700 volumes of journals and books.

*Conferments :* The following are the degrees that may be awarded by the Council of the Institute, in the different Faculties :—

1. *By research :* In the Science Faculty : Doctor of Philosophy (Ph.D.), Doctor of Science (D.Sc.).
   In the Engineering Faculty : Master of Science (M.Sc.), Doctor of Philosophy (Ph.D.), Doctor of Science (D.Sc.).
2. *By examination* (in Engineering Faculty): Bachelor of Engineering (B.E.) Degree in : Electrical Communication Engineering, Electrical Technology, Metallurgy.

Master of Engineering (M.E.) Degree in : 1. Aeronautical Engineering : (a) Aircraft Structures, (b) Aerodynamics. 2. Civil Engineering, (a) Structural Engineering, (b) Hydraulics. (c) Soil Mechanics and Foundation Engineering. 3. Electrical Communication Engineering (a) Advanced Electronics, (b) Line Communication and Broadcast Engineering. 4. Electrical Engineering, (a) Applied Electronics and Servomechanism, (b) Power System Engineering, (c) High Voltage Engineering. 5. Mechanical Engineering, (a) Heat Power Engineering, (b) Foundry Science and Engineering, (c) Machine Design, (d) Internal Combustion Engineering, (e) Automobile Engineering. 6. Chemical Engineering, (a) Chemical Processes and Plant Design, (b) Transfer Processes. 7. Metallurgy, (a) Physical Metallurgy, (b) Process Metallurgy.

Honorary Fellowships of the Institute may, on the recommendation of the Council, be conferred by the President of India who is the Visitor of the Institute on persons who have attained eminence in the field of science and industry.

The Scientific work of the Institute is recorded in the Journal of the Indian Institute of Science, published every quarter in January, April, July and October.

Budget estimates for 1965-66 : Rs. 99·06 lakhs (recurring) Rs. 52·43 lakhs (non-recurring).

*Founder :* J. N. Tata.

*Visitor :* The President of India.

*President of the Court :* J. R. D. Tata.

*Chairman of the Governing Council :* Prof. R. Choksi, M.A.

*Director :* Dr. S. Dhawan, M.A. (Punjab), B.Sc. (Engg.) (Punjab), M.Sc. (Minnesota), Ae.E. (Cal. Tech.), Ph.D. (Cal. Tech.), M.Ae.S.I.

*Registrar :* S. S. Prabhu, B.A., B.L. (Madras).

### THE INDIAN INSTITUTE OF WORLD CULTURE
6, Sri B. P. Wadia Road, Basavangudi,
Bangalore 4.

*London Branch :* 62, Queen's Gardens, W. 2. *Bombay Branch :* Theosophy Hall, 40, New Marine Lines, Bombay 1.

Membership is open to all believers in human brotherhood (fee Rs. 10 per annum).

*President :* Smt. Sophia Wadia; *Hon. Director :* Jacques Dedeyn.

### INDIAN RED CROSS SOCIETY
**32, Govindappa Road, Basavangudi, Bangalore 4.**

*Chairman :* **Dr. K. Nagappa Alva, Minister for Public Health,** Mysore State ; *Hon. Treasurer :* Smt. M. Indira Bai ; *Hon. Gen. Secy. :* Dr. S. Seshagiri Rau.

### INDO-SOVIET CULTURAL SOCIETY
**28, 1st Main, V Block, Kumarapark West Extension, Bangalore 20.**

*Patron :* Dr. M. C. Modi, Padma Shri ; *President :* Dr. T. K. Dayalu ; *Vice-Presidents :* Mrs. Leelavati M. Rao, M.A., M.Ed., Dip. Montessori ; C. B. Motiya, Dr. Bhola Pant ; *Gen. Secretary :* S. Palakshya ; *Secretaries :* R. Bhute and Kum. Nirmala Bhave.

### INSTITUTE OF SECRETARIES
**28, 1st Main, V Block, Kumarapark West Extension, Bangalore-20.**

*President,* A. Krishnamurthi ; *Vice-Presidents,* S. Jayaraman, C. Chennaveerappa, D. V. M. Rao ; *Secs. :* A. Fernandiz, V. Subramonium ; *Treasurer :* P. R. Krishnan.

### INSTITUTION OF ENGINEERS
No. 3, Vidhana Veedhi, Bangalore 1.

*Chairman,* R. A. Rajagopal, B.A., B.E., M.I.E. ; *Hon. Secretary :* S. G. Ramachandra, B.E., A.I.I.Sc., A.M.I.E. ; *Jt. Hon. Secretary :* J. L. D'Sa, B.E., B.Sc. (Hons.), A.M.I.E.E. (Ind.).

### INSTITUTION OF TELECOMMUNICATION ENGINEERS
**(Bangalore Local Centre)**

C/o Indian Telephone Industries Ltd., Bangalore 16.

*Chairman :* Uma Shankar ; *Hon. Secy. :* R. Das Gupta.

### KANNADA SAHITYA PARISHAT
**(Kannada Literary Academy)**
**Hardinge Road, Chamarajapet, Bangalore 18.**

*President :* Prof. G. Venkatasubbaiah, M.A., B.T. ; *Hon. Secretaries :* B. N. Sastry, M.A., M. H. Krishnaiah, M.A. ; *Hon. Treasurer :* A. C. Byrappa, B.A., L.B.

### SRI KRISHNARAJENDRA SILVER JUBILEE TECHNOLOGICAL INSTITUTE
**Krishnarajendra Circle, Bangalore 1.**

*Principal & Professor of Textile Manufacture :* M. R. Krishnamurthy, B.Sc., B.Sc. (Tech.) (Manch.), A.M.C.T., A.T.I.

### LEPROSY RELIEF & RESEARCH INSTITUTE OF AYURVEDA
Arunodaya, Kengeri Post, Bangalore South.

The Institute is conducting research on ayurvedic drugs to cure and control leprosy exclusively on ayurvedic lines.

*Director :* Dr. Y. P. N. Pandit ; *Secretary:* Dr. D. B. Viswanatha Rao.

### LICENSED ELECTRICAL CONTRACTORS' ASSOCIATION OF MYSORE
528, Avenue Road, Bangalore 2.

*President :* M. S. Kumar ; *Vice-Pres.,* M. Basheer Sheriff ; *Hon. Secy.:* C. Seshadri, B.E.

### METER MANUFACTURERS' ASSOCIATION OF INDIA
Post Bag 6, Bangalore 26.

*Secretary :* H. S. Visweswaraiah.

### MYSORE ART SILK YARN MERCHANTS' ASSOCIATION
32, Jumma Masjid Road, Bangalore 2.

*President :* J. H. Hinduja ; *Vice-Pres. :* L. B. Wadwani ; *Hon. Secretary :* B. S. Basappa Setty.

### MYSORE AUTOMOBILE PARTS AND ALLIED MERCHANTS' ASSOCIATION
**No. 17, 2nd Floor, Ramakrishna Bldg., Narasimharaja Road, Bangalore 2.**

*President :* K. V. R. Rao ; *Treasurer :* K. M. Nanjappa ; *Hon. Secy.:* Sardar Abanashi Singh.

### MYSORE CHAMBER OF COMMERCE
**Kempegowda Road, Bangalore 9.**

*President :* M. K. Ramachandra ; *Secretary :* G. N. Krishna Murthy, M.A.

### THE MYSORE FILM CHAMBER OF COMMERCE
**Movieland Bldgs., 6th Cross, Gandhinagar, Bangalore 9.**

### MYSORE MEDICAL ASSOCIATION
Fort, Bangalore-2.

*President :* Dr. T. M. A. Pai ; *Vice-President :* Dr. M. Sirsi ; *Secretary :* Dr. K. Thimmappiah.

### THE MYSORE METAL MERCHANTS' ASSOCIATION
P.O. Box No. 556, 71, Sri Narasimharaja Road, Bangalore-2.

*President,* N. K. Shah ; *Hon. Secretary,* C. Misrimal.

### MYSORE OODABATHI MANUFACTURERS' ASSOCIATION
**Mysore Chamber of Commerce Bldgs., Kempegowda Road, Bangalore 9.**

*President :* T. L. Padmanabhiah Gupta ; *Vice-President :* B. C. S. Narayan ; *Secretary :* A. Audiseshiah.

### THE MYSORE PROVINCIAL SILK HANDLOOM WEAVERS' CO-OPERATIVE SOCIETY LTD.
**Jumma Masjid Road, Bangalore 2.**

*President :* D. Hanumanthappa ; *Hon. Treasurer :* K. V. Shivabadraiah ; *Hon. Secretary :* T. Nagendra.

### MYSORE RIYASAT HINDI PRACHAR SAMITI
**I Block, Jayanagar, Bangalore 11.**

*President :* A. G. Ramachandra Rao ; *Vice-President :* Kadidal Manjappa ; *Hon. Secretary :* Chhotubhai Desai ; *Treasurer :* B. Gangappa.

### THE MYSORE SILK ASSOCIATION
**Asiatic Bldgs., Gandhinagar, Bangalore 9.**

*President :* **K. Shamsuddin Khan, B.A., Retired Director of Sericulture in Mysore** ; *Hon. Secy. :* T. S. Chandrasekhariah.

### THE MYSORE SILK CLOTH MERCHANTS' ASSOCIATION
**Room No. 6, 1st floor, Shivakripa Building, Chowdeswari Temple Street, Bangalore 2.**

*President :* Kota Venkatachalapathi Setty ; *Vice-President :* Gurusevadhurina B. S. Shankarappa Setty ; *Hon. Secretary :* B. S. Kantharaja Setty ; *Treasurer :* M. R. Subbarangiah.

### MYSORE SILK HANDLOOM WEAVERS' ASSOCIATION
**Jumma Masjid Road, Bangalore 2.**

### MYSORE STATE ADULT EDUCATION COUNCIL
1132/2, Krishnamurthipuram, Mysore.

*President :* N. Bhadraiah ; *Vice-President :* A. N. Rama Rao, B.A., B.L. ; *Treasurer:* T. Venkataramanaiah ; *Gen. Secy.:* K. S. Suryanarayana Rao, B.A., LL.B. ; *Chief Executive Officer :* K. S. Muniswamy, B.Sc.

*Dy. Chief Executive Officer :* B. V. Satyanarayana, B.A.

### MYSORE STATE BADMINTON ASSOCIATION
**"Prasanth", 64, XV-A Cross Road, Malleswaram, Bangalore 3.**

*President :* K. A. Nettakallappa ; *Vice-Presidents :* Smt. Indumati R. Kirloskar ; A. B. Eswer ; *Hon. Secretary :* P. Ramesh.

### MYSORE STATE SANGEETHA NATAKA ACADEMY
Ravindra Kalakshetra, Bangalore 2.

*Chairman :* S. R. Kanthi (Minister for Edn., Mysore State) ; *Vice-Chairman :* Mrs. Grace Tucker, M.A., B.T. (Dy. Minister for Edn., Mysore State) ; *Secretary :* T. Vasudevaiya, M.A., M.Ed., Dip. Edn. (Director of Public Instruction, Mysore State) ; *Treasurer :* H. Chikkanna, B.A. (Controller, Mysore State Accounts).

### NATIONAL TUBERCULOSIS INSTITUTE OF INDIA
'Avalon', Bellary Road, Bangalore.

Established by the Govt. of India in 1959. The Institute is carrying out programmes of training and research for controlling tuberculosis on a community basis in India.

*Director :* Dr. D. R. Nagpaul ; *Epidemiologist,* Dr. Raj Narayan ; *T.B. Control Officers,* Dr. G. D. Gothi, Dr. V. B. Naidu ; *Administrative Officer,* T. R. Seshadri.

### OPERATIONS RESEARCH ASSOCIATION
**Section of Industrial Engineering & Administration, Indian Institute of Science, Bangalore 12.**

**Operations Research (OR) is one of the tools which the top management in an industrial or business organisation can use for taking action in complex situations.**

*President :* Dr. B. H. Iyer ; *Hony. Secretaries:* D. V. Kuppanna, Dr. S. M. Khot.

### RAMAN RESEARCH INSTITUTE
Hebbal P.O., Bangalore 6.

*Director :* Sir C. V. Raman.

### REGIONAL INSTITUTE OF ENGLISH, SOUTH INDIA
6A, Cunningham Road, Bangalore.

Established by the Governments of the four Southern States, viz., Mysore, Andhra Pradesh, Madras and Kerala, with the co-operation of the British Council to offer intensive training to key personnel in the field of English language teaching in these States.

The Institute gives training in the teaching of English in the first six years of school to graduate teachers and Deputy Inspectors of Schools. The trainees are selected and deputed by the respective State Governments. Admission is not open to any one not deputed by the State Governments.

The Board of Governors of the Institute comprises the Secretaries of Education of the four States, Directors of Public Instruction of the four States, a representative of the Union Ministry of Education, a representative of the British Council, the Director of the Central Institute of English, Hyderabad, the Director and Director of Studies of the Institute.

The Chairmanship of the Board is held by the Education Secretaries of the four States in rotation for a period of one year each time.

*Other functions :* (*i*) to improve the standards of teaching of English in Primary and Secondary Schools in the four sponsoring States ; (*ii*) to train English teachers ; (*iii*) to undertake and facilitate conferences, seminars, etc., in the teaching of English ; (*iv*) to prepare suitable textbooks, guidance and other material for teachers at various levels ; (*v*) to afford help to the four States in drawing up the syllabus in English.

The courses at the Institute are of 5 months' duration. The maximum intake on each course is 90 for the present.

*Director,* M. Muhammad Ghani.

### SOCIETY OF BIOLOGICAL CHEMISTS
Indian Institute of Science, Bangalore 12.

*President :* Dr. A. Sreenivasan ; *Hon. Treasurer :* Dr. C. S. Vaidyanathan : *Hon. Secretaries :* Dr. Soundararaman Mahadevan, Dr. G. D. Kalyankar, Dr. N. Appaji Rao.

### SOUTH INDIA UNION OF SEVENTH-DAY ADVENTISTS
13, Cunningham Road, Box 20, Bangalore 1.

*President :* A. J. Johanson ; *Secretary :* I. Kanagarayan Moses ; *Treasurer & Auditor :* I. R. Toews.

### SRI BHARATH SEVA MANDALI
E-18, 17th Cross St., Cubbonpet, Bangalore 2.

*President :* G. Nanjundiah ; *Vice-President :* M. Rangappa ; *Secretary:* H. Varadaraj.

### SRI VARALAKSHMI ACADEMIES OF FINE ARTS
Rama Vilas, Kashipathy Agrahar, Chamaraja Road, Mysore 4.

*Presidents :* Rao Bahadur Rajasevaprasakta M. Ramaswamy ; *Vice President :* Prof. M. Yamunacharya, M.A. ; *Founder Secretary :* Natyasastra Kovida, Bharatha Sastra Praveena, Sangeetha Vidwan, R. Chandrasekhariah of Mysore Brothers ; *Principal, Academy of Music :* Sangeetha Vidwan R. Sitaram ; *Honorary Secretary for Board of Research* · Prof. R. Sathyanarayana, M.Sc., (*and General Editor of Varalakshmi Academy Publication Series*).

### VISVESVARAYA INDUSTRIAL & TECHNOLOGICAL MUSEUM
Kasturba Road, Bangalore 1.

*Officer-in-Charge* · A. Bose.

## OTHER TRADE AND COMMERCIAL ASSOCIATIONS

All Mysore Small Scale Industries Association, Prasad Mansion, Main Road, Gandhinagar, Bangalore 9.
Bangalore Commercial Association, 45, Commercial Street, Bangalore-1.
Bangalore Gold Thread Merchants' Association, 49, Jumma Masjid Road, Bangalore 2.
Bangalore Petroleum Dealers' Association, 18, St. Mark's Road, Bangalore 1.
Bangalore Tract & Book Society, 16, St. Mark's Road, Bangalore.
Bangalore Tyre Dealers' Syndicate, Ramakrishna Building, 2nd Floor, Narasimharaja Road, Bangalore 2.
Bangalore Wine Merchants' Association, 111, Bridge Road, Bangalore-1.
Coconut Merchants' Association, 33, Sithu Rao Street, Bangalore-2.
Grain Merchants' Association, 2, Hardinge Road, Bangalore 2.
The Jewellers' Association, Nagarathpeth, Bangalore 2.
The Mysore Printers' Co-operative Society Ltd., Avenue Road, Bangalore City.
The Mysore Raw Silk Merchants' Association, No. 26, Resham Mahal, Kempe Gowda Extn., Bangalore 9.
Mysore Silk Manufacturers (Powerlooms) Association, 39, Jumma Masjid Road, Bangalore 2.
Mysore Silk Throwing Factories Association, S.S.K. Sangha Buildings, Kasi Visweswara Temple St., Bangalore 2.
Mysore State Radio Merchants' Association, 2-F, Mahatma Gandhi Road, Bangalore 1.
Mysore Small Scale Industries Co-operative Society Ltd., Prasad Mansion, Main Road, Gandhinagar, Bangalore 9.
Mysore State Hides & Skins Merchants' & Tanners' Association, 74, Commercial Street, Bangalore 1.
The Mysore State Mine Owners' Association, 5, Race Course Road, Bangalore 1.
Mysore State Paper Merchants' & Stationers' Association, C/o T. M. Abdul Rasheed & Co., 22/23, Malavalli Rama Rao Street, Bangalore 2.
Mysore State Trunk Manufacturers' Association, 12/1, Sri Krishnarajendra Road, Bangalore-2.
Stationery, Cutlery & General Merchants Association, C/o C. R. & Bros., 201-202, Avenue Road, Bangalore 2.
Textile Association (India) Regd., Mysore Branch, C/o S.K.S.J. Technological Institute, Bangalore 1.

## OTHER SOCIAL, CULTURAL, LITERARY, RELIGIOUS, ETC. ASSOCIATIONS

All India Anglo Indian Association, 11, Stephen Road, Bangalore 5.
Automobile Association of South India, 18, St. Mark's Road, Bangalore 1.
Bangalore Club, 38, Residency Road, Bangalore 1.
Bangalore Young Women's Christian Association, 9, Lady Curzon Road, Bangalore 1.
Bowring Institute, 19, St. Mark's Road, Bangalore 1.
Rotary Club of Bangalore, 36, Residency Road, Bangalore.
Shorthand Writers' Association, District Office Compound, Bangalore.
Bangalore City Institute, Fort South Gate, Bangalore
Government Tuberculosis Sanatorium, Old Madras Road, Bangalore.
Indian Hockey Federation, 16/3, Infantry Road, Bangalore.
Indian Institute of Public Administration, Vidhana Soudha, Ground Floor, Bangalore 1.
United Lodge of Theosophists, Sir Krishna Rao Road, Basavanagudi, Bangalore.
Institute of Management, C/o Hindustan Aircraft Ltd., Bangalore.
Mysore State Ayurvedic Congress, Jayachamarajendra Institute of Indigenous Systems of Medicine, Bangalore.
Ex-Servicemen's Association, 9, Main Road, Munireddipalyam, Bangalore.
Family Planning Associations, 44A, Cavalry Road, Bangalore 1.
Institution of Engineers (India), Mysore Engineers Assen. Bldg. Bangalore 1.
Sri Kasturba Gandhi Hindi Shikshana Shala, III Main Road, Chamarajpet, Bangalore.
Mysore Geologists' Association, 243, Fifth Main Road, Chamarajpet, Bangalore 1.
Mysore Horticultural Society, Lalbagh, Bangalore 2.
Mysore Serum Institute, Hebbal, Bangalore 6.
The Mysore State Education Federation, Mayo Hall, Bangalore 1.
The Mysore State Journalists' Association, District Office Compound, Bangalore 2.
The Mysore State Non-Gazetted Officers' Association, Cubbon Park, Bangalore 1.
Mysore Hindi Sahitya Parishat, Chamarajpet, Bangalore 2.
Mysore State Branch of Red Cross Society, Bangalore 4.
Oriental Research Institute, Mysore.
Princess Krishnajammanni Sanatorium, V. V. Mohalla, Mysore.
Seva Sadan, XIV Cross Road, Malleswara, Bangalore 3.
Servants of India Society, Basavanagudi, Bangalore
Sangeetha Kalabhivardhini Sabha (Regd.), 1670, Hosakeri, Krishnaraj Mohalla, Mysore.
Sarva Sishu Poshana Sangh, 28, 1st Main, V Block, Kumarapark West Extension, Bangalore 20.
Sree Rama Bhajana Sabha, East Park Road, Malleswaram, Bangalore 3.
Sree Ramaseva Mandali, 189, 4th Main Road, Chamarajpet, Y.M.C.A., Cernofaph Road, Bangalore 2.

# BANGALORE DISTRICT*

*Area :* 3,081 sq. miles; *Population :* 2,504,462 (1961 Census).
*Headquarters :* Bangalore.

The average rainfall is 30·59 inches.

Bangalore is the headquarters. It is 26 sq. miles in area and has a population of 1,206,961 (1961). It is a centre of many State-owned and private industries. Four major Govt. of India undertakings are located here. They are Hindustan Aeronautics Ltd., Indian Telephone Industries Ltd., Hindustan Machine Tools Ltd., and Bharat Electronics Ltd. Other Industries both in the private and public sector include : Soap, porcelain, insulators, electrical transformers, gas mantles, lamps, glassware, pharmaceutical products, chrome, tanned leather, woollen, cotton and silk mills.

Channapatna is situated to the south-west of Bangalore on the Bangalore-Mysore Railway. It has a population of 24,041. The town is noted for the manufacture of lacquer toys and the drawing of wire for musical instruments. It is also a centre for sericulture in the State. It contains a Government Silk Farm and the Mysore Spun Silk Mills, a Government-aided enterprise. Large quantities of coconuts, betel leaves and mangoes are exported.

## BANGALORE MUNICIPAL CORPORATION

*Mayor*, T. K. Thimmarayi Gowda.
*Deputy Mayor*, B. K. M. Gowda.
*Commissioner*, Y. Rupla Naik, I.A.S.
*Administrative Officer*, N. Siddalingappa, M.A., LL.B.
*Engineer*, H. S. Narayana Setty, B.E.
*Dy. Engineer*, E. L. J. Isaac, D.R.T.C.
*Health Officer*, Dr. N. S. Ayodhyanath, M.B.B.S., D.P.H.
*Education Officer*, M. R. Ramiah, B.A., B.T., Dip. Edn.
*Medical Officers of Health*, Dr. A. N. Gopalakrishna ; Dr. R. Gurumurthy Reddy ; Dr. R. Nagarathnam ; Dr. V. L. Pandit.
*Physical Education Officer*, A. R. Chikapapiah.
*Council Secretary, I/C*, A. V. G. Sarma.
*Revenue Officer*, M. Gurusiddiah, B.Sc. (Hons.), LL.B.

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Fresh elections to the Municipal Corporations are expected to take place in Dec. 1967.

### BUDGET ESTIMATES FOR THE YEAR 1964-65

| | Normal Account Rs. | Capital Loan Account Rs. |
|---|---|---|
| Opening Balance .. .. .. | 1,14,50,705 | 20,15,939 |
| Revenue .. .. .. .. | 3,22,93,600 | 31,65,096 |
| Total .. .. | 4,37,44,305 | 51,81,035 |
| Expenditure .. .. .. .. | 3,67,67,100 | 50,74,800 |
| Closing Balance .. .. .. | 69,77,205 | 1,06,235 |

* The Mysore Cabinet decided on Aug. 31, 1962 to divide Bangalore Dist. into two districts, the Bangalore Rural District and the Bangalore Urban District.

# MYSORE DISTRICT

*Headquarters :* Mysore.

The area of the District is 4,617 sq. miles. Population : 1,671,399 (1961 Census). The District has an average rainfall of 29 inches, 83 cents and a forest area of 447·5 sq. miles.

Mysore, the District headquarters town is also the residence of the Governor. It is a paddy growing centre, with several mills for hulling paddy. There are a large number of power and handloom industries for weaving cotton and silk fabrics in the town. Sandalwood oil is produced in the Government Sandal Oil Factory. The Central Food Technological Research Institute, one of the national laboratories, is situated here. Mysore is also the headquarters of the Mysore University. Mysore town has a population of 253,865 (1961 census).

### OTHER DISTRICTS

The other districts in Mysore State with their district headquarters within brackets are as follows :

Belgaum (Belgaum); Bellary (Bellary); Bidar (Bidar); Bijapur (Bijapur) ; Chickmagalur (Chickmagalur) ; Chitaldurga (Chitaldurga); Coorg (Mercara) ; Dharwar (Dharwar) ; Gulbarga (Gulbarga) ; Hassan (Hassan) ; Kolar (Kolar) ; Mandya (Mandya) ; North Kanara (Karwar) ; Raichur (Raichur) ; Shimoga (Shimoga); South Kanara (Mangalore) ; Tumkur (Tumkur).

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691, Raviwarpeth, Belgaum.

*President :* A. G. Ghorpade ; *Vice-Presidents :* B. B. Kagganigi ; K. C. Patankar ; *Hon. Secretary :* R. R. Shinde.

#### BELLARY DISTRICT CHAMBER OF COMMERCE

Bellary.

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#### DANDELI INDUSTRIES ASSOCIATION

Dandeli (Dt. N. Kanara).

#### THE DAVANGERE TRADES ASSOCIATION

Mandipet, Davangere.

#### DHARWAR CHAMBER OF COMMERCE

Dharwar.

*President :* S. S. Nawari ; *Vice-Presidents :* Y. L. Sangolli, C. G. Agadi ; *Hon. Secretary :* S. M. Malkai ; *Treasurer :* D. V. Punekar.

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South Kanara Branch, Manipal.

#### GOVERNMENT WELLESLEY TUBERCULOSIS SANATORIUM

Bellary.

#### THE KANARA CHAMBER OF COMMERCE

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Khasbag—Belgaum.

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Ambica Industries, 114, Jayachamaraja Road Cross, Bangalore 2.
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Ananda Coach Works, Mavalli Circle, Bangalore 2.
**Ananda Perfumery Works, Sultanpet, Bangalore 2.**
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Laboratory Supplies Co., Avenue Road, Bangalore 2.

Lalwani Radio Corporation, 37/38, Silver Jubilee Park Road, Bangalore 2.

Lekhraj Jassumal & Sons, 113-F, Brigade Road, Bangalore 1.

Lokkur & Co., Kempegowda Road, Bangalore.

M. A. T. Acharya & Co., Avenue Road, Bangalore 2.

Machine Tools India Private Ltd., 41, Silver Jubilee Park Road, Bangalore 2.

Madras Auto Service P. Ltd., 137, Sri Narasimharaja Road, Bangalore.

Madras Bangalore Transport Co., 14, II Road, New Tharagupet, Bangalore 2.

Madras Circle Pipe Dealers' Association Ltd., Shankar Bldg., Silver Jubilee Park Road, Bangalore 2.

Madras Vegetable Oil Products Ltd., Platform Road, Bangalore 2.

Madras Woodlands Hotel, 5, Sampangy Tank Road, Bangalore 1.

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Management & Industrial Consultants P. Ltd., 17th Cross, Bangalore 3.

Mandya National Paper Mills Ltd., 14, Palace Road, Bangalore.

Manik Elec. & Trading Co., Khaleel Bldgs., Chickpet Bangalore 2.

Mahomed Ebrahim & Co. P. Ltd., Brigade Road, Bangalore.

Manyam & Co., 23, East Subedar Chatram Road, Bangalore 3.

Margarine & Refined Oils Co. Ltd., Mysore Road, Bangalore 2.

Massey-Ferguson India Ltd., P. Box No. 3, Bangalore 1.

M. B. T. Co., New Taragpet, Bangalore 2.

Meccano Floorings P. Ltd., 1/1, Richmond Road, Bangalore 25.

Metro Cycle & Auto Stores, A-94, Albert Victor Road, Bangalore 2.

Metro Malleable Manufacturers Ltd., Silver Jubilee Park Road, Bangalore 2.

Minerva Mills Ltd., Bangalore 3.

Misrilal Moolchand & Co., Dewan Surappa Lane, Bangalore 2.

Misrimal Bhabutmal & Brothers, 314, Chickpet, Bangalore 2.

Modaliar & Sons, P. M., Cottonpet, Bangalore 2.

Modern Automobiles, Bank Road. Mysore.

Modern India Trading Co., 296, Akkipet, Bangalore 2.

Modern Trading Co., S. J. Park Road, Bangalore 2.

Monotype Corporation Ltd., 6A, Cunningham Road, Bangalore 1.

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Muddanna, M., & Sons, 158, Avenue Road, Bangalore City.

Muthya Engineering Works, 431, 43rd Cross, VIII Block, Jaynagar, Bangalore 11.

Mysore Ace Apparels P. Ltd., 2-B, M. Gandhi Road, Bangalore 1.

Mysore Agarbathi Co., 1, Madar Sab Street, Bangalore 2.

Mysore Bangle Works, 80/1, Balepet, Bangalore 2.

Mysore Carpet Works Ltd., 67, Subedar Chatram Road, Bangalore 3.

Mysore Cements Ltd., 19, Race Course Road, Bangalore 1.

Mysore Chemical & Fertiliser Ltd., Chikbanavar P.O., Bangalore.

Mysore Chemical & Industrial Minerals, 40, Sabuvani Bldg., Narasimharaja Road, Bangalore 2.

Mysore Chrome Tanning Co. Ltd, Mysore Road, Bangalore 2.

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Mysore Foundries, Kanakapura Road, Bangalore 4.
Mysore Glass and Enamel Works Ltd., 34, Gandhinagar, Bangalore 2.
Mysore Industrial Products, 331, First Main Road, New Tharagupet, Bangalore.
Mysore Industrial Supplies, S.J. Park Road, Bangalore 2.
Mysore Industrial & Testing Laboratory Ltd., Malleswaram, Bangalore 3.
Mysore Industries Supplies, Post Box No. 559, Bangalore 2.
Mysore Lamp Works Ltd., P. Box No. 1009, Malleswaram, Bangalore 12.
Mysore Machinery Manufacturers Ltd., 5th Mile, Mysore Road, Bangalore 2.
Mysore Paper Mills Ltd., Asiatic Buildings, Bangalore.
Mysore Prabhat Perfumery Works, Avenue Road, Bangalore 2.
Mysore Pharmaceuticals Ltd., 136, Subedar Chatram Road, Bangalore 2.
Mysore Spectacles Co., 89, Sultanpet, Bangalore 2.
Mysore Spinning and Manufacturing Co., Ltd., Malleswaram, Bangalore 3.
Mysore Starch Manufacturing Co., Bangarapet P.O., Bangalore.
Mysore Stoneware Pipes and Potteries Ltd., 6th Cross Road, Gandhinagar, Bangalore.
Mysore Sugandhi Agarbathi Factory, Cottonpet, Bangalore 2.
Mysore Sugar Co. Ltd., Sri Jayachamaraja Road, Bangalore.
Mysore Surgical Industries, 66, Dewan Surappa Lane, Bangalore 2.
Mysore Tobacco Co. Ltd., District Board Buildings, Kempegowda Road, Bangalore City.
Mysore Travels P. Ltd., 593/2, XI, Main Road, Malleswaram, Bangalore 3.
Mysore Vegetable Oil Products Ltd., P.O. Box No. 501, Bangalore 2.
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Mysore Wire & Metal Industries, No. 13, IVth Cross, Magadi Road, Bangalore 2.
Nagindas Kilabhai, 87, Silver Jubilee Park Road, Bangalore 2.
Nagaraja Industries, Rajajinagar, Yeshwanthpur P.O., Bangalore 22.
National Industries Co., Magadi Road, Bangalore 2.
National Products, Bangalore 6.
National Sugar Works and Coffee Powder Manufacturers, Old Thara-gupet, Bangalore.
New Everest Hotel, Tank Bunder Road, Bangalore.
New India Corporation, 7/1, Mission Road, Bangalore 1.
New India Pharmaceutical Industries Ltd., 44, Lalbagh Road, Bangalore 2.
New Premier Chemical Industries, Albert Victor Road, Chamarajapet, Bangalore 2.
Noble Paint & Varnish Co. Private Ltd., 5, Godown Street, Bangalore 2.
Novelty Dress Mfg. Co., Nagarthpet, Bangalore 2.
N. S. Narayan Brothers, 156, Commercial Street, Bangalore 1.
Oakley Duncan & Co. Ltd., Silver Jubilee Park Road, Bangalore 2.
Olympaid Engineering Works, Industrial Estate, Rajajinagar, Bangalore 10.
Optopias Industries, M. Gandhi Road, Bangalore 1.
Oriental Hat Mfg. Co., 67, Jangam Maistry Lane, Balepet, Bangalore 2.
Oriental Mill Stores & Trading Co., Sri N. Raja Road, Bangalore 2.
Oriental Rubber Trading Co., 2/3, Silver Jubilee Park Road, Bangalore 2.
Parry & Co., Ltd., Silver Jubilee Park Road, Bangalore.
Patel Electric Company, 5/2, Ekambara Sahuji Lane, Chickpet, Bangalore.
Paxal Corporation, 13, Sri Krishnarajendra Road, Bangalore 2.
Philips India Ltd., George Oakes Bldg., Sri Narasimharaja Road, Bangalore.
Pioneer (Madras) Ltd., 180, Commercial St., Bangalore 1.
Poddar Martin Mining and Minerals Private Ltd., 6, Church Street, Bangalore 1.
Popular Automobiles, 86, S. J. Park Road, Bangalore 2.
Popular Motor & Cycle Co., Brigade Road, Bangalore 1.
Popular Silk House, Mamulpet, Bangalore 2.
Popular Umbrella Mfg. Co., Mamulpet, Bangalore 2.
Porcelain Products Co., Subedar Chatram Road, Bangalore.
Prakash Dress Mfg. Co., Kempegowda Road, Bangalore 9.
Prasad Agarwal Private Ltd., Silver Jubilee Park Road, Bangalore-2; Automobile Engineers; Agents for "MICO" Fuel Injection Equipment and other "BOSCH" Products Manufactured by Motor Industries Ltd.
Printers (Mysore) Ltd., Mahatma Gandhi Road, Bangalore 1.
Printers House Ltd., Musvee Bldg., 48, Central Street, Bangalore.
Pyramid Advertising & Publicities, 4, Okalipuram Extension, Bangalore 2.
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Radio Engineering Co., Philips House, 6-D, Brigade Road, Bangalore.
Radio House, Brigade Road, Bangalore.
Radio Soap Institute, The, Lalbagh Road, Bangalore 2.
Raghulal & Co. (Bangalore) Ltd., 70, Arcot Srinivasachar Street, Bangalore 2.
Rainbow Trading Co., Chickpet, Bangalore.
Raja Cycle and Motor Works, "Raja Buildings", Sri Narasimharaja Road, Bangalore.
Raja Vegetable Oils Co., 36, Old Tharagupet, Bangalore 2.
Raja Laxminarayana Setty & Sons, Sri Narasimharaja Road, Bangalore.
Rajagopalan & Co., N. C., 176, 6th Cross Road, Gandhinagar, Bangalore 9.
Rajagopalan & Co., V. S., South Parade, Bangalore.
Ram Mohan & Co., Private Ltd., Kempegowda Road, Bangalore.
Ramnarayan Girdharidas & Co., C-65, Dewan Surappa's Lane, Bangalore 2.
Rampen Pharmaceuticals, 271, 10th Cross Road, Bangalore.
Rane (Madras) Ltd., Narasimharaja Road, Bangalore 2.
Ranjan Automobiles, Shafi Bldg., Kalasipalayam Main Road, Bangalore 2.
R. G. Engineering Works, 5/63, Manvarthipet, Bangalore 2.
Refrigerators & Home Appliances (Mysore) Agencies, Residency Road, Bangalore 1.
Reliable Corpn. P. Ltd., 2 & 3, Narasimharaja Road, Bangalore 2.
Reliable Engineering Works, Oosmankhan Road, Bangalore 2.
Reliance Electric Co., 20, Sri Narasimharaja Road, Bangalore.
Research Chemical Laboratories, 550, 8th Main Road, Bangalore 12.
Rico Trading Co., Narasimharaja Road, Bangalore 2.
Royal Dress Mfg. Co., Subedar Chatram Road, Bangalore 3.
R. S. Cooper & Co., 112-D, Brigade Road, Bangalore 1.
Rudra Industries, Kailas Kunj, Bangalore 3.
S. Dhondusa Gold Thread Factory, Subedar Chatram Road, Bangalore City.
Sandur Manganese & Iron Ores (Private) Ltd., Sandur House, Palace Road, Bangalore.
Sankey Electrical Stampings Private Ltd., Rajaji Nagar, Bangalore 10.
Sarvajithu Motor Stores, 70 Kalasipalayam Main Road, Bangalore 2.
Sathyanarayana Khaithan Ltd., 157/1, Nagappa St., Nehru Nagar, Bangalore 3.
Satya Industries Private Ltd., 3, Seshadri Road, Bangalore 9.
Shantilal & Co., Oosmania Buildings, Sri Narasimharaja Road, Bangalore.
Shilton Hotel, St. Mark's Road, Bangalore 1.
Shivram's Radio House, S. J. Park Road, Bangalore 2.
Shri Sharada Silver Chain Factory, F-8, Chowdeswari Temple Street, Bangalore.
Shroff Channabasappa & Sons, Avenue Road, Bangalore 2.
Shoukatali Automobiles, Albert Victor Road, Bangalore 2.
Simpson & Co. Ltd., 29-A, Mahatma Gandhi Road, Bangalore.
Singer Sewing Machine Co., 171, Commercial St., Bangalore.
Singson Automobiles, Kalasipalayam Main Road, Bangalore 2.
Sitaram & Pai Brothers, Arcot Srinivasachar Street, Bangalore City.
Sound Products Co., Post Box No. 14, 60, Subedar Chatram Road, Bangalore 2.
Southern Roadways Ltd., 201, Jayachamarajendra Road, Bangalore 2.
Spencer & Co. Ltd., Mahatma Gandhi Road, Bangalore.
Sri Gowrishanker Industries, 27, Old Tharagupet, Bangalore 2.

Sri Hindwani Electricals, 3, Santha Veeriah Lane, Chickpet, Bangalore 2.
Sri Krishna Spg. & Wvg. Mills P. Ltd., Sudhama House, Chickpet, Bangalore 2.
Sri Mahalaxmi Transport Co., D-113, Mamulpet, Bangalore 2.
Sri Rama Metal Works, Mysore Road, Bangalore 26.
Sri Vatsa Chemical Mfg. Co., Seshadripuram, Bangalore 3.
Sri Venugopalaswamy & Co., Sri Krishnarajendra Road, Bangalore.
Standard Plastic Manufacturers, 8, Avenue Road, Bangalore 2.
States Engineering Co., Sri Narasimharaja Road, Bangalore.
States Hotel, Gundopanth Street, Bangalore 2.
Steel Construction Co. Ltd., Hardinge Road, Bangalore 4.
Steel (India) P. Ltd., 86-87, S. J. Park Road, Bangalore 2.
Steelman Private Ltd., 2, Annaswami Road, Bangalore 1.
Stumpp Schuele & Somappa (P.) Ltd., 78, Hosur Road, Bangalore South.
Subbiah Setty & Sons, N. K., Kokila Perfumery Works, Mamulpet, Bangalore.
Suedes & Leatherettes Ltd., Hindustan Aircraft P.O., Bangalore.
Sundaram Motors P. Ltd., 9, Grant Road, Bangalore.
Super Automobiles, 151, Broadway Road, Bangalore.
Swastik & Co., 92, 3rd Cross Road, Gandhinagar, Bangalore.
Swastik Agencies, Post Box No. 647, Sabuvani Buildings, Sri Narasimharaja Road, Bangalore 2.
Swastik Dress Mfg. Co. Ltd., 104, Jangam Maistry Lane, O.T.C. Road, Bangalore 2.
Swastik Electric Industries, Chickpet Cross, Bangalore 2.
Tallam Automobiles, 1/9, Narasimharaja Road, Bangalore 2.
Taj Mahal Hotel, Gandhinagar, Bangalore 9.
Tata Oil Mills Co. Ltd. (Tomco Sales Department), 2A, Mahatma Gandhi Road, Bangalore 1.
Thos. Cook & Son (Continental and Overseas) Ltd., 20C, Mahatma Gandhi Road, Bangalore.
T. R. & Sons, 4, Cavalry Road, Bangalore 1.
Trans Auto Traders, 70/4, Narasimharaja Road, Bangalore 2.
Tyretreads (India) Private Ltd., 1, New Mental Hospital Road, Bangalore 2.
Uberoi Trading Co., 11, Mission Road, Bangalore 2.
Uma Gold Covering Works, 544, Avenue Road, Bangalore City.
Union Co. (Motors) P. Ltd., 8, Brigade Road, Bangalore 1.
United Engineering Corporation Private Ltd., 8, Mission Road, Bangalore 2.
United Trades and Agencies, Chickpet, Bangalore.
Vale Electrical Works, No. 3, Fort Bus Stand Road, Bangalore 2.
Varma Industrials Private Ltd., Hindustan Aircraft P.O., Bangalore.
Vasudeva Setty & Sons, T., Krishna Buildings, Avenue Road, Bangalore.
Vaswani India Ltd., 130-C, Veerappa Block, 17th Cross Road, Malleswaram, Bangalore 3.
Venkateshiah Setty & Sons, Chickpet, Bangalore.
Venson & Co., St. Mark's Road, Bangalore.
Venson Transports, IV Main Road, New Tharagupet, Bangalore 2.
Victoria Hotel, 21, Residency Road, Bangalore 1.
Vijaya Industries, Devatha Market, Chickpet, Bangalore 2.
Vijaya Publicities, 85, Sultanpet, Bangalore 2.
Vijayam & Co. (Madras) Private Ltd., Kempegowda Road, Bangalore 9.
Vikas Sons Private Ltd., 298, Chickpet, Bangalore 2.
Viswanath Electric & Radio Corpn., Narasimharaja Road, Bangalore 2.
Voltas Limited, 2/2, Kasturba Road, Bangalore 1.
Waco., 2F, Mahatma Gandhi Road, Bangalore.
Webb's Sales & Service Ltd., 30, Mahatma Gandhi Road, Bangalore 1.
West Coast Paper Mills Ltd., 14, Kasturba Road, Bangalore 1.
West End Hotels, Race Course Road, Bangalore 1.
Western India Match Co. Ltd., 41, Old Tharagupet, Bangalore.
Wind Parts Co., G-67, Osmania Bldg., Sri N. Raja Road, Bangalore 2.
Yadalam Industries, 19, Nagasandra Road, Basavangudi, Bangalore 4.
Young India Agencies P. Ltd., 25, 1, Main Road, Gandhinagar, Bangalore 9.

# NAGALAND

**Area : 6,366 sq. miles.**
**Population : 369,200 (1961 Census).**
**Headquarters : Kohima.**

Administrative Districts with headquarters shown within brackets : Kohima (Kohima); Mokokchung (Mokokchung); Tuensang (Tuensang).

There are 860 villages.

The economy of the unit is mainly dependent on agriculture. Revenue is derived from house tax and forest produce like bamboo, cane, timber, thatch and 'Agar'.

The deficit in food production at the beginning of the Third Five Year Plan was estimated at 5,400 tons, the major crop being rice which accounts for 80 per cent of the total output of food. This deficit may be reduced to 2,200 tons by the end of the Third Plan. In the villages people depend mostly on their own cottage industry for cloth. Yarn is made locally though it is also imported. Towns now import mill cloth.

The main tribes in the Area are : Angami, Sema, Lhotha, Ao, Rengma, Chakesang, Sangtam, Konyak, Chang, Phom, Yimchunger, Khemnyuan, Zeliang-Kuki.

The administrative unit known as Naga Hills and Tuensang Area (N.H.T.A.) comprising the Naga areas of Assam State and North-East Frontier Agency, that is, the Naga Hills District of Assam and the Tuensang Frontier Division of NEFA, came into being as a separate entity on December 1, 1957, following the acceptance by the Government of India of a resolution passed by the first Naga People's convention at Kohima held on 22nd August 1957 which advocated this course as a step for solving the political deadlock there.

In pursuance of an agreement between the Naga People's convention and the Government of India on the basis of the recommendations of the convention held in October 1959 at Mokokchung, the Naga Hills and Tuensang area was renamed as Nagaland from 18th February 1961 under the Nagaland (Transitional Provisions) Regulation, 1961 as a preliminary to the constitution of Nagaland into a full-fledged State of the Indian Union.

Until Dec. 1, 1963 Nagaland continued to be administered by the Governor of Assam as Agent to the President, with the advice and assistance of an Executive Council consisting of five members with a Chairman, known as the Chief Executive Councillor and an Interim Body of 45 members. The Executive Councillors functioned as a *de facto* Council of Ministers for Nagaland in the discharge of their responsibilities for the subjects respectively allotted to them. The Interim Body functioned as a *de facto* Legislature for purposes of consideration of Budget, Development Programme and other matters falling within the sphere of the Executive Council. There was a Chief Secretary to the Administration, who was responsible for the coordination and enforcement of all Government orders. There was also a Chief Executive Officer to whom the three Deputy Commissioners of the districts were subordinate. The Governor entrusted with special responsibilities for Law and Order until the situation return to normalcy and had also general responsibility for Finance. He had a Secretary for Nagaland affairs in Shillong to assist him besides the other officers in his Secretariat.

## NAGA CONVENTION

A Naga People's Convention which met at Kohima in August 1957 marked a turning point in the solution of the Naga problem. There were about 2,000 delegates representing various Naga tribes.

The convention approved a resolution prepared by a drafting committee. The essence of it was the formation of a Naga State within the Indian Union and internal autonomy with responsible government.

The Interim Body for Nagaland was inaugurated on February 18, 1961 by the Governor of Assam at Kohima. Forty-two members of the Interim Body were sworn in. These representing 14 Naga Tribes constituted the State Assembly until the Nagaland was formally created on Dec. 1, 1963 by the President. Dr. Imkongliba Ao was elected the first Chairman of the Interim Body and after his assassination on 21st September 1961 Mr. T. N. Angami was elected Chairman. Mr. Chaubatoshi Jamir was nominated M.P. for Nagaland and took his seat in the Lok Sabha in November, 1961.

The Nagaland five-man Executive Council was sworn in on March 16, 1961 at Raj Bhavan in Shillong. The following five Executive councillors were sworn in : Shilu Ao (Chairman), Jasokie Angami, R. C. Chiten Jamir, Hokishe Sema and Akum Imlong Chang.

### Bills to Legalize Nagaland Set-up

Mr. Nehru introduced in the Lok Sabha on Aug. 21, 1962, a Bill to legalise the formation of the State of Nagaland—the 16th in the Union, in pursuance of the agreement in July 1960, between the Govt. of India and the leaders of the Naga People's Convention.

The Prime Minister also introduced the Constitution (13th Amendment) Bill which incorporated the special features of the agreement. They include a provision that the Governor of the State shall have special responsibility for law and order so long as the hostile activities continue. Further, no Acts of Parliament shall apply to Nagaland in regard to religious or social practices of the Nagas, Naga customary law and procedure and ownership and transfer of land except with the concurrence of the Nagaland legislature.

The Lok Sabha passed the State of Nagaland Bill on Aug. 29 with an amendment that any order passed by the President to remove difficulties in giving effect to the provisions of the Act, should be laid before Parliament, and also the Constitution (13th Amendment) Bill. The above two Bills were approved by the Rajya Sabha on Sept. 3, 1962.

The drafts of the two Bills were discussed by the Interim Body on June 7, 1962. The draft Bill for the creation of the separate State of Nagaland was sent to the Assam Chief Minister by the Union Government for consideration in June. It was referred to the Assam Legislative Assembly before being introduced in the Parliament.

General Elections for Nagaland Legislative Assembly with an initial strength of 46 (it may be raised to 60 after ten years) were held in the second week of January, 1964 exactly 40 days after the inauguration of the State.

The new Ministry which was sworn in on January 25, 1964 by the Governor of Nagaland consists of eight Ministers including one Deputy Minister.

### PEACE TALKS

Attempts for bringing about peace in Nagaland were initiated in January 1964 by the Baptist Church leaders who held a convention at Wokha. The convention proposed to form a Peace Mission consisting of four members, namely, Mr. Jayaprakash Narayan, Mr. B. P. Chaliha, the Rev. Michael Scott and Mr. Shankarrao Deo. But ill health prevented Mr. Shankarrao Deo to take up the mission. The Peace Mission contacted the rebel Naga leaders and had discussions with them. These discussions led to an agreement between the Government and the Naga rebels and came into effect at midnight of Sept. 5, when the military operations in Nagaland and the disturbed areas of Manipur State were suspended.

Preliminary talks between the hostile Naga delegation was started on September 23rd, 1964 at Chedema near Kohima. Both expressed the desire to evolve a mutually acceptable solution. The Indian delegation consisted of Mr. Y. D. Gundevia,* Mr. P. Shilu Ao, Mr. U. N. Sharma, Mr. D. M. Sen and Mr. N. F. Suntook. The peace period which was initially for one month was extended first upto 15th October 1965, then upto Nov. 15, 1965, then upto Jan. 15, 1966 and again upto April 15, 1966.

Until December 1964 there had been six rounds of talks at Chedema, but as the underground did not change their stand for independence, which was rejected by the Indian delegation, the Peace Mission was requested to put up some formula which could form a basis of discussion and mutual understanding. The Peace Mission put forward its proposals in December 1964 which, in short, asked the underground to decide on their own volition to be a participant in the Union of India and mutually settle the terms and conditions for that purpose. The Mission further recommended that on the other hand the Government of India may consider to what extent the pattern and structure of the relationship between the Nagaland and the Government of India could be adapted and recast so as to satisfy the political aspirations of all sections of Naga opinion. The proposals by the Peace Mission have been commended by the Baptist Church leaders, by the village, tribal and range councils. But so far, the underground have neither accepted nor rejected these proposals. In January 1965 the venue of talks was shifted to Khensa near Mokokchung. There have been rounds of talks in Khensa on February 24, April 6, May 4 and July 1, 1965.

Meanwhile a 14-member Parliamentary delegation consisting of Messrs Hem Baruah, R. N. Barua, M. P. Bhargava, R. G. Dubey, U. K. Gujral, Ansar Harvani, A. P. Jain, R. S. Kanderkar, M. R. Masani, H. N. Mukerjee, R. S. Panjhazari, N. G. Ranga, Dr. S. Chandrasekhar and Dr. M. N. Siddhu visited Nagaland and met the underground at different places and had frank talks with them. In its report the delegation said : "The delegation is left with no doubt that the suspension of firing as from September 6, 1964 and its continuance has been greatly appreciated by the Naga people as a whole. The Chief Minister and a number of officials whom we met thought that the prolongation of peace was both to India's and Nagas' advantage.

"The delegation believes that there can be no solution of the Nagaland except within the Indian Union"

### DEVELOPMENT PROGRAMME IN THIRD PLAN

An out-lay of Rs. 7·25 crores had been approved for the Third Five Year Plan subject to the increase of allocations from year to year based on the actual performance. By the end of the financial year 1965-66 the actual expenditure under Plan scheme may come to Rs. 1,120 lakhs.

Under agricultural production schemes the total production potential was brought to 80,900 tons by the end of 1963-64 as against 77,200 tons in 1961-62. The estimated area under rice and production by the end of 1963-64 was 1,79,500 acres and 70,000 tons respectively.

Forests are the main source of revenue in Nagaland. By the end of 1963-64 the out-turn of timber was brought to 6,32,000 cft as against 1,60,000 cft. in 1960-61. During the year 1963-64, 65,933 cft. of sleepers and timbers were supplied to the Railways and Defence and other Departments. The total revenue earned during the year was Rs. 9,74,434 as against Rs. 2,92,000 in 1960-61.

The allotment under the Third Five Year Plan for roads is Rs. 250 lakhs and the following targets are aimed at : New Jeepable Road 718 miles, widening and improvement 489 miles (total 1,484), Minor Bridges 38 nos. The State is connected by road, footpath and jeep track. The rail head Dimapur (or Manipur Road) is the starting point of a National Highway which runs through Kohima to Imphal, Headquarters of the Union Territory of Manipur and the nearest airport served by scheduled flight of the Indian Airlines.

(*Roads*-1963-64) : National Highway (from Dimapur to Mao) 64 miles ; jeepable roads 1,155 miles ; Mule paths and porter tracks 837 miles, widening done to the existing roads 550 miles. In 1963-64, as sum of Rs. 22 lakhs was spent on roads. To facilitate communication further the State has a five year scheme of running a Public Transport. During the year 1963-64 an expenditure of Rs. 4·90 lakhs was incurred and the State Transport Service was inaugurated on 1st December 1964.

The Third Plan allocation for Education was Rs. 100 lakhs against which Rs. 37·39 lakhs had been spent by the end of 1963-64. And in 1964-65 about Rs. 50 lakhs.

*Education :* (March 1965) — No. of Govt. Primary Schools 650 ; Govt. Middle Schools 82 ; Govt. High Schools 17 ; Number of Govt. Schools in the area 749 ; Number of Govt. Colleges 1 ; Training Centres 2 ; Junior Technical School 1 ; Total students in Government schools and colleges in the area 59,832. Number of aided and private institutions : College 1, High Schools 16 ; Middle Schools 59 ; Primary Schools 23 ; Number of students in private schools and colleges 6,914 ; Number of students in Government School and Colleges 59,832. Total number of students 66,746.

The allocation for Health for the Plan period was Rs. 150 lakhs against which Rs. 38·23 lakhs had been spent by the end of 1963-64. An amount of Rs. 57·14 lakhs was set apart for the year 1964-65 under this head.

1965 : No. of hospitals 30 ; No. of dispensaries 29 ; No. of Civil doctors 100.

All the villages in Nagaland have been covered by 17 Community Development Blocks for which an amount of Rs. 60·60 lakhs will have been spent by 1964-65.

Sufficient fund had also been provided for other schemes such as Animal Husbandry, Fishery, Cooperative, Power, Industries, Research & Cultural Programme, Housing, Labour and Labour Welfare, Welfare of Backward Class, Statistics and Information and Publicity.

* Mr. Dharma Vira is now the leader of the delegation, thus bringing the Nagaland peace talks directly under the Union Home Ministry.

# ORISSA

(*See under "Late Particulars"*).

# PONDICHERRY

*Area :* 185 sq. miles (481·8 sq. Km.) ; *Population :* 3,69,079 (1961 census).

*Capital :* Pondicherry.

*Lieut. Governor :* S. L. Silam.

Popular ministry consisting of a Chief Minister and three ministers started functioning from September 11, 1964.

The Union territory of Pondicherry consists of : (1) On the Eastern Coast : (*a*) Pondicherry, the Capital, together with the adjoining territory, divided into 8 communes ; situated at about 98 miles south of Madras, the territory is an enclave in the district of South Arcot in Madras State. *Area :* 290·1 sq. Km. ; *Population :* 2,58,561 (1961 census).

(*b*) **Karaikal :** divided into 6 communes ; it is at a distance of 92 miles from Pondicherry and is an enclave in the Tanjore District. *Area :* 158 sq. Km. ; *Population :* 84,001.

(*c*) **Yanam :** with the adjoining territory forming one single commune ; situated in the delta of the Godavari, it is an enclave in the district of East Godavari in Andhra Pradesh. *Area* 20·7 sq. Km. *Population :* 7,032 (1961 Census)

(2) **Mahe :** The territory of Mahé on the west coast consists of the town of Mahé on the left bank of the river of the same name ; and the dependent territory of Naluthara on the right bank containing the four villages of Chambara, Chalakara, Palour and Pandaquel. It is an enclave in the District of Cannanore in Kerala State.

*Area :* 104 sq. Km. : *Population:* 19,485 (1961 census).

*De Facto* transfer of these former French possessions to India took place on Nov. 1, 1954 following an agreement between the Government of India and the Government of France. The instrument of transfer was signed in Pondicherry on Nov. 1, 1954 by Mr. Kewal Singh on behalf of India and Mr. Pierre Landy representing France.

A treaty for the *de jure* transfer to India of the French establishments was signed on 28th May 1956 by Mr. Nehru, as Minister for External Affairs and the French Ambassador in India, Count Ostrorog. The instruments of ratification of the Treaty of Cession were exchanged in New Delhi on August 16, 1962.

The Union Territory of Pondicherry is directly administered by the Government of India through a Lieutenant Governor appointed by the Government of India and a Ministry consisting of one Chief Minister and three Ministers.

Elections for 39 seats in the State Representative Assembly took place on August 10, 1959 and the Assembly became a full-fledged Legislature since 1st July 1963.

The first general election in Pondicherry after the "dejure" transfer, electing a 30-member Assembly replacing the 39-member House, took place on Aug. 23, 1964. The congress won the majority and formed the Government. For details about the election, see under "Late Particulars".

The Municipal Administration in the State is carried out by the Municipal Councils, one in each of the sixteen communes. Elections for the Municipal Councils were last held in 1961.

Chandernagore in West Bengal was the first French India possession to become *de jure* a part of the Indian Union after the treaty for its cession was signed in Paris in 1951 by the representatives of the two Governments. The treaty was ratified by the French Assembly on April 11, 1952.

## ECONOMY

AGRICULTURE (1964-65) :

Total production of food crops : 52,000 tonnes.

Production of individual food crops (in tonnes): Rice 47,188 ; Ragi 3,955 ; Cumbu 300 ; Cholam 207 ; Varagu 232 ; other millets 118.

Production of individual cash crops (in tonnes) Sugarcane 1,46,928 ; Groundnut 4,542 ; Chillies 37 ; Pepper 14 ; Onion 35 ; Cotton 469.

Total area of the State (according to village papers) : 46,867 Hectares.

Total area (net) cultivated : 33,245 Hectares.

Total area under food crops : 36,566 ,,

Total area under cash crops : 6,340 ,,

Net area irrigated : 25,344 Hectares.

(By tanks 6,034 hectares ; channels 14,468 hectares ; tube-wells 7,623 hectares ; ordinary wells 142 hectares ; other sources 67 hectares.)

## CO-OPERATION

*Position in relation as on 30th June 1964 :*

Total number of cooperative societies : 163.

Total membership : 37,513.

Total working capital : Rs. 1,53,00,000.

## ELECTRICITY

The Power House which was in existence was closed down and disposed of in November 1963 and as such no generation.

Electricity purchased : 596·384 lakh kW.

## INDUSTRIES

Large-scale industries of the Territory : Anglo-French Textiles Ltd. ; Swadeshi Cotton Mills Ltd. ; Sri Barathi Mills S.A. and the New Horizon Sugar Mills Ltd.

The cotton mills had 2,281 looms and 85,644 spindles as on 1st January 1963.

*Other small scale and cottage industries and their annual production valued in rupees :*

Engineering and allied units (including foundries) 16 (Rs. 23,94,000) ; Food article mfg. (including Biscuits mfg. Units) 3 (Rs. 46,000) ; Mirror and picture framing 9 (Rs. 1,90,000) ; Wooden articles and furniture 8 (Rs. 7,21,500) ; Soap mfg. 7 (Rs. 13,65,000) ; Camphor tablet mfg. 10 (Rs. 17,500) ; Light steel articles like buckets, trunks, trays, iron pots, etc. 20 (Rs. 12,32,000) ; Nylon buttons and plastic goods 4 (Rs. 83,000) ; Leather goods 6 (Rs. 94,000) ; Soda factories 6 (Rs. 2,01,000) ; Match and fire works 2 (Rs. 5,50,000) ; Non-ferrous metal units 14 (Rs. 9,90,000) ; Electrical units 3 (Rs. 30,05,000) ; Perfumeries, balms, etc. 3 (Rs. 57,200) ; Handmade paper making unit 1 (Rs. 1,50,000) ; Paint and varnish Mfg. 3 (Rs. 22,000) ; Artistic works like toys, block engraving etc. 2 (Rs. 15,000) ; Chalk works 1 (Rs. 5,000) ; Oil Mongers Society 1 (Rs. 11,700) ; Toy Making Society 1 (Rs. 2,230) ; Printing presses 7 (Rs. 47,200) ; and Tiles, bricks, cement pipes, etc. 9 (Rs. 1,56,000).

Total number of workers in the above industries : about 1,665.

## HOUSING

Under the Industrial Housing Scheme, 200 tenements were constructed in Pondicherry area during the Second Plan period at a cost of Rs. 5·5 lakhs. Under the Co-operative Housing Scheme, 194 low and middle income group houses were constructed during 1957 to 1964 and a loan to the tune of Rs. 25·21 lakhs was disbursed to the members in this connection.

## ROADS

Total length of roads (both Government and Commune) : 506·09 Km.

Total metalled road : 420·96 Km.

A new pier has been built at Pondicherry at a cost of about Rs. 42 lakhs. Ships lie at a distance from the shore and contact with land is maintained by means of boats.

## EDUCATION (1963-64)

Total number of Nursery schools : 37 (for boys 21 ; for girls 16).

Total number of teachers : 49 (Men 5 ; women 44).

Total number of students : 1,917 (boys 934 ; girls 983).

Total number of Primary schools : 242 (for boys 229 ; for girls 13).

Total number of students : 19,872 (boys 11,864 ; girls 8,008).

Total number of teachers : 532 (Men 418 ; women 114).

Total number of middle schools 69 (for boys 49 ; for girls 20).

Total number of students : 22,685 (boys 13,525 ; girls 9,160).

Total number of teachers : 714 (Men 414 ; women 300).

Total number of High Schools : 37 (for boys 28 ; for girls 9).

Total number of students: 17,606 (boys 11,770 ; girls 5,836).

Total number of teachers : 767 (men 503 ; women 264).

Total number of colleges for boys and girls : 4.

Total number of students : 1,433 (boys 1,042 ; girls 391).

Total number of teachers : 238 (men 180 ; women 58).

*Professional Institutions and their strength :* One Medical College 366 (boys 280 ; girls 86) ; One Polytechnic 260 (all boys) ; Two Teachers' Training Centres 227 (boys 158 ; girls 69) ; One School of Arts and Crafts 83 (all boys) ; One School of Nursing 66 (all girls).

## FIVE YEAR PLANS

A total expenditure of Rs. 3·40 crores was incurred on development schemes during the Second Plan period. This was exclusive of the expenditure incurred on the Pondicherry Medical College which comes under the Central sector.

The Third Plan of the Pondicherry State envisages a total outlay of Rs. 10·17 crores of which the schemes to be executed by the State Government amounted to Rs. 6·93 crores and those under the Central sector (viz., the Medical College, improvements to the Port, etc.) to Rs. 3·24 crores. Of the allocation of Rs. 6·93 crores, Agriculture and Community Development programmes account for 16·7 per cent. Irrigation and Power 12·1 per cent, Transport and Communications 8·8 per cent, Village and Small Industries 4·4 per cent, Social Services 53·5 per cent and Miscellaneous 4·3 per cent.

*Development expenditure including loans & advances :—*

Actuals 1961-62 : Rs. 91·80 lakhs ; 1962 63 : Rs. 100·41 lakhs ; 1963-64 : Rs. 94·97 lakhs.

Revised Estimate for 1964-65 : Rs. 160·72 lakhs.

Budget proposals for 1965-66 : Rs. 213·79 lakhs.

The tentative allocations for the main sectors in the annual plan for 1965-66 are : agricultural programmes Rs. 34·24 lakhs ; co-operation and community development Rs. 9·80 lakhs ; irrigation and power Rs. 29·04 lakhs ; industry and mining Rs. 9 lakhs ; transport and communications Rs. 13 lakhs ; social services Rs. 108·03 lakhs and miscellaneous Rs. 12·82 lakhs.

The anticipated expenditure up to the end of 1964-65 is estimated at Rs. 4·59 crores.

The Pondicherry Government has prepared a draft Fourth Plan, envisaging a total outaly of Rs. 10·5 crores in the Third Plan.

## CHAMBER OF COMMERCE

Post Box No. 26, Karaikal.

*President :* M. Mohd. Ismail Maricar ; *Vice-President :* A. M. Dawood Shah ; *Hon. Secretary :* S. Vijaya Raghavan ; *Treasurer :* R. A. Ramaswami Chettiar.

## CHAMBER OF COMMERCE

Pondicherry

*President :* J. M. Colombani ; *Vice-President :* R. Jayarama Iyer ; *Hon.-Secretary and Treasurer :* H. M. Cassime.

# THE PUNJAB

**Capital :** Chandigarh.

**Area :** 46,376 square miles.

**Total Population (1961 Census):** 20,298,151.

(Males 10,866,910. Females 9,431,241 ; Urban 4,079,100 ; Rural 16,219,051).

**Literacy :** 23·7 per cent ; Males 32·4 per cent ; Females 13·7 per cent. Density 431 per sq. mile ; Sex ratio 868 females for 1,000 males.

**Main Occupation :** Agriculture (66.5 per cent).

**Languages spoken :** Punjabi and Hindi.

The number of seats allotted to the Punjab :— in Lok Sabha 22 : Rajya Sabha 11 ; in the Punjab Vidhan Sabha 154 ; in the Punjab Legislative Council 51.

**Administrative Divisions :** 3 ; **Districts :** 20 ; **Tahsils** 73 ; **Towns** 188 ; **Villages** 21,452.

**Divisions :** Ambala, Jullundur, Patiala.

Names of districts (with headquarters in brackets) : Hissar (Hissar), Rohtak (Rohtak), Gurgaon (Gurgaon), Karnal (Karnal), Ambala (Ambala), Hoshiarpur (Hoshiarpur), Amritsar (Amritsar), Jullundur (Jullundur), Ludhiana (Ludhiana), Ferozepore (Ferozepore), Gurdaspur (Gurdaspur), Kangra (Kangra), Simla (Simla), Patiala (Patiala), Bhatinda (Bhatinda), Sangrur (Sangrur), Kapurthala (Kapurthala), Mahendragarh (Narnaul), Lahaul and Spiti (Keylong), Kulu (Kulu).

## POPULATION

For more details about population see under "Population".

## REGIONS

In the Zonal Division the Punjab falls within the northern Zone, comprising the States of Punjab, Rajasthan and Jammu and Kashmir and the Union territories of Delhi and Himachal Pradesh.

For the more convenient transaction of business with regard to some specified matters, the State is divided into two regions, the Punjabi-speaking and the Hindi-speaking regions.

The Hindi region consists of the districts of Kulu, Kangra, Simla, Karnal, Rohtak, Gurgaon, Hissar, Mohindergarh, Ambala district, excluding the Rupar and Chandigarh Assembly constituencies, Jind and Narwana tehsils of Sangrur district.

The Punjabi region consists of the districts of Gurdaspur, Amritsar, Bhatinda, Jullundur, Hoshiarpur, Ferozepur, Ludhiana, Kapurthala, the Rupar and Chandigarh Assembly constituencies in Ambala district, Patiala district and Sangrur district, excluding the Jind and Narwana tehsils.

The Chandigarh capital project will not form part of either of the two regions. So long, however, as it does not become a full-fledged constituency on a population basis, its representative will sit in the Regional Committee for the Punjabi region.

For each region there is a regional committee of the State Assembly consisting of the members of the State Assembly belonging to that region including the Ministers from the region but not including the Chief Minister.

The Regional Committees have been empowered to make proposals with regard to questions of general policy not involving any financial commitments other than expenditure of a routine and incidental character.

The advice tendered by the regional committees will normally be accepted by the Government and the State Legislature. In case of difference of opinion, reference will be made to the Governor whose decision will be final and binding.

The regional committees will deal with the following matters : (*i*) Development and economic planning, within the framework of the general development plans and policies formulated by the State Legislature; (*ii*) Local Self-Government, that is to say, the constitutional powers of municipal corporations, improvement trusts, district boards and other local authorities for the purpose of local self-Government or village administration including "Panchayats"; (*iii*) Public health and sanitation, local hospitals and dispensaries ; (*iv*) Primary and secondary education ; (*v*) Agriculture ; (*vi*) Cottage and small-scale industries ; (*vii*) Preservation, protection and improvement of stock and prevention of animal diseases, veterinary training and practice ; (*viii*) Pounds and prevention of cattle trespass ; (*ix*) Protection of wild animals and birds ; (*x*) Fisheries ; (*xi*) Inns and Inn-keepers ; (*xii*) Markets and fairs ; (*xiii*) Co-operative Societies and (*xiv*) Charities and charitable institutions, charitable and religious endowments and religious institutions.

*Language Policy :* The Sachar formula will continue to operate in the area comprised in the former Punjab State ; and in the area comprised in the former PEPSU State, the existing arrangements will continue until they are replaced or altered by agreement later.

The official language of each region, at the district level and below, is the respective regional language.

The State is bi-lingual recognising both Punjabi (in Gurmukhi script) and Hindi (in Devnagri script) as the official languages of the State.

Hindi or Punjabi (as the case may be) will be the medium of instruction in all schools in its region upto the matriculation standard and the other language shall be taught as a compulsory language from the last class of the primary department upto the matriculation stage and in the case of girls in the girls' schools in the middle classes only.

The State Government in consultation with the Punjab High Court has decided to introduce Hindi in the Hindi region and Punjabi in the Punjabi region as court language up to the district level with effect from October 2, 1962.

## INDUSTRIES

The total number of registered factories on 31st March 1964 was 4,735.

No. of workers engaged in these factories: 1,32,392.

Some of the main industries in Punjab are textile, hosiery, sports, cycles and cycle parts, sewing machines, cement, sugar, starch factories, non-ferrous metals, resin and turpentine, scientific instruments, paper and wool spinning and weaving units and machine tools.

Products of important industries in the State on March 31, 1963 :—cotton textiles 832 lakh yards ; woollen textiles Rs. 19·3 crores ; power-looms weaving Rs. 1,928 lakhs ; hosiery Rs. 791 lakhs ; machine embroidery Rs. 1·25 crores ; machine tools and agricultural implements Rs. 1,328 lakhs ; bicycles 5,47,382 (Nos.) ; sewing machines 84,246 (Nos.) ; wood and machine screws Rs. 84,44,000 ; steel rolling 1,25,112 tonnes ; non-ferrous metal Rs. 825 lakhs ; sports goods Rs. 153·20 lakhs ; sugar 67,958 tonnes ; glass Rs. 112·45 lakhs ; paper 39,738 tonnes ; scientific instruments Rs. 130·57 lakhs ; cotton ginning and pressing 11,10,000 bales ; water pipe fittings Rs. 306·93 lakhs ; cement 6,34,603 tonnes.

The third machine tool factory in the public sector went into production in Oct. 1963. Its foundry was commissioned in 1965. A steel casting plant, a seamless steel tubes unit and a pig iron plant are in the process of being set up in the public sector. A pig-iron plant with an investment of about Rs. 5 crores for the exploitation of iron ore available in the backward district of Mahendragarh is also proposed to be set up in the public sector.

In the private recognised sector, the expansion has been even more pronounced. The Government of India granted 43 licences for the establishment of new undertakings during 1964-65. The total number of industrial licences so far (July 1965) granted to the State comes to about 675.

## AGRICULTURE

The total area of the Punjab, according to village records pertaining to the Agricultural year 1963-64 is 3,03,10,000 acres as per details given below :—

Area under Forests : 9,00,000 acres ; Area not available for cultivation : 81,49,000 acres ; Cultivable waste other than current fallows : 12,70,000 acres ; Current fallows : 11,87,000 acres.

Net area sown : 1,88,03,000 acres.

(*a*) Irrigated : 83,84,000 acres ; (*b*) Unirrigated 1,04,19,000 acres.

The total area (acres) under irrigation during the year 1963-64 :—

By Govt. canals : 54,33,000 By private canals : 1,18,000 ; By tanks : 23,000 ; By wells : 25,75,000 By Other sources : 2,35,000 ; Total (net) : 83,84,000.

In the matter of food production, Punjab is the second largest wheat and gram producing area in the Union, third in barley and maize, fourth in bajra and sugarcane, while it produces considerable quantities of jowar, cotton, rice, rape, mustard and small quantities of tea, tobacco, groundnut and linseed. The production of cotton in the Punjab amounts to one-fifth of the total production of the country.

During the year 1963-64 the Punjab's production of foodgrains reached 59,97,000 tonnes and oilseeds 2,99,000 tonnes as against the targets of production of foodgrains of 81,70,000 tonnes and oilseeds 3,25,000 tonnes for the Third Five Year Plan. The State produced 8,79,000 tonnes of sugar and 11,65,000 bales of cotton in the year 1963-64 as against the Third Plan target of 9,00,000 tonnes of sugar and 12,50,000 bales of cotton.

Area and Production of Principal Crops (1963–64) :

| Crops | Acreage | Output (tons) |
|---|---|---|
| Paddy .. .. | 11,47,000 | 7,94,000 |
| Maize .. .. | 14,47,000 | 7,98,000 |
| Jowar .. .. | 7,56,000 | 48,000 |
| Bajra .. .. | 19,03,000 | 2,96,000 |
| Wheat .. .. | 58,16,000 | 27,89,000 |
| Gram .. .. | 54,08,000 | 10,99,000 |
| Barley .. .. | 3,56,000 | 1,10,000 |
| Sugarcane .. | 5,75,000 | 8,79,000 |
| Cotton .. .. | 17,04,000 | 11,65,000 |
| Groundnut .. | 2,88,000 | 99,000 |
| Linseed .. | 27,000 | 4,000 |
| Other pulses .. | 3,56,000 | 59,000 |

The following table shows targets of production for the First, Second and Third Five-Year Plans for foodgrains, cotton and raw sugar :—

(in lakh tons)

| Plan Period | Foodgrains | | Cotton | | Sugarcane | |
|---|---|---|---|---|---|---|
| | Target | Achievement | Target | Achievement | Target | Achievement |
| Base 1950–51 .. .. | .. | 34·83 | .. | 3·15 | .. | 4·42 |
| First Plan 1955–56 .. | 40·71 | 49·08 | 5·40 | 5·33 | 5·17 | 5·34 |
| Second Plan 1960–61 .. | 59·41 | 63·78 | 10·50 | 8·02 | 7·80 | 9·98 |
| Third Plan 1965–66 .. | 81·70 | .. | 12·50 | .. | 9·00 | .. |

Besides a degree college in agriculture, there is an Agricultural Institute at Ludhiana and a number of research stations at important places in the State for imparting education in Agriculture. An Agricultural University has already been established and another Agricultural College has been set up at Hissar. The State Government has allocated sufficient funds for creation of green belts against the advancing deserts from Rajasthan.

In addition to the 28 co-operative garden colonies, there are at present 1,225 co-operative farming societies in the State. The State Government has set up 15 Land Mortgage Banks with its branches in all the districts for the benefit of farmers. The Banks advance long-term loans.

Crop Insurance in the State has been introduced on an experimental basis. To begin with the insurance covers four main crops namely wheat, gram, cotton and sugar cane in six centres each comprising a National Extension Service Block.

### Animal Husbandry

*Live-stock census* 1961 : Number of animals in the State : 1,32,42,600 ; cattle other than buffaloes : 88,17,400 ; buffaloes : 44,25,200 ; sheep : 88,17,400 ; goats : 12,27,800 ; horses and ponies : 76,100.

On March 31, 1964 number of regular veterinary hospitals 325 ; permanent outlying dispensaries 322 ; ordinary outlying dispensaries 703. Besides, there are 44 artificial insemination centres, 7 sheep demonstration and 21 poultry extension centres, 32 gowshalas and seven gowsadans. There are 241 key village units.

There is a Government Institute at Hissar for the manufacture of biological products. The Government livestock farm at Hissar, the biggest in Asia, maintains about 1,500 heads of livestock including buffaloes, sheep, donkeys, goats etc. for breeding purposes. In this farm the famous Hariana breed of cattle is scientifically raised.

### Community Development Blocks (March 31, 1964)

The number of C. D. Blocks of all types functioning in the State on March 31, 1964 was 228. They covered 21,670 villages inhabited by 130·68 lakh people spread over an area of 45,420 square miles.

### Agrarian Reforms

Out of the total area of 225·50 lakh acres planned to be consolidated in the State under the Punjab Security of Land Tenure Act, 1953 and the Pepsu Tenancy and the Agricultural Lands Act, 1955, an area measuring 147·22 lakh acres was consolidated by the end of Second Five Year Plan, leaving a balance of 78·28 lakh acres. Out of this, an area of 62·43 lakh acres was consolidated during the first three years of the Third Plan period leaving a balance of 15·85 lakh acres. Of this 8·10 lakh acres was proposed to be consolidated during 1964-65 and the remaining 7·75 lakh acres during 1965-66.

It is estimated that a total of 4·50 lakh standard acres of land would be available for the resettlement of about two lakh landless agricultural workers and ejected tenants who are eligible under the law cited above. The surplus land available for immediate allotment on Dec. 1, 1964 was 3,66,042 standard acres. Of this, 1,33,284 standard acres was allotted to 70,414 tenants during 1963-64. This includes an area of 26,082 standard acres allotted to 11,458 Harijan tenants.

Under the programme for conferment of proprietory rights on tenants, 20,229 tenants acquired proprietory rights over an area of 1,32,855 standard acres upto the end of Dec. 1964.

In pursuance of its policy to utilise every inch of available cultivable land for growing more food and other essential crops, the State Government enforced the East Punjab Utilisation of Land Act, 1949, under which a notice is served on every landowner who allows his land to remain uncultivated for six or more consecutive harvests and the land thus taken over is leased out to cultivators for a term ranging from 7 to 20 years, priority being given to Harijans. Under the provision of this act, possession of 1,21,816 acres of land was taken over upto the end of November, 1964. Of this 1,16,917 acres were leased out. This included 79,286 acres leased out to 8,123 Harijans and eight Harijan cooperative societies.

Scheme for the resettlement of landless agricultural workers has also been prepared and included in the Third Five Year Plan. It is estimated that under the scheme, land to the extent of 1,25,000 acres will be acquired and leased out to about 12,500 landless Harijans at the rate of 10 acres for each settler. During the first two and a half years of the Third Plan 21,855 ordinary acres of land were leased out to 4,874 Harijans. Upto the end of Dec. 1963, 3,270 ordinary acres of land were leased out to six Harijan Co-operative Societies, 73,386 ordinary acres were leased to 9,202 Harijans and 20,053 ordinary acres to 554 persons other than Harijans. A sum of Rs. 1,80,000 has been distributed amongst Harijans so far (July 1964) in the form of loan for irrigation facilities. The total cost of the scheme during the Third Plan is estimated at Rs. 4,50,000 out of which a sum of Rs. 1,00,000 was provided during 1963-64 and a provision of Rs. 77,000 has been made for 1964-65.

There is another scheme in operation which is for the benefit of landless eligible tenants who were settled on land outside their own villages. Each such tenant is now entitled to an aid of Rs. 750 (Rs. 562·50 as subsidy and Rs. 187·50 as loan) which he can utilise for construction of his house or reclamation of his land. This concession has also been extended to the persons to be settled on Bhoodan land. A sum of Rs. 3·83 lakhs has been disbursed to the landless so far (March, 1965). The total cost of the scheme during the Third Plan is estimated at Rs. 9·65 lakhs out of which a sum of Rs. three lakhs was provided for 1964-65 and a sum of Rs. 3·50 lakhs for 1965-66.

### Irrigation

Gross area irrigated inclusive of areas irrigated by tube-wells on March 31, 1964 was 1,07,03,000 acres. Net area irrigated during the year was 83,84,000 acres.

The construction of the 740-foot-high Bhakra Dam was completed during 1963-64 and dedicated to the nation by the late Prime Minister, Mr. Nehru on October 22, 1963. Works relating to grouting and drainage of foundations and grouting of transverse joints, however, continued on the project during 1964-65 to ensure ultimate structural stability of the dam for full reservoir loads.

During 1964-65, the Bhakra reservoir was raised to the level of 1,661·60 feet storing 46·77 lakh acres feet of usable water as against a level of 1,640 feet with an usable storage of 41·02 lakh acre feet during 1963-64. During 1963-64, 25·59 lakh acres of land was irrigated with Bhakra water.

All the five units of 90,000 kW each of the Bhakra left bank power house are functioning. The work on the right bank power house which will have five units of 1,20,000 kW each is in full swing and proceeding according to schedule. The first unit is expected to be commissioned during the first quarter of 1966.

The total cost of Bhakra Dam (excluding the cost of civil works of power plants) as per latest project estimate of 1963 is Rs. 5,921·06 lakhs against which an expenditure of Rs. 6,255·32 lakhs had been incurred till end of Aug. 1964. The expenditure is more than the project estimate on account of the fact that credit for sale of surplus machinery and stores have yet to be received and accounted for.

Other works connected with the project include a diversion dam at Nanga I, 108 miles long Bhakra main line canal and a vast network of 31,000 miles long canals and distributaries. The project—the longest multi-purpose project in Asia—will irrigate 6·7 million acres of new land. The States to be benefited are Punjab, Rajasthan, Delhi, Himachal Pradesh and Jammu and Kashmir.

As a result of the project, the sugar will be increased by five lakh tons, of pulses and oilseeds by one lakh tons, of foodgrains by 11·3 lakh tons and of cotton by eight lakh bales.

Another project of the same magnitude namely the Beas Project in Punjab is being jointly executed by the Rajasthan and Punjab Governments with the financial assistance of the Central Government.

The main object of the project, which is estimated to cost Rs. 208 crores, is to harness the water and power potential of the Beas whose 250-mile course from Rohtang Pass to its confluence with the Sutlej at Harike lies in Indian territory. Of the river's total run of (13·6 million acre feet of water) about 11·4 million acre feet not only goes waste but causes devastation on large scale.

On completion, the project will facilitate the irrigation of 4·5 million acres of land in Punjab and Rajasthan and generate 6,36,000 kW. of power, besides augmenting the capacity of the Bhakra power plant by 1,48,000 kW. The irrigation and power facilities to be provided by the project will lead to an additional industrial and agricultural output worth Rs. 100 crores a year. Rajasthan alone will get eight million acre feet of water for irrigating about 3·5 million acres of desert land.

The project comprises two units : Beas-Sutlej Link is predominently a power project and Beas Dam at Pong an irrigation project.

The first unit of the project, estimated to cost Rs. 97 crores, consists of a 200-feet rockfill diversion dam at Pandoh, 12 miles upstream of Mandi in Himachal Pradesh, an eight-mile long tunnel with a diameter of 25 feet from pandoh to Baggi, a 7·2-mile Hydel channel from Baggi to Sunder Nagar and finally a 8·5-mile long tunnel with a diameter of 25 feet from Sunder Nagar to the penstocks leading to the Sutlej power house at Slapar, headworks of Gobindsagar.

Provision has been made for diverting the flow into Gobindsagar through a by-pass tunnel even before the Sutlej Power House is completed at the tail end of the link for augmenting the Bhakra power output.

Excavation work has started for the intake structure of the Pandoh-Baggi tunnel. An approach tunnel is also under construction. Nearly 900 feet of "mucking" has already been finished. The main tunnel is already under construction.

Work on downstream excavation for a portal of the Pandoh-Baggi tunnel as also on a surge shaft at the downstream end of the Sundernagar-Sutlej tunnel near Slapar is in progress. All building material is being transported to the site from Nangal through Gobindsagar, effecting an economy of Rs. 20 lakhs on freight.

The Beas dam at Pong is estimated to cost Rs. 111 crores. The project envisages the construction of a 5,750 feet long and 380 feet high rockfill dam. It will create a reservoir impounding 6·5 million acre feet of water over an area of about 100 square miles.

Construction of the dam involves diversion of the river through five tunnels with a diameter of 30 feet. Excavation work on two of these tunnels has been completed. They will be permanently used as outlet tunnels for irrigation purposes. The three other tunnels, which are nearing completion, will afterwards be used for generating electricity through six units to be installed in a power house on the left bank.

The aggregate length of the five tunnels is over 16,000 feet. The flow of water through the tunnels is proposed to be regulated with the help of hydraulic gates. The tunnels were scheduled to be completed by the end of Sept. 1965 and the foundation of the dam was likely to be laid in October or November 1965.

## ELECTRIC POWER

At the end of the year 1964-1965 total installed generating capacity in the State was 686,707 kW.

The main sources of electric supply in the State are :—(1) Uhl River Hydro-Electric Scheme at Joginder Nagar with four sets of 12,000 kWs. each including one stand-by, i.e., 36,000 kWs. capacity. Another Power House with an installed capacity of 40,000 kWs. is being set up to utilise tail water. (2) Ganguwal Power House with three generating units (two of 24,000 kWs. each and one of 29,000 kWs.). The first two units of 24,000 kWs. each started working in 1955. The third one was commissioned in December 1961. (3) Kotla Power House with three generating units (two of 24,000 kWs. each and one of 29,000 kWs.). The first two units of 24,000 kWs. each started working in 1956 while the third one was commissioned in July 1961. (4) Bhakra Dam Left Bank Power House with five generating units of 90,000 kWs. each. All the five units are working in full. The first unit was commissioned into service in November 1960, second in February 1961, the third in July 1961, the fourth in November 1961 and the fifth in December 1961. (5) Bhakra Dam Right Bank Power House with four generating units of 120,000 kWs. each. This Power House will start working in 1966-67. The fifth unit will be added in 1968 when water supply of the Bhakra Reservoir gets augmented from the Beas Sutlej Link. (6) Power Houses on Upper Bari Doab Western Jamuna Canals : three to four Power Houses with a capacity of 40,000 kWs. are being set up in the Third Plan. (7) Thermal Plant at Delhi with a capacity of 50,000 kWs. This steam propelled Plant is being set up to meet the shortage of supply from Bhakra. (8) Diesel Generating sets at Industrial Centres with a capacity of about 25,000 kWs. These small sets are being set up to meet the shortage of hydro-electric supply. (9) Beas Project Power Houses : two Power Houses, one each with a firm capacity of 600,000 Kws. and 200,000 kWs., will be installed at Dehar on Sutlej Beas Link and at Pong on river Beas respectively. There is a provision of Rs. 9 crores in the Third Plan for the purpose.

Proposals to be implemented during the Third Plan period include setting up of 3 power houses on Upper Bari Doab Canal with a capacity of 40,000 kW each, thermal plant at Delhi with a capacity of 50,000 kW with a view to meeting the shortage of power supply from Bhakra, diesel generating sets at the various industrial centres with a capacity of 25,000 kW each, two Beas Project power houses with a firm capacity of six lakh and two lakh tons at Dehar on Sutlej Beas Link and at Pong on the river Beas respectively.

Provision of electricity, particularly in the rural areas for industrial and domestic uses is one of the main items of the development programmes in Punjab. Electricity has already been made available to more than 6,48,542 consumers including 4,69,047 domestic, 1,42,517 commercial and 17,466 tube-wells (upto Dec. 1964).

Progress of electrification in the State upto December 1964 was as follows : Towns and villages electrified 5,062. This figure will go up to 9,000 at the end of the Third Plan period. Per capita consumption of electricity in the State has risen 87·02 kW in the industrial, 4·60 in commercial and 5·29 in domestic sectors.

*Punjab Electricity Board :* State Electricity Boards were set up in Punjab and Rajasthan following an agreement between the States on the terms of partnership relating to the irrigation and power wings of the Bhakra Nangal Project.

The entire assets and liabilities of all government electrical undertakings in Punjab including the Bhakra and allied power projects were passed on to the Punjab Electricity Board.

Except for policy directions from the Ministry, the day-to-day working of State Electricity undertakings shall be administered by the Board.

The Government has also resolved to gradually nationalise all private electricity ventures by paying compensation.

## TRANSPORT

There are about 7,097 miles of metalled road in the Punjab. Government has taken over 50 per cent of all pucca routes, leaving 50 per cent to private operators. The scheme has been enforced in pursuance of an agreement between private operators and State Transport Department in 1959. The Government's monopoly will, however, continue on the Karnal-Ambala, Jullundur-Amritsar and Ferozepore-Fazilka routes. The Agreement will last ten years. With a view to progressive nationalisation of the road transport in the State, a provision has been made in the Third Plan for the expansion of route mileage covered by the State Transport System. The Scheme envisages the commissioning of 141 more vehicles with a total investment of Rs. 60 lakhs.

There are at present 1,067 buses operating on 442 routes in the State covering 3,39,71,670 miles per annum. The capital investment in the year 1964-65 was Rs. 3,17,69,755 and the profit earned during the year was Rs. 85,08,509.

The capital is linked with New Delhi by Air. The I.A.C. runs a daily service between Delhi and Kulu via Chandigarh during summer months.

A tripartite corporation called the Mandi-Kulu Road Transport Corporation with the Railways, the Himachal Pradesh and the Punjab Government as partners has come into being to operate in the Mandi Kulu Area.

## LABOUR

Number of registered factories in the State : 4,753.

Number of workers working in these factories : 1,32,392.

Employees' Provident Fund Scheme has also been enforced in the State. Employees' State Insurance Scheme which was enforced in 1963 now covers 78,000 workers in 25 towns.

The Punjab Government has enacted legislation known as Commercial Establishments Act. The Act confers on shop assistants and workers in all commercial establishments including news paper and news agency offices statutory rights with respect to earned leave, weekly holiday, minimum working hours etc. Workers in all commercial establishments will not be required to work for more than ten hours a day with two hours' rest in the afternoon.

## EDUCATION

Number of students (boys and girls) receiving education in schools and colleges at the end of 1964 : 28,91,833 ; Total Number of Institutions in the rural areas : 15,750 ; Total Number of literates (1961 Census) 4,815,000 ; (Men : 3,524,000 ; Women : 1,291,000). Percentage of literacy—Men : 32·4 ; Women : 19·2.

A sum of Rs. 1,825·35 lakh will be spent during the Third Plan period on general education.

As against this, an expenditure of Rs. 1,306·43 lakhs was estimated to be incurred upto 1964-65 leaving a balance of Rs. 518·92 lakhs which has been earmarked for 1965-66.

Free and compulsory primary education was introduced for the children of age group 6-7, 7-8, 8-9 and 9-10 during 1961-62, 62-63, 63-64 and 1964-65 respectively. So far (July 1965) 15,034 teachers have been sanctioned under the scheme. The additional enrolment upto 1964-65 was 10,97,000.

Promotion of education among scheduled castes and backward classes is also receiving special attention side by side. There are 20 schools for the benefit of erstwhile criminal tribes as well as 40 primary and five middle schools for the backward areas of Lahaul and Spiti apart from a high school at Keylong. All school-going children in this area get stipends.

## HEALTH

The Third Plan envisages an outlay of Rs. 1,017·50 lakhs. The expenditure incurred during 1964-65 was Rs. 616 lakhs.

Number of hospitals and public health centres and dispensaries (March 1964) : 868 ; Primary Health Centres : 216 ; Ayurvedic dispensaries: 416; Family Welfare Clinics : 206 ; Maternity and Child welfare centres : 135 ; T. B. Hospitals and clinics : 23 ; Mental Hospital : 1 ; Dental hospital and clinics : 21 ; Leprosy hospitals : 4 ; Leprosy dispensaries : 37 ; V. D. hospital and dispensaries : 5.

The number of beds in the hospitals : 14,321.

During the year 1963, 84,39,732 patients were treated in these hospitals and dispensaries.

A sum of Rs. 13·10 crores has been provided for health and medical schemes in the Third Plan. It envisages the opening of 75 primary health centres, two dental clinics, 150 family planning clinics, 10 dispensaries, 55 Ayurvedic dispensaries, increase of 100 seats in the three medical colleges run by the State at Amritsar, Patiala and Rohtak, 25 in the post-graduate training institute recently set up at Chandigarh.

## CO-OPERATION

At the end of the co-operative year (30th June) 1964 with the registration of 1,285 new societies during the year, the number of societies had gone up to 30,587. The broad break-up is as follows :—

State Central banks and banking unions 44 ; Agricultural societies 19,801 ; Non-agricultural societies 2,211 ; Land Mortgage banks 15 ; Marketing and procession societies 228 ; Housing societies 308 ; Farming societies 1,225 ; Industrial societies 5,658 ; and others 10,892. Besides societies for the supply of sugarcane and milk, there are 331 consumer societies and 1,035 weavers societies.

The membership of these societies has increased to 25,94,000 and working capital to Rs. 115·30 crores inclusive of Rs. 40·57 crores of industrial co-operatives. Ninety-nine per cent of villages have been covered by one or other form of co-operatives. The percentage of population covered was 61 at the end of 1964-65 as against 56·6 at the end of 1962-63. Out of nearly 21,269 villages, as many as 21,004 had been covered leaving behind 265 villages to be brought within the fold of co-operatives.

The main features of the Third Plan are expansion of credit or raising agricultural production, processing and marketing, distribution of consumer articles through consumer stores in towns and cities and through village co-operatives in the rural areas, economic improvement of the weaker section by providing outright grants.

In the Third Plan, a sum of Rs. 4·50 crores has been assigned for co-operative development. Besides this, Reserve Bank of India is also providing huge sums to the State Government for participation in the share capital of the credit institutions.

### PANCHAYATS

The Panchayat Raj was inaugurated in the State by the late Prime Minister, Mr. Nehru on October 2, 1962. The entire State except Lahaul and Spiti has been delimited into 222 development blocks including shadow blocks. The third general elections to all panchayats in the State were held during 1963-64.

The Third Plan provision on panchayats includes a sum of Rs. 112·40 lakhs mainly for providing financial assistance to panchayats for expenditure on revenue earning schemes, construction of Panchayat Bhawan at Chandigarh, construction of office buildings for Panchayat Samitis, training of panchayat secretaries and opening of panchayati raj training centres. Central assistance of Rs. 27·60 lakhs and panchayat contribution of Rs. 2·75 lakhs are further provided in the Plan.

### JUDICIARY

The separation of the judiciary from the executive was formally inaugurated by the Chief Justice of India on Oct. 2, 1964.

### THIRD FIVE-YEAR PLAN

The State has embarked upon an all-embracing Third Plan covering every aspect of governmental activity. It is a bigger and a bolder programme of solid work for the prosperity and Social well-being of the 20 million people of the State. The Plan is estimated to cost Rs. 231·38 crores and its main highlights include the Beas Multi-purpose project, phased introduction of free and compulsory primary education, promotion of industrialisation in rural areas, setting up of a number of heavy industries including factories and mills for the manufacture of cement, newsprint, sugar and textiles, introduction of crop insurance and extensive increase in the production of food and cash crops.

The Third Plan period will also see the completion of the Bhakra Multipurpose Project, the consolidation of fragmentary land holdings all over the State, the coverage of the entire State by the community development programme and the full-scale usherance of Panchayati Raj.

Following is the break-up of allocations under different main heads in Rs. crores :—Agriculture : 46·42 ; Irrigation and Power : 104·69 ; Industries : 14·40 ; Transport and Communications :12·82 ; Social Services (Education, Health, etc.) : 46·25.

Roughly 1,500 miles of new roads will be constructed in the State during the next five years. The Plan provides a total outlay of Rs. 12 crores for roads, old and new. Old roads will be widened and reconditioned, new roads will serve to approach towns, railway stations and religious places. Hill areas in the State will receive special attention in the matter of planning and development. A provision of Rs. 22·5 crores has been made for the development works in the hill areas. A high-level committee has been constituted to draw and implement schemes for the development of these areas.

### BUDGET (1965-66)

(*See 'State Budgets'*)

## PANJAB UNIVERSITY

Chandigarh Capital.

VICE-CHANCELLOR

Suraj Bhan.

REGISTRAR

S. Sujan Singh.

This is an Affiliating, Teaching and Examining University.

Subjects where provision exists for post-graduate and research : English, Economics, Zoology, Physics, Chemistry, Anthropology, Bio-chemistry, Bio-physics, Chemical Engineering, Geology, History, Botany, Mathematics, Sociology, Hindi, Sanskrit, Punjabi, Psychology, Philosophy and Political Science, Public Administration, Commerce, Ancient History & Culture.

In the Arts examinations the candidates have the option to answer question papers in English, Hindi, Punjabi or Urdu.

Number of colleges affiliated : 149.

Total number of students as on 31st March 1963 (Affiliated Colleges and University Teaching Departments) : 57,163.

LIST OF COLLEGES

Panjab University Evening College, Jullundur ; Panjab University Evening College, Chandigarh ; Panjab University Law College, Chandigarh ; Panjab University Evening College, Rohtak ; Panjab University Evening College, Simla ; Ahir College, Rewari ; A.I. Jat H. M. College, Rohtak ; Agricultural College, Mastuana ; Arya College, Ludhiana ; Arya College, Panipat ; Arya Girls' College, Ambala Cantt. ; A. S. College, Kalalmajra, Khanna ; Baring Union Christian College, Batala ; Brijindra College, Faridkot ; B. L. M. Girls' College, Nawanshahar, Doaba ; Central Research Institute, Kasauli ; Chhotu Ram College of Education, Rohtak ; Chhotu Ram Arya College, Sonepat ; Christian Medical College, Ludhiana ; College of Architecture, Chandigarh ; College of Nursing, Chandigarh ; Dayanand A. N. Training College, Nawanshahar, Doaba ; D. A. V. College, Abohar ; D. A. V. College, Ambala City ; D. A. V. College, Amritsar ; D. A. V. College, Chandigarh ; D. A. V. College, Hoshiarpur ; D. A. V. College, Jullundur ; D. A. V. College for Girls, Yamuna Nagar ; D. A. V. College for Women, Karnal ; Dayanand College, Hissar ; Dyal Singh College, Karnal ; Dairy Science College, Karnal ; Dental College, Amritsar ; Dev Samaj College for Girls, Ambala City ; Dev Samaj College for Women, Ferozepore City ; Dev Samaj Training College for Women, Ferozepore City ; D. M. College, Moga ; D. M. Training College, Moga ; Doaba College, Jullundur City ; Dronacharya S. D. College, Gurgaon ; Fateh Chand College for Women, Hissar ; G. H. G. Khalsa College, Gurusar, Sadhar ; G. H. G. Khalsa Training College, Gurusar, Sadhar ; G. M. N. College, Ambala Cantt. ; G. G. N. Khalsa College, Ludhiana ; Goswami Ganesh Dutt College, Baijnath ; Govt. College, Chandigarh ; Govt. College for Women, Chandigarh ; Govt. College for Home Science, Chandigarh ; Govt. Basic Training, College, Chandigarh ; Govt. Degree College, Chamba ; Govt. College, Dharamsala ; Govt. College for Women, Amritsar ; Govt. College, Gurgaon ; Govt. College for Women, Rohtak ; Govt. Basic Training College, Dharamsala ; Govt. College, Jind ; Govt. College, Gurdaspur ; Govt. College for Women, Ludhiana ; Govt. Training College for Teachers, Jullundur City ; Govt. Training College, Faridkot ; Govt. College, Hoshiarpur ; Nehru College, Jhajjar ; Govt. College, Hissar ; Govt. College, Ludhiana : Govt. College, Malerkotla ; Govt. College, Muktsar ; Govt. Ripudaman College, Nabha ; Govt. College, Nahan ; Govt. College ; Narnaul ; G. B. Pant Memorial Govt. College, Rampur, Bushahr ; Govt. College, Rohtak ; Govt. College, Rupar ; Govt. College, Solan ; Govt. College, Tanda Urmar ; Govt. College, Bilaspur ; Govt. Training College, Simla ; Guru Nanak College, Guru Tegh Bahadur Garh ; Guru Nanak College, Mandi, Dabwali ; Guru Nanak Engineering College, Ludhiana ; Govt. Basic Training College, Solan ; Govt. Institute of Oriental and Modern Indian Languages, Patiala ; Hans Raj Mahila Mahavidyalaya, Jullundur ; Himachal Agricultural College, Solan ; Hindu National College, Hariana ; Hindu College, Amritsar ; Hindu Girls' College, Jagadhir ; Hindu College, Sonepat ; I. B. Bharatri College for Girls, Panipat ; Institute of Post-Graduate Medical Education and Research, Chandigarh ; Kishan Lal Public College, Rewari ; Kanya Mahavidyalaya, Jullundur ; Khalsa College, Amritsar ; Khalsa College for Women, Ludhiana ; Khalsa College for Women, Sidhwan Khurd ; Khalsa Basic Training College for Women, Sidhwan Khurd ; Khalsa Training College, Amritsar ; K. M. Teachers' Training College, Bhiwani ; Khalsa Training College, Muktsar ; Lajpat Rai Memorial College, Jagraon ; Lyallpur Khalsa College, Jullundur City ; Lyallpur Khalsa College for Women, Jullundur City ; Malwa Training College, Ludhiana ; Mata Gujri College, Fatehgarh Sahib ; Medical College, Amritsar ; Medical College, Rohtak ; M. R. College, Fazilka ; Montgomery G. N. Basic Training College, Jullundur ; Mukand Lal National College, Yamuna Nagar ; National College, Sathiala ; National College, Sirsa ; Nehru College, Ajronda ; Punjab Engineering College, Chandigarh ; Radha Krishna Arya College, Nawanshahar, Doaba ; Ranbir College, Sangrur ; Ramgarhia College, Phagwara ; Ramgarhia Training College, Phagwara ; Rajindra College, Bhatinda ; R. K. S. D. College, Kaithal ; Randhir College, Kapurthala ; R. S. D. College, Ferozepur City ; Rana Padam Chand Sanatan Dharam Bhargava College, Simla ; Saraswati Training College for Women, Amritsar ; S. A. Jain College, Ambala City ; State College of Sports, Jullundur ; S. D. College, Ambala Cantt. ; S. D. College, Barnala ; S. D. College, Palwal ; Shri Saraswati Sanskrit College, Khanna ; Sikh National College, Banga ; Sikh National College, Qadian ; S. G. G. S. Khalsa College, Mahipur ; S. M. D. R. S. D. College, Pathankot ; Sohan Lal Training College, Ambala City ; Teachers' Training College, Rewari ; Technological Institute of Textiles, Bhiwani ; Vaish College, Bhiwani ; Vaish College, Rohtak ; Vallabh Mahavidyalaya, Mandi ; Visheshwara Nand Vedic Research Institute, Hoshiarpur.

BUDGET (1964-65)

Income : Rs. 2,21,75,168.
Expenditure : Rs. 2,29,53,262.
Govt. grants : Rs. 62,68,761.

## KURUKSHETRA UNIVERSITY

Kurukshetra.

The Kurukshetra University was established in 1956 under Punjab Act XII of 1956. It is a teaching-cum-residential University for the encouragement of higher education and research especially in Sanskrit, Prakrits and modern Indian languages as also in Indian Philosophy, Ancient Indian History and other aspects of Indology.

*Chancellor :* Governor, Punjab State.
*Vice-Chancellor :* Bhool Chand.
*Registrar :* R. C. Khanna, M.A.
*Chief Accounts Officer :* B. N. Chopra.
*Number of Constituent Colleges :* Three.

*Colleges :* Govt. College of Education ; Govt. College for Women ; University College.

*Post Graduate Departments :* Physics, Chemistry, Economics, English, Mathematics, History, Political Science, Hindi, Institute of Indic Studies comprising the Departments of Sanskrit, Ancient Indian History, Philosophy, Linguistics, Education.

**Budget Estimates for 1964-65**

*Income :* Punjab Govt. grant : Rs. 43,00,000 ; University Grants Commission : Rs. 18,84,450 ; Rents, Dividends, etc. : Rs. 83,000 ; Fees : Rs. 2,98,400 ; Reimbursement Grant and Recoveries : Rs. 3,01,400 ; Misc. : Rs. 36,000. Total Rs. 69,03,250.

*Expenditure :* General Admn. : Rs. 7,51,690 ; Faculty of Education : Rs. 3,29,360 ; Faculty of Arts and Languages : Rs. 2,05,540 ; Faculty of Science : Rs. 9,06,790 ; Faculty of Social Sciences : Rs. 2,10,120 ; Institute of Indic Studies : Rs. 2,20,800 ; University College : Rs. 1,58,500 ; Library : Rs. 3,83,520 ; Sports : Rs. 75,970 ; N.C.C. : Rs. 2,750 ; Junior Model School : Rs. 22,670 ; Examinations : Rs. 40,000 ; Scholarships : Rs 72,380 ; Provident Fund : Rs. 80,000 ; Research Scholars and Assistants : Rs. 55,000 ; New Works : Rs. 32,44,000 ; Education Conferences and Extension Lectures : Rs. 7,000 ; Total Rs. 67,66,090.

## PUNJAB AGRICULTURAL UNIVERSITY

Ludhiana.

The Punjab Agricultural University was established in 1962 under Punjab Act XXXII of 1961. The basic structure and organisation of the University has been patterned on the model of the Land Grant Universities in the United States with a complete integration of its State-wide functions of residential teaching, research and extension education in Agriculture and Veterinary Sciences. The University has its two Campuses at Ludhiana and Hissar.

*Chancellor :* Governor, Punjab.

*Vice-Chancellor :* P. N. Thapar, I.C.S. (Retired).

*Registrar :* C. D. Khanna, I.A.S.

Number of Constituent Colleges already established : Four. (*i*) College of Agriculture, Ludhiana ; (*ii*) College of Agriculture, Hissar ; (*iii*) College of Veterinary and Animal Sciences, Hissar ; (*iv*) College of Agricultural Engineering.

Plans are already under way to establish a College of Home Science and a College of Basic Sciences and Humanities.

Post-Graduate Departments : The existing facilities provide for instructions at post-graduate level in the fields of Agronomy, Horticulture (Fruit and Vegetables), Dairying, Biochemistry, Agricultural Chemistry and Soil Science, Plant Breeding, Plant Physiology, Entomology, Mycology and Plant Pathology, Agricultural Economics and extension education. M.Sc. Classes have also been started in specialised fields of Animal Husbandry and Veterinary Science.

### Budget (1965-66)

*Income :* From constituent colleges Rs. 9,28,570 ; Grant-in-aid Rs. 2,12,53,290 ; Examination fees Rs. 1,00,000 ; Aid from Rockefeller Foundation Rs. 5,00,000 ; P.L. 480—U.S. AID Rs. 6,54,260 ; Total Rs. 2,34,36,120.

*Expenditure :* University Administration Rs. 65,25,000 ; Constituent Colleges (Agricultural) Rs. 1,51,84,080 ; Constituent Colleges (Veterinary) Rs. 9,72,780 ; Examinations Rs. 1,00,000 ; P.L. 480 Schemes Rs. 6,54,260 ; Total Rs. 2,34,36,120.

## PUNJABI UNIVERSITY

Patiala.

This University was established for advancement of Punjabi Studies and development of Punjabi Language as medium of instruction and for the promotion of higher education and research. The University started functioning on April 30, 1962. This is a Unitary/Residential-cum-Teaching University.

*Chancellor :* Governor, Punjab.

*Vice-Chancellor :* Sardar Kirpal Singh Narang, M.A. (Hons.).

*Registrar :* Sardar Harbans Singh, M.A., PES (I).

*Chief Accounts Officer :* Jagdish Narain.

*Assistant Registrar (Examinations):* Sardar Gurpartap Singh, M.A.

Instruction in the following Faculties is imparted at the University Teaching Departments and Colleges admitted to the privileges of the University : Arts and Social Sciences ; Business Administration and Commerce ; Science ; Languages ; Medicine ; Education ; Engineering and Technology.

*University Teaching Departments :* Chemistry ; Physics ; Mathematics ; Punjabi ; Economics : English ; Tibetan Language ; Chinese Language.

*Colleges admitted to the privileges of the University :* Mahendra College, Patiala ; Govt. College for Women, Patiala ; Govt. Bikram College of Commerce, Patiala ; Govt. Medical College, Patiala ; Govt. College of Physical Education, Patiala ; Govt. Dental College, Patiala ; Thapar Institute of Engg. and Tech., Patiala ; State College of Education, Patiala ; Khalsa College, Patiala.

Facilities for postgraduate studies leading to the following degrees are available : Master's and research degrees in English, Punjabi, Hindi, Mathematics, Economics, History, Philosophy and Political Science, Science, Education, Physical Education, Surgery, and Medicine.

*Diplomas :* Obstetrics and Gynaecology, Child Health, Ophthalmic Medicine and Surgery.

*Medium of Instruction :* To begin with, Punjabi has been prescribed as the medium of instruction and examination up to first degree level in the subjects of Economics, History, Civics and Political Science. However, the students have the option to answer their questions in Hindi, Punjabi or English. For all other subjects and in the Faculties of Medicine, Engineering and Science, the medium of instruction and examination is English.

*Enrolment :* The total enrolment as on 31st September 1964 was 4,648 (both at the University Teaching Departments and the colleges admitted to the privileges of the University).

### Budget Estimates (Revised for 1964-65)

*Income :* Rs. 44,38,420 ; *Expenditure :* Rs. 49,80.952.

## PUNJAB FINANCIAL CORPORATION

(See 'State Corporations')

## ADMINISTRATIVE PERSONNEL

(See under "States Administrative Personnel")

## PUNJAB LEGISLATIVE COUNCIL

(See under 'General Elections')

## PUNJAB LEGISLATIVE ASSEMBLY

(See under 'General Elections')

## SHIROMANI GURDWARA PARBANDHAK COMMITTEE, AMRITSAR

(Teja Singh Samundri Hall, Amritsar.)

The Shiromani Gurdwara Parbandhak Committee is constituted under the provisions of the Sikh Gurdwaras Act, 1925 (Punjab Act VIII of 1925). It consists of :

(*i*) 140 elected members ;

(*ii*) Head Priests of Golden Temple, Amritsar and the following four Takhats (*a*) Akal Takhat Sahib, Amritsar ; (*b*) Takhat Keshgarh Sahib, Anandpur ; (*c*) Takhat Patna Sahib, Patna ; and (*d*) Takhat Hazur Sahib, Nanded (Maharashtra) and

(*iii*) Fifteen members resident in India of whom at least ten are residents of the States other than the Punjab State co-opted by the members of the S.G.P.C., as described in clauses (*i*) and (*ii*).

Every Sikh man or woman, more than 21 years of age, who resides in the Punjab is entitled to have his name registered on the electoral roll of a constituency formed for the election of a member or members of the board provided he does not trim or shave his beard or Keshas except in case of Sehajdhari Sikh and does not smoke or take alcoholic drinks. Every voter is eligible for election provided he is not of unsound mind, is not an undischarged insolvent, is not an apostate from the Sikh religion, does not take alcoholic drinks, is not a Minister of a Notified Sikh Gurdwara, other than mentioned above in clause (*ii*), is not a paid servant of any Notified Sikh Gurdwara, being a Keshadhari Sikh is not an Amritdhari and can read and write Gurmukhi.

Elections to the Shiromani Gurdwara Parbandhak Committee are held every five years. Dates for the elections are fixed by the State Government and the preparation of electoral rolls and other arrangements are also made by the State Government.

The Shiromani Gurdwara Parbandhak Committee directly manages ten of the most important and historic Gurdwaras situated within the Punjab State. The historic Gurdwara at Nankana Sahib (West Pakistan) is also managed by the S.G.P.C. directly. A sikh Manager and 20 Sikh Sewadars are permanently stationed there.

All other historic Gurdwaras are administered by local committees consisting of five members, of whom four are elected by voters of the constituency concerned and one member is nominated by the S.G.P.C. One of these members must belong to a backward class. The S.G.P.C. supervises the affairs of all these Gurdwaras through a team of Gurdwara Inspectors who visit the shrines regularly every month.

A Judicial Commission is also constituted under the provisions of the Sikh Gurdwaras Act to settle disputes regarding the management of the Gurdwaras. This commission has the same powers as are vested in a Court by the Code of Civil Procedure, and the Commission has unlimited jurisdiction as regards the value of the suits throughout the Punjab.

Under the provisions of the Sikh Gurdwaras Act, the S.G.P.C. and the Gurdwaras under its control and supervision can spend their funds for religious, charitable, educational or industrial purposes and also for such non-political purposes as are connected with the general uplift and welfare of the Sikhs. Its accounts are annually audited by the Auditors appointed by the State Government.

In the last Gurdwara elections held on Jan. 17, 1965, out of 138 members elected 101 members were elected on the Shiromani Akali Dal (Sant Fateh Singh's) ticket and 37 on the Master Tara Singh group ticket.

The total strength of the S.G.P.C. is 160.

At the first General Meeting of the S.G.P.C. held on 13th March, 1965, Sant Charan Singh was elected President, S.G.P.C. unanimously. The other office-bearers and the members of the Executive Committee as also the Dharam Parchar Committee and Sikh History Research Board were also elected unanimously.

The S.G.P.C. manages about 700 Gurdwaras in the Punjab.

The S.G.P.C. also run Arts, Science and Engineering Colleges. They are : Guru Nanak Khalsa College, Matunga, Bombay ; Guru Nanak Engineering College, Ludhiana ; Mata Gijri College, Fategharh Sahib, Sirhind (Patiala) ; Guru Kaushi Khalsa College, Damdama Sahib, Saboki Talwandi (Bhatinda) and several high schools, hospitals and libraries.

## ASSOCIATIONS ETC.

EAST PUNJAB CYCLE PARTS MANUFACTURERS' ASSOCIATION
Gill Road, Ludhiana.

ENGINEERING ASSOCIATION OF INDIA
(Punjab Regional Office)
Tanda Road, Jullundur City.

*President :* Satya Paul ; *Vice-President :* Rajinder Kumar ; *Regional Secretary :* T. N. Srivastava.

ENGINEERING ASSOCIATION OF NORTHERN INDIA
G. T. Road, Batala, Dist. Gurdaspur

THE FACTORIES' ASSOCIATION
Railway Road, Batala.

FARIDABAD INDUSTRIES ASSOCIATION
Township, Faridabad.

HOME HOSIERY MANUFACTURERS UNION
Chawal Bazar, Ludhiana.

*President :* K. L. Sabharwal ; *S. V. President :* P. N. Jain ; *J. V. President:* Mehanga Ram ; *Gen. Secretary :* Shorilal Jain.

HOSIERY INDUSTRY FEDERATION OF INDIA
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*President :* K. Sabharwal ; *V. President :* Kulbhusan : *Gen. Secretary :* J. Thapar.

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HOSIERY MACHINE MANUFACTURERS' ASSOCIATION
461-62, Industrial Area B, Miller Ganj, Ludhiana.

HOSIERY MANUFACTURERS' ASSOCIATION
Thapar Bldg., Bazaar Kharadian, Ludhiana.

INDIAN POLITICAL SCIENCE ASSOCIATION
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LUDHIANA PRINTERS' ASSOCIATION
C/o Messrs Mohindra Brothers, Printers, Press Lane Nigger Mandi, Ludhiana.

MANUFACTURERS' ASSOCIATION
Sonepat.

METAL DEALERS' AND MANUFACTURERS' ASSOCIATION
Jagadhari.

NATIONAL INSTITUTE OF ENGINEERING
Hoshiarpur.

NATIONAL INSTITUTE OF SPORTS
Motibagh Palace, Patiala.

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1/10 JC, K-Street, Sector 7-A, Chandigarh.

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Post Office : Sadhu Ashram, Hoshiarpur.

A non-denominational centre for post-graduate teaching, research and study in Indology including language, literature, philosophy, religion, history, arts and sciences etc.

Literary activities spread over ten departments of Vedic Lexicography ; Ur-Aryan Philology, General Indology, Sanskrit Text Editing, Post-graduate and Post-Shastri Sanskrit teaching, General Cultural Publication, History, Philosophy, Religion and Translations.

355 Volumes so far published besides an English-Hindi Cultural monthly *Vishva Jyoti* (Universal Light), a Sanskrit Quarterly *Vishva Samskritam*, a research bi-annual *Vishveshvarunand Indological Research Journal* and a *V.V.R.I. News Bulletin.*

Engaged, besides several minor schemes, on 36-Volume Vedic Lexicographical Project, consisting of (*a*) 16-*Volume Vedic Word Concordance*, (*b*) 6-*Volume Grammatical Indices*, and (*c*) 15-*Volume Vedic Dictionary*. Fifteen Volumes of *Concordance* published so far, remaining one volume of *Concordance* and the six volumes of *Indices* to be published during 1965. *Dictionary* scheduled for 1965-77. On completion, *Concordance* alone will have cost about Rs. 35,00,000.

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Information papers and catalogue of publications can be had free of cost.

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WOOL MERCHANTS' ASSOCIATION
Wool Lane, Fazilka.

# RAJASTHAN STATE

Area : 3,38,413 sq. kms. (according to village papers : 34,27,000 hectares (according to Survey General of India).

Population (1961 census) : 20,155,602.

Capital : Jaipur.

Rajasthan is divided into 26 districts, 83 sub-divisions and 191 tehsils.

The following names of the Sub-divisions follow the names of the districts concerned. The names given in brackets are Headquarters of the Sub-divisions.

*Ajmer :*—Ajmer, Beawar, Kekri, Kishangarh.

*Alwar :*—Alwar, Behror, Rajgarh (Alwar), Tijara (Kishangarh).

*Bharatpur :*—Bayana, Bharatpur, Deeg, Dholpur.

*Jaipur :*—Amber (Jaipur), Dausa, Jaipur, Kotputli, Sambhar.

*Jhunjhunu :*—Jhunjhunu, Khetri, Udaipur-Wati (Nawalgarh).

*Sawai Madhopur :*—Gangapur, Hindaun, Karauli, Sawai Madhopur.

*Sikar :*—Fatehpur, Neem-ka-Thana, Sikar.

*Tonk :*—Malpura, Tonk.

*Bikaner :*—Bikaner North, Bikaner South.

*Churu :*—Rajgarh, Ratangarh, Churu.

*Ganganagar :*—Ganganagar, Hanumangarh, Karanpur, Nohar, Raisinghnagar.

*Barmer :*—Baitora, Barmer.

*Jaisalmer :*—Jaisalmer Pokran.

*Jalore :*—Bhinmal, Jalore.

*Jodhpur :*—Jodhpur, Phalodi.

*Nagaur :*—Deedwana, Merta, Nagaur, Parbatsar.

*Pali :*—Bali, Jaitaran, Pali, Sojat.

*Sirohi* :—Mount Abu, Sirohi.
*Bundi* :—Bundi, Nainwa.
*Jhalawar* :—Aklera, Jhalawar.
*Kota* :—Baran, Chabra, Ramganjmandi, Kota.
*Banswara* :—Banswara, Khushalgarh,
*Bhilwara* :—Bhilwara, Gulabpura, Mandalgarh, Shahpura.

*Chittorgarh* :—Begun, Chittorgarh, Kapasin, Nimbahera, Pratapgarh.
*Dungarpur* :—Dungarpur.
*Udaipur* :—Bhim, Jhadole, Rajsamand, Salumber, Udaipur, Vallabhnagar.

No. of village panchayats: 7,391 (1963-64); No. of panchayat Samities 232. The Village Panchayats cover 34,506 villages and serve 1,78,33,271 people.

## DISTRICTS & TEHSILS, AREA AND POPULATION

See article "Population."

## BUDGET FOR 1965-66

(*See under 'State Budgets'*).

## MINERALS

Rajasthan is an important mineral and building material producing State. It ranks next to Bihar in Mica which is chiefly found in Ajmer, Udaipur, Bhilwara and Jaipur Districts. Over a lakh persons have been employed in the State mining industry.

The chief non-metallic minerals are Silica sand, Felspar, Asbestos, Barytes, Clays, Emerald, Fuller's earth, Bentonite, etc. The metallic minerals are lead, zinc, iron ore and manganese ore. The State is the sole supplier of gypsum for fertiliser manufacture to Sindri plant.

Lignite (coal) is mined near Palana in Bikaner District. There are vast deposits of high quality building stones such as marbles, sandstones and limestones. Limestone is used for the manufacture of cement at Lakheri and Sawai Madhopur and for lime at a number of places. Marble quarries at Makrana in Nagaur District are famous for building stone.

Large resources of sodium sulphate and salt also occur at Deedwana and Sambhar lake. Uranium deposits have been found at Umra and Udaisagar in Udaipur District.

Production in thousand metric tonnes of some important minerals in 1963: Coal (lignite) 4·5; *Metallic Minerals* :—(*a*) Ferrous: (1) Iron ore 67·1; (2) Manganese ore N.A. (*b*) Non-Ferrous :—(1) Lead concentrate 5·9; (2) Zinc concentrate 10·6. *Minerals* :—Asbestos 2·2; Barytes 5·5; Calcite 5·3; Emerald (Crude) 0·008; Felspar 12·5; Garnet 0·42; Glass sand 34·1; Graphite 0·05; Gypsum 1,075·8; Lime stone (for cement making) 1,737·6; Mica (Crude) 6·8; Quartz 9·2; Salenite 1·72; Soap stone 101·5; White clay 7·1; Yellow Ochre 0·33. *Building Materials* :—Building stone (including Kankar, Bajri and Sandstone etc.), 4,753·5; Lime stone (for lime making) 469·3; Marble 41·8; Bentonite 5·0; Fuller's earth 8·9; Brick earth and ordinary clay 1,126·3.

(N.A.—Not available).

Mineral production in the State has registered a rise during 1964. The State produced minerals worth Rs. 8 crores during the year.

*Production* (1964): Gypsum 7,50,000 tons (about 90 per cent of the country); Soap stone 1,11,600 (about 85 per cent of the country); felspar 12,000 tons; quartz 8,000 tons; calcite 4,000 tons; asbestos 2,000 tons and glass sand 40,000 tons.

## INDUSTRIES

Amongst the large-scale industries in the State mention may be made of cotton textiles (11 units), cement (2 units), glass (1 unit), sugar (2 units), ball-bearings (1 unit) and electric metres (1 unit). The industrial production of some commodities during 1963 was as under :—

Cloth—lakh kg. 81 (560 lakh meters); Yarn—lakh kg. 206; Glass—metric tonnes 552; Cement—lakh metric tonnes 11·9; Salt—lakh metric tonnes 4·3; Ball bearing—'000 numbers 4,152·8; Sugar—'000 metric tonnes 13·7; Foreign spirit—'000 litres 619·5; Rectified spirit—'000 litres 1,683·9; Denatured spirit—'000 litres 199·8; Country spirit—'000 litres 2,632·0.

The most important cottage and small-scale industries are Tie and Dye Fabrics, Gota Kinar wooden toys, Handmade paper, Papier Mache toys, Gem cutting, cloth printing, manufacture of agricultural tools and implements, Embroidered shoes (Jutiyan) and leather bags, water bottles (Badlas) and handloom weaving. From the point of view of employment, khadi and village industries also play an important role in this State.

## AGRICULTURE

*Land Utilisation* : According to land utilisation statistics for the year ending June 1963, the total geographical area of the State was 33,986 thousand hectares, comprising 852 thousand hectares under forests, 6,262 thousand hectares not available for cultivation, 8,270 thousand hectares uncultivated land, 4,681 thousand hectares of fallow land and 13,821 thousand hectares net area sown. The total cropped area was 14,833 thousand hectares, the area sown more than once being 1,012 thousand hectares only.

*Agricultural Production* : Constant efforts are being made to increase the volume of agricultural production through the introduction of various development schemes, so as to bring out maximum produce of both the food and non-food crops.

Main Food Crops of the State: Cereals—Bajra, Jowar, Wheat, Maize, Barley, Small millets, Rice; Pulses: Gram, Tur, other Rabi pulses, other Kharif pulses.

Main cash crops of the State: Oilseeds: Sesamum, Rape and Mustard, Linseed, Groundnut, Cotton, Sugarcane, Tobacco, Chillies, Potatoes.

Area and production of principal food crops in '000 Hectares and Metric tonnes for the year 1963-64 respectively are as follows :—

*Cereals* : Bajra 4,326; 821; Jowar 1,030; 273; Wheat 1,122; 860; Maize 670; 610; Barley 418; 441; Small millets 72; 28; Rice 113; 277.

*Pulses* : Gram 1,504; 528; Tur 24; 9; Other Rabi Pulses 15; 8; Other Kharif Pulses 1,624; 277.

*Oilseeds* : Sesamum 483; 99; Rape and Mustard 314; 45; Linseed 121; 29; Groundnut 193; 94.

*Others* : Cotton 258; 184; Sugar cane 30; 642; Tobacco 6; 4; Chillies 31; 16; Potatoes 2; 5.

*Fish*: Variety of fish produced: There are large numbers of tanks, lakes and rivers in which inland fishes are found. The main species are the major carps, *viz.* Rohu, Migal, Kalbasu and Katla; Minor carps, *viz.* Mahaseer; Cat Fishes: Launchi and Seenghara; Live Fish: Sol, Magur and Singhi.

Rajasthan has vast potentialities for the development of pisciculture. It was envisaged to establish eight fish farms for demonstration and to collect and distribute 150 lakh fish seeds, besides establishing 20 fish nurseries and four ice plants during the Third Five Year Plan. During the year 1963-64, four lakh fish seeds were produced and distributed to the private pisciculturists against the stipulated target of 30 lakh fish seeds and an area of 211 acres was covered under this programme thereby bringing the total area covered in the State till the end of the year to 2,123 acres.

The State Government earned an income of Rs. 5·5 lakhs through these schemes during 1963-64.

**The Central Mechanised Farm, Suratgarh as in May 1963**: 30,000-acre Central Mechanised Farm at Suratgarh getting non-perennial supply from Bhakra Canal System, is growing mainly food crops like Wheat, Jowar, Paddy, Barley, Gram, Maize and Bajra. In addition to this, large areas are also put under cash crops, viz. oilseeds (mainly Mustard), Cotton and Sugarcane. Although the Farm is annually invaded by floods and the scope of cash crops like cotton is limited, the out-turn of these crops on perennial irrigation (only 15 cusecs being available) is encouraging. Highest yields of 1,400 mds. per acre of Sugarcane, 25·75 mds. per acre of Cotton and 44·5 mds. per acre of Wheat have been obtained from 15 acre plots. 440 acres under orchard have been established so far (Aug. 64). A beginning has also been made with Dairy and Poultry schemes. Control of floods and supply of perennial irrigation from Bhadra Canal System, which is already late by 5 years, will considerably improve the economy of the Farm.

The Farm has a fleet of about 100 tractors, 60 harvester combines, miscellaneous types of agricultural implements and special equipment such as winnowing, grading and loading machines, "Rain-makers", Spray irrigators, Check-row Cotton planters, Maize Planters and earth moving equipment such as Ditcher, Dozers, Excavators and scrapers, besides transport vehicles. The Farm has also a well-equipped workshop with the latest type of machinery for overhauling.

The Second Mechanised Farm at Jetsar, near Suratgarh, has already been started. Machinery for the new Farm has started arriving from the U.S.S.R. as well as from indigenous sources. An area of over 2,000 acres has been put under various Kharif crops.

One of the objectives of the Farm is to produce pure pedigree seeds of wheat and other crops. In 1961, about 85,000 maunds of wheat seed alone was supplied to various States including Rajasthan, Bihar and Orissa. In 1962 the Farm has offered Rajasthan 100,000 maunds of wheat seed.

During the sowing period work was carried out round-the-clock and fields were prepared during the night and sowing was done during the day. Various agricultural operations for the preparation of seed beds covered 2,500 acres daily. On an average wheat was sown on 500 acres every day.

**Sugarcane**: During the year 1961, the average yield of sugarcane came to 824 maunds per acre, the highest yield being 1,400 maunds per acre from a plot of 15 acres.

In the orchards of the Farm about 11,000 malta grafts were planted in 1961 besides 300 mango, 1,500 peach and 1,500 plum grafts and also 500 rooted cuttings of grape vines. The area of the orchard is being extended from 150 acres to over 500 acres in 1962. New varieties of fruit trees—guava, grapefruit, pomegranates, kagzi lime, sweet lime, pear, papaya, dates, crab apple and ber—are being tried. In the poultry farm over 500 white leghorns have been raised; by the end of 1962, it was expected to have about 5,000 of these birds. In the animal husbandry section a beginning has been made with two pedigree bulls and 12 pedigree Tharparkar cows from the National Dairy Research Institute, Karnal.

## COMMUNITY DEVELOPMENT AND NATIONAL EXTENSION SERVICE

See article on Community Development Projects)

## FORESTS

(See article on Forests).

## LIVESTOCK

Livestock population in Rajasthan has increased by 3·34 per cent during the last five years, according to the 9th quinquennial livestock census held on April 15, 1961. The total livestock population which was 324·27 lakhs in 1956 has risen to 335·15 lakhs in 1961.

During the quinquennium, the cattle population in Rajasthan has increased by 8·83 per cent from 120·73 lakhs to 131·40 lakhs. Of these, male cattle over three years have recorded an increase of 10·9 per cent, female cattle over three years of 7·95 per cent and young stock of 5·26 per cent.

The total number of buffaloes has recorded a rise of 16·57 per cent from 34·39 lakhs to 40·19 lakhs.

The number of sheep has decreased from 73·73 lakhs to 73·60 lakhs and the number of goats from 87·30 lakhs to 80·52 lakhs. Horses and ponies have also decreased from 1·13 lakhs to 0·94 lakhs.

Poultry has shown a rise of 57·11 per cent from 4·57 lakhs to 7·18 lakhs.

The following figures relate to 1963-64.

Number of Veterinary Hospitals : 147.
Number of Veterinary Dispensaries : 132.
Artificial Insemination Centres : 16.
Key Village Centres : 20.
Mobile dispensaries : 15.
Mass Immunisation Centres : 7.
Total livestock population : 335·15 lakhs (1961).

(See also article on Livestock).

## LAND REFORMS

Agriculture will continue to be for many decades the primary industry of the State. Rajasthan can claim remarkable achievements in respect of the implementation of an ambitious programme of land reforms. By the end of March, 1961, the Jagirdari, Zamindari and Biswedari tenures had been abolished. The Rajasthan Tenancy Act, 1955, which may be reckoned as one of the most progressive Tenancy Acts of India, has provided for security of tenure and fixity of rent. Where formerly, multiple tenancies and tenures were in existence, there are now only four classes of tenants viz., Khatedars, Maliks, Tenant-Khudkasht and Gair Khatedar tenants. Rents have been fixed and forced labour prohibited. Ceilings on existing holdings and on future acquisitions have also been prescribed.

By the end of March, 1963, a sum of Rs. 3·40 crores was paid as final compensation to 88,250 Jagirdars.

The State Government has also taken effective steps for the rehabilitation of ex-Jagirdars and have allotted lands to them at concessional rates in the irrigated area, coming under the command of Bhakra Project.

The Rajasthan Govt. has taken a decision that ceiling on agricultural holdings in Rajasthan will be imposed in one stage instead of in four stages as envisaged earlier.

The ceilings prescribed under the Act for a family consisting of five persons is 30 standard acres of land c pable of producing 300 maunds of wheat per year or any other produce equivalent in price of wheat. It also provides that if a family consists of more than five persons, every person in addition to five will get additional six acres of land subject to the maximum of 60 acres of land.

The Bhoodan Yagna Act was passed in 1954 and the Bhoodan Yagna Board created by it started functioning in January 1955. During the year 1962, under the programme of Bhoodan Yagna in the State no land was donated and of the total land available for distribution, 3,932 hectares of land was distributed amongst 836 families.

## PANCHAYATS

Under the Rajasthan Panchayat Samitis and Zila Parishads Act, 1959, 232 Panchayat Samitis and 26 Zila Parishads have been set up in all the blocks and districts of the State respectively.

The Panchayat Samitis are the executive bodies with wide powers including those for formulating and executing the development programmes, and for imposing taxes. The Zila Parishads are the supervisory and coordinating bodies.

Under this democratic decentralisation, at the end of 1963-64, there were 7,391 village panchayats and 1,368 Nyaya Panchayats covering 34,452 villages serving the total rural population of the State

## IRRIGATION

*Bhakra Project :* The supply in the Bhakra Canals in Rajasthan is still non-perennial. The total area irrigated during the year 1963-64 was 4·49 lakh acres.

*Jawai Project :* The total area irrigated from this project during 1962-63 and 1963-64 was 15,000 and 8,400 acres respectively.

*Chambal Project :* The work on this project was started during 1953-54 and both cost and benefits are shared with the Govt. of Madhya Pradesh and the project will be completed in three stages (*i*) Gandhi Sagar Project, (*ii*) Rana Pratap Sagar Project, (*iii*) Kota Dam Project. Most of the work of the first stage *i.e.* the Kota barrage, the Gandhi Sagar, the right main canal and the left main canal were completed by the end of the 2nd Plan and the remaining work was completed during 1961-62. The irrigation was started from this project in November, 1960 and an area of 90,000 acres was irrigated during 1962-63 and 144,000 acres during 1963-64.

The available statistics in respect of irrigation by sources and crops for 1960-61 reveal that out of the total irrigated land of 1,752 thousand hectares, 535 thousand hectares were irrigated through canals, 1,014 thousand hectares through wells and 166 thousand hectares by tanks, 37 thousand hectares through other sources. Out of the total irrigated area, 1,287 thousand hectares were under food crops, 134 thousand hectares under cotton, 38 thousand hectares under sugar cane and 293 thousand hectares under other crops. The total area irrigated more than once was 246 thousand hectares. With the irrigation facilities being extended through construction of a number of major, medium and minor irrigation works and adoption of other improved agricultural practices, Rajasthan which, till recently had been a regular deficit state, has not only attained self-sufficiency in foodgrains, but has also shown a sizeable surplus.

*New Major and Medium Schemes for 3rd Five Year Plan :* Within bracket estimated cost and net area to be irrigated on completion have been given in lakh rupees and '000 acres respectively.

1. Gopalpura (Rs. 93·00 ; 1·60), 2. Manpura (Rs. 20·00 ; 0·80), 3. Sarankheri (Rs. 13·00 ; 0·50), 4. Jaitpura (Rs. 30·00 ; 1·60), 5. Sabi (Rs. 25·00 ; 46·00), 6 Wagli (Rs. 22·00 ; N.A.), 7. Khod (Rs. 25·00 ; N.A.), 8. Basundhari (Rs. 25·00 ; N.A.).

### Groundwater Resources

A rich and extensive groundwater basin has been discovered during April 1962, in Jaisalmer district of Rajasthan, which suffers from chronic scarcity of drinking water.

The groundwater, available in abundance under sub-artesian condition, is of good quality and suitable for irrigation, domestic and industrial purposes.

A total of 14 exploratory tubewells have been converted into production wells in the area between Jaisalmer and Chandan village. They yield from 16,000 to 51,000 gallons per hour of good quality water.

Two successful tubewells, one located at Dabla, ten miles from Jaisalmer, and another at Botia, 17 miles from Barmer, will provide sustained supply of sweet drinking water to these two districts.

### Rajasthan Canal

The Rajasthan Canal from Harika (Punjab) to Ramgarh (Jaisalmer district) on completion will be 425 miles long and will irrigate 36·3 lakh acres, out of the net culturable commanded area of 67·4 lakh acres. The gross commanded area under this project will be 50 lakh acres.

An amount of Rs. 38 crores was provided in the State's III Plan for this project out of which Rs. 19·26 crores or 50·73 per cent were spent in the first three years of the Plan. During 1963-64 a sum of Rs. 605·19 lakhs or 102·57 per cent of the allotment Rs. 590 lakhs was spent. During the same year 1,331 lakh cft. of earth work, 356 lakh cft. of compaction and 1·05 lakh cft. lining were completed in the Punjab portion of Rajasthan feeder. Likewise 2,520 lakh cft. earth work, 804 lakh cft. of compaction and 0·16 lakh cft. of lining were carried out on the construction of the main canal. Besides, earth work in 614 lakh cft. was completed in Anupgarh branch system and 558 lakh cft. on various distributaries and minors.

Rajasthan canal will depend on the water of the rivers Beas and Ravi. For ensuring perennial supply, Pong Dam on the Beas is being constructed by the Government of Punjab under the aegis of Beas control. The work on the project was started in 1960-61 and it is expected that the project would be completed in about 8 years.

In addition to the irrigation benefits, it will have six units of 60,000 kW. installed capacity each for generating power. The Rajasthan Government has made a provision of Rs. 25 crores in its Third Five Year Plan to meet its share of expenditure on the Pong dam. Out of this amount, a sum of Rs. 11·03 crores or 44·13 per cent is estimated to have been spent. During 1963-64, the share of expenditure of the State was estimated to be Rs. 467·47 lakhs which was 92·47 per cent of the revised outlay of Rs. 505 lakhs.

## POWER PROJECTS

Power supply in the State has been much below the requirements and consequently a major obstacle in the way of Industrialisation and consequent diversification of the State economy. Greater emphasis was laid in the State's Third Five Year Plan on the development of power resources and rural and urban electrification. The Plan envisaged to increase the installed capacity of the State by 253 thousand kW. and electrification of 303 additional localities by the end of the Third Plan period.

During 1963-64, the installation of one 3,000 kW Turbo-set at Jodhpur was nearly completed. Besides, the installation work of five units of 62·5 MW each at Satpura Thermal project in Madhya Pradesh was in progress which is expected to be completed by 1966-67. Rajasthan will get about 103 MW of firm power as its share from the project. The fourth unit of 23 MW was commissioned at Gandhi-sagar during November, 1963 in which Rajasthan is a fifty per cent partner with Madhya Pradesh. Bhakra Left Bank Power Station has been fully commissioned and 22 MW of power is at present available to Rajasthan from it. The work on Bhakra Right Bank power is likely to be completed during 1966-67 and about 45 MW of firm power will be available to Rajasthan. The work on Beas Sutlej project is in progress and is likely to be completed during the early Fifth Plan period.

The work on Chambal Hydel Transmission Stage I was speeded up during 1963-64, 132 kV Neemuch-Udaipur (81 miles) 132 kV Jaipur-Ajmer (84 miles) lines were completed and energised.

In addition to this, Grid sub-stations at Udaipur, Ajmer and Phulera were also commissioned during the year. A net work of transmission lines has been spread supplying power to various corners of Rajasthan. As a result, 66 miles of 133 kV, 19 miles of 66 kV, 245 miles of 33 kV and 103 miles of 11 kV lines were laid bringing the progressive achievement to 612, 216, 1,929 and 1,220 miles of 133 KV, 66 KV, 33 kV and 11 kV lines respectively. The inclusion of 220 kV Hissar-Khetri-Jaipur Transmission line in the Third Plan programme on the direction of the Planning Commission and the Central Water and Power Commission was a major step taken by the Government in 1965. The preliminary work has started and it is proposed to complete the Hissar Khetri section (82 miles) including Grid-sub-station at Khetri by the end of 1965-66.

During 1963-64, 128 localities were electrified as against 120 during 1962-63, thus bringing the total to 450 localities electrified so far, out of which 14 localities were electrified by privately owned power houses.

During 1963-64, 96 million Kwh of electricity was generated in Rajasthan and 224·86 million Kwh and 0·19 million Kwh were purchased from the adjoining States and non-electric utilities respectively, bringing the total electricity generated and purchased to 321·59 million Kwh. The percentage distribution of power consumed for different uses during the year reveals that maximum amount of power continued to be consumed for industrial purposes amounting to 55 per cent of the total power sold. This was followed in order by domestic purposes constituting 16·66 per cent, commercial purposes 11·46 per cent, public water and sewage pumping 9·37 per cent, irrigation and agricultural dewatering 4·09 per cent and public lighting 3·33 per cent.

The Union Government has decided to build a second nuclear power station with an initial capacity of 200 megawat at Rana Pratap Sagar near Kotah. It is expected to be completed by the end of 1967 and is estimated to cost Rs. 32 crores. An additional 200 mw. unit, at an estimated cost of Rs. 30 crores at the Rajasthan atomic power station, was approved by the Govt. of India on June 28, 1965. This additional unit is expected to go into commission towards the end of the Fourth Plan.

## CO-OPERATION

In keeping with the policy of the Government of India the programme was built up gradually and voluntarily. By the end of the cooperative year ending June, 1964 the number of cooperative societies was 21,552 with a membership of 12,83,925. The share capital and the working capital of these societies stood at Rs. 913·19 lakhs and Rs. 4,044·10 lakhs respectively.

(For further particulars see main article on "Co-operative Movement").

## MEDICAL & PUBLIC HEALTH

For expansion of medical facilities, 175 primary health centres were functioning till the end of 1963. The number of allopathic hospitals and dispensaries at the end of the year 1963 stood at 262 and 260 respectively having in all 10,166 beds. Besides, 17 Ayurvedic and Unani Hospitals with 220 beds and 1,272 dispensaries, were functioning in the State. Further details are given below :

Kinds of State Public Hospitals : Figures for 1963 : *T. B. Hospitals* : (*i*) Sanatorium 3 ; (*ii*) Hospitals 3 ; (*iii*) Clinics 6 ; *Leprosy hospitals :* 2 ; *Mental hospitals :* 2 ; *Isolation :* (*i*) Hospitals 2 ; *Other hospitals :* 243 ; *Dispensaries :* 249.

Number of beds : Maternity 992 ; T.B. 728 ; Isolation 184 ; Leprosy 95 ; V.D. 41 ; Mental 300 ; Eyes 429 ; General 7,085.

During 1963-64 there were 1,432 doctors, 468 staff nurses, 1,242 midwives, 2,829 compounders, 1,029 sanitary inspectors and malaria surveyors, 723 vaccinators, 353 health visitors and 226 dais. During 1963-64, there were 18 Ayurvedic and Unani hospitals, 1,331 Ayurvedic and Unani dispensaries ; one Yogic centre, 1,407 vaidyas and hakims, 1,163 compounders/nurses and 305 beds.

Patients treated in allopathic institutions in 1963 were : Outdoor 115·28 lakhs, and indoor 3·21 lakhs respectively.

There are three medical colleges, the Sawai Mansingh Medical College at Jaipur, the Medical College, Udaipur and the Medical College, Bikaner.

## ROADS & TRANSPORT

*Position in* 1963-64.
Total length of roads : 29,055 km.
Cement concrete roads : 41 km.
Painted roads : 10,013 km.
Metalled roads : 6,033 km.
Gravelled roads : 5,839 km.
Fair weather and dressed up tracks : 7,129 km.
Total number of motor vehicles (1963) : 40,602.

Number of private cars and jeeps 13,275 ; Private buses 294 ; Cycles and tricycles 4,967 ; Taxis, cars and contract carriages 246 ; Stage carriages 5,166 ; Public carriers 9,429 ; Private carriers 1,302 ; Tractors 5,554 ; Others 369.

It is proposed to cover 3,186 road miles during the Third Plan.

The Rajasthan Government has finalised proposals to construct 1,606 miles of road in the border districts of the State at an estimated cost of Rs. 6 crores during August 1964.

## LABOUR (1963-64)

Number of registered factories : 1,242 (at the beginning of 1964).

Number of registered Trade Unions in State : 330.

Total membership : 58,702.

*Industrial Disputes :* Disputes 33 ; Workers involved 8,736 ; Man-days lost 27,178.

Accidents (enquired into) : Fatal 22 ; Non-Fatal 2,653.

Workmen's compensation : cases decided 145 ; amount paid Rs. 1,16,996.

Employees' Provident Fund Scheme : No. of factories covered 267; Workers benefited 32,519 ; Contribution from the workers Rs. 43,41,532.

Twenty-eight Labour Welfare centres, in places having 500 or more industrial workers, have been established by the end of the year 1963-64.

No. of labourers benefited : 24,850.
No. of children benefited : 14,171.
No. of adults educated : 2,520.
No. of children educated : 4,311.
No. of factories covered by State insurance : 133.
No. of workers insured : 42,000.

Twenty-one Employment exchanges function in the State covering all the 26 districts.

Registration during 1964 : 1,34,509. Placing during 1964 : 18,389.

## EDUCATION, 1962-63

(*See under Education Tables for more statistics.*)

Educational Institutions of all the standards: 27,560.
Teachers : 66,792, Students : 18,97,123.
Centres for adult education : 3,031 (1961-62).
Number of adults made literate 35,878 (1961-62).
Elementary education is free throughout the State.

Place of language in the education system : Regional language is Hindi which is compulsory. English is compulsory after Standard VI. Hindi is the medium of instruction.

The Rajasthan Government passed on Aug. 21, 1964, the Primary Education Bill which seeks to provide free and compulsory primary education for children in the State.

The bill will come into force on such date as may be fixed by the State Government by a notification.

## THIRD FIVE-YEAR PLAN

The total allotment for the Third Five-Year Plan for Rajasthan State : Rs. 236 crores.

Plan allotment for 1964-65 : Rs. 46·25 crores (Original).

Rajasthan's annual plan of 1965 envisages an outlay of Rs. 4,690 lakhs.

Irrigation and power have been allotted Rs. 2,515 lakhs, agricultural programmes Rs. 538·50 lakhs, co-operation and community development Rs. 360 lakhs, industry and mining Rs. 65 lakhs, transport and communications Rs. 194 lakhs, social services Rs. 994·70 lakhs and miscellaneous Rs. 22·80 lakhs.

During the Plan, a target of 15 lakh tons of additional food production has been proposed. The State is already surplus in food grains.

On May 21, 1960 the Rajasthan Government took a step forward in democratic decentralisation, introduced on October 2, 1959, by entrusting the formulation of the State's Third Five-Year Plan to village bodies. The newly-created Panchayat Samitis, in consultation with Panchayats and Gaon Sabhas, will draw up their block plans which will be co-ordinated at the district level and then passed on to the State Government for finalisation.

## UNIVERSITY OF JODHPUR

Jodhpur

(Established 1962)

This is a Unitary and Teaching University.

*Chancellor :* Dr. Sampurnanand, Governor of Rajasthan (Ex. Officio).

*Vice-Chancellor :* Dr. Ram Behari, M.A. (Pure Maths.), M.A. (Applied Maths.) Punjab, M.A. (Cantab.), Ph.D. (Dublin), Sc.D. (Dublin), F.N.A.Sc, F.A.Sc., F.N.I.

*Registrar :* Sudhindra Kumar, M.A.

*Accounts Officer :* Jagdish Lal Mathur, R. Acs. S.

*Deans of Faculties :* Arts—Dr. B. P. Saxena, M.A., Ph.D. (London) ; Science—Dr. U. N. Chatterjee, B.Sc. (Hon.), M.Sc., D.Phil., D.Sc., F.N.A.S., F.R.S.A. (Lond.), F.A.A.A. (U.S.A.) ; Commerce—Prof. D. N. Elhance, M.Com. ; Law—Prof. S. C. Thanvi, M.A., LL.M. ; Social Sciences—Prof. S. D. Derashri, M.A. (Econ.), LL.B., A.M. (Penn. U.S.A.). ; Engineering—Prof. S. C. Goyal, B.Sc., C.E.Ms. (California), M.I.E., M.A.S., C.E.M.I.A., B.S.E.

### INSTITUTIONS

There is a separate college for women students, known as the Kamla Nehru Hall for Women under the direct administrative and financial control of the University. There is also an Institute of Evening Studies which enables the service-class persons to improve their academic qualification. Shri Mahesh Teachers (Training) College—managed by a private body is affiliated to the University.

### UNIVERSITY DEPARTMENTS

*Faculty of Arts :* English, Hindi and Sanskrit, History, Philosophy and Psychology ; *Faculty of Social Sciences :* Economics, Sociology, Political Science and Geography ; *Faculty of Science :* Physics, Mathematics, Chemistry, Zoology, ond Botany ; *Faculty of Commerce :* Commerce ; *Faculty of Engineering :* Civil, Structural, Mechanical, Electrical and Mining.

This University also provides facilities for researches in the above subjects.

(1964-65) : No. of students—6,272 ; No. of teachers—339 : No. of Research Scholars—165.

### MEDIUM OF INSTRUCTIONS

In the Post-graduate Classes except in Hindi and Sanskrit, generally the medium of instruction is English, while Hindi is the medium upto the Degree level.

### BUDGET (1964-65)

| | | |
|---|---|---|
| Income | .. .. | Rs. 68·48 lakhs |
| Expenditure | .. .. | Rs. 60·84 lakhs |

## UNIVERSITY OF RAJASTHAN

Jaipur

*Chancellor*

Dr. Sampurnanand, Governor of Rajasthan.

*Vice-Chancellor*

Dr. Mohan Sinha Mehta, M.A., LL.B., Ph.D., Bar-at-law.

*Registrar*, C. L. Singhal.

Total number of colleges affiliated to the University : 62.

Total number of male students in the colleges at the end of the Session 1963-64 was 23,203.

Total number of female students in the colleges at the Session 1963-64 was 3,116.

Total number of male and female students in the University Departments at the end of the session was 1,007 and 255 respectively.

Total number of male and female students in the University colleges was 3,195 and 1,488 respectively.

### LIST OF UNIVERSITY COLLEGES AND UNIVERSITY TEACHING DEPARTMENTS

*University Colleges :* University Maharaja's College, Jaipur ; University Rajasthan College, Jaipur ; University College of Commerce, Jaipur ; University Maharani's College, Jaipur.

*University Teaching Departments :* University Department of Economics & Public Administration, Jaipur; University Department of History, Jaipur ; University Department of Philosophy, Jaipur ; University Department of Sanskrit, Jaipur ; University Department of Hindi, Jaipur ; University Department of English, Jaipur ; University Department of Political Science, Jaipur ; University Department of Sociology, Jaipur ; University Department of Statistics, Jaipur ; University Law College, Jaipur ; University Department of Mathematics, Jaipur ; University Department of Physics, Jaipur ; University Department of Chemistry, Jaipur ; University Department of Zoology, Jaipur ; University Department of Botany, Jaipur ; University Department of Library Science, Jaipur ; University Department of Foreign Languages, Jaipur ; University Department of Geology, Udaipur.

### LIST OF AFFILIATED COLLEGES

Government College, Ajmer ; Dayanand College, Ajmer ; Savitri Girls' College, Ajmer ; Sophia Girls' College, Ajmer ; Government College (T.T.), Ajmer ; Raj Rishi College, Alwar ; Regional College of Education, Ajmer ; Jia Lal Institute of Education, Ajmer ; S. G. D. Govt. Girls' College, Alwar ; Dungar College, Bikaner ; M. S. College for Women, Bikaner ; B. J. S. R. Jain College, Bikaner ; Government T. T. College, Bikaner ; Sardar Patel Medical College, Bikaner ; Shri Jain College, Bikaner ; Shri S. D. Government College, Beawar ; Government College, Bundi ; Government College, Banswara ; Government College, Bhilwara ; M. S. J. College, Bharotpur ; Banasthali Vidyapeeth, Banasthali ; Banasthali Vidyapeeth College of Education, Banasthali ; Lohia College, Churu ; Chirawa College, Chirawa ; Government College, Chittorgarh ; Bangur College, Didwana ; Government College, Dausa ; Government College, Dungarpur; Government College, Dholpur ; S. P. U. College, Falna ; Seth G. R. Chamaria College, Fatehpur ; S. S. G. Pareek College, Jaipur ; Agarwal College, Jaipur ; S. S. Jain Subodh College, Jaipur ; S. M. S. Medical College, Jaipur ; Seth Motilal College, Jhunjhunu; Government College, Jhalawar ; Bharat Sewak Samaj Evening College, Jaipur ; College of Nursing, Jaipur ; Malaviya Regional Engg. College, Jaipur ; Government College, Kota ; Janki Devi Bajaj Girls' College, Kota ; Government College, Kishangarh ; Government College, Karauli ; S. R. S. Govt. Degree College, Kaladera; Government College, Kotputli ; Sharda Sadan College, Mukundgarh ; Seth G. B. Podar College, Nawalgarh ; Seth Mathuradas Binani Govt. College, Nathdwara ; Government College, Pali ; Seth R. N. Ruia College, Ramgarh ; Government College, Sirohi ; Shri Kalyan College, Sikar ; Government College, Sriganganagar ; Seth G. L. B. S. D. College, Sriganganagar ; Chaudhary Balu Ram Godhra Govt. Girls' College, Sriganganagar ; S. G. N. Khalsa College, Sriganganagar ; Seth Budhmal Dugar College, Sardarshahr ; Basic T. T. College, Gandhi Vidya Mandir, Sardarshahr ; G. V. College of Agriculture, Sangaria ; Government College, Tonk ; R. N. T. Medical College, Udaipur.

### BUDGET ESTIMATES (1963-64)

| | Rs. |
|---|---|
| Total Income .. .. | 1,10,77,289·76 |
| Total Expenditure .. .. | 1,29,45,602·27 |
| Grants if any :— | |
| State Government .. .. | 27,42,000·00 |
| University Grants Commission | 8,40,405·07 |
| Central Govt. .. .. .. | 10,91,552·36 |

### UNIVERSITY OF UDAIPUR

Udaipur.

(Estd. July 1962)

*Vice-Chancellor :* Dr. G. S. Mahajani.

*Registrar :* Dr. H. N. Mehrotra.

The University though primarily established to cater to the needs of agricultural education, research and agricultural extension, now provides instruction in other disciplines also. At present the University comprises Five University Colleges and six Affiliated Colleges. They are : *University Colleges :* Rajasthan College of Agriculture, Udaipur ; S. K. N. College of Agriculture, Jobner ; College of Veterinary and Animal Science, Bikaner ; College of Agricultural Engineering and Technology, Udaipur ; School of Basic Sciences and Humanities, Udaipur.

*Affiliated Colleges :* Meera Girls' College, Udaipur ; Bhopal Nobles College, Udaipur ; Govindram Seksaria Vidya Bhavan Teachers' Training College, Udaipur ; Shramjivi College, Udaipur ; Udaipur School of Social Work, Udaipur ; Rajasthan Mahila Vidyalaya, Udaipur.

The total enrolment of the University for the year 1964 was 3,858.

The courses offered are : Pre-University in Arts, Science and Commerce, Pre. (Ag.), B.A., B.Com., B.Sc., B.Sc. (Home Science), B.Sc. (Ag.), M.A., M.Sc., M.Sc. (Ag.), M.V.Sc., M.Com., LL.B., B.Ed., M.Ed. From July 1964, the University has also instituted Ph. D. Course.

The special feature of this University is the adoption of internal grading system on the pattern of the Land Grant College of the U.S.A. The academic year has been divided into two sessions called semesters. The examinations are internally connected. So far, this system has been introduced in Agriculture and Veterinary faculties only from July 1964.

The total budget for 1964-65 of the University was Rs. 81·69 lakhs.

## COMMERCIAL, EDUCATIONAL, RELIGIOUS SOCIETIES, INSTITUTIONS, Etc.

### AJMER DISTRICT SMALL INDUSTRIES & HANDICRAFTS ASSOCIATION

Kaxhari Road, Ajmer

### ALL INDIA WOOL TRADE FEDERATION

Beawar.

*President :* Jayantilal K. Anjaria ; *Vice-President :* G. Thambuswamy ; *Hon. Secretary :* Rameshchandra V. Dave ; *Jt. Hon. Secretary :* Deepak Doongursee.

### BANASTHALI VIDYAPITH

P.O. Banasthali Vidyapith (Jaipur).

All India residential institution imparting all-round education to girls from nursery to post-graduate stage and working through its educational effort, for a synthesis of the spiritual heritage and the scientific achievements of the East and the West.

*Adhyaksha :* Pt. Hiralal Shastri ; *Upadhyaksha (Prashasan) :* Smt. Ratan Shastri ; *Upadhyaksha (Shiksha) :* P. N. Mathur and Mantri Diwakar Shastri.

### BASKETBALL FEDERATION OF INDIA

C/o Nagina Bagh, Ajmer.

*President :* B. Patnaik ; *Hony. Secretary :* R. Vaikuntam ; *Asstt. Secy :* Mehar Singh.

### BIKANER DISTRICT INDUSTRIES ASSOCIATION

Binani Bldgs., Alakh Sagarwell, Bikaner.

### BIKANER VYAPAR MANDAL

K.E.M. Road, Bikaner.

### THE BIKANER WOOL TRADERS ASSOCIATION

Near Daga High School, Bikaner.

*President :* Bhagirath Ji Mohatta ; *Vice-President:* Vishvanath Ji Sharma ; *Hon. Secy. :* Kantilal Ji T. Someia ; *Treasurer :* Ram Kishan Ji Lohiya.

### CENTRAL TELE-COMMUNICATION INSTITUTE

Pilani.

### CHAMBER OF COMMERCE & INDUSTRY

Bharatpur.

### THE CHAMBER OF COMMERCE

Sadar Bazar, Bundi.

### CHAMBER OF COMMERCE

Bara Bazar, Udaipur.

### DEPARTMENT OF PARAPSYCHOLOGY

University of Rajasthan, Jaipur.

*Director & Editor :* H. N. Banerjee ; *Research Associate :* P. K. Mathur.

*Official Quarterly Journal :* PARAPSYCHOLOGY—The Indian Journal of Parapsychological Research.

*Publications :* The Research Monographs of the Department.

### DIVISIONAL CHAMBER OF COMMERCE & INDUSTRY

Rampura Bazar, Kota.

### FEDERATION OF ASSOCIATIONS OF SMALL INDUSTRIES OF RAJASTHAN

Near Shah Bldgs., Sawai Mansingh Highway, Jaipur.

*President :* Shah Kastoormal ; *Vice-Presidents :* I. C. Ghosal, K. L. Jani ; *Hon. Gen. Secy. :* J. M. L. Tambi ; *Treasurer :* B. L. Vaidya.

### INDIAN SOCIETY OF HAEMATOLOGY

Bungalow No. 13, Opp. Mental Hospital, Adarsh Nagar, Jaipur.

### JAIPUR CHAMBER OF COMMERCE AND INDUSTRY

Johari Bazar, Jaipur City.

*President :* Ghanshyamdas Jhunjhunwala ; *Vice-Pres. :* S. G. Sekhsaria ; *Hon. Secy. :* Jagdish Prakash ; *Treasurer :* Raj Roop Tank.

### JAIPUR MUDRAK SANGH

C/o Friends Printers, Jaipur.

*President :* Hazarilal Sharma ; *Vice-President :* Kevalchand Tholia ; *Secretary :* Harikaran Poddar ; *Treasurer :* Hariram.

### JODHPUR INDUSTRIES ASSOCIATION

Behind Power House, Jodhpur.

*President :* S. R. Mohatta ; *Vice-Pres. :* C. M. Agarwal ; *Hon. Secy. :* N. L. Kabra ; *Hon. Treasurer :* R. D. Daga.

### MAHA BODHI ASHOKA MISSION

Dhamma Kuti, Buddha Vihara, Mayo Link Road, Ajmer.

The Institution conducts a journal entitled *Samyak Dristi* (Right View)—The trilingual International monthly. (*Editor :* Mrs. Quin Moi Rahula).

### MARWAR CHAMBER OF COMMERCE

5, Haider Bldgs., Sojati Gate, Jodhpur.

*President :* N. K. Sanghi ; *Vice-Presidents :* S. R. Mohatta, M. M. Mehta ; *Hony. Secy. :* C. L. Salecha ; *Hon. Treasurer :* S. M. Mehta.

**PLASTIC INDUSTRIES ASSOCIATION**
Nimaj House, Jodhpur.

**RAIL & TRANSPORT PASSENGERS' ASSOCIATION**
Prag Bhawan, Gajner Road, Bikaner.

*President:* Prag Dass Bhargava ; *Vice-President :* Amar Nath; *Hon. Gen. Secy. :* S. D. Bhargava.

**RAJASTHAN ACADEMY OF SCIENCES**
Birla College, Pilani.

*President :* V. Lakshminarayanan ; *Hon. Secretary :* Dr. H. L. Kundu ; *Editor :* Prof. A. K. Datta Gupta ; *Treasurer :* Dr. B. D. Deshpande.

**RAJASTHAN CHAMBER OF COMMERCE AND INDUSTRY**
Johari Bazar, Jaipur City.

This is the most representative Chamber in Rajasthan to which all other Divisional Chambers & Trade Associations in this State are affiliated.

*President :* Ramnath A. Podar ; *Senior Vice-President :* Khailshanker Durlabhji; *Vice-Presidents :* G. D. Jhunjhunwala, Sohanlal Singhania, A. K. Kanoria, N. K. Sanghi ; *Hon. Secretary :* G. S. Purohit ; *Jt. Hon. Secretary :* K. L. Jain ; *Secretary :* M. C. Gandhi.

**RAJASTHAN CYCLE MANUFACTURERS' ASSOCIATION**
Behind Atish, Gangori Bazar, Jaipur.

*President :* H. S. Kakkar ; *Vice-Pres. :* Bhagirathmal ; *Hon. Secy. :* J. M. L. Tambi.

**RAJASTHAN FARMERS FORUM**
Govind Vatika, "C" Scheme, Jaipur.

**RAJASTHAN INDUSTRIAL AND MINING ASSOCIATION**
Pusa Nivas, Bhilwara.

**RAJASTHAN INSTITUTE OF EDUCATION**
Prag Bhavan, Gajner Road, Bikaner.

**RAJASTHAN LALIT KALA AKADAMI**
260-D, Bani Park, Jaipur.

**RAJASTHAN SANGEET NATAK ACADEMY**
Paota A-1 Road, Jodhpur.

The following institutions are affiliated to the Academy : Rashtriya Kala Mandal, Kuchaman House, Jodhpur ; Rajasthan Tarun Kalakar Parishad, Jaipur ; All India Music College, Churu ; Bhartiya Lok Kala Mandir, Udaipur ; Rajasthan Kala Kendra, Bikaner ; Ajmer Music College, Ajmer ; Meera Kala Mandir, Udaipur ; Sangeet Bharti, Bikaner ; Sashtrya Sangeet Vidhyalaya, Sikar ; Sangeet Natya Niketan, Udaipur ; Kala Bharti, Alwar ; Kala Kendra Vishwa Vidhyapeeth, Udaipur ; Saraswati Bhawan, Beawar ; Gandharva Maha Vidyalaya Mandal, Jaipur ; Amateurs Artists Association, Jaipur.

**RAJASTHAN SHIKSHAK SANGH**
Janki Niwas, 1-B, Sardarpura, Jodhpur.

An organisation of primary, secondary and university teachers of Rajasthan.

*President :* A. P. Gaur ; *Vice-Presidents :* Ramgopal Katara, N. Chaturvedi ; *Treasurer :* Hanumanprasad Parikh.

**RAJASTHAN STATE SPORTS COUNCIL**
Nand Niketan, Malviya Marg, "C" Scheme, Jaipur.

**THE RAJASTHAN TEXTILE MILLS' ASSOCIATION**
Durlabh Bhawan, Mirza Ismail Road, Jaipur.

*Chairman :* M. D. Rathi ; *Dy. Chairman :* M. L. Gupta ; *Hon. Secretary :* K. C. Sogani.

**RAJPUTANA MINE-OWNERS & MINERAL MERCHANTS' ASSOCIATION**
Kutchery Road, Ajmer.

**SARASWATI VIDYAPITH**
Tipta, Kotah P. O.

*Activities :* Sans. College, Secondary School, Bal Mandir, Kala Niketan, Rashtra Bhasha College, Ayurvedic Deptts., etc.

**STUDY CIRCLE**
Haldiyon-Ka-Rasta, Jaipur.

Runs six free dispensaries in slum areas of Jaipur, one free Higher Secondary night school, five cottage literacy and cultural centres in Chapparbandh slum area and three Ladies Tailoring Centres. Upto Dec. 1964, 6,48,889 patients got free medical treatment, 16,000 students in the Higher Secondary school and 250 students in the cottage literacy centres got educational benefits. No fees, donations and Govt. aids are accepted. Entirely financed by the resources of about 80 families.

*Hon. Sansthapaks :* B. L. Ajmera, Mrs. Kailash Ajmera.

**UNITED CHAMBERS OF COMMERCE**
Sadul Memorial Marg, Bikaner.

**VIDYA BHAWAN SOCIETY**
Udaipur.

## TRADES & PROFESSIONS

Aditya Industries, Industrial Estate, Jaipur.
Aeromatic Equipment Co., P. Box 129, Jaipur.
Agarwal Crystal Ice Factory, Jaipur.
Agencies (Rajasthan) Ltd., Purohitji-ka-Katla, Jaipur.
Agricultural Machinery Works, Dhan Mandi, Jodhpur.
Ajanta Industries, Kalawati Bhawan, Bikaner.
Alcobex Metal Corporation, Pali House, Jodhpur.
Allied Industries, 48, Bullion Exchange Bldg., Haldion-ka-Rasta, Jaipur.
Amar Automobiles, Jalori Gate, Jodhpur.
Anand Electric Lampworks, Jhotwara, Jaipur.
Arjun Medical and Provision Stores, Station Road, Jaipur.
Arora Bros., Station Road, Jodhpur.
Arora Crockery House, Minerwa Building, Railway Road, Jodhpur.
Arya Sahitya Mandal Ltd., Srinagar Road, Ajmer.
Aseri Brothers, opp. Railway Station, Jodhpur.
Ashoka Wire Netting Industries, Bharti Bhawan, Chaura Rasta, Jaipur.
Associated Films Distributors, Station Road, Jodhpur.
Associated Stone Industries (Kotah) Ltd., Ramganj Mandi.
Associated Stone Distributing Co. Private Ltd., Johari Bazar, Jaipur.
Babu Safe Co., Ghat Gate, Jaipur.
Bankidass Moolraj & Co., Jalorigate, Jodhpur.
Bansilal Chowthmal, Katla Bazar, Jodhpur.
Bhandari Brothers, opp. Mahatma Gandhi Hospital, Jodhpur.
Bharat General & Seed Stores, Minerva Building, P.B. No. 52, Jodhpur.
Bharat Lodge, Station Road, Near Raghunath Sawai Dharamshala, Jodhpur.
Bhargava & Company, opp. Prem Prakash Talkies, Sawai Mansingh Highway, Jaipur.
Bhargava Scientific Corporation, Devi Bhavan, Kutchery Road, Ajmer.
Bhatia Bros., Chopasani Road, Jodhpur.
Bhupal Mining Works, P.O. Bhilwara, (Rajasthan).
Bijoy Mica Mining Ltd., Bhopalganj, Bhilwara.
Bikaner Industrial Corporation, Industrial Area, Bikaner.
Bikaner Polythene Products, Mohata-chowk, Bikaner (Rajasthan).
Bikaner Steel Works, Jassusar Gata, Bikaner.
Bikaner Woollen Mills, Industrial Area, Bikaner.
Birla Cotton Spg. & Wvg. Mills Ltd., Moti Dungri Road, Jaipur.
Bombay Watch Co., Inside Sojatigate, Jodhpur.
B. N. Bhargava & Bros., Station Road, Ajmer.
B. P. Agdayemawer & Sons (Regd.), Mot Doongri Road, Jaipur.
Burmah-Shell Co. Ltd., Kamani House, Tholia Circle, Ajmer Road, Jaipur.
C. D. Jain & Co., Outside Sojati Gate, Jodhpur.
Caltex Motors, Kutcheri Road, Jodhpur.
Central Radio & Service Co., Radio House, Ajmer.
Central Steel & General Industries, Ajmeri Gate, Jaipur.
Inder Mohan & Co., Sadul Colony, Bikaner.
Challani Woollen Mills, Jassusar Gate, Bikaner.
Chandra Industrial and Commercial Corporation, Kutcheri Road, Jodhpur.
Chandra Industries, Mirza Ismail Road, Jaipur.
Chitra Cinema, Mehta Market, Jodhpur.
Chitraprakash Film Exchange, Ajmer Road, Jaipur City.
Chopani Ice Aerated Water & Oil Mills Ltd., Jodhpur.
Cinema Publishers, 2, Hyder Building, Sojatigate, Jodhpur.
Cosmopolitan Trading Corporation, Johari Bazar, Jaipur.
Decalco Transformer Mfg. Co., 612, Adarshnagar, Jaipur.
Deepak Industries, Hathi Babu-ka-Bagh, Jaipur.
Delhi Mishthan Bhandar, Chaura Rasta, Jaipur.
D. P. Bhargava, B.Sc., LL.B., Press Representative and Advertisement Bookings, opp. Railway Station, Jodhpur.
D. R. Sharma & Sons, Sojatigate, Jodhpur.
D. S. & Co., Johari Bazar, Jaipur.
Duduwala & Co., Bhilwara (Rajasthan).
Durgasingh & Sons, Gramophone Dealers, Sojatigate, Jodhpur.
Dwarka Dass Rathi, Bookseller and Newspaper Agent, Jodhpur.
East India Mineral Development Syndicate Ltd., Jaipur.
Eastern Commodities P. Ltd., P. Box 129, Jaipur.
Eastern Motor Company, Station Road, Jodhpur.
Edward Mills Co. Ltd., Beawar.
Electric Radio Corporation, Station Road, Jodhpur.
Empire Stores, Sir Mirza Ismail Road, Jaipur.
English Watch Company, Jalorigate, Jodhpur.
Fatehpuria Trading Co. Ltd., Ramganj Bazar, Jaipur.
Frontier Namda Woollen Factory, Jail Road, Jaipur.
Ganesh Das Jiwanlal, Station Road, Jodhpur.
Garg Metal Industries, Tripolia Bazar, Jaipur.
General Marketing Company, Hind Hotel Bldg., Jaipur.
Gajadhar Sitaram Mineral Co., Bhopalganj, Bhilwara.
Ganganagar Industries, Rangni Chowk, Bikaner.
Gargia & Co., B. D., Mirza Ismail Road, Jaipur.
General Assurance Society Ltd., Khetan Bhavan, M. I. Road, Jaipur.
General Marketing Co., Hind Hotel Bldg., Chaura Rasta, Jaipur.
George Talkie Circuit, Lakharan-ka-Bas, Jodhpur (Rajasthan).
Girdhar Ganesh Trading Co., Bhomihonji-ki-Ghati, Jodhpur.
Gopal Watch Co., Sojatigate, Jodhpur.
Gotan Lime Syndicate, C/o Anand Theatres Ltd., Jodhpur.
Globe Motors Private Ltd., Mirza Ismail Road, Jaipur.
Govindram Ramchand, Ajmer Road, Jaipur.
Grand Hotel, Railway Road, Jodhpur.

Handicraft Corporation (India), Ganesh Bhavan, Outside Sojati Gate, Jodhpur (Rajasthan).
Hari Narain Kacholia & Co., Mirza Ismail Road, Jaipur.
H. C. Brothers, Tirpolia Gate, Jaipur.
Heera Crushing Private Ltd., Masuria Colony, Jodhpur.
Hind Mica Ltd., C-23, Prithviraj Road, Jaipur.
Hind Sports, Beawar Road, Ajmer.
Hindustan Engineering Works, Jalorigate, Jodhpur.
Hindustan Radiators Co., Station Road, Jodhpur (Rajasthan).
Hira Crushing P. Ltd., Post Box No. 34, Jodhpur.
Hiralal & Sons, Martindale, Ajmer.
Hiralsingh & Sons, Opp. Martindale Bridge, Ajmer.
H. S. Elahibux & Sons, Mirchi Bazar, Jodhpur.
India Agencies, Rivan House, Sojatigate, Jodhpur.
India Radiogram Corporation, P.O. Box 63, Kutchery Road, Jodhpur.
Indian Industrial Command, Kutchery Road, Jodhpur.
Indra & Company, General Merchants, Station Road, Jodhpur.
Industrial Command of India P. Ltd., Mirza Ismail Road, Jaipur.
Industrial Trade Corporation, M. I. Road, Jaipur.
Industrial Trust Ltd., Khetan Bhawan, Ajmer Road, Jaipur.
Italia Restaurant (Jodhpurwala), Mirza Ismail Road, Jaipur.
Jagdish Hotel & Restaurant, Mirza Ismail Road, Jaipur.
Jai Bharat Industrial Corporation, 15-C, Industrial Estate, Jaipur.
Jaipur Art Studio, Kutchery Road, Jodhpur.
Jaipur Bikaner Trading Co. P. Ltd., Chandpole Bazar, Jaipur.
Jaipur Cycle & Parts Industries, Shriji-ki-Mori, Jaipur.
Jaipur Development Co. Ltd., Johari Bazar, Jaipur.
Jaipur Metals & Electricals Ltd., Near Rly. Station, Jaipur.
Jaipur Mineral Development Syndicate Private Ltd., Johari Bazar, Jaipur.
Jaipur Paper Mart, Tripolia Bazar, Jaipur City.
Jaipur Spg. & Wvg. Mills Ltd., Near Railway Station, Jaipur.
Jaipur Wine Stores, Mirza Ismail Road, Jaipur.
J. Santosh & Sons, Engineers & Contractors, Sojatigate, Jodhpur.
Jodhpur Zinc Metal Works, Ada Bazar, Jodhpur.
Juneja Safe Co., Chaura Rasta, Jaipur.
Kachhwaha Brothers, Kutchery Road, Jodhpur.
Kaluram Shiam Dass, Opp. Ratanada Bridge, Jodhpur.
Kamal & Co., Mirza Ismail Road, Jaipur.
Kamal Engineering Works, Sharma Bldg., M. I. Road, Jaipur.
Kamla Optical Company, Station Road, Jodhpur.
Karamchand Thapar & Bros., Tripolia Bazar, Jaipur.
Karp Industries, Jhalaniyon-ka-Rasta, Jalpur.
Khadayala Stores, Azad Chowk, Dungarpur.
Khadi & Cottage Industries Ltd., Jodhpur.
Khairatilal & Sons, Electric Dealers, Station Road, Jodhpur.
Khajanchi Film Distributors, P.O. Box 9, Jodhpur (Rajasthan).
K. H. Thanvi & Company, Jalorigate, Jodhpur.
Khosla Sales Corporation Maneck Chowk, Durgarpur.
Kitabghar, Outside Sojatigate, Jodhpur.
K. N. Gutgutia & Co., Ajmeri Gate, Jaipur.
Kota Bone Products Ltd., C/o Messrs. Raj Traders Private Ltd., "C" Scheme, Jaipur.
Kuchaman Electric Co., Ltd., Jodhpur.
Kumbhat Binding Works, Jodhpur.
Krishan Kumar & Co., Chaughan, Gagnori Bazar, Jaipur.
Krishna Mills Co. Ltd., Beawar.
Laxmi Motor Co., Ajmer Road, Jaipur.
Laxmi Pen Company, Jodhpur.
*Lokvani*, Hindi Daily, Jaipur.
Lunkar & Co., Kapra Bazar, Jodhpur.
Madan Gopal Zaveri & Co., Tripolia Bazar, Jaipur City.
Madhu Industries P. Ltd., B-6, Prithviraj Road, Jaipur.
Maharaja Shri Umaid Mills Ltd., Pali, Marwar.
Mahavir Metal Mfg. Co., Falna.
Mahesh Metal Works, Madanganj, Ajmer.
Man Industrial Corporation Ltd., P. Box 131, Jaipur.
Man Radio & Electricals Ltd., Near Rly. Station, Jaipur.
Manmohan Opticals, Sojatigate, Jodhpur.
Marudhar Industries Ltd., Jodhpur.
Marwar Cement Company, Station Road, Jodhpur.
Marwar Cold Storage Company, Ratanada Bridge, Jodhpur.
Marwar Industries Private Ltd., Kuchaman House, Jodhpur.
Marwar Textiles, Keshar Bag, Jodhpur.
Merchandise & Stores Ltd., Johari Bazar, Jaipur.

**MERCURY TRAVELS (INDIA) PRIVATE LTD.—National Motors Bldg., Mirza Ismail Road, Jaipur. Phone: 77284. Head Office : Oberoi Grand Hotel, Chowringhee, Calcutta 13. Phone: 236051 (7 lines). Grams: "MERCTRAVEL." Branches: Oberoi Imperial Hotel, New Delhi. Phone : 43001 (3 lines). 70, Forbes Street, Rampart Row Corner, Fort, Bombay 1. Phone : 253948 (3 lines). Ashoka Hotel, Pantheon Road, Egmore, Madras 8. Phone : 85095. Oberoi Palace Hotel, Srinagar, Kashmir. Phone : Srinagar 19. Abid Road, Hyderabad 1. Phone : 33325.**

Metal Corpn. of India Ltd., Zawar Mines, Udaipur.
Metal Udyog P. Ltd., Gulab Niwas, M. I. Road, Jaipur.
Mewar Textile Mills Ltd., Phulwara.
Minerva Cinama, Station Road, Jodhpur.
Mital Stores, Ajmer Road, Jaipur.
Modern Woollen Mills, Jassusar Gate, Bikaner.
Mohan Brothers, Outside Jalorigate, Jodhpur.
M. Kumbhat & Sons, Jodhpur.
M. Suraj Raj & Co., Ganchha Bazar, Jodhpur.
M. R. & Sons, Opp. Railway Station, Ajmer.
Narsinghmal Mehta & Co., Sojatigate, Jodhpur.
National Cycle Works, Berhampuri, Jaipur (Rajasthan).
National Engineering Industries Ltd., Ashoknagar, Jaipur.
National Motors, Chopasni Road, Jodhpur.
National Tractors, Chopasni Road, Jodhpur.
National Traders Ltd., Podar Park, Statue Circle, Jaipur.
National Weaving Industries, Nagaurigate, Jodhpur.
Nav Bharat Machineries P. Ltd., M. I. Road, Jaipur.
Northern India Machinery Corporation, Ras House, Jodhpur.
Olympic Cinema, Jodhpur (Rajasthan).
G. P. G. Radio Industry, Chowkhanti, Mohalla, Bikaner.
Oriental Engg. Co., Mirza Ismail Road, Jaipur.
Padam Singh & Co. Private Ltd., Sawai Jaisingh Highway, Jaipur.
Pali Electricity Co., Ltd., Jodhpur.
Paradise Trading Corporation, Station Road, Jodhpur.
Patwa & Co., Kapra Bazar, Jodhpur.
Phalodi Electricity Co., Ltd., Jodhpur.
P. M. Allah Baksh & Son, Mirza Ismail Road, Jaipur.
P. N. Kapoor & Co., Station Road, P.O. Box No. 50, Ajmer.
Poonamchand & Bros. Ltd., Near Rly. Station, Jaipur.
*Praja Sewak* (Weekly), Outside Jalorigate, Jodhpur.
Prakash Industry, Near Sadul High School, Bikaner.
Prakash Metal Co., Dargah Bazar, Ajmer.
Prakash Optical & General Mart, Minerva Talkies Building, Shop No. 9, Jodhpur.
Pratap Engineering Works, Sardarpura, Jodhpur.
Pream Prakash Cinema DeLux, Sawai Mansingh Highway, Jaipur.
Prem Universal Stores, Kutchery Road, Jodhpur.
Premnat Motors (Rajasthan) P. Ltd., Khasa Kothi Road, Jaipur.
Publicity Studio, Station Road, Jodhpur.
Pustak Bhandar, Chopasni Road, Jodhpur.
Raj Traders P. Ltd., "C" Scheme, Jaipur.
Raj Iron & Steel Mfg. Works, Industrial Estate, Jaipur.
Rajputana Automobiles, Ram Bhavan, Mahatma Gandhi Road, Ajmer.
Rajputana Corporation Ltd., C-23, Prithviraj Road, C Scheme, Jaipur.
Rajputana General Dealers Ltd., Purohitji-ka-Katla, Jaipur.
Rajputana Electric Works, Kaisarganj, P.O. Box No. 107, Ajmer.
Rajasthan Central Stores Private Ltd., Bhagat Bhawan, Mirza Ismail Road, Jaipur.
Rajasthan Chemical (Paints) Industries, Mirza Ismail Road, Jaipur.
Rajasthan Cycle & Parts Industries, Mirza Ismail Road, Jaipur.
Rajasthan Cycle Industries, Behind Atish, Jaipur.
Rajasthan Electric Industries, Industrial Estate, Jaipur.
Rajasthan Electric Products Private Ltd., Chandpole Bazar, Jaipur.
Rajasthan Electronics, 662, Adarshnagar, Jaipur.
Rajasthan Electricals P. Ltd., 8, Chandra Hira Bldg., M. I. Road, Jaipur.
Rajasthan Engineering Products, Goga Gate, Bikaner.
Rajasthan Industries, Behind Power House, Jodhpur.
Rajasthan Industries Ltd., Ashok Niwas, Mahaver Marg, Jaipur.
Rajasthan Metal & Rolling Mills, Ltd., Ratanada (Rajasthan).
Rajasthan Mineral Co., Ltd., Fort Road, Jaipur.
Rajasthan Plasters Industry, Outside Goga Gate, Bikaner.
Rajasthan Rubber & Chemical Works P. Ltd., Uston-ki-Bari, Bikaner.
Rajasthan Pharmaceutical Laboratories, C-19, Bapunagar, Jaipur.
Rajasthan Steel Corporation, Moti Doongri Road, Jaipur.
Rajasthan Textile Mills, Bhawani Mandi.
Rajasthan Traders, 1/B Road, Sardarpura, Jodhpur.
Rajasthan Trading Corporation, Station Road, Jodhpur.
Rajendra Pictures, Motion Picture Distributors, Bapu Bazar, Jaipur (Rajasthan).
Rajkumar & Bros., Rasta Mishra Rajaji, Jaipur.
Rajputana Agencies, Jaipuria Mansion, Mirza Ismail Road, Jaipur.
Rajputana Corpn., Ltd., 12, Prithviraj Road, "C" Scheme, Jaipur.
Rajputana Metal Works, 1/B Road, Sardarpura, Jodhpur.
Rajputana Stationery Mart, Sojatigate, Jodhpur.
Rajputana Trading Co., Ltd., Jodhpur.
Rajshi Pictures (Private) Ltd., Johari Bazar, Jaipur.
Rakesh & Co., Hospital Road, Jodhpur.
Ramesh Films Motion Picture Distributors, Olympic Cinema Building, Jodhpur.
Ram Sewashram, Perfumed Hair Oil Manufacturers, Jalorigate, Jodhpur.
Ratoomal, Kehtan Bhawan, M. I. Road, Jaipur.
Regal Sports, Station Road, Jodhpur.
Remington Rand of India Ltd., Mirza Ismail Road, Jaipur.
Sainik Motors, Sojatigate, Jodhpur.
Santosh Chemical Works, Pushkar Road, Ajmer.
Scientific Apparatus & Chemical Works, Kankaria Building Jalorigate, Jodhpur.
Shah Manmal Bhikamchand Surana, Pali House, Jodhpur.
Shah & Co., Chaura Rashta, Jaipur.
Shankerlal & Sons, Station Road, Jodhpur.
Shanti Bhawan Lodge, Jodhpur.

Sharda Devi Moondhra & Co., Station Road, Jodhpur.
Sharda Industries P. Ltd., Industrial Estate, Jaipur.
Sharma Brothers, Newspaper Agents, Baiji Talab, Jodhpur.
Shive Engineering Works, Sharma Bldg., Mirza Ismail Road, Jaipur.
Shree Automobile Works, Chopasni Road, Jodhpur.
Shri Hanuman Iron & Steel Industries, Industrial Estate, Jaipur.
Shri Mahalaxmi Colour Mfg. Co., Ltd., Erinpura.
Shri Marwar Printers Ltd., Jodhpur.
Shri Shardadevi Moondhra Motor Company, Station Road, Jodhpur.
Somani Metal & General Industries, C Scheme, Jaipur.
Standard Electric Co., P.O. Box No. 142, Kaiserganj, Ajmer.
Supreme General Film Exchange Ltd., Johari Bazar, Jaipur.
Surana Bros., Sojatigate, Jodhpur.
Surana & Co., Minerva Building, Jodhpur.
Tak Studios, Opp. Prem Prakash, Jaipur.
Thahryamal Baichand, Mirza Ismail Road, Jaipur.
Thakar Das Khatri & Sons, Tripolia Bazar, Jodhpur.
Toshnival Bros. Private Ltd., Kutchery Road, Ajmer.
Udani Engineering Works, Chaura Rasta, Jaipur.
Udaipur Distillery Company Limited, The, Udaipur.
Udaipur Mineral Development Syndicate, Bhilwara.
Ugamraj & Co., Kutchery Road, Jodhpur.
United Motors, Chopasani Road, Jodhpur.
United Motors of Rajasthan, Opp. Khasa Kothi, Jaipur.
United Traders, Station Road, Jodhpur.
Universal Trading Co., Jwala Bldg., Bhagwandas Road, Jaipur.
Vinod Silicate & Pharmaceuticals, Hospital Road, Jaipur.
Voltas Limited, Mirza Ismail Road, Jaipur.
Vyas, P. B., & Co., Jalorigate, Jodhpur.
Wilcox Buckwell India P. Ltd., New Colony, Jaipur.
Zoraster, S. & Co. (Supplies) P. Ltd., Johari Bazar, Jaipur.

# TRIPURA

( *See "Late Particulars"* )

# UTTAR PRADESH

( *See "Late Particulars"* )

# WEST BENGAL

Area : 33,829 sq. miles ; Population : 34·93 million (1961 Census). Percentage of increase 1951-61 : 32·79. Density : 1,032. Sex ratio 878 females per 1,000 males. Literacy : 29·3 per cent.

Capital : Calcutta.

There are three Divisions in the State, the Burdwan Division, the Jalpaiguri Division and the Presidency Division.

The Districts in the Burdwan Division with their headquarters in brackets are as follows :

Bankura (Bankura), Birbhum (Suri), Burdwan (Burdwan), Hooghly (Chinsura), Midnapore (Midnapore), Purulia (Purulia).

The Districts in the Jalpaiguri Division with their headquarters in brackets are as follows :

Cooch-Behar (Cooch-Behar), Darjeeling (Darjeeling), Dinajpur* (Balurghat), Jalpaiguri, (Jalpaiguri), Malda (Malda), Murshidabad (Berhampur), Nadia (Krishnagar), 24-Parganas (Alipur). Calcutta and Howrah comprise the Presidency Division.

*Panchayats :* Panchayati Raj, which aims at democratic decentralisation was introduced all over the State on Oct. 2, 1964. The rural area of West Bengal has been covered by a net work of Gram and Anchal panchayats. The total number of Gram Panchayats (Oct. 2, 1964) in the State is 19,649 and that of Anchal Panchayats 2,925. The State will have 15 Zilla Parishads to replace the existing District Boards and 325 Anchal Parishads. All the Anchal Panchayats will be covered by Nyaya Panchayats. By Oct. 2, 1964, 52 Nyaya Panchayat, had been set up.

The State Government decided on July 11, 1961 to abolish trial by jury in the district courts.

## POPULATION

(See under "Population").

## AGRICULTURE

Acreage and production of principal crops in 1963-64 are as follows :

| | Production (tons) | Area (acres) |
|---|---|---|
| Rice .. .. | 5,249,800 | 11,197,100 |
| Wheat .. .. | 32,200 | 135,700 |
| Sugarcane .. | 13,33,300 | 77,000 |
| Jute .. .. | 3,270,000† | 1,012,400 |

† Bales.

During the Second Five Year Plan 100 improved seed multiplication farms were established and during the Third Plan it was decided to establish another 117 Block Seed farms. Up to Jan. 1965, out of 117 Block Seed farms 51 have been established. From these farms about 54,000 foundation paddy seeds were produced during 1963-64. In rural areas 970 demonstration centres were opened. Land covering 1,859·93 acres was reclaimed.

The total provision in the State's Third Plan in respect of agriculture alone is Rs. 53·60 crores.

*Land Tenure :* Zamindaris and intermediary interests in West Bengal were abolished on April 15, 1956 corresponding to the 1st of Baisakh in the Bengalee Year.

All rent-receiving interests in agricultural lands vest in the State and the numerous tenants and sub-tenants, as the case may be, now hold land directly under the State Government. All forests too are now managed directly by the Government.

Under the Act, each intermediary is permitted to retain in his possession non-agricultural land up to 15 acres, homestead land which together with such non-agricultural land does not exceed 20 acres, agricultural land up to 25 acres, and tanks, fisheries and orchards. Calcutta is a notable exception in the Act.

There are roughly 1·28 million acres of cultivated land in the State, of which, according to preliminary but by no means accurate statistics, only 400,000 acres will be found surplus for redistribution among the tillers of the soil.

Compensation is payable on a slab system at rates varying between 20 times for the first and lowest slab of Rs. 500 of net income and twice for the highest slab of over Rs. 1 lakh.

Where, however, the interest of an intermediary is held under a *bona fide* trustee or other legal obligation for an exclusively charitable or religious purpose, the compensation payable is being assessed as a perpetual annuity equal to the annual net income of the interest.

Payment is to be made partly in cash and partly in non-negotiable annuity bonds at 3 per cent per annum and payable in 20 equal annual instalments.

*Sonarpur-Arapaneh Scheme :* The Sonarpur-Arapaneh-Matla Drainage Scheme of reclaiming vast water-logged tracts 105 sq. miles in area, with powerful pumping plants, is the first of its kind in India. Under the first part of the Scheme, a submerged area of 23,360 acres has been reclaimed for cultivation. The total yield of paddy from these large tracts of land was 21,000 maunds.

*Bagjola Drainage Scheme :* Rs. 104-lakh Bagjola Drainage Scheme is intended to improve the drainage of 116 square miles of area. The scheme when completed will reclaim 25,600 acres of water-logged lands and render them fit for cultivation, which will result in annual additional yield of 12,091 tons of paddy and 1,619 tons of rabi crops.

Under the Greater Calcutta Milk Supply Scheme, milk colony units are being established at Haringhata and Kalyani (five miles away).

## FORESTS

(See under article on Forests).

## IRRIGATION

Area under irrigation : over 35 lakh acres.

The Kangsabati Reservoir Project, included in the Second Five Year Plan, aims at irrigation of eight lakh acres of land in the Bankura, Midnapore and Hooghly districts. The foundation stone was laid in January 1959. The Silabati Barrage, one of the features of the project, has been completed.

* Also called West Dinajpur.

Some individual schemes are given below :—

| | Total cost (Rs. lakhs) | Area in acres benefited (kharif season) |
|---|---|---|
| Mayurakshi Reservoir | 20,46·60 | 560,000 |
| Harahatuganj Drainage | 12·94 | 16,000 |
| Beral Canal | 21·78 | 9,000 |
| Jibanti-Banki | 3·11 | 6,400 |
| Jampoi | 0·52 | 800 |
| Soadighi Gangakhali | 24·84 | 29,400 |
| Jhargram | 9·74 | 5,000 |
| Suvankar Daura | 17·17 | 6,000 |
| Trans-Damodar | 4·15 | 32,900 |
| Saraswati | 6·25 | 7,100 |
| 20 Minor Schemes | 5·34 | 45,292 |
| 52 Procurement Bonus Schemes | 21·62 | 87,717 |
| 23 Emergency Schemes | 13·84 | 62,880 |
| 5 New Minor Schemes | 1·86 | 13,676 |
| Excavation of Nonaganj river | 4·25 | 4,860 |
| Sonarpur-Arapaneh-Matla | 138·72 | 46,400 |
| Bagjola-Ghuni-Jatragachi | 108·93 | 25,600 |
| Improvement of Kamakhya Khal | 3·52 | 3,840 |

## DAMODAR VALLEY CORPORATION

(*See under "Irrigation"*)

### TWO DEVELOPMENT SCHEMES

*The Ganga Barrage Scheme :* Work in connection with the Ganga Barrage, also called Farakka Barrage Scheme, is now in progress. The original estimates of the cost of the project was Rs. 76 crores. But there is likely to be an upward revision.

**Benefits expected from the barrage : 1. Supply of water to resuscitate the moribund rivers in West Bengal and also improve the Sunderbans rivers ; 2. Provision for irrigation and flushing on a vast scale ; 3. Improvement of the Calcutta Port ; 4. Provision of a direct railway and road link between the northern and southern parts of the State ; 5. Provision of an inland water route entirely through the Indian Union starting from Calcutta and going up to Bihar and Uttar Pradesh and ultimately to Assam.**

***Reclamation of Salt Lakes :*** **The scheme for the reclamation of the swampy northern and southern salt lakes covering about 33 square miles on the eastern fringes of Calcutta aims at liquidating the scourge of malaria and at reclaiming the water-logged areas, partly for the extension of the City and partly for agricultural purposes.**

### POWER

Jaldhaka Project in West Bengal was taken up during the year 1961. The other scheme in the Third Five Year Plan is Bandel Super Thermal Power Station comprising four 82·5 Mw turbo alternator sets with a maximum continuous rating of 330 Mw.

**Extension of North Calcutta Electrification Scheme : Stringing of the second circuit of 27 miles of the existing 66 kV double circuit tower line between Shamnagar and Ranaghat.**

***Jaldhaka Hydro-Electric Scheme :*** **Tapping of river Jaldhaka in north Bengal to generate 27 Mw of power at the first stage and 9 Mw at the second stage. Provision for the scheme : Rs. 194·01 lakhs.**

***Balasun Hydro-Electric Scheme :*** **Harnessing of river Balasun in Darjeeling District. Estimated expenditure : Rs. 158·53 lakhs. Scheme is kept in abeyance.**

***Kharagpur Midnapore Electrification Scheme :*** **Purchase of power in bulk from D.V.C.'s Kharagpur sub-station and distribution in Midnapore district through a network of transmission lines. Length of overhead lines laid : 114 miles of 11 kV and 33 kV. Capital expenditure : Rs. 45·34 lakhs.**

***Howrah-Hooghly Rural Electrification Scheme :*** **Length of overhead transmission lines laid : About 80 miles of 11 kV. Estimated cost : Rs. 25·89 lakhs.**

***Durgapur-Malda Transmission Scheme :*** **Places supplied with power : Districts of Murshidabad, Malda and West Dinajpur. Provision during the 2nd Plan period : Rs. 34·86 lakhs.**

***Suburban Electrification Scheme :*** **Electrification of a few suburban areas on the outskirts of the licensed area of Calcutta Electric Supply Corporation Ltd. Total Plan provision for colliery electrification, tube-well irrigation, Central testing laboratory and suburban electrification schemes : Rs. 29·21 lakhs.**

***Durgapur Power Station :*** Durgapur Coke Oven Power Station was started with 2 Nos. 30 MV turbo-alternator sets primarily planned to meet power demand of the State-owned coal based industries at Durgapur as well as other industries in the Durgapur industrial belt.

With the subsequent increase in power demand both in public and private sectors around Durgapur, the State Government was called upon to expand the power station by installing 3 × 75 MW and 1 × 150 MW turbo-alternator sets. These units are designed for burning washery middlings. The first unit came into operation in May 1964, second unit later in the same year and the third was expected in June 1965. Other two units of 30 Mw each are already functioning since June 1960.

Bandel and Durgapur Coke Oven Power Stations are being interconnected by 132 KV double circuit transmission line and this will help in keeping lesser stand-by and stable system operation.

As a partial relief to the acute shortage of power in the coal field areas and at Farakka, 4 Nos. Packaged Plants at Dishergarh and 2 Nos. at Farakka each of 1·5 MW capacity are being installed.

By the end of the Third Plan, 2,200 villages in the State will receive the supply of power and 750 deep irrigation wells will be electrically operated.

One hundred and thirteen towns and 798 villages in West Bengal have been electrified till March 1964.

### INDUSTRY

West Bengal ranks second among the major industrial States of India. With only 3 per cent of the country's area, the State shares 8 per cent of India's population. Her share in the manufacturing labour force is even more—22·5 per cent.

According to the latest available information, one-sixth of the total number of factory establishments employing 50 workers or more per day in India, are located in this State. They account for 21·7 per cent of the total productive capital, 22·4 per cent of the total employment and 21·9 per cent of the gross value of output. Their share in the national value added by manufacture, which represents the income generated in the manufacturing sector of the industrial economy, is nearly 21 per cent. These relative shares of West Bengal are next only to those of Maharashtra—the premier industrial State of India.

**Principal industries of the State : Jute, tea, coal, cotton, textiles, paper, rubber, engineering, etc.**

No. of registered factories : 5,614 (1964). No. of workers : 8,17,342 (1963).

No. of jute mills : 83 in 1962 (employing about 2,00,000 workers, 1960).

**Total acreage under jute cultivation in West Bengal : 11,02,400.**

No. of cotton mills : 41 (43,624 workers ; total no. of spindles 6,62,566 ; no. of looms 11,389 ; approximate quantity of cotton consumed 2,87,706 bales of 3½ cwts. each bale) (31st August 1963).

The Kalyani Spinning Mills with 50,000 spindles, one of the major industrial ventures of the West Bengal Government was inaugurated on March 31, 1961 and has gone into production.

The Company has an authorised capital of Rs. 250 lakhs, with the West Bengal Government taking up shares valued at Rs. 140 lakhs. The balance of shares was raised mostly from semi-Government institutions.

***Glass :*** Hindusthan Pilkington Factory at Asansol.

The foundation stone of a sleeper casting factory of the Hindustan Refractories and Ceramic Pvt. Ltd. was laid on March 17, 1963 at Durgapur. The foundry was expected to go into production in 1965 with an output of 50 tonnes sleepers per day.

No. of tea gardens : 285 (250,000 workers). West Bengal produces about 90 million pounds of tea.

No. of coal mines : 228 (about 1,22,000 workers daily on an average). The total output of the West Bengal coal mines is about 16·3 million tons.

West Bengal's tea gardens are mostly in the Dooars, Terai and Darjeeling districts.

No. of paper mills : 5 (about 10,000 workers).

Jute, cotton and most of the other industries are located in the Greater Calcutta industrial area.

Main small scale industries : Handloom weaving, sericulture and silk, brass and bell metal, hand-made paper, palm gur and mat industries.

No. of looms engaged in handloom weaving : 1,50,000.

Principal centres of handloom weaving : Santipur (Nadia), Santiniketan (Birbhum), Rajbalhat, Dhaniakhali (Hooghly).

Principal silk industry Districts : Malda, Murshidabad and Bankura.

*Steel :* Production target of steel at Indian Iron and Steel Works, Burnpore, one million tons and at Durgapur in the public sector two million tons.

Ahmedpur Sugar Mills in the public sector at Ahmedpur, Birbhum, have gone into production.

The industrial group with the respective industrial income, for 1961 in Rs. crores: Spinning, Weaving and Finishing of Textiles 41·6; Iron and Steel 29·6; Rail-road Equipment 16·8; Electrical Machinery 11·6; Rubber Products 10·5; Machinery except Electrical 9·9; Miscellaneous Food Preparations 8·7; Metal Products 8·2; Miscellaneous Chemicals 7·2; Paper and Paper Products 6·5; Electric Light and Power 5·7; Printing, Publishing, etc. 4·5; Non-ferrous Metals 4·2; Basic Industrial Chemicals 3·6; Ship-building and Repairing 3·4; Grain Mills 1·8; Paints, Varnishes, etc. 1·5; Motor Cycles and Bicycles 1·4; Glass and Glass Products 1·4; Tobacco Manufactures 1·3; Others 10·1; Total 189·5.

## LABOUR

No. of registered trade unions: 2,258 (1964).

No. of members of trade unions: about 900,000.

Minimum wages have already been fixed for all the scheduled employments including agriculture.

The Employees' State Insurance Act, which provides for sickness and other medical benefits, covered initially 9,76,719 workers in Calcutta and Howrah areas. The benefit provisions of the scheme have been introduced in 24 Parganas from 29th March 1964, bringing within its ambit 6,46,700 insured employees and their families. The family members are entitled to only medical benefits.

The Employees' Provident Funds Act covers over 10,43,732 workers including workers in tea plantations.

No. of labour welfare centres run by Government: 40.

No. of tenements completed under the Subsidised Industrial Housing Scheme: about 9,742 and 1,970 (Private Sector).

The Labour Department of the State took over the administration of the Employment Exchanges in West Bengal towards the end of 1956 from the Central Government.

About 5,03,887 persons, including 26,461 women, were on the live register of Employment Exchanges at the end of 1964 in West Bengal.

Over 50,000 persons secured jobs through Employment Exchanges in the State during 1964.

## CO-OPERATION

(See under "Co-operative Movement.")

## ROADS

There are six national highways in West Bengal: Calcutta-Delhi (152 miles), Calcutta-Bombay/Madras (90 miles—common alignment in West Bengal), Bihar-Assam (181 miles), Siliguri-Gangtok (35 miles), Calcutta-Siliguri (203·5 miles) and Calcutta-Bongaon (43 miles).

Superior type of extra-municipal roads, maintained by P.W.D. and local bodies are 6,500 miles while the interior motorable type is 13,000 miles.

During Second Five Year Plan construction and improvement of 2,200 miles of new State roads in addition to the spill-over from the First Plan were completed.

The State spent Rs. 18·56 crores during the First Plan period, while in the Second Plan period a total sum of Rs. 21·48 crores approximately was spent on roads and bridges. The estimated expenditure in the Third Plan is about Rs. 25 crores.

With a view to the gradual nationalisation of road transport services, a number of bus routes in the City of Calcutta have already been taken over by the Government and other routes would be taken over under a phased programme.

The State Transport owns (1964) a fleet of 898 vehicles. The Calcutta State Transport Corporation, an autonomous body, has been formed to look after the State transport system in Calcutta.

The State Transport provides employment for approximately 13,000 persons of whom a large number are displaced persons.

About 13,95,000 passengers are carried every day. The State buses cover about 75,800 miles daily.

The State Transport has a Central Workshop which employs about 700 persons.

## COMMUNITY DEVELOPMENT PROJECTS

The Community Development Projects now cover almost the entire population. The object of the programme is the development of rural township with a group of 100 villages in a block taken up for intensive development programme.

(*For more details see main article "Community Development Projects"*).

## EDUCATION

(*See article on "Education"*).

## HEALTH (1964)

(Figures provisional. Per 1,000 population).

Birth rate: 17·7; Death rate: 7·1; Infant mortality: 63·8; Maternal mortality: 2·6; Death rate from T.B.: 0·1; Death rate from Cholera: 0·10; Death rate from small-pox: 0·07.

No. of hospitals, dispensaries and clinics: Urban 607; Rural 1,474; Health Centres: 637; No. of beds: 4,968; Total no. of beds in hospitals: 32,510; No. of T.B. hospitals and Sanatoria: 12; T.B. chest clinics: 73; Mobile Units for domiciliary treatment of T.B. cases: 9; No. of T.B. beds: 4,621; Rural Health Centre beds: 4,968; Maternity and child welfare centres: 430; Maternity homes and hospitals: 18; Maternity beds: 5,600; Medical colleges: 5; No. of students in colleges: 594 (M.B.B.S.); Nursing training centres: 25; No. of seats: 1,896; Pharmacy training centre: 1; No. of students at the centre: 80; No. of beds for treatment of leprosy: 2,397; For venereal diseases: 70; For treatment of mental diseases: 1,478 (including 862 beds maintained by West Bengal Govt. in two Mental Hospitals at Ranchi and 90 beds of Bangiya Unmad Ashram, Dum Dum); V. D. clinics: 51; No. of beds for infectious diseases: 1,619; Family Planning centres: 278.

Per capita expenditure: Rs. 4·63.

Per capita expenditure in West Bengal is the third highest in India and exceeds that of the Bhore Committee recommendations in the Ten Year Plan.

## REFUGEES AND REHABILITATION

(*See main article on Refugees and Rehabilitation*).

## THIRD FIVE-YEAR PLAN

| *Physical Targets.* | (Rs. crores) |
|---|---|
| Agriculture and Minor Irrigation .. | 54·34 |
| Community Development & Co-operation .. .. .. .. | 16·81 |
| Major & Medium Irrigation and Power .. .. .. .. | 63·85 |
| Industry and Minerals .. .. | 12·04 |
| Transport & Communication .. | 26·50 |
| Education, Health and Social Services | 78·28 |
| Miscellaneous .. .. .. .. | 41·33 |
| Total Plan outlay .. .. .. | 293·15 |

The States' Fourth Plan would involve an outlay of Rs. 617·38 crores.

## BUDGET, 1965-66

(*See "State Budgets"*).

## CORPORATION OF CALCUTTA

**5, Surendra Nath Banerjee Road, Calcutta 13.**
**Telephone: 243471 (20 lines).**

*Mayor*, P. K. Roy Chowdhury.
*Dy. Mayor*, Mihirlal Ganguli.
*Commissioner*, H. C. Mukherji.
*Dy. Commissioners*, A. K. Bhattacharjee; Priyo Guha.
*Secretary*, S. N. Bose.
*Chief Engineer*, S. Mitter.
*Dy. Chief Engineer*, S. K. Kabasi.
*Executive Engineer, Water Works*, S. L. Pal.
*Executive Engineer, Drainage*, B. Nandi.
*City Architect*, S. K. Ghosh.
*Health Officer*, Dr. G. C. Das.
*Dy. Health Officer*, Dr. S. Bagchi.
*Finance Officer and Chief Accountant*, J. Roy Chowdhury.
*Chief Law Officer*, P. C. Dutt.
*Revenue Officer*, N. K. Mondal.
*Assessor*, S. R. Bakshi (Actg.).
*Collector*, Sunith Chandra Sen.
*Licence Officer*, A. K. Dutta.
*Chief Valuer and Surveyor*, H. P. Barul.
*Education Officer*, Dr. Arabinda Barua.
*Lighting Supdt.*, D. M. Saha.

### Councillors

(1) S. K. Paul; (2) Ganapati Sur; (3) Lakshmi Ch. Sen; (4) Nandlal Banerjee; (5) D. C. Mukherjee; (6) Dr. Krishnajiban Majumdar; (7) P. N. Banerjee; (8) Kumar Dutt; (9) Satyananda Bhattacharjee; (10) P. S. Gupta; (11) Snehesh Kr. Sur; (12) Mihirlal Ganguli; (13) A. K. Bharati; (14) Naren Sen; (15) Biplab Das; (16) Pannalal Das; (17) G. P. Roy; (18) R. K. Deb; (19) Kanailal Roy; (20) Jadav Mukherjee; (21) H. P. Chatterjee; (22) Dr. S. K. Sett; (23) S. S. Goenka; (24) Dr. A. C. Banerjee; (25) G. B. Sett; (26) G. C. Dey; (27) K. C. Kundu; (28) Dr. Probodh Ch. Bhar; (29) Nandadulal Srimany; (30) S. K. Dey; (31) Sankulal Biswas; (32) K. C. Paul; (33) P. K. Sirkar; (34) S. C. Dey; (35) Prasanta Chatterjee; (36) S. K. Khanna; (37) Dr. K. P. Ghosh; (38) Shamsuzzoha; (39) S. K. Rudra; (40) B. K. Daw; (41) A. R. Ansari; (42) Badridas Burman; (43) M. P. Sharma; (44) R. K. Saraogi; (45) K. L. Verma; (46) G. L. Khattry; (47) D. L. Dutt; (48) B. K. Dey; (49) Binoy Banerjee; (50) M. C. Sarvadhikari; (51) G. C. Dhar; (52) Bibhas Dey; (53) Mohanlal Ghose; (54) Md. Quasimuddin Ashka; (55) Shyamsundar Gupta; (56) R. N. Ghose; (57) Biman Mitra; (58) B. C. Sarkar; (59) A. K. Dey; (60) A. C. Sirkar; (61) R. M. Chatterjee; (62) Ruhul Quadar; (63) Samsul Huda; (64) Abu Hafiz Md. Ismail; (65) D. N. Bose; (66) Syed Md. Ali; (67) S. R. Motayed; (68) N. R. Sinha; (69) B. K. Ghosh; (70) P. K. Banerjee; (71) Anil Maitra; (72) Bejoy Kr. Banerjee; (73) P. P. Basu; (74) Dr. P. K. Roy Chowdhury; (75) B. K. Chattopadhyay; (76) K. B. Deb Rai; (77) A. K. Bose; (78) Dr. K. L. Sarkar; (79) Zahural Haque; (80) B. B. Paul; (81) Kalimuddin Shams; (82) G. A. Shami; (83) L. C. Singh; (84) R. S. Singh; (85) Kalidas Maity; (86) Mani Sanyal; (87) A. M. Halder; (88) Dr. H. P. Basu; (89) Dr. Birendra Ch. Basu; (90) R. K. Mitra; (91) S. K. Dutta; (92) Sachin Sen; (93) S. N. Bhattacharjee; (94) N. N. Banerjee; (95) Raman Sengupta; (96) D. P. Chatterjee; (97) P. K. Sur; (98) Manoj Ganguly; (99) Dr. A. P. Das Gupta; (100) D. N. Das Gupta.

### Aldermen

Dr. M. N. Sarkar; Smt. Arati Srimal; Q. A. Khan; S. N. Mishra; Aparesh Bhattacharya.

# EDUCATIONAL INSTITUTIONS

## UNIVERSITY OF CALCUTTA

*Chancellor*, Smt. Padmaja Naidu (Governor of West Bengal).

*Vice-Chancellor :* Dr. Bidhubhushan Malik, M.A., LL.D., Bar-at-Law.

*Treasurer*, Satish Chandra Ghosh, M.A.

*Registrar*, Dr. Golap Chandra Ray Chaudhuri, M.A., LL.B., Ph.D. (Lond.).

**No. of affiliated Colleges: 150.**

No. of University Colleges : 6.

**Total no. of students : 85,146 boys and 31,916 girls (1963-64).**

### BUDGET (1964-65)

| | | |
|---|---|---|
| **Receipts** .. .. .. | **Rs.** | **1,12,71,300** |
| **Expenditure** .. .. .. | **Rs.** | **1,40,66,374** |
| **West Bengal Govt. grant** .. | **Rs.** | **21,52,000** |

### Calcutta Colleges

**ALL-INDIA INSTITUTE OF HYGIENE AND PUBLIC HEALTH, 110, Chittaranjan Avenue,** Calcutta-12 ; ANANDA MOHAN COLLEGE, 102/1, Amherst St., Calcutta-9 ; ASUTOSH COLLEGE, 92, Syamaprasad Mookerjee Road, Kalighat, Calcutta-26 ; BANGABASI COLLEGE, 19, Scotts Lane, Calcutta-9 ; Bangabasi Morning, College 19, Scott Lane, Calcutta 9 ; Bangabasi Evening College, 19, Scott Lane, Calcutta 9 ; Bangabasi College of Commerce, 8/1, Santosh Mitra Square, Calcutta 12 ; *BASANTI DEVI COLLEGE, 147A, Rash Behari Avenue, Calcutta ; BEHALA COLLEGE, Banamali Naskar Road, Calcutta-34 ; BENGAL MUSIC COLLEGE, 10, Dover Lane, Calcutta-29 ; BENGAL CERAMIC INSTITUTE, 71, Avinash Chandra Banerjee St., Calcutta-10 ; BENGAL VETERINARY COLLEGE, Belgachia, Calcutta-4 ; *BETHUNE COLLEGE, 181, Cornwallis Street, Calcutta-6 ; BRAHMA-NANDA KESAV CHANDRA COLLEGE, Hooghly, Calcutta-35 ; CALCUTTA DENTAL COLLEGE, 114, Lower Circular Road, Calcutta-14 ; Calcutta, Girls' College, 169, Dharmtolla Street, Calcutta 13 ; Carey Institute of Horticulture, 1, Alipore Road, Calcutta 27 ; CHARUCHANDRA COLLEGE, 22, Lake Road, Calcutta-29 ; CHITTARANJAN SEVA SADAN, Shyamaprasad Mookerjee Road, Calcutta-26 ; CITY COLLEGE, 102/1, Amherst Street, Calcutta-9 ; CITY COLLEGE of Commerce & Business Administration, 13, Surya Sen Street, Calcutta-12 ; COLLEGE OF LEATHER TECHNOLOGY, Canal South Road, Pagla Darga, Calcutta-15 ; DAVID HARE TRAINING COLLEGE, 25/3, Ballygunge Circular Road, Calcutta-19 ; * DESHBANDHU COLLEGE FOR GIRLS, 58A, Sadananda Road, Calcutta ; DUMDUM MOTIJHEEL COLLEGE, Dum-Dum, Calcutta-28 ; GOENKA COLLEGE OF COMMERCE & BUSINESS ADMINISTRATION, 210, Bowbazar Street, Calcutta-12 ; * GOKHALE MEMORIAL GIRLS' COLLEGE, Harish Mukherjee Road, Calcutta-20 ; Gurudas College, Narkeldanga, Calcutta 11 ; BARIMOHAN GHOSH COLLEGE, J/235, Paharpur Road, Calcutta-24 ; HERAMBCHANDRA COLLEGE; 234/49, Garia Hat Road, Calcutta-19 ; *HIRALAL MAJUMDAR MEMORIAL COLLEGE FOR WOMEN, Dakshineswar, Calcutta ; INSTITUTE OF POST-GRADUATE MEDICAL EDUCATION AND RESEARCH, 244, Lower Circular Road, Calcutta ; INDIAN INSTITUTE OF SOCIAL WELFARE AND BUSINESS MANAGEMENT, Calcutta-7 ; INSTITUTE OF CHILD HEALTH, 95, Dilkhusa Street, Calcutta-17 ; * INSTITUTE OF EDUCATION FOR WOMEN, Hastings House, Calcutta-27 ; JOGA-MAYA DEBI COLLEGE, 92, Syamaprasad Mukherjee Road, Calcutta-26; KSHUDIRAM BOSE CENTRAL COLLEGE, 71/2A, Cornwallis Street, Calcutta-6 ; * LADY BRABOURNE COLLEGE, P. 1/2, Suhrawardy Avenue, Calcutta-17 ; * LORETO HOUSE, 7, Middleton Row, Calcutta-16 ; MAHARAJA MANINDRACHANDRA COLLEGE, 20, Ramkanta Bose Street, Calcutta-3 ; MAHARAJA SRICHANDRA COLLEGE, 20, Ramakanta Bose Street, Calcutta-3 ; MAHARANI KASSIWANI COLLEGE, 20, Ramakanta Bose Street, Calcutta-3 ; MAULANA AZAD COLLEGE 8, Rafi Ahmed Kidwai Road, Calcutta 13 ; MEDICAL COLLEGE, 88, College Street, Calcutta-12 ; MRINALINI DATTA MAHAVIDYAPITH, Vidyapith Road, Birati, Calcutta-15 ; * MURALIDHAR GIRLS' COLLEGE P411/14 & 17 Gariahat Road, Calcutta-9 ; NATIONAL MEDICAL COLLEGE, 32, Gorachand Road, Calcutta-14 ; NEW ALIPORE COLLEGE, "L" Block, Calcutta-33 ; NILRATAN SARKAR MEDICAL COLLEGE, 138, Lower Circular Road, Calcutta-14 ; PRAFULLA CHANDRA COLLEGE, 23/49, Gariahat Road, Calcutta ; PRESIDENCY COLLEGE, 86/1, College Street, Calcutta-7 ; * R. B. GIRLS' COLLEGE, 78, Syed Amin Ali Avenue, Calcutta 19 ; R. G. KAR MEDICAL COLLEGE, 1, Belgachia Road, Calcutta-4 ; RAMKRISHNA SARADA MISSION,* VIVEKANAND VIDYABHUVAN, 33, Nayapathi Rd., Calcutta 28 ; *RAMMOHAN COLLEGE, 102/1, Amherst Street, Calcutta 9 ; SANSKRIT COLLEGE, Bankim Chatterjee Street, Calcutta-12 ; *SAROJINI NAIDU COLLEGE FOR WOMEN, 30, Jessore Road, Calcutta-28 ; SCHOOL OF ANAESTHESIOLOGY, 244, Lower Circular Road, Calcutta ; SCHOOL OF TROPICAL MEDICINE, Chittaranjan Avenue, Calcutta-12 ; SCOTTISH CHURCH COLLEGE, 4, Azad Hind Bagh, Calcutta-6 ; SETH ANANDARAM JAIPURIA COLLEGE, 10, Raja Nabakissen Street, Calcutta-5 ; *SETH SOORAJMALL JALAN GIRLS' COLLEGE, 186, Chittaranjan Avenue, Calcutta ; SIBNATH SASTRI COLLEGE, 23/49, Gariahat Road, Calcutta ; * SOUTH CALCUTTA GIRLS' COLLEGE, 72, Lansdowne Road, Calcutta-25 ; *SRISIKSHYATAN (College Dept.), 11, Lord Sinha Road, Calcutta-16 ; ST. PAUL'S C. M. COLLEGE, 38/1, Amherst Street, Calcutta-9 ; ST. XAVIER'S COLLEGE, 30, Park Street, Calcutta-16; SURENDRANATH COLLEGE, 24, Harrison Road, Calcutta-9; SURENDRANATH LAW COLLEGE, 24, Harrison Road, Calcutta-9; *SURENDRANATH COLLEGE FOR WOMEN, 24, Harrison Road, Calcutta-9; SURENDRANATH COLLEGE OF COMMERCE, 24, Harrison Road, Calcutta 93 ; SYAMAPRASAD COLLEGE, 92, Syamaprasad Mukherjee Road, Calcutta-26 ; UMESHCHANDRA COLLEGE, 13, Suya Sen Street, Calcutta ; UNIVERSITY COLLEGES OF ARTS & COMMERCE, Calcutta University ; UNIVERSITY COLLEGE OF MEDICINE, Calcutta University, Calcutta-12 ; UNIVERSITY COLLEGES OF SCIENCE & TECHNOLOGY, 92, Upper Circular Road, Calcutta-9 ; UNIVERSITY LAW COLLEGE, Calcutta University, Calcutta ; *VICTORIA INSTITUTION FOR GIRLS, 78-B, Upper Circular Road, Calcutta-9 ; VIDYASAGAR COLLEGE, 39, Shankar Gosh Lane, Calcutta-6 ; *VIDYASAGAR COLLEGE FOR WOMEN, 39, Shankar Ghosh Lane, Calcutta ; VIDYASAGAR EVENING COLLEGE, 39, Sankar Ghosh Lane, Calcutta-6 ; VIHARILAL COLLEGE OF HOME SCIENCE, Hastings House, Calcutta 27 ; VIJAYAGARH JYOTISRAY COLLEGE, Jadavpur P.O., Calcutta-32 ; *VIVEKANAND COLLEGE FOR WOMEN, Barisha, Calcutta 8 ; VIVEKANAND COLLEGE, Thakurpukur, Calcutta-8; *WOMEN'S COLLEGE, 204, Cornwallis Street, Calcutta-6 ; * WOMEN'S CHRISTIAN COLLEGE, 6, Greek Church Row, Kalighat P.O., Calcutta-26.

### MOFUSSIL COLLEGES

ACHARYYA PRAFULLA CHANDRA COLLEGE, New Barrackpore, 24 Parganas ; AGARTALA TEACHERS' TRAINING COLLEGE, Agartala, Tripura ; BAGNAN COLLEGE, Bagnan, Howrah ; BAJKUL MILANI MAHAVIDYALAYA, P.O. Kismat Bajkul, Midnapore ; BANKIM SARDAR COLLEGE, Tangrakhali, 24-Parganas ; BANKURA SAMMILANI MEDICAL COLLEGE, Bankura ; BARRACKPORE RASTRAGURU SURENDRANATH COLLEGE, Barrackpore, 24-Parganas ; BARASAT GOVT. COLLEGE, Barasat, 24-Parganas ; BASIRHAT COLLEGE, Basirhat, 24-Parganas ; BELDA COLLEGE, Bedla, Midnapore ; BENGAL ENGINEERING COLLEGE, Botanic Gardens, Howrah ; BELONIA COLLEGE, Belonia, Tripura ; * BERHAMPORE GIRLS' COLLEGE, Berhampore, Murshidabad ; BHATTER COLLEGE, Dantav, Dist. Midnapore ; BRAHMMANANDA KESABCHANDRA COLLEGE, Hooghly, 24-Parganas ; COLLEGE OF TEXTILE TECHNOLOGY, Berhampore, Murshidabad ; DINABANDHU ANDREWS COLLEGE, Garia, 24-Parganas ; DINABANDHU INSTITUTION (COLLEGE) 412/1, G. T. Road, Sibpur. Howrah ; DINABANDHU MAHAVIDYALAYA, Bongaon, 24-Parganas ; FAKIRCHAND COLLEGE, Diamond Harbour, 24-Parganas ; GHATAL RABINDRA SATABARSINI MAHAVIDYALAYA, Midnapore ; GARBETA COLLEGE, Garbeta, Midnapore; GOBARDANGA HINDU COLLEGE, Gobardanga, 24-Parganas ; * HOWRAH GIRLS' COLLEGE, 5/3, Mahatma Gandhi Road, Howrah ; JANGIPUR COLLEGE, Jangipur, Murshidabad ; JHARGRAM RAJ COLLEGE, Jhargram, Midnapore ; KAIBALYADAYINI COLLEGE OF COMMERCE, Midnapore ; KANDI RAJ COLLEGE, Kandi, Murshidabad ; KHARAGPUR COLLEGE, Kharagpur, Midnapore ; KRISHNAGAR COLLEGE, Krishnagar, Nadia ; * KRISHNAGAR GIRLS' COLLEGE, Krishnagar, Nadia ; KRISHNATH COLLEGE, Berhampore, Murshidabad; K. K. DAS COLLEGE OF COMMERCE, Baishnabghata, 24, Parganas ; LAL BABA COLLEGE, 119, G. T. Road, Howrah ; MAHARAJA BIR BIKRAM COLLEGE, Agartala, Tripura State ; MAHISHADAL RAJ COLLEGE, Mahishadal, Midnapore ; MIDNAPORE COLLEGE, Midnapore ; MUGBERIA GANGADHAR MAHAVIDYALAYA, P.O. Mugberia, Midnapore ; RAJA NARENDRA KHAN WOMEN'S COLLEGE, Midnapore ; NARSINGH DUTT COLLEGE, 129, Bellilios Road, Howrah ; PANSKHURA BANAMALI COLLEGE, Panskhura, Midnapore; PRABHATKUMAR COLLEGE, Contai, Midnapore ; P. N. DAS COLLEGE, P.O. Bengal Enamel Santinagar, 24-Parganas ; PRABHU JAGATBANDHU COLLEGE, Jorhat, Andul Mouri, Howrah ; RAJA KRISHNATH COLLEGE OF COMMERCE, Berhanpore, Murshidabad ; RAMAKRISHNA MAHAVIDYALAYA, Kailasahar, Tripura State; RAMAKRISHNA MISSION COLLEGE, P.O. Narendrapur, 24-Parganas ; RAMAKRISHNA MISSION SIKSHAN MANDIR, Belur Math, Howrah ; RAMAKRISHNA MISSION VIDYAMANDIR, Belur, Howrah; RAMSADAY COLLEGE, Amta, Howrah ; RANI DHYAMJA KUMARI COLLEGE OF COMMERCE, Jiaganj, Murshidabad ; RANAGHAT COLLEGE, Ranaghat, Nadia ; RISHI BANKIMCHANDRA COLLEGE, Naihati P.O., 24-Parganas ; SANTIPUR COLLEGE, P.O. Santipur, Nadia ; SEVABHARATI MAHAVIDYALAYA, P.O. Parihati, Midnapore ; SEVAYATAN SIKSHAN MAHA VIDYALAYA, Jhargram Midnapore ; SHYAMPUR SIDDHESWARI MAHAVIDYALAYA, P.O. Anantapur, Howrah ; SRI CHAITANYA COLLEGE, Habra, 24-Parganas ; SRI KRISHNA COLLEGE, Bagoola, Nadia ; SRIPAT SINGH COLLEGE, Jiaganj, Murshidabad ; SITANANDA COLLEGE, Nandigram, Midnapore ; SUNDERBAN HARI DESARAT COLLEGE, Bat-tali, Via Canning Town, 24-Parganas ; TAKI GOVT. COLLEGE, Taki, 24-Parganas ;

* Women's Colleges.

TAMRALIPTA MAHAVIDYALAYA, Tamluk, Midnapore; ULUBERIA COLLEGE, P.O. Uluberia, Howrah; UNION CHRISTIAN TRAINING COLLEGE, Berhampore, Murshidabad; VIDYANAGAR COLLEGE, P.O. Charashyamdas, 24, Parganas; VIDYASAGAR COLLEGE, Nabadwip, Nadia; VIVEKANANDA CENTENARY COLLEGE, P.O. Rahara, 24-Parganas; VIVEKANANDA SATABARSIKI MAHAVIDYALAYA, P.O. Manikpara, Midnapore; YOGADA SATSANGHA PALPARA MAHAVIDYALAYA, P.O. Palpara, Midnapore.

### SPECIAL INSTITUTIONS

*Government.*

GOVERNMENT COMMERCIAL INSTITUTE, 15, Netaji Subhas Road, Calcutta; GOVERNMENT SCHOOL OF ART, 28, Chowringhee, Calcutta; BAIGACHI GOVERNMENT BASIC TRAINING SCHOOL No. 1, Post Office Tababeria, 24-Parganas; BAIGACHI GOVERNMENT BASIC TRAINING SCHOOL No. 2, Post Office Tababeria, 24-Parganas.

### TECHNICAL AND INDUSTRIAL INSTITUTIONS

MAHARAJA COSSIMBAZAR POLYTECHNIC INSTITUTE, 3, Nanda Lal Bose Lane, Calcutta; CALCUTTA DEAF AND DUMB SCHOOL, 293, Upper Circular Road, Calcutta; BHARATI VIDYALAYA, 35/2, Beadon Street, Calcutta; MUSLIM ORPHANAGE INDUSTRIAL SCHOOL, 8, Syed Saleh Lane, Calcutta; KARAYA INDUSTRIAL SCHOOL, 8, Nasiruddin Road, Calcutta; CALCUTTA ORPHANAGE TECHNICAL SCHOOL, 1/1, Balaram Ghose Street; THE REFUGEE, 125, Bowbazar Street, Calcutta; ALL-INDIA LIGHT-HOUSE FOR THE BLIND, 27, Russa Road; L. M. S. BOYS' INDUSTRIAL SCHOOL, Kaurapukur, Tollygunge; ST. GABRIEL'S INDUSTRIAL SCHOOL, Canning, 24-Parganas; CALCUTTA BLIND SCHOOL, Behala, 24-Parganas; SRIRAM INDUSTRIAL SCHOOL, Sultanpur, Birbhum; DEAF AND DUMB SCHOOL, Suri, Birbhum; BENGAL AFTER-CARE ASSOCIATION, Bally, Howrah; B. P. TECHNICAL SCHOOL, Krishnagar; DEAF AND DUMB SCHOOL, Murshidabad; MOBERLY TECHNICAL SCHOOL, Hooghly; MALIARA INDUSTRIAL SCHOOL, Bankura; COLLEGE OF AERONAUTICAL SERVICES, P-37, Mission Row Extension, Calcutta 13; *BANIPITH GIRLS' INDUSTRIAL SCHOOL, 57/3, Raja Dinendra Street, Calcutta; BANI MANDIR GIRLS' INDUSTRIAL SCHOOL, 2, Williams Lane, Calcutta; BALLYGUNGE SILPA VIDYALAYA, 14, Ballygunge Place, Calcutta; DESHABANDHU SILPA SIKSHALAYA, 124/1, Russa Road, Calcutta; SHAMSIA GIRLS' INDUSTRIAL SCHOOL, 6, Palm Avenue, Ballygunge, Calcutta; MUSLIM GIRLS' FREE INDUSTRIAL SCHOOL, 52/1D, Bright Street, Calcutta; LORETO CONVENT INDUSTRIAL SCHOOL, Morapai, Mograhat, 24-Parganas; VAGINI NIVEDITA GIRLS' INDUSTRIAL SCHOOL, Uttarpara, Hooghly; MISSION GIRLS' INDUSTRIAL SCHOOL, Bankura; KRISHNAGAR MAHILA SAMITY, Krishnagar; R. C. GIRLS' INDUSTRIAL SCHOOL, Nabadwip.* Girls' institutions are in italics.

### GOVERNMENT-SPONSORED TECHNICAL SCHOOLS

KALIKATA SHILPA VIDYAPITH, 18, Jamir Lane, Ballygunge, Calcutta 19; VISHNUPUR K. G. ENGINEERING INSTITUTE, Post Office Vishnupur, Bankura; THE MAHARAJADHIRAJ SIR BEJOY CHAND INSTITUTE OF ENGINEERING AND TECHNOLOGY, Burdwan.

## THE UNIVERSITY OF BURDWAN

Rajbati, Burdwan

*Chancellor*, Smt. Padmaja Naidu, Governor of W. Bengal.

*Vice-Chancellor*, B. K. Guha, I.C.S. (Retd.).

*Registrar*, S. M. Chatterji, M.Sc.

*Finance Officer*, A. K. Chaudhuri, B.Sc., M.Com.

*Controller of Examinations*, A. K. Banerji, M.Sc.

*Inspector of Colleges*, A. K. Banerji, M.Sc.

*Asstt. Registrar*, P. Banerjee, M.A., Bar-at-Law.

*Estate and Development Officer*, S. N. Sen, B.L.

*Asstt. Controller of Examinations*, Dr. A. K. Mukherjee, M.Sc., Ph.D.

*Teaching :*

Courses provided at present and degrees.

*Post-graduate Courses in Arts :* English, History, Economics, Bengali, Sanskrit, Philosophy and Mathematics.

*Post-graduate Courses in Science :* Physics, Chemistry, Mathematics and Botany.

*Post-graduate Course in Commerce :* M.Com.

*Degree Courses* (in affiliated Colleges): Arts (B.A.), Science (B.Sc.), Engineering (B.E.), Textile Technology (B.Tech.), Teachers' Training (B.T.).

*Honours Courses :* (in affiliated Colleges): English, Bengali, Sanskrit, History, Economics, Philosophy, Arabic, French, Persian, Physics, Chemistry, Mathematics, B.Com. Hons. in Advanced Accountancy, Political Science and Economics.

*Medium of Instruction :* English & Regional language (Bengali).

*No. of students :* In post-Graduate classes :—877 (1964-65). In affiliated Colleges :—22,907 (1964-65).

*No. of affiliated Colleges :* 39 (including one Engineering, one Textile Technology and three Teachers' Training).

BUDGET (1964-65)

*Receipts :* Rs. 92,74,804.

*Expenditure :* Rs. 92,74,804.

## JADAVPUR UNIVERSITY

(P.O. Jadavpur University, Calcutta 32.)

*Unitary and Teaching :*

Courses provided at present and Degrees :—

*Engineering Courses :*

Bachelor's Degree Courses (5-year) in Mechanical Engineering (B.M.E.); Electrical Engineering (B.E.E.); Chemical Engineering (B.Ch.E.); Civil Engineering (B.C.E.) and Tele-Communication Engineering (B. Tel. E.); Evening part-time Engineering (B. Tel. E.); Architecture (B. Arch.); Evening part-time degree courses (4-year course for Licentiates) in Mechanical (B.M.E.), Electrical (B.E.E.) and Civil (B.C.E.) Engineering; Degree Course (4-year) in Pharmacy; Degree Course (3-year) in Food Technology and Bio-Chemical Engineering (B. Tech.).

*Post-graduate Courses :* Master's Degree Courses (2-year) in Mechanical Engineering (M.M.E.); Electrical Engineering (M.E.E.); Chemical Engineering (M.Ch.E.), Civil Engineering (M.C.E.), Tele-Communication Engineering (M. Tel. E.) and Food Technology (M. Tech.).

*Science Courses :*

Preparatory Course (1-year). Honours Degree Courses (3-year) in Chemistry, Mathematics, Physics, Geological Sciences (B.Sc.).

*Post-graduate Courses:* Master's degree courses (2-year) in Mathematics, Physics, Chemistry and in Applied Geology (M.Sc.).

*Arts Courses :*

Preparatory Course (1-year). Honours Degree Courses (3-year) in Bengali, Comparative Literature, Economics, English, History, Political Science, Philosophy, Sanskrit (B.A.); Degree Course (1-year) in Library Science (B. Lib. Sc.).

*Post-graduate Courses :* Master's degree courses (2-year) in Bengali, Comparative Literature-Economics, English, History, International Relations, Philosophy, Sanskrit (M.A.).

*Faculties :* Arts, Science, Engineering and Technology.

Medium of instruction : English.

Number of Students :—3,984 (31-3-1964).

*Chancellor*, Smt. Padmaja Naidu; *Vice-Chancellor*, Dr. T. Sen, Dr. Ing. (Munich), M.I.E. (Ind.); *Registrar*, P. C. V. Mallik, M.A. (Cantab.); *Finance Officer*, S. N. Batyabyal, I.A. & A.S.

*Dean, Faculty of Arts*, Dr. P. C. Chakravarti, M.A. (Dacca), Ph.D. (Lond.); *Dean, Faculty of Science*, Dr. S. N. Mukherjee, D.Sc. (Cal.); *Dean, Faculty of Engineering & Technology*, Dr. J. S. Chatterjee, M.Sc., D.Phil. (Cal.).

BUDGET, 1964-65

Income : Rs. 71,25,853 (inclusive of maintenance grants).

Expenditure : Rs. 71,37,413.

## UNIVERSITY OF KALYANI

(P.O. Kalyani, District Nadia).

*Teaching :*

Courses provided at present and Degrees :—B.Sc. (Ag.) Hons. 4-year integrated course; B.Sc. (Animal Science) 4-year course; B.Sc. Hons. in Chemistry, Physics, Botany and Zoology—3-year course; B.A. Hons. in Economics—3-year course; B.T.—one-year course; Diploma in Physical Education—1 year.

Post-graduate Courses: M.Sc. in Chemistry (with special papers in Organic, Inorganic and Physical Chemistry), Physics, Zoology, Botany; M.Sc (Ag.) in Plant Pathology, Agronomy, Horticulture, Cytogenetics, Soil Science, Entomology and Agricultural Extension; M.A. in English; M.A. in Economics.

Medium of instruction : English.

Number of Students at present (Feb. 1965): Agriculture 500, Science 122, Arts 48; Physical Education 23, B.T. 122, Research for Ph.D. in Science 24, Research for Ph.D. in Agriculture 7.

This is a Residential University.

*Chancellor :* Shrimati Padmaja Naidu; *Vice-Chancellor :* Dr. S. N. Das Gupta, D.Sc., F.N.I.; *Registrar :* Dr. D. C. Sen, D.Sc.; *Finance Officer* : A. K. Shome.

## UNIVERSITY OF NORTH BENGAL

P.O. North Bengal University, Raja Rammohunpur (DARJEELING)

*Chancellor :* Smt. Padmaja Naidu, Governor of West Bengal; *Vice-Chancellor :* Prof. B. N. Das Gupta; *Registrar :* P. B. Mitra; *Controller of Examinations :* K. M. Das; *Finance Officer :* H. P. Bhattacharyya, I.A.A.S.

*Post Graduate Teaching Department :* (*i*) English (*ii*) Economics (*iii*) Political Science (*iv*) Physics (*v*) Chemistry (*vi*) Mathematics (*vii*) Geography (*viii*) Commerce (*ix*) Bengali and (*x*) History.

*Heads of Departments : English :* Dr. S. P. Sen Gupta; *Economics :* S. N. Basak; *Political Science :* B. Bajpai; *Physics :* Dr. S. N. Sen; *Chemistry :* Dr. H. N. Khastgir; *Mathematics :* S. R. Das Gupta (*Ag.*); *Geography :* Dr. S. B. Chatterjee.

**Budget (1963-64)**

Income : Rs. 5,17,057.

Expenditure : Rs. 18,10,180.

Grants : Rs. 15,14,500.

## VISVA-BHARATI

Santiniketan, West Bengal.

Founded by Rabindranath Tagore in 1921; incorporated as a Central University, 1951.

Visva-Bharati maintains the following Institutions :

Patha-Bhavana (School), Siksha-Bhavana (College of Graduate Studies), Vidya-Bhavana (College of Post-Graduate Studies and Research), Vinaya-Bhavana (Teachers' Training College), Kala-Bhavana (College of Fine Arts and Crafts), Sangit-Bhavana (College of Music and Dance),

Rabindra-Bhavana (College of Study and Research in the Life and Writings of Tagore) and Palli-Siksha-Sadana (Institute of Graduate studies in Agriculture and Social Sciences). The University maintains also the following Research Departments: (1) Cheena-Bhavana, (2) Indo-Tibetan Institute, (3) Hindi-Bhavana, which organise teaching and Research in Chinese, Tibetan and Hindi respectively.

The Visva-Bharati Central Library contains 1,65,189 volumes including periodicals. There are sectional and seminar libraries attached to various departments. The University has its own hospital with a Chief Medical Officer and his assistants. The Guest House, which makes catering arrangements of its own, is open to visitors and guardians.

Besides the academic institutions, the University conducts two Departments: one for Rural Reconstruction and the other for Publication of Books.

A two-year Certificate Course in Indian and Foreign languages viz. Sanskrit, Bengali, Hindi, Oriya, Chinese, Japanese, Tibetan, French, German and English is available to Post-Graduate and Under-Graduate students. Those who have successfully completed the Certificate Course may continue another year's further study for the Diploma in the same languages.

Silpa-Sadana (Cottage Industry Training Centre) provides 2-year Certificate course and 3-year Diploma course in Weaving and Woodwork.

The Social Education Organizers' Training Centre, started under the Community Project Scheme, provides for training of organizers deputed by the different States of the Indian Union.

Siksha-Charcha (Junior Basic Teachers' Training College), sponsored by the West Bengal Government, provides one year certificate course in both theory and practice of Basic Education.

A scheme of agro-economic research is being conducted at the university under the auspices of the Ministry of Food and Agriculture, Govt. of India.

*Budget for* 1964-65 :

| | |
|---|---|
| Govt. Grants .. .. .. | Rs. 39,51,146 |
| Other Sources .. .. .. | Rs. 8,21,264 |
| Total .. .. .. .. | Rs. 47,72,410 |
| Expenditure .. .. .. | Rs. 47,49,352 |

*Chancellor :* Vacant.
*Vice-Chancellor:* Dr. Kalidas Bhattacharyya, M.A., Ph.D.
*Registrar :* H. C. Bhattacharyya, M.A.

## SOCIETIES, ASSOCIATIONS, ETC.

### ACADEMY OF FINE ARTS
Cathedral Road, Calcutta 16.

### THE ALL BENGAL PHYSICAL CULTURE ASSOCIATION
5, Krishna Bihari Sen Street, Calcutta 7.

*President :* Bhupati Majumder ; *Hon. Secretary:* S. M. Ghosh.

### ALL-BENGAL TEACHERS' ASSOCIATION
15, Bankim Chatterjee Street, Calcutta 12.

### ALL BENGAL WOMEN'S UNION
89, Elliot Road, Calcutta 16.

### ALL-INDIA ASTROLOGICAL AND ASTRONOMICAL SOCIETY
"Jyotish-Samrat Bhaban", 50/2, Dharamtala Street, Calcutta 13.

### ALL INDIA INVESTORS' ASSOCIATION
7, Lyons Range, Calcutta 1.

To serve the cause and safeguard the rights of shareholders and investors in India.

*President :* Dhirajlal K. Doshi, *Hon. Secretary :* S. S. Chiripal, *Treasurer :* P. Khaitan.

### ALL-INDIA JUTE MILL BOBBIN MANUFACTURERS' ASSOCIATION
P-11, Mission Row Extension, Calcutta 1.

### ALL INDIA LAWN TENNIS ASSOCIATION
90-A, Bokulbagan Road, Calcutta 25.

### ALL INDIA MACHINE TOOL MERCHANTS ASSOCIATION
India Exchange, India Exchange Place, Calcutta-1.

*President :* D. L. Shah ; *Vice-President :* J. S. Halbert ; *Secretary :* C. S. Pande.

### ALL-INDIA MARWARI FEDERATION
152-B, Mahatma Gandhi Road, Calcutta 7.

*Office-Bearers,* Gajadhar Somani (*President*); Arjundas Agrawal, R. Morarka, Dr. B. P. Kedia, Pannalal Pitti (*Vice-Presidents*); Raghunath Prasad Khaitan (*General Secretary*); Bijoysingh Kothari (*Treasurer*).

### ALL INDIA RADIO MERCHANTS' ASSOCIATION
3/C, Madan St., Calcutta 13.

*President :* V. P. Luthra ; *Vice-President :* R. Mukherjee ; *Hon. Secretary :* N. J. Kewalramani ; *Hon. Treasurer :* S. L. Jain.

### ALL INDIA SAW MILLS ASSOCIATION
P-11, Mission Row Extension, Calcutta 1.

### ALL INDIA SHEET GLASS MANUFACTURERS' ASSOCIATION
C/o Hindustan Pilkington Glass Works Ltd., 4, Chittaranjan Avenue, Calcutta 13.

*President :* P. N. Talukdar ; *Secretaries :* T. C. Roy Choudhury, P. N. Roy.

### ALL INDIA SMALL SCALE BATTERY MANUFACTURERS ASSOCIATION
4/1B, Telipara Lane, Calcutta 4.

### ALL-INDIA S. P. C. A.
276, Bowbazar Street, Calcutta.

*Office-Bearers :* Lt. Col. J. M. Lahiri (*President*) ; Leslie W. Newbond (*Secretary*).

### ALL INDIA WOMEN'S CONFERENCE
CALCUTTA BRANCH.
11, Palit Street, Calcutta 19.

### ARCHBISHOP'S HOUSE
32, Park Street, Calcutta 16.

### AROMATIC TRADERS' ASSOCIATION
44/45, Ezra Street, Calcutta 1.

### ARYA SAMITY
Arya Samity Road, Behala, Calcutta 34.

### THE ASIATIC SOCIETY
1, Park Street, Calcutta 16.

*President :* Dr. K. N. Bagchi, B.Sc., M.B., D.T.M., F.N.I., F.R.I.C. ; *General Secretary :* Dr. P. C. Gupta, M.A., Ph.D., F.A.S. ; *Treasurer :* S. N. Sen Gupta, M.A., LL.B.

### ASSOCIATED CHAMBER OF HIDES & SKINS TRADERS
*Regd. Office :* 9, Maharani Swarnamoyee Road, Calcutta 9 ; *Working Office :* 52, Narkeldanga North Road, Calcutta 11.

### THE ASSOCIATION OF ENGINEERS
24, Netaji Subhas Road, Calcutta 1.

*President :* A. C. Sen, B.Sc. (Glas.), M. Inst. W., A.M.A.E., A.M.I.E. ; *Vice-Presidents :* N. N. Rudra, B.Sc., M.A.E., A.M.I.E. ; Sunny Gupta, LL.B., M.A.E., B.Sc. Engg. (Lond.) ; *Hon. Treasurer :* P. S. Roy Chowdhury, B.Sc., M.A.E., A.V.I. (Lond.); *Hon. Secretary :* H. Kothari, B.Sc., A.M.A.E., A.M.I.E. ; *Hony Editor :* S. Basu, B.Sc. (Glas.), C.P.E., A.M.Inst.W. (London), M.A.E., M.I. Mar. ; *Hon. Librarian :* B. K. Dam, B.Sc. Engg., A.M.A.E., A.M.I.E.

### ASSOCIATION OF INDIAN PHARMACEUTICAL MANUFACTURERS
29/3A, Chetla Central Road, Calcutta 27.

### ASSOCIATION OF MASTER PRINTERS WEST BENGAL LTD.
32, Acharya Profulla Chandra Road, Calcutta 9.

### ASSOCIATION FOR THE PREVENTION OF BLINDNESS
94, Chittaranjan Avenue, Calcutta 12.

### ASSOCIATION OF RUBBER MANUFACTURERS IN INDIA
Dunlop House, 57-B, Free School Street, Calcutta 16.

*Chairman :* Cecil Stack ; *Secretary :* A. T. Mathyoo.

### ASSOCIATION OF SMALL SCALE BATTERY INDUSTRY
114A, Shyamaprosad Mukherjee Road, Calcutta 26.

### ASWINI KUMAR INSTITUTE
5, Janak Road, Calcutta 29.

### AUTOMOBILE ASSOCIATION OF EASTERN INDIA
13, Ballygunge Circular Road, Calcutta 19.

*President :* Justice P. B. Mukharji ; *Vice-Presidents :* M. N. Banerjee, M. C. Ray.

### AUTOMOTIVE MANUFACTURERS' ASSOCIATION
India Exchange, India Exchange Place, Calcutta 1.

### BANGIYA BIJNAN PARISHAD
(Publishes the only scientific Bengali Journal "Jnan-o-Bijnan").
294/2/1, Acharya Prafulla Chandra Road, Calcutta 9.

### BANI MANDIR WOMEN'S EDUCATION SOCIETY
2, Williams Lane, Calcutta 9.

### BANTRA ANATH BANDHU SAMITY
31-18, Brindaban Mullick Lane, Howrah.

### THE BENGAL BONDED WAREHOUSE ASSOCIATION
25, Netaji Subhas Road, Calcutta-1.

### BENGAL BRATACHARI SOCIETY
191/1, Bepin Bihari Ganguly Street, Calcutta 12.

### BENGAL BUS SYNDICATE
6, Dharamtolla Street, Calcutta 13.

*President :* B. S. Grewal ; *Secretary :* R. N. Coondoo.

### BENGAL CHEMISTS' & DRUGGISTS' ASSOCIATION
10, Bonfield Lane, Calcutta 1.

### BENGAL GALVANIZED SHEET MERCHANTS' ASSOCIATION
20, Strand Road, Calcutta.

**BENGAL GLASS MANUFACTURERS' ASSOCIATION**
P-11, Mission Row Extension, Calcutta 1.

**BENGAL HOSIERY MANUFACTURERS' ASSOCIATION**
219, Bepin Behari Ganguli Street, Calcutta 12.

**THE BENGAL JUTE DEALERS' ASSOCIATION**
4, Commercial Buildings,
23A, Netaji Subhas Road, Calcutta.

*Chairman :* Kishanlall Sarawgi ; *Vice-Chairman :* Jaichanlall Sethia ; *Honorary Secretary :* Kishanlal Choudhury ; *Treasurer :* Harak Chand Sarawgi ; *Secretary :* B. N. Mathur, M.A.

**BENGAL LIBRARY ASSOCIATION**
*Regd. Office :*
Central Library, Calcutta University, Cal. 12.
*General Office & Library :*
33, Huzurimall Lane, Cal. 14.

*President :* S. K. Mukherjee, Finance Minister, W. Bengal ; *Secretary :* Bijayanath Mukherjee ; *Editor of "Granthagar" :* Nirmalendu Mukherjee.

**BENGAL MASONIC ASSOCIATION**
Freemasons' Hall, 19, Park Street, Calcutta.

K. B. Large (*President*) ; G. M. Faulkner (*Chairman*) ; P. A. Krishnaswami (*Secretary*).

**BENGAL MILLOWNERS' ASSOCIATION**
2, Church Lane, Calcutta 1.

*President :* S. C. Nawn ; *Vice-Presidents :* S. N. Hada, D. N. Chatterjee ; *Secretary :* S. Bhattacharjee.

**BENGAL MOTION PICTURE ASSOCIATION**
2, Madan Street, Calcutta 13.

**BENGAL OIL MILLS ASSOCIATION**
156, Acharya Profulla Chandra Road, Calcutta 6.

*President :* S. N. Chatterjee ; *Vice-Presidents :* Biswanath Sadhukhan, Balai Chandra Sadhukhan ; *Hony. Secretary :* Sadananda Paul ; *Hony. Jt. Secretary :* Atul Krishna Sadhukhan.

**BENGAL PHARMACEUTICAL ASSOCIATION**
182, Acharya Jagdish Bose Road, Calcutta 14.

*President :* S. N. Banerji ; *Secretary :* S. N. Mukherjee ; *Treasurer :* E. V. B. Shenoy.

**BENGAL PROVINCIAL BANK EMPLOYEES' ASSOCIATION**
20, Strand Road, Calcutta 1.

**BENGAL SILK & ART SILK MILLOWNERS' ASSOCIATION**
C/o Swadeshi Industries Ltd., 33, Netaji Subhas Road, Calcutta 1.

**BENGAL SOCIAL SERVICE LEAGUE**
1/6, Raja Dinendra Street, Calcutta 9.

**BENGAL SUGAR MERCHANTS' ASSOCIATION**
2C, Ramkumar Rakhit Lane, Calcutta 7.

*President :* Dulal Chandra Sreemany ; *Vice-President :* Asharam Bhartia ; *Honorary Secretary :* Santosh Kumar Sreemany.

**BENGAL TABLE TENNIS ASSOCIATION**
86, College Street, Calcutta 12.

**BENGAL TAXI ASSOCIATION**
157B, Dharmatolla Street, Calcutta 13.

*President :* Nepal Chandra Roy *Secretary :* K. Bhadra.

**BENGAL TEXTILE DEALERS' ASSOCIATION**
30, Cotton Street, Calcutta 7.

**BENGAL THEOSOPHICAL SOCIETY**
4/3A, Bankim Chatterjee Street, Calcutta 12.

*President :* Mr. Justice P. B. Mukharji ; *Hony. Secretary :* S. K. Kar.

**BENGAL TRADES ASSOCIATION**
P-11, Mission Row Extension, Calcutta 1.

**BENGAL TUBERCULOSIS ASSOCIATION**
21, Dr. Sundari Mohan Avenue,
P.O. Entally, Calcutta 14.

*Chairman :* Dr. P. K. Sen ; *Vice-Chairman :* Justice S. P. Mitra ; *Hon. Gen. Sec. :* Dr. K. N. De ; *Hon. Treasurer :* D. P. Chatterjee.

**BHARAT CHEMICAL IMPORTERS AND DISTRIBUTORS ASSOCIATION.**
P-11, Mission Row Extn., Calcutta 1.

**BHARAT JUTE SELLERS' ASSOCIATION**
2, India Exchange Place, Calcutta 1.

**BHARAT SCOUTS AND GUIDES**
5, Government Place North, Calcutta 1.

*Office-Bearers :* Dr. Parimal Roy, M.A., Ph.D. (Lond.), *State Chief Commissioner ;* A. K. Ghose, *State Commissioner (Scouts) ;* Mrs. Asoka Gupta, B.Sc., *State Commissioner (Guides) ;* A. B. Gupta, F.C.A., *State Treasurer ;* Ronen Ghose, *State Secretary ;* B. K. Das, *State Organising Commissioner (Scouts) ;* Mrs. S. Guha Roy, *State Organising Commissioner (Guides).*

**BHARAT TEXTILE CHAMBER**
208, Jamunalal Bazaz Street, Calcutta 7.

**BIBLE SOCIETY OF INDIA AND CEYLON**
23, Chowringhee, Calcutta 13.

**BILLIARDS ASSOCIATION & CONTROL COUNCIL OF INDIA**
C/o Great Eastern Hotel, 1, 2 & 3, Old Court House Street, Calcutta 1.

*President :* Kumar Biswanath Roy ; *Chairman :* P. K. Mitter ; *Hon. Secretary :* B. K. Roy.

**BLANKET AND SHAWL TRADERS' ASSOCIATION**
30, Cotton Street, Calcutta 7.

**BOHURUPEE**
11A, Nasiruddin Road, Calcutta 17.

*President :* Gangapada Bose ; *Secretary :* K. P. Ghosh ; *Treasurer :* Kumar Roy.

**BOSE INSTITUTE**
93/1, Upper Circular Road, Calcutta 9.

**BOTANICAL SOCIETY OF BENGAL**
35, Ballygunge Circular Road, Calcutta 19.

*President :* Prof. S. M. Sircar, M.Sc., Ph.D. (Lond.), D.I.C., F.N.I. ; *Hony. Secretary :* Dr. S. C. Datta, M.Sc. (Cal.), Ph.D. (U.S.A.), Sigma Xi ; *Hony. Editor of Publications :* Dr. B. K. Kar, M.Sc. (All.), Dr. Phil. Nat. (Leipzig).

**THE BUCKET MANUFACTURERS' ASSOCIATION OF INDIA**
Indian Exchange, 7th floor, Calcutta.

**BUDDHIST SOCIETY OF INDIA & BUDDHIST MISSION OF INDIA**
31/1, Baghbazar St., Calcutta 3.

*President :* Dr. Sir Ananda Mohan Sur, Kt. D.Sc., M.D., D.D., F.R.H.S. (Lond.), Hony. LL.D.

**BUILDERS' ASSOCIATION OF INDIA**
(Eastern Centre)
8, Pran Krishna Mukherjee Road, Calcutta 2.

**BUILDERS' HARDWARE INDUSTRIES ASSOCIATION OF INDIA**
India Exchange, 7th Floor, Calcutta 1.

**CALCUTTA ASSOCIATION FOR UNITED NATIONS**
(Estd. 1947)
62, Bowbazar Street, Calcutta 12.

**CALCUTTA BALED JUTE ASSOCIATION**
6, Netaji Subhas Road, Calcutta 1.

*Chairman :* C. L. Baid ; *Vice-Chairman :* T. L. Sethia ; *Secretary :* W. D. Bryden.

**CALCUTTA BIRI TOBACCO MERCHANTS' ASSOCIATION**
1, Rupchand Roy Street, Calcutta 7.

*President :* G. C. Ghose ; *Hony. General Secretary :* Dwarkadas Vadalia.

**CALCUTTA BLIND SCHOOL**
Diamond Harbour Road, Behala, Calcutta 34.

*President :* Atulya Ghosh, M.P. ; *Hony. Secretary & Principal :* Amal Shah, Padma Shri ; *Hony. Treasurer :* Raman Roy.

**CALCUTTA CABINET MAKERS' & FURNISHERS' ASSOCIATION**
254-K, Bipin Behari Ganguly St., Calcutta 12.

**CALCUTTA CRICKET CLUB**
19/1, Gurusaday Road, Ballygunge, Calcutta.

**CALCUTTA DEAF & DUMB SCHOOL**
(Trg. College for the Teachers of the Deaf)
293, Acharya Prafulla Ch. Road, Calcutta 9.

**CALCUTTA DOCTORS' ASSOCIATION**
13-C, Jadu Pandit Road, Calcutta 6.

**CALCUTTA FLOUR MILLS ASSOCIATION**
6, Netaji Subhas Road, Calcutta 1.

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### VIVEKANANDA SOCIETY
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### WEST BENGAL HOSIERY ASSOCIATION
195, Mahatma Gandhi Road, Calcutta-7.

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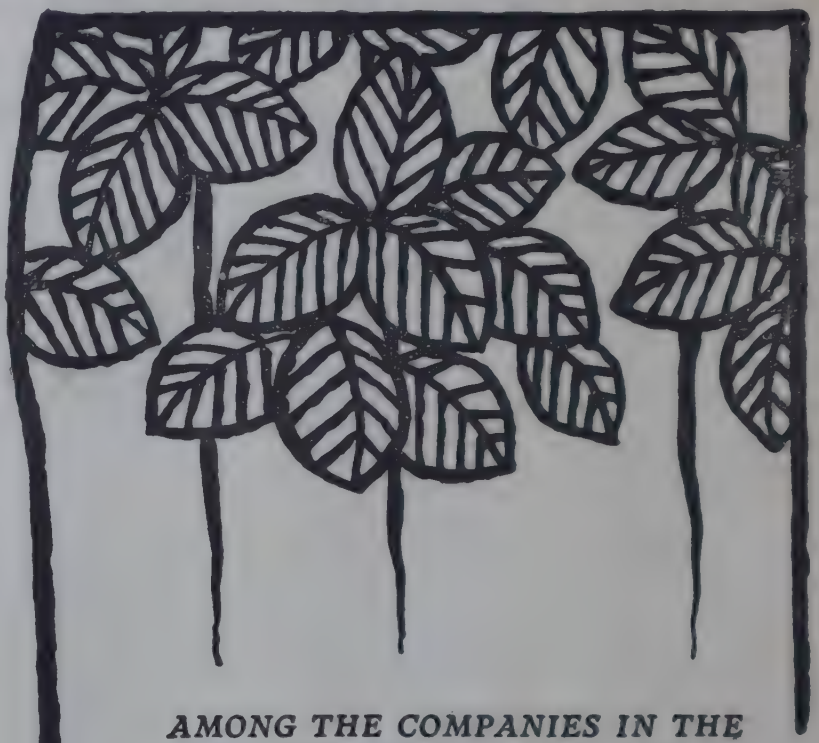

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**Shree Krishna Private Ltd.**, 20, Mangoe Lane, Calcutta 1.

**Sri Ram Machinery Corpn. Pvt. Ltd.**, 18, Netaji Subhas Road, Calcutta 1.

**Stadmed Pvt. Ltd.**, 84, Chowringhee Road, Calcutta 20.

**Standard Engineering Co., Ltd.**, 62, Bow Bazar Street, Calcutta 12.

**Standard Literature Co., Pvt. Ltd.**, 13/1, Old Court House Street, Calcutta 1.

**Standard Radio & Winding House Private Ltd.**, Brabourne Court, 1, Chandney Chowk Street, Calcutta 13.

**Standard Steels (India) Private Ltd.**, P-7, Mission Row Extn., Calcutta 1.

**Standard Stores & Agency Pvt. Ltd.**, 24, Chittaranjan Avenue, Calcutta 12.

**Statesman Pvt. Ltd.**, Statesman House, 4, Chowringhee Square, Calcutta 1.

**Steam & Mining Equipment (India) Private Ltd.**, 207-B, Park Street, Calcutta-17; Phone: 447551 (4 Lines), Grams: "THERMAL"—Calcutta; Surveying Instruments, Drawing Instruments, Scales, Optical Instruments, Meteorological Instruments, Thermometers, Profile Projectors, Vacuum gauges, Steam Pressure gauges, Oxy Acetylene Pressure gauges, Combined Pressure Vacuum gauges, Hydrometers, etc.

**Steel Age Industries Pvt. Ltd.**, 71, Ganesh Chandra Avenue, Calcutta 13.

**Steel & Allied Products Ltd.**, 17, Brabourne Road, Calcutta 1.

**Steel Box P. Ltd.**, 14-2, Old Chinabazar Street, Calcutta 1.

**Steel Brothers & Co., Ltd.**, Gillander House, Netaji Subhas Road, Calcutta 1.

**Steel Equipment & Construction Pvt. Ltd.**, 22, Grand Trunk Road, Lillooah, Howrah.

**Steel, R. & Co. Pvt. Ltd.**, 4, Netaji Subhas Road, Calcutta 1.

**Steelex Private Ltd.**, 38, Netaji Subhas Road, Calcutta 1.

**Steelverse & Co. (1960) Pvt. Ltd.**, 152, Acharya Prafulla Chandra Road, Calcutta 6.

**Stephens & Co., Pvt. Ltd.**, 23, Chowringhee, Calcutta 13.

**Sterling India Co. Pvt. Ltd.**, Calcutta 14.

**Stewarts & Lloyds of India Pvt. Ltd.**, 41, Chowringhee Road, Calcutta 16.

**Stone J. & Co. (India) Pvt. Ltd.**, 5, Hide Road, Kidderpore, Calcutta 23.

**Stores Supply & Mfg. Co.**, 8-B, Lall Bazar Street, Calcutta 1.

**Structural Waterproofing Co. Pvt. Ltd.**, 21-1, Dover Road, Calcutta 19.

**Subol Chandra Dutt Properties Pvt. Ltd.**, Subol Dutt Bldgs., 13, Brabourne Road, Calcutta 1.

**Sudhir Chatterjee & Co. Pvt. Ltd.**, 10, Ganesh Chandra Avenue, Calcutta 13.

**Sudsons Pvt. Ltd.**, 3, Esplanade East, Calcutta 1.

**Super Crafts Pvt. Ltd.**, 163, Kasba Road, Calcutta 42.

**Superintendence Co. of India Pvt. Ltd.**, 35, Ezra Street, Calcutta 1.

**Sur B. & Co.**, 69, Dr. Suresh Sarkar Road, Entally, Calcutta 14.

**Sur Enamel & Stamping Works Pvt. Ltd.**, 24, Middle Road, Calcutta 14.

**Sur Industries Pvt. Ltd.**, 163, Lower Circular Road, Calcutta 14.

**Surensons Pvt. Ltd.**, 3/1, Raja Kali Kissen Lane, Calcutta 5.

**Surisons & Co. Ltd.**, 72-73, Old China Bazar Street, Calcutta 1.

**Surveyors & Salvagers Ltd.**, Temple Chambers, 6, Old Post Office Street, Calcutta 1.

**Sutton & Sons Ltd.**, 13-D, Russe Street, Calcutta 16.

**Swaika Export & Import Ltd.**, Pollock House, 18-B, Brabourne Road, Calcutta 1.

**Swatantra Bharat Trading Co. Ltd.**, 208, Jamnalal Bajaj Street, Calcutta 7.

**SYMONO DISTRIBUTORS PRIVATE LTD.**, 18, Netaji Subhas Road, Calcutta 1; Sole Distributors in India for the "SLAZENGER" Sports goods made in India; Phone: 22-4945/46; Grams: 'FOURSQUARE'.

**Synthetic Moulders Ltd.**, 53, Netaji Subhas Road, 2nd Floor, Calcutta 1.

**T. I. & M. Sales Ltd.**, *Regd. Office:* 6, Church Lane, Calcutta-1.

**Talbot & Co.**, Tower House, Chowringhee Sqr., Calcutta 1.

**Talukdar Law & Co.**, Private Ltd., Hindusthan Buildings, 4, Chittaranjan Avenue, Calcutta 13.

**Talukdar S. & Co. Ltd.**, 5, Commercial Bldgs., 23, Netaji Subhas Road, Calcutta 1.

**Tantia Bros. Pvt. Ltd.**, Norton Bldg., Old Court House Corner, Calcutta 1.

**Targett & Co. Ltd., W.H.**, 5, Mission Row, Calcutta 1.

**Tata Chemicals Ltd.**, Mercantile Bldgs., 10, Lall Bazar, Calcutta.

**Tata Iron & Steel Co. Ltd.**, 23-B, Netaji Subhas Road, Calcutta 1.

**Tatanagar Foundry Co. Ltd.**, 51, Stephen House, 4, Dalhousie Square, Calcutta 1.

**Tatanagar Transport Corporation**, 147, Mahatma Gandhi Road, Calcutta 7.

**T. D. Kumar Brothers Pvt. Ltd.**, 20/1, Maharshi Debendra Road, Calcutta 7.

**Tecalemit (India) Ltd.**, 31, Chittaranjan Avenue, Calcutta 12.

**Technical (India) Pvt. Ltd.**, 62-1, Joy Narain Babu & Ananda Dutta Lane, Howrah.

**Technico Enterprises Pvt. Ltd.**, P-22, Swallow Lane, Calcutta 1.

**Textile Machinery Corpn. Ltd.**, 8, India Exchange Place, Calcutta 1.

**Thacker Spink & Co. (1933) Pvt. Ltd.**, 3, Esplanade East, Calcutta.

**Thacker's Press & Directories Ltd.**, 6-B, Bentinck Street, Calcutta 1.

Thapar Financial Corporation, 29-A, Chandra Nath Chatterjee Street, Calcutta 25.

**Thermolites Products Pvt. Ltd.**, 58-4, Barrackpur Trunk Road, Calcutta 2.

**Thomas Duff & Co. (India) Pvt. Ltd.**, 2 & 3, Clive Row, Calcutta 1.

**Thomas J. & Co., Pvt. Ltd.**, 8, Mission Row, Calcutta 1.

**THOMPSON COMPANY PRIVATE LTD., J. WALTER**, International Advertising and Merchandising Consultants; Calcutta Office: 30, Bondel Road, Calcutta; Manager: Subhas Ghosal; Head Office: Lakshmi Building, Sir Pherozshah Mehta Road, Chairman & Managing Director: Edward J. Fielden; Branches at Calcutta, Kanpur, Delhi, Madras, Bangalore, Colombo and Offices throughout the World; Phone: 443601 (5 Lines); Grams: "THOMETWAL."

**Thomson T. E. & Co. Ltd.**, 9-A, Esplanade East, Calcutta 1.

**Tideman & Co. (India) Pvt. Ltd.**, P-15, Bentinck Street, Calcutta.

**Tide Water Oil Co. (India) Ltd.**, 8, Clive Row, Calcutta 1.

Times of India, 13/1, 13/2, Govt. Place East, Calcutta.

**Tims Products Ltd.**, India Exchange Bldg., Calcutta 1.

**T. I. of India Ltd.**, 5 & 7, Netaji Subhas Road, Calcutta 1.

**Torrance & Sons Ltd.**, 30, Chowringhee, Road, Calcutta 16.

**Torrington Needle Agency**, 21-A, Gaur Laha Street, P.O. Beadson Street, Calcutta 6.

**Tractors (India) Ltd.**, 1, Taratolla Road, Garden Reach, Calcutt a 27.

**Trade Land (India) Ltd.**, 22, Strand Road, Calcutta 1.

Traders Cartel Pvt. Ltd., 285-H, Bowbazar Street, Calcutta 12.

Traders' International Mercantile Agency Pvt. Ltd., 1-A, Russel Street, Calcutta 16.

Tribeni Tissues Pvt. Ltd., 37, Chowringhee, Calcutta 16.

Tungabhadra Industries Ltd., 8, India Exchange Place, Calcutta.

Turner Hoare & Co. Pvt. Ltd., 27, Brabourne Road, Calcutta.

Turner Morrison & Co. Pvt. Ltd., 6, Lyons Range, Calcutta 1.

Twentieth Century-Fox Corpn. (India) Pvt. Ltd., 19, Chowringhee Road, Calcutta 13.

Uberoi Ltd., 22-1, Chowringhee Road, Calcutta 13.

Umakant & Co. Pvt. Ltd., 4, Mullick Street, Calcutta 7.

Union Carbide Pvt. Ltd., 1 & 3, Brabourne Road. Calcutta 1.

Union Commercial Corporation, Mercantile Bldgs., Lal Bazar, Calcutta.

Union Metal Industries Ltd., 2, Clive Ghat Street, Calcutta 1.

United Commercial and Industrial Co. Pvt. Ltd., 20, Mangoe Lane, Calcutta 1.

United Commercial Trading Corpn. Ltd., 138, Canning Street, Calcutta 1.

**UNITED ENGINEERING (EASTERN) CORPORATION,** Local Sales Office: 22, Canning Street, Calcutta 1; Phone: 22–2426; Export Department No. 10, Canning Street, Calcutta 1; Phone: 22-3531; Factory No. 10, Convent Road, Calcutta 14; Phone: 24–3752 for Oil Expellers, Filter Presses, Disintegrators and Spare parts of all types of oil Expellers in the world etc.

United Liner Agencies of India Pvt. Ltd., 17, Brabourne Road, Calcutta 1.

United Machine Co. Ltd., 2, Dalhousie Square East, Calcutta 1.

United Provinces Commercial Corporation, 6, Ganesh Chandra Avenue, Calcutta 13.

United Steel Companies (India) Pvt. Ltd., P-13, Mission Row Extension, Calcutta 1.

United Supply Agency Pvt. Ltd., 38, Strand Road, Calcutta 1.

United Trading Co., 172, Mahatma Gandhi Road. Calcutta 7.

Universal Importers Co., 32-E, Jackson Lane, Calcutta 1.

Universal Industrial & Mercantile Corpn., 13, Gope Lane, Calcutta 14.

Universal Railway Material Supply Co., 4, Commercial Bldgs., Netaji Subhas Road, Calcutta 1.

Universal Refrigeration Corpn. Ltd., 47, Southern Avenue, Calcutta 29.

Universal Safe & Tank Mfg. Co., 100, Harrison Road, Calcutta 7.

Universal Trading Co., 33, Canning Street, Calcutta 1

Universal Trading Corporation, 20, Strand Road, Calcutta 1.

Usha Automobile & Engineering Private Ltd., 2, Ramgopal Ghosh Road, Cossipore, Calcutta-2.

Vasanjee Topun Madhowjee & Co., 5-1, Portuguese Church Street, Calcutta 1.

Vasant Corporation Pvt. Ltd., 28, Amratolla Street, Calcutta 1.

V. D. Swami & Co. Pvt. Ltd., 2, Mangoe Lane, Calcutta 1.

Victory Trading Co., 172, Mahatma Gandhi Road, Calcutta 7.

Vinar Ltd., 2-A, Theatre Road, Calcutta 16.

Virchand Panachand & Co. (Calcutta) Pvt. Ltd., 87, Canning Street, Calcutta.

Vishnu Agencies Pvt. Ltd., Bharat Bhawan, 3, Chittaranjan Avenue, Calcutta.

Vishwa Bharati Trading Co., Post Box 2628, Calcutta

Vishwakarma Constructions (Private) Ltd., 31, Chittaranjan Avenue, Calcutta 12.

Volkart Brothers, 8, Netaji Subhas Road, Calcutta 1.

Voltas Limited, 8, Netaji Subhas Road, Calcutta 1. Head Office: Bombay 1; Branches and offices throughout the country; Divisions: Air Conditioning and Refrigeration, Earthmoving, Mining & Agricultural; Electrical, Mechanical, Textile Machinery, Machine Tools, Pharmaceuticals and Chemicals & Consumer Products.

Vulcan Trading Co. Pvt. Ltd., 19, British Indian Street, Calcutta 1.

Wakefield C. C. & Co. Ltd., Allahabad Bank Bldgs., 14 India Exchange Place, Calcutta 1.

Waldie D. & Co. Ltd., Gillander House, Netaji Subhas Road, Calcutta 1.

Walford Transport Ltd., 71, Park Street, Calcutta 16.

Walker W. J. & Co., 6, Commercial Bldgs., Calcutta 1.

Walter Bennet & Co., 21-C, Gokul Mitra Lane, Calcutta 5.

Walter Bushnell Ltd., Grosvenor House, 21, Old Court House Street, Calcutta 1.

Walters M. & Co.. 17, Chowringhee, Calcutta 13.

Walworth International Co., 14-2, Clive Row, Calcutta 1.

Water Supply Specialists Pvt. Ltd., Gujrat Mansions, Mission Row Extn., Calcutta 1.

**WAXPOL INDUSTRIES LTD., THE,** 9, Mitter House, 71, Ganesh Chandra Avenue, Calcutta 13; Manufacturers of Wax Polishes and Cleaner, Metal Polishes, Hydraulic Brake Fluids, Rubbing Compound, N. C. Thinner, Valve grinding Paste, Gasket Cement, Bees Wax of different grades and Foundry Chemicals, etc., Fabricators of Lithographed Tin Containers; Phone: 243131 (2 Lines); Grams: "WAXPOL"; Factories: Calcutta & Ranchi.

Weddel India Pvt. Ltd., 103, Park Street Calcutta 16.

Weights & Measures Syndicate, 76/2, Ichapur Road, Howrah.

Wellman Incandescent India Ltd., 8, Harrington Street, Calcutta 16.

Wesman Engineering Co. Pvt. Ltd., 71, Ganesh Chandra Avenue, Calcutta 13.

West Bengal Safe Deposit Vault Ltd., 5, Clive Row, Calcutta 1.

West End Trading Co. Pvt. Ltd., 91, Netaji Subhas Road, Calcutta 1.

Western India Arc Welding Co. Pvt. Ltd., 3, Esplanade East, Calcutta.

Western India Match Co. Ltd., Wellesley House, 7, Wellesley Place, Calcutta 1.

Western India Theatres Ltd., 136, S. N. Banerjee Road, Calcutta 13.

Western Mechanical Industries P. Ltd., P-36, India Exchange Place, Calcutta 1.

Western Oxy-Acetylene & Electric Welding Co., 233-4, Lower Circular Road, Calcutta 20.

Western Tools & Hardware Co., 89, Netaji Subhas Road, Calcutta 1.

**WESTREX CO.,** (Prop.: Cinerama Pvt. Ltd.); Lighthouse Cinema Bldg., 2, Humayan Place, Calcutta 13.

W. H. Harton & Co. Ltd., 8, Dalhousie Square East, Calcutta 1.

Wharton H. W. & Co. Pvt. Ltd., 17, Brabourne Road, Calcutta 1.

Wheeler A. H. & Co., Pvt. Ltd., 18, Netaji Subhas Road, Calcutta 1.

Wiggins Teape & Alex Pirie (Export) Ltd., 18-A, Brabourne Road, Calcutta 1.

William Jacks & Co. Ltd., 16, Netaji Subhas Road, Calcutta 1.

Williamson Magor & Co. Ltd., 4, Mangoe Lane, Calcutta 1.

**WILLIAMSONS (INDIA) PRIVATE LTD.,** Textile Mill Stores & Machinery Suppliers; 8, Netaji Subhas Road, Calcutta 1; Regd. Office: 10, Veer Nariman Road, Bombay 1: Branches: Ahmedabad & Calcutta.

Wing Hing & Co. Pvt. Ltd., 18, Chandney Chowk Street, Calcutta 13.

Wire Machinery Manufacturing Corpn., 1/A, Vansittart Row, Calcutta 1.

W. Newman & Co. Ltd., 3, Old Court House Street, Calcutta.

Wood Craft Products Ltd., 8, India Exchange Place, Calcutta 1.

Woodcrafts (Assam) Ltd., India Exchange, Calcutta 1.

Worah K. & Co. Ltd., 135, Canning Street, Calcutta 1.

Wren D. & Co., Warley House, 25, Swallow Lane, Calcutta 1.

Wright T. S. & Co. (India) Pvt. Ltd., P-5, Canning Street, Calcutta 1.

W. S. Atkins & Partners (I) Ltd., 2, Fairlie Place, Calcutta 1.

# CLASSIFIED LIST OF TRADES AND PROFESSIONS

## ABRASIVES MANUFACTURERS AND DEALERS

**CARBORUNDUM UNIVERSAL LTD.—Manufacturers of Bonded and Coated Abrasives, Grains and Super Refractories 56-D, Free School Street, P.B. No. 9058, Calcutta 16.**

Grindwell Abrasives P. Ltd.—23, Ganesh Ch. Avenue, Calcutta 13.
International Trading Co. (Engineers).—22, N. Subhas Road, Calcutta 1.

**KRISHNALAL THIRANI & CO. LTD.—'Ilaco' House, 1 & 3, Brabourne Road, Calcutta-1; Manufacturers of 'CAT' and 'RHINOCEROS' Brand Coated & Bonded Abrasives Viz. Sand Paper, Emery Paper, Emery Cloth, Water proof Abrasive Paper, Resin Bonded Silicon Carbide, Garnet and Aloxide Rolls, Belts & Dises; Emery Fillet & Grinding Wheels of all dimensions; Phone: 225407 & 225408, Grams: "THIRANICO".**

National Abrasive Works.—6, Mission Road, Calcutta.
National Engineers & Traders.—12A, N. Subhas Road, Calcutta.

## ACCOUNTING, ADDING, ADDRESSING & STATISTICAL MACHINES, CALCULATORS, DUPLICATORS, ETC.

Adding Machines (India) Pvt. Ltd.—29, Ezra Mansions, 10, Govt. Place East, Calcutta 1.

**BRADMA OF INDIA LTD.—Data Writing Machines and Businesss Systems; 20-B, Park Street, P.O. Box No. 9098, Calcutta; Grams: "BRADMALT", Phone: 235747.**

Burroughs Adding Machine Co.—29, Ezra Mansions, 10, Govt. Place East, Calcutta 1.
Ciciko Office Machines Pvt. Ltd.—300, Bow Bazar Street, Calcutta.
Gestetner Duplicators Ltd., 9-A, Esplanade East, Calcutta 1.
Hollerith (India) Pvt. Ltd.—17, Chittaranjan Avenue, Calcutta 13.
IBM World Trade Corpn.—Mackinnon Mackenzie Building, 16, Strand Road, Calcutta 1.

International Computers & Tabulators (I) P. Ltd., 2 & 3, Clive Row, Calcutta 1.
J. K. Business Machines Ltd.—2, Mangoe Lane, Calcutta 1.
P. N. Ganesan & Sons.—P-35, Royal Exchange Place Extn., Calcutta 1.
Kilburn & Co. P. Ltd.—2, Fairlie Place, Calcutta 1.
Mullick & Co. H. Ltd.—65, Ganesh Ch. Avenue, Calcutta.
National Cash Register Co.—4-D, D. Square East, Calcutta.
Typewriter & Stationery Corpn. P. Ltd.—12-A, N. Subhas Road, Calcutta.

## ACIDS & ALLIED PRODUCTS

**LUCKY ACID & CHEMICAL WORKS.—Manufacturers of Analytical, C.P. & Pure grade Hydrochloric, Sulphuric and Nitric Acids and Chemicals; 32/2, Muraripukur Road, Calcutta-4; Phone: 353147.**

**SHROFF CHEMICALS PRIVATE LTD.—3, Rafi Ahmed Kidwai Road, Calcutta-13.**

## ADHESIVES

**ADHESIVES & ALLIED PRODUCTS.—Manufacturers of all types of industrial Adhesives, 'Thermofix' for Bonding 'Thermocole' and Insulating Boards, 12, Netaji Subhas Road, Calcutta-1; Phone: 224841 & 242429.**

## ADVERTISING & PUBLICITY AGENTS & CONSULTANTS

Advertising Corpn. of India P. Ltd., 1 & 2, Old Court House Corner, Calcutta 1.
Advertising & Sales Promotion Co.—P-35, India Exchange Place, Calcutta.
Aero Advertisers, 22, Canning Street, Calcutta 1.
Ajanta Advertising.—24-B, Park Street, Calcutta 16.
Alpha Advertising Service.—Marble House, 5/2 Garstin Place, Calcutta.
Apollo Advertising Agency.—7A, Lower Circular Road, Calcutta 17.
Associated Advertisers & Printers Ltd.—B-6, Bharat Bhavan, 3, Chittaranjan Avenue, Calcutta 13.

Banas Ltd.—2, Brabourne Road, Calcutta 1.
Bhattacharya Publicity.—64, Colootola Street, Calcutta 1.
Blaze Advertising Service.—16, Theatre Road, Calcutta.
Bomas Ltd.,—2, Brabourne Road, Calcutta 1.
Broadway Publicity of India.—185-1-B, Bowbazar St., Calcutta 12.
Calcutta Advertising Agency, 3, Kedarnath Bhattacharjee Lane, Calcutta 35.
Central Publicity Service.—161/1, Mahatma Gandhi Road, Calcutta 7.
Clarion Advertising Service Pvt. Ltd.—5, Council House Street, Calcutta.

Electrically Lighted Advtg. Pillars P. Ltd.—12-1, Kyd St., Calcutta 16.
Everest Advertising P. Ltd.—24, Park Street, Calcutta 16.
Export Advertising Service.—25A, Chittaranjan Avenue, Calcutta 13.
Ghose & Co.—219, Cornwallis Street, Calcutta 6.

**GRANT ADVERTISING, INC.—16, Theatre Road, Calcutta-16. Phone: 445824; Grams: "GRANTCHI." Advertising Agents & Consultants; R. S. J. Davidson, President, West Asia Division Lance Dane, Manager Offices at Bombay, Madras, Delhi (38 Branches all over the World).**

Ideal Advertising Agency.—54, College Street, Calcutta 12.
India Publicity Co. P. Ltd., 18B, Brabourne Road, Calcutta 1.
Indian Publicity Bureau Pvt. Ltd.—6/2 Madan Street, Calcutta 13.
India-International News Service.—P-14, Kalakar Street, Calcutta-7.
Indus Press & Publicity Ltd., 157B, Dharamtola St., Calcutta 13.
Kalpana Advertising & Public Relations.—"Commercial House", 135, Canning Street, Calcutta.

K. Shaw Sign & Neon Service Pvt. Ltd.—128/45, Cornwallis Street, Calcutta 4.

**LPE-AIYARS PRIVATE LTD.—12, Stephen House, 5, Dalhousie Square East, Calcutta-1; H.O. Bombay; Branches: Delhi, Madras & London.**

National Advertising & Publicity Corporation.—25A, Chittaranjan Avenue, Calcutta 13.

National Advertising Agency, P-360, Keyatolla St., Calcutta.

**NATIONAL ADVERTISING SERVICE PRIVATE LTD.—(Estd.: 1931) 21, Princep Street, Calcutta 13. Phone: 232686, Grams: 'JEYENJEYN' Advertising, Market Research, Public Relations; Head Office: Khorshed Building, Sir P. M. Road, Bombay-1; Branch Office at New Delhi; Associates all over the world. Resident Director: Kailash C. Jain, B.A.**

New India Publicity.—2-B, Scott Lane, Calcutta 9.
Orient Publicity Service.—Commercial Buildings, Block No. 2, Netaji Subhas Road, Calcutta 1.

Paradise Advertising Agency, 4, Sahitya Parishad St., Calcutta 6.
Phoenix Advertising Pvt. Ltd.—1-A, Vansittart Row, Calcutta 1.
Press & Publicity International, The.—Post Box 537, Calcutta-1. (India).

Press & Publicity Syndicate Pvt. Ltd.—53, Radha Bazar Lane, Calcutta.

Press Syndicate Ltd.—10, Govt. Place East, Calcutta.
Progressive Publicity Service.—14, Bentinck Street, Calcutta.
Publicity Forum.—P-6, Mission Row Extension, Calcutta.
Publicity Society of India Ltd.—1, Waterloo Street, Calcutta 1.
Publishers & Publicity Ltd.—17, Mangoe Lane, Calcutta 1.
Radiant Display (I.) P. Ltd.—29, Waterloo Street, Calcutta 1.
Selvel Syndicate (Calcutta).—83, Theatre Road, Calcutta 17.
Universal Publicity Co., 89, Bechu Chatterjee St., Calcutta 9.
Western Publicity Service.—142, Rashbehari Avenue, Calcutta-29.

## AERATED WATER

Bathgate & Co.—17, 18, 19, Old Court House Street, Calcutta.
Byron & Co.—5, Chowringhee Place, Calcutta.
Calcutta Cold Storage Ltd.—D/1, Hide Road, Kidderpore, Howrah.
Campbells Minerals Co. Ltd.—6-1, Sudder Street, Calcutta 16.
Carlsbad Mineral Water Mfg. Co. P. Ltd.—14, Watkins Lane, Howrah.
Club Mineral Water Co.—14, Watkins Road, Howrah.
Cotton & Co.—18, British Indian Street, Calcutta 1.
Crystal Ice Co.—50, Tangra Road, Entally, Calcutta 15.
Hind Ice & Cold Storage Ltd.—23 and 24/1, Canal West Road, Calcutta 4.

Hindustan Gas Co. Ltd.—22, New Tangra Road, Calcutta.
Hindustan Ice & Cold Storage Co., Ltd.—3, Gas Street, Amherst Street, Calcutta.

India Ice, Aerated Water & Cold Storage Co., Ltd.—20-21, Stephen House, Dalhousie Sq., Calcutta.

Magnolia Soda Fountain P. Ltd.—16/3, Chowringhee, Calcutta 13.
Pure Drinks (Calcutta) Ltd.—209, Karnani Estate, Lower Circular Road, Calcutta 17.
Rose & Thistle.—16, Sandel Street, Calcutta 16.

**SPENCER AERATED WATER FACTORY PRIVATE LTD.—87, Dr. Suresh Sarkar Road, Entally P.O., Calcutta 14.**

## AGRICULTURAL MACHINERY AND IMPLEMENTS MANUFACTURERS & DEALERS

Agricultural Machinery Mfg. Corpn. Ltd.—Bosepara Lane, Calcutta.
Agricultural Machinery Mfg. Corporation Ltd., 12B, Lower Chitpur Road, Calcutta.

Agrind Fabrication Ltd.—P/2/2, Taratola Road, Paharpur, Calcutta
Anand Metal & Steel Works.—137, Canning Street, Calcutta 1.

Arthur Butler & Co. (Muzzafarpur) Ltd.—11, Brabourne Road, Calcutta.
Arvind Brothers P. Ltd.—4, Saklat Place, Calcutta 13.
Associated Aesby Industries Ltd.—22, Strand Road, Calcutta.
Associated Exports Imports Corpn.—8B, Lall Bazar St., Calcutta 1.
Azamgarh Agrico Industries.—135, Canning Street, Calcutta.
Bengal Iro & Steel Works.—8, Canning Street, Calcutta.
Bengal Iron Works P. Ltd.—16-2, Chatterjee Lane, Howrah.
Bharat Industries & Commercial Corpn., Tower House, Chowringhee Square, Calcutta 1.
Carl Ohmes & Co. (I) P. Ltd.—28, Waterloo Street, Calcutta 1.
Components and Machinery Corporation.—9/12, Lall Bazar Street, Calcutta 1.
Cosmopolite Engineering Works Ltd.—21, Mahendra Goswami Lane, Calcutta.
Dass, K. C. & Sons.—74-3, Harish Chatterjee St., Calcutta 25.
D. C. De & Sons.—150, Narasingha Dutta Road, Howrah.
East India Engg. & Agency Co.—63-1, Benaras, Road, Howrah.
Ganges Galvanising Works (I) Pvt. Ltd.—14 & 14-1, Kissen Dayal Jalan Road, Salkia.
Gobindo Sheet Metal Works & Foundry.—210, Harrison Road, Calcutta 7.
Gopal & Kumar.—14, Netaji Subhas Road, Calcutta 1.
Guchait, S. P. & Sons Ltd.—2, Madhusudan Paul Chowdhury Lane, Howrah.
Hind Enterprises.—4, Mission Row, Calcutta 1.
Hindustan Engineering Works.—35, Beadon Row, Calcutta 6.
Howrah Foundry Works Pvt Ltd.—53-3, Ashu Bose Lane, off Belilios Road, Howrah.
Howrah Iron & Steel Works Pvt. Ltd.—90, Benaras Road, Salkia.
Industrial & Agricultural Engg. Co. (Calcutta) P. Ltd.—8, Mission Row, Calcutta 1.
J. N. Puri.—206, Belilios Road, Howrah.
K. C. Dass.—32, Natabar Paul Road, Howrah.
Larsen & Toubro Ltd.—41, Chowringhee Road, Calcutta 16.
Luxmi Engg. Co. Pvt. Ltd.—123, Narasingha Dutt Road, Howrah.
Marshall Sons & Co. (India) Ltd.—33/1, Netaji Subhas Road, Calcutta 1.
Maya Galvanizing Works.—9, Upper Chitpur Road, Calcutta 7.
Metal Craft (India) Ltd.—96, Garden Reach Road, Calcutta 23.
Parts Service India Ltd.—30, Chittaranjan Avenue, Calcutta 12.
Parveen & Co.—138, Canning Street, Calcutta.
Roger Engineering Works.—10, Clive Row, Calcutta 1.
Tractors (India) Ltd.—1, Taratolla Road, Garden Reach, Calcutta 24.
Tractors Spares P. Ltd.—2, Royal Exchange Place, Calcutta 1.
United Provinces Commercial Corporation.—6, Ganesh Chandra Avenue, Calcutta 13.
Voltas Limited.—8, Netaji Subhas Road, Calcutta.
William Jacks & Co. Ltd.—16, Netaji Subhas Road, Calcutta 1.

## AIR CONDITIONING & REFRIGERATION

Air Conditioning Corpn. Pvt. Ltd.—E-2, Clive Bldgs., Netaji Subhas Road, Calcutta.
Air Equipment Works.—44/12, Barrackpore Trunk Road, Calcutta 36.
Alliance Trading Co.—15-A, Clive Row, Calcutta.

**AMERICAN AIRCONDITIONING EQUIPMENT CO.—40-A, Free School Street, Calcutta-16; Phone: 242267; REFRIGITEMP ' Deluxe Air Conditioners, Water Coolers, Display Cases, Ice Cream Cabinets etc., Also Sheet Metal Work.**

American Refrigerator Co.—12/D, Park Street, Calcutta.
Arya Refrigeration & Air Conditioning Co.—36, J.K. Paul Road, Calcutta 36.
Blue Star Engineering Co. Ltd.—7, Hare Street, Calcutta 1.
C. C. Saha Ltd.—45, Moti Sil Street, Calcutta 13.
Calcutta Refrigerators Corpn.—4, Harington Street, Calcutta 16.
Century Components Co.—44/A, Wellesley Street, Opp. Lucas, Calcutta 16.
Century Refrigeration Co.—A/2-C, Kyd Street, Calcutta 16.
Corporated Engineers (India) Ltd.—2/1, Chetla Road, Tollygunge, Calcutta.
Cumberland & Martin Pvt. Ltd.—1A, Elgin Road, Calcutta 20.
Eastern Electric & Trading Co.—31, Chowringhee Road, Calcutta.
Electrolux Refrigerators.—19/C, British Indian St., Calcutta 1.
Fedders Lloyds Sales Corporation.—4A, Kyd Street, Calcutta 16.
Hatim & Co.—P-39, Mission Row Extension, Calcutta 13.
Himalux P. Ltd.—2-A, Theatre Road, Calcutta 16.
Hindustan Refrigerations Ltd.—9, Ezra Street, Calcutta.
Hindustan Refrigeration Co.—86/7, Wellesley St., Calcutta.
International Refrigeration Engineering Co.—5/2, Ripon Street; Calcutta.
International Refrigerators Ltd.—87, Lower Circular Road, Calcutta 16.
Jaybee & Brothers.—138, Canning Street, Calcutta.
Keymer Bagshawe & Co. Ltd.—22, Strand Road, Calcutta 1.

**KALINGA INDUSTRIES LTD.—33, Chittaranjan Avenue, Calcutta 12. Phone: 233456 (4 Lines). Grams: "KALMETAL" (o).**

Khandelwal Refrigeration Corporation Ltd.—33, Netaji Subhas Road, Calcutta 1.
Mahamaya Refrigerators Co.—88/3, S. N. Banerjee Road, Calcutta.
Middleton Engineering Co.—12-E, Park St., Calcutta 16.
Mohanty & Bros.—16, Golap Sastry Lane, Calcutta 14.
National Refrigerators Pvt. Ltd.—30-A, Chowringhee, Calcutta 16.

**NATIONAL REFRIGERATORS & ELECTRICAL WORKS.—Manufacturers, Designers of Air-Conditioners, Deep-Freeze, Bottle Cooler, Water Cooler and Cold Storage Machine; Head Office: 2/2, Harington Street, Calcutta-16; Phone: 444132: Factory: 162/126, Prince Anwarsha Road, Calcutta-33, Phone :462609; Show Room: 2/2A, Harington Street, Calcutta-16, Phone: 445166.**

N. B. Sen & Brothers.—11, Esplanade East, Calcutta 13.
New India Mercantile Co. Pvt. Ltd.—8, India Exchange Place, Calcutta 1.
Oriental Refrigeration Corporation.—17-C, Indian Mirror Street, Calcutta 16.
Paramount Refrigeration Ltd.—2, Middleton Row, Calcutta.
Rahvec & Co., Ltd.—26/1/1, Deodar Street, Calcutta 19.
R. L. Doiui & Sons.—10, Clive Row, Calcutta 1.
Refrige Private Ltd.—58C, Chowringhee Road, Calcutta 16.
Refrigeration Accessories Pvt. Ltd.—60, Dharamtalla Street, Calcutta 1.
Refrigeration Equipment Ltd.—70, Diamond Harbour Road, Calcutta 23.
Refrigerators (I) Pvt. Ltd.—59C, Park Street, Calcutta 16.
Sanitary Refrigeration Corporation.—A/2-C, Kyd Street, Calcutta 16.
SF Products India Ltd.—2-A, St. Georges Terrace (Hastings), Calcutta-22.
Sur Industries Pvt. Ltd.—163, Lower Circular Road, Calcutta 14.
Surfrige Service Refrigerators India P. Ltd., 4/1, Bhawanipore Road, Calcutta.

**UNIVERSAL REFRIGERATION CORP. PVT LTD.—47, Southern Avenue, Calcutta 29. Refrigeration & Air Conditioning Engineers and Manufacturers of Cold Storage & Air Conditioning Plants.**

Voltas Ltd.—8, Netaji Subhas Road, Calcutta.

## ALUMINIUM & ALUMINIUM PRODUCTS MANUFACTURERS & DEALERS

A. G. Bros. & Co.—2, Neogipara Road, Calcutta 36.
Almetal Equipment Works Private Ltd.—57, Diamond Harbour Road, Calcutta 23.
Aluminium Cables & Conductors (U.P.) P. Ltd.—47, Hyde Road Extn., Calcutta 27.
Aluminium Corporation of India Ltd.—7, Council House Street, Calcutta 1.
Aluminium Hindustan P. Ltd.—2, Jessore Road, Calcutta 28.
Aluminium Industries P. Ltd., 5, Clive Ghat Street, Calcutta.

**ALUMINIUM MANUFACTURING CO. PRIVATE LTD., THE.—Head Office & Works: 2, Jessore Road, Dum Dum, Calcutta-28; Phone: 572051, 572052 & 572053; Specialists in Aluminium Sheet Metal Fabricators, Argon Arc and Oxy-Acetylene Welders; Aluminium Founders, Sand, Gravity and Pressure Die Castings, Press Work, Tanks, Containers, Trays, Windows, Ladders-Single section and Extension Type, Anodisers Suppliers to Government and Railways, Automobile chemical, Electrical, Textile Industries, Fisheries and Tea and Rubber Plantations.**

Aluminium Production Co. of India Ltd.—31, Chowringhee Road, Calcutta.
Ashok Company.—157, Netaji Subhas Road, Calcutta 1.
Bengal Aluminium Stores P. Ltd.—55/14, Canning St., Calcutta.
Gautam Brothers.—157, N. Subhas Road, Calcutta 1.
Hindustan Aluminium Corporation Ltd.—Calcutta.
Indian Aluminium Co. Ltd.—31, Chowringhee, Calcutta 16.
India Aluminium Products.—P-11, Howrah Bridge Approach Road, Calcutta 1.

**JEEWANLAL (1929) LTD.—Manufacturers of ' Crown ' Brand Aluminium wares, Utensils and Anodised Products; Suppliers of Aluminium in all forms for Industrial uses; Crown Aluminium Houses, 23, Brabourne Road, Calcutta-1; Phone: 227657 (3 lines), Grams: " CROWNALUCO ".**

Luxmi Metal Works.—40/A, Armenian St., Calcutta.
Patod Industries P. Ltd.—109/A, Canning Street, Calcutta 1.
Pressed Steel Co. Private Ltd.—32, Cossipore Road, Calcutta-2.
Progressive Aluminium Trading Organisation.—10, The Mall (Road), Dum Dum, Calcutta 28.

## ARMATURE WINDING WIRES & STRIPS

**HINDUSTAN WIRE PRODUCTS LTD.—14, Netaji Subhas Road, Calcutta; Manufacturers of Super Enamalled & Cotton Covered Copper Wires, Factory: Factory Area, Patiala (Punjab); Bombay Office: Sardar Griha Bldg., Carnac Road, Bombay-3; New Delhi Office: 1774, Vishnu Bhavan, Bhagirath Place, Chandni Chowk, Delhi-6.**

## ANALYSTS

**ITALAB PRIVATE LTD.—Mercantile Bldg., 10, Lal Bazar, Calcutta. Assayers, Samplers, Surveyors, Geologists, Consultants and Public Analysts ; Head Office : 15, Cawasji Patel Street, Bombay-1 ; Phones : 253882/83 ; Grams : "ITALABO "; Chain of Laboratories at Madras, Visakhapatnam and Kandla.**

## ANODISING

**INDIA EXPORT ENTERPRISES.—Post Box No. 540, 138, Canning Street, Calcutta; Manufacturers and Anodisers of Aluminium Wares, Exporters of Engineering goods such as Cast Iron goods, Steel Furniture, Shovels, Rice and Flour mills etc. and Importers and Dealers in Ball Roller and Taper Bearings and order Suppliers.**

## ARC WELDING EQUIPMENT & ELECTRODES

**GUEST, KEEN, WILLIAMS, LTD., Head Office : 41, Chowringhee Road, Calcutta 16; Works : Andule Road, Howrah.**

## AROMATIC CHEMICAL MFRS. & DEALERS

Aceto Chemicals Private Ltd.—22, Brabourne Road, Calcutta-1.
Anand & Co.—34-A, Brabourne Road, Calcutta.
B. C. Patel & Co.—44/45, Ezra Street, Calcutta.
Bipradas Dutt.—7, Swallow Lane, Calcutta.
Calcutta Essence Supply Co.—44/45, Ezra Street, Calcutta.
Dass & Sons.—18/1, Ezra Street. Calcutta.
D. Jayantilal & Co.—8/2, Rupchand Rai Street, Calcutta.

**DRUG & PERFUMERY HOUSE.—4, Colootola Street, Calcutta 1. Perfumery, Essential Oils and Aromatic Chemicals.**

F. N. Sirkar.—37, Canning Street, Calcutta.
Ghose Bros. (Perfumers).—50. Ezra Street. Calcutta.
Hind Perfumers Pvt. Ltd.—54, Ezra Street, Calcutta.
Hindustan Chemical & Industrial Corpn.—22, Brabourne Road, Calcutta.
Hindusthan Perfumers.—18. Ezra Street, Calcutta.
Kaisers Trading Co.—159, Lower Chitpur Road, Calcutta.
Kamal Mercantile Corpn.—1, Mangoe Lane, Calcutta.
K. H. Dhamdhere.—44/45, Ezra Street, Calcutta.
Khater Chemical Co.—5, Lucas Lane, Calcutta.
Lakshmi Bottle Stores.—17, Ezra Street, Calcutta.
M. J. Patel.—84, Dharamtolla Street, Block C.R. 19, Calcutta.
Makhulal Ayodhya Prasad.—4-B, Machua Bazar Street, Calcutta.
Moolraj & Co.—33, Brabourne Road, Calcutta.
National Perfumery House.—45/46, Ezra Street, Calcutta.
Neshat Perfumery House.—21, Parsi Church Street, Calcutta.
Oswal Co.—14/2, Old China Bazar Street, Calcutta.
O. T. Kader Basha Sahib.—17, Ezra Street, Calcutta.
Paradise Perfumery House.—6/2, Colootola Street, Calcutta 1.
Paul & Son.—18, Ezra Street, Calcutta.
Plummer Bros. & Co.—5 & 6. Fancy Lane, Calcutta.
Pt. Debi Pershad Prayag Dutt.—89, Lower Chitpur Road, Calcutta.
S. D. Bose.—63, Radha Bazar Street, Calcutta.
Sikri & Sons Pvt. Ltd.—55/8, Canning Street, Calcutta.
Sikri & Grover.—Sikri House, Ezra Street, Calcutta.
Shroff Perfumery Co.—47, Ezra Street, Calcutta.
S. Khushalchand & Co.—167, Old China Bazar Street, Calcutta.
S. N. Jhunjhunwalla.—Sikri House, Ezra Street, Calcutta.
Sohanlal Mohanlal.—5, Lucas Lane, Calcutta.
Synoflor Co. (Cal.).—21, Parsi Church Street, Calcutta.
United Trade Agency (Cal.).—39, Armenian Street, Calcutta.

## ASBESTOS

A. H. Trading Co., 21A, Eden Hospital Road, Calcutta 12.
Asbestos Products Co., 71-A, N. Subhas Road, Calcutta.

**ASBESTOS MAGNESIA & FRICTION MATERIALS LTD.—(Incorporated with limited liability in England); A member of the "Turner & Newall" Group. Calcutta Sales Office : 7, Hastings Street, Calcutta; Phone : 232012. Grams : "ASMAFRIC." Bombay Office : Bombay Agra Road, Ghatkopar, Bombay 77; Phone : 51491. Gram : "ASMAFRIC." Sales Offices at Madras & New Delhi.**

**BELL'S ASBESTOS & ENGINEERING (INDIA) PRIVATE LTD.—24, Chittaranjan Avenue, Calcutta-12; Specialists in Applied Asbestos; Principal Stockists for 'Ferodo' Industrial Brake Lining; Phone : 233756 (4 Lines); Bombay Branch : Khanna Construction House, 44, Abdul Gaffar Road, Worli Bombay-18.**

Buher's Asbestos P. Ltd., 12, N. Subhas Road, Calcutta.
D. Saraf & Sons, 24, Strand Road, Calcutta 1.

**HINDUSTAN FERODO LTD.—A member of the "Turner & Newall" group. Calcutta Sales Office : 7, Hastings Street Calcutta. Phone : 232012; Grams : "FERODOSTAN." Head Office & Factory : Bombay-Agra Road, Ghatkopar, Bombay 77; Phone : 51491. Grams : "FERODOSTAN." Sales Offices : Madras & New Delhi; Manufacturers of "Firefly" Asbestos Textiles, Compressed Asbestos Fibre jointings & "Limpet" Asbestos Sheets.**

Indian Asbestos Insulation Co., 28, Strand Road, Calcutta 1.
J. D. Jones & Co. Ltd. (Estd. 1893).—C/5, Gillander House, 8, Netaji Subhas Road, Calcutta-1.
National Stores, 263, Bowbazar St., Calcutta.
National Syndicate, 7, Hare Street, Calcutta.

## AUCTIONEERS

**DHARAM PAL CHADHA & SONS.—H.O. 3, Madan Street, Calcutta 13; Phone : 23-5318; Branch Office : F. 20, Shankar Market, Connaught Circus, New Delhi; Phone : 47200.**

## AUTOMOBILES & AUTOMOBILE PARTS & ACCESSORIES DEALERS

Advance Auto Agency.—7, Sooterkin Street, Calcutta 13.
A. K. Motor Accessories.—120, Dharamtolla Street, Calcutta 13.
Aeicorp P. Ltd.—Block E, Mercantile Bldgs., 10, Lallbazar Street, Calcutta 1.
Agency Services P. Ltd.—10/1, Prinsep Street, Calcutta 13.
A. K. Sinha.—15, Kent House, P-33, Mission Row Extn., Calcutta 13.
Anand Motors.—24, Mangoe Lane, Calcutta 1.
Allied Auto Accessories P. Ltd.—9, Prinsep Street, Calcutta 13.
Alpha Battery Corporation, 80, Acharya Jagdish Bose Road, Calcutta 14.
Anglo American Autos Ltd.—13, Ganesh Ch. Avenue, Calcutta.
Anglo American Auto P. Ltd.—16, Pannalal Bysack Lane, Calcutta.
A. R. Mukherji & Co.—P-74, Bentinck Street, Calcutta 1.
A. Surrender & Co.—Post Box 2623, Calcutta 17.

**ASBESTOS, MAGNESIA & FRICTION MATERIALS LTD.—(Incorporated with limited liability in England); A member of the "Turner & Newall" Group. Calcutta Sales Office : 7, Hastings Street, Calcutta; Phone : 232012; Grams : "ASMAFRIC." Bombay Office : Bombay Agra Road, Ghatkopar, Bombay 77; Phone : 51491; Grams : "ASMAFRIC." Sales Offices at Madras and New Delhi.**

Ashok Motors.—2, Metcalfe Lane, Calcutta 13.
Associated Accessories P. Ltd.—20, Mangoe Lane, Calcutta 1.
Associated Cycle & Motor Agencies.—10, British Indian St., Calcutta1.
Associated Indian Enterprises Pvt. Ltd.—206, Lower Circular Road, Calcutta 17.
Austin Distributors Pvt. Ltd.—19, Chowringhee Road, Calcutta 13.
Auto Distributors Pvt. Ltd.—36, Chowringhee Road, Calcutta.
Auto Friends P. Ltd.—P-74, Bentinck Street, Calcutta 1.
Auto Parts Co.—35, Metcalfe Lane, Calcutta 13.
Automotive Corporation.—9, Princep Street, Calcutta 13.
Auto Sales Corporation.—10, Bentinck Street, Calcutta 13.
Automotive Rubber Co.—5, Sooterkin Street, Calcutta 13.
Auto Traders.—17, Mangoe Lane, Calcutta.
Autocar Industries of India.—1, Gariahat Road, Calcutta.
Avenue Motors Ltd.—42B, Chetla Road, Alipore, Calcutta 27.
Azad Automobiles.—14, Bentinck Street, Calcutta.
Automotive Agencies P. Ltd.—14, Bentinck Street, Calcutta.
Automotive Manufacturer's Agencies.—57/B, Chittaranjan Avenue, Calcutta-12.

**AUTOMOTIVE RUBBER CO.—Manufacturers of 'BHARAT' Brand Automobile Rubber goods, 'TIGER' Brand straight and Bent Houses and 'METALFOLDS' Brand Motor Vehicle Parts; 5, Sooterkin Street, Calcutta-13; Phone : 234416.**

Bagla Motors.—7, Old P.O. Street, Calcutta 1.
Bengal Auto Distributors.—25-B, Park Street, Calcutta 16.
Bengal Automobiles.—10, British Indian Street, Calcutta.
Bharat Industries & Commercial Corporation.—Tower House, Chowringhee Square, Calcutta-1.
Bharat Commercial Enterprises.—26, Chittaranjan Avenue, Calcutta 12.
Bharat Motors, P-29, Mission Row Extension, Calcutta 13.
Bhawanipore Motor Accessories Agency.—10C, A. M. Road, Calcutta 20.
B. R. Motors.—P-50, Princep Street, Calcutta 13.
Calcutta Motor Parts and Accessories Co. Ltd., 19, Jatin Mohan Lane, Calcutta.
Central Motor Parts & Accessories Co. Pvt. Ltd.—20, Mangoe Lane, Calcutta 1.
Calcutta Motor Works.—54, Bentinck Street, Calcutta 1.
Carbrush Engineering Co.—190, Maharshi Debendra Road, Calcutta 6.
Central Motor Parts & Accessories Co. P. Ltd.—20, Mangoe Lane, Calcutta 1.
Continental Distributing Co.—P-12, Mission Row Extension, Calcutta 1.
Creet Automobiles.—30, Circus Avenue, Calcutta.
Cycle and Automobile Components P. Ltd.—21, Rajendra Nath Mukherjee Road, Calcutta 1.
Dewar's Garage (I) P. Ltd.—4, Council House Street, Calcutta 1.

Dominion Distributors Private Ltd.—7, British Indian Street, Calcutta 1.
East India Automobiles.—P-24, Mission Row Extension, Calcutta 13.
East and West Agencies.—36, Ezra Street, Calcutta.
Eastern Auto Parts Co. (Calcutta) Ltd.—55, Bentinck St., Calcutta 1.
Eastern Motors P. Ltd.—57, Ganesh Ch. Avenue, Calcutta.
Evergreen Auto Agency.—2, Metcalfe Lane, Calcutta 13.
Elgin Motors P. Ltd.—9/2, A. M. Road, Calcutta.
French Motor Car Co. Ltd.—234/3, Lower Circular Road, Calcutta 20.

**HINDUSTAN AUTO DISTRIBUTORS.—For Bedford Petrol & Diesel Chassis, Hindustan Ambassador Cars and Spare Parts; Showroom: 17, Government Place East, Calcutta-1; Phones: 236424, 232754-4; Workshop: 62, Hazra Road, Calcutta-19; Phone: 471717.**

Hindustan Auto Suppliers.—P-50, Princep Street, Calcutta 13.

**HINDUSTAN FERODO LTD.—A member of the "Turner & Newall" Group. Calcutta Sales Office: 7, Hastings Street, Calcutta; Phone: 232012; Grams: "FERODOSTAN"; Head Office and Factory: Bombay-Agra Road, Ghatkopar, Bombay 77; Phone: 51491; Grams: "FERODOSTAN"; Sales Offices: Madras & New Delhi; Manufacturers of "FERODO" Brake and Clutch Linings.**

Hindustan Motors Ltd.—8, India Exchange Place, Calcutta.
Hindustan National Motor & Accessories Co.—181/7, U.C. Road, Calcutta.

**HINDUSTAN SALES AGENCY.—Authorised Stockists of 'Tata-Mercedes-Benz' Spare Parts and Specialise and Stock Complete range of Fiat Car Parts; P. 29, Mission Row Extension, Calcutta-1; Phones: 234910 & 239447.**

Hompaco P. Ltd.—9, Mangoe Lane, Calcutta 1.
Howrah Motor Car Co. P. Ltd.—Mission Row Extn., Calcutta.
Howrah Motor Accessories Agency Ltd.—3-1, Mangoe Lane, Calcutta 1.
Ideal Engineering Works.—10, British Indian Street, Calcutta 1.

**INDIA AUTO PARTS.—P-34, Mission Row Extension, Calcutta 13; Specialists in Tata-Mercedes-Benz & Leyland Parts.**

Indo British Motor Industries.—565, D. H. Road, Calcutta.
Indra Motors P. Ltd.—57, D. H. Road, Calcutta.
International Automobiles.—10, British Indian Street, Calcutta.
International Tyres and Motors P. Ltd.—2, Rowland Road, Calcutta 20.
Jaidka Motor Co. Ltd.—129, Park Street, Calcutta 16.
Jai Hind Motor Stores.—42, Kali Krishna Tagore Street, Calcutta 7.
Jay Jay Automobiles Co.—20, Mangoe Lane, Calcutta.
Jyoti Motor Stores.—P-38, Mission Row Extension, Calcutta 1.
Kaybee & Co.—13, Brabourne Road, Calcutta 1.
K. G. Industries & Motor Parts Co.—6/1-A, British Indian Street, Calcutta 1.
Khalsa Automobiles.—15, Russa Road, Kalighat, Calcutta 26.
Laxmi Automobiles.—P. 62/1, Bentinck St., Calcutta 1.
London Automobiles.—17, Princep Street, Calcutta 13.
Lucas Indian Service Ltd.—46, Wellesley Street, Calcutta 16.
Madan Automobiles.—27–1, Waterloo Street, Calcutta 1.
Mohan Automobiles.—24, Mangoe Lane, Calcutta 1.
Motolite Ltd.—111/1, B. T. Road, Calcutta 35.
Motor Fuel Stores P. Ltd.—17, Beadon Street, Calcutta 6.

**MOTOR INDUSTRIES CO. LTD.—Manufacturers of Mico-Licence-Bosch Diesel Fuel Injection Equipment & Spark Plugs; Distributors of Bosch Automobile Parts & Accessories; 91-A, Park Street, Calcutta-16; Phone: 44-6831, Grams: "MICODIESEL", Calcutta; Head Office: Post Box No. 93, Bangalore; Branches: 41, Queen's Road, Bombay-2 and 1/155, Mount Road, Madras-2.**

**NATIONAL AUTOMOBILES.—3, Princep Street, Calcutta-13; Importers of Auto Parts & Accessories; Distributors—SKF & NBC Bearings, FINOLEX Auto Cables, SJR Ignition Products, KEW Service Parts, PIONEER OIL Seal, ASVEE Sealed Beam. Phones: 23-2933/6539/8805. Grams: "NATION-AUTO."**

New Indo Trading Co.—3, Mangoe Lane, Calcutta 1.
Northern Automobiles.—182/C, U. C. Road, Calcutta.
Nundy Automobiles.—19, Chittaranjan Avenue, Calcutta 13.
Oriental Automobile Stores.—16-A, Ashutosh Mukherjee Road, Calcutta 20.
Oriental Motor Accessories Agency Ltd.—12, Waterloo Street, Calcutta 1.
Overseas Manufacturers Sales Co.—Post Box 576, Calcutta 1.
Pacific Automobiles.—13-3, Chittaranjan Avenue, Calcutta.
Parkside Motors Ltd.—34, Ritchie Road, Calcutta.
P. K. Industries—P-16, Kalakar Street, Calcutta 7.
P. G. R. Mechanical Manufacturers P. Ltd.—77/2, Dharamtolla Street, Calcutta 13.
P. G. Radiators—3B, Short Street, Calcutta 16.
Pioneer Automobile Co.—P. 39, Princep Street, Calcutta.
Pioneer Motors of India Ltd.—5-A, Clive Ghat Street, Calcutta 1.
Poddar Automobiles.—209, Lower Circular Road, Calcutta 17.
Primus India.—69, Hazra Road, Calcutta 19.
Princep Motors.—13-B, Chittaranjan Avenue, Calcutta 13.
Radiant Auto Agencies.—7, Sooterkin Street, Calcutta 13.
R. B. S. Rubber Mills Ltd.—3, Bentinck Street, Calcutta 1.
Republican Automobiles.—14, Bentinck Street, Calcutta.
Russell Auto Supply Co.—Galastaun Mansions, Park St., Calcutta 16.

**S. P. SINGH & CO.—Manufacturers of High Pressure Steel Diesel Fuel Lines and Brake Pipes for all makes of Diesel Engines including Bedford, Leyland, Perkins, Tata-Benz Trucks; 62, Ganesh Chandra Avenue, Calcutta-13; Phones: 242615 & 244975.**

Sabharwal Brothers.—21, Princep Street, Calcutta 13.
Safaf Motor Co.—35, Chittaranjan Avenue, Calcutta 12.
Sawalka Metal Products.—90, Muktaram Babu Street, Calcutta 7.
Shree Pawan Kumar Co. Ltd.—19, Mangoe Lane, Calcutta 1.
Shah (I) P. Ltd.—P-50, Princep Street, Calcutta 13.
S. P. Manufacturing Co.—22, Brabourne Road, Calcutta 1.
Shishir Industries.—157-A, Dharamtolla Street, Calcutta 13.
Sovereign Automobiles.—55, Bentinck Street, Calcutta 1.

**TECALEMIT (HIND) LTD.—Filter Replacement Elements, Grease Guns, Fuel & Oil Flexible delivery Lines, Brake holes for all classes of Vehicles, tractors, Earthmoving Equipment etc., 8 & 12, C.R. Avenue, Calcutta 13; Phones: 236681, 236682 & 236683.**

Tracto Technic Corporation.—P-33, Mission Row Extension, Calcutta 13.
United Automobiles P. Ltd.—20, Mangoe Lane, Calcutta 1.

**USHA AUTOMOBILE & ENGINEERING PRIVATE LTD.—14, Princep Street, Calcutta 13.**

Walford Transport Ltd.—71, Park Street, Calcutta.

## BALL & ROLLER BEARINGS

**AMBICA MILL STORES.—Inporters and Stockists of Ball, Roller & Taper Roller Bearings; (R. & M., 'SKF', 'FAG', 'RIV', 'USSR', etc. Make): Manufacturers—Guaranteed SKF Standard 'AMS'—Adapter & withdrawal Sleeves.**
**PARSONS CO.—18, Netaji Subhas Road, Calcutta 1.**

Ashoka Industrial Corporation.—138, Canning Street, Calcutta 1.
Auto Bearing Agency (India).—16, Mangoe Lane, Calcutta 1.
Associated Bearing Co.—20, Netaji Subhas Road, Calcutta 1.
Ball Bearing and Engineering Co.—52, Netaji Subhas Road, Calcutta.
Ball Bearing & Machinery Corporation.—33, Brabourne Road, Calcutta-1.

**BALLMANN TRADING CO., THE.—Importers and Stockists of Ball, Roller, Taper, Thrust & Pedestal Bearings; 138, Canning Street, Post Box No. 963, Calcutta-1; Phones: 229791, 229792 & 229793.**

Bearing Service Co.—10, Canning Street, Calcutta 1.
Bearing Supply and Engineering Co.—138, Canning Street, Calcutta 1.
Bosco.—36, Strand Road, Calcutta 1.

**CENTRAL TRADING CO., THE.—Importers and Specialists of all kinds of Ball, Roller, Taper Roller Bearings and allied items; Sole Distributors for 'RIV' Bearings throughout India; 137, Canning Street, Calcutta-1; Phones: 225838, 225839 & 221175.**

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.—9-29, Mission Row Extension, Calcutta 13; Phones: 2321-14, 238877 & 239769; Grams: "EASTASIA", P.O. Box 364; E-2, Gillander House, Netaji Subhas Road, Calcutta. Phone: 226006; Manufacturers, Importers, Exporters and Engineers.**

Eastern Importers Syndicate.—10, Canning Street, Calcutta 1.
Gajanand Lachhminarayan.—47. Netaji Subhas Road, Calcutta.
General Ball Bearing Co.—133, Canning Street, Ciacutta.
Hariram Hariprasad Shaw.—81, Machuva Bazar Street, Calcutta 12.
Hindustan Ball Bearing Corporation.—137, Canning Street, Calcutta 1.
India Bearing and Mill Stores.—18/A, Sukeas Lane, Calcutta 1.

**INDIA BEARING CORPORATION.—P-25, Princep Street, Calcutta 13.**

Indian Stores Supplying Co.—137, Canning Street, Calcutta 1.

**INDUSTRIAL MILL STORES.—Importers and Stockists of all types of Ball, Roller, Taper and Thrust Bearings, Plummer, Blocks, Shaftings, Pulleys, 'Cooper' Split Roller Bearings & Steel Balls; 40, Netaji Subhas Road, Calcutta-1; Phone: 221785.**

Joosub Peermahomed & Co.—44, Ezra Street, Calcutta 1.
J. R. Co.—Khemka House, 4, Bhawani Dutt Lane, Calcutta 7.
Lucky Machinery Stores (India).—G.P.O. Box No. 2691, Calcutta 1.
M. L. Shaw & Sons.—F. I. College Street Market, Calcutta 12.

**MCLEOD & CO., LTD.—Sole Distributors for Ransome & Marles Bearing Co. Ltd., 3, Netaji Subhas Road, Calcutta-1; Phone: 239161 (15 Lines).**

**MILL STORES & BEARING CO.—Stockists of 'Hofman' R & M, 'Fag', 'Steyr', 'Nbc' and 'ABC' Bearings and Indenting Agents for 'Steyr', 'INA' and 'Baltze' Bearings, 10, Canning Street, Calcutta-1; Phones: 220631 & 220632.**

Mohammed, A. & Co.—26, Netaji Subhas Road, Calcutta.
National Engineering Industries Ltd.—India Exchange, Calcutta 1.
Nundlall Inderchand Pvt. Ltd.—10, Canning Street, Calcutta. 1.
Overseas Industrial Accessories.—38, Netaji Subhas Road, Calcutta.
Parveen & Co.—138, Canning Street, Calcutta 1.
Popatlal Ghelabhai & Co.—P-7, Old China Bazar Street, Calcutta 1.

**PRABHAT MILL STORES CO.—Importers and Stockists of Ball, Roller Bearings of all types and sizes, Cooper Split Roller Bearings, Plummer Blocks, Conpings etc., 138, Canning Street, Calcutta-1; Phones: 229379 & 220762 (Sales Depot), 347129 (Resi.).**

S. D. Sharma & Co.—20, Netaji Subhas Road, Calcutta 1.
Shree Girdharilal & Co.—89, Netaji Subhas Road, Calcutta 1.
SKF Ball Bearing Co. Pvt. Ltd.—11, Rajendra Nath Mukherji Road, Calcutta 1.
Soni Jain P. Ltd.—38, Netaji Subhas Road, Calcutta 1.
Taparia & Co.—137, Canning Street, Calcutta 1.

**UNITED SUPPLY AGENCY PRIVATE LTD.—38, Strand Road, Box 865, Calcutta-1; Importers and Stockists of Steel Balls, Ball & Roller Bearings, Taper Roller & Cooper Split Roller Bearings, 'ABC' 'BBL' 'NBC' and 'Norma' Bearings. Phones: 220142-44 (Calcutta).**

William Jacks & Co. Ltd.—16, Netaji Subhas Road, Calcutta 1.
Wren, D. & Co.—Wardley House, 25, Swallow Lane, Calcutta.

## BANDSAWS AND CIRCULAR SAWS

Bijoy Trading Co.—21-A, Canning Street, Calcutta 1.
Harbanslal Malhotra & Sons P. Ltd.—18, Netaji Subhas Road, Calcutta.
Mandolia & Co.—40, Netaji Subhas Road, Calcutta 1.
Shree Vishwakarma Industries.—192, Jamunalal Bajaj Street, Calcutta 7.
Steel & Allied Products Ltd.—17, Brabourne Road, Calcutta 1.

## BATTERY MANUFACTURERS & DEALERS

Acme Battery Mfg. Co.—35, Chittaranjan Avenue, Calcutta 12.
Associated Battery Makers (Eastern) Pvt. Ltd.—59-C, Chowringhee Road, Calcutta 20.
Associated Indian Enterprises P. Ltd.—206, Lower Circular Road, Calcutta 17.
Auto Power (I) P. Ltd.—4/1, Teliapara Lane, Calcutta.

**BHARAT BATTERY MFG. CO. PRIVATE LTD.—Makers of Bharat Long life Batteries for every purpose; Also genuine Hard Rubber Containers, Rubber Separators Plate and Pasted type Plates; P-1A, Rash Behary Avenue, Ballygunge, Calcutta-19; Phones: 462384 & 442136 (Works).**

Caesar Engineering & Accumulator Co.—6, Brahmanpara Lane, Calcutta 6.
Chloride & Exide Batteries (Eastern) Pvt. Ltd.—Barlow House, 59, Chowringhee Road, Calcutta 20.
Eastern Accumulator Co. Pvt. Ltd.—3-1, Mangoe Lane, Calcutta 1.

**ELECTRICAL STORAGE CO. PVT. LTD.—112, Narkeldanga Main Road, Calcutta 54.**

Estrela Batteries Ltd.—Biplabi Rash Behari Basu Road, Calcutta 1.
Free India Dry Accumulators Pvt. Ltd.—2, Brabourne Road, Calcutta 1.
General Lead Batteries Co. Pvt. Ltd.—9A, Ramdhone Mitter Lane, Calcutta 4.
Great Indian Battery Mfg. Co. 14/1B, Pran Krishna Mukherjee Road, Calcutta.
Howrah Battery M g. Co.—16, G. T. Road, Howrah.
India Accumulators.—13/2, Russa Road, Calcutta.
Indian Battery Mfg. Co. Ltd.—1-A, "Mitar", Lower Circular Road, Calcutta 20.
Indian Battery Corporation.—20B, Hazra Road, Calcutta.
Jaiswal Battery Co.—32F, Gorachand Bose Road, Calcutta 6.
Kishor, P. & Co.—96-A. Central Avenue. Calcutta 12.
Lucas Indian Service Pvt. Ltd.—46, Wellesley Street, Calcutta 16.
National Battery Co.—35, Gorachand Bose Road, Calcutta 6.
National Battery Mfg. Corpn.—16, Russa Road, Calcutta 26.
National Carbon Co. (India) Ltd.—18-A, Brabourne Road, Calcutta.

**NEW INDIA BEARING & BELTING CO.—Importers and Stockists of Ball, Roller, Taper and Thrust Bearings and Manufacturers of Ball Bearing Sockets and Rice Mill Parts; 138, Canning Street, 1st Floor, Calcutta-1; Phone: 223521.**

Newton Battery Industries.—157/3, Acharya Prafulla Ch. Road, Calcutta.
Oriental Battery Mfg. Co.—10, G.T. Road, Howrah.
P. Kishor & Co.—96-A, Chittaranjan Avenue, Calcutta 12.
Power Battery & Plates Mfg. Corpn. Pvt. Ltd.—72, Ganesh Ch. Avenue, Calcutta 13.
Pritchett & Gold & E. P. S. & Co. Ltd.—31, Chittaranjan Avenue, Calcutta 12.
Rajco Battery Industries.—32, Gorachand Bose Road, Calcutta.
Sakti Batteries Pvt. Ltd.—17-A, Russa Road, Calcutta 26.
Spark Engineering & Trading Co.—40/2, Gariahat Road (South), Calcutta 31.
Sun Battery Co.—166, Upper Circular Road, Calcutta 4.
Ultra Battery Co.—172-B, Madhu Sudan Pal Chowdhury Lane, Howrah.
V. N. Rajan & Co.—65, Chittaranjan Avenue, Calcutta.

## BELTING (LEATHER, HAIR & COTTON) & MECHANICAL LEATHERS AND BELT DRESSING MANUFACTURERS & DEALERS

Asia Belting & Spinning Mills (Private) Ltd.—91, Netaji Subhas Road, Calcutta 1.
Basak, P. & Co.—9, Chidam Mody Lane, Calcutta 6.
Bengal Belting Works Ltd.—2, Dalhousie Square East, Calcutta.
Bengal Tools & Belting Co.—138, Canning Street, Calcutta.
Bharat Belting Works.—10, Govt. Place East, Calcutta 1.
Bharat Hardware & Textile Syndicate.—138, Canning Street, Calcutta.
Birkmyre Bros., Ltd.—87, Stephen House, Calcutta 1.
Brand & Co.—S.B., 80, Pathuriaghat Street, Calcutta 6.
Central Trading Co.—137, Canning Street, Calcutta 1.
D. Wren & Co.—Wardley House, 25, Swallow Lane, Calcutta 1.
Dutt, S. L. & Bros.—59, Netaji Subhas Road, Calcutta.
Eastern Belting & Cotton Mills Ltd.—Baidyabati, Hooghly (West Bengal).
E. B. Leather Mfg. Co.—76-A, Upper Circular Road, Calcutta.
Fenner, J. H., & Co. (India) Ltd.—10/3A, Mercantile Buildings, Calcutta.
F. Husain & Brothers.—28, Strand Road, Calcutta.
Gladstone Lyall & Co. Ltd.—4, Fairlie Place, Calcutta 1.
Hindusthan Belting & Spinning Mills Ltd.—174, Mahatma Gandhi Road, Calcutta 7.
India Belting & Cotton Mills Ltd.—7/G, Clive Row, Calcuttta.
Indian Stores Supplying Co.—137, Canning Street, Calcutta 1.

**INDUSTRIAL MILL STORES.—Stockists of Hair, Rubber, Cotton, Elevator, Endless Rubber Conveyor, Vee and Link Belts; Sole Distributors for 'TRIOFLEX SUPER' Brand Hair and Rubber Beltings; 40, Netaji Subhas Road, Calcutta-1; Phone: 221785.**

Kaybee & Co.—13, Brabourne Road, Calcutta.

**KEMRUB PRIVATE LTD.—Manufacturers of 'Hartex' Brand Industrial V-Belts, Variable Speed Belts, Lenix Cord, Nylon & Canvas Ply Endless Belts, Cone Drum Belts & Dixel Rope; 14, Netaji Subhas Road, Calcutta-1; Phones: 227171/3.**

**LEWIS & TYLOR (PRIVATE) LTD.—Manufacturers, Distributors and Importers of 'Lantee' Solid Woven Hair Belting, R.C.F. Hair Belting, Elemental V-Ropes, Conveyors, Gripoly Drop Stamp Beltings, 'Fortfex' Rubber Transmission Beltings and "Lantee Super" Vee Belts; 2, Brabourne Road, Calcutta-1; Phone: 224341 (4 Lines).**

McGregor & Balfour, Ltd.—18, Netaji Subhas Road, Calcutta 1.
Mohammed & Co., A.—26, Netaji Subhas Road, Calcutta.
Mundra & Co.—8, Canning Street, Calcutta.
Nundlall Inderchand Pvt. Ltd.—10, Canning Street, Calcutta.
Playfair, G. F. & Co.—4, Fairlie Place, Calcutta.

**REX CORPORATION (INDIA).—Largest Stockists for 'Brammer' and 'Whittle' Type Rubber link 'V' Belts, Leahter Link Belts and Rubberised Endless Flat Canvas Belts etc., 71/A, Netaji Subhas Road, Calcutta-1; Phone: 229807.**

Rostron & Co. Pvt. Ltd.—12-A, Ezra Mansion, 10, Govt. Place, Calcutta 1.
Serampore Belting Works Ltd.—Serampore, Hooghly.
Vulcan Electric & Engineering Co.—12-B, Lower Chitpur Road, Calcutta.
Zenith Stores & Agency Pvt. Ltd.—19, Strand Road, Calcutta.

## BEVERAGES (FRUIT JUICE)

**SPENCER AERATED WATER FACTORY PRIVATE LTD.—87, Dr. Suresh Sarkar Road, Entally P.O., Calcutta 14.**

## BISCUIT & CONFECTIONERY MANUFACTURERS

Arizona.—2, Lindsay Street, Calcutta 16.
Aryan Bakery.—53, Kali Temple Road, Calcutta 26.
Barua Bakery Pvt. Ltd.—123-A, Dharamtolla Street, Calcutta 13.
Bengal Confectionery Works.—99-3, Canning Street, Calcutta.
Bharat Biscuit Co.—Raniganj, E. Rly.
Calcutta Biscuit Co. Ltd.—155-8A, Upper Circular Road, Calcutta 8.
Calcutta Crown Biscuit Co.—99-C, Canning Street, Calcutta.
C. E. Morton (I.) Ltd.—8, Royal Exchange Place, Calcutta 1.
East Indian Bakery.—106, Lansdowne Road, Calcutta 29.
Empire Confectionery Co.—157-A, Dharamtolla Street, Calcutta 13.
Ferrazzini's Pvt. Ltd.—Homayan Court, 21, Lindsay Street, Calcutta.

Flury's Swiss Confectionery, Pvt. Ltd.—18, Park Street, Calcutta.
G. S. Emporium Ltd.—47-A, Chittaranjan Avenue, Calcutta 12.
India Biscuit Co.—15-A, Badridas Temple Street, Calcutta 4.
James Lord & Sons Ltd.—19, Strand Road, Calcutta.
Kamala Biscuit Co.—113, Raja Dinendra Street, Nandan Bagan, Calcutta.
Kolay Biscuit Co., Pvt. Ltd.—100A, Charakdanga Road, Calcutta 10.
Lily Biscuit Co., Pvt. Ltd.—3, Ramakanta Sen Lane, Calcutta 4.
Lord's Bakery, Confectionery & Biscuit Co.—2, Prince G. M. Shah Road, Tollygunge, Calcutta.
Santosh Biscuit Co., Ltd.—121, Manicktolla Main Road, Calcutta 11.
Sett Brothers.—19, Murari Pukur Road, Calcutta 4.
Standard Trading Co., The.—14, Chittaranjan Avenue, Calcutta 13.
Sudhamoyee Biscuit Factory.—60, Barrackpore Trunk Road, P.O. Cossipore, Calcutta.

## BOARDS MILLS

Asiatic Board Mills Ltd.—29/B, Beerpara Lane, Calcutta 30.
Baranagore Board Mills.—312, Gopal Lal Tagore Road, Calcutta 36.
Bharat Board Mills Ltd.—32, Ezra Street, Calcutta 1.
Calcutta Board Mills.—43, Muraripukur Road, Calcutta 4.
Diamond Board Mills.—34-1, Gurudas Dutta Garden Lane, Calcutta 4.
Eastern Paper Mills Ltd.—2, Dakshindari Road, South Dum Dum, Calcutta 37.
Himalaya Paper & Board Mills.—20, Seven Tanks Lane, Calcutta 30.
Lata Board Mills.—22, Amratola Street, Calcutta 1.
Mahabir Paper & Board Iudustries.—6, Canal Road, Calcutta 33.
Pioneer Paper & Pulp (Pvt.) Ltd.—24, Netaji Subhas Road, Calcutta.
Sahapore Board Mills.—S. N. Roy Road, Calcutta 38.
Sree Arabindo Board Mills.—2-1, Chetla Road, Calcutta 27.
Swastik Board Mills Pvt. Ltd., C/o. Narsing & Co. Ltd.—51, Stephen House, Dalhousie Sq., Calcutta.
Union Paper & Board Mills.—18, Netaji Subhas Road, Calcutta.

## BOBBINS & SHUTTLES

**BHARAT INDUSTRIES CORPORATION PRIVATE LTD.—Manufacturers of all kinds of Bobbins, Wooden Rollers and also all sorts of Wooden accessories for Textile Industry; 13, Navakunwar Kar Lane, Salkia, Howrah; Phone: 663551.**

## BOBBIN AND SPOOL MANUFACTURERS

Bengal Bobbin Plywood Co. Ltd.—44/46, Canning St., Calcutta.
Bharat Industries Corpn. Pvt. Ltd.—88, Shambhu Halder Lane, Salkia.
Bobbins Ltd.—31, Chowringhee Road, Calcutta 16.
Greenway & Co.—3, Mangoe Lane, Calcutta 1.
India Bobbin Industries.—135, Canning St., Calcutta.
National Industrial Works.—135, Canning Street, Calcutta 1.
S. K. Wood Products Co.—86-2, Bahir Surah Road, Calcutta 10.
Woodcraft Products Ltd.—8, India Exchange Place, Calcutta 1.

## BOBBINS (JUTE MILL) MANUFACTURERS

B. K. Desai & Co.—40, Tangra Road, Calcutta.
Hindusthan Bobbin Industries.—15, Canal East Road, Calcutta 4.
Hindusthan Bobbin Mfg. Co.—8/1/1, Gurudas Dutt Garden Lane, Calcutta 4.
Shalimar Industries P. Ltd.—25, Ganesh Ch. Avenue, Calcutta 13.
Shalimar Wood Products Private Ltd.—138, Canning Street, Calcutta.

## BOILER FITTINGS & VALVES

**ANNAPURNA METAL WORKS.—Manufacturers of High Class Boiler Mountings for land, Loco and Marine Boilers to Standard Boiler regulations; 99/A, Ballygunge Place, Calcutta-19; Phone: 477820.**

**BELL'S ASBESTOS & ENGINEERING (INDIA) PRIVATE LTD.—24, Chittaranjan Avenue, Calcutta-12; 'Victor' Valves and Bailey's Reducing Valves for Steam, Air and Water; Steam Traps and Thermostatic Control by Spirax-Sarco Ltd., Boiler Feed Water Regulators and Alarms by Ronald Trist & Co.,Ltd., Phone: 23-3756 (4 Lines). Bombay Branch: Khanna Construction House, 44, Abdul Gaffar Road, Worli, Bombay 18.**

J. D. Jones & Co. Ltd. (Estd.: 1893).—C/5, Gillander House, 8, Netaji Subhas Road, Calcutta-1.
Pelican Valves & Engineering Works.—57/2, Q Road, Belgachia, Howrah.

## BOLT, NUT & RIVET MANUFACTURERS & DEALERS

Agarwal Hardware Works Private Ltd.—167, Chittaranjan Avenue, Calcutta.
Alliance Engineering Works.—Santragachi, Howrah.
Aminchand Pyarelal.—135, Canning Street, Calcutta.
Amritlal Coomar & Brothers.—113, Monohardas Chowk, Calcutta 7.
Associated Steel Products Corporation Private Ltd.—7, Lyons Range Calcutta 1.
Bhupendra Nath Das & Bros.—71-A, Netaji Subhas Road, Calcutta.
Bolts Nuts & Forging Co.—47, Gaushala Road, Lilloah, (Dt. Howrah).
Bose & Co.—38, Narasinha Dutta Road, Howrah.
Bose Manna & Co.—74-2, Ichapore Road, Howrah.
C. G. Engineering Works.—233, Belilios Road, Howrah.
Chowdry, P. C. & Sons.—Santragachi New House, Howrah.
Dewanchand Nikkamal.—71-A, Netaji Subhas Road, Calcutta 1.
Dutson & Co.—10, Baburam Sil Line, P.O. Bowbazar, Calcutta 12.

**EASTERN INDUSTRIES.—Leading Mnufacturers of Bolts, Nuts, Rivets etc., to any Specification; 25-27, Netaji Subhas Road, Calcutta-1; Phone: 221884.**

Edward Miller & Co.—20, Strand Road, Calcutta.
Empire Trading Corpn.—10, Canning Street, Calcutta.
Fatick Chandra Mondal.—65, Kali Kundu Lane, Howrah.

**GANESH INDUSTRIES.—Manufacturers of 'G' Brand Bolts, Nuts, Rivets, Dogspikes as per B.S.S. & Customers' Specifications; Also Pins, Washers, G.I.J. & L. Hook Bolts; 2, Haren Mukherji Road, Belurmath, Howrah; Phone: 663648.**

Ganguli & Co.—89, Netaji Subhas Road, Calcutta.
Ghose & Co.—11, Brindaban Mullick Lane, Howrah.

**GUEST, KEEN, WILLIAMS, LTD.—Head Office: 41, Chowringhee Road, Calcutta 16; Works: Andul Road, Howrah.**

Harrison Agency.—71-A, Netaji Subhas Road, Calcutta 1.
Herbert Doyle & Co. Pvt. Ltd.—Commercial Bldgs., Calcutta.
India Bolts & Rivets Co.—23, Brindaban Mullick Lane, Howrah.
Indo-Commercial Stores.—77-1, Netaji Subhas Road, Calcutta.

**J. KARMOKAR & SONS.—Specialists in Screws and Rivets Manufacturing; 12, Jadupandit Road, Calcutta 6.**

Jhunjhunwala Industries.—Raniganj, E. Rly.
J. P. Agarwalla & Son—115, G. T. Road, Salkia.
Kasco Metal Products.—6, Mangoe Lane, Calcutta.
Khan Pal Chowdhury & Co., Pvt. Ltd.—71-A, Netaji Subhas Road, Calcutta.
King Engineering Co.—157, Belilios Road, Howrah.
Leather & Steel Products.—26, Burtolla Street, Calcutta 7.
L. Mullick & Co.—81, Netaji Subhas Row, Calcutta 1.
Lyall, M. T. & Co.—36, Strand Road, Calcutta.
Miscellaneous Engg. Stores Pvt. Ltd.—71/A, Netaji Subhas Road, Calcutta.
Motiram Agarwal & Co. Pvt. Ltd.—137, Canning Street, Calcutta 1.
Mullick, A. M. & Co.—71-A, Netaji Subhas Road, Calcutta.
Mullick, S. N. & Co.—37, Netaji Subhas Road, Calcutta.
National Bolts & Rivets Ltd.—44, Madhusudan Pal, Chowdhury Lane, Howrah.
National Machine Tools Co.—10/10, Brindaban Mullick Lane, Kadamtala, Howrah.
N. C. Paul & Co.—196, Panchanantola Road, Howrah.
New India Engineering Concern.—10-10, Brindaban Mullick Lane, Howrah.
Oriental Engineering Co.—13 & 14, Danesh Millah Lane, Howrah.
P. N. Dey & Co.—3-4, Kalachand Nandy Lane, Howrah.
Premier Stores Supplying Co. Ltd.—6-1, Dilarjung Road, Cossipur, Calcutta 2.
Probhat Works.—67/A, Netaji Subhas Road, Calcutta 1.
Shalimar Iron Works.—138, Canning Street, Calcutta.
Shree Krishna Pvt. Ltd.—20, Mangoe Lane, Calcutta.
Shyam Steel Industries.—6/3, Guha Road, Ghusury, Howrah.
S. N. Mullick & Co.—37, N. Subhas Road, Calcutta 1.
Steel & Allied Products Ltd.—17, Brabourne Road, Calcutta 1.
Suburban Stores Supply Co.—10, Canning Street, Calcutta.
Traders Union.—84, Netaji Subhas Road, Calcutta.
Union Engineering Works.—4, Gopinath Choungdar Lane, Ramkristopore, Howrah.
Universal Railway Material Supply Co.—4, Commercial Bldgs., Netaji Subhas Road, Calcutta.
Vijay Bolt Mfg. Co.—1/A, Nanda Mullick Lane, Calcutta.

## BOOKSELLERS, PRINTERS AND PUBLISHERS

Abhinaya Publishing Syndicate.—43, Burtolla Street, Calcutta 7.
All India Publishing Co. Ltd.—30, Cornwallis Street, Calcutta 6.

**ALLIED PUBLISHERS PRIVATE LTD.—17, Chittaranjan Avenue, Calcutta-13; Phone: 233104; Head Office: 15, Graham Road, Ballard Estate, Bombay-1; Branches: 13/14, Asaf Ali Road, New Delhi and Mohan Mansions, 38/C, Mount Road, Madras 6.**

**A. MUKHERJEE & CO. (PRIVATE) LTD.—Publishers, 2, Bankim Chatterjee Street, Calcutta 12; Phone: 34-1606; Grams: "PRAKASHIKA"; Mg. Dir.: A. R. Mukherjee.**

**A. H. WHEELER & CO. PRIVATE LTD.—18, Netaji Subhas Road, Calcutta 1. Phones: 22-4945/46; Grams: "BOOKSTALLS."**

Aryan Publishing Co.—76, Bowbazar Street, Calcutta 12.
Asia Publishing Co.—132/133, College Street, Calcutta.
Baikuntha Book House P. Ltd.—183, Conrwallis Street, Calcutta 6.
Bengal Publishers P. Ltd.—15, Bankim Chatterjee Street, Calcutta 12.
B. G. Printers & Publishers Ltd.—80-6, Grey Street, Calcutta 6.
Book Centre.—76, Bowbazar Street, Calcutta 12.
Bookland Pvt. Ltd.—1, Sankar Ghosh Lane, Calcutta 16.
Books of the World.—21, Old Court House St., Calcutta 1.
Builders Publications of India Ltd.—47-E-6, Block B, Garden Reach, Calcutta 28.
Cambridge Book & Stationery Co.—20-D, Park Street, Calcutta 16.
Chuckervertty Chatterjee & Co. Ltd.—15, College Square, Calcutta 12.

**C. RINGER & CO.—Homoeopathic Chemists, Booksellers and Publishers, 23, Lall Bazar Street, Calcutta 1. Phone: 22-4747. Grams: "RINGERCOY." Business running 80 years.**

Das Gupta & Co. P. Ltd.—54/5, College Street, Calcutta.
Doodhnath Pustakalaya & Press.—63, Jamunalal Bajaj Street, Calcutta 7.
Essco P. Ltd.—25, Ganesh Chandra Avenue, Calcutta 13.
E. W. Stevens & Co. P. Ltd.—22, Chowringhee Road, Calcutta 13.
Guradas Chatterji & Sons.—203-1-1, Cornwallis Street, Calcutta 6.
Hahnemann Publishing Co. Ltd.—165, Bowbazar Street, Calcutta 12.
Indian Associated Publishing Co. Ltd.—93, Harrison Road, Calcutta.
Indian Industrial Directory.—29-A, Chandra Nath Chatterjee Street, Calcutta 25.
Indian Printing and Publishing Co.—11, British Indian Street, Calcutta.
Indian Publishers P. Ltd.—22, R. G. Kar Road, Calcutta.
Intertrade Publications.—2, Presidency Court, 55, Gariahat Road, Calcutta 19.
Jaico Publishing House.—35, Chittaranjan Avenue. Calcutta.
Jnanodaya Press.—12, Maharani Swarnamayee Road, Calcutta 9.
K. K. Roy (Private) Ltd.—2, Presidency Court, 55, Gariahat Road, Calcutta 19.
Kothari Publications.—12, India Exchange Place, Calcutta 1.
Macmillan & Co. Ltd.—294, Bowbazar Street, Calcutta 12.
M. C. Sarkar & Sons P. Ltd.—14, Bankim Chatterjee Street, Calcutta 12.

**MODERN BOOK DEPOT., THE.—Book-Sellers and Publishers; 9, Chowringhee Centre, Opp. Lighthouse, Calcutta-13; Phone: 234627.**

Nanigopal Chattopadhyay & Co., Private Ltd.—1/1, Brindaban Mullick Lane, Calcutta 9.
National Book Agency Pvt. Ltd.—12, Bankim Chatterji Street, Calcutta 12.
Orient Book Co.—C-29-31 College Street Market, Calcutta 12.
Orient Longmans P. Ltd.—17, Chittaranjan Avenue, Calcutta 13.
Oriental Publishing Co.—38A, Motijheel Avenue, Calcutta 28.
Oxford Book & Stationery Co.—17, Park Street, Calcutta 16.
Oxford University Press.—Mercantile Buildings, Lall Bazar, Calcutta 1.
R. Cambray & Co. P. Ltd.—Kent House, P-33, Mission Row Extn., Calcutta 13.
Rupudey Publications P. Ltd.—Tangree House, 36, Ezra Street, Calcutta 12.
Sanskrit Book Depot.—28-1, Cornwallis Street, Calcutta 6.
Scientific Publishing Co.—85, Netaji Subhas Road, Calcutta 1.
S. C. Sarker & Sons P. Ltd.—14, Bankim Chatterji Street, Calcutta 12.
S. K. Bose.—162/12/2, Prince Anwarsha Road, Calcutta 33.
Society Publishers.—18, Baburam Seal Lane, Calcutta 12.
Standard Literature Co. P. Ltd.—13/1, Old Court House Street, Calcutta 1.
Thacker Spink & Co. (1933) P. Ltd.—3, Esplanade East, Calcutta 1.
Vidyodaya Library Private Ltd.—72, Mahatma Gandhi (Harrison) Road, Calcutta 9.
W. Newman & Co., Ltd.—3, Old Court House Street, Calcutta.

## BOOK MANUFACTURERS

**A. MUKHERJEE & CO. (PRIVATE) LTD.—Publishers; 2, Bankim Chatterjee Street, Calcutta 12; Phone: 341606; Grams: "PRAKASHIKA"; Mg. Dir. A. R. Mukherjee.**

## BORING & TUBE WELL CONTRACTORS

**ASSOCIATED TUBE WELLS (INDIA) PRIVATE LTD.—Tube-well Engineers & Exports in Drilling Deep Gravel Treated Slotted Tube wells with Reverse and Direct Rotary Rigs, Manufacturers of Signalling Equipment VERSHA High level Cisterns chain Pulley Blocks & Jainti Winches; 9/1, Darga Road, Calcutta 17; Phone: 44-7395, Head Office: 12, Scindia House, New Delhi-1.**

## BOTTLE, BOTTLE CAP AND CAPSULE MANUFACTURERS

Bimal Bottle Stores Ltd.—93/1, Baitakhanna Road, Calcutta 9.
Containers and Closures Ltd.—2, Fairlie Place, Calcutta 1.
Continental Bottle Co. P. Ltd.—24, Ezra Street, Calcutta 1.
Crown Cork Mfg. Co.—1, Umakanto Sen Lane, Calcutta 30.
P. Nundy & Sons.—35-6, Ratan Babu Road, Calcutta 2.
Radhabaear Bottle Stores.—15, Radhabazar Street, Calcutta 1.
S. P. Dutt & Brothers.—7, Ezra Street, Calcutta 1.

## BRAKE & CLUTCH LININGS

**SCOTT & PICKSTOCK LTD.—'DON' No. 1. Brake & Clutch Linings for Automobile and Industrial, Railko AL-2. Asbestos Bearing Materials for Railways & Industrials; 'DON-FLEX' Clutch Disels; 5, Fairlie Place, Calcutta 1; Phones: 225633, 225634 and 225635.**

## BRASS & BRASSWARE WORKS

Ashok Metal Industries Ltd.—157, Netaji Subhas Road, Room No. 161, Calcutta 1.
Chandra Industries Private Ltd.—59, Cotton Street, Calcutta 7.

## BRASS & COPPER PRODUCTS

Binani Metal Works Ltd.—38, Strand Road, Calcutta.
Burman Metal Works P. Ltd.—17, Tarak Pramanik Road, Calcutta 6.
Chandra Industries P. Ltd.—59, Cotton Street, Calcutta 7.
**Ganga Metal Refining Co. Ltd.—C/o Binani Traders Ltd., 43, Strand Road, Calcutta.**
**General Metal Industries Ltd.—C/o Hanuman Prasad Pragdas, 62, Netaji Subhas Road, Calcutta.**
S. C. Bodak & Co.—85-83, Netaji Subhas Road, Calcutta 1.
Union Metal Works.—169, Andul Road, Howrah.
United Metal Industries Ltd.—62, Netaji Subhas Road, Calcutta 1.

## BRUSH MANUFACTURERS & DEALERS

Amherst Brush Factory.—12-B, Amherst St., Calcutta 9.
B. C. Ghosh & Brothers.—44, Old China Bazar St., Calcutta 1.
B. C. Mullick & Co.—25/A, Balaram Ghose Street, Calcutta 4.
Bengal Brush Factory.—20, Serpentine Lane, Calcutta 14.
Bepin Pal Sons & Co.—174-A, Dharamtolla St., Calcutta 13.
Bharat Industries Corpn. P. Ltd.—88, Sambhu Halder Lane, Salkia.
Boseck & Boseck.—3, Prinsep Street, Calcutta 13.
Britannia Brush Works.—123-24, Canning Street, Calcutta 1.
Calcutta Brush & Fibre Co.—Barnagore, Calcutta 36.
Calcutta Carbon Brush Mfg. Co.—21, Parsee Church Street, Calcutta.
Caledonian Brush Works.—20-1, Manick Bose Ghat St., Calcutta 6.
Climax Brush Works.—64-A, Mirzapur St., Calcutta 9.
Eagle Brush Mfg. Corporation.—10/1, Bussa Road, Calcutta 33.

**G. C. LAHA PRIVATE LTD.—Importers & Manufacturers of quality Brushes for Paints & Varnishes, Sable, Squirrel, Camel, Hog Hair, Lettering, Lining, Quill, Mop, Dabber, Flat, Sash, Tool, Oval ground, Distemper, Stencil; 1, Dharamtolla Street, Calcutta 13; Phones: 233838 and 239651.**

**INDIA BRUSHWARE,—'Seco' Power Driven & Industrial Brushes; Rotary, Tube Cleaning & DE-Carbonizing Brushes a Speciality; 72, Canning Street, Calcutta 1; Phones: 341985, 444446.**

General Electric Trading Co.—52, Creek Row, Calcutta 14.
India Carbon Brush Mfg. Co.—26, Pollock St., Calcutta 1.
National Brush Factory.—6, Pataldanga St., Calcutta 9.
Oriental Brush & Bristle Co.—31/1, Tagore Road, Calcutta.
P. D. Simpson & Co.—P. 33, Mission Row Extension, Calcutta 13.
Pioneer Brush Factory.—11, Amherst St., Calcutta 9.
Preston Electric Co. (I) P. Ltd.—2, Madan Street, Calcutta 13.
Standard Brush & Bellows Works.—11, Dayal Banerjee Road, Sibpur, Howrah.
Victor Works.—2, Parshi Bagan Lane, Calcutta 9.
Vulcan Brush Works.—1, Nabo Kumar Raha Lane, Calcutta 4.
Western Brush Co.—18, Amherst Street, Calcutta 9.

## BUCKET MANUFACTURERS

Agarwal Hardware Industries.—3, Munshi Sadaruddin Lane, Calcutta.
Asian Industries.—9, Upper Chitpur Road, Calcutta 7.
Banwarilall Purshotamdass.—29, Banstolla Street, Calcutta 7.
Bengal Industries.—132, Cotton Street, Calcutta 7.
Bengal Iron Trading Co.—227/228, G. T. Road, Ghusury, Howrah.
Beriwala Hardware Industries.—221, G. T. Road, Lillooah, Howrah.
Bhagya Devi Factory.—213, Harrison Road, Calcutta 7.
Bhalotia Metal Manufacturing Co.—2, Doyehatta Street, Calcutta 7.
Bharat Steel & Metal Industries.—14/2, Old China Bazar Street, Calcutta.
Binapani Galvg. Works.—150, Ultadanga Main Road, Calcutta.
Calcutta Iron & Engg. Co. Pvt. Ltd.—77A, Benares Road, Howrah.

Cromelite (India) Pvt. Ltd.—149, Mahatma Gandhi Road, Calcutta 7.
East India Metal Co. Pvt. Ltd.—4A, Durga Charan Chatterjee Lane, Calcutta.
Ganga Iron & Galvg. Works Pvt. Ltd.—58, Clive Street, Calcutta.
Goodman & Co. (I.) Pvt. Ltd.—38, Netaji Subhas Road, Calcutta 1.
H. A. Nanji & Co.—46, Ezra Street, Calcutta.
Hariana Iron Works.—30/31, Kalakar Street, 5th Floor, Calcutta 7.
Hariganga Galvg. Works Pvt. Ltd.—58, Clive Street, Calcutta.
Hindustan Industrial Co.—192, Jamunalal Bazaz Street, Calcutta 7.
Howrah Galvg. Works.—71, Burtolla Street, 3rd Floor, Calcutta.
Imperial Bucket Co.—10, Rajendra Mallik Street, Calcutta.
Indian Steel Galvg. Works.—213, Harrison Road, Calcutta.
Kedarnath Parsotamdas & Co. (Private) Ltd.—37, Netaji Subhas Road, Calcutta 1.
Krishna Galvg. Works.—20, Belur Road, Lillooah, Howrah.
Krishna Iron Foundry & Metal Works Pvt. Ltd.—Gopalpur, P.O. Asansol, Dist. Burdwan.
Ladhuram Rajkapoor.—49/1, Abani Dutta Road, Howrah.
Maya Galvg. Works.—9, Upper Chitpur Road, Calcutta.
M. G. R. Iron & Steel Works Pvt. Ltd.—P-16, Kalakar St., Calcutta 7.
Metal & Alloy Corporation.—38-A, Belgachia Road, Calcutta 37.
Nathmall Girdharilall.—22, Burtolla Street, Calcutta.
Orissa Steel Corporation Pvt. Ltd.—2, Doyehatta Street, Calcutta 7.
Poddar Galvg. Works.—26, Burtolla Street, Calcutta 7.
Shiw Ganga Iron Galvg. Works.—22C, Canal West Road, Calcutta.
Shree Bishandas Iron Works.—22, Burtolla Street, Calcutta.
Shree Dhakalia Industries.—138, Canning Street, Calcutta.
Shree Hanuman Iron Works.—193/2, Mahatma Gandhi Road, Calcutta.
Shree Laxmi Industries.—46, Strand Road, Calcutta.
Susil Iron & Galvg. Works.—56, Clive Street, Calcutta.
Victory Iron Works Pvt. Ltd.—48, Canning Street, Calcutta.
Vijay Industries.—2, Maharshi Debendra Road, Calcutta 7.

## BUILDERS & CONTRACTORS

Associated Construction and Planning Corporation.—138, Canning Street, Calcutta.
Associated Steel Construction Ltd.—47/2, Mirzapore Street, Calcutta.
Banerjee, S. C.—20, Gariahat Road, Calcutta 19.
Bengal Builders and Traders P. Ltd.—128, Southern Avenue, Calcutta.
Bengal Construction Co. P. Ltd.—8/2, Hastings Street, Calcutta.
Bhai Sundar Das Sarkar Singh Pvt. Ltd.—34, Ganesh Chandra Avenue, Calcutta.
Bridge and Building Construction Co. P. Ltd.—90/A, Shyamaprasad Mukherjee Road, Calcutta.
Britannia Building & Iron Co. Ltd.—4, Dalhousie Square East, Calcutta.
Calcutta Builders Stores Pvt. Ltd.—32/A, Chittaranjan Avenue, Calcutta 12.

**CALCUTTA CONSTRUCTORS PRIVATE LTD.—Undertake Construction Works of Buildings, Factories, Roads, Bridges etc., 34, Strand Road, Calcutta-1; Phone: 222521.**

Chatterjee Bros.—14-A, Protapaditya Road, Calcutta 26.
Dakhineswar Sarkar & Bros. Ltd.—2, Maharshi Debendra Road, Calcutta 7.
Dalmiaya & Co., M. L.—76, Ashutosh Mukherjee Road, Bhowanipore, Calcutta.
Dharam Pal Chadha & Sons.—3, Madan Street, Calcutta.
East India Construction Co.—2, Commercial Bldgs., Calcutta 1.
East India Engineering & Construction Co.—61-A, Lansdowne Road, Calcutta.
Eastern Traders.—18, Harish Chatterjee St., Calcutta 25.
Electric Construction & Equipment Co. P. Ltd.—9, Kaliprasanna Singh Road, Calcutta.
Engineers' Syndicate (India) P. Ltd.—21, Old Court House, Calcutta 1.
Gladstone Lyall & Co. Ltd.—4, Fairlie Place, Calcutta.
Heavy Construction Corporation P. Ltd.—10, Prinsep Street, Calcutta 13.
Hind Construction Co. Ltd.—8, Royal Exchange Place, Calcutta.
Hindusthan Engineering & Construction Co.—Engineers, 2, Church Lane, Calcutta.
Home Builders India P. Ltd.—12-P, Park Street, Calcutta 16.
Indian Steel Works Construction Co. Ltd.—58/59, Stephen House, Calcutta 1.
J. N. Ghosh & Co.—71, Serpentine Lane, Calcutta.

**KISHORE & CO.—Building Construction and Renovation; 3, Mangoe Lane, Calcutta-1; Phones: 237338, 464735.**

Kumar Narayana P. Ltd.—28, Southern Avenue, Calcutta 26.
Mackintosh Burn Ltd.—8, Netaji Subhas Road, Calcutta 1.
Mansfield & Sons.—16, Radhanath Chowdhury Road, Post Box 124, Calcutta.
Modern India Construction Co. Pvt. Ltd.—9, Brabourne Road, Calcutta 1.
National Construction Corporation.—14, Netaji Subhas Road, Calcutta.
Nayak Land Development Corporation Ltd.—14, Natabar Dutta Row, Calcutta 12.
Orient Building and Trading Co. Ltd.—15, Chittaranjan Avenue, Calcutta.
S. N. Roy & Sons P. Ltd.—10, Hastings St., Calcutta.
Sett & Co.—9, Digamber Jain Temple Road, Calcutta 7.
Sewak Ram & Co.—41/1, Bhupendra Bose Avenue, Calcutta 4.
Shalimar Tar Products (1935) Ltd.—6, Lyons Range, Calcutta.
Shaw & Co.—8, Prankrishna Mukherjee Road, Calcutta 2.

**SHIB BANERJEE CONSTRUCTION PRIVATE LTD.—Engineers & Contractors; 20, Gariahat Road, Calcutta-19.**

Subodh Aditya & Co.—36, Lake Temple Road, Calcutta.
Sudan & Co.—81, Panchanantala Lane, Calcutta 34.
Technical Builders and Traders P. Ltd.—128, Southern Avenue, Calcutta.

## BUILDERS HARDWARE

**M. C. MOWJEE & CO.—Manufacturers of Builders' Hardware such as Steel Butt Hinges, Tower and Pad-Bolts etc., and Fittings of Ammunition Boxes; 46, Ezra Street, Calcutta-1; Phone: 341349, Grams: "EMCIEMKO"—Calcutta.**

## CABLE & WIRE MANUFACTURERS & DEALERS

Aluminium Cable & Conductors (U.P.) P. Ltd.—47, Hide Road, Calcutta.
Electrical Industries Corporation.—99, Motilal Gupta Road, Calcutta 41.

**ELECTRICAL MANUFACTURING CO. LTD.—Office: E. M. C. Gardens, 136, Jessore Road, Calcutta-28; Grams: 'ELCORP'.—Calcutta & 'ELECORP' Dum Dum; Works: Transmission Line Materials Division, EMC Gardens, 136, Jessore Road, Calcutta-28; Steelal Division, 51, Canal East Road, Narkeldanga, Calcutta-10; Manufacturers: All Aluminium and Steel Reinforced Aluminium Conductors (AAC & ACSR), Complete range of Conductor Accessories, General Non-ferrous Castings (head treated) Aluminium Alloy Wires, Aluminium Wire Rods, Bus Bars, Aluminium Fabrication, Aluminium doors and Windows, Alluminium out-door and in-door Furniture, Partition Cealings and Ladder; Galvanised Steel Towers, Sub-station structure, Light Steel Structures, Insulator Hardware.**

**FORT GLOSTER INDUSTRIES LTD.—(Cable Division), 14, Netaji Subhas Road, Calcutta 1; Manufacturers of Rubber and Plastic Insulated Cables and Flexible Cords, Heavy Duty Plastic Insulated Power Cables and Paper insulated H.T. and L.T. underground Cables in Technical Collaboration with Messrs. British Insulated Callender's Cable Ltd., London.**

India Sales Corporation.—49/1, Gariahat Road, Calcutta 19.
Indian Cable Co. Ltd.—9, Hare Street, Calcutta.
Lloyds Commercial Corporation.—P. Box 6870, Calcutta 1.

**NATIONAL INSULATED CABLE CO. OF INDIA LTD., THE.—Managing Agents: The Associated Industrial Development Co. (Private) Ltd., Nicco House, 2, Hare Street, Calcutta-1; Phone: 235102 (6 Lines); Manufacturers of Bare Copper Conductors, Solid, Stranded, Cadmium Cantenary and grooved Contact Wires, A.A.C., A.C.S.R., Rubber, P.V.C., V.I.R. Cables & Flexibles, Cotton and Paper Covered Winding Wires and Strips, Enamelled Wires etc.**

National Insulated Cable Co. of India Ltd.—4, D. Square East, Calcutta 1.

**POWER ELECTRIC CO.—For PILC, DSTA, SWA & DWA, L.T. & H.T. & TROPODUR Armoured Cables; 138, Canning Street, Calcutta-1 and 20-A, Carnac Street, Calcutta-16; Phones: 225996 & 44-5006.**

## CABINET MAKERS & FURNISHERS

Allied Furnishers.—266, Bowbazar Street, Calcutta 12.
Amkar Furnishers.—42, Chittaranjan Avenue, Calcutta 12.
Anandamayee Cabinet Stores.—44/1, Bowbazar Street, Calcutta 12.
Art Furnishers (P) Ltd.—3, Southern Avenue, Calcutta 26.
B. N. Ghosh & Bros.—28, Bowbazar Street, Calcutta 12.
Bengal Forward Furniture House.—27, Bowbazar Street, Calcutta 12.
Bengal Lumber Produce Co.—10/1, Nivedita Lane, Calcutta 3.
Botto Krishna Mondal.—225, Bowbazar Street, Calcutta 12.
Broadway Furnishing House.—172, Bowbazar Street, Calcutta 12.
Calcutta Cabinet Co. (P) Ltd.—66, Bowbazar Street, Calcutta 12.
Calcutta Furnishing Stores (P) Ltd.—62, Bowbazar Street, Calcutta 12.
Charu Furnishing Co.—79-B, Bowbazar Street, Calcutta 12.
Chatterji Furnishing Co. Pvt. Ltd.—2, Russell Street, Calcutta 16.

Chowringee Sale Bureau (P) Ltd.—24B, Park Street, Calcutta 16.
City Furnishers.—275, Bowbazar Street, Calcutta 12.
City Cabinet (P) Ltd.—57/2-E, College Street, Calcutta 12.
Cosmos Midways (P) Ltd.—Gangadhar Baby Lane, Calcutta 12.
Daffodil Furnishers.—240/2, Bowbazar Street, Calcutta 12.
Deb & Co.—268, Bowbazar Street, Calcutta 12.
Deluxe Furnishers.—53, Bowbazar Street, Calcutta 12.
Eastern Furnishers.—62, Bowbazar Street, Calcutta 12.
Fashion Furnishers.—264B, Bowbazar Street, Calcutta 12.
Fashion Furnishing Stores.—67, Bowbazar Street, Calcutta 12.
Genuine Furnishers Co.—263, Bowbazar Street, Calcutta 12.
Grant James (P) Ltd.—8-B, Lower Rowdon Street, Calcutta 20.
Guha Furnishers.—226/C, Bowbazar Street, Calcutta 12.
Guha & Sons.—267 & 268A, Bowbazar Street, Calcutta 12.
Haro Kumar Ghosh & Co.—226D, Bowbazar Street, Calcutta 12.
Hindusthan Wood Crafts (P) Ltd.—75-B, Wellesley Street, Calcutta 16.
J. Valji Bros.—47, Bowbazar Street, Calcutta 12.
K. B. Mondal & Sons.—42/3, Bowbazar Street, Calcutta 12.
Kamala Furnishing Stores.—158, Bowbazar Street, Calcutta 12.
Kastha Asbab Protisthan.—44, Bowbazar Street, Calcutta 12.
Koton Furnishing Co.—240/5, Bowbazar Street, Calcutta 12.
Krishna Chandra Dey.—64/2, Bowbazar Street, Calcutta 12.
Lakshmi Furniture Stores.—236, Bowbazar Street, Calcutta 12.
Madan Mohan Dey.—64/2, Bowbazar Street, Calcutta 12.
Model Building & Furnishing Co.—20/1B, Bowbazar Street, Calcutta 12.
Model Furnishers.—267, Bowbazar Street, Calcutta 12.
Modern Furnishers.—1, Gorachand Lane, Calcutta 16.
Modern Furnishing Stores.—67, Bowbazar Street, Calcutta 12.
Modern Wood Crafts.—26-2A, Sashi Bhusan Dey Street, Calcutta 12.
Mondal & Co.—225, Bowbazar Street, Calcutta 12.
National Cabinet Co.—62, Bowbazar Street, Calcutta 12.
National Furniture.—33, Bowbazar Street, Calcutta 12.
National Furnishing Co.—43, Bowbazar Street, Calcutta 12.
Neo Art Furnishers.—46, Bowbazar Street, Calcutta 12.
New Exchange House (P) Ltd.—42, Chittaranjan Avenue, Calcutta 12.
Orient Safe & Cabinet Mfg. Co. Ltd.—133, Canning Street, Calcutta.
P. K. Hor & Co.—96/2B, Collin Street, Calcutta 16.
P. N. Dass & Co.—128/1, Bowbazar Street, Calcutta 12.
Paragon Furniture.—237, Bowbazar Street, Calcutta 12.
Paradise Furnishers.—264K, Bowbazar Street, Calcutta 12.
Parpia & Co.—45, Bowbazar Street, Calcutta 12.
Prabartak Furnishers Ltd.—61, Bowbazar Street, Calcutta 12.
Premji Karsen Das.—1, Giribabu Lane, Calcutta 12.
Quality Furnishers.—349B, Bowbazar Street, Calcutta 12.
R. C. Furnishers.—224/6, Bowbazar Street, Calcutta 12.
Republic Furnishers Ltd.—3/2, Madan Street, Calcutta 13.
R. N. Chakravarty.—66, Bowbazar Street, Calcutta 12.
S. B. & Co.—249, Bowbazar Street, Calcutta 12.
S. S. Das & Bros.—47, Bowbazar Street, Calcutta 12.
Sarkar & Co.—246, Bowbazar Street, Calcutta 12.
Sk. Fazlay Karim & Co.—48, Bowbazar Street, Calcutta 12.
Standard Cabinet Co. (P) Ltd.—32, Chittaranjan Avenue, Calcutta 12.
Standard Furnishing Stores.—249/B, Bowbazar Street, Calcutta 12.
Steel Furniture & Construction Co.—49, Bowbazar Street, Calcutta 12.
Woodall Industries.—33, Bowbazar Street, Calcutta 12.
Wood & Steel Furnishing Co.—34, Bowbazar Street, Calcutta 12.
Wood Works.—64/1, Bowbazar Street, Calcutta 12.

## CALENDAR MANUFACTURERS

Ajanta Calendar Mfg. Co.—Post Box 962, Calcutta.
Britannia Calendar Mfg. Co.—8A, Ramkrishna Dass Lane, Calcutta.
Calendar Corpn. (I) Ltd.—25, Chittaranjan Avenue, Calcutta 12.
Empire Calendar Mfg. Co.—145, Cotton Street, Calcutta 7.
Imperial Calendar Co.—35, Chittaranjan Avenue, Calcutta 12.
Indian Press P. Ltd.—93A, Dharamtolla Street, Calcutta 13.
Jai Hind Calendar Mfg. Co.—34/1A, Sudhir Chatterjee Street, Calcutta.
National Calendar Mfg. Co.—151, Madhusudan Pal Chowdhry Lane, Howrah.
Oriental Calendar Mfg. Co.—P-7, C.I.T. Road, Entally, Calcutta.

## CANNING AND CONDIMENT WORKS

Bengal Collective Industries & Farm Ltd.—56, Bentinck St., Calcutta 1.
Daw Sen & Co. P. Ltd.—29, Dr. Suresh Sarkar Road, Entally, Calcutta 14.
Farm & Fruit Products P. Ltd.—71-A, Chakrabere Road North, Calcutta 20.
Great Eastern Preserving Works.—18, Blochmann St., Calcutta 13.
Imperial Fruit Preserving Co.—35-A, Murari Pukur Road, Calcutta 4.
Mida & Co. P. Ltd.—150, Manicktola Main Road, Calcutta 11.
Mitter Sircar & Co.—68, Serpentine Lane, Calcutta 14.
Snow White Food Products Co. Ltd.—18, Netaji Subhas Road, Calcutta 1.
Sreekissen Dutta & Co.—128, Middle Road, Calcutta 14.
Tims Products Ltd.—15, India Exchange Place, Calcutta 1.
Vax Institute Laboratory Ltd.—Calcutta 4.

## CANVAS & 'PAULIN MANUFACTURERS & DEALERS

A. N. Mukherjee P. Ltd.—10, Shamlal Street, Calcutta 4.
**A. S. SOOBASHAH BROTHERS.—29, Colootola Street, Calcutta 1. Manufacturers and Dealers of Tarpaulins and Canvas.**
Bengal Canvas Goods Mfg. Co.—2B, St. George Terrace, Calcutta.
Bengal Waterproof Works Ltd.—32, Theatre Road, Calcutta 16.
Calcutta Proofing & 'Paulins Mfg. Co. Ltd.—19, Brabourne Road, Calcutta.
Crescent Star Tent Co.—29, Colootola Street, Calcutta 1.
Harley & Co., F.—5, Delhi Serampore Road, Entally, Calcutta 14.
Kilburn & Co. P. Ltd.—4, Fairlie Place, Calcutta 1.
Mohatta Brothers.—19, British Indian St., Calcutta.
Premier Canvas Co.—28, N. Subhas Road, Calcutta 1.
Tarachand Gupta & Co.—131, Cotton Street, Calcutta 7.

## CARD & GILL PINS

India Pin Mfg. Co.—1, Satya Doctor Road, Calcutta 23.
Shalimar Wood Products Private Ltd.—138, Canning Street, Calcutta.

## CARDBOARD BOX & CARTON MANUFACTURERS

Antool, S. & Co. Pvt. Ltd.—91, Upper Circular Road, Calcutta.
Bengal Box Mfg. Co.—1 & 4, Raj Kumar Chatterjee Road, Cossipur, Calcutta 2.
Bengal Cardboard Box Co.—14, Amberst Street, Calcutta 9.
Bengal Cardboard Industries & Printers Pvt. Ltd.—72, Tiljala Road, Calcutta 17.
Bharat Cardboard Industries & Printing Co.—227/5, Manicktala Main Road, Calcutta 1.
Bharat Cardboard Box Mfg. Co.—117, Keshab Sen Street, Calcutta 9.
Cardboard Box Factory Ltd., & Art Ptg. Works, Pvt. Ltd.—8-1, Chowringhee Lane, Calcutta 16.
Cardboard Box Mfg. Co.—38, Coloottolla St., Calcutta 7.
Cardboard Industrial & Printing Co.—194-B, Manicktola Main Road, Calcutta 11.
Cardboard and Paper Products Co.—44, Lockgate Road, Calcutta.
Cardboard Materials & Printing Co. Pvt. Ltd.—7, Convent Road, Calcutta 14.
Diamond Products Ltd.—4, Clive Row, Calcutta 1.
H. L. Sett & Sons P. Ltd.—21, J. R. Pandit Road, Calcutta.
Indian Cardboard Industries Ltd.—2, Fairlie Place, Calcutta 1.
Modern India Machine Tools Pvt. Ltd.—18-1-6, Canal West Rd., Calcutta.
Oriental Cardboard Industries Pvt. Ltd.—25, Ganesh Chandra Avenue, Calcutta 13.
Packaging & Printing Industries.—1, British Indian St., Calcutta 1.
Paul & Son.—1, Manicktola Main Road, Calcutta.
Prafulla Box Mfg. Co. P. Ltd.—Calcutta 9.
Sett, H. L. & Sons Pvt. Ltd.—21, Jadu Pandit Road, Calcutta 6.
Standard Cardboard Industries.—8, Belgachia Road, Calcutta.
Sunshine Cardboard Box Mfg. Co.—104, Mechua Bazar Street, Calcutta.
Swastik Box Mfg. Co.—36G, Sitalata Lane, Narkeldanga, Calcutta 11.
Unique Cardboard Box Mfg. Co. Pvt. Ltd.—12, Grey Street, Calcutta 5.
**UNIVERSAL CARDBOARD BOX FACTORY.—Cardboard Box Manufacturers, Block-makers, Designers, Paper & Board Dealers; 54, Ezra Street, Calcutta-1; Phone: 342665.**

## CARPET MANUFACTURERS AND DEALERS

**Birla Jute Manufacturing Co., Ltd.—8, Royal Exchange Place Calcutta 1.**
**CALCUTTA CARPET STORES.—Carpet Manufacturers & Exporters, Stockists of quality Indian Carpets, Cleaning, Dyeing and Repairing of Carpets Undertaken; 43, Park Street, Post Box 9039, Calcutta-16; Phone: 231464.**
Cosmo Trading Co.—98, Netaji Subhas Road, Calcutta 1.
Eastern Carpets P. Ltd.—Kernani Mansion, 29, Park Street, Calcutta.
India Carpet Weaving Enterprises.—46, Free School Street, Calcutta.
Indian Carpet Corporation.—30, Central Avenue, Calcutta 12.
**KHARDAH CO., LTD.—7, Wellesley Place, Calcutta 1.**
Shree Hanuman Jute Mills.—8, D. Square East, Calcutta 1.
Shroffs Carpets.—12, Chowringhee Road, Calcutta 13.

## CASTINGS

Abjanabh Industries P. Ltd.—25, Burtolla Street, Calcutta.
Agarwal Hardware Works P. Ltd.—167, Chittaranjan Avenue, Calcutta.
Agarwala Iron & Steel Works.—P-38, Mission Row Extn., Calcutta 13.
Ajanta Plastics P. Ltd.—2, Kailash Bose Street, Calcutta 6.
Ananta Chatterjee & Sons.—200, Belilios Road, Howrah.
Annapurna Metal Works.—3, Ashu Biswas Road, Calcutta 25.
B. N. Pachal & Sons Private Ltd.—33/1/1, Natabar Paul Road, Howrah.

Bengal Castings & Engg. Co. P. Ltd.—117, Barrackpore Trunk Road, Calcutta 35.
Bengal Iron Works P. Ltd.—16-2, Chatterjee Lane, Howrah.
Bengal Machine Tool Works.—112, Narasingha Dutta Road, Howrah.
Bharat Weighing Scales & Engineering Syndicate.—75-1, Kalachand Nandy Lane, Howrah.
Burn & Co. Ltd.—P-10, Mission Row Extension, Calcutta.
Castings & Metal Products P. Ltd.—122, B. T. Road, Calcutta.
Castings Corporation (I) P. Ltd.—45, Madhusudan Pal Chowdhury Lane, Howrah.
D. C. De & Sons.—150, Narasingha Dutta Road, Howrah.
D. K. Das & Co. P. Ltd.—233, Belilios Howrah Road, Calcutta.
Dhang & Co.—2, Sreeram Dhang Road, Salkia.

**DHANUKA STEEL LTD.—Manufacturers of quality C.I. Castings under Expert Supervision as per Customer's requirement; Specialists in C.I. Cisterns, Anvils etc. Machining also arranged; 5, Mission Row, Calcutta-1; Phone: 239736 (3 Lines).**

Dutson Engineering Corpn. P. Ltd.—5, Mahendra Chandra Garden Road, Dum Dum, Calcutta 30.
East India Engineering & Agency Co.—63-1, Banaras Road, Howrah.
Fakirchand Dass Mistry & Sons P. Ltd.—143 and 144, Belilios Road, Howrah.
Great Eastern Foundry Works.—138, Canning Street, Calcutta 1.
Hanuman Metals Ltd.—66, Stephen House, Calcutta 1.
Hindustan Industrial Co.—192, Jamunalal Bajaj Street, Calcutta 7.
Howrah City Engineering Co. P. Ltd.—1, Deshapran Sasmal Road, Howrah.
Howrah Engineering Concern P. Ltd.—19, Maharshi Debendra Road, Calcutta 6.
Howrah Engineering & Galvanising Works.—68, Benares Road, Howrah.
Howrah Iron & Steel Works P. Ltd.—90, Benares Road, Salkia.
Howrah Light Casting Co. P. Ltd.—213, Mahatma Gandhi Road, Calcutta 7.
India Weighing Scales & Engg. Co. P. Ltd.—233, Belilios Road, Howrah.
Indian Malleable Castings Ltd.—4, Lyons Range, Calcutta.
Iron Craft P. Ltd.—12 & 13, Sree Kishan Bhakat Lane, Howrah.
J. M. Sain & Bros.—15, College Street, Calcutta 12.
K. P. Das & Co. P. Ltd.—163, Netaji Subhas Road, Howrah.
K. P. Das & Sons P. Ltd.—179, Belilios Road, Howrah.
Lakshmi Narayan Eng. Works.—133, Belilios Road, Howrah.

**L. MULLICK & CO.—Castings in all Metal & Machining; Also Manufacturers of Machine Parts in Iron and Non-ferrous Metal; 81, Netaji Subhas Road, Calcutta-1; Phones: 225461 & 465477.**

Luxmi Engineering Co. P. Ltd.—123, Narasingha Dutt Road, Howrah.
Lynx Machinery Co.—104, Ultadanga Main Road, Calcutta 4.

**MANISH INDUSTRIES.—Manufacturers of "Hose clips", Sheet Metal Press Jobs, Fabricators, Ferrous and Non-ferrous Castings, Machinings, Moulders in Plastics and Bakelite and Spares of Machinery Parts etc., 133, Beliaghat Road, Calcutta-15; Phone: Office: 245426, Res.: 346043.**

Mondal & Karar Co.—177-1, Belilios Road, Howrah.
Motilal Roy.—34, Natabar Pal Road, Howrah.
National Casting Co.—8, D. Square East, Calcutta 1.
Nireka Engineering Co.—29, The Mall, Calcutta 28.
Non-Ferrous Metal Industries (P) Ltd.—161/1, Harrison Road, Calcutta 7.
Panchkori Ghosh & Sons P. Ltd.—166, Belilios Road, Howrah.
Ramkrishna Iron Works P. Ltd.—56, Ramkrishna Mandir Path, Howrah.
Reliance Engineering Works.—233, Belilios Road, Howrah.
S. C. Dass & Co. P. Ltd.—178, Belilios Road, Howrah.
Shiva Durga Iron Works.—166/1, Madhusudhan Pal Chowdhury Lane, Howrah.
Thakurdass Surekha.—40, College Street, Calcutta 12.
Ultra Engineering Co.—172-8, Madhusudan Pal Chowdhury Lane, Howrah.

## CEMENT & SOIL TESTING EQUIPMENTS

**ASSOCIATED INSTRUMENT MFRS. (INDIA) PRIVATE LTD.—B-5, Gillander House, Calcutta. Phone: 223304. Grams: "AIMIL."**

## CHAINS

Chain Mfg. Enterprises, 11, Jadab Chandra Ghosh Lane, Calcutta 36.

**REX CORPORATION (INDIA).—House for (all types of chains for Power, Load and Conveyor) Power Transmission Roller Chains, Connecting Links, M.S. & C.I. Sprocket Wheels & Pinions B.B. Malleable Iron Link Chains for Elevators, Inverted Tooth Chains, M.S. Balance Chains, M.S. Electrically Welded Short Link Chains (Confirming to B.S.S. 590 of 1949) M.S. Twisted Chains & Locking Chains etc., 71-A, Netaji Subhas Road, Calcutta-1; Phone: 229807.**

S. A. Goolamally & Co.—77, Netaji Subhas Road, Calcutta 1.

## CHEMICAL & PHARMACEUTICAL MACHINERY

A. P. V. Engineering Co. Ltd.—41, Chowringhee, Calcutta.
Chemical Plant & Equipment Ltd.—7, Lower Chitpore Road, Calcutta.
Corporated Engineers (India) P. Ltd.—7, Chittaranjan Avenue, Calcutta 13.
Engineers (Overseas) Corpn. P. Ltd.—62, Alipore Road, Calcutta 27.
H. Mukerji & Banerjee Pvt. Ltd.—Shamprasad Mookerjee Road, Calcutta.
Heroes Engineering Works.—20, Paul Street, Calcutta.
Hindustan Development Corpn. Ltd.—38, Tiljala Road, 24-Parganas.
Jewell Fitter Co. Ltd.—56-A, Free School Street, Calcutta.
Lilooah Iron Works.—Guba Park, Lilooah, Howrah.
Oriental Machinery Supplying Agency Ltd.—17/2/H/18, Canal West Road, Calcutta 9.
W. J. Alcock & Co. P. Ltd.—7, Hastings Street, Calcutta.

## CHEMICALS (IMPORTERS, STOCKISTS & MFRS.)

Aceto Chemicals P. Ltd.—22, Brabourne Road, Calcutta 1.
Alpha Trading Co.—4, Bysack Lane, Calcutta 7.
Atlas Chemical Industries.—33, Canal South Road, Calcutta.
Asiatic Chemical Co.—18/B, Sukeas Lane, Post Box 2101, Calcutta-1.
Basic Synthetics and Chemicals P. Ltd.—17, North Road, Calcutta 32.

**BENGAL CHEMICAL & PHARMACEUTICAL WORKS LTD.—6, Ganesh Chandra Avenue, Calcutta 13; Pharmaceuticals, Heavy and Fine Chemicals, High Class Toilet Products, Coal Tar Distillation Products, Fire Extinguishers, Printing inks, Driers, etc., Branch Office—Bombay and Kanpur.**

C. K. Thakkar & Co.—22, Brabourne Road, Calcutta.
Chemical Industries Ltd.—25, Swallow Lane, Calcutta 1.
Chemical Importers and Distributors P. Ltd.—P-21/22, Radhabazar Street, Calcutta.
Chemical Plant and Equipment Ltd.—66 Dharamtolla Street, Calcutta.
Cyanides and Pigments Ltd.—23-B, Netaji Subhas Road, Calcutta.
D. Jayantilal & Co.—8/2, Rupchand Roy Street, Calcutta 2.

**HINDUSTHAN CHEMICAL & INDUSTRIAL CORPORATION.—Importers & Stockists of Industrial Chemicals Viz. Calcium Carbide, Raw Materials for Paints, Solvents and Aromatic Chemicals etc., 22, Brabourne Road, Calcutta-1; Phone: 220825 (3 Lines).**

Hindustan Scientific Chemical Industries P. Ltd.—6, Mangoe Lane Calcutta.
Monsanto Chemicals of India Ltd.—19, Mission Row, Calcutta.
Neo Chemical and Engineering Industries.—38, Pratapadiya Place, Calcutta 26.
P. Vrajlal Dulabhdas & Co.—22, Brabourne Road, Calcutta 1.
Pinkto Chemicals.—7, Amratolla Street, Calcutta 1.
Shroff Chemicals P. Ltd.—3, Rafi Ahmed Kidwai Road, Calcutta 12.

## CHEMICALS, DRUGS AND PHARMACEUTICAL PRODUCTS MANUFACTURERS

Abco's Pharmaceutical Works (India) Ltd.—Abco House, Calcutta 11.

Adeco Ltd.—Manufacturers of Drugs and Pharmaceuticals including injectables, Spirituous and non-Spirituous B.P. Preparations and Patent Preparations, Fine Chemicals, Oils, Soft Soap, etc., Adeco nagar, Dist. Hooghly; City Office: 2, Jawaharlal Nehru Road, Calcutta 13; Phone: 238982.

Adcco Ltd.—29-3-A, Chetla Central Road, Calcutta 27.
Albert David Ltd.—15, Chittaranjan Avenue, Calcutta 13.
Alkali & Chemical Corpn. of India Ltd.—ICI House, 34, Chowringhee, Calcutta 16.
Allen & Hanbury's Ltd.—E-4, Clive Buildings, Netaji Subhas Road, Calcutta.
Allied Resins & Chemicals P. Ltd.—13, Camac Street, Calcutta 16.
Alpha Foods & Chemicals P. Ltd.—Calcutta 33.
Arrow Co.—10-1, Biprodas Street, P.O. Amherst Street, Calcutta 9.
Aryan Drug House Pvt. Ltd.—28, Kali Kumar Banerjee Lane, Calcutta 2.

**ASHOK EXPORTERS & IMPORTERS.—Importers and Stockists of all kinds of Chemicals including Caustic Soda, Soda Ash, Bleaching Powder, Hydrosulphite of Soda etc., 4, Bhawani Dutt Lane, Calcutta-7; Phones: 342732 & 346168.**

Asia Drug Co., Ltd.—29, Strand Road, Calcutta 1.

**ASIATIC CHEMICAL CO., THE.—18/B, Sukeas Lane, Post Box No. 2101, Calcutta-1; Phones: 221567 & 229396; Exporters and Stockists of Industrial Heavy Chemicals and Solvents, Manufacturers of Zinc chloride Fused and Anhydrous Powder of all grades, Zinc, Sulphate, Sodium Acetate, Manganese Sulphate etc. etc.**

Asiatic Drug House Ltd.—42, Barwaritola Road, Belliaghata, Calcutta.
Asiatic Oxygen & Acetylene Co., Ltd.—8, Dalhousie Square, Calcutta.
Assam Sillimanite Ltd.—6, Ganesh Chandra Avenue, Calcutta.
Associated Drugs & Chemical Works.—197, P. Ghat Road, Barnagore, Calcutta.
Azad Hind Pharmaceutical Works P. Ltd.—Panchanatala Road, Calcutta.
Banerjee Chemical Works.—88A & 89, Bagmari Road, Calcutta 11.
Banga Luxmi Ayurved Works.—7, Chowringhee Road, Calcutta 13.
Banga Luxmi Chemical Works.—7, Chowringhee Road, Calcutta 13.
Bangalore Whitelead Syndicate Pvt. Ltd.—Gillander House, Calcutta.
Barnagore Chemical Works.—4, Chowringhee Road, Calcutta.
Basak, K. P. & Co.—29A, Durga Charan Mitter Street, Calcutta 6.
Basmall & Co. (India) Ltd.—296/98, Jessore Road, Calcutta 28.
Bathgate & Co. Ltd.—17, 18 & 19, Old Court House Street, Calcutta.
Belur Chemical Works.—P.O. Bellur Math, Railway Station, Belur, Howrah.
Bengal Acid & Chemical Manufacturing Co.—27-A, Acharya Prafulla Chandra Road, Calcutta 9.

**BENGAL CHEMICAL & PHARMACEUTICAL WORKS LTD.—6, Ganesh Chandra Avenue, Calcutta 13. Pharmaceuticals, Heavy and Fine Chemicals, High Class Toilet Products, Surgical and Hospital Equipment, Laboratory Equipment, Coal Tar Distillation Products, Fire Extinguishers, Printing Inks, Driers, etc., Branch Offices: Bombay & Kanpur.**

Bengal Drugs & Pharmaceutical Works.—Lakshmibilas House, 11, Raj Narayan Street, Calcutta 9.
Bengal Drug & Chemical Works.—7-1A, Nabin Sarcar Lane, Baghbazar, Calcutta 3.
Bengal Health & Chemical Works Ltd.—2, Harimohan Roy Lane, Calcutta 15.
Bengal Immunity Co., Ltd.—153, Dharamtala Street, Calcutta 13.
Bengal Industrial & Scientific Works Ltd.—83-B, Vivekananda Road, Beadon St., Calcutta.
Bengal Medical Research.—63-3, Mirzapur Street, Calcutta 9.
Bengal Pharma Institute.—32/2, Muraripukur Road, Calcutta.
Bengal Research Institute.—13/3, Natherbagan St., Calcutta.
Benger Laboratories (I) Ltd.—16, Hare Street, Calcutta.

**BHANSALI BROTHERS.—Stockists of Chemicals & Solvents for Textile, Paints, Plastic Industries and in Naphthenates, Linoleates, Stearates, Textiles and Wood Preservatives; 55-F, Canning Street, Calcutta-1; Phone: 341860, Grams: "DURDARSI".**

Bharat Immunity Laboratories.—67, Chakradanga Road, Calcutta.
Bharat Laboratory & Chemical Works Ltd.—Post Office Tollygunge, 24-Parganas.
Bharati Rasayanagar Ltd.—29-3A, Chetla Central Road, Calcutta 27.
Bharat Laboratory & Chemical Works Ltd.—10, Prince Anwar Shah Road, Calcutta.
Bhattacharjee Chemical Works.—25, Latafat Hussain Lane, Calcutta 10.
Bhattacharyya, M. & Co.—85, Netaji Subhas Road, Calcutta.
Bijoya Chemical Works Ltd.—Provi Road, Behala, Calcutta 34.
Bio Pharma Laboratories.—106/2, Hazra Road, Calcutta.
Birla Laboratories.—2, Birjara Lane, Calcutta 30.
Bisharad's Ayurvedic Laboratory.—14, Puranchand Nahar Avenue, Calcutta 13.
Bose Chemical Works.—18/1, Sahitya Parishad St., Calcutta.
Bose's, Dr., Laboratory Ltd.—45, Amherst Street, Calcutta 9.
Brahmachari Research Institute.—82-3, Cornwallis Street, Calcutta 4.
British Drug Houses (I) Ltd.—58/D, Chowringhee Road, Calcutta 16.
British Medicines & Pharmaceutical Co.—1/1, Justice Dwarkanath Road, Calcutta 20.
British Medicine & Pharmaceutical Co.—44/45, Ezra Street, Calcutta.
Bronkol P. Ltd.—25, Indra Biswas Road, Calcutta 37.
B. S. B. & Co. Ltd.—P-7, Mission Row Extension, Calcutta.
Burma Lime & Chemical Co., Ltd.—5, Clive Ghat Street, Calcutta.
Butto Kristo Paul & Co., Pvt. Ltd.—1, Bonfield Lane, Calcutta.
C. D. Thakkar & Co.—22, Brabourne Road, Calcutta 1.
C. S. I. (Chemicals & Pharmaceuticals) Pvt. Ltd.—9-3, Chowringhee Road, Calcutta 13.
Calcutta Acid & Chemical Co.—226, Bagmari Road, Calcutta 11.
Calcutta Chemical Co. Ltd.—35, Panditia Road, R. B. Avenue, Calcutta 29.
Calcutta Industrial Chemicals & Minerals Co. Ltd.—43, Dharamtala Street, Calcutta 13.
Calcutta National Chemical Industries.—17, Badridas Temple St., Calcutta.
Calcutta Polyclinic Ltd.—6-A Sureshnath Banerjee Road, Calcutta 13.
Calcutta Pure Drug Co.—2, Cooper Lane, Calcutta.
Calcutta Sereological Institute & Laboratory Ltd.—9-3, Chowringhee, Calcutta 13.
Calcutta Soap Works Ltd.—Calso Park, Ballygunge Siding Road, 24-Parganas.
Capco Ltd.—1, Netaji Subhas Road, Calcutta 1.
C. C. Industries.—81-1-1D, Raja Dinendra Street, Calcutta 6.
Central Chemical Works.—7, Bisseswar Banerjee Lane, South Bantra, Howrah.
Central India Medical Laboratories Ltd.—62, Landsdowne Road, Calcutta.
Central Polyclinic Laboratory & Chandrakanta Pharmacy,—45-1, Beadon Street, Calcutta 6.
Century Chemical & Pharmaceutical Works Ltd.—P-64, Raja Nabakissen Street, Calcutta.
Chakravarty Chemical Industries Ltd.—17, Mangoe Lane, Calcutta.
Charak Chemical Works Ltd.—161-1, Harrison Road, Bangur Bldg., Calcutta 7.
Chemical Corpn. of India.—6, Kalicharan Ghose Road, Calcutta.
Chemical Industries Co. Private Ltd.—29, Strand Road, Calcutta.
Chemical & Surgical Works Ltd.—186, Bow Bazar Street, Calcutta 12.
Chemical Supplies (Bengal) Co.—10-C, Gurudas Dutt Garden Lane, Calcutta 4.
Chemical Synthetics (India).—83/A, Karbala Tank Lane, Calcutta 6.
Chemicals and Solvents Ltd.—Post Box 707, Calcutta 1.
Chempure Ltd.—6, Lucas Lane, Calcutta.
Chinla Pharmaceutical Industries P. Ltd.—18/26, Ballygunge Place, Calcutta 19.
Ciba Pharma Ltd.—59-B, Chowringhee, Calcutta 20.
City Chemical Industries.—58-D, Netaji Subhas Road, Calcutta.
City Drug & Chemical Works.—17/1, Shibtola Street, Calcutta.
Cured Laboratories (I) Ltd.—240/1, Russa Road South, Calcutta.
Dabur (Dr. S. K. Burman) Pvt. Ltd.—142, Rasbehari Avenue, Calcutta, 29.
Dacca Laboratories.—7, Madan Chatterjee Lane, Calcutta.
Delta Chemical Industries.—81-A, Hazra Road, Calcutta 26.
Detto Chemicals.—Auddy Lane, Serampore, Hooghly.
Dey's Medical Stores, Pvt. Ltd.—6/D, Lindsay Street, Calcutta 16.
Dolphin Laboratories Ltd.—11-A, Prince Anwar Shah Road, Calcutta.
Dominion Chemicals Ltd.—35-A, Simla Street, Calcutta 6.
Dr. Paul Lohmann (I) Ltd.—23, Camac Street, Calcutta 16.
Dragon Chemical Works Pvt. Ltd.—204-1, Russa Road South, Calcutta 33.
Drug House (India) Ltd.—52, Sambhunath Pandit Street, Calcutta 25.
Durgapur Chemicals Ltd.—10, Middleton Row, Calcutta 16.
East India Chemical Works Ltd.—Victoria Road (South), Calcutta 30.
East India Pharmaceutical Works Ltd.—11/1/4, Syama Prosad Mukherjee Road, Calcutta 26.
Eastern Chemical Products.—6, Brahmanpara Lane, Calcutta 6.
Eastern Drug Co. Ltd.—4, Moyerpore Road, Calcutta 27.

**EASTERN INDUSTRIAL CORPORATION.—Starch, Dextrines, Industrial Chemicals, Pharmaceutical, Mineral 'Eastern' Cereal Core Binder for Foundries; 142/1, Radha Bazar Street, Calcutta-1; Phone: 225508, Grams: "UNNAYAN", Calcutta.**

Emsons Pharmaceuticals P. Ltd.—111-A, S. P. Mukherjee Road, Calcutta 26.
Eyedrop Manufacturing Co.—271, Chittaranjan Avenue, Calcutta 16.
Epsilon Laboratories.—35/2, Panditia Road, Calcutta 29.
Fairdeal Corporation Ltd.—7, Chittaranjan Avenue, Calcutta 13.
Febrome Ltd.—172, Landsdowne Road, Calcutta.
Filpen Products.—70-3, Sambhunath Pandit Street, Calcutta 25.
Forward Chemical Industries.—18, Tamer Lane, Calcutta.
Frank Ross & Co. Ltd.—7, Chowringhee, Calcutta 13.
G. D. A. Chemicals Ltd.—36, Panditia Road, Calcutta 29.
G. D. Pharmaceuticals P. Ltd.—Calcutta 3.
Gem Chemical Co.—54, Sri Gopal Mallick Lane, Calcutta 12.
General Drugs Antiseptics & Chemicals.—44, Badridas Temple St., Calcutta.
Ghosh, M. L. & Co.—Windsor House, Mission Row Extn., Calcutta.
Giemcie Traders Ltd.—26, Nakuleshwar Bhattacharjee Lane, Calcutta 26.
Glaxo Laboratories (I) Ltd.—32, Stephen House, Calcutta.
Globe Research Institute.—L-A, Sanatan Seal Lane, Off Wellington St., Calcutta 12.
Gluconate Ltd.—70A, Prinsep Street, Calcutta 13.
Grimault Ltd. Laboratories.—5, Garstin Place, Calcutta.

**H. NAGINDAS & CO.—Dealers in Industrial Chemicals, Laboratory Chemicals, Photographic Chemicals, Solvents, Drugs, Indicators, Stains and Re-agents; 55/125, Canning Street, Calcutta-1; Phones: 345640 & 476508, Grams: "NAVI-ASHA".**

H. S. Das.—104/1, Serpentine Lane, Calcutta 14.
Health Remedies & Laboratories.—42-D, Jibon Krishna Mitra Road, Belgachia, Calcutta.
Herbex Chemical Laboratories (I) Ltd.—41-D, Baldeopara Road, Calcutta.
Hindustan Drug House Ltd.—120, Dharamtolla Street, Calcutta.
Hindustan Industries Co.—18, Mangoe Lane, Calcutta.
Hindusthan Heavy Chemicals, Ltd.—Hindusthan Bldgs., 4, Chittaranjan Avenue, Calcutta 13.
Hindusthan Pharmaceutical Works Pvt. Ltd.—44, Beliaghatta Main Road, Calcutta 10.
Hindusthan Scientific Chemical Industries Pvt. Ltd.—6, Mangoe Lane, Calcutta.
Hoechst Pharma P. Ltd.—6, Ganesh Ch. Avenue, Calcutta.

Howrah Chemical Works.—148, Mahatma Gandhi Road, Calcutta 7.
Hutchison, J. & R. Pvt. Ltd.—10, Clive Row, Calcutta 2.
Ihothas Trading Co.—22, Netaji Subhas Road, Calcutta.
Immune Drug Co. Ltd.—14, Bancharan Akrur Lane, Calcutta.
Immune Chemical Laboratory Ltd.—19, Canal Street, Calcutta 14.
Immunity Chemical Co.—8/3, Canal Street, Calcutta 14.
Immuno Biological Laboratories.—15, Roy Mansions, Elgin Road, Calcutta 20.
Imperial Chemical Industries (I) Ltd.—34, Chowringhee, Calcutta.
India Alkalies Ltd.—5, Garstin Place, Calcutta.
India Chemical Industries, Ltd.—105, Cotton Street, Calcutta 7.
Indian Chemical & Pharmaceutical Industries.—188, Manicktolla Main Road, Narkeldanga, Calcutta.
Indian Chemical & Therapeutical Works, Ltd.—68, Barrackpore Trunk Road, Calcutta 2.
India Chemico Mineral Industries.—188, Manicktolla Main Road, Calcutta.
India Drug Laboratory.—P-7, Beliaghata Main Road, Calcutta 10.
Indian Chemical Institute.—100/A, Grey Street, Calcutta.
Indian Chemical & Pharmaceutical Works Ltd.—9, Barrackpore Trunk Road, Cossipore, Calcutta 3.
Indian Chemical & Pharmaceutical Institute.—59-J, Garper Road, Calcutta.
Indian Health Institute & Laboratory Ltd.—1, Garandanga Road, Dum Dum Cantt., Calcutta 28.
Indian Medical Laboratory Ltd.—44, Badur Began St., Calcutta 9.
Indian Medical Supply Laboratory Ltd.—5, India Exchange Place, Calcutta 1.
Indian Mineral Industries Ltd.—22-1 & 22C, Dum Dum Road, Calcutta 2.
Indian National Drug Co. Ltd.—5/2, Beliaghata Main Road, Calcutta 10.
Indian Oxygen Ltd.—48-1, Diamond Harbour Road, Calcutta 27.
Indian Overseas Drug House Ltd.—19/1, Radhanath Mallick Lane, Calcutta.
Indian Pharmaceutical Works.—13, Upper Circular Road, Calcutta 9.
Indian Research Institute Ltd.—3, Rustomjee Parsee Road, Cossipore, Calcutta.
Indian Research Laboratories.—16, Belgachia Road, Calcutta 4.
Indian Research Laboratories Ltd.—37/7A, Khelat Babu Lane, Calcutta.
Indian Scientific Industries.—2/2-P1, Upper Chitpore Road, Calcutta.
Indo-British Chemical Co.—32-2, Murari Pookur Road, Calcutta 4.
Indo-European Agency Pvt. Ltd.—67, Ezra Street, Calcutta.
Industrial & Chemical Laboratory.—5-3, Harinath Nayaratna Lane, Sibpur, Howrah.
Industrial Chemicals Corpn.—22, Swallow Lane, Calcutta.
Industrial Gases Ltd.—138, Canning Street, Calcutta.
International Chemical Industries.—Jadavpur, Calcutta 32.
International Drug & Chemicals Co.—55-104, Canning Street, Calcutta 1.
International Remedies, Ltd.—8-A, Rajendra Lal Street, Calcutta 6.
Ivy Chemical & Industrial Works.—94, Vaskarpara Road, P.O. Ghusuri, Howrah.
Jagabandhur Chemical Works Ltd.—2, Ram Krishna Lane, Calcutta 3.
Jatiya Ayurvediya Aushadhalaya.—42, South End Park, Calcutta 29.
Jay Shree Chemicals & Fertilizers.—8, India Exchange Place, Calcutta 1.
Jewel of India Perfume Co.—Cocola House, Behala, Calcutta 34.
Kalpataru Ayurvedic Works.—223, Chittaranjan Avenue, Calcutta 6.
Kanoria Chemicals & Industries Ltd.—9, Brabourne Road, Calcutta 1.
Kema Products Ltd.—3A/4, Ram Ratan Bose Lane, Calcutta.
Krishna Laboratories.—14/1, Sri Gopal Mallick Lane, Calcutta.
Kemp & Co. Ltd.—21, Old Court House Street, Calcutta.
Laboratoires Grimault (Private) Ltd.—40/B, Prinsep Street, Calcutta 13.
Lily Chemical Works.—3, Ramakanta Sen Lane, Calcutta 4.
Lion Chemical Works.—141/T/1B, South Sinthee Road, Cossipore, Calcutta 2.
Loknath Chemical Works.—31/1, The Mall, Dum Dum, Calcutta 28.

**LUCKY ACID & CHEMICAL WORKS.—Manufacturers of Analytical, C. P. & Pure Grade Hydrochloric, Sulphuric & Nitric Acids and Chemicals; 32/2, Muraripukur Road, Calcutta-4; Phone: 353147.**

Lyndon Chemical Industries Ltd.—4, Rifle Road, Park Circus, Calcutta 17.
Mahalaxmi Industries.—11/2/1, Panchanantala Lane, P.O. Bowbazar, Calcutta 12.
Mandoss Drugs Ltd.—221-2, Strand Bank Road, Calcutta.
Malixion Chemical Works.—6-J, Kavatola Road, Calcutta 29.
Martin & Harris Pvt. Ltd.—Mercantile Bldg., Lall Bazar, Calcutta 1.
May & Baker (India) Ltd.—7, Old Court House Street, Calcutta.
M. C. G. P. Works.—21B, Nivedita Lane, Baghbazar, Calcutta 3.
Medical Health Institute Ltd.—82, Harrison St., Calcutta 9.
Medico Products Ltd.—5, Bonfield Lane, Calcutta.
Mendina Pharmaceutical Works.—34, Alipore Road, Calcutta 27.
Metropolitan Chemical Industries Ltd.—56, Christopher Road, Calcutta 14.
Metropolitan Drug House Pvt. Ltd.—55/125, Canning Street, Calcutta 1.
Mill Ford Biochemical Industries Ltd.—89, Chowringhee Road, Calcutta.
Mira Perfumery & Chemical Works.—69, Nimtolla Ghat Street, Calcutta.
Mira Chemical Industries Ltd.—1, Indrani Park, Calcutta 33.
Modern Scientific Equipment Co.—36, Brabourne Road, Calcutta 1.
Mumtaz & Co.,—H. 11, Swinhoe Lane, Ballygunge, Calcutta 19.
Nadia Chemical Works Pvt. Ltd.—C-44 to 46, College St. Market, Calcutta 12.
Nag Chemical Industries.—4, Mandeville Gardens, Ballygunge, Calcutta 19.
Nandy & Co.—52, Sambhunath Pandit St., Calcutta 25.
National Carbon Co. (India) Ltd.—P-17, Mission Row Extn., Calcutta.
National Chemical Industries Co.—124, Harrison Road, Jalan House, Calcutta 7.
National Chemical & Pharmaceutical Works.—4, Narkelbagan Lane, Calcutta.
National Chemical & Salt Works (India) Ltd.—5, Commercial Bldgs., Netaji Subhas Road, Calcutta.
National Medicine Mfg. Co.—19, Banstola Lane, Calcutta 7.
National Pure Drugs (I) Ltd.—4/1, Ultadanga Main Road, Calcutta.
Neovit Laboratories Ltd.—9-B, Shahnagar Road, Kalighat, Calcutta 26.
Nestle's Products (I) Ltd.—7, Hare Street, Calcutta.
New India Acids & Chemicals.—25-C, Panchanantola Lane, Calcutta 12.
New India Chemical Co. & Pharmaceutical Works.—29, Burtolla St., Calcutta.
New Research & Chemical Industries Ltd.—26, Ram Kamal Sen Lane, Calcutta.
New Standard Barley Mfg. Co.—105, Cotton Street, Calcutta 7.
Niru Veena Corporation.—55, Canning Street, Calcutta.
Nivea Pharmaceuticals Ltd.—Clive Buildings, Calcutta 1.
Nu-way Mfg. Co.—6, Syed Amirali Avenue, Park Circus, Calcutta 17.
Odhavji Devidas & Co. P. Ltd.—9, Armenian Street, Calcutta.
Oriental Research & Chemical Laboratory Ltd.—Qumaresh House, Salkia, Howrah.
Oriental Research & Chemical Laboratory Ltd.—61, Hurroganj Road, Calcutta.
Oster Chemical & Pharmaceutical Works Private Ltd.—78-B, Manicktolla Street, Calcutta 6.
Pasteur Laboratories Pvt. Ltd.—2, Cornwallis Street, Calcutta 6.
Pearl Chemical Industries Pvt. Ltd.—2, Bonomali Chatterjee Street, Calcutta 2.
People's Research Laboratories Ltd.—1, Sura East Road, Calcutta.
Pharma Chemical International Ltd.—4, Kaloo Ghose Lane, Calcutta.
Phosphate Co. Ltd.—14, Netaji Subhas Road, Calcutta.
Phoenix Chemical Laboratories Ltd.—1, Amrit Lal Dawn Road, Barnagore, Calcutta.
Phoenix Drug House Ltd.—10, Bonfield Lane, Calcutta.

**PIGMENTS & CHEMICAL INDUSTRIES PRIVATE LTD.—Manufacturers of High grade zinc oxide, Cuprons Oxide, Sodium Aluminate and other chemicals; 32, Armenian Street, Calcutta-1; Phones: 331214 & 331215.**

Pioneer Drug & Chemical Works Ltd.—3C, Baldeopara Road, Calcutta.
Pioneer Industrial Syndicate.—67, Ezra Street, Calcutta.
P. K. Sen's Drugs & Chemical Works.—105-1, Ultadanga Main Rd., Calcutta 4.
Primco Ltd.—P-39, Mission Row Extension, Calcutta.
President Chemical Works.—49, Karbala Tank Lane, Calcutta 6.

**PROGRESSIVE CHEMICAL INDUSTRIES PRIVATE LTD.—Manufacturers, Exporters and Suppliers of Fine qualities of Saltpetre (Potassium Nitrate), 50, Christopher Road, Calcutta-46; Phone: 443945.**

Puspita Industries.—56, South End Park, Calcutta 29.
Radha Chemical Co. Ltd.—3, Synagogue Street, Calcutta 1.
Rajvaidya Ayurveda Works.—172, Bowbazar Street, Calcutta 12.

**RANIGANJ CHEMICAL WORKS.—105, Cotton Street, Calcutta-7; Manufacturers of Heavy Chemicals, Copper Sulphate, Ferrous Sulphate, Manganese Sulphate, Sodium Sulphate, Potash-Nitrate, Calcium Chloride, Zinc Sulphate and Sodium Acetate.**

Rasayana Shipa Ltd.—97, Victoria Road, Barnagore, Calcutta.
Ratan Perfumery Works.—Kapasdanga, Hooghly.
Rays Laboratories Pvt. Ltd.—114, Ashutosh Mukherjee Road, Calcutta 25.
Regalin Laboratories Ltd.—11, Ghosh Lane, Calcutta 12.
Release Reliance Research Ltd.—12-B, Balaram Bose Ghat Road, Calcutta.
Reno Chemical Works.—139/2, Rusa Road, Calcutta.
Renuka Chemical Works.—153/1, Radhabazar Street, Calcutta.
Research Industries Ltd.—9, Dharamtolla Street, Calcutta 13.

**S. P. SINGH & CO.—Importers and Stockists of Industrial Chemicals Including Activated Carbon, Fullers Earth, Filter Aids, Nickel Formate and Nickel Catalyst, Cellulose Acetate/Butyrate; 62, Ganesh Chandra Avenue, Calcutta-13; Phones: 244975 & 242615.**

Sahu Chemicals & Fertilisers—11, Clive Row, Calcutta 1.

Sakti Chemical Works.—10-11, Upper Circular Road, Calcutta.
Sandoz Products Ltd.—P-117, Saklat Place, P.O. Box 491, Calcutta.
Sarkar Gupta & Co. Pvt. Ltd.—154-1, Mahendra Bhattacharjee Rd., Howrah.
Scientific Indian Research Institute.—22/1/1, Jaliatola St., Calcutta.
Scientific Supplies (Bengal) Co.—C-37 & 38, Coole St. Market, Calcutta 12.
Scientific Research Association.—32, Scott Lane, Calcutta.
Sen, C. K. & Co. Ltd.—Jabakusum House, 34, Chittaranjan Avenue, Calcutta.
Sen, Kaviraj M. N. & Co. (P) Ltd.—18-1 & 19, Lower Circular Road, Calcutta 1.
Sen O. K. & Co., Pvt. Ltd.—Jabakusum House, 34, Chittaranjan Avenue, Calcutta 12.
Sen's P. K. Drugs & Chemical Works.—105-1, Ultadanga Main Rd., Calcutta 4.
Senco Laboratories.—10/1B, Swinhoe Street, Calcutta.
Serochemic (I) Laboratories.—7, Bhutnath Paul Road, Dum Dum, Calcutta.
Seth Chemical Works.—160, Jamunalal Bajaj Street, Calcutta 7.
Seven Chemical & Pharmaceutical Works Ltd.—302/1, Upper Circular Road, Calcutta.
Shalimar Chemical Works Pvt. Ltd.—Calcutta 27.
Shankar Distillery & Chemical Works Ltd.—2, Doyahatta Street, Calcutta 7.
Shaw Wallace & Co.—Fertilisers Dept., 4, Bankshall St., P.B. No. 70, Calcutta.
Sisir Chemical Works.—2/1B, Nirode Behari Mallick Street, Calcutta.
Smith Stanistreet & Co. Ltd.—18, Convent Road, Entally, Calcutta 14.
Solmint Ltd.—4, Ram Ratan Bose Lane, Calcutta.
Soreline Chemical Works.—12, Haji Zakaria Lane, Calcutta.
Sree Drug Chemical Works.—8, Patwar Bhagan Lane, Calcutta.
Srinath Chemical Ltd.—249, Bowbazar St., Calcutta 12.
Stadco Stores & Laboratories Ltd.—57/1/1A, Raja Dinendra St., Calcutta 6.
Stadmed Ltd.—15, Jawpure Road, Calcutta 30.
Standard Chemical Industries.—378, G. T. Road, North, P.O. Belur Math, Howrah.
Standard Chemical & Pharmaceutical Works.—1, Jawar Lal Dutta Lane, Calcutta 4.
Standard Industrial & Chemical Corpn. Ltd.—24, Chittaranjan Avenue, Calcutta 12.
Standard Pharmaceuticals Ltd.—67, Dr. Suresh Sarkar Road, Calcutta 14.
Standard Products Ltd.—67, Dr. Suresh Sarkar Road, Entally, Calcutta.
Sterling Pharmaceutical Products Co. Ltd.—72-2, Sambhunath Pandit Street, Calcutta 25.
Super Drugs Ltd.—258-A, Upper Circular Road, Calcutta 6.
Swaika Oil Mills.—18-B, Brabourne Road Calcutta 1.
Swan Laboratories (I) Ltd.—21/A, Chore Bazar Lane, Calcutta.
Swandent (Eastern) Ltd.—Post Box 712, Calcutta 12.
Tecbnico Enterprises P.Ltd.—Swallow Lane, Calcutta.

**THAKKAR, C. D. & CO.—Manufacturers of Alumina Ferric, Alumina Sulphate, Alum, Magnesium Sulphate, Hydrochloric Acid, Sodium Sulphate, Sodium Aluminate etc., Dealers in Chemicals (Heavy & Fine); 22, Brabourne Road, Calcutta-1; Phone: 225140 & 227267.**

Tropical Chemical, Works.—25, Indra Biswas Road, Calcutta 37.
Tropical Drug Works.—1-6, Fakir Chakrabarthy Lane, Calcutta 6.
Tropical Laboratories.—2, Ram Chandra Das Road, Calcutta.
Union Carbide India Ltd.—Ilaco House, 1 & 3, Brabourne Road, Calcutta 1.
Union Drug Co. Ltd.—285, Bowbazar Street, Calcutta 12.

**UNITED DRUG & CHEMICAL CO.—Importers & Stockists of all kinds of Heavy and Fine Chemicals, Laboratory Chemicals and Reagents, Filter Papers, Drugs and Medicine; 16, Bonfield's Lane, Calcutta-1; Phone: 221888 and 223588.**

Universal Chemical Works.—34, Muraripukur Road, Ultadanga, Calcutta 4.
Universal Drug House (P) Ltd.—10, Bonfield Row, Calcutta 1.
Vax Institute Laboratory Ltd.—13, Kritybash Mukherjee Road, Calcutta 4.
Vitamin Laboratories.—16/2, Mahendra Bose Lane, Calcutta.
Waldie, D. & Co. Ltd.—Gillander House, Netaji Subhas Road, Ultandanga, Calcutta 1.
Walford Chemical & Pharmaceutical Works.—9, Clive Road, Calcutta.
Wasserman Institute (Laboratory) Ltd.—50, Cornwallis Street, Calcutta.

**WESTERN COMMERCIAL CORPORATION,—Importers & Exporters of Chemicals, Solvents, Tanning Materials, Industrial Resins, Plasticisers, Bichromates, Acetic Acid; 3, Bentinck Street, Calcutta-1; Phone: 237540 & 235733, Grams: "VALIACO".**

## CHEMICAL & PHARMACEUTICAL MERCHANTS

A. Natarajan.—71, Ganesh Chandra Avenue, Calcutta.
Allied Agency.—16, Bonfield Lane, Calcutta.
Anand Overseas Co.—32, Armenian Street, Calcutta.
Arun Importers Pvt. Ltd.—5, Pollock Street, Calcutta.
Ashok Exporters & Importers.—4, Bhawani Dutta Lane, Calcutta.
Asian Traders.—22, Bonfield Lane, Calcutta 1.
Associated Agencies Co.—P-11, New Howrah Bridge Approach Road, Calcutta.
B. R. Harman & Mohatta (India).—19, British Indian Street, Calcutta.
Babulal Santhalia.—48, Canning Street, Calcutta.
Badriprasad Satyanarain.—89/8, Lower Chitpur Road, Calcutta.
Ballabram Badrinarain.—135, Canning Street, Calcutta.
Banshidar Purshottamdas.—178, Mahatma Gandhi Road, Calcutta 7.
Basant Brothers.—3, Amratolla Street, Calcutta.
Bejaya Glass Depot.—4, Jackson Lane, Calcutta.
Bengal Chemicolour Co.—10, Armenian Street, Calcutta 1.
Bengal Corpn. Ltd.—14, Netaji Subhas Road, Calcutta.
Bengal Mineral Supply Co.—71/A, Netaji Subhas Road, Calcutta.
Bengal Scientific & Chemical Supply Co.—100, Keshab Chandra Sen Street, Calcutta.
Berlia Trading Co.—2, Doyehatta Street, Calcutta.
Bhagwandass Puranmal.—4, Narain Babu Lane, Calcutta.
Bharat Export & Import Co.—6, Karbala Mohammed Street, Calcutta.
Bharat Commercial Agency.—12, New Howrah Bridge Approach Road, Calcutta.
Bharat Import Agency.—167, Old China Bazar Street, Calcutta.
Bharat Laxmi Trading Co. (P) Ltd.—278, Chittaranjan Avenue, Calcutta.
Bharat Tubewell Co. Ltd.—118-A, Chittaranjan Avenue, Calcutta.
Bharmal Champalal.—26/4, Armenian Street, Calcutta 1.
Bhimsain Sundersain.—14, Amratolla Street, Calcutta.
Bhotica Traders P. Ltd.—208, Cross Street, Calcutta.
Bhudarmal Ramchander.—122, Cotton Street, Calcutta 7.
Bhuta & Co.—8/B, Amratolla Street, Calcutta.
Biyani & Sons P. Ltd.—137, Canning Street, Calcutta.
Bombay Textiles.—178, M. Gandhi Road, Calcutta 7.
C. A. Mohammad.—26, Brabourne Road, Calcutta.
Calcutta Traders Co.—28, Amratolla Street, Calcutta.
Calcutta Trading Corpn.—12, Lower Chitpur Road, Calcutta.
Capco Private Ltd.—14, Netaji Subhas Road, Calcutta.
Champalal Kajaria.—53, Munshi Saddrudin Lane, Calcutta.
Chemi Colour Agency.—12, Bonfield Lane, Calcutta.
Chemical Agents (P.) Ltd.—25-C, Swallow Lane, Calcutta 1.
Chemical & Commercial Industry.—39A, Armenian Street, Calcutta.
Chemical & Solvents Ltd.—27/29, Brabourne Road, Calcutta.
Chemical Importers & Distributors (P) Ltd.—21/22, Radhabazar Street, Calcutta.
Chemical Supplies (Bengal) Co.—10-C, Gurudas Dutt Garden Lane, Calcutta 4.
Chemical Trading Co.—72, Canning Street, Calcutta.
Chemicals & Pharmaceuticals Supply Agency Ltd.—39, Strand Road, Calcutta 1.
Chunilal Radheshyam.—22, Amratolla Street, Calcutta.
Continental Trading Agency.—P-27, Prinsep Street, Calcutta 13.
Dalchand Omprakash.—4, Narayan Prasad Babu Lane, Calcutta 7.
Dass & Co. (India) Ltd.—43, Dharamtolla Street, Calcutta.
Dhudarmall Ramchander.—122, Cotton Street, Calcutta.
Dilsukhrai Hanumandass.—9, Bonfield Lane, Calcutta.
Dilsukhrai Krishna Kumar.—22, Bonfield Lane, Calcutta.
Dungarmal Taparia.—4, Bhawani Dutta Lane, Calcutta 7.
Durgaprasad Jagdishprasad.—7, Hastings Street, Calcutta.
Eagle Brothers.—32, Armenian Street, Calcutta.
Eastern Industrial Corpn.—142/1, Radhabazar Street, Calcutta 1.
Fazlehusain & Bros.—44, Armenian Street, Calcutta 1.
F. E. Sachee & Co.—54/1, Canning Street, Calcutta.
Garg & Sons.—138, Canning Street, Calcutta.
Gemica Traders.—A 208-71, Canning Street, Calcutta.
Ghasiram Laxminarayan.—15, Portuguese Church Street, Calcutta.
Ghoneshamdas Jwalaprasad.—40, Strand Road, Calcutta.
Ghoneshamdass Tulsiram.—22, Raja Woodmunt Street, Calcutta.
Gopiram Onkarmal.—208, Cross Street, Calcutta.
Great Indian Mercantile Co. (P) Ltd.—278, Chittaranjan Avenue, Calcutta.
Gulabroy Mahadeo.—178, Mahatma Gandhi Road, Calcutta.
Hanuman Commercial Corpn.—Post Box No. 6819, 9, Bonfield Lane, Calcutta.
Harkisandas & Co.—9, Amratolla Street, Calcutta.
Hatim & Co.—P-39, Mission Row Extension, Calcutta.
Hind Supply Co.—48, Canning Street, Calcutta.
Hind Traders.—171/1, Jogendranath Mukherjee Road, Salkia (Howrah).
Hindusthan Chemical & Industry Corpn.—22, Swallow Lane, Calcutta.
Hindusthan Industrial Corporation.—1-A, S. N. Banerjee Road, Calcutta 13.
Hiralall Kajaria.—157, Chittaranjan Avenue, Calcutta.
Hope Prudhomme & Co. Ltd.—7, Wellesley Place, Calcutta.
H. S. Das.—104/1, Serpentine Lane, Calcutta 14.
India Selling Organisation Ltd.—8, Brojodayal Shaw Road, Calcutta.
Ind Com. Ltd.—P-16, Kalakar Street, Calcutta 7.
Indo-European Agency Ltd.—67, Ezra Street, Calcutta.
Industrial Chemical Corporation, 22, Brabourne Road, Calcutta 1.

Industrial Importers (P) Ltd.—R. No. 49, 4, Dalhousie Square East, Calcutta.
International Chemical Co.—146, M. Gandhi Road, Calcutta 7.
International Trading Co.—28, Old China Bazar Street, Calcutta.
Jackaria Oosman & Co.—4, Rajmohan Street, Calcutta 1.
Jagannath Bajranglall.—32, Armenian Street, Calcutta.
Jagannath Jeetmal.—37, Armenian Street, Calcutta.
Jagadishprasad Pannalal & Co. Ltd.—27, Amratolla Street, Calcutta.
Jai Hind Supply Co. (P) Ltd.—48, Canning Street, Calcutta.
Jainarayan Nagarmall.—19, Mallick Street, Calcutta.
Jankidas Ramgopal.—48, Canning Street, Calcutta.
Jayantilal Jagdish Prasad.—117, Canning Street, Calcutta 1.
Jayshree Importers.—18, Amratolla Street, Calcutta.
Jiwanlal Taparia.—37, Armenian Street, Calcutta 1.
Jiwraj Heeralall & Co.—26/1, Armenian Street, Calcutta.
Jnanendra Lal Sircar.—19/1, Mathur Sen Garden Lane, Calcutta.
K. C. Dang.—2/A, Amratolla Lane, Calcutta.
K. D. More & Co.—43/44, Cotton Street, Calcutta.
Kajaria Sons Ltd.—32, Armenian Street, Calcutta.
Kanji Savaji Parekh (Calcutta) P. Ltd.—55, Canning Street, Calcutta.
Kedarnath Hulash Chand.—40-A, Armenian Street, Calcutta.
Khandelwal Bros. (P) Ltd.—33, Netaji Subhas Road, Calcutta.
Khaitan Brothers P. Ltd.—24, Netaji Subhas Road, Calcutta.
Kheria Brothers.—5, Chaitan Sett Street, Calcutta.
Khubchand Baijnath.—77, Netaji Subhas Road, Calcutta.
Kishanlal Purushotamdas.—32, Ezra Street, Calcutta.
Lachhminarayan Ramjiwan.—13, Portuguese Church Street, Calcutta.
M. R. Zaki.—5, Pollock Street, Calcutta.
Mahabir Prasad Sitaram.—19, Mullick Street, Calcutta.
Mahadeo Prosad Dhandhania.—132, Cotton Street, Calcutta.
Mahadeo Ramkumar.—56, Sir Hariram Goenka Street, Calcutta.
Mangaldas Dwarkadas.—12, Portuguese Church Street, Calcutta.
Mansukhuray Hazarimall.—201, Mahatma Gandhi Road, Calcutta.
Manoharlall & Co.—19, Mullick Street, Calcutta.
Merchants & Traders Ltd.—32, Armenian Street, Calcutta.
Milk Trading Co.—71, Canning Street, Calcutta.
Moda Brothers.—15, Sovaram Bysack Street, Calcutta.
Mohanlal Chandravan.—32, Armenian Street, Calcutta.
Mohatta Brothers.—19, British Indian Street, Calcutta.
Mohamed Ebrahim Mohamed Jaffer & Co.—16, Amratolla Lane, Calcutta.
Mohamed Noon Mohamed P. Ltd.—5, Pollock Street, Calcutta.
Monoharlal Mahabirprasad.—178, M. Gandhi Road, Calcutta 7.
Mulchand Marwari.—57, Saraju Sen Road, Alambazar, Calcutta 35.
Murlidhar Jaipuria.—30-A, Raja Nabo Kissen Street, Calcutta 5.
N. Manseta & Bros. (Cal.).—G. P. O. Box No. 885, Calcutta.
N. N. Biswas & Sons.—19, British Indian Street, Calcutta.
Narsingdas Biswanath.—3, Amratolla Street, Calcutta.
New India Chemicals.—52A, Indian Mirror Street, Calcutta 13.
New India Traders Corpn.—71, Canning Street, Calcutta.
Nikuni Traders.—49 Muktaram Babu Street, Calcutta.
Odhavji Devidas & Co. (P) Ltd.—9, Armenian Street, Calcutta.
Oriental & Occidental Trading Co.—30, Brabourne Road, Calcutta.
Oswal Co. (P) Ltd.—14/2, Old China Bazar Street, Calcutta.
P. Vrajlal Dulabhdas & Co.—22, Brabourne Road, Calcutta.
Pannalall Kishanlall.—18, Amratolla Street, Calcutta.
Parasramka Commercial Co. Pvt. Ltd.—207, Mahatma Gandhi Road, Calcutta.
Parekh Brothers.—1, Portuguese Church Street, Calcutta.
Paul Chemicals Co.—19B, Pottery Road, Calcutta.
Pioneer Chemical Corpn.—P119, Ganesh Chandra Avenue, Calcutta.
Pioneer Industrial Syndicate.—67, Ezra Street, Calcutta 1.
Pokarmal Gurdhayal.—208, Cross Street, Calcutta.
Pranlal Bhagwanji.—10/1, Portuguese Church Street, Calcutta.
Purshottamdass & Co.—4, Doyahatta Street, Calcutta.
Radheshyam Sushilkumar.—48, Canal West Road, Calcutta.
R. K. Santosh.—C/o B. K. Shroff, A.C.A., 155, Chittaranjan Avenue, Calcutta.
R. Tibrewala & Co.—26/1, Armenian Street, Calcutta.
S. B. Poddar & Co.—178, Mahatma Gandhi Road, Calcutta.
S. Kushalchand & Co.—167, Old China Bazar Street, Calcutta.
Santosh Brothers.—28, Armenian Street, Calcutta.
Shamde Govindram.—208, Cross Street, Calcutta.
Sheobhagwan Gajedar.—113, Manohardas Katra, Calcutta.
Shewbuxrai Onkarmall.—26, Burtolla Street, Calcutta.
Shewbuxrai Rameshwarlal.—26, Burtolla Street, Calcutta.
Shivadas Jethmall.—37, Armenian Street, Calcutta.
Shyamsundar Srilal.—135/B, Muktaram Babu Street, Calcutta.
Sohanlal Mohanlal.—5, Lucas Lane, Calcutta.
Soorajmull Nagarmull.—8, Dalhousie Square East, Calcutta.
Sovan & Co.—32, Armenian Street, Calcutta.
Spices (India) Ltd.—10, Amratolla Street, Calcutta.
SRICOL CHEMICAL INDUSTRIES PRIVATE LTD.—25, Ganesh Chandra Avenue, Calcutta-13; Manufacturers of Dyestuffs Auxiliaries.
Srikant & Co.—34, Burtolla Street, Calcutta.
Surajmull Murlidhar.—28, Amratolla Street, Calcutta.
Surendra Overseas (P) Ltd.—135, Canning Street, Calcutta.
Tarachand Agarwalla.—208, Cross Street, Calcutta.
Tolasaria & Co.—12, Sir Hariram Goenka Street, Calcutta.
United Chemical & Hardware Agency.—27/29, Brabourne Road, Calcutta.
United Drug & Chemical Co.—16, Bonfield Lane, Calcutta.
Universal Trading Co.—71, Canning Street, Calcutta.
Vachharaj Nemchand & Co.—10, Portuguese Church Street, Calcutta.
Vasant Corpn. Ltd.—28, Amratolla Street, Calcutta.
Victor Commercial Co.—44/45, Ezra Street, Calcutta 1.
West Bengal Supply Agency.—35, Armenian Street, Calcutta.

## CHEMISTS & DRUGGISTS

A. S. Kantha & Co.—44/45, Ezra Street, Calcutta 1.
Advani Private Ltd.—3D, Garstin Place, Calcutta 1.
Ajodhya Prosad & Mitra Co.—14, Pollock Street, Calcutta 1.
Alanga Medical Hall.—53, Jatindra Mohan Avenue, Calcutta 5.
Alembic Distributors Ltd.—71, Canning Street, Calcutta 1.
Amava.—2/1, Cornwallis Street, Calcutta 6.
Amesco.—181/A, Chittaranjan Avenue, Calcutta 12.
Amin & Ismail P. Ltd.—80, Colootola Street, Calcutta 1.
Amulya Stores.—71, Canning Street. Bagree Market, Calcutta 1.
Anand Medicine Co.—80, Colootola Street, Calcutta 1.
Antibiotic Stores.—55/107, Canning Street, Calcutta 1.
Anusilan Medical Hall.—44/45, Ezra Street, Calcutta 1.
Arora & Sons.—44/45, Ezra Street, Calcutta 1.
Ashoke Medical Emporium.—55/17, Canning Street, Calcutta 1.
Aslam & Co.—71, Canning Street, Bagree Market, Calcutta 1.
Associated Dental & Medical Supply Co.—4, Madan Street, Calcutta 13.
Associated Importers.—55/45, Canning Street, Calcutta 1.
B. K. Paul & Co. Pvt. Ltd.—1-3, Bonfield Lane, Calcutta 1.
B. Banerjee.—55/6, Canning Street. Calcutta I.
B. A. & Brothers.—2 & 3, Clive Row, Calcutta 1.
B. D. Brothers.—51, Sasthitolla Road, Calcutta 11.
B. Biswas & Co.—12, Bonfield Lane, Calcutta 1.
B. Bose & Co.—M. 122, Paharpore Road, Calcutta 24.
B. Bose & Co.—46/1, Mahatma Gandhi Road, Calcutta 9.
B. C. Kundu & Co.—4B, Madan Street, Calcutta 13.
B. C. Shah & Co.—71, Room No. B/134, Canning Street, Bagree Market, Calcutta 1.
B. M. Brothers P. Ltd.—5, Bonfield Lane, Calcutta 1.
B. Nandy & Co.—55/5, Canning Street, Calcutta 1.
B. S. Medical Stores.—55/19, Canning Street, Calcutta 1.
Babulal K. Adani.—71/1, Canning Street, Bagree Market, Calcutta 1.
Balubhai & Brothers.—50, Canning Street, Calcutta 1.
Banerjee & Co.—167, Dharamtala Street, Calcutta 13.
Basanta Medical Stores.—R. No. G-[illegible], Bagree Market, 71, Canning Street, Calcutta 1.
Basanta Medical Hall.—3, Beliaghata Main Road, Calcutta 10.
Bengal Immunity Co. Ltd.—153, Dharamtala Street, Calcutta 13.
Bengal Medical Hall.—158, Shyama Prasad Mukherjee Road, Calcutta 26.
Bengal Medicine Mart.—71, Canning Street, R. No. D/32, Bagree Market, Calcutta.
Bengal Medical Stores.—P-21, Kalakar Street, Calcutta 7.
Bengal Traders Bureau.—7, Canning Street, Bagree Market, Calcutta 1.
Beauty Medical Stores.—71, Canning Street, Bagree Market, Calcutta.
Bhadury Pharmachy.—9, Beliaghata Road, Calcutta 15.
Bharati Medical Hall.—133, Lower Circular Road, Calcutta 14.
Bharat Medical Stores.—71, Canning Street, R. No. D-27, Bagree Market, Calcutta 1.
Bharatiya Medical Stores.—55/73, Canning Street, Calcutta.
Bhattacharjee & Co.—71, Canning Street, Bagree Market, Calcutta 1.
Bhoopee Co.—31, Lower Chitpore Road, Calcutta 1.
Bhupendra Shah & Co.—44/45, Ezra Street, Calcutta 1.
Binaco.—55/18, Canning Street, Calcutta 1.
Bipin & Co.—44/45, Ezra Street, Calcutta 1.
Bonfield Medical Stores.—2, Bonfield Lane, Calcutta 1.
Bose & Co.—204/1, Cornwallis Street, Calcutta 6.
Bose Chowdhury & Co.—71, Canning Street, Bagree Market, Calcutta 1.
Bose Roy & Co.—71, Canning Street. Bagree Market, Calcutta 1.
Boson & Co.—44/45, Ezra Street, Calcutta 1.
Burman Medical Stores.—42/1, Strand Road, Calcutta 7.
C. Ringer & Co.—23, Lall Bazar Street, Calcutta 1.
C. C. Biswas & Sons.—106, Upper Circular Road, Calcutta 9.
Calcutta Medical Hall.—71C, Shyama Prasad Mukherjee Road, Calcutta.
Central Medicals P. Ltd.—63/2, Harrison Road, Calcutta 9.
Central Oplik House.—166, Bepin Behari Ganguly Street, Calcutta 12.
Chamma & Co.—55/14, Canning Street, Calcutta 1.
Chandulal & Brothers.—71, Canning Street, Shop No. D-24, Bagree Market, Calcutta 1.
Chatterjee & Co.—9A, Dr. Suresh Sarkar Road, Calcutta 14.
Chemi Colour Agency.—12, Bonfield Lane, Calcutta 1.
Chittaranjan Medical Stores.—55/21, Canning Street, Calcutta 1.
Clean & Co.—16, Bonfield Lane, Calcutta 1.
Crown Drug House.—56, Netaji Subhas Road, Calcutta 1.

Crown Medical Hall.—71, Canning Street, R. No. G-10, Bagree Market Calcutta 1.
D. Dey & Brothers P. Ltd.—44/45, Ezra Street, Calcutta 1.
D. Jayantilal & Co.—8/2, Rupchand Roy Street, Calcutta 7.
D. N. Coondoo & Brothers.—P3, Chandney Chowk Street, Calcutta 13.
D. Popatlal & Co.—55/15, Canning Street, Calcutta 1.
Dabur (Dr. S. K. Burman) P. Ltd.—142, Rash Behari Avenue, Calcutta 29.
Dahyalal & Co.—55/70, Canning Street, Calcutta 1.
Dalichand & Brothers.—71, Canning Street, R. No. G-11, Bagree Market, Calcutta 1.
Das Brothers, P. Ltd.—115, Dharamtala Street, Calcutta 13.
Das Medical Hall.—3A/1, Old Hindusthan Bldgs., Calcutta 13.
Desh Bandhu Medical Hall.—71, Canning Street, R. No. D/28, Bagree Market, Calcutta 1.
Dey Sarcar & Co.—3, Bonfield Lane, Calcutta 1.
Dey's Medical Stores P. Ltd.—6/2B, Lindsay Street, Calcutta 16.
Dhole & Co.—Baranagar, Calcutta 35.
Digen Pharmacy.—187, Vivekananda Road, Calcutta 7.
Doshi Brothers.—16, Bonfield Lane. Calcutta 1.
Doshi Medical Stores.—173, Mahatma Gandhi Road, Calcutta 7.
Druggists Hall.—55/9, Canning Street, Calcutta 1.
Drug Hall.—128, Cornwallis Street, Calcutta 4.
Drug Stores.—1/1/2B, Hazra Road, Calcutta 26.
Dutta Brothers.—16, Bonfield Lane, Calcutta 1.
Dutt & Co.—46B, Netaji Subhas Road, Calcutta 1.
Dutta Medical Hall.—77/1, Harrison Road, Calcutta 9.
Dutta Pharmacy.—46/3, Diamond Harbour Road, Calcutta 27.
Dutta Medical Stores.—71, Canning Street, R. No. G 17/2, Bagree Market, Calcutta 1.
East Bengal Medical Stores.—39/1, Cossipore Road, Calcutta 36.
East End Co.—85, Colootola Street, Calcutta 1.
East End Medical Hall.—170, Baitakkhana Road, Calcutta 9.
East India Clinic Pharmacy.—12, Russell Street, Calcutta 16.
East India Medical Hall.—133/B, Lower Circular Road, Calcutta 14.
East India Medical Stores.—55/11, Canning Street, Calcutta 1.
Eastern Industrial Corpn.—36, Ezra Street, Calcutta 1.
Eastern Medical Hall.—93, South Sinthee Road, Calcutta 30.
Eastern Medical Syndicate.—71, Canning Street, G Block, Bagree Market, Calcutta 1.
Eastern Trader .—44/45, Ezra Street, Calcutta 1.
Economic Homeo Pharmacy.—89, Netaji Subhas Road, Calcutta 1.
Economic Stores.—71, Canning Street, R. No. G-19, Bagree Market, Calcutta 1.
Everest Medical Emporium.—P-7, Beliaghata Main Road, Calcutta 10.
Fairfield Syndicate Agency (Private) Ltd.—22, Bonfield Lane, Calcutta 1.
Fairway Traders.—79, Colootola Street, Calcutta 1.
Famous Chemists.—55/80, Canning Street, Calcutta 1.
Far East Traders.—71, Canning Street, Bagree Market, Calcutta 1.
Frank Ross & Co. Ltd.—7, Chowringhee Road, Calcutta.
Friends & Co.—3, Bonfield Lane, Calcutta 1.
Friends Medico.—71/G2, Canning Street, Calcutta 1.
G. Dutt & Co.—16, Bonfield Lane, Calcutta 1.
G. J. Parekh & Co.—20, Pathuriaghata Street, Calcutta 6.
G. M. Stores.—44/45, Ezra Street, Calcutta 1.
Ganesh Pharmacy.—4, Kali Krishna Tagore Street, Calcutta 7.
Geeta Pharmacy.—2, Gas Street, Calcutta 9.
Ghosal & Co.—55/32, Canning Street, Calcutta 1.
Ghose & Co.—71, Canning Street, R. No. C22, Bagree Market, Calcutta 1.
Ghose Medical Syndicate.—71, Canning Street, R. No. E38, Bagree Market, Calcutta 1.
Ghosh Medical Stores.—55/9, Canning Street, Calcutta 1.
Girdharlal & Co.—55/9-10, Canning Street, Calcutta 1.
Give & Take Stores.—7A, Lindsay Street, Calcutta 16.
Globe Pharmacy.—64B .Mirzapur Street, Calcutta 9.
Gobindlal Mullick & Sons.—356/3, Upper Chitpore Road, Calcutta 6.
Gopal Medical Stores.—16, Bonfield Lane, Calcutta 1.
Goppson & Co.—R. No. E/34, 71, Canning Street, Bagree Market, Calcutta 1.
Gourisankar & Co.—37/C, Kalakar Street, Calcutta 7.
Goswami Medical Stores.—55/22/1, Canning Street, Calcutta 1.
Great Eastern Medical Stores.—71, Canning Street, R. No. E32, Bagree Market, Calcutta 1.
H. Bhattacharyya & Sons P. Ltd.—83, Netaji Subhas Road, Calcutta 1.
H. Das & Co.—16, Pollock Street, Calcutta 1.
H. Laxmi Trading Co.—71, Canning Street, R. No. D-120, Bagree Market, Calcutta 1.
H. Md. Siddiq & Co.—13/17, Colootola Street, Calcutta 1.
H. Nagindas & Co.—55/125, Canning Street, Calcutta 1.
Hind Pharmaceutical Distributors.—167, Old China Bazar Street, Calcutta 1.
Hindustan Medical Syndicate.—55/82, Canning Street, Calcutta 1.
Ideal Pharmacy.—39/2, Cossipore Road, Calcutta 36.
Indian Medical Stores.—22, Bonfield Lane, Calcutta 1.
Indo-European Agency P. Ltd.—67, Ezra Street, Calcutta 1.
Indo-International Commercial Corpn. P. Ltd.—8B. Kankulia Road, Calcutta 19.
Indra Medical Stores.—55/61, Canning Street, Calcutta 1.
International Dental House.—1, Chittaranjan Avenue, Calcutta 13.
International Drug & Chemical Co.—55/104, Canning Street, Calcutta 1.
Ivy & Co. P. Ltd.—101, Vivekananda Road. Calcutta 6.
J. B. Dastoor & Co.—28, Grant Street, Calcutta 13.
J. Chaki & Co.—44/45, Ezra Street, Calcutta 1.
Jagabandhu Pharmacy.—36, Manicktola Main Road, Calcutta 11.
Jamnadas & Brothers Pvt. Ltd.—55,58, Canning Street, Calcutta 1.
Janaki Nath Pharmacy.—102, Belgachia Road, Calcutta 4.
Janata Medical Service.—55/87, Canning Street, Calcutta 1.
Janata Pharmacy.—9, Beliaghata Road, Calcutta 15.
Janata Pharmacy.—41, Eden Hospital Road, Calcutta 12.
Joysarala Drug House.—45, Watganj Street, Calcutta 23.
Joytara Pharmacy.—150B, Upper Circular Road, Calcutta 6.
Jugal & Co.—46B, Netaji Subhas Road, Calcutta 1.
Jyotsna Pharmacy.—73, Narkeldanga Main Road, Calcutta 1.
K. Das & Co.—55/51, Canning Street, Calcutta 1.
K. Madhusudan & Co.—14/2, Old China Bazar Street, Calcutta 1.
K. R. Bose & Co.—85/83, Netaji Subhas Road, Calcutta 1.
Kalika Pharmacy.—255, Upper Circular Road, Calcutta 6.
Kamala Medical Stores.—71, Canning Street, Shop No. D-30, Bagree Market, Calcutta 1.
Kamala Stores.—Mehta Bldgs., 55/75, Canning Street, Calcutta 1.
Kamani Brothers.—71, Canning Street, Shop No. G-1, Bagree Market, Calcutta 1.
Kamdar Brothers.—57, Canning Street, Calcutta 1.
Kanak Medical Hall.—134, Raja Rajendra Lal Mitra Road, Calcutta 10.
Kanji Pannachand P. Ltd.—33, Armenian Street, Calcutta 1.
Kanji Shavji Parekh P. Ltd.—55, Canning Street, Calcutta 1.
Kanti Stores.—71, Canning Street, R. No. H-34, Bagree Market, Calcutta 1.
Keshav & Co. P. Ltd.—394, Upper Chitpore Road, Calcutta 7.
Kundoo Brothers & Co.—71, Canning Street, Bagree Market, Calcutta 1.
Kundoo Pharmacy.—104, Rash Behari Avenue, Calcutta 29.
L. M. Mookherjee & Sons P. Ltd.—167, Dharamtala Street, Calcutta 13.
Lakhani Brothers.—55/60, Canning Street, Calcutta 1.
Lansdowne Medical Hall.—63/1A, Lansdowne Road, Calcutta 25.
Liladhar Hirachand.—55/6, Canning Street, Calcutta 1.
Little Medical Stores.—19, Synagogue Street, Calcutta 1.
Lucky Traders.—71, Canning Street, Shop No. G-12, Bagree Market, Calcutta 1.
M. Bhattacharyya & Co.—85, Netaji Subhas Road, Calcutta 1.
M. Bhattacharyya & Co.—203, Cornwallis Street, Calcutta 6.
M. Dharshibhoy.—55/106, Canning Street, Calcutta 1.
M. G. Shahani & Co. P. Ltd.—3, Chittaranjan Avenue, Calcutta 13.
M. Tilak & Co.—48, Ezra Street, Calcutta 1.
Madhav & Co.—4, Vivekananda Road, Calcutta 7.
Mahatma & Sons.—71, Canning Street, Bagree Market, Calcutta 1.
Mahatma & Co.—76, Upper Chitpore Road, Calcutta 7.
Mahamaya Pharmacy.—41, Harrison Road, Calcutta 9.
Mahesh Pharmacy.—P. 52, B. K. Paul Avenue, Calcutta 5.
Mansukhlal Brothers.—71, Canning Street, R. No. C-218, Bagree Market, Calcutta 1.
Mansukhlal Tribhubandas & Co.—44/45, Ezra Street, Calcutta 1.
Mayer Pharmacy.—168A, Sarat Bose Road, Calcutta 29.
Mayfair & Co.—72/C, Ashutosh Mukherjee Road, Calcutta 25.
Mazumdar Pharmacy.—47, South Tangra Road, Calcutta 39.
Medicos.—13, Vivekananda Road, Calcutta 7.
Medicos (I) P. Ltd.—79, Stephen House, 4, Dalhousie Square East, Calcutta.
Medical Stores.—122/1, Upper Circular Road, Calcutta 6.
Medical Syndicate.—71, Canning Street, Bagree Market, Calcutta 1.
Medical Supply Syndicate.—55/138, Canning Street, Calcutta 1.
Mehta Brothers.—55/85A, Canning Street, Calcutta 1.
Metropolitan Medical Stores P. Ltd.—7, Chowringhee Road, Calcutta 13.
Mondal's Cure Home.—98, Diamond Harbour Road, Kidderpore, Calcutta.
Mukherjee & Sons.—3, Ezra Street, Calcutta 1.
Mukherjee & Co.—55/18, Canning Street, Calcutta 1.
Mukta Pharmacy.—33, Pipe Road, Calcutta 23.
Mulji Mehta & Sons.—55/56, Canning Street, Calcutta 1.
Mullick Medical Stores.—31, Lower Chitpur Road, Calcutta 1.
N. B. Ghose & Co.—44/45, Ezra Street, Calcutta 1.
Naba Durga Medical Stores.—71, Canning Street, R. No.G-5,Bagree Market, Calcutta 1.
Nagen Pharmacy.—166, Bowbazar Street, Calcutta 12.
Narendra & Co.—25A, Meher Ali Mandal Street, Calcutta 27.
National Medical Stores.—85, Netaji Subhas Road, Calcutta 1.
National Pharmacy.—30/B, Hazra Road, Calcutta 26.
National Pharmacy.—32, Ashutosh Mukherjee Road, Calcutta 25.
Netaji Medical Stores.—71, Canning Street, R. No. C-34, Bagree Market, Calcutta 1.
New Indian Medical Stores.—55/76, Canning Street, Calcutta 1.

New Ideal Pharmacy.—12, Suraja Sen Road, Alambazar, Calcutta 35.
New Janata Medical Hall.—130/1, Circular Garden Reach Road, Calcutta 23.
New Modern Pharmacy.—74, Beliaghata Main Road, Calcutta 10.
New Oriental Stores.—55/124, Canning Street, Calcutta 1.
New Sankar Medical Stores.—44/45, Ezra Street, Calcutta 1.
Newatia Trading Co.—185, M. Gandhi Road, Calcutta 7.
Niru-Veena Corpn.—55, Canning Street, R. No.G-14, Bagree Market, Calcutta 1.
Nobel Medical Hall.—59, Rash Behari Avenue, Calcutta 26.
North Clinic.—39, Cossipore Road, Calcutta 36.
Oriental Druggists.—55/71, Canning Street, Calcutta 1.
Oriental Traders.—71, Canning Street, R. No. G14, Bagree Market, Calcutta 1.
Oushadh Ghar P. Ltd.—24, Raja Woodmunt Street, Calcutta 1.
P. & A. Brothers.—71, Canning Street, Bagree Market, Calcutta 1.
P. C. Paul & Co.—13, Bonfield Lane, Calcutta 1.
P. Hematlal & Co.—71, Canning Street, R. No. A-106, Bagree Market, Calcutta 1.
P. K. Stores.—71, Canning Street, Bagree Market, Calcutta 1.
P. N. Mukherjee & Sons P. Ltd.—17/18, Dharamtala Street, Calcutta 13.
P. Sen & Co.—55/84, Canning Street, Calcutta 1.
Pain Pharmacy.—115, Hazra Road, Calcutta 26.
Pannalal Brothers.—44/45, Ezra Street, Calcutta 1.
Panchanananda Medical Hall.—15/1, Circular Garden Reach Road, Calcutta 23.
Panel Medical Stores.—143, Circular Garden Reach Road, Calcutta 23.
Parry & Co., Ltd.—32, Chowringhee, Calcutta 16.
Paul & Co.—19, Synagague Street, Calcutta 1.
Paul Brothers.—44/45, Ezra Street, Calcutta 1.
People's Pharmacy P. Ltd.—90A, S. P. Mukherjee Road, Calcutta 26.
Pioneer Medicine Supply Co.—3, Bonfield Lane, Calcutta 1.
Pijis Drug Stores.—41, Eden Hospital Road, Calcutta 12.
Poor's Pharmacy.—343, Upper Chitpore Road, Calcutta 6.
Popular Drug House, P. Ltd.—4, Bhupendra Bose Avenue, Calcutta 4.
Popular Medical Hall.—48, Circular Garden Reach Road, Calcutta 23.
Popular Medical Hall.—49/1, Watgunj Street. Calcutta 23.
Popular Trading Agency.—71, Canning Street, Shop No. H-20-22, Bagree Market, Calcutta 1.
Pramila Medical Hall.—55/24, Canning Street, Calcutta 1.
Premier Medical Supplies & Stores.—44, Esra Street, Calcutta-1.
Public Traders.—71, Canning Street, R. No. G-16, Bagree Market, Calcutta 1.
R. K. Medical Stores.—71, Canning Street, R. No. E-37, Bagree Market, Calcutta 1.
R. L. Bhowmick & Co.—55/5, Canning Street, Calcutta 1.
R. Sinha & Brothers.—55/17, Canning Street, Calcutta 1.
R. S. Medical Stores.—44/45, Ezra Street, Calcutta 1.
Radhey & Co.—71, Canning Street, R. No. B-135, Bagree Market, Calcutta 1.
Rainbow & Co.—71, Canning Street, Bagree Market, Calcutta 1.
Ramkanai Medical Stores.—128/1, Cornwallis Street, Calcutta 4.
Ranbaxy & Co. P. Ltd.—P/36, India Exchange Place Extn., Calcutta 1.
Rani Pharmacy.—13H/26, Raja Manindra Road, Calcutta 2.
Rasiklal & Brothers.—71, Canning Street, Bagree Market, Calcutta 1.
Ray Pharmacy.—156, S. P. Mukherjee Road, Calcutta 26.
Relief.—1, Haridas Daw Road, Calcutta 33.
Robin & Co.—71, Canning Street, R. No. E-30, Bagree Market, Calcutta 1.
Roy Choudhury Brothers & Co.—14-3, Bonfield Lane, Calcutta 1.
Roy Dass & Co.—71, Canning Street, Bagree Market, R. No. G-20, Calcutta 1.
Roy's Medical Stores.—Block No. 6 & 7d, New Block, Gariahata Market, Calcutta.
Royal Medical Stores.—55/15, Canning Street, Calcutta 1.
S. B. Biswas & Co.—55/13, Canning Street, Calcutta 1.
S. Kusalchand & Co.—167, Old China Bazar Street, Calcutta 1.
S. K. Dutta.—12/3, Thakurdas Palit Lane, Calcutta 12.
S. K. Nag & Brothers.—16, Synagogue Street, Calcutta 1
S. P. & Co.—55/136, Canning Street, Calcutta 1.
S. R. S. & Co.—71, Canning Street, Bagree Market, Calcutta 1.
Sachi Medical Hall—3, Deshbandhu Road West, Calcutta 35.
Sakti Medical Stores.—16, Bonfield Lane, Calcutta 1.
Samiran Pharmacy.—18/7, Ultadanga Main Road, Calcutta 4.
Sankar Medical Hall.—31, Lower Chitpur Road, Calcutta 1.
Sankar Narayan Medical Hall.—71, Canning Street, R. No. E-36, Bagree Market, Calcutta 1.
Santi Pharmacy.—42, S. N. Banerjee Road, Calcutta 14.
Sarabhai Chemicals.—25B, Park Street, Calcutta 16.
Sarala Medical Hall.—185, Dum Dum Road, Nagar Bazar, Calcutta 28.
Sarkar Medical Stores.—44/45, Ezra Street, Calcutta 1.
Saroj Ousadh Bhandar.—55/57, Canning Street, Calcutta 1.
Satyapal Chopra & Sons.—170, Mahatma Gandhi Road, Calcutta 7.
Seth Brothers.—55/66, Canning Street, Calcutta 1.
Sevayatan.—54, Manicktola Main Road, Calcutta 1.
Shankar Pharmacy.—4, Bhupendra Bose Avenue, Calcutta 4.
Shankar Medical Stores P. Ltd.—55/100, Canning Street, Calcutta 1.
Shantilal & Brothers.—55/11, Canning Street, Calcutta 1.
Sheth Brothers.—55/66, Canning Street, Calcutta 1.
Shivlal & Brothers.—55/134, Canning Street, Calcutta 1.
Shiv Sakti Medical Stores.—71, Canning Street, Bagree Market, Calcutta 1.
Sibani Medical Stores.—44/45, Ezra Street, Calcutta 1.
Sircar Pharmacy.—124, Shyama Prosad Mukherjee Road, Calcutta 26.
Siva Sankar Medical Stores.—71, Canning Street, R. No. C-32, Bagree Market, Calcutta 1.
South End Poly Clinic.—71, Canning Street, Bagree Market, Calcutta 1.
Sreedhar Medical Hall.—114B, Ashutosh Mukherjee Road, Calcutta 25.
Sreemani Brothers & Co.—14, Bonfield Lane, Calcutta 1.
Sree Madan Gopal Emporium.—255, Upper Circular Road, Calcutta 6.
Sree Satyanarayan Medical Hall.—42, Strand Road, Calcutta 7.
St. Mary's Clinic & Drug Store.—12, Lindsay Street, Calcutta 16.
Standard Drug Stores.—45, Amherst Street, Calcutta 9.
Suresh Kiron Pharmacy.—132, S. P. Mukherjee Road, Calcutta 26.
Thacker & Co.—71, Canning Street, R. No. G-4, Bagree Market, Calcutta 1.
Therapeutical Syndicate.—16, Bonfield Lane, Calcutta 1.
Tilak Medical Hall.—84/2, Grey Street, Calcutta 4.
Tollygunj Medical Hall.—1/1, Tollygunj Circular Road, Calcutta 33.
Twin Medical Hall.—71, Canning Street, Bagree Market, R. No. G-7, Calcutta 1.
United Stores, 55/49-50, Canning Street, Calcutta 1.
Usha Medical Emporium.—70-B, Bhupendra Bose Avenue, Calcutta 4.
V. City Stores.—Humayan Court, Lindsay Street, Calcutta 16.
Vasa Brothers.—44/45, Ezra Street, Calcutta 1.
Veerchand & Sons.—71, Canning Street, R. No. B-210, Bagree Market, Calcutta 1.
Vivekananda Stores & Agency P. Ltd.—115, Canning Street, Calcutta 1.
Vrajlal & Sons.—55/32, Canning Street, Calcutta 1.
West Bengal Medical Stores.—55/81, Canning Street, Calcutta 1.

## CIGARETTES

Hindustan Tobacco Co.—21, Jatindra Mohan Avenue, Calcutta 6.
Imperial Tobacco Co. of India Ltd.—Circular Garden Reach Road, Kidderpore, Calcutta.
International Tobacco Co. of India Ltd.—12, Normal Lohia Lines, Calcutta.
National Tobacco Co. of India Ltd.—1 & 2, Old Court House Corner, North Bldg., Calcutta.
Union Tobacco Co. Ltd.—23, Convent Road, Calcutta.

## CLEARING AND FORWARDING AGENTS

Amarchand Butail & Sons.—7, Chittaranjan Avenue, Calcutta 13.
Atlas Agency.—29, Strand Road, Calcutta.
Alex Miller P. Ltd.—7, Old Court House Corner, Calcutta 1.

**ARUN MUKHERJEE & CO. PRIVATE LTD.—Customs Authorised Clearing & Shipping Agents, Storage, Transport, Labour, Insurance, Railway Bookings, Specialists in Handling Consignments of Steel, Fertilisers and Heavy Machineries; 12-A, Netaji Subhas Road, Calcutta-1; Phone: 225238; Dock Office: 117-A, Circular Garden Reach Road, Calcutta-23; Phone: 456110, Grams: " QUICKSERVE ".**

**ARORA & SEHGAL (PRIVATE) LTD.—Shipping, Clearing, Transport, Insurance and Storage Agents; 2, Clive Row, Calcutta-1; Phone: 229101 (4 lines).**

Bharat Clearing and Forwarding Agency.—27, Prinsep Street, Calcutta.
Bose & Co.—44/2, Chakrabaria Road South, Calcutta 25.
Chatterjee Sarat & Co. Ltd.—3, Mangoe Lane, Calcutta.
Commercial Agencies.—5, Clive Ghat Street, Calcutta 1.
Cox & Kings (Agents) Ltd.—A-3, Gillander House, Netaji Subhas Road, Calcutta 1.
Express Clearing Agency.—14/2, Old China Bazar Street, Calcutta.

**FALLOON'S AGENCY.—Clearing & Shipping Agents, 5, Mission Row, Calcutta-1. Grams: " OTAIND ". Phones: 236781-2. Associates: OTA INDIA; Central Office: Bombay (Phone: 212602), Bombay Office (Phones: 254772 & 256592), Kandla Office (Phone: 2145—Gandhidham), New Delhi Office (Phone: 43799).**

Free India Clearing Agency.—23, Mangoe Lane, Calcutta.

**GOPAL & KUMAR.—Customs authorised Clearing & Shipping Agents, Storage, Transport, Insurance; Specialising in Heavy Machinery, Steel and Belt Consignments; 14, Netaji Subhas Road, Calcutta-1; Phone: 220884 (3 Lines); Branches: Delhi & Bombay.**

International Clearing and Shipping Agency.—Tosh Bldg., P.31/32, India Exchange Place, Calcutta.
Independent Transport and Shipping Agency.—P-40.—Princep Street, Calcutta.

**J. N. K. (AGENCIES) PRIVATE LTD.—Sea, Air & Rail Licensed Clearing, Forwarding and Shipping Agents; 32-B, Brabourne Road, Calcutta-1; Phone: 227234.**

Oriental Clearing Agency.—9, Pollock Street, Calcutta.

**OTA INDIA.—Clearing, Shipping and Stevedoring Agents; Central Office: 159, Colaba Road, Bombay-5. Grams: "CENOTA". Phone: 212602. Branches: Bombay (Phones: 254772 & 256592), Calcutta (Phones: 232410 & 239009), Kandla (Phone: 2145—Gandhidham) and New Delhi (Phone: 43799).**

Petero & Smith (I) Ltd.—17, Chowringhee, Calcutta 13.
Pioneer Consolidated Co. of India Ltd.—2, Clive Row, Calcutta 1.
Reliance Corporation P. Ltd.—6, Commercial Bldgs., Calcutta 1.
Reliance Corpn. P. Ltd.—6, Commercial Bldgs., Calcutta 1.
R. Sen & Co.—10/1, Elgin Road, Calcutta 20.

**UNITED CLEARING AGENCY (PRIVATE) LTD.—Clearing & Forwarding Agents, 219-C, Old China Bazar Street, Calcutta 1. Phone: 22-1979.**

W. R. Hildreth & Co.—45, Stephen House, Dalhousie Sqr., Calcutta.

## COAL TAR

**NATIONAL TAR PRODUCTS.—Manufacturers of Road Tar, Pitch, Creosote Oils, Phenyles Liquid & Solid; Suppliers of Tar & Bitumenised Hessian & Felts, Water Proof Paper, D.D.T. Powders, Naphthalene Balls; 141, B. K. Paul Avenue, Calcutta-5; Phone: 552828.**

## COCKS & VALVES

**ANNAPURNA METAL WORKS.—Manufacturers of High Class Cocks and Valves for Water, Steam, Air, Gas or Oil Lines, 99/4, Bullygunge Place, Calcutta-19; Phone: 477820.**

**L. MULLICK & CO—Manufacturers, Stockists and Importers of Cocks & Valves of all descriptions in Cast Iron, Cast Steel, GM. Phos. Bronze, Pipes, Pipe Fittings, in Seamless, Hydraulic, Boiler, Water quality, etc., 81, Netaji Subhas Road, Calcutta-1; Phone: 225461 & 465477; Grams: "IRONKING."**

**PELICAN VALVES & ENGINEERING WORKS.—Manufacturers of Boiler Fittings and Gun Metal and Cast Iron Valves and Cocks of all types and Sizes tested quality "PELICAN" Regd. Trade Mark; 57/2, 'Q' Road, Belgachia, Howrah; Phone: 663506.**

## COLLAPSIBLE GATE MANUFACTURERS & DEALERS

Bengal Collapsible Gate & Engg. Works.—1-2, Canal West Road, Calcutta 13.
Biswanath Collapsible Gate Co.—167, Beliaghata Main Road, Calcutta.
Calcutta Collapsible Gate Co. Ltd.—77, Netaji Subhas Road, Calcutta.
Hindustan Collapsible Gate Co. P. Ltd.—5, Bancharam Ankrur Lane, Calcutta 12.
India Collapsible Gate Co.—23, Picnic Garden Road, Tiljala, Calcutta.
India Gate Co.—5, New Bazar Lane, Calcutta.
National Collapsible Gate Co.—35, Akhil Mistry Lane, Calcutta 9.
Paris Collapsible Gate Co.—2 & 2, Rifle Road, Calcutta 17.

## COLLIERY EQUIPMENTS

Anantha Chatterjee & Son.—200, Belilios Road, Howrah.
B.M.S. Engineering Works P. Ltd.—3-1, Kali Prosad Chakrabarty Lane, Howrah.
G. N. Kolley.—207, Belilios Road, Howrah.
Gopinath Ray & Co. P. Ltd.—69, Panchanantola Road, Howrah.
Howrah Engineering Concern P. Ltd.—19, Maharshi Debendra Road, Calcutta 6.
Howrah Iron & Steel Works P. Ltd.—90, Benaras Road, Salkia.

**INDUSTRIAL GASES LTD., THE.—15, Ganesh Chandra Avenue, P.O. Box 853, Calcutta 1. Phone: 229711/12, 221040, 221049, 227966 & 227499. Grams: "INDUSGASES", Calcutta. Depot and Service: 67-3012 & 46-7437; Colliery Equipment — Coal Handling Plants, Mining Locomotives, Mining Equipment.**

K. P. Das & Sons P. Ltd.—179, Belilios Road, Howrah.
Panchkori Ghosh & Sons P. Ltd.—166, Belilios Road, Howrah.

## COMMUNICATIONS TEST EQUIPMENTS

**ASSOCIATED INSTRUMENT MFRS. (INDIA) PRIVATE LTD.—B-5, Gillander House, Calcutta. Phone: 223304. Grams: "AIMIL".**

## CONDIMENTS

**DAW SEN & CO. PRIVATE LTD.—29, Dr. Suresh Sarkar Road, Calcutta 14. Manufacturers of Indian Condiments covering Chutneys, Pickles, Curry Powder and Curry Paste.**

## CONDUIT PIPES

Bose Bros.—76, Benaras Road, Howrah.
Electric Products.—26, Burtolla Street, Calcutta.
Great Eastern Pipe Works.—Nimtolla Street, Calcutta.
International Wire Nail Mfg. Co.—7/1/1, Benaras Road, Salki Howrah.
Kamala Sheet & Metal Industries.—98 & 99, Main Road, Beliaghata Calcutta.
Kedarnath Parsotamdas & Co. (Private) Ltd.—37, Netaji Subhas Road, Calcutta 1.
M. Chandra & Co.—12, Lower Chitpore Road, Calcutta.
National Conduits.—138, Canning Street, Calcutta.

**NATIONAL CONDUITS.—Manufacturers and Suppliers of High grade Conduit Pipes & Accessories; 138, Canning Street, Calcutta-1; Phone: 221049, 229711, 229712 and 227966; Factory: Regent grove, Tollygunge, Calcutta-40; Phone: 467437.**

S. D. Trading Co.—62, Netaji Subhas Road, Calcutta 1.
Shree Hanuman Steel & Pipe Works.—P.O. Box 6804, Calcutta.

## CONVEYORS, DESIGNERS AND MANUFACTURERS

New India Conveyor Co.—15, Pagiaputty, Calcutta 7.
Sterling India Co. P. Ltd.—68B, Dilkusha Street, Calcutta 17.

## COOLING TOWER MFRS.

**PAHARPUR TIMBERS PRIVATE LTD.—1-B, Judges Court Road, Calcutta 27. Phones: 451514 (Office), 452041 (Factory).**

## COTTON MERCHANTS

**GILL & CO. (PRIVATE) LTD.—4, Lyons Range, P.O. Box No. 13, Calcutta 1. Regd. Office: Indu House, Dougall Road, Ballard Estate, Bombay 1.**

## COTTON TEXTILE MACHINERY

India Machinery Co. Ltd.—29, Strand Road, Calcutta.
Machinery Mfrs. Corpn. Ltd.—P-61 B, Circular Garden Reach Road Kidderpore, Calcutta 23.
Modern Engineering Works.—12, Jadupandit Road, Calcutta 6.

## COTTON-WASTE MANUFACTURERS

Banka & Sons.—8, India Exchange Place, Calcutta.
Bharat Hardware & Textile Syndicate.—14, Netaji Subhas Road, Calcutta.
**Khan Industries Ltd.—14, Hare Street, Calcutta 1.**
**Ladakchand O. Vora.—68-D, Netaji Subhas Road, Calcutta 1.**

**MOHANLALL SATYANARAYAN.—Mill Contractors, Manufacturers and Stockists of Cotton Waste (Soft and Hard), Kapok, Akund, Simul, Hessian Waste and Coconut-Coir; 113, Sri Aravind Road, Salkia, Howrah; Phone: 662838.**

**SREERAM & SONS.—Manufacturers, Contractors, Suppliers, Importers and Exporters of Kapok, Akund-Kapok, Cotton, Cotton Waste and Cotton Listing Hessian Thread Waste etc., 16, Satyanarayan Temple Road, Salkia, Howrah; Phone: Office: 662827, Mills: 663550.**

**Textile Waste Co.—113-C, Netaji Subhas Road, Calcutta 1.**

## CREDIT INFORMATION AND STATUS REPORTS

**COMMERCIAL CENTER, THE.—G.P.O. Box No. 38, Calcutta 1 (India) Office: 169/2, Sarat Ghosh Garden Road, Calcutta-31.**

## CYCLES & CYCLE ACCESSORIES

A. K. Bose & Co.—64, Bentinck Street, Calcutta 1.
A. Quader & Co.—P-48, Princep Street, Calcutta 13.
**Associated Machinery Co. Pvt. Ltd.—8, India Exchange Place, Calcutta.**
Banerjee Brothers.—4, Bentinck Street, Calcutta 1.
Banerji Cycle Industries.—17, Weston Street, Calcutta.
Bengal Bihar Cycle Industries.—33/3, Tangra Road, Calcutta.
Bentinck Cycle Co. P. Ltd.—1/2, Chowringhee Road, Calcutta.
Beriwala Brothers Ltd.—49/1, Princep Street, Calcutta 13.
**Bharat Steel & Metal Industries.—Kali Muzumdar Road, Ghusuri P.O., Howrah.**
Bombay & Calcutta Cycle Co.—P-39, Princep Street, Calcutta 13.
British & Continental Agency, 40, Strand Road, Calcutta 1.
Calcutta Cycle Trading Co.—1, Bentinck Street, Calcutta 1.
Calcutta Cycle Supply Co.—11-A, Lall Bazar Street, Calcutta 1.
Calcutta Motor and Cycle Co.—5, Bentinck Street, Calcutta.
Camco Industries Ltd.—5, Bentinck Street, Calcutta 1.
Central India Machine Co.—155, Dharamtala Street, Calcutta 13.
Chakralaya.—67, Bentinck Street, Calcutta 1.
Crescent Cycle & Motor Co.—158, Dharamtolla Street, Calcutta 13.
D. Das & Brothers.—67, Bentinck Street, Calcutta 1.
Dutt Master Cycle Industries.—22, R. G. Kar Road, Calcutta.
Eagle Cycles Ltd.—3, New Tangra Road, Calcutta.
East & West Agency.—79/1, Bentinck Street, Calcutta 1.
Eastern Cycle Co.—80/1, Bentinck Street, Calcutta.
**Eastern Engineering Works.—56, Russa Road, Calcutta.**

Excell Lamps & Products (India).—75, Lower Circular Road, Calcutta.
Ganguly Brothers.—62, Bentinck Street, Calcutta 1.
Ghosh & Sons.—31, Bentinck Street, Calcutta 1.
Gauranga Cycle Co.—62, Bentinck Street, Calcutta 1.
Gobindo Sheet Metal Works & Foundry.—74, Narkeldanga Main Road, Calcutta.
Hashabi & Co.—295, Bepin Behari Ganguly Street, Calcutta 12.
H. D. Nundy & Co.—50-6, Dharamtolla Street, Calcutta 13.
Hindustan Vehicles Ltd.—11, Clive Row, Calcutta.
India Cycle Manufacturing Co. Ltd.—8 & 9, Tiljala Road, Calcutta.
Indian Union Manufacturers Ltd.—190/2, Rash Behari Avenue, Calcutta.
Indophilips Industries P. Ltd.—3, Bentinck Street, Calcutta 1.
International Engineering Co.—17 & 18, Rafi Ahmed Kidwai Road, Calcutta 13.
J. J. Mallik & Brothers.—21, Bentinck Street, Calcutta 1.
J. K. Pal & Brothers.—P-39, Princep Street, Calcutta 13.
K. C. Ghosh & Brothers.—54, Bentinck Street, Calcutta 1.
Kashi Cycle & Rickshaw Co.—P-25, Princep Street, Calcutta 13.
Lakshmi Cycle & Motor Co.—64, Bentinck Street, Calcutta 1.
M. M. Ghose & Brothers.—61, Bentinck Street, Calcutta 1.
Mallik & Co.—10, Bentinck Street, Calcutta 1.
National Cycle Importing Co., 21, Bentinck Street, Calcutta.
Nibaran Chander Seth & Co.—65, Bentinck Street, Calcutta 1.
Nundy Brothers.—34, Dharamtolla Street, Calcutta 13.
Nundy & Co.—6, G.E. Ghosh Road, Calcutta 37.
Overseas Cycle Co.—3, Bentinck Street, Calcutta.
Paradise Cycle Co.—12, Mangoe Lane, Calcutta 1.
Pioneer Cycle Co.—66, Bentinck Street, Calcutta.
Pranjiwandas & Sons.—3, Bentinck Street, Calcutta 1.
R. K. Cycle Industries P. Ltd.—80, Lower Circular Road, Calcutta 14.
Republic Engineering Corporation Ltd.—7, Chowringhee Road, Calcutta 13.
Senco Engineering Works & Co. P. Ltd.—55/2, Sastitala Road, Calcutta 11.
Tara Cycle Stores.—17/19, R. G. Kar Road, Calcutta 4.
Tarun Cycle Co.—74, Bentinck Street, Calcutta 1.
Union Cycle Co.—62, Bentinck Street, Calcutta 1.
Universal Cycle Trading Corporation.—67, Bentinck Street, Calcutta.
Zenith Cycle Co.—65, Bentinck Street, Calcutta 1.

## CYCLES & MOTOR CYCLE MANUFACTURERS & DEALERS

Hindustan Bicycle Mfg. & Industrial Corpn. Ltd.—14, Netaji Subhas Road, Calcutta 1.
India Cycle Manufacturing Co., Ltd.—4, Clive Ghat Street, Calcutta 1.
International Engineering Co., The.—17, Rafi Ahmed Kidwai Road, Calcutta-13.
Senco Engineering Works & Co. Private Ltd.—55/2, Sastitala Road, Calcutta 11.
Sen-Raleigh Ltd.—Regd. Office: Mercantile Buildings, Lall Bazar Street, Calcutta 1.

## DAIRY PRODUCTS

Alphine Dairy & Farm.—Norton Bldgs., 1 & 2, Old Court House Corner, Calcutta 1.
Dangaich Traders Syndicate P. Ltd.—26, Prasanna Kumar Tagore Street, Calcutta 6.
Edward Keventer Ltd.—11-3, Lindsay Street, Calcutta 13.
Express Dairy Co. Ltd.—198, Bhupen Roy Road, Behala, Calcutta 34.
Magnolia Dairy Products (India).—3-B, Wellesley Street, Calcutta 13.
Mahananda Datta & Co. P. Ltd.—153/1, Cotton Street, Calcutta 7.
New Regent Dairy Ltd.—9, India Exchange Place, Calcutta 1.
Sircar Dairy & Farm P. Ltd.—22/3, K. C. Ghosh Road, Calcutta 50.
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Town Talk Co.—1, Prana Nath Sen Lane, Calcutta 6.
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Auto Electric Industries.—14, Gour Laha Street, Calcutta 6.
Bajaj Electricals Ltd.—10, Ganesh Ch. Avenue, Calcutta.
Ballygunge Mechanical Works.—Bondel Road, Ballygunge, Calcutta.

Bells Electrical Corporation P. Ltd.—P-36, India Exchange Place, Calcutta 1.
Bengal Standard Electric Co.—Sikdar Bagan, Calcutta.
Bengal Standard Engineering Works Ltd.—172-A, Upper Circular Road, Calcutta.
Bharat Electrical Industries Ltd.—6-A, S. N. Banerjee Road, Calcutta 13.
B. M. Singh & Sons.—1, Crooked Lane, Calcutta 1.
British Engineering Corpn.—91, Netaji Subhas Road, Calcutta 1.
British India Electric Construction Co. Ltd.—21, Netaji Subhas Road, Calcutta.
Calcutta (Elec. & Mech.) Engineers Private Ltd.—27/2C, Strand Road, Calcutta.
Carbrush Engineering Co.—190, Maharshi Debendra Road, Calcutta 6.
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Clyde Fan Co. Pvt. Ltd.—Raj Bahadur Road, Behala, Calcutta 24.
Continental Electric & Trading Co.—26/1, Pollock Street, Calcutta 1.
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East Asiatic Industries Ltd.—25, Southend Park, Calcutta.
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Electric Products.—26, Burtolla Street, Calcutta 7.
Electrical Apparatus Pvt. Ltd.—54, Ezra Street, Calcutta 1.
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Electrical Industries Corpn.—33, Brabourne Road, Calcutta.
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Hindusthan Electric & Engineering Co.—64 & 64-1, Beadon Street, Calcutta 6.
Hindustan General Electrical Corpn. Ltd.—25, Brabourne Road, Calcutta.
Hindustan Industrial Syndicate.—2, Rash Behari Avenue, Calcutta 26.
India Electric Works Ltd.—Diamond Harbour Road, Calcutta 34.
India Moulding Co.—2, Roberts Road, Dum Dum, 24 Parganas Dist.
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Mayfair Electrical Equipment Industries.—177A, Chittaranjan Ave. Calcutta 7.
Motor & Machinery Mfrs. Ltd.—31, Chittaranjan Avenue, Calcutta 12.
Mullick, B. C. & Co.—25-A, Balaram Ghose Street, Calcutta 4.

**NATIONAL CONDUITS.—Manufacturers and Suppliers of Electrical Equipment, 138, Canning Street, Calcutta-1; Phone: 221049, 229711, 229712 and 227966; Factory: Regent grove, Tollygunge, Calcutta-40; Phone: 467437.**

New India Electric Co.—1, Manook Lane, Calcutta 1.

**OVERSEAS TRADE CORPORATION.—Ammeters-Volt Meters, Frequency Meter, Megger Insulation Tester, Tong Tester, Earth Tester, Powex Factor Meter, Single Three phase energy Meters, and all kinds of Instruments; 133, Canning Street, Calcutta-1; Phone: 226540.**

Orient General Industries Ltd.—6, Ghore Bibi Lane, Narkeldanga, Calcutta 11.
Paul, B. K.—8, Waterloo Street, Calcutta.
P. D. Simpson & Co.—Kent House, 14, Ganesh Chandra Avenue, Calcutta.
Philips India Ltd.—Philips House, 7, J. C. Madhab Road, Calcutta 20.
Power Transmission & Construction Co.—91, Netaji Subhas Road, Calcutta.
Radon House.—7, Sirdar Sankar Road, Calcutta 26.
Ray, B. B. & Co.—Windsor House, P-14, Bentinck St., Calcutta.
S. D. Trading Co.—62, Netaji Subhas Road, Calcutta 1.
Sett & Co.—38, Pramanick Ghat Road, P.O. Baranagore, Calcutta 36.
Shree Nursingsahay Mudungopal Electric Co. Pvt. Ltd.—55, Ezra Street, Calcutta 1.
Stone, J. & Co. (India) Pvt. Ltd.—5, Hide Road, Kidderpore, Calcutta 23.
Suburban Electrical Engineering Co. Private Ltd.—34-A, Ananda Palit Road, Calcutta 14.
Surya Engineering Ltd.—209, Picnic Garden Road, Calcutta 39.
Swadeshi Industries Ltd.—142-A, Jamnalal Bajaj Street, Calcutta 7.
Technical Works—9, Saha Lane, Calcutta 7.
United Flash Industries P. Ltd.—46, Muraripukur Road, Calcutta 1.

**UNIVERSAL ELECTRICS LTD.—15, India Exchange Place, Calcutta 1; Manufacturers and Suppliers of House Service Electricity Meters.**

## ELECTRODES

**COSMOPOLITAN TRADING CO.—Stockists of Cast Iron Machinable and all kinds of Electrodes, Welding Cables, Gas Welding Rods, Fluxes etc., 138, Canning Street, Calcutta-1; Phone: 224798 & 220987.**

**INDUSTRIAL GASES LTD., THE.—15, Ganesh Chandra Avenue, P.O. Box 853, Calcutta 1. Phone: 229711/12, 221040, 221049, 227966 & 227499; Grams: "INDUSGASES", Calcutta. Factories: 67-3012 and 46-7437; Mild Steel, Cast Iron, Stainless and Alloy Steels, Non-Ferrous Metals, Hard-facing, Automatic Welding, Wires and Fluxes.**

## ELECTROPLATING

**KAYCEE INDUSTRIES LTD.—2, Woodburn Court, 10, Elgin Road, Calcutta; Agents for Hind Rectifiers Ltd., Manufactures of Selenium and Silicon Semiconductors, Electroplating Rectifiers, Battery Chargers, Silicon Power Plants for Electro-Chemical Industries, 'Santon' Rotary Switches, 'Kaycee' Toggle Switches, 'Kaycee' Water Meters; Head Office: Kamani Chambers, Nicol Road, Ballard Estate, Bombay; Phone: 263521. Grams: 'TURNRITE'; Branches: Delhi, Madras & Kanpur.**

**RELIABLE TRADING AGENCY.—W. Canning's and Indian make Electroplating Chemicals, Polishing Compositions, Dynamos & Barrels, Mops and Industrial Brushes; 67/B, Netaji Subhas Road, Calcutta-1; Phone: 222277, 224774, 228562 and 348223.**

**SINHA ELECTRO-PLATERS.—Electroplaters of Chromium, Nickel, Copper, Oxidising, Bronze, Cadmium, Zinc, Tin, Parkerising, Anodizing, Silver etc., 77, Dharamtolla Street, Calcutta-13; Phone: 241365.**

## ENGINEERS (MECHANICAL & ELECTRICAL), BUILDERS & CONTRACTORS

Air Equipment Works.—44/12, G. T. Road, Barnagore, Calcutta 36.
Ashok Engineering and Construction Co.—161/1, Mahatma Gandhi Road, Calcutta.
Asian Lipe Material and Hardware Co.—19, Brabourne Road, Calcutta 1.
Associated Engineers P. Ltd.—24, Netaji Subhas Road, Calcutta 1.
Bajrangbali Engineering Co. P. Ltd.—10-11, G. T. Road, Liloooah, Dt. Howrah.
Balilias Engineering Co.—137, Canning Street, Calcutta.
Banerjee Electricals.—103-A, Cornwallis Street, Calcutta 4.
B. R. Herman & Mohatta India Ltd.—19, British Indian St., Calcutta 1.
Bharat Engineering Works.—Saraogi Mansions, 243, Chittaranjan Avenue, Calcutta-6.
Bijay Engineering Works.—71, Canning Street, Calcutta.

**BRITANNIA BUILDING & IRON CO. LTD.—Stephen House, 4, Dalhousie Square East, Calcutta-1.**

Calcutta Casting & Engineering Works.—243, Chittaranjan Avenue, Calcutta-6.
Canton Carpentry Works P. Ltd.—14, Radhanath Chowdhury Road, Calcutta 15.

**CALCUTTA CONSTRUCTORS PRIVATE LTD.—Undertake Construction Works of Buildings, Factories, Roads, Bridges etc., 34, Strand Road, Calcutta-1; Phone: 222521.**

Consolidated Construction Co. P. Ltd.—P-12, Mission Row Extn., Calcutta 1.
Coomar Docking & Engineering Works.—36, Strand Road, Calcutta 1.
Cyma Engineering Co.—223, Belilios Road, Howrah.
Dhar Engineering Works.—77, Dharamtolla St., Calcutta 13.
Dodsal P. Ltd.—33, Chittaranjan Avenue, Calcutta 1.
Don Watson & Co. Ltd.—19, British Indian Street, Calcutta 1.
D. Wren & Co.—25, Swallow Lane, Calcutta 1.
Engineers Overseas Corporation P. Ltd.—42, Raja Santosh Road, Calcutta.
Gannon Dunkerley & Co. Ltd.—4, Lyons Range, Calcutta 1.
General Commercial Corporation.—8/1, Sidheswar Chandra Lane, Calcutta 12.
Great Eastern Mechanical Works.—Ichapore Road, Calcutta.
G.T.R. Company P. Ltd.—37, Dum Dum Road, Calcutta 30.
Hazra Engineering Co.—21/1A, Deshpran Shasmal Road, Howrah.
Heros Engineering Works Ltd.—20, Paul Street, Calcutta.
Hind Constructions Ltd.—8, India Exchange Place, Calcutta 1.
Hindustan Development Corporation Ltd.—4, Chittaranjan Avenue, Calcutta 13.
Hindusthan Engineering & Construction Co.—2, Church Lane, Calcutta 1.
Howrah Electricals and Engineering Stores.—57/1, Dasarath Ghose Lane, Howrah.
Howrah Engineering Concern P. Ltd.—153-155, Madhusudan Pal Chowdhury Lane, Howrah.
Ibcon P. Ltd.—2, Fairlie Place, Calcutta 1.
International Combustion (I) P. Ltd.—101, Park St., Calcutta 16.
Jessop & Co. Ltd.—63, Netaji Subhas Road, Calcutta 1.
J. H. Fenner & Co. (I) Ltd.—Mercantile Buildings, Calcutta 1.
J. Sur & Co. P. Ltd.—3, Dalhousie Square East, Calcutta 1.
Kuljian Corporation.—7, Chittaranjan Avenue, Calcutta 1.
Kumar & Co.—135, Canning Street, Calcutta 1.
Lakshmi Narayan Engineering Works.—206, Belilios Road, Howrah.
Mansfield & Sons.—16, Radhanath Chowdhury Road, Calcutta 15.
Mechanical Engineering Co. P. Ltd.—25, Swallow Lane, Calcutta 1.
M. L. Sinha & Co. P. Ltd.—50, Ezra Street, Calcutta 1.
Model Engineering Works.—27, Pataldanga St., Calcutta 9.
Motwane P. Ltd.—25, Chowringhee, Calcutta 13.
National Planning & Construction Ltd.—16, Ganesh Chandra Avenue, Calcutta 13.
Paterson Engineering Co. P. Ltd.—21, Theatre Road, Calcutta 16.
P. C. Biswas & Co.—42, Russa Road East, Calcutta 33.
Peary & Co.—77, Dharamtolla St., Calcutta 13.
P. K. Mookherji & Co. P. Ltd.—D-1, Jagannath Ghat Road, Calcutta 7.
Sigma Engineering Co.—60, Dharamtolla Street, Calcutta 13.

**SIMPLEX CONCRETE PILES (INDIA) PRIVATE LTD.—Reinforced Concrete in-Situ Piling Specialists etc. and Heavy Reinforced Concrete Foundation and Structural Engineers; 103/3, D. H. Road, Calcutta-38; Phone: 455731 (4 Lines).**

S. L. Dutt & Co. P. Ltd.—42-1-2, Muraripukur Road, Calcutta 4.
S.R.T. Co. P. Ltd.—27, Beniapukur Road, Calcutta 14.
Satal Engineering Works.—16, British Indian Street, Calcutta.
Senco Engineering Works.—55/2, Sastitola Road, Calcutta 11.
Sri Durga Engineering Works.—109, B. T. Road, Calcutta 35.

**THE TECHMECH (INDIA).—7, Swallow Lane, Calcutta 1. Engineers (Electrical & Mechanical) and Dealers in Electric Motors, Switchgears, Transformers, Cables, Generating Sets, Pumping Sets and every type of heavy electrical goods.**

West Engineering Works.—15, Mohendra Bose Lane, Calcutta 3.

## ENGINEERING

A. & J. Main & Co. Ltd.—16, Netaji Subhas Road, Calcutta 1.
Abjanabh Industries P. Ltd.—25, Burtolla Street, Calcutta 7.
ACC-Vickers Babcock Ltd.—1 & 3, Brabourne Road, Calcutta 1.
Acme Mfg. Co.—8/1, Esplanade East, Calcutta.
Advance Tube Co.—65-A, Netaji Subhas Road, Calcutta 1.
Agrind Fabricators Ltd.—6, Ganesh Chandra Avenue, Calcutta 13.
American Refrigerators Co.—12D, Park Street, Calcutta.
Anand Metal & Steel Works.—137, Canning Street, Calcutta 1.
Ancillary Industries Cranks P. Ltd.—Mercantile Bldgs., Lall Bazar, Calcutta 1.
Angus Engineering Works.—3, Clive Row, Calcutta 1.
Annapurna Metal Works.—3, Ashu Biswas Road, Bhowanipur, Calcutta.
Apeejay Structurals Ltd.—47, Hide Road Extension, Calcutta 27.
A. P. V. Engineering Co. Pvt. Ltd.—41, Chowringhee Road, Calcutta.
Arim Tin & Steel Works.—258-4, Upper Circular Road, Calcutta 6.
Associated Aesby Industries Pvt. Ltd.—22, Strand Road, Calcutta 1.
Associated Mfg. Co. Pvt. Ltd.—6, Kissendayal Jalan Road, Salkia, Howrah.
A. Stock & Co. Ltd.—8, Garagacha Road, Calcutta 27.
Atlas Works P. Ltd.—119, Ripon Street, Calcutta 16.
Atta's Iron Foundry.—171, Grand Trunk Road (N), Salkia, Howrah.
Avery Co. of India P. Ltd.—28-2, Waterloo Street, Calcutta.
B. R. Herman & Mohatta (India) P. Ltd.—19, British Indian Street, Calcutta.
Babcock & Wilcox of India Ltd.—Ilaco House, 1 & 3, Brabourne Road, Calcutta 1.
Ballygunge Engineering Works.—33-1-1, Kankulia Road, Calcutta 19.
Bando & Co. Ltd.—35, Diamond Harbour Road, Calcutta 27.
Banerjea, Chakraborty & Co. P. Ltd.—135, Canning Street, Calcutta 1.
Bantra Engineering Works.—233, Belilios Road, Howrah.
Barick Iron Foundry & Engineering Works.—194, Vivekananda Road, Calcutta 6.
Batliboi & Co.—P-34, Mission Row Extension, Calcutta.
Bell's Asbestos & Engg. (I) P. Ltd.—24, Chittaranjan Avenue, Calcutta 12.
Bengal Industries.—132, Cotton Street, Calcutta.
Bengal Ingot Co. P. Ltd.—5, Hide Road, Kidderpore, Calcutta.
Bengal Iron & Steel Works.—121, Raja Dinendra Street, Calcutta 4.
Bengal Iron Works Ltd.—16-2, Chatterjeepara Lane, Howrah.
Bengal Rolling Mills Ltd.—86B, Netaji Subhas Road, Calcutta.
Beni Engineering Works.—1, Crooked Lane, Calcutta.
Bharat Barrel & Drum Mfg. Co. Ltd.—103/1, Dharamtolla Street, Calcutta 13.
Bharat Steel & Metal Industries.—14/2, Old China Bazar Street, Block No. 169, Calcutta.
Bharatia Commercial Co. Ltd.—P-23-24, Radhabazar Street, Calcutta.
Bhebia Engineering Works.—22, Canal West Road, Calcutta 4.
Bihar Firebricks & Potteries Ltd.—22, Strand Road, Calcutta.
Birkmyre Brothers Ltd.—87, Stephen House, 4, Dalhousie Square East, Calcutta.
Birla Boiler & Heavy Engineering Works.—8, India Exchange Place, Calcutta 1.
Blackwood Hodge (India) Pvt. Ltd.—139, Beliaghatta Road, Calcutta.
Braithwaite & Co. (India) Ltd.—Clive Works, Hide Road, Kidderpore, Calcutta.
Braithwaite Burn & Jessop Construction Co. Ltd.—P-13, Mission Row Extn., Calcutta.
Bridge & Roof Co. (India) Ltd.—21, Netaji Subhas Road, Calcutta.
Britannia Building & Iron Co. Ltd.—Stephen House, 4, Dalhousie Sqr. East, Calcutta.
Britannia Engineering Co. Ltd.—3, Netaji Subhas Road, Calcutta.
British India Electric Construction Co. Ltd.—21, Netaji Subhas Road, Calcutta.
Burn & Co. Ltd.—Howrah Iron Works, 12, Mission Row, Calcutta.
C. Comens & Sons Ltd.—103/3, Diamond Harbour Road, Calcutta 38.
Calcutta Engineering & Mfg. Co.—108-1, Benaras Road, Salkia.
Calcutta Tramways Co. Ltd.—P4, Mission Row Extension, Calcutta.
Calcutta Wire Works.—6, Tiljala Road, Calcutta 17.
Chaliah Rolling Mills.—6, Mission Row, Calcutta 1.
Ching Wah & Co. P. Ltd.—118, Ripon St., Calcutta 16.
Coles Cranes of India Ltd.—1, Taratolla Road, Calcutta 24.
Coomar Docking & Engineering Works.—36, Strand Road, Calcutta 1.
D. K. Das & Co. Ltd.—233, Belilios Road, Howrah.
Dalmia Iron & Steel Ltd.—Stephen House, 4, Dalhousie Square East, Calcutta 1.
Davidson of India P. Ltd.—10, Middleton Row, Calcutta 16.
Davy & United Engineering Co. Ltd.—Simon House, Calcutta 27.
Debendra Nath Paul & Co.—39, Wellington Street, Calcutta 12.
Delta Engineering & Foundry Works.—177, Muktaram Babu Street, Calcutta 7.
Development of Metal Industries Ltd.—72/1, Lansdowne Road, Calcutta.
Dewrance Macneill & Co. Ltd.—2, Fairlie Place, Calcutta 1.
Dey's Engineering Co.—237-K, Manicktolla Main Road, Calcutta 11.
Diana Rolling Shutters & Engineering Works.—114, Princep Street, Calcutta 13.
D. N. Bose & Co. P. Ltd.—12, Kalidas Sinha Lane, Calcutta 9.
D. N. Dass & Co.—25/A, Belliaghata Main Road, Calcutta 10.
Dorman Long & Co. Ltd.—8, Netaji Subhas Road, Calcutta 1.
Durga Rolling Mills Ltd.—197/1, G. T. Road, Ghusury, Howrah.
Dutt & Co. P. Ltd., S.L.—12-1-2, Muraripookur Road, Calcutta 4.
Eastern Economic Engineering Co.—24, Strand Road, Calcutta 1.
Eastern Equipment & Sales Ltd.—24B, Park Street, Calcutta 16.
Economic Tanks Supply Co.—100, Harrison Road, Calcutta 7.
Electric Construction & Equipment Co. Ltd.—9, Kaliprasanna Singhee Road, Calcutta 2.
Engineering Works of India (P) Ltd.—1/4C, Gunfoundry Road, Calcutta 2.
Eyre Smelting P. Ltd.—5, Hide Road, Kidderpore, Calcutta 23.
Ganesh Industries.—2, Haren Mukherjee Road, P. O. Belurmath, Howrah.
Ganges Galvanizing Works (I) P. Ltd.—14 & 14/1, Kissen Dayal Jalan Rd., P. O. Ghusury, Howrah.
George Salter India P. Ltd.—Chartered Bank Bldgs., Calcutta 1.
Gobindo Sheet Metal Works & Foundry.—74, Narkeldanga Main Road, Calcutta.
Godrej & Boyce Mfg. Co. Ltd.—9, Brabourne Road, Calcutta.
Goodman & Co. (I) Ltd.—38, Netaji Subhas Road, Calcutta.
Gramophone Co. Ltd.—33, Jessore Road, Dum Dum, 24-Parganas.
Grant James P. Ltd.—8A & B, Lower Bawdon Street, Calcutta 20.
Greaves Cotton & Crompton Parkinson P. Ltd.—4, Mission Row Extension, Calcutta.

Gresham & Craven of India P. Ltd.—31, Chittaranjan Avenue, Calcutta.
Guest, Keen, Williams Ltd.—41, Chowringhee Road, Calcutta.
Harbanslal Malhotra & Sons P. Ltd.—18, Netaji Subhas Road, Calcutta.
Harshadray P. Ltd.—22, Brabourne Road, Calcutta.
Hazra Engineering Works.—13, Rani Rashmooni Road, Calcutta 13.
Hind Constructions Ltd.—8, India Exchange Place, Calcutta.
Hind Tin Industries.—6, Jadulal Mullick Road, Calcutta 6.
Hind Wire Industries.—P-16, Kalakar Street, Calcutta.
Hindusthan Development Corpn. Ltd.—4, Chittaranjan Avenue, Hindusthan Bldg., Calcutta.
Hindusthan Machineries Ltd.—220-A, Rash Behari Avenue, Calcutta 19.
Hindusthan Sheet & Metal Co. P. Ltd.—9, Clive Row, Calcutta.
Hindusthan Wire & Metal Products Ltd.—67/74, Stephen House, 4, Dalhousie Sqr. East, Calcutta.
Hoare Miller & Co. Ltd.—Mfg. Divn., 5, Fairlie Place, Calcutta 1.
Holman-Climax Mfg. P. Ltd.—Chartered Bank Bldgs., Calcutta 1.
Hooghly Docking & Engineering Co. Ltd.—12, Mission Row, Calcutta.
Hope's Metal Windows India Ltd.—21, Netaji Subhas Road, Calcutta 1.
Howrah City Engineering Co.—75, Panchanantola Road, Howrah.
Howrah Iron Works.—Nityadhan Mukherjee Road, Howrah.
Howrah Trading Co. Ltd.—7, Dalhousie Square East, Calcutta 1.
Ideal Industries & Construction Co. (P) Ltd.—44, Chittaranjan Avenue, Calcutta 12.
Imperial Engineering Works P. Ltd.—122, Belilios Road, Howrah.
India Engineering Co.—20, Sree Kissen Vakat Lane, Howrah.
India Industrial Works P. Ltd.—55/1, Dharamtolla Road, Malipanchghora, Howrah.
India Machinery Co. Ltd.—29, Strand Road, Calcutta.
India Wire Nail & General Trading Co.—178, Mahatma Gandhi Road, Calcutta.
Indian Die Casting Co. (P) Ltd.—P-2, Taratolla Road, Calcutta 24.
Indian Iron & Steel Co. Ltd.—12, Mission Row, Calcutta.
Indian Oxygen Ltd.—48, Diamond Harbour Road, Kidderpore, Calcutta.
Indian Standard Wagon Co. Ltd.—12, Mission Row, Calcutta.
Industrial Containers Ltd.—21, Netaji Subhas Road, Calcutta 1.
Industrial Electrodes & Gauges P. Ltd.—138, Canning Street, Calcutta 1.
International Combustion (India) P. Ltd.—101, Park Street, Calcutta 16.
International Wire Nail Mfg. Co. Ltd.—196B, Chittaranjan Avenue, Calcutta 7.
Iron Founders & Fabricators.—24, Belur Road, Lilluah, Howrah.
J. B. Advani & Co. Pvt. Ltd.—P-38, Mission Row Extn., Calcutta 1.
J. C. Coondoo & Sons.—22, Raja Woodmunt Street, Calcutta 1.
J. J. H. Industries P. Ltd.—174, Mahatma Gandhi Road, Calcutta 7.
James Alexander & Co. Ltd.—15, Watgunge Street, Calcutta 23.
Jay Engineering Works Ltd.—183A, Prince Anwarshah Road, Calcutta 31.
Jeewanlal (1929) Ltd.—31, Netaji Subhas Road, Calcutta.
Jessop & Co. Ltd.—63, Netaji Subhas Road, Calcutta.
Jewell Filter Co. Ltd.—56A, Free School Street, Calcutta.
K. T. Steel Industries P. Ltd.—20, Maharshi Debendra Road, Calcutta 7.
Kamala Engineering Works.—124, Barrackpore Trunk Road, Calcutta 35.
Kamani Engineering Works.—30, Ganesh Chandra Avenue, Calcutta 13.
Keymer Bagshawe Mfg. Co. P. Ltd.—22, Strand Road, Calcutta 1.
King Engineering Co.—157, Belilios Road, Howrah.

**KINLAB (PRIVATE) LTD.—5, Marquis Street, Calcutta 16; Manufacturers of Timber Dryers and Pressure Impregnation Plants for timber and Wood Working Machinery; Dealers in Scientific and Laboratory Apparatus, Moisture Meters for timber and temperature indicating recording and controlling instruments.**

Krishna Private Ltd.—20, Mangoe Lane, Calcutta 1.
Kushumika Iron Works P. Ltd.—3, Maharshi Debendra Road, Calcutta.
Lagan Jute Machinery Co. P. Ltd.—24, Chittaranjan Avenue, Calcutta.
Lakshmi Iron & Steel Works P. Ltd.—P-16, Kalakar Street, Calcutta 7.
Lilloah Iron Works.—41, Chowringhee Road, Calcutta.
Lotus Industries.—32, Armenian Street, Calcutta.
Lynx Machinery Co.—104, Ultadanga Main Road, Calcutta.

**M.G.R. IRON & STEEL WORKS PRIVATE LTD.—P-16, Kalakar Street, Calcutta 7; Manufacturers of both ferrous and Non-ferrous Tinmen & Structural Rivets, Washers, Bolts, Nuts, etc.; Press Jobs of various types are undertaken.**

M. L. Dey & Co.—9, Harinbari 1st Lane, Calcutta 12.
Machinery Mfrs. Corpn. Ltd.—Anderson Bldg., 31, Chowringhee, Calcutta.
M. L. Day & Co. (Estd. 1899).—9, Harinbari first Lane, Calcutta 12.
Mahindra Engineering Co. Ltd.—5, Hide Road, Calcutta 43.
Main, A. & J. & Co. Ltd.—16, Netaji Subhas Road, Calcutta.
Marcandy Prasad, Radha Krishna Prosad P. Ltd.—65, Grand Trunk Road, Salkia, Howrah.
Marshall Sons & Co. (India) Ltd.—31-1, Netaji Subhas Road, Calcutta.
Martin Burn Ltd.—Structural Dept., 12, Mission Row, Calcutta.
Maya Engineering Works P. Ltd.—200-A, S. P. Mookerjee Road, Calcutta 26.
Maya Galvg. Works.—9, Upper Chitpore Road, Calcutta 7.
Mcgrigor & Balfour P. Ltd.—18, Netaji Subhas Road, Calcutta.
Mechanical Engineering Co. P. Ltd.—Warley House, 25, Swallow Lane, Calcutta.
Metal Box Co. of India Ltd.—Barlow House, 59C, Chowringhee Road, Calcutta.
Modern India Const. Co. P. Ltd.—9, Brabourne Road, 5th Floor, Calcutta.
Modern Malleable Casting Works.—42, Goushala Road, Lillooah, Howrah.
Molins of India P. Ltd.—12, Biren Roy Road West, Behala, Calcutta 34.
Motor & Machinery Mfrs. Ltd.—31, Chittaranjan Avenue, Calcutta.
Mukand Iron & Steel Co. Ltd.—10, Ganesh Chandra Avenue, Calcutta.
National Engineering Industries Ltd.—India Exchange, 5th Floor, Calcutta.
National Iron & Steel Co. Ltd.—Stephen House, 4, Dalhousie Square, Calcutta.
National Pipes & Tubes Co. Ltd.—67, Stephen House, 4, Dalhousie Square East, Calcutta.
National Screw & Wire Products Ltd.—51, Stephen House, 4, Dalhousie Square East, Calcutta.
National Steel Corporation Ltd.—4, Dalhousie Sq. East, Calcutta 1.
New Allenburry Works.—62, Hazra Road, Calcutta 19.
Nundon Bagan Engineering Works.—14, Ultdanga Road, Calcutta 4.
Oriental Gas Co. Ltd.—12, Park Street, Calcutta.
Orient General Industries Ltd.—6, Ghose Bibi Lane, Calcutta 11.
Orient Industrial Engg. Co. P. Ltd.—P-16, Kalakar Street, Calcutta 7.
Orient Steel & Wire Industries Pvt. Ltd.—2, Brabourne Road, Calcutta.
Oriental Machinery Supplying Agency Ltd.—P-12, Mission Row Extn., Calcutta 1.
Oriental Metal Inds. P. Ltd.—77, Bowbazar Street, Calcutta.
Orissa Steel Corpn. Ltd.—29, Strand Road, Calcutta.
Otis Elevator Co. (India) P. Ltd.—21, Netaji Subhas Road, Calcutta.
Panel Pin Mfg. Co. Ltd.—6, Raghab Koley Lane, Salkia, Howrah.
Parry & Co. Ltd.—Mercantile Bldgs., 9, Lall Bazar Street, Calcutta.
Paul's Engineering Co.—P-7, Natabar Paul Road, Dassnagar (Dt. Howrah).
P. C. Dutt & Co.—71-A, Netaji Subhas Road, R. No. A-166, Calcutta 1.
Pioneer Iron & Steel Corpn.—119, Grand Trunk Road, Belur, Howrah.
Port Engineering Works Ltd.—8, Clive Row, Calcutta.
Ramchander Heeralall.—138, Canning Street, Calcutta 1.
Ramkrishna Iron Works P. Ltd.—56, Sri Ramkrishna Mandir Path. North Bantra, Howrah.
Ranjit Engineering Works.—149, Benares Road, Salkia.
Raymon Engineering Works Ltd.—2, Brabourne Road, Calcutta 1.
Reckitt & Colman of India Ltd.—41, Chowringhee Road, Calcutta 16.
Reliable Water Supply Service of India Ltd.—10, Canning Street, Calcutta.
Robert Hudson (I) P. Ltd.—12, Mission Row, Calcutta.
Robsan & Co. Ltd.—P-14, Mission Row Extension, Calcutta 1.
Roger Engineering Works.—137, Canning Street, Calcutta.
Salkia Industrial Works.—195-1, Grand Trunk Road (North), Ghusuri, Howrah.
Sankey Electrical Stampings P. Ltd.—5th Floor, Mukherjee House, 17, Brabourne Road, Calcutta.
Saxby & Farmer (I) P. Ltd.—17, Convent Road, Entally, Calcutta.
Shalimar Industries (Private) Ltd.—25, Ganesh Chandra Avenue, Calcutta 13.
Shalimar Iron Works.—62, College Ghat Road, Shalimar, Howrah.
Shalimar Works P. Ltd.—9, Lyons Range, Calcutta.
Shankar Industries Ltd.—192, Cross Street, Calcutta.
Ship Repairers P. Ltd.—Taratalla Road, Paharpur, Calcutta 24.
Shree Bajrang Electric Steel Co. Ltd.—83, Old China Bazar St., Calcutta.
Shree Hanuman Industries.—178, Harrison Road, Calcutta 7.
Shree Hanuman Steel Rolling Mills Co. Ltd.—62/2/D1, Ghusury, Salkia, Howrah.
Shree Vishwakarma Industries.—192, Cross St., Calcutta 7.
Shyamnagar Tin Factory.—113, Manohardas Katra, Calcutta 7.
Simon Carves Ltd.—32, Dalhousie Square, Calcutta.
Simplex Concrete Piles I. P. Ltd.—103-3, Diamond Harbour Road, Calcutta 38.
S. K. B. Industries.—140-B, Dharamtola St., Calcutta 13.
Spence Ltd.—P-38, Mission Row Extension, Calcutta 13.

Standard Electronics Ltd.—23, Fakirdas Mondal Lane, Howrah.
Steel Products Ltd.—96, Garden Reach Road, Calcutta 23.
Steel Equipment & Construction Private Ltd.—22, Grand Trunk Road (North), Lilluah, Howrah.
Steel Rolling Mills of Hindustan P. Ltd.—135, Canning St., Calcutta.
Stewarts & Lloyds of India P. Ltd.—41, Chowringhee Road, Calcutta 16.
Stone, J. & Co. I. P. Ltd.—5, Hide Road, Kidderpore, Calcutta.
Swadeshi Industries Ltd.—33, Netaji Subhas Road, Calcutta.
Tata Iron & Steel Co. Ltd.—23-B, Netaji Subhas Road, Calcutta.
Technical India Ltd.—62-1, Joy Narain Babu Lane, Howrah.
Textile Machinery Corpn., Ltd.—8, India Exchange Place, Calcutta.
Ultra Engineering Co.—172-8, Madhusudan Pal Chowdhury Lane, Howrah.
United Commercial Industries P. Ltd.—192, Cross Street, Calcutta 7.
United Engineering (Eastern) Corpn.—22, Canning Street, Calcutta 1.
United Flashlight Industries P. Ltd.—14/2, Old China Bazar Street, Calcutta.
United Rolling Mills P. Ltd.—171, Girish Ghosh Road, P. O. Belur math, Howrah

**USHA AUTOMOBILE & ENGINEERING PRIVATE LTD.—14, Princep Street, Calcutta-13.**

Variety Industrial Works Ltd.—P-16, Kalakar Street, Calcutta 7.
Veegal Engines & Engg. Ltd.—31, Chittaranjan Ave., Calcutta 12.
Victory Engineering Works.—Tangra Road, Calcutta 15.
Vijay Engineering Co. Ltd.—86, Dewangazi Road, Bally, Howrah.
Westwork Engineers P. Ltd.—56-D, Free School Street, Calcutta 16.
Wellington Engineering Works.—3-1, Sanatan Seal Lane, Calcutta 12.
Wolverhampton Iron & Steel Co.—137, Canning Street, Calcutta 1.

## ESSENCES

**D. JAYANTILAL & CO.—All kinds of Essences, Essential Oils, Food Colours, Aromatic Chemicals, Perfumery Compounds, Provisions, Polythene Bags & Tubes, Yeast, Chemicals etc., 33, Canning Street, Calcutta-1; Phone: 229071.**

## ESTATES & PROPERTY AGENTS

**DHARAMPAL CHADHA & SONS.—H.O. 3, Madan Street, Calcutta 13; Phone: 23-5318; Branch Office: F. 20, Shankar Market, Connaught Circus, New Delhi; Phone: 47200.**

## EXHAUST FANS

**AST ASIATIC CO. (INDIA) PRIVATE LTD., THE.—9-29, Mission Row Extension, Calcutta 13; Phones: 232114, 238877 & 239769; Grams: "EASTASIA"; P.O. Box 364; E.2, Gillander House, Netaji Subhas Road, Calcutta; Phone: 226006; Manufacturers, Importers, Exporters and Engineers.**

## EXPANDED METAL MANUFACTURERS

**ACME MANUFACTURING CO.—Manufacturers of all Sizes of Expanded Metals for Protective Measures, in Windows, Fencing Railings; 8/1, Esplanade East, Calcutta-1; Phone: 235594 (3 Lines).**

**CALCUTTA EXPANDED METAL MFG. CO. PRIVATE LTD.—P-16, Kalakar Street, Calcutta 7.**

Delta Engineering & Foundry Works.—195, Muktaram Babu Street, Calcutta 7.
Hindusthan Wire & Metal Products Ltd.—57-74, Stephen House, Dalhousie Square, Calcutta 1.

## FERTILISERS & CHEMICAL PRODUCTS MFRS. & DEALERS

Atlas Fertilisers Ltd.—4/5, Bankshall Street, Calcutta.
Beegos Manure Works.—21, Barwaritola Road, Calcutta 10.
Compound Fertilisers Ltd.—2, Dalhousie Sq., East, Calcutta.
Globe Nursery.—25, Ramdhone Mitter Lane, Calcutta.
Harshad Ray Pvt. Ltd.—22, Brabourne Road, Calcutta.
Hooghly Agricultural & Fertiliser Syndicate.—495, Circular Road, Calcutta.
Imperial Chemical Industries (I) Pvt. Ltd.—18, Strand Road, Calcutta.
Jalan Industries P. Ltd.—62, Ballygunge Circular Road, Calcutta.
Mitter, R. C. & Sons.—54, Ramkanto Bose Street, Calcutta 3.
P. Basak & Co.—9, Chidam Modi Lane, Calcutta 6.
Phosphate Co. Ltd.—14, Netaji Subhas Road, Calcutta 1.
Roy, B. K. Private Ltd.—4, Bankshall Street, Calcutta 1.
Shaw Wallace & Co. Ltd.—4, Banshall Street, P. B. No. 70, Calcutta.

## FILTER AND FILTER INSTALLATIONS

Associated Exports & Imports Corporation.—Lal Bazar, Calcutta.

**ASSOCIATED WATER SOFTENERS.—3, Princep Street, Calcutta-13; Phone: 236811.**

Bharat Filter Stores.—62/1A, Netaji Subhas Road, Calcutta.
Calcutta Filter Mfg. Co.—62/1A, Netaji Subhas Road, Calcutta.

**CRYSTAL FILTER CO.—Manufacturers of Water Purification Treatment and Sterilization Equipment suitable to meet various requirements; 33/1/1, Natabar Paul Road, Howrah-West Bengal; Phone: 662420.**

Fritz & Singh P. Ltd.—227, N.S.C. Bose Road, Calcutta 47.
G. B. Dey & Co.—36, Strand Road, Calcutta.
Gour Mohan Das & Co.—233, Old China Bazar Street, Calcutta 1.
India Potteries Ltd.—91, Dharamtala Street, Calcutta 31.
Jewell Filter Co.—28, Chittaranjan Avenue, Calcutta.

**JOHN FOWLER (INDIA) LTD.—136-A, Rash Behari Avenue, Calcutta 29; Bombay Office: Marshalls Bldg., Ballard Road, Bombay 1; Sole Selling Concessionaires of "Vokes" Filtration Equipments.**

S. M. Dey & Co.—51/3D, Strand Road, Calcutta.

**SPARKLER MANUFACTURING CO., U.S.A.—Indian Division (Kamitter & Co.), 35, Chittaranjan Avenue, Calcutta-12; Distributors: Sparkler Range of Filters for Filtration of Pharmaceuticals, Antibiotics, Biologicals, Vegetable-Lubricating & Insulating Oils, Chemicals, Paints/Varnishes, Syrups, Fruits Juices, Plating Solutions, Steam Condensate, Industrial and Domestic Water and anything that is liquid; Sales & Service; Phone: 236072.**

**TECALEMIT (HIND) LTD.—Filter and Filter Replacement Elements for Lubricating Oils, Fuel and Air lines, 8 and 12, C.R. Avenue, Calcutta-13; Phones: 236681, 236682 & 236683.**

## FIRE BRICKS & REFRACTORIES

**BENGAL-BIHAR FIREBRICKS & POTTERY WORKS PRIVATE LTD.—Manufacturers of High quality Insulating Bricks of all shapes and descriptions; 26, Burtolla Street, Calcutta-7; Phones: 334707 & 334897; Factory at: Mugma (Dhanbad).**

**HARRY REFRACTORY & CERAMIC WORKS PRIVATE LTD.—Manufacturers of Refractories (Fire Bricks, High Alumina Bricks, Insulating Bricks, Tiles, Blocks etc.) of Various shapes and Specifications; 200, Rabindra Savani, Calcutta-3; Phones: 55/7181-84.**

India Refractories Ltd.—23/24, Radhabazar St., Calcutta.
Kharkaree Firebricks Works.—9, Old Court House St., Calcutta.

**NEW BHARAT REFRACTORIES LTD.—Manufacturers of High grade Refractories of Various Shapes and Specifications; 10, Clive Row, Calcutta-1; Phone: 229501 (2 Lines), Grams: 'NEWREFRAC'.**

Planters and Guide Supply Co.—135, Canning Street, Calcutta.
Refractories & Mineral Syndicate P. Ltd.—20, N. Subhas Road, Calcutta.

**S. D. HARRY & CO. PRIVATE LTD.—Mine Owners, Manufacturers and Stockists of Fire Bricks, Fire Cement, High Alumina Brick and Blocks, Pressed Electrical Insulators and Chemical Porcelains, 200, Rabindra Sarani, Calcutta-3; Phones: 557181-84 (4 Lines).**

## FIRE FIGHTING EQUIPMENTS

**BENGAL CHEMICAL & PHARMACEUTICAL WORKS LTD.—6, Ganesh Chunder Avenue, Calcutta 13; Pharmaceuticals, Heavy & Fine Chemicals, High Class Toilet Products, Coal Tar Distillation Products, Fire Extinguishers, Printing inks, Driers, etc., Branch Offices: Bombay & Kanpur.**

Eastern Industrial Syndicate, 10, Canning St., Calcutta.

**MINIMAX LTD.—Manufacturers of the World Renowned "MINIMAX" Hand Appliances, also Complete Fire Engines, Trailer Pumps and Fire Equipment; Mercantile Buildings, Lall Bazar Street, Calcutta-1; Phones: 223675, 223676 & 223677.**

**ROYSON & CO.—Manufacturers and Distributors of all types of Fire Extinguishers, Refills, Fire Appliances and Equipments; 55, Gariahat Road, Calcutta-19; Phones: 474872 & 475069.**

Sur Enamel & Stamping Works Ltd.—24, Middle Road, Entally, Calcutta.
Technico (I).—3, B. B. Ganguli Street, Calcutta 12.
William Jacks & Co. Ltd.—16, N. Subhas Road, Calcutta.

## FLEXIBLE SHAFTS & ACCESSORIES

**MILLER & CO. (CALCUTTA) PRIVATE LTD.—Sole Agents & Stockists Boxtul (Export) Ltd., London; Manufacturers of Flexible Shafts (Inner and Outer Core Casing for Grinders, Vibrators, Boilers, Tube Sealing Machines; 24, Netaji Subhas Road, Calcutta-1; Phones: 227181 & 225175.**

## FLOUR MILLS

Bengal Flour Mills Co. Ltd.—21, Netaji Subhas Road, Calcutta.
Calcutta Flour Mills.—11, Shib Thakur Lane, Calcutta.
Hooghly Flour Mills Co. Ltd.—4, Bankshall Street, Calcutta.
Howrah Flour Mills Pvt. Ltd.—21, Roopchand Roy Street, Calcutta 7.

Imperial Roller Flour Mills Ltd.—9 Jagmohan Mullick Lane, Calcutta 7.
Krishna Flour Mills Pvt. Ltd.—8, Lyons Range, Calcutta 1.
Mahabir Flour Mills.—102, Raja Dinendra Street, Calcutta 7.
Master Stores.—44, Burtolla Street, Calcutta 7.
Nandan Bagan Flour Mills Ltd.—241/2B, Upper Circular Road, Calcutta 4.
Narkeldanga Roller Flour Mills.—17-4, Canal West Road, Calcutta 9.
New India Flour Mills.—41, Simla Road, Calcutta 6.
Roger Engineering Works.—10, Clive Row, Calcutta 1.
Shree Biswanath Swadeshi Flour Mills.—3, Chaitan Sett Street, Calcutta 7.
Shree Krishna Gyanodaya Flour Mills.—29/41, J. N. Mukerjee Road, Salkia, Howrah.
Shree Lakshmi Flour Mills Co. Ltd.—234, Upper Chitpur Road, Calcutta.
United Flour Mills Co. Ltd.—4, Bankshall Street, Calcutta.
West Bengal Flour Mills.—8, Lyons Range, Calcutta 1.

## FOLDING & BENDING MACHINES

**UNION TOOLS & AGENCIES PRIVATE LTD.—'Brabourne Court,' 1, Chandni Chowk Street, Calcutta 13.**

## FOUNDRY AND FOUNDRY REQUISITES

Agarwal Hardware Works (P) Ltd.—167, Chittaranjan Avenue, Calcutta.
Agarwalla Iron & Steel Works.—P-38, Mission Row Extn., Calcutta 13.
Atta's Iron Foundry.—171, Grand Trunk Road (North), Salkia, Howrah.
Bagri Iron & Steel Co.—138, Canning Street, Calcutta.
Belur Iron Foundry & Engg. Works.—203/1, Harrison Road, Calcutta 7.
Bengal Rolling Mills Ltd.—67B, Netaji Subhas Road, Calcutta.
Bhartia Electric Steel Co. Ltd.—4, Old Court House Street, Calcutta.
Bhattacharjee Brothers.—71A, Netaji Subhas Road, Calcutta.
Binani Metal Works (P) Ltd.—Binani Bldgs., 38, Strand Road, Calcutta.
Bose Brothers.—76, Benaras Road, Howrah.
Calcutta Iron & Engg. Co. (P) Ltd.—77, Benaras Road, Howrah.
Dalmia Iron & Steel Ltd.—4, Dalhousie Square East, Calcutta.
D. N. Singha & Co.—61, Sitanath Bose Lane, Salkia, Howrah.
Dragon Iron Works.—31, Kissonlal Burman Road, Salkia, Howrah.
East India Metal Co. Ltd.—4A, Durga Charan Chatterjee Lane, Calcutta.
Garden Reach Workshops Ltd.—2, Fairlie Place, Calcutta.
Hanuman Engg. Works Ltd.—13, Syed Sallery Lane, Calcutta 7.
Hind Overseas (P) Ltd.—7, Narain Prasad Babu Lane, Calcutta 7.
Hindustan Industrial Co.—192, Cross Street, 3rd Floor, Calcutta.
Indaag Industries.—35, Ezra Street, Calctuta 1.
Indian Malleable Castings Ltd.—4, Lyons Range, Calcutta.
Kumardhubi Engg. Works Ltd.—Chartered Bank Bldgs., Calcutta.
Liluah Iron Works.—41, Chowringhee Road, Calcutta 16.
Moulders Private Ltd.—71A, Netaji Subhas Road, Calcutta.
Nandikeshwari Iron Foundry (P) Ltd.—10K. Road, Belgachia, P. O. Dassnagar, Howrah.
**NATIONAL CASTING CO.—8, Dalhousie Square East, Calcutta. Manufacturers of C.I. Railway Sleepers, Check Chairs, Bearing Plates, D Sockets, Trestles, Foundations Type A & B, Sand Stowing Pipes, C.I. Socket & Spigot, Pressure Pipes and Specials to B.S.S. 78/1938, C.I. Machinery Parts and all sorts of Ferrous and Non-Ferrous Castings to Customers Specifications.**
Poddar Sanitary Works.—50, Chingrihatta Road, Calcutta 15.
Premier Iron & Steel Works (P) Ltd.—P-16, Natabar Paul Road, North Bantra, Howrah.
Ramkrishna Iron Foundry.—5, Dolgobinda Sinha Lane, Salkia, Howrah.
R. K. Industries.—144, Cotton Street, Calcutta 7.
R. M. Chatterjee & Sons (P) Ltd.—49, Sitanath Bose Lane, Salkia, Howrah.
Shalimar Iron & Steel Industries.—P-84, Benaras Road, Belgachia, Howrah.
Shankar Iron Engg. Works (Pvt.) Ltd.—42/1, Dr. Abani Dutta Road, Howrah.
**SHAW WALLACE & CO. LTD.—4 & 5, Bankshall Street, Calcutta-1; Managing Agents: Hooghly Flour Mills Co. Ltd., and United Flour Mills Co. Ltd., Manufacturers of 'Lantern' and 'Cockatoo' Brands of Flour and Sujee, 'Horse & Rose Brands of Atta; Phone: 235601 (16 Lines).**
Shree Baidyanath Iron & Steel Co. Ltd.—Agarwalla Mansions, 370, Upper Chitpur Road, Calcutta 6.
Shree Hanuman Foundry Works.—8, Dalhousie Square East, Calcutta.
Shree Hanuman Foundry & Engg. Co. Ltd.—46, Strand Road, Calcutta.
Shree Hanuman Foundries Ltd.—Agarwalla Mansions, 87, Upper Chitpur Road, Calcutta 6.
Shree Krishna (P) Ltd.—20, Mangoe Lane, Calcutta.
Shree Luchminarain Jute Mfg. Co. Ltd.—59, Netaji Subhas Road, Calcutta 1.
Tatanagar Foundry Co., Ltd.—4, Dalhousie Square East, Calcutta.
Textile Machinery Corpn. Ltd.—Belgharia, 24 Parganas.
Thakurdas Sureka Iron Foundry Ltd.—10, Goho Road, Ghusury, Howrah.
Victory Iron Works Pvt. Ltd.—P26, North Bantra, Salkia, Howrah.
Vijay Iron Foundry.—105, Stephen House, 4, Dalhousie Square East, Calcutta 1.
Vijaya Engineering Co. Ltd.—66/1, Dewangazi Road, Bally, Howrah.
Wesman Engineering Co. Private Ltd.—71, Ganesh Chandra Avenue, Calcutta 13.

## FOUNTAINPEN MANUFACTURERS AND DEALERS

A. K. Products.—5, Jagabhandu Boral Lane, Calcutta.
Crown Pen Industries.—90, Phears Lane, Bara Bazar, Calcutta.
Delta Industrial Co.—2/4, Beliaghata Main Road, Calcutta.
Harkishanlal Brothers.—167, Old China Bazar Street, Calcutta.
Hercules Pen Industries.—32, Kristo Das Pal Lane, Calcutta 6.
India Pen & Allied Industries Co.—86-2, Bahir Surah Road, Calcutta 10.
Modern Pen Industries.—P-41, B. K. Paul Avenue, Calcutta 5.
Pen Service Agency P. Ltd.—10, Chowringhee Road, Calcutta 13.
Pen Supply Corporation.—15, Free School Street, Calcutta.
Port Industries Private Ltd.—12, Ramproshad Shaha Lane, Calcutta 1.
R. K. Plastic Works.—374, Upper Chitpore Road, Calcutta.
R. K. Products.—5, Jagabhandhu Boral Lane, Calcutta 7.
Shri Bijoy Industries.—24-25, Upper Chitpore Road, Calcutta.

## FREIGHT BROKERS

B. D. Khaitan.—5, Clive Row, Room No. 31, Calcutta.
Blacker & Co. (Pvt.) Ltd.—18, Strand Road, Calcutta.
Champalal & Co.—23/24, Radha Bazar Street, Sethia House, Calcutta.
C. L. Kasera & Co.—21-A, Canning Street, Calcutta.
D. N. Ojha & Co.—11/B, Radha Madhab Saha Lane, Calcutta.
H. Davecurn.—7, Wellesley Place, Calcutta.
H. P. Dey & Son.—2, Church Lane, Calcutta.
H. P. Goenka & Co.—21/A, Canning Street, Calcutta.
M. L. Chopra & Co.—8/3, Roop Chand Rai Street, Calcutta.
P. N. Mookerjee & Co.—12, Netaji Subhas Road, Calcutta.
R. Jaitha & Co.—16, Strand Road, Calcutta.
R. N. Khemka.—Temple Chambers, 6, Old Post Office Street, 4th Floor, Calcutta.
R. Sen & Sons.—4, Fairlie Place, Calcutta.
S. A. Nasr & Co. (Pvt.) Ltd.—2, Chittaranjan Avenue, Calcutta.
S. Chatterjee & Co.—18, Netaji Subhas Road, Top Floor, Eastern Block, Calcutta.
S. C. Mitra & Sons.—C/o N. C. Bose & Co., 25, Swallow Lane, Calcutta.
Sinclair & Co.—5, Commercial Bldg., Calcutta.
Singh Khurana & Co.—8, Windsor House, P/14, Mission Row Extension, Calcutta.
S. S. Khaitan & Co.—Room No. 51, 138, Canning Street, Calcutta.
Vabubjee & Co.—6, Lyons Range, Calcutta.
Varajlal & Sons.—37, Ezra Street, Calcutta.
Ziffo & Co.—5, Garstin Place, Calcutta.

## FUEL INJECTION EQUIPMENTS

**MOTOR INDUSTRIES CO., LTD.—Manufacturers of Mico-Licence Bosch Diesel Fuel Injection Equipment & Spark Plugs; Distributors of Bosch Automobile Parts & Accessories; 91-A, Park Street, Calcutta 16; Phone: 44-6831; Grams: "MICODIESEL," Calcutta; Head Office: Post Box No. 93, Bangalore; Branches: 41, Queen's Road, Bombay 2 and 1/155, Mount Road, Madras 2.**

## FUEL STORAGE (BULKOIL & DISPENSING EQUIPMENT)

**TECALEMIT (HIND) LTD.—Equipment for factories, Heavy Industries, Chemical Plants, Cement, Paper, Sugar Mills etc., 8 & 12, C. R. Avenue, Calcutta-13; Phones: 236681, 236682 & 236683.**

## FUEL TESTING EQUIPMENTS

**ASSOCIATED INSTRUMENT MFRS. (INDIA) PRIVATE LTD.—B-5, Gillander House, Calcutta; Phone: 223304, Grams: "AIMIL".**

## FURNACES

**WELLMAN INCANDESCENT INDIA LTD.—Manufacturers of all types of Furnaces, Low temperature ovens, Material Handling Equipment built to the design of Wellman Incandescent group of Companies; 8, Harington Street, Calcutta-16; Phone: 446817 (3 Lines).**

## FURNITURE AND FITTINGS MANUFACTURERS & DEALERS

Amkar Furnishers.—42, Central Avenue South, Calcutta.
Art Furnishers Pvt. Ltd.—3, Southern Avenue, Calcutta 26.
B. H. Smith & Co. Pvt. Ltd.—46, Dharamtala Street, Calcutta 13.
Calcutta Cabinet Co.—66, Bow Bazar Street. Calcutta 12.
Calcutta Furnishing Stores Ltd.—62, Bowbazar Street, Calcutta 12.
Calcutta Furniture Mfg. Co.—6, Chhattawalla Gally, Calcutta 12.
Calcutta Furniture Works Ltd.—27E, Balaram Ghosh St., Calcutta 4.
Chatterjee Furnishing Co. Pvt. Ltd.—2B, Russel Street, Calcutta 16.
Chen's Carpentry Works Pvt. Ltd.—14, Black Burn Lane, Calcutta 12.
Eastern Furnishers.—62, Bowbazar Street, Calcutta 12.
Fashion Furnishers.—264B, Bowbazar Street, Calcutta 12.
Goodearth Industrial Corpn.—P-14, New C.I.T. Road, Calcutta 12.
Guha & Sons.—268A, Bowbazar Street, Calcutta 12.

**HINDUSTAN WOOD CRAFTS.—Manufacturers and Suppliers of Furniture, Building Wood Works (Office, Household, School, College and Laboratory Decorator); 8/2, St. James Square, Calcutta-12; Phone: 344646.**

Hyderabad Cane Furniture House.—4, Theatre Road, Calcutta.
Indian Teak-Wood Products Pvt. Ltd.—P-3, Kalakar St., Calcutta 7.
Inter-Continental Exports.—12-B, N. Subhas Road, Calcutta 1.
J. N. Bhattacharji & Co.—N. Subhas Road, Calcutta.
Modern Furnishers.—38, Park Mansion, Calcutta 16.
Modern Furnishing Stores.—67, Bowbazar Street, Calcutta 12.
National Syndicate.—7, Hare Street, Calcutta.
Nu-Bilt Furniture Co.—57, Park Street, Calcutta 16.
Paradise Furnishers.—264K, Bowbazar Street, Calcutta 12.
Prabartak Furnishers Ltd.—61, Bepin Behari Ganguli Street, Calcutta 12.
Sinha Ghosh & Co. P. Ltd.—38, Chandney Chowk St., Calcutta 13.
Standard Cabinet Co., Ltd.—32, Chittaranjan Avenue, Calcutta 12.

## GALVANISED HOLLOW-WARES & METALWARES

Bantra Engineering Works.—233, Belilios Road, Howrah.
Bengal Bucket & Steel Works.—68-D, Netaji Subhas Road, Calcutta 1.
Containers & Closures Ltd.—2, Fairlie Place, Calcutta 1.
Dhur Galvanising Works.—92, Ultadanga Main Road, Calcutta 4.
Ghosh & Co.—96, Mahatma Gandhi Road, Calcutta 7.
Goodman & Co. (I) Ltd.—38, Netaji Subhas Road, Calcutta 1.
Marwar Galvanising & Iron Works.—161-1, Harrison Road, Calcutta 7.
Metal Press Works Ltd.—3, Jagmohan Mullick Lane, Calcutta 7.
Nathmall Girdharilal.—22, Burtolla St., Calcutta 7.
Shree Krishna P. Ltd.—192, Cross Street, Calcutta 7.

## GALVANISED SHEET MERCHANTS

Abhay Charan Dey & Brother.—20, Maharshi Debendra Road, Calcutta 7.
A. C. Bros. & Co.—12, Maharshi Debendra Road, Calcutta.
A. K. S. Paul & Co.—70, Nalini Sett Road, Calcutta.
Anandji Haridas & Co. (P) Ltd.—20, Maharshi Debendra Road, Calcutta.
Balmer Lawrie & Co. Ltd.—21, Netaji Subhas Road, Calcutta.
Basantlal Ghansamdas.—8/5, Roopchand Roy Street, Calcutta.
B. B. Paul & Co.—18, Raja Woodmunt Street, Calcutta.
B. B. Dutt & Co., (P) Ltd.—20, Maharshi Debendra Road, Calcutta.
Chandra Kanta Manna & Co. (P) Ltd.—20, Maharshi Debendra Road, Calcutta.
Chuni Lal Paul.—3/3, Maharshi Debendra Road, Calcutta.
D. J. Vora.—47, Ezra Street, Calcutta.
Dukhineswar Sarker & Bros. P. Ltd.—2, Maharshi Debendra Road, Calcutta.
Ganeshmull Labhuram.—4, Raja Woodmunt Street, Calcutta.
Gauri Shanker Bihani.—49, Nalini Sett Road, Calcutta.
G. C. Banerjee & Co. P. Ltd.—74/A, Nalini Sett Road, Calcutta.
G. C. Gupta & Co.—261, Bowbazar Street, Calcutta
Gour Churn Law & Co.—19, Maharshi Debendra Road, Calcutta.
H. K. Paul & Bros. (P) Ltd.—3/3, Maharshi Debendra Road, Calcutta.
Ishan Chandra Chatterjee & Son (P) Ltd.—20, Maharshi Debendra Road, Calcutta.
Jamnadas & Bros. (P) Ltd.—55/58, Canning Street, Calcutta.
Jasoda Lal Ghosal (P) Ltd.—20, Maharshi Debendra Road, Calcutta.
J. Guha & C. K. Guha.—20, Maharshi Debendra Road, Calcutta.
J. M. Saha & R. R. Banik.—20/1, Maharshi Debendra Road, Calcutta.
K. C. Ghattack & Sons (P) Ltd.—3, Maharshi Debendra Road, Calcutta.
K. C. Ghosh & Sons (P) Ltd.—20, Maharshi Debendra Road, Calcutta.
Madan Mohan Saha (P) Ltd.—27, Sowabazar Street, Calcutta
Makhan Lall Dey & Sons (P) Ltd.—D/15, Jagannath Ghat, Calcutta.
Narayandass & Co.—D/5, Jagannath Ghat, Calcutta.
Naresh Nath Mookerjee (Metals) Pvt. Ltd.—6, Clive Row, Calcutta.
N. M. J. M. & S. C. Saha.—12, Maharshi Debendra Road, Calcutta.
N. Tah & Co. (P) Ltd.—20, Maharshi Debendra Road, Calcutta.
Natabar Paul & Co. (P) Ltd.—19, Maharshi Debendra Road, Calcutta.
Paul & Co. (P) Ltd.—20/2B, Maharshi Debendra Road, Calcutta.
P. N. Manna & Co. (P) Ltd.—20, Maharshi Debendra Road, Calcutta.

**PROVASH CHANDRA NUNDY & CO.—20, Maharshi Debendra Road, Calcutta 7; Stockists and Dealers of Iron Sheet Materials (Black Plain and Corrugated Sheets).**

Radhakissen Satyanarain.—4, Doyhatta Street, Calcutta.
Ramachandra Keshrichand Pvt., Ltd.—4, Doyhatta Street. Calcutta.
Shyam Lal Ghosal.—20, Maharshi Debendra Road, Calcutta.
S. N. Manna & M. N. Manna (P) Ltd.—D/16, Jagannath Ghat, Calcutta.
S. Palchowdhury & Co. P. Ltd.—19, Maharshi Debendra Road, Calcutta.
Steel Traders (P) Ltd.—Stephen House, Room No. 27/1, Dalhousie Square, Calcutta.

## GARAGE EQUIPMENTS

**TECALEMIT (HIND) LTD.—Complete Range of Equipment for servicing all classes of vehicles including Tractors and Earthmoving Equipments; 8 & 12, C. R. Avenue, Calcutta-13, Phones: 236681, 236682 & 236683.**

## GASES

**INDUSTRIAL GASES LTD., THE.—15, Ganesh Chandra Avenue, P.O. Box 853, Calcutta 1. Phoness: 229711/ 12, 221040, 221049, 227966 & 227499. Depot & Service — 67-3012; 46-7437. Grams: "INDUSGASES", Calcutta. Industrial Gases — Oxygen, Liquid Oxygen, Acetylene, Nitrogen, Argon, Neon and Helium, Medical and Refrigerant.**

## GAS & CHEMICAL PLANTS

**INDUSTRIAL GASES LTD., THE.—15, Ganesh Chandra Avenue, P.O. Box 853, Calcutta 1; Phones: 229711/12, 221040, 221049, 227966 & 227499. Grams: "INDUSGASES", Calcutta. Factories: 67-3012 and 46-7437. Complete Plants for Manufacture of Gases — Oxygen, Nitrogen, Carbon Dioxide, Hydrogen, Acetylene, Ammonia, etc.**

**MANSFIELD OIL GAS CO. LTD.—Gas Plants-Gasholders, Industrial Plate Work, Cooling Towers, Laboratory Furniture, Water & Gas Taps-Burners, Fume Exhaust Fans, Hot Plate, Burners, Cooking Ranges; 16, Radha Nath Chowdhury Road, Calcutta-15; Phone: 242382 (3 Lines).**

## GAS MANTLE MANUFACTURERS

**BENGAL SCIENTIFIC & TECHNICAL WORKS (PRIVATE) LTD.—20/3, Aswini Dutt Road, Calcutta-29; Manufacturers of Incandescent Gas Mantles of all types, including Hard, Inverted and Upright Mantles; Electric Fittings for Street Lighting.**

**SHAW B. K. MANTLE WORKS.—Manufacturers of Gas Mantles, both Soft and Hard of every description for Lamps and Lanterns, Domestic illumination, Street lighting & Light Houses; 3, Bladon Street, Calcutta-6; Phones: 563710 & 563474.**

## GAUGES & INSTRUMENTS

**INDUSTRIAL GASES LTD., THE.—15, Ganesh Chandra Avenue, P.O. Box 853, Calcutta 1. Phones: 229711/12, 221040, 221049, 227966 & 227499; Grams: "INDUSGASES", Calcutta. Factories: 67-3012; Gauges, Pressure, Vacuum, Vacuum Single, Duplex, Steam, Ammonia, Oxygen, Acetylene, Oil.**

**ORIENTAL TRADING CORPORATION.—All kinds of Pressure & Vacuum gauges, Temperature, Thermometer etc.; 135, Canning Street, Calcutta-1; Phones: 222299 & 241609 (Works).**

**SEBI & CO.—Stockists of all kinds of Steam, Hydraulic, Water, Air and other Pressure & Vacuum Gauges; Recording Pressure Gauges and Instruments; 22, Canning Street, Calcutta-1; Phone: 226758.**

## GLASS BOTTLE & CORK MERCHANTS

Ananta Kumar Ghosh Pvt. Ltd.—9, Ezra Street, Calcutta.
Amritlal Chunder.—Room No. 4, Clive Bldgs., Calcutta 1.
Ashini Kumar Das & Co.—180, Lower Chitpore Road, Calcutta.
Ashoka Sales Agency.—P/40-45, Ezra Street, Calcutta.
Asiatic Glass Products.—6, Ezra Street, Calcutta.
Assam Glass Stores.—1-B, Sova Bazar Lane, Calcutta.
Associated Traders.—180, Lower Chitpore Road, Calcutta.
Basha Perfumery House.—8, Ezra Street, Calcutta.
Bejaya Glass Depot.—4, Jakson Lane, Calcutta.
Bhagya Laxmi Glass Agency.—P-33, Pollock Street, Calcutta.
Bhar & Co. P. Ltd.—20, N. Subhas Road, Calcutta 1.
Bimal Bottle Stores Pvt. Ltd.—130, Radha Bazar Street, Calcutta.
Bonfields Bottle Stores.—10-4-1, Bonfields Lane, Calcutta.
Britannia Glass Co.—7, Swallow Lane, Calcutta 1.
Continental Bottle Co. Pvt. Ltd.—24, Ezra Street, Calcutta.
Crown Cork Mfg. Co.—1, Umakanta Sen Lane, Calcutta 30.
Dhur & Co.—7, Swallow Lane, Calcutta.
Dilip & Co.—Pollock Street, Calcutta.

D. N. Agrawal & Sons.—202, Old China Bazar Street, Calcutta 1.
Durgashree Bottle Stores.—7, Ezra Street, Calcutta.
Eastern Traders Agency.—3, Chittaranjan, Avenue, Calcutta.
Essence & Glassware Supplying Co.—66, Ezra Street, Calcutta.
Gier Trading Co.—Agency, 4, Chattawala Galli, Calcutta.
Glass & Plywood Supply Agency.—40, Bowbazar Street, Calcutta 12.
Glass Supply Agency.—P-33, Pollock Street, Calcutta 1.
Gobindram Jessaram.—66, Ezra Street, Calcutta.
Gopinath Glass Supplying Co.—7 & 9, Ezra Street, Calcutta.
The Glass Syndicate Pvt. Ltd.—30/1/B, Grey Street, Calcutta.
Gujarat Trading Co.—P/40-45, Ezra Street, Calcutta.
Jagadish Trading Co.—16, Radha Bazar Lane, Calcutta.
K. P. Saha & Co.—4, Ezra Street, Calcutta.
Laboratory Requisites Suppliers.—P-33, Pollock Street, Calcutta.
Luxmi Bottle Stores.—17, Ezra Street, Calcutta.
Manick Chand Harlalka.—1, Protap Ghose Lane, Calcutta.
Narayan Bottle Stores.—18, Radha Bazar Lane, Calcutta.
Nath Brothers.—67, Ezra Street, Calcutta.
New Era Universal Traders.—22, Canning Street, Calcutta.
O. T. Kader Basha Saheb.—17, Ezra Street, Calcutta.
Pathak & Co.—6, Ezra Street, Calcutta.
Radhabaaar Bottle Stores.—15, Radhabazar St., Calcutta 1.
Radha Shyam Chandra & Co.—67, Ezra Street, Calcutta.
Ram Chandra Singha & Co.—6, Ezra Street, Calcutta.
R. Das & Co.—7, Ezra Street, Calcutta.
R. G. Ganeriwala & Co.—208, Old China Bazar Street, Calcutta 1.
R. K. Desai & Co.—61, Bentinck Street, Calcutta.
R. N. T. & Co.—18, Ezra Street, Calcutta.
Satya Charan Paul & Co.—190, Old China Bazar Street, Calcutta.
Sikri & Co. Pvt. Ltd.—9, Ezra Street, Calcutta.
S. K. Rahaman & Bros.—46, Ezra Street, Calcutta.
Subhas Trading Co.—66 . Ezra Street, Calcutta.
Union Bottle Stores.—18, Ezra Street, Calcutta.
United Bottle & Perfumery Co.—9, Ezra Street, Calcutta.

## GLASS & GLASSWARE

Annapurna Glass Works Pvt. Ltd.—P-15, Bentinck Street, Calcutta 1.
Artistick Glass Works.—1-2, Tagore Castle Street, Calcutta 6.
Ashoke Glass Works.—9, Ezra Street, Calcutta.
Asiatic Glass Products.—30-B, Sahitya Parishad Street, Calcutta.

**BASANT GLASS CO.—Leading Stockists, Government Contractors and order Suppliers of Window Glass, Sheet Glass, Plate Glass, Mirror, Safety Glass and Glass Cutters; 23, Canning Street, Calcutta-1; Phone: 226999, 462454.**

Belur Glass Works Ltd.—203/1, Mahatma Gandhi Road, Calcutta 7.
Bharat Glass Works Private Ltd.—Belgharia, 24, Parganas.

**BHARATI GLASS CO.—Suppliers to Government departments-Central & State; Stockists of Mirrors, Plate Glass, Window Glass, Triplex Ribbed, Coloured, Figures and other glasses and Glass Cutters etc., P-21, Swallow Lane, Calcutta-1; Phone: 229552.**

**BRITANNIA GLASS CO.—Stockists of all kinds of Sheet and Window Glass; Figured, Frosted, Safety (Triplex), Wired, Mirror and Coloured Glass, Glass Building Blocks and Glass Cutters; 7, Swallow Lane, Calcutta-1; Phone: 225837.**

B. K. Shaw Industries Private Ltd.—P-3, B. K. Paul Avenue, Calcutta 5.
Calcutta Glass & Silicate Works (1936) Pvt. Ltd.—9, Kundu Lane, Belgachia, Calcutta 37.
Central Glass Industries Ltd.—7, Swallow Lane, Calcutta 1.
Cossipore Glass Blowing Works.—60, Satchasipara Road, Calcutta 2.
Fotic Lall Sea & Sons P. Ltd.—10, Swallow Lane, Calcutta 1.
Geeta Glass Works Pvt. Ltd.—9, Ezra Street, Calcutta 1.
Glass Syndicate P. Ltd.—30/1, Grey Street, Calcutta.
Gurjars Ltd.—55, Bentinck Street, Calcutta 1.
Hindusthan National Glass Manufacturing Co. Ltd.—2, Wellesley Place, Calcutta 1.
Hindusthan Pilkington Glass Works Ltd.—Hindusthan Bldgs., 4, Chittaranjan Avenue, Calcutta 13.
Hindusthan Safety Glass Works Pvt. Ltd.—7, Chittaranjan Avenue, Calcutta 13.
India Chemical and Scientific Glass Co.—23/1C, Beniapara Lane, Calcutta.
Indo Asiahi Glass Co. Ltd.—30, Chittaranjan Ave., Calcutta 13.
Krishna Silicate & Glass Works Ltd.—17, Radha Bazar Street, Calcutta 1.
K. Scientific Industries.—11, Ultadanga Road, Calcutta 4.
Medical Appliances Mfg. Co. Ltd.—20, N. Subhas Road, Calcutta 1.
Metro Glass Works Pvt. Ltd.—20, Netaji Subhas Road, Calcutta 1.
National Glass Industries P. Ltd.—17, Radhabazar St., Calcutta.
National Scientific Glass Works.—14, Mullick Street, Calcutta 7.
New Indian Glass Works (Calcutta) Pvt. Ltd.—7, Rawdon St., Calcutta 16.
Premier Scientific Glass Co.—26/2A, Prasad Kur Tagur Street, Calcutta.
Protecto & Insulation Materials P. Ltd.—69A, Ballygunge Place, Calcutta 19.
Ramkrishna Glass Works Pvt. Ltd.—Muratidhar Sen, Lane, Calcutta 7.
Research Chemical and Glass Industries P. Ltd.—22, Prince Anwar Shah Road, Calcutta 6.

**S. P. SINGH & CO.—Importers, Sole Agents and Stockists for high quality Foreign Factory Finished Windscreens and Door glasses for Cars and Trucks of laminated (Triplex), Toughened and Curved Types in Wide Range; 62, Ganesh Chandra Avenue, Calcutta-13; Phone: 244975 & 242615.**

Scientific Glass Apparatus Mfg. Co.—5-A, Prosanna Kumar Tagore Street, Calcutta 6.
Scientific Glass Apparatus Mfg. Co.—11-2, Harinath Dey Road, Calcutta 9.
Scientific Glass Works.—35, Gopal Chatterjee Road, Calcutta 2.
Scientific India Glass Co. Pvt. Ltd.—98, Christopher Road, Calcutta 14.
Seraikella Glass Works Pvt. Ltd.—Konnagar, Hooghly Dist.
Shiva Glass Works Co. Ltd.—Narayani Bldgs., 27, Brabourne Road, Calcutta. 1.
Shree Gobindeo Glass Works Ltd.—9, Ezra Street, Calcutta 1.
Sodepur Glass Works Ltd.—P-11, Mission Row Extension, Calcutta 1.
Somany Glass Works.—2, Wellesley Place, Calcutta 1.
Victoria Glass Works Pvt. Ltd.—10, Clive Row, Calcutta 1.

## GLOVES

**GHOSAL, B. N. & SONS (CALCUTTA).—Manufacturers of Gloves, Aprons, Leggward, Sleeves etc. of Leather, Asbestos, Rubber, Canvas, Plastic, Ammunition Boots, Safety Belts etc., 25-B, Chittaranjan Avenue, Calcutta-13; Phone: 233505.**

## GLUE MANUFACTURERS

Bengal Paste Co.—10, Delhi Entally Road, Calcutta 14.
Dhappa Glue Factory.—24 Parganas, Calcutta.
Gripex (India) Ltd.—C-6, Gillander House, 8, Netaji Subhas Road, Calcutta.
King Perfumery Works.—13, Khetra Das Lane, Calcutta 12.
Unita Trading Co.—76, Lower Circular Road, Calcutta 14.

## GRINDING & PULVERISING

**ORIENTAL MACHINERY (1919) PRIVATE LTD.—P-12, Mission Row Extn., Calcutta-1; Phone: 234840; Edge Runner, End Runner, Disintegrator, Ball Mill, Jar Mill etc.**

## GUMS

**EASTERN INDUSTRIAL CORPORATION.—Dextrines—Starch, 'Eastern' Gum Powder (Substitute for Gum Arabic); 142/1, Radha Bazar Street, Calcutta-1; Phone: 225508, Grams: "UNNAYAN"—Calcutta.**

## GUNNY TRADERS & EXPORTERS

Abdul Karim Noormohamed & Co.—59, Canning Street, Calcutta.
A. H. Bhiwandiwala & Co. (B) Pvt. Ltd.—2, Doyahatta Street, Calcutta.
Abdul Shakur Umar Sahigara & Co.—15, Zakaria Street, Calcutta.
Acharya Brothers.—23/24, Radhabazar Stret, Calcutta.
Ambadutt & Co.—21-A, Canning Street, Calcutta.
Amin Agencies Ltd.—25-26, Waterloo Street, Calcutta.
Amritlal Ojha & Co. Private Ltd.—102-A, Netaji Subhas Road, Calcutta.
Arora & Sehgal Private Ltd.—2, Clive Row (4th floor), Calcutta.
Arora & Co., Private Ltd.—7-A, Clive Row, Calcutta.
Anganlal & Co.—137, Cotton Street, Calcutta.
Anderson Wright Ltd.—7, Wellesly Place, Calcutta.
Arjundass Ramkumar & Co.—133, Cotton Street, Calcutta.
Associated Commercial Co. of India Ltd.—7, Hastings Street, Calcutta.
Babulal & Co., Pvt. Ltd.—21, Canning Street, Calcutta.
Bag Hessian Trading Co.—5, Clive Row, Calcutta.
B. C. Nawn & Bros. Private Ltd.—7, Bowbazar Street, Calcutta.
Baijnath Bhalotia.—15, Clive Row, Calcutta.
Baldeoram Beharilal.—61, Strand Road, Calcutta.
Ballabhram Badrinarain.—135, Canning Street, Calcutta.
Banwarilal Lohariwala Co.—21-A, Canning Street, Calcutta.
Basudev Gupta Co.—21-A, Canning Street, Calcutta.
Bengal Burlap Corp.—135, Canning Street, Calcutta.
Bhagat & Co.—10, Clive Row, Calcutta.
Bhagat Singh Bugga & Co.—22, Canning Street, Calcutta.
Bharat Burlap Linkers.—5, Clive Row, R. No. 16, Calcutta 1.
Bharat Handicraft Pvt. Ltd.—5, Clive Row, Calcutta 1.
Bharat General Trading Co., Pvt. Ltd.—2, Doyhatta Street, Calcutta.
Bhawanidass Ramgovind.—7, Sambhu Mullick Lane, Calcutta.
Bhimsain Sundarsain.—14, Amratolla Street, Calcutta.
Bhutoria Bros. Pvt. Ltd.—56, Netaji Subhas Road, Calcutta.
Bhutoria & Sons Pvt. Ltd.—161-1, M. Gandhi Road, Calcutta 7.
Bilasroy Sons & Co.—21, Canning Street, Calcutta.
Binani Commercial Co. Pvt. Ltd.—42, Strand Road, Calcutta 1.

Birla Jute Manufacturing Co. Ltd.—8, India Exchange Place, Calcutta.
Burlap Brokers Pvt. Ltd.—135, Canning Street, Calcutta.
B. Agarwala & Co.—39, Tarachand Dutt Street, Calcutta.
B. Ladhuaram & Co.—21-A, Canning Street, Calcutta.
Banshidhar Gupta & Sons.—21-B, Canning Street, Calcutta.
Bissesarlall Sriniwas.—21-A, Canning Street, Calcutta.
Bisesawarlall & Co.—135, Canning Street, Calcutta.
Brijmohan Kalanauria.—135, Canning Street, Calcutta.
Burlap Trading Corporation.—14-5, Clive Row, Calcutta.
Bijoy Kumar & Co.—B-3, Clive Building, Calcutta.
Beriwala Brokers Pvt. Ltd.—21-A, Canning Street, Calcutta.
Bhagwan Limited.—7-A, Clive Row, Calcutta.
Burlap Linkers.—18, Netaji Subhas Road, Calcutta.
Carrimjee Alibhoy.—20, Zakaria Street, Calcutta.
Calcutta Jute Mfg. Co., Ltd. The—4, Dalhousie Square, Calcutta.
Chokhany Brothers.—15-A, Clive Row, Calcutta.
Chatterjee Chakravarty & Co.—135 Canning Street, Calcutta.
Chamaria Brothers.—5, Clive Row, Calcutta.
Chandulall Kanhaiyalall.—44, Burtolla Street, Calcutta.
Chhaganlal Kasturchand.—16, Pollock Street, Calcutta.
Chokhany Sons.—5, Clive Row, Calcutta.
Chase Brothers Private Limited.—7, Lyons Range, Calcutta.
Clive Mills Co., Ltd.—13, Old Court House Street, Calcutta 1.
D. S. Kharas.—11, Wellington Sq., Calcutta 13.
D. N. Nundy & Co.—21-A, Canning Street, Calcutta.
D. Shamji & Co.—54, Canning Street, Calcutta.
Dharamdas & Tiarthdas.—14-2, Clive Row, Calcutta.
Damodar Hansraj.—2, Manook Lane, Calcutta.
Danmull Jwalaprasad.—23-24, Radhabazar Street, Calcutta.
Dawoojee Dadabhoy & Co.—67, Canning Street, Calcutta.
Dayal & Sons.—22, Swallow Lane, Calcutta.
Dayaram & Sons.—4, Dalhousie Square, Calcutta.
Dinanath Kanoria & Co.—134, Canning Street, Calcutta.
Dinesh Company Private Ltd.—5, Clive Row, Calcutta.
Dipak Trading Co.—15, Amratolla Lane, Calcutta.
Dulichand Kashiprasad.—18, Amratolla Street, Calcutta.
Dunichand Rateria.—7-G Clive Row, Calcutta.
Dunichand Sons & Co.—7-G, Clive Row, Calcutta.
Durgadas Pal & Co.—14-A, Clive Row, Calcutta.
East Coast Commercial Co., Ltd.—7, Wellesly Place (3rd floor), Calcutta.
East India Commercial Co., P. Ltd.—38, Netaji Subhas Road, Calcutta.
F. Gangjee & Co.—24, Mission Row Extension, Calcutta.
Far Eastern Agencies Ltd.—P-14, Mission Row Extension, Calcutta.
Fatehchand Murlidhar.—14-1, Clive Row, Calcutta.
Fulchand Kanahiyalal & Co.—23-24, Radhabazar Street, Calcutta 1.
G. Ambalal (Export) Pvt. Ltd.—4, Mission Row, Calcutta.
G. Kanoria & Co.—7G, Clive Row, Calcutta.
G. Patel & Co. Pvt. Ltd.—2, Brabourne Road, Calcutta.
Ganesh Export & Import Co.—18-A. Rupchand Roy Street, Calcutta.
Ganeriwala Brothers.—14-5, Clive Row, Calcutta.
Gangabishan Kalanauria.—135, Canning Street, Calcutta.
General Fibre Dealers Ltd.—India Exchange, Calcutta.
General Produce Co., Ltd.—India Exchange, Calcutta.
General Merchandise Dealer Ltd.—135, Canning Street, Calcutta.
Girdharilal & Co.—4, Clive Row, Calcutta.
Goenka Commercial Co.—11 Clive Row, Calcutta.
Gordhandass Jerambhai.—15-A, Clive Row, Calcutta.
Googanram Rampartap & Co.—7-E, Clive Row, Calcutta.
Gopichand Ashok Kumar.—134, Canning Street, Calcutta.
Gouri Sankar Co., Pvt. Ltd.—14-1, Clive Row. Calcutta.
Govindji Gordhandas & Co.—3, Amratolla Street, Calcutta.
Guha Rice Co.—22, Amratolla Street, Calcutta.
Gunny Exporters Private Ltd.—10, Clive Row, Calcutta.
Gunny Commercial Co.—6, Clive Row, Calcutta 1.
Gupta Trading Co.—6, Clive Row, Calcutta.
Hind Commercial Co.—21-A, Canning Street, Calcutta.
Haji Habib Haji Peermohamed.—25, Amratolla Street, Calcutta.
Haji Esmail Noormohammed & Co.—15, Zakaria Street, Calcutta.
Haji Sattar Haji & Pirmohammed.—23, Amratolla Street, Calcutta.
Haji Selim Khoonji.—21, Prinsep Street, Calcutta.
Harbanslal Malhotra & Sons Private Ltd.—18, Netaji Subhas Road, Calcutta.
Hardwarimull Mahabirprasad.—7-G, Clive Row, Calcutta.
Harkisondass & Ramdass.—7-G, Clive Row, Calcutta.
Hariram & Co.—21, Canning Street, Calcutta.
Hasham Premji.—191, Mahatma Gandhi Road, Calcutta.
Hessian & Gunny Traders.—43, Strand Road, Calcutta.
Hirjee Jewraj.—7-G, Clive Row (1st floor), Calcutta.
Hariram Kharkia & Co.—5, Clive Row, Calcutta.
Howrah Trading Co., Ltd.—8, Dalhousie Square East, Calcutta.
Hukumchand Jute Mills Ltd.—9, Brabourne Road, Calcutta.
Husein Ebrahim.—55, Canning Street, Calcutta.
Hind Jute & Hessian Co.—14-5, Clive Row, Calcutta.
Hope Prudhomme & Co. Pvt. Ltd.—7, Wellesley Place, Calcutta.
International Overseas Corp. Ltd.—4, Dalhousie Square, Calcutta.
Indo-World Trading Co., Ltd.—10, Armenian Street, Calcutta.
International Trading Co.—13, Brabourne Road, Calcutta.
Indo-Eastern Trading Co., Ltd.—23-24, Radha Bazar Street, Calcutta.
Isharsingh Kirpalsingh & Co.—10-1, Portuguese Church Street, Calcutta.
Ispahani Ltd.—51, Ezra Street, Calcutta.
International Gunny Corporation.—7-E, Clive Row, Calcutta.
Indo-Burma Trading Corporation.—10, Chowringhee Road, Calcutta 13.
Jagannath Gupta & Co., Pvt. Ltd.—7-B, Clive Row, Calcutta.
Jagdish Prasad Pannalall & Co., Ltd.—27, Amratolla Street, Calcutta.
Jagannath Ramnath.—5, Vivekananda Road, Calcutta.
Jaipuria Bros. Ltd.—33, Netaji Subhas Road, Calcutta.
Jalan & Co.—5, Mangoe Lane, Calcutta 1.
Jalan Commercial Co.—5, Clive Row, Calcutta.
Jankidass Ramgopal.—48, Canning Street, Calcutta.
Jamnadass & Co.—27, Amratolla Street, Calcutta.
Jamnadas Sriniwas Co.—21, Canning Street, Calcutta.
Jhajharia Trading Co., Private Ltd.—14, Netaji Subhas Road, Calcutta.
Joylall Hargulal.—59, Netaji Subhas Road, Calcutta.
Juggilal Kamlapat.—7, Council House Street, Calcutta.
Jute & Gunny Brokers Pvt. Ltd.—8, India Exchange Place, Calcutta.
Jute Hessian Co.—21-B, Canning Street, Calcutta.
Jute & Stores Ltd.—23-24, Radha Bazar Street, Calcutta.
J. D. Acharya & Sons.—15, Clive Row, Calcutta.
Jewraj Investments Private Ltd.—15-B, Clive Row, Calcutta.
K. Satyanarayan & Co.—7-G, Clive Row, Calcutta.
Kabra & Co., (Jute & Gunny Sales).—2, India Exchange Place, Calcutta.
Kanoi (India) Pvt. Ltd.—P-8, Mission Row Extension, Calcutta.
Kanoria General Dealers Pvt. Ltd.—133, Canning Street, Calcutta.
Kanoria Co., Ltd.—9, Brabourne Road, Calcutta.
Kanoria & Sons Pvt. Ltd.—133, Canning Street, Calcutta.
Kanji Kashiram & Co.—27, Amratolla Street, Calcutta.
Kant & Co., Pvt. Ltd.—15, Clive Row, Calcutta.
Kashiram Banaresilall Pvt. Ltd.—9, Waterloo Street, Calcutta.
Kathiawar Trading Co.—14-2, Old China Bazar Street, Calcutta.
Kaushal International Traders.—35-17, Ezra Street, Calcutta.
Kedarnath Gupta & Co.—7-A Clive Row, Calcutta.
Kedarnath Hariram.—7-A, Clive Row, Calcutta.
Kedarnath Poddar & Co.—135, Canning Street, Calcutta.
Kesardeo Shyamsundar.—5, Clive Row, Calcutta.
Kesaria & Co.—19, Amratolla Street, Calcutta.
Kheruka & Co.—B-5, Gillanders House, Calcutta.
Khorana Brothers.—5/2, Gobindodhar Lane, Calcutta.
Khushiram Banaresilall.—21-B, Canning Street, Calcutta.
Khushiram Chandulall & Co.—53, Netaji Subhas Road, Calcutta.
Kissenlall Bangur.—21-A, Canning Street, Calcutta.
Kshettry & Co.—21, Canning Street, Calcutta.
Kumarlal & Co.—7-G, Clive Row, Calcutta.
Kundu Mookherjee & Co.—14-1, Clive Row, Calcutta.
K. Sashikant & Co.—55, Canning Street, Calcutta.
Kishorilal Gobindram.—14, Clive Row, Calcutta.
K. Vijayaramaiah Pantulu.—44-B, Kalikrishna Tagore Street, Calcutta.
Kian Gwan Co., Cal. Pvt. Ltd.—5-B, Clive Ghat Street, Calcutta.
Kataruka & Company.—Dinapur Cantt., Calcutta.
Killa Trading Co., Pvt. Ltd.—161-1, Mahatma Gandhi Road, Calcutta.
Kuver Investment Co. Ltd.—8, India Exchange Place, Calcutta 1.
Liladhar & Co.—22, Netaji Subhas Road, Calcutta.
Lalchand Dugar.—5/1, Lucas Lane, Calcutta.
Landale & Clark Ltd.—18, Netaji Subhas Road, Calcutta.
Liladhur Dinanath.—7-G, Clive Row, Calcutta
Lohia Brothers.—126, Chittaranjan Avenue, Calcutta.
Luchminarain Chandmull.—133, Canning Street, Calcutta.
Luchhminarain Kanoria & Co.—133, Canning Street, Calcutta.
Luximdas Vithaldas.—21-A, Canning Street, Calcutta.
M. Abhechand & Co.—72, (2nd Floor), Canning Street, Calcutta.
M. D. Kothari & Co. Pvt. Ltd.—8, India Exchange Place, Calcutta.
Mahabir Trading Co.—14-5, Clive Row, Calcutta.
Mahabirprasad Bishwanath.—134, Cotton Street, Calcutta 7.
Mangatrai Rateria.—5, Clive Row, Calcutta.
Manickchand Bagri.—32, Cross Street, Calcutta.
Manilal Sundarjee Desai.—7-A, Clive Row, Calcutta.
Mansaram Nandram.—402, Upper Chitpur Road, Calcutta.
Mathuradas Gobardhandas.—38, Strand Road, Calcutta.
Minamull Satyanarain & Co.—21-B, Canning Street, Calcutta.
Modern Agencies Ltd.—25, Brabourne Road, Calcutta.
Mahomedally Valji & Co.—67, Bentinck Street, Calcutta 1.
Motilal Daimia Pvt. Ltd.—7-E, Clive Row, Calcutta.
Motilal Nahata.—7-E, Clive Row, Calcutta.
Mugneeram Bangur & Co.—8, Lyons Range, Calcutta.
Mukhram Luchhminarain.—59, Netaji Subhas Road, Calcutta.
M. Gopikishan & Co.—30, Kalikrishna Tagore Street, Calcutta.
Mamchand & Co.—21, Canning Street, Calcutta.
Mohta Brothers Pvt. Ltd.—29, Strand Road, Calcutta.
Mahabir Commercial Co., Ltd.—8, India Exchange Place, Calcutta.
Mangalchand Thanmull Surana.—208, Mahatma Gandhi Road, Calcutta.
Narendra Kumar Shashikant.—23, Amratolla Street, Calcutta.
N. Goculdass & Co.—24, Netaji Subhas Road, Calcutta 1.
N. Manseta & Brothers (Cal.).—14-2, Old China Bazar Street, Calcutta.

N. Jiwanlal & Co. (Cal.) Pvt. Ltd.—1, Mullick Street, Calcutta.
Naihati Jute Mills Co. Ltd.—33, Netaji Subhas Road, Calcutta 1.
Naraindass Jewraj.—14/2, Clive Row, Calcutta.
N. Shree Gopal & Co.—7-A, Clive Row, Calcutta.
Nanjee Shamjee & Co.—7, Lower Chitpur Road, Calcutta.
National Commercial Corporation.—135, Canning Street, Calcutta.
National Company Ltd.—18-A, Brabourne Road, Calcutta 1.
Narsinghdass Biswanath.—3, Amratolla Street, Calcutta.
Nafar Chandra Jute Mills Ltd.—36, Strand Road, Calcutta.
Navalkishore Banshidhar & Co.—21-B, Canning Street, Calcutta.
Newar & Co.—2, India Exchange Place, Calcutta.
N. D. Bhoola & Co.—34, Ezra Street, Calcutta.
New Central Jute Mills Co., Ltd.—11, Clive Row, Calcutta.
Naurangrai Rateria.—21, Canning Street, Calcutta.
Navinchandra & Company.—12-B, Netaji Subhas Road, Calcutta.
Narottam Bhikhubhai Javeri.—26-A, Ridge Road, Malabar Hill, Bombay 6.
Nandlal Gupta, C/o Sahu Jain Ltd.—11, Clive Row, Calcutta.
Nathubhai Nanjee & Sons.—14/2, Old China Bazar Street, Calcutta.
Nawalkishore Gupta & Co.—21-B, Canning Street, Calcutta.
Nundy & Sons.—21-A, Canning Street, Calcutta.
Palriwala Brothers Private Ltd.—14, Netaji Subhas Road, Calcutta.
Pande Brothers Private Ltd.—7, Chittaranjan Avenue, Calcutta 13.
Parasram Parumal & Co.—7-A, Clive Row, Calcutta.
Power Farming Pvt. Limited.—3, Jagmohan Mullick Lane, Calcutta.
Prabartak Jute Mills Ltd.—61, Bowbazar Street, Calcutta.
Prabartak Commercial Co. Pvt. Ltd.—61, Bowbazar Street, Calcutta.
Prahladrai Poddar & Co.—11, Clive Row, Calcutta.
Premji Waghji & Co.—14-2 (2nd floor, R. Nos. 163 & 164), Old China Bazar Street, Calcutta 1.
Pugalia & Co.—7-E, Clive Row, Calcutta.
Purshottam Umedbhai & Co —55, Canning Street, Calcutta.
Purshottamdass Anandkumar.—7-E, Clive Row, Calcutta.
Purushottamdass Jalan.—5, Mangoe Lane, Calcutta.
R. B. Hurdutrai Motilal Chamaria.—68, Cotton Street, Calcutta.
R. B. Seth Jessaram Fatehchand.—160, Cross Street, Calcutta.
Ratanchand Chhaganmal.—47, Khangrapatty Street, Calcutta.
Rajluxmi Investment & Trading Co., Pvt. Ltd.—63, Radhabazar Street, Calcutta.
Raghunath & Son Pvt. Ltd.—7-G, Clive Row, Calcutta.
Raghunath Prosad Poddar.—B/3, Clive Building, Calcutta.
Ramgopal Ramsaroop.—29-A, Banstolla Street, Calcutta.
Ramjeevun Sarawgee & Sons.—24, Netaji Subhas Road, Calcutta.
Ramnarain Satyapaul Pvt. Ltd.—22, Canning Street, Calcutta.
Ramprasad Murlidhar & Co.—2, Wellesly Place, Calcutta.
Ramdutt Ramkissendass.—9, Brabourne Road, Calcutta.
Rampartab Bawaniwala & Co.—65, Cotton Street, Calcutta 7.
Ramsaroop Mamchand.—21, Canning Street, Calcutta.
Ramswarup Kanoria.—5, Clive Row, Calcutta.
Ramkishor & Sons.—21, Canning Street, Calcutta.
Ramgopal Atmaram.—25, Burtolla Street, Calcutta.
Ranchordass Jethabhai & Co.—12, Lower Chitpur Road, Calcutta.
Ratiram & Sons.—7-A, Clive Row, Calcutta.
Ranjit Kumar Hansiwala.—21-A, Canning Street, Calcutta.
Radhakishan Almal.—35, Burtolla Street, Calcutta.
Ranchordas Purshotam & Co.—19, Amratolla Street, Calcutta.
Rajasthan Commercial Co., Ltd.—8, India Exchange Place, Calcutta.
Rajnikant & Co. (Calcutta).—5, Bentinck Street, Calcutta.
Ramniwas Bangur & Co.—21-A, Canning Street, Calcutta.
Ramrichpal Govindprasad.—21-B, Canning Street, Calcutta.
Rambahadur Thakur & Co.—135, Canning Street, Calcutta.
R. N. Jhunjhunwala & Co., Pvt. Ltd.—9, Ezra Street, Calcutta.
Rungta Brothers.—Golghar, P.O Gorakhpur (U.P.).
S. N. Bagla & Co.—5, Clive Row, Calcutta.
Shivshankar Co.—133, Cotton Street, Calcutta.
Sunderlal & Son.—7-A, Clive Row, Calcutta.
Sajan Kumar Kanoria.—59, Netaji Subhas Road, Calcutta.
Santilal Brothers.—25, Pollock Street, Calcutta.
Santram Shewramdass.—168-B, Cross Street, Calcutta.
Sawairam Parasrampuria.—21-A, Canning Street, Calcutta.
Sethia & Sons Pvt. Ltd.—38, Baranashi Ghose Street, Calcutta 7.
Sampatmall Bhanwarlall.—P-36, India Exchange Place, Calcutta.
S. Mukherjee & Co.—36, Strand Road, Calcutta.
Shree Ambica Jute Mills Ltd.—5, Clive Row, Calcutta 1.
Shree Gourishanker Jute Mills Ltd.—10, Clive Row, Calcutta.
Shree Mahadeo Jute Mills Co. Ltd.—46, Strand Road, Calcutta 1.
Shreeniwas Shreekishan & Co.—5, Clive Row, R. No. 16, Calcutta 1.
Sircar & Co.—6, Clive Row, Calcutta.
Somani Brothers Pvt. Ltd.—21, Canning Street, Calcutta.
Soorajmull Nagarmull.—8, Dalhousie Square East, Calcutta.
Sunderdas Thakersey & Brothers.—4, Lucas Lane, Calcutta.
Surajmull Murlidhar.—28, Amratolla Street, Calcutta.
Soorah Jute Mills Co., Ltd.—8, India Exchange Place, Calcutta.
Srikrishna Commercial Co., Ltd.—32, Cross Street, Calcutta.
S. V. Thirunavukarasu Pillai.—2, Mullick Street, Calcutta.
Shree Ganesh Jute Mills Ltd.—4, Dalhousie Square, Calcutta.
Surajmal Motilal.—65, Cotton Street, Calcutta.
Surajmull Chhotaylall Pvt. Ltd.—57, Burtolla Street, Calcutta.
Shree Bhagwati Trading Co.—5, Clive Row, Calcutta.
Sitaram Farmania & Son.—135, Canning Street, Calcutta.
Sind National Sugar Mills Ltd.—4, Ramkumar Rakhit Lane, Calcutta.
Shri Aryavrat Trading Co., Ltd.—135, Canning Street, Calcutta.
Shiboomull Deepchand.—135, Canning Street, Calcutta.
Sitaram Radheshyam.—59, Netaji Subhas Road, Calcutta.
Singhania Commercial Co.—6, Clive Row, Calcutta.
Santilal & Company.—25, Pollock Street, Calcutta.
Sethia Mercantiles Pvt. Ltd.—1, Commercial Bldg., N. Subhas Road, Calcutta.
Tarachand Gupta & Co.—41, Burtolla Street, Calcutta.
Toolsidass Jewraj.—15, Clive Row, Calcutta.
Tona Jute Company Ltd.—178, Mahatma Gandhi Road, Calcutta.
Tulsan Co.—6, Clive Row, Calcutta.
Umakant & Co. Pvt. Ltd.—4, Mullick Street, Calcutta.
United Trading Co.—133, Canning Street, Calcutta.
Vasanje Morarjee.—4-5, Noormal Lohia Lane, Calcutta.
Virhand Pannachand & Co. (Calcutta) Pvt. Ltd.—37, Canning Street, Calcutta.
Vallubhdas Kalyanjee & Co., Pvt. Ltd.—34-A, Brabourne Road, Calcutta.
Ved Sons & Company.—15-B, Clive Row, Calcutta.

## HARDBOARDS

Anil Hardboards Ltd.—70/B, Ballygunge 2nd Lane, Calcutta 1.
Assam Hardboards Ltd.—18/58, Dover Lane, Calcutta.
Ali, S. M., P. Ltd.—40, Chittaranjan Avenue, Calcutta.
**GLASS & PLYWOOD SUPPLY AGENCY, THE.—Stockists of Hard and Tempered Boards, Soft Insulation Board etc., 40, Bowbazar Street, Calcutta-12; Phone: 226169.**
Madhavsingh Dwarkadas.—44-45, Ezra St., Calcutta 1.
National Stores.—263, Bowbazar St., Calcutta 12.
Ranvir & Co.—262, Bowbazar St., Calcutta 12.
Robsan & Co. P. Ltd.—P-14, Mission Row Extension, Calcutta 1.

## HARDWARE MANUFACTURERS

Agarwal Hardware Industries.—3, Munshi Sadruddin Lane, Calcutta 7.
Agarwal Hardware Works P. Ltd.—167, Chittaranjan Ave., Calcutta.
Assam Bengal Hardwares P. Ltd.—113, N. Subhas Road, Calcutta.
Bengal Hardware & Tin Seal Mfg. Co.—70, Netaji Subhas Road, Calcutta.
Bharat Hardware Industries.—138, Canning Street, Calcutta 1.
Chandni Charan Nayak P. Ltd.—124-1, Bowbazar Street, Calcutta 12.
C. D. Industries.—33, Dharmtolla Street, Calcutta.
Daw & Brothers.—14, Raja Woodmunt Street, Calcutta 1.
Gobindo Sheet Metal Works & Foundry—210, Harrison Road, Calcutta.
Golden Steel Corporation.—G. T. Road, Howrah.
M. Chowdhury & Co.—113-G, Netaji Subhas Road, Calcutta 1.
M. C. Mowjee & Co.—46, Ezra Street, Calcutta.
Purushottam Ramji & Sons Ltd.—12, Raja Woodmunt Street, Calcutta.
Shanker Industries.—192, Cross Street, Calcutta.

## HARDWARE MERCHANTS

A. D. Coomar & Sons.—12-C, Clive Row, Calcutta 1.
Ajit Brothers.—115, Netaji Subhas Road, Calcutta.
A. K. Dutta & Bros.—113, Netaji Subhas Road, Calcutta.
A. K. Mookerjee & Co.—79, N. Subhas Road, Calcutta 1.
A. N. Hassanally & Co.—28, Strand Road, Calcutta 1.
A. V. Joshi & Sons.—2, Maharshi Debendra Road, Calcutta.
B. C. Paul S. N. Dey & Co.—70, Netaji Subhas Road, Calcutta 1.
Bengal Hardware Mart.—69-A, N. Subhas Road, Calcutta 1.
Banwarilal & Co.—89, Netaji Subhas Road, Calcutta 1.
Bhartia Commercial Co. Ltd.—23-24, Radhabazar Street, Calcutta 1.
Biswanath Samanta—2, Maharshi Debendra Road, Calcutta.
Bombay Hardware Mart.—79, Netaji Subhas Road, Calcutta.
Butto Kristo Dey & Gour Hari Rakshit.—113-E, Monohardas Chowk, Calcutta.
C. A. Mohammad.—26, Brabourne Road, Calcutta 1.
Calcutta Hardware & Metal Supply Co.—25, N. Subhas Road, Calcutta 1.
Calcutta Hardware Co.—8-A, Ramkrishna Das Lane, Calcutta 9.
Champaklal & Bros.—31, Ganesh Chandra Avenue (Kent House), Calcutta.
Commercial Stores Co.—37, Netaji Subhas Road, Calcutta 1.
Condoo Paul & Co.—20, Raja Woodmunt Street, Calcutta 1.
Crown Engineering Corporation.—71-A, Netaji Subhas Road, Calcutta 1.
Damodardas J. Vora.—47, Ezra Street, Calcutta 1.
Dass Laha & Co.—183, Monohardass Chowk, Calcutta 1.
Dattas India Private Ltd.—24, Strand Road, Calcutta 1.
**EAGLE ENTERPRISERS.—Manufacturers and Stockists of Bolts, Nuts, Rivets, Screws, Washers, Hoop-Iron, Chain Pulleys, Drills, Blades, Filter, Dies and Taps, Pipes and Pipe Fittings, Fabricators and Die Casters, 25, Netaji Subhas Road, Calcutta-1; Phone: 225484.**
Evershine Tools.—51, Canning Street, Calcutta 1.

Excel Steel Corporation.—67B, Netaji Subhas Road, Calcutta 1.
F. Hussain & Brothers.—28, Strand Road, Calcutta 1.
Gangoli & Mitra.—115, Netaji Subhas Road, Calcutta 1.
Ghose Mundal & Co.—71-A, Netaji Subhas Road, Calcutta.
Gopal Chunder Das & Co. Pvt. Ltd.—24, Raja Woodmunt Street, Calcutta.
Gopi Nath Paul & Sons.—210, Mahatma Gandhi Road, Calcutta.
Harrison Agency,—71-A, N. Subhas Road, Calcutta 1.
Hassanally & Sons.—50, Netaji Subhas Road, Calcutta 1.
Indestro (India) Agency.—38, Netaji Subhas Road, Calcutta 1.
India Hardware & Tools Co.—20, Netaji Subhas Road, Calcutta 1.
Industrial Importers Pvt. Ltd.—4, Dalhousie Square, Stephen House (Room No. 32), 2nd Floor, Calcutta.
I. N. Gangooly & Co.—71-A, Netaji Subhas Road, Calcutta.
International Hardware Co.—67-B, N. Subhas Road, Calcutta 1.
International (India) Agency.—70, Netaji Subhas Road, Calcutta.
International Hardware Ltd.—86-B, N. Subhas Road, Calcutta 1.
Jackeria Oosman & Co.—4, Rajmohan Street, Calcutta 1.
Jiban Krishna Dey & Bros.—102, Netaji Subhas Road, Calcutta.
Jostle Trading Co.—137, Canning Street, Calcutta.
Kadar Nauth Mookerjee & Sons.—34, Strand Road, Calcutta 1.
Kailash Hardware & Tools Co.—224, Mahatma Gandhi Road, Calcutta.
Kanji Pannachand Pvt. Ltd.—No. 8, Armenian Street, Calcutta.
Kaybee & Co.—13, Brabourne Road, Calcutta 1.
K. C. Mukerjee & Sons.—113-E, Monohardas Chowk, Calcutta.
K. D. Gangooly Co.—115, Netaji Subhas Road, Calcutta.
Khandelwal Bros. Pvt. Ltd.—33, Netaji Subhas Road, Calcutta.
Khemchand Rajkumar.—33, Netaji Subhas Road, Calcutta 1.
Kristo Dhone Gangooly & Co.—115, Netaji Subhas Road, Calcutta 7.

**L. MULLICK & CO.—Importers and Stockists of Bolts, Nuts, Rivets, Ropes, Hoop-Iron, Shaftings, Small Tools, Mill Stores, Brass, Copper Rods and Sheets and Manufacturers of Machine Parts; 81, Netaji Subhas Road, Calcutta-1; Phone: 225461 & 465477; Grams: "IRONKING".**

Lachmi Hardware Stores.—113, Monohardas Chowk, Calcutta 7.
Lall Behary Mullick & Co.—113, Monohardas Chowk, Barabazar, Calcutta 7.
Loke Nath Chatterjee & Sons.—18, Raja Woodmunt Street, Calcutta.
Machine Tools & Appliances (I) Co.—53, Netaji Subhas Road, Calcutta 1.
Madhabsingh Dwarkadas.—44/45, Ezra Street, Calcutta.
M. Mansukhlall & Co. Pvt. Ltd.—34, Netaji Subhas Road, Calcutta.
Marfatia & Co.—67, N. Subhas Road, Calcutta 1.
Mill Products.—7-G, Clive Row, Calcutta 1.
Miscellaneous Engineering Stores P. Ltd.—71-A, Netaji Subhas Road, Calcutta 1.
Morris Balfour & Co.—25, Netaji Subhas Road, Calcutta 1.
Motiram Agarwal & Co. Pvt. Ltd.—137, Canning Street, Calcutta.
Mukerjee & Co.—115, Netaji Subhas Road, Calcutta.
Nabo Krishna Dey.—113-E, Monohardas Chowk, Calcutta.
N. Solomon & Co. P. Ltd.—29, Strand Road, Calcutta 1.
Olympic Trading Corporation.—25, Swallow Lane, Calcutta 1.
Parkash Impex.—18, Netaji Subhas Road, Calcutta.
P. B. Shah & Co., Pvt. Ltd.—34, Netaji Subhas Road, Calcutta.
P. C. Dutt & Co.—71-A, Netaji Subhas Road, Calcutta 1.
Purshottamdas & Sons.—71-A, Netaji Subhas Road, Calcutta 1.
Rajendranath Mullick & Co. P. Ltd.—20, Maharshi Debendranath Road, Calcutta 7.
Rajkumar Brothers.—57, Clive Row, Calcutta 1.
Rasiklal & Brothers.—113-B, Monohardas Chowk, Calcutta 7.
Regent Engineering Stores.—42, Strand Road, Calcutta 7.
Reliable Tools & Hardware Co.—12/B, Clive Row, Calcutta 1.

**RELIANCE HARDWARE MART.—Office: 12-B, Clive Row, Calcutta-1, Shop: 135, Canning Street, Calcutta-1; Stockists of small Tools, Hardware and Pipe Fittings; Manufacturers of Taps and Dies of all descriptions; Phones: 223871, Resi: 349765.**

Republic Trading Corporation.—91, Netaji Subhas Road, Calcutta.
Robsan & Co. P. Ltd.—P-14, Mission Row Extn., Calcutta 1.
S. Abbas & Co.—12B, Clive Row, Calcutta 1.
Saraswati Chandra Doongershi.—32, Netaji Subhas Road, Calcutta.
S. F. Hatim & Co.—28-A, Netaji Subhas Road, Calcutta 1.
S. Kantilall & Co.—79, Netaji Subhas Road, Calcutta.
S. M. Dey & Co.—51-8D, Strand Road, Calcutta 7.
Sooresh Chandra Mookerjee & Co.—71-A, Netaji Subhas Road, Calcutta 1.
Standard Metal Co.—101, Netaji Subhas Road, Calcutta 1.
Steel Tools (India).—67B, N. Subhas Road, Calcutta 1.
T. E. Thomson & Co. Ltd.—9-A, Esplanade East, Calcutta 1.
T. M. Fakhri & Co.—26E, N. Subhas Road, Calcutta 1.
United Hardware Stores.—90, Netaji Subhas Road, Calcutta.
Vasantrai Shantilal.—18, Pollock House, Brabourne Road, Calcutta.
Vulcan Electric & Engineering Co.—12-B, Lower Chitpur Road, Calcutta 1.
Western Tools & Hardware Co.—89, N. Subhas Road, Calcutta 1.
Wire Products Agency.—9, Brabourne Road, Calcutta.

## HAULAGE EQUIPMENT

**INDUSTRIAL GASES LTD., THE.—15, Ganesh Chandra Avenue, P.O. Box 853, Calcutta 1. Phones: 229711/12, 221040, 221049, 227966 & 227499. Depot and Service: 67-3012; 46-7437. Grams: "INDUSGASES", Calcutta. Design, Supply & Erection, of Mobile, Portal, Overhead Travelling and Gantry Cranes, Winches and Crabs, Wire Ropes and Locomotives.**

## HEMP MANUFACTURERS

Chittagong Co. Ltd.—6, India Exchange Place, Calcutta.
Jagannath Brothers.—2, Ghusury Road, Salki, Howrah.
Jute Bailing & Trading Co., Ltd.—8, Dalhousie Square East, Calcutta.
L. N. Poddar & Co. Ltd.—"Stephen House", R. No. 5, 4, Dalhousie Square East, Calcutta.
Sadhuram Tularam.—29, Sir Hari Ram Goenka Street, Calcutta.
Soorajmull Nagarmull.—8, Dalhousie Square East, Calcutta.
United Asian Trader Ltd.—2, Raja Woodmunt Street, Calcutta.

## HIDES & SKINS MERCHANTS & EXPORTERS

A. G. Sarfuddin Md. Tyeb.—8, Peters Lane, Calcutta.
A. N. Kasem & Brothers.—60, Narkeldanga North Road, Calcutta.
Abdul Hai Md. Razi & Co.—15, Harinbari Lane, Calcutta.
Abdul Haiz & Co.—19, Harinbari Lane, Calcutta.
Abdul Hakim.—11-2, Harsi Street, Calcutta.
Abdul Hasnat Md. Mohsin.—14, Harinbari Lane, Calcutta.
Abdul Hoque & Brothers.—7-1, Gas Street, Calcutta.
Abdul Wadood.—11-2, Harsi Street, Calcutta.
Allahabad Hide Agency.—14, Damzen Lane, Calcutta.
Amir Akbar & Co.—7-1, Gas Street, Calcutta.
Anwarul Hoque & Bros.—11, Colootola Street, Calcutta.
Azad Hind Agency.—10, Sreenath Babu Lane, Calcutta.
Azaz Mateen & Co.—11/2, Harsi Street, Calcutta.
Badal Chandra Dass.—11-2, Harsi Street, Calcutta.
Barkatulla & Co.—1, Damzen 2nd Lane, Calcutta.
Best Hide Co.—11-1, Harsi Street, Calcutta.
Bihar Hide & Bone Agency.—9-1, Damzen Lane, Calcutta.
Calcutta Hide Co.—14, Maharani Swarnamoyee Road, Calcutta.
Calcutta Hide Skin Supply Co.—12, Tirittabazar Street, Calcutta.
Central Hide Co.—7-2, Gas Street, Calcutta.
Central Hide Trading Co.—9, Maharani Swarnamoyee Road, Calcutta.
Chowdhuri Hatzul Haque & Brothers.—16, Maharani Swarnamoyee Road, Calcutta.
Dr. Md. Solaiman & Co.—30, Harinbari Lane, Calcutta.
East India Goat Skins Co.—26, Lower Range, Calcutta 17.
East India Tannery Co.—50A, Pheers Lane, Calcutta 12.
Evergreen Hide Skin Co.—47-5, Canal East Road, Calcutta.
Faik Brothers.—14, Maharani Swarnamoyee Road, Calcutta.
G. A. Jolli,—49, Debendra Ch. Dey Road, Tangra, Calcutta 15.
General Hide Co.—10, Tiretta Bazar Street, Calcutta.
Gerdau India Corpn.—5-A, Ezra Mansions, Calcutta.
Golden Hide Agency.—7, Rajmohan Street, Calcutta.
H. A. Bari & Co.—22, Zakariah Street, Calcutta.
Hafiz Md. Yusuf & Co.—71, Pheers Lane, Calcutta.
Haji Abdul Hak Ruhul Amin.—3/1, Damzen Lane, Calcutta.
Haji Abdul Hamid Khan.—52, Narkeldanga North Road, Calcutta.
Haji Abdul Gafur.—6, Sreenath Babu Lane, Calcutta.
Haji Mir Saber Ali.—16, Maharani Swarnamoyee Road, Calcutta.
Haji Munir Hossain.—3, Damzen Lane, Calcutta.
Haji Nurul Islam Khan.—2, Damzen Lane, Calcutta.
Haji Sk. Md. Hossain Md. Jan.—20, Tiretta Bazar Street, Calcutta.
H. M. Yakoob & Co.—73, Colootola Street, Calcutta.
Hansa India Corpn.—29, Colootola Street, Calcutta.
Haq Brothers.—11-2, Harsi Street, Calcutta.
Hide Agency.—71, Narkeldanga North Road, Calcutta.
Hindustan Eximp Traders Ltd.—19, British Indian Street, Calcutta.
Hindusthan Hide Dealers Co.—11-2, Harsi Street, Calcutta.
Hooghly Hide Skin Co.—9, Maharani Swarnamoyee Road, Calcutta.
Iftikhar Ahmed & Co.—88, Colootala Street, Calcutta.
India Hide Skin Co.—11-2, Harsi Street, Calcutta.
Indian Hide & Skin Agency.—11, Damzen Lane, Calcutta.
Inland Hide Trading Corpn.—47-5, Canal East Road, Calcutta.
International Skin Corporation.—8, Madan Street, Calcutta.
Janata Hide Agency.—6, Harinbari Lane, Calcutta.
Jitendra Nath Sen Gupta.—7-1, Gas Street, Calcutta.
Kamal Bros.—38-1, Canal East Road, Calcutta.
Kazi Wasimuddin Kazi Rahimuddin.—11/2, Harsi Street, Calcutta.
Lucky Hide Agency.—9, Maharani Swarnamoyee Road, Calcutta.
M. Arif & Brothers.—60, Narkeldanga North Road, Calcutta.
M. A. Rahim & Brothers.—61, Narkeldanga North Road, Calcutta.
M. Abdul Alim.—5, Narkeldanga Cross Lane, Calcutta.
M. Abdul Ali.—9, Maharani Swarnamoyee Road, Calcutta.
M. Akhtar Alam.—1, Damzen Lane, Calcutta.
M. Ekbal & Co.—7 Damzen Lane, Calcutta.
M. Hamza & Co.—9, Maharani Swarnamoyee Road, Calcutta.
M. Jamil Ahmed & Sons.—10, Damzen Lane, Calcutta.
M. L. Rahman & Sons.—49-2, Canal East Road, Calcutta.
M. Rafiq Brothers.—11-2, Harsi Street, Calcutta.
M. Mursalin & Co.—60, Narkeldanga North Road, Calcutta.
M. Y. Nazir Alam.—20, Tirittabazar Street Calcutta.
M. Mahfuz & Bros.—47-5, Canal East Road, Calcutta.

M. Y. Hide Co.—5, Harinbari Lane, Calcutta.
Maula Bux & Co.—1, Damzen Lane, Calcutta.
Md. Haroon.—7-2, Gas Street, Calcutta.
Md. Fazle Elahi & Sirajuddin Ahmed.—9, Maharani Swarnamoyee Road, Calcutta.
Md. Hanif Md. Taher.—16, Maharani Swarnamoyee Road, Calcutta.
Md. Idris.—11-2, Harsi Street, Calcutta.
Md. Idris Nazir Ahmed & Co.—8, Harinbari Lane, Calcutta.
Md. Masood Ashraff.—5, Harinbari Lane, Calcutta.
Md. Mokim.—11/2, Harsi Street, Calcutta.
Md. Mukarim.—11-2, Harsi Street, Calcutta.
Md. Osman.—5, Harinbari Lane, Calcutta.
Md. Syeed.—7, Maharani Swarnamoyee Road, Calcutta.
Md. Suhail & Co.—11, Colootola Street, Calcutta.
Mehboob Alam & Co.—63, Pheers Lane, Calcutta.
Midnapur Hide & Skin Co.—7-1, Gas Street, Calcutta.
Misbahul Haque & Co.—17, Harinbari Lane, Calcutta.
Millat Hide Co.—38-1, Canal East Road, Calcutta.
Mohamed Amin Brothers P. Ltd.—24-A, Waterloo Street, Calcutta 1.
Mohameddin (India) Private Ltd.—29, Colootola Street, Calcutta.
Model Hide & Skin Dealers.—11-1, Harsi Street, Calcutta.
Moula Bux & Co.—1, Damzen Lane, Calcutta.
Mumtaz Ahmed & Co.—7, Harin Bari Lane, Calcutta.
Muneer Ahmed & Co.—1, Sreenath Babu Lane, Calcutta.
Munshi Abdul Jabbar & Co.—1, Narkeldanga Cross Lane, Calcutta.
Munshi Diljan Ali.—12-1, Kesaibasti 1st Lane, Calcutta.
Munshi Fazlur Rahman & Brothers.—11-1, Harsi Street, Calcutta.
National Hide Corpn.—32, Harinbari Lane, Calcutta.
National Hide Skin Co.—32, Harinbari Lane, Calcutta.
National Skin Corpn.—70, Debendra Chandra De Road, Calcutta 15.
Nazir Ahmed & Brothers.—34, Harinbari Lane, Calcutta.
Noorul Islam Khan.—2, Damzen Lane, Calcutta 12.
Oriental Hide Agency.—71, Narkeldanga North Road, Calcutta.
Patna Hide Co.—11-1, Harsi Street, Calcutta.
P. Pagnon Co.—7, Colootolla Street, Calcutta.
Ramso Hide Traders.—9-1, Damzen Lane, Calcutta.
S. Abdus Samad.—9-1, Kesaibasti 1st Lane, Calcutta.
S. Amir Haidar.—11-1, Harsi Street, Calcutta.
S. Ahmed.—11-2, Harsi Street, Calcutta.
S. Barkatulla & Co.—2, New Tangra Road, Calcutta 15.
Shakeel & Co.—11/1, Harshi Street, Calcutta.
Sk. Bair & Co.—12, Harinbari Lane, Calcutta.
S. M. Mustafa.—297-1, Upper Circular Road, Calcutta.
S. M. Nabi & Chowdhury Brothers.—11-2, Harsi Street, Calcutta.
S. M. Hanif & Brothers.—11-2, Harsi Street, Calcutta.
S. M. Nasim & Co.—21, Harinbari Lane, Calcutta.
S. Md. Hadi.—31, Harinbari Lane, Calcutta.
Sarfuddin Ahmed Md. Mustafa.—5, Harinbari Lane, Calcutta.
Sarwar Alam.—3, Harinbari Lane, Calcutta.
Shamim & Co.—9, Harinbari Lane, Calcutta.
Standard Hide Co.—11-2, Harsi Street, Calcutta.
Suhail & Co.—11, Colootala Street, Calcutta.
Tirhut Hide Agency.—15, Harinbari Lane, Calcutta.
United Hide Agency.—22, Harinbari Lane, Calcutta.
United India Hide Co.—3-2, Kesaibasti 1st Lane, Calcutta.
Universal Hide Skin Co.—60, Narkeldanga North Road, Calcutta.
Vianeats Calcutta Goat Skins Pvt. Ltd.—60, Chigrihatta Road, Calcutta 15.
Wahidur Rahman & Brothers.—11-2, Harsi Street, Calcutta.
Wares Jamil & Bros.—62, Pheers Lane, Calcutta.
West Bengal Hide Co.—7, Maharani Swarnamoyee Road, Calcutta.
Zahir Ahmed & Co.—4, Peters ne, Calcutta.
Ziaul Haque & Co.—1, Patuapa Lane, Calcutta.

## HOSIERY GOODS MANUFACTURERS & DEALERS

Akhil Hosiery Factory.—25/1, Nan Bagan Street, Calcutta 5.
Akhoy Textiles.—80, Ramkanto Bose Street, Calcutta 3.
Amiya Hosiery Mills Pvt. Ltd.—4, Mahendra Goswami Lane, Calcutta 6.
A. N. Bose's Knitting Factory.—10, Ane Roy Road, Calcutta 29.
Annapurna Textiles.—5, Gopi Roy Lane, Calcutta 5.
Ananta Textiles.—39, Sovabazar Street, Calcutta 5.
Aruna Hosiery.—17, Guruprasad Roy Lane, Calcutta 5.
Ashok Knitting Industries.—20-A, Gouriaha Street, Calcutta 6.
Asia Hosiery Mills Pvt. Ltd.—73-6, Grey Street, Calcutta 5.
Babulal Binoykumar.—160, M. G. Road, Calcutta 7.
Balasur Hosiery.—19, Bonomali Sircar Street, Calcutta 5.
Bangojanani Hosiery Pvt. Ltd.—28, Tollygunge, Circular Road, Calcutta 33.
Bangeswari Cotton Mills Ltd.—63, Radha Bazar Street, Calcutta 1.
Bangosree Hosiery Factory.—34, Shib Thakur Lane, Calcutta 7.
Beleghata Hosiery Pvt. Ltd.—P-55, (C.I.T.), Sovabazar, Calcutta 5.
Bengal Hosiery Mills.—90-1, Hazra Road, Calcutta 26.
Bengal Knitting Works.—1, Basak Dighi Lane, Calcutta 7.
Bharat Lakshmi Hosiery Industries Pvt. Ltd.—26, Canal West Road, Calcutta 4.
Bharat Silpa.—83, Taltala Lane (North), Calcutta 14.
Bharat Silpa Hosiery Factory.—20-A, Gouriaha Street, Calcutta 6.
Bhawani Hosiery Mills.—27-5, Rash Bagan Lane, Calcutta 10.
Bina Hosiery Mills.—1, Sibtala Street, Calcutta 7.
Birendra Hosiery.—34-A, Gorachand Bose Road, Calcutta 6.
Bisnath Textiles.—29-30, Khelat Babu Lane (Tala), Calcutta 2.
Biswaroopa Knitting Mills.—17, Guru Prasad Roy Lane, Calcutta 5.
Bombay Textiles.—58-2-1A, B. T. Road, Calcutta 2.
Broadway Textile & Hosiery Mills.—123-B, Raja Dinendra Street, Calcutta 4.
Calcutta Textiles Pvt. Ltd.—3, Kumartuli Street, Calcutta 5.
Central Textile Mills.—149, Mahatma Gandhi Road, Calcutta 7.
Cherry Hosiery Mills Pvt. Ltd.—21, Srinath Mookerjee Lane, Calcutta 30.
Cosmos Hosiery House.—35, Darponarayan Tagore Street, Calcutta 6.
Crown Hosiery Factory.—24-1, Baldeopara Road, Calcutta 6.
D. A. V. Hosiery Factory Pvt. Ltd.—171-A, Mahatma Gandhi Road, Calcutta 7.
D. N. Bose's Hosiery Factory.—36/1-A, Sarker Lane, Calcutta 7.
Dayamayee Shambhunath Hosiery.—76/1-C, Upper Circular Road, Calcutta 9.
Deshbandhu Hosiery Factory.—100-A, Garpar Road, Calcutta 9.
Deema Hosiery Works.—101-1, Karaya Road, Calcutta 17.
Dhakuria Hosiery Mills.—46-6, Babu Bagan Lane, Calcutta 31.
Dhakeswari Knitting Mills.—53, Sikdarpara Street, Calcutta 7.
Dinanath Hosiery Mills.—P-2/1, C. I. T. L. I. Madonmohantolla, Calcutta 5.
Dulal Knitting Mills.—13, Pageyapatty Street, Calcutta 7.
Durga Textiles.—17-2, Girish Vidyarathna Lane, Calcutta 9.
East Bengal Hosiery Mills.—23, Bhawani Datta Lane, Calcutta 7.
East End Hosiery Mills Pvt. Ltd.—100, Raja Dinendra Street, Calcutta 6.
Empire Hosiery Mills Pvt. Ltd.—79-B, Sova Bazar Street, Calcutta 5.
Empress Hosiery Mills.—79-B, Sova Bazar Street, Calcutta 5.
Exchange Hosiery.—2, Basak Lane, Calcutta 7.
Gambhir Hosiery Mills.—203, Mahatma Gandhi Road, Calcutta 7.
Giri Gopal Hosiery Pvt. Ltd.—108-E, Debendra Chandra De Road, Calcutta 15.
Globe Hosiery Mills Pvt. Ltd.—1, S. K. Deb Road, Calcutta 28.
Golden Hosiery & Cotton Mills.—208, Cross Street, Calcutta 7.
Golden Hosiery Mfg. Co. Pvt. Ltd.—38, Garanhatta Street, Calcutta 6.
Gopal Hosiery.—P.O. Jadavpore Colony, Calcutta 32.
Gourgopal Hosiery.—1, Sibtala Street, Calcutta 7.
Gouri Knitting Mills.—17, Guruprasad Roy Lane, Calcutta 5.
Gujarat Knitting Mills.—14/2, Old China Bazar Street, 3rd Floor, Room No. 223, Calcutta 1.
Habibpore Hosiery Factory.—6, Marcus Square, Calcutta 7.
Hari Knitting Mills.—30, Sir Hariram Goenka, Street, Calcutta 7.
Harihar Knitting Mills Pvt. Ltd.—54, Shambazar Street, Calcutta 4.
Harimoni Textiles.—85-A, Sova Bazar Street, Calcutta 5.
Heera Hosiery Mills.—15-A, Anath Deb Lane, Calcutta 6.
Hind Hosiery Mills Pvt. Ltd.—161-1, Mahatma Gandhi Road, Calcutta 7.
Hira Textiles.—2, Munshi Sadaruddin Lane, Calcutta 7.
Hosiery Emporium.—23, Tarachand Datta Street, Calcutta 1.
Hosiery Corporation of India.—12, Jatindramohan Avenue, Calcutta 6.
India Hosiery Mills.—223, Manicktala Main Road, Calcutta 1.
Indian Textile Mills.—1, Sibtala Street, Calcutta 7.
Indu Hosiery Mills Pvt. Ltd.—9, India Exchange Place. Calcutta 1.
Industries Corporation of Bengal Ltd.—60/1, Hazra Road, Calcutta 19.
International Hosiery Mills.—1, Sibtala Street, Calcutta 7.
J. B. Industries.—21, Gouriaha Street, Calcutta 6.
J. C. Co. Pvt. Ltd.—P-38 (Now 16), B. K. Paul Avenue, Calcutta 5.
J. N. Textiles.—102, Sova Bazar Street, Calcutta 5.
Jai Biswanath Hosiery Mills.—20-F, Talpukur Road, Calcutta 10.
Jagadish Hosiery Factory.—33-B, Sudhir Chatterjee Street, Calcutta 6.
Janaki Kanai Hosiery.—25-1, Nather Bagan Street, Calcutta 5.
Jawahar Textiles.—7, Grant Lane, Calcutta 12.
Jayasree Knitting Mills Pvt. Ltd.—161-1, Mahatma Gandhi Road, R. No. 61, Calcutta 7.
Jhamapukur Hosiery Factory Pvt. Ltd.—3, Brojonath Mitter Lane, Calcutta 9.
Jharna Textiles.—P-11A, B. K. Paul Avenue, Calcutta 5.
Jogamaya Hosiery.—13-1, Kali Kumar Banerjee Lane, Calcutta 2.
Joy Durga Textiles.—40, Balaram Mazumder Street, Calcutta 5.
Kailash Pvt. Ltd.—101, Park Street, Calcutta 16.
Kalighat Hosiery Factory.—231, Rashbehari Avenue, Calcutta 19.
Kali Knitting Mills.—3, Bonomali Sarker Street, Calcutta 5.
Kamal Textiles.—7, Monmatha Datta Road, Calcutta 37.
Kanika Textiles.—12, Guru Prasad Roy Lane, Calcutta 5.
Kidderpore Hosiery Mill.—2-C, Ashu Babu Lane, Calcutta 23.
Kumudini Textiles.—102-1, Hari Ghose Street, Calcutta 6.
L. A. Textiles.—3-B, Kebal Krishna Sur Street, Calcutta 5.
Lakshmi Narayan Knitting Mill.—48/1A, Nandoram Sen Street, Calcutta 5.
Lakshminarayan Hosiery Mills.—30, Sett Dagan Lane, Calcutta 6.
Lakshmisri Hosiery Factory.—63-A, Satish Mukerji Road, Calcutta 26.
Lakshmi Bejay Textile Industries.—8-G, Krittybash Mukerji Road, Calcutta 4.
Lilly Hosiery Industries.—6-A, Dehi Serampore Road, Calcutta 14.
Lion Hosiery Mills.—29, Sahitya Parisad Street, Calcutta 6.

Lime White Industries Private Ltd.—12-3, Palm Avenue, Calcutta 19.
Lokenath Hosiery Factory.—P-26, Sir Raja Radhakanto Deb Lane, Calcutta 5.
Luxmi Industries.—17, Guruprasad Roy Lane, Calcutta 5.
Madan Hosiery.—65, Beadon Street, Calcutta 6.
Makali Labour Industries.—5, Bonomali Sarker Street, Calcutta 5.
Maya Hosiery Mills.—225-A, Rashbehari Avenue, Calcutta 19.
Maya Textiles.—10, Balaram De Street, Calcutta 5.
Mira Knitting Works.—31, Robert Street, Calcutta 12.
Modern Textiles.—21, Balaram Majumder Street, Calcutta 5.
Modern Textiles.—H. No. 23-A, 1/4C, Khagundra Chatterjee Street, Calcutta 2.
Monahar Industries.—223-A, Manicktola Main Road, Calcutta 11.
Monomohan Hosiery.—P-92, B. K. Paul Avenue, Calcutta 5.
Nahata Hosiery.—16, Tarachand Datta Street, Calcutta 1.
Nandarani Hosiery Mills.—8, Sambhu Mallick Lane, Calcutta 7
Nandi Hosiery Mills.—2-B, Hajee Jakaria Lane, Calcutta 6.
Narendra Hosiery Mills.—65-B, Kali Datta Street, Calcutta 5.
National Hosiery Mills.—132, Old China Bazar Street, Calcutta 1.
New Asiatic Hosiery Works.—11, Watkins Lane, Howrah.
New Empire Hosiery Mills.—21, Adhar Chandra Das Lane, Calcutta 4.
New Friends Hosiery.—263-A-1, Upper Chitpore Road, Calcutta 5.
Nityananda Hosiery Mills.—20, Sarker Lane, Calcutta 7.
Obinash Hosiery.—22, Gorachand Road, Calcutta 17.
Omur Textile Works.—117-B, Grey Street, Calcutta 5.
P. Bhattacharia Hosiery Factory.—83, Charakdanaga Road, Calcutta 10.
Panchanan Hosiery.—20-1A, Brindaban Basak Street, Calcutta 5.
Parbati Hosiery Mills Pvt. Ltd.—10, Panchanan Mukerjee Road, Calcutta 2.
Paradise Hosiery Mills.—1, Hari Ghose Street, Calcutta 6.
Parrot Hosiery Factory.—14-2, Sovaram Basak Street, Calcutta 7.
Priya Hosiery Works.—20-B, Bonomali Sarker Street, Calcutta 5.
Purnima Hosiery Mills.—43-1, Paddopuker Road, Calcutta 20.
Radhika Hosiery Mills.—2, Nivedita Lane, Calcutta 3.
Radhakrishna Hosiery.—69-6, Ratan Sarker Garden Street, Calcutta 7.
Rama Hosiery Mills.—3-B, Kebal Krishna Soor Street, Calcutta 5.
Ramkrishna Hosiery Factory Pvt. Ltd.—21, Sukeas Lane, Calcutta 1.
Ramensons Pvt. Ltd.—P-98, B. K. Paul Avenue, Calcutta 5.
Raimohan Hosiery Mills.—44-C, Masjidbari Street, Calcutta 6.
Ranjan Hosiery Factory Pvt. Ltd.—26-A, Kali Datta Street, Calcutta 5.
Ravindra Hosiery Industry.—25, Baranashi Ghose Street, Calcutta 7.
Regal Hosiery Mills.—Kumarpara, Lilooah, Howrah.
Robin Hosiery Factory.—29-A, Guruprasad Choudhury Lane, Calcutta 6.
Royes Hosiery Mills.—117-B, Grey Street, Calcutta 5.
Rupam Textiles (India) Pvt. Ltd.—20, Seven Tanks Lane, Calcutta 30.
S. A. Hosiery.—16-B, Ramchand Ghose Lane, Calcutta 6.
Sachin Hosiery.—3, Bonomali Sarker Street, Calcutta 5.
Saila Hosiery Factory.—20-C, Kashi Mitra Ghat Street, Calcutta 3.
Sarada Hosiery.—27-A, Bonomali Sarker Street, Calcutta 5.
Santi Hosiery Mills.—74-2-B, Surash 1st Lane, Calcutta 10.
Sarda Hosiery Mills.—2, Raja Woodmunt Street, Calcutta 1.
Sashi Knitting Mills.—5, Gopi Roy Lane, Calcutta 5.
Serampore Hosiery Textile & Industries Pvt. Ltd.—195/1, Mahatma Gandhi Road, Calcutta 7.
Shrimali Hosiery Factory.—35, Darponarayan Tagore Street, Calcutta 6.
Siddheswari Hosiery Factory.—113, Beniatola Street, Calcutta 5.
Silpa Bharati Hosiery & Mills.—142, Dharamtala Street, Calcutta 13.
Spider Knitting Industries.—79, Ahiritolla Street, Calcutta 5.
Sreebash Textiles.—30, Nivedita Lane, Calcutta 3.
Sreedhar Hosiery Mills.—29, Sahitya Parisad Street, Calcutta 26.
Sree Guru Textiles.—1, Manmathonath Ganguly Road, Calcutta 2.
Sreejain Hosiery Factory.—100, Mahatma Gandhi Road, Calcutta 7.
Sreekali Hosiery.—33, Haralal Mitra Street, Calcutta 3.
Sree Krishna Hosiery Factory.—3, Bipradas De Lane, Calcutta 5.
Sreema Hosiery.—30-F, Ramkrishna Samadhi Road, Calcutta 11.
Sreema Textiles.—18, Bonomali Sarker Street, Calcutta 5.
Sreepati Hosiery Mills Pvt. Ltd.—12, Grant Lane, Calcutta 12.
Sree Radha Hosiery.—10, Sovabazar Street, Calcutta 5.
Sree Radhakrishna Hosiery.—8, Santi Ghose Street, Calcutta 3.
Sree Ramkrishna Textiles.—11, Gossain Lane, Calcutta 3.
Srinibash Textiles.—5, Protap Chatterjee Lane, Calcutta 12.
Star Hosiery.—10, Balaram De Street, Calcutta 6.
Subhalakshmi Hosiery Mills.—77, Satish Mukerji Road, Calcutta 26.
Suchitra Textile Works.—20-C, Bonomali Sarker Street, Calcutta 5.
Sukla Hosiery.—37, Sibtola Street, Calcutta 7.
Sur Hosiery Factory.—16-A, Durga Charan Mukerjee Street, Calcutta 3.
Surama Knitting Mills.—10, Raja Brojendranarayan Street, Calcutta. 7.
Surendra Textile Mills.—14, Sovabazar Street, Calcutta 5.
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Power Farming Ltd.—8, Jagmohan Mullick Lane, Calcutta.
Prayagdas Mathuradas.—43, Strand Road, Calcutta.
Punjab Cloth Mills Ltd.—20, Tarachand Dutt Street, Calcutta.
Purushottomlall Rajgarhia.—18, Harrington Street, Calcutta.
R. McDill & Co. Private Ltd.—343, Ratu Sarkar Lane, Calcutta 7.
R. L. Modi & Sons Ltd.—2, Dayehatta Street, Calcutta.
Radharam Sohanlal.—3, Mullick Street, Calcutta.
Raghunathrai Piyarelal.—15, Noormal Lohia Lane, Calcutta 7.
Rambilas Nandlall.—178, Mahatma Gandhi Road, Calcutta.
Rameshwarlal Dedraj.—180, Mahatma Gandhi Road, Calcutta.
Ram Gopal Pasari.—23/24, Radha Bazar Street, Calcutta.
Ramjidas Shriram.—46, Upper Chitpore Road, Calcutta 7.
Ramlal Roshanlal & Co.—2, Raja Woodmunt Street, Calcutta.
Ranglal Shreechand.—94, Lower Chitpore Road, Calcutta 7.
S. A. Torat & Co. (Export Dept.).—55, Canning Street, Block 'C', Mehta Buildings, Calcutta 1.
S. Lal & Co. Private Ltd.—15, Chittaranjan Avenue, Calcutta.
Satyanarayan Prasad Vishnudeo Prasad.—9, Jagmohan Mullick Lane, Calcutta.
Seth Nanakchand Shadiram.—Mohta House, 29, Strand Road, Calcutta.
Shevprakash Janakraj & Co.—160, Jumnalal Bajaj Street, Calcutta.
Shevram Sitaram.—138, Jumnalal Bajaj Street, Calcutta.
Shewbux Satyanarain.—30/31, Kalakar Street, Calcutta.
Shree Bajrang Trading & Supply Co.—22, Burtolla Street, Calcutta.
Shree Hanuman Mercantile Co. Pvt. Ltd.—178, Mahatma Gandhi Road, Calcutta 7.
Shree Kamala Agency.—23, Canning Street, Calcutta 1.
Shree Shew Sakti Oil Mills Ltd.—14, Netaji Subhas Road, Calcutta.
Shree Shivagouri Oil Mills.—234/2, Upper Circular Road, Calcutta.

Shri Niwas Co. Private Ltd.—14, Noormall LohiaLane, Calcutta 7.
Shyam Sundar Ltd.—P-16, Kalakar Street, Calcutta.
Shyamsundar Agarwala.—173, Mahatma Gandhi Road, Calcutta.
Sonthalia & Company.—71, Jumnalal Bajaj Street, Calcutta.
Standard Radio & Winding House Private Ltd.—1, Chandney Chowk Street, Calcutta 13.
Sukhdeodas Kishanlall.—178, Mahatma Gandhi Road, Calcutta 7.
Summerson Trading Co. Ltd.—201, Mahatma Gandhi Road, Calcutta.
Sundar Lall Golchha.—113, Manohardas Katra, Calcutta.
Sundarmal Parasram.—161, Chittaranjan Avenue, Calcutta.
Surajmull Hanumandas.—132, Cotton Street, Calcutta 7.
Surajmull Murlidhar.—28, Amratolla Street, Calcutta.
Swalka Vanaspati Products Ltd.—18-B, Brabourne Road, Calcutta.
Swadeshi Ayat Niryat Ltd.—33, Brabourne Road, Calcutta.
Swatantra Bharat Trading Co. Ltd.—208, Jumnalal Bajaj Street, Calcutta.
Textile Store Dealers Ltd.—33, Netaji Subhas Road, Calcutta.

**THAKURDASS SUREKA.—40, College Street, Calcutta-12.**

Totaram Champalal.—183/1, Dharamtolla Street, Calcutta.
Umakant & Co. Private Ltd.—4, Mullick Street, Calcutta.
United India Trading Co.—159, Chittaranjan Avenue, Calcutta 7.
United Provinces Commercial Corporations.—6, Ganesh Chandra Avenue, Calcutta.
United Supply Agency Private Ltd.—38, Strand Road, Calcutta.
Universal Importers Co.—32-E, Jackson Lane, Calcutta.
Vasant Corporation Private Ltd.—28, Amratolla Street, Calcutta 1.
Vijoy & Company.—3, Chowringhee Road, Calcutta.
Wool Agents Ltd.—10, Armenian Street, Calcutta.

## INDUSTRIAL SAFETY & RESPIRATORY EQUIPMENTS

**GHOSAL B. N. & SONS (CALCUTTA).—Manufacturers of Safety Equipments Viz. Gloves, Goggles, Respirators, Masks, Hand Shield, Helmet, Glasses and Lenses, Ammunition Boots, Safety Belts etc., 25-B, Chittaranjan Avenue, Calcutta-13; Phone: 233505.**

**INDUSTRIAL GASES LTD., THE.—15, Ganesh Chandra Avenue, P.O. Box 853, Calcutta 1. Phones: 229711/12, 221040, 221049, 227966 & 227499. Grams: "INDUSGASES", Calcutta. Depot & Service: 67-3012 & 46-7437. Hoses, Goggles, Gloves, Fluxes, Electrode Holders, Screens, Positioners, Turntables, etc.**

## INDUSTRIAL AND SCIENTIFIC INSTRUMENTS

**BELL'S ASBESTOS & ENGINEERING (INDIA) PRIVATE LTD.—24, Chittaranjan Avenue, Calcutta-12. Negretti & Zambra Instruments for Indicating, Recording and Control of Temperature, Pressure, Humidity, Volume Flow (Made in India); Also Meteorological and Aircraft Instruments; Kelvin & Hughes Industrial Ltd., Boiler House Instruments, CO 2 Recorders, Flowmeters, Electronic Temperature Controllers. Phone: 23-3756 (4 lines). Bombay Branch: Khanna Construction House, 44, Abdul Gaffar Road, Worli, Bombay-18.**

**IBCON PRIVATE LTD.—Industrial and Management Consultants, Consultancy Services for development of New Industries, Market Survey and Feasibility Studies, Planning for Modernization and Expansion of Industries in respect of Paper, Chemicals, Rayons, Sugar, Cement, Textiles and Engineering; Building and Factory Design, Supervision of Civil Engineering Construction and Erection of Equipment and Commissioning; Regd. Office: Adelphi House, 119, Queens Road, Bombay-1; Phone: 24-2052/3; Regional Offices: 5, Russell Street, Calcutta-16; Phone: 23-8891/92; 1-C, Ali Asker Road, Bangalore-1; Brady's Building, Mahatma Gandhi Road, Kanpur-7; Sukhastan Gardens, On ward Place, Colombo-7; Grams: 'IBCO' Bombay, 'IBCOST', Calcutta, Bangalore & Kanpur.**

## INK MANUFACTURERS

Bagchi, P. M. & Co.—19, Gulu Ostagar Lane, Calcutta 6.
Bandyo S. & Co.—P.O. Alambazar, Calcutta 35.
Bengal Miscellany Ltd.—174, Manicktolla Main Road, Calcutta 11.
Calcutta Miscellany.—12, Ghose Lane, Calcutta.
Chemproducts (India) Ltd.—12, Tamer Lane, Calcutta.
Duro Chemical Works.—14-2, Old China Bazar Road, Calcutta.
G. & B. Industrial Syndicate—20, Raja Nabakisan Street, Calcutta.

**GANGES PRINTING INK FACTORY LTD.—Gillander House, Block F-3, 8, Netaji Subhas Road, Calcutta-1. Branches at Bombay, Madras & Delhi.**

Gripex (India) Ltd.—Gillander House, 8, Netaji Subhas Road, Calcutta 1.
Hooghly Ink Co. Pvt. Ltd.—67/A, Ballygunge Circular Road, Calcutta 19.
Lily Chemical Works.—3, Ramkanta Sen Lane, Calcutta 4.
Lipika Ink Co.—Alambazar, Calcutta 35.
Pillet Ink Co.—171-B, Rashbehari Avenue, Calcutta.
Profile (India) Ltd.—Jadavpur Colony, Calcutta 32.
Rainbow Industries Pvt. Ltd.—2/2A, Armenian Street, Calcutta 1.
Rangoon Miscellany.—12, Tamer Lane, Calcutta.
Rapidol Industries Co.—24-E, Sura 3rd Lane, Beliagatta, Calcutta.
Ray Brothers.—78, Harrison Road, Calcutta 9.
Raz Brothers.—65-1, Harrison Road, Calcutta.
S. Karr & Co.—4D, Dharamtolla Road, Calcutta.
Shree Lakshmi Industries & Chemicals Ltd.—116/1/11, Harrison Road, Calcutta
Sulekha Works Ltd.—Sulekha Park, Calcutta 12.
Super Toilet & Chemical Co. (Private) Ltd.—80, Cornwallis Street, Calcutta 6.
True Ink Mfg. Co.—79, Wellesley Street, Calcutta 13.
Unita Trading Co.—76, Lower Circular Road, Calcutta.
Zenith Ink & Gum Products.—29, Madan Mitra Lane, Calcutta.

## INSULATION MATERIALS

**BELL'S ASBESTOS & ENGINEERING (INDIA) PRIVATE LTD.—24, Chittaranjan Avenue, Calcutta 12; Sole Selling Agents for 'Fibrosil' Mineral and Glass Wool; Specialists in Heat and Cold Insulation and Refractory Brickwork; Phone: 23-3756 (4 Lines) Bombay Branch: Khanna Construction House, 44, Abdul Gaffar Road, Worli, Bombay-18.**

J. D. Jones & Co. Ltd. (Estd.: 1893).—C/5, Gillander House, 8, Netaji Subhas Road, Calcutta-1.

**NAVIN INSULATORS.—Manufacturers of 'ELETOX' and 'ELOTIN' Brand Ideal Thermal and Acoustical Insulation Boards under the Supervision of German Technicians; 6, Little Russell Street, Calcutta-16; Phone: 447556 & 352546 (Factory).**

## INSURANCE COMPANIES

The All India General Insurance Co. Ltd.—B1, Clive Bldgs., 8, Netaji Subhas Road, Calcutta.
The Bombay Fire & General Insurance Co. Ltd.—23, Ganesh Ch. Avenue, Calcutta.
The British India General Insurance Co. Ltd.—National Tobacco Bldgs., 1 & 2, Old Court House Corner, Calcutta.
The Calcutta Insurance Ltd.—24, Chittaranjan Avenue, Calcutta.
The Concord of India Insurance Co. Ltd.—8, Clive Row, Calcutta.
The Central India Insurance Co. Ltd.—133, Canning Street, Calcutta.
Commercial Union Assurance Co. Ltd.—32, D. Square, Calcutta 1.
The General Assurance Society Ltd.—8, Dalhousie Square East, Calcutta 1.
Hercules Insurance Co. Ltd.—16, Hare Street, Calcutta.
Hindusthan General Insurance Society Ltd.—Hindusthan Bldg., 4, Chittaranjan Avenue, Calcutta.
Howrah Insurance Co. Ltd.—12B, Netaji Subhas Road, Calcutta.
Hukumchand Insurance Co. Ltd.—38, Netaji Subhas Road, Calcutta.
The Indian Globe Insurance Co.—22, Canning Street, Calcutta.
The Indian Mercantile Insurance Co. Ltd.—7, Old Court House St., Calcutta.
Indian Mutual General Insurance Society Ltd.—10, Clive Row, Calcutta.

**INDIAN TRADE & GENERAL INSURANCE CO. LTD.—Regd. Office: 25, Brabourne Road, Calcutta 1; Principal Office: Jehangir Building, Mahatma Gandhi Road, Bombay 1; Grams: "ADASTRA"; Phone 255101; Business Transacted—Fire, Marine, Motor and Miscellaneous.**

Jayabharat Insurance Co. Ltd.—C/o Central India Ins. Co. Ltd., Chopra House, 133, Canning Street, Calcutta.
Jupiter General Insurance Co. Ltd.—6, India Exchange Place, Calcutta.
Marine & General Insurance Co., Ltd.—21, Strand Road, Calcutta.
National Insurance Co. Ltd.—7, Council House Street, Calcutta.
The National Security Assurance Co. Ltd.—B1, Clive Bldgs., 8, Netaji Subhas Road, Calcutta.
The New Asiatic Insurance Co. Ltd.—India Exchange, Calcutta.
The New Great Insurance Co. of India Ltd.—9, Brabourne Road, Calcutta.
New India Assurance Co. Ltd.—4, Lyons Range, Calcutta.
Oriental Fire & General Insurance Co. Ltd.—2, Clive Row, Calcutta.
Pandyan Insurance Co. Ltd.—5 & 7, Netaji Subhas Road, Calcutta.
Ruby General Insurance Co. Ltd.—India Exchange, Calcutta.
The Sentinel Assurance Co. Ltd.—13, Brabourne Road, 4th Floor, Calcutta.
South British Insurance Co. Ltd.—10, Netaji Subhas Road, Calcutta.
South India Insurance Co. Ltd.—23, Ganesh Ch. Avenue, Calcutta 1.
Standard General Assurance Co., Ltd.—Bombay Mutual Building, 9, Brabourne Road, Calcutta 1.
Sterling General Insurance Co.—4, Dalhousie Sqr. East, Calcutta.
Triton Insurance Co. Ltd.—18, Netaji Subhas Road, Calcutta 1.
Union Assurance Society Ltd.—32, D. Square, Calcutta 1.
Union Insurance Society of Canton, Ltd.—B2, Gillander House, 8, Netaji Subhas Road, Calcutta 1.
United India Fire & General Insurance Co. Ltd.—A3, Clive Bldgs., Calcutta.
Universal Fire & General Insurance Co. Ltd.—7, Old Court House Street, Calcutta.
Vulcan Insurance Co. Ltd.—7, Old Court House Street, Calcutta.
Zenith Assurance Co. Ltd.—National Tobacco Bldgs., 1 & 2, Old Court House Corner, Calcutta.

## IRON & STEEL

Ajodharam Mathuraram.—77, Kailash Bose Street, Calcutta.
Aminchand Payare Lal.—135, Canning Street, Calcutta 1.
Anandji Haridas & Co. (P) Ltd.—20, Maharshi Debendra Road, Calcutta.
Banerjee & Co.—5, Debendra Road, Calcutta.
Bansantlal Ghansamdas.—8/5, Roopchand Roy Street, Calcutta.
Benimadhab Sett Satyacharan Sett.—D/44, Jagannath Ghat, Calcutta.
Bengal Corpn. (P) Ltd.—14, Netaji Subhas Road, Calcutta.
Bharat Overseas (P) Ltd.—18-B, Brabourne Road, Calcutta.
Bharati Private Ltd.—12, Netaji Subhas Road, Calcutta.
B. K. Shah & Co.—3, Maharshi Debendra Road, Calcutta.
Birmingham Iron & Steel Co.—8, Canning Street, Calcutta 1.
Calcutta Iron & Steel Co. Ltd.—65-A, Netaji Subhas Road, Calcutta 1.
Calcutta Iron Syndicate Ltd.—8-1, Maharshi Debendra Road, Calcutta 7.
Chatterjee Bhattacharya & Co. (P) Ltd.—306, Circular Road, Shibpur, Howrah.
Chatterjee Paul & Co.—26, Wellington Street, Calcutta.
Chandra Kanta Manna & Co. (P) Ltd.—20, Maharshi Debendra Road, Calcutta.
Chimanram Sewbhagwan.—192, Cross Street, Calcutta.
Choudhry Bhattacharjee & Co.—2, Maharshi Debendra Road, Calcutta.
D. N. Sett.—12, Maharshi Debendra Road, Calcutta.
D. N. Sircar & S. K. Das.—6, Maharshi Debendra Road, Calcutta.
Das Iron & Steel Co.—168-A, Cotton Street, Calcutta 7.

**DILIP MUKHERJEE.—Bars and Rods, Structurals, Plates, Sheets etc., 3, Maharshi Debendra Road, Calcutta-7; Phone: 338103 & 339221.**

Dukhineswar Sarkar & Bros. (P) Ltd.—2, Maharshi Debendra Road, Calcutta.
G. C. Banerji & Co. (P) Ltd.—74/A, Nalini Sett Road, Calcutta.
G. P. Nundy & Sons.—93/3/3A, Hari Ghose Street, Calcutta.

**GANESHKA AGENCIES.—P-8, Mission Row Extension, Calcutta-1; Manufacturers Representatives and Stockists of Brass and Copper Rods, Sheets, Pipes, Strips, Sheathings, Wires, Welding Rods etc., Phone: 232501/5, Grams: "CURBAN".**

Ganga Narayan Paul & Co.—22, Maharshi Debendra Road, Calcutta.
Ganges Agencies (P) Ltd.—32, Cross Street, Calcutta 7.
Gobardhan Sreemany.—12, Maharshi Debendra Road, Calcutta.
Gokul Chandra Dhar & Sons.—D/9, Jagannath Ghat Road, Calcutta.
H. K. Paul & Bros. (P) Ltd.—3/3, Maharshi Debendra Road, Calcutta.
Hemanta Kumar Deyasi & Bros. (P) Ltd.—21, Maharshi Debendra Road, Calcutta.

**HIND TRADING CORPORATION.—Dealers and Manufacturers of all Iron and Steel Section like Mild Steel Bars, Joists, Squares, Channels, Angles, Plates, Sheets and Building Materials such as Stonechips and Gravels; 134/1, Mahatma Gandhi Road, Calcutta-7; Phones: 344328 & 558253 (Res.).**

Howrah Metal Mart.—6, Maharshi Debendra Road, Calcutta.
Hrishikesh Kit.—12. Maharshi Debendra Road, Calcutta.
Imperial Iron & Steel Co.—28, Strand Road, Calcutta.
Indian Iron & Steel Co. Ltd.—12, Mission Row, Calcutta.
Indu Bhusan Dutta & Co.—D/7, Jagannath Ghat, Calcutta.
Ishan Chundra Chatterjee & Sons (P) Ltd.—20, Maharshi Debendra Road, Calcutta.
Jagabandhan Ram Dwarkaprosad.—77, Kailash Bose Street, Calcutta.
Jamnadas & Brothers (P) Ltd.—55/58, Canning Street, Calcutta.
Jankidas Sewnarayan.—48, Canning Street, Calcutta.
Janson Iron & Steel Co.—80, Colootola Street, Calcutta.
Jeetnarain Ghose & Co.—36, Strand Road, Calcutta.

**JOKHIRAM BAIJNATH.—(Jain House), Controlled Stockists of Iron and Steel of all Categories, Plates, Sheets, Joists, Channels, Angles, Rounds, Flats, Wires, Pig Iron etc., 8/1, Esplanade East, Calcutta-1; Phone: 235594 (3 Lines).**

Jotindra Nath Nundy & Bros.—7/1, Maharshi Debendra Road, Calcutta.
K. C. Ghattack & Sons (Private) Ltd.—3, Maharshi Debendra Road, Calcutta 7.
K. C. Mookerjee & Sons.—27, Wellington Street, Calcutta.
K. N. Parui & Co.—11, Maharshi Debendra Road, Calcutta.
Kamala Prosad & Co.—170, Karnani Estate, 209, Lower Circular Road, Calcutta.
Krishna Chandra Nandy & Co.—20, Maharshi Debendra Road, Calcutta.
Kristo Dhone Gangooly & Co.—115, Netaji Subhas Road, Calcutta.
M. D. Panday & Co.—21, Maharshi Debendra Road, Calcutta.
Machino Techno (Sales) P. Ltd.—33, Netaji Subhas Road, Calcutta.
Makhan Lall Dey & Sons P. Ltd.—D/15, Jagannath Ghat, Calcutta.
Metal Import (P) Ltd.—18-D, Sukeas Lane, Calcutta 1.
Mohor Lal Sinha Private Ltd.—D-11, Jagannath Ghat, Lohapatty, Calcutta 7.
Mookerjee & Co.—17, Maharshi Debendra Road, Calcutta.
Mookerjee & Co.—25, Wellington Street, Calcutta.
N. C. Shaw & Co., P. Ltd.—D/24, Jagannath Ghat, Calcutta.
Narayan Chandra Sett.—12, Maharshi Debendra Road, Calcutta.
Narayandass & Co.—D/5, Jagannath Ghat, Calcutta.
Nagendra Nath Banerjee.—D/19, Jagannath Ghat, Calcutta.
Nagendra Nath Dey.—D/13, Jagannath Ghat, Calcutta.
Narayan Co.—174, Mahatma Gandhi Road, Calcutta.
Natabar Paul & Co. (P) Ltd.—19, Maharshi Debendra Road, Calcutta.
Natabar Sett.—8/1, Maharshi Debendra Road, Calcutta.
Nathmull Dwarkadass.—74/A, Nalini Sett Road, Calcutta.
Nathmull Girdharilal.—22, Burtolla Street, Calcutta.
National Iron & Steel Co. Ltd.—4, D. Square East, Calcutta 1.
National Rolling & Steel Ropes Ltd.—Nicco House, Hare Street, Calcutta 1.
National Steel Corpn.—138, Canning Street, Calcutta 1.
Nepaul Chandra Sett.—9/1, Maharshi Debendra Road, Calcutta.
Niranjan & Co. (P) Ltd.—20/1, Maharshi Debendra Road, Calcutta.
Noin Behari Sett & Sons.—D/21, Jagannath Ghat, Calcutta.
Nundy Brothers (P) Ltd.—3/3, Maharshi Debendra Road, Calcutta.
Orissa Steel Corpn. P. Ltd.—29, Strand Road, Calcutta.
P. K. Mookerjee & Co. (P) Ltd.—D/1, Jagannath Ghat, Calcutta.
P. K. Roy & Co.—26, Wellington Street, Calcutta.
P. N. Mukherjee & Sons.—9/1, Maharshi Debendra Road, Calcutta.
P. Paul & Bros. (P) Ltd.—39/B, Wellington Street, Calcutta.
Panchcowri Sett Haradhone Paul.—D/2, Jagannath Ghat, Calcutta.
Paul & Co. Ltd. P.—20/2B, Maharshi Debendra Road, Calcutta 7.
Phanindra Nath Manna & Co. P. Ltd.—20, Maharshi Debendra Road, Calcutta.
Punchanon Shome.—9, Maharshi Debendra Road, Calcutta.
Rajendra Nath Mullick & Co. (P) Ltd.—20, Maharshi Debendra Road, Calcutta.
R. K. Ghose & Co.—41, Wellington Street, Calcutta.
Rakhal Chandra Dey & Co. (P) Ltd.—8/1, Maharshi Debendra Road, Calcutta.
Rakhaldass Mullick & Co.—D/14, Jagannath Ghat, Calcutta.
Ramkrishna Kulwant Rai.—33, Netaji Subhas Road, Calcutta.
Ranjan & Co. (Iron Mongers) P. Ltd.—22/1, Maharshi Debendra Road, Calcutta.
Rasick Lall Ghosh & Sons.—30, Wellington Street, Calcutta.
S. Dey & Brothers.—18, Maharshi Debendra Road, Calcutta.
S. K. Sett & Brothers.—7/1, Maharshi Debendra Road, Calcutta.
S. M. Bejoy & Co. (P) Ltd.—D/20, Jagannath Ghat, Calcutta.
S. Nundy & Co.—25, Wellington Street, Calcutta.
S. N. Nandy.—D/26, Jagannath Ghat, Calcutta.
S. Palchowdhury & Co. (P) Ltd.—19, Maharshi Debendra Road, Calcutta.
Saroj Iron & Steel Co. P. Ltd.—85-1, Upper Chitpur Road, Calcutta 6.
Saroj Kumar Sreemany.—3, Maharshi Debendra Road, Calcutta.
Santosh Kumar Mullick & Son P. Ltd.—D/5, Jagannath Ghat, Calcutta.
Satyandra Mohan Palodhy Kali Pada Nandy.—39, Wellington Street, Calcutta.
Sett & Sons Private.—B/5, Jagannath Ghat, Calcutta.
Seth Nanakchand Shadiram.—29, Strand Road, Calcutta.
Shaha Brothers.—9, Maharshi Debendra Road, Calcutta.
Sharma & Co.—2, Maharshi Debendra Road, Calcutta.
Shyam Lall Sil & Co.—D/26, Jagannath Ghat, Calcutta.
Shyamdas Nundy & Sons.—D/27, Jagannath Ghat, Calcutta.
Sontosh Kumar Dey.—19, Maharshi Debendra Road, Calcutta.
Sreenath Chandra Bera.—7/1, Maharshi Debendra Road, Calcutta.
Steel & Allied Products Ltd.—17, Brabourne Road, Calcutta 1.
Steel Traders (P) Ltd.—Stephen House, R. No. 27/1, Dalhousie Square, Calcutta.
Steelverse & Co. (1960) P. Ltd.—40, N. Subhas Road, Calcutta 1.
Sur Iron & Steel Co. P. Ltd.—15, Convent Road, Calcutta 14.
Surath Nath Manna Manmatha Nath Manna (P) Ltd.—D/16, Jagannath Ghat, Calcutta.
Surendra Nath Paul Basanta Kumar Sett.—19, Maharshi Debendra Road, Calcutta.
Surendra Nath Ghosh & Co.—D/12, Jagannath Ghat, Calcutta.
Surendra (Overseas) P. Ltd.—135, Canning Street, Calcutta.
T. D. Kumar & Bros. (P) Ltd.—20/1, Maharshi Debendra Road, Calcutta.
T. N. Mullick & Sons.—20/2B, Maharshi Debendra Road, Calcutta.
Tah Nundy & Co. (P) Ltd.—20, Maharshi Debendra Road, Calcutta.
Tarak Nath Nundy.—D/28, Jagannath Ghat, Calcutta.
Tata-Scob Dealers (Controlled Stock) Calcutta Ltd.—20, Strand Road, Calcutta.
Tinplate Dealers Association Pvt. Ltd.—138, Canning Street, Calcutta 1.
United Steel & Bearing Co.—5-B, Clive Ghat Street, Calcutta 1.
Upendra Nath Mullick & Co.—55, Nalini Sett Road, Calcutta.
Vora Brother (P) Ltd.—47, Ezra Street, Calcutta.
Woolverhampton Iron & Steel Co.—137, Canning Street, Calcutta.

## JEWELLERS

Adwaitya Jewellery Works.—123-8, Bowbazar Street, Calcutta 12.
A. K. Jewellers & Co.—150-1B, Amherst Street, Calcutta 9.
Annapurna Jewellery House.—85, Bowbazar Street, Calcutta 12.
A. Sirkar & Sons.—171/1A, Rash Behari Avenue, Calcutta 18.
Bengal Jewellery Mfg. Co.—234, Chittaranjan Ave., Calcutta 6.
B. R. Das.—155, Radhabazar Street, Calcutta 1.

Chandra & Son P. Ltd.—116-1/117, Bowbazar Street, Calcutta 12.
Chotalal Amulakh & Mohanlal.—23, Sir Hariram Goenka St., Calcutta 7.
Cooke & Kelvey Ltd.—20, Old Court House Street, Calcutta 1.
D. C. Dutt & Sons.—273-A, Bowbazar Street, Calcutta 12.
Dey & Dutta.—117-2, Bowbazar Street, Calcutta 12.
Dhakeswari Jewellery & Co.—106, Bowbazar Street, Calcutta 12.
Dutt & Co.—39, Bowbazar Street, Calcutta 12.
Ghosh Brothers.—114, College Street, Calcutta 12.
Gem Company.—Great Eastern Hotel Arcade, Calcutta 1.
Girish Chunder Dutta & Sons.—35-A, Sambhunath Pandit St., Calcutta 25.
Glamour.—15-A, New Market, Calcutta 13.
Gold Silver Arts Ltd.—9, Jagmohan Mullick Lane, Calcutta 6.
Hamilton & Co. P. Ltd.—8, Old Court House Street, Calcutta 1.
Hindustan Jewellery.—6, Ashutosh Dey Lane, Calcutta.
Jai Hind Jewellers.—143, Cotton Street, Calcutta 7.
J. Boseck & Co. P. Ltd.—16-5, Chowringhee, Calcutta 13.
J. C. Mazumder & Sons.—185-2, Bowbazar Street, Calcutta 12.
K. P. Dhar & Co.—99-A, Bowbazar Street, Calcutta 12.
M. Lilaram & Co.—A/4, New Market, Lindsay Street, Calcutta 13.
M. P. Jewellers & Co.—1, Vivekananda Road, Calcutta.
P. C. Banerjee.—37, Dharamtalla Street, Calcutta 13.
P. C. Chandra & Sons.—127/1, Bowbazar Street, Calcutta 12.
P. N. Dass & Sons.—3-C, Hemkar Lane, Calcutta 5.
Rakhal Chandra Dey.—121, Bowbazar Street, Calcutta 12.
Ratnabithi.—106, Bowbazar Street, Calcutta 12.
Satramdas Dhalamal.—12-J, Park Street, Calcutta 16.
S. C. Das & Brothers.—37, Beni Nandan Street, Calcutta 25.
S. C. Sircar & Co.—145-B, Bowbazar Street, Calcutta 12.
Senco Jewellery Stores Ltd.—187, Bowbazar Street, Calcutta 12.
Suresh R. Kothari.—65-1, Beadon Street, Calcutta 6.
Swadeshi Silpa Factory.—213, Cornwallis Street, Calcutta 6.
T. C. Addy & Sons.—42, Mohan Bagan Lane, Calcutta 4.
Yougman's Jewellers Ltd.—22, Chowringhee Road, Calcutta.

## JUTE BALERS & EXPORTERS

A. Damiano (Jute) Pvt. Ltd.—133, Canning Street, Calcutta.
Ajit Agents Pvt. Ltd.—43/44, Cotton Street, Calcutta.
Ashok Exporters & Importers.—4, Bhawani Dutt Lane, Calcutta.
Assam Jute Supply Co. Ltd.—8, India Exchange Place, Calcutta 1.
Balchand Kodamull.—203/1, Mahatma Gandhi Road, Calcutta.
Balmookund Lutchminarayan.—67/24B, Strand Road, Calcutta.
Banshilall Madanlall.—46, Strand Road, Calcutta.
Beejraj Balchand.—104, Old China Bazar Street, Calcutta.
Bengal Jute Baling Co.—9, Brabourne Road, Calcutta.
Bharmull Champalall.—26/4, Armenian Street, Calcutta.
Bhanwarlall Chandmull.—4, Raja Woodmunt Street, Calcutta.
Bhutoria & Sons Pvt. Ltd.—161/1, Mahatma Gandhi Road, Calcutta.
Bijoy Trading Co.—23-A, Netaji Subhas Road, Calcutta.
B. Mookerjea & Co.—4, Commercial Bldgs., Calcutta.
Brijlall Nandkishore.—112, Chittaranjan Avenue, Calcutta.
Budridas Fulchand.—91, Netaji Subhas Road, Calcutta.
Burjap Linkers.—6, Clive Row, Calcutta.
Calcutta Trading Co.—26/4, Armenian Street, Calcutta.
Champalall Kothari.—11, Armenian Street, Calcutta.
Chandanmull Dipchand.—46, Strand Road, Calcutta.
Chandmull Dhannalall.—P-17, Kalakar Street, Calcutta.
Chhogmull Rughlall.—46, Strand Road, Calcutta.
Chhotulall Sethia.—23/24, Radha Bazar Street, Calcutta.
Chowdhury Jute Baling Co.—85/1, Upper Chitpur Road, Calcutta.
Chunilal Gulabchand.—20, Mullick Street, Calcutta.
Danmull Jwalaprasad.—23/24, Radha Bazar Street, Calcutta.
Dulichand Jethmull.—7, Swallow Lane, Calcutta.
Dulichand Pratapmull.—11, Armenian Street, Calcutta.
Durgadutt Sohanlall.—43/44, Cotton Street, Calcutta.
Esaar (India) Pvt. Ltd.—3, Burtolla Street, Calcutta.
Fulchand Kanhaiyalall Co.—23/24, Radha Bazar Street, Calcutta.
Gaulechha Brothers.—7/2, Babulal Lane, Calcutta.
Ghasiram Madanlall.—62, Nalini Sett Road, Calcutta.
Gulraj Kedarnath.—180, Mahatma Gandhi Road, Calcutta.
Hamirmull Champalall.—2, Raja Woodmunt Street, Calcutta.
Harakhchand Punamchand.—20, Mullick Street, Calcutta.
H. Bihani & Co. Pvt. Ltd.—201/3, Mahatma Gandhi Road, Calcutta.
Hookumchand Malchand.—22, Kalakar Street, Calcutta.
Hope Purdhomme & Co. (P) Ltd.—7, Wellesley Place, Calcutta.
Hulashchand Rupchand.—26, Burtolla Street, Calcutta.
Jagannath Sobhachand Co.—136, Cotton Street, Calcutta.
Jaikishandass Harikishandass.—216, Mahatma Gandhi Road, Calcutta.
J. Kuthari & Co.—14, India Exchange Place, Calcutta.
Jankidass Banshidhar.—26/4, Armenian Street, Calcutta.
Jugalkishore Bholaram.—9, Jagmohan Mullick Lane, Calcutta.
Jute & Stores, Ltd.—23/24, Radha Bazar Street, Calcutta.
Jwalaprasad Mulchand.—26, Burtolla Street, Calcutta.
Kanoria Co. Ltd.—9, Brabourne Road, Calcutta.
Khaitan Sons & Co. (Fibre) Ltd.—2, Dalhousie Sqr. East, Calcutta.
K. L. Goenka & Co.—11, Clive Row, Calcutta.
Lalchand Dharamchand.—6, Cross Street, Calcutta.
Maghraj Brijmohan Bangur.—21A, Canning Street, Calcutta.
Main A. M. & Co., Pvt. Ltd.—14, India Exchange Place, Calcutta.
Milapchand Hiralall.—2, Raja Woodmunt Street, Calcutta.
Morgan Walker & Co., Pvt. Ltd.—2, Clive Ghat Street, Calcutta.
Motichand Askaran.—186, Jamunalal Bajaj Street, Calcutta.
Motilall Hanumanmull.—1/4/C, Gun Foundry Road, Calcutta.
Mugneeram Bankur & Co.—65, Sir Hariram Goenka Street, Calcutta.
Mukharam Lachhminarayan.—59, Netaji Subhas Road, Calcutta.
Multanmull Kishanlall.—7/2, Babulal Lane, Calcutta.
Narsing Trading Co.—2, India Exchange Place, Calcutta.
Nathmull Sethi & Co.—55, Nalini Sett Road, Calcutta.
Nikhil Jute Baling Co. (P) Ltd.—8, India Exchange Place, Calcutta.
Nowrangroy Ramniwas.—43/44, Cotton Street, Calcutta.
Onkarmull Nathmull.—26, Burtolla Street, Calcutta.
Partabmull Rameswar.—46, Strand Road, Calcutta.
Poddar Jute Trading Co. (P) Ltd.—37, Vivekananda Road, Calcutta.
Prasanchand Bothra & Son.—14, India Exchange Place, Calcutta.
Pratapmull Madanlall.—2, Bysack Street, Calcutta.
Puranchand Chhaganmull.—133, Canning Street, Calcutta.
Pushraj Puranmull.—65, Cotton Street, Calcutta.
Raghunathrai Mahadeo.—43/44, Cotton Street, Calcutta.
Rajkumar Jain & Co.—2, Bysack Street, Calcutta.
Ramchandra Sagarmull.—20, Mullick Street, Calcutta.
Ramdas Gobardhandass.—42, Kali Krishna Tagore St., Calcutta.
Ramdutt Ramkissendass.—9, Brabourne Road, Calcutta.
Ratanchand Chhaganmull.—47, Khengraputty Street, Calcutta.
Sethia Baling (P) Ltd.—38, Baranashi Ghosh Street, Calcutta.
Sethia Brothers.—56, Netaji Subhas Road, Calcutta.
Sethia Trading Co.—15, Nurmal Lohia Lane, Calcutta.
Shiva Jute Baling Ltd.—21, Jatindra Mohan Avenue, Calcutta.
Sitaram Mahabirprasad.—76, Cotton Street, Calcutta.
Soorajmul Nagarmull.—8, Dalhousie Sqr. East, Calcutta.
Star Commercial Co. Ltd.—161/1, Mahatma Gandhi Road, Calcutta.
Sumermull Anchalia.—208, Mahatma Gandhi Road, Calcutta.
Sumermull Roychand.—143, Cotton Street, Calcutta
Surajmull Ganeshram.—161/1; Mahatma Gandhi Road, Calcutta.
Surajmull Gouti.—2, Portuguese Church St., Calcutta.
Tantia Brothers Private Ltd.—1 & 2, Old Court House Corner, Calcutta 1.
Thanmull Kanmull.—105, Old China Bazar Street, Calcutta.
Thansingh Lachhmipat.—15, Noormal Lohia Lane, Calcutta.
Tilokchand Daymull.—13, Noormal Lohia Lane, Calcutta.
Tolaram Chopra.—133, Canning Street, Calcutta.
W. F. Ducat & Co. Pvt. Ltd.—3, Clive Row, Calcutta.
W. J. Walker & Co.—6, Commercial Bldgs., Calcutta.

## JUTE DEALERS & EXPORTERS

Amolakchand Champalal.—16, Bonfield Lane, Calcutta.
Baldeodas Ramnaraın.—192, Cross Street, Calcutta.
Baldeoram Beharilall.—61, Strand Road, Calcutta.
Banechand Puranchand.—56, Netaji Subhas Road, Calcutta.
Bhajanlall Sriniwas.—188, Cross Street, Calcutta.
Bhanwarlal Chandmall.—4, Raja Woodmunt Street, Calcutta.
Bhikamchand Tolaram.—35, Armenian Street, Calcutta.
Bhuramall Manikchand.—4, Doyhatta Street, Calcutta.
Bhutoria Brothers Pvt. Ltd.—56, Netaji Subhas Road, Calcutta.
Bhuwalka & Co.—8, India Exchange Place, Calcutta.
Champalal Jaichandlal.—10, Armenian Street, Calcutta.
Chhogmall Ratanlall.—P-15, Kalakar Street, Calcutta.
Chhogmall Rawatmall.—47, Khengraputty Street, Calcutta.
Chimaniram Jaswantmall.—105, Old China Bazar Street, Calcutta.
Chouthmal Sethiya.—9, Armenian Street, Calcutta.
Chunilal Hazarimall.—36, Shibtolla Street, Calcutta.
Chunilal Hulaschand.—20, Mullick Street, Calcutta.
East Coast Commercial Co.—7, Wellesley Place, Calcutta.
Fuzraj Thanmull.—13, Noormal Lohia Lane, Calcutta.
G. Das (Jute & Gunny) Ltd.—8, India Exchange Place, Calcutta.
Gajraj Pannalall Ltd.—68, Nalini Sett Road, Calcutta.
Ganeshdas Hazarimall.—46, Strand Road, Calcutta.
Ganpatrai Murlidhar.—178, Mahatma Gandhi Road, Calcutta.
General Produce Co. Ltd.—India Exchange Bldgs., Calcutta.
Gewarchand Danchand.—42, Vivekanand Road, Calcutta.
Gourishanker Chhotelall—59, Netaji Subhas Road, Calcutta.
Gulabchand Jaichandlall.—46, Strand Road, Calcutta.
Harakchand Daga.—16, Bonfield Lane, Calcutta.
Harakchand Saraogi & Co.—P-14, Kalakar Street, Calcutta.
Harnathrai Banarshilall.—95, Lower Chitpur Road, Calcutta.
Hasmull Kasturchand.—2, Raja Woodmunt Street, Calcutta.
Hind Jute Corpn.—23/24, Radha Bazar Street, Calcutta.
Hiralall Pannalall.—70, Nalini Sett Road, Calcutta.
Inderchand Premsukh.—35, Armenian Street, Calcutta.
India Jute Balings Ltd.—68, Nalini Sett Road, Calcutta.
Iswardas Tarkeswar.—4, Raja Woodmunt Street, Calcutta.
Jagannath Moolchand.—180, Mahatma Gandhi Road, Calcutta.
Jaikishandas Girdharilall.—180, Mahatma Gandhi Road, Calcutta.
Jain Jute Supply Ltd.—P-14, Kalakar Street, Calcutta.
Jain Jute Trading Co.—P-14, Kalakar Street, Calcutta.
Jamunalal Jankilall.—13, Noormal Lohia Lane, Calcutta.
Jiwanmal Parasmall.—4, Doyhatta Street, Calcutta.
Jiwanram Jagannath.—94/7, Lower Chitpur Road, Calcutta.
Jiwraj Champalal.—2, Raja Woodmunt Street, Calcutta.
Kanchialal Lohia.—112, Chittaranjan Avenue, Calcutta.
Khumchand Chunilall.—2, Raja Woodmunt Street, Calcutta.
Lachhmichand Surajmall.—65, Cotton Street, Calcutta.
Lalchand Dharamchand.—6, Cross Street, Calcutta.
Madangopal Daga.—60/A, Nalini Sett Road, Calcutta.

Mahabir Commercial Co. Ltd.—8, India Exchange Place, Calcutta.
Mahalchand Ramlall.—7/1, Babulall Lane, Calcutta.
Mahalchand Sreekishan.—46, Strand Road, Calcutta.
Mahasinghrai Meghraj Bahadur & Sons.—4, Raja Woodmunt St., Calcutta.
Maheswary Import & Export.—4, Doyhatta Street, Calcutta.
Maheswary Trading Co.—65, Cotton Street, Calcutta.
Manikchand Surajmall.—16, Bonfield Lane, Calcutta.
Manot & Co. Pvt. Ltd.—105, Old Chinabazar Street, Calcutta.
Milapchand Madanlall.—16, Bonfield Lane, Calcutta.
Motihari Enterprise (P) Ltd.—178, Mahatma Gandhi Road, Calcutta.
Motilall Lachminarayan.—4, Raja Woodmunt Street, Calcutta.
Moujiram Inderchand.—193/2, Mahatma Gandhi Road, Calcutta.
Mulchand Nathmall.—161/1, Mahatma Gandhi Road, Calcutta.
Murshidabad Jute Co.—46, Strand Road, Calcutta.
Nahata Brothers.—4, Jagmohan Mullick Lane, Calcutta.
Nawal Kishore Kejriwal.—23/24, Radha Bazar Street, Calcutta.
Nowrangroy Rameswar.—43, Cotton Street, Calcutta.
Onkarmull & Co.—172, Chittaranjan Avenue, Calcutta.
Pannalal Champalall.—2, Raja Woodmunt Street, Calcutta.
Pannalall Jainsukh.—37/38, Armenian Street, Calcutta.
Partapmall Madanlall.—2, Bysack Street, Calcutta.
Phulchand Manikchand Ltd.—70, Nalini Sett Road, Calcutta.
Pratapmall Rameshwar.—46, Strand Road, Calcutta.
Premsukh Pannalall.—P-14, Kalakar Street, Calcutta.
Punamchand Chhoganmall.—133, Canning Street, Calcutta.
Ram Bahadur Thakur & Co.—135, Canning Street, Calcutta.
Rameswar Khetawat.—16, Tarachand Dutta Street, Calcutta.
Ramjidas Jagannath.—4, Narayan Prasad Lane, Calcutta.
Ramlall Jiwraj.—4, Raja Woodmunt Street, Calcutta.
Ratan Jute Balings Ltd.—68, Nalini Sett Road, Calcutta.
Sethia Mercantiles Pvt. Ltd.—1, Commercial Bldgs., Netaji Subhas Road, Calcutta 1.
Shellac Traders Pvt. Ltd.—5, Dalhousie Square East, Calcutta.
Shivshanker Hajumermall.—43-44, Cotton Street, Calcutta.
Shree Bajrang Trading Co.—9, Jogmohan Mullick Lane, Calcutta.
Shriniwas Kashiram.—114, Chittaranjan Avenue, Calcutta.
S. K. Rungta Pvt. Ltd.—18, Mullick Street, Calcutta.
Sohanlall Ratanlall.—201, Mahatma Gandhi Road, Calcutta.
Sri Luxmi Trading.—20, Mullick Street, Calcutta.
Subhkaran Madanlall.—5, Narayan Babu Lane, Calcutta.
Sukhdyal Rambilas.—113, Manohardas Katra, Calcutta.
Surajmall Banthia.—16, Bonfield Lane, Calcutta.
Tilokchand Jitmall.—2, Raja Woodmunt Street, Calcutta.
Tolaram India Ltd.—68, Nalini Sett Road, Calcutta.
Tolaram Prakashchand.—68, Nalini Sett Road, Calcutta.

## JUTE FABRIC BROKERS

Alex A. Apcar, Jr. & Co. Private Ltd.—13, Netaji Subhas Road, Calcutta.
H. D. Cartwright & Co.—2, Clive Ghat Street, Calcutta.
Innes Watson & Co. Pvt. Ltd.—15-B, Clive Row, Calcutta.
King Bros.—B-5, Clive Bldgs., 8, Netaji Subhas Road, Calcutta.
Moran & Co. Pvt. Ltd.—C-5, Gillander House, 8, Netaji Subhas Road, Calcutta.
Perman & Hynd.—14, Netaji Subhas Road, Calcutta.

## JUTE FABRICS SHIPPERS

Acharya Brothers.—23/24, Radha Bazar, Street, Calcutta.
Ambalal G. (Export) Pvt. Ltd.—4, Mission Row, Calcutta.
Anderson Wright Ltd.—7, Wellesley Place, Calcutta.
Angus Co. Ltd.—3, Clive Row, Calcutta.
Bangur Brothers Ltd.—14, Netaji Subhas Road, Calcutta.
Becker Gray & Co. (P) Ltd. C/o Bird & Co., Ltd.—Chartered Bank Bldgs., Netaji Subhas Road, Calcutta.
Bengal Jute Mills Co. Ltd.—8, Dalhousie Sq. East, Calcutta.
Bhutoria Bros., Pvt. Ltd.—56, Netaji Subhas Road, Calcutta.
Binani Commercial Co. Ltd.—42/1, Strand Road, Calcutta 1.
Bithaldas Binani.—43, Strand Road, Calcutta.
Blackwoods India Ltd.—2, Mangoe Lane, Calcutta.
Budge-Budge & Allied Jute Mills Exporter (P) Ltd.—8, Clive Row, Calcutta.
Bunge & Co., Ltd.—8, Old Court House Street, Calcutta.
Burlap Dealers Ltd.—9, Brabourne Road, Calcutta.
Chhaganlal Kasturchand.—16, Pollock Street, Calcutta.
Dharamdas & Tirthdas.—14, Clive Row, Calcutta.
Dulichand Kashiprasad.—18, Amratolla Street, Calcutta 1.
Duncan Bros. & Co., Ltd.—31, Netaji Subhas Road, Calcutta.
East India Commercial Co.—38, Netaji Subhas Road, Calcutta.
Eastern Mfg. Co. Ltd.—Mcleod House, 3, Netaji Subhas Road, Calcutta 1.
Ebrahim Yusuf Zainal Ali Raza.—22, Zakariah Street, Calcutta.
Elias B. N. & Co. Ltd.—Norton Bldgs., 1 & 2, Old Court House Corner, Calcutta.
Far Eastern Agencies Ltd.—P-14, Mission Row Extn., Calcutta.
Fulchand Kanahiyalal & Co.—23-24, Radhabazar Street, Calcutta.
G. & M. Fogt Co. Pvt. Ltd.—2, Garstin Place, Calcutta.
Ganesh Commercial Co. Ltd.—18A, Rupchand Roy Street, Calcutta.
Gangjee, F. & Co.—24, Mission Row Extension, Calcutta.
George Henderson & Co., Ltd.—4, Clive Row, Calcutta.
General Fibre Dealers Ltd.—India Exchange, 28/29, India Exchange, Place Extn., Calcutta.
Gladstone Lyall & Co., Ltd.—4, Fairlie Place, Calcutta.
Gordhandas Jerambhai.—15A, Clive Row, Calcutta.
Gouripore Co. Ltd.—2, Fairlie Place, Calcutta.
Hamirmull Champalall.—2, Raja Woodmunt Street, Calcutta.
Hoare Miller & Co. Ltd.—5, Fairlie Place, Calcutta.
Hooghly Mills Co. Ltd.—10, Clive Row, Calcutta.
Imperial Chemical Industries (I) Ltd.—18, Strand Road, Calcutta.
Ispahani, Ltd.—51, Ezra Street, Calcutta.
Jagannath Gupta & Co. Pvt. Ltd.—7B, Clive Row, Calcutta.
James Finlay & Co., Ltd.—2. Netaji Subhas Road, Calcutta.
Jankidas Ramgopal.—48, Canning Street, Calcutta.
Jardine Henderson Ltd.—4, Clive Row, Calcutta.
Jhajharia Trading Co. Pvt. Ltd.—14, Netaji Subhas Road, Calcutta.
Jute & Gunny Brokers Pvt. Ltd.—2, Brabourne Road, Calcutta.
Jute Investment Co., Ltd.—8, India Exchange Place, Calcutta.
Kanoria Co., Pvt. Ltd.—9, Brabourne Road, Calcutta.
Kanoria & Sons Pvt. Ltd.—134, Canning Street, Calcutta.
Kettlewell Bullen & Co. Ltd.—21, Strand Road, Calcutta.
Kharwar, M. R. Bros.—7, Swallow Lane, Calcutta.
Kian Gwan Co. (Calcutta) Pvt. Ltd.—4, Robert Road, Dum Dum, Calcutta.
Louis Dreyfus & Co. Ltd.—P. N. B. House, 18A, Brabourne Road, Calcutta.
Ludlow Jute Co. Ltd.—7, India Exchange Place, Calcutta.
Madhavsingh Dwarkadas.—44-45, Ezra Street, Calcutta.
Mafatlall Gagalbhai & Sons.—18, Netaji Subhas Road, Calcutta.
Mahabir Commercial Co. Ltd.—8, India Exchange Place, Calcutta.
Mcleod & Co. Ltd.—3, Netaji Subhas Road, Calcutta.
Nanjee Shamjee & Co.—7, Lower Chitpore Road, Calcutta.
Panchanan Mullick.—P/40, Princep Street, Calcutta 13.
Patel G. & Co. Pvt. Ltd.—Govind Bhavan, 2, Brabourne Road, Calcutta.
Prabartak Commercial Corpn. Pvt. Ltd.—61, Bowbazar Street, Calcutta.
Rallis India Ltd.—16, Hare Street, Calcutta.
Ramdutt Ramkissendass.—9. Brabourne Road, Calcutta.
Sethia & Sons Pvt. Ltd.—38, Baranasi Ghosh Street, Calcutta.
Shaw Wallace & Co.—4, Bankshall Street, Calcutta.
Shyam Investment Coprn., Pvt. Ltd.—42/1, Strand Road, Calcutta.
Sircar & Co.—6, Clive Row, Calcutta.
Soorajmull Nagarmull.—8, Dalhousie Square East, Calcutta.
Surajmull Murlidhar.—28, Amratolla Street, Calcutta.
**SUNDER LAL & SON.—7A, Clive Row, Calcutta.**
Toolsidass Jewraj.—15B, Clive Row, Calcutta.
Turner Morrison & Co. Pvt. Ltd.—6, Lyons Range, Calcutta.
Virchand Panachand & Co. (Calcutta) Pvt. Ltd.—37, Canning Street, Calcutta.
Vulubhdass Kalyanjee & Co. Pvt. Ltd.—34A, Brabourne Road, Calcutta.

## JUTE & JUTE GOODS

**GARG & SONS.—Exporters and Dealers in Jute goods; 138, Canning Street, Calcutta-1; Phones: 221049, 229711, 229712 & 227966.**

**PUSHKAR LALL & CO.—121, Cotton Street, Calcutta-7; Phone: Office: 331503, Resi: 662132; Merchants and Suppliers of Jute and Hessian goods; Manufacturers of Jute Twine Rope, Hessian Pockets of all Sizes.**

## JUTE MERCHANTS & EXPORTERS

Askaran Kishanlal—20 Mullick Street, Calcutta 7.
Bafna Trading Private Ltd.—13, Noormal Lohia Street, Calcutta 7.
Balabux Hulashchand.—161/1, Mahatma Gandhi Road, Calcutta 7.
Balchand Badriprasad.—9, Jagmohan Mullick Lane, Calcutta 7.
Begraj Satyanarayan.—5/1, Lucas Lane, Calcutta 1.
Bhagatram Nagarmall.—170, Mahatma Gandhi Road, Calcutta 7.
Bhanwarlal Kanwarlal.—8, Bysack Street, Calcutta 7.
Bherondan Ramkishen & Co.—216, Mahatma Gandhi Road, Calcutta 7.
Bhimraj Motilall.—46, Strand Road, Calcutta 7.
Binjraj Manikchand.—2, Raja Woodmunt Street, Calcutta 1.
Champalal Jugraj.—105, Old China Bazar Street, Calcutta 1.
Chauthmall Balchand Dugar.—46, Strand Road, Calcutta 7.
Chhaganmal Chopra.—133, Canning Street, Calcutta 1.
Dairam Arjundas.—13, Rupchand Roy Street, Calcutta 7.
Dhanraj Mulchand.—20, Mullick Street, Calcutta 7.
Dharamchand Dugar.—26/1, Armenian Street, Calcutta 1.
Essar India Private Ltd.—3, Burtolla Street, Calcutta 7.
Ghasiram Sagarmall.—46, Strand Road, Calcutta 7.
Gulabchand Jaichandlal.—46, Strand Road, Calcutta 7.
Gurudayal Gangabux.—20, Muktaram Babu Street, Calcutta 7.
Hamirmal Champalall.—2, Raja Woodmunt Street, Calcutta 1.
Hansraj Kanhaiyalall.—105, Old China Bazar Street, Calcutta 1.
Harakhchand Punamchand.—20, Mullick Street, Calcutta 7.
Hariram Mohanlall.—43/44, Cotton Street, Calcutta 7.

Hastmull Kastoorichand.—2, Raja Woodmunt Street, Calcutta 1.
Hukumchand Mulchand.—22, Kalakar Street, Calcutta 7.
Jiwaraj Champalall.—2, Raja Woodmunt Street, Calcutta 1.
Joharmull Amolakchand.—20, Mullick Street, Calcutta 7.

Jodhram Ramgopal.—20, Mullick Street, Calcutta 7.
Jwalaprasad Mulchand.—26, Burtolla Street, Calcutta 1.
Kalicharan Ramchander.—6, Hanspokaria Lane, Calcutta 7.
Kalyanchand More.—43/44, Cotton Street, Calcutta 7.
Kanmal Nahata.—11, Armenian Street, Calcutta 1.

Kesharimull Jeetmull.—15, Noormal Lohia Lane, Calcutta 7.
Khemchand Pemchand.—13, Noormal Lohia Lane, Calcutta 7.
L. N. Poddar & Co. Ltd.—5, Dalhousie Square East, Calcutta 1.
Lachhmiram Nathmal.—5/1, Lucas Lane, Calcutta 1.

Mahalchand Rameshwarlal.—4, Rajawoodmunt Street, Calcutta 1.
Mahalchand Shrikishan.—46, Strand Road, Calcutta 7.
Mall Brothers.—266, Mahatma Gandhi Road, Calcutta 7.
Mannalal Inderchand Bohra.—16, Cross Street, Calcutta 7.
Milapchand Hiralal.—2, Raja Woodmunt Street, Calcutta 1.

Motilall Mohanlall.—4, Raja Woodmunt Street, Calcutta 1.
Multanmal Kishanlall.—7/2, Babulal Lane, Calcutta 7.
Nagarmull Paliram.—201, Mahatma Gandhi Road, Calcutta 7.
Nanagram Bachhraj.—35, Armenian Street, Calcutta 1.
Nathmal Mohanlal Dugar.—11, Armenian Street, Calcutta 1.

Naurangrai Nagarmall.—43/44, Cotton Street, Calcutta 7.
Onkarmull Nathmull.—26, Burtolla Street, Calcutta 7.
Panchiram Nahata.—177, Mahatma Gandhi Road, Calcutta 7.
P. H. Periwa Bros., Pvt. Ltd.—123, Chittaranjan Avenue, Calcutta 7.
Pramod & Co.—178, Mahatma Gandhi Road, Calcutta 7.
Pratapmall Rameshwar.—46, Strand Road, Calcutta 7.

Premsukhdas Manikchand.—195/1/1, Mahatma Gandhi Road, Calcutta 7.
Premsukhdas Tolaram.—195/1/1, Mahatma Gandhi Road, Calcutta 7.
Punamchand Manikchand.—2, Raja Woodmunt Street, Calcutta 1.
Purushottamdas Kedarnath.—9, Jagmohan Mullick Lane, Calcutta 7.
R. B. Seth Jessaram Fatehchand.—160, Cross Street, Calcutta 7.

Raghunathrai Mahadeo.—43/44, Cotton Street, Calcutta 7.
Ramchander Jagannath.—26, Burtolla Street, Calcutta 7.
Ramchander Nandkumar.—161/1, Mahatma Gandhi Road, Calcutta 7.
Ramchand Surajmall.—26/4, Armenian Street, Calcutta 1.
Ramdeo Satyanarain.—161/1, Mahatma Gandhi Road, Calcutta 7.

Ramdeo Shiwlall.—94, Lower Chitpur Road, Calcutta 7.
Ramdhandas Bagwandas.—56, Netaji Subhas Road, Calcutta 1.
Ramgopal Bharmul.—161/1, Mahatma Gandhi Road, Calcutta 7.
Ramlall Kaniyalall.—65, Cotton Street, Calcutta 7.
Ramnarayan Lara.—4, Commercial Bldgs., Calcutta 1.

S. A. Torab & Co.—55, Canning Street, Block "C", Calcutta 1.
Sablawant Trading Co.—15, Noormal Lohia Lane, Calcutta 7.
Sagarmal Murarilall.—178, Mahatma Gandhi Road, Calcutta 7.
Sanwaltram Gopikishan.—56, Netaji Subhas Road, Calcutta 7.
Shree Kishan Shewbhagwan & Co. Private Ltd.—94, Lower Chitpur Road, Calcutta 7.

Shreekishen Sagarmall.—20, Mullick Street, Calcutta 7.
Sohanlall Chandanmull.—15, Noormal Lohia Lane, Calcutta 7.
Sohanlal Pirthiraj.—125, Mahatma Gandhi Road, Calcutta 7.
Sumermal Anchalia.—208, Mahatma Gandhi Road, Calcutta 7.
Sumermal Roychand.—143, Cotton Street, Calcutta 7.

Sunder Lal & Son.—7-A, Clive Row, Calcutta 1.
Surji Surajmull Chandmull.—2, Raja Woodmunt Street, Calcutta 1.
Surajmal Hanumandas.—132, Cotton Street, Calcutta 7.
Thanmull Chunilall & Sons.—7, Shambhu Mullick Lane, Calcutta 7.
Tilokchand Jeetmull.—2, Raja Woodmunt Street, Calcutta 7.
Tulchhiram Kanhaiyalal.—56, Netaji Subhas Road, Calcutta 7.

## JUTE MILL MACHINERY & PARTS

A. C. Roy.—41-1, Belilios Road, Howrah.
Ananta Chatterjee & Sons.—200, Belilios Road, Howrah.
Ballav & Sons.—226, Belilios Road, Howrah.

D. C. De & Sons.—150, Harasingha Dutta Road, Howrah.
D. K. Das & Co. P. Ltd.—233, Belilios Road, Howrah.
East India Engg. & Agency Co.—63-1, Benaras Road, North Bantra, Howrah.

Fakir Chand Das Mistry & Sons. Pvt. Ltd.—143-144, Belilios Road, Howrah.
Howrah Engg. Concern Pvt. Ltd.—19, Maharshi Debendr, Road, Calcutta 6.

Howrah Iron & Steel Works P. Ltd.—90, Benares Road, Salk a.
K. P. Das & Co. P. Ltd.—163, Netaji Subhas Road, Howrah.
Lagan Jute Machinery Co. P. Ltd.—24, Chittaranjan Avenue, Calcutta.

Machine & Mill Stores Corpn. Pvt. Ltd.—68-D, N. Subhas Road, Calcutta 1.

Mill Products.—7G, Clive Row, Calcutta 1.
New Bengal Engineering Works.—75, Belilios Road, Howrah.
Senapati Brothers P. Ltd.—312, Belilios Road, Howrah.
Shalimar Wood Products Private Ltd.—138, Canning Street, Calcutta.
S. P. Mfg. Co.—22, Brabourne Road, Calcutta 1.
Texmaco.—Belgharia (Dt. 24 Parganas).

## JUTE MILLS

Agarpara Co., Ltd.—Norton Bldgs., 1 & 2, Old Court House Corner, Calcutta.
Alexandra Jute Mills Ltd.—3, Netaji Subhas Road, Calcutta.
Alliance Jute Mills Co., Ltd.—3, Netaji Subhas Road, Calcutta.
Anglo-India Jute Mills Co., Ltd.—31, Netaji Subhas Road, Calcutta.
Angus Co., Ltd.—2 & 3, Clive Row, Calcutta.
Auckland Jute Co. Ltd.—Chartered Bank Bldgs., Calcutta.
Bally Jute Co. Ltd.—8, India Exchange Place, Calcutta.
Barnagore Jute Factory Co. Ltd.—4, Clive Row, Calcutta.
Belvedere Jute Mills Co., Ltd.—8, Clive Row, Calcutta.
Bengal Jute Mill Co., Ltd.—61, Harrison Road, or 8, Dalhousie Square East, Calcutta.

Birla Jute Mfg. Co. Ltd.—8, India Exchange Place, Calcutta.
Budge-Budge Jute Mills Co., Ltd.—8, Clive Row, Calcutta.

Calcutta Jute Mfg. Co. Ltd.—Stephen House, 4, Dalhousie Square, 4th Floor, Calcutta.

Caledonian Jute Mills Co., Ltd.—9, Brabourne Road, Calcutta.
Champdany Jute Co., Ltd.—Wellington Jute Mills.—2, Netaji Subhas Road, Calcutta.

Cheviot Mills Co. Ltd.—8, Clive Row, Calcutta.
Chitavalsah Jute Mills Co., Ltd.—3, Netaji Subhas Road, Calcutta.
Clive Mills Co. Ltd.—13, Old Court House Street, Calcutta.
Dalhousie Jute Co., Ltd.—Chartered Bank Bldgs., Calcutta.
Delta Jute Mills Co., Ltd.—8, Clive Row, Calcutta.
Eastern Mfg. Co. Ltd.—3, Netaji Subhas Road, Calcutta.
Empire Jute Co. Ltd.—3, Netaji Subhas Road, Calcutta.
Fort Gloster Industries Ltd.—21, Strand Road, Calcutta.
Fort William Jute Co., Ltd.—14, Netaji Subhas Road, Calcutta.
Ganges Mfg. Co., Ltd.—7, Council House Street, Calcutta.
General Industrial Society Ltd.—8, India Exchange Place, Calcutta.
Gourepore Co. Ltd.—2, Fairlie Place, Calcutta.
Hastings Mill Ltd.—14, Netaji Subhas Road, Calcutta.
Hooghly Mills Co., Ltd.—10, Clive Row, Third Floor, Calcutta.
Howrah Mills Co., Ltd.—4, Clive Row, Calcutta.
Hukumchand Jute Mills Ltd.—9, Brabourne Road, Calcutta.
India Jute Co. Ltd.—16, Strand Road, Calcutta.
Kamarhatty Co., Ltd.—4, Clive Row, Calcutta.
Kanknarrah Co., Ltd.—4, Clive Row, Calcutta.
Kanoria Co., Ltd.—18, Mullick Street, or Brabourne Road, Calcutta.
Katihar Jute Mills Ltd.—3, Chandmari Road, Howrah.
Kedarnath Jute Mfg. Co., Ltd.—13, Syed Salley Lane, Calcutta.
Kelvin Jute Co., Ltd.—3, Netaji Subhas Road, Calcutta.
Khardah Co., Ltd.—7, Wellesley Place, Calcutta.
Kinnison Jute Mills Co., Ltd.—Chartered Bank Bldgs., Calcutta.
Lansdowne Jute Co. Ltd.—Chartered Bank Bldgs., Calcutta.
Lawrence Jute Co., Ltd.—Chartered Bank Bldgs., Calcutta.
Luxmi Jute Mills Ltd.—5, Clive Row, Calcutta.
Megna Mills Co. Ltd.—16, Strand Road, Calcutta.
National Co., Ltd.—P. N. B. House, 18A, Brabourne Road, Calcutta.
Naihati Jute Mills Co., Ltd.—33, Netaji Subhas Road, Calcutta.
Naskarpara Jute Mills Co. Ltd.—144/45, Old Ghusuri Road, Howrah or 8, Dalhousie Square East, Calcutta.

Nellimarla Jute Mills Co., Ltd.—3, Netaji Subhas Road, Calcutta.
New Central Jute Mills Co., Ltd.—11, Clive Row, Calcutta.
North Brook Jute Co., Ltd.—Chartered Bank Bldgs., Calcutta.
Nuddea Mills Co., Ltd.—2, Fairlie Place, Calcutta.
Orient Jute Mills Co., Ltd.—8, Clive Row, Calcutta.
Premchand Jute Mills Ltd.—81, Shova Bazar Street, Calcutta.
Presidency Jute Mills Co., Ltd.—3, Netaji Subhas Road, Calcutta.
Reliance Jute Mills Co., Ltd.—4, Clive Row, Calcutta.
Samnuggur Jute Factory Co., Ltd.—2 & 3, Clive Row, Calcutta.
Shree Ambica Jute Mills Ltd.—5, Clive Row, Calcutta.

Shree Ganesh Jute Mills Ltd.—5, Dalhousie Square East, 6th Floor, Suite No. 105, Calcutta.

Shree Gouri Shankar Jute Mills Pvt. Ltd.—10, Clive Row, Calcutta.
Shree Hanuman Jute Mills.—61, Harrison Road, or 8, Dalhousie Square East, Calcutta.

Shree Luchminarain Jute Mfg. Co. Ltd.—3, Chandmari Road, Howrah.
Shree Mahadeo Jute Mills.—46, Strand Road, Calcutta.
Soorah Jute Mills Co., Ltd.—8, India Exchange Place, Calcutta.
Standard Jute Co., Ltd.—Chartered Bank Bldgs., Calcutta.
Titaghur Jute Factory Co. Ltd.—2 & 3, Clive Row, Calcutta.
Union Jute Co., Ltd.—Chartered Bank Bldgs., Calcutta.
Victoria Jute Co., Ltd.—2 & 3, Clive Row, Calcutta.
Waverley Jute Mills Co., Ltd.—3, Netaji Subhas Road, Calcutta.
Wellington Jute Mills.—2, Netaji Subhas Road, Calcutta.

## KAPOK MANUFACTURERS

A. Bradeley & Co.—63, Radha Bazar Street, Calcutta.
Banthia Brothers.—61, Cross Street, Calcutta 7.
Basantlal Banka.—15, Bhawanidutt Lane, Calcutta 7.
Bhuramull Agarwalla.—2/1, Satyanarain Temple Road, Salkia, Howrah.
Bidhu Bhushan Chaudhury.—35, Sova Bazar Street, Calcutta 3.
Hurduttroy Gulabroy.—171/1, J. N. Mukherjee Road, Salkia, Howrah.
Indian Produce Exporters Co.—74, Cross Street, Calcutta 7.

Jagannath Brothers.—2, Satyanarain Temple Road, Salkia, Calcutta.
Kailash Chandra Dutta.—72/B, Durga Charan Mitra Lane, Calcutta 6.
Kalidas Saha.—14, Benia Tolla Street, Calcutta 5.
Kaushik Tibrewalla.—34, Burtolla Street, Calcutta 7.
Kedarnath Balmukund.—402, Upper Chitpore Road, Calcutta 7.
Khimjee Hunsraj.—165, Lower Chitpore Road, Calcutta.
Lalchand Mahadeblal.—7, Hazarimull Shah Road, Salkia, Howrah.
Madanlal Basak.—17/1, Gulu Ostagarh Lane, Calcutta 6.
Madanlal Sharma.—12, Ishwar Dutt Lane, Howrah.
Murlidhar Tibrewalla.—34, Burtolla Street, Calcutta. 7.
Niranjanlal & Sons.—2/1, Satyanarain Temple Road, Salkia, Howrah.
Ram & Sons.—16, Satyanarayan Temple Road, Salkia, Howrah.
Sudhamoy Roy.—31, Bandhab Nagar Colony, Calcutta 28.
Tarak Chandra Bose, C/o H. C. Mukherjee & Co.—5, Mangoe Lane Calcutta.
Upendra Nath Dass.—43, Ultadanga Main Road, Calcutta.

## LABORATORY EQUIPMENTS

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**INDIAN CHEMICALS & SCIENTIFIC INSTRUMENT WORKS.—Manufacturers of all sorts of Physics, Chemistry, Biology, Psychology and Geography Instruments, Gas Plants, Laboratory Furniture etc., 208, Bepin Behari Ganguli Street, Calcutta-12; Phones: 348597, 348755 & 353939.**

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**EDUCATION EMPORIUM.—115 A, Chittaranjan Avenue, Calcutta-7; Manufacturers of 'JANTRAM' Brand Scientific and Technical Laboratory Instruments and 'THERMO-POWER' Gas Plants for Laboratory and Industry.**

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## LAC MERCHANTS & EXPORTERS

Abdul Sattar Abdulla.—4, Amratolla Street, Calcutta.
Acharya Brothers.—23/24, Radha Bazar Street, Calcutta.
Achhruram Sohanlal.—25/26, Stephen House, Dalhousie Square East, Calcutta.
Aerofoils Pvt. Ltd.—2, Brabourne Road, Calcutta 1.
Ahmedali Jafferjee Gandhi.—24, Pollock Street, Calcutta.
Alexel Lucas & Co.—13, British Indian Street, Calcutta.
A. M. Arathoon Pvt. Ltd.—India Exchange, 3rd Floor, Calcutta.
Ambalal (Export) Pvt. Ltd.—G. 4, Mission Row, Calcutta.
Angelo Bros. Ltd.—6, Lyons Range, Calcutta.
Anilkumar & Co.—12, Amratolla Street, Calcutta.
The Associated Commercial Co. of India Pvt. Ltd.—7, Hastings Street, Calcutta.
Baijnath Sreelal.—197, Mahatma Gandhi Road, Calcutta 7.
B. D. Gupta.—14/2, Old China Bazar Street, Calcutta.
Bhansali & Co.—54, Ezra Street, Calcutta 1.
Bharat Bhandar.—72A, Ratan Sarkar Garden Street, Calcutta 7.
Bharat Kala Bhandar Ltd.—8, India Exchange Place, Calcutta.
Bharat Warehousing (Pvt.) Ltd.—6, Stephen House, Dalhousie Square East, Calcutta.
Bhoola & Co., N. D.—51, Ezra Street, Calcutta.
Biswas N. N. & Sons.—19, British Indian Street, Calcutta.
Blackwoods India Ltd.—2, Mangoe Lane, Calcutta.
Bhimsain Sundarsain.—14, Amratolla Street, Calcutta.
Bunge & Co. Ltd.—8, Old Court House, Street, Calcutta.
Calcutta Wax Traders & Co. Pvt. Ltd.—22, Bonfield Lane, Calcutta.
Carrimjee Allibhoy.—20, Zakaria Street, Calcutta.
Chatterjee Chakravarty & Co.—135, Canning Street, 2nd Floor, Calcutta.
D. S. Bhoola & Co.—34, Ezra Street, Calcutta 1.
Daw, K. C.—62-A, Joy Mitter Street, Calcutta.
Dawjee Dadabhoy & Co.—67, Canning Street, Calcutta.
Deviprasad Khandelwal & Co. Pvt. Ltd.—33, Netaji Subhas Road, Calcutta 1.
Dharamdas & Tirthdas.—14/2, Clive Row, Calcutta.
Dipak Trading Co.—15, Amratolla Lane, Calcutta 1.
Dulichand Kashiprasad.—18, Amratolla Street, Calcutta.
Dutta & Co.—161, Cotton Street, Calcutta.
Ean Boswell & Co. Pvt. Ltd.—24, Chittaranjan Avenue, Calcutta 12.
East India Commercial Co. Pvt. Ltd.—88, Netaji Subhas Road, Calcutta.
Eastern Industries.—14, India Exchange Place, Calcutta.
Eichholz Trading Co. (P) Ltd.—25, Swallow Lane, Calcutta.
Ess Lahiri & Co. (P) Ltd.—2, Church Lane, Calcutta.
Far Eastern Agencies Ltd.—Windsor House, P-14, Mission Row Extension, Calcutta.
F. Ganjee & Co.—24, Mission Row Extn. ,Calcutta 13.
Ganesh Chandra Samajdar.—10, Canning Street, Calcutta.
Garg & Sons.—138, Canning Street, Calcutta.
General Fibre Dealers Ltd.—India Exchange, Calcutta.
General Lac Trading Co.—146, Lower Chitpur Road, Calcutta 1.
General Suppliers Pvt. Ltd.—32, Cross Street, Calcutta 1.
Getz Brothers & Co.—9, Brabourne Road, Calcutta 1.
Gopaldas & Co.—B. 30/31, Kalakar Street, Calcutta 7.
Hansraj Jaswant Rai.—21B, Canning Street, Calcutta.
Harbanslal Malhotra & Sons Pvt. Ltd.—18, Netaji Subhas Road, Calcutta.
Hind Enterprise.—8, Dalhousie Sq. East, Calcutta.
Hiralal Lalchand.—5, Mangoe Lane, Calcutta.
Hope Prudhome & Co. Pvt. Ltd.—7, Wellesley Place, Calcutta.
Hovanesian Bros. Pvt. Ltd.—104, Stephen House, Dalhousie Sqr. East, Calcutta.
Indian & Foreign Trading Corpn. Pvt. Ltd.—15A, Clive Row, Calcutta.
Indo-Burma Trading Corpn.—10, Chowringhee Road, Calcutta.
Isharsingh Kirpalsingh & Co.—10/1, Portuguese Church Street, Calcutta.
Jafferbhoy Salebhoy.—11, Pollock Street, Calcutta.
Jagannath Bajranglall.—32, Armenian Street, Calcutta.
Jamnadas & Co.—27, Amratolla Lane, Calcutta.
Jankidas Ramgopal.—48, Canning Street, Calcutta.
Jayantilal & Co., T.—14/2, Old China Bazar Street, Calcutta.
J. K. Dass & Sons Pvt. Ltd.—11, Ratan Sarkar Garden Street, Calcutta 7.
Johannes & Co. Pvt. Ltd.—Mukerjee House, 17, Brabourne Road, Calcutta.
Jordan Pvt. Ltd., A.M.—12, Windsor House, Mission Row Extn., Calcutta.
Jupiter Commercial Co.—7, Swallow Lane, Calcutta.
Kajaria Sons Pvt. Ltd.—32, Armenian Street, Calcutta.
Kaliganga Bhandar.—50, Kali Krishna Tagore Street, Calcutta 7.
Kamala Bhandar.—168, Cotton Street, Calcutta 7.
Kanak Engineering & General Corpn.—41, Chowringhee Road, Calcutta 16.
Kashani & Son, M.A.M.—17, Mangoe Lane, Calcutta.
Kaushal International Traders.—35/17, Ezra Street, 4th Floor, Calcutta.
Khandelwal Brothers Pvt. Ltd.—33, Netaji Subhas Road, Calcutta 1.
Khorana Brothers.—5/2, Gobind Dhar Lane, Calcutta 1.
Kharwar Bros.. M.R.—7, Swallow Lane, Calcutta.
Kian Gwan & Co. (Cal.) Pvt. Ltd.—5/B, Clive Ghat Street, Calcutta.
Kodamall Mohanlall.—201, Mahatma Gandhi Road, Calcutta 7.
K. Kutty & Co.—14, Bentick Street, Calcutta.
Krishna Traders.—20, Kumartully Street, Calcutta 5
Linkers Overseas Traders.—40A, Armenian Street, Calcutta.
L. Nanalal Bros.—10/1, Portuguese Church St., Calcutta.
Macgreg & Co. Pvt. Ltd.—33, Stephen House, Dalhouise Sqr. East, Calcutta.
Madhavlal & Co.—11, Ezra Street, Calcutta.
Mahomedally Valji & Co.—67, Bentinck Street, Calcutta.
Manoharlal Mahabirprasad.—178, Mahatma Gandhi Road, Calcutta 7.
Mehta K. D.—54, Ezra Street, Calcutta.
Mercantile Co.—150, Lower Chitpur Road, Calcutta.
Mita Industries Corporation.—78, Dharamtala Street, Calcutta 13
Modi R. K. Pvt. Ltd.—12, Dalhousie Sqr. East, Calcutta.
Motiram Agarwal & Co. Pvt. Ltd.—137, Canning Street, Calcutta.
Mukeji Brotbers.—156, Radha Bazar Street, Calcutta.
Nathubhai Nanjee & Sons.—14/2, Old China Bazar, Calcutta.
Natwarlal N. Daftary.—46, Ezra Street, Calcutta.
Niranjan & Co.—14/2, Old China Bazar Street, Calcutta.
Nitohari Nalinimohan Saha.—P2/234, Maharshi Debendra Road, Calcutta.
N. K. Som & Co.—1, Chittaranjan Avenue, Calcutta 13.
Oriental & Occidental Trading Co.—30, Brabourne Road, Calcutta.
Oriental Traders.—12, Lower Chitpur Road, Calcutta.
Patel G. & Co. Pvt. Ltd.—2, Brabourne Road, Calcutta.
Pradeep Traders.—55, Canning Street, J Block, Calcutta.
Prabartak Commercial Corporation Private Ltd.—61, Bipin Behary Ganguly Street, Calcutta 12.
Purushottamdas Jalan.—5, Mangoe Lane, Calcutta 1.
Radharam Sohanlal.—3, Mullick Street, Calcutta 7.
Raghunathrai Pyarelall.—15, Noormal Lohia Lane, Calcutta 7.
Ramkishore Jayaswal Pvt. Ltd.—20, Mangoe Lane, Calcutta.
Ratanlal Jivarajmal.—157, Netaji Subhas Road, Calcutta.
Ratilal D. Ghelani.—33, Armenian Street, Calcutta.
Raymon & Co. (India) Pvt. Ltd.—2, Brabourne Road, Calcutta.
Reliance Export Corporation.—2, Mangoe Lane, Calcutta.
S. A. Torab & Co.—55, Canning Street, C Block, Calcutta.
Saha Brothers.—40/2, Strand Road, Calcutta.
Salebhoy Abdeali.—51, Canning Street, Calcutta.
Samar Singh Jayaswal Pvt. Ltd.—112/4, Stephen House, Dalhousie Sqr. East, Calcutta.
Sensiram Doongarmall.—138, Canning Street, Calcutta.
Shellac Industries Ltd.—51, Ezra Street, Calcutta.
South East Asia Shippers.—71, Canning Street, Calcutta.

S. V. Thirunavukarasu Pillai.—2, Mullick Street, 1st Floor, Calcutta 7.
Swaika Oil Mills.—Head Office: P.N.B. House, 18-B, Brabourne Road, Calcutta 1.
Tandan Brothers.—3, Sukhlal Jahuri Lane, Calcutta.
Turner Morrison & Co. Pvt. Ltd.—6, Lyons Range, Calcutta.
Umakant & Co. Pvt. Ltd.—4, Mullick Street, Calcutta 7.
United Chinese Corpn. Pvt. Ltd.—P-16, Bentinck Street, Calcutta.
V. Purushottam & Co.—22, Amratolla Street, Calcutta 1.
Virchand Panachand & Co. (Cal.) P. Ltd.—37, Canning St., Calcutta.

## LAMP (OIL PRESSURE) MANUFACTURERS

Dazzle Products Ltd.—138, Canning Street, Calcutta.
Essbee Engineering Works.—25-B, Beniatolla Lane, Calcutta.
Krudd Industries Ltd.—20-21, Stephen House, Dalhousie Square, Calcutta.
Shilpa-Peeth Ltd.—111/1, Gopal Lal, Thakur Road, Alambazar, Calcutta 35.

## LANTERN MANUFACTURERS

A. K. Sarkar Industries P. Ltd.—32-1, Dalhousie Square, Calcutta.
F. Racek & Co. P. Ltd.—57, Radhabazar Street, Calcutta 1.
Industrial Works Private Ltd.—55/1, Dharamtolla Road, Salkia, Howrah.
Krudd Industries Ltd.—4, Dalhousie Sqr., Calcutta.
Oriental Metal Industries Ltd.—77, Bowbazar Street, Calcutta 12.
Shipla Peeth P. Ltd.—111-1, Gopal Lal Thakur Road, Calcutta.
Universal Lamp Manufacturing Co. Private Ltd.—93B, Ripon Street, Calcutta 16.

## LEAD MANUFACTURERS

Ashok Co.—157, Netaji Subhas Road, Calcutta.
Ashok Metal Industries Ltd.—157, Netaji Subhas Road, Calcutta.
Associated Pigments Ltd.—14, Netaji Subhas Road, Calcutta 1.
Chandra Industries Private Ltd.—58, Cotton Street, Calcutta 7.

## LEATHER & LEATHER PRODUCTS

A. Mohammed & Co.—26, Netaji Subhas Road, Calcutta 1.

**ASSOCIATED INDUSTRIAL PRODUCTS CO.—'Grip well' Brand Beltings, Leather, Hair, Cotton and Weaving Loom, Leather accessories for Jute, Textile and Woollen Industries, Dixel Rope and General Mill Stores; 5, Mission Row, Calcutta-1; Phones: 239844, 239880 & 555774.**

Atlas Leather Trading Co.—23, Central Avenue, Calcutta.
Basak & Co.—22, Raja Woodmunt Street, Calcutta 1.
Bata Shoe Co. Pvt. Ltd.—30, Theatre Road, Calcutta 16.
Bengal Mill Stores Co.—2, Kanai Seal Street, Calcutta 1.
Bengal Tannery Co.—31/14, Lower Chitpur Road, Calcutta.
Calcutta Leather House P. Ltd.—2-G, Bentinck Street, Calcutta.
Calcutta Tanneries Ltd.—Kankinarrah, 24 Parganas Dist.
Cottage Tanning Institute.—South Tangra Road, Calcutta.
De Lux Pvt. Ltd.—34-1-G, Ballygunge Circular Road, Calcutta
Dutt, S. L., & Bros.—59, Netaji Subhas Road, Calcutta.
E. B. Leather Mfg. Co.—76-A, Upper Circular Road, Calcutta-9.
Ganesh Brothers.—22, Hidaram Banerjee Lane, Calcutta 12.
Glace Kid (India) Ltd.—2, Tangra 2nd Lane, Calcutta 15.

**HINDUSTAN LEATHER WORKS.—82, Colootola Street, Calcutta 1.**

Hindustan Tannery.—129, South Tangra Road, Dhapa P.O., 24 Parganas Dt
India Exchange Corpn. P. Ltd.—26-B, Ezra Mansions, 10, Govt. Place East, Calcutta.
India Leather Corporation.—10, Lower Chitpur Road, Calcutta.
Industrial Leather & Rubber Works.—24, Strand Road, Calcutta.
Industrial Leathers Co.—3-1, Indra Roy Road, Calcutta 25.
Jardine Henderson Ltd.—4, Clive Row, Calcutta 1.
Kohinoor Leather Co.—14, Bentinck Street, Calcutta.
Leather Chemicals & Industries Ltd.—9, Muraripukur Road, Calcutta 4.
Leather & Steel Products.—26, Burtolla Street, Calcutta 7.
Mukherjee & Sons.—3, Ezra Street, Calcutta 1.
National Chamois Works Ltd.—6, Mangoe Lane, Calcutta.
National Tannery Co. Ltd.—Canal South Road, Calcutta 15.
Numehaong Tannery.—South Tangra Road, Calcutta.
Textile Leather Mfg. Co.—60/2, Dharamtalla Street, Calcutta.
United Tanning Industries.—16, Balikbur Lane, Calcutta.
Victory Leather Works.—167, Old China Bazar Street, Calcutta 1.
Zug—Grain & White Buck Iec Ltd.—5, Rifle Range, Calcutta 19.

## LEATHER BUCKET MANUFACTURERS

Dutt, S. L. & Bros.—59, Netaji Subhas Road, Calcutta.
Industrial Leather & Rubber Works.—24, Strand Road, Calcutta.
Mukherjee & Sons.—3, Ezra Street, Calcutta.

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## LOCK AND SAFE MANUFACTURERS & DEALERS

Agarwal Lock Co.—402, Upper Chitpur Road, Calcutta.
Bengal Iron Safe & Lock Works.—120, Sovabazar Street, Calcutta.
Bombay Safe & Steel Works P. Ltd.—56, N. Subhas Bose Road, Calcutta 1.
Calcutta Lock Factory.—P.O. Gopalpur, Bashirhat, Ry. Stn. Arbalia, Dist. 24 Parganas.
Das Lock & Safe Mfg. Co. Private Ltd.—77-B, Rash Behari Avenue, Calcutta.
De's Lock Industries.—31, Haripada Dutta Lane, Calcutta 33.
Dhang Brothers & Co.—34, Strand Road, Calcutta.
East India Steel Works Ltd.—24, Netaji Subhas Road, Calcutta.
Economic Tanks Supply Co.—100, Harrison Road, Calcutta.
Ghose G. & Co.—101, Mahatma Gandhi Road, Calcutta 7.
Ghosh & Co.—96, Mahatma Gandhi Road, Calcutta 7.
Godrej & Boyce Mfg. Co. P. Ltd.—9, Brabourne Road, Calcutta.
Howrah Lock Mfg. Co. Ltd.—22, Raja Woodmunt Road, Calcutta.
Imperial Safe Mfg. Co.—105, Harrison Road, Calcutta.
Indian Metal & Steel Products Ltd.—20/1, Lall Bazar, Calcutta.
Nani Lall Dey.—70, Netaji Subhas Road, Calcutta.
Orient Safe & Cabinet Mfg. Co.—133, Canning St., Calcutta.
Patra N. N. & Co.—117, Netaji Subhas Road, Calcutta.
Ray G. & Co.—70-1, Netaji Subhas Road, Calcutta.
Sanial & Co.—22, Canning Street, Calcutta.
Shaw Bros. & Co.—Harrison Road, Calcutta 7.
Steelworks (I) Ltd.—17, Mangoe Lane, Calcutta 1.
Universal Safe & Tank Mfg. Co.—100, Mahatma Gandhi Road, Calcutta 7.
W. Bengal Lock Mfg. Co.—103, N. Subhas Road, Calcutta.

## LOCKS & FITTINGS

**DE'S LOCK INDUSTRIES.—31, Haripada Dutta Lane, Tollygunge, Calcutta 33. Makers of Mortise Locks and Joinery Fittings, Door Closers & Floor Springs; Sole Selling Agents: Messrs. Heatly & Gresham Ltd., Calcutta, Bombay, Madras, New Delhi.**

## MACHINE PARTS MANUFACTURERS & DEALERS

B. N. Pachal & Sons P. Ltd.—33-1-1, Natabar Pal Road, Howrah.
D. L. Sett & Brothers.—283, Belilios Road, Howrah.
East Indies Trading Corporation.—12-B, Clive Row, Calcutta 1.
L. Mullick & Co.—81, Netaji Subhas Road, Calcutta 1.
Machine Parts Manufacturing Co.—6A, Sultan Alam Road, Calcutta 33.
M. Chowdhury & Co.—113-G, Netaji Subhas Road, Calcutta 1.
Modern Engineering Works.—12, Jadu Pandit Road, Calcutta 6.
Monga Brothers.—4, Kyd Street, Calcutta 16.
New India Engineering Syndicate.—113-G, Netaji Subhas Road, Calcutta 1.
Oriental Engineering Co.—13 and 14, Danesh Molla Lane, Sibpore, Howrah.
Rajlakshmi Engineering Works.—151, Banaras Road, Salkia.
Regent Engineering Stores.—42, Strand Road, Calcutta 1.
S. A. Goolamally & Co.—77, Netaji Subhas Road, Calcutta 1.
Salkia Industrial Works.—195-1, Grand Trunk Road North, Ghusuri, Howrah.
Sree Durga Machinery Works.—161, Netaji Subhas Road, Howrah.

## MACHINE TOOLS

A. Mohammed & Co.—Head Office: 26, Netaji Subhas Road, Calcutta 1.
Alfred Herbert (India) Pvt. Ltd.—13-3, Strand Road, Calcutta.
Armstrong Smith Ltd.—P-17, Mission Row Extension, Calcutta 13.
Associated British Machine Tool Makers (India) Ltd.—6, Old P.O. Street, Calcutta 1.
Bengal Iron & Steel Works.—8, Canning Street, Daga House, Calcutta.
Bengal Machine Tool Works.—112, Narsing Dutta Road, Howrah.
Bharatiya Machine Tools Ltd.—50, Stephen House, Calcutta 1.
B. S. Machine Tools Corporation.—435, Jessore Road, Calcutta 28.
Calcutta Machine Tools Corpn.—10, Clive Row, Calcutta.
Continental Tools & Dies Mfg. Co.—2, Ripan Street, Calcutta.
D. C. De & Sons.—150, Narasingha Dutta Road, Howrah.
Dutson Engineering Corporation Pvt. Ltd.—5, Mahendra Chandra Garden Road, Dum Dum, Calcutta 30.
Eastern Machinery Corporation.—28, Strand Road, Calcutta 1.
Engel India Machine Tools Ltd.—6, Old P.O. Street, Calcutta 1.

**GENERAL DISTRIBUTORS (INTERNATIONAL), THE.—Manufacturers of Planer Knives, Wood Working Cutters of all sorts, Carpenters' Tools and Dealers in Band, saws and Hardware items; 37, Biplobi R. B. Basu Road, Calcutta-1; Phone: 226963.**

Heatly & Gresham Ltd.—31, Chittaranjan Avenue, Calcutta.
Heroes Engineering Works Pvt. Ltd.—20, Paul Street, Calcutta 4.
Hind Enterprises.—4, Mission Row, Calcutta 1.
Hindusthan Machine Tools Corporation.—85, Netaji Subhas Road, Calcutta.
Hope Engineering Works.—126-1, Belilios Road, Howrah.
India Hard Metals P. Ltd.—Wimet House, Russell St., Calcutta 16.
India Machinery Co. Ltd.—29, Strand Road, Calcutta.
Indian Machine Tools Mfg. Co. Ltd.—A-3, Clive Bldgs., Calcutta 1.
Industrial Gases Ltd.—138, Canning Street, Calcutta.
Industrial Tools & Mills Stores Co.—67-B, Netaji Subhas Road, Calcutta 1.
Kali Charan Mukherjee.—113, Monohardas Chowk, Burrabazar, Calcutta 7.
K. R. Paul & Co.—127, Belilios Road, Howrah.
Luxmi Engineering Co. Pvt. Ltd.—123, Narasingha Dutta Road, Howrah.
Machine Tools & Appliances (I) Co.—53, N. Subhas Road, Calcutta 1.
Machine Tools (I) Ltd.— Wimet House, Russell Street, Calcutta 16.
Machine Tools (Sales).—35, Chittaranjan Ave., Calcutta 12.
Machine Tools Traders.—25, Ganesh Ch. Avenue, Calcutta 13.
Machina Techno (Sales) Private Ltd.—33, Netaji Subhas Road, Calcutta 1.
Maneklal & Sons (Calcutta).—23, Ganesh Chandra Avenue, Calcutta 13.
Maya Engineering Works Pvt. Ltd.—200A, Syamaprasad Mukherjee Road, Calcutta.
Metal & Alloy Corpn.—38A, Belgachia Road, Calcutta 37.
Modern India Machine Tools Ltd.—18/1/6, Canal West Road, Garpar, Calcutta.
Mukherji Machine Tools P. Ltd.—32-A, Chittaranjan Ave., Calcutta.
National Machine Tools Co.—10-10, Brindaban Mullick Lane, Howrah.
New Bengal Engineering Works.—75, Belilios Road, Howrah.
New India Tools Mfg. Co.—Singhi Park, 48, Gariahat Road, Calcutta.
Oriental Machinery Supplying Agency Ltd.—P-12, Mission Row Extension, Calcutta.
Paul's Engineering Co.—P-7, Natabar Paul Road, Dassnagar (Dt. Howrah).
Philips India Pvt. Ltd.—31, Chowringhee Road, Calcutta 16.
Power Tools and Implements Co.—71A, Netaji Subhas Road, Calcutta 1.
Prafulla Narayan Engineering Co.—P-14, Mission Row Extn., Calcutta 1.
Republic Traders Corpn.—P-12, Mission Row Extn., Calcutta 1.
Salkia Industrial Works.—195-1, Grand Trunk Road, Ghursuri, Howrah.
Tool Suppliers Pvt. Ltd.—P. 34, India Exchange Place, Calcutta 1.

**T. M. FAKHRI & CO.—26-E, Netaji Subhas Road, Calcutta 1 Hardware, Machinery and Tools Merchants; also accredited Dealers for Wolf Portable Electric Tools and Distributors for 'Vankos' Hydraulic Jacks for West Bengal, Assam and Orissa.**

Ultra Engineering Co.—172-8, Madhusudan Pal Chowdhury Lane, Howrah.

**UNION TOOLS & AGENCIES PRIVATE LTD., 'Brabourne Court,'1, Chandni Chowk Street, Calcutta-13.**

United Equipment & Stores Pvt. Ltd.—53, Radha Bazar St., Calcutta 1.
United Tools and Agencies P. Ltd.—Chandni Chowk, Calcutta 13.
Vulcan Machine Tool Co.—218, Manicktalla Mani Road, Calcutta 11.
William Jacks & Co. Ltd.—16, Netaji Subhas Road, Calcutta 1.

## MACHINERY MANUFACTURERS & DEALERS

**ACME ENGINEERING.—Manufacturers of Machine Spares, Valves, Cocks, Non-ferrous and Stainless Steel all types of Casting, Machining and Engineering Works, Brushes Viz. Dabbing Tube, Steel Wire, Paint etc., 80, Chowringhee, Calcutta-20; Phone: 471000.**

Atlas Works Ltd.—119, Ripon Street, Calcutta 16.

**AWAT SING & CO.—For Mn. Steel and S.C. Castings; Specially for Stone Crushers, Sugar Mills and Cement Factory Parts, Complete stone Breakers and Jaws for all types of Crushers available; R-15, New C.I.T. Road, Calcutta-12; Phone: 346065, Grams: "AWATSCO"—Calcutta.**

Belrex (India) Ltd.—10, Princep Street, Calcutta 18.
Bengal Hardware & Tin Seal Manufacturing Co.—70, Netaji Subhas Road .Calcutta 1.
Bengal Machinery Co. Ltd.—9A, New Tangra Road, Calcutta 46.
Bery Brothers.—135, Canning Street, Calcutta 1.
B. M. S. Engineering Works P. Ltd.—3-1, Kaliprasad Chakravarty Lane, Kadamtala, Howrah.
Calcutta Engineering & Mfg. Co.—108-1, Benaras Road, Salkia.
Corporated Engineers P. Ltd.—7, Chittaranjan Avenue, Calcutta 13.
De's Metal Industries.—64-A, Mirzapore St., Calcutta 9.

**EAST ASIATIC CO. (INDIA) PRIVATE LTD., THE.—9-29, Mission Row Extension, Calcutta 13; Phones: 232114, 238877 & 239769; Grams: "EASTASIA"; P.O. Box 364; E-2, Gillander House, Netaji Subhas Road, Calcutta; Phone: 226006; Manufacturers, Importers, Exporters and Engineers.**

Eastern Engineering Works.—P-12, Mission Row Extn., Calcutta 12.
Eastern Industrial Corporation.—142/1, Radhabazar Street, Calcutta 1.
Great Eastern Foundry Works.—138, Canning Street, Calcutta 1.
Great Eastern Machinery Co.—4, Naskarpara Bylane, Kasundiah, Howrah.
Hoodaty H. Ghose & Co.—163, Beliaghatta Main Road, Calcutta 10.
Howrah City Engineering Co.—75, Panchanantola Road, Howrah.
Industrial Machines Corpn.—138, Canning Street, Calcutta 1.
International Machines Corporation.—16, Canning Street, Calcutta 1.

**JAYEMS ENGINEERING CO.—22, Brabourne Road, Calcutta; Engineers, Machinery Merchants and Manufacturers' Representatives, Direct Importers of Machine Tools, Woodworking Machinery, Sheet Metal working Machinery, Welding & Foundry Equipment etc., Head Office: Warden House Sir P. M. Road, Bombay-1.**

Kamala Engineering Works.—124, Barrackpore Trunk Road, Calcutta 35.
Kusum Engineering Co. Ltd.—25, Swallow Lane, Calcutta 1.
Machine Craft Corporation.—138, Canning Street, Calcutta 1.
Machineries & Industries (I) Ltd.—3, Annada Neogi Lane, Calcutta 3.
Machinery Manufacturers Corpn. Ltd.—207, L. Circular Road, Calcutta 17.
Meameco P. Ltd.—4, Clive Road, Calcutta 1.
Metalcraft (I) Ltd.—26, Strand Road, Calcutta 1.
Modern India Machine Tools Ltd.—18-1-6, Canal West Road, Garpar, Calcutta 9.
Oriental Electrical & Engg. Works Ltd.—1 & 2, Old Court House St., Calcutta 1.

**ORIENTAL MACHINERY (1919) PRIVATE LTD.—Manufacturers of Confectionery, Pottery, Soap, Pharmaceutical, Sheet Metal, Workshop, Paint, Card Board Box, Napthalene Balls, Nail Making, Printing, Book Binding Machines etc., P-12, Mission Row Extension, Calcutta-1; Phone: 234840.**

P. Manna & Sons.—19/10, Ramkrishna Mandir Path, North Bantra, Howrah.
Precision Industries P. Ltd.—Calcutta 29.
Rockfield Corporation.—40B, Prinsep Street, Calcutta 13.
S. C. Dass & Co. Ltd.—178, Belilios Road, Howrah.
Shaw Engineering Works.—227-5, Manicktala Main Road, Calcutta 11.
Shree Laxmi Iron & Steel Works Ltd.—P-16, Kalakar St., Calcutta 7.
Small Machineries Manufacturing Co.—22, R. G. Kar Road, Shambazar, Calcutta 4.
South End Engineering Co. P. Ltd.—22, Strand Road, Calcutta 1.
Sree Durga Engineering Co.—39, Upendra Chandra Banerjee Road, Calcutta 1.
Standard Machinery Co.—67-B, Netaji Subhas Road, Calcutta 1.
Vibromachines (I) P. Ltd.—P-33, Mission Row Extn., Calcutta 13.
Vulcan Machine & Tool Co.—218, Maniktalla Main Road, Calcutta 11.

## METAL LABELS

**EXCEL PROCESS PVT. LTD., BOMBAY-69.—Manufacturers of Metal Labels, Scales, Dials, Badges, Tokens, Diagrams, Conversion Dises and Slide Tables, Advertising Gifts, Identity Cards in Anodised Aluminium and Stainless Steel; 19/1, Lower Chitpur Road, Calcutta-1; Phone: 346593.**

## METAL AND METAL ALLOYS

Ashok Metal Industries.—157, Netaji Subhas Road, Calcutta 1.
Binani Metal Works P. Ltd.—38, Strand Road, Calcutta 1.
Chandra Industries P. Ltd.—59, Cotton Street, Calcutta 7.
Eastern Metal & Alloy Corpn. Ltd.—38-A, Belgachia Road, Calcutta.
Eyre Smelting Ltd.—Hide Road, Calcutta 23.
Lilooah Steel & Wire Co. Ltd.—5-B, Muktaram Babu St., Calcutta 7.
Metal & Alloy Corporation.—38-A, Belgachia Road, Calcutta 37.
National Metal Industries Ltd.—23-B, Netaji Subhas Road, Calcutta 1.
Non-Ferrous Metal Industries P. Ltd.—161-1, Harrison Road, Calcutta 7.
Stannic Metals & Alloys Ltd.—New Taratolla Road, Calcutta 27.

## METAL MANUFACTURERS & MERCHANTS

Arun Sinha.—62/4/1A, Netaji Subhas Road, Calcutta.
A. T. Gooyee & Co.—68/E, Netaji Subhas Road, Calcutta
Bengal Metal & Engg. Co.—20, Mullick Street, Calcutta 7.
Bengal Metal Product Co.—43-8, Strand Road, Calcutta 1.
Binani Brothers Pvt. Ltd.—43, Strand Road, Calcutta 1.

Binani Commercial Corpn.—115, Netaji Subhas Road, Calcutta.
Cally Kristo Pramanick.—62, Netaji Subhas Road, Calcutta.
Chunilal Hemraj.—115, Netaji Subhas Road, Calcutta.
Daga Metal Trading Co.—42, Netaji Subhas Road, Calcutta 1.
Delta Engineering & Foundry Works.—195A, Muktaram Babu Street, Calcutta 7.
Dey Bose & Co.—34, Strand Road, Calcutta.
Friedlander Ores & Metals P. Ltd.—109, Stephen House, Calcutta 1.
Ghose Mundal & Co.—71-A, Netaji Subhas Road, Calcutta.
Gosto Behari Mullick & Sons.—113-N, Netaji Subhas Road, Calcutta.
Hardware & Marine Stores Agency.—70, Netaji Subhas Road, Calcutta.
Hind General Mercantile Agency Ltd.—8, Lyons Range, Calcutta 1.
Jeet Narain Ghosh & Co.—38, Strand Road Calcutta.
J. K. Dey & Bros.—103, Netaji Subhas Road, Calcutta.
Kristo Dhone Gangooly.—115, Netaji Subhas Road, Calcutta.
Lucky Engineering Works Pvt. Ltd.—39, Strand Rd., Calcutta.
Luner Engineering Works.—71/A, Netaji Subhas Road, Calcutta.
Manton & Martin.—70, Netaji Subhas Road, Calcutta.
Metal Distributors Ltd.—38, Strand Road, Calcutta-1.
Metallizing Corporation P. Ltd.—9, Waterloo St., Calcutta.
National Alloy & Metal Works Ltd.—Nobin Ch. Das Lane, Calcutta.
National Sheet Metal Works.—Sahitya Parishad St., Calcutta.
Nundon & Co., (P) Ltd.—62, Netaji Subhas Road, Calcutta.
Orient Traders.—161/1, Mahatma Gandhi Road, Calcutta 7.
Ramlal Mookerjee & Son Pvt. Ltd.—37, Strand Road, Calcutta.
Ratanchand Joraji & Co.—1, Portuguese Church Street, Calcutta 1.
Rolls Metal Products Co. Ltd.—6, Chowringhee Road, Calcutta.
S. C. Kundu & Sons.—70, Netaji Subhas Road, Calcutta.

**SARU SMELTING & REFINING CORPORATION PRIVATE LTD.—161/1, Mahatma Gandhi Road, Calcutta; Phone: 335308, Grams: "SARUCOR"; Manager: R. N. Mohinta, B.Sc., B.A.; Manufacturers of all sorts of Non-ferrous metals and Alloys, Specialists in Resin and Flux Cored Solder Wire, Tin Solders, Tin Lead Fuse wire, Bearing Metals, Type Metals, Gun Metals, Bronze, Silver Solder and Brazing Alloys, Welding Rods etc. Approved Suppliers to Government (Central States), Railways etc.**

Shewratan Co. Private Ltd.—14, Weston Street, Calcutta 13.
S. Lahiri & Co.—12/2, Clive Row, Calcutta.
Standard Metal Co.—101, N. Subhas Road, Calcutta 1.
Stannic Metals and Alloy P. Ltd.—76, Wellesley St., Calcutta.
Union Metal Industries Ltd.—59-A, C. N. Roy Road, Calcutta.
United Metal Industries.—14, Noormull Lohia Lane, Calcutta 7.

## METALLIZING

**INDUSTRIAL ACCESSORIES SUPPLY CORPORATION.—Importers and Stockists of Metallizing Gun-Equipment, Sand Blasting Machines, All kinds of Metallizing Wires, Steel Grit, Shots etc., Enquiry Solicited; 47, Kalidas Pattundi Lane, Calcutta-26; Phones: 46-2913 and 46-9141.**

**INDUSTRIAL GASES LTD., THE.—15, Ganesh Chandra Avenue, P.O. Box 853, Calcutta 1. Phones: 229711/12, 221040, 221049, 227966 & 227499. Grams: "INDUSGASES", Calcutta. Depot & Service: 67-3012 & 46-7437. Design Supply & Erection of Sandblasting Machines, Compressors, Regulators, Guns, Wires & Fluxes.**

## MICA

Associated Mining Industries Ltd.—30, Strand Road, Calcutta 1.
Bengal Ruby Mica Supply Co.—Basantlal Shah Road, Calcutta 33.
B. K. Dey & Co.—14, Akshoy Dutta Lane, Calcutta 6.
Calcutta Mica Corpn.—161, Muktaram Babu Street, Calcutta.
Christian Mica Industries Ltd.—4, Lyons Range, Calcutta.
Delux Mica Co.—8, Shahnagar Road, Calcutta 26.
D. N. Ganguli & Co.—7, Nilamber Mukherjee Street, Shambazar, Calcutta.
Hatim & Co.—P-39, Mission Row Extension, Calcutta 13.
Hindustan Mica Dealers Ltd.—9, Brabourne Road, Calcutta 1.
India Mica Supply Co. Ltd.—95, Lower Chitpur Road, Calcutta.
Jackaria Oosman & Co.—4, Rajmohan Street, Calcutta 1.
Mica and Insulators Corporation.—7/5, Bejoygarh, Calcutta 32.
Mica Insulation Industries P. Ltd.—5-6, Hare St., Calcutta.
Mica & Micanites (India) Private Ltd.—19, Strand Road (1st Floor), Calcutta 1.
Mica Manufacturing Co. Pvt. Ltd.—161, Muktaram Babu Street, Calcutta 7.
Mica and Ores of India.—2, Commercial Bldgs., N. Subhas Road, Calcutta 1.
Mica P. Ltd.—2, Pretoria Street, Calcutta 15.
Mica Products (I).—14, Gour Laha Street, Calcutta 6.
Mica Mining & Trading Co.—12, Chowringhee Square, Calcutta.
Premier Mica Mining & Mfg. Co.—32, Gopi Kristo Pal Lane, Calcutta 6.
Shiv Shankar Mica Supply Co. Ltd.—100, Netaji Subhas Road, Calcutta.
T. C. Dass & Sons.—32, Gopi Kristo Pal Lane, Calcutta.
United India Minerals Ltd.—13, Harington Street, Calcutta 16.

## MILLS (OTHER THAN JUTE)

Adarsha Cotton Spg. & Wvg. Mills Ltd.—41, Chowringhee Road, Calcutta 16.
Anantapur Textiles Ltd.—58, Clive Street, Calcutta.
Annapurna Cotton Mills Ltd.—P-10, New Howrah Bridge App. Road, Calcutta.
Arati Cotton Mills Ltd.—29, Strand Road Calcutta 1.
Banga Sri Cotton Mills Ltd.—P. Sukchar, Sodepur, 24 Parganas.
Bangeswari Cotton Mills Ltd.—63, Radha Bazar Street, Calcutta.
Bangodaya Cotton Mills Ltd.—176, Cross Street, Calcutta 7.
Basanti Cotton Mills Ltd.—24, Netaji Subhas Road, Calcutta 1.
Bengal Fine Spg. & Wvg. Mills Ltd.—7, Bowbazar Street, Calcutta 12.
Bengal Luxmi Cotton Mills Ltd.—7, Chowringhee Road, Calcutta 13.
Bowreah Cotton Mills Co. Ltd.—21, Strand Road, Calcutta.
Bhagyalaxmi Cotton Mills Ltd.—1A, S. N. Banerjee Road, Calcutta.
Calcutta Woollen & Silk Mills Ltd.—Kumarpara, Lillooah, Howrah.
Central Cotton Mills Ltd.—9, Brabourne Road, Calcutta.
Dhakeswari Cotton Mills Ltd.—Kanak Bldgs., 41, Chowringhee Road, Calcutta 16.
Dunbar Mills Ltd.—21, Strand Road, Calcutta 1.
Durga Cotton Spg. Wvg. Mills Ltd.—135, Canning Street, Calcutta.
Hindusthan Cotton Mills Ltd.—5, Clive Row, Calcutta.
Howrah Cotton Mills Ltd.—Old Benaras Road, Belgachia, Howrah.
Jatia Cotton Mills Ltd.—18, Netaji Subhas Road, Calcutta.
Jay Shree Textiles Ltd.—Rishra, Hooghly.
Jyoti Weaving Factory Pvt. Ltd.—P-11, New Howrah Bridge App. Road, Calcutta 1.
Kanoria Industries Ltd.—59 Netaji Subhas Road, Calcutta.
Kesoram Cotton Mills Ltd.—8, India Exchange Place, Calcutta.
Luxminarain Cotton Mills Ltd.—4B, Garstin Place, Calcutta.
Mahalaxmi Cotton Mills Ltd.—68, Nalini Sett Road, Calcutta 7.
Manindra Mills Ltd.—P-49, B. K. Paul Avenue, Calcutta 7.
Mohini Mills Ltd.—22, Canning Street, Calcutta.
Onkar Industries Ltd.—18, Netaji Subhas Road, Calcutta.
Oriental Cotton Cult. & Mills Ltd.—2, Waterloo Street, Calcutta 1.
Orissa Cotton Mills Ltd.—P-7, Mission Row Extension, Calcutta.
Orissa Textile Mills Ltd.—33, Chittaranjan Avenue, Calcutta 12.
Pioneer Knitting Mills Ltd.—6/1A, Prannath Soor Lane, B.T. Road, Calcutta 2.
Rampooria Cotton Mills Ltd.—147, Cotton Street, Calcutta 7.
Siddheswari Cotton Mills Ltd.—58, Clive Street, Calcutta.
Swadeshi Industries Ltd.—142-A, Jamunalal Bajaj Street, Calcutta 7.
Victoria Cotton Mills Ltd.—370, Upper Chitpore Road, Calcutta.
Vidyasagar Cotton Mills Ltd.—11, Colootola Street, Calcutta 1.

## MILL STORES

Allied Textile Agency.—63, Radhabazar Street, Calcutta 1.

**ASSOCIATED INDUSTRIAL PRODUCTS CO.—'Gripwell' Brand Beltings, Leather, Hair, Cotton and Weaving Loom, Leather accessories for Jute, Textile and Woollen Industries, Dixel Rope and General Mill Stores, 5, Mission Row, Calcutta-1; Phones: 239844, 239880 & 555774.**

B. C. Traders.—7, Swallow Lane, Calcutta 1.
Bengal Engineering Co.—24, Netaji Subhas Road, Calcutta.
Bengal Machinery Co.—24, Strand Road, Calcutta 1.
Bengal Mill Stores Supply Co.—34, N. Subhas Road, Calcutta 1.

**BHADURY SEN & CO. PRIVATE LTD.—Dealers of Portable Electric Tools, Cables, Wires, Welding Cables, Mill Stores and Accessories; Also undertake all kinds of Manufacturing Job as per drawing and Specification; 135, Canning Street, Calcutta-1; Phone: 221360.**

Bharat Hardware & Textile Syndicate.—14, Netaji Subhas Road, Calcutta.
Bosco.—36, Strand Road, Calcutta 1.
Chandi Charan Nayak P. Ltd.—124/1, Bowbazar St., Calcutta 12.
Fenner J. H. & Co. India Ltd.—10/3A, Mercantile Bldgs., Calcutta 1.
F. Husain & Brothers.—28, Strand Road, Calcutta.
Gladstone Lyall & Co. Ltd.—4, Fairlie Place, Calcutta.
Greentose Corporation (India).—37, Strand Road, Calcutta 1.
Indusco Traders.—14/2, Old China Bazar Street, Calcutta 1.
Industrial Tools & Mill Stores Co.—67-B, Netaji Subhas Road, Calcutta 1.
International Trading Co.—22, Netaji Subhas Road, Calcutta 1.
Kilburn & Co. P. Ltd.—2, Fairlie Place, Calcutta 1.
Leather & Steel Products.—26, Burtolla St., Calcutta 7.
L. Mullick & Co.—81, N. Subhas Road, Calcutta 1.
Mehta Mill Stores Co.—Mercantile Bldgs., Lall Bazar, Calcutta 1.
Mundra & Co.—8, Canning Street, Calcutta.
Rajesh Trading Co.—10, Amratolla Lane, Calcutta 1.

**REX CORPORATION (INDIA).—Specialists for HAWK Conveyor Belt Fastener, HARRIS & JACKSON Belt Fastener, STEELACE Belt Lacing Belt Hook, Seamless Elevator Bucket and Chain Pipe Wrenches etc., 71-A, Netaji Subhas Road, Calcutta-1; Phone: 229807.**

Spinning Accessories Pvt. Ltd.—6, Nawab Dilar Jung Road, Calcutta 2.

Tant-O-Saranjan.—P-11, New Howrah Bridge Approach Road, Calcutta 1.
United Textile Agency.—198, M. Gandhi Road, Calcutta 7.
Winsome Trading Co.—23/24, Radha Bazar Street, Calcutta 1.
Wren & Co., D.—Wardley House, 25, Swallow Lane, Calcutta.

## MINERALS

**ANANDILAL BHANWARLAL & CO.—Soapstone Lump, Soapstone, French Chalk and Falcum Powder, Garnet, Calcite, Asbestos Fibre, Fluft and Powder, Acid Proof Cement, Iron Cement etc., 4, College Street, Calcutta-12; Phone: 342992.**

Bengal Mineral Supply Co.—71-A, N. Subhas Road, Calcutta.
Bharat Mineral Sales Corpn.—1/A, Vansittart Row, Calcutta 1.
Calcutta Mineral Supply Co. P. Ltd.—31, Jackson Lane, Calcutta 1.
Chandi Charan Nayak P. Ltd.—124/1, Bowbazar St., Calcutta 12.

**H. S. DAS.—Asbestos, China Clay, Dolomite, Felspar, Iron Ore, Limestone, Graphite, Manganese Ore, Ochres and Oxides (Red and Yellow), Quartz, Slate Powder, Whiting etc., 104/1, Serpentine Lane, Calcutta-14; Phone: 342408.**

Hindustan Grinding Mills.—9, Ezra Street, Calcutta 1.
India Minerals & Associated Industries.—12-B, Netaji Subhas Road, Calcutta 1.

**Indian Mineral Industries Ltd.—22-1, & 22-C, Dum Dum Road, Calcutta 2.**

Indo-European Agency P. Ltd.—67, Ezra Street, Calcutta 1.
Minerals & Minerals Ltd.—71, Ganesh Ch. Ave., Calcutta 13.
N. S. Corporation.—22, Canning Street, Calcutta 1.
Refractories & Mineral Syndicate Pvt. Ltd.—20, Netaji Subhas Road, Calcutta 1.
R. M. Industries.—16, Shyamlal Street, Calcutta 4.

**S. B. MINERAL INDUSTRIES.—Specialists in Hard Material grinding, Manufacturers and Suppliers of Lime Stone, Felspar, Quartz, Manganese Di-oxide, Plumbago, Kieshelguhar, Asbestos, French Chalk, Red and yellow Oxide and Ochre, Silica Flour, Whiting Calcite, Dolomite, Bentonite, Chromite, Mica, All qualities of China clay, Fire clay, Plaster of Paris and other allied Mineral Ores and Powders; 48, Cowshala Road, Lillooah, Howrah; Phone: 664432.**

Star Mineral Syndicate P. Ltd.—33, Canning Street, Calcutta.
Swalka Oil Mills.—18-B, Brabourne Road, Calcutta 1.
Universal Graphite & Mineral Products.—11, Kishen Dayal Jalan Road, Ghusury P.O., Howrah.

## MINING EQUIPMENT

**GLACE KID (INDIA) PRIVATE LTD.—Mining & Safety Boots and Shoes, 7, Ganesh Chandra Avenue, Calcutta-13; Phone: 244331.**

## MOTOR (BUS & COACH) BODY BUILDING MATERIALS

**MOHAMEDALLY NOORBHAI & CO.—32-C, Dharamtalla Street, Calcutta 13; Phone: 24-3370; 144-148, Ibrahim Rahimtoola Road, Bombay 3; Phones: 333068, 333763; Grams: "CABRUBBER". Direct Importers; Dealers in Motor-Carriage, Bus Body Fittings & Accessories, Hood and Upholstery Materials, P.V.C. Leather Cloth, Aluminium Section & Circles, Celluloid Sheets, Rubber Mattings, Flag Brand Cab Tyres. Branches at Madras & Lucknow.**

## NON-FERROUS METALS

**A. SINHA.—Brass & Copper Rod, Wire, Pipe, Sheet, Flat, Lead, Zinc, Phos Bronze, Gun Metal, White Metal, Tin Solder etc., of Non-ferrous Metals; Undertaking Casting and Moulding Machinery and Fabrication Job; 62/1/A, Netaji Subhas Road, Calcutta-1; Phone: 336389.**

**A. T. GOOYEE & CO.—Everything in Non-Ferrous Metals, Electrolytic Copper in all sections and Sizes, Aluminium, Brass, Bronze Hot Forgings/Stampings; 68-E, Netaji Subhas Road, Calcutta-1; Phones: 335865 & 335866.**

Aluminium Corpn. of India Ltd.—7, Council House Street, Calcutta.
Ashok Metal Industries Ltd.—157, Netaji Subhas Road, Calcutta 1.
Bengal Ingot Co. (Private) Ltd.—5, Hide Road, Kidderpore, Calcutta 23.
Binani Metal Works (P) Ltd.—38, Strand Road, Calcutta.
British Metal Corpn. (I) P. Ltd.—22, Chittaranjan Ave., Calcutta 1.

**CALCUTTA WIRE WORKS.—Non-Ferrous Metals, Brass, Copper, Zinc, Lead, Bronze, Aluminium Rods, Strips, Wires and Rods; 6, Tilgala Road, Calcutta-46; Phones: 447131-7132 & 441427; Showroom: 62/1A, Netaji Subhas Road, Calcutta-1; Phone: 339201.**

Eyre Smelting Pvt. Ltd.—5, Hide Road, Kidderpore, Calcutta 23.
Ganga Metal Refining Co. Pvt. Ltd., C/o Binani Traders Ltd.—48, Strand Road, Calcutta.
Gesco Suppliers Syndicate.—1, Bonefield Lane, Calcutta 1.
Gordhandas Madanlal.—178, Mahatma Gandhi Road, Calcutta 7.
Hindustan Metal Works.—48, Dum Dum Road, Calcutta 30.
Ideal Metal Industries.—5, Raja Subodh Mullick Square, Calcutta 13.
Indian Aluminium Co. Ltd.—31, Chowringhee Road, Calcutta 16.
Indian Cable Co. Ltd.—9, Hare Street, Calcutta.
Indian Oxygen Ltd.—48/1, Diamond Harbour Road, Calcutta 27.

**INTER SALES (INDIA).—Everything in Non-Ferrous Metals, Gas Welding Rods, Electrolytic Copper Bars, Strips, Brass, Phos. Bronze, Gun Metal, Aluminium, Ingots, Sheets, Wire, Tubes etc., 62, Netaji Subhas Road, Calcutta-1; Phones: 339031, 330146, 330370.**

Kamani Metals & Alloys Ltd.—30, Ganesh Ch. Ave., Calcutta 13.
Kedia & Co., T. R.—P3, Ralakar St., Calcutta 7.
Lalchand Mahadeblal.—7, Hazarimull Shah Road, Salkia.
Metal Corpn. of India Ltd.—135, Canning Street, Calcutta.
Metals & Ores Co.—Ilaco House, 1 & 3, Brabourne Rd., Calcutta.
National Pipes & Tubes Co. Ltd.—Stephen House, 4, Dalhousie Square East, Calcutta.
National Screw & Wire Products Ltd.—Stephen House, 4, Dalhousie Square East, Calcutta.
Non-Ferrous Metal Industries Pvt. Ltd.—161/1, Mahatma Gandhi Road, Calcutta.
Orient Traders.—161/1, Harrison Road, Calcutta 7.
Ramlal Mookerjee & Sons P. Ltd.—37, Strand Road, Calcutta 1.
Ratanchand Joraji & Co.—1, Portuguese Church St., Calcutta 1.
Robsan & Co. Pvt. Ltd.—P-14, Mission Row Extn., Calcutta 1.
R. S. Julli Ram Shamlal—19, Maharshi Debendra Road, Calcutta 7.
Saru Smelting & Refining Corpn. Private Ltd.—161/1, Mahatma Gandhi Road, Calcutta-7.
Srinath Bajaj.—178, Mahatma Gandhi Road, Calcutta 7.

## OFFICE STATIONERY & EQUIPMENTS

**ANAND METAL & STEEL WORKS.—Manufacturers of all kinds of Steel Furniture, Hospital and Office Equipments, Agricultural Implements and Structural; 137, Canning Street, Calcutta-1; Phone: 220315 (2 Lines).**

Bhebia Engineering Works.—22, Canal West Road, Calcutta 6.
Comptograph.—P-35, India Exchange Place, Calcutta 1.
Eastern Industries Co.—9/4, Pahratola Lane, Calcutta 9.

**J. K. BUSINESS MACHINES LTD.—2, Mangoe Lane, Calcutta (Divisional Offices: Bombay, New Delhi, Madras, Kanpur). Manufacturers of 'JAYKAY' Portable Typewriters, Ink and Spirit Duplicators; Hand Operated Addressing Machines, etc., Also agents in India for "MONROE" Adding, Listing and Calculating Machines; PLUS Adders with Key Controlled Mechanism 'Sundstrand' Adding, Listing Machines IBM Time System; Licencees for "PARAGON" Continuous Stationery Manufacture.**

**REMINGTON RAND OF INDIA LTD.—Manufacturers of Remington Rand Business Equipment; Remington House, 3, Council House Street, Calcutta; Phone: 237401 (10 Lines). Grams: "REMINGTONS".**

**ROYSON TYPEWRITER CO. PRIVATE LTD.—For Office Appliances i.e. Typewriters, Calculators, Adding, Listing Machines, Time Recorders, Cheque Writers etc., 14, Bentinck Street, Calcutta-1; Phone: 234086.**

Standard Trading Co.—43, Ezra Street, Calcutta 1.

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**GANDHI ENGINEERING CORPORATION.—For Oil Expellers, Filter Presses, Disintegrators, Baly Boilers and Parts of Expellers etc., 62/A, Netaji Subhas Road, (2nd Floor), Calcutta-1; Phones: 331141 and 476046.**

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**INDUSTRIAL COMPONENTS CORPORATION.—Dealers in Oil Seals, Bearings, Bright Bolts and Nuts, Rivets, Tractor Parts, Wire Ropes, Electrodes and Precision Jobs etc., 36, Ezra Street, (3rd Floor), Calcutta; Phone: 345430.**

## OPTICIANS & OPTICAL GOODS MFRS. & DEALERS

Basmall & Co.—Post Box 11435; 56-D, Beadon Street, Calcutta 6.
C. L. Basu & Co.—49, Raja Dinendra Street, Calcutta 9.
Calcutta Clinic.—38/2, Wellington Street, Calcutta 13.
Calcutta Optical Co. P. Ltd.—45, Amherst St., Calcutta 9.
City Opticians.—15/9, Chowringhee Road, Calcutta.
Darbara Singh & Sons (Calcutta).—14, Bowbazar St., Calcutta 12.
East India Optical Co.—11, Bowbazar Street, Calcutta.
Eastern Optical Co.—306, Bowbazar Street, Calcutta 12.
Globe Optical Co.—284A, Bowbazar Street, Calcutta.

**HIMALAYA OPTICAL CO., THE.—Showrooms: (1) 301-B, Bepin Behari Ganguli St., Calcutta 12; Phone: 22-2485; (2) 161/1, Mahatma Gandhi Road, Calcutta 7; Phone: 33-5985. Factory & Wholesale Dept., 285-F, Bepin Behari Ganguli St., Calcutta 12; Phone: 22-4810; Qualified Ophthalmic Opticians & Suppliers of Optical goods throughout India.**

James Murray & Co. P. Ltd.—5, Old Court House St., Calcutta 1.
J. Sur & Co. P. Ltd.—3, Dalhousie Square East, Calcutta 1.
Lawrence & Mayo India P. Ltd.—11, Govt. Place East, Calcutta 1.
Lens & Scientific Instruments Co. P. Ltd.—5/2, Old Court House Street, Calcutta 1.

**NATIONAL OPTICAL CO., (Estd.: 1935).—House for latest Styles in Eye-wear; Importers, Wholesalers, Retailers, Manufacturers of "OPTICRAFT" Frames, Exporters; Show Room and Head Office: 31, Mission Row Extn., Calcutta-13; Phone: 23-1957.**

Navin Optical House.—285/B, Bowbazar St., Calcutta 12.
Premier Optical Co.—287, Bowbazar Street, Calcutta.
Presidency Pharmacy.—205, Cornwallis St., Calcutta 6.
President Optical Co.—71, Canning Street, Calcutta.
Royal Optical Industries.—72, Canning Street, Calcutta 1.
Stephens & Co. P. Ltd.—23, Chowringhee, Calcutta 13.
Sun Optical Co.—24/1, Cornwallis Street, Calcutta 6.

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Alkali & Chemical Corpn. of India Ltd.—34, Chowringhee, Calcutta 16.
Ankhoy Coomar Laha.—1, Dharamtolla Street, Calcutta.
Associated Commercial Concerns.—14, Bowbazar Street, Calcutta 12.
Associated Pigments Ltd.—14, Netaji Subhas Road, Calcutta.
Basic Paints & Pigment Industries P. Ltd.—135, Canning Street, Calcutta.
Bengal Paint Supply Co.—16, Bonfield Lane, Calcutta 1.
Bengal Varnish Industries.—94, Harrison Road, Calcutta 7.
Bitumen Emulsions (India) Ltd.—7-1, Hide Road, Kidderpore, Calcutta 23.
British Paints (India) Ltd.—32, Chowringhee Road, Calcutta 16.

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Century Paint & Varnish Works.—8/3, Canal Street, Calcutta 14.
Chandi Charan Nayak Pvt. Ltd.—124/1, Bowbazar Street, Calcutta 12.
C. L. Paint & Colour Works.—5/3, Harinath Nayarathna Lane, Sibpur, Howrah.
Delco Paints Corporation.—7/1, Lower Circular Road, Calcutta.
Eagle Paint & Pigment (India) Pvt. Ltd.—135, Canning Street, Calcutta.
East India Paints & Chemical Works Ltd.—103-A, Surendranath Banerjee Road, Calcutta 14.
Eastern Paint Works P. Ltd.—36, Stand Road, Calcutta 1.
Empire Chemical Co.—37-1, Christopher Road, Entally P.O., Calcutta 14.
Empire Chemicals.—7/1, Lower Circular Road, Calcutta 17.

**G. C. LAHA PRIVATE LTD.—Importers of High Class Paints, Enamels, Varnishes, Brushes, Gilding Powder etc. For Household and Industrial use, Artists' Colours & Material; 1, Dharamtola Street, Calcutta-13; Phone: 233838 & 239651.**

Gladstone Lyall & Co. Ltd.—4, Fairlie Place, Calcutta 1.
Glazo Paint Works Pvt. Ltd.—11, Bishwambhur Mullick Lane, Calcutta.
Hadfields (India) Ltd.—12, Mission Row, Calcutta.
Hindustan Paint, Colour and Varnish Co.—Strand Road, Calcutta.
Hindustan Paint Supply Co.—190, Lower Circular Road, Calcutta.
Hoyle's Paints Ltd.—2, Mangoe Lane, Calcutta 1.
Huichie Products Co.—19, Dum Dum Road, Ghughudanga P.O., 24 Parganas.
ICL Paint & Colour Works.—5/3, Harinath Nayaratna Lane, Sibpur Howrah.
Imperial Paints & Pigments Industries.—3, Chaulpatty Road, Calcutta.
India Colour Industries.—1, Gour Mohan Mukherjee Street, Calcutta 6.
India Paint, Colour & Varnish Co. Ltd.—14, Netaji Subhas Road, Calcutta.
India Paint & Varnish Chemical Works.—14-2, Old China Bazar Street, Calcutta 1.
Indian Chemical Colour Works.—66, Simla Street, Calcutta 6.
Industrial Paints Syndicate.—73A, Ganesh Ch. Avenue, Calcutta.
International Chemical Industries.—Jadavpur, Calcutta.
Jenson & Nicholson (India) Ltd.—2, Fairlie Place, Calcutta 1.
Kromalnium Paints & Synthetic Finishes.—60-B, Syed Amir Ali Avenue, Calcutta 19.
Lakshmi Paint Works.—14/2, Old China Bazar St., Calcutta.
Leather Chemical Industries Ltd.—9, Muraripukur Road, Calcutta.
London Varnish & Enamel Co. Ltd.—12-P, Park Street, Calcutta 16.
Manick Lal Pal & Co.—54, M. Gandhi Road, Calcutta 7.
M. Chowdhury & Co.—113-G, Netaji Subhas Road, Calcutta 1.
M. L. Ghosh & Co.—35, Mondal Para Lane, Cossipore P.O., Calcutta.
Merlin Paint Works.—14-2, Old China Bazar Street, Calcutta 1.
M. Mumtaz & Co.—11, Swinhoe Lane, Dhakuria P.O., 24 Parganas Dist.
Murarka Paint & Varnish Works Ltd.—Sodepur P.O., 24 Parganas Dist.
Naiper Paint Works Pvt. Ltd.—3, Moti Sil Street, Calcutta 13.
Narayan Chowdhury & Bros. P. Ltd.—4, Jahura Bazar Lane, Calcutta 42.
Nilsin Co.—37, Armenian Street, Calcutta 1.
Olpherts Pvt. Ltd.—1-2, Moti Sil Street, Calcutta 13.
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Protective Lacquer Industries.—11, Wellington Street, Calcutta 13.
Rabi Paint & Chemical Works.—29, Madan Mitter Lane, Calcutta 13.
Royal Enamel & Varnish Works.—78-79, Beadon Street, Calcutta.
Ruby Paint & Varnish Works.—96, Mahatma Gandhi Road, Calcutta 7.
Salkia Paint Mfg. Co.—40/1, Strand Road, Calcutta.
Scientific Paint & Colour Works Ltd.—P-468, Southern Avenue, Calcutta.
Shalimar Paint, Colour & Varnish Co. P. Ltd.—6, Lyons Range, Calcutta.
Shekhar & Co. Pvt. Ltd.—159, B. K. Paint Avenue, Calcutta 5.
Solar Paint & Varnish Mfg. Co.—Barrackpore Trunk Road, Belgharia P.O., 24 Parganas Dist.
Standard Paint Works Ltd.—44, Beadon Row, Calcutta 6.
Sunglow Colour & Chemical Co.—58, Shyamnagar Road, Calcutta 28.
Swaika Paint, Colour & Varnish Co. Ltd.—Pollock House, 28-A, Brabourne Road, Calcutta 1.
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Birdhi Chand Baijanath.—3, Portuguese Church Street, Calcutta 1.

Birdhi Chand Giridharlal & Co.—146-2, Old China Bazar Street, Calcutta 1.

B. Kumar & Co.—P-7, Old China Bazar Street, Calcutta 1.

Bose Paper Concern.—89, Mahatma Gandhi Road, Calcutta 7.

Bose & Paul.—70, Mahatma Gandhi Road, Calcutta 9.

Calcutta Corrugated Paper Co.—36, Brabourne Road, Calcutta 1.

Calcutta Paper House.—385, Upper Chitpore Road, Calcutta 7.

Calcutta Paper Mart.—14-2, Old China Bazar Street, R. No. 29, Calcutta 1.

Calcutta Paper Supply Co.—26, Amherst Street, Calcutta 9.

Calcutta Sales Syndicate.—14-2, Old China Bazar Street, Calcutta 1.

Chaman Industries Pvt. Ltd.—12, Jackson Lane, Calcutta 1.

Choudhury Bros.—10, Jackson Lane, Calcutta 1.

Chatterjee & Chakravarti (Paper) Ltd.—63-B, Radhabazar Street, Calcutta 1.

City Paper Stores.—P-23/24, Radhabazar Street, Calcutta 1.

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C. Ratan & Co.—1, Mangoe Lane, Calcutta 1.

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Datta & Co.—R. No. 11, 93, Old China Bazar Street, Calcutta.

Day Bros. & Co.—270, Chittaranjan Avenue, Calcutta 6.

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Eastern Trading Co.—64-A, Dharmatolla Street, Calcutta 13.

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General Equipment Merchants Ltd.—9, Mission Row, Calcutta 1.

Ghosh Brothers.—14-2, Old China Bazar Street, Calcutta 1.

Ghosh Paper House.—133, Canning Street, Calcutta 1.

Girja Paper Trading Co.—7, Khairu Lane, Calcutta 13.

G. M. Singh & Sons.—22, Canning Street, 4th Floor, Calcutta 1.

Gopi Nath Paul & Co.—109, Old China Bazar Street, Calcutta 1.

Gour Hari Saha.—23, Canning Street, Calcutta 1.

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Haran Chundar Banerjee & Sons.—7-C, Clive Row, Calcutta 1.

Hind Associated Corpn. Pvt. Ltd.—23-24, Radhabazar Street, Calcutta 1.

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Lohia Trading Co.—133, Canning Street, Calcutta 1.

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Madan (Paper) Co. Ltd.—109, Upper Chitpore Road, Calcutta 6.

Maniklal Dutt (Paper) Ltd.—8, Khengraputty Street, Calcutta 7.

Merchants & Traders Pvt. Ltd.—32, Armenian Street, Calcutta 1.

M. Dhar & Co.—156-1/C, Radhabazar Street, Calcutta 1.

M. Dutta & Co.—14-2, Old China Bazar Street, Calcutta 1.

M. Kundu & Bros.—31, Jackson Lane, Calcutta 1.

Mukharji Dutt & Co.—31, Jackson Lane, Calcutta 1.

Nandlal Kezriwal.—146/2, Old China Bazar Street, Calcutta 1.

National Industrial Co.—103-A, S. N. Banerjee Road, Calcutta 13.

National Paper & Board Ltd.—22, Canning Street, Calcutta 1.

N. Banerjee & Co.—14-2, Old China Bazar Street, Calcutta 1.

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Paper India Pvt. Ltd.—6, Clive Row, Calcutta 1.

Paper Mart.—68, Mahatma Gandhi Road, Calcutta 9.

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Paper & Stationery Co.—P-22, Radha Bazar Street, Opp. Radhabazar Street, Calcutta 1.

Paper Stores Ltd.—14-2, Old China Bazar Street, Calcutta 1.

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India Paper Pulp Co., Ltd.—8, Clive Row, Calcutta.
J. K. Paper Mills.—2, Mangoe Lane, Calcutta.
Orient Paper Mills Ltd.—15, India Exchange Place, Calcutta.
Rohtas Industries Ltd.—11, Clive Row, Calcutta.
Shree Gopal Paper Mills Ltd.—26, Brabourne Road, Calcutta.
Sirpur Paper Mills Ltd.—8, India Exchange Place, Calcutta.
Star Paper Mills Ltd.—27, Brabourne Road, Calcutta.
Straw Products Ltd.—2, Mangoe Lane, Calcutta.
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Eastern Paper Mills Ltd.—Dakhindari Road, Dum Dum, Calcutta.
Himalaya Paper & Board Mills.—20, Seven Tanks Lane, Ghughudanga, Calcutta 30.
Hindustan Cellulose & Paper Mills Ltd.—8, India Exchange Place, Calcutta 1.
Indian Card Board Industries Ltd.—2, Fairlie Place, Calcutta 1.
India Paper & Board Mills Co. Ltd.—74, Nagendra Nath Road, Calcutta 16.
Jindal Trading Co.—26, Shree Bhavan, Prasanna Tagore Street, Calcutta 6.
K. C. Dey & Co.—2-A, Amratolla Lane, Calcutta 1.
Mahabir Paper & Board Industries.—3, Canal Road, Tollygunge, Calcutta 33.
Modern Paper Industries.—29, Stephen House, Dalhousie Square, Calcutta.
Nav Bharat Vanijaya Ltd.—2, Mangoe Lane, Calcutta.
Paper Products Ltd.—7, Chittaranjan Ave., Calcutta 13.
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Lodge & Co., P.—85, Netaji Subhas Road, Calcutta 1.
Remfry & Sons.—Stephen House, Dalhousie Square, Calcutta 1.

## PENCILS

Bharati Works.—2, Cornwallis Street, Calcutta 6.
F. N. Gooptu & Co.—12, Beliaghat Road, Calcutta.
Indian Pen Allied Industries Co.—86, Bahim Sura Road, Baliaghata P.O., Calcutta 10.
India Small Industries.—14, Jamini Kaviraj Road, Calcutta 4.
N. Dutt & Sons.—Sreemanipara, Barnagore, Calcutta 36.
Xanthic Industries.—28, Strand Road, Calcutta 1.

## PERFUMERY RAW MATERIALS

**D. JAYANTILAL & CO.—Aromatic Chemicals, Natural and Synthetic Essential Oils, Perfumery Compounds, Essences, Drugs, Chemicals, Laboratory Chemicals, Saccharin, yeast, Provisions etc., 33, Canning Street, Calcutta-1; Phone: 229071.**

## PERFUMES & COSMETICS

Bengal Chemical & Pharmaceutical Works Ltd.—6, Ganesh Chandra Avenue, Calcutta.
Bengal Drug & Chemical Works.—7-1A, Nabin Sarcar Lane, Baghbazar, Calcutta.
Bengal Perfume Co.—3-37 & 38, College Street, Market, Calcutta 12.
Birla Laboratories.—2, Beerpara Lane, Ghughudanga P.O., Calcutta 30.
Butto Kristo Paul & Co. Ltd.—1 & 3 Bonfield Cane, Calcutta 1.
Calcutta Chemical Co. Ltd.—35, Panditia Road, Calcutta 29.
Calcutta Essence Supply Co.—44-45, Ezra Street, Calcutta 1.
Dabur (Dr. S. K. Burman) Ltd.—142, Rash Behari Avenue, Calcutta 29.
Frank Ross & Co. Ltd.—95, Ripon Street, Calcutta.
Himani Works Ltd.—Barrackpore Trunk Road, Rathtola, Belgharia, 24 Parganas Dist.
Hindustan Lever Ltd.—63, Garden Reach, Calcutta.
Lokenath Chemical Works.—31-1, The Mall, Dum Dum, Calcutta.
Martin & Harris P. Ltd.—Mercantile Bldgs., Lallbazar, Calcutta.
Md. Mustafa Hussain's Necktie Brand Zardah Factory.—141, Howrah Road, Howrah.
P. Sett & Co. Ltd.—3, Ramakanta Sen Lane, Ultadanga, Calcutta 4.
Smith Stanistreet & Co. Ltd.—18, Convent Road, Calcutta.
Sterling Pharmaceutical Products Co. Ltd.—72-2, Shambhunath Pandit Street, Calcutta.

## PEST CONTROL

**PEST CONTROL CORPORATION.—H.O. 27, Bentinck Street, Calcutta-1; Marine, Industrial & Domestic Pest Control Specialists and Manufacturers of Pest Control Aides for DO-IT-YOURSELFERS; Phone: 232432/33, Grams: "PESTOKILL".**

**PEST CONTROL (INDIA) PRIVATE LTD.—10, Chowringhee Road Calcutta-13; Phone: 235076; Grams: "PEPESTCIL", Head Office: 36, Yusuf Bldg., Mahatma Gandhi Road, Fort, Bombay-1; Phones: 251546-7; Grams: "PESTCIL"; Consulting Entomologists, Termite Control, Disinfection & Fumigation Service; Member, National Pest Control Association, U.S.A. & Entomological Society of India; Branches: Ahmedabad, New Delhi, Madras, Coimbatore, Hyderabad and Eranakulam.**

## PHARMACEUTICALS

Adeco Ltd., Manufacturers of Drugs and Pharmaceuticals including injectable, Spirituous and non-spirituous B.P. Preparations and Patent Preparations, Fine Chemicals, oils, soft soaps, etc., Adcconagar, Dist. Hooghly; City Office: 2, Jawaharlal Nehru Road, Calcutta 13; Phone: 238982.

**BENGAL CHEMICAL & PHARMACEUTICAL WORKS LTD.—6, Ganesh Chunder Avenue, Calcutta 13; Pharmaceuticals, Heavy & Fine Chemicals, High Class Toilet Products, Coal Tar Distillation Products, Fire Extinguishers, Printing inks, Driers, etc., Branch Offices: Bombay & Kanpur.**

**BRITISH DRUG HOUSES (INDIA) PRIVATE LTD.—58/D, Chowringhee Road, Calcutta-16; Head Office: P.O. Box 9024, 8, Graham Road, Bombay-1.**

**DEY'S MEDICAL STORES (MFG.) PRIVATE LTD.—Manufacturers of Antibiotics and other quality Pharmaceuticals; 62, Bondel Road, Calcutta-19; Phone: 443173 (4 Lines).**

**STANDARD PHARMACEUTICALS LTD.—67, Dr. Suresh Sarkar Road, Calcutta-14; Phone: 445201, Grams: "VINKOLA"; Branches: Ahmedabad, Bangalore, Delhi, Gauhati, Hyderabad, Lucknow, Madras & Patna; Manufacturers of Bulk Antibiotics, Specialities: Patents, Vaccines and other Pharmaceutical Preparations.**

## PHARMACEUTICAL MACHINERY

**ORIENTAL MACHINERY (1919) PRIVATE LTD.—P-12, Mission Row Extn., Calcutta-1; Phone: 234840; Mixing, Filling, Washing, Autoclave, Percolators, Dry Chamber, Distilling Apparatus, Incubators etc.**

## PHOTOGRAPHIC MATERIAL DEALERS

Adair Dutta & Co. (I) Ltd.—Stephen House, 5, D. Square East, Calcutta 1.
A. M. Doss & Co.—P-48, B. K. Paul Avenue, Calcutta 5.
Artico.—4, Creek Row, Calcutta 14.
Atul Chandra Dass & Sons.—36, Dharamtolla St., Calcutta 13.
Basu & Sons.—153, Bowbazar Street, Calcutta 12.
Bengal Photo Co. P. Ltd.—15/3, Chowringhee Road, Calcutta 13.
Bengal Photo Concern.—262, Chittaranjan Avenue, Calcutta 6.
Bombay Photo Stores P. Ltd.—33-34, Park Mansions, Park St., Calcutta 16.
Bourne & Shepherd.—141, Surendra Nath Banerji Road, Calcutta 13.
Calcutta Camera Stores.—8/2, Hospital St., Calcutta 13.
Calcutta Paint & Photo Stores.—173/1, Dharamtalla St., Calcutta 13.
Camera Exchange.—17/2A, Chowringhee Road, Calcutta 13.
C. C. Saha Ltd.—45, Moti Sil Street, Calcutta 13.
Central Photo Stores.—8/1, Hospital Street, Calcutta 13.
Chimanlal Desai & Co.—54, Bentinck Street, Calcutta 1.
Chokshi Brothers P. Ltd.—66, Ganesh Chandra Avenue, Calcutta 13.
Chowringhee Camera Stores.—10 & 12, Chowringhee Road, Calcutta 13.
City Camera Stores.—38, Dharamtolla Street, Calcutta 13.
City Photo Co.—61/B, Serpentine Lane, Calcutta 14.
Commercial Photo Service.—4-B, Chowringhee Road, Calcutta 13.
Continental Photo Service.—1, Sadananda Road, Calcutta 26.
Darbara Singh & Sons.—14, Bowbazar St., Calcutta 12.
Daw Sen & Co. P. Ltd.—29, Dr. Suresh Sarkar Road, Calcutta 14.
Deluca & Co.—14-B, Russa Road, Calcutta 26.

Dey's Mercantile Stores.—A-13, Sir Stuart Hogg Market, Calcutta 13.
D. Ratan & Co.—22/1, Cornwallis Street, Calcutta 6.
Eastern Camera Stores.—9-A, D. Square East, Calcutta 1.
Edna Lorenz P. Ltd.—30, Chowringhee Road, Calcutta 16.
Grand Camera Stores & Studio.—9-B, Chowringhee Place, Calcutta 13.
Harico.—3-B, Chowringhee Road, Calcutta 13.
H. Paul & Co.—2, Chowringhee Road, Calcutta 13.
J. C. Ghosh & Sons.—19-B, Bhupen Bose Avenue, Calcutta 4.
Kamalayaya Stores P. Ltd.—156-A, Dharamtolla St., Calcutta 13.
K. B. Photo Stores.—78, Baithakkhana Road, Calcutta 9.
Kodak Ltd.—17, Park Street, Calcutta 16.
L. C. Sett & Co. P. Ltd.—43, Dharamtalla St., Calcutta 13.
Nan & Co. P. Ltd.—9-A, Dalhousie Sq. East, Calcutta 1.
Narain Photographers.—20-H, Park Street, Calcutta.
New Oriental Photographic Stores.—139-A, S. N. Banerji Road, Calcutta 13. Phone : 23-7962.
Nizam & Co.—1, Chandni Chowk St., Calcutta 13.
Novelty Photo Co.—169, Vivekananda Road, Calcutta 6.
Photo Cine Stores.—3-B, Chowringhee Road, Calcutta 13.
Photo Cine Sound Supplies.—4, Mission Row, Calcutta 1.
Photo Concern.—158, S. P. Mukherji Road, Calcutta 26.
Photographic Concern.—12, Bhupen Bose Avenue, Calcutta 4.
Photographic Stores & Agency Co. P. Ltd.—154, Dharamtalla St., Calcutta 13.
P. K. Bose & Co.—1, Sikdar Bagan St., Calcutta 4.
Popular Camera Stores.—157-B, Dharamtolla St., Calcutta 13.
Quick Photo Service Co. P. Ltd.—157-B, Dharamtolla St., Calcutta 13.
Rege Cinefilms Ltd.—31, Chittaranjan Ave., Calcutta 12.
Savoy Camera Stores.—4, Chowringhee Road, Calcutta 13.
Taste & Co.—133, Circular Garden Reach Road, Calcutta 23.
Vijay & Co.—3, Chowringhee Road, Calcutta 13.

## PIPE MANUFACTURERS

Bhagwati Industries.—192, Cross Street, Calcutta.
Indian Pan Works.—Ghusury, 227, G. T. Road, Howrah.
M. Chandra & Co.—12, Lower Chitpur Road, Calcutta.
Modern Pipe Works.—12, Lower Chitpur Road, R. No. 220, Calcutta
National Pipes & Tubes Co.—4, D. Square East, Calcutta 1.
R. N. Kapoor & Co.—Sarasoona, Behala, Calcutta 8.
Singal Iron Works.—224-24, G. T. Road (North), Howrah.

## PIPES (CAST IRON & STEEL) AND PIPE FITTINGS

A. C. Mondal.—225, Belilios Road, Howrah.
Agarwal Hardware Works Pvt. Ltd.—167, Chittaranjan Avenue, Calcutta.
American Pipe Co.—135, Canning Street, Calcutta 1.
Aminchand Payare Lal.—135, Canning Street, Calcutta 1.
A. S. Abdullabhoy & Co.—12B, Clive Row, Calcutta.
Ashoka Steel Industries.—138, Canning St., Calcutta.
Asian Industries.—9, Upper Chitpur Road, Calcutta.
Atlas Industries Co.—13/C, Raja Rajkissen St., Calcutta 6.
Bagri Iron & Steel Co.—138, Canning Street, Calcutta.
B. Coomar & Co.—16, Raja Woodmunt Street, Calcutta 1.
Belur Iron Foundry & Engg. Works.—203/1, Harrison Road, Calcutta 7.
Bengal Hardware Mart.—69-A, Netaji Subhas Road, Calcutta 1.
Bengal Rolling Mills Ltd.—67-B, Netaji Subhas Road, Calcutta.
Bharat Hardware and Textile Syndicate.—14, Netaji Subhas Road, Calcutta 1.
Bharat Iron & Steel Industry.—11/1, B. K. Paul Temple Road, Belur, Howrah.
Bharat Steel & Metal Industries.—14/2, Old China Bazar St., Block, No. 169, Calcutta 1.
Calcutta Casting & Engineering Works.—243, Chittaranjan Avenue, Calcutta 13.
Calcutta Pipe Mfg. Co.—374, Upper Chitpur Road, Calcutta.
Castings Corporation India Pvt. Ltd.—45, Madhusudan Pal Chowdhury Lane, Howrah.
Central Hardware Mart.—63/1, Netaji Subhas Road, Calcutta 1.
Commercial Import & Export Pvt. Ltd.—40, Strand Road, Calcutta 1.
Cyma Engineering Co.—223, Bellilios Road, Howrah.
D. C. De & Sons.—150, Narasingha Dutta Road, Howrah.
Dewanchand Nikkamal.—71-A, Netaji Subhas Road, Calcutta 1.
Dey Brothers.—71-A, N. Subhas Road, Calcutta 1.
D. N. Singha & Co.—16, Sitanath Bose Lane, Salkia.

**EMCO GENERAL INDUSTRIES.—P-16, New C.I.T. Road, Calcutta-12; Manufacturers of EMTOEBENE Brand Polythene Pipe, EMCOFLEX P.V.C. Pipes (Rigid), Tubing and Sleevings, JOINTLOCK Polythene Pipe Fittings, EMCOS Polythene Taps and Valves, Flanged and Threaded Valves from 1/2s to 2s; Phone: 342863, 563626, 564231.**

Great Eastern Mechanical Works Pvt. Ltd.—Ichapore Road, Santragachi (Dt. Howrah).
Hindustan Industrial Co.—192, Jamunalal Bazaz Street, Calcutta 7.
Howrah Engineering Concern Pvt. Ltd.—19, Maharshi Debendra Road, Calcutta 6.
Howrah Light Casting Co. P. Ltd.—213, Mahatma Gandhi Road, Calcutta 7.
Howrah Trading Co. Pvt. Ltd.—8, Dalhousie Sq. East, Calcutta.
Imperial Engineering Works Pvt. Ltd.—122, Belilios Road, Howrah.
Indian Iron & Steel Co. Ltd.—12, Mission Row, Calcutta.
Indian Malleable Castings Ltd.—4, Lyons Range, Calcutta.
Indian Tube Co. Ltd.—41, Chowringhee Road, Calcutta 16.
Jai Hind Iron & Pipe Works.—1, Netaji Subhas Road, Calcutta.
Jain Brothers.—29, Strand Road, Calcutta.
Jindal (I) P. Ltd.—2/1, Ahmed Mamooji Street, Liloah (Dt. Howrah).
Kedar Engineering & Trading Co.—34, Strand Road, Calcutta 1.

**KEJRIWAL IRON & STEEL WORKS.—30/31, Kalakar Street, Calcutta 7.**

Krishna Galvanizing Works.—20, Belur Road, Liloah, Howrah.

**L. MULLICK & CO.—Importers, Stockists and Manufacturers of Pipes, Pipe Fittings in G.M. & Phos. Bronze Valves of all descriptions etc., 81, Netaji Subhas Road, Calcutta-1; Phone: 225461 & 465477; Grams: "IRONKING".**

L. Mullick & Co.—81, Netaji Subhas Road, Calcutta 1.
Laxmi Trading Co.—221/4, G. T. Road, North, Howrah.
Luxmi Engineering Co. Pvt. Ltd.—123, Narasingha Dutt Road, Howrah.
Machines Techno (Sales) Pvt. Ltd.—33, Netaji Subhas Road, Calcutta 1.
Madhavsingh Dwarkadas.—44-45, Ezra Street, Calcutta 1.

**MAHAVIR TRADING CORPORATION.—34, Netaji Subhas Road, Calcutta 1.**

Maya Galvanizing Works.—9, Upper Chitpur Road, Calcutta 7.
M. Chandra & Co.—12, Lower Chitpur Road, Calcutta.
M. K. Steel & Metal Industries Pvt. Ltd.—7/2A, Annada Neogi Lane, Calcutta 3.
Narain Industries.—36/37, Ramlochan Shire St., Belur, Howrah.
National Pipe Bending Works.—196, Panchanantola Road, Howrah.
Pioneer Machinery Works.—12, Bechu Chatterji St., Calcutta 9.
Premier Iron & Steel Works Pvt. Ltd.—P-16, Nafar Pal Road, North Bandra, Howrah.
R. K. Industries.—144, Cotton Street, Calcutta 7.
Ramkrishna Engineering Works.—2, Sri Krishen Vakat Lane, Howrah.
Ramprosad Sagarmall.—34/2, Madhusudhan Pal Chowdhury Lane, Howrah.
Satish Chandra Karuri & Sons.—10-6, Brindabon Mullick Lane, Howrah.
S. Abbas & Co.—12-B, Clive Row, Calcutta.
S. C. Panja.—206, Belilios Road, Howrah.
Shivneoni & Co.—85, N. Subhas Road, Calcutta.
Shree Ambica Iron Works.—135, Canning St., Calcutta.
Shree Dhakalia Industries.—138, Canning Stree, Calcutta.
Shree Hanuman Foundry Works.—8, Dalhousie Square East, Calcutta.
Shree Luxmi Industries.—46, Strand Road, Calcutta.

**SOOR NEOGI COOMAR & CO. PRIVATE LTD.—4, Raja Woodmunt Street, Calcutta 1.**

Spun Casting & Engg. Co. P. Ltd.—21/1, Ezra Mansions, Calcutta 1.

**STEWARTS AND LLOYDS OF INDIA PRIVATE LTD.—Supply & Installation of fabricated Pipe-work of all Sizes for Gas, Water, Steam and Compressed Air etc., Casing for Tube Wells, Oil Country goods, Coils for Refrigeration and other Industrial use, Tubular Structures for Buildings, Pipe Bridges and Trestles, Pallets, Stillages and Trolleys for material Handling; Head Office: 41, Chowringhee Road, Calcutta-16; Works: 39, Hide Road, Kidderpore, Calcutta-23; Phone: 442311 (12 Lines) Regd. Office: 455515 (3 Lines) Works.**

Swapna Engineering Works.—15/1, Salkia School Road, Salkia.
Tatanagar Foundry Co. Ltd.—4, Dalhousie Sq. East, Calcutta 1.
United Pipe & Tube Co.—1, Salimpura Road, Calcutta.
Vijay Iron Foundry.—4, Dalhousie Square East, Calcutta 1.

## PLANT & MACHINERY

**INTERNATIONAL EQUIPMENT CORPN.—1, Hare Street, Calcutta-1; Phone: 238061, Grams: "FRECIFA"; Branches at New Delhi, Bombay, Madras, Secunderabad.**

## PLASTIC PRODUCTS DEALERS

Askaran Srichand.—10, Armenian Street, Calcutta.
Benarsilal Kedia & Sons.—Room No. C-114, Bagree Market, 71, Canning Street, Calcutta 1.
Bharat Trading Co.—Room No. D-117, Bagree Market, 71, Canning Street, Calcutta 1.
Chemicals & Tools Distributors.—38, Strand Road, Calcutta 1.
Chika Pvt. Ltd.—36, Ganesh Ch. Avenue, Calcutta 13.
Dipak Trading Company.—15, Amratolla Lane, Calcutta 1.
Eastern Plastics.—Room No. D-116, Bagree Market, 71, Canning Street, Calcutta 1.
G. C. Kedia & Co.—13, India Exchange Place, Calcutta 1.
General Traders.—Room No. 112, Bagree Market, 71, Canning Street, Calcutta 1.
General Trading Company.—Room No. C-206, Bagree Market, 71, Canning Street, Calcutta 1.
Gordhandas Madanlal.—178, Mahatma Gandhi Road, Calcutta 7.

Jamunadas Bihani.—Room No. C-110, Bagree Market, 71, Canning Street, Calcutta 1.
Kamal Engineering Corpn.—235, B. L. Saha Road, Tollygunge, Calcutta 33.
Metal Distributors Pvt. Ltd.—38, Strand Road, Calcutta 1.
Nopchand Punamchand Malu.—10, Jackson Lane, Calcutta.
N. V. Distributors.—Room No. 20, Bagree Market, 71, Canning Street, Calcutta 1.
Orion & Company.—4, Ramkumar Rakshit Lane, Calcutta 7.
Plastic Sales Emporium.—18, Armenian Street, Calcutta 1.
Plastics Distributors.—38, Strand Road, Calcutta 1.
Plastics & Machineries Ltd.—4, Upper Chitpur Road, Calcutta 7.
Ramchandra Bulakidas.—47, Khengraputty Street, Calcutta 7.
Sharma & Company.—300-A, Rai Bahadur Road, Tollygunge, Calcutta.
Shooduttray Srinivas.—26, Upper Chitpur Road, Calcutta 7.
Shivdutt Purohit.—235, B. L. Saha Road, Tollygunge, Calcutta 33.
Star Plastic Works.—8, Ramprasad Shaha Lane, Calcutta 1.
Sundersingh Ajitsingh.—17/D, Bagree Market, 71, Canning Street, Calcutta 1.

**UNITED SUPPLY AGENCY PRIVATE LTD.—38, Strand Road, Box 863, Calcutta-1; Stockists of "Hylam" Laminated Sheet, Rod and Tubes, "ALKATHENE" Film "PERSPEX" P.V.C. Polytnene, Cellulose Accetate, Polysten Sheets, Rods Tubes, Pipe Fittings, Pipes; Phone: 220142-44 (Calcutta).**

United India Agencies.—26, Upper Chitpur Road, Calcutta 7.
Virendra Shantilal Shah.—19, Armenian Street, Calcutta.

## PLASTIC PRODUCTS MANUFACTURERS

Ajanta Plastics P. Ltd.—134, A & B, Vivekananda Road, Calcutta 6.
All Fine Industries.—150, Lower Chitpur Road, Calcutta 1.
Angelo Bros. Ltd.—P.O. Box No. 68, Calcutta.
Ashok Plastics Pvt. Ltd.—116, Canning Street, Calcutta 1.
Asian Tool & Plastic Co.—1/4C, Knagendra Chatterjee Road, Cossipore, Calcutta 2.
Atlas Industries Co.—13/C, Raja Rajkissen Street, Calcutta 6.
Automatic Plastic Works.—8, Canning Street, Calcutta.
Bajaj Industries Pvt. Ltd.—71-1, Canal Circular Road, Calcutta 11.
Bharat Industrial Corporation.—150/C, Ram Dulal Sircar Street, Calcutta 6.

**BHARAT PLASTICS LTD.—Stockists of Plastic Raw Materials; Manufacturers of Components for Radio, Electrical, Textile, Automobile, Refrigeration, Aircraft, Railway and general Engineering; 6, Old Post Office Street, Calcutta-1; Phone: 235009 & 231527.**

Binani Metal Works Pvt. Ltd.—38, Strand Road, Calcutta 1.

**B. K. PLASTIC INDUSTRIES.—33, Burtolla Street, Calcutta 7. Manufacturers of Plastic Carboys for Acids, Containers for Pharmaceutical, Cosmetics and other items, Industrial Moulded Goods, Bottles, Jars, Stationery items etc.**

B. R. Products.—44/A, Masjidbari Street, Calcutta 6.
Calcutta Plastic Industries.—8, Sambhu Mullick Lane, Calcutta.
Calcutta Plastic Works.—26, Upper Chitpur Road, Calcutta 7.

**CAPRIHANS (INDIA) PRIVATE LTD.—58-D, Chowringhee Road, Calcutta-16; H.O., Janmabhoomi Chambers, Fort Street, Fort, Bombay-1; Phone: 262810, Grams: "CAPRIHANS".**

Century Plastics.—31, Badur Bagan St., Calcutta 9.
Cipra Bakelite Company.—39, Russa Road, Tollygunge, Calcutta 33.
Circular Plastics.—2, Lansdowne Road, Calcutta 20.
Cottage Engineering Private Ltd.—69/2, Nimtolla Ghat Street, Calcutta 6.
Crown Pen Industries.—90, Phears Lane, Calcutta 12.
Dey's Home Industries.—37 & 44C, Sovabazar St., Calcutta 5.
Eastern Plastic Syndicate.—26, Upper Chitpur Road, Calcutta.
Eastern Traders (Agencies).—3, Chittaranjan Avenue, Calcutta 13.

**EMCO GENERAL INDUSTRIES.—P-16, New C.I.T. Road, Calcutta 12; Manufacturers of Bakelite and Plastic Components of all types, EMCOS Polythene Taps and Valves, EMCOTHENE Polythene Pipe, JOINTLOCK POLYTHENE Pipe Fittings, EMCOFLEX P.V.C. Pipe, Sleevings and Tubings, EMCOS Bakelite Commode Seats, Phone: 342863, 563626, 564231.**

Ever-Bright Plastic Works.—7/1, Sukhlal Jahury Lane, Calcutta 7.
Evernew Private Limited.—149, Lower Chitpur Road, 1st Floor, Calcutta 1.
Extrusions.—243, Chittaranjan Avenue, Calcutta 6.
Fairway Trading Co.—No. 6, Karbala Mohd. Street, Calcutta 1.
Glix Engineering Co.—42, Nalini Sett Road, Calcutta 7.
Hanuman Plastics Works.—46, Strand Road, Calcutta.
Harjitsing Khanna.—116, Chittaranjan Avenue, Calcutta 7.
Hind Plastic Works Ltd.—6, Pageyaputty Street, Calcutta 7.
Hindusthan Bangle Works.—5, Gurudas Bysack Lane, Calcutta 7.
Hindusthan Plastics Co.—1-4, Gun Foundry Road, Cossipore, Calcutta.
I. C. I. (India) Pvt. Ltd.—34, Chowringhee, Calcutta.
India Moulding Co.—C-2, Bharat Bhavan, Calcutta.
India Plastic & Moulding Co.—300, Bowbazar Street, Calcutta 12.

**INDAR PLASTIC WORKS.—56/1, Canning Street, Calcutta-1; Manufacturers of Dressed Dolls, Carboys, Jars, Bottles, Mugs, Jugs, Urinals, Beakers, Funnels, Tiffin Carriers, Water Bottles, Cup-Saucers, Radio Parts etc., Phone: 342988, 552633.**

Industrial Plastic (India).—17, Park Street, P.B. No. 9072, Calcutta 16.
Indar Plastic Works.—65-A, Nimtolla Ghat Street, Calcutta 6.
Jupiter Pen Industries.—32, Kristo Das Pal Lane, Calcutta 6.
Keshavchandra Singhal & Co.—12, Lower Chitpur Road, Calcutta 1.
Kumar Plastic Works.—48-A, Muktaram Babu Street, Calcutta 7.
K. N. Gupta & Co.—87, Khengraputty Street, Calcutta 7.
Ladia Plastic Works.—14-6, Sovaram Bysack Street, Calcutta 7.
Laharchand Sethia.—53, Netaji Subhas Road, Calcutta.

**LAL PLASTIC PRODUCTS.—Manufacturers of 'Polymac' Brand Jars, Water Bottles, Acid Carboys, Break fast Tray, Refrigerator Ice Tray etc., Laboratory Wares, Industrial Components, All sorts of Plastic Moulding Undertaken; 43/1, Strand Road, Calcutta-7; Phone: 332595.**

Law Industries & Co.—9, Clive Row, Calcutta 1.
Madan & Co.—65-A, Nimtolla Ghat Street, Calcutta 6.

**MAHABIR PLASTIC INDUSTRIES.—Manufacturers of all types of Pharmaceuticals and Cosmetic Containers, Industrial Components for Fan, Automobile, Cycle, Radio, Typewriters and Sewing Machine Parts, Refrigerators and Air Conditioners, Household and Kitchen Wares, Squeeze and Spray bottles and 'PLAS-FILM' Brand Polythylene Tubular Film, Bags and Rolls; 6, Canal Road, New Alipore, Calcutta 53; Phone: 453207 & 453737.**

Maheswari Plastic Works.—80-2, Pathuriaghatta Street, Calcutta 6.
Modern Plastic Works.—128, Hazra Road, Flat No. 5, Calcutta 26.
Moyur Products.—Room No. A-41, Bagree Market, 71, Canning Street, Calcutta 1.
National Carbon Co. (India) Ltd.—Faraday House, P-17, Mission Row Extension, P. B. No. 2170, Calcutta.

**NATIONAL MOULDING CO. LTD.—Manufacturers of 'Lily' Brand quality Plastic Goods, Specially Hair Combs of Varieties, Toys and Various utility articles; 26, Upper Chitpur Road, Calcutta-7; Phone: 344525 (2 Lines).**

Orient Plastic Products.—5-1, Govind Chandra Dhar Lane, Calcutta.
Oriental Traders.—Room No. FN. 10, 1st Floor, 12, Lower Chitpur Road, Calcutta 1.
Peerless Plastics Industries Pvt. Ltd.—4, Upper Chitpur Road, Calcutta.

**PIONEER PLASTIC WORKS (PRIVATE) LTD.—Manufacturers of Polythene Pipes, PVC Tubings, Rung Bowls, Safety Helmets and a Wide Range of Plastic Utility Products, 14/1B, Ezra Street, Calcutta-1; Phone: 347885 (6 Lines).**

Plasteel Industries Corporation Pvt. Ltd.—15, Amratalla Lane, 1st Floor, Calcutta 1.
Plastic Concern.—20, Sir Hariram Goenka Street, Calcutta 7.
Plastic Corporation.—114, Princep Street, Calcutta 13.

**PLASTIC INDIA.—Manufacturers of Bakelite and Plastic Moulded Parts for Commercial use; 4, Ananda Palit Road, Calcutta-14; Phone: 242166.**

Plastic Mfrs. Pvt. Ltd.—5, Dalhousie Sq. East, Calcutta.
Plastic Powders Pvt. Ltd.—6, Old P.O. Street, Calcutta 1.
Plastic Concern.—20, Sir Hari Ram Goenka Street, Calcutta 7.
Plastics Mfrs.—5, Dharamtolla Road, Calcutta.
Plastics Moulders Private Ltd.—38, Strand Road, Calcutta 1.
Plastic Moulding & Allied Industries.—135, Park Street, Calcutta 17.
Plasto International.—71, Canning Street, Calcutta 1.
Plasto-Iron (India) Ltd.—157, Jessore Road, Dum Dum, Calcutta 28.
Plastoweld.—394, Upper Chitpur Road, Calcutta 7.
Pradip Plastic Moulders.—12B, Lower Chitpore Road, Calcutta.
Prakash Industries.—116, Canning Street, Calcutta 1.

**RADHESHYAM PLASTIC INDUSTRIES.—Manufacturers of Plastic Toys, Acid Carbouys of 500 c.c. to 15 Litres Bottles, Containers, Household articles, Components for Industries, Packings, All types of Plastic, Polythene, Nylon articles; 65-A, Nimtolla Ghat Street, Calcutta-6; Phone: 554836 and 558911.**

Ratan Plastics Pvt. Ltd.—43/1, Strand Road, Calcutta 1.
Sree Probhat Products.—99/B, Garpar Road, Calcutta 9.
Saigal Commercial Company.—1, Sun-Yet-Sen Street, Calcutta.
Sarada Brothers.—35, Chittaranjan Avenue, Calcutta 13.
Sree Luxmi Plastic Works.—6-A, Jagabandhu Boral Lane, Calcutta 7.
Shri Bijoy Industries.—24/25, Upper Chitpur Road, Calcutta 7.
Star Plastic Works.—8, Ramprasad Saha Lane, Calcutta.
Standard Plastic Works.—150, Lower Chitpur Road, Calcutta 1.
Sukhani Plastic Industries.—259, Chittaranjan Avenue, Calcutta 6.
Surana Industries.—1B, Haraprasad Dey Lane, Calcutta 7.
Surendra Stores.—Room No. C-7, Bagree Market, 71, Canning Street, Calcutta 1.

Swadeshi Industries Ltd.—142/A, Jamunalal Bajaj Street, Calcutta 7.
Synthetic Moulders Ltd.—58, Netaji Subhas Road, Calcutta.
Teko Pen Industries.—90, Phears Lane, Calcutta 12.
Unique Plastic Industries.—4, Canal Road, Tollygunge, Calcutta 33.
United Industries.—6, Canal Road, Tollygunge, Calcutta 33.
Universal Moulders.—5, Canal Road, Calcutta 3.
West Bengal Plastics (Pvt.) Ltd.—6, Old P.O. Street, Calcutta 1.
Western Plastic Company.—9, Gurusaday Road, Ballygunge, Calcutta 19.

## PLYWOOD

Albion Plywoods Ltd.—11, Clive Row, Calcutta.
Andaman Timber Industries Ltd.—2, D. Sq. East, Calcutta 1.
Asiatic Plywood Industries.—30, Strand Road, 1st Floor, Calcutta.
Assam Bengal Saw Mills.—4, Clive Ghat Street, Calcutta.
Assam Bengal Veneer Industries Pvt. Ltd.—9, Clive Row, Calcutta 1.
Assam Plywood Products Pvt. Ltd.—12, D. Sq. East, Calcutta 1.
Avarat Plywood.—86, Netaji Subhas Road, Calcutta.
B. S. & Co.—33, Brabourne Road, Calcutta 1.
Bando Plywood Works.—98, Masjidbar Street, Calcutt.
Beliaghata Timber Works Ltd.—8, Chawalpatty Road, Calcutta 10.
Bengal Bobbin & Plywood Mfg. Co.—44-46, Canning Street, Calcutta.
Benagl Veneer & Saw Mills.—Siliguri, Darjeeling Dist.
Bose Wood Works Pvt. Ltd.—9, Clive Row, Calcutta.
Calcutta Plywood Co.—29, Strand Road, Calcutta.
Crossley & Towers Private Ltd.—7A, Lower Circular Road, Calcutta 17.
Das & Co.—32, Chawalpatty Road, Calcutta 10.
Eagle Plywood Industries Ltd.—9, Royal Exchange Place, Calcutta.
East India Plywood Co. Ltd.—2, Netaji Subhas Road, Calcutta.
Eastern Plywood Mfg. Co. Ltd.—108, Prince Anwar Shah Road, Tollygunge P.O., Calcutta 33.
Enco Plywood & Saw Mills Industries.—5, Alipur Park Road, Calcutta 27.
Ganges Plywood Mfg. Co. Ltd.—37, Netaji Subhas Road, Calcutta.
Great Indian Plywood Mfg. Co.—76, Jessore Road, Calcutta 30.
Hindustan Timber Industries.—41, Chawalpatty Road, Calcutta.
India Plywood Co.—33, S. K. Deb Road, Pathi Pookar, Dum Dum, Calcutta.
Jayshree Plywoods.—India Exchange, Calcutta 1.
Jeypore Timber & Veneer Mills Ltd.—35, Chittaranjan Avenue, Calcutta.
Kamal Brothers.—20, Harish Neogi Road, Calcutta 4.
Kasipur Plywood Co.—2, Dalhousie Square (East), Calcutta.
Madarihat Veneer & Saw Mills.—Madarihat P.O., Jalpaiguri Dist.
Minerva Plywood Industries.—43-A, Chawalpatty Road, Beliaghata, Calcutta.
National Plywood Industries.—6, Cora Pada Sarkar Lane, Daspara, Calcutta.
National Timber Industries.—3, Rashmoni Bazar Road, Beliaghata, Calcutta.
Paharpur Timbers Pvt. Ltd.—Paharpur, Calcutta 23.
Plywood Mfrs. Co-operative Society Ltd.—1, Canal Circular Road, Calcutta.
Rajasthan Plywood & Drum Works.—29-D, Chawalpatta, Calcutta.
Rohtas Industries Ltd.—9, Dalhousie Square East, Calcutta.
Sarada Plywood Industries P. Ltd.—9, Ezra Street, Calcutta 1.
S. S. Mookerji.—29, Parkside Road, Calcutta 26.
Sree Gopal Plywood Works.—2, Pahehanan Mookerjee Road, Cossipore P.O., 24 Parganas Dist.
Surma Match & Industries Ltd.—67-B, Netaji Subhas Road, Calcutta.
Taj Plywood Products.—20, Ultadanga Main Road, P.O. Calcutta 4.
Union Plywood Products.—1, Commercial Bldgs., 102-B, Netaj Subhas Road, Calcutta.
Varat Plywood Factory.—67-B, Netaji Subhas Road, Calcutta.
Veneer Mills Pvt. Ltd.—62, Ballygunge Circular Road, Calcutta 19.
Wood Craft Products Ltd.—8, Royal Exchange Place, Calcutta.

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Bengal Potteries Ltd.—45, Tangra Road, Calcutta 15.
Bharat Firebricks & Pottery Works P. Ltd.—33, Canning St., Calcutta 1.
Bharat Potteries.—91, Dharamtolla Street, Calcutta 13.
Calcutta Porcelain Works Ltd.—1-1, Bhim Ghosh Byelane, Calcutta 6.
Crown Brick Co.—Badartala, Calcutta 18.
Carrara Marble & Terrazo Co.—P-21, Mission Row Extension, Calcutta 13.
Eastern Brick Manufacturers, —Akrah, Calcutta 18.
Hindustan Potteries.—12, Shibkristo Daw Lane, Calcutta 7.
India Potteries Ltd.—91, Dharamtolla Road, Calcutta 14.
Mitter Bricks P. Ltd.—Tollygunge, Calcutta 41.
National Brick Mfg. Co.—Akrah, Calcutta 18.
Nawn Potteries.—7, Bowbazar Street, Calcutta 12.

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**PELICAN TRADING CO.—Manufacturers of Presentation Articles, Fancy Stationeries and Novelties such as Calendars, Writing Sets, Pen Stands, Ash Trays, Key Chains and Souvenirs, Plastic Lamination of Paper and Board—a Speciality; 4, Ramkumar Rakshit Lane, Calcutta-7; Phone: 338606 & 47-7472.**

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## PRINTING PRESSES

Acme Printing & Process Works.—115C, Amherst Street, Calcutta 9.
**ADI BENGAL PRESS.—Printers of Distinction and Government Contractors; H.O. and Press: 26, New Ballygunge Road, Calcutta-39; Phone: 444541.**
A. T. De (Pvt.) Ltd.—21, Jhamapukur Lane, Calcutta 9.
Alexandra Printing Works.—9A, Hari Pal Lane, Calcutta 9.
All India Printing & Cardboard Box Factory.—58/1, Nimtola Ghat Street, Calcutta 6.
Anna Art Press (Pvt.) Ltd.—26, Dr. Suresh Sarkar Road, Calcutta 14.
Argus Trading Co.—1, British Indian Street, Calcutta.
Art Printing House.—8, Crooked Lane, Calcutta 1.
Art Union Printing Works (Pvt.) Ltd.—80/15, Grey Street, Calcutta 6.
Aryan Press.—309, Bowbazar Street, Calcutta 12.
Aubhoy Brothers & Co.—2/1, Old Court House Street, Calcutta 1.
Auto Print & Pub. House.—49, Baldeopara Road, Calcutta 6.
B. M. S. Printing Works.—3, Amratola Street, Calcutta 1.
Babosa Banijya Press.—9/3, Ramanath Majumdar Street, Calcutta 7
Bani Press.—16, Hemendra Sen Street, Calcutta 6.
Baptist Mission Press.—41A, Lower Circular Road, Calcutta 16.
Basanta Trading Co.—59, Mott Lane, Calcutta 13.
Basu Bhattachari & Co.—80/7, Grey Street, Calcutta 6.
Basusree Press.—80/6, Grey Street, Calcutta 6.
Bata Press.—30, Theatre Road, Calcutta 16.
Bela Printing Works.—22, Sukeas Lane, Calcutta 9.
Bengal Autotype Co.—213, Cornwallis Street, Calcutta 6.
Bengal Book Binding Co.—34/1, Beadon Street, Calcutta.
Bengal Cardboard Industries & Printers P. Ltd.—72, Tiljala Road, Calcutta 17.
Bengal Phototype Co. (Pvt.) Ltd.—46/1, Amherst Street, Calcutta 9.
Bengal Stationery Concern.—14/2, Old China Bazar Street, Calcutta.
Bharatbarsa Printing Works.—203/1/1, Cornwallis Street, Calcutta 6.
Bharati Printing & Publishing Co. Ltd.—123, Lower Circular Road, Calcutta 14.
Bijlee Press Pvt. Ltd.—129, Shyamaprasad Mukherji Road, Calcutta 26.
Bijoya Art Press.—144, Dharamtola Street, Calcutta 13.
Blockman (Process).—77/1, Harrison Road, Calcutta 9.
Bodhi Press.—5, Sankar Ghose Lane, Calcutta 6.
Bose Press Pvt. Ltd.—30, Brojo Mitra Lane, Calcutta 9.
Brahmo Mission Press.—211, Cornwallis Street, Calcutta 6.
British India Stationery Supply Concern.—57, Radhabazar Street, Calcutta 1.
Calcutta Art Studio.—185/1, Bowbazar Street, Calcutta 12.
Calcutta Art Printers Pvt. Ltd.—8B, Lalbazar Street, Calcutta.

Calcutta Chronotype Private Ltd.—1, Gibson Lane, Calcutta 1.
Calcutta Exchange Gazette.—5, Mission Row, Calcutta 1.
Calcutta Job Press Pvt. Ltd.—35/B, Wellington Street, Calcutta 13.
Calcutta Phototype Co. Pvt. Ltd.—6, Chowringhee, Calcutta 13.
Calcutta Press Pvt. Ltd.—1, Wellington Square, Calcutta 13.
Campbell Printing Works.—8/1, Lalbazar Street, Calcutta 1.
Cardboard Box Mfg. Co.—38, Coolotola Street, Calcutta 7.
Cardboard Box of India.—25A, Palit Street, Calcutta 19.
Cardboard Material & Printing Co. (Pvt.) Ltd.—7, Convent Road, Calcutta 14.
Caxton & Co.—19, British Indian Street, Calcutta 1.
Chitragupta Press.—205, Old China Bazar Street, Calcutta 1.
Classic Press.—21, Patuatola Lane, Calcutta 9.
Clive Press.—14/2, Old China Bazar Street, Calcutta 1.
D. H. Kesh & Co. Pvt. Ltd.—16, Ramkanai Adhicari Lane, Calcutta 12.
Dabur (S. K. Burman) Pvt. Ltd.—142, Rashbehari Avenue, Calcutta 29.
Dass Bros., Printing Works.—14, Garanhata Street, Calcutta 6.
Divine Printing Works.—142/2, Radha Bazar Street, Calcutta.
Doodh Nath Press.—95/1, Sambhu Halder Lane, Salkia, Howrah.
Doshi Press Pvt. Ltd.—17, Armenian Street, Calcutta.
Eastern Printing House.—9, Dharamtola Street, Calcutta 13.
Eagle Lithographing Co. Pvt. Ltd.—26B, Christopher Road, Calcutta 14.
Eastend Printers.—3, Dr. Suresh Sarkar Road, Calcutta 14.
Eastern Type Foundry & Oriental Printing Works Pvt. Ltd.—18, Brindaban Basak Street, Calcutta 5.
Elm Press.—63, Beadon Street, Calcutta 6.
Eton Press Pvt. Ltd.—41, Netaji Subhas Road, Calcutta 1.
Express Printers Pvt. Ltd.—20A, Gour Laha Street, Calcutta 6.
Fine Printers Pvt. Ltd.—42, Mahendra Gossain Lane, Calcutta 6.
Forward Pressman (India) Ltd.—8, Indian Mirror Street, Calcutta 13.
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Ganges Printing Co. Ltd.—Shibpur, Howrah.
General Printers & Publishers Pvt. Ltd.—119, Dharamtola Street, Calcutta 13.
Ghose Printing House Pvt. Ltd.—17A, British Indian Street, Calcutta 1.
Glasgow Printing Co. Private Ltd.—Kadamtala, Howrah.
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Gooha Printing Works.—76, Bowbazar Street, Calcutta 12.
Gordon & Co.—106, Narkeldanga Main Road, Calcutta 11.
Gossain & Co. Pvt. Ltd.—7/1, Grant Lane, Calcutta 12.
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Hindusthan Art Engraving Co. Pvt. Ltd.—24, Corris Church Lane, Calcutta 9.
Hind Paper Printers.—79/9, Lower Circular Road, Calcutta 14.
Hind Press Works.—7, Sristidhar Dutta Lane, Calcutta 5.
Hindusthan Printing Works.—58/1/4A, Raja Dinendra Street, Calcutta 9.
Hindusthan Printers.—52B, Raja Dinendra Street, Calcutta 9.
Homin Art Press.—52/9, Bowbazar Street, Calcutta 12.
Hooghly Printing Co. Ltd.—41, Chowringhee Road, Calcutta 16.
Imperial Printing Works.—5/2A, Pitambar Bhattacherji Lane, Calcutta 9.
Indian Art Cottage.—P-7, C.I.T. Road, Calcutta 14.
Indian Press Pvt. Ltd.—93A, Dharamtolla Street, Calcutta 13.
Inland Printing Works.—60/3, Dharamtola Street, Calcutta 13.
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Jackson Press.—22, Gangadhar Babu Lane, Calcutta 12.
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Jnanoday Press.—17, Hayet Khan Lane, Calcutta 9.
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Kalpana Press Pvt. Ltd.—9, Shibnarain Das Lane, Calcutta 6.
Kamala Printing Works.—3, Kashi Mitra Ghat Street, Calcutta 3.
Kanai Press.—194, Old China Bazar Street, Calcutta 1.
Kattayani Machine Press.—39/1, Shibnarain Das Lane, Calcutta 6.
King Halftone Co.—22, Wellington Street, Calcutta 12.
Kohinoor Art Press.—3, Wellesley 1st Lane, Calcutta 16.
Krishna Art Press.—21B .Sikdar Bagan Street, Calcutta 4.
Lakshmi Printing Works.—370, Upper Chitpur Road, Calcutta 4.
Leonrad Cardborad Box Factory Pvt. Ltd.—20, Grey Street, Calcutta.
Limton Art Press.—148, Lower Chitpur Road, Calcutta 1.
Lotus Press.—52/9, Bowbazar Street, Calcutta 12.
Loyal Art Press Pvt. Ltd.—164, Dharamtola Street, Calcutta 13.
M. I. Press.—30, Grey Street, Calcutta 5.
Madona Press.—14, Bowbazar Street, Calcutta 12.
Manager Press.—36A, Jatindas Road, Calcutta 29.
Misra & Co.—12, Grant Lane, Calcutta 12.
Mohan Press.—2, Dr. Kartick Bose Lane, Calcutta 9.
Molin Press Pvt. Ltd.—3, Sooterkin Street, Calcutta 13.
Monotype Corpn. Ltd.—8, Mission Row Extension, Calcutta 1.
N. B. Dutta & Co.—15, Clive Row, Calcutta 1.
N. K. Gossain & Co. Private Ltd.—7/1, Grant Lane, Calcutta 12.
Nabajiban Press.—66, Grey Street, Calcutta 6.
Nabakumar Press.—47, Kailas Bose Street, Calcutta 6.
Nabamudran Pvt. Ltd.—170A, Upper Circular Road, Calcutta 6.
Nabasakti Press.—123, Lower Circular Road, Calcutta 14.
Nalanda Press.—159 & 160, Cornwallis Street, Calcutta 6.
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National Art Studio.—1, Chandney Chawk Street, Calcutta 13.
National Halftone Co.—68, Sitaram Ghose Street, Calcutta 9.
National Press.—14/2, Old China Bazar Street, Calcutta 1.
National Press.—31, Keshab Sen Street, Calcutta 9.
National Press.—76, Bowbazar Street, Calcutta 12.
National Printing Works.—58/1H, Raja Dinendra Street, Calcutta 9.
National Printing Works.—1, Gangadhar Babu Lane, Calcutta 12.
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P. M. Bagchi & Co.—19, Gulu Ostagar Lane, Calcutta 5.
Photographic Stores & Agency Co. Pvt. Ltd.—154, Dharamtola Street, Calcutta 13.
Pioneer Stereotype Co.—64A, Dharamtola Street, Calcutta 13.
Poddar Printers.—4A, Ramanath Majumdar Street, Calcutta 9.
Pooran Press.—21, Balram Ghose Street, Calcutta 4.
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Prabartak Printing & Halftone Ltd.—52/3, Bowbazar Street, Calcutta 12.
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Reliance Printing Works.—219/A, Old China Bazar Street, Calcutta 1.
Reliable Printers.—170, Mahatma Gandhi Road, Calcutta 7.
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Robin Press.—36, Strand Road, Calcutta 1.
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S. Antool & Co. Pvt. Ltd.—91, Acharya Prafulla Chandra Road, Calcutta 9.
S. M. Banerji & Sons.—106A, Narkeldanga North Road, Calcutta 11.
Sadhana Press Pvt. Ltd.—76, Bowbazar Street, Calcutta 12.
Sambhunath Dutta & Co.—14/2, Old China Bazar Street, Calcutta 1.
Saniranjan Press.—57, Indra Biswas Road, Calcutta 37.
Santi Press.—145, Cotton Street, Calcutta 7.
Saraswaty Press Ltd.—32, Upper Circular Road, Calcutta 9.
Satabdi Press.—80, Lower Circular Road, Calcutta 14.
Satyacharan Banerji & Co. Pvt. Ltd.—34A, Weston Street, Calcutta 13.
Sen Press Pvt. Ltd.—6, Shibnarain Das Lane, Calcutta 6.
Sharma Block Works.—36, Baranashi Ghose Street, Calcutta 6.
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Standard Photo Engraving Co.—1, Ramanath Majumder Street, Calcutta 9.
Standard Press.—37A, Mott Lane, Calcutta 13.
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Star Printing Works.—30, Shibnarain Das Lane, Calcutta 6.
Style-o-Print.—4, Rammohan Roy Road, Calcutta 9.
Susama Press.—3, Ramkanta Sen Lane, Calcutta 4.
Susama Printing Works.—34A, Waston Street, Calcutta 13.
Swapna Press Ltd.—8/1, Lalbazar Street, Calcutta 1.
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Tarachand & Sons.—56, Chowringhee, Calcutta 16.
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United Printing Works.—7, Old Mayor's Court, Calcutta 5.
United Trading Agency.—56, Radhabazar Street, Calcutta 1.
Usha Printing Works.—6/8, Ramanath Majumdar Street, Calcutta 9.
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B. N. Pachal & Sons Pvt. Ltd.—208, Belilios Road, Howrah.
Bombay Engineering Works.—238, Belilios Road, Howrah.
B. G. H. & Co.—18, Raja Woodmunt Street, Calcutta 1.

**BRITISH ELECTRICAL & PUMPS PRIVATE LTD.—Self-Priming, Centripetal, Piston, Centrifugal, Rotary, Sewage and Engine Driven Pumps and Electric Motors; 1-1B, Mission Row, Calcutta-1; Phone: 227826-28.**

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Commercial & Engineering Corporation.—138, Canning Street, Calcutta 1.
Continental Plant Machinery Co. Pvt. Ltd.—2, Justice Chandra, Madhab Road, Calcutta 20.
Darling Pump Mfg. Co.—58, Clive Street, Calcutta 7.
East India Engg. & Agency Co.—63-1, Benaras Road, N. Bantra, Howrah.
Ebrahimji Hassanbhoy & Sons.—30, Strand Road, Calcutta 1.
Electrical Construction & Equipment Co. Ltd.—9, Kaliprasanna Singhee Road, Calcutta 2.
F. Husain & Brothers.—28, Strand Road, Calcutta 1.
Gopinath Ray & Co. Pvt. Ltd.—Panchanantola Road, Howrah.
Great Eastern Foundry Works.—138, Canning Street, Calcutta 1.
Hind Enterprises.—4, Mission Row, Calcutta 1.
Hindusthan Electric & Engg. Co.—64, Beadon Street, Calcutta 6.
Hindusthan Pump & Machinery Corporation.—3, N. C. Chowdhury Road, Kasba, Calcutta 42.
IMC Vogel Industries.—10/1, Princep Street, Calcutta 1.

**INDO-AMERICAN COMMERCE PRIVATE LTD.—Sole Distributors for 'JYOTI' Vertical Borehole turbine Pumps, Centrifugal Pumps, Non-clog and Chemical Pumps, Coolant Pumps, Jay-all House Service Jet Pumps, 'Inland' Bi-rotor Pumps for all Services; Engineering Consultant and Installation Contractors of Pump for all Water Supply Schemes; 35, Chittaranjan Avenue, Calcutta-12; Phone: 232478-79.**

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Kundlia Industrial Corporation.—23, Canning Street, Calcutta 1.
Luxmi Engineering Co. Pvt. Ltd.—135, Canning Street, Calcutta.
Lynx Machinery Co.—104, Ultadanga Main Road, Calcutta 4.
Marshall, Sons & Co. India Ltd.—33/1, Netaji Subhas Road, Calcutta.
Maya Engineering Works P. Ltd.—200A, S. P. Mukherji Road, Calcutta 26.
Natwarlall P. Ltd.—24, Netaji Subhas Road, Calcutta 1.
P. N. Dey & Co.—34, Kalachand Nandy Lane, Howrah.
Power & Machinery India Ltd.—3, Mangoe Lane, Calcutta 1.
Progressive Engineering Works.—42, Russa Road East, Calcutta 33.
R. B. Rodda & Co. Ltd.—Jogendranath Mookherjee Road, Howrah.
Reliance Engineering Works.—233, Belilios Road, Howrah.
Republic Traders Corporation.—P-12, Mission Row Extension, Calcutta 1.
S. C. Dass & Co. Pvt. Ltd.—178, Belilios Road, Howrah.
Senapati Brothers Pvt. Ltd.—132, Belilios Road, Howrah.
S. K. Bhattacharji & Co.—138, Canning Street, Calcutta.
Ultra Engineering Co.—172-8, Madhusudan Pal Chowdhury Lane, Howrah.
United Provinces Commercial Corpn.—6, Ganesh Chandra Avenue, Calcutta 13.
Varat Pump & Machinery Pvt. Ltd.—20, Netaji Subhas Road, Calcutta.
Victory Construction Co. Ltd.—Grosvenor House, 21, Old Court House Street, Calcutta 1.

**WATER SUPPLY SPECIALISTS PRIVATE LTD.—P.O. Box No. 424, Gujarat Mansion, Mission Row Extension, Calcutta 1; Head Office: 8, Hamam Street, Bombay 1; Phone: 252325; Grams: "PUMPMEN"; Branches: Madras & New Delhi and Secunderabad; Sole Agents for Myers Pumps, Manufacturers of "WASP" Pumping Sets etc.**

Western India Industries P. Ltd.—10, Clive Row, Calcutta.
William Jacks & Co. Ltd.—16, Netaji Subhas Road, Calcutta 1.

## RADIO MANUFACTURERS & DEALERS

All India Trading Co.—1, Central Avenue, Calcutta.
Allied Radio Industries.—153A, Vivekananda Road, Calcutta.
Alpha Radios & Novelties Ltd.—8, Madan Street, Calcutta 13.
Associated Electronics.—10, Prinsep Street, Calcutta 13.
Betar Bhaban.—34, Ganesh Chandra Avenue, Calcutta.
Bhatia Radio Corporation.—4/1, Madan St., Calcutta 13.
Britannia Talking Machine Co. (Cal.).—184, Dharamtola Street, Calcutta.
Calcutta Radio Service.—34, Ganesh Chandra Avenue, Calcutta 13.
Calcutta Radio Stores.—4/1, Shambhu Nath Pandit St., Calcutta 20.
C. C. Saha Ltd.—45, Moti Sil Street, Calcutta 13.
Central Radio Service Pvt. Ltd.—25/A, Chittaranjan Avenue, Calcutta 13.
Cystophone Sound Corpn. Ltd.—115-A, Amherst Street, Calcutta.
Debsons Pvt. Ltd.—2, Madan Street, Calcutta.
D. N. Nundy.—1, Dharamtola Street, Calcutta.
Dey & Sons, K.C.—161/1, Harrison Road, P.O.B. No. 6799, Calcutta 7.
Eastern Electric & Trading Co.—Hall & Anderson Bldg., 31, Chowringhee Road, Calcutta.
Eastern Trading Co.—2, Royal Exchange Place, Calcutta.
Electrical Distributors.—3, Mangoe Lane, Calcutta 1.
Electro Radio Emporium.—76/1, Cornwallis Street, Calcutta.

**ELECTRO RADIOS PRIVATE LTD.—10, Chowringhee Road, Calcutta 13, and New Capital, Bhubaneswar (Orissa). Wireless & Sound Engineers, Importers, & Wholesalers.**

Electronic Radio & Sound Agencies.—18, Chandni Chowk, Calcutta 13.
Elvoc Pvt. Ltd.—3, Panditiya Road, Calcutta.
Flashlight (I) Ltd.—135, Princep Street, Calcutta.
General Radio & Appliance Pvt. Ltd.—3, Madan Street, Calcutta 13.
General Radio Co.—6, Madan Street, Calcutta.
Ghosh & Co.—49, Chowringhee Centre, Calcutta 13.
Gramophone & Radio Dealers.—188, Dharamtolla Street. Calcutta 6.
Gramo Radio Emporium.—80B, Vivekananda Road, Calcutta 6.
Gramo Radio Stores.—54-A, Bhupendra Bose Avenue, Calcutta 4.
Harry's Music House.—18/2, Chowringhee Road, Calcutta.
Hindco Electric Co.—54, Ezra Street, Calcutta.
Hind Radio Pvt. Ltd.—51, Chittaranjan Avenue, Calcutta 12.
Hindustan General Electric Corpn. Ltd.—Thapar House, 25, Brabourne Road, Calcutta.
Hindustan Musical Products Ltd.—6/1, Akrur Dutt Lane, P.O. Bow Bazar, Calcutta 12.
India Radio Mfg. Co.—18, Chandni Chowk Street, Calcutta 13.
International Radio Emporium Pvt. Ltd.—3/2, Madan Street, Calcutta 13.
Istaro.—20, Lindsay Street, Calcutta 16.
Lalwani Radio Corpn.—6/3, Madan Street, Calcutta 13.
Megaphone Co.—77-1, Mahatma Gandhi Road, Calcutta 7.
Mehta & Co.—2, Lindsay Street, Calcutta 16.
Mehta & Sons, R. V.—14, Bentick Street, Calcutta.
Modern Radio Service.—48, Free School Street, Calcutta 16.
Modi Radio Co.—129/7, Harrison Road, Calcutta 7.
Nan & Co.—9A, Dalhousie Square East, Calcutta.
Nerode Baran Sen & Bros.—11, Bentick Street, Calcutta.
Oriental Radio Corpn.—P-34, Mission Row Extension, Calcutta 13.
Parul Betar.—134/B, Cornwallis Street, Calcutta.
Philips India Ltd.—7, Justice Chandra Madhab Road, Calcutta.
R. Shantilal & Co., Private Ltd.—31-C, Brabourne Road, Calcutta 1.
Radio & Accessories (India) Ltd.—3, Madan Street, Calcutta 13.
Radio Club.—89, Southern Avenue, Calcutta 29.
Radio Distributing Co.—1, Central Avenue, Calcutta 13.
Radio Electrics Corpn. Pvt. Ltd.—2, Madan Street, Calcutta.
Radio Engineers & Co.—10, Lower Circular Road, Calcutta 17.
Radio & Photostores.—65, Ganesh Ch. Avenue, Calcutta.
Radio Manufacturers of India.—P-28, Ganesh Chandra Avenue, Calcutta.
Radio Museum.—164/3, Russa Road, Calcutta 25.
Radio Research Institute of Service Engineering.—78/3, Ekoalia Road, Calcutta 19.
Radio Spares.—8, Madan Street, Calcutta 13.
Radio Supply Stores Pvt. Ltd.—3, Dalhousie Square, Calcutta.
Radio Technics.—64/A, Jatindra Mohan Avenue, Calcutta 5.
Radiohms Agencies.—6, Madan Street, Calcutta 13.

Radios (India) Ltd.—11, Lindsay Street, Calcutta 16.
Recol's (India) Ltd.—2, Church Lane, Calcutta.
Rogers & Co., G.—12, Dalhousie Square, Calcutta.
Sen & Bros., N.B.—11, Esplanade East, Calcutta.
Senola Musical Products Co.—11, Esplanade East, Calcutta 1.
Sen's Radio Service.—133A, Rashbehari Avenue, Calcutta.
Shree Kamla Stores, (Pvt.) Ltd.—46, Upper Chitpore Road, Calcutta 7.
Singh Radio & Sound Engineering.—9, Chowringhee Road, Calcutta 13.
Singh Supply Stores.—41/1, Shambhu Nath Pandit Street, Calcutta 20.
Sonorous.—208, Rash Behari Avenue, Calcutta.
Southern Engineering Co., Ltd.—22, Strand Road, Calcutta.
Standard Radio & Winding House Pvt. Ltd.—1, Chandni Chowk Street, Calcutta 13.
Standard Radio Service.—8, Madan Street, Calcutta 13.
Swastika Radio Electric Stores.—12, Lower Chitpur Road, Calcutta.
Tarafdar & Sons.—36/2, Russa Road, Calcutta 26.
Thudurson Electronics.—10, Suren Sarkar Road, Calcutta 10.
United Agency Co.—141, Syamaprasad Mukherjee Road, Calcutta.
Utility Radio Co.—82/3, B, Cornwallis Street, Calcutta.

## RADIOS & ACCESSORIES

**INDIA RADIO MANUFACTURING CO.—Manufacturers of 'Bani' Radio Sets and Parts; Transformers for Radio, Cinema, Medical and Industrial Equipments up-to 10 KVA; 18, Chandni Chowk Street, Calcutta-13; Phone: 235925.**

## RAILWAY MATERIALS

**RAMCHANDER HEERALALL.—Manufacturers of Dog and Round Spikes, Rivets, Fish Bolts and Nuts, Tie Bars, Cotters, Gibs, Liners, Plates Bearing Canted and Flat, Anticreep Bearing Plates, Anchor Plates CS-9 Sleepers, Ballast Rakes Phowrahs, Bars Claw and Crow, Hammers, Rail Tongs, Axleguards and Wagons and Carriage Fittings to IRS Drawings and Specifications; 138, Canning Street, Calcutta-1; Phone: Office: 22-95461/47, Workshop: 67-3533.**

## RAZORS & RAZOR BLADES

Balubhai & Brothers.—87, Canning Street, Calcutta 1.
Harbans Lal Malhotra & Sons Private Ltd.—18, Netaji Subhas Road, Calcutta-1.

**NATIONAL RAZORS & BLADES (PRIVATE) LTD.—35, Stephen House, 4, Dalhousie Square, Calcutta. Manufacturers of 'Bonze', 'Ek Number', 'Metro', 'Prabhat' Blades and Metro Brand Safety Razors; Phones: Office: 23-5412, Factory: 573452. Grams: "INDMERSUP."**

Panama Pvt. Ltd.—18, Netaji Subhas Road, Calcutta 1.

## RECTIFIERS

**ELVOC PRIVATE LTD.—Manufacturers of 'ELVOC' Brand Sclenium Metal and Silicon Tectifiers for AC to DC Conversion and Battery Charging Purposes to Customers' Specifications; 36, Panditia Road, Calcutta-29; Phone: 463820, 464416 & 460194.**

## ROAD BUILDING MACHINERY

**SUR IRON & STEEL CO. PRIVATE LTD.—Manufacturers of 'Sisco' Stone Crusher and granulator; 15, Convent Road, Calcutta-14; Phone: 241307.**

## ROPE MANUFACTURERS & DEALERS

Anadi Nath Manna.—62, Netaji Subhas Road, 2nd Floor, Calcutta.
Bally Rope Works.—59, Netaji Subhas Road, Calcutta.
Banerjee G. D. & Co. Pvt. Ltd.—Bakulia House, Kidderpore, Calcutta.
Bengal Rope Works.—16-B, Ratan Neogy Lane, Calcutta 4.
Bengal Rope Works Pvt. Ltd.—18, Raja Monindra Road, Calcutta 37.
Calcutta Rope Mfg. Co., Ltd.—22, Raja Woodmunt St., Calcutta.
Ganges Rope Co. Ltd.—2, Fairlie Place, Calcutta.
G. D. Banerjee & Co. Pvt. Ltd.—Bakulia House, Kidderpore, Calcutta 23.
Gungadhur Banerjee & Co. Pvt. Ltd.—51-52, Benaras Road, Near Salkia, Howrah.
Harton, W. H. & Co. Ltd.—8, Dalhousie Square East, Calcutta.
Indian Twine Ball Factory.—12, Tamer Lane, Calcutta 9.
Manton & Martin.—70, Netaji Subhas Road, Calcutta.
Mullick S. C. & Co.—23-1, Strand Road, Calcutta.
Oriental Tape Mfg. Co.—301, Grand Trunk Road, Sibpore, Howrah.
Oriental Trading Agency.—301, G. T. Road, Sibpore, Howrah.
R. & R. Bros.—7, Swallow Lane, Calcutta 1.
Reliance Trading Co.—8B, Amratola Lane, Calcutta.
Shalimar Rope Works Ltd.—14, Netaji Subhas Road, Calcutta.
Sircar & Co. P. C.—67-1, Badridas Temple Street, Calcutta 4.
Victoria Steam Rope Works.—88, College Road, Howrah.

## ROSIN & TURPENTINE

**BHAGWAN FINANCE CORPORATION PRIVATE LTD.—Manufacturers of Rosin, Ester Gum, Turpentine and Pine Oil; H.O.: 10, Clive Row, Calcutta-1; Phone: 229501 (2 Lines); Factory: Industrial Area, Rajpura, Punjab; Branch: Dharampore (Simla Hills).**

## RUBBER GOODS MANUFACTURERS & DEALERS

A. H. Trading Co.—20/1/A, Eden Hospital Road, Calcutta 13.

**ALBERT SMITH & CO.—P. B. No. 2786, Calcutta-1; Rubber (Neoprene and Synthetic), Ebonite and Bakelite Moulded goods, Industrial Leather goods, Felt Products, Paint Brushes Hand Trolleys and Trolley Wheels, 'V' Belts and Industrial Beltings; Phone: 22-2915, Sales: 226901.**

American Rubber Mfg. Co.—9, Clive Row, Calcutta 1.
Asian Industries.—27, Tollygunge Circular Road, Calcutta 33.
Asiatic Rubber Industries.—45, N. Subhas Road, Calcutta.
Asiatic Rubber Works Ltd.—54-10, Chingrihatta Road, Calcutta.
Assam Bengal Rubber Works Ltd.—11, New Tangra Road, Calcutta 15.
Associated Engineering Stores.—20, Netaji Subhas Road, Calcutta 1.
Associated Rubber & Plastic Works.—61, Bentinck Street, Calcutta.
Banerjee & Co., A.N.—71-A, Netaji Subhas Road, Calcutta.
Bengal Waterproof Works (1940) Ltd.—32, Theatre Road, Calcutta 16.
Bharat Rubber Industries Pvt. Ltd.—17, Paymental Garden Lane, Calcutta.
Calcutta Rubber Mfg. Co.—92, Narkeldanga Main Road, Calcutta 1.
Central Rubber Works (Pvt.) Ltd.—20-B, Tangra Rd., Calcutta 15.
Cosmos India Rubber Works P. Ltd.—7, Waterloo Street, Calcutta 1.
Dunlop Rubber Co. (India) Ltd.—Dunlop House, 57-B, Free School St., P.B. No. 391, Calcutta 16.
East India Rubber Works Pvt. Ltd.—161, Chittaranjan Avenue, Calcutta.
Firestone Tyre & Rubber Co. of India Pvt. Ltd.—76, Lwoer Circular Road, Calcutta 14.
George Spencer Moulton & Co. (India) Pvt. Ltd.—239, Lower Circular Rd., Calcutta 20.
General Industrial Stores Supplying Co. P. Ltd.—10, Clive Row, Calcutta.

**GLOBE TRADE AGENCY.—Manufacturers Agents and Stockists of Suction and Delivery Hoses (Water, Petrol, Air, Welding etc.), Canvas Hose, Sheets and Belting, Gloves and Shoes and General order Suppliers; 66, Canning Street, Calcutta-1; Phone: 346008.**

Goodyear Tyre & Rubber Co. of India Pvt. Ltd.—209, Lower Circular Rd., Calcutta.
Hind Rubber Works.—17, Bibi Bagan Lane, Calcutta 15.

**HINDUSTAN RUBBER WORKS LTD.—Manufacturers and Exporters of 'PALICAN' Rain Coats, Gumboots, Hospital Sheetings, Hotwater Bottles, Ice Bags, Air Beds, Air Pillows, Swimming Rings, Rubber Floor Tiles and Moulded Mechanical Goods; 14, Ballygunge Station Road, Calcutta-19; Phone: 46-4340 and 46-3259, Grams: "RUBPROOF".**

India Rubber Goods Mfg. Co.—30-H-2, Canal East Road, Calcutta 11.
India Tyre and Rubber Co. P. Ltd.—1, Waterloo St., Calcutta.
Indian Rubber Goods Mfg. Co.—30-H-2, Canal East Road, Calcutta 11.
Indian Rubber Mfrs. Ltd.—4, Lyons Range, Calcutta.
Industrial Leather & Rubber Works.—24, Strand Road, Calcutta.
International Rubber Mfg. Co.—51, Radhanath Chowdhry Road, Tangra, Calcutta 15.
Radar Rubber Mfg. Co. Pvt. Ltd.—46-B, Theatre Road, Calcutta 16.

**KOHINOOR RUBBER WORKS.—36/1A, Canal East Road, Calcutta 11. Manufacturers and Exporters of Canvas & Rubber Shoes, Football Bladders, Hospital Rubber Sheetings.**

Krishna Rubber Industries.—3, Barratto's Lane, Calcutta 1.
Modern Rubber Mfrs. Pvt. Ltd.—12/1/B, Lindsay Street, Calcutta 16.
Mundra & Co.—8, Canning Street, Calcutta.
National Rubber Mfrs. Ltd.—Leslie House, 19, Chowringhee, Calcutta 13.
National Rubber Works.—171-A, Mahatma Gandhi Road, Calcutta 7.
National Tyre & Rubber Co. India Ltd., Rowland Road, Calcutta 20.
Nundlal Inderchand Ltd.—1, Canning St., Calcutta 1.
New India Rubber Works Pvt. Ltd.—34-A, Chingrighatta Road, Calcutta 15.
Olympia Rubber Works.—10, Paymental Garden Lane, Calcutta-15.
Oriental Rubber Works.—171-A, Mahatma Gandhi Road, Calcutta 7.
Popular Rubber Industries.—152/2B, Beliaghata Main Road, Calcutta.

**POPULAR RUBBER WORKS PRIVATE LTD.—Stockists of Rubber Hose, Tubes, Sheets, Insulations, Ebonite Rods and Sheets Plastic Tubes; 20, Netaji Subhas Road, Calcutta-1; Phone: 225002.**

R.B.S. Rubber Mills Pvt. Ltd.—3, Bentinck St., Calcutta.

Rubber Equipment & Engineering Co. P. Ltd.—4-C, Garstin Place, Calcutta 1.
Rubber Moulding Co.—39, Strand Road, Calcutta.
Rubber Products & Moulding Co.—9-A, Bechanlal Road, Calcutta 46.
Rubber Products Ltd.—20, Netaji Subhas Road, Calcutta 1.

**S. G. R. INDUSTRIES PRIVATE LTD.—10, The Mall, Dum Dum, Calcutta 28; Manufacturers of Mechanical Rubber Goods, Trolley Wheels, Rubber Seals, Diaphragm, Conveyor Belting, etc.**

United Tyres.—59-D, Chowringhee Road, Calcutta 20.
Wren & Co., D.—25, Swallow Lane, Calcutta 1.

## SANITARY ENGINEERS & SANITARY APPLIANCES MANUFACTURERS AND DEALERS

Advance Engineering Corporation.—12B, Clive Row, Calcutta.
Annapurna Metal Work.—3, Ashu Biswas Road, Calcutta 25.
Asoka Trading Corporation.—46, Dharamtolla St., Calcutta 13.
Atlas Industries Co.—13C, Raja Rajkissen St., Calcutta 6.
Bengal Machine Works.—112, Narasingha Dutt Road, Howrah.

**BRITANNIA BUILDING & IRON CO. LTD.—Stephen House, 4, Dalhousie Square East, Calcutta-1.**

Calcutta Constructors P. Ltd.—34, Strand Road, Calcutta 1.
D. C. De & Sons.—150, Narasingha Dutta Road, Howrah.
Emporia of Commercial Stores.—22, N. Subhas Road, Calcutta.
H. G. Fewkes & Co. Pvt. Ltd.—44B, Wellesley St., Calcutta 15.

**K. SHORE & CO.—For all types of Building, Sanitary, Plumbing work; 3, Mangoe Lane, Calcutta-1; Phone: 237338, 464735.**

J. M. Sain & Brothers.—110, College St., Calcutta 12.
National Planning & Construction Ltd.—16, Ganesh Ch. Avenue, Calcutta 13.
P. A. Govardhan Das.—5, Clive Ghat Street, Calcutta 1.
Pushupati Pan & Sons.—23, G. Russa Road, Kalighat, Calcutta 26.
Robsan & Co. P. Ltd.—P-14, Mission Row Extension, Calcutta 1.
Sanitary & Plumbing Stores Ltd.—146, Shyama Prosad Mookerjee Road, Calcutta 26.

**SCIENTIFIC TRADING CORPORATION.—Specialised in Industrial Septic Tanks, Activated Sludge Plants, Sever Lines, Modern Bathrooms and Temporary Sanitation arrangement, 10-A, Dum Dum Road, Calcutta-30; Phone: 563075.**

S. C. Bose.—309, Bowbazar Street, Calcutta 12. Phone: 22-5970.
S.D.M. Syndicate.—219, Bowbazar St., Calcutta 12.

**THAKURDASS SUREKA.—40, College Street, Calcutta 12.**

## SCIENTIFIC & SURGICAL APPARATUS & INSTRUMENTS MANUFACTURERS & DEALERS

Adair Dutt & Co. (India) Pvt. Ltd.—5, Dalhousie Sq. East, Calcutta.
Advani Pvt. Ltd.—3/D, Garstin Place, Calcutta 1.
Alcock W.J. & Co. Pvt. Ltd.—7, Hastings St., Calcutta.
Allen & Hanburys Ltd.—D-3, Gillander House, Netaji Subhas Road, Calcutta 1.
Allied Glass Industries.—28A, Fakir Chakrabarty Lane, Calcutta 6.
Anglo-Swiss Watch Co.—6 & 7, Dalhousie Sq. East, Calcutta.
Artico.—5, Dalhousie Sqr. (East), Calcutta.

**ASNI CORPORATION.—Anything for Measurement (Test & Control) of Pressure, Vacuum and Temperature Industrial Testing and analytic Insruments; Also Engineering, Precision and other Tools; 135, Canning Street, Calcutta-1; Phone: 224295, Branch: Post Office Box No. 1294, Madras-1.**

Associated Elec. Industries (India) Pvt. Ltd.—6, Mission Row, Calcutta.

**ASSOCIATED INSTRUMENT MFRS. (INDIA) PRIVATE LTD.—B. 5, Gillander House, Calcutta; Phone: 223304. Grams: "AIMIL".**

Associated Scientific Corporation.—232-B, Upper Circular Road, Calcutta 4.
Atlas Scientific Corpn.—12, Naya Ratna Lane, Calcutta 4.
Bajaj Electricals Ltd.—10, Ganesh Ch. Avenue, Calcutta.
Banka & Sons.—8, India Exchange Place, Calcutta 1.
Basmall & Co. (India) Pvt. Ltd.—296/98, Jessore Road, Calcutta 28.
Bell's Asbestos & Engg. (I) Pvt. Ltd.—24, Chittaranjan Avenue, Calcutta.
Bengal Chemical & Pharmaceutical Works.—6, Ganesh Chandra Avenue, Calcutta.
Bengal Scientific & Technical Works P. Ltd.—20-3, Ashwini Dutt Road, Calcutta 29.
Bien Artium Central Sciences P. Ltd.—6, Mangoe Lane, Calcutta 1.
Biological Supply Concern Pvt. Ltd.—14, Hare Street, Calcutta 1.
B. K. Shaw Industries P. Ltd.—P-3, B. K. Paul Avenue, Calcutta.
Bombay Surgico Medical Agency Ltd.—113, Chittaranjan Avenue, Calcutta 12.
Bysakh & Co.—55, W.C. Banerjee St., Calcutta.
Calcutta Scientific Mart.—21, Tamer Lane, Calcutta 19.
Chemical & Surgical Works Ltd.—186, Bowbazar St., Calcutta 12.
Chuckervertty Chatterji & Co. Ltd.—15, College Square, Calcutta 12.
Cossipore Glass Blowing Works.—60, Satchasipara Road, Cossipore, Calcutta 2.
Das, K. K. & Co.—14-2, Old China Bazar St., Calcutta.
Darbara Singh & Sons.—14, Bowbazar St., Calcutta.
Dawn Bros.—P-43, B. K. Pal Avenue, Calcutta 5.
Deformity Appliances and Hospital Stores.—3, College Square, Calcutta.
Eastern Scientific Co.—3-A, Beliaghata Main Road, Calcutta 10.
Economic Scientific Works.—97-A, Sree Ram Dhang Road, Salkia.

**EDUCATION EMPORIUM.—115-A, Chittaranjan Avenue, Calcutta 7; Manufacturers of "JANTRAM" Brand Scientific and Technical Laboratory Instruments & "THERMO-POWER" Gas Plants for Laboratory and Industry.**

G.E.C. of India Ltd.—Magnet House, Chittaranjan Avenue, Calcutta.
Geologists' Syndicate Pvt. Ltd.—137, Canning St., Calcutta.
Gharpure & Co.—P/36, Royal Exchange Place Extension, Calcutta.
Gramophone Co. Ltd.—33, Jessore Road, Dum Dum.
H. Mukherji & Banerjee Surgical Pvt. Ltd.—39-1. College Street, Calcutta 12.
Hospital Supply Co.—111, Chittaranjan Avenue, Calcutta 12.

**INDIAN CHEMICALS & SCIENTIFIC INSTRUMENT WORKS—Manufacturers of all sorts of Physics, Chemistry, Biology, Psychology and Geography Instruments, Gas Plants, Laboratory Furniture etc., 208, Bepin Behari Ganguli Street, Calcutta-12; Phone: 348597, 348755 and 353939.**

Indian Glass Works Ltd.—262, Acharya Praf. Chandra Road, Calcutta 6.
Indian Oxygen Ltd.—48-1, Diamond Harbour Road, Calcutta 27.
Indian Scientific Accessories P. Ltd.—8, Abhoy Sarkar Lane, Calcutta.
Industrial Instrument Co.—30, Strand Road, Calcutta.
Instruments and Equipments.—35, Chittaranjan Avenue, Calcutta 12.
Instrument Research Laboratory.—309, Bowbazar St., Calcutta 12.
Instrument Works.—37B, Bosepara Lane, Calcutta 3.
James Murray & Co. Pvt. Ltd.—5, Old Court House Street, Calcutta 1.
Jayer & Co.—12, Netaji Subhas Road, Calcutta 1.
Jenny Christensen (Service Apartments) P. Ltd.—7, Pretoria St., Calcutta 16.
Johnson, S. U. & Co.—1-2, Jadu Mitra Lane, Calcutta 4.
Kay Orr & Brothers.—P-36, India Exchange Place Extn., Calcutta 1.
Kinlab Pvt. Ltd.—5, Marquis St., Calcutta 16.
Laboratory Requisite Suppliers.—P-33, Pollock Street, Calcutta 1.
Lens and Scientific Instruments Co. P. Ltd.—5, Old Court House St., Calcutta.
Luxmi Scientific Glass Works.—Ultadanga Main Road, Calcutta 4.
Mahindra Engg. Co. Pvt. Ltd.—51, Chowringhee, Calcutta.
Mansfield Oil Gas Co. Ltd.—16, Radhanath Choudhury Rd., Calcutta 15.
Medical Appliances Mfg. Co.—20, Netaji Subhas Road, Calcutta 1.
Medical Supply Concern Ltd.—197, Cornwallis Street, Calcutta.
Megna Industries Pvt. Ltd.—22, Canning Street, Calcutta 1.
Mercantile Union P. Ltd.—309, Bepin Behary Ganguly Street, Calcutta 12.
Model General Stores Co.—7-D, Indra Roy Road, Calcutta 25.
Mukherjee & Banerjee Surgical Ltd.—39-1, College St., Calcutta 12.
Nabanil & Co.—3, Chittaranjan Avenue, C-4, Bharat Bhavan, Calcutta 13.
N.G.B. Concern Ltd.—9, Nayan Chand Datta St., Calcutta 6.
New Indian Scientific Apparatus Co.—20, Radha Kanto Jew St., Calcutta 4.
Nundon, T. C. & Sons.—46-B, Kansaripara Rd., Bhowanipore, Calcutta 25.
Oster Chemical & Pharmaceutical Works Pvt. Ltd.—78-B, Manicktolla Street, Calcutta 6.
Paul's Scientific Industries.—3/1G, Chidam Mudi Lane, Calcutta 6.
Pharma Ortho Surgicals.—33, College St., Calcutta 12.
Philips India Pvt. Ltd.—7, Justice Chandra Madhab Road, Calcutta.
Precision Instrument Corpn. (India) Pvt. Ltd.—46, Dharamtolla Street, Calcutta 13.
Premier Surgical Dressing Co.—3, Bright St., Calcutta.
Purban Private Ltd.—37, Dharamtala Street, Calcutta-13.
Radio Lamp Works Ltd.—10, Ganesh Ch. Avenue, Calcutta 10.
Rimco.—15-B, Nalin Sircar St., Calcutta 4.
S. K. Biswas & Co.—137, Bipin Behary Ganguly Street, Kolay Buildings, Calcutta 12.

**S. P. SINGH & CO.—(Scientific Division), Direct Importers and Stockists of Laboratory and Scientific Glass Apparatus and Equipment; 62, Ganesh Chandra Avenue, Calcutta-13; Phone: 242615 & 244975.**

Scientific & Surgical Equipment Pvt. Ltd.—112, Chittaranjan Avenue, Calcutta 7.
Scientific Apparatus Mfg. Co. Ltd.—4, Rashmoni Bazar Road, Calcutta 10.
Scientific Glass Apparatus and Sintered Glasswares.—11, Ultadanga Road, Calcutta 4.
Scientific Glass Apparatus Co.—5A, Prasanna Kumar Tagore St., Calcutta 6.
Scientific Glass Apparatus Mfg. Co.—11-2, Hari Nath Dey Road, Calcutta 9.

Scientific Industries India P. Ltd.—34, Banerji Bagan Lane, Howrah.
Scientific Instrument Co. Ltd.—11, Esplanade East, Calcutta.
Scientific Instrument Manufacturing Co.—3, Sastitala Road, Narkeldanga, Calcutta 11.
Scientific Instruments Manufacturers and Repairers.—24/1, Kedar Chatterjee Lane, Calcutta 34.
Scientific Miscellany Co.—15, Convent Road, Calcutta 14.
Scientific Repairs & Trading Co.—27, Beniapukur Road, Calcutta 14.
Scientific Supplies and Services.—P-39, Princep Street, Calcutta 13.
Scientific Supplies (Bengal) Co.—Town Office, C-37 & 38, College St., Market, Calcutta 12.
Siemens Engg. & Mfg. Co. of (India) Ltd.—24, Chittaranjan Avenue, Calcutta.
Sircar S. & Co. Ltd.—Ezra Mansions, 10, Govt. Place East, Calcutta 1.
Technological Equipment Co. P. Ltd.—Industrial Estate, Calcutta 35.
Toshniwal Brothers P. Ltd.—11, British Indian St., Calcutta 1.
Uday Scientific Industries P. Ltd.—5, Bhabanath Sen Street, Calcutta 4.

## SCREW MANUFACTURERS & DEALERS

Allied Metal & Steel Industries.—16, Chhotelal Misra Road, P.O. Ghusuri (Howrah).
A. M. Mullick & Co.—84-A, Netaji Subhas Road, Calcutta 1.
Bengal Screw Mfg. Co.—2, Clive Row, Calcutta.
Capstan Wire Products Pvt. Ltd.—34, Netaji Subhas Road, Calcutta 1.
Jugal Kishore Karmoker & Bros.—12, Jadu Pandit Road, Beadon Street, Calcutta 6.
Modern Engineering Works.—12, Jadu Pandit Road, Beadon Street, Calcutta 6.
Standard Screws Industries.—280, G. T. Road, Howrah.
Steel & Allied Products.—Mukherji House, 17, Brabourne Road, Calcutta 1.

## SEWING MACHINES

Bose & Co.—149/1, Dharamtalla Street, Calcutta.
Don Watson & Co. Pvt. Ltd.—19, British Indian St., Calcutta 1.
Electrical Distributors.—3, Mangoe Lane, Calcutta 1.
Hind Sewing Machines Ltd.—14, Sircar, Lane, Calcutta 7.

**JAY ENGINEERING WORKS LTD.—183-A, Prince Anwarshah Road, Calcutta 31, P.O. Box No. 2158, Calcutta ; Phone: 463461 (9 Lines) ; Grams : "USHAKO"—Calcutta ; Manufacturers and Exporters of Usha Sewing Machines.**

Kumar Sewing Machines Co.—94, Lower Chitpore Road, Calcutta
Lotus Industries.—322, Armenian St., Calcutta 1.
Singer Sewing Machine Co.—29. Waterloo St., Calcutta.

**SINGER SEWING MACHINE CO.—Industrial Sewing Machines for all purposes, Manual and Power, Factory organisation and Planning, Export Mechanical Service, 29, Waterloo Street, Calcutta; Phone: 232637.**

## SEWING THREAD MANUFACTURERS & DEALERS

India Ball Thread Co. Pvt. Ltd.—85, Burtalla St., Calcutta 7.
Mohta Trading Co.—4, Tonsook Lane, Calcutta 7.
Oriental Tape Mfg. Co.—301, Grand Trunk Road, Sibpur, Howrah.
Standard Sewing Thread Co.—3, Portuguese Church St., Calcutta.
Star Thread Agency.—P-3, Chandni Chowk Street, Calcutta.
Twin Ball Mfg. Co.—27, Fakir Chand Chakravarty Lane, Calcutta.

## SHAFTING

**ALLIED STEEL PRODUCTS.—Manufacturers and Stockists of Bright Bards-Rounds, Hexagons, Squares and Flats and Shaftings; 11/1, Canal East Road Calcutta-4; Phone: 353670, Grams: "BRIGHTBARS".**

## SHELLAC

**GARG & SONS.—Exporters and Dealers in Shellac; 138, Canning Street, Calcutta-1; Phone: 221049, 229711, 229712 and 227966.**

## SHEET METAL MACHINERY

**UNION TOOLS & AGENCIES PRIVATE LTD.—'Brabourne Court', 1, Chandni Chowk Street, Calcutta 13.**

## SHIP REPAIRERS

**CALCUTTA DOCKING ENGINEERING CO.—Ship Repairers, Marine and General Engineers; 12, Government Place East, Calcutta-1; Phone: H.O.: 232878; Tollygunge Works: 46-2509.**

**EAST BENGAL ENGINEERING WORKS.—Managing Agents: Raja Sreenath Roy & Brothers Private Ltd., Ship Repairers, Ship Builders, Marine, Mechanical and General Engineers; 2, Rustomjee Parsi Road, Calcutta-2; Phone: 562673 and 562674.**

## SILK FILATURES & MILLS

Calcutta Silk Mfg. Co. Ltd.—37, Vivekananda Road, Calcutta 7.
Calcutta Woollen & Silk Mills Ltd.—191, Harrison Road, Calcutta 7.
India Silk & Textiles Ltd.—3 & 4, Hare Street, Calcutta 1.
National Silk Mills.—32, Cross Street, Calcutta 7.
Provati Textile Mills.—Panihati, 24 Parganas Dist.
Silko Ltd.—80-B, Park Street, Calcutta 17.
Swadeshi Industries Ltd.—142-A, Jamunalal Bajaj Street, Calcutta 7.
Tollygunj Silk Products.—Tollygunj, Calcutta.

## SMALL TOOLS

Alex Miller (Merchants) P. Ltd.—137, Canning Street, Calcutta 1.
A. Mohammed & Co.—26, Netaj Subhas Road, Calcutta 1.
Asiatic Mfg. Co.—71-A, Netaji Subhas Road, Calcutta 1.
A. S. Abdullabhoy & Co.—81, Netaji Subhas Road, Calcutta 1.
Basmall & Co. (I) Ltd.—56-D, Beadon Street, Calcutta 6.
Bengal Iron & Steel Works.—8, Canning Street, Calcutta 1.
Buher (Asbestos) P. Ltd.—12, Netaji Subhas Road, Calcutta 1.
Burn & Co. P. Ltd.—P-10, Mission Row Extn., Calcutta 1.
Calcutta Hardware Co.—8-A, Ramkrishna Das Lane, Calcutta 9.
D. H. Brothers P. Ltd.—138, Canning Street, Calcutta 1.
Dhakuria Engineering Works P. Ltd.—23-24, Strand Road, Calcutta 1.
Edward Miller & Co.—20, Strand Road, Calcutta 1.
Great Eastern Cutlery Works.—20, Strand Road, Calcutta 1.
Harrison Agency.—71-A, Netaji Subhas Road, Calcutta 1.
Hassanally & Sons.—50, Netaji Subhas Road, Calcutta 1.
Hindustan Machine Tools Corpn.—35, Netaji Subhas Road, Calcutta 1.
Indestro (India) Agency.—38, Netaji Subhas Road, Calcutta 1.
Indian Small Tools Co.—12A, Clive Row, Calcutta.
Indian Tools Corporation.—353, Upper Chitpur Road, Calcutta 6.
Machine Tools (I) P. Ltd.—Wimet House, Russell St., Calcutta 16.
Samuel Osborn (I) P. Ltd.—24, Chittaranjan Avenue, Calcutta.
S. K. Dutt.—20, Strand Road, Calcutta 1.
Subol Dutt & Sons P. Ltd.—13, Brabourne Road, Calcutta 1.
Small Tool Mfg. Co. of India Ltd.—3-1-3A, U. C. Banerjee Road, Calcutta 11.
S. Vanak & Co.—12-C, Clive Row, Calcutta 1.
T. H. Habib & Co.—67B, N. Subhas Road, Calcutta 1.

**UNITED SUPPLY AGENCY PRIVATE LTD.—38, Strand Road, Box 865, Calcutta-1; Agents, Distributors and Stockists of: 'Addison' Engineering Tools, 'ASL' Milling Cutters, 'B.T.C.' Milling Cutters and Adjustable Reamers, B.T.I. Hacksaw Frames, 'BURN-CAPITAL' Twist Drills, 'Car bomudum Universal' grinding Wheels, 'SAP' Hacksaw Blades and Saws and S.T.M. Chasers and Taps; Phone: 220142-44 (Calcutta).**

William Jacks & Co. Ltd.—16, Netaji Subhas Road, Calcutta 1.

## SOAP MACHINERY

**ORIENTAL MACHINERY (1919) PRIVATE LTD.—P-12, Mission Row Extn., Calcutta-1; Phone: 234840; Plodding, Milling, Chipping, Stamping etc. Machines and Dies.**

## SOAP & TOILET MANUFACTURERS

Asiatic Soap Co.—8, Dalhousie Sqr. East, Calcutta.

**BANGA LUXMI SOAP WORKS PRIVATE LTD.—Manufacturers of High Class Toilet, Washing, Liquid, Jute Batching and soft Soaps; 7, Chowringhee Road, Calcutta-13; Phone: 23-9869.**

Bengal Chemical & Pharmaceutical Works Ltd.—6, Ganesh Chandra Avenue, Calcutta 13.
Bihar & Orissa Soap Factory.—28, Raja Brojendra St., Calcutta 7.
Bharat Rabi Soap Works.—70-2-C, Gouribari Lane, Calcutta 4.
Bharat Starch & Chemicals Ltd.—5, Royal Exchange Place, Calcutta 1.
Calcutta Chemical Co. Ltd.—35, Panditia Road, Calcutta 29.
Calcutta Soap Works.—"Calso" Park, Calcutta 39.
City Soap Works (Pvt.) Ltd.—1, Motilal Bysack Garden Lane, Calcutta 11.
Depilatory Soap Factory.—33, Bosepara, South, Bagh Bazar, Calcutta 3.
Dey & Co., Ltd.—56, Netaji Subhas Road, Calcutta.
Dibakar Industries.—7, Bhuban Dhar Lane, Calcutta.
Golden Soap Factory Ltd.—15, Grand Trunk Road, Lillooah, Howrah.
Grihalakshmi Soap Works.—23, Free School St., Calcutta 16.
Himani Pvt. Ltd.—3, Khelat Babu Lane, Calcutta 2.
Hindusthan Dev. Corpn. Ltd.—4, Chittaranjan Avenue, Calcutta 13.
Hindustan Lever Ltd.—Ilaco House, 1 & 3, Brabourne Road, Calcutta.
Howrah Soap Co., Ltd.—18, Netaji Subhas Road, Calcutta.
Howrah Soap Works.—63, Jai Narain Babu's Lane, Khurunt, Howrah.
Hutchison, J. & R. Ltd.—10, Clive Row, Calcutta.
Ihothas Trading Co.—13, Netaji Subhas Road, Calcutta.
Industrial Soap & Chemical Works.—226, Bagmari Road, Calcutta 11.

John Paterson & Co. (India) Ltd.—96, Garden Reach Road, Calcutta 23.
Kusum Products Ltd.—Bombay Mutual Bldgs., 9, Brabourne Road, Calcutta 1.
Major Soap Co. Ltd.—25, Zakaria St., Calcutta.
Mira Chemical Industries Ltd.—11-A, Prince Anwar Shah Road, Tollygunge, Calcutta 33.
Model Soap Co.—Mehta Bldg., 55, Canning Street, Calcutta.
New Bombay Soap Factory.—245/1, Manicktolla Main Road, Calcutta 11.
Nawab Soap Co.—297/1, Upper Circular Road, Calcutta.
Parijat Soap Works.—47-1, Hazra Road, Calcutta 26.
Salim Soap Co.—17, Pollock St., Calcutta.
Shine Bright Soap & Chemical Works.—6, Uttam Ghosh Lane, Salkia, Howrah.
Sisir Soap Works.—12/1, Jessore Road, Dum Dum, 24 Parganas.
Standard Chemical Industries.—378, G.T. Road, North, P.O. Belur Math, Howrah.
Swaika Oil Mills.—18/B, Brabourne Road, Calcutta 1.
Swaraj Perfumery & Soap Works.—237-P, Manicktolla Main Road, Calcutta 11.
Vegetable Soapery.—1, Rajkumar Chatterjee Road, P.O. Cossipore, Calcutta 2.

## SPORTING AND ATHLETIC GOODS MFRS. & DEALERS

B. Das Gupta & Co.—132-6, Cornwallis Street, Calcutta 4.
Basu & Sons.—153/3, Bowbazar Street, Calcutta 12.
Das Gupta & Brothers.—139-B, Cornwallis Street, Calcutta 4.
Diana Agencies.—18-A, Chowringhee, Calcutta 13.

**G. K. SPORTS.—For quality Sports goods, Gymnastic and Playground Apparatus, Games, Toys, Prams, Children's Cycles, and Tricycles, Air Guns and Lawn Mowers, Specialists in Tennis Stringing; 30, Jawaharlal Nehru Road, Calcutta 16; Phone: 235867.**

Ghosh & Co.—9/B, Ramanatha Majumdar Street, Calcutta 9.
Indian Rubber Manufacturers Ltd.—11 & 12, Esplanade Mansions, Calcutta 1.
Kingsing Sports Industries.—45, Bowbazar Street, Calcutta 12.
Kridanak & Co.—14, Surendranath Banerjee Street, Calcutta 36.
Mercantile Agency Syndicate.—3/1, Chowringhee Square, Calcutta 13.
Pioneer Sports (I) Ltd.—25, Chowringhee Road, Calcutta 13.
Sethia Brothers.—4, Chowringhee Centre, Calcutta 13.
Sharma Sports Co.—Lindsay Mansion, Lindsay St., Calcutta 16.

**SYMOND DISTRIBUTORS PRIVATE LTD.—18, Netaji Subhas Road, Calcutta-1 ; Sole Distributors in India for the "SLAZENGER" Sportsgoods made in India. Phone: 22-4945/46. Grams: "FOURSQUARE."**

Uberoi Ltd.—22/1, Chowringhee Road, Calcutta 13.
United Trading Co.—2, Clock Tower, New Market, Calcutta 13.

## SPRING MANUFACTURERS

A.C.A. Spring Mfg. Co.—34, Dr. Jagobondhu Lane, Calcutta.
All Bengal Spring Mfg. Co.—17, Hidaram Banerji Lane, Calcutta 12.
All India Eng. & Spring Mfg. Co.—2/1/1, Ram Moy Road, Bhowanipore, Calcutta 25.
All India Spring Mfg. Co.—135, Netaji Subhas Road, Calcutta.
All India Spring Mfg. Co.—22, Strand Road, Calcutta.
Army Engineering Corpn.—42, Strand Road, Calcutta.

**BHABATARAN SARKAR & SONS.—Stockists of Spring Steel Wire, Piano Wire, Stainless Steel Wire and all kinds of Black and G. I. wires and Spring Steel Strips; 62/1A, Netaji Subhas Road, Calcutta-1; Phone: 331807.**

Bharat Spring Manufacturing Co.—115, Netaji Subhas Road, Calcutta-1.
British India Spring & Steel Co.—67-B, Netaji Subhas Road, Calcutta.
Calcutta Spring Mfg. Co.—71-A, Netaji Subhas Road, Calcutta.
Chicago Spring Mfg. Co.—71-1, Netaji Subhas Road, Calcutta.
Commercial Spring Mfg. Co.—1, Meerbahar Ghat Street, 1st Floor, Barabazar Calcutta.

**COVENTRY SPRING & ENGINEERING CO. (P) LTD.—Spring makers and Designers; 23, Ganesh Chandra Avenue, Calcutta-13; Works: Unit I—Howrah, Unit II—Alampur; Phone: 234256 (3 Lines); Because of qualities of durabiliyr and Faligue resistence Coventry Springs are used Extensively by the Railway, Defence and Automotive Industries.**

Eastern Spring Mfg. Co.—10, Canning Street, Calcutta 1.
Hardson Spring & Steel Co. of India.—Baidyapur, Dist. Burdwan.
Henry Morgan & Co.—71-A, Netaji Subhas Road, Calcutta.
Hindusthan Spring & Steel Co.—56, N. Subhas Road, Calcutta 1.
India Spring & Industrial Co.—20, N. Subhas Road, Calcutta.
India Spring & Steel Corporation.—5A, Clive Ghat Street, Calcutta 1.
Indian Spring Mfg. Co.—159, Panchanantola Road, Howrah.
Indo-British Spring Mfg. Co.—28, Christopher Road, Calcutta 14.
Indo-Burma Spring Mfg. Co.—22, Strand Road, Calcutta
Industrial Steel Works.—29, Strand Road, Calcutta
Joy Narayan Spring Mfg. Co.—103, Howrah Road, Salkia, Howrah.

**LUXMI INDUSTRIAL WORKS.—Manufacturers of all kinds of Springs—Heavy and Light and Washers for all purposes and Stockists of Bearings, Ball, Roller and Spring Steels; 'Jalan House', 4, Panchi Dhobani Lane, Calcutta-7; Phone: 343211, Grams: "CARDCAN", Works: Howrah.**

Mahabir Spring & Steel Co.—11, I.R. Belilios Lane, Howrah.
Mahalakshmi Spring Mfg. Co.-54, Cristopher Road, Calcutta 46.
Metropolitan Spring Mfg. Co.—23, Strand Road, Calcutta.
Modern Engineering Works.—12, Jadupandit Road, Beadon St., Calcutta.
New Dominion Eng. Works.—1/B, Pottery Road, Calcutta 15.
Oriental Spring Mfg. Co.—8, Sil Lane, Calcutta 15.
Pols Spring & Steel Co.—111-B, Netaji Subhas Road, Calcutta.
Regular Spring Mfg. Co.—113-G, Netaji Subhas Road, Calcutta.
Reliable Spring Mfg. Co.—91, N. Subhas Road, Calcutta 1.
Reliance Spring & Steel Co.—15A, Pottery Road, Calcutta 15.
Royal Spring & Steel Co.—P-58, Benares Road, Dassnagar, Howrah.
Samson Industries P. Ltd.—22, N. Subhas Road, Calcutta.
Samson Spring & Engineering Co.—62, Panchanantolla Road, Howrah.
Sheffield Spring & Steel Co.—135, Canning St., Calcutta.
Sirco.—4/10, Convent Lane, Calcutta 15.
Spring Mfg. Co.—7C, Deb Lane, P.O. Entally, Calcutta 14.
Spring Products & Steel Co.—6-2, Kamardanja Road, Calcutta 46.
Swami & Co.—40-1, Strand Road, Calcutta.
Swasti & Co.—5A, Clive Ghat Street, Calcutta.
Swastik Spring & Steel Works.—P-36, India Exchange Place, Calcutta 1.
Tapas Engineering Co.—19-8, Pottery Road, Calcutta 15.

**YOUNG GRADUATE & CO.—For any kind of Spring, Spring Washer, Valve Reeds and Hercules Bed frame underlays, Specialists in Road Spring; 126/C, Dharamtala Street, Calcutta-13; Phone: 242412 & 243360, Grams: "ROADSPRING".**

## SPRING STEEL DEALERS

**BHABATARAN SARKAR & SONS.—Stockists of Spring Steel Wire, Piano Wire, Stainless Steel wire and all kinds of Black and G.I. wires and spring Steel Strips; 62/1A, Netaji Subhas Road, Calcutta-1; Phone: 331807.**

**MANDELIA BROTHERS.—Importers and Stockists of all kinds of Spring Steels, Specialists in Spring Steel Strips hardened and annealed quality of all Sizes and Gauges; 40, Netaji Subhas Road, Calcutta-1; Phone: 222700 & Resi: 344091.**

## STAINLESS STEEL

Amalgamated Universal Agencies (Cal.).—2nd Floor, Block C-211, 71, Canning Street, Calcutta 1.

Ashok Metal Industries Ltd.—157, Netaji Subhas Road, Room No. 161, Calcutta-1.

**BOMBAY STAINLESS STEEL HOUSE.—P-37-A, Kalekar Street, Calcutta 7; Goverment and Railway Contractors Specialists for Stainless Stell Hospital, Surgicals, Canteen, Cutlery & Household Wares. Phone: 335853 (Office) 229161 (Res.). Grams: "RAJAMART".**

Chandra Industries Private Ltd.—59, Cotton Street, Calcutta-7.
Corporated Engineers (I) Pvt. Ltd.—7, Chittaranjan Avenue, Calcutta 13.
H. C. Giddings Pvt. Ltd.—B-1, Hide Road, Kidderpore, Calcutta.
Krudd Industries Ltd.—20/21, Stephen House, Dalhousie Square East, Calcutta.
Mepco & Co.—124, M. Gandhi Road, Calcutta 7.
Pelican Engineers.—161, Upper Chitpore Road, Calcutta 5.
Standard Steels (I) P. Ltd.—P-7, Mission Row Extension, Calcutta 1.

## STATIONERY & OFFICE EQUIPMENT MFRS. & SUPPLIERS

A. P. Manufacturing Co.—7, Khairu Lane, Calcutta 13.
Asiatic Typewriter Co.—6, Hastings Street, Calcutta 1.
Bengal Stationery Concern.—14/2, Old China Bazar Street, Calcutta.
Bharat Carbon & Ribbon Mfg. Co. Ltd.—19, British Indian Street, Calcutta 1.
Bharat Sales Ltd.—19, British India Street, Calcutta 1.
B. Motiram & Co.—B.-52/53, S. S. Hogg Market, Calcutta 13.
Bradma of India Ltd.—20/B, Park Street, Opp. Park Mansions, Calcutta 16.
Ciciko Office Machines Pvt. Ltd.—300, Bowbazar Street, Calcutta 12.
Continental Commercial Co. Ltd.—8/1, Dalhousie Square East, Calcutta.
Cosmo Equipment Co.—41/19A, Russa Road, Calcutta.
Eastern Industries Co.—9/4, Patuatola Lane, Calcutta 9.
F. N. Gooptu & Co.—12, Beliaghata Road, Calcutta 15.
G. Atherton & Co. Ltd.—4, Mission Row, Calcutta.

General Equipment Merchants Ltd.—9, Mission Row, Calcutta.
Gocool Chunder Dutt & Co.—1, Mission Row, Calcutta.
H. Mukherjee & Co.—14/2, Old China Bazar Street, Calcutta.
International Computers & Tabulators (India) Pvt. Ltd.—2 & 8, Clive Row, Calcutta 1.
Jayantilal & Co.—55/131, Canning Street, Calcutta.
J. B. Traders (India).—10, Princep Street, Calcutta 13.
J. K. Business Machines Ltd.—2, Mangoe Lane, Calcutta 1.
J. Sur & Co.—3, Dalhousie Square East, Calcutta.
Kilburn & Co. Ltd.—4, Fairlie Place, Calcutta.
Kores (India) Ltd.—7, Canal Street, Calcutta 14.
Latham Abercrombie & Co. Pvt. Ltd.—30, Ganesh Chandra Avenue, Calcutta 13.
M. S. Ahmed & Co.—58/6, Canning Street, Calcutta.
National Cash Register Co.—4D, Dalhousie Square, Stephen House, Calcutta.
Nilmony Hldar & Co.—11, Chittaranjan Avenue, Calcutta 13.
Oriental Seal Wax Co.—31, Stephen House, Dalhousie Square East, Calcutta 1.
P. N. Ganeson & Sons.—P-35, India Exchange Place, Calcutta.
Pioneer Typewriter Co.—1, Netaji Subhas Road, Calcutta.
Pioneer Stationery House.—2/1, Old Court House Corner, Calcutta.
P. Sur & Co.—14/2, Old China Bazar Street, Calcutta.
Queen Stationery Stores P. Ltd.—63-E, Radha Bazar Street, Calcutta 1.
Rapidol Industries Co.—24-E, Sura Third Lane, Calcutta 10.
Remington Rand of (India) Ltd.—3, Council House Street, Calcutta.
Roneo Ltd.—P-13, Mission Row Extn., Calcutta.
Shree Lakshmi Industries & Chemicals Ltd.—116/1/1, Harrison Road, Calcutta 7.
Standard Sales Agency.—27-B, Chittaranjan Avenue, Calcutta 13.
Standard Trading Co.—43, Ezra Street, Calcutta 1.
Sulekha Works Ltd.—Jadavpur, Calcutta 32.
Super Toilet & Chemical Co.—80, Cornwallis Street, Calcutta 6.
W. Newman & Co., Ltd.—3, Old Court House Street, Calcutta.

## STEAM & HYDRAULIC PACKINGS

**BELL'S ASBESTOS & ENGINEERING (INDIA) PRIVATE LTD.—24, Chittaranjan Avenue, Calcutta-12 ; "BESTO-BELL" Packings and jointings, "SEATRIST" Rings, Cups, Collars and Seals; Phone: 23-3756 (4 Lines) Khanna Construction House, 44, Abdul Gaffar Road, Worli, Bombay 18.**

## STEEL

**ALLIED STEEL PRODUCTS.—Manufacturers and Stockists of Bright Bars-Rounds, Hexagons, Squares and Flats and Shaftings; 11/1, Canal East Road, Calcutta-4; Phone: 353670, Grams: "BRIGHTBARS".**

**BHABATARAN SARKAR & SONS.—Stockists of Spring Steel wire, Piano wire, Stainless Steel wire and all kinds of Black and G.I. wires and Spring Steel Strips; 62/1A, Netaji Subhas Road, Calcutta-1; Phone: 331807.**

**HIND STEEL CORPORATION.—Importers and Stockists of High Speed Steel, Carbon Steel, High Carbon High Chromium Steels, Nickel Chrome Steels, Stainless Steel, Hot Die Steel, Bright Shaftings and other E.N. Specifications steel etc., Shop: 35, Netaji Subhas Road, Calcutta-1; Phone: 220028; Office: 53, Netaji Subhas Road, Calcutta-1; Phone: 222759.**

**MILLER & CO. (CALCUTTA) PRIVATE LTD.—Importers & Stockists of all purpose Tool and Alloy Steels, Stainless Steels, High Speed Steels, Carbon Steels, Die Steels, Nickel chrome Steels, High Carbon High Chromium Steel etc., 24, Netaji Subhas Road, Calcutta-1; Phone: 227181 & 225175.**

## STEEL DOORS & WINDOWS

**STEELWYN CORPORATION.—Manufacturers of Steel Windows, Doors, Industrial Sashes as per B.S. or I.S. Specification or purpose; 286, Bepin Behari Ganguly Street, Calcutta-12; Phone: 342183.**

## STEEL CASTINGS

**AWAT SING & CO.—For Mn. Steel and C.S. Castings; Specially for Stone Crushers, Sugar Mills and Cement Factory Parts; Complete Stone Breakers and Jams for all types of Crushers available; P-15, New C.I.T. Road, Calcutta-12; Phone: 346065, Grams: "AWATSCO"—Calcutta.**

## STEEL FURNITURE & FITTINGS

Acme Manufacturing Co.—"Jain House," 8/1, Esplanade East, Calcutta 1.
Allied Steel Merchandise Corporation.—5A, Clive Ghat St., Calcutta 1.

**ANAND METAL & STEEL WORKS.—Manufacturers of all kinds of Steel Furniture, Hospital and Office Equipments, Agricultural Implements and Structural; 137, Canning Street, Calcutta-1; Phone: 220315 (2 Lines).**

Associated Steel Products Corpn.—23/24, Radhabazar Street, Calcutta 1.
Bengal Iron & Engg. Works.—39, Surendra Chandra Chatterji Lane, Salkia, Howrah Dist.
Bengal Iron & Steel Works.—8, Canning Street, Calcutta 1.
Bharat Sheet Metal Industries Ltd.—22, Beerpara Lane, Dum Dum, Calcutta.
Blackwoods India Ltd.—1, Taratolla Road, Calcutta.
Bombay Safe & Steel Works P. Ltd.—56, N. Subhas Road, Calcutta 1.
Bungo Steel Furniture P. Ltd.—57, Diamond Harbour Road, Behala, Calcutta.
Challeno Engineering Works.—26, Brabourne Road, Calcutta 1.
Commercial Syndicate.—22, Canning Street, Calcutta.
Cromelite (I) Pvt. Ltd.—P-35, India Exchange Place, Calcutta 1.
Electrical Distributors.—3, Mangoe Lane, Calcutta 1.
French Engineering Works.—150, Rash Behari Avenue, Calcutta 29.
General Engg. Corpn. of India.—29, Shamnagar Road, Dum Dum, Calcutta.
Globe Agencies.—137, Canning Street, Calcutta 1.
Godrej & Boyce Mfg. Co. P. Ltd.—9, Brabourne Road, Calcutta.
Goodman & Co. I. Pvt. Ltd.—38, Netaji Subhas Road, Calcutta.
G. S. Agency.—88, Keshab Sen Street, Calcutta 9.
Hero Industries.—43/1, Strand Road, Calcutta 7.
Imperial Safe Mfg. Co.—105, Harrison Road, Calcutta 7.
India Industrial Mission.—Cossipore, Calcutta 2.
India Metal Industries Co.—243-D, Upper Circular Road, Calcutta 6.
India Metal & Steel Products.—21/1, Lalbazar St., Calcutta.
India Steel Furniture Mfg. Co.—95, M. Gandhi Road, Calcutta 7.
Indian Metal & Steel Products Ltd.—1, Ram Krishna Nasker Lane, Beliaghat, Calcutta.
Indian Stores Supplying Co.—137 Canning Street, Calcutta 1.
Indo Engineering Works.—125, S. N. Roy Road, Calcutta 38.
Jaiswal Industrial & Cutlery Mfg. (India) Ltd.—111-BT Road, Calcutta.
Kem Engineering Works.—7, Convent Road, Calcutta 14.
Metropolitan Structural Works.—2-B, Satya Dr. Road, Kidderpore, Calcutta.
Narayan Iron & Steel Co. P. Ltd.—23/B/1, Diamond Harbour Road, Calcutta 8.
Orient Safe & Cabinet Mfg. Co. P. Ltd.—133, Canning Street, Calcutta.
Raja Industrial Corpn., Pvt. Ltd.—No. 1, 7, Murlidhar Lane, Calcutta. 7, No. 2, Madhab Ghose Road, Salkia, Howrah.
Rassco Mfg. & Supplying Agency.—30, Wellington Street, Calcutta 12.
S. C. Karmarker & Co.—741, Hazra Road, Ballygunge, Calcutta.
Shankar Engineering Works.—52/1, Dr. A. Bani Datt Road, Howrah.
Shree Bajrang Electric & Steel Co., Ltd.—1, Kali Mazumdar Road, Howrah.
Steel Furniture & Construction Co.—6, Brabourne Road, Calcutta 1.
Steel Products Ltd.—96, Garden Reach Road, Kidderpore, Calcutta.
Steelwyn Corporation.—P-11, Chitpur Road, Calcutta 7.
Sudsons Pvt. Ltd.—3, Esplanade East, Calcutta 1.
Victory Engineering Works.—40, Tangra Road, Calcutta 1.

## STEEL IMPORTERS

Aminchand Payarelal.—135, Canning Street, Calcutta.
Bajoria Agency Pvt. Ltd.—174, Mahatma Gandhi Road, Calcutta.
Bengal Corpn. (Pvt.) Ltd.—14, Netaji Subhas Road, Calcutta.
B. R. Herman & Mohatta (I) Pvt. Ltd.—19, British Indian Se., Calcutta.
Bharat Overseas (Pvt.) Ltd.—P.N.B. House, 18-B, Brabourne Rd., Calcutta.
Hope Prudhomme & Co. (Pvt.) Ltd.—7, Wellesley Place, Calcutta.
Industrial Importers (Pvt.) Ltd.—Stephen House, Calcutta 1.
J. S. Cohen & Co.—6-A, Sudder Street, Calcutta.
Kalinga Tubes Co., Ltd.—33, Chittranjan Avenue, Calcutta.
Khandelwal Bros. (Pvt.) Ltd.—33, Netaji Subhas Road, Calcutta.
Khemchand Rajkumar.—33, Netaji Subhas Road, Calcutta.
Lakshminarayan Ramniwas.—18, Netaji Subhas Road, Calcutta.
Louis & Dreyfus & Co.—18-A, Brabourne Road, Calcutta.
Machino Techno (Sales) Pvt. Ltd.—33, Netaji Subhas Road, Calcutta.
Mahindra & Mahindra Ltd.—Hall & Anderson Bldg., Calcutta.
P. L. Bhatt & Co.—5, Clive Row, Calcutta.
Rallis India Ltd.—16, Rare Street, Calcutta.
Ramkrishna Kulwantrai.—33, Netaji Subhas Road, Calcutta.
Raymon & Co. (I) Pvt. Ltd.—2, Brabourne Road, Calcutta 1.
Seth Nanakchand Shadiram.—29, Strand Road, Calcutta.
Shree Krishna Pvt. Ltd.—20, Mangoe Lane, Calcutta.
Soorajmull Nagarmull.—8, Dalhousie Square, Calcutta
Standard Stores & Agency Pvt. Ltd.—24, Chittaranjan Avenue, Calcutta.
Stores Supply (India) Agency.—5-A, Clive Ghat Street, Calcutta.
Surendra (Overseas) Pvt. Ltd.—135, Canning Street, Calcutta.
Thapar Industrial Corporation.—29-A, Chandra Nath Chatterji Street, Calcutta 25.
United Steel Co. (I) Pvt. Ltd.—P-13, Mission Row Extension, Calcutta.
Vasantrai Shantilal.—13, Narayan Prasad Babu Lane, Calcutta.
V. D. Swami & Co. Pvt. Ltd.—2, Mangoe Lane, Calcutta.

## STEEL RE-ROLLING MILLS

Agarwal Hardware Works Private Ltd.167, Chittaranjan Avenue, Calcutta 7.
Bengal Rolling Mills Ltd.—67/B, Netaji Subhas Road, Calcutta.
Bhartia Electric Steel Co., Ltd.—4, Old Court House Street, Calcutta.
Bhartia Steel & Engineering Co. Pvt. Ltd.—61, Keshab Sen Street, Calcutta.
Bombay Steel Rolling Mills Ltd.—33, Netaji Subhas Road, Calcutta.
British India Rolling Mills.—1, Janaki Dass Lane, Calcutta 7.
Calcutta Iron, Steel & Non-Ferrous Metal Works.—22, Canning St., Calcutta.
Calcutta Steel Co. Ltd.—4, Old Court House Street, Calcutta.
Chaliha Rolling Mills.—5, Mission Row, Calcutta.
Dass Steel Industries of India.—19, Maharshi Devendra Road, Calcutta 7.
Guest, Keen Williams Ltd.—41, Chowringhee Road, Calcutta.
Hindusthan Iron & Steel Co.—8, Rajendra Deb Road, Calcutta.
Indian Iron & Steel Co., Ltd.—12, Mission Row, Calcutta.
Lalchand Mahadeblal.—7, Hazarimull Shah Road, Salkia.
Lilooah Steel & Wire Co. Pvt. Ltd.—5, Muktaram Babu Street, Calcutta.
National Engineering Co. Ltd.—33, Netaji Subhas Road, Calcutta.
National Iron & Steel Co., Ltd.—Stephen House, 4 Dalhousie Square, Calcutta 1.
National Rolling & Steel Ropes Ltd.—4, Stephen House, Calcutta.
Orient Iron & Steel Co. Pvt. Ltd.—2, Height Road, Lillooah, Howrah.
Rama Rolling Mills.—156, Manicktola Main Road, Calcutta.
Sanganeria Co. Pvt. Ltd.—9, Jagmohan Mullick Lane, Calcutta.
Shree Bajrang Electric Steel Co. (Private) Ltd.—9, Waterloo Street, Calcutta.
Shree Hanuman Steel Rolling Mills Co. Ltd.—8, Dalhousie Sqr. East, Calcutta.
Shree Laxmi Iron & Steel Works Pvt. Ltd.—P/16, Kalakar St., Calcutta.
Sri Durga Rolling Mills.—197/1, G.T. Road, Ghusuri, Howrah.
Steel Equipment & Construction Pvt. Ltd.—22, G.T. Road, Lillooah, Howrah.
Steel Rolling Mills of Bengal Ltd.—2, Maharshi Devendra Road, Calcutta.
Steel Rolling Mills of Hindustan Private Ltd.—135, Canning Street, Calcutta.
Sun Rolling Mills Pvt. Ltd.—8, Cornwallis Street, Calcutta.
Swadeshi Industries Ltd.—142-A, Jamunalal Bajaj Street, Calcutta 7.
United Rolling Mills Pvt. Ltd.—160, Girish Ghosh Road, P.O. Belur Math, Howrah.

## STEVEDORES

A. C. Roy & Co., Pvt. Ltd.—5, Mission Row, Calcutta.
Alex Millers Pvt. Ltd.—7, Old Court House Street, Calcutta 1.
Balailal Mookerjee & Co. Pvt. Ltd.—Wardley House, 25, Swallow Lane, Calcutta.
Banerjee & Chatterji Pvt. Ltd.—10/1, Elgin Road, Calcutta 20.
Banerjee Santosh Ch. & Sons P. Ltd.—7, Swallow Lane, Calcutta 1.
Baney Madhab Mookerjee & Co.—74, Bentinck Street, Calcutta.
B. Bose Pvt. Ltd.—43, Dharamtala Street, Calcutta.
Butterworth & Farmer.—14, Alipore Park Road, Alipore.
Calcutta Supply Agency.—8, Canning Street, Calcutta 1.
Chatterji & Hazra Pvt. Ltd.—37, Canning Street, Calcutta 1.
Chinoy Chablani & Co.—13, Brabourne Road, Calcutta 1.
Darabshaw B. Cursetjee's Sons Pvt. Ltd.—13, Brabourne Road, Calcutta 1.
Eastern Co. P. Ltd.—114, Stephen House, D. Square East, Calcutta 1.

**E. C. BOSE & CO. PRIVATE LTD.—(Estd.: 1851), Stevedores, Marin & Labours Contractors, 22, Strand Road, (1st Floor), Calcutta-1; Phone: 223105, 225193 & 220749 (Office). 452609 (Dock Office); Branch 7/452, Gokhale Road, Maharanipeta, Vizag-2, Phone: Vizag-93; Grams: "ALLURING"—Calcutta and Vizag.**

H. M. Coria & Son Pvt. Ltd.—35, Chittaranjan Avenue, Calcutta 12.
J. N. Mukerjee & Co., Pvt. Ltd.—20, Strand Road, Calcutta.
Keshavlal P. Gorsia.—24, Strand Road, Calcutta.
M. Elias Pvt. Ltd.—18, Netaji Subhas Road, Calcutta.
Mookerjee Balailal & Co. P. Ltd.—25, Swallow Lane, Calcutta 1.
Nareshnath Mookerjee.—6, Clive Row, Calcutta 1.
P. E. Davis & Co.—Mezzanine Floor, 18, Strand Road, Calcutta.
P. Mukherjee & Co.—19, Strand Road, Calcutta 1.
Santos Chandra Banerjee & Sons Pvt. Ltd.—7, Swallow Lane, Calcutta.
Sarat Chatterjee & Co., Pvt. Ltd.—3, Mangoe Lane, Calcutta.
Sen Mukherji & Co.—P-20, Radhabazar Street, Calcutta 1.
Sharma & Co.—8-2, Fern Road, Calcutta 19.
T. C. Chatterjee & Co.—10, Canning Street, Calcutta 1.
T. P. Roy Chouduri & Co. Pvt. Ltd.—4/B, Chowringhee Place, Calcutta 13.

## STRUCTURAL ENGINEERS & CONTRACTORS

**AMAR STEELS PRIVATE LTD.—Fabricators of Light and Medium Steel Structures, Storage Sheds, Tanks, Tank Lorries, Stagings, Chimneys, Towers, Coal Tubs, Tipping Wagons, Fencing Posts etc., 33, Brabourne Road, Calcutta-1; Phone: Office: 229271 and 220117, Res: 456606.**

**MECHANICAL ENGINEERING CO., PRIVATE LTD.—Manufacturers of all types of Trailers, Trolleys, Barrows, Specialised in heavy types Trailers upto 50 Tons; 5, Mission Row, Calcutta-1; Phone: 232161 (2 Lines), Grams: "DEVICE".**

**BRITANNIA BUILDING & IRON CO. LTD.—Stephen House, 4, Dalhousie Square East, Calcutta-1.**

## SUGAR MILL MACHINERY

A. C. Roy.—41-1, Belilios Lane, Howrah.
Bengal Iron Works P. Ltd.—16-2, Chatterjee Para Lane, Howrah.
B. N. Panchal & Sons P. Ltd.—208, Belilios Road, Howrah.

**BERY BROTHERS.—Manufacturers of Water Drivnr, High Speed Water Driven, Belt Driven and Electric Driven Sugar Centrifugals, Crystallizers, Cooling Coils, Magma, Molasses and Milk of Lime Pumps, Carbonation and Sulphitation, Vessels, Grass Hoppers and Screw Conveyors, Sugar Graders, Juice Heaters, Sugar Elevators, Filter Cloth Washing Machine, Megma Mixer etc., 135, Canning Street, Calcutta-1; Phone: 222420 & 226028.**

East India Engineering & Agency Co.—63-1, Banaras Road, Norht Bantra, Howrah.
D. K. Das & Co. P. Ltd.—233, Belilios Road, Howrah.
Fakir Chand Dass Mistry & Sons P. Ltd.—143/44, Belilios Road, Howrah.
Howrah Engineering Concern P. Ltd.—19, Maharshi Debendra Road, Calcutta 6.
Howrah Iron & Steel Works P. Ltd.—90, Banaras Road, Salkia.
India Weighing Scales & Engineering Co. P. Ltd.—233, Belilios Road, Howrah.
J. N. Puri.—206, Belilios Road, Howrah.
K. C. Dass.—32, Natabar Paul Road, Howrah.
Luxmi Engineering Co. P. Ltd.—123, Narasingha Dutt Road, Howrah.
Panchkori Ghosh & Sons P. Ltd.—166, Belilios Road, Howrah.
Senapati Brothers P. Ltd.—132, Belilios Road, Howrah.
Ultra Engineering Co.—172-8, Madhusudan Pal Choudhry Lane, Howrah.

## SURGICAL DRESSINGS

**CALCUTTA SURGICAL COTTON CO.—Manufacturers of Absorbent Cotton Wool, Sanitary Towels, Bandage, Gauge, Lint and all Varieties of Surgical Dressings; 115, Canning Street, Calcutta-1 Phone: 225070.**

## SURGICAL INSTRUMENTS

Associated Rubber & Plastic Works—55, Bentinck Street, Calcutta.
Balahari Sardar & Bros.—7, Nalin Sarkar Street, Calcutta 1.

**BENGAL CHEMICAL & PHARMACEUTICAL WORKS LTD.—6, Ganesh Chunder Avenue, Calcutta 13; Pharmaceuticals, Heavy & Fine Chemicals, High Class Toilet Products, Coal Tar Distillation Products, Fire Extinguishers, Printing inks, Driers, etc.; Branch Offices: Bombay & Kanpur.**

Bengal Waterproof Works Ltd.—32, Theatre Road, Calcutta.
Bhattacharya Rubber Works Ltd.—174, Jessore Road Dum Dum, Calcutta.
Calcutta Surgical Co.—33, Canning Street, Calcutta 1.
Dental Goods Supply Co.—Bowbazar St., Calcutta.
East India Rubber Works Ltd.—161, Chittaranjan Avenue, Calcutta.
Hindusthan Rubber Works Ltd.—14, Ballygunge Station Road, Calcutta.

**H. MUKERJI & BANERJEE SURGICAL PRIVATE LTD.—Manufacturers and Importers of Surgical, Scientific and optical Instruments, Aseptic Hospital Furniture Sterilizers, Electro-Medical Apparatus, Orthopaedic Appliances, Hernia Trusses, Abdominal Supporters and Hygienic Rubber Goods etc., Head Office: 39/1, College Street, Calcutta-12; Showroom: Asutosh Building, Colootolla Street, Calcutta-12; Orthopaedic Department: 52/1, College Street, (1st Floor), Calcutta-12; Works: 53, Biren Roy Road (West), Behala, Calcutta-8; Phone: 343352 (Head Office), 343713 (Showroom), 342109 (Orth. Dept.) and 455869 (Works).**

Jayer & Co.—12/A, Netaji Subhas Road, Calcutta 1.
P. Hematlal & Co.—71, Canning Street, Room No. A-106, 1st Floor, Calcutta 1.
Premier Surgical Dressing Co.—34, Bright Street, Calcutta.
R.B.S. Rubber Mills Pvt. Ltd.—Lillooah, Howrah.

## TABLET MAKING MACHINES

**ORIENTAL MACHINERY (1919) PRIVATE LTD.—P-12, Mission Row Extn., Calcutta-1; Phone: 234840; Medicinla Tablet, Ink Tablet, Camphor Tablet, Napthalene Tablet making Machines etc.**

## TANNERIES AND LEATHER GOODS MANUFACTURERS

Basak Sett & Co.—3, Abhoy Ghosh Lane, Calcutta.
Brand S. B. & Co.—80, Pathuriaghat Street, Calcutta.
Chingsue Tannery.—P.O.B. No. 962, Calcutta.
Chowdhury & Sons.—18, Old China Bazar Street, Calcutta.
Cuthbertson & Harper (India) Ltd.—10, Govt. Place, Calcutta.
Dutt S. L. & Bros.—59, Netaji Subhas Road, Calcutta.
Ideal Leather Works.—40, Central Avenue, Calcutta 12.
Industrial Leather Co.—3-1, Indra Roy Road, Calcutta 25.
Jubilee Tannery.—54-A, Tiljala Road, Calcutta 19.

**MITTER FOREIGN TRADE CORPORATION.—Mitter House, 71, Ganesh Chandra Avenue, Calcutta-13; Phone: 246231/2; Sole Agents in India for 'KOVO' Tanning & Footwear Machines, Industrial Extract Ltd., Australia for Tanning Products, Richard Hodgson & Sons Ltd., U.K. for Synthetic Tanning Agent, Dainichi Seiko & Co. Ltd., Japan for Wood-working Machinery, Technoexport for Rubber Processing Machinery, Manufacturers of Panooling Bate, Suppliers and exporters of finished Leather; Associates: Mitter foot-wear Corporation; Manufacturers of quality Shoes—Gents & Ladies Chappals etc.; A.C. Mitter & Co. (Mfg.) Pvt. Ltd., Manufacturers of Blue Cut Tacks, Square Tacks, Panel Pins etc.**

Modern European Tannery.—10, Topsia Road, Calcutta 15.
Morrison & Cottle, Pvt. Ltd.—30-G, Chowringhee Road, Calcutta 16.
National Tannery Co. Ltd.—Mercantile Bldgs., Lall Bazar St., Calcutta 1.
Reliance Tanneries.—3, Mangoe Lane, 2nd Floor, Calcutta 1.
Young & Co.—44, Chittaranjan Avenue South, Calcutta 12.

## TAPE & WEBBING MANUFACTURERS

Allied Trading Corporation.—71-A, Netaji Subhas Road, Calcutta.
Oriental Tape Mfg. Co.—301, Grand Trunk Road, Sibpore, Howrah.

## TAPS & DIES

**DIES & TOOLS LTD.—Manufacturers of 'DITO' Brand Tungsten Carbide Drawing Dies for Wires, Tubes, Bars, Electrodes, Pipes etc., 11, Rajendra Nath Mukherjee Road, Calcutta-1; Phone: 238387.**

**RELIANCE HARDWARE MART.—Office: 12, Clive Row, Calcutta-1, Shop: 135, Canning Street, Calcutta-1; Stockists of Small Tools, Hardware and Pipe Fittings; Manufacturers of Taps and Dies of all descriptions. Phone: 223871, Resi: 349765.**

## TARPAULIN MANUFACTURERS & DEALERS

A. N. Mukherjee Ltd.—10, Shamlal Street, Calcutta 4.
Calcutta Proofing & Paulin Mfg. Co. P. Ltd.—62, Alipore Road, Calcutta 27.

**CANVAS GOODS MANUFACTURING CO.—Manufacturers and Dealers in Tarpaulins, Ground Sheets, Kit-Bags, Bulking Sheets, Aprons, Jeep-Hoods, Jute, Canvas, Hessian, Rubber Cloth Water-proofed and Dyed Canvas; 19, Synagogue St., Calcutta-1; Phone: 227464.**

Chandi Charan Nayak Pvt. Ltd.—124-1, Bowbazar Street, Calcutta 12.
Dharma Das Sen.—115, Netaji Subhas Road, Calcutta.

**F. HARLEY & CO.—5, Dehi Serampore Road, Calcutta 14.**

Hemraj Girdharimull.—56, Netaji Subhas Road, Calcutta 1.

**INDIA WATERPROOFING & DYEING WORKS.—Dyers, Waterproofers and Fabricators of Canvas, Tarpaulins, Tents, Rain Coats, Awnings, Ground sheets, Army Equipments etc. and Exporters.**

Kilburn & Co. Pvt. Ltd.—2, Fairlie Place, Calcutta 1.
Madhoprasad Mahabirprasad.—9, Parsee Church Street, Calcutta.
Mukherji Pvt. Ltd., A. N.—10, Shamlal Street, Calcutta 4.
New India Mercantile Co. Pvt. Ltd.—8, India Exchange Place, Calcutta.
New India Proofing Co.—Calso Park, Tiljala, Calcutta 39.
Premier Canvas Co.—28, N. S. Bose Road, Calcutta.
Railway Supply Corpn. Pvt. Ltd.—P-31, Mission Row Extn., Calcutta.
Shew Prosad Bishnu Prosad.—11, Dinu Rakhit Lane, Calcutta 5.
Sircar Bro . Pvt. Ltd.—26-1, S. N. Roy Road, Calcutta 38.
Soobashah & Co.—12, Zakaria Street, Calcutta 1.
Tarachand Gupta & Co.—131, Cotton Street, Calcutta 7.
Textile Waste Co.—113G, Netaji Subhas Road, Calcutta.

## TEA AGENCY HOUSES

Andrew Yule & Co. Ltd.—8, Clive Row, Calcutta 1.
Balmer Lawrie & Co. Ltd.—21, Netaji Subhas Road, Calcutta 1.
Brooke Bond Estates India Ltd.—2, Metcalfe Street, Calcutta 12.
Davenport & Co. Pvt. Ltd.—6, Church Lane, Calcutta 1.
Duncan Bros. & Co. Ltd.—31, Netaji Subhas Road, Calcutta 1.
Gillanders Arbuthnot & Co., Ltd.—Post Box No. 174, Gillander House, Calcutta 1.
James Finlay & Co. Ltd.—2, Netaji Subhas Road, Calcutta 1.
James Warren & Co. Ltd.—31, Chowringhee Road, Calcutta 16.
Jardine Henderson Ltd.—4, Clive Row, Calcutta 1.
Kettlewell Bullen & Co. Ltd.—21, Strand Road, Calcutta 1.
Kilburn & Co. Pvt. Ltd.—4, Fairlie Place, Calcutta 1.
Macneill & Barry Ltd.—2, Fairlie Place, Calcutta 1.
McLeod & Co. Ltd.—3, Netaji Subhas Road, Calcutta 1.
Octavius Steel & Co. Ltd.—14, Old Court House Street, Calcutta 1.
Shaw Wallace & Co. Ltd.—4, Bankshall Street, Calcutta 1.
Williamson Magor & Co. Ltd.—4, Mangoe Lane, Calcutta 1.

## TEA BROKERS & MERCHANTS

Carritt Moran & Co. Pvt. Ltd.—9, Mission Row, Calcutta.
Figgis, A. W., & Co., Private Ltd.—D-6, Gillander House, Calcutta 1.
J. Thomas & Co. Pvt. Ltd.—8, Mission Row, Calcutta.
S. K. Chakravertty & Co.—8-A, Lall Bazar Street, Calcutta.
Sudhir Chaterjee & Co. Pvt. Ltd.—31, Mission Row Extn., Calcutta.
Tea Brokers Pvt. Ltd.—29, Ganesh Chandra Avenue, Calcutta.
W. S. Cresswell & Co. Pvt. Ltd.—3, Clive Row, Calcutta.

## TEA CHEST FITTINGS MANUFACTURERS

Assam Metal Works.—35, Chittaranjan Avenue, Calcutta 12.
Assam Bengal Veneer Industries Pvt. Ltd.—9, Clive Row, Calcutta 1.
Assam Plywood Products.—76-A, Jatindra Mohan Avenue, Calcutta 5.
Beezee Industries.—72-5, Upper Circular Road, Calcutta 9.
Bengal Tea-chest Fittings Mfg. Pvt. Ltd.—180, Mahatma Gandhi Road, Calcutta 7.
B. S. & Co.—33, Brabourne Road, Calcutta 1.
Cassava (India).—122-D, Raja Dinendra Street, Calcutta 4.
Cassava (India)—21, Cour Laha Street, Calcutta.
Hind Metal Industries.—86, Basantlal Saha Road, Calcutta.
Indian Tea Chest Company.—7, Sagar Dutt Lane, Calcutta 12.
Iron & Steel Mfg. Syndicate.—8, Eden Hospital Road, Calcutta 12.
N. C. Chakraborty.—34-A, Chetla Road, Calcutta 27.
National Trading Corpn.—12-A, Netaji Subhas Road, Calcutta 1.
Oriental Supplier Syndicate.—36, Brabourne Road, Calcutta 1.
Rajasthan Metal Works.—4. Jagomohan Mullick Lane, Calcutta 7.
S. M. Ali Pvt. Ltd.—Post Box 2533, Calcutta 1.
Sk. Abed Ali, 9, McLeod Street, Calcutta 16.
Sk. Baker Ali & Company.—65, Phears Lane, Calcutta 12.
Sri Bengal Tea-Chest Fittings Mfg. P. Ltd.,—180, M. Gandhi Road, Calcutta 7.
Star Fitting Works.—64, Pathuriaghata Street, Calcutta 6.
Venesta Foils Ltd.—Kamarhati (Dt. 24 Parganas).
Zeedoneil Industries (India) Pvt. Ltd.—20, Strand Road, Calcutta 1.

## TEA GARDEN STORES

A. C. Roy.—41-1, Belilios Lane, Howrah.
A. S. Abdullabnoy & Co.—81, Netaji Subhas Road, Calcutta 1.

**AGARWALA, S. P. & CO.—Manufacturers and Dealers in Tea Chest Shooks, Fittings, Buttens and A/Linings and other requirements for Tea Garden Stores and implements; 161/1, Mahatma Gandhi Road, (2nd Floor, Room No. 55-A)., Calcutta. Phone: 335621 & 338263.**

Barooahs & Associates P. Ltd.—5, Mission Row, Calcutta 1.
Chandi Charan Nayak P. Ltd.—124/1, Bowbazar Street, Calcutta 12.
Corporated Engineers (India) Ltd.—7, Chittaranjan Avenue, Calcutta.
D. C. Auddy & Brothers.—30, Strand Road, Calcutta 1.
Dey Dhur & Co.—53, Netaji Subhas Road, Calcutta 1.
D. Wren & Co.—Wardley House, 25, Swallow Lane, Calcutta 1.
Eastern Economic Engineering Co.—24, Strand Road, Calcutta 1.
Elmec P. Ltd.—20, N. Subhas Road, Calcutta 1.
Ganguli & Co.—89, Netaji Subhas Road, Calcutta 1.
Gladstone Lyall & Co. Ltd.—4, Fairlie Place, Calcutta 1.
Goodman & Co.—44-1, Canal East Road, Manicktolla, Calcutta.
Great Eastern Cutlery Works.—20, Strand Road, Calcutta 1.
Gupta Enterprise.—24, Brabourne Road, Calcutta 1.
Hind Enterprises.—4, Mission Row, Calcutta 1.
Howrah Iron & Steel Works P. Ltd.—90, Benaras Road, Salkia.
International Stores.—73, Netaji Subhas Road, Calcutta 1.
J. C. Condoo & Sons.—22, Raja Woodmunt Street, Calcutta 1.
J. H. Fenner & Co. (I) Ltd.—10/3-A, Mercantile Buildings, Calcutta 1.
Kartick Churn Dutt & Co.—134, Canning Street, Calcutta 1.
Kaybee & Co.—13, Brabourne Road, Calcutta 1.
Lakshmi Narayan Engineering Works—133, Belilios Road, Howrah.
M. Chowdhury & Co.—113-G, Netaji Subhas Road, Calcutta 1.
Mathew & Co.—5, Kasi Nath Dutt Road, Barnagore, Calcutta 86.
Morris Balfour & Co.—25, Netaji Subhas Road, Calcutta 1.
Mundra & Co.—8, Canning Street, Calcutta 1.
S. D. Garbis & Co.—83, Elliot Road, Calcutta 16.
S. P. Agarwala & Co.—161/1, M. Gandhi Road, Calcutta 7.
S. F. Products (I) Ltd.—P. Box 411, Calcutta.
Standard Stores & Agency P. Ltd.—34, Chittaranjan Avenue, Calcutta 12.
Tarachand Gupta & Co.—141, Cotton Street, Calcutta 7.
United Kerala Trading Corpn.—12/B, Netaji Subhas Road, Calcutta 1.
Water Supply Specialists P. Ltd.—Post Box 424, Calcutta 1.
Winsome Trading Co.—23/24, Radhabazar Street, Calcutta 1.

## TEA MACHINERY

**DAVIDSON OF INDIA PRIVATE LTD.—10, Middleton Row, Calcutta-16; In Collaboration with Davidson & Co. Ltd., Sirocco Engineer Works, Belfast (Specialists in Fans and Grit Arrestors for all Industrial requirements and Tea Processing Machinery) Phone: 235146 also Davidson of India Private Ltd., 2nd Floor, Khanna Construction Bldg., 44, Maulana Abdul Gaffar Road, Worli, Bombay-18.**

## TEA MERCHANTS

All India Tea & Trading Co. P. Ltd.—E-3, Clive Bldgs., Calcutta 1.
A. Tosh & Sons.—P-32/33, Royal Exchange Place Extension, Calcutta.
Ajad Hind Tea Co.—28, Mechua Bazar Street, Calcutta.
B. K. Saha & Bros. Pvt. Ltd.—5, Pollock Street, Calcutta.
Barooahs & Associates Pvt. Ltd.—5, Mission Row, Calcutta.
Bhansali & Co.—56, Ezra Street, Calcutta.
Chandmull Batia.—7, Canning Street, Calcutta.
Chhaganlal Kasturchand.—16 Pollock Street, Calcutta.
D. C. Ghose & Co. (Agents) Ltd.—11, Govt. Place East, 1st Floor, Calcutta.
D. Dayalbhai & Co.—12-13, Amratolla Street, Calcutta.
Dilaverkhan Rahimkhan Co. Private Ltd.—12, Amratolla Lane, Calcutta.
Dwarkadas & Co.—37, Ezra Street, Calcutta.
Eastern Tea Co.—207-3, Mahatma Gandhi Road, Calcutta 7.
G. A. Randerian Ltd.—16, Ganesh Chandra Avenue, 5th Floor, Calcutta 13.
G. Ambalal (Export) Pvt. Ltd.—4, Mission Row Extension, Calcutta.
G. Patel & Co.—2, Brabourne Road, Calcutta.
Goenka & Sons.—25, Waterloo Street, Calcutta.
Gordhandas Lalji.—8, Parsee Church Street, 1st Floor, Calcutta.
Guganram Tarachand.—402, Upper Chitpur Road, Calcutta.
Hazara Singh Indersingh.—8, Amratolla Street, Calcutta 7.
Hindusthan Tea Sales Pvt. Ltd.—P-36, India Exchange Place Extn., Calcutta.
Hira Trading Co.—54, Ezra Street, Calcutta.
Indo-World Trading Co.—10, Armenian Street, Calcutta 1.
Ispahani Ltd.—51, Ezra Street, Calcutta.
James Finlay & Co., Ltd.—2, Netaji Subhas Road, Calcutta 1.
Jamnadas Tribhovandas & Co.—46, Ezra Street, Calcutta.
Jayantilal Manilal & Co.—13, Pollock Street, Calcutta.
Jayshree Tea & Industries Ltd.—India Exchange Place, Calcutta.
K. Harkishondas & Co.—7, Swallow Lane, R. No. 45-46, 1st Floor, Calcutta.
K. Shashikant & Co.—55, Canning Street, F. Block, Calcutta.
Kanoi (India) Pvt. Ltd.—P-8, Mission Row Extn., Calcutta.
Kesaria & Co.—19, Amratolla Street, Calcutta.
Keshowjee & Co.—3, Pollock Street, Calcutta.
Khandelwal Bros. Pvt. Ltd.—33, Netaji Subhas Road, Calcutta.
Krishna Tea Co.—72, Canning Street, Calcutta.
Krishna Trading Co.—14/2, Old China Bazar Street, R. No. 220-221, 3rd Floor, Calcutta.
Lokumal Lilaram & Co. Pvt. Ltd.—44-45, Ezra Street, Calcutta.
M. A. M. Kashani & Sons.—17, Mangoe Lane, Calcutta.
M. K. Sinha & Co.—22, Swallow Lane, 3rd Floor, Calcutta.
Madhu Jayanti Pvt. Ltd.—13, Pollock Street, Calcutta 1.
Maganlal & Co.—2, Portuguese Church Street, Calcutta.
Mahavir & Co.—54, Ezra Street, Calcutta.
Majumdar Bros.—9, Clive Row, Calcutta.
Orphan Tea Co.—18, Raja Woodmunt Street, Calcutta.
Parmanand Deepchand Hinduja.—1, Motisil Street, Calcutta.
Parsram Parumal & Co.—4, Ram Kumar Rakhit Lane, Calcutta.
Periwal Tea Co.—13, Narain Prasad Babu Lane, Calcutta.
Phoenix Tea Co.—12-B, Netaji Subhas Road, Calcutta.
Pioneer Agency.—167, Old China Bazar Street, Calcutta.
Power Farming Pvt. Ltd.—165, Lower Chitpur Road, Calcuttal.
Pranjivan & Co.—14-2, Old China Bazar Street, R.No. 203, 3rd Floor, Calcutta.
Purushottam Umedbhai & Co.—55, Canning Street, G. Block, Calcutta.
Ramanand Kishanchand.—25, Burtolla Street, Calcutta.
S. C. Sanyal & Co. Pvt. Ltd.—11, British Indian Street, Calcutta.
Shivson Tea Trading Co.—5/2, Govind Dhar Lane, Calcutta.
South India Trading Co.—3, Ram Kumar Rakhit Lane, Ground Floor, Calcutta.
Srinath Bajaj.—178, Mahatma Gandhi Road, Calcutta 7.
Sureschchandra & Co.—10, Jackson Lane, Calcutta.
Suresh Kumar & Co.—14/2, Old China Bazar Street, Calcutta 1.
Tandon Brothers.—3, Sukhlal Jahuri Lane, Calcutta 7.
Tea Marketing Co. of India Pvt. Ltd.—161-1, Harrison Road, R. No. 55, Calcutta.

## TEXTILE ACCESSORIES

A. C. Roy.—41-1, Belilios Lane, Howrah.
Bharat Industries Corpn. Ltd.—88, Sambhu Halder Lane, Salkia, Howrah Dist.
Bharat Textiles Co.—176, Cross Street, Calcutta 7.
Bengal Textile & Engg. Co.—40-1, Strand Road, Calcutta 1.
D. K. Dass & Co. Pvt. Ltd.—233, Belilios Road, Howrah.
Fakirchand Dass Mistry & Sons Pvt. Ltd.—143 & 144, Belilios Road, Howrah.
Indian Healds, Reeds & Hosiery Mfg. Co. Ltd.—42, Chowringhee Road, Calcutta.
Machine & Mill Stores Corpn. Pvt. Ltd.—68-D, Netaji Subhas Road, Calcutta 1.
Mondal & Karar Co.—177-1, Belilios Road, Howrah.
New Bengal Engineering Works.—75, Belilios Road, Howrah.
New India Mercantile Co. Pvt. Ltd.—8, India Exchange Place, Calcutta 1.
N. R. Ghosh & Co. Ltd.—2, Canal East Road, Calcutta.
Orient Textile Engineers Ltd.—24, Netaji Subhas Road, Calcutta 1.
Paul's Engineering Co.—207, Belilios Road, Howrah; P-7, Natabar Pant Road, Dassnagar.
Swastik Textile Trading Co. Pvt. Ltd.—23, Motilal Heerabhai Market, Calcutta.
Textile Machinery Corpn. Ltd.—8, India Exchange Place, Calcutta.

## TEXTILE AUXILIARIES MFRS.

**C. DOCTOR & CO. PRIVATE LTD.—(Estd. 1915), 3, Bentinck Street, Calcutta; Grams: "DOCTORCO"; Humidification & Ventilation Engineers and Textile Store Suppliers.**

## TIMBER SEASONING KILNS & TREATMENT PLANTS

**KINLAB (PRIVATE) LTD.—Specialists in Equipment for Timber Seasoning, Preservation, Wood working, Alywood, Laminboards and Packing Case Manufacturers; 5, Marquis Street, Calcutta-16; Phone: 241301.**

## TIN BOX MANUFACTURERS

Associated Metal Industries of India Ltd.—16, Mangoe Lane, Calcutta 1.
Bengal Tin Box Mfg. Co. Pvt. Ltd.—1, Jadu Mitter Lane, Calcutta 4.
Calcutta Tin Factory.—14-2, Nirode Behary Mullick Road, Calcutta 6.
Containers & Closures Ltd.—2, Fairlie Place, Calcutta 1.
D. G. Industries Pvt. Ltd.—171, Prince Anwar Shah Road, Calcutta 33
Dhur Tin Factory.—1, Sarat Ch. Dur Road, Barnagore, Calcutta 36.
Ganga Tin Factory.—5, Raja Rajkissen Street, Calcutta 6.
Ganpatray Ramnarain & Co.—107-A, Raja Dinendra Street, Calcutta 6.
Hind Tin Industries.—6, Jadulal Mullick Road, Calcutta 7.
India Toy & Metal Works Pvt. Ltd.—1-C, Raja Kali Kissen Lane, Calcutta 5.
Indian Tin Box & Metal Works P. Ltd.—137-A, Jessore Road, Calcutta 28.
The Metal Box Company of India Ltd.—Head Office: Barlow House, 59C, Chowringhee Road, Calcutta 20.
Metal Press Works Ltd.—3, Jagmohan Mullick Lane, Calcutta 7
Metalwares & Printing Works.—243, Upper Circular Road, Calcutta 6.
Moitra Industries.—8/1A, Sarkar Byelane, Calcutta 7.
National Sheet & Metal Works Pvt. Ltd.—36-A, Sahitya Parishad Street, Calcutta 6.

## TINPLATE FABRICATORS

Balgopaldas Iron & Steel Co. Ltd.—5, Gopal Doctor Road, Kidderpore, Calcutta.
Bengal Tin Box Mfg. Co. Ltd.—1, Jadu Mitra Lane, Calcutta 4.
Calcutta Tin Factory.—14/2, Nirode Behary Mullick Road, Calcutta 6.
Colour Printing & Hollow Wares Ltd.—243, Upper Circular Road, Calcutta 6.
Containers & Closures Ltd.—2, Fairlie Place, Calcutta 1.
Containers (India) Pvt. Ltd.—18, G. C. Ghose Road, Calcutta 37.
Crown Cork Mfg. Co.—1, Umakanto Sen Lane, Calcutta 30.
D. G. Industries Pvt. Ltd.—171, Prince Anwarshah Road, Calcutta 33.
Gange Tin Factory.—5, Raja Rajkissen Street, Calcutta.
Hind Galvanising & Engineering Co. Pvt. Ltd.—11, Golo Road, Howrah.
Hind Tin Industries.—6, Jadulal Mullick Road, Calcutta 7.
Hindustan Metal Products Syndicate.—243, Upper Circular Road, Calcutta 6.
Kamala Engineering Works.—124, Barrackpore Trunk Road, Calcutta 35.
Kohinoor Mfg. Corpn. Pvt. Ltd.—5/1, Rosemare Lane, Howrah.
Metal Seamers & Printers Ltd.—81/3, Harish Chatterjee Street, Calcutta 25.
Metal & Tin Box Co. (I) Pvt. Ltd.—233, Gopal Lal Tagore Road, Baranagore, Calcutta 36.
Metalwares & Printing Works.—6, Jadulal Mullick Road, Calcutta 6.
Metro Engineering Works Ltd.—38-A, Kansari Pada Road, Calcutta 25.
M. L. Dey & Co.—9, In Har Cross 1st Lane, Calcutta 12.
National Alloy & Metal Works Ltd.—17, Nabin Chandra Das Lane, Baranagore, Calcutta 36.
National Sheet & Metal Works Ltd.—36-A, Sahitya Parishad Street, Calcutta.
Neo Metalo Pvt. Ltd.—234, Gopal Lal Tagore Road, Calcutta 36.
Sheet Metal Products.—34-B, Ratu Sarkar Lane, Calcutta 7.

Shyamnagar Tin Factory Pvt. Ltd.—62, Sree Nagendra Nath Road, Satgachi, Dum Dum, Calcutta.
Sree Gopal Tin Factory.—109-B, Raja Dinendra Street, Calcutta 4.
Tin Plate Co. of India Pvt. Ltd.—4, Bankshall Street, Calcutta.

## TIN PRINTERS

**METAL PRINTERS CO., THE.—Manufacturers of Metal Posters, Calendars, Decorated Containers, Trays, Toys, Clock Dials etc., 14, Princep Street, Calcutta-13; Phone: 234593.**

## TOILETRIES

**BENGAL CHEMICAL & PHARMACEUTICAL WORKS LTD.—6, Ganesh Chunder Avenue, Calcutta 13; Pharmaceuticals, Heavy and Fine Chemicals, High Class Toilet Products, Coal Tar Distillation Products, Fire Extinguishers, Printing Inks, Driers, etc., Branch Offices: Bombay & Kanpur.**

## TOOL MANUFACTURERS & DEALERS

**BHADURY SEN & CO. PRIVATE LTD.—Dealers of Portable Electric Tools, Cables, Wires, Welding Cables, Mill Stores & Accessories; Also undertake all kinds of Manufacturing Job as per drawing and Specification; 135, Canning Street, Calcutta-1; Phone: 221360.**

**DIES & TOOLS LTD.—Manufacturers of 'DITO' Brand Tungsten Carbide Tipped Tools, High Speed Steel Tools, Drawing Dies for wires, Tubes, Bars, Electrodes, Pipes etc., 11, R. N. Mukherjee Road, Calcutta-1; Phone: 238387.**

**MUKERJI & SHAH.—36, Panditia Road, Calcutta-29; Manufacturers of Pneumatic Chisel, Riveting Snap, Moil Point, Spare Parts for Riveting Hammer, Chipping Hammer, Paying Breaker, Rock Drill etc., Phones: 463820, 464416 & 460194.**

**REPUTE ENGINEERING STORES.—Biggest Stockists of Drills, Cutters, Taps, Dies and Small Tools; 10, Canning Street, Calcutta-1; Phone: 229068.**

**SUBOL DUTT & SONS PRIVATE LTD.—Accredited Dealers of 'Wolf' Portable Electric Tools; Also Importers and Manufacturers of Tools for all trades; Subol Dutt Bldg., 13, Brabourne Road, Calcutta-1; Phones: 222122, 222123, 223161.**

## TOOL, ALLOY & SPECIAL STEEL

**INDUSTRIAL STEELS SUPPLIES CO.—Alloy, Tool and Specia St els for Light, Medium and Heavy Engineering Industries from tamed Global Sources; 'Thacker House', 35, C. R. Avenue, (5th Floor), Calcutta-12; Phone: 235541.**

**UNITED STEEL & BEARING CO.—(House of Metallurgy), Importers and Stockists of Tool, Alloy and Special Steels in High Speed, Die, Punch, Hot and Cold Working, Heat Resisting and Alloyed Constructional Categories; 58, Clive Ghat Street, Calcutta-1; Phones: 223913, 333137 & 337268.**

## TOY MANUFACTURERS & DEALERS

Eastern Toy Co.—14-2, Clive Row, Calcutta 1.
G. C. Dey & Co.—4, Raja Radha Kanta Deb Lane, Calcutta 5.
India Toy & Metal Works Ltd.—1-C, Raja Kali Kissen Lane, Calcutta 5.
India's Hobby Centre.—1-A, Russel Street, Calcutta 16.
Pradip Plastic Moulders.—12-B, Lower Chitpore Road, North Block, Calcutta 1.

## TRACTORS & SPARE PARTS

Amalgamated Universal Agencies (Calcutta).—71, Canning Street, Calcutta 1.
Associated Exports Imports Corporation.—8-B, Lal Bazar Street, Calcutta 1.

**BHARAT INDUSTRIES & COMMERCIAL CORPORATION.—Importers of U.S.S.R. Wheeled and Crawler Tractors, Spares and Agricultural Implements; Tower House, Chowringhee Square, Calcutta-1; Phone: 236571.**

Components & Machinery Corpn.—Mercantile Bldgs., Lall Bazar, Calcutta 1.
Gopal & Kumar.—14, Netaji Subhas Road, Calcutta 1.
Hind Enterprises.—4, Mission Row, Calcutta 1.
Jayems Engineering Co.—22, Brabourne Road, Calcutta.
Mechanical Engineering Co. Ltd.—25, Swallow Lane, Calcutta.
Marshall, Sons & Co. (India) Ltd.—33/1, Netaji Subhas Road (P.O. Box No. 22), Calcutta.
Tractors (India) Ltd.—P. Box 323, Calcutta.
United Provinces Commercial Corporation.—6, Ganesh Chandra Avenue, Calcutta 13.

## TRAILERS

**BHARAT INDUSTRIAL & COMMERCIAL CORPORATION.—Manufacturers of 'Atlas' Trailers from 15 Cwt to 40 ton Capacity; Tower House, Chowringhee Square, Calcutta-1; Phone: 236571 (3 Lines).**

## TRANSFORMERS

Associated Electrical Industries Mfg. Co. Ltd.—1, Taratolla Road, Garden Reach, Calcutta.
Electric Construction & Equipment Co. Ltd.—35, Chittaranjan Avenue, Calcutta.

**ELVOC PRIVATE LTD.—Manufacturers of Transformers for lighting, Distributor, Power, Telephone, Fitter, Neon Signs, Audio, Lovolite, Welding and any light Electrical purpose; 36, Panditia Road, Calcutta-29; Phones: 463820, 464416 & 460194.**

**E. S. & E. CO. PRIVATE LTD.—Manufacturers of Transformer for every purpose, Distribution, Power, Lighting, Mining, Safety Instruments, High Voltage and High Current Testing; 59/6, Christopher Road, Calcutta-46; Phone: 445540.**

General Electric Co. of India (Mfg.) Ltd.—58, Taratolla Road, Garden Reach, Calcutta.
Gupta Engineering Co.—29, Ganesh Ch. Avenue, Calcutta 13.
Hindusthan Electric Co. Ltd.—184, J. N. Mukherjee Road, Salkia, Howrah.
India Electric Works Ltd.—Diamond Harbour Road, Behala P.O., Calcutta.

**INDIA RADIO MANUFACTURING CO.—'Bani' quality Transformers for Electromic Equipments made to order up-to 10 KVA., Suppliers to Government Educational and Research Institutions; 18, Chandni Chowk Street, Calcutta-13; Phone: 235925.**

Indian Electric Transformers Co.—28, Waterloo Street, Calcutta.

## TRAVEL AGENTS

Jeena & Co.—Great Eastern Hotel, 29, Waterloo Street, Calcutta 1.

**MERCURY TRAVELS (INDIA) PRIVATE LTD.—Head Office: Oberoi Grand Hotel, Chowringhee, Calcutta-13; Phone: 236051 (8 lines); Branches: Oberoi Imperial Hotel, New Delhi; Phone: 43001 (3 lines); 70, Forbes Street, Rampart Row Corner, Fort, Bombay; Phone: 253948 (3 lines); Ashoka Hotel, Antheon Road, Egmore, Madras-8; Phone: 85095; Oberoi Palace Hotel, Srinagar, Kashmir; Phone: 1045 Srinagar-19; Abid Road, Hyderabad-1; Phone: 33325; National Motors Bldg., Mirza Ismail Road, Jaipur, Phone: 77284. Grams: "MERCTRAVEL".**

**N. JAMNADAS & CO.—6, Lyons Range Calcutta 1; Phone: 22-3264; Grams: "ENJAYTOURS." H.O.: Bombay; Branch: New Delhi. Travel Agents & Tour Operators Recognised by the Government of India; Reservation by Air, Sea and Rail.**

**ORIENT EXPRESS CO. PRIVATE LTD., THE.—National Tobacco Building, 1 & 2 old Court House Corner, Calcutta; Phone: 22-1911 & 22-1358, Grams: "OREXPRESCO".**

Oriental Travel Service.—95A, Chittaranjan Ave., Calcutta 12.

## TUBES AND FITTINGS

Commercial Import & Export Pvt. Ltd.—40, Strand Road, Calcutta 1.
Indian Tube Co. Ltd.—41, Chowringhee Road, Calcutta 16.
J. M. Sain & Sons.—110, College Street, Calcutta 12.

**STEWARTS AND LLOYDS OF INDIA PRIVATE LTD.—Supply and Installation of fabricated Pipe-work of all Sizes for Gas, Water, Steam and Compressed Air etc., Casing for Tube Wells, Oil Country goods, Coil for Refrigeration and other Industrial uses, Tubular Structures for buildings, Pipe Bridges and Trustles, Pullets, Stillages and Trolleys for Materials handling; Head Office: 41, Chowringhee Road, Calcutta-16; Works: 39, Hide Road, Kidderpore, Calcutta-23; Phones: 442311 (12 Lines), 453515 (3 Lines) Works:**

## TUBE WELLS

Basak & Co.—P. 9, Chidam Mody Lane, Calcutta 6.
Bharat Tubewell Co. P. Ltd.—118-A, Chittaranjan Ave., Calcutta 7.
Calcutta Constructors Pvt. Ltd.—84, Strand Road, Calcutta 1.
Commercial Import Export Pvt. Ltd.—40, Strand Road, Calcutta 1.
Economic Trading Co.—64, Bowbazar Street, Calcutta 12.
Expert Tubewell Co.—129-1, Bowbazar Street, Calcutta 12.
Imperial Tubewell Co.—161-1, Harrison Road, Calcutta 7.
India Water Supply Corporation.—203-1, Harrison Road, Calcutta 1.
Pioneer Tubewell Industries Pvt. Ltd.—Raja Subodh Mullick Square, Calcutta 13.
S. D. M. Syndicate.—219, Bowbazar Street, Calcutta.

## TYPE MANUFACTURERS & DEALERS

**STANDARD TYPE FOUNDRY PRIVATE LTD.—14/2, Old China Bazar Street, Calcutta; Phones: 226913 and 224967, Grams: "PRINTYPES"; Dealers in Printing Press Material and Machinery; Branches: Bombay, New Delhi and Madras.**

## TYPEWRITERS

J. K. Business Machines Ltd.—2, Mangoe Lane, Calcutta 1.

**PRECISION TYPEWRITER CO.—(Royal Specialists in India), Dealers in Office Machines and Equipments, Repairs of Typewriters, Calculators and Duplicators etc., Available for sale and Hire; 13/1, Ultadanga Road, Calcutta-4; Phone: 557306.**

**REMINGTON RAND OF INDIA LTD.—Manufacturers of Remington Rand Business Equipment; Remington House, 3, Council House Street, Calcutta; Phone: 237401 (10 Lines), Grams: "REMINGTONS".**

## UMBRELLA & UMBRELLA FITTINGS

Fairway Trading Co.—40-A, Armenian Street, Calcutta 1.
India Tin Box & Metal Industries P. Ltd.—137-A, Jessore Road, Calcutta 28.
Keshrimull Kundanmull's Umbrella Factory.—17, Grand Trunk Road, Howrah
Lilooah Engineering Industry.—Station Road, Lilooah P.O., Bally, Howrah Dist.
Mohendra Lal Dutt & Sons.—49-B, Harrison Road, Calcutta 9.
National Metal Industries Ltd.—1, Bagzala Road, Dum Dum, 24 Parganas.
Sheik Elahi Bux Engineering Works.—55, Dr. Abani Dutt Road, Salkia P.O., Howrah Dist.

## UMBRELLA RIB MANUFACTURERS

Amar Industries.—243, Chittaranjan Avenue, Calcutta 6.
Atta's Iron Foundry.—171, Grand Trunk Road, Salkia, Howrah.
Baldeoram Saligram Pvt. Ltd.—61, Strand Road, Calcutta 1.
Calcutta Rib Mfg. Co.—74, Cross Street, Calcutta 7.
Hind Engineering Works.—20-4-1, Burra Shivtala Main Road, Calcutta 38.
Kalyan Engineering Co.—33/1, Tiljala Road, Calcutta 17.
Keshrimull Kundanmull.—46, Strand Road, Calcutta 7.
Lillooah Engg. Industries.—2, Portuguese Church Street, Calcutta.
Madan Engg. Works.—2, Raja Woodmunt Street, Calcutta.
Navbharat Engg. Co.—13, Bethiadanga Ist Lane, Calcutta 39.

## UTENSILS

Aluminimum Corpn. of India Ltd.—Jaykaynagar, Near Asansol.
Bharat Sheet Metal Industries Ltd.—22, Beerpara Lane, Calcutta.
Bishnupur Metal Corpn. Ltd.—14, G. T. Road, Belur, Howrah Dist.
Crown Aluminium Works.—G. T. Road, Belur, Howrah Dist.
Dhur Galvanizing Works.—92, Ultadanga Main Road, Calcutta.
Empire Soap & Aluminium Works.—33, Mahinath Poral Lane, Salkia P.O., Howrah Dist.
Jeetmull Jaichandlall.—Nandan Konon, Station Road, Lillooah, Howrah Dist.
Kamala Factory (1932).—13-3, Pathuria Ghat, Calcutta.
Sundsons Ltd.—29, Jessore Road, Calcutta.
Union Metal Works.—169, Andul Road, Howrah.

## VACUUM EQUIPMENTS

**ASSOCIATED INSTRUEMNT MFRS. (INDIA) PRIVATE LTD.—B-5, Gillander House, Calcutta; Phone: 223304, Grams: "AIMIL".**

## VEGETABLE PRODUCTS MANUFACTURERS

Bharat Vegetable Products Ltd.—117, Harrison Road, Calcutta 7.
Hindusthan Development Corpn. Ltd.—Hindusthan Bldgs., 4, Chittaranjan Avenue, Calcutta
Hindustan Lever Ltd.—Ilaco House, 1 & 3, Brabourne Road, Calcutta.
Hindustan Vegetable Products Ltd.—47, Zakaria Street, Calcutta 7.
Kusum Products Ltd.—9, Brabourne Road, Calcutta.
Sisir Oil Industries, Ltd.—Belgharia, 24 Parganas.
Swaika Vanaspati Products Ltd.—Pollock House, 18-B, Brabourne Road, Calcutta.
Tungabhadra Industries Ltd.—India Exchange, Royal Exchange Place, Calcutta 1.
United Vegetable Mfrs. Ltd.—24, Finlay Road, Rishra, Hooghly.
Vanaspati Factory, No. 1.—Station Road, Tollygunge, Calcutta.
Vegetable Products Ltd.—Belgharia, 24 Parganas Dist.

## VENETIAN BLINDS FOR DOORS & WINDOWS

**ANNAMS ENGINEERING CO., PRIVATE LTD.—Manufacturers of Aluminium Alloy Slatted Venetion Blinds adgustable and durable; 3, Old Court House Corner, Calcutta-1; Phone: 222455.**

## VETERINARY & POULTRY EQUIPMENTS

**CIRUGIA DE LUX PRIVATE LTD.—Manufacturers of Veterinary Surgical Instruments, Livestock Breeding and Sterility Equipment, Poultry Incubators and Brooders, Microscopes; 24, Chowringhee Road, Calcutta-13; Phone: 235552; Branches: Bombay Mutual Annexe Bldgs., 4th Floor, 17, Gunbow Street, Fort, Bombay-1; 'Saketa', 1/30, Pantheon Road, Madras-8; H/89, New Delhi South Extension Part 1, Ring Road, New Delhi-3.**

## VICE MANUFACTURERS

India Machinery Co. Ltd.—29, Strand Road, Calcutta 1.
Indian Supercraft Industries.—21-A, Canning Street, Calcutta 1.
International Mechanical & Electrical Works.—5, Braunfield Row, Alipur, Calcutta 27.
S. P. Guchait & Sons.—2, Madhusudan Pal Chowdhury Lane, Belilios Road, Howrah.
Subol Dutt & Sons P. Ltd.—13, Brabourne Road, Calcutta 1.
W. Leslie & Co.—B-5, Clive Buildings, N. Subhas Road, Calcutta 1.

## WATCHES & CLOCKS IMPORTERS & DEALERS

Abrecht & Co.—143, Radha Bazar Street, Calcutta.
A. H. Watch Co.—107, Harrison Road, Calcutta 7.
Allana Watch Co.—26A, Lindsay Street, Calcutta.
Anglo Swiss Watch Co.—6 and 7, Dalhousie Square, Calcutta.
Arora Watch Co.—170/1, Harrison Road, Calcutta.
Ashok Watch Co.—15, Radhabazar Street, Calcutta.
Comrade Watch Co.—10, Radhabazar Street, Calcutta 1.
Calcutta Watch Co.—19, S. P. Mukherjee Road, Calcutta 23.
Capital Watch Co.—12, Chowringhee, Calcutta 13.
Dutex Clock Co.—29, Weston Street, Calcutta.
East Indian Watch Co.—P-223, State Bank Road, Calcutta.
Elgin Watch Co.—36, Brabourne Road, Calcutta.
Empire Watch Co.—5, Radhabazar Street, Calcutta.
Everest Watch Co.—20, Dharamtola Street, Calcutta.
Favourite Watch Co.—1-A, Bankim Chatterjee Street, Calcutta.
Favre Leuba & Co. P. Ltd.—Norton Buildings, Calcutta 1.
Glamore Watch Co.—12S, S. Hogg Mark. Street, Calcutta.
Great Western & Eastern Watch Co.—170, Dharamtola Street, Calcutta.
H. M. Watch.—148, Radhabazar Street, Calcutta.
Imperial Watch Co.—154, Radhabazar Street, Calcutta.
India Watch Co.—73, Harrison Road, Calcutta.
Indian Watch Co.—143, Radhabazar Street, Calcutta.
Lorenzo Watch Co.—P/36, Radha Bazar Street, Calcutta 1.
National Watch Co.—7/1, Dharamtola Street, Calcutta.
New City Watch Co.—19/1, U. Circular Road, Calcutta.
New Singer Watch Co.—160, Harrison Road, Calcutta.
New Standard Watch Co.—152, Radhabazar Street, Calcutta.
Noble Watch Co.—P-36, Redhabazar Street, Calcutta.
Omega Watch Co.—5D, Cliva Building, Calcutta.
Pioneer Watch Co.—318-A, Chittaranjan Avenue, Calcutta.
Popular Watch Co.—105/1, S. N. Banerjee Road, Calcutta.
Rolex Watch Co.—16/5, Chowringhee, Calcutta.
S. A. Watch Co.—14, Radhabazar Street, Calcutta.
Saini Watch Co.—129, Radhabazar Street, Calcutta.
Swiss Watch Co.—84-B, D. H. Road, Calcutta.
Swiss Record Watch Co.—86-2, D. H. Road, Calcutta.
Tissot Watch Co.—D-5, Clive Buildings, Calcutta.
Victoria Watch Co.—170, Harrison Road, Calcutta.
Wallton Watch Co.—12, Chowringhee, Calcutta.
Watson Watch Co.—7, Radhabazar Street, Calcutta.
West Watch Co.—109, Netaji Subhas Road, Calcutta.

## WATER METERS

**KAYCEE INDUSTRIES LTD.—2, Woodburn Court, 10, Elgin Road, Calcutta; Agents for Hind Rectifiers Ltd., Manufacturers of Selenium and Silicon Semiconductors, Electroplating Rectifiers, Battery Chargers, Silicon Power Plants for Electro-Chemical Industries, 'Santon' Rotary Switches, 'Kaycee' Toggle Switches, 'Kaycee' Water Meters,; Head Office: Kamani Chambers, Nicol Road, Ballard Estate, Bombay; Phone: 263521, Grams: "TURNRITE"; Branches: Delhi and Kanpur.**

## WATERPROOFING AND WATERPROOFING PRODUCTS

**ADHESIVES & ALLIED PRODUCTS.—Manufacturers of Roof Water-proofing Compounds, Bitumen Emulsions, Expansion Jointings, Anti Corrosive Black Paint and Cold Sticker, 12, Netaji Subhas Road, Calcutta-1; Phone: 224841 & 242429.**

Chemico Cement Waterproofing Industries P. Ltd.—16, India Exchange Place, Calcutta 1.
Lloyd Bitumen Products.—4-A, Royd Street, Calcutta 16.
Structural Waterproofing Co. P. Ltd., 21/1, Dover Road, Calcutta 19.

## WATER TREATMENT PLANTS

**ASSOCIATED WATER SOFTENERS.—Manufacturers of all types of Water Treatment Plants; 3, Princep Street, Calcutta-13; Phone: 236811.**

**CRYSTAL FILTER CO.—Manufacturers of Water Purification Treatment and Sterilization Equipment suitable to meet Various requirements; 33/1/1, Natabar Paul Road, Hourah-West Bengal; Phone: 662420.**

## WATER WORKS ACCESSORIES

Annapurna Metal Works.—3, Ashu Biswas Road, Calcutta 25.
Associated Water Softeners.—7, Swallow Lane, Calcutta 1.
Bengal Machine Tool Works.—112, Narasingha Dutta Road, Howrah.
Bhutoria Engineering Works.—56, N.S.C. Bose Road, Calcutta 1.
B. N. Pachal & Sons P. Ltd.—208, Belilios Road, Howrah.
D. H. Brothers P. Ltd.—138, Canning Street, Calcutta 1.
East India Agency & Engineering Co.—63-1, Banaras Road, Howrah.
Garg & Sons.—138, Canning Street, Calcutta 1.
Industrial Engineering Works.—149, Belilios Road, Howrah.
J. N. Dass & Co.—167, Belilios Road, Howrah.
Reliance Engineering Works.—233, Belilios Road, Howrah.

## WAX PRODUCTS

Calcutta Wax Traders & Co. P. Ltd.—22, Banfield Lane, Calcutta 1

**WAXPOL INDUSTRIES LTD., THE.—Manufacturers of Wax Polishes, Metal Polishes, Hydraulic Brake, Fluid, Rubbing Compound, N.C. Thinner, Valve grinding Paste etc. and Bee Wax of all grades; 71, Ganesh Chandra Avenue, Calcutta-13; Phone: 243131 (2 Lines).**

## WELDING SETS & MATERIAL DEALERS

**A. SINHA.—For Cast Iron, M.S. Copper Coated, Aluminium, Silicon, Bronze and other Welding Rods, Silver Solder, Tin Solder, Brazing Materials also Fluxes and other Welding Accessories; 62/1/A, Netaji Subhas Road, Calcutta-1; Phone: 336389.**

Associated Electrical Industries (India) Private Ltd.—Crown House, 6, Mission Row, Calcutta 1.

Bosco—36, Strand Road, Calcutta 1.

**BHABATARAN SARKAR & SONS, Stockists of Spring Steel wire, Piano wire, Stainles3 Steel wire, and all kinds of Black and G. I. wires and Spring steel strips; 62/1/A, Netaji Subhas Road. Calcutta-1; Phone: 331807.**

**CALCUTTA WIRE WORKS.—Manufacturers of all types of Bronze, M.S. Copper Coated Rods, Super Silicon Gas Welding Rods etc., 6, Tilqala Road, Calcutta-46; Phones: 447131-2132 & 441422; Showroom: 62/1/A, Netahi Subhas Road, Calcutta-1; Phone: 339201.**

**EAGLE ENTERPRISERS.—Manufacturers and Stockists of Electrodes, Cables, Gloves, Electrode Holders, Spark Lighters, Goggles, Helmets, Safety Belts, Screen Glass etc., 25, Netaji Subhas Road, Calcutta-1; Phone: 225484.**

H. C. Giddings Pvt. Ltd.—B-1, Hide Road, Kidderpore, Calcutta.

Hind Enterprises.—4, Mission Row, Calcutta 1.

Indian Oxygen Ltd.—48-1, Diamond Harbour Road, Calcutta 27.

**INDUSTRIAL GASES LTD., THE.—15, Ganesh Chandra Avenue P.O. Box 853, Calcutta 1; Phones: 229711/12, 221040, 221049, 227966 & 227499. Grams: "INDUSGASES", Calcutta; Depots & Service: 67-3012 & 46-7437. Supply of Transformers, Generators, Automatic Welders, Inert Gas Shielded Arc Welding Equipment, Spot, Seam and Stud Welders & Cutting Machines.**

J. N. Samanto & Co. Pvt. Ltd.—4/5, Grand Trunk Road, Howrah.

**K. K. TRADERS.—Manufacturers and Stockists of all sorts of Welding Accessories such as Electrodes, Welding Rods, Cables, Screen Glasses, Electrode Holders, Gloves, Spark Lighters, Goggles etc., 5, Mission Row, Calcutta-1; Phone: 239880.**

Philips India Ltd.—31, Chowringhee Road, Calcutta 16.

**POONAM TRADING CO.—Leading Stockists of Welding Electrodes, Cast Iron, Machanical and Non-mechanical Mild Steel, Stainless and Manganese Steel Bronze and Hard facing electrodes Stellite Rods etc., 133/C, Dharamtolla Street, Calcutta 13; Phone: 245337.**

**RELIABLE TRADING AGENCY.—Dealers in all kinds of Gas & Electric ARC welding Requisites and Manufacturers of Electrode Holders, Helmets, Shields, Gloves, Aprons and other safety requisites; 23, Canning Street, Calcutta-1; Phones: 224774, 222277, 228562 and 348223.**

Saru Smelting & Refining Corpn. Private Ltd.—161/1, Mahatma Gandhi Road, Calcutta-7.

**SUR IRON & STEEL CO. PRIVATE LTD.—Manufacturers of 'Sur-Arc' Welding Transformers, Single and Multi-operator Welding Sets, DC. Rectifier Welding Units; 15, Convent Road, Calcutta-14; Phone: 241307 (2 Lines).**

**VISHWA BHARATI TRADING CO.—G.P.O. Box 2628, Calcutta-1; Phone: 336680, H.O. 45, Mint Road, P.B. 1052, Fort, Bombay 1; Phone: 266371 (all depts.). Grams: "VIBHACO"; Manufacturers and Stockists of Electric & Gas Welding Sets, Welding Accessories and Gas Welding Rods, Fluxes, Welding Transformers, Spot Welders, Soldering and Brazing Equipments and all metal Menders Requirements; Industrial safety Equipments, Industrial goggles, Gloves and Respirators etc.**

## WEIGHING MACHINES & SCALES MANUFACTURERS & DEALERS

Asiatic Machinery Corpn. Pvt. Ltd.—10-1, Kailash Chandra Lane, Howrah.
Avenue Weighing Scales Co.—135, Netaji Subhas Road, Howrah.
Avery Co. of India Pvt. Ltd.—282, Waterloo Street, Calcutta 1.
Barnagore Scale Mfg. Co.—21, Bholanath Nath Street, Barnagore, Calcutta 36.
Bharat Weighing Scales and Engineering Syndicate.—75-1, Kala Chand Nundy Lane, Howrah.
Bharati Scales & Engineering Co.—4-1, Haldarpara Lane, Howrah.
Bhupendra Das & Brothers.—84-A, Netaji Subhas Road, Calcutta 1.
Crown Weighing Scales Co.—76, Narasinha Dutta Road, Howrah.
D. Saro & Co.—16, Biswas Nursery Lane, Calcutta 10.
Dey's Weighing Scales & Engineering Works.—233, Belilios Road, Howrah
Eastern Scales P. Ltd.—12, Guru Saday Road, Calcutta 19.
Girish Chandra Ghosh.—58, Clive Street, Calcutta 7.
Hindustan Scale Corporation.—56, Netaji Subhas Road, Calcutta 1.
India Machinery Co. Ltd.—29, Strand Road, Calcutta 1.
India Weighing Scales & Engg. Co. Pvt. Ltd.—233, Belilios Road, Howrah.
K. P. Das & Co. Pvt. Ltd.—43, Circular Road, Howrah.
M. C. Dharma Engineering Works.—38, Kamarpara Lane, Barnagore, Calcutta 36.
Nagendra Nath Karmarkar Wooman Charan Karmarkar.—213, Mahatma Gandhi Road, Calcutta 7.
O. K. Weighers (1) Ltd.—15, Madhusudan Pal Chowdhury Lane, Howrah.
Satish Chandra Das & Co.—113, Khangrapatti Street, Calcutta 1.
W. B. Scales Co.—10, Kailash Ch. Chandra Lane, Santragachi, Howrah.
Woomacharan Karmakar.—208, M. Gandhi Road, Calcutta 7.

## WINE, SPIRIT & BEER MERCHANTS

Calcutta Foreign Liquor Tarding Co.—5, Dharamtolla Street, Calcutta.
Fairmacs Trading Co.—33, Bowbazar Street, Calcutta.
Grahams Trading Co. (India) Pvt. Ltd.—6, Lyons Range, Calcutta.
Great Eastern Stores Pvt. Ltd.—30 Chowringhee Road, Calcutta.
Herbertsons Pvt. Ltd.—5, Dalhousie Square, Calcutta.
M. C. Shaw.—125, Lower Circular Road, Calcutta.
Phipson & Co. Pvt. Ltd.—6, Old Court House Street, Calcutta.
Plummer Brothers & Co.—5-6, Fancy Lane, Calcutta.
R. D. & Sons Pvt. Ltd.—12, Hare Street, Calcutta.
Shaw Wallace & Co. Ltd.—4, Bankshall Street, Calcutta.
Spencer & Co. Ltd.—32, Chowringhee Road, Calcutta.
Turner Morrison & Co. Pvt. Ltd.—6, Lyons Range, Calcutta.

## WIRE NETTING (WELDED MESH)

Addison Wire Products Corporation.—71-A, Netaji Subhas Road, Calcutta 1.
Asian Agencies.—91, N. Subhas Road, Calcutta 1.
Bengal Wire Netting & Engg. Works.—71-A, N. Subhas Road, Calcutta.
Bengal Wire Netting Syndicate.—109, N. Subhas Road, Calcutta 1.
Bharat Engineers & Traders.—65/1, Maharshi Debendra Road Calcutta 6.
Bharat Wire Netting Factory.—113, Netaji Subhas Road, Calcutta1.,
Biswas & Sons, R.P.—1-11, Barwaritala Road, Belighata, Calcutta 10.
B. K. Naik & Bros. Ltd.—141, Netaji Subhas Road, Calcutta 1.
Calcutta Netting Works.—123 & 124, Chandni Chowk, Calcutta.
Dutt Brothers & Co.—39, Wellington Street, Calcutta 12.
Guiraj Kedarnath.—180, Mahatma Gandhi Road, Calcutta 7.
Indian Steel & Wire Products Ltd.—7, Wellesley Place, Calcutta.
Indian Wire Netting Factory.—24, Sastitolla Road, Narkeldanga, Calcutta 11.
Indo-Commercial Stores.—77-1, Netaji Subhas Road, Calcutta.
International Wire Netting Stores.—62, Netaji Subhas Road, Calcutta 1.
Jain Wire Netting Stores.—62, Netaji Subhas Road, Calcutta 1.
Jeetmull Jaichandlall.—113, Netaji Subhas Road, Calcutta 1.

Jibon Krishna Dey & Brothers.—103, Netaji Subhas Road, Calcutta 1.
Kamala Kanta Sain.—113, N. Subhas Road, Calcutta.
Kiran Wire-Netting Co.—18, Raja Woodmunt Street, Calcutta 1.
Motiram Agarwal & Co. Ltd.—137, Canning Street, Calcutta 1.
Naik & Co.—68-A, Netaji Subhas Road, Calcutta 1.
New Wire Netting Factory.—82, Netaji Subhas Road, Calcutta 1.
R. P. Biswas & Sons.—1/11, Barwaitala Road, Beliaghata, Calcutta 10.
S. Nayak & Brothers.—13-A, Mohesh Barick Lane, Calcutta 11.
Spinning Accessories P. Ltd.—Nawab Dilarjang Road, Cossipore, Calcutta.
United Supply Corporation.—113, N. Subhas Road, Calcutta.
Wire Products Agency.—109, N. Subhas Road, Calcutta.

## WIRE PRODUCTS MANUFACTURERS & DEALERS

Asoke Wire Products Ltd.—34, Bentinck Street, Calcutta.
Bengal Sheet Metal Works.—26, Pollock Street, Calcutta.
Bengal Wire Nails Co. Ltd.—6, Tiljala Road, Calcutta.

**BHABA TARAN SARKAR & SONS.—Stockists of Spring Steel wire, Piano Wire, Stainless Steel wire and all kinds of Black and G.I. wires and Spring Steel Strips; 62/1A, Netaji Subhas Road, Calcutta-1; Phone: 331807.**

Bharat Steel and Wire Agency.—57, Clive Street, Calcutta.

**CALCUTTA WIRE WORKS.—Manufacturers of all types of Wires-Copper, Copper Alloys, Aluminium, Zinc, Brass, Various types of Bronze and Mild Steel (H.B. and Annealed); 6, Tiljala Road, Road, Calcutta-46; Phones: 447131-7131-and 441427; Showroom: 62/1A, Netaji Subhas Road, Calcutta-1; Phone: 339201.**

**HIND WIRE CRAFT INDUSTRIES,—Manufacturers of H.B. Nail wire, M.S. wire for wire Nails, Panel Pins, Rivets, Screws etc., 156, Jamunalal Bazar Street, Calcutta-7; Phone: 336374.**

Hind Wire Industries Ltd.—India Exchange, Calcutta 1.
Hindustan Hoops and Wire Products.—62-A, Netaji Subhas Road, Calcutta.
Howrah Wire Industries.—55, Canning Street, Calcutta 1.
Indian Steel and Wire Products Ltd.—7, Wellesley Place, Calcutta.
Indian Wire Nail Mfg. Co.—7-1-1, Benaras Road, Salkia, Howrah Dist.
Indian Woven Wire Manufacturing Co.—15, Sitala Tala Lane, Calcutta.

**INTERNATIONAL WIRE NETTING STORES.—Biggest and Cheapest Manufacturing house for wire Netting of all metals for every purpose, in all mesh Sizes, 62, Netaji Subhas Road, Calcutta-1; Phones: 332628 and 672615.**

J. Dass & Co.—7-D, Gour Sunder Sett Lane, Calcutta.
Machinery Manufacturers.—243, Chittaranjan Avenue, Calcutta 6.
Mathew & Co.—5, Kasinath Dutt Road, Barnagore, Calcutta 36.
M. C. Mowjee & Co.—46, Ezra Street, Calcutta.
Nettlefolds of India Limited.—P-35, India Exchange Place Extension, Calcutta 1.
Nippon Steel Products Ltd.—181-B, Chittaranjan Avenue, Calcutta 6.
Saru Smelting & Refining Corpn. Private Ltd.—161/1, Mahatma Gandhi Road, Calcutta-7.

**SHIVA WIRE & STEEL PRODUCTS LTD.—Manufacturers of all Sizes of Hard Bright, Mild Steel and Non-ferrous Wires from latest imported Plants; 21, Jatindra Mohan Avenue, Calcutta-6; Phones: 554352 & 555179.**

Standard Metal Co.,—101, Netaji Subhas Road, Calcutta 1.
Ultra Engineering Co.—172-8, Madhusudan Pal Choudhary Lane, Howrah.
Variety Industrial Works.—1, Kundan Lane, Lillooah, Howrah.
Wire Products Agency.—109, Netaji Subhas Road, Calcutta.
W. Leslie & Co.—B-3, Gillander House, Netaji Subhas Road, Calcutta 1.

## WOOD AND TEXTILE PRESERVATIVES

Ascu Wood Products.—7-A, Elgin Road, Calcutta 20.
Gladstone Lyall & Co. Ltd.—4, Fairlie Place, Calcutta.
Shalimar Tar Products Ltd.—6, Lyons Range, Calcutta 1.
Standard Paint Works Pvt. Ltd.—44, Beadon Row, Calcutta 6.

## WOOD WORKING TOOLS

**MANDELIA BROTHERS.—Distributors of "SAMSAW" and "SWAN" Brand Saw Blades; Importers and Stockists of all kinds of Band Saw Blades, Saw Mills Accessories, Ball, Roller and Thrust Bearings; 40, Netaji Subhas Road, Calcutta 1; Phones: 222100 and (Resi.): 344091.**

## X-RAY & ELECTROMEDICAL EQUIPMENTS

Adair, Dutt & Co. (India) Pvt. Ltd.—5, Dalhousie Square East, Calcutta.
Associated Electrical Industries (India) Pvt. Ltd.—Crown House 6, Mission Row, Calcutta.
General Electric Co. of India Pvt. Ltd.—Magnet House, Chittaranjan Avenue, Calcutta.

**INDUSTRIAL GASES LTD., THE.—15, Ganesh Chandra Avenue, P.O. Box 853, Calcutta 1. Phone: 229711/12, 221040, 221049, 227966 & 227499. Grams: "INDUSGASES". Oxygen and X-Ray Therapy Equipment — Iron Lungs, Resuscitators, Humidifiers, Oxygen Tents, Masks, Anaesthesia Equipment and Parts.**

Philips India Ltd.—'Philips House', 7, Justice Chandra Madhab Road, Calcutta.
Picker International Corporation.—15-1, Stephen House, Dalhousie Square East, Calcutta.

## ZINC OXIDE MANUFACTURERS

Kamani Metallic Oxides Pvt. Ltd.—30, Ganesh Chandra Avenue, Calcutta.
Pigments & Chemical Industries Pvt. Ltd.—32, Armenian Street, Calcutta.
Pigments & Chemical Products.—10, Armenian Street, Calcutta.

# STATES ADMINISTRATIVE PERSONNEL

## ANDAMAN & NICOBAR ISLANDS

Port Blair.

### ADMINISTRATIVE PERSONNEL

*Chief Commissioner :* B. L. Chak.
*Chief Conservator of Forests :* J. C. Varmah.
*Principal Engineer :* N. D. Rajan.

## ANDHRA PRADESH

Hyderabad.

### ADMINISTRATIVE PERSONNEL

*Governor :* Pattom A. Thanu Pillai.
*Aide-de-Camp :* Captain Virendra Pratap.
*Secretary to the Governor,* Dilsukh Ram.
*Private Secretary to the Governor :* P. Kelu Nair.

#### Ministers

*Chief Minister in charge of General Administration, Services, Elections, Planning, Major Industries and Power,* K. Brahmananda Reddy.

*Minister for Revenue, Registration and Stamps, Evacuee Property, Atiyat, Jagir Administration, Debt Settlement Board, Land Reforms, Relief and Rehabilitation and Commercial Taxes,* N. Ramachandra Reddy.

*Minister for Finance, Medium and Small-Scale Industries, Industrial Cooperatives, Stationery and Printing, Controlled Commodities, Small Scale Industries Corporation, Mines, Mining Corporation and Central Stores Purchase,* Dr. M. Channa Reddy.

*Minister Without Portfolio,* P. V. G. Raju.

*Minister for Irrigation, Agriculture, Food Production, Marketing, Rural Indebtedness and Money Lending and Money Lenders, State Warehousing Corporation, Animal Husbandry,* A. C. Subba Reddy.

*Minister for Home, Police, Arms Act, Cinematograph, Pass-Ports, Muslim Wakfs, Macca Masjid, Royal Mosque in Public Gardens, Judi Mosque, Wakfs Board and Salarjung Estate,* Mir Ahmed Ali Khan.

*Minister for Health and Medical,* S. R. Y. Sivaramaprasad.

*Minister for Panchayati Raj, Panchayats, Bureau of Economics and Statistics, Housing, Accommodation Control and Small Savings,* Dr. M. N. Lakshminarasiah.

*Minister for Co-operation and Fisheries,* T. Ramaswamy.

#### Ministers of State

*Excise and Prohibition and Cultural Affairs,* M. R. Appa Row.

*Law, Law Courts, Law Officer and Prisons Legislature and Charitable and Religious Endowments,* P. V. Narasimha Rao.

*Social Welfare,* Smt. T. N. Sadalakshmi.

*Education,* A. Balarama Reddi.

*Labour, Transport, Information and Publicity and Tourism,* B. V. Gurumurthy.

*Municipal Adm. and Forests,* N. Chenchurama Naidu.

#### Secretariat

*Chief Secretary to Government, General Administration,* K. N. Anantaraman, I.C.S.

*Secretary to Government, Revenue Department,* C. Seshagiri Rao, I.A.S.

*Secretary to Government, Home Department,* S. A. Iyengar, I.C.S.

*Secretary to Government, Finance Department,* M. A. Abbasi, I.A.S.

*Secretary to Government, Law Department,* D. Suryanarayana Swamy.

*Secretary to Government, Public Works Department,* K. Subba Rao, I.C.S.

*Secretary to Government, Planning Department,* C. Narasimham, I.A.S.

*Secretary to Government, Education Department,* L. N. Gupta, I.A.S.

*Secretary to Government, Health, Housing & Municipal Administration Departments,* A. Krishnaswamy, I.A.S.

*Secretary to Government, Industries Department,* V. K. Rao, I.C.S.

*Secretary to Government, Food and Agriculture Department,* H. Sambamurthy, I.A.S.

*Secretary to Government, Panchayati Raj Department,* A. Krishnaswamy Ayyangar, I.A.S.

#### Heads of Departments

*Director of Agriculture,* D. Viswanatha Reddy.

*Director of Archaeology,* Mohd. Abdul Waheed Khan.

*Chief Conservator of Forests,* P. P. Rao.

*Director, Bureau of Economics and Statistics,* D. Rangaramanujam.

*Director of Public Instruction,* M. V. Rajagopal.

*Director of Industries and Commerce,* B. Pratapa Reddy, I.A.S.

*Inspector General of Police,* A. K. K. Nambiar, I.P.

*Director of Public Health,* Dr. Ghulam Ahmed.

*Director of Medical Services,* Dr. Mohd. Abdul Khader.

*Director of Social Welfare,* B. R. K. Sastry, I.A.S.

*Commissioner of Police,* Prahlad Singh.

*Commissioner, Hindu Religious and Charitable Endowments (Administration),* G. Narayan Chetty, I.A.S.

*Director of Women's Welfare,* Smt. S. Sitharamamma.

*Chief Inspector of Factories,* K. N. Raju.

*Commissioner of Labour,* Bharatchand Khanna, I.A.S.

*Inspector General of Prisons,* C. B. Kapadia.

*Registrar of Co-operative Societies,* B. N. Raman.

*Translator to Government and Registrar of Books,* B. Bhimanna.

*Director, Central Stores, Purchase and Stationery Department,* B. F. Ditlia, I.A.S.

*Director of Technical Education,* T. R. Das.

*Director of Information and Public Relations,* T. Ramachandra Rao.

*Editor, District Gazetteers,* C. K. Murthy, I.A.S.

*Chief Engineer (Electricity),* C. Laxmipathy.

*Chief Engineer (Buildings),* Krishna Reddy.

*Director of Printing,* R. Vithal Rao, I.A.S.

*Director of Fisheries,* G. V. S. Mani, I.A.S.

*Director of Civil Supplies,* J. P. L. Gwynn.

*Director of Employment & Trg.,* A. Abbas.

### HIGH COURT

(Hyderabad).

*Chief Justice,* Mr. Justice Manohar Prasad.

*Judges,* Mr. Justice N. D. Krishna Rao; Mr. Justice Pingle Jagan Mohan Reddy; Mr. Justice P. Basi Reddy; Mr. Justice N. Kumarayya; Mr. Justice K. V. Gopala Krishnan Nair; Mr. Justice G Chandrasekhara Sastry; Mr. Justice H. Anantanarayana Ayyar, Mr. Justice K. V. L. Narasimham; Mr. Justice Sharfuddin Ahmed, Mr. Justice E. Venkatesam; Mr. Justice Gopal Rao Ekbote; Mr. Justice Mohamed Mirza (*Addl.*).

*Advocate-General,* B. V. Subrahmanyam.

*Registrar,* Y. Venkateswara Rao.

#### Public Service Commission

*Chairman,* Gulam Hyder, I.A.S.

*Members,* G. Simhadri, I.A.S. (Retd.); H. Ramalinga Reddy, B.A., LL.B., C. Bangaru Raju, B.A., B.L.

*Secretary,* G. Satyanarayana, B.A., B.L.

## ASSAM

Shillong.

### ADMINISTRATIVE PERSONNEL

#### Governor

Vishnu Sahay.

#### Personal Staff

*Private Secretary,* T. S. Krishnamurthi.
*Military Secretary,* Major S. Kapur.

#### Council of Ministers

*Chief Minister, Political, Home, Appointments, General Administration, Secretariat Administration, Information and Publicity, General Co-ordination of all departments, Minority Affairs and P.W.D. (Roads and Building),* B. P. Chaliha.

*Finance, Law, Panchayat, Community Development and N.E.S. Blocks, Judicial and Legislative,* F. Ali Ahmed.*

*Industries, Planning, Development, Statistics, Labour, Town and Country Planning, Power (Electricity),* K. P. Tripathi.

*Revenue, Forest, Transport and Political Sufferers,* S. N. Sarmah.

*Education, Co-operatives and Tourism,* D. K. Barua.

*Medical, Public Health, Excise, Printing and Stationery,* B. Mukherjee.

*Flood Control, Irrigation, Agriculture, Veterinary, Livestock and Parliamentary Affairs,* M. H. Choudhury.

*Supply, Trade and Commerce, Relief and Rehabilitation, Registration and Stamps,* R. N. Brahma.

*Khadi and Village Industries, Sericulture and Weaving, Jails,* Mahendra Nath Hazarika.

*Tribal Areas and Welfare of Backward classes, Social Welfare and Local Self-Government,* C. S. Teron.

#### Ministers of State

*P.W.D.,* G. N. Gogoi.

*Revenue,* R. Das.

*Tribal Welfare & Backward Classes etc.,* Emonsingh Sangma.

*Finance, General Administration, Secretarial Administration, Information & Publicity and Social Welfare,* Smt. K. K. Barua.

*Has been appointed Minister for Irrigation & Power in the Central Cabinet.

**Deputy Ministers**

*Tribal Affairs, Welfare of Backward Classes and Forest*, Lalit Kumar Doley.
*Panchayat and Community Development*, D. N. Hazarika.
*Parliamentary Secretary*, Sai Sai Terong.

**Secretariat**

*Chief Secretary*, A. N. Kidwai, I.C.S.
*Addl. Chief Secretary and Commissioner of Hills Division*, S. Kagti, I.A.S.
*Secretary, Finance Department*, R. S. Paramasivan, I.A.S.
*Secretary, Supply Department*, R. S. Paramasivan, I.A.S.
*Secretary, Development Department (Panchayat and C.D.)*, B. K. Bhuyan, I.A.S.
*Secretary, Revenue and Forests Departments*, J. N. Das, I.A.S.
*Secretary, Industries Department*, P. H. Trivedi, I.A.S.
*Jt. Secretary, Home Department*, T. S. Gill, I.A.S.
*Secretary, Education Department*, S. M. Rahman, I.A.S.
*Secretary, Lahour, Excise, etc., Departments*, S. J. Das, I.A.S.
*Secretary, L.S.G., Town and Country Planning, Medical Departments*, G. C. Phukan, I.A.S.
*Secretary, Agriculture, Veterinary, Pisciculture, Soil Conservation and Co-operation Departments*. M. Ahmed, I.A.S.
*Secretary, Law Department*, Biseswar Sarma.
*Secretary (Ex-Officio), Tribal Areas Department*, R. Chandra, I.A.S.
*Secretary, P.W.D. (Roads and Buildings Wing)*, K. Barua, B.E.
*Secretary, P.W.D. (Flood Control and Irrigation Wing)*, K. L. Mazumdar.

**Heads of Departments**

*Commissioner of Plains Divisions*, S. M. L. Bhatnagar, I.A.S.
*Commissioner of Agricultural Production*, D. Das, I.A.S.
*Commissioner, Relief and Rehabilitation*, L. S. Inglty.
*Commissioner of Excise and Taxes*, R. Z. Ahmed, I.A.S.
*Commissioner of Labour*, H. P. Duara, B.Com. (Leeds).
*Director of Land Records and Surveys*, B. Daura.
*Director of Agriculture*, P. S. Mazumdar, I.A.S.
*Director, Geology and Mining*, S. K. Barua.
*Director of Industries*, A. D. Adhikari.
*Director of Public Instuction*, S. C. Rajkhowa, M.A.
*Director of Health Services and Inspector-General of Prisons*, Dr. A. B .Roy.
*Director of Economics and Statistics*, S. C. Sarma, M.Sc., M.A.
*Director of Information and Public Relations*, D. C. Bhuyan, M.A., B.L.
*Director of Supply*, S. Sarkar, I.A.S.
*Director, National Employment Services*, H. Rahman.
*Registrar, Co-operative Societies*, A. K. Roy, I.A.S.
*Chief Conservator of Forests*, P. Barua.
*Legal Remembrancer*, Biseswar Sarma.
*Inspector General of Police*, B. K. Barua, I.P.S.
*Chief Engineer, P.W.D. (Roads and Buildings Wing)*, K. Barua, B.E., M.C.P.
*Chief Engineer P.W.D. (Flood Control and Irrigation Wing)*, K. L. Mazumdar.
*Chief Electrical Engineer (Hydro Electric)*, M. R. Sitaram.
*Chairman, Electricity Board*, B. C. Kapur, I.A.S.
*Commissioner, State Transport*, R. H. Shaw, I.A.S.

**Public Service Commission**

*Chairman*, S. N. Barkataki, I.A.S.; *Members*, Abdul Hai, R. Thanhlira.

**High Court**
Gauhati.

*Chief Justice*, Gopalji Mehrotra, B.A., LL.B.
*Puisne Judge*, Justice C. Sanjeeva Row Nayudu, B.A., B.L.; Justice S. K. Dutta, B.A. (Cal.), B.Sc. (Lond.), Bar-at-Law.
*Registrar*, A. Rahman, M.A., LL.B.

**Law Officials**

*Advocate-General*, B. C. Barua, M.Sc., LL.B., A.J.S.

**North-East Frontier Agency**
Shillong.

*Adviser to the Governor*, P. N. Luthra.
*Financial Adviser*, S. Krishnan.
*Security Commissioner*, Brig. R. Khating.
*Development Commissioner*, L. B. Thanga.
*Inspector-General, Assam Rifles*, Maj.-Genera A. S. Guraya.

## NORTH-EAST FRONTIER RAILWAY
(Pandu.)

*General Manager*, Jagjit Singh.
*Dy. General Manager (Vigilance)*, K. N. Nair.
*Dy. General Manager (General)*, A. N. Sur.
*Chief Personnel Officer*, T. S. Parthasarathy.
*Dy. General Manager, Katihar*, M. K. Majumder.
*Chief Engineer*, B. B. Dutta.
*Chief Operating Supdt.*, L. D. Panke.
*Chief Mechanical Engineer*, H. R. Chopra.
*Financial Adviser & Chief Accounts Officer*, G. M. Gidvani.
*Chief Medical Officer*, A. Lakshminarayanan.
*Controller of Stores*, Gulshan Rai.
*Chief Electrical Engineer*, D. S. Mehta.
*Chief Signal & Telecommunication Engineer*, P. C. Bhattacharyya.
*Chief Engineer (Survey & Construction)*, C. R. Sule.
*Chief Commercial Supdt.*, H. P. Varma.
*Chief Security Officer*, R. C. Dutt.
*Chief Auditor*, K. C. Jain.
*Engineer in Chief (Broad Gauge Construction Project)*, P. K. Ganguli.

## BIHAR
Patna.

### ADMINISTRATIVE PERSONNEL

GOVERNOR.

M. Ananthasayanam Ayyangar.

PERSONAL STAFF.

*Secretary to Governor*, B. N. Basu.
*Aide-de-Camp*, Lt. A. Singh.

**Cabinet Ministers**

*Chief Minister, Finance, Industries, Forests, Labour and Planning*, K. B. Sahay.
*Education, Agriculture and Local Self-Government*, S. N. Sinha.
*River Valley Projects, Irrigation and Power*, M. P. Sinha.
*Land Revenue*, B. C. Patel.
*Co-operation*, Hari Nath Misra.
*Public Health and Jails*, A. Q. Ansari.
*Excise and Law*, Jafar Imam.
*Food, Supply, Commerce and Animal Husbandry*, Mungeri Lal.
*Community Development and Gram Panchayats*, Sushil Kumar Bage.
*Family Planning and Information*, Mrs. Sumitra Devi.
*Public Works and Public Health Engineering*, Ram Lakhan Singh Yadav.

**Ministers of State**

*Finance, Taxation, Statistics, Audit and National Savings*, Ambika Saran Singh.
*General Administration and Jails*, N. K. Sinha.
*Religious Trusts*, Sheo Shanker Sinha.
*Housing and Welfare (excluding Scheduled Tribes)*, Dumar Lal Baitha.
*River Valley Projects, Irrigation, Power, Law and Excise*, Sahadev Mahto.
*Tourism and Labour*, Baleshwar Ram.
*Education*, Girish Tiwari.
*Transport*, Raghavendra Narain Singh.
*Welfare of Scheduled Tribes*, Bariar Hembrom.

**Secretariat**

*Chief Secretary to Government*, T. P. Singh, I.C.S.
*Food Commissioner*, S. V. Sohoni, I.C.S.
*Civil Defence Commissioner*, T. C. Puri, I.C.S.
*Addl. Chief Secretary to Government*, S. N. Singh, I.A.S.
*Secretary Political Department (Special Sec.)*, M. K. Mukherjee, I.A.S.
*Secretary, Political Department (General)*, S. K. Sinha, I.A.S.
*Secretary, Political (Police and Appointment)*, K. K. Srivastava, I.A.S.
*Development Commissoner*, R. Prasad, I.A.S.
*Secretary to Government, Finance Department*, H. Prasad, I.A.S.
*Secretary to Government, Revenue Department*, S. K. Chakravarti, I.A.S.
*Secretary to Government, Labour Department*, R. S. Mandal, I.A.S.
*Secretary to Government, P.W.D.*, Ramchandra Sinha, I.A.S.
*Secretary to Government, Education Department*, M. Alam, I.A.S.
*Secretary to Government, Local Self Government Department*, R. N. Pande, I.A.S.
*Secretary to Government, Community Projects and Panchayat Department*, R. P. Khanna, I.A.S.
*Secretary to Government, Electricity and Irrigation Department*, N. P. Sinha, I.A.S.
*Secretary to Government, Law Department*, B. P. Singh.
*Secretary to Government, Welfare Department*, S. K. Ghosh, I.A.S.
*Secretary to Government, Agriculture and Anima Husbandry Department*, Karam Singh.
*Secretary to Government, Industries Department*, R. T. Sinha, I.A.S.
*Secretary to Government, Co-operative and Cane Department*, L. Dayal, I.A.S.
*Secretary to Government, Supply and Commerce Department*, S. C. Mishra, I.A.S.
*Secretary to Government, Housing Department*, R. N. Pande, I.A.S.

### HEADS OF DEPARTMENTS

*Chief Administrator, River Valley Projects*, B. N. Sinha, I.C.S.
*Chief Conservator of Forests*, S. P. Sahi.
*Chief Engineers, P.W.D.*, Y. K. Lal, B. K. Dubey.
*Chief Inspector of Factories*, Atma Nand Singh.
*Commissioner of Labour*, F. Ahmad.
*Director of Agriculture*, B. P. Akhauri.
*Director of Extension Services*, Dr. P. N. Prasad.
*Director of Animal Husbandry*, Y. Prasad.
*Inspector-General of Registration and Commissioner of Excise*, B. S. Mukherji, I.A.S.
*Director of Industries*, R. Nath.
*Director of Health Services*, Dr. S. M. Hasan.
*Director of Public Relations*, C. B. Prasad, I.A.S.
*Director of Public Instruction*, Kalimuddin Ahmed.
*Inspector-General of Police*, S. Akhauri, I.P.
*Inspector-General of Prisons*, B. Singh, I.A.S.
*Registrar of Co-operative Societies*, R. D. Pandey, I.A.S.
*Director of Employment and Trg.*, R. P. Sinha, I.A.S.
*Commissioner, Commercial Taxes*, S. N. Chakravarti, I.A.S.

*Chief Engineer, Public Health Engineering*, D. N. Jha.
*Chief Engineer (Irrigation)*, B. N. Chatterjee.
*Chief Engineer (Kosi Project)*, B. L. Singh.
*Chief Engineer (Gandak and Sone Projects)*, P. R. Guha.
*Chief Engineer, Electricity*, A. S. Srivastava.
*Director of Tourism*, Umanath.
*Transport Commissioner*, R. N. Roy.
*Cane Commissioner*, J. Prasad.
*Director, Statistics*, Dr. L. Narain.
*Chief Electoral Officer*, V. Narain.
*Director, Gram Panchayat*, S. K. Chandra, I.A.S.
*Director, National Employment Service*, O. W. Francis.
*Chief Engineer, (Tenughat Dam Project)*, A. P. Prasad.
Chief Engineer, (*Community Development Department*), G. S. Prasad.
*Chief Engineer, (Minor Irrigation)*, S. N. Rai.

**Public Service Commission**

15, Bayley Road, Patna.

*Chairman*, B. N. Rohatgi.
*Members*, Dr. Iqbal Hussain, J. N. Sahay, B. Prasad.
*Secretary*, John Lal.
*Admn. Officer*, M. Prasad.
*Statistical Officer*, J. K. Prasad.

## HIGH COURT

PATNA.

*Chief Justice*, R. L. Narasimhan, I.C.S.

PUISNE JUDGES

Justice Satish Chandra Misra, M.A., B.L.
Justice Rati Kant Choudhary, B.A., B.L.
Justice Kamla Sahai, Barrister-at-Law.
Justice Ujjal Narain Sinha, Barrister-at-Law.
Justice Nand Lall Untwalia, B.A., B.L.
Justice Harihar Mahapatra, M.A., B.L.
Justice Tarkeswar Nath, B.A., B.L.
Justice Anant Singh, B.A., B.L.
Justice Shyamnandan Prasad Singh, M.A., B.L.
Justice Ramratna Singh, M.A., B.L.
Justice G. N. Prasad, B.A., B.L.
Justice Sarjoo Prasad Singh, B.A., B.L.
Justice A. B. Sinha; Justice Ranbir Jang Bahadur (*Addl. Judge*).
Syed Wasiuddin, *Registrar*.
*Deputy Registrar*, Mohammad Yahya, B.A., B.L.
*Commissioner for Oaths and Affidavits*, Ramkishore Prasad Agrawal, M.A.

# DELHI

## ADMINISTRATIVE PERSONNEL

*Chief Commissioner*, A. N. Jha.
*Chief Secretary*, K. Kishore, I.A. & A.S.
*Financial Adviser-cum-Housing Commissioner*, K. L. Rathee.
*Offg. Development Commissioner*, L. S. Titus.
*Judicial Secretary*, R. K. Baweja.
*Finance Secretary*, K. D. Krishnan.
*Deputy Commissioner*, S. G. Bose Mullick, I.A.S.
*Inspector-General of Police*, B. B. Banerjee, I.P.
*Superintendent, Medical Services*, Dr. A. S. Sen.
*Director of Education*, B. D. Bhatt.
*Director of Industries*, B. K. Sharma.
*Director of Public Relations*, Ram Lal Varma.
*Director of Training and Employment*, Ainul Abidin.
*Sales Tax and Excise Commissioner*, S. R. Deva.
*Labour Commissioner*, Gangesh Misra.
*District and Sessions Judge*, P. P. R. Sawhney.
*Industrial Tribunal*, E. K. Krishnamurty.
*Housing Commissioner*, V. Venkatasubban.

GOVERNMENT OF INDIA TOURIST OFFICE

88, Janpath, New Delhi.

*Director*, Mrs. S. Panigrahi.
*Asstt. Directors*, H. K. Sethi, Mrs. Ranjeeta Singh.

**Northern Railway**

Baroda House, New Delhi.

*General Manager*, H. D. Singh.
*Sr. Deputy General Manager*, S. P. Lal.
*Chief Operating Superintendent*, G. S. Khosla.
*Chief Commercial Superintendent*, Ranjit Singh.
*Chief Engineer*, S. Srinivasan.
*Chief Engineers, Construction I*, K. C. Sood,; *Construction II*, S. S. Surana.
*Financial Adviser and Chief Accounts Officer*, M. N. Datta.
*Chief Mechanical Engineer*, V. S. Chopra.
*Controller of Stores*, H. K. L. Khanna.
*Chief Signal and Tele-Comm. Engineer*, S. L. Sabharwal.
*Chief Personnel Officer*, S. Chatterji.
*Chief Electrical Engineer*, V. S. Gupta.
*Chief Security Officer*, S. M. Ali Qadir.
*Chief Medical Officer*, Dr. J. R. Gadeock.
*Chief Auditor*, M. P. Gupta.
*Chief Public Relations Officer*, O. D. Agnihotri.

# GOA

**Panjim**

## ADMINISTRATIVE PERSONNEL

*Lt. Governor of Goa, Daman and Diu (Concurrently Administrator of Dadra and Nagar Haveli)*, K. R. Damle, I.C.S.
*Secretary to Lt. Governor*, B. R. Basu, I.A.S.
*Chief Minister in charge of General Administration, Home, Planning and Development excluding Agriculture, Finance and Special Department*, Dayanand B. Bandodkar.
*Minister for Information, Tourism, Education, Public Health and Public Works*, Vithal Subrai *alias* Shrirang Karmali.
*Minister for Law, Industries, Labour and Agriculture*, Sebastyan *alias* Tony Fernandes.
*Chief Secretary*, M. C. Sharma, I.A.S.
*Collector of Daman*, H. K. Khan, I.A.S.
*Civil Administrator of Diu*, M. S. Bijlani.
*Judicial Commissioner*, V. S. Jetley.
*Additional Judicial Commissioner*, Dr. Alvaro Dias.
*Development Commissioner*, S. P. Balasubramanyan, I.A.S.
*Secretary Law, Legislative Assembly*, P. B. Venkatasubramanian.
*Secretary, Information and Tourism*, U. Narsingh.
*Secretary, Revenue*, Dr. S. A. S. Nadkarni.
*Secretary, Industries and Labour*, B. K. Chowgule, I.A.S.
*Finance Secretary*, S. Subramanian.
*Senior Superintendent of Police*, C. J. Saldanha, I.P.S.

# GUJARAT

Ahmedabad.

## ADMINISTRATIVE PERSONNEL

*Governor :* Nityanand Kanungo.
*Secretary :* Pardumansinhji, I.A.S.

**Ministers**

*Chief Minister, in charge of Planning, Home, General Administration, Information, Law and Judiciary*, Hitendra Desai.
*Education, Social Welfare, Prohibition and Excise, Rehabilitation, Sports and Cultural Activities*, Miss Indumati Chimanlal.
*Public Works, Ports, Civil Supplies, Electricity*, Vijaykumar Madhavlal Trivedi.
*Revenue, Agriculture, Industries*, Utsavbhai S. Parikh.
*Health, Labour, Housing*, Mohanlal P. Vyas.
*Panchayats, Community Projects, Co-operation, Sarvodaya, Municipalities, Road Transport, Jails*, Vajubhai M. Shah.
*Finance, Forests, Fisheries, Accommodation Control, Government Printing and Stationery, Gold Control, Repatriates from Mozambique, Burma, Zanzibar and East Africa*, Maldeoji M. Odedra.

**Deputy Ministers**

*Public Works (excluding Irrigation), Ports*, Bahadurbhai K. Patel.
*Health, Jails, Social Welfare, Housing*, Mrs. Urmila P. Bhatt.
*Panchayats, Community Projects, Sarvodaya, Co-operation, Industries*, Devendra M. Desai.
*Revenue, Home, Planning, Law, Judiciary*, Madhavsinh F. Solanki.
*Education, Prohibition and Excise*, Bhanuprasad V. Pandya.
*Agriculture, Irrigation, Electricity*, Jayaram A. Patel.
*Parliamentary Secretary to Chief Minister*, Karimji R. Chhipa.

**Secretariat**

*Chief Secretary*, V. L. Gidwani, I.C.S.
*Secretary Finance Department*, F. N. Rana, I.A.S.
*Secretary, Revenue and Agriculture Department*, S. M. Dudani.
*Secretary, Legal Department*, S. M. Vidyarthi.
*Secretary, Public Works Department*, L. R. Dalal, I.C.S.
*Secretary, Health and Industries Department*, K. T. Sattarawala, I.A.S.
*Secretary, Education and Social Welfare Department*, M. D. Rajpal, I.A.S.
*Secretary, Rural Development Department*, J. G. Shah.
*Secretary, Home and Civil Supplies Department*, F. J. Heredia, I.A.S.

**Principal Officials**

*Director of Agriculture*, Dr. G. A. Patel.
*Director of Public Health & Medical Services*, Dr. T. B. Patel.

*Director of Ayurved*, Dr. D. R. Vaidya.
*Director of Transport and I. G. Prisons*, R. V. Chandramouli, I.A.S.
*Director of Education and Archives*, K. G. Badlani.
*Director of Technical Education*, T. A. Desai.
*Director of Industries*, S. M. Ghosh.
*Director of Information, Tourism and Examiner of Books and Periodicals*, M. H. Shah.
*Director of Printing and Stationery and Civil Supplies*, G. T. Gonsalves.
*Director of Prohibition*, V. R. Patel.
*Director of Social Welfare*, P. R. Chauhan, I.A.S.
*Director of Fisheries*, K. V. Navathe.
*Director of Accounts and Treasuries*, U. D. Acharya.
*Director of Bureau of Economics and Statistics*, P. B. Buch.
*Director of Languages*, Anantrai Raval.
*Director of Geology and Mining*, Dr. G. G. K. Sastri.
*Director of Ports*, B. C. Mehta.
*Director of Drugs Control*, B. V. Patel.
*Director of Land Records, Settlement Commissioner, Inspector General of Registrations, Registrar, Births, Deaths, and Marriages and Consulting Surveyor, Superintendent of Stamps*, J. L. Jadeja.
*Director of Cottage Industries, Registrar of Co.-Societies and Registrar of Money Lenders*, H. M. Joshi.
*Chief Conservator of Forests*, R. D. Joshi.
*Director of Employment Exchange and Commissioner of Labour*, H. M. Joshi.
*Commissioner of Sales Tax*, V. R. Mehta.
*Charity Commissioner, Custodian of Evacuee Property and Competent Officer*, H. P. Parikh.
*Chief Inspector of Factories*, R. P. Patel.
*Controller of Accommodation*, H. M. Bhatt.
*Registrar of Firms*, M. G. Shah.
*Electrical Engineer to Government*, D. B. Naik.
*Inspector General of Police*, Imdad Ali.
*Commissioner of Police, Ahmedabad*, E. F. Deboo.

**Stationary Bodies**

State Fertilizer Co. Ltd., Ambika Nivas, Ashram Road, Ahmedabad.

*Chairman*, Jaykrishna Haridas Vallabhdas.
*Managing Director*, K. R. Shrivastava, I.A.S.
Gujarat State Small Industries Corpn. Ltd.
*Chairman*, Chinubhai Manilal Shah, *Managing Director*, B. D. Shah.
Gujarat Public Service Commission, New Civil Hospital, Asarwa, Ahmedabad 16.
*Chairman*, R. T. Leuva, *Members*, R. S. Parikh, N. R. Trivedi.
*Chairman, Sales Tax & Co-operative Tribunal (Shantisadan, Mirzapur, Ahmedabad* 1), J. A. Baxi.
*Chairman, Gujarat S.S.C. Board (Sadhna Press Bldg. Palace Road, Baroda)*, M. M. Shukla.
*Chairman, Gujarat State Electricity Board (Race Course, Baroda)*, H. M. Patel, I.C.S. (Retd.).
*Chairman, Industrial Tribunal (Shanti Sadan, Mirzapur, Ahmedabad* 1), I. G. Thakore.
*Chairman, Revenue Tribunal (Shanti Sadan, Mirzapur, Ahemdabad* 1), P. B. Mehta.
*Chairman, Gujarat State Social Welfare Advisory Board (Bansari Bldg., Sarkhej Road, Ahmedabad)*, Smt. Pushpabahen Mehta.
*Chairman, Gujarat State Housing Board (New Mental Hospital, Ahmedabad)*, Madan Mohan Mangaldas. *Housing Commissioner*, P. N. Desai.
*Chairman, Gujarat State Road Transport Corporation (Vahan Vyavhar Bhavan, Gita Mandir Road, Ahmedabad)*, V. L. Mehta.
*Chairman, Gujarat State Cooperative Housing Finance Society Ltd. (Bank of Baroda Bldg., Fuvara, Gandhi Road, Ahmedabad)*, Dr. C. J. Patel.
*Chairman, Gujarat State Khadi & Village Industries Board (Green Villa, Old Vadaj, Ahmedabad* 13), Babubhai J. Patel.
*Chairman, Gujarat State Financial Corporation, Mirapur, Ahmedabad*, N. S. Sodhan. *Managing Director*, Nagindas H. Shah.
*Chairman (Ayurved & Unani System of Medicine Board, New Civil Hospital, Ahmedabad* 16), G. H. Vaidya.

**High Court**

*Chief Justice*, Vacant
*Judges*, Justice N. M. Miabhoy, Justice V. B. Raju, Justice P. N. Bhagwati, Justice B. J. Divan, Justice A. R. Bakshi, Justice N. K. Vakil, Justice J. B. Mehta, Justice M. U. Shah (*Additional*), Justice N. G. Shelat (*Additional*), Justice Akbar S. Sarela (*Additional*).
*Registrar*, V. R. Shah.

## HIMACHAL PRADESH

*Headquarters, Simla* 4.

### ADMINISTRATIVE PERSONNEL

*Lt. Governor*, V. Viswanathan, I.C.S.

**Ministers**

*Chief Minister, in charge of General Administration including Appointments, Secretariat Administration and Confidential and Cabinet, Home and Vigilance, Planning, Education and Welfare, Public Relations and Tourism, Public Works and Multi-purpose Project Departments, Co-operation and Panchayats, Agriculture and Animal Husbandry Departments*, Yeshwant Singh Parmar.

*Revenue Minister in charge of Revenue Department, Finance Department, Excise and Taxation, Law Department, Local Self-Government, Elections, Medical and Public Health*, Karam Singh.

*Development Minister in charge of Development, including Community Development, Forest Department, Industries Department, Transport Department, Civil Supplies*, Hari Dass.

**Secretariat**

*Chief Secretary and Financial Commissioner, Secretary, Appointment, Administration, Home, Revenue, Transport and Public Relations & Tourism Department*, T. S. Negi, I.A.S.

*Development Commissioner, Ex-Officio Secretary, Development, Industries, Animal Husbandry, Welfare, Panchayats and Agriculture*, Bhagwati Saran Singh, I.A.S.

*Finance Secretary and Secretary, Excise*, S. C. Bhatnagar.

*Secretary, Judicial, Law, Evacuee Property, Relief and Rehabilitation and Local Self-Govt., Legal Remembrancer, Custodian of Evacuee Property and Chief Electoral Officer*, D. B. Lall.

*Secretary to Lt. Governor and Secy., Border*, L. N. Saklani, I.A.S.

*Ex-Officio Secretary, Civil Supplies and Co-operatives, also Registrar, Co-operatives*, V. B. L. Mathur, I.A.S.

*Ex-Officio Secretary, Public Works Department and also Chief Engineer P.W.D.*, V. Rama Verman.

*Ex-Officio Secretary, Medical and Public Health, and also Director of Health Services and Inspector General of Prisons*, Dr. Mrs. A. C. Parmar.

*Ex-Officio Secretary, Forests and also Chief Conservator of Forests*, V. P. Agarwala.

*Ex-Officio Secretary, Education and also Director of Education*, K. L. Sethi.

*Ex-Officio Joint Secretary, Transport and General Manager, Himachal Govt. Transport*, P. P. Srivatsava, I.A.S.

*Ex-Officio Joint Secretary, Revenue and Excise and Taxation Commissioner*, V. S. Sharma, I.A.S.

*Ex-Officio Joint Secretary, Planning & Development and Deputy Development Commissioner*, P. R. Mahajan, I.A.S.

*Ex-Officio Joint Secretary, Agriculture and Animal Husbandry and Director of Agriculture Department*, Dr. L. S. Negi.

*Judicial Commissioner*, O. P. Agnihotri.

*Land Reforms Commissioner*, C. L. Kapila, I.A.S.

*Director of Industries and Controller of Printing and Stationery*, P. K. Mattoo, I.A.S.

*Director of Welfare*, S. M. Goyal, I.A.S.

*Inspector General of Police*, M. G. Singh, I.P.S.

*Director of Consolidation of Holdings and Land Records*, Hardayal Singh.

*Director of Economic & Statistics*, K. N. Vall.

*Director of Public Relations & Tourism*, H. K. Mittoo.

*Director of Panchayats*, P. R. Mahajan, I.A.S.

*Director of Civil Supplies*, S. M. Goyal.

*Director of Civil Defence*, T. S. Negi, I.A.S.

DISTRICT ADMINISTRATION.

*Deputy Commissioner, Mahasu*, Virendar Prakash, I.A.S.

*Deputy Commissioner, Mandi*, Hans Raj Mahajan, I.A.S.

*Deputy Commissioner, Chamba*, Vijaya Singh, I.A.S.

*Deputy Commissioner, Bilaspur*, Lakshman Das, I.A.S.

*Deputy Commissioner, Sirmur*, B. C. Negi, I.A.S.

*Deputy Commissioner, Kinanur*, N. D. Jayal, I.F.A.S.

## JAMMU AND KASHMIR

Srinagar.

### ADMINISTRATIVE PERSONNEL

Governor

Major-Gen. Dr. Karan Singh.

### COUNCIL OF MINISTERS

*Chief Minister in charge of General Administration, Education and Planning*, G. M. Sadiq.

*Minister for Finance and Industry*, Girdhari Lal Dogra.

*Minister for Home and Public Works*, D. P. Dhar.

*Minister for Revenue, Transport & Evacuee Property*, Mohammed Ayub Khan.

*Minister for Health and Local Self-Government*, Peer Ghayas-Ud-Din.

*Minister for Relief and Rehabilitation*, Trilochan Dutta.

*Minister Without Portfolio*, Syed Mir Qasim.*

*Ministers of State*

*Information, Publicity and Tourism*, A. M. Tariq.

*Ladakh Affairs and Trade Commissions*, Kushak Bakula.

*Industries and Commerce*, Major Piar Singh.

*Works and Power*, Ghulam Rasool Khan.

*Food and Agriculture*, Harbans Singh Azad.

**Secretariat**

*Chief Secretary*, E. N. Mangat Rai, I.C.S.

*Addl. Chief Secretary*, S. Banerjee.

*Secretary to Governor*, Jalal-Ud-Din.

*Secretary, Finance Department*, Dwarka Nath Gupta.

*Secretary, Home Department*, Sheikh Gulham Ahmad.

* Has since resigned from the Cabinet to undertake party work.

*Secretary, Education Department*, Ghulam Mohammad Zarcar.
*Secretary Revenue Department*, M. Andrabi.
*Addl. Secretary, Revenue Dept.*, A. N. Dhar.
*Secretary Health and Housing*, S. Teja Singh.
*Secretary, Agriculture and Information*, Abdul Rashid.
*Secretary, Industries and Commerce Department*, S. Amar Singh.
*Secretary, Works and Power Department*, Mir Ghulam Rasool.

**Heads of the Departments**

*Divisional Commissioner, Kashmir Province*, Anwar Karim.
*Additional Divisional Commissioner, Kashmir Province*, Noor Mohammed.
*Divisional Commissioner, Jammu Province*, Shrinivasa Vardhan.
*Inspector General of Police*, L. D. Thakur.
*Education Adviser*, M. M. Beg.
*Director of Education*, Noor-Ud-Din.
*Director of Industries*, R. C. Raina.
*Director of Information*, G. D. Sharma.
*Director of Health Services*, Dr. R. N. Parihar.
*Director of Tourism*, S. K. Kak.
*Director of Geology and Mining*, S. S. Malhotra.
*Director of Animal Husbandry*, Ghulam Mohi-Ud-Din.
*Director of Local Bodies*, Mangat Ram.
*Director of Agriculture*, G. M. Butt.
*Director J. and K. Industries Ltd.*, S. M. Agha.
*Director Fisheries*, G. M. Malik.
*Director of Research, Libraries and Archives*, Mahmud Ahmed.
*Director of Field Survey*, J. N Zutshi.
*Financial Commissioner*, Rajkumar Shivdev Singh.
*Transport Commissioner*, Vacant.
*Development Commissioner*, Ghanshyam.
*Labour Commissioner*, Iftkhar Ahmad.
*Excise and Taxation Commissioner*, Ghulam Mohammed Chikan.
*Chief Conservator of Forests*, G. Naqashband.
*Chief Electoral Officer*, R. K. Shivdev Singh.
*Chief Engineer P.W.D. (R. and B.) Kashmir*, H. K. Gandotra.
*Chief Engineer P.W.D. (R. and B.) Jammu*, M. Afzal.
*Chief Engineer Irrigation, Kashmir*, P. N. Wanchu.
*Chief Engineer, Irrigation, Jammu*, Vacant.
*Chief Engineer, Design*, B. N. Mengi.
*Chief Engineer, Electricity*, S. S. L. Sadhu.
*Controller, Stationery and Printing*, Dr. Habib Ullah.
*Controller, Tawaza*, P. N. Madan.
*Registrar, Co-operative Societies*, Hari Ram Sharma.

### HIGH COURT

*Chief Justice*, Janki Nath Wazir, B.A., LL.B. (Lond.), Bar-at-Law.
*Puisne Judges*, Justice Syed Murtaza Fazl Ali, B.A. (Hons.), B.L.; Justice J. N. Bhat, M.A., LL.B., B.A. (Hons.).

## KERALA

Trivandrum

### ADMINISTRATIVE PERSONNEL

*Governor*, Bhagwan Sahay, I.C.S.
*Advisers*, N. E. S. Raghavachari, I.C.S., R. Prasad, I.C.S.
*Chief Secretary*, N. M. Patnaik, I.A.S.
*Secretary, Finance Department*, C. Thomas, I.A.S.
*Commissioner for Agricultural Production and Rural Development*, K. K. Ramankutty, I.A.S.
*Addl. Secretary, Agriculture Department*, A. K. Kunnikannan Nambiar.
*Secretary, Industries Department*, N. Chandrabhanu, I.A.S.
*Secretary, Public Works Department*, S. Ananthakrishnan.
*Secretary, Public Department*, G. Bhaskaran Nair.
*Secretary, Home Department*, M. K. Devassy, I.A.S.
*Secretary, Health & Labour Departments*, C. K. Kochukoshy.
*Secretary, Revenue Department*, R. Gopalaswami.
*Secretaries, Law Department*, P. Unnikrishna Kurup, P. Sankara Elayath (*Special*), P. K. Lakshmanan (*Addl. Secy.*).
*Jt. Secretary, Election Department*, S. Naganathan.
*Secretary, Education Dept.*, P. K. Abdulla, I.A.S.
*Addl. Secretary, Planning and Finance Department*, A. Ramachandran, I.A.S.

### PRINCIPAL OFFICIALS

*Chief Engineer, Bldgs. & Roads*, T. S. Narayanaswamy.
*Chief Conservator of Forests*, M. P. George.
*Chief Engineer (General and Irrigation)*, T. P. Kuttiammu.
*Chief Engineer (Public Health)*, P. S. Rajagopalan.
*Chairman, Electricity Board*, U. Chandu Nair.
*Director of Agriculture*, M. Janardhanan Nair.
*Director of Animal Husbandry and Vet. Services*, Dr. M. N. Menon.
*Director of Public Instruction*, P. K. Uma Shankar.
*Director of Industries and Commerce*, V. Venkitanarayanan.
*Director of Health Services*, Dr. V. S. Gopalakrishnan.
*Director, of Public Relations*, M. Divakaran.
*Director of Harijan Welfare*, A. Sethumadhava Menon.
*Director of Fisheries*, P. Gopinatha Pillai.
*Director of Statistics*, Dr. P. K. Gopalakrishnan.
*Chairman, Transport Corporation*, P. I. Jacob, I.A.S.
*Director of Civil Defence*, M. Gopalan.
*Inspector-General of Police*, N. Rama Iyer, I.P.S.
*Inspector-General of Prisons*, V. Raghavan Nair.
*Registrar of Co-operative Societies*, K. Narayanan.
*Director of Collegiate Education*, Dr. K. Bhaskaran Nair.
*Director of Technical Education*, S. Rajaram.
*Director of Tourism*, V. Harihara Subramoni.
*Director of Survey and Land Records*, A. Girijavallaba Menon.
*Director of Indigenous Medicine*, M. N. Kesava Pillai.
*Inspector-General of Registration*, M. R. Ramachandran Nair.
*Superintendent of Census Operations*, M. K. Devassia.
*Director of Municipalities*, P. D. Kuruvila.
*Director of Museums and Zoos*, K. Parameswaran Pillai.
*Director of Panchayats*, R. Kesavan Nair.

### BOARD OF REVENUE

*Members*, George Thomas, P. S. Padmanabhan, K. S. Menon.
*Secretary*, N. Kaleswaran, I.A.S.

### DISTRICT COLLECTORS

*Trivandrum*, Smt. Padma Ramachandran, I.A.S.; *Quilon*, M. S. K. Ramaswami, I.A.S.; *Kottayam*, S. Gopalan, I.A.S.; *Alleppey*, C. P. Ramakrishna Pillai; *Ernakulam*, K. Ramunni Menon, I.A.S.; *Trichur*, N. Sreedharan Nair, I.A.S.; *Palghat*, K. V. Ravindran Nair, I.A.S.; *Cannanore*, N. Gopalakrishnan Nair, I.A.S.; *Kozhikode*, U. Mahabhala Rao, I.A.S.

### HIGH COURT

Ernakulam.

*Chief Justice*, M. S. Menon.

*Judges*, P. T. Raman Nayar; C. A. Vaidialingam; S. Velu Pillai, Smt. Anna Chandy; P. Govinda Menon; T. C. Raghavan; M. Madhavan Nair; P. Govindan Nair, K. K. Mathew; V. P. Gopalan Nambiyar.

*Registrar*, T. M. Krishnan Nambiar.
*Advocate-General*, Vacant.

### PUBLIC SERVICE COMMISSION

Thulasi Hill, Pattom, Trivandrum 4.

*Chairman*, V. Mariarputham.
*Members*, A. P. Udayabhanu, V. K. Kunjan, E. P. Narayana Pillay, P. P. Ummner Koya.
*Secretary*, T. V. Krishnankutty Warrier.

## MADHYA PRADESH

Bhopal.

### ADMINISTRATIVE PERSONNEL

GOVERNOR

K. C. Reddy.

PERSONAL STAFF

*Secretary*, M. G. Karnikar.
*Private Secretary*, G. S. Gadgil.
*As. D.C.*, M. S. Ragnekar, Sarat Chandra.

### MINISTERS

*Chief Minister, General Administration, Home, Publicity, Tourism, Local Govt. (Rural) and Archaeology*, Pt. D. P. Mishra.
*Minister for Planning and Developments, Economics and Statistics*, Mishrilal Gangwal.
*Minister for Education*, Narsinghrao Dixit.
*Minister for Law, Separate Revenue and Registration*, Gulsher Ahmed.
*Minister for Finance and Languages*, Shambhunath Shukla.
*Minister for Tribal Welfare and Rehabilitation*, Raja Naresh Chandra Singh.
*Minister for Commerce and Industry, Natural Resources*, Dr. S. D. Sharma.
*Minister for Social Welfare*, Govind Narain Singh.
*Minister for Local Govt. (Urban)*, Rani Padmavati Devi.
*Minister for Public Health*, Ganeshram Anant.
*Minister for Food, Civil Supplies and Co-operation*, Gautam Sharma.

### MINISTERS OF STATE

*Electricity (excluding business in connection with the Chambal Project)*, Sajjan Singh Vishnar; *Forests, Home*, Vasantrao Uike; *Agricultural, General Administration*, Arjun Singh; *Revenue Land Records, Land Reforms, Survey and Settlement*, Kunj Biharilal Guru; *P. W. D. (Buildings and Roads)*, Parmanand Bahi Patel; *Irrigation (excluding business in connection with the Chambal Project)*, Rameshwar Prasad Sharma; *Jails*, Vedram; *Labour, Housing and Chambal*, Shyam Sunder Patidar.

### SECRETARIAT

*Chief Secretary*, R. P. Norohna, I.C.S.
*Additional Chief Secretary*, R. P. Naik, I.C.S.
*Finance Secretary*, K. C. Tiwari, I.A.S.
*Revenue Secretary*, M. S. Chaudhari, I.A.S.
*Local Self-Government Secretary*, T. N. Bahel, I.A.S.
*Secretary, Public Health*, T. C. A. Shrinivasan, I.A.S.
*Agriculture Secretary*, S. L. Verma, I.A.S.
*Commerce and Industry Secretary*, Devendra Nath, I.A.S.
*Education Secretary*, V. S. Krishnan.
*Public Works Secretary*, M. A. Khan, I.A.S.
*Planning and Development Secretary*, P. S. Bapna, I.A.S.
*Law Secretary*, R. S. G. Trivedi.
*Tribal Welfare Secretary*, B. K. Dubey, I.A.S.
*Food Secretary*, B. R. Mandal, I.A.S.

### BOARD OF REVENUE

*President In-charge*, Y. Bhargava, I.A.S.
*Members*, S. P. Mitra, I.A.S.; R. C. Roy Poddar, I.A.S.; Raghavendra Prasad, I.A.S.

### COMMISSIONERS OF DIVISIONS

*Indore*, M. P. Shrivastava, I.A.S.
*Bilaspur*, K. G. S. Pisarody, I.A.S.
*Jabalpur*, M. P. Dubey, I.A.S.

*Gwalior*, L. C. Gupta, I.C.S.
*Bhopal*, P. D. Chatterji, I.A.S.
*Raipur*, Maharaj Virbhadra Singh, I.A.S.
*Rewa*, P. K. Chakravarti, I.A.S.

### HEADS OF DEPARTMENTS

*Inspector-General of Police (Bhopal)*, B. M. Shukla, I.P.S.
*Director of Health Services (Indore)*, Dr. R. Subrahmanian.
*Inspector-General of Prisons (Bhopal)*, L. S. Naidu.
*Chief Engineer (Irrigation), P.W.D. (Raipur)*, C. M. Sanghvi.
*Chief Engineer (Buildings and Roads), P.W.D. (Bhopal)*, M. F. Beg.
*Chief Conservator of Forests (Rewa)*, K. N. Mishra.
*Director of Public Instruction (Bhopal)*, S. P. Verma.
*Director of Information & Publicity (Bhopal)*, I. S. Parihar.
*Director of Economics and Statistics (Bhopal)*, Dr. K. B. L. Bhargava.
*Director of Social Welfare (Indore)*, G. L. Shukla, I.A.S.
*Director of Civil Supplies (Indore)*, R. N. Bisaria.
*Director of Food (Bhopal)*, B. R. Mandal, I.A.S.
*Excise Commissioner (Gwalior)*, Sankhdar Singh, I.A.S.
*Settlement Commissioner (Gwalior)*, S. H. Aole, I.A.S.
*Director of Industries (Bhopal)*, G. K. Sheth.
*Labour Commissioner (Indore)*, S. B. Lal, I.A.S.
*Director of Agriculture (Bhopal)*, Dr. T. S. Gill.
*Director of Tribal Welfare (Bhopal)*, B. K. Dube, I.A.S.
*Sales-Tax Commissioner (Indore)*, R. N. Malhotra, I.A.S.
*Registrar, Co-operative Societies (Indore)*, R. P. Mishra.
*Director of National Employment Service (Jabalpur)*, A. B. Vaidya.
*Director of Languages*, A. M. Shastri.
*Director of Veterinary Services (Bhopal)*, G. C. Juneja.
*Housing Commissioner*, B. G. Naik.

### HIGH COURT

*Judges at Jabalpur*, P. V. Dixit (*Chief Justice*), Justice T. P. Naik, Justice K. L. Pandey, Justice Shivdayal, Justice N. M. Golvalker, Justice S. P. Bhargava, Justice M. A. Razzaque, R. J. Bhave.
*Judges at Indore*, Justice V. R. Newaskar, Justice P. K. Tare, Justice H. R. Krishnan, Justice S. B. Sen.

### PUBLIC SERVICE COMMISSION
(Indore)

*Chairman*, K. Radhakrishnan, I.C.S.
*Members*, R. C. Murab, I.A.S. (Retd.), Manohar Singh Mehta, M.A., LL.B.
*Secretary*, Nagendra Mohan Vyas, M.A., LL.B.

## MADRAS
Madras.

### ADMINISTRATIVE PERSONNEL

GOVERNOR

H. H. Sri Jaya Chamaraja Wadiyar, G.C.B., G.C.S.I.

PERSONAL STAFF

*Comptroller, Governor's Household*, A. Ranganathan.
*Private Secretary*, K. V. Subramaniam.
*Honorary Surgeon*, Dr. Ganapathy.

### MINISTERS

*Chief Minister*, M. Bhaktavatsalam.
*Minister for Industries*, R. Venkataraman.
*Minister for Home*, P. Kakkan.
*Minister for Food*, V. Ramaiah.
*Minister for Public Health*, Smt. Jothi Venkatachellum.
*Minister for Co-operation*, N. Nallasenapathi Sarkarai Manradiar.
*Minister for Information and Publicity*, G. Bhuvarahan.
*Minister for Local Administration*, S. M. A. Majid.

### SECRETARIAT

*Chief Secretary*, C. A. Ramakrishnan, I.C.S.

RURAL DEVELOPMENT AND LOCAL ADMINISTRATION DEPARTMENT

*Secretary*, N. Ananthapadmanabhan, I.A.S.
*Joint Secretary*, K. Diraviam, I.A.S.
*Director, Panchayat Programme and Ex-Officio Dy. Secretary*, E. S. Masilamani.

REVENUE DEPARTMENT

*Secretary*, V. Balasundaram, I.A.S.

INDUSTRIES, LABOUR AND CO-OPERATION DEPARTMENT

*Secretary*, T. N. Lakshminarayanan, I.A.S.
*Joint Secretary*, H. K. Gazi, I.A.S.

FOOD AND AGRICULTURE DEPARTMENT

*Secretary*, S. R. Kaiwar, I.C.S.
*Special Addl. Secretary*, S. Vishwanathan, I.A.S.

FINANCE DEPARTMENT

*Secretary*, G. Ramachandran, I.A.S.

EDUCATION AND PUBLIC HEALTH DEPARTMENT

*Secretary*, S. R. Krishnaswamy, I.A.S.

HOME DEPARTMENT

*Secretary*, A. Venkatesan, I.A.S.

PUBLIC WORKS DEPARTMENT

*Secretary* R. Thirumalai, I.A.S.

LAW DEPARTMENT

*Secretary*, K. Rajasekaran.

### BOARD OF REVENUE

*Commissioner of Land Revenue, Prohibition and Excise*, M. S. Sivaraman, I.C.S.
*Commissioner of Civil Supplies and Food Production*, S. R. Kaiwar, I.C.S.
*Commissioner of Land Revenue and Land Reforms*, N. S. Mani, I.C.S.
*Commissioner of Commercial Taxes and Transport*, E. P. Royappa, M.B.E., I.A.S.

### PRINCIPAL OFFICIALS

*Director of Agriculture*, K. V. Ramanathan, I.A.S.
*Director of Animal Husbandry*, I. A. Manthramoorthy.
*Registrar of Co-operative Societies*, V. K. Appandarajan, I.A.S.
*Director of Public Instruction, (Higher Education)*, N. E. Sundaravadivelu.
*Director of Public Instruction (Secondary Education)*, V. Titus.
*Director of Information and Publicity*, R. Kulandaivelu.
*Chief Conservator of Forests*, T. Jayadev.
*Director of Harijan Welfare*, K. S. Sivasubramaniam.
*Director of Women's Welfare*, Kumari M. S. Ramesh, I.A.S.
*Commissioner of H. R. and C. E.*, M. S. Sarangapani Mudaliar.
*Director of Industries and Commerce*, T. A. S. Balakrishnan.
*Commissioner of Labour*, M. G. Balasubramaniam, I.A.S.
*Director of Medical Services*, Kumari A. V. Marikar, M.D., D.G.O.
*Dean, G.G.H. and M.M.C.*, Dr. S. Govindarajan.
*Director of State Transport*, T. V. Venkataraman, I.A.S.
*Inspector General of Police*, F. V. Arul.
*Commissioner of Police*, M. Singaravelu.
*Director of Public Health*, Dr. Mrs. H. M. Sharma.
*Inspector General of Prisons*, M. Balakrishna Menon.
*Chief Inspector of Factories*, T. V. Lakshmanaswamy, B.E., M.I.
*Director of Handloom*, C. I. Mahadevan, I.A.S.
*Director of Stationery and Printing*, S. M. Kalidas Naidu, I.A.S.
*Director of Statistics*, G. D. Nandagopal.
*Chief Engineer, (General)*, J. G. Abraham, B.E., M.I.E., India.
*Chief Engineer (Irrigation)*, V. R. S. Pandian, B.E.
*Chief Engineer (Highways)*, O. Sivasankaran, B.E.
*Chief Engineer (Buildings)*, M. E. Hussain, B.E., M.I.E., India.
*Chief Engineer (Electricity)*, R. M. Thirumalakolundu.

### MADRAS STATE ELECTRICITY BOARD
**157, Mount Road, Madras 2.**

*Chairman*, V. P. Appadurai, B.A., M.I.E. (Ind.).
*Secretary*, V. C. Chathu Menon, B.A.

### HIGH COURT

*Chief Justice*, Chandra Reddy, P., B.A., B.L.
*Judge*, Anantanarayanan, Mr. Justice M., I.C.S.
*Judge*, Veeraswami, Mr. Justice K., B.A., B.L.
*Judge*, Srinivasan, Mr. Justice K., I.C.S.
*Judge*, Venkatadri, Mr. Justice T., B.A., B.L.
*Judge*, Ramakrishnan, Mr. Justice P., I.C.S.
*Judge*, Kailasam, Mr. Justice P. S., B.Sc., B.L.
*Judge*, Haji P. Kunhamed Kutti, Mr. Justice, B.A., B.L.
*Judge*, Sadasivam, Mr. Justice R., B.A., M.L.
*Judge*, Venkataraman, Mr. Justice, K.S., I.C.S.
*Judge*, Ramamurti, Mr. Justice K. S., B.A., B.L.
*Judge*, Natesan, Mr. Justice M., B.A., B.L.
*Registrar*, V. T. Kandaswami.
*Advocate-General, Madras*, N. Krishnaswami Reddy, B.A., B.L.
*Sheriff of Madras*, K. S. G. Haja Sheriff.

### PUBLIC SERVICE COMMISSION
MADRAS 2.

*Chairman*, J. Sivanandam, I.A.S.
*Members*, S. Chinnappan, B.A., B.L., E. Athikesavan, B.A., B.L.
*Secretary*, K. J. M. Shetty, I.A.S.

### RAILWAY SERVICE COMMISSION
Cathedral Road, Madras 6.

*Chairman*, N. S. Hirannayya.
*Member*, Brig. M. K. Sheriff.
*Secretary*, J. Thiagarajan.

### SOUTHERN RAILWAY
(General Manager's Office, Park Town, Madras 3).

*ADMINISTRATIVE PERSONNEL*

*General Manager*, B. C. Ganguli.
*Senior Dy. General Manager*, E. G. Kotiswaran.
*Dy Gen. Manager (General)*, T. V. K. Sarma, M.A.
*Chief Personnel Officer*, E. S. Muthukrishna.
*Dy. Chief Personnel Officer*, T. Venugopal.
*Chief Engineer*, S. Ramamurthy.
*Chief Engineer, Construction*, T. R. Vachha.
*Chief Signal and Tele-communication Engineer*, W. C. Liebenhals.
*Chief Operating Superintendent*, S. Rajagopalan.
*Chief Commercial Superintendent*, K. J. Chandy.
*Chief Mechanical Engineer*, K. Vaidyanath.
*Chief Electrical Engineer*, D. V. K. Sastry.
*Controller of Stores*, V. C. Paranjape.
*Financial Adviser and Chief Accounts Officer*, J. Rama Rao.
*Chief Medical Officer*, Dr. P. A. Menon.
*Chief Security Officer*, M. Jai Singh.
*Engineer-in-Chief (Projects), Bangalore*, P. Krishna Raju.

# MAHARASHTRA

Bombay.

## ADMINISTRATIVE PERSONNEL

### Governor

DR. P. V. CHERIAN.

### Personal Staff

*Secretary to the Governor & Comptroller of the Household,* R. B. Chari.
*Asstt. Secretary :* S. D. Sawant.
*Private Secretary :* J. M. Shapoorjee.
*Addl. Private Secretary,* V. Subramanian.
*As. D.C. :* Lieut. R. M. Verma, I.N., Capt. V. C. Bali.
*Asstt. Comptroller :* C. X. Fonseca.
*Hony. Surgeons :* Dr. S. B. Cooper, Dr. S. J. Mehta.
*Hony. Physicians :* Dr. V. V. Shah ; Dr. Mehli K. Pavri ; Dr. A. F. Golwalla.
*Hony. Dental Surgeon :* Dr. C. T. Chudgar.
*Hony. Ophthalmic Surgeons :* Dr. H. D. Dastoor, Dr. Fali S. Mehta.
*Hony. E.N.T. Surgeon :* Dr. R. A. F. Cooper.

### Ministers

*Chief Minister-in-Charge of General Administration, Revenue, Planning, Industries & Electricity :* V. P. Naik.
*Home :* D. S. Desai.
*Rural Development :* G. B. Khedkar.
*Agriculture, Food & Civil Supplies :* P. K. Savant.
*Public Health, Law and Judiciary :* Shantilal H. Shah.
*Finance :* S. K. Wankhede.
*Irrigation, Power and Buildings and Communications Department :* S. B. Chavan.
*Housing, Printing Presses, Fisheries, Small Savings and Tourism :* Homi J. H. Taleyarkhan.
*Prohibition :* S. V. Sonavane.
*Social Welfare :* Smt. Nirmala Raje Bhosle.
*Education and Forests :* M. D. Choudhari.
*Co-operation :* K. S. Sonavane.
*Labour :* N. M. Tidke.
*Urban Development and Waqfs :* Dr. Rafiq Zakaria.
*Revenue :* Rajaram Anant Patil.

### Deputy Ministers

*Planning, Industries and Electricity :* Gundu Dashrath Patil.
*Education :* Dr. Kailas Shivnarayan.
*Agriculture :* Yeshwantrao Jijaba Mohite.
*Irrigation and Power and Buildings and Communications :* Madhusudan Atmeram Vairale.
*Revenue :* S. B. Patil.
*Public Health, Khar Lands and Fisheries :* Hari Govindrao Vartak.
*Co-operation, Food and Civil Supplies :* Bhikaji Jijaba Khatal.
*Home and Labour :* Kalyanrao Pandharinath Patil.
*Urban Development, Rural Development and Legislative Affairs :* Dhondiram Shidoji Jagtap.
*Social Welfare, Forests and Housing :* D. N. Padvi.

### Sachivalaya

#### GENERAL ADMINISTRATION DEPARTMENT

*Chief Secretary :* D. R. Pradhan, I.C.S.
*Special Secretary :* S. Sankaran, I.A.A.S. (Retired).
*Additional Secretary and Additional Development Commissioner :* R. C. Joshi, I.C.S.
*Addl. Secretaries,* S. H. Kamruddin, I.A.S., M. W. Desai, I.A.S.
*Deputy Secretaries :* B. G. Deshmukh, I.A.S. ; Smt. Malati Tambe Vaidya, I.A.S. ; K. P. Nadkarni ; S. H. Fernandez, J. C. Fernandez, J. G. Kanga, I.A.S.

#### REVENUE, FOREST DEPARTMENT

*Secretary :* L. G. Rajwade, I.C.S.
*Deputy Secretaries :* M. P. Pande, I.A.S. ; N. B. Jangle.

#### AGRICULTURE AND CO-OPERATION DEPARTMENT

*Secretary :* Vacant.
*Additional Secretary :* Nizamuddin Ahmed, I.A.S.
*Deputy Secretaries :* S. B. Kazi, I.A.S. ; S. S. Shukre, I.A.S. ; V. V. Masurekar.

#### FOOD AND CIVIL SUPPLIES DEPARTMENT

*Secretary :* M. N. Heble, I.A.S.
*Director of Civil Supplies and Deputy Secretary :* B. S. Sheshgiri, B.Ag. (Bom.), B.Sc. (Lond), M.Sc. (Cantab).
*Deputy Secretaries :* J. G. Rajadhyaksha, S. P. Mondkar.
*Chief Accounts Officer and Deputy Secretary to Government (Food and Civil Supplies) :* V. R. Ramamurthi, I.A. & A.S.

#### INDUSTRIES AND LABOUR DEPARTMENT

*Secretary :* M. V. Rajwade, I.A.S.
*Deputy Secretaries :* H. Nanjundiah, I.A.S. ; V. N. Pimenta ; K. V. Nevagi ; K. A. Gafoor, I.A.S., (*Deputy Secretary and Joint Director of Industries*).

#### HEADS OF DEPARTMENTS.

*Industries Commissioner, Bombay :* S. V. Bhave, I.A.S.
*Commissioner of Labour and Director of Employment, Bombay :* D. G. Kale, M.S.C. (Lond.), Bar-at-law.
*Director, Government Printing and Stationery, Bombay :* J. W. D'Souza, B.A.
*Director of Geology and Mining, Nagpur :* C. N. Chari.
*Director of Employment, Bombay :* C. Thomas.
*Commissioner for Workmen's Compensation, Bombay :* V. B. Potdar, B.A. (Hons.) L.L.M.
*President Industrial Court, Bombay :* R. N. Bilgrami.

#### HOME DEPARTMENT

*Secretary, Home Department and also State Press Adviser :* B. B. Paymaster, I.C.S.
*Additional Secretary :* M. W. Desai, I.A.S.
*Deputy Secretaries :* N. V. Sundararaman, I.A.S., J. R. Cabral, G. R. Donde, S. S. Mone.

#### URBAN DEVELOPMENT AND PUBLIC HEALTH DEPARTMENT

*Secretary :* P. J. Chinmulgund, I.C.S.
*Deputy Secretaries :* S. L. Ogale, I.A.S., W. G. Pathak, I.A.S., Y. D. Jaeel, P. N. Palnitkar, P. M. Nadganda (Spl. Engineer, Reclamation).

#### IRRIGATION AND POWER DEPARTMENT

*Secretary :* N. S. Pardasani, I.A.S.
*Chief Engineers & Jt. Secretaries :* N. C. K. Murti, V. B. Manerikar, N. V. Khursale, S. V. Natu.
*Deputy Secretaries :* R. M. Lakdawala, V. H. Kelkar, S. T. Khare, S. M. Bhalerao, P. R. Gandhi.

#### FINANCE DEPARTMENT

*Secretary to Government :* P. N. Damry, I.A.S.
*Director of Accounts & Treasuries and Joint Secretary to Government :* D. Ramachandra Rao, I.A. & A.S.
*Director Regional Transport Survey, Maharashtra State, Finance Department & Secretary Pay Commission :* P. S. Nadkarni, I.A.S. (Retired).
*Financial Adviser to Government :* K. Ramakrishna Ayyar, I.A. & A.S.
*Deputy Secretaries to Government :* G. H. Lalwani, I.A.S., V. T. Chari, I.A.S., M. Misbah, George Hurry, G. R. Hosangadi, H. J. M. Desai, D. G. Tungare.

### RURAL DEVELOPMENT DEPARTMENT

*Secretary :* V. S. Tambay, I.A.S.
*Deputy Secretaries :* A. K. Majumdar, I.A.S.; V. Prabhakar, I.A.S., V. B. Mandlekar.

### BUILDINGS & COMMUNICATIONS DEPARTMENT

*Secretary :* K. C. Nayar, I.A.S.
*Chief Engineer & Jt. Secretary :* K. V. Joglekar.
*Supdtg. Engineer and Dy. Secretary :* S. G. Borwankar.
*Deputy Secretaries :* G. M. Ranade, P. S. Shinde.

### LAW AND JUDICIARY DEPARTMENT

*Secretary to Government and Remembrancer of Legal Affairs :* B. P. Dalal, I.C.S. (Retd.).
*Addl. Secretary :* S. B. Palekar.
*Charity Commissioner :* C. P. Godsay.
*Jt. Secretaries :* M. S. Apte, S. W. Dhurandhar.
*Deputy Secretaries :* D. W. Deshmukh, N. M. Koyal, P. S. Nadkarni, N. M. Indurkar, M. A. Dhotre.
*Solicitor to Government and Ex-Officio Joint Secretary to Govt. :* B. D. Nigudkar.
*Solicitor (Mofussil Litigation) :* S. T. Raje Bhonsle.
*Addl. Solicitor (Mofussil Litigation),* G. U. Rijhsinghani.

### EDUCATION & SOCIAL WELFARE DEPARTMENT

*Secretary :* M. V. Deo, I.A.S.
*Deputy Secretaries :* K. J. Save, I.A.S., D. M. Sukhtankar, I.A.S., V. B. Parulkar.

### MAHARASHTRA LEGISLATURE SECRETARIAT

Council Hall, Bombay 1.

*Secretary :* S. H. Belavadi, B.Sc., LL.B., H. (H.S.).
*Deputy Secretaries :* S. R. Kharabe, B.A., LL.B.H. (H.S.), A. B. Palekar, I.A.A.S., B.A. (Hons.), LL.B.

### SOME HEADS OF DEPARTMENTS

*Vigilance Commissioner :* N. T. Mone, I.C.S.
(*Office: Majestic Hotel, Apollo Bunder, Bombay* 1),
*Accommodation Controller :* R. V. Chavan.
*Chief Electoral Officer (Bombay) :* V. S. Tambay, I.A.S.
*Director of Education (Poona),* Dr. C. D. Deshpande (*Ag.*).
*Director of Public Health (Poona),* Dr. P. D. Bhave.
*Director of Agriculture (Poona),* Dr. M. B. Ghatge.
*Director of Fisheries (Bombay),* Dr. C. V. Kulkarni, M.Sc., Ph.D.
*Director of Animal Husbandry, Poona :* M. M. A. Rahman.
*Director of Archives & Historical Monuments (Bombay),* M. G. Dixit.
*Architect to Government (Bombay),* D. A. Jaywant.
*Director, Anti-Corruption and Prohibition Intelligence Bureau (Bombay),* T. M. Kadambande, I.P.S.
*Settlement Commissioner & Director of Land Records & Inspector-General of Registration (Poona),* Mohd. Abdulla, I.A.S.
*Electrical Engineer to Govt.,* V. G. Bapat.
*Registrar of Firms (Bombay),* R. S. Barve.
*Chief Ports Officer (Bombay),* V. V. Jawadekar.
*Chief Conservator of Forests (Poona),* S. S. Buit.
*Superintendent of Parks & Gardens (Bombay),* Kumari Sarojini S. Pawar, M.Sc., Ph.D. (Cornell).
*Director of Ayurved (Bombay),* Vaidya Sharat Chandra M. Vasekar, Ayurvidya Visharad (Tilak).
*Director of Social Welfare (Poona),* B. K. Halve, I.A.S.
*Examiner of Books & Publications (Bombay),* P. S. Thorat.
*Director, Forensic Science Laboratory (Bombay),* Dr. H. S. Mahal.
*Charity Commissioner,* C. P. Godsay.
*Chief Inspector of Factories,* N. L. Gadkari.
*Director, Haffkine Institute, Bombay* 12, Dr. H. I. Jhala, M.D., F.C.P.S., D.T.M.
*Director of Technical Edn.,* Prof. G. V. Sapre.

### POSTMASTER-GENERAL'S OFFICE (CENTRAL)

*Postmaster-General, Bombay :* Madan Kishore.
*Director of Telegraphs :* B. Rajagopalan.
*Directors of Postal Services, Bombay :* S. B. Velankar.; R. K. Saiyed.
*Director of R.M.S. :* B. T. Menghani.

BOMBAY G. P. O.

*Presidency Postmaster, Bombay :* C. T. David.

OFFICE OF THE DIRECTOR, FOREIGN POST, BOMBAY.

*Director, Foreign Posts :* V. J. S. Perianayagam.

TELEGRAPH TRAFFIC.

*Chief Superintendent, Bombay C.T.O. :* C. B. Asija.

TELEGRAPH ENGINEERING.

*Divisional Engineers, Telegraphs, Bombay :* A. K. V. Gowd (*City Division*); I. B. Mahajan (*East Division*).
***Divisional Engineer, Telegraphs, Poona :*** M. A. Idnani.

### INDIAN AUDIT DEPARTMENT (CENTRAL)

CIVIL AUDIT

***Accountant-General's Office, Queen's Road, Bombay 1.***

*Accountant General,* K. R. Nair.
*Sr. Dy. Acctt. General,* A. V. Subramaniam.
*Sr. Dy. Acctt. General, Nagpur,* V. R. Katey.

### CENTRAL EXCISE

*Central Excise Bldg., Queen's Road, Bombay* 1.

*Collector of Central Excise, Bombay,* S. P. Kampani, I.R.S.
*Addl. Collector of Central Excise :* V. B. Gordon, I.R.S.
*Officer on Special Duty,* M. N. Mathur, I.R.S.
*Dy. Collectors of Central Ex.:* R. S. Kodical, I.R.S., N. B. Sanjana, I.R.S.
*Headquarters Assistant Collector of Central Excise,* N. C. Kandola, I.R.S.

### BOMBAY CUSTOMS DEPARTMENT (CENTRAL)

*New Custom House, Ballard Road, Bombay.*

*Collector of Customs :* M. A. Rangaswamy.
*Appellate Collector of Customs :* V. B. Gordon.
*Addl. Collector of Customs :* R. N. Shukla.
*Dy. Collector of Customs :* K. Narayanan.
*Dy. Chief Chemist,* K. S. Subramanian.

### BOMBAY PORT TRUST

*Ballard Road, Bombay.*

BOARD OF TRUSTEES

*Nominated by the Central Government : Chairman,* L. M. Nadkarni; A. G. Rajadhyaksha, I.P.; Ratan Lall; Col. G. K. Karandikar; Rear Admiral R. S. David, I.N.; M. A. Rangaswamy; S. R. Kulkarni; S. E. Sukthankar, I.A.S.; O. S. Murti; S. K. Shetye.
*Elected by the Bombay Chamber of Commerce & Industry :* J. W. Anson, B. H. Trenear-Thomas.
*Elected by the Indian Merchants' Chamber :* Devji Rattansey; P. R. Kamani; M. M. Amersey; Pravinchandra V. Gandhi.
*Elected by the Maharashtra Chamber of Commerce :* S. M. Dahanukar.
*Elected by the Bombay Municipal Corporation :* Dr. S. G. Patel, D. D. Vania.
***Elected by the Millowners' Association :*** Pratap Bhogilal.
***Elected by the Indian National Steamship Owners' Association :*** P. S. Vallabhdass, N. H. Dhunjibhoy.
***Elected by the East India Cotton Association Ltd. :*** M. R. Ruia.
*Elected by the All India Sailing Vessels Industries Association :* D. M. Ashar.

*Officers of the Bombay Port Trust*

*General Manager,* P. R. Subramaniam.
*Secretary :* S. D. Chittar, B.A.
*Dy. Secretary :* D. M. Desai, B.A. (Hons.) (Bom.), F.B.T.I. (Lond.).

*Chief Accountant's Dept.*

*Chief Accountant :* I. B. Das Gupta, B.A., M.Com., LL.B., A.F.S.A.A., A.C.A.
*Addl. Chief Accountant :* D. A. Screwvala, B.Com., B.Sc. (Lond.), C.D.I.I.

*Chief Engineer's Dept.*

*Chief Engineer :* F. D. Daruvala, B.E. (Civil), M.I.E. (India).
*Addl. Chief Engineer (I.D.A. Project) :* R. P. E. Vazifdar, B.E.(Civil), M.I.E. (India), F.Asce., F.I.A.S. (London), Fellow P.W.I. (London).
*Consulting Engineers & Agents in London :* Messrs. Bertlin & Wilton. & Bell.

*Port Dept.*

*Dy. Conservator :* R. A. A. Rego.

*Docks Dept.*

*Manager :* J. B. D'Souza Lawrence, M.A. (Hons.).

*Railway Dept.*

*Manager :* D. R. S. Basrur, M.A. (Econ.).

*Estate Dept.*

*Manager :* N. D. Baria, B.E. (Civil), M.I.E., M.I.S.

*Stores Dept.*

*Controller of Stores :* P. V. Thadhani, B.Sc., (Bom.) B.Sc. (Tech.) (Manch.), A.M.C.T. (Manch.).

*Legal Dept.*

*Legal Adviser :* M. R. S. Captain, B.A., LL.B., Solicitor.

*Medical Dept.*

*Asstt. Chief Medical Officer :* Dr. R. R. Pai, M.B.B.S. (Bom.), M.D. (Bom.).

*Labour Dept.*

*Chief Labour Officer :* B. H. Mehta, B.A., LL.B., Solicitor.

## INCOME-TAX DEPARTMENT (CENTRAL)

*Aayakar Bhavan, 4th Floor, Queen's Road, Bombay.*

*Commissioner of Income-tax (Central), Bombay :* O. V. Kuruvilla, B.A. (Hons.).

*Inspecting Asstt. Commissioner of Income-tax (Central), Bombay :* K. Jagannathan, M.A.

*Appellate Asstt. Commissioner of Income-tax (Central), Bombay :* A. Francis Swamy, B.A., B.L.

*Income-tax Officer (Hqrs.) (Central) :* T. P. Jhunjhunwala, M.Com.

## INCOME-TAX DEPARTMENT, BOMBAY CITY I II AND III

*Commissioner of Income-tax Bombay City I :* M. B. Palekar.

*Commissioner of Income-tax Bombay City II :* K. D. Banerji.

*Commissioner of Income-tax Bombay City III :* V. Satyamurthi.

*Inspecting Assistant Commissioners of Income-tax, Bombay City I, II & III :* N. S. Raghavan, B.Sc. (*A-Range*) ; B. Lakshmipathy, M.Sc. (*B-Range*) ; P. S. Bhaskaran, B.A. (Hons.) (*C-Range*) ; N. D. Sakhwalkar, M.Sc. (*D-Range*) ; V. R. Pandit, B.A. (Hons.) (*E-Range*); Kanwal Krishan, M.A. (*F-Range*) ; V. R. Talwadkar, M.A. (*G-Range*) ; M.A. F. G. Jilani, M.A., LL.B. (*H-Range*); U. C. Ganguli, (*I-Range*) ; R. Venkatraman, B.A., (*J-Range*) ; N. R. Dandekar, B.com. (*K-Range*) ; D. E. Amroliwala, B.Sc. (*L-Range*) ; G. N. Gadgil, M.A. (*M-Range*) ; A. Nundy, M.Sc. (*N-Range (Addl.)*) ; G. A. James, B.Sc. (*P-Range*) ; A. Nundy, M.Sc. (*Q-Range*) ; E. K. Lyalla M.A. LL.B. (*R-Range*) ; D. H. Datta, M.A. (*S-Range*) ; M. M. Parikh, B.Sc. LL.B. (*T-Range*) ; S. S. Sinha, B.A. B.L. (*V-Range*) ; M. S. Unni Nair, B.Sc. (Hons.) (*Y-Range*) ; N. Subba Rao, B.A.B.L. (Estate Duty Range) ; S. M. Shah, B.Sc. F.C.A. (*Survey Range*) ; P. K. Mitra, M.A.

*Appellate Assistant Commissioners of Income-tax, Bombay City I, II & III :* N. Krishnan, B.A. (*A-Range*) ; R. D. Kaushal, M.A. (*B-Range*) ; T. R. Thiruvengadam, M.Sc. (*C-Range*) ; K. C. Mahadevan, B.A.B.L. (*Appellate Controller of Estate Duty) and D-Range (Additional)* ; P. K. Mehta, M.A. LL.B. (*E-Range*) ; B. V. Venkatramiah, M.Sc. (*F-Range*) ; S. Narayanan, B.Sc. (*Age.*) (*G-Range*) ; S. B. Kamat, B.A. (*Hons.*) (*H-Range*) ; K. K. Sen, M.A. (*J-Range*) ; S. P. Pande, M.A. LL.B. (*K-Range*) : E. M. Narayanan Unni, B.A., M.Sc., LL.B. (*L-Range*).

*Public Relations Officer :* V. R. Vishwasrao, B.A. (Spl.) (Hons.) LL.B.

*Authorised Representatives :* A. M. Rao, B.Sc. (*A-Bench*), S. V. Ramaswamy, M.A.A.I.A. (*B-Bench*) : B. S. Nadkarni, B.A. (Hons.).

## INCOME-TAX, BOMBAY SOUTH

12, Connaught Road,
Poona.

*Commissioner of Income-tax, Poona :* S. H. Bhat, B.Sc. (Bom.) M.A. (Cantab).

*Inspecting Assistant Commissioner of Income-tax, Poona Range-I :* V. R. Bapat, M.A.

*Inspecting Assistant Commissioner of Income-tax, Poona Range-II :* F. J. Fernandez, B.A. (Hons.)

*Inspecting Assistant Commissioner of Income-tax, Nasik Range, Nasik :* Har Govind, M.Sc.

*Inspecting Assistant Commissioner of Income-tax, Akola Range, Akola :* S. H. Gokhale, M.A.

*Appellate Assistant Commissioners of Income-tax :* K. R. Raghavan, M.A. (*Poona Range, Poona*) ; Sheikh Abdullah, B.A. (Hons.) (*Akola Range, Akola*) ; D. V. Junnarkar, B.A. LL.B. (*Nasik Range, Nasik*) ; P. V. Godbole, F.Y.A. LCC (Distic.) (*Aurangabad Range, Aurangabad*) ; V. S. Mahajan, M.A., R.A. (1st) (*Kolhapur Range, Kolhapur*).

## HIGH COURT OF JUDICATURE

*Fort, Bombay No.* 1.

Chief Justice : Y. S. Tambe.

PUISNE JUDGES : Justice S. P. Kotval ; Justice N. A. Mody ; Justice V. M. Tarkunde ; Justice D. V. Patel ; Justice V. S. Desai ; Justice K. K. Desai ; Justice V. A. Naik ; Justice N. L. Abhyankar ; Justice M. G. Chitale ; Justice Y. V. Chandrachud ; Justice D. G. Palekar ; Justice R. M. Kantawala ; Justice V. G. Wagle ; Justice H. R. Gokhale ; Justice L. M. Paranjpe ; Justice V. D. Tulzapurkar ; Justice B. D. Bal ; Justice B. N. Deshmukh ; Justice D. B. Padhye (*Addl.*).

GAZETTED OFFICERS (Appellate Side) Bombay

*Registrar :* N. D. Kamat, B.A. (Hons.), LL.B.
*Additional Registrar :* N. M. Shanbhag, B.A., (Hons.), LL.B.
*Special Officer (Inspection) :* P. S. Dhamne, B.A., LL.B.
*Deputy Registrar :* C. S. Trivedi, B.A. (Hons.), LL.B.
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*Additional Special Officer*, S. R. Bhave.

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*Master and Assistant Prothonotary :* B. N. Nakra, Advocate.
*Commissioner for Taking Accounts :* K. A. Mehta, B.A., LL.B.
*Official Assignee :* G. V. Dalvi, B.Sc. (Bom.), B.A. (Cantab.), Barrister-at-Law ; *Master and Registrar in Equity*.
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*Dy. Sheriff of Bombay :* S. V. Kondaskar, B.A., Barrister-at-Law.

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*Govt. Pleader :* R. B. Kotwal, B.A., LL.B.
*Solicitors to the Government of Maharashtra :* Little and Co., Bombay.
*Public Prosecutor for Bombay :* M. B. Vora, Bar-at-Law.
*Administrator-General and Official Trustee :* H. S. Patil, B.Sc., LL.B.
*Editor, Indian Law Reports, Bombay :* T. B. Pendharkar, B.A., LL.B., Advocate.

## CITY CIVIL AND SESSIONS COURT, GREATER BOMBAY

*Principal Judge and Sessions Judges :* J. R. Vimadalal, B.A. (Hons.), LL.B., Advocate (O.S.) *Judges & Addl. Judges*, P. C. Kapadia, B.A., LL.B. ; K. H. Nagrani, B.A. (Hons.) LL.B. ; G. A. Desai, M.A., LL.B. ; V. T. Walavalkar, B.A., LL.B. ; B. A. Chandiramani, B.A., LL.B. ; A. T. Zambre, B.A. (Hons.), LL.B. ; G. V. Mainkar, B.A., LL.B. ; R. R. Bhole, B.Sc., LL.B. ; D. D. Yennimadi, B.A., LL.B. S. K. Desai, B.A., LL.B. ; R. D. Hattangadi, B.Sc., LL.B. ; R. K. Joshi, B.A., LL.B. ; D. M. Rege, B.A., LL.B. ; Advocate, B. Lentin, Bar-at-Law.

*Officers :* A. P. Yajnik, M.A., LL.B., Advocate (A.S.), *Registrar, City Civil Court ;* V. K. Kulkarni, M.A., Advocate, *Registrar, City Sessions Court ;* J. P. Pagnis, B.A., LL.B., *Deputy Registrar, City Civil Court.*

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*Carnac Road, Bombay 2.*

*Chief Judge :* Thakorlal Bapubhai Desai, B.Sc., LL.B. (Bom.), J.P., Vinit (Hindi, Gujrati Vidyapith).

*Judges :* Narayan Mulchand Shah, B.A., LL.B., (Bom.), Advocate (O.S.), J.P. ; Arthur Isaiah Samson, B.A., LL.B., (Bom.), J.P. ; Shiv Mohan Khatri, M.A. (Cantab.), Bar-at-Law, M. (H.S.), G. (H.S.), H. (H.S.), J.P. ; Sitaram Dagdo Patil, B.Sc., LL.B., H. (Pravin), J.P. ; Ahmedali Abbasali Syed, M.A., LL.B. ; Martand Vasudeo Purandare, B.A., LL.B. ; Shantinath Gagaram Borde, B.A., LL.B. ; Alfred Joseph Pinto, M.A., LL.B. ; Sadashiv Bhaskar Ranade, B.A., LL.M. ; Narayan Shrinivas Deshpande, M.Sc., LL.B. ; Chaturlal Bhagwandas Shah, B.A., LL.B. ; Vinayak Prabhakar Thosar, B.A., LL.B. ; Gajanan Sadashiv Dhavale, LL.B. ; Anandrao Krishnarao Thorat M.A., LL.B. ; Thakorbhai Ranchodji Desai, LL.B. ; Madanlal Nanabhai Shah, LL.B., M. M. Dhruv, M.A., LL.B.

*Registrar :* Ganpatrao Bhaurao Upadhyay, M.A., LL.B.
*Additional Registrar :* Balkrishna Dwarkanath Gavaskar, B.A., LL.B.

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*Additional Chief Presidency Magistrates*, V. M. Gehani, B.A. (Hons.), LL.B. ; M. M. Dhruv, M.A., LL.B.

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J. H. A. Vakil, LL.M., Advocate (O.S.).
V. N. Lokur, M.A., LL.B. (*on deputation to Govt. of India*).
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P. W. Kenkare, B.A., LLB.
V. K. Patil, B.A., LL.B.
L. V. Kapse, B.A., LL.B.

*Presidency Magistrate, Juvenile Court, Bombay*, Mrs. A. H. Kulkarni, M.A.
*Registrar and Presidency Magistrate, Bombay* K. G. Chauathoory.

### OFFICE OF THE INSPECTOR-GENERAL OF POLICE
Old Secretariat Bldg., II Floor, Bombay.

*Inspector-General of Police :* S. Majeedullah, I.P.S.
*Dy. Inspectors-General of Police, (C.I.D.)*, C. J. V. Miranda, I.P.S., (*Trg. and Special Unit*) B. K. Lokhande.
*Assistant Inspectors-General of Police :* S. V. Tankhiwale, M.A., I.P.S., M. S. Heble, B.A. (Hons.), I.P.S., S. S. Jog, M.Sc., I.P.S.
*Superintendent of Police, State Traffic Branch*, J. N. Mehra, M.Com., LL.B., I.P.S.

### GREATER BOMBAY POLICE FORCE

*Office—Dadabhoy Naoroji Road, Opp. Jyotiba Phule Market, Bombay.*
*Commissioner of Police, Greater Bombay :* A. G. Rajadhyaksha, I.P.
*Deputy Commissioner of Police :* G. Krishnaswami, I.P.S. (*Head Quarters*) ; M. P. Medhekar, I.P.S. (*Special Br. II, C.I.D.*) ; D. S. Soman, I.P.S. (*Port*) ; S. Ramamurthi, I.P.S. (*Zone III*) ; A. R. Dafle, I.P.S. (*Special Br. I, C.I.D.*) ; V. R. Dravid, (*Zone IV*) ; J. A. Scott, (*Armed Forces and Motor Transport*) ; S. V. Chavan, (*Prohibition*) ; V. Sami, (*Crime*) ; J. T. F. Gurr, (*Traffic*) ; J. J. Jameson, (*Zone II*) ; M. G. Korde, (*Zone I*) ; S. N. Sawant, (*Special Br. I., C.I.D.*).
*Assistant Commissioner of Police :* P. M. Datar, (*Head Quarters*).

PROHIBITION BRANCH

*Assistant Commissioner of Police (South) :* M. K. Diwate.
*Assistant Commissioner of Police (North) :* R. G. Parab.

CRIME BRANCH, C.I.D.

*Assistant Cmmissioners of Police :* W. D'Souza, S. H. J.Kanga.

SPECIAL BRANCH I (C.I.D.)

*Assistant Commissioners of Police :* G. M. Nadkarni, M. C. Garud, H. S. Joshi.

SPECIAL BRANCH II (C.I.D.)

*Assistant Commissioners of Police :* K. D. Kothawala, H. S. Ghai.

ANTI-CORRUPTION BUREAU

*Assistant Commissioner of Police :* E. A. Fernandez.

LA. DIVISION (I)

*Assistant Commissioner of Police :* J. R. Taraporewalla.

LA. DIVISION (II)

*Assistant Commissioner of Police :* A. S. Dhamankar.

LA. DIVISION (III)

*Assistant Commissioner of Police :* S. B. Dastoor.

MOTOR TRANSPORT SECTION

*Assistant Commissioner of Police :* K. V. Sidhaye.

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*Framji Cawasji Institute Bldg., Dhobi Talao, Bombay.*

*Commissioner of Labour and Director of Employment :* D. G. Kale, M.Sc, (Lond.), Bar-at-Law.
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*Asstt. Commissioner of Labour and P. A. to Commissioner of Labour :* G. K. Joshi.
*Chief Govt. Labour Officer :* T. R. Bhagwat.
*Chief Inspector of Factories :* N. L. Gadkari.
*Chief Inspector of Steam Boilers and Smoke Nuisances :* K. D. Bhathena.
*Director, Bombay Labour Institute :* B. S. Bhir.
*Deputy Commissioner of Labour, Nagpur :* R. A. Shaikh.
*Deputy Commissioner of Labour, Poona :* M. B. Durve.
*Asstt. Commissioner of Labour, Aurangabad :* R. D. Rangnekar.

### MAHARASHTRA SALES TAX TRIBUNAL
*3rd Floor, Old Secretariat Bldg., Mayo Road, Bombay 32.*

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*Members :* R. K. Ranade, LL.M. ; M. G. Gupte ; V. K. Sathe ; K. V. Tamhane.
*Registrar :* W. G. Pradhan, B.A., LL.B.

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*Dy. Director of Publicity (News) :* D. R. Samant.
*Dy. Director of Publicity (Publications) :* V. G. Deshmukh.
*Dy. Director of Publicity (Films) :* Kumarsen Samarth.
*Jt. Director (Tourism) :* Jalabuddin Siddiqui.
*Dy. Director of Publicity (Exhibition) :* Vacant.

### DIRECTORATE OF PROHIBITION AND EXCISE
*Old Custom House, Bombay 1.*

*Director of Prohibition and Excise :* Vacant. (M. F. Siddiqui *holding additional charge*).
*Deputy Director of Prohibition & Excise (Administration);* M. F. Siddiqui, B.A.
*Deputy Director of Prohibition and Excise (Inspection)*, C. A. Forage.
*Superintendent of Prohibition and Excise :* J. A. Samson, B.A.

### MAHARASHTRA STATE CO-OPERATIVE TRIBUNAL
*Old Secretariat Bldg., Ground Floor, Bombay 32.*

*President :* B. D. Nadkarni.
*Member :* G. S. Jadhav.
*Registrar :* G. V. Koimbattur.

### MAHARASHTRA LABOUR WELFARE BOARD
*Jambori Maidan, Worli, Bombay 18.*

*Chairman :* Kalyanrao P. Patil, Deputy Minister for Home and Labour.
*Welfare Commissioner :* Dr. M. S. Sabnis.

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*Secretariat Annexe, Mahatma Gandhi Road, Bombay 1.*

*Commandant General, Home Guards, Aviation & Fire Adviser & Director of Civil Defence :* M. J. B. Maneckji.
*Director of Administration :* Smt. P. M. Maneckji.
*Director of Audit & Accounts :* P. C. Hansotia.
*Director of Supplies :* S. A. Joshi.
*Director of Transport :* B. V. Bhatia.
*Director of Personnel :* T. E. Kachwala.
*Director :* M. R. S. Captain (*Legal Wing*).
*Chief Instructor, Central Training Headquarters :* V. B. Masojee.
*Director of Special Services :* S. G. Vengsarkar.

### MOTOR VEHICLES DEPARTMENT
*Industrial Assurance Bldg., Churchgate, Bombay 1.*

*Director of Transport and Secy., S.T.A. :* Y. S. Kasbekar, I.A.S.
*Dy. Directors of Transport :* V. S. Dubhashi, B.Sc., V. D. Deodhar, B.A.
*Regional Transport Officers :* M. H. Adam, B.A. (*Bombay*), M. K. Deshpande (*Poona*), S. M. Karaka (*Thana*), V. G. More (*Aurangabad*), D. K. Sukthankar (*Nagpur*).

### OFFICE OF THE DAIRY DEVELOPMENT COMMISSIONER
*Old Secretariat, Bombay 32.*

*Dairy Development Commissioner :* G. S. Godbole.
*Dy. Dairy Development Commissioner (T. & M.) :* Vacant.
*Dairy Development Officer (Hq.) :* N. R. Paranjpie.
*Dairy Engineer (M) :* N. Laxminarayana.
*Assistant Dairy Development Commissioner (Administration) :* N. S. Pillay.
*Regional Dairy Development Officer, Poona :* R. K. Thakar.
*Regional Dairy Development Officer, Nagpur :* K. V. Ghurye.

### OFFICE OF THE DIRECTOR, GREATER BOMBAY MILK SCHEME

*Wakefield House, Ballard Estate, Bombay 1.*

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*Joint Director :* Dr. V. M. Patil.
*Controller of Milk Accounts and Financial Adviser :* S. D. Tata.
*Public Relations Officer :* S. V. Sankholkar.
*General Manager, Aarey and Worli Dairies, Worli :* N. S. Dave.
*Principal Dairy Technological Institute, Aarey :* Y. R. Karnik.
*Dairy Engineer, Worli,* Dr. A. P. Deshmukh.
*Controller, Milk Transport, Greater Bombay Milk Scheme:* N. G. Pandit.
*Chief Executive Officer (Colony), Aarey :* P. R. Patil.
*Controller (Milk Procurement and Distribution), Bombay-18 :* V. R. Patkar.
*Executive Engineer, Milk Plan Construction Divn. I, Aarey :* E. D. Shimpi.
*Executive Engineer, Milk Plan Construction Divn., II, Worli :* A. S. Vidwans.

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*Manekji Wadia Bldg., 127, M. Gandhi Road, Bombay.*

*Director :* M. K. Rangnekar.
*Asstt. Directors :* V. C. Sane (*Cos.*), V. N. Solanki (*Bombay*).

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*Chairman :* C. G. Sahasrabudhe.
*Secretary :* V. G. Bavdhare.

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*Joint Editor,* Dr. B. G. Kunte, M.A., Ph.D. (Econ.), Ph.D. (Hist.).

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*Divisional Commissioner, Aurangabad Dn. :* L. N. Bongirwar, I.A.S.
*Divisional Commissioner, Nagpur Dn. :* Dr. M. N. Desai, I.A.S.

### BOMBAY COLLECTORATE

*Old Custom House Yard, Fort, Bombay.*

*Collector of Bombay and B.S.D. :* D. H. Deshmukh, I.A.S.
*Addl. Collector of B.S.D. :* A. M. Deosthale.
*Addl. Collector of Bombay and B.S.D. for the Recovery of Income-tax :* S. S. Malpathak.
*Dy. Collector of Bombay and Resident Deputy Collector, B.S.D. :* G. L. Supnekar, B.A. (Hons.).
*District Dy. Collector, B.S.D. :* S. V. Shirsat.
*Dy. Collector for Recovery of Sales Tax dues, Bombay and B.S.D.:* N. M. Bode.
*Superintendent, Bombay City Survey and Land Records :* R. J. Sethna, B.E., B.A., B.Sc., LL.B.
*Supervisor, Bombay Entertainment Duty Act, Bombay :* V. C. Vora, M.Sc., M.I.S.C.
*Organisation and Method Officer :* D. C. Joshi.
*Mamlatdar, Kurla :* B. V. Puntambekar.
*Mamlatdar, Borivli :* S. G. Mathure.
*Mamlatdar, Andhri :* L. S. Kamble.

### MAHARASHTRA HOUSING BOARD

*Esplanade Maidan, Cruickshank Road, Bombay.*

*Chairman :* N. S. Patil.
*Members :* Dr. W. S. Matkar, Boman Behram, S. R. Patkar, Khimjibhai Bhujpuria, Zulfiqar Hussain, M. L. Champhekar, S. L. Ogale, (*Dy. Secy. to the Govt. of Maharashtra, Urban Development and Public Health Dept.*) D. S. Borkar (*Ex-officio Member and Secretary*).

### OFFICE OF THE HOUSING COMMISSIONER

*Housing Commissioner and Secretary :* D. S. Borkar.
*Assistant Housing Commissioners :* S. G. Sohoni (*West*), N. P. Panjabi (*East*) and P. J. Tipnis (*Estate Manager*).
*Legal Adviser :* M. C. Shah.
*Chief Accounts Officer :* H. N. Ghaisas.
*Resident Executive Engineer :* N. M. Parelker.
*Works and Design Officer :* A. H. Chanwani.
*Architect :* S. P. Shah.
*Public Relations Officer :* P. N. Indurkar.
*Administrative Officer :* B. J. Desai.

### COMMISSIONER OF SALES TAX

*Old Secretariat Building, 3rd floor, Mayo Road, Bombay 32.*

*Commissioner of Sales Tax, Maharashtra State, Bombay :* H. B. Munshi, M.Sc., LL.B.
*Additional Commissioner of Sales Tax, Maharashtra State, Bombay :* H. B. Munshi, M.Sc., LL.B.
*Deputy Commissioner of Sales Tax (Head Quarters), Bombay :* M. G. Sabnis, B.Com.
*Deputy Commissioner of Sales Tax, Bombay City Division (Appeals I), Bombay :* S. M. Hadi Jaffrey, I.A.S.
*Deputy Commissioner of Sales Tax, Bombay City Division (Appeals III), Bombay :* V. R. Kulkarni, B.A. (Hons.), LL.B.
*Government Agent before the Maharashtra Sales Tax Tribunal Maharashtra State, Bombay :* V. H. Gore, B.Sc., A.C.A.

*Central Studio Estate, Building No. 4, Tardeo, Bombay-34.*

*Deputy Commissioner of Sales Tax (Adm.) I, Bombay City Division, Bombay :* S. Ramakrishna, I.A.S.
*Deputy Commissioner of Sales Tax (Adm.) II, Bombay City Division, Bombay :* P. V. Patankar, B.A. (Hons.), B.Com.

*India House, 6th Floor, Opp. G.P.O., Fort, Bombay* 1.

*Deputy Commissioner of Sales Tax (Adm.) III, Bombay City Division, Bombay :* S. Ramakrishna, I.A.S. (*Holding additional charge*).

*Development Department Building, Old Custom House Yard, Bombay.*

*Deputy Commissioner of Sales Tax (Enforcement), Bombay City Division, Bombay :* V. Venkatesan, I.A.S.

21, *Dr. Ambedkar Road, Poona-1.*

*Deputy Commissioner of Sales Tax, Central Division, Poona :* V. N. Chandorkar, M.A., LL.B.

*Opp. High Court, Nagpur.*

*Deputy Commissioner of Sales Tax, Eastern Division, Nagpur :* P. L. Joglekar.

### MAHARASHTRA PUBLIC SERVICE COMMISSION

*Bank of India Building, Mahatma Gandhi Road, Bombay* 1.

*Chairman,* Lt. Gen. S. P. P. Thorat (Retd.), D.S.O., Ashok Chakra II, Padma Shree.
*Members,* L. M. Patil, B.A., LL.B., Dr. D. Y. Gohokar, M.A., LL.B., B.S. F.S., D.Litt., D. V. Chauhan, B.A. (Hons.), LL.B., Brig. N. D. Bilimoria.
*Secretary,* R. A. Kodkani, M.A.
*Dy. Secretaries :* S. S. Kale, B.A., LL.B.; A. Husain, B.A., LL.B.

### MAHARASHTRA STATE ROAD TRANSPORT CORPORATION

Maharashtra Vahatuk Bhavan, Byculla, Bombay 8.

*Chairman,* R. G. Saraiya, B.A., B.Sc., J.P.
*Vice-Chairman,* D. B. Kamble, I.A.S.
*General Manager,* R. G. Shinde, I.A.S.
*Chief Accounts Officer,* P. C. Roy, I.A. & A.S.
*Dy. General Manager (Mech. Engg.),* S. N. Chawla, M.I.R.T.E., M.I.E.
*Dy. General Manager (Traffic),* R. E. Wates.
*Dy. General Manager (Ins. Org. and Methods) :* I. S. Nanjiani.
*Divnl. Controller (Adm.) :* V. D. Shirke, B.A.
*Dy. General Manager (Stores & Purchase),* M. K. Mantri, M.I.M.I. (Eng.), M.I.R.T.E. (Eng.).
*Chief Civil Engineer,* Y. A. Rohekar, B.E., A.M.I.E.
*Secretary, M.S.R.T. Corpn.,* K. S. Prabhudesai, B.A. (Hons.).
*Public Liaison Officer and Editor, "Maharashtra S.T. Samachar",* D. M. Nadkarni, B.A., LL.B.
*Chief Labour Officer.* C. N. Bagwe, B.Sc.
*Secretary, Service Board & Secy. to Vice-Chairman,* D. A. Jadhav, B.A.

### INSPECTOR-GENERAL OF PRISONS

*Maharashtra State, Poona.*

*Inspector-General of Prisons :* D. J. Jadhav, I.A.S.
*Dy. Inspector General of Prisons :* S. R. Thorat, B.A.
*Dy. I. G. of Prisons, E. Region and Superintendent, Nagpur Central Prison :* D. L. Bhat, B.A. (Hons.), B.T.
*Dy. I. G. of Prisons, W. Region and Superintendent, Yeravda Central Prison :* L. Blake.
*Principal, Jail Officers' Training School, Yeravda, Poona 6 :* V. K. Toraskar, LL.B.
*Superintendent, Nasik Road Central Prison :* V. R. Nicholas.
*Superintendent, Aurangabad Central Prison :* S. D. Joshi.

### KOYNA HYDRO ELECTRIC PROJECT

*Mercantile Bank Bldg., 4th Floor, Mahatma Gandhi Road, Bombay* 1.
*Chief Engineer (Electrical) (Koyna) :* B. R. R. Ayengar.
*Superintending Engineers :* K. Subramanyan (*Design & Coordination*); K. N. Deshmukh (*Transmission Construction Circle*).

### MAHARASHTRA REVENUE TRIBUNAL

*Old Secretariat Annexe, Bombay* 32.

*President :* J. R. Dhurandhar, B.A., LL.B.
*Members :* P. R. Patil, I.A.S. (Retd.); P. H. Abhyankar, I.A.S. (Retd.); B. A. Bhonsale, Bar-at-Law.
*Registrar :* V. R. Bhoras.
*Dy. Registrar :* G. H. Kandlikar.

### BUREAU OF ECONOMICS & STATISTICS

*6th Floor, Sachivalaya Annexe, Bombay* 32.

*Director :* S. M. Vidwans, M.Sc. (Bombay).
*Joint Director :* S. P. Gothoskar, M.Sc. (Bom.).
*Deputy Directors,* V. D. Mahajan, M.Sc. (Bom.); D. S. Kulkarni, M.Com. (Nagpur); B. W. Chavan, M.A. (Bom.); S. S. Chiney, B.Sc.; N. V. Mohod, M. Com. (Nagpur), S. G. Moghe, M.Sc.; N. N. Jagtap, M.Sc., U. K., Koundinya, M.Sc. (Bom.).

### COMMISSIONER FOR WORKMEN'S COMPENSATION

*Old Secretariat Building, Ground Floor, Fort, Bombay-32.*

*Commissioner :* V. B. Potdar, B.A. (Hons.), LL.B.
*Addl. Commissioners :* A. M. Sayed, B.A., LL.B., B. A. Ekbote, B.A., LL.B., S. R. Doiphode, B.A., LL.B.
*Registrar :* P. S. Gavaskar.
*Addl. Registrar,* S. M. Kamat.

### WAGE BOARDS FOR THE COTTON & SILK TEXTILE AND SUGAR INDUSTRIES

*Old Secretariat Bldg., Mayo Road, Bombay* 1.

*Chairman,* Purushottam Kanji.
*Secretary :* M. P. Joshi.

### DIRECTORATE OF INDUSTRIES, MAHARASHTRA STATE

*Sachivalaya Annexe, Bombay 32.*

*Industries Commissioner, Director of Industries, Statistics Authority Central Stores Purchasing Officer, Controller of Building for the City of Bombay and Thana Taluka, Coal Controller, State Textile Controller, Controller of Weights & Measures & Addl. Secy. to Govt., Industries & Labour Dept. :* S. V. Bhave, I.A.S.

### REGISTRAR OF CO-OPERATIVE SOCIETIES

*Central Building, Poona-*1.

*Registrar of Co-operative Societies :* V. Subramaniam, I.A.S.
*Joint Registrar, Co-operative Societies and Registrar General of Money-lenders, Poona :* K. V. Seshadri, I.A.S.
*Joint Registrar, Co-operative Societies (Sugar), Poona :* A. W. Khan; I.A.S.
*Joint Registrar, Co-operative Societies (Marketing) and Director of Agricultural Marketing and Rural Finance, Poona-*1 *:* M. B. Ghorpade.
*Joint Registrar, Co-operative Societies and Financial Adviser, Poona :* R. R. Wani.
*Joint Registrar, Industrial Co-operatives, Poona :* P. S. Nadkarni.
*Joint Registrars, Co-operative Societies :* A. A. Mahvy, (*Consumers*), *Bombay :* S. B. Gosavi (*Lift Irrigation Cell*).

### GOVT. OF INDIA TOURIST OFFICE

123, *Queen's Road, Bombay* 1.

*Director :* S. P. Tewari.
*Asstt. Directors :* Miss V. Maneklal, E. Pereira, R. N. Lahiri.

### PRESS INFORMATION BUREAU

*United India Bldg., Sir Pherozeshah Mehta Road, Fort, Bombay* 1.
*Deputy Principal Information Officer :* Surjeet Singh.
*Information Officer :* V. F. D'Souza.
*Assistant Information Officers :* T. K. Jhuremalani, (*Films*), M. S. Wasaikar, (*A.I.R.*), A. R. Godbole, (*Marathi*), M. N. Padte, (*Marathi*), N. V. Pandit, (*Gujarati*).

### NATIONAL PRODUCTIVITY COUNCIL

*Regional Directorate, Khetan Bhuvan,*
198, *Jamshedji Tata Road, Bombay* 1.

*Regional Directorate, Novelty Chambers, Grant Road Bombay-7.*
(*This Directorate is the Headquarters of Fuel Efficiency Service*).
*Regional Director :* V. Ramchandran.
*Deputy Directors :* D. L. Amin, P. R. Srinivasan, A. A. Niazi.

## MEMBERS OF THE BOMBAY MUNICIPAL CORPORATION

S. R. Patkar, *Mayor.*

*Ward No.* 1 (*Colaba*)*:* Daroga, Jahangir Dadabhoy, M.Sc. (Lond.), M.I.C.E., M.I.E., A.M.I.Mech.E.; Dr. D'Souza, J. Leon, M.B., B.S.

*Ward No.* 2 (*Fort*)*:* Boman Behram, Bomanji Kavasji, M.A., LL.B.; Dr. Ugrankar, Shripad Shivrao, M.B., B.S. (Bom.), M.R.C.P. (Lond.).

*Ward No.* 3 (*Bori Bunder*)*:* Joshi, Jamiatram Kashiram; Uppur, Thimmappa Kovaga; Bedi, Manmohan Singh Harnam Singh.

*Ward No.* 4 (*Mandvi*)*:* Bandookvala, Eshakbhai Abbasbhai; Shah, Jivraj Bhanji.

*Ward No.* 5 (*Dongri*)*:* Sayad Mahomed Hussain Ahmed Mia; Memon, Alimahomed Umar.

*Ward No.* 6 (*Umarkhadi*)*:* Fernandes, George John; Chimbulkar, Rajaram Krishna; Mhatre, Balvant Krishna.

*Ward No.* 7 (*Khara Talao*)*:* Jarivala, Abdul Sattar Abdul Majid, B.A. (Hons.), LL.B.; Kanchwala, Taherbhai Ibrahim, LL.B.; Motorvala, Jainuddin Abbasbhai.

*Ward No.* 8 (*Kumbharwada*)*:* Dr. Dhabuvala, Babubhai Manubhai; Shah, Chhotalal Nanchand; Kangutkar, Dashrath Tatya, B.A.

*Ward No.* 9 (*Markets*)*:* Dr. Patel, Shantilal Girdharlal, M.B., B.S.; Parikh, Dhirajlal Mathuradas, M.A., LL.B.; Virvadia, Muktilal Vardhilal.

*Ward No.* 10 (*Dhobi Talao*)*:* Belosay, Ramchandra Lakshman, B.A., LL.B.; Dr. Moraes, Condorceth, M.B., B.S.; Parikh, Mohanlal Pranlal.

*Ward No.* 11 (*Fanaswadi*)*:* Trivedi, Karunashankar Himmatram; Raut, Lakshmikant Rajaram; Dave, Kheishankar Prabhashankar.

*Ward No.* 12 (*Girgaum*)*:* Pendse, Govind Moreshwar; Dr. Shah, Nagindas Nanalal, L.C.P.S.; Bakhle, Durgaparasad Prasannakumar.

*Ward No.* 13 (*Khetwadi*)*:* Shrimati Reddy, Tara Gangagram; Lakhani, Jivanlal Mulchand; Dr. Kalgutkar, Baba Dinnath, L.C.P.S., M.B., B.S.

*Ward No.* 14 (*Walkeshwar*)*:* Shrimati Pandya, Lily Anant, B.Sc. (Lond.); Shrimati Dalal, Deviben Sitaldas, B.Sc.; Sawant, Rajaram Dajirao.

*Ward No.* 15 (*Mahalaxmi*)*:* Vania, Dara Dinsha, B.A., LL.B.; Trivedi, Harishkumar Narbheshankar; Mirashi, Rajabhau Govind.

*Ward No.* 16 (*Tardeo*)*:* Shety, Madhukar Shantaram; Minocher Homji Bamansha Hormasji; Dr. Divgi, Bhavanishankar Padmanabh.

*Ward No.* 17 (*Kamathipura*)*:* Pujari, Linganna Puttal; Reddy, Ganaram Lakshman.

*Ward No.* 18 (*Nagpada*)*:* Chunavala, Mahomed Hasan Fazluddin; Phaniband, Khatal Musa; Babu Miran.

*Ward No.* 19 (*Mazgaon*)*:* Vairagi, Mohandas Thakurdas; Singh, Dudhnath Jhengtu; Kandalkar, Tukaram Ganesh.

*Ward No.* 20 (*Byculla-West*) *:* Vacant; Khare Charandas Hari; Sethi, Meghraj Lakshmidas; Munshi, Mohiuddin Noormahomed.

*Ward No.* 21 (*Byculla-East*)*:* Ganacharya, Gulabrao Bhaurao; Zute, Bhiku Dhondiba; Save, Ramchandra Hiraji.

*Ward No.* 22 (*Ghorupdeo*)*:* Borkar, Shivraj Keshav; Gomes, Robert Joseph.

*Ward No.* 23 (*Sewri*)*:* Patil, Ganpat Lakshman; Dr. Pusalkar, Ganesh Dattarray, M.B., B.M.; Shigvan, Pandurang Daji.

*Ward No.* 24 (*Lalbaug*)*:* Desai, Krishnaj Gangaram; Loke, Gajanan Shankar.

*Ward No.* 25 (*Parel*)*:* Shrimati Rangnekar, Ahilya Pandurang, B.Sc.; Smt. Gaokar, Vijaya Hari.

*Ward No.* 26 (*Naigaum*) *:* Vacant; More, Ramkrishna Bapuji; Goad, Yeshwant Savalaram; More, Narayan Mahadev; Mahadeshwar, Sakharam Babaji.

*Ward No.* 27 (*Matunga*)*:* Mehta, Nanalal Dharamsi; Dr. Bilpodiwala, Minocher Cawasji, M.B., B.S.

*Ward No.* 28 (*Sion*)*:* Madhavan, M.; Ganatra, Ravji Khimji; Dr. Mansharmani, Bhagwandas Ratansing, L.C.P.S.

*Ward No.* 29 (*Love Grove*)*:* Desai, Keshav Lakshman; Sardar, Paratapsing Lakshmidas; Ruke, Ragho Gunu; Pavaskar, Keshav Yeshvant.

*Ward No.* 30 (*Lower Parel*)*:* Raja T. Kadam; Hule, Govind Mahadev; Yadav, Ramlalsingh Ramdassingh.

*Ward No.* 31 (*Worli*)*:* Kurane, Pralhad Krishnaji, B.A.; Worlikar, Vasudev Balkrishna; Kharat, Ramchandra Genuji; Kavte, Manishankar Narayan.

*Ward No.* 32 (*Parbhadevi*)*:* Dr. Matkar, Waman Shankar, L.C.P.S. (Bom.); Patil, Jaivant Moreshwar; Mandekar, Anant Mahadev; Singh, Shobhnath Ramgajadhar.

*Ward No.* 33 (*Dadar*)*:* Bapat, Vaman Pandurang, B.Sc., (Eng.), A.M.I.E.; Mohadikar, Prakash Ganesh, B.A. (Hons.), B.Ed.; Mantri, Madhukar Dattatray, B.A., LL.B., Dip. L.W.; Parekh, Kantilal Mulchand, B.Sc. (Bom.), M.Sc. (M.I.T., U.S.A.).

*Ward No.* 34 (*Mahim*): Bhatia, Pessumal Dunichand; Ashayya, Badhya Buchayya; Shrimati Toraskar, Asha Vithal; Khandvani, Mahomed Amin Abbamia; Dr. Castellino, Victor Aloysius, M.B., B.S.

*Ward No.* 35 (*Bandra-East*): Desai, Vishnuprasad Nandrai, B.A.; Jagtap, Sitaram Ramchandra; Dr. Hingorani, Ram Bulchand; Bagwe, Gajanan Shridhar, B.A., LL.B.

*Ward No.* 36 (*Bandra-West*): Correa, Hyginus Joseph, B.A., LL.B.; Patkar, Sitaram Ramchandra; Varde, Sadanand Shankar, M.A.

*Ward No.* 37 (*Andheri-Vile Parle—South*): Indulkar, Pratap Mahadev; Vora, Pranlal Harkishondas, M.A., LL.B.; Shah, Jagoobhai Vadilal.

*Ward No.* 38 (*Andheri-Vile Parle—North*): Dhume, Balkrishna Shantaram, L.E.E.; Raval, Vasudev Gulabram; Patil, Bhal Shrikrishna; Singh, Ramswarupsingh Kunaisingh.

*Ward No.* 39 (*Kurla*): Khanolkar, Mohan Sitaram; Khan, Mahomed Nabi Abdul Hafiz; Tripathi, Rammanohar Vishnunarayan, B.A.

*Ward No.* 40 (*Chembur*): Advani, Hashuji Parasram, B.A. (Hons.), B.Com., LL.B.; Johnson Jacob.

*Ward No.* 41 (*Ghatkopar*): Upadhyya, Purshottamdas Uttamram; Dighe, Bhalchandra Sakharam; Adak, Kisan Narayan.

*Ward No.* 42 (*Malad-Goregaon*): Shrimati Gore, Mrinal Keshav; Singhi, Teckchand Hansraj, B.A.; Patel, Shankarbhai Muljibhai, B.SC.

*Ward No.* 43 (*Borivli-Kandivli*): Modi, Shantilal Amritlal; Chogle, Harvijay Waman; Patil, Ramakant Parshuram.

*Ward No.* 44 (*Mulund, Tulshi and Vihar Lake Area*): Thakkar, Karsandas Virji, M.SC.

### Standing Committee

Jivraj B. Shah (*Chairman*); V. P. Bapat; Castellino, Dr. V. A.; Dr. Baba Kalgutkar; Kachwalla, Taherbhoy E.; Kharat, R. G.; Smt. Lilyben A. Pandya; Parikh, Dhirajlal M.; Dr. Bhal S. Patil; L. R. Raut; R. L. Belosay; Singhi T. H.; Thakkar, K. V.; Dr. S. S. Ugrankar; R. G. Mirashi; H. N. Trivedi; Dr. A. U. Memon.

### Improvements Committee

N. D. Mehta (*Chairman*); H. W. Chogle; M. H. Bedi; J. D. Daroga; K. L. Desai; M. Nabi; Y. S. Goad; Dr. J. M. Lakhani; R. K. Chimbulkar; G. M. Pendse; Kantilal M. Parekh; L. P. Pujari; M. D. Mantri; P. D. Shigvan; J. V. Shah; K. G. Desai; M. L. Sethi.

### Education Committee

Dr. A. U. Memon (*Chairman*); D. P. Bakhale; Dr. M. C. Bilpodiwala; P. H. Boricha; Smt. Deviben S. Dalal; M. R. Dandavate; K. P. Dave; Smt. Charusheela B. Gupte; C. H. Khare; A. M. Mandekar; Smt. Ushaben H. Mehta; P. G. Mohadikar; M. A. Khandvani; H. J. Sheikh; T. G. Kandalkar; K. H. Trivedi.

### B.E.S.T. Committee

*Chairman:* Dr. W. S. Matkar.

## PRINCIPAL MUNICIPAL OFFICERS

*Municipal Commissioner for Greater Bombay*, J. H. Patwardhan, M.A., I.A.S.
*Dy. Municipal Commissioner*, N. S. Shirodkar.
*Dy. Municipal Commissioner*, S. M. Y. Sastry, M.A., B.L.
*Dy. Municipal Commissioner*, D. D. Ranadive.
*Dy. Municipal Commissioner*, V. V. Joshi, M.A. (Oxon.).
*City Engineer*, S. V. Desai, B.E. (Civil), A.M.I.E. (Ind.), A.M.I.C.E. (Lond.), Dip. D.P. (Lond.).
*Hydraulic Engineer*, D. R. Bhise.
*Executive Health Officer*, Dr. R. B. Fondekar, M.B.B.S., B.HY.
*Dean, K.E.M. Hospital and G. S. Medical College*, Dr. S. V. Joglekar, M.S., F.C.P.S.
*Dean & Supdt., B. Y. L. Nair Charitable Hospital & Topiwala National Medical College*, Dr. T. H. Rindani, M.D., F.A.SC.
*Superintendent, Lokmanya Tilak Hospital*, Dr. (Smt.) Ahilya S. Punde, M.D.
*Medical Superintendent, Kasturba Gandhi Memorial Hospital*, Dr. R. S. Deshpande, M.B.B.S.
*Medical Superintendent, R. P. T. B. Hospital, Sewree*, Dr. S. A. Shah.
*Dean, Nair Hospital Dental College, Lamington Road*, Dr. N. S. N. Jinwala.
*Chief Accountant*, R. G. Gulgule, B.Com.
*Officer on Special Duty*, G. W. Siveshwarkar.
*Solicitor to the Corporation*, A. M. Desai, M.A., LL.B.
*Assessor & Collector*, P. R. Bhatkhande.
*Controller of Stores*, Franklin D'Souza, B.E.
*Election & Town Duty Officer*, G. L. Pendse.
*Superintendent of Licences*, C. K. Patel, M.A.
*Insecticide Officer*, M. A. Samuel, B.SC.
*Dy. Chief Inspector, Shops & Establishments*, A. A. Munshi.
*Administrative Officer (Estates)*, M. S. Dixit, B.A. (Hons.).
*Labour Officer*, Smt. Freny A. Irani, B.A., LL.B.
*Public Relations Officer, & Editor, "Bombay Civic Journal"* N. A. Mistri, M.A.
*Manager, Municipal Printing Press*, S. W. Apte.
*Municipal Secretary*, P. C. Pandya, M.A., LL.B., M.P.A. (U.S.A.).
*Municipal Analyst*, Dr. V. Sadashivan, B.SC. (Ag.), M.SC., A.I.I.C.
*Municipal Medical Examiner*, Dr. D. D. Bamji, M.D., F.C.P.S.
*Municipal Chief Auditor*, R. G. Godbole.
*Personal Assistant to the Municipal Commissioner*, B. R. Malondkar, M.A.
*Supervising Medical Officer*, Dr. Smt. V. S. Kalewar, M.B.B.S., F.C.P.S.
*Executive Engineer (Development Plan)*, P. A. Umrigar.
*Executive Engineer (Mechanical), Municipal Workshops, Foras Road, Bombay* 8, V. R. Gadre.
*Superintendent, Vaccination Department*, Dr. M. K. Vaidya.
*Education Officer*, Dr. Smt. Madhuri R. Shah, B.A., M.Ed., Ph.D. (Bom.), Ph.D. (Lond.).
*Supdt., Municipal Gardens, Victoria Gardens, Bombay* 27, G. S. Hegde.

### SUBURBAN OFFICE (MERGED AREAS)

*Waterfield Road, Bandra, Bombay* 50.

*Dy. Municipal Commissioner*, B. C. Cariapa, I.A.S.
*Dy. City Engineer (Suburbs)*, M. N. Subandh.
*Executive Engineer (Suburbs), Water Works*, N. G. Shahane.
*Dy. Executive Health Officer*, Dr. D. V. Parulekar.
*Dy. Supdt. of Licences (Suburb)*, S. K. Kadri.
*Asstt. Supdt. of Markets (Suburbs & Extended Suburbs)*, B. M. Phataraphod.
*Dy. Assessor & Collector (Suburbs & Extended Suburbs)*, C. R. Ambekar.

### ENGINEERING DEPARTMENT

*Municipal Head Office Extension Bldg., 2nd and 3rd Floors, Cruickshank Road, Bombay* 1.

*City Engineer*, S. V. Desai.
*Dy. City Engineers (Schemes)*: M. N. Subandh; (*Planning & Design*), M. A. Nentin; (*Roads*), D. C. Palekar; (*Buildings & Construction*), D. D. Dawalbhakta.

### MARKETS AND SLAUGHTER HOUSES DEPARTMENT

*Mahatma Jyotiba Phule Market, Dr. Dadabhoy Naoroji Road, Bombay 1.*

There are 78 markets in Greater Bombay out of which 52 are the property of the Municipal Corporation while the rest are owned by private individuals and licensed by the Corporation.

*Superintendent of Markets and Slaughter Houses*, Dr. Victor Periyan.
*Asstt. Superintendent of Markets (Suburbs)*, Dr. B. M. Phatarphod.
*Senior Assistant, Bandra Slaughter House*, Dr. S. A. Malandkar.
*Chief Inspector*, Dr. D. M. Bailur.

### MUNICIPAL FIRE BRIGADE

*Headquarters: Byculla Bridge, Telephone No.* 101, 6 *lines. 76111-2-3 Direct Lines.*

*Chief Officer, Fire Brigade:* S. Fredilis.
*Deputy Chief Officers:* E. M. Jacob, P. T. Samant.
*Divisional Officers:* V. G. Pawar, A. S. Kulkarni.

*Fire Brigade Stations.*

Headquarters, Byculla Bridge; Alexandra Docks, Frere Road; Gowalia Tank; Sewree; Fort; Colaba; Shivaji Park; Worli; Dadar; Memonwada; Mandvi; Andheri; Vikhroli; Chembur.

### MUNICIPAL FIRE BRIGADE AMBULANCE SERVICE

Fire Brigade Headquarters, Byculla, Bombay No. 8.

Ambulance Services for Maternity Cases (Free).
Ambulance Services for Street Accidents (Free).
Ambulance Services for all other non-infectious cases (Rs. 8 for the first hour or fraction thereof and Rs. 4 for each succeeding ½ hour or fraction thereof within the Greater Bombay limit and Rs. 12 for first hour or fraction thereof and Rs. 6 for each succeeding half hour or fraction thereof—tolls and other charges extra—outside the limits of Greater Bombay).
Hours of work :—24 hours.
Telephone No. 101 for street accidents.
Telephone No. 76111, for other purposes.

### B.E.S.T. UNDERTAKING

BEST House, Bombay 1.

*General Manager*, G. A. Sharma, M.SC., I.A.S.
*Secretary*, K. P. Dhuru, B.Com.
*Commercial Manager*, M. C. Chudawala, G.D.A., A.C.A.
*Controller of Stores*, Vacant.
*Chief Accounts Officer*, G. J. Gadre, B.Com., F.C.A.
*Chief Engineer (Supply)*, K. N. Rao, B.SC., B.E., A.M.I.E. (Ind.).
*Chief Engineer (Transport)*, S. G. Laud, B.SC. (Mech. & Elec.).
*Distribution Engineer*, A. P. Shenoy, B.SC. (Engg.), A.M.I.E.E. (Lond.), A.M.I.E. (Ind.), A.M.M.E.A.
*Services Engineer*, P. R. Parikh, B.SC. (Engg.), M.I.E. (Ind.).
*Chief Traffic Manager*, C. D. Jeffereis, I.E.E.
*Traffic Manager*, H. A. Printer.
*Engineer-in-Charge (Way & Works)*, P. G. Patankar, B.E. (Civil), A.F.P.W.I. (Ind.), A.M.I.E. (India).
*Legal Adviser & Solicitor*, S. D. Kamerkar, B.SC., LL.B., Advocate.
*Personnel Officer*, S. R. Paranjpe, B.A., LL.B.
*Public Relations Officer*, J. D. Joglekar, LL.B.

## HONORARY PRESIDENCY MAGISTRATES AND JUSTICES OF THE PEACE FOR GREATER BOMBAY

### HONORARY PRESIDENCY MAGISTRATES

Abraham, Shalome ; Agashivale, Jaswantlal Varjivandas ; Ahmedullah, Shrimati Deena ; Airan, Dr. J. W.

Bagwe, Anant Narayan ; Bakhle, Shrimati Meenakshi Dattaprasanna ; Bakre, Anant Sakharam ; Bakshi, Dalip Singh ; Bhagwat, Smt. Durga Bhagwati, Shamlal Harilal ; Bhatt, D. L. ; Dr. Bhatt, Suryakant Jethalal ; Bodhe, Janardhan Ganpatrao.

Chidambaran, Thiruvilumala Venkatakrishna.

Dehanukar, Shrimati Nalini Shantaram ; Dehejia, Tarunica Venilal; Desai, Ladkoba Shrirang ; Desai, Madhusudhan Bhailal ; Desai, Shapur Fredun ; Deshpande, Dattatraya D. ; Dhairyawan, Dr. Khanderao Anandrao ; Doodhmal, Rusi Cooverji ; Dubash, Phiroz Darabshaw.

Gandhi, Adi Deshotan ; Gandhi, Manmohan Purshottam ; Gaokar, H. D. ; Gole, Yeshwant Arjoonrao ; Gomes, Dr. Arsene ; Gothak, Smt. Kamalini K.

Hansotia, Pestonji Cawasji ; Herwadkar, Dr. R. V. ; Hindlekar' Dr. Mohan Vasudeo.

Irani, Kaikhushroo R.

Jadhav, Dr. Ganpat Vishram ; Jadhav, Hindurao Bhaskarrao Jagirdar, Natwarlal Bhimbhai ; Jayakar, M. V. B. ; Joshi, Smt. Indira Purshottam ; Joshi, Keshavlal Dalpatram.

Kale, Dattatraya Nagesh ; Kamat, T. A. ; Kapadia, Babubhai Motilal ; Karande, Smt. Neera Y. ; Kher, D. G. ; Khira, H. N. ; Kooka, M. D. ; Koppikar, Dr. Gangadhar Subrao ; Kotasthane, Krishnarao Moreshwar ; Kothare, Atmaram Narayan ; Kothary, Dr. Mansukhlal Chotalal ; Kuke, Peshotan Sorabji.

Maheshwari, S. B. ; Marzban, Behram Kaikobad ; Marzban, Rustom Phirozeshah ; Mehta, Dr. Homi Shapurji ; Melmane, Rama Rao Venkat Rao, Merchant Dr. Jamnadas J. ; Modi, Shrimati Sulochana Mohanlal ; Mulgaonkar, Balkrishna Manikrao ; Mullaferoze, Phiroze Rustomjee.

Nayan, Dr. Balkirshna Ramchandra ; Nimbkar, Dattatraya Ganesh ; Nimbkar, Vishnu R.

Patel, Narshibhai Jhaverbhai ; Patel, Dr. Raghubhai Maganlal ; Patel, Jehangir Jamshedji K. ; Patwardhan, Smt. Daya ; Pavri, Dr. H. F. ; Pavri, Dr. R. K. ; Phatak, Balkrishna Parshuram ; Phadke, Smt. Leelabai Vithal ; Phadke, Smt. Manorama Gangadhar ; Pirbhoy, Smt. Homai H. ; Pradhan, Dr. (Smt.) Champabai Dattatraya ; Purandare, Dr. Gajanan Dinkar ; Purandare, Dr. Narayan Raghunath.

Ranade, V. V. ; Rane, Janardan Mahadeo ; Rao, Dr. V. D. ; Rele; Smt. Lila Mastkar ; Rodriques, Smt. Bridget Leo.

Samarth, Shrimati Nirmala Manohar; Sanghvi, Amersey Odhavji ; Sardeshpande, Bhicaji Bhujangrao ; Sathe, Gajanan Waman ; Sethna, Smt. Banoo Pirozshah ; Sethna, Smt. Khorshed Minocher ; Shah, Bhogilal Chimanlal ; Shah, Harshavadan Jivanlal; Shah, Narandas Mohanlal ; Shaikh, Abdul Hussain Kasam ; Shaikh, Hassan ; Sheth, Smt. Sarala Jayachandra ; Sheth, Shanishchandra Chimanlal, Siqueira, Dr. V. F. ; Sunker Sett, B. R.

Thakore, Jayantilal Kalyanrai ; Toprani, Charandas Meghji Mathradas.

Vagal, Dr. Smt. S. B. ; Varde, Vaman Pundalik.
Wadia, Smt. Avabai Bomanji ; Waghchourey, D. P.

### JUSTICES OF THE PEACE (OFFICIAL)

**Abhyankar, P. H., B.A., B.Com., LL.B. ; Alexander, Captain P. ;** Apte, M. S. ; Ayyar, Ramakrishna, I.A. & A.S.

Bajaj, J. S. ; Banerjee, K. D. ; Batra, Capt. R. N. ; Belavadi S. H., B.Sc., LL.B. ; Berry, T. ; Bhonsale, B.A. ; Borde, S. G. ; Borker D. S., B.E., A.M.I.E. ; Borwankar, S. G.

**Cabral, J. R., B.Sc. (Hons.) ; Cariapa, B. C., I.A.S. ; Chari, R. B. I.A.S.** ; Chavan, S. V. ; Chowhan, D. V.

**Dafle, A. R. ; Dalal, B. P., I.C.S. (Retd.) ; Dalal, P. D., B.A. (Hons.).** LL.B. ; Damry, P. N., I.A.S. ; Dave, D. R. ; David, C. T. ; Desai, M. W., I.A.S. ; Desai, T. B., B.Sc LL.B. ; Deshmukh, B. G. Deshmukh, K. N., B.E. ; Deshpande, B. T. ; Deshpande, N. S. ; Deo, M. V., I.A.S. ; Dhotre, M.A. ; Dhurandhar, J. R., B. A., LL.B. ; Dhurandhar, S. W., B.A., LL.B. ; Donde, G. R. ; Dravid, N. K., I.C.S. ; Dravid, V. R. ; D'Souza, J. W.

Ghate, B. G., I.A.S. ; Godse, Chandrakantrao ; Gohekar, Dr. D. Y. ; Gordon, V. B. ; Gowardhan, B. K., I.P.S. ; Gurr, J. T. F.

Hajari, D. G. ; Heble, M. N., I.A.S. ; Heble, M. S.

Iyengar, B. R. R., B.Sc. (Hons.), D.I.I.Sc., M.A.I.E.E. (U.S.A.), M.I.E. (Ind.).

Joglekar, K. V. ; Joshi, R. C., I.C.S. ; Joshi, V. M., I.C.S.

Kadam Bande, T. M., I.P.S. ; Kale, D. G., M.Sc., Bar-at-Law ; Kamble, D. B., I.A.S. ; Kamat, N. D. ; Kamruddin, S. M. ; Kampani, S.P. ; Kanekar, Dr. M. B., M.B.B.S. ; Kasbekar, P. D., I.A.S. ; Kasbekar, Y. S., I.A.S. ; Kelkar, V. H.

Kharabe, S. R., B.A., LL.B. ; Khatri, S. M., M.A. (Cantab.), Bar-at-Law ; Kodical, R. S. ; Khursale, N. V. ; Kulkarni, S. B. ; Kulkarni, C. V., M.Sc., Ph.D. ; Kulkarni, R. S. ; Kumthekar, V. D.

Lal, Sukh Sampat ; Lal, D. N. ; Lall, Ratan ; Lalwani, G. H. ; Lonkar, S. V., B.E.

Majeed Ullah, S., I.P.S. ; Majumdar, A. K., I.A.S. ; Mahindroo Commodore P. S. ; Malkani, R. M., B.L. (Edin.), Bar-at-Law ; Malati, Smt. Tambay-Vaidya, I.A.S. ; Maneckji, M. J. B. ; Maneckji, Smt. P. M. ; Mehra, J. N. ; Meher, M. R., I.C.S. (Retd.) ; Medhekar, K. P. ; Miranda, C. J. V., I.P.S. ; Misbah, M., M.A. ; Modak, E. S., I.P. ; Moghe, K. K. ; Mone, N. T. ; I.C.S. ; Mugve, M. G., I.P.S. ; Murthy, N. G. K., I.S.E. ; Murthy, O. S. ; Muttoo, R. N.

Nadkarni, P. S., I.A.S. ; Nagarkar, V. V., I.P.S. ; Nagarwalla, N. H. ; Nair, K. R. ; Nanjundiah, H. ; Natu, S. V., B.S.E. (I) ; Nayar, K. C., I.A.S. ; Nigudkar, R. D., B.A., LL.B.

Ogale, S. L., I.A.S.

Palekar, S. B., B.A. (Hons.), LL.B. ; Palnitkar, M. S. ; Pandya, P. C. M.A., LL.B., M.P.A. (U.S.A.) ; Pardasani, N. S., I.A.S. ; Parnaik, D. T., G.B.V.C. ; Pathan, S. M. A., I.P.S. ; Pathak, S. D. ; Pathak, W. G. ; Patel, D. B. ; Patell, Minoo Kaikhosrow Pallonji ; Patil, H. S., B.Sc., LL.B. ; Patil, P. B., I.A.S. ; Patil, S. D., B.Sc., LL.B. ; Patil, L. M. ; Patwardhan, J. H., I.A.S. ; Paymaster, B. B., I.C.S. ; Piplapure, L. S., B.A., LL.B. ; Pinto, A. J. O. ; Prabhakar, V. ; Pradhan, D. R., I.C.S. ; Pradhan, M. W. ; Purandare, M. V. ; Puthli, S. G.

Rajadhyaksha, J. G. ; Rajwade, M. V., I.A.S. ; Rajwade, M. V., B.E. ; Ranade, S. B. ; Rele, R. C., B.Sc., Ribeiro, V. P.

Saldanha, E. C., B.S.E. (I) ; Salvi, P. G. ; Sami, V. ; Samson, A. I. B.A., LL.B. ; Sankaran, S. ; Sapre, S. N. ; I.A.S. ; Seth, G. H. ; Shah, N. M., B.A., LL.B. ; Shah, C. B. ; Shah, R. D. ; Shaikh, Dr. A. U., I.A.S. ; Seshadri, K. V., I.A.S. ; Sharma, G. A. ; Sheshgiri, B. S., B.Ag. (Bom.), B.Sc. (Lond.), M.Sc. (Cantab.) ; Soman, D. S. ; Scott, J. A. ; Simoes, E. H. ; Singh, Dr. Nagendra, I.C.S. ; Singh, Jasjit ; Sohonie, M. V., M.Sc., F.J.A. ; Shrinivasan, S. D., M.A., F.I.A. ; Sukhtankar, S. E., I.A.S. ; Sukhthankar, D. M. ; Sundara Raman, N. V., I.A.S. ; Syed, A. A., M.A., LL.B.

Thorat, Lt.-Gen. S. P. P.

Vishwanathan, P. S. ; Vora, V. H. ; Vakil, Sarosh H. A.

Walawalkar, S. G., B.A. (Hons.).

## RAILWAY PERSONNEL IN BOMBAY

### CENTRAL RAILWAY

*Offices :—Victoria Terminus, Bombay*

#### GENERAL MANAGER'S OFFICE

*V.T., Bombay*

*General Manager*, Ratan Lall, C. E. (Hons.). C.E. (Roorkee).
*Senior Deputy General Manager*, A. N. Mukerji.
*Officer on Special Duty*, S. Rodrigues, B.E., A.F.P.W.I.
*Deputy General Manager (General)*, F. C. Bhandari, M.A.
*Statistical Officer*, P. Jehangir.
*Compilation Officer*, T. Natesan, B.A.
*Chief Public Relations Officer*, K. S. J. Dalal.
*Public Relations Officer*, R. B. Manelkar, B.A.
*Assistant Public Relations Officer*, M. S. Purohit.
*Chief Auditor*, S. Manzur-e-Mustafa.

#### PERSONNEL ORGANISATION

*Chief Personnel Officer*, N. Y. Manohar, B.E.
*Dy. Chief Personnel Officer*, M. M. Nathaniel, B.A., B.Sc. (Hons.).

#### ENGINEERING DEPARTMENT

*Head Office : Bombay V.T.*

*Chief Engineer*, S. Venkataramanan, B.E., A.M.I.R.S.E., A.M.I.E. (India).

*Chief Engineer (Construction)*, Vacant.

*Deputy Chief Engineers, Bombay*, N. Sivaramakrishnan, B.E. (*Headquarters*) ; V. H. Dabake, B.E. (*South*), P. V. Gole, B.E. (*Construction*) (*Central*) ; R. N. Srivastava (*Central*) ; P. G. Gopalan, B.E. (Hons.) (*North*) ; G. A. Sheriff, B.E. (Hons.) (*Bridges*) ; M. Ramachandran (*Construction*) (*South*) ; T. R. Radhakrishna (*Construction, North*) ; L. F. X. Freitas, B.E., A.F.P.W.I. (Hons.) A.M.I.E., (India) *Construction*) (*Katni*) ; M. I. Chhaya, B.E. (Hons.), A.M.I.E. (India), (*Engineer-in-Chief, Jabalpur.*

OPERATING DEPARTMENT

*Head Office : Bombay V.T.*

*Chief Operating Superintendent :* T. N. Dar, M.A.

*Transportation Superintendent (Safety) :* H. F. Pinto, B.Sc. (Hons.).

*Dy. Chief Optg. Superintendents (Planning) :* B. C. Mathias, M.A. ; (*Goods*) B. Natarajan, M.A.; (*Coaching*) Kartar Singh, M.A.; (*Power*) Y. R. Puri, G.I. Mech., A.M.I.E.

COMMERCIAL DEPARTMENT

*Head Office : Bombay V.T.*

*Chief Commercial Superintendent :* V. V. Bhide, M.A.

*Dy. Chief Commercial Superintendents : (Claims)* R. P. Singh, M.A.; (*General*) Vacant ; (*Development*) Mathew Varki, B.Sc. ; *Officer on Special Duty (Transport Survey) :* H. V. Samuel, B.A. (Hons.).

TRANSPORTATION (POWER) AND MECHANICAL ENGINEERING DEPARTMENT

*Headquvrters Office :—V.T., Bombay.*

*Chief Mechanical Engineer :* S. S. Lal, A.M.I. Loco. E.

*Dy. Chief Mechanical Engineers : (L)* V. P. Soni, A.M.I. Mech.E. ; (*C. & W.*) K. K. Prabhakaran, B.E., A.M.I.M.E. ; (*C*) A. S. Dhir, A.M.I.M.E.

*Locomotive Workshops, Parel*

*Dy. Chief Mechanical Engineer:* A. Balakrishnan, B.E., A.M.I. Loco. E.

*Production Engineer :* G. Vaidyanathan.

*Carriage and Wagon Workshops, Matunga*

*Dy. Chief Mechanical Engineer :* M. K. Kapur, A.M.I.M.E.

*Works Manager :* M. A. Cherian, B.Sc.

*Production Engineer :* S. P. Mital, A.M.I.M.E.

SIGNAL AND TELE-COMMUNICATION DEPARTMENT

*Victoria Terminus, Bombay*

*Chief Signal & Tele-Communication Engineer :* R. S. Mehta, B.Sc. (Engg.), A.M.I.R.S.E.

*Dy. Signal & Tele-Comm. Engineer (Maintenance) :* D. P. Purang, B.Sc., C.E. (Hons.), A.M.I. Tel.-com. E.

*Dy. Signal & Tele. Com.-Engineer (Const.) :* R. K. Dandekar, L.E.E. (Hons.), A.M.I.E. (Lond.).

ELECTRICAL BRANCH

*Chief Electrical Engineer :* S. S. Kochak.

*Dy. Chief Electrical Engineer :* K. Srinivasan, B.A., B.E.

*Chief Electrical Engineer (Const.) (IBRE) :* V. Seetharaman, B.E. (Elec.).

*Dy. Chief Electrical Engineer (IBRE) :* S. T. Udeshie, B.E. (Elec.), B.E. (Mech.).

*Dy. Chief Signal & Tele-Com. Engineer (IBRE) :* C. Krishnamurthy, B.E.

KALYAN POWER HOUSE, THAKURLI

*Dy. Chief Electrical Engineer (Power House) :* N. V. S. Murthy.

STORES DEPARTMENT

*Head Office : Victoria Terminus, Bombay*

*Controller of Stores :* F. J. Vachha, B.A. (Hons.), B.E. (Hons.), B.Sc., Hons. Lond., A.M.I.Struc.E., A.M.I. San.E.

*Dy. Controllers of Stores :* M. Z. Mirza (*PL & W*) ; G. C. Basavaraj, B.E. (*M & O*).

ACCOUNTS DEPARTMENT

*V. T., Bombay and Secunderabad*

*Financial Adviser & Chief Accounts Officer :* F. Penn Anthony, M.A.

*Financial Adviser :* S. Gopalakrishnan.

*Dy. Chief Accounts Officers :* R. Kannan, B.A. (Hons.) (*Const. and Project*) ; R. Srinivasan (*Traffic-Secunderabad*) ; M. P. Bahadur (*General*).

MEDICAL DEPARTMENT

*Chief Medical Officer :* Dr. B. C. Vevaina, M.B.B.S. (Bom.), L.R.C.P. (Lond.), M.R.C.S. (Eng.), D.T.M. & H. (Lond.), B.P.H. (Bombay).

SECURITY DEPARTMENT

*Chief Security Officer :* M. G. Heblikar, I.P.S.

*Security Officers :* T. R. Varadarajan, Major V. A. D'Souza.

## WESTERN RAILWAY

### HEADQUARTERS OFFICE, CHURCHGATE, BOMBAY.

*General Manager,* O. S. Murthy, B.A., B.E., A.M.I.S.E., A.F.P.W.I., J.P

*Senior Deputy General Manager,* D. B. Patel, B.Sc. (Engg.), (Lond.), A.C.G.I., A.F.P.W.I., J.P.

*Dy. General Manager (General),* P. O. Thomas, B.Sc.

*Chief Public Relations Officer,* K. S. J. Dalal.

*Public Relations Officer,* D. P. S. Ahuja, M.A., LL.B.

*Statistical Officer,* A. Aranjo, B.A., B.Com.

*Compilation Officer,* H. S. Chandwani.

*Law Officer,* V. D. Thatte, B.A., LL.B.

*Executive Engineer (Vigilance Cell),* B. N. Dutta, B.E. (Civil).

*Senior Accounts Officer (Vigilance Cell),* J. S. Dhupia, B.A.

*Personnel*

*Chief Personnel Officer :* S. Wahabuddin Ahmed, B.Sc., A.C.G.I., A.M.I.E.

*Dy. Chief Personnel Officer :* M. G. Punoose, B.A. (Hons.).

*Accounts Department*

*Financial Adviser & Chief Accounts Officer :* K. V. Kasturi Rangan, M.A.

*Dy. Financial Adviser :* S. Ramaswamy, B.E. (Mech.).

*Dy. Chief Accounts Officer (G) :* B. Madhavan, B.Sc. (Hons.).

*Dy. Financial Adviser & Chief Accounts Officer (P & C) :* M. R. Mallya.

*Dy. Chief Accounts Officer (TA), Ajmer :* D. C. Joshi.

*Engineering Department*

*Chief Engineer :* V. P. Ribeiro, B.Sc. (Bombay), B.Sc. Engg. (Lond.), A.C.G.I.

*Chief Engineer (Survey & Construction) :* N. K. Mehra, B.E.

*Engineer-in-Chief (KOTA) :* S. S. Gohel, B.Sc.

*Engineer-in-Chief (Construction), Ahmedabad :* U. H. Mehta, B.Sc. Engg. (Lond.), A.C.G.I., A.M.I.E.

*Deputy Chief Engineers : (South),* S. H. Desai, B.E. (Hons.) ; (*Centre*), H. I. Motlaney, B.E., A.M.I.C.E. ; (*North*), A. V. Jacob, A.F.P.W.I., A.M.I.E. ; (*West*), A. N. Albuquerque, B.Sc. ; (*Bridges*), J. M. Parikh, B.E. ; (*Survey & Construction*), M. C. Kudari, B.E. ; (*S & C*) (*P & S*), J. S. Khergamwala, B.E. (Civil), A.M.I.E. ; (*Bridges & Regirdering*), P. R. Verghese, B.E. : (*Construction, Udaipur*), R. S. Barve, B.E.

*Signal and Telecommunication Department*

*Chief Signal and Telecommunication Engineer,* K. N. Kinra, B.Sc. (Engg.), Hons.

*Dy. Chief Signal and Telecommunication Engineer,* P. N. Gupta, B.Sc. (Engg.).

*Dy. Chief Signal and Telecommunication Engineer (Construction),* D. M. Cruickshank.

*Electrical Department*

*Chief Electrical Engineer,* T. S. Vishwanathan, M.I.E. (India).

*Dy. Chief Electrical Engineer,* T. D. Joshi, B.Sc., B.E.E.

*Mechanical Department*

*Chief Mechanical Engineer,* J. F. Muncherjee.

*Dy. Chief Mechanical Engineer (Loco.),* E. R. Shroff, A.M.I. Loco. E. (London).

*Dy. Chief Mechanical Engineer (C. & W.),* K. R. Narayanan, B.Sc. (Mech. & Elec.), A.M.I.E.

*Dy. Chief Mechanical Engineer (W),* K. M. Aiana.

*Dy. Chief Operating Supdt. (Power),* Kailash Nath, B.Sc., A.M.I.M.E. A.M.I.L.E.

*Divisional Mechanical Engineer—Bombay,* D. Roy, A.M.I.M.E.

*Transportation (Traffic) and Commercial Department*

*Chief Operating Supdt.,* P. K. Madhava Menon, B.A.

*Chief Commercial Supdt.,* T. N. Parthasarathi, B.Sc., M.A.

*Bombay Division*

*Divisional Operating Supdt.,* M. M. L. Sharma, M.Sc.

*Divisional Commercial Supdt.,* M. G. Kabra, M.Sc.

STORES DEPARTMENT

*Controller of Stores (Bombay),* P. C. Vaish, B.E.

*Deputy Controller of Stores (G.),* B. B. Bansal.

*Dy. Controller of Stores Planning & Works),* V. N. Agharkar, B.E. (Mech.).

MEDICAL DEPARTMENT

*Chief Medical Officer, Bombay,* Dr. S. L. Malhotra, M.R.C.P. (Lond.), D.C.H. (Eng.), D.P.H. (Lond.), D.I.H.

RAILWAY PROTECTION FORCE

*Chief Security Officer,* B. L. Shrivastava.

## RAILWAY SERVICE COMMISSION, BOMBAY

(Churchgate Station Bldg., 1st Floor, Bombay 1).

*Chairman :* S. G. Pothan.

*Members :* Dr. F. B. Khambatta ; B. P. Hira.

*Secretary :* S. V. Sivaraman.

# MANIPUR

### ADMINISTRATIVE PERSONNEL
Imphal, Manipur.

*Chief Commissioner*, Baleswar Prasad.
*Chief Minister*, M. Korireng Singh.
*Minister*, S. Angou Singh.
*Deputy Ministers*, Sinam Bijoy Singh, Paonoikhai Vaiphei.
*Chief Secretary*, R. B. Saksena.
*Judicial Commissioner*, Rajvi Roop Singh
*Deputy Commissioner*, K. T. Khuma.

*Secretary, Development*, T. Kipgen.
*Secretary, Law*, R. C. Deo Sharma.
*Secretary (Medical)*, S. Gourhari Singh.
*Secretary (Finance)*, S. Subramanian.
*Development Commissioner*, V. V. Mongia.
*Addl. District Magistrate*, V. K. Kapoor.
*Dist. and Sessions Judge*, O. Thambal Singh.
*Publicity Officer*, S. Gopendra Sharma.
*Director, Medical & Health Services*, W. C. Malhotra.

*Inspector-General of Police*, J. R. Chhabra.
*Commandant, Manipur Rifles*, A. N. Banerjee.
*Registrar, Co-operative Societies*, K. Lamphel Singh.
*Director of Agriculture*, Harinder Singh.
*Director of Industries*, Abdul Bari.
*Chief Forest Officer*, R. K. Bijoychandra Singh.
*Chief Fisheries Officer*, M. Radheshyam Singh.
*Taxation Officer*, Md. Abdul Monir.
*Principal Engineer*, R. N. Mukherjee.

# MYSORE
Bangalore.

### GOVERNOR
V. V. Giri.

*Secretary*, G. H. Adhirajiah, I.A.S.

### MINISTERS
*Chief Minister, Planning, General Administration*, S. Nijalingappa.
*Education*, S. R. Kanthi.
*Food*, B. D. Jatti.
*Revenue*, M. V. Krishnappa.
*Home*, M. V. Rama Rao.
*Municipal Adm.*, R. M. Patil.
*Social Welfare*, Mrs. Yashodara Dasappa.*
*Industries and Commerce* K. Mallappa.
*Health*, K. Nagappa Alwa.
*Public Works*, Veerendra Patil.
*Forests*, B. Rachiah.
*Finance*, Ramakrishna Hegde.
*Labour*, D. Devraj Urs.
*Co-operation*, K. Puttuswamy.
*Agriculture*, G. Narayana Gowda.

### Deputy Ministers
*Finance*, H. R. Abdul Gaffar.
*Mines*, Maqsood Ali Khan.
*Education*, Mrs. Grace Tucker.
*Municipal Administration*, Y. Ramachandra.
*Social Welfare*, K. Prabhakar.
*Public Health*, M. Mallikarjunaswamy.
*Information*, Kondaji Basappa.
*Minor Irrigation*, Alur Hanumanthappa.
*Sericulture*, R. Dayananda Sagar.
*Parliamentary Secretaries*, G. B. Shankarrao (*P.W.D.*), H. C. Boriah (*Agriculture*).

### SECRETARIAT
*Chief Secretary*, K. Balachandran, I.C.S.

### SECRETARIES TO GOVERNMENT
*Development Commissioner & Commissioner for Agricultural Production & Spl. Secretary to Govt., Planning & Agricultural Production*, M. Vasudev Rao, I.A.S.
*Revenue Department*, B. S. Srikanthaiya.
*Finance Department*, Vacant.
*Public Works & Eelctricity Deptt*, Chandappa Patel, I.A.S.

*Planning, Housing and Social Welfare Dept.*, B. V. Iyengar, I.A.S.
*Food Department*, N. Narasimha Rau, I.A.S.
*Public Health, Labour and Municipal Administration Department*, N. S. Ramachandra, I.A.S.
*Agriculture and Forest Department*, G. S. Srinivasan, I.A.S.
*Commerce and Industries Department*, Mohd. Rahamathulla, I.A.S.
*Law Department*, R. Sanjeevalu.
*Education Department*, T. R. Jayaraman, I.A.S.
*Development, Panchayat Raj & Co-operation*, R. Bharaniah, I.A.S.
*Financial Adviser*, M. V. Rangachari.

### DIVISIONAL COMMISSIONERS
*Divisional Commissioner, Belgaum Division*, R. Ananda Krishna, I.A.S.
*Divisional Commissioner, Mysore Division*, R. Sreenivasan, I.A.S.
*Divisional Commissioner, Gulbarga Division*, G. V. K. Rao, I.A.S.
*Divisional Commissioner, Bangalore Division*, T. V. Reddi, I.A.S.

### HEADS OF DEPARTMENTS
*Chief Engineers*, I. M. Mugdam, S. G. Balikundry, K. Basanna; *Commissioner for Excise-cum-Commissioner for Commercial Taxes*, C. Narasimha Murthy, I.A.S.; *Commissioner for Religious and Charitable Endowments*, B. S. Nanjunde Gowda; *Chief Conservator of Forests*, N. S. Kaikini; *Chairman, Mysore Revenue Appellate Tribunal, Bangalore*, B. Beerappa; *Commissioner for Settlement and Land Records in Mysore, Bqngalore, Ex-Officio Inspector-General of Registration in Mysore-cum-Commissioner of Stamps in Mysore & Director of Food Supplies*, V. Byrappa, I.A.S.; *Inspector General of Prisons*, Shahabuddin Ahmed; *Inspector-General of Police*, S. N. Hosall, I.P.; *Director of Medical Services*, H. G. Sattur; *Director of Public Health*, C. Gopalaraj Chetty; *Director of Public Instruction*, T. Vasudevaiah; *Director of Technical Education*, B. L. Shantamallappa; *Director of Collegiate Education*, D. J. Davar; *Director of Agriculture*, M. Mallaraj Urs; *Director of Animal Husbandry & Veterinary Services*, P. M. N. Naidu; *Director of Industries & Commerce*, T. Shamanna, I.A.S.; *Commissioner of Labour & Ex-Officio Director, National Employment Service*, B. C. Channaraj Urs: *Director of Mines & Geology*, Dr. B. P. Radhakrishna; *Chairman, Mysore Housing Board*, Dr. H. L. Thimme Gowda; *Director of Social Welfare*, Zafar Saifullah, I.A.S.; *Vice-Chairman, M.S.R.T.C.*, M. S. Swaminathan, I.A.S.; *Commissioner for Transport*; Vazir Ahmed; *Secretary, M.G.I.D. Bangalore*, T. Ramakrishna; *Registrar of Co-operative Societies & Ex-Officio Chief Marketing Officer*, C. J. Jamkhandimath; *Director of Printing, Stationery & Publications in Mysore, Bangalore*, M. A. Sri Rama; *Director of Government Gardens*, M. H. Mari Gowda; *Director of Sericulture*, V. R. Uthaman; *Director of Archaeology*, M. Seshadri; *Director of Publicity and Information*, Shantesh Patil; *Director of Statistics*, L. Mohammed Abdul Wali; *Chief Electoral Officer*, Maharudriah; *Director of Fisheries*, Laxmi Narayan; *State Port Officer*, M. L. Adavani; *Electrical Inspector to Government*, M. V. Srinivasa Murthy; *Chief Editor, Mysore Gazetteer*, B. N. Sri Sathyan; *Managing Director, State Ware-Housing Corporation*, A. Muniswami Gowda; *Chairman, Mysore State Electricity Board*, G. Sambasiviah; *Vigilance Commissioner*, Mir Iqbal Hussain; *Director of Vigilance*, Dr. B. V. Iyenger, I.A.S.

### HIGH COURT
Public Office Bldgs., Bangalore 1.

*Chief Justice*, H. Hombe Gowda; *Judges*, A. R. Somnath Iyer; M. Sadasivayya; K. Sadananda Hegde; A. Narayana Pai; Ahmed Ali Khan, B. M. Kalagate; G. K. Govinda Bhat; T. K. Tukol, K. R. Gopi Vallabha Iyengar, D. M. Chandrashekhar, M. Santosh, C. Honniah, K. Bhimian.
*Registrar*, K. Bhimiah.
*Advocate-General*, Tumbe Krishna Rao.

### MYSORE PUBLIC SERVICE COMMISSION
'Atara Kacheri', Bangalore.

*Chairman*, R. Chennigaramaiah.
*Members*, S. A. L. Razvi, K. R. Marudeva Gowda, I.A.S., S. D. Kothavale, M. L. Manjaraja Urs.
*Secretary*, S. H. Ahmed.
*Asstt. Secy.*, M. Krishnaswamy.

# NAGALAND
Kohima.

### EXECUTIVE COUNCIL
GOVERNOR
Vishnu Sahay

### CABINET
*Chief Minister: Home, Appointment, Confidential, Secretariat Administration, Political and Election Affairs, Planning & Coordination, Councils, Revenue:* P. Shilu Ao.
*Minister of Finance, PWD:* Hokishe Sema.
*Minister of Supply and Transport, Forests, Relief and Rehabilitation:* Jasokie Angami.
*Minister of Agriculture, Veterinary and Animal Husbandry, Registration and Cooperation, Fisheries, Industries and Commerce, Law and Parliamentary Affairs:* R. C. Chiten Jamir.
*Minister of Tuensang Affairs, Publicity and Information:* K. A. Imlong.
*Minister of Education, Town Planning and Town Committees:* M. Kithan.
*Minister of Medical and Public Health, Community Development:* Luthipru Vasa.
*Dy. Minister for Tribal/Area and Range Councils; Coordination of all Branches of Development Departments, Electricity Department:* N. L. Odyuo.

### LEGISLATIVE ASSEMBLY
*Speaker:* T. N. Angami.
*Dy. Speaker:* K. Shikhu.
*Member of the Lok Sabha:* Chubatoshi Jamir.
*Member of the Rajya Sabha:* Melhupra Vero.

### SECRETARIES
*Chief Secretary:* U. N. Sharma.
*Secretary (Home Deptt.):* M. L. Kampani.
*Secretary (Development):* O. Kathipri.
*Secretary (Finance):* Dhiyan Singh.
*Secretary (Judicial):* B. L. Malhotra.
*Secretary (Planning)*, A. H. Scott.

### GENERAL ADMINISTRATION
*Commissioner:* L. Lungalang.
*Addl. Development Commissioner:* I. Sashimeren, Aier.
*Director of Forests:* P. N. Bhattacharjee.
*Director of Agriculture:* Maw Singh.
*Director of Education:* S. Guhain.
*Director of Health Services:* Lt. Col. S. M. Das.
*Director of Information & Publicity:* H. B. Rattan.
*Chief Engineer:* P. R. Choudhuri.

Kohima District
*Dy. Commissioner:* S. C. Dev.
*Addl. Dy. Commissioner (Phek):* Daniel Kent.

Mokokchung District
*Dy. Commissioner:* N. I. Jamir.
*Addl. Dy. Commissioner (Zunheboto):* J. S. Halliday.

Tuensang District
*Deputy Commissioner:* T. A. Imti.
*Addl. Dy. Commissioner (Mon.):* N. Jakalu.

* Has since resigned from the Cabinet.

## ORISSA

Bhubaneswar.

### Administrative Personnel

GOVERNOR

Dr. A. N. Khosla

**PERSONAL STAFF**

*Secretary to Governor :* R. N. Das, I.A.S.

*Aides-de-camp to Governor :* S. C. Misra, I.P.S., Lt. Ravinder Kumar.

*Personal Secretary to Governor :* Kanwar Sain.

### MINISTERS

*Chief Minister, Finance, Revenue Co-operation and Forestry, Industries, Planning and Co-ordination, Mining and Geology, Irrigation and Power, Commerce and Community Development and Panchayati Raj,* Sadasiba Tripathy.

*Political and Services, Home, Supply and Labour, Employment and Housing,* Nilamoni Routrary.

*Education, Cultural Affairs, Works and Transport,* Satyapriya Mohnty.

*Health,* P. V. Jagannath Rao.

*Tribal and Rural Welfare, Revenue and Excise* T. Sanganna.

*Law and Health,* Banamali Babu.

*Agriculture and Animal Husbandry and Co-operation,* Dr. Ramprasad Mishra.

**Deputy Ministers**

*Irrigation and Power, Revenue and Finance,* Prahllad Mallick.

*Education,* Smt. Saraswati Pradhan.

*Cultural Affairs, Co-operation and Forestry, and Mining and Geology,* Santosh Kumar Saho.

*Labour, Employment and Housing, Home (Jails), Revenue and Excise,* Chandramohan Singh.

*Industries, Commerce and Transport,* Chittaranjan Naik.

*Community Development and Panchayati Raj and Home (Public Relations),* Anup Singh Deo.

*Agriculture and Animal Husbandry Department,* Madan Mohan Pradhan.

**Officials**

*Chief Secretary,* A. K. Barren, M.C., I.A.S.

*Member, Board of Revenue,* V. Ramanathan, I.C.S.

*Additional Chief Secretary and Development Commissioner,* R. P. Padhi, I.A.S.

*Member Administrative Tribunal,* Iswar Chandra Mishra, M.A., B.L.

*Commissioner, Central Division,* V. S. Mathews, I.A.S.

*Commissioner, Northern Division,* D. D. Suri, I.A.S.

*Commissioner, Southern Division,* K. C. Ray, I.A.S.

*Secretary, Political and Services Department,* A. K. Barren, M.C., I.A.S.

*Secretary, Home Department,* V. Natrajan, I.A.S.

*Secretary, Mining and Geology Department,* K. S. Ramchandran, I.A.S.

*Secretary, Education Department,* K. K. Samal, I.A.S.

*Secretary, Planning and Co-ordination Department,* R. P. Padhi, I.A.S.

*Secretary, Labour Department,* Amar Singh, I.A.S.

*Secretary, Finance Department,* K. S. Bawa, I.A.S.

*Secretary, Supply Department,* P. K. Chakraverti, I.A.S.

*Secretary, Industries Department,* D. L. Purkayastha, I.A.S.

*Secretary, Health Department,* U. C. Agarwala, I.A.S.

*Secretary, Commerce Department,* Gian Chand, I.A.S.

*Secretary, Revenue and Excise Department,* B. K. Mishra, I.A.S.

*Secretary, Works and Transport Department,* B. R. Patel, I.A.S.

*Secretary, Agriculture and Animal Husbandry Department,* M. Ahamed, I.A.S.

*Secretary, Co-operation and Forestry Department,* Gian Chand, I.A.S.

*Secretary, C. D. & P. R. Department,* B. C. Tripathy, I.A.S.

*Secretary, Cultural Affairs Department,* K. K. Samal, I.A.S.

*Secretary, Irrigation and Power Department,* K. S. Ramchandran, I.A.S.

*Secretary, Legislative Assembly Department,* Nilakantha Rath, B.A., B.L.

**Heads of Departments at Bhubaneshwar**

*Director of Health Services,* Dr. G. Mohapatra, M.B.B.S.

*Registrar of Co-operative Societies,* B. B. Rath I.A.S.

*Director of Gram Panchayats,* A. Das I.A.S.

*Inspector General of Prisons,* Dr. S. Rath, M.B.B.S.

*Labour Commissioner,* D. P. Tripathy, I.A.S.

*Director of Agriculture and Food Production,* K. S. Chandra Sekharan, I.A.S.

*Director of Public Relations,* S. B. Mishra.

**Heads of Departments at Cuttack**

*Director of Public Instruction,* Dr. Sadasiv Misra.

*Inspector General of Police,* S. K. Ghosh, I.P.S.

*Director of Animal Husbandry and Veterinary Services,* Dr. H. S. Bawa.

*Chief Conservator of Forests,* D. N. Choudhury, B.Sc. (pat.), A.I.F.C.

*Director of Fisheries,* P. Mohapatra.

*Transport Controller,* J. C. Ghosh, I.P.

*Commissioner of Commercial Taxes,* C. G. Somiah, I.A.S.

*Director, Bureau of Statistics and Economic,* Dr. C. Mishra.

*Land Reforms Commissioner,* V. V. Anantakrishnan, I.A.S.

*Director of Employment,* S. S. Parija, O.A.S.

### HIGH COURT

Cuttack.

K. Ahmad, Bar-at-Law, *Chief Justice.*

Justice S. B. Barman, Bar-at-Law, *Puisne Judge.*

Justice R. K. Das, B.A., B.L., *Puisne Judge.*

Justice G. K. Misra, M.A., B.L., *Puisne Judge.*

A. Mishra, B.A., B.L., *Registrar.*

### PUBLIC SERVICE COMMISSION

Cuttack

*Chairman,* Motilal Pandit, B.A. (Hons.).

*Member,* Prof. B. C. Das, M.A. (Pat.), B.A. (Hons.) (Lond.).

*Member,* U. Das, B.A. (Hons.), Dip.-in-Ed.

*Secretary,* Vacant.

## PONDICHERRY

Pondicherry.

### ADMINISTRATIVE PERSONNEL

*Lt.-Governor,* S. L. Silam.

### MINISTERS

V. Venkatasubba Reddiar, *Chief Minister in charge of Confidential and Cabinet Department, Home, Appointments, General Administration, Industries Public Works, Ports and Fisheries, Five-Year Plans, Revenue and any other business not allocated to other Ministers.*

A. S. Kangeyan, *Finance Minister, Legislative and Judicial Department, Education and Local Administration.*

P. Shanmughame, *Development Minister, Food, Co-operation, Community Development, Statistics, Town Planning, Medical and Public Health & Harijan Welfare.*

V. M. C. Varada Pillai, *Labour and Welfare Minister, Agriculture, Animal Husbandry, Social, Child and Women's Welfare Information and Publicity & Govt. Press.*

### SECRETARIAT

*Chief Secretary,* K. J. Somasundaram, I.A.S.

*Secretary, General Administration Department,* Surjeet Singh Mamak.

*Secretary, Development Department,* U. Vaidyanathan, I.A.S.

*Secretary, Finance Department,* T. B. Nagarajan, I.A. & A.S.

*Secretary, Legislature & Judicial Department,* S. S. Shetty.

*Secretary to the Administrator,* C. Ramou.

### PRINCIPAL OFFICIALS

*Inspector General of Police,* A. S. R. Ponnusami.

*Chief of Contributions Department,* J. Arlanda.

*Collector of Customs and Central Excise, H. T.* Soares.

*Controller of Imports and Exports,* Y. G. Parthasarathi.

*Chief of Political Affairs Bureau,* Marcel St. André.

*Director of P.W.D.* Vincent, A. Jagaraj

*Director of Electricity,* A. D. Moraes.

*Director of Public Instruction,* Rollin Parandjodi.

*Director of Medical Services,* Dr. Ponnou Joseph.

*Pay and Accounts Officer,* R. Srinivasachari.

*Commissioner of Labour and Director of Employment,* R. Kamichetty.

*Public Relations Officer,* V. Haridass.

*Publicity Officer,* V. Krishnamurti.

*Director of Industries,* Santasseelan.

*Director of Agriculture-in-charge,* N. Alaga.

*Director of Fisheries,* E. Palani.

*Director of Animal Husbandry,* Dr. Swaminathan.

*Registrar of Co-operative Societies,* A.S. Natarajan.

*Superintendent of Police, Pondicherry,* V. Chinnassamy Iyer.

*Superintendent of Police, Karikal,* Syed Ahmed.
*Employment Officer,* M. S. Kabir Ahamad.
*Statistical Officer,* S. Muthu Basavan.
*Labour Officer,* P. R. Ramanathan.

### JUDICIAL SERVICE

*Chief of Judicial Service, Presiding Judge, Superior Court of Appeal, and Principal Sessions Judge* S. Maharajan.

*Public Prosecutor,* Kolandaivelu.
*Procureur de la Republique,* Abel Clovis.

*Judge, Labour Court and additional member of the Tribunal Superieur d'Appeal,* David Annousami.

*Judges, Superior Court of Appeal and Additional Sessions Judges,* R. Krishnamurti & C. J. R. Paul.

*President of the Court of First Instance & Assistant Sessions Judge,* J. Gnani.

### ADMINISTRATORS

*Administrator of Karikal,* H. B. N. Shetty.
*Administrator of Mahe :* Narasingrao Kallurkar.
*Administrator of Yanam :* Francois Andonissamy.

## PUNJAB

Chandigarh.

### ADMINISTRATIVE PERSONNEL

GOVERNOR

Sardar Ujjal Singh.

*Secretary,* P. L. Sondhi, I.A.S.

### COUNCIL OF MINISTERS

Ram Kishan, *Chief Minister in charge of General Administration (including integration) Welfare of Defence Services Personnel, Public Relations, Vigilance, Industries (including Industrial Education and Cottage Industries) and Food and Civil Supplies.*

Darbara Singh, *Home, Community Development (including Panchayat, Panchayati Raj and Development of Hill areas) and Agriculture.*

Prabodh Chandra, *Education (including technical education and languages).*

Kapoor Singh, *Finance, Taxation and Small Savings.*

Gurdial Singh Dhillon, *Transport, Rural Electrification, Elections, and Parliamentary Affairs.*

Ranbir Singh, *Public Works, Buildings and Roads and Public Health Engineering and Political Sufferers.*

Ajmer Singh, *Planning, Statistics, Local Self-Government (excluding Panchayats) and Sports.*

Harbinder Singh, *Revenue (including land reforms), Consolidation of Holdings and Relief and Rehabilitation.*

Rizq Ram, *Irrigation and Power (excluding Rural Electrification) Co-operation (including Industrial Co-operatives) and Labour.*

Prem Singh Prem, *Capital Project and Architecture, Town and Country Planning and Housing and Slum Clearance.*

Chand Ram, *Welfare (including Social Welfare, Harijan Welfare and backward Classes, Scheduled Castes and Scheduled Tribes), Justice and Jails and Forests.*

Mrs. Om Prabha Jain, *Health, Medical Education, Cultural affairs and Tourism.*

Sunder Singh (*Minister of State*) *Excise, Printing and Stationery, Industrial Co-operatives and Welfare (including Social Welfare, Harijan Welfare and Backward Classes, Scheduled Castes and Scheduled Tribes) and Labour.*

Rattan Singh (*Minister of State*), *Animal Husbandry, Dairying, Fisheries, Games Preservation and Agriculture.*

Mrs. Chandrawati (*Deputy Minister*), *Food and Civil Supplies, Political Sufferers and Cultural Affairs and Tourism.*

Gurmeet Singh (*Deputy Minister*), *Community Development and Panchayats, and Irrigation and Power.*

Gian Chand (*Deputy Minister*), *Industries and Development of Hill areas.*

Ram Pratap Garg, *Chief Parliamentary Secretary, Public Relations and Parliamentary affairs.*

### SECRETARIAT

ADMINISTRATIVE SECRETARIES

*Financial Commissioner, Revenue and Secretary to Government, Revenue and Consolidation of Holdings Departments, Chandigarh,* A. L. Fletcher, I.C.S.

*Chief Secretary to Government,* R. S. Randhawa, I.C.S.

*Chief Liaison Officer, Punjab and Secretary to Government, Excise and Taxation Department,* R. P. Kapur, I.C.S.

*Financial Commissioner, Planning and Secretary to Government, Punjab, Planning Department, Chandigarh.* Saroop Krishen, I.C.S.

*Additional Chief Secretary to Government,* R. N. Chopra, I.A.S.

*Commissioner for Agricultural Production and Rural Development and Secretary to Government, Development and Panchayats Developments,* R. S. Randhawa, I.A.S.

*Industries and Supplies Commissioner and Secretary to Government, Industries, Food and Supplies and Industrial Training Departments,* R. S. Talwar, I.A.S.

*Commissioner for Home Affairs and Secretary to Government, Home, Vigilance, Transport, Elections and Integration Departments and Chief Electoral Officer,* S. K. Chhibber, I.A.S.

*Education Commissioner and Secretary to Government, Punjab, Education and Languages Departments and Special Officer to Governor,* C. D. Kapur, I.A.S.

*Secretary to Government, Irrigation and Power Departments,* R. S. Kang, I.A.S.

*Development Commissioner, Hill Areas, and Additional Secretary to Government Punjab, Development Department and Additional Commissioner, Jullundur Division for Districts of Kangra, Kulu, Lahaul and Spiti and Additional Commissioner for Ambala Division for Simla District,* H. S. Chhina, I.A.S.

*Secretary to Government, Finance and Small Savings Departments,* K. S. Narang, I.A.S.

*Secretary to Government, Agricultural, Fisheries, Forests, Animal Husbandry and Dairying Departments,* H. S. Chhina, I.A.S.

*Secretary to Government, Medical and Health, Cultural Affairs and Tourism, Social Welfare, Scheduled Castes and Backward Classes Departments,* Mrs. Serla Grewal, I.A.S.

*Secretary to Government, P.W.D. B & R/Public Health, Capital Project, Architecture and Technical Education Departments and Rehabilitation,* Sampuran Singh, I.A.S.

*Secretary to Government, Local Government, Housing, Town, and Country Planning and Urban Estates Departments,* P. N. Bhalla, I.A.S.

HEADS OF DEPARTMENTS

*Additional Commissioner (Appellate-cum-Additional Secretary to Government, Punjab, Revenue Department,* Damodar Dass, I.A.S.

*Commissioner, Jullundur Division,* H. B. Lall, I.A.S.

*Commissioner, Patiala Division,* B. S. Manchanda, I.A.S.

*Commissioner, Ambala Division,* A. N. Kashyap, I.A.S.

*Director, Public Relations, Tourism and Cultural Affairs, Punjab (in respect of Public Relations only)* H. C. Khanna, I.A.S.

*Excise and Taxation Commissioner, Patiala,* B. L. Ahuja, I.A.S.

*Economic and Statistical Advisor to Government,* Gurdit Singh.

*Director of Panchayats,* M. S. Bedi, I.A.S.

*Director of Industries,* Paramjit Singh, I.A.S.

*Director of Industrial Training,* I. E. N. Chauhan, I.A.S.

*Director, Food and Supplies and Deputy Secretary to Government,* Amar Singh Bhatia.

*Chief Electoral Officer, and Commissioner, Gurdwara Elections,* S. K. Chhibber, I.A.S.

*Inspector-General of Police,* Gurdial Singh, I.P.

*Inspector-General of Prisons,* Sube Singh, I.A.S.

*Legal Remembrancer and Secretary to Government, Punjab, Legislative Department,* Jagjit Singh.

*Director, Vigilance,* Amar Singh, P.C.S.

*Commandant General, Home Guards and Director, Civil Defence,* J. C. Vachher, I.P.S.

*President, Sikh Gurdwara Tribunal,* Justice Shamsher Bahadur.

*Director of Public Instruction,* J. D. Sharma, I.A.S.
*Chief Engineer, Drainage Irrigation Works,* G. S. Sidhu.
*Chief Engineer, Projects, Irrigation Works,* Jatindra Singh.
*Chief Engineer, (North), Irrigation Works,* V. P. Goyal.
*Chief Engineer, Beas Sutlej Link, Mandi, (Himachal Pradesh),* S. C. Katoch.
*Chief Engineer, Irrigation Works (Central),* B. S. Dina.
*Chief Engineer, Yamuna Barrage, Irrigation Works,* Madan Lal Wahi.
*Director, Land Reclamation and Irrigation and Power Research Institute, Amritsar,* Dr. H. L. Uppal.
*Secretary, Labour and Employment (Industrial Tribunal and Labour Courts),* R. I. N. Ahooja, I.A.S.
*Labour Commissioner, Punjab,* D. D. Sharma, I.A.S.
*Director, Employment,* Jatindra Lal.
*Director, Sports,* Kulwant Singh.
*Director, Health Services and Social Insurance,* Lt. Col. D. Bhatia.
*Registrar, Co-operative Societies,* V. P. Johar, I.A.S.
*Director, Small Savings,* Munshi Ram.
*Director of Agriculture,* Amrik Singh Cheema.
*Director, Animal Husbandry,* P. S. Brar.
*Chief Conservator of Forests,* D. P. Singh.
*Colonisation Officer,* S. S. Parmar.
*Director and Warden of Fisheries,* A. K. Kawatra.
*Director, Health Services, Punjab,* Lt.-Col. D. Bhatia.
*Director, Research and Medical Education,* Dr. Tulsi Dass.
*Director, Social Welfare,* S. C. Pandit.
*Director, Welfare of Scheduled Castes and Backward Classes,* Avtar Singh Sandhu, P.C.S.
*Chief Administrator, Capital Project,* Sampuran Singh, I.A.S.
*Secretary, Architecture,* Sampuran Singh, I.A.S.
*Director, Technical Education,* Kewal Krishen.
*Secretary, Rehabilitation,* Sampuran Singh, I.A.S.
*General Manager, Bhakra Dam Administration, Nangal Township,* B. R. Palta.
*General Manager, Beas Project, Talwara Township,* R. S. Gill.

### HIGH COURT

Chandigarh

*Chief Justice,* D. Falshaw, I.C.S.

*Puisne Judges,* Justice S. S. Dulat, I.C.S., Justice Mehar Singh; Justice S. B. Capoor; I.C.S.; Justice R. P. Khosla; Justice A. N. Grover; Justice I. D. Dua; Justice Harbans Singh; Justice D. K. Mahajan; Justice J. S. Bedi; Justice Shamsher Bahadur. Justice P. C. Pandit, Justice P. D. Sharma Justice Hansraj Khanna, Justice Gurdev Singh; Justice Jindra Lal (Addl.), Justice S. K. Kapur (*Addl.*), Justice R. S. Narula (*Addl.*).

*Registrar,* Ranjit Singh Sarkaria.

*Advocate-General,* J. N. Kausal.

### PUBLIC SERVICE COMMISSION

Patiala.

*Chairman,* Jaswant Singh Basur.

*Members,* Darbari Lal Gupta, Dalbir Singh, Mohan Singh, Bhim Singh.

*Secretary :* L. C. Kapur.

# RAJASTHAN

Jaipur.

## ADMINISTRATIVE PERSONNEL

*Governor :* Dr. Sampurnanand.

*Secretary to Governor :* R. D. Khanna, I.A.S.

*As. D.C. :* Capt. Nirmal Shanker, Capt. M. S. Madhok, I.P.S.

### Ministers

Mohan Lal Sukhadia, *Chief Minister, General Administration Department, Political, Appointments, Home (Excluding Jails).*

Mathura Das Mathur, *Planning Minister, Planning Department, Statistics, State enterprises (Industrial & Mineral), Co-operation, Printing Presses, Jails and Transport.*

Nathu Ram Mirdha, *Agriculture Minister, Agriculture, Animal Husbandry, Irrigation (Major, Medium, Minor, and Flood Control,) and Food.*

Harish Chandra, *Power Minister, P.W.D., Electricity, Industries and Supplies.*

Bal Krishan Kaul, *Finance Minister, Finance and Taxation.*

Bhika Bhai, *Forest Minister, Forest Department, Labour Department and Ayurvedic Department.*

Barkat Ullah Khan, *Minister Local Self Government, Law, Judicial, Local Self Govt., Housing and Town Planning, Tourism, Wakf.*

Kumbha Ram Arya, *Revenue Minister, Revenue Department, Colonisation, Famine relief.*

Damodar Lal Vyas, *Health Minister, Panchayati Raj and Community Development, Medical and Health Department, Devasthan, Excise.*

Hari Deo Joshi, *Mining Minister, Mines and Mineral Based Industries, Public Relations, Public Health, (Water Supply & Drainage), Election, Legislative Assembly.*

Brij Sunder Sharma, *Education Minister, Education, Language Department.*

Amrit Lal Yadav, *Minister of Social Welfare, Social Welfare, Khadi & Village Industries, Relief and Rehabilitation.*

### Deputy Ministers

Daulat Ram, *Major Irrigation, Local Self Government and Ayurved.*

Shrimati Kamla Baniwal, *Planning, Finance, Famine and Relief, State Enterprises (Industrial, Mineral, National Transport & Printing Presses etc.), Food.*

Shrimati Prabha Misra, *Medical & Public Health, Social Welfare, Law & L. R. Public Relations.*

Paras Ram Maderna, *Excise & Taxation, Civil Defence (Home Guards ,Rifle Training Centres) Relief and Rehabilitation, Judicial, Housing & Urban Improvement Trust, Rajasthan Canal Project Department.*

* Bhawani Shankar Nandwana, *P.W.D., Labour, Forest, Panchayat and Community Development.*

Ram Prashad Ladha, *General Administration (Including Political Department), Revenue (Including Colonisation), Mineral, Devasthan.*

Chandan Mal Vaidya, *Industries (excluding Khadi and Village Industries), Power, Civil Supplies, Appointments.*

Denesh Rai Dangi, *Irrigation (Medium & Minor), Khadi & Village Industries, Small Savings.*

Niranjan Nath Acharya, *Home (Excluding Home Guards & Rifle Training Centres) Education, Election.*

Bhim Singh, *Agriculture & Animal Husbandry, Transport, Co-operation.*

### Secretariat

*Chief Secretary to Government, Cabinet, Planning, G.A.D. & Evaluation, Organisation, Appointments, Confidential Branch.*, B. Mehta, I.A.S.

*Addl. Chief Secretary & Ex-Officio Commissioner for Food & Civil Supplies*, R. N. Hawa, I.A.S.

*Secretary, Police, Transport, Printing & Stationery, Jails, Visa & Passports, and Publicity*, Shiv Shanker, I.A.S.

*Secy., Industries & Mines Deptt., Civil Supplies*, T. N. Chaturvedi, I.A.S.

*Secy., Revenue, Forest, Reh., and Colonisation & Devasthan Deptts.*, R. K. Chatturvedi, I.A.S.

*Secy., Education & Social Welfare Departments*, Vishnu Dutt, I.A.S.

*Secy., Finance (Rev. & Eco. Affairs), Department*, J. M. Lalwani, I.A.S.

*Secy., Medical & Health, Labour, and L.S.G. Deptts.*, Sher Singh, I.A.S.

*Special Secretary, Appointments Department, Sectt. Adm. Deptt.*, Vishnu Dutt Sharma, I.A.S.

*Development Commr. cum Secy. to Govt., (Agricultural Production), Animal Husbandry & Cooperation)*, R. D. Mathur, I.A.S.

*Secretary to Chief Minister*, D. K. Saxena, I.A.S.

*Secretary, Judicial & Legislative Department, cum Legal Remembrancer*, Sohan Lal Agarwal.

*Special Secy., Agr., Animal Husbandry & Cooperation Deptts.*, J. S. Mehta, I.A.S.

*Special Secretary, Planning*, Mohindra Singh.

*Commissioner for Food & Famine Relief*, R. N. Hawa, I.A.S.

*Commr. for Betterment Levy*, Khem Chand, I.A.S.
*Director, Public Grievances*, G. K. Bhanot, I.A.S.
*Financial Commissioner*, M. Mukerji, I.A.S.

### PRINCIPAL OFFICIALS

*Administrator, Rajasthan Canal Board*, Yadav Mohan.

*Inspector General of Police*, Goverdhan Sharma.

*Inspector General of Prisons*, Kewal Singh Panwar.

*Director of Medical and Health Services*, P. L. Rishi.

*Director, Animal Husbandry*, G. S. Rathore.

*Chief Engineer, Building and Roads*, B. D. Mathur.

*Chief Engineer, Irrigation*, Kishori Lal Mathur.

*Chief Engineer, Health*, K. N. Bhargava.

*Jagir Commissioner*, Goverdhan Singh.

*Addl. Development Commissioner*, Ram Singh.

*Director of College Education*, V. V. John.

*Addl. Director of Primary and Secondary Education*, A. Bordia.

*Director of Technical Education*, V. G. Garde.

*Director of Agriculture*, T. C. Kala.

*Director of Insurance*, S. Vishwanathan.

*Director of Industries and Supplies*, J. P. Arora.

*Director of Printing and Stationery*, Onkar Singh.

*Chief Conservator of Forests*, R. K. Chaturvedi.

*Commissioner, Excise*, J. S. Singhvi.

*Commissioner, Commercial Taxation*, Ram Singh.

*Labour Commissioner*, S. N. Shukla.

*Registrar, Co-operative Societies*, Niranjan Singh.

*Director of Transport*, R. N. Shivpuri.

*Director of Economics and Statistics*, K. K. Sehgal.

*Director of Public Relations*, Parmanand.

*Director of Tourism*, Narain Sinha.

### Board of Revenue

Ajmer.

*Chairman*, S. D. Ujwal, I.A.S.

*Members*, Balwant Singh, I.A.S., Gajendra Singh, I.A.S., R. N. Madhok, I.A.S., G. B. K. Hooja, I.A.S.

*Registrar*, Baney Singh, R.A.S.

### Public Service Commission

Vivek Marg, Ajmer.

*Chairman*, V. V. Narlikar.

*Members*, Shyam Lal, Dr. B. L. Rawat, R. C. Choudhary.

*Secretary*, J. R. Sharma.

### High Court

Jodhpur.

*Chief Justice*, Durga Shankar Dave.

*Judges*, Inder Nath Modi, Daulat Mal Bhandari, Jagat Narayan, Lakshmi Narayan Chhangani, Chandra Bhan Bhargava, Bhagwati Prasad Beri, Prakash Narini Singhal, Kan Singh (*Addl.*), Ved Pal Tyagi (*Addl.*).

*Registrar*, Sikhdeo Mirdha.

*Dy. Registrars*, D. Gehlot, T. S. Gupta.

*Advocate-General*, Gulab Chand Kasliwal.

# TRIPURA

Agartala.

## ADMINISTRATIVE PERSONNEL

*Chief Commissioner*, M. C. Mukherjee, I.A.S.
*Chief Minister*, Sachindra Lal Singh.
*Minister*, Sukhamoy Sengupta.
*Dy. Ministers*, R. P. Choudhury, Dr. B. Das, M. L. Bhowmik.
*Chief Secretary*, D. K. Guha, I.A.S.
*Development Commissioner*, R. K. Dev Barma.
*Secretaries*, C. P. K. Eradv (*Finance*), S. N. Bagchi (*Judicial*), N. L. Dev Barman (*Tripura Leg. Assembly*).
*Judicial Commissioner*, Rajvi Roop Singh.

*District & Sessions Judge*, T. K. Paul.
*Deputy Development Commissioner*, P. K. Banerjee.
*Principal Engineer*, A. K. Sen.
*District Magistrate and Collector*, H. S. Dubey, I.F.A.S.
*Superintendent of Police*, P. G. Bhattacharjee, I.P.S.
*Commandants, Armed Police*, H. K. Dev Barma, M. B. Singha.
*Director of Education*, G. N. Chatterjee.
*Director of Agriculture*, B. R. Venkatram.
*Director of Rehabilitation*, P. Roy, W.B.C.S.

*Director of Industries*, C. R. Bhattacharjee.
*Chief Forest Officer*, N. C. Bhattacharjee.
*Settlement Officer*, A. K. Lodh.
*Superintendents of Weights and Measures*, Vacant.
*Registrar of Co-operative Societies & Director of Panchayat*, P. K. Dev Barma.
*Cultural Research Officer*, Naresh Chandra.
*Public Relations Officer*, S. C. Bhattacharyya.
*Labour Officer*, N. Dev Barma.
*Sr. Statistical Officer*, J. L. Saha.

* Dead.

# UTTAR PRADESH

Lucknow.

## ADMINISTRATIVE PERSONNEL

*Governor*, Biswa Nath Das.

PERSONAL STAFF

*Secretary to the Governor*, G. Bagchi, I.A.S.

*Aides-de-Camp to Governor*, O. P. Tomar, C. L. Wasan.

*P.A. to the Governor*, I. G. Sham.

## MINISTERS

*Chief Minister in Charge of General Administration, Planning, Industries (including village and small-scale industries,) Information, Economics & Statistics, and L.S.G.*, Smt. Sucheta Kripalani.

*Revenue & Scarcity*, Hukam Singh.

*Irrigation and Power*, Girdhari Lal.

*Justice, Legislative, Muslim Waqfs*, Syed Ali Zaheer.

*Home, Jails and Juvenile Delinquency, Civil Defence, and Home Guards*, Har Govind Singh.

*Tourism, Transport, Political Pensions*, Muzaffar Hassan.

*Community Development, Panchayati Raj and Prantiya Raksha Dal*, Ram Murti.

*Food and Civil Supplies*, Jagmohan Singh Negi.

*Social Welfare, Harijan Welfare, Relief & Rehabilitation, Cane Department, Scientific Research and Cultural Affairs*, Dr. Sita Ram.

*Medical, Public Health, and Excise*, Dau Dayal Khanna.

*Co-operation, Labour & Parliamentary Affairs*, Banarsi Das.

*Education, Finance, Sales Tax & Charitable Endowments*, Kailash Prakash.

*Public Works*, Jagan Prasad Rawat.

*Agriculture, Animal Husbandry & Fisheries*, Genda Singh.

*Forests*, Charan Singh.

DEPUTY MINISTERS

Shanti Prapanna Shamra, Ram Narain Pande, Shiv Prasad Gupta, Jairam Verma and Baldeo Singh Arya.

PARLIAMENTARY SECRETARIES

Haridatta Kandpal, Ajay Kumar Basu, Bansidhar Pandey, Devendra Pratap Singh, Mrs. Tara Agarwal and Ram Kumar Shastri.

## SECRETARIAT

*Chief Secretary*, K. K. Das, I.C.S.

*Commissioner and Secretary for Agricultural Production and Rural Development*, M. A. Quraishi, I.C.S.

*Commissioner and Secretary, Finance Department and Director, Small Savings*, V. M. Bhide, I.A.S.

*Commissioner and Secretary, Excise, Public Works, Food and Civil Supplies*, R. H. Chishti, I.A.S.

*Commissioner and Secretary, Irrigation and Power Departments and Chairman, U.P. Electricity Board*, B. B. Lal, I.C.S.

*Commissioner and Secretary, Home, Jails and Transport, Appointments, Confidential and Vigilance*, B. P. Joshi, I.A.S.

*Secretary, Revenue*, Shiv Ram Singh, I.A.S.

*Secretary, Legislative Deptt. and Legal Remembrancer to Govt. & Ex-Officio Director of Elections (Local Bodies) & Chief Electoral Officer*, K. C. Puri.

*Secretary, Judicial Branch and Legal Remembrance to Government*, Rameshwar Chandra, B.A., LL.B.

*Secretary, Planning, Evaluation and Economic and Statistics Deptt.*, S. K. Sahgal, I.A.S.

*Commissioner and Secretary, Education*, R. K. Talwar, I.A.S.

*Secretary, Information and also Secretary to Chief Minister*, S. S. Siddhu, I.A.S.

*Secretary, Local Self Government*, P. N. Kapoor, I.A.S.

*Secretary, Industries Department*, H. C. Saxena, I.A.S.

*Secretary, Labour, Medical and Public Health*, Uma Shankar, I.A.S.

*Secretary, Animal Husbandry and Forest Developments*, R. A. Siddiqi, I.A.S.

### Public Service Commission

Allahabad.

*Chairman*, Radha Krishna, M.A., LL.B.

*Members*, Dr. Rama Misra, M.A., Ph.D., Habib Ahmad Siddiqi, M.A.; Chandra Mohan Nath Chak, B.A. (Cantab.), M.Sc. (Luck.), Jagdishwar Prasad Mital, B.Sc., C.E., A.M.I.E., R.T., H.S. H.L.S.U., C.L.

*Secretary*, Janardan Das Shah, M.A., LL.B.

### North-Eastern Railway

Gorakhpur.

*General Manager*, D. N. Chopra.
*Dy. General Manager (Vig.)*, D. S. Sethi.
*Dy. General Manager (G)*, K. M. Mall.
*Chief Personnel Officer*, Manmohan Singh.
*Dy. Chief Personnel Officer*, Vikram Singh.
*Public Relations Officer*, H. K. Bakhru.
*Chief Engineer*, Inder Singh.
*Dy. Chief Engineer (East)*, C. L. Sarpal.
*Dy. Chief Engineer (West)*, Krishan Chandra.
*Dy. Chief Engineer (Bridge)*, B. R. Karnad.
*Chief Optg. Superintendent*, A. K. Gupta.
*Dy. Chief Optg. Supdt. (C)*, S. N. Srivastava.
*Dy. Chief Optg. Supdt. (G)*, T. V. Srinivasani.
*Transportation Superintendent (Safety)*, G. P. Srivastava.
*Chief Comml. Superintendent*, Mohd. Fasihuddin.
*Dy. Chief Comml. Supdt. (R&G)*, O. C. S. Wragg.
*Dy. Chief Comml. Supdt. (C)*, G. Bhattacharjya.
*Chief Mechanical Engineer*, C. S. Lall.
*Dy. Chief Mechanical Engineer (G)*, Harnath Singh.
*Dy. Chief Mechanical Engineer (W)*, P. N. Talwar.
*Dy. Chief Mechanical Engineer (L)*, A. K. Chatterjee.
*Financial Adviser & Chief Accounts Officer*, A. Sahul Hamid.
*Dy. Financial Adviser*, Ram Mohan Roy.
*Dy. Chief Accounts Officer (G)*, C. P. Wanchoo.
*Chief Signal & Telecommunication Engineer*, E. B. O. MacAuliffe.
*Dy. Chief Signal & Telecommunication Engineer (CTC)*, Laljee Singh.
*Dy. Chief Signal & Telecommunication Engineer, Construction*, P. A. D'Souza.
*Chief Electrical Engineer*, C. L. Pasricha.
*Controller of Stores*, M. Sundaresan.
*Chief Medical Officer*, Dr. S. K. Bose.
*Chief Security Officer*, Nag K. Gupta.
*Chief Auditor*, S. N. Maitra.

### RAILWAY SERVICE COMMISSION

19, Sardar Patel Marg, Allahabad 1.

*Chairman*, R. P. Tamta.
*Member*, R. C. Agarwal.
*Secretary*, E. W. Comfort.

## HIGH COURT, ALLAHABAD.

| | |
|---|---|
| Mr. Justice Manulal Chuni Lal Desai, I.C.S. | *Chief Justice.* |
| Mr. Justice Vashistha Bhargava, I.C.S. | *Judge.* |
| Mr. Justice Nasir Ullah Beg, M.A. (Cantab.), Bat-at-Law | *Do.* |
| Mr. Justice Vidyadhar Govind Oak, I.C.S. | *Do.* |
| Mr. Justice Jadish Sahai, M.A., LL.B. | *Do.* |
| Mr. Justice Bishambhar Dayal, B.A., LL.B. | *Do.* |
| Mr. Justice Jawahar Nath Takru, B.A., LL.B. | *Do.* |
| Mr. Justice Bishan Narain Nigam, M.A., LL.B. I.C.S. | *Do.* |
| Mr. Justice Shanti Swarup Dhawan, B.A. (Cantab.), Bar-at-Law | *Do.* |
| Mr. Justice Shashi Kant Verma, B.A. (Alld.), LL.B. (Hons.) (Loud.), Bar-at-Law | *Do.* |
| Mr. Justice William Broome, I.C.S. | *Do.* |
| Mr. Justice Dhatri Saran Mathur, I.C.S. | *Do.* |
| Mr. Justice Debi Prasad Uniyal, M.A., LL.B. | *Do.* |
| Mr. Justice Surendra Narayan Dwivedi, B.A., LL.B. | *Do.* |
| Mr. Justice Ram Asray Misra, M.A., LL.B. | *Do.* |
| Mr. Justice T. Ramabhadran, I.C.S. | *Do.* |
| Mr. Justice Shiv Chander Manchanda, M.A. (Cantab.), Bar-at-Law | *Do.* |
| Mr. Justice B. D. Gupta | *Do.* |
| Mr. Justice K. B. Asthana | *Do.* |
| Mr. Justice S. N. Katju | *Do.* |
| Mr. Justice G. Kumar | *Do.* |
| Mr. Justice R. S. Pathak, B.Sc., LL.B. | *Do.* |
| Mr. Justice Durgeshwar Dayal Seth | *Do.* |
| Mr. Justice Mahesh Chandra, M.A., LL.B. | *Do.* |
| Mr. Justice Mirza Hamedullah Beg, Bar-at-Law (*Additional*) | *Judge.* |
| Mr. Justice Ram Nath Sharma, M.A., LL.B. (*Additional*) | *Do.* |
| Mr. Justice Gursaran Das Sahgal, B.Sc., M.A., LL.B. (*Additional*) | *Do.* |
| Mr. Justice Shanker Dayal Khare, M.A., LL.B. (*Additional*) | *Do.* |
| Mr. Justice Gyan Chand Mathur, M.Sc., LL.B. (*Additional*) | *Do.* |
| Mr. Justice Gangeshwar Prasad, M.A., LL.B. (*Additional*) | *Do.* |
| Mr. Justice Chand Behari Capoor, M.A., LL.B. (*Additional*) | *Do.* |
| Mr. Justice Satish Chandra, B.Sc., LL.B. (*Additional*) | *Do.* |
| Mr. Justice Harish Chandra Pati Tripathi, B.A., LL.B. (*Additional*) | *Do.* |
| Mr. Justice Lakshmi Prasad Nigam, B.Sc. LL.B. (*Additional*) | *Do.* |
| Mr. Justice Surendra Narain Singh, B.A., LL.B. (*Additional*) | *Do.* |
| Mr. Justice Uma Shanker Srivastava, B.A., LL.B. (*Additional*) | *Do.* |
| B. B. Misra, B.A., LL.B. | *Registrar.* |
| P. N. Goel, B.A., LL.B. | *Joint Registrar.* |
| Kanhaiya Lal Misra, B.A. (Hons.), LL.B. | *Advocate-General.* |
| Jagdish Kishore Srivastava, B.A., LL.B. | *Administrator-General & Official Trustees.* |

# WEST BENGAL

Calcutta.

## ADMINISTRATIVE PERSONNEL

### Governor

**Shrimati Padmaja Naidu.**

### Secretaries

S. K. Mukherje, I.A.S. (*Secy. to Governor, Raj Bhavan, Calcutta*).
S. N. Sen, I.A.S. (*Dy. Secy. to Governor and Director of Hospitality, Raj Bhavan, Calcutta*).
B. N. Roy (*Asst. Secy. to Governor, Raj Bhavan, Calcutta*).

### Chief Minister

*Chief Minister and Minister-in-charge of General Administration, Political, Police, Defence Special, Anti-corruption and Enforcement Branches of the Home Deptt. and Depts. of Food and Supplies, Agriculture and Development*, Profulla Chandra Sen.

### Cabinet Ministers

*Public Works Department including Housing, Roads and Construction Board*, Khagendra Nath Das Gupta.
*Judicial, Legislative and Excise Departments*, Iswar Das Jalan.
*Labour, Information & Public Relations Department*, Bijoy Singh Nahar.
*Education Department*, R. L. Sinha.
*Commerce and Industries, Cottage and Small Scale Industries, Cooperation and Forests Departments*, Tarun Kanti Ghosh.
*Finance and Home (Transport) Deptts.*, Saila Mukherjee.
*Animal Husbandry and Veterinary Services Department, Local Self-Govt. and Fisheries Departments*, S. M. Fazlur Rahman.
*Land and Land Revenue, and Irrigation & Waterways Departments*, Shyamdas Bhattacharya.
*Parliamentary Affairs, Jails, Press and Passport Department*, Jagannath Kolay.
*Refugee Relief and Rehabilitation Department and Relief and Home (Social Welfare) and Constitution and Elections Deptt.*, Smt. Abha Maity.
*Health Department*, Smt. Purabi Mukherjee.

### Ministers of State

*Education & Panchayats*, Sourindra Mahan Misra.
*Animal Husbandry and Veterinary Services, Tribal Welfare & Co-operation & Fisheries*, Tenzing Wangdi.
*Community Development & Extension & Agriculture*, Smarajit Bandopadhyay.
*Excise, Police & Defence*, Ardhendu Shekhar Naskar.

### Secretariat

*Chief Secretary*, B. Gupta, I.C.S.
*Cabinet Secretary*, S. K. Chatterjee, I.C.S.
*Secretary, Home Dept.*, M. M. Basu, I.C.S.
*Financial Commissioner*, K. K. Ray, I.A.S.
*Secretary, Refugee Relief and Rehabilitation Dept.*, S. N. Banerjee, I.A.S.
*Commissioner of Agr. & Comm. Development & Ex-Officio, Secretary, Agr. & Community Development*, R. Ghosh, I.A.S.
*Secretary, Commerce and Industries*, S. Dutta Mazumdar, I.A.S.
*Secretary, Education Dept.*, Dr. B. Dutta.
*Secretary, Public Health*, B. R. Gupta.
*Chief Engineer (Floods)*, R. B. Chakravarti.
*Legal Remembrancer*, A. N. Chakravarti.
*Addl. Finance Secretary*, J. L. Kundu, I.A.S.
*Transport Commissioner*, S. Mullick, I.C.S.
*Chairman, State Transport Corporation*, A. B. Ganguli, I.C.S.
*Secretary, Animal Husbandry, Fisheries & Veterinary Services*, Dr. B. K. Bhattacharyya, I.A.S.
*Secretary, Irrigation & Waterways & Co-operation Deptt.*, G. D. Goswami, I.A.S.
*Member, Board of Revenue and ex-Officio Secy., Land and Land Revenue and Tribal Welfare Deptt.*, N. K. Ray Chaudhury, I.C.S.
*Secretary, Public Works Dept.*, B. B. Mondal, I.A.S.
*Secretary, Labour Dept. & Information & Public Relation's Department*, S. M. Bhattacharjee, I.A.S.
*Vigilance Commissioner*, Subimal Dutt.
*Jt. Secretary, Local Self-Govt. Dept.*, A. K. Majumdar, I.A.S.
*Commissioner, Food*, B. Ganguli, I.A.S.
*Development Commsnr. and Ex-Officio Secy., Development Dept.*, S. K. Banerji, I.A.S.
*Secretary, Small Scale and Cottage Industries & Forests Deptts.*, J. C. Talukdar, I.A.S.
*Relief Commissioner & Ex-Officio Secy., Relief Dept.*, J. K. Roy, I.A.S.
*Managing Director, Durgapur Projects & Ex-Officio Secretary, Development Department*, A. Niyogi, I.A.S.
*Financial Adviser & Ex-Officio Secretary, Finance Department*, P. K. Bose.
*Secretary, Judicial Department*, S. N. Bagchi.
*Secretary, Legislative Department*, S. N. Sen Gupta.
*Jt. Development Commsnr. and ex-Officio Jt. Secy., Development Dept.*, H. C. Dutt, I.A.S.

## DEPARTMENTAL OFFICIALS

*Advocate-General*, S. M. Bose.
*Inspector-General of Police*, U. Mukherjee, I.P., J.P.
*Addl. Inspector-General of Police*, S. M. Ghosh, I.P., J.P.
*Commissioner of Police*, P. K. Sen, I.P.
*Inspector-General of Prisons*, Dr. A. B. Rudra, I.A.S.
*Labour Commissioner and Registrar of Trade Unions and also Chief Inspector of Shops and Establishments*, D. Chatterjee, I.A.S.
*Registrar of Co-operative Societies*, S. S. Verma, I.A.S.
*Commissioner, Workmen's Compensation*, S. C. Sen Gupta.
*Registrar, Workmen's Compensation*, S. K. Chakravorty.
*Chief Conservator of Forests*, K. Lahiri.
*Chief Inspector of Factories*, G. C. Roy, B.Sc. (Cal.), B.Sc., C.P.E. (Glas.), A.M.I.Mech.E.
*Administrator-General and Official Trustee*, A. K. Dutta, Attorney-at-Law.
*Commissioner of Excise*, A. K. Sen.
*Chief Engineer, Irrigation*, R. D. Singh, I.S.E.
*Chief Engineer, Works and Buildings*, J. K. Banerjee.
*Superintending Engineer (State Electricity Board)*, Dr. M. Dutta, M.Sc. (Cal.), M.Sc. (Tech.) (Manch.), Ph.D. (Edin.), M.I.E.E.
*Director of Land Records and Surveys*, S. P. Mallick, I.A.S.
*Chairman, Calcutta Improvement Trust*, K. Sen, I.C.S.
*Director of Agriculture*, Dr. H. K. Nandy.
*Adviser on Dairy Development & Animal Husbandry*, Dr. S. C. Ray.
*Director of Industries*, U. Chatterjee.
*Director of Public Instruction*, P. C. Mukherjee.
*Director of Information*, A. K. Mukherjee.
*Director of Fisheries*, G. S. Banerjee, I.A.S.
*Director, Civil Defence*, K. Sen, I.C.S.
*Chief Engineer, Construction Board*, Sachin Banerjee.
*Judge in Charge, Industrial Tribunal*, J. N. Mandel.

### Board of Revenue

Writers' Buildings, Calcutta 1.

*Member*, N. Ray Chaudhuri, I.C.S.
*Addl. Member*, M. A. T. Iyengar, I.C.S.
*Secretary*, J. N. Mookerjee, I.A.S.
*Special Officers & Ex-Officio Secretaries*, A. Das Gupta, N. N. Akhradhary, A. Chatterjee.
*Registrar*, P. C. Chakrabarti.

### Public Service Commission

Anderson House, Calcutta 27.

*Chairman*, A. B. Chatterji, I.C.S. (Retd.).
*Members*, Dr. P. C. Rakshit, M.Sc., Ph.D., K. P. Sen, I.A.S. (Retd.).
*Secretary*, B. N. Sen I.A.S.
*Dy. Secretary*, B. K. Banerji, (W.B.C.S. Retd.).
*Asstt. Secretaries*, S. Bose, R. N. Guha, B. C. Chakravarti.
*Registrar*, S. Banerjee.

### Eastern Railway

Fairlie Place, Calcutta.

*General Manager*, V. T. Narayana.
*Sr. Dy. General Manager*, Rajendra Dev.
*Financial Adviser & Chief Accounts Officer*, D. C. Vevaina.
*Chief Operating Superintendent*, K. K. Mukerji.
*Chief Commercial Superintendent*, R. Gopalakrishna Iyer.
*Chief Engineer*, H. K. D. Capoor.
*Chief Engineer (Cons.)*, N. S. Tyabji.
*Chief Signal & Tel. Com. Engineer*, R. D. Stephenson.
*Chief Personnel Officer*, M. A. Uthappa.
*Controller of Stores*, R. N. Mubayi.
*Chief Security Officer*, S. A. Abbas.
*Chief Mechanical Engineer*, H. M. Chatterjee.
*Chief Electrical Engineer*, J. D. Malhotra.
*Chief Medical Officer*, Dr. S. S. L. Verma.
*Public Relations Officer*, M. K. Varma.

### South-Eastern Railway

Garden Reach, Calcutta 43.

*General Manager*, G. D. Khandelwal.
*Senior Deputy General Manager*, H. H. Banerjee.
*Financial Adviser & Chief Accounts Officer*, K. P. Taimni.
*Financial Adviser & Chief Accounts Officer (Construction)*, M. B. Jagannathan.
*Chief Operating Superintendent*, N. S. Swaminathan.
*Chief Commercial Superintendent*, G. N. Nair.
*Chief Engineer*, S. S. Mukherjee.
*Chief Engineer (Construction)*, N. Kr Hazra.
*Chief Engineer (Project & Development)*, M. T. Lee.
*Chief Signal & Telecom. Engineer*, I. B. Bose.
*Controller of Stores*, R. K. Tandon.
*Chief Security Officer*, H. S. Kohli.
*Chief Mechanical Engineer*, P. N. Mathur.
*Chief Electrical Engineer*, S. P. Tonse.
*Chief Personnel Officer*, A. S. Latif.
*Chief Medical Officer*, Dr. A. Ramdas.
*Divisional Superintendents, Bilaspur*, C. D. Chatterjee; *Chakradharpur*, E. J. Simoes, *Adra*, S. Krishnan, *Kharagpur*, G. S. A. Saldanha, *Khurda Road*, P. S. Mahadevan, *Waltair*, G. K. Verma, *Nagpur*, M. R. Malhan.
*Public Relations Officer*, R. Dayal.
*Commercial Publicity Officer*, B. B. Gupta.

### Railway Service Commission

Clem Browne Railway Institute, Sealdah, Calcutta 14.

*Chairman*, S. K. Guha.
*Members*, N. Dutt, L. N. Kaula.
*Secretary*, Radhey Shiam.

## HIGH COURT

*Chief Justice*, Himansu Kumar Bose, Bar-at-Law.
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*Sheriff*, Saradindu Gupta, *Deputy Sheriff*, Subodh Kumar Basu, B. L. Solicitor.
*Registrar (Appellate Side)*, H. N. Sen, M.A., LL.B.
*Registrar (Original Side)*, Saral Kumar Banerjee, LL.B., Attorney-at-Law & Advocate.
*Official Assignee and Official Receiver*, M. M. Chakraburty.

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*Commandant*, S. K. Pudumjee.
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*Education*, Bhakt Darshan.
*Health and Family Planning*, B. S. Murthy.
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*Home Affairs*, V. C. Shukla.
*Works and Housing*, B. C. Bhagwati.
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*Commerce*, Shafi Qureshi.
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*Communications*, Bhanu Prakash Singh.
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*Joint Secretary, Cabinet Secretariat*, Rajeshwar Prasad, I.A.S.
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*Staff Officer (Army)*, Lt. Col. W. A. G. Pinto.
*Staff Officer (Navy)*, Cdr. K. Sridharan.
*Staff Officer (Air)*, Wg./Cdr. H. S. Keshub.

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*Joint Intelligence Staff (Navy)*, Cdr. R. N. Batra.
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### INTELLIGENCE WING

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*Joint Intelligence Staff Officer (Army)*, Lt. Col. Raghunath Singh, G.S.O.I.
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### DEPARTMENT OF STATISTICS

**Yojana Bhavan, Parliament Street, New Delhi.**
*Officer on Spl. Duty*, K. Ram.
*Joint Secretary (Ex-Officio)*, D. K. R. Nair.
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### CENTRAL STATISTICAL ORGANIZATION

*Director*, Dr. K. R. Nair.
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### DIRECTORATE OF NATIONAL SAMPLE SURVEY

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### CENTRAL STATISTICAL ORGANISATION (INDUSTRIAL STATISTICS WING)

1, Council House Street, Calcutta 1.

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*Chief Civil Engineer*, G. Visvanathan.
*Principal Project Engineer*, M. R. Srinivasan.
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### RAJASTHAN ATOMIC POWER PROJECT

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*Director, Electronics Group*, A. S. Rao.
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*Chief Engineer, Architecture & Civil Engineering Division*, C. M. Goveas.
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### INDIAN RARE EARTHS LTD.

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*Factory:* Udyogamandal P.O., Alwaye (Kerala).
*Managing Director*, G. Rajagopal Menon.
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### India Meteorological Department, Headquarters, Lodi Road, New Delhi 3

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### INSTITUTE OF TROPICAL METEOROLOGY, RAM DURG HOUSE, GANESHKHIND ROAD, POONA 5.

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*Addl. General Manager*, K. D. Vaidya.
*General Manager, Calcutta Telephone District*, J. R. Sen Gupta.
*General Manager, Delhi Telephone District*, D. N. Ramchandani.
*Additional Chief Engineer, T&D Circle*, K. N. R. Pillai.
*General Manager, Rly. Electrification Circle, Calcutta*, Shanti Swarup.
*District Manager, Madras Telephone District*, B. K. Anantharaman.
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*District Manager, Bangalore Telepone District*, M. S. B. K. Rao.
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*Chief Controller of Telegraph Stores*, A. Banerjea.

### GENERAL MANAGER, P. & T. WORKSHOPS, 5, COUNCIL HOUSE STREET, CALCUTTA

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CALCUTTA TELEPHONES,
"TELEPHONE BHAVAN", 34, DALHOUSIE SQUARE, CALCUTTA

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*Chief Engineer*, K. M. Balchandani.
*Dy. Director General (Tfc.)*, M. S. Gharse.
*Director (Adm.)*, J. B. F. deSa.
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*Engineers-in-Charge*, A. E. Husain, S. Sreenivasachar, M. S. Nagarajan.

CENTRAL TRAFFIC OFFICE, C.T.O., Bombay 1.

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*Sr. Traffic Manager*, V. P. Mahale.

BEAM WIRELESS STATION, DIGHI, Poona 15.

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*Engineers-in-Charge*, P. G. Damle, A.S.Vajihuddin.

BEAM WIRELESS STATION, DHOND.

*Engineer-in-Charge*, C. M. Braganza.

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N.I.C. Bldg., Parliament Street, New Delhi.

*Director*, G. D. Gokarn.
*Engineers-in-Charge*, M. V. Krishnaswamy, E. S. Sewjee.

CALCUTTA CENTRE.

Narayani Bldg., 4th Floor, Brabourne Road, Calcutta 1.

*Director*, B. S. Dutt.
*Engineers-in-Charge*, A. S. Khakilkar, N. J. Joshi.

MADRAS CENTRE

Ghordia Mansion, 3rd Floor, 150A-2 Mount Road, Madras 2.

*Engineer-in-Charge*, G. Seshadri.

**Hindustan Teleprinters Limited**
Industrial Estate, Guindy, Madras 32.

*Managing Director*, C. A. Cornelius.
*Technical Manager*, P. Mukundan.
*Financial & Accounting Manager*, Y. P. Passi.
*Administrative Manager*, G. K. Parthasarathy.

**Indian Telephone Industries Limited**
Dooravaninagar, Bangalore-16.

*Chairman*, S. Lall.
*Managing Director*, U. Shankar.
*General Manager*, G. U. Menon.
*Financial & Accounting Manager*, A. A. Krishnan.
*Jt. General Manager*, P. K. Verghese.
*Secretary*, D. V. M. Rao.

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*Minister of State*, Jagannath Rao.
*Secretary*, Kailash Chandra.

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*Deputy Minister*, Mrs. M. Chandrasekhar.
*Secretary*, D. C. Das, I.C.S.
*Joint Secretary*, S. C. Sengupta.

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*Chief Executive Officer*, S. N. Dandona.
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***Khadi and Village Industries Commission, Irla Road, Vile Parle (West), Bombay 56**

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*Dy. Chief Executive Officer*, B. P. Umarji.
*Director of Publicity*, J. N. Verma.
*Addl. Dy.Chief Executive Officer*, P.D. Sakhalkar.

***Directorate of Village Oil Industry, Khadi & Village Industries Commission**

Irla Road, Vile Parle (West), Bombay 56.

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*Deputy Director*, V. S. Murthy.

**Office of the Commissioner for Scheduled Castes and Scheduled Tribes.**

West Block No. 1, Wing No. VII, 1st Floor, Ramakrishnapuram, New Delhi.

*Commissioner for Scheduled Castes and Scheduled Tribes*, Anil K. Chanda.
*Deputy Commissioner for Scheduled Castes and Scheduled Tribes*, Vimal Chandra.
*Administrative Officer*, B. T. Vazirani.
*Deputy Commissioner for Assam (Plains Districts), Manipur and Tripura, Shillong*, B. D. Pugh.
*Deputy Commissioner for Assam (Hill Districts & NEFA) and Nagaland, Jorhat*, R. Yusuf Ali.
*Deputy Commissioner for Andhra Pradesh, Hyderabad*, L. N. Rao.
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*Deputy Commissioner for Maharashtra and Goa, Daman & Diu, Poona*, S. L. Dubey.
*Deputy Commissioner for Madras & Pondicherry, Madras*, R. Subramanian.
*Deputy Commissioner for Mysore, Bangalore*, L. N. Rao.
*Deputy Commissioner for Orissa, Bhubaneswar*, R. M. Mohanty.
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*Deputy Commissioner for Kerala & Laccadive, Minicoy & Amindive Islands, Trivandrum*, K. V. Kumaran.

**Central Social Welfare Board, Jeevan Deep Building, Parliament Street, New Delhi**

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*Secretary*, K. Nath.

**Employees' State Insurance Corporation, ESIC Bldg., Kotla Road, New Delhi.**

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*Insurance Commissioner*, N. Varma.
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*Actuary*, V. R. Natesan.
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*Adm. Medical Officer*, Dr. O. P. Sharma.

REGIONAL OFFICE, 64, GANESH CHANDRA AVENUE, CALCUTTA 13.
*Regional Director*, S. Narayan.

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*Regional Commissioners*, R. Kumar, S. A. Mois, D. C. Gupta.
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* Transferred to the Ministry of Commerce.

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*Director*, Vacant.

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*Director of Information and Regulations*, B. S. Gidwani.

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### AIR ROUTES AND AERODROMES ORGANIZATION

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*Dy. Director, Central Examination Organisation, Lucknow*, A. V. Vartak.

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*Controller, Radio Constr. and Dev. Units, New Delhi*, Dr. Saroj Dutta.
*Principal, Civil Aviation Training Centre, Allahabad*, Vacant.

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*Commissioner of Railway Safety, Meerut*, A. K. Gupta.
*Additional Commissioners of Railway Safety, Western Circle, Bombay*, P. B. Albara.
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*Dy. Minister of Commerce*, Shafi Qureshi.
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*Director of Foreign Trade*, V. K. Ahuja.
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*Jt. Chief Controller*, N. H. Nagarwalla.
*Joint Director (Export Promotion)*, Ram Murti Sharma.
*Deputy Chief Controller (Export Promotion)*, B. N. Nair.
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### OFFICE OF THE JOINT CHIEF CONTROLLER OF IMPORTS AND EXPORTS, POST BOX NO. 1842, 19/20, LINGHI CHETTY STREET, MADRAS 1

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*Other Offices*: 15, Chittaranjan Avenue, Calcutta 13; 6, Armenian Street, Madras 1.

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*Secretary*, K. S. Mahadevan.

**The Handicrafts and Handlooms Exports Corporation of India Ltd., Lok Kalyan Bhavan, 11-A, Rouse Avenue Lane, New Delhi-1**

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*Executive, Director*, Smt. Pupil Jayakar.
*General Manager*, D. N. Saraf.
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*Director of Research*, Dr. K. T. Jacob.
*Secretary*, T. V. Joseph.
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*Finance Officer*, S. R. Das, I.A. & A.S.
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ADMINISTRATION BRANCH
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*Vice-Chairman*, B. V. Vora.
*Hon. Handlooms Adviser*, Smt. Pupul Jayakar.
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*Assistant Director*, V. V. Deo.

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INDIAN INSTITUTE OF HANDLOOM TECHNOLOGY
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**The State Trading Corporation of India Limited, Post Box No. 79, 9 & 10 Bahadur Shah Zafar Marg, New Delhi**

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*Regional Offices :* Calcutta, Madras, and Bombay.

**Department of Commercial Intelligence and Statistics, 1, Council House Street, Calcutta 1**

*Director-General of Commercial Intelligence and Statistics*, P. C. Kurian (*Ag.*).
*Deputy Directors-General*, P. C. Kurian ; V. Bhanukoti ; B. N. Chatterjee ; K. V. S. Prakasha Rao.
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*Deputy Chief of the Naval Staff*, Rear Admiral S. N. Kohli.
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*Vice Chief of the Air Staff*, Air Marshal P. C. Lal, D.F.C.
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*Air Officer Commanding-in-Chief, Central Air Command*, Air Vice-Marshal K. L. Sondhi.
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*Air Officer Commanding-in-Chief, Training Command*, Air Vice-Marshal S. N. Goyal.
*Air Officer-in-Charge, Administration*, Air Vice-Marshal M. S. Chaturvedi.
*Air Officer-in-Charge, Maintenance*, Air Vice-Marshal H. N. Chatterjee, D.F.C.
*Air Officer-in-Charge, Policy and Plans*, Air Commodore H. Moolgavkar.

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*Director General, Ordnance Factories*, Vacant.
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*OSD/Trucks and Tractors*, Brig. T. M. G. B. Poduval.

**Cordite Factory Aravankadu (Nilgiris)**
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**Directorate of National Cadet Corps Block No. 4, Ramakrishnapuram, New Delhi 22**
*Director-General*, Maj.-Gen. Virendra Singh.

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*Deputy Director General, Armed Forces Medical Services*, Brig. S. N. Chatterjee.
*Director, Medical Research*, Air Cdr. M. M. Shrinagesh.
*Consultant in Medicine*, Brig. Inder Singh. F.R.C.P. (Edin), F.R.C.P. (Lond.).

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*D.D.P.R.*, Colonel V. Longer, Gp.-Capt. S. R. Mullick.
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*Editor-in-Chief* "Sainik Samachar", P. M. M. Menon.
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*Broadcasting Officer*, Maj. Harcharan Singh.
*P.R.O. (Photo)*, Maj. G. S. Pablay, Abmashi Ram.

@ Is now a Department under the Ministry of Food & Agriculture.
* Due to retire in June 1966.
** Will take over as Chief of the Army Staff in June 1966.

**Bharat Electronics Ltd., Jalahalli, Bangalore 13**

*Chairman*, Dr. S. Bhagavantham.
*Managing Director*, B. V. Baliga.
*Controller of Finance*, A. Rangaswami.
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*Dy. General Manager (Components)*, C. R. Subramanian.
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### Comptroller and Auditor-General of India, Bahadur Shah Zaffar Marg, New Delhi

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*Deputy Comptroller & Auditor General*, M. S. Bhatnagar.
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INDIA GOVERNMENT MINT, MINT ROAD, BOMBAY

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*Dy. Works Managers*, C. V. Rao, H. W. Hardinge, F. R. Tanksalwala, B.Com.
*Bullion Registrar*, N. V. Prabhu.
*Accounts Officer*, P. V. Chinchanikar, B.A., LL.B.
*Labour Officer*, M. S. Vaswani, LL.B., J.D.D.S.W.
*Medical Officer*, A. Datta, M.B.B.S.

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*Asstt. Mint Master*, G. R. Khate, B.E. Grad. I.T.E., A.M.I.E.E.E., A.M.I.E.
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*Bullion Registrar*, Rasheed Ahmed.
*Dy. Works Manager*, N. Narayana Rao, B.E., (Mech.) A.M.I.E., (India).

### India Security Press, Nasik Road

(Including Currency Notes Press and Central Stamp Store).

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### India Government Silver Refinery

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*Asstt. Narcotics Commissioner*, C. J. Mathias, I.R.S.
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*Asstt. Narcotics Commissioner*, M. M. Sethi.
*Manager, Govt. Opium & Alkaloid Works*, Barjor Singh.

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*Asstt. Narcotics Commissioner*, H. N. Rania, I.R.S.

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*Deputy Governors*, M. R. Bhide, Dr. B. K. Madan, B. N. Adarkar.
*Executive Director*, D. R. Joshi.
*Chief Manager*, N. D. Nangia.
*Chief Accountant*, D. N. Malsute.
*Secretary*, S. D. Deshmukh.
*Legal Adviser*, B. N. Mehta.
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*Economic Adviser*, V. G. Pendharkar.
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*Manager, Madras*, S. K. Banerjee.
*Manager, New Delhi*, M. M. Mehra.
*Manager, Kanpur*, K. N. Mehta.
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*Manager, Lucknow*, V. S. Bagga.
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(Wholly owned subsidiary of the Reserve Bank of India)

Reserve Bank Building, Mint Road, Bombay 1.
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*Vice-Chairman*, Dr. B. K. Madan.
*General Manager*, K. C. Mittra.
*Deputy General Manager*, P. K. Dasgupta.

**State Bank of India**
Apollo Street, Bombay 1.

The Central Office of the Bank is at Bombay and the Local Head Offices are at Ahmedabad, Bombay, Calcutta, Hyderabad, Kanpur, Madras and New Delhi. The Bank has over 1,215 branches and sub-offices throughout India. Comprising 7 Local Head Offices, the office in London, two representative offices at Frankfurt (West Germany) and New York (U.S.A.), 5 offices in Pakistan, one office in Ceylon; the London office is at Clements House, 14-18, Gresham Street, London E.C. 2.

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Ex-officio under clause (*bb*) of sub-section (1) of Section 19 of the State Bank of India Act: Ramnath A. Podar, D. P. Goenka, P. Brahmayya, S. K. Das, K. M. Wilcox, Rohit C. Mehta, Raja Ramdave Row.

Elected under clause (*c*) of sub-section (1) of Section 19 of the Act: J. D. Choksi, Pratapsinh Mathuradas. Nominated by the Central Government under clause (*d*) of sub-section (1) of Section 19 of the Act: Prof. D. R. Gadgil, Bharat Ram, K. K. Birla, S. N. Sen, B. D. Garware, P. A. Menon.

Nominated by the Central Government under clause (*e*) of sub-section (1) of Section 19 of the Act: S. Bhoothalingam, I.C.S.

Nominated by the Reserve Bank of India clause (*f*) of sub-section (1) of Section 19 of the Act: M. R. Bhide.

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*Chief Accountant*: D. S. Herwathe.

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**Life Insurance Corporation of India**

*Central Office*: 'Yogakshema', Foreshore Road, Bombay 1.

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*Executive Director* (*Personnel*), M. V. Sohoni.
*Executive Director* (*Inspection, Organisation & Methods, Legal & Mortgages & Buildings*), V. H. Vora.
*Executive Director* (*General Insurance*), S. N. Vaidya.
*Chief Engineer*, P. S. Pandi.
*Actuary* (*Zonal Manager*), D. D. Markan.
*Zonal Manager, Zonal Office, New Delhi*, K. L. Gupta.
*Zonal Manager, Zonal Office, Kanpur*, R. C. Bhalla.
*Zonal Manager, Zonal Office, Calcutta*, K. R. Puri.
*Zonal Manager, Zonal Office, Madras*, G. H. Thakore.
*Zonal Manager, Zonal Office, Bombay*, R. M. Mehta.

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*Dairy Development Adviser*, Dr. K. K. Iya.
*Adviser on Soil Cons.* (*Soil & Agronomy*), D. V. Reddy.

**Exploratory Tubewells Organisation**

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*Supdtg. Engineer*, M. P. Pandey.

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**Central Inland Fisheries Research Institute, Barrackpore, *via* Calcutta.**

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***Director***, Dr. S. Jones, D.Sc., F.N.G.S., F.A.Sc., F.Z.S.I.

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**Central Tractor Organisation, New Pusa, New Delhi 12**

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**Directorate of Plant Protection, Quarantine and Storage, 4/19, Asaf Ali Road, New Delhi.**

*Plant Protection Adviser to the Govt. of India*, Dr. Sardar Singh, Ph.D. (Cornell).

**Central Warehousing Corporation**

G-10, New Delhi South Extension Part II, New Delhi-16.

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*Managing Director*, C. S. Ramachandran, I.C.S.
*Chief Executive Officer and Secretary*, S. K. Chatterjee, I.M.P.

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**Forest Research Laboratory**
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**Small Industries Service Institute, 4, Camac Street, Calcutta 16**

*Director*, Dr. B. P. Ghosh.

**Small Industries Service Institute, 65/1, Grand Trunk Road, Guindy, Madras 32**

*Director*, Vacant.
*Dy. Directors*, V. Srinivasan, A. S. Patnaik, S. Nagarajan, M. J. Paul, V. Thyagarajan, F. A. Ryan, K. C. Saha.

**The National Small Industries Corporation Ltd., 116A, Lower Circular Road, Calcutta 14**

*Branch Manager*, C. K. Karunakaran, I.M.P.

**The National Industrial Development Corporation Limited, Udyog Bhavan, Maulana Azad Road, New Delhi**

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*Managing Director*, K. B. Rao.
*Special Consultant, Technological Consultancy Bureau*, H. K. L. Sethi.
*Secretary*, K. C. Bhalla.

**Heavy Electricals (India) Limited, Post Box No. 46, Bhopal**

*Chairman & Managing Director*, K. C. Lall.
*Director (Technical) & Chief Engineer*, S. Swayambu.
*Chief Engineer (Construction)*, S. N. Wadhwa.
*Commercial Manager*, T. V. Parthasarathy.
*Works Manager*, I. Saran.
*Financial Adviser & Chief Accounts Officer*, S. Ramier.
*Manager, Purchasing & Main Stores*, S. Pearey.
*Personnel Manager*, S. K. Ray.
*Secretary*, R. C. Gupta.
*Publicity Manager*, V. C. Tandon.
*Chief Security Officer*, C. S. Tiwari.

**Hindustan Cables Ltd.**
**P. O. Hindustan Cables, Dist. Burdwan, W. Bengal**

*Managing Director*, N. K. Sen Gupta.
*Chief Operation Manager*, G. D. Saha.
*Chief Engineer*, S. K. Roy.
*Chief Accountant*, A. K. Basu.
*Works Manager*, S. P. Banerjee.
*Dy. Chief Engineers*, S. Raghavan, S. Roy.
*Secretary*, D. D. Banerjee.
*Administrative & Personnel Officer*, B. B. Ganguly.

**Hindustan Machine Tools Limited, Jalahalli, Bangalore 13.**

*Chairman*, K. B. Mathur.
*Managing Director*, S. M. Patil.
*General Manager*, A. R. Iyer.
*General Manager (Pinjore)*, P. S. Banerjee.
*Jt. General Managers*, J. K. Jesudasan (*Kalamassery*), B. Ramachandra (*Hyderabad*).
*Sales Manager*, E. Isaac.
*Controller of Finance & Accounts*, M. Nageswara Rao.
*Publicity & Public Relations Manager*, P. M. Raje.

**Hindustan Salts Limited, Badnor House, HI-68, Bhagwan Das Road, 'C' Scheme, Jaipur**

*Chairman*, M. S. Himatsinhji.
*Managing Director*, D. R. Sundaram., I.A.S.
*Secretary*, B. B. Mookerjee.
*General Manager, Sambhar Lake*, S. R. Bose.
*Works Manager, Kharaghoda*, K. L. Sahni.
*Mines Manager, Mandi*, S. P. Kapoor.

**Nahan Foundry Limited, Nahan**

*Director & General Manager & Chief Engineer*, S. K. Caroli.
*Managers*, P. K. Somanadhan, M.A., LL.B., V. S. Aggarwal.

**National Instruments Ltd., Jadavpur, Calcutta 32**

*Managing Director*, N. Majumder, B.Sc., M.Sc. Tech. (Manch.), A.M.C.T. (Manch.).
*Deputy General Manager*, K. S. Rajagopalan, B.Sc., A.M.I.R.E., A.M.Anl.S.I.
*Deputy Works Manager*, D. C. Roy, M.Sc., D.I.C. (Lond.).

**Office of the Salt Commissioner, P. Box No. 139, Jaipur**

*Salt Commissioner*, K. L. Gambhir, B.Sc.
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OFFICE OF THE DEPUTY SALT COMMISSIONER, EXCHANGE BLDG., SPROTT ROAD, BALLARD ESTATE, BOMBAY 1.

*Dy. Salt Commissioner*, K. Swamininathan, M.Sc.

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*Dy. Salt Commissioner*, B. K. Roy, A.I.S.M.

OFFICE OF THE ASSISTANT SALT COMMISSIONER, 11, CHITTARANJAN AVENUE, CALCUTTA.

*Assistant Salt Commissioner*, Joginder Singh.

**Directorate General of Supplies and Disposals (Headquarters Office) N.I. Bldg., Parliament Street, New Delhi.**

*Director-General of Supplies & Disposals*, S. S. Jagota.

ADMINISTRATION BRANCH

*Director (Administration)*, R. C. Ghei.

CO-ORDINATION & STATISTICS DIRECTORATE

*Officer on Special Duty, Statistics*, P. B. Brahma.
*Dy. Directors (CDN-Supplies)*, N. H. Joshi; A. R. Iyer.
*Dy. Director (Registration)*, M. A. Khan.
*Dy. Director (Statistics)*, S. Ramanatha Iyer.

SUPPLIES WING

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*Dy. Director-General (General)*, I. N. Khanna.
*Dy. Director-General (Defence)*, H. V. Karve.

*OIL, PAINTS & CHEMICAL STORES DIRECTORATE*

*Director of Supplies*, B. Sengupta.

*TIMBER, WOOL & LEATHER STORES DIRECTORATE*

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*WORKS PROGRAMME DIRECTORATE*

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RAILWAY STORES DIRECTORATE

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PROJECT DIRECTORATE

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*Directors, (Progress-Rlys.)*, Manmohan Singh, *(Defence)*, V. Subramanian.

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*Deputy Director of Supply*, S. Jayaraman.

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LITIGATION

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DISPOSALS DIRECTORATE

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**DIRECTORATE OF SUPPLIES AND DISPOSALS**
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*Dy. Director-General of Supplies & Disposals*, P. S. Gupta.
*Director of Supplies & Disposals*, S. C. Agarwal.

**DIRECTORATE OF SUPPLIES AND DISPOSALS**
**Sapt Building, Graham Road, Ballard Estate, Bombay.**

*Director of Supplies & Disposals*, H. H. Ahuja.

**DIRECTORATE OF SUPPLIES (TEXTILES), 5TH FLR., NEW CENTRAL GOVT. OFFICE BLDG., NEW MARINE LINES.**

*Director of Supplies (Textiles)*, J. Maneksha.
*Dy. Director, Govt. Test House, Gautam Bldg., Zakaria Bunder Road, Sewri, Bombay* 15, Dr. S. K. Bose.

**DIRECTORATE OF SUPPLIES AND DISPOSALS, INDIAN MUTUAL BLDGS., 10, MOUNT ROAD, MADRAS.**

*Director of Supplies and Disposals*, N. K. Vinayagam.

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**GOVERNMENT TEST HOUSE, 11/1, JUDGES' COURT ROAD, ALIPORE, CALCUTTA**

*Director*, S. N. Mukerji.

INSPECTION WING
(HEADQUARTERS OFFICE)
L.I.C. Bldg., Parliament Street, New Delhi.

*Dy. Director-General (Inspectin)*, S. N. De.

CALCUTTA INSPECTION CIRCLE
1, Ganesh Chandra Avenue, Calcutta 13.

*Director of Inspection*, S. R. Ray.
*Director of Inspection (Spl.)*, M. M. Bose.

BOMBAY INSPECTION CIRCLE
New Marine Lines, Bombay 1.

*Director of Inspection*, I. L. Patel.

MADRAS INSPECTION CIRCLE
18 A, Woods Road, Madras 2

*Director of Inspection*, Syed Jan.

METALLURGICAL INSPECTORATE TATANAGAR

*Director of Inspection*, E. K. N. Nambiar.

METALLURGICAL INSPECTORATE
Burnpur.

*Director of Inspection*, P. L. Das.

NORTHERN INSPECTION CIRCLE
4/286, Nawabganj, Kanpur.

*Deputy Director of Inspection*, J. L. Chhabra.

NORTHERN INSPECTION CIRCLE
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*Director of Inspection*. C. D. Dandekar.

**Printing and Stationery Department, 'B' Wing, Nirman Bhawan, New Delhi.**

*Chief Controller of Printing and Stationery*, T. N. Bahel.
*Controller of Administration*, P. S. L. Sarma.
*Controller of Printing*, B. C. Sen Gupta.

**Government of India**
**Stationery Office, 3, Church Lane, Calcutta.**

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*Dy. Controllers of Stationery*, Major J. K. Lahiri; G. S. Bawa *(Adm. & O. & M.)*.
*Dy. Controller, Inspection*, M. A. Jhangiani.

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*Chief Press Adviser*, K. N. Bamzai.
*Joint Secretaries*, Y. N. Verma, P. C. Bhagat.
*Director, Publications, Division*, U. S. Mohan Rao.
*Director, Field Publicity*, R. K. Chatterjee.
*Director, Song & Drama Division*, Col. H. V. Gupte.
*Director, Research & Reference Division*, Dr. A. R. Baji.

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*Dy. Director (Admn.)*. Shri Bhagwan.
*Media Executive, Advertising Wing*, K. B. Nair.
*Art Executive, Visual Publicity Wing*, S. C. Paul.

**Central Board of Film Censors,**
**"Bharat Bhuvan," 91, Walkeshwar Road, Bombay 6.**

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*Regional Officer*, Uma Shankar.
*Addl. Regional Officer*, Smt. V. Mulay.

Regional Office, New A.I.R. Bldgs., Eden Gardens, Calcutta 1.

*Regional Officer*, B. N. Nundee.

Regional Office, 53, Usman Road, T. Nagar, Madras 17.

*Regional Officer*, K. Kasipati.

**Films Division**
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*Producer-in-Charge*, K. L. Khandpur.
*Public Relations Officer*, T. K. Jhuremalani.

**The Film Finance Corporation Limited**
"White House", 91, Walkeshwar Road, Bombay-6.

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**Directorate-General, All-India Radio**
Akashwani Bhavan, Parliament Street, New Delhi.

*Director General*, Dr. V. K. Narayana Menon.
*Chief Engineer*, S. S. Aiyar.
*Deputy Director General (Prog.)*, K. S. Mullick.
*Deputy Director General (Admn.)*, S. Parameshwaran.
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*Director of Programmes (Policy)*, B. S. Anand.
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*Director, Frequency Assignment*, R. Raghava chari.
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*Director of News*, M. V. Desai.
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*Television Centre : Director*, S. N. Murti.

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*Maintenance Engineer*, D. C. Bhattacharji.

HIGH POWER TRANSMITTERS, KINGSWAY, DELHI

*Engineer-in-Charge*, S. S. Kohli.

PLANNING & DEVELOPMENT UNIT, CENTRAL PROJECT CIRCLE

*Project Officer*, D. D. Sarin.

PLANNING AND DEVELOPMENT UNIT WESTERN CIRCLE, BOMBAY

*Project Officer*, K. Venkataraman.

PLANNING AND DEVELOPMENT UNIT-EASTERN CIRCLE, CALCUTTA

*Project Officer*, A. Venkateswaran.
*Monitoring Service, Simla : Director*, B.P. Nigam.

ALL-INDIA RADIO STATIONS

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HIGH POWER TRANSMITTERS, MALAD, BOMBAY

*Engineer-in-Charge*, K. M. Mehta.

HIGH POWER TRANSMITTERS, AVADI, MADRAS

*Engineer-in-Charge*, A. S. Narayanaswamy.

HIGH POWER TRANSMITTERS, KHAMPUR, DELHI

*Engineer-in-Charge*, C. V. Ramalingam.

RESEARCH DEPARTMENT

*Research Engineer*, P. R. Desikachar.

**Press Information Bureau**
Akashwani Bhawan, Parliament Street, New Delhi.

*Principal Information Officer & Chief Press Adviser*, M. L. Bharadwaj.

*Deputy Principal Information Officers*, M. J. E. Pritchard; C. L. Bhardwaj; H. C. Saraswat; N. Sethi, Dr. A. R. Baji, Surjeet Singh, C. Govindan.

*Asstt. Principal Information Officer*, S. N. Mital.

DEFENCE WING (SOUTH BLOCK)

*Director Public Relations*: R. L. Handa.
*Information Officer*, Baldev Sahai.

INFORMATION CENTRE, NEW DELHI
(Tropical Buildings, Connaught Circus).

*Asstt. Information Officer*, A. K. Wanchoo.

BOMBAY OFFICE
(UNITED INDIA BUILDING, SIR PHIROZSHAH MEHTA ROAD, FORT, BOMBAY)

*Deputy Principal Information Officer*, P. D. Murti.

CALCUTTA OFFICE
(A. I. R. BLDG., EDEN GARDENS, CALCUTTA 1).

*Deputy Principal Information Officer*, Madan Gopal.

MADRAS OFFICE
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*Deputy Principal Information Officer*, V. B. Prasad.

JULLUNDUR OFFICE
(G. T. Road, Opp. Nehru Garden)

*Information Officer*, K. G. Chadha.

BANGALORE OFFICE
(First Floor, No. 112—Gm. Brigade Road, Bangalore).

*Asstt. Information Officer*, M. A. N. Iyengar.

LUCKNOW OFFICE
(Mayfair Extension Bldg., First Floor, Lal Bagh, Lucknow.)

*Assistant Information Officer*, T. R. Chaturvedi.

ERNAKULAM OFFICE
'Kumari Mandir', Warriam Road, Ernakulam 1.

*Asstt. Information Officer*, M. A. Kuruvilla.

GAUHATI OFFICE
(No. 4, Bhuban Chandra Road, Uzan Bazar, Gauhati.)

*Information Officer*, B. C. Pathak.

CUTTACK OFFICE
(No. 3, Cantonment Road, Cuttack 1.)

*Asstt. Information Officer*, G. K. Das.

SRINAGAR OFFICE
Residency Road, Opp. Pratap Park, Srinagar.)

*Dy. Principal Information Officer*, B. P. Mathur.

PATNA OFFICE
("Sunshine," Brajkishore Path, Patna.)

*Asstt. Information Officer*, J. N. Sinha.

VARANASI OFFICE
(C. K. 36/7 Chowk, Varanasi.)

*Asstt. Information Officer*, V. B. Verma.

NAGPUR OFFICE
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*Asstt. Information Officer*, V. S. Varkhedkar.

JAIPUR OFFICE
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*Assistant Information Officer*, S. C. Kachhwana.

HYDERABAD OFFICE
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*Asstt. Information Officer*, S. Sitaram.

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*Asstt. Information Officer*, R. B. Patel.

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*Asstt. Information Officer*, B. P. Tiwari.

POONA OFFICE
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*Asstt. Information Officer*, M. L. Kulkarni.

JAMMU OFFICE
Jail Road, Jammu

*Asstt. Inf. Officer*, Maj. V. P. Puri.

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*Minister of State*, Dr. K. L. Rao.
*Secretary*, K. P. Mathrani.
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*Joint Secretary* (A), K. G. R. Iyer, I.A.S.
*Commissioner for Indus Waters and ex-officio Joint Secretary*, H. C. Kalra, P.S.U. (I) (Retd.)
*Chief Engineer and Ex-officio*,
*Joint Secretary*, P. R. Ahuja, B.Sc. (Engg.) (Civil) (London), A.C.G.I. (London), M.I.E. (Ind.).
*Director* (FEP), B. C. Gangopadhyay, I.A.S.
*Deputy Secretaries*, A. Das, I.A.S., B. K. Uppal, K. S. S. Murthy, B.E. (Civil).
*Deputy Financial Adviser and ex-officio Deputy Secretary*, G. C. Mathew.
*Additional Commissioner*, Dr. J. K. Malhotra.

**Central Board of Irrigation and Power, Curzon Road, New Delhi.**

*Secretary*, K. L. Bhatia.
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**Central Water and Power Commission (Water Wing), New Delhi 11.**

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*Chief Engineers*, P. N. Kumra, B.E.; G. K. Vij.
*Secretary*, R. N. Chawla.
*Directors*, Hari Singh, R. C. Shenoy, Y. K. Murthy, M. M. Gurwani, I. C. Das M. Pais Cuddon, B. S. Kohli, N. K. Aggarwal, Pritam Singh, K. S. Chetty, K. V. Krishnamurthy, M. K. Krishnaswamy, S. Balasubramaniam, B. Sen, S. S. Lamba, V. K. Yashvey, U. K. Sharma and J. A. Murray.

**Central Water and Power Commission (Power Wing), Bikaner House, Shahjahan Road, New Delhi.**

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*Member (Utilisation)*, V. Venugopalan.
*Directors*, N. Venkatesan, L. B. Singh, C. K. Chandran, K. C. Krishnamoorthy, K. Mrityunjayan.

CENTRAL WATER AND POWER COMMISSION (POWER WING), R. K. PURAM, NEW DELHI 22.

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CENTRAL WATER AND POWER COMMISSION (POWER WING), CURZON ROAD BARRACKS, NEW DELHI.

*Directors*, C. K. V. Rao, S. Rammohan, D. G. Shinde.

CENTRAL WATER AND POWER COMMISSION (POWER WING), JOR BAGH, NEW DELHI.

*Director*, S. S. Murthy.

CENTRAL WATER & POWER COMMISSION (POWER WING), JAMNAGAR HOUSE, NEW DELHI

*Director*, H. K. Bansal.

CENTRAL WATER AND POWER COMMISSION (POWER WING), LEMON HOUSE, 5, VENKATANARAYANA ROAD, MADRAS 17.

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*Deputy Director*, Vacant

CENTRAL WATER AND POWER COMMISSION (POWER WING), REGIONAL LOAD SURVEY OFFICE 2ND FLOOR, KITAB MAHAL, DADABHOY NAOROJI ROAD, BOMBAY-1.

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CENTRAL WATER AND POWER COMMISSION (POWER WING) OBRA THERMAL CONSTRUCTION UNIT POST OBRA, DISTRICT MIRZAPUR (U.P.)

*Director*, R. Chowdhury.

**Central Water and Power Commission (Power Wing)**
Curzon Road Barracks, New Delhi.

*Director*, D. G. Shinde.
*Deputy Director*, E. S. R. Iengar.
*Adm. Officer*, M. M. Dhawan.

**Damodar Valley Corporation, Andersen House, Alipore, Calcutta 27.**

*Chairman*, T. Siva Shankar, I.C.S. (Retd.).
*Members (Part-time)*, R. S. Misra, I.A.S. (Retd.); A. D. Khan, I.C.S. (Retd.).
*General Manager*, B. Sen Gupta I.A.S. (Retd.).
*Dy. General Managers*, B. B. Sen Gupta, I.A.S. (Retd.), N. K. Prasad, I.A.S.

*Financial Adviser*, A. K. Ray.
*Chief Engineer*, B. Parthasarathy, B.E. (Civil).
*Chief Electrical Engineer*, S. Bose, D.F.H., A.M.I.E.E. (Lond.).
*Addl. Chief Electrical Engineer*, M. W. Goklany, B.Sc. (Elec. & Mech. Engg.).
*Commercial Engineer*, N. K. De Sircar, B.E. (Elec.), A.M.I.E. (Ind.).
*Director of Soil Conservation*, Dr. P. Sen, M.Sc. Ph.D. (Cornwell).
*Director of Rehabilitation and Land Acquisition*, D. P. Singh.
*Director of Personnel*, S. K. Ray.
*Chief Medical Officer*, Dr. B. P. Neogy.
*Chief Information Officer*, G. P. Ganguli.

**Hirakud Dam Project**

P.O. Burla, *via* Sambalpur, Orissa.

*Chief Construction Engineer*, J. Tripathy.
*Superintending Engineers*, J. M. Patnaik (*Electrical Circle*), J. Tripathy (Hirakud Dam Circle).

**Chambal Control Board**

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*Asstt. Financial Adviser*, K. S. Deshpande, M.A.

**The National Projects Construction Corporation Private Ltd.**

E-9, Defence Colony, New Delhi 16.

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*General Manager and Chief Engineer*, J. S. Jain, P.S.E.I.
*Financial Adviser & Chief Accounts Officer*, G. V. Chittal, I.A. & A.S.
*Additional Chief Engineer (Planning)*, M. M. Anand, P.S.E.I.
*Additional Chief Engineer (Mechanical)*, S. S. Sahi.
*Additional Chief Engineer (Works)*, S. P. Chug.
*Officer on Special Duty (Mech.)*. I. S. Manku.
*Additional Chief Engineer (Farakka)*, K. K. Sahay.
*Additional Chief Engineer (Central Zone)*, S. P. Caprihan.
*Deputy Financial Adviser and Deputy Chief Accounts Officer*, G. C. Raghubir.

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*Dy. Ministers*, Shah Nawaz Khan, D. R. Chavan.
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*Addl. Secretary*, R. L. Mehta, I.A.S.
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*Deputy Minister*, Sham Nath.

**Railway Board, New Delhi**

*Chairman*, Kripal Singh.
*Financial Commissioner*, S. Jagannathan, I.C.S.
*Member Mech. Engg.*, G. P. Bhalla.
*Member Staff*, Harbans Singh.
*Member Engineering*, M. A. Rao.
*Additional Member Finance*, D. U. Rao.
*Additional Member*, P. S. Venkataraman.
*Additional Member Works*, V. S. Sathe.
*Additional Member Mechanical*, P. Sahai.
*Additional Member Staff*, M. A. Qadeer.
*Additional Member Commercial*, J. B. Rao.
*Additional Member Vigilance*, S. W. Shiveshwarkar.
*Secretary, Railway Board*, P. C. Mathew.
*Director, Finance*, P. R. K. Menon.
*Director, Civil Engg.*, B. S. D. Baliga.
*Director, Traffic Trans*, G. S. Khosla.
*Director, Establishment*, B. D. Gaur.
*Director, Railway Stores*, B. R. Kinra.
*Director, Planning*, M. N. Berry.
*Director Signal & Tele. Com.*, L. C. Mohindra.
*Director Stat. & Econ. Adv.*, K. R. R. Aiyangar.
*Director, Health*, Dr. Banwari Lal.
*Adviser Lab. & Welfare*, D. G. Jadhav.
*Director, Security/I.G., R.P.F.*, S. N. Aga.
*Director, Wagon Production*, R. Rajagopalan.
*Director, Accounts*, K. S. A. Padmanabhan.
*Director, Electrical Engg.*, P. N. Murti.
*Director, Res. (Hot Boxes)*, N. N. Tandon.
*Director, Mech. Engg. (Prod.)*, I. C. Bahree.
*Director, Safety*, N. S. Swaminathan.
*Director, Efficiency Bureau*, G. P. Warrier.
*Director, Sl. Duty Estt. matters/Calcutta*, M. A. Ashruff.
*Timber Adviser*, V. S. Rao.

**Research, Designs & Standards Organisation, Lucknow 5.**

*Director-General*, K. C. Sood.
*Director Standards (Civil)*, K. K. Rao.
*Director Standards (Mechanical)*, R. Krishnamurti.
*Director Research*, T. A. Rao.
*Addl. Director (Architectural)*, L. G. Toye.
*Addl. Director Standards (Mechanical)*, M. L. Puri.
*Jt. Director Standards (Track)*, T. M. Varughese.
*Jt. Director Standards (B & S)*, P. K. Mukherjee.
*Jt. Director Standards (S & T)*, K. J. M. Jacob.
*Jt. Director Standards (Wagon)*, C. M. Malik.
*Jt. Director Standards (Carriage)*, G. S. Kodikal.
*Jt. Director Standards (Loco)*, B. B. Lal.
*Jt. Director Standards (Diesel)*, T. C. Pant.
*Jt. Director Research (Civil)*, V. S. Murti.
*Jt. Director Research (Mechanical)*, D. R. Kochhar
*Jt. Director Research (S & T)*, P. N. Gupta.
*Jt. Director (B & F)*, N. N. Setty.
*Jt. Director Research (Safety)*, M. M. Agerwala.
*Jt. Director Finance (Estt.)*, P. C. Gupta.
*Jt. Director Standards (Electrical)*, S. K. Kanjilal.

**Railway Rates Tribunal**
'Adyar House', Madras 28.

*Chairman*, K. Sankaran.
*Members*, P. H. Sarma, M. C. Munshi.
*Secretary*, V. C. Rajagopal.

**Chittaranjan Locomotive Works, Post Chittaranjan, District Burdwan, West Bengal.**

*General Manager*, D. V. Reddy.
*Chief Mech. Engr.*, M. M. Bam.
*Financial Adviser & Chief Accounts Officer*, M. Sunderraj.
*Officer on Special Duty*, C. G. Devaya.
*Dy. General Manager*, J. Y. Marathe.
*Public Relations & Estate Officer*, O. A. Nayar.

**Integral Coach Factory**
Perambur, Madras 38.

*General Manager*, I. Hydari.
*Financial Adviser and Chief Accounts Officer*, D. Sandilya.
*Chief Mechanical Engineer*, R. D. Nadirshaw.
*Dy. Chief Mechanical Engineer (Shell)*, K. C. Bansal.
*Dy. Chief Mechanical Engineer (Furnishing)*, P. V. Ramamurthy.
*Dy. Chief Mechanical Engineer (Designs)*, V. A. Kamath.
*Dy. Chief Electrical Engineer*, S. Sarath.
*Dy. Controller of Stores*, Sudershan Lall.

**Railway Staff College**
Baroda.

*Principal* A. C. Mukerji.

Now functions as a Department under the Ministry of Labour & Employment.

## MINISTRY OF REHABILITATION

*Secretary*, V. Nanjappa, I.C.S.
*Addl. Secretary*, L. J. Johnson.
*Joint Secretaries*, G. D. Kshetrapal, Anil De.
*Deputy Secretaries*, P. V. Gopalan, K. P. Sircar, D. Krishna Ayyar, S. K. Sen, K. N. Butani, B. S. Ramdas.
*Chief Administrator DNK. Project*, S. C. Roy.
*Financial Adviser & Chief Accounts Officer, DNK. Project*, V. K. Subramanian.
*Chief Settlement Commissioner & Custodian General of Evacuee Property*, G. D. Kshetrapal.
*Dy. Chief Settlement Commissioner*, H. R. Nair.
*Regional Settlement Commissioner*, I. L. Panjani, Delhi; J. S. Bajaj, Bombay; J. D. Jain, Jaipur; R. S. Phoolka, Jullundur.
*Officer-in-charge, Central Claims Organisation*, B. L. Goswami.
*Custodian of Deposits*, A. G. Vaswani.
*Director, Rashtriya Vikas Dal*, Brig. D. S. Roy.
*Officer-on-Special Duty (Industries)*, T. C. Verma.
*Agricultural Adviser*, A. K. Dutt.
*Executive Engineer*, B. A. Satyanarayana.

**Dandakaranya Project, Koraput (Orissa).**

*Chairman, Dandakaranya Development Authority*, V. Nanjappa, I.C.S.
*Chief Administrator, D.N.K. Project*, S. C. Roy, I.A.S.
*Secretary, D.N.K. Development Authority & Dy. Chief Adm., D.N.K. Project*, S. V. Natarajan, I.A.S.
*Financial Adviser & Chief Accounts Officer*, V. K. Subramaniam.
*Chairman, Dandakaranya Development Authority*, Dr. M. M. Das, *Union Deputy Minister for Rehabilitation*, Jaisalmer House, New Delhi.
*Chief Administrator, Dandakaranya Project*, S. C. Roy, I.A.S.
*Secretary, Dandakaranya Development Authority and Dy. Chief Administrator, Dandakaranya Project*, S. V. Natarajan, I.A.S.
*Financial Adviser & Chief Accounts Officer, Dandakaranya Project*, V. K. Subramaniam, I.A. & A.S.
*Senior Executive Officer (Programme), DNK Project*, R. R. Kodikal.
*Senior Executive Officer (Administration), DNK Project*, A. N. Choube.
*Administrator, DNK Project, Malkangiri zone*, S. Mahapatro, I.A.S.
*Administrator, DNK Project, Umerkote zone*, B. B. Parida, O.A.S.
*Administrator, DNK Project, Kondagaon zone*, M. T. Mahajan.
*Administrator, DNK Project, Paralkote zone*, H. Dutta Mazumdar.
*Director of Industries, DNK Project, Jagdalpur*, F. A. Lahiri, S.F.S.
*Publicity & Public Relations Officer, DNK Project*, B. B. Guha.

## MINISTRY OF IRON AND STEEL

*Minister*, T. N. Singh.
*Secretary*, N. N. Wanchoo, I.C.S.
*Joint Secretary*, Vacant.
*Dy. Secretaries*, Maheshwar Prasad, I.A.S., C. V. S. Mani, I.A.S., R. K. Shastri, I.A.S.

**Hindustan Steel Ltd.,**
**P.O. Hinoo, Dt. Ranchi, Bihar State.**

*Chairman*, M. S. Rao.
*General Managers*, A. N. Banerjee, (*Rourkela Steel Plant*), Inderjit Singh, (*Bhilai Steel Plant*), Dr. D. P. Chatterjee, (*Alloy Steels Project*), R. K. Chatterjee (*Durgapur Steel Plant*).
*Advisers*, D. S. Nakra (*Finance*), Dr. P. Prasad (Economic).
*Secretary*, H. Bhaya.
*Public Relations Officer*, H. R. Rakshit.

**Iron & Steel Control Organisation, 33, Netaji Subhas Road, Calcutta**

*Iron & Steel Controller*, Nagendra Bahadur.
*Price & Accounts Officer*, N. K. Mukherjea.
*Dy. Iron & Steel Controllers*, S. C. Mukherjee, P. R. Nair, C. B. Mathur.

**Regional Office, Bombay**

*Deputy Iron and Steel Controller*, V. Dorasamy.

**Regional Office, Madras**

*Asstt. Iron and Steel Controller*, K. Senthiappan.

**Regional Office, Delhi**

*Asstt. Iron & Steel Controller*, S. B. Basu.

## MINISTRY OF MINES AND METALS

*Minister*, S. K. Dey.
*Secretary*, N. C. Shrivastava, I.C.S.
*Joint Secretaries*, Chhedi Lal, I.A.S., N. D. Gupta, I.A.S., R. N. Vasudeva, I.A.S.
*Coal Mining Adviser*, S. N. Sehgal.

**Neyveli Lignite Corporation Ltd.**
Post Box 11, Neyveli 1 (S. Arcot Dist.).

*Chairman*, K. N. Subbaraman.
*Dy. General Manager (Establishment & General)*, C. G. Rangabashyam, I.A.S.
*Dy. General Manager (Technical & Works)*, R. Ramachandran Pillai, B.A., Dip. in Elecl. Tech. of the Institute of Science, Bangalore.
*Financial Adviser & Chief Accounts Officer*, S. H. Bhat.

## MINISTRY OF TRANSPORT, AVIATION SHIPPING & TOURISM

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*Minister of State*, C. M. Poonacha.
*Secretary*, Dr. Nagendra Singh.
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*Consulting Engineer (Road Development) and ex-officio Joint Secretary*, H. P. Sinha.
*Director General of Tourism and ex-Officio Joint Secretary*, S. N. Chib.
*Development Adviser*, K. N. Srinivasan.
*Secretary, Border Roads Development Board and ex-Officio Joint Secretary*, S. K. Mukherjee.
*Chief Controller of Chartering*, E. Kolet.
*Chief Engineer, Inland Water Transport*, Kehar Singh.
*Director-General of Border Roads*, Major-Gen. K. N. Dubey.
*President, Maritime Freight Commission*, Y. N. Suktankar.
*Chairman, National Shipping Board*, Raghunath Sinha, M.P.

### MAJOR PORT AUTHORITIES

*Chairman, Calcutta Port Commissioners, Calcutta*, B. B. Ghosh.
*Chairman, Madras Port Trust*, T. K. Palaniappan, I.A.S.
*Chairman, Bombay Port Trust*, L. M. Nadkarni.
*Chairman, Cochin Port Trust*, K. P. K. Menon.
*Chairman, Kandla Port Trust*, N. C. Patel.
*Chairman, Visakhapatnam Port Trust*, C. R. Reddy.
*Chairman*, Mormugao Port Trust, E. H. Simoes.
*Chief Engineer and Administrator, Tuticorin Harbour Project*, J. I. Coil Pillai.
*Chief Engineer and Administrator, Mangalore Harbour Project*, Iftikhar Ahmed.
*Chief Engineer & Administrator, Paradeep Port Project*, A. Srinivasan.
*Chief Engineer, Sethusamudran Project*, C. V. Venkateswaran.
*Senior Marine Surveyor*, Lt. Commander R. L. Kaushal.

### SEAMEN'S EMPLOYMENT OFFICE, BOMBAY

*Director*, S. Bannerjee.

### SEAMEN'S EMPLOYMENT OFFICE, CALCUTTA

*Director*, J. G. Saggi.

**Directorate General of Shipping, 'Commerce House', Ballard Estate, Bombay.**

*Director-General of Shipping*, Dr. Nagendra Singh.
*Sr. Deputy Director-General of Shipping*, K. Srinivasan.
*Deputy Director-General of Shipping*, T. K. Sarangan, N. K. Gopalan Nair, P. N. Anand, C. R. Govindarajan, (*Hqrs. New Delhi*), D. N. Phull.

### TECHNICAL OFFICERS.

*Nautical Adviser to the Government of India*, Capt. G. S. Singh.
*Chief Surveyor with the Government of India*, B. P. Gupta.
*Dy. Nautical Adviser to the Government of India*, Capt. M. S. Patel.
*Dy. Chief Surveyor with the Government of India*, A. Krishnan.
*Dy. Chief Ship Surveyor*, R. C. Karnik.
*Engineers & Ship Surveyors*, S. K. Basu, P. K. Banerjee, S. Datta, C. C. Burgers.

### NAUTICAL & ENGINEERING COLLEGE
Azad Maidan, Fort, Bombay 1.

*Principal*, Capt. P. Alexander.
*Vice-Principal*, Capt. M. G. Datar.

### TRAINING SHIP "DUFFERIN", OFF MAZGAON PIER, BOMBAY 10.

*Captain Superintendent*, Captain D. G. Hazari, M.I. Mar. Tech., J.P.
*Chief Officer*, A. P. Kothurkar, A.M.I., Mar. Tech.

### DIRECTORATE OF MARINE ENGINEERING TRAINING
P. 19, Taratolla Road, Calcutta, 53.

*Branch:* Azad Maidan, Waudby Road, Bombay 1.

*Director*, T. K. T. Srisailam.

### MERCANTILE MARINE DEPARTMENT

*Bombay-Central, Govt. Offices Bldg.—South Wing, Queen's Road, Bombay.*
*Principal Officer, Registrar of Indian Ships and Chairman, Deck Passenger Welfare Committee*, T. Berry.
*Calcutta—Marine House, Hastings, Calcutta*, 22.
*Principal Officer*, S. K. Kumarhia.
*Madras—Old High Court Bldgs., Madras.*
*Principal Officer*, K. Parthasarathy.
*Visakhapatnam—Engineer & Ship Surveyor*, P. K. Banerjee.
*Cochin—Engineer & Ship Surveyor*, C. Pinto.
*Jamnagar—"Tej Prakash Bhuvan", Bedi Road, Jamnagar, Surveyor-in-Charge*, R. R. Potnis.
*Panjim, Goa—Nautical Surveyor and Captain of the Ports*, A. M. Pagarkar.
*Marmugao—Engineer & Ship Surveyor and Dy. Capt. of the Ports*, K. Seshadri.

### DECK PASSENGER WELFARE OFFICE

*Welfare Officer*, Vacant.

### TRAINING SHIP "BHADRA"
H-Berth, King George's Dock, Calcutta 43.

*Captain Superintendent*, Capt. Indrajit Singh.
*Executive Officer*, S. K. S. Chaudhry.
*Engineer Officer*, J. Pestonjee.

### TRAINING SHIP 'NAU LAKSHI', NAVLAKHI (GUJARAT STATE)

*Captain Superintendent*, Capt. D. P. Srivastava.
*Executive Officer*, V. N. Kansra.
*Engineer Officer*, Om Prakash.

### TRAINING SHIP "MEKHALA", VIZAGAPATAM PORT

*Captain Superintendent*, Capt. N. K. Kershaw.
*Executive Officer*, M. P. Karanjia.
*Engineer Officer*, R. S. Grewal.

### SEAMEN'S WELFARE OFFICE

*Bombay—Nau Bhavan, Nicol Road, Ballard Estate, Bombay.*
*Principal Seamen's Welfare Officer*, Trilok Singh.
*Calcutta—Marine House, Hastings, Calcutta* 22.
*Principal Seamen's Welfare Officer*, B. K. Shroff.
*Madras—Old High Court Bldg., Madras* 1.
*Seamen's Welfare Officer*, K. V. Sugavaneswaran.
*Seamen's Welfare Officer (Sydney-Australia)*, N. C. Trivedi.
*Seamen's Welfare Officer (London—U.K.)*, G. Lobo.
*Seamen's Welfare Officer (Liverpool—U.K.)*, S. Gandy.
*Seamen's Welfare Officer (Glasgow—U.K.)*, P. V. K. Christie.

### Lighthouse and Lightships Department

*Director General of Lighthouses & Lightships and Chief Inspector of Lighthouses & Lightships in India*, K. R. Bose.
*Administrative Officer*, M. L. Chopra.
*Executive Officers*, Raghu Nath, Mohinder Singh, M. C. Bhargava.
*Executive Engineer & Professional Assistant to Director-General*, E. U. Rao.
*Engineers, Department of Lighthouses and Lightships*, S. L. Kapoor (*Civil*), B. S. Srivathsan (*Elect.*).
*Directors of Lighthouses and Lightships*, R. Swaminathan (*Madras*), B. R. Karnick (*Calcutta*), C. V. Chaubal (*Port Blair*), N. R. Gopalswami (*Bombay*), M. Basu (*Jamnagar*), J. N. Mankad (*Panjim*).
*Marine Officers*, M. M. Kaul, Amarjit Singh.
*Superintendent of Workshops*, D. P. Choudhury.
*Executive Engineers*, K. K. George (*Mechanical*), I. J Arjunani (*Electrical*).
*Resident Engineers*, K. V. Mohan Rao, O. P. Sahni, B. Krishnan and K. R. C. Reddy.
*Master, M.S. 'PRADEEP'*, P. S. Bhatnagar.
*Master, M. V. 'SARGARDEEP'*, S. K. Sharma.

### Hindustan Shipyard Limited
Gandhigram P. O., Vishakapatnam 5

*Chairman*, Dr. Nagendra Singh, I.C.S.
*Managing Director & Director of Ship Construction*, H. C. Raut.
*Executive Asstt. to Managing Dir.*, K. Y. Krishnamurthi.
*Secretary*, P. S. Prakasa Rao.
*Controller of Stores Purchase*, B. B. Das Gupta.
*Chief Accounts Officer and Financial Adviser*, Krishan Lall.
*Chief Personnel Officer*, Ch. Sankar Rao.
*Chief Shipyard Manager*, F. S. Rodgers.
*Chief Draughtsman*, D. S. Sheth.
*Chief Engineer, Graving Dock*, Lt.-Col. P. K. Nayar.

### MINISTRY OF WORKS AND HOUSING

*Minister*, Mehr Chand Khanna.
*Secretary*, Prem Krishen, I.C.S.
*Joint Secretaries*, R. F. Isar, I.C.S., Savitri Prasada.
*Superintending Engineers (Arbitration)*, M. V. Subrahmanyam, P. S. Rao, N. K. Agrawal.

### Central Public Works Department
(Central Office, New Delhi).

*Chief Engineer*, N. G. Dewan, I.S.E.
*Director of Administration*, R. M. Agarwal.
*Sr. Counsel*, A. S. Chaudhuri.
*Superintending Engineer (I)*, R. Manekshaw.
*Chief Architect*, S. K. Joglekar.
*Director of Horticulture*, J. B. Mathur.

### Department of Explosives, Old High Court Buildings, Nagpur.

*Chief Inspector of Explosives in India*, S. N. Lahiri.
*Dy. Chief Inspector of Explosives*, S. C. Roy.

*Senior Inspector of Explosives*

*East Circle, Calcutta*, M. P. Mukherjee, *West Circle, Bombay*, K. Sankaran; *South Circle, Madras*, V. A. Chandrasekharan; *Head Quarters, Nagpur*, B. N. De.

*Inspectors of Explosives*

*East Circle, Calcutta*, S. N. Gupta; *North Circle, Agra*, I. N. Murty; *Central Circle, Gwalior*, J. K. John; *Gomia*, P. K. Sengupta; *South Circle, Madras*, C. Ramaswamy; *Asansol*, J. S. Phadnis; *Head Quarters, Nagpur*, Charanjit Lal; *West Circle, Bombay*, B. R. Dave; *Sivakasi*, D. Shivprasad; *West Circle, Bombay*, H. Mukherjee; *East Circle, Calcutta*, A. S. Ghodal; *South Circle, Madras*, V. S. Subramanian.
*Adm. Officer*, R. G. Banerjee.

### Hindustan Housing Factory Ltd.
P.O. Jangpura, New Delhi.

*Chairman*, Ujjal Singh.
*Directors*, C. P. Gupta, I.C.S., N. G. Dewan, I.S.E., Major-General Harkirat Singh, Dr. B. R. Seth, D. J. Madan.
*General Manager*, J. Durai Raj.

### The Ashoka Hotels Ltd.
CHANAKYAPURI, NEW DELHI 21.

*Managing Director*, N. P. Dube.
*Manager*, George Verghese.

### National Buildings Construction Corporation Limited
44, Ring Road, Lajpat Nagar III, New Delhi-14.

*Managing Director*, D. Dutt.
*Planning Engineer*, S. K. Bose.
*Financial Adviser-cum-Chief Accounts Officer*, R. N. Vashist.
*Secretary*, V. K. Rao.

### SUPREME COURT OF INDIA, HARDINGE TILAK MARG, NEW DELHI

*Chief Justice of India*, Amal Kumar Sarkar.
*Judges*, Justice K. Subbarao; Justice K. N. Wanchoo; Justice M. Hidayatullah; Justice J. C. Shah; Justice R. Dayal; Justice J. R. Mudholkar; Justice S. M. Sikri, Justice R. S. Bachawat, Justice V. Ramaswami; Justice J. M. Shelat.
*Registrar*, Y. D. Desai.
*Dy. Registrars*, Guru Datta, C. M. Rao.
*Asstt. Registrars*, Kedar Nath Gupta; V. Krishnan; S. K. Gupta; G. V. Raghavachari; R. Narasimhan.
*Editor*, K. B. Nambiar.

### UNION PUBLIC SERVICE COMMISSION
Dholpur House, P. Box 186, Shahjahan Road, New Delhi 4.

*Chairman*, B. N. Jha.
*Members*, Batuk Singh; N. L. Ahmad, Mrs. B. Khongmen, Desraj Mehta; Dr. A. Appadoral.
*Secretary*, Rajendra Lal.

# INDIAN POLITICAL REPRESENTATIVES ABROAD

## EMBASSIES

| Country or Town | Name | Designation | Address | Station |
|---|---|---|---|---|
| AFGHANISTAN .. | Gen. P. N. Thapar .. .. | Ambassador .. .. .. | Embassy of India, Shahr-e-Nau, Kabul. | Kabul. |
| ALGERIA .. | R. Goburdhan .. .. .. | Ambassador .. .. .. | Embassy of India, 119 ter, Rue Didouche Maurad, Algiers. | Algiers. |
| ARGENTINA .. | I. S. Chopra .. .. .. | Ambassador (Also Ambassador to Paraguay and Ambassador to Uruguay). | Embassy of India, Lavalle 42 (5th floor), Buenos Aires. | Buenos Aires. |
| AUSTRIA .. .. | R. G. Rajwade .. .. .. | Ambassador .. .. .. | Embassy of India, 1, Operingl, Vienna 1. | Vienna. |
| BELGIUM .. .. | Vacant* .. .. .. .. | Ambassador (Concurrently Ambassador to Luxembourg). | Embassy of India, 585, Avenue Louise, Square de Bois, Brussels. | Brussels. |
| BOLIVIA .. .. | Vacant .. .. .. .. | Ambassador (Concurrently Ambassador to Brazil and Venezuela. Resident in Rio de Janeiro). | | |
| BRAZIL .. .. | Vacant .. .. .. .. | Ambassador (Also Ambassador to Bolivia & Venezuela). | Embassy of India, Rua Barao de Flamengo 22, Aptos 801–802, Rio de Janeiro. | Rio de Janeiro. |
| BULGARIA .. | Vacant .. .. .. .. | Ambassador .. .. .. | | |
| BURMA .. .. | Vice-Admiral R. D. Katari .. | Ambassador .. .. .. | Embassy of India, Oriental Assurance Bldgs., 545–47, Merchant Street, Rangoon. | Rangoon. |
| CAMBODIA .. | Vacant .. .. .. .. | Ambassador .. .. .. | Embassy of India. | Phnom Penh. |
| CAMEROUN & DAHOMEY REPUBLICS | P. L. Bhandari .. .. .. | Ambassador (Also Ambassador to Togo & High Commissioner to Nigeria, resident in Lagos.) | | |
| CHILE .. .. | B. K. Massand .. .. .. | Ambassador (Concurrently Ambassador to Colombia & Peru). | Embassy of India, 871, Triana, Santiago. | Santiago. |
| CHINA .. .. | J. S. Mehta .. .. .. | Minister & Charge-d' affaires. | Embassy of India, 32, Tung Chiao Min Min Hsiang, Peking. | Peking. |
| COLOMBIA .. .. | B. K. Massand .. .. .. | Ambassador (Also Ambassador to Chile & Peru). | Resident in Santiago (Chile). | |
| CONGO .. .. | V. Siddharthacharry .. .. | Ambassador .. .. .. | Embassy of India, 18, Avenue 8 eme Armee, Leopoldville. | Leopoldville. |
| CUBA .. .. | N. S. Gill .. .. .. | Ambassador (Concurrently Ambassador to Panama and Mexico. Resident in Mexico). | | |
| CZECHOSLOVAKIA | M. P. Mathur .. .. .. | Ambassador .. .. .. | Embassy of India, Valdstejnska 6, Prague 7. | Prague. |
| DENMARK .. .. | Avtar Singh .. .. .. | Ambassador .. .. .. | Embassy of India, Woizero Wolete, Yohannes Street, Copenhagen. | Copenhagen. |
| ETHIOPIA .. .. | J. K. Atal .. .. .. | Ambassador .. .. .. | P.O. 528, Addis Ababa. | Addis Ababa. |
| FINLAND .. .. | Khub Chand .. .. .. | Ambassador (Also Ambassador to Sweden. Resident in Stockholm). | Embassy of India, Satama Katu 4, Helsinki. | |
| FRANCE .. .. | R. Dayal .. .. .. .. | Ambassador .. .. .. | Embassy of India, 15, Rue Alfred Dehodencq, Paris, 16. | Paris. |
| GERMANY .. .. (Federal Republic of). | S. K. Banerji .. .. .. | Ambassador .. .. .. | Embassy of India, 262, Koblenzorstrasse, Bonn. | Bonn. |
| GREECE .. .. | R. S. Mani .. .. .. | Ambassador (Also Ambassador to Yugoslavia). | Resident in Belgrade. | |
| GUINEA .. .. | Vacant .. .. .. .. | Ambassador (Also Ambassador to Liberia and Mali and High Commissioner to Ghana and Sierra Leone). | Resident in Accra. | |
| HUNGARY .. .. | J. C. Kakar .. .. .. | Ambassador .. .. .. | Embassy of India, Buzavirag Utca. Budapest II. | Budapest. |
| INDONESIA .. | P. Ratnam .. .. .. | Ambassador .. .. .. | Embassy of India, P. Box No. 118, 44 Kebon Serih, Djakarta. | Djakarta. |
| IRAN .. .. | Air Marshal A. M. Engineer .. | Ambassador .. .. .. | Embassy of India, 301, Pahalvi Avenue, Tehran. | Tehran. |
| IRAQ .. .. | Mahboob Ahmed .. .. | Ambassador .. .. .. | 22/12AI, Tahari Street, Waziriah, Baghdad. | Baghdad. |
| IRELAND .. .. | R. K. Tandon .. .. .. | Ambassador .. .. .. | 60, Fitz William Square, Dublin. | Dublin. |
| ITALY .. .. | Maharaja Yadvinder Singh of Patiala@ .. .. .. | Ambassador (Also Minister to Albania). | Embassy of India, *via* Francesco Dense, 36, Rome. | Rome. |
| IVORY COAST .. | A. H. Safrani .. .. .. | Ambassador (Also Ambassador to Senegal, Mauritania & Upper Volta) | Resident in Dakar. | |

* Additionally the Ambassador is India's Special Representative for Economic, Financial and Commercial Affairs, and is also accredited to the European Economic Community and the European Coal and Steel Community.

@ Concurrently High Commissioner to Malta.

| Country or Town | Name | Designation | Address | Station |
|---|---|---|---|---|
| JAPAN .. .. | B. F. H. B. Tyabji .. .. | Ambassador .. .. .. | Embassy of India, No. 1, 2-Chome, Kudan, Chiyodaku, Tokyo. | Tokyo. |
| JORDAN .. .. | S. Sen .. .. .. .. | Ambassador (Also Ambassador to Lebanon and Kuwait and High Commissioner to Cyprus). | Resident in Beirut. | |
| KUWAIT .. .. | S. Sen .. .. .. .. | Ambassador (also Ambassador to Jordan & Lebanon and High Commissioner to Cyprus). | Resident in Beirut. | |
| LAOS .. .. | B. K. Sanyal .. .. .. | Ambassador .. .. .. | Indian Embassy. | Vientiane. |
| LEBANON .. .. | S. Sen .. .. .. .. | Ambassador (Also Ambassador to Jordan & Kuwait and High Commissioner to Cyprus). | Embassy of India, Sahamarani Bldg., Rue Kantri, Beirut. | Beirut. |
| LIBERIA .. .. | Vacant .. .. .. .. | Ambassador (Also High Commissioner to Ghana and Sierra Leone and Ambassador to Guinea and Mali). | Resident in Accra. | |
| LIBYA .. .. | S. N. Haksar† .. .. .. | Ambassador (Also Ambassador to U.A.R. & Yemen). | Resident in Cairo. | |
| LUXEMBOURG .. | Vacant .. .. .. | Ambassador (Also Ambassador to Belgium. Resident in Brussels). | —— | |
| MALAGASAY .. | C. J. Stracey * .. .. .. | Ambassador .. .. .. | P.O. Box 1108, Tananarive. | Tananarive. |
| MALI .. .. | Vacant .. .. .. .. | Ambassador (Also Ambassador to Liberia and Guinea and High Commissioner to Ghana and Sierra Leone). | Resident in Accra. | |
| MAURITANIA .. | A. H. Safrani@ .. .. | Ambassador. (Also Ambassador to Sengal). | Resident in Dakar. | |
| MEXICO .. .. | N. S. Gill .. .. .. | Ambassador (Also Ambassador to Cuba & Panama). | Embassy of India, Avenue Juarez No. 97 (7th Floor), Mexico City. | Mexico City. |
| MONGOLIA .. | T. N. Kaul .. .. .. | Ambassador (Also Ambassador to U.S.S.R.). | Resident in Moscow. | |
| MOROCCO .. .. | Yogendra Krishna Puri .. | Ambassador (Also Ambassador to Tunisia). | 11, Rue Descartes, Rabat. | Rabat. |
| NEPAL .. .. | Shriman Narayan .. .. | Ambassador .. .. .. | Embassy of India, Kathmandu. | Kathmandu. |
| NETHERLANDS .. | R. Raghunath Sinha .. .. | Ambassador .. .. .. | Embassy of India, Buitenrustwag 2, The Hague. | The Hague. |
| NORWAY .. .. | Apa B. Pant‡ .. .. .. | Ambassador .. .. .. | Embassy of India 48, Professor Dahls Gate, Oslo. | Oslo. |
| PANAMA .. .. | N. S. Gill .. .. .. | Ambassador (Also Ambassador to Cuba & Mexico). | Resident in Mexico City. | |
| PARAGUAY .. | I. S. Chopra .. .. .. | Ambassador (Also Ambassador to Argentina and Ambassador to Uruguay). | Resident in Buenos Aires. | |
| PERU .. .. | B. K. Massand .. .. .. | Ambassador (Also Ambassador to Chile and Columbia. Resident in Santiago). | —— | |
| PHILIPPINES .. | G. S. Malik .. .. .. | Ambassador .. .. .. | Embassy of India, 1856, Nebraska, Malate, Manila. | Manila. |
| POLAND .. .. | N. V. Rajkumar .. .. | Ambassador .. .. .. | Embassy of India No. 3, Alejo Roz, Warsaw. | Warsaw. |
| RUMANIA .. .. | K. R. F. Khilnani .. .. | Ambassador .. .. .. | Aleea Alexandru, 41 Bucharest 3. | Bucharest. |
| SAUDI ARABIA .. | M. K. Kidwai .. .. .. | Ambassador .. .. .. | Embassy of India, Sulaiman-Al-Turkey House, Al Sharafia, Boghdadia, Jedda. | Jedda. |
| SENEGAL .. .. | A. H. Safrani .. .. .. | Ambassador (Also Ambassador to Ivory Coast, Mauritania & Upper Volta). | Embassy of India, P. Box 398, Dakar. | Dakar. |
| SOMALIA .. .. | Jagat Singh .. .. .. | Ambassador (Also Commissioner to Mauritius. Resident in Port Louis). | Embassy of India, Mogadiscio. | |
| SPAIN .. .. | Maharaja Sawai Man Singh Bahadur of Jaipur. | Ambassador .. .. .. | Alfonso XII, 46 (First Floor), Madrid. | Madrid. |
| SUDAN .. .. | S. S. Ansari .. .. .. | Ambassador .. .. .. | Ismail Pasha Road, P. Box No. 707, Khartoum. | Khartoum. |
| SWEDEN .. .. | Khub Chand .. .. .. | Ambassador (Concurrently Ambassador to Finland). | Embassy of India, V. Tradgardsgatan 15, 47 IV, Stockholm. | Stockholm. |
| SWITZERLAND .. | V. C. Trivedi .. .. .. | Ambassador (Concurrently accredited as Minister to the Vatican). | Embassy of India, 20, Kalcheggeweg, Berne. | Berne. |
| SYRIAN ARAB REPUBLIC .. | Vacant .. .. .. .. | Ambassador .. .. .. | Embassy of India, 27 Avenue-El-Jala'a, Damascus. | Damascus. |
| THAILAND .. | K. V. Padmanabhan .. .. | Ambassador .. .. .. | Embassy of India, 139, Pan Road, Bangkok. | Bangkok. |

* Is also Consul-General of India to Comores & Reunion Islands.
† Is to be succeeded by Mr. A. B. Pant in July 1966.
@ Concurrently Ambassador to Ivory Coast & Upper Volta.
‡ Is appointed Ambassador to U.A.R. Will take charge in July 1966.

| Country or Town | Name | Designation | Address | Station |
|---|---|---|---|---|
| TOGO .. .. | P. L. Bhandari .. .. .. | Ambassador (Also Ambassador to Cameroun and Dahomey Republics and High Commissioner to Nigeria). Resident in Lagos. | Embassy of India, Lome. | |
| TUNISIA .. .. | Yogendra Krishna Puri .. | Ambassador (Also Ambassador to Morocco. Resident in Rabat, Morocco). | —— | |
| TURKEY .. .. | Sadat Ali Khan .. .. | Ambassador .. .. .. | Embassy of India, No. 50, Kizilirmak Sokok, Kocetepe, Ankara. | Ankara. |
| UNITED ARAB REPUBLIC | S. N. Haksar† .. .. .. | Ambassador (Concurrently Ambassador to Libya Yemen). | Embassy of India, 5, Sharia Mahad, El Swissri, Zamalak, P.O. Box 718, Cairo. | Cairo. |
| UNITED STATES OF AMERICA | B. K. Nehru .. .. .. | Ambassador .. .. .. | Embassy of India, 2107 Massachusetts Avenue, N.W. Washington 8, D.C. | Washington. |
| UPPER VOLTA .. | A. H. Safrani .. .. .. | Ambassador (Also Ambassador to Snegal, Mauritania & Ivory Coast. Resident in Dakar). | | |
| URUGUAY .. | I. S. Chopra .. .. .. | Ambassador. (Also Ambassador to Argentina and Paraguay). | Resident in Buenos Aires. | |
| U.S.S.R. .. .. | T. N. Kaul .. .. .. | Ambassador (Concurrently accredited as Ambassador to Mongolia). | Embassy of India, Nos. 6 and 8, Ulitsa Obuka, Moscow. | Moscow. |
| VENEZUELA .. | Vacant .. .. .. .. | Ambassador (Concurrently accredited as Ambassador to Brazil & Bolivia, Resident in Rio de Janeiro. | —— | |
| YEMEN .. .. | S. N. Haksar† .. .. .. | Ambassador. (Also Ambassador to U.A.R. and Libya). | Resident in Cairo. | |
| YUGOSLAVIA .. | R. S. Mani .. .. .. | Ambassador (Concurrently accredited as Ambassador to Greece). | Embassy of India, Proleter Skeh Brigade 9, Belgrade. | Belgrade. |

## HIGH COMMISSIONS

| | | | | |
|---|---|---|---|---|
| AUSTRALIA .. | D. N. Chatterjee .. .. | High Commissioner .. .. | 63, Mugga Way, Red Hill, Canberra. | Canberra. |
| CANADA .. .. | B. K. Acharya .. .. .. | High Commissioner .. .. | 200, McLaren Street, Ottawa 4, Ontario. | Ottawa. |
| CEYLON .. .. | Bhim Sen Sachar* .. .. | High Commissioner .. .. | 7, Kollupitiya Station Road, Colombo-3. | Colombo. |
| CYPRUS .. .. | S. Sen .. .. .. .. | High Commissioner (Also Ambassador to Jordan, Kuwait and Lebanon). | Resident in Beirut. | |
| GHANA .. .. | Vacant .. .. .. .. | High Commissioner (Also Ambassador to Liberia, Mali and Guinea and High Commissioner to Sierra Leone). | P. Box 3040, Accra. | Accra. |
| JAMAICA .. .. | Muni Lal.. .. .. .. | High Commissioner (Also High Commissioner to Trinidad & Tobago & Consul-General for Surinam). | Resident in Port of Spain. | |
| KENYA .. .. | Prem Bhatia .. .. .. | High Commissioner (Also High Commissioner to Zanzibar & Consul-General to Ruanda & Burundi). | Jeevan Bharati Bldg., Coronation Avenue, Nairobi. | Nairobi. |
| MALAWI .. .. | D. S. Kamtekar .. .. | Ag. High Commissioner .. | High Commission of India, Blantyre. | Blantyre. |
| MALAYSIA .. .. | M. K. Kidwai .. .. .. | High Commissioner .. | P. Box No. 59, 4, Gin Lek Road, Kuala Lumpur. | Kuala Lumpur. |
| NEW ZEALAND .. | S. N. Chopra .. .. .. | High Commissioner .. | 49, Willis Street, Wellington. | Wellington. |
| NIGERIA .. .. | P. L. Bhandari .. .. .. | High Commissioner (Also Ambassador to Cameroon, Dahomey and Togo Republics) | Private Mail Bag 2822, Lagos, Nigeria. | Lagos. |
| PAKISTAN .. .. | Kewal Singh .. .. .. | High Commissioner .. .. | India House, 8 Bonus Road, Karachi. | Karachi. |
| DACCA .. .. (E. Bengal) | A. K. Ray .. .. .. S. K. Chowdhry .. .. | Dy. High Commissioner .. Dy. High Commissioner .. | —— 6/3, Topkhana Road, Segun Begicha, Dacca. | Dacca. |
| SIERRA LEONE .. | Vacant .. .. .. .. | High Commissioner (Also High Commissioner to Ghana and Ambassador to Guinea, Liberia and Mali). | Resident in Accra. | |
| SINGAPORE .. | T. Abraham .. .. .. | Dy. High Commissioner .. | India House, 31, Grange Road, Singapore. | Singapore. |
| TANZANIA | N. Venkatesh Rao .. .. | High Commissioner .. .. | 28, Independence Avenue, Dar-es-Salaam. | Dar-es-Salaam. |

* Also Ambassador to Maldives. † Is to be succeeded by Mr. A. B. Pant in July 1966.

| Country or Town | Name | Designation | Address | Station |
|---|---|---|---|---|
| TRINIDAD & TOBAGO .. | Muni Lal .. .. .. .. | High Commissioner (Concurrently accredited as High Commissioner to Jamaica; Commissioner to British Guiana, Barbados, Antigua, Grenada, Dominica, St. Kitts, St. Lucia, St. Vincent, Montserrat, and as Consul-General to Surinam). | P. Box No. 530, Port of Spain (Trinidad). | Port of Spain. |
| UGANDA .. .. | K. R. P. Singh .. .. .. | High Commissioner .. .. | Bank of India Bldg., Kampala Road, Kampala. | Kampala. |
| UNITED KINGDOM. | Dr. Jivraj N. Mehta .. .. | High Commissioner .. .. | India House, Aldwych, London, W.C. 2. | London. |
| | P. N. Haksar .. .. .. | Deputy High Commissioner. | | Lusaka. |
| ZAMBIA .. .. | S. Krishnamurthi .. .. | High Commissioner .. .. | —— | |
| ZANZIBAR .. | Prem Bhatia .. .. .. | High Commissioner (Also High Commissioner to Kenya and Consul-General to Ruanda and Burundi. Resident in Nairobi). | | |
| | | **LEGATIONS** | | |
| ALBANIA .. .. | Maharaja Yadvinder Singh of Patiala.* | Minister (Also Ambassador to Italy). | Resident in Rome. | |
| VATICAN .. .. | V. C. Trivedi .. .. .. | Minister (Concurrently accredited Ambassador to Switzerland. Resident in Berne). | —— | |
| | | **SPECIAL MISSIONS** | | |
| BHUTAN .. .. | Vincent H. Coelho .. .. | Political Officer (Also Political Officer in Sikkim. Resident in Gangtok). | | |
| INDO-CHINA: (a) VIETNAM (South) | M. A. Rahman .. .. .. | Chairman and Leader of Indian Delegation. | International Commission for Supervision and Control in Indo-China, Saigon. | |
| (b) VIETNAM (North) .. | Vacant .. .. .. .. | Political Adviser .. .. | International Commission for Supervision and Control in Indo-China, Hanoi. | |
| (c) CAMBODIA .. | K. L. Bindra .. .. .. | Alternate Delegate-cum-Adviser. | International Commission for Supervision and Control in Indo-China, Phnom Penh. | |
| (d) LAOS .. | A. B. Bhadkamkar .. .. | Chairman, I.C.S.C. and Leader of Indian Delegation. | International Commission for Supervision and Control in Indo-China, Vientiane. | |
| SIKKIM .. .. | Vincent H. Coelho .. .. | Political Officer in Sikkim (Also Political Officer in Bhutan). | Gangtok *via* Siliguri (West Bengal). | Gangtok. |
| UNITED NATIONS | G. Parthasarathy .. .. | Permanent Representative of Government of India at the United Nations Headquarters (with rank of Ambassador). | Permanent Mission of India to the United Nations, New India House, 3-East 64th Street, New York. | New York. |
| | | **COMMISSIONS** | | |
| ADEN .. .. | A. R. Sethi .. .. .. | Commissioner for the Government of India. | Office of the Commissioner for the Government of India, Aden. | Aden. |
| BARBADOS & BRITISH GUIANA. | Muni Lal .. .. .. | Commissioner .. .. | Resident in Port of Spain (Trinidad) | |
| FIJI .. .. .. | D. Murugesan .. .. .. | Commissioner for the Government of India. | G. P. O. Box 405, Nina Street, Suva. | Suva. |
| HONG KONG .. | J. K. Ganju .. .. .. | Commissioner for the Government of India. | Tower Court, 11th Floor (Near Sunring House), Hysan Avenue, Hong Kong. | Hong Kong. |
| MAURITIUS .. | Jagat Singh .. .. .. | Commissioner for the Government of India. (Also Ambassador to Somalia). | Fere Felix de Valois Street, Port Louis, Mauritius. | Port Louis. |
| | | **CONSULATES-GENERAL & CONSULATES** | | |
| ATHENS .. .. | L. E. Vafiadias .. .. .. | Consul .. .. .. | Consulate of India. | Athens. |
| BASRAH .. .. | R. N. Joshi .. .. .. | Consul .. .. .. | —— | Basrah. |
| BERLIN .. .. | N. P. Jain .. .. .. | Consul-General .. .. | Consulate General of India, Joachimstaler Street, 28 (First Floor), Berlin 15. | |
| BURUNDI .. .. | Prem Bhatia .. .. .. | Consul-General (Also High Commissioner to Kenya and Zanzibar and Consul-General for Ruanda). | Resident in Kenya. | |

* Concurrently High Commissioner to Malta.

| Country or Town | Name | Designation | Address | Station |
|---|---|---|---|---|
| CANARY ISLANDS | C. Boolchand .. .. .. | Consul .. .. .. | Consulate of India, Las Palmas. | |
| COMORES .. .. | C. J. Stracey .. .. .. | Consul-General (Also Ambassador to Malagasay Republic. Resident in Tananarive). | | |
| COPENHAGEN .. | Vacant .. .. .. .. | Consul-General for India. | C/o Embassy of India, V. Tradgardsgatan 15, Stockholm. | Copenhagen. |
| FRANKFURT .. | V. C. Vijayaraghavan .. .. | Consul-General (Consular jurisdiction includes the State of Hessen, Rheinland-Pfalz and Saarland). | Consulate General of India, 33, Kaiser Street, Frankfurt. | Frankfurt. |
| FRENCH SOMALILAND .. | F. J. Kothari .. .. .. | Consul .. .. .. | Consulate of India, Djibouti. | |
| GENEVA .. .. | K. P. Lukose .. .. .. | Consul-General (Concurrently accredited as Permanent Representative to the European Office of the United Nations and other International Organizations at Geneva). | Consulate-General of India, Place Edesaux-Vives, Geneva. | Geneva. |
| GHENT (Belgium) | Robert Desprechins .. .. | Consul.. .. .. .. | Consulate of India. | Ghent. |
| HAMBURG.. .. | S. Krishnaswamy .. .. | Consul-General .. .. | 14, Burchardstrasse, Sprinkenhof, Hamburg. Consular jurisdiction includes the States of Hamburg, Bromen Schleswig Holstein and Lower-Saxony. | Hamburg. |
| HAWAII (Honolulu) | Mrs. J. Watumull .. .. | Consul .. .. .. | Consulate of India, 2227-A, Kalakaua Avenue, Honolulu. | Honolulu. |
| KOBE .. .. | T. V. Ramakrishna Rao .. | Consul.. .. .. .. | Consulate of India, 1/2, Yamanotodori, 9-Chome, Ikuta-Ku. | Kobe. |
| KHORRAMSHAHR | H. L. Kashyap .. .. | Consul.. .. .. .. | Consulate of India, Khorramshahr. | Khorramshahr. |
| MEDAN .. .. | P. R. Nambisan .. .. | Consul .. .. .. | Consulate of India, D. J. Tjokroamite, 19, Medan (Indonesia). | Medan. |
| MUNICH .. .. | Herr P. H. V. Mitter-Wallner .. | Consul-General .. .. | Consulate General of India, 27, Residenzste. | Munich. |
| MUSCAT .. .. | C. L. Sethi .. .. .. | Consul-General .. .. | —— | Muscat. |
| NEW YORK .. | S. Gupta .. .. .. | Consul-General for India .. | Consulate-General of India, 3-East, 64th Street, New York. | New York. |
| ODESSA (U.S.S.R.) | P. H. Desai .. .. .. | Consul.. .. .. .. | Consulate of India. | Odessa. |
| OHIO (Cleveland) .. | Col. George P. Bickford .. | | Consulate of India, 1144, Union Commerce Bldg., Cleveland. | Ohio. |
| RUANDA .. | Prem Bhatia .. .. .. | Consul-General (Also High Commissioner to Kenya and Zanzibar and Consul-General to Burundi). | Resident in Nairobi. | |
| SAN FRANCISCO.. | P. N. Menon .. .. .. | Consul-General for India .. | Consulate-General of India, 215, Market Street, San Francisco. | San Francisco. |
| SAN MARINO (REPUBLIC OF) | Brij Kumar .. .. .. | Consul-General .. .. | Resident in Rome. | |
| STUTTGART .. | Dr. R. Kissel .. .. .. | Hon. Consul-General .. | Consulate General of India, 17, Charlottenplatz. | Stuttgart. |
| SURINAM .. .. | Muni Lal .. .. .. | Consul-General (Also High Commissioner to Trinidad and Tobago and Jamaica). | Resident in Port of Spain. | |
| VIET NAM (Democratic Republic of). | Dr. R. S. Chavan .. .. | Consul-General .. .. | 58, Tran Hung Dao, Hanoi. | Hanoi. |
| VIET NAM (South). | Vacant .. .. .. .. | Consul-General .. .. | Consulate-General of India, 213, Rue Catinat, Saigon. | Saigon. |
| TRIPOLI (Libya) .. | N. Neechamall .. .. .. | Consul.. .. .. .. | Consulate of India. | Tripoli. |
| | | **VICE-CONSULATES** | | |
| JALALABAD (Afghanistan). | H. K. Malhotra.. .. .. | Vice-Consul for India .. | Vice-Consulate of India, Jalalabad. | Jalalabad. |
| KANDAHAR (Afghanistan). | K. N. Madan .. .. .. | Vice-Consul for India .. | Vice-Consulate of India, Kandahar. | Kandahar. |
| MANDALAY .. | Tirath Singh .. .. .. | Vice-Consul .. .. .. | Vice-Consulate of India. | Mandalay. |
| ZAHIDAN .. .. | M. L. Chowdhry .. .. | Vice-Consul for India .. | Vice-Consulate of India, Zahidan (East Iran), *via* Teheran. | Zahidan. |

# INDIAN GOVERNMENT TRADE REPRESENTATIVES ABROAD

| Designation and address. | Tel. Address. | Sphere of activities. |
|---|---|---|
| *Europe.* | | |
| K. S. RAGHUPATI.—Minister (Economic), High Commission of India in U.K., Aldwych, London, W.C.2. | HICOMIND London. | U.K. and Ireland. |
| First Secretary (Commercial), Embassy of India, No. 2, Rue Godot de Manroy, Paris, 9c. | INDEMBASSY Paris | France. |
| First Secretary (Commercial), Embassy of India, *via* Francesco, Denze 36, Rome. | INDEMBASSY Rome. | Italy. |
| Counsellor (Com.), Embassy of India, 262, Koblenzor-Strasse, Bonn. | INDEMBASSY Bonn. | West Germany. |
| Consul-General of India, 608/5, Sprinkenhof, Hamburg. | INDIA Hamburg. | State of Hamburg, Bremen and Scheleswig Holstain. |
| Consul-General of India, 33, Kaisser-Strasse, Frankfurt. | INDTRACEMP Frankfurt. | State of Hasse. |
| First Secretary (Com.), Embassy of India, 585, Avenue Lauise, Brussels. | INDEMBASSY Brussels. | Belgium. |
| Second Secretary (Com.), Embassy of India, Strandvager 47. IV, Stockholm. | INDEMBASSY Stockholm. | Sweden, Finland and Denmark. |
| First Secretary (Com.), Embassy of India, Thounovaska, Prague-III. | INDEMBASSY Prague. | Czechoslovakia. |
| First Secretary (Com.), Embassy of India, 22, Kalcheggweg, Berne. | INDEMBASSY Berne. | Switzerland. |
| First Secretary (Com.), Embassy of India, Proleiersken, Brigode 9, Belgrade. | INDEMBASSY Belgrade. | Yugoslavia and Greece. |
| First Secretary (Com.), Embassy of India, 6 and 8 Ulitisa Obukha, Moscow. | INDEMBASSY Moscow. | U.S.S.R. |
| Second Secretary (Com.), Embassy of India, No. 3, Aleje Roz, Warsaw. | INDEMBASSY Warsaw. | Poland. |
| Second Secretary (Commercial), Embassy of India, 41, Aleea Alexandru, Bucharest. | INDEMBASSY Bucharest. | Rumania. |
| Second Secretary (Commercial), Embassy of India, Buzavirag Utca, Budapest. | INDEMBSSY Budapest. | Hungary. |
| *United States of America.* | | |
| First Secretary (Com.), Embassy of India, 2107, Massachusetts Avenue, N.W. Washington 8 D.C. | INDEMBASSY Washington. | U.S.A. |
| Consul, Consulate General of India, 417, Montgomery Street, San Francisco. | CONGENDIA San Francisco. | |
| Dy. Consul-General, Consulate General of India, 3, East 64th Street, New York. | CONGENDIA New York. | |
| *Canada.* | | |
| Second Secretary (Com.) High Commission of India, 200, Maclaren Street, Ottawa-4. | HICOMIND Ottawa. | Canada. |
| Indian Trade Commissioner, Suite 804, Standard Building, 310 W-Hastings Street, Vancouver-B.C. | HICOMIND Vancouver. | British Columbia. |
| *Australia & New Zealand.* | | |
| Indian Trade Commissioner, Caltex House, 10th Floor, 167-87, Kent Street, Sydney. | AUSTRAIND Sydney. | Australia. |
| High Commission of India, 49, Willis Street, Wellington (New Zealand). | HICOMIND Wellington. | New Zealand. |
| *Africa.* | | |
| First Secretary, High Commission of India, Private Mail Bag 2322, Lagos, Nigeria. | HICOMIND Lagos. | Nigeria, Cameroun, Togo, Dahomey and Niger. |
| Counsellor (Commercial), Embassy of India, Post Box 475, Cairo. | INDEMBASSY Cairo. | U.R.A. and Libya. |
| First Secretary (Commercial), High Commission for India, Coronation Avenue, Jeevan Bharti, P. Box No. 30074, Nairobi (Kenya). | HICOMIND Nairobi. | Kenya, Uganda, Zanzibar. |
| Third Secretary (Commercial), High Commission for India, 2, Inglis Street, Box No. 2684, Noor Manzil, Dar-es-Salam (Tanzania). | HICOMIND Dar-es-Salaam. | Tanganyika. |
| Second Secretary (Commercial), Embassy of India, 119-ten Rue Didonche Manrad, Algiers. | INDEMBASSY Algiers. | Algeria. |
| Second Secretary (Commercial), Embassy of India, Dakar (Senegal). | INDEMBASSY Dakar. | Senegal. |
| Third Secretary (Commercial), Embassy of India, 11, Rue Descartes, Rabat, Morocco. | INDEMBASSY Rabat. | Morocco. |
| First Secretary (Commercial), Embassy of India, Post No. 707, Khartoum. | INDEMBASSY Khartoum. | Sudan. |
| Second Secretary (Com.), Embassy of India, Post No. 528, Addis Ababa. | INDEMBASSY Addis Ababa. | Ethiopia. |
| First Secretary (Com.), Embassy of India, No. 6, Bis Rue Massena, Tunis. | INDEMBASSY Tunis. | Tunisia. |
| First Secretary (Commercial), Embassy of India, Accra. | HICOMIND Accra. | Ghana. |
| Commercial Attache, High Commission for India, Kampala. | | Uganda. |
| First Secretary (Commercial)/C.D.A. Embassy of India, Amman. | | Jordan. |

| Designation and address. | Tel. Address. | Sphere of activities. |
|---|---|---|
| *Asia.* | | |
| First Secretary (Com.), Embassy of India, Naigai Building No. 18, 2 Chome, Marunouchi Chiyoda-Ku, Tokyo. | INDEMBASSY Tokyo. | Japan. |
| First Secretary (Com.), Nadaraja Building, Kollupitiya Station Road, Colombo-3. | HICOMIND Colombo. | Ceylon. |
| Second Secretary (Com.), Embassy of India, Oriental Assurance Buildings, 547-47, Merchant Street, P.O. Box No. 751, Rangoon. | INDEMBASSY Rangoon. | Burma. |
| Second Secretary (Com.), High Commission of India, India House, 3, Bonus Road, Karachi. | HICOMIND Karachi. | Pakistan. |
| Second Secretary (Com.), Deputy High Commission, Bazakak Rail Road, Dacca. | GOODWILL Dacca. | East Pakistan. |
| First Secretary (Commercial), Embassy of India, 37, Phya Thai Road, Bangkok. | INDEMBASSY Bangkok. | Thailand. |
| Second Secretary (Com.), Embassy of India, Sulaimiman-al-Turkey House, Al-Sharafia, Bogudadia, Jeddah. | INDEMBASSY Jeddah. | Saudi Arabia. |
| Second Secretary (Com.), Embassy of India, 22/12 Al-Tahari Street, Waziriah, Baghdad. | INDEMBASSY Baghdad. | Iraq, Persian Gulf, Bahrain, Saharih, Shariah, Quatar and Trucial Oman. |
| Second Secretary (Commercial), Embassy of India, 27-Chare-al-Eala, Damascas. | INDEMBASSY Damascus. | Syrian Arab Republic |
| First Secretary (Commercial), Embassy of India, Beirut. | INDEMBASSY Beirut. | Lebanon, Jordan and Cyprus. |
| Second Secretary (Com.), Embassy of India, P.B. No. 188-44, Kebon Serih, Djakarta. | INDEMBASSY Djakarta. | Indonesia. |
| Second Secretary (Commercial), Embassy of India, 1856-Nabraska Malate, Manila. | INDEMBASSY Manila. | Philippines. |
| Commissioner for India, Commission of India, Steamer Point, Aden. | COMIND Aden. | Aden. |
| First Secretary (Com.), Embassy of India, 301, Pahlan Avenue, Teheran. | INDEMBASSY Teheran. | Iran. |
| First Secretary (Com.), Commission for India, Tower-Court, 11th Floor (Near Sunning House), Hysan Avenue, Hong Kong. | COMIND Hong Kong. | Hong Kong. |
| Second Secretary, Embassy of India, Phnom Penh. | INDEMBASSY Phnom Penh. | Cambodia. |

*N.B.*—In places where there are no Commercial Representatives, our Diplomatic and Consular Officers look after India's trade interests.

# EMBASSIES IN INDIA

| Country. | Station. | Designation. | Name. | Address. |
|---|---|---|---|---|
| AFGHANISTAN .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Attaullah Nasser Zia | 24, Ratendone Road, New Delhi 11. |
| ALGERIA .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Ali Lakhdari. | 13, Sundar Nagar, New Delhi 11. |
| ARGENTINA .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Vacant. | 137-A, Jor Bagh, New Delhi 3. |
| AUSTRIA .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Dr. George Schlumberger. | 3A, Nyaya Marg, Diplomatic Enclave, New Delhi 21. |
| BELGIUM .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Jean Leroy. | 7, Golf Links, New Delhi 3. |
| BOLIVIA .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Dr. German Quiroga Galdo. | 126, Jor Bagh, New Delhi. |
| BRAZIL .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Renato Firmino Mala de Mendonca. | 8, Aurangzeb Road, New Delhi 11. |
| BULGARIA .. | New Delhi .. | Ambassador .. .. .. | Christo Dimitrov. | 198, Golf Links Area, New Delhi 3. |
| BURMA .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Maha Thiri Thudhamma Daw Khin Kyi. | 3/50-F, Shantipath, Chanakyapuri, New Delhi 21. |
| CAMBODIA .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Nong Kimny. | 25, Golf Links, New Delhi 3. |
| CHILE .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Julio Barrenechea P. | 602, Ashoka Hotel, New Delhi. |
| CHINA .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Vacant. | 28, Prithviraj Road, New Delhi. |
| COLOMBIA .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Col. Manuel Agudelo G. | 188, Jor Bagh Nursery, New Delhi 3. |
| CUBA .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Vacant. | 40, Ratendone Road, New Delhi 11. |
| CZECHOSLOVAKIA | New Delhi .. | Ambassador .. .. .. | Jaroslav Kohout. | 45–46, Sundar Nagar, New Delhi 11. |
| DENMARK .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | E. Bartels. | 6, Golf Links Area, New Delhi 3. |
| ETHIOPIA .. .. | New Delhi .. | Ambassador .. .. .. | Ato Aseffa Gabremariam. | 29, Prithviraj Road, New Delhi 11. |
| FINLAND .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Asko Ivalo. | 43A, Prithviraj Road, New Delhi 11. |
| FRANCE .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Jean Daridan. | 2, Aurangzeb Road, New Delhi 11. |
| GERMANY, FEDERAL REPUBLIC OF | New Delhi .. | Ambassador .. .. .. | Freiherr Dietrich Von Mirbach. | No. 6, Block 50-G, Shanti Path, Chanakyapuri, New Delhi 21. |

| Country. | Station. | Designation. | Name. | Address. |
|---|---|---|---|---|
| GREECE .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | John Phrantzes. | R. No. 123, Ashoka Hotel, New Delhi 21. |
| HUNGARY .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Janos Nagy. | 15, Jor Bagh, New Delhi 3. |
| INDONESIA .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Suska. | 50-A, Chanakyapuri, New Delhi 21. |
| IRAN .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Dr. Jalal Abdoh. | 5, Barakhamba Road, New Delhi. |
| IRAQ .. .. | New Delhi .. | Ambassador .. .. .. | Munir Rashid. | D-24, New Delhi South Extn., Part II, New Delhi 16. |
| IRELAND .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Dr. William Warnock. | 55, Sundar Nagar, New Delhi 11. |
| ITALY .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Dr. Michele Lanza. | 7, Jor Bagh, New Delhi 3. |
| JAPAN .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Osamu Itagaki. | Plot Nos. 4 & 5, Block 50-G, Shanti Path, Chanakyapuri, New Delhi 21. |
| JORDAN .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Kemal Homoud. | 154, Malcha Marg, Chanakyapuri, New Delhi 21. |
| KUWAIT .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Yacoub Abdul Aziz Al-Rushaid. | Ashoka Hotel, New Delhi 21. |
| LAOS .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Vacant. | 4, Circular Road, Chanakyapuri, New Delhi 11. |
| LEBANON .. .. | New Delhi .. | Ambassador .. .. .. | Mahmoud Hafez. | 23/48 Panch Sheel Marg, Chanakyapuri, New Delhi 21. |
| MEXICO .. .. | New Delhi .. | Ambassador .. .. .. | Octavio Paz. | 136, Golf Links, New Delhi. |
| MONGOLIAN PEOPLE'S REPUBLIC. | New Delhi .. | Ambassador .. .. .. | Oyuny Khosbayar. | 21/48, Panch Sheel Marg, New Delhi 21. |
| MOROCCO .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Vacant. | 199, Jor Bagh, New Delhi 3. |
| NEPAL .. .. | New Delhi .. | Ambassador .. .. .. | Y. N. Khanal. | Barakhamba Road, New Delhi. |
| NETHERLANDS .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Hubert T. A. M. Van Rijckevorsel. | 4, Ratendone Road, New Delhi 11. |
| NORWAY .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Haakon Nord. | Kautilya Marg, Chanakyapuri, New Delhi 21. |
| PERU .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Eduardo Sarmiento C. | Ashoka Hotel, Suite 656, New Delhi 21. |
| PHILIPPINES .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Mauro Calingo. | Thapar House, Janpath, New Delhi 1. |
| POLAND .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Przemyslaw Ogrodzinski. | 22, Golf Links, New Delhi 3. |
| RUMANIAN PEOPLE'S REPUBLIC. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Aurel Ardeleanu. | 48, Golf Links, New Delhi 3. |
| SAUDI ARABIA .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Shaikh Mohammed Al-Hamad Al-Shubaili. | 6, Tilak Marg, New Delhi 1. |
| SPAIN .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Vacant. | 12, Prithviraj Road, New Delhi 11. |
| SUDAN .. .. | New Delhi .. | Ambassador .. .. .. | Sayed Ahmed Salah Bukhari. | 147, Sunder Nagar, New Delh 11. |
| SWEDEN .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Gunnar E. Heckscher. | Nyaya Marg, Chanakyapuri, Ne Delhi 21. |
| SWITZERLAND .. | New Delhi .. | Ambassador .. .. .. | Dr. Rene Faessler. | Nyaya Marg, Chanakyapuri, New Delhi 21. |
| SYRIAN ARAB REPUBLIC. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Omar Abou Richie. | 10, Panch Sheel Marg, Chanakyapuri, New Delhi 21. |
| THAILAND .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Chitti Sucharitakul. | 56-N, Nyaya Marg, Chanakyapuri, New Delhi 21. |
| TURKEY .. .. | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Fikret Belbez. | No. 27, Jor Bagh, New Delhi. |
| UNION OF SOVIET SOCIALIST REPUBLICS | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Ivan Alexandrovich Benediktov. | Shanti Path, Chanakyapuri, New Delhi 21. |
| UNITED ARAB REPUBLIC | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Issa Abdel Latif Serag El-Din. | 26, Jor Bagh, New Delhi 3. |
| UNITED STATES OF AMERICA | New Delhi .. | Ambassador Extraordinary and Plenipotentiary. | Chester Bowles. | Shanti Path, Chanakyapuri, New Delhi 21. |
| URUGUAY .. | New Delhi .. | Charge d'Affaires .. .. | José D. Lissidini. | 208, Golf Links, New Delhi. 3. |
| YUGOSLAVIA .. | New Delhi .. | Ambassador .. .. .. | Dr. Radivoj Uvalic. | 3/50G, Niti Marg, Chanakyapuri, New Delhi 21. |

## LEGATIONS IN INDIA

| Country. | Station. | Designation. | Name. | Address. |
|---|---|---|---|---|
| HOLY SEE .. .. | New Delhi .. | Apostolic Internuncio .. .. | The Most Rev. James R. Knox. | Niti Marg, Chanakyapuri, New Delhi 21. |

Mr. Benjamin Delgado has been nominated as Ambassador for Venezuela to India.

# HIGH COMMISSIONS IN INDIA

| Country. | Station. | Designation. | Name. | Address. |
|---|---|---|---|---|
| AUSTRALIA .. | New Delhi .. | High Commissioner .. .. | Sir Arthur Harold Tange. | Australian High Commission, 9/48, Sardar Patel Road, New Delhi 21. |
| BRITAIN .. .. | New Delhi .. | High Commissioner .. .. | John Freeman. | Shanti Path, Chanakyapuri, New Delhi 21. |
| | | Deputy High Commissioner (Minister). | D. A. Scott. | |
| | Calcutta .. .. | Deputy High Commissioner .. | I. F. Porter. | 1, Harington Street, Calcutta 16. |
| | Bombay .. .. | Deputy High Commissioner .. | A. Wooller. | Mercantile Bank Building, Mahatma Gandhi Road, Bombay. |
| | Madras .. .. | Deputy High Commissioner .. | C. B. B. Heathcote-Smith, C.B.E. | No. 6, Armenian Street, Madras. |
| CANADA .. .. | New Delhi .. | High Commissioner .. .. | Roland Michener, P.C., Q.C. | 4, Aurangzeb Road, New Delhi 11. |
| CEYLON .. .. | New Delhi .. | High Commissioner .. .. | H. S. Amerasinghe. | 224, Jor Bagh Nursery, New Delhi 3. |
| GHANA .. .. | New Delhi .. | High Commissioner .. .. | Seth Kobla Anthony. | 2, Golf Links, New Delhi. |
| MALAYSIA .. | New Delhi .. | High Commissioner .. .. | Zaiton Ibrahim Bin Ahmad. | 143, Sundar Nagar, New Delhi 11. |
| | Madras .. .. | Asstt. High Commissioner .. | Razali Bin Ismail. | 110/1, Mount Road, Teynampet, Madras. |
| NEW ZEALAND .. | New Delhi .. | Ag. High Commissioner .. | J. E. Farrel. | 39, Golf Links, New Delhi 3. |
| NIGERIA .. .. | New Delhi .. | High Commissioner .. .. | Adedokun A Haastrup. | D-7, South Extn. Part II, Ring Road, New Delhi 16. |
| PAKISTAN .. | New Delhi .. | High Commissioner .. .. | Arshad Hussain. | Shanti Path, Chanakyapuri, New Delhi 21. |
| | | Deputy High Commissioner .. | A. Iqbal. | 7, Friends Colony, New Delhi. |
| | Calcutta .. .. | Deputy High Commissioner .. | A. F. Ziauddin Ahmed. | 9, Circus Avenue, Calcutta 5. |
| TANZANIA .. | New Delhi .. | High Commissioner .. .. | Salim Ahmed Salim. | 42, Golf Links, New Delhi 3. |
| UGANDA .. .. | New Delhi .. | High Commissioner .. .. | George W. M. Kamba. | E-23, Ring Road, Defence Colony, New Delhi 3. |

# FOREIGN CONSULAR OFFICES IN INDIA

| Country. | Station. | Designation. | Name. | Address. |
|---|---|---|---|---|
| AFGHANISTAN .. | Bombay .. .. | Consul-General .. .. .. | Sardar Mohamed Farouk Saraj. | 115, Walkeshwar Road, Bombay 6. |
| AUSTRIA .. .. | Calcutta .. .. | Hon. Consul .. .. .. | L. R. Patel. | 16, Netaji Subhas Road, Post Box No. 369, Calcutta 1. Tel. 22-1952. |
| | Bombay .. .. | Hon. Consul-General .. .. | Murarji J. Vaidya. | United Bank of India Bldg., 2nd Floor, Sir P. Mehta Road, Bombay 1. Tel. Nos. 255349 & 256232-255202. 211721 (Res.). |
| | | Hon. Vice-Consul .. .. | Mrs. Alice Khan. | 3, Cuffe Parade, Colaba, Bombay 5. Tel. 211077. |
| | Madras .. .. | Hon. Consul .. .. .. | A. N. Sattanathan. | 2, Monteith Lane, Egmore, Madras 8. Tel. 85380. |
| | | Hon. Vice-Consul .. .. | Mrs. Christel Warwick-Stelzhammer. | |
| BELGIUM .. .. | Bombay .. .. | Vice-Consul in charge of Consulate-General. | Th. De Graff. | "Moreua", 11, Carmichael Road, Cumballa Hill, Bombay 26. Telephone : 41824. Telegrams : "BELSULAT". |
| | Calcutta .. .. | Vice-Consul In-charge of Consulate-General. | H. Boudry. | 6, Camac Street, Calcutta. Telephone : 443886. Telegrams : "BELSULAT". |
| | Madras .. .. | Consul (Honorary) .. .. | M. Nevens. | 1-E, Spurtank Road, Chetput, Madras 31. Telephone : 84184. Telegrams : "BELSULAT". |
| BOLIVIA .. .. | Calcutta .. .. | Hon. Consul-General .. .. | J. K. Gora. | 7, Wellesley Place, Calcutta 1. |
| BRAZIL .. .. | Calcutta .. .. | Honorary Consul .. .. | J. R. Antonio Viegas. | 8/6, Alipore Park Road, Calcutta 27. |
| BURMA .. .. | Calcutta .. .. | Consul-General .. .. .. | U Ba Set. | 12, Dalhousie Square East, Calcutta 1. |
| | Madras .. .. | Vice-Consul .. .. .. | U Pe Than. | 3, Murray's Gate Road, Teynampet, Madras 18. |
| COSTA RICA .. | Bombay .. .. | Consul-General .. .. .. | I. A. Makani. | Standard Bldg., 346, Dadabhoy Naoroji Road, Bombay 1. |
| | Madras .. .. | Vice-Consul .. .. .. | Roy E. Chambers. | 6-A, Waddels Road, Madras 10. |
| CZECHOSLOVAKIA | Bombay .. .. | Consul-General .. .. .. | Dr. Josef Fabik. | "Marcopia", 5, Pedder Road, Cumballa Hill, Bombay 26. |
| | Calcutta .. .. | Consul-General .. .. .. | Vacant. | 127, Southern Avenue, Calcutta 29. |

| Country. | Station. | Designation. | Name. | Address. |
|---|---|---|---|---|
| DENMARK .. .. | Bombay .. .. | Hon. Consul-General .. .. | E. B. Mogensen. | Eros Cinema Building, 124-D, Queen's Road, Bombay. |
| | Calcutta .. .. | Hon. Consul .. .. .. | Nils-Goran Erikson. | 18-G, Park Street, Calcutta. |
| | Cochin .. .. | Hon. Consul .. .. .. | P. Sandven. | Indo-Norwegian Project, 70, Mahatma Gandhi Road, Ernakulam. |
| | Madras .. .. | Hon. Consul .. .. .. | F. Korner. | Mercantile Bank Building, 1st Line Beach, Madras. |
| DOMINICAN REPUBLIC. | Bombay .. .. | Consul-General .. .. .. | H. H. Ismail. | 208, D. Wachha Road, Mistry Court, Opp. C.C.I., Bombay 1. |
| EL SALVADOR .. | Calcutta .. .. | Consul .. .. .. .. | Karanjaksha Bonerjee. | 12, P. K. Tagore Street, Calcutta 6. |
| ECUADOR .. .. | Calcutta .. .. | Consul .. .. .. .. | Kalyan Sen. | 10/1, Elgin Road, Calcutta 20. |
| ETHIOPIA .. .. | Bombay .. .. | Hon. Consul-General .. .. | Ismail M. Kanga. | Crescent Chambers, Tamarind Lane, Fort, Bombay. Telephones: Office 251243; Residence: 213271. |
| FINLAND .. .. | Bombay .. .. | Consul .. .. .. .. | C. H. Campbell. | Chartered Bank Building, Post Box No. 73, Mahatma Gandhi Road, Bombay 1. |
| | Calcutta .. .. | Hon. Consul .. .. .. | S. R. Stephen. | P.O. Box 209, 2, Netaji Subhas Road, Calcutta. |
| FRANCE .. .. | Bombay .. .. | Consul-General .. .. .. | Michel Removille. | Vulcan Insurance Building, 5th Floor, Churchgate Reclamation, Bombay 1. |
| | Calcutta .. .. | Consul-General .. .. .. | Francois Gennardi. | 26, Park Mansion, Park Street, Calcutta 16. |
| | Madras .. .. | Consul-General .. .. .. | René Gros. | 7, Cenotaph Road, Teynampet, Madras. |
| | Pondicherry .. | Consul-General .. .. .. | Robert Duvauchelle. | Rue de la Marine, Pondicherry. |
| GERMANY (FEDERAL REPUBLIC). | Bombay .. .. | Consul-General .. .. .. | Dr. Richard Kunisch. | Dugal House, Road No. 3, Backbay Reclamation, Bombay 1. |
| | Calcutta .. .. | Consul-General .. .. .. | Elgar von Randow. | Ilaco House, 1/3, Brabourne Road, Calcutta 1. |
| | Madras .. .. | Consul-General .. .. .. | Dr. Edgar Reichel. | 51, Mount Road, Madras 2. |
| GREECE .. .. | Bombay .. .. | Consul-General .. .. .. | A. D. Mango. | Ralli House, 21, Ravelin St., Bombay 1. |
| | Calcutta .. .. | Consul-General .. .. .. | M. Gora. | Wellesley House, 7, Wellesley Place, Calcutta. |
| HAITI .. .. | Calcutta .. .. | Consul .. .. .. .. | Murari Churn Law. | No. 2, Cornwallis Street, Calcutta 6. |
| HONDURAS REPUBLIC | Bombay .. .. | In charge of Consular Affairs.. | A. R. H. Ismail. | Mistry Court, 208, D.Wachha Road, Opp. C.C.I., Bombay 1. |
| INDONESIA .. | Bombay .. .. | Consul .. .. .. .. | R. Tamtomo. | 17, Altamont Road, Cumballa Hill, Bombay 26. |
| IRAN .. .. | Bombay .. .. | Minister Plenipotentiary and Consul-General. | Bahman Ahaneen. | Baldota Bhavan, Queen's Road, Bombay 1. Tel. No. 242118. |
| IRAQ .. .. | Bombay .. .. | Consul-General .. .. .. | Hakki Barazanji. | "Panorama", 203, Walkeshwar Road, Bombay 6. (Tel. No. 40969). |
| ISRAEL .. .. | Bombay .. .. | Consul .. .. .. .. | Reuven Dafni. | 50, Pedder Road, Cumballa Hill, Bombay 26. |
| ITALY .. .. | Calcutta .. .. | Ag. Consul-General .. .. | Tommaso Ferrante. | 3, Raja Santosh Road, Alipore, Calcutta 27. |
| | Bombay .. .. | Consul-General .. .. .. | Adm. Umberto Del Grande. | Vaswani Mansion, Dinshaw Wachha Road, Fort, P.O. Box No. 1521, Bombay 1. Tel. 245177–8. |
| JAPAN .. .. | Calcutta .. .. | Consul-General .. .. .. | N. Takase. | 12, Pretoria Street, Calcutta 16. |
| | Bombay .. .. | Consul-General .. .. .. | Shigezo Yoshikawa. | Kashmir House, 19, Nepean Road, Bombay 6. |
| KOREA (DEMOCRATIC PEOPLE'S REPUBLIC OF) | New Delhi .. | Consul-General .. .. .. | Li Jang Hwa. | 4, Tees January Marg, New Delhi. |
| KOREA (REPUBLIC OF) | New Delhi .. | Consul-General .. .. .. | Ben C. Limb. | 28, Prithviraj Road, New Delhi 11. |
| KUWAIT .. .. | Bombay .. .. | Consul-General .. .. .. | Faisal Essa Yousuf. | Vaswani Mansions, Flat No. 2, 120, Dinshaw Vatcha Road, Bombay 1. |
| LIBERIA .. .. | Calcutta .. .. | Consul-General (Jurisdiction includes Nepal also). | P. K. Bonerjee. | 7-2-P, Jamir Lane, Calcutta 19. |
| LUXEMBOURG .. | Bombay .. .. | Vice-Consul In-charge .. .. | R. C. L. Van Damme. | 2nd Floor, Taj Bldg., D. Naoroji Road, Fort, Bombay. |
| MONACO .. .. | New Delhi .. | Consul-General .. .. .. | R. Chattaram. | 14/15F, Connaught Place, New Delhi. |
| NEPAL .. .. | Calcutta .. .. | Consul-General .. .. .. | Maj. Gen. Gehendra Shamsher Thapa. | 19, Woodlands, Sterndale Road, Alipore, Calcutta 27. |
| NETHERLANDS .. | Bombay .. .. | Consul-General .. .. .. | J. H. Delgorge. | 298, Bazargate Street, City Ice Building, P.O. Box 260, Fort, Bombay 1. (Tel. No. 251576). |
| | Calcutta .. .. | Consul-General .. .. .. | Ph. H. Rogaar. | 5 & 7, Netaji Subhas Road, Calcutta. (Tel. No. 234442). |
| | Madras .. .. | Consul .. .. .. .. | H. D. Doig. | Chordia Mansion, 150-A-2 Mount Road, Madras-2. (Tel. 86411). |
| | Cochin .. .. | Consul .. .. .. .. | S. S. Koder. | Fort, Cochin 1. |

| Country. | Station. | Designation. | Name. | Address. |
|---|---|---|---|---|
| NICARAGUA .. | Bombay .. .. | Consul .. .. .. .. | J. K. Rege. | Alice Building, Dr. Dadabhoy Naoroji Road, Bombay 1 (BR.). (Tel. No. 252542). (Grams : "WAUDCO"). |
| | Calcutta .. .. | Consul .. .. .. .. | K. C. Dey. | 6-1, Bright St., Ballygunge, Calcutta 19. Tel. 441329. |
| NORWAY .. .. | Bombay .. .. | Consul-General .. .. .. | Bebel Kolding. | Imperial Chambers, Wilson Road, Ballard Estate, Bombay. |
| | | Vice-Consul .. .. .. | Carsten Gylseth. | |
| | Calcutta .. .. | Consul-General .. .. .. | Sverre Gylseth. | 14, Netaji Subhas, Road, Calcutta. |
| | Cochin .. .. | Vice-Consul .. .. .. | Martin T. Tveit. | P.B. No. 137, Ernakulam. |
| | Madras .. .. | Consul .. .. .. .. | A. R. Liddiard. | Post Box No. 42, Madras. |
| PANAMA .. .. | Bombay .. .. | Consul-General .. .. .. | Dr. Virgilio A. Ponce. | Flat No. E, 6th Floor, "Giri-Raj," Altamount Road, Bombay 26. |
| PERU .. .. | Calcutta .. .. | In charge of the Consulate-General. | J. R. Antonio Viegas. | 8/6, Alipore Road. Calcutta 27. |
| PHILIPPINES .. | Bombay .. .. | Hon. Consul-General .. .. | K. M. Modi. | Liberty Building, 41/42, Marine Lines, Bombay 1. |
| | Calcutta .. .. | Hon. Consul-General .. .. | K. R. Patel. | 10-B, Lall Bazar St., Calcutta 1. |
| POLAND .. .. | Bombay .. .. | Consul .. .. .. .. | A. Wojcik. | 40/A, Pedder Road, Bombay 26. |
| | Calcutta .. .. | Consul .. .. .. .. | R. Kawinski. | 13, Camac Street, Calcutta 16. |
| SPAIN .. .. | Bombay .. .. | Vice-Consul and Trade Commissioner. | Napoleon Fernandez. | "Oceana", 153, Marine Drive, Bombay. |
| | Calcutta .. .. | Vice-Consul .. .. .. | Pritindra Nath Ray Chowdury. | 10, Old Post Office Street, Calcutta. |
| | Madras .. .. | Vice-Consul .. .. .. | Gilbert Augustine Pais. | "Lawdale", 5, Nimmo Road, San Thome, Mylapore, Madras. |
| SUDAN .. .. | Bombay .. .. | In-charge .. .. .. | Sayed Gmer Yousef Biriedo. | "Kasopa" Malcolm Baug, Jogeshwari, Bombay 60. |
| SWEDEN .. .. | Bombay .. .. | Consul-General .. .. | S. G. Gothberg. | Indian Mercantile Chambers, Nicol Road, Ballard Estate, Bombay. |
| | | Vice-Consul .. .. .. | A. F. Mody. | |
| | Calcutta .. .. | Consul .. .. .. .. | A. C. Daphtary. | 7, Wellesley Place, Calcutta. |
| | Madras .. .. | Consul .. .. .. .. | M. J. Callow. | 38C, Mount Road, Madras 6. |
| SWITZERLAND .. | Bombay .. .. | Consul-General .. .. .. | W. Dinkelmann. | Manekji Wadia Building, 127, Mahatma Gandhi Road, Fort, Bombay. |
| | Calcutta .. .. | Consul .. .. .. .. | E. Breuleux. | 4, Wood Street, Calcutta 16. |
| | Cochin .. .. | Consular Agent .. .. .. | R. Nievergelt. | C/o Volkart (India) P. Ltd., P.O. Box No. 3, Cochin. |
| SYRIA .. .. | Bombay .. .. | Consul-General .. .. .. | Sobhi Elejel. | Belha Court, Strand Road, Fort, Bombay 1. |
| THAILAND .. | Calcutta .. .. | Ag. Consul-General .. .. | Pholruan Khamhiran. | 56, Gariahat Road, Ballygunge, Calcutta 19. |
| TURKEY .. .. | Bombay .. .. | Consul-General .. .. .. | Rahim Karim Mistry. | 208, Dinshaw Wachha Road, Backbay Reclamation, Bombay 1. (Telephone : *Office :* 245377). |
| | Calcutta .. .. | Consul-General .. .. | S. Fazal Ellahi. | 4, Kanai Seal St., Calcutta 1. |
| | Madras .. .. | Consul-General .. .. .. | M. Mustafa Hussain, J.P. | 115, Lloyds Road, Cathedral P.O., Madras 6. |
| UNITED ARAB REPUBLIC. | Bombay .. .. | Consul-General .. .. .. | A. El-Moursi. | Eros Cinema Bldg., 124-D, Queen's Road, Bombay 1. |
| | Calcutta .. .. | Consul-General .. .. .. | Abdel Aziz Khalil. | 8/6, Alipor Park Road, Alipore, Calcutta 27. |
| UNITED STATES OF AMERICA. | Bombay .. .. | Consul-General .. .. .. | Milton C. Rewinkel. | "Lincoln House", 78, Bhulabhai Desa Road, Bombay 26. |
| | Calcutta .. .. | Consul-General .. .. .. | William K. Hitchcock. | 5/1, Harrington Street, Calcutta 16. |
| | Madras .. .. | Consul-General .. .. .. | Albert B. Franklin. | 150-B, Mount Road, Madras 2. |
| U.S.S.R. .. .. | Bombay .. .. | Consul-General .. .. .. | Vladimir K. Lobachev. | "Palm Beach", 42, Nepean Sea Road, Malabar Hill Bombay-6. |
| | Calcutta .. .. | Consul-General .. .. .. | Nikolai I. Voinov. | 31, Shakespeare Sarance, Calcutta 16. |
| | Madras .. .. | Consul-General .. . .. | G. I. Kaverin. | 3rd Left Street, Rly. Service Commission Road, Madras 6. |
| VIET-NAM (DEMOCRATIC REPUBLIC OF). | New Delhi .. | Consul-General .. .. .. | Nguyen Hoa. | 62, Golf Links Area, New Delhi. |
| VIET-NAM (REPUBLIC OF). | New Delh .. | Ag. Consul-General .. .. | Nguyen-Trieu-Dan. | 147, Jor Bagh, New Delhi 3. |
| YUGOSLAVIA (FEDERAL SOCIALIST REPUBLIC OF). | Bombay .. . | Consul-General .. .. .. | Zivojin Bulat. | 120/4, Vaswani Mansion, Dinshaw Wachha Road, Bombay 1. (Tel. No. 245874). |
| | Calcutta .. .. | Consul-General .. .. .. | Branko Japundzic. | 6, Ballygunge Park Road. |

# U. N. BODIES IN INDIA

## UNITED NATIONS

21, Curzon Road, New Delhi.

*Information Centre for India.*

Dissemination of objective information on the aims and activities of the United Nations through all information media is the main function of the United Nations Information Centre.

*Director :* Leonard A. Berry.

*Technical Assistance Board.*

The TAB Office is responsible for the co-ordination of United Nations aid programmes, in particular the Expanded Programme of Technical Assistance and the United Nations Special Fund Programme.

*Resident Representative, UNTAB and Director of Special Fund Programmes :* John McDiarmid.

*Deputy Resident Representatives :* Arsene Shahbaz, Nessim Shallon.

*Assistant Resident Representatives :* Douglas A. Thomas, L. Silbrnik, L. Cappelletti.

*World Food Programme Officer :* John P. Bradford.

## U. N. CHILDREN'S FUND (UNICEF)

*Address :*—Regional Office for India, Afghanistan, Ceylon, Nepal and Mongolia, UNICEF House, 11, Jorbagh, New Delhi-3.

**Telephone : 618371.**

Ever since UNICEF became a permanent body of U.N. Organization in 1953, its principal objective has been the furtherance of mother and child health through long range programmes *e.g.*, giving equipment to Primary Health Centres in Community Development Blocks, improving nutrition through Milk Plants, and applied nutrition projects, etc. UNICEF assistance is requested by the Governments concerned and the UNICEF Executive Board consisting of 30 Nations meets once a year to consider these requests.

***Director :* Dr. Charles A. Egger.**

## INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

Office address : Reserve Bank of India Building (Second Floor), Parliament Street, New Delhi.

Telephone : 34987.

*Ag. Resident Representative :* Romano Pantanoli.

**International Labour Office (India Branch), Mandi House, New Delhi.**

The Branch Office was established in 1928. It maintains close relations with the Government authorities, and employers' and workers' organisations, and acts as a clearing house of information on questions concerning labour and social policy.

It publishes a "News Service" in English and Hindi, dealing with the current activities of the International Labour Organisation. The Office has a good reference library. It also undertakes the sale of I.L.O. publications.

*Director :* P. M. Menon.

**United Nations Educational, Scientific and Cultural Organisation : Office of the UNESCO Chief of Mission in India and South Asia Science Cooperation Office, N-1, Ring Road, South Extension 1, New Delhi 3.**

*Chief of Mission :* Dr. A. G. Evstaflev.

*Director, South Asia Science Cooperation Office :* Dr. A. G. Evstaflev.

*Deputy Chief of Mission :* A. G. W. Cunningham.

*Deputy Director, South Asia Science Cooperation Office :* F. J. C. Pala.

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**FAO Regional Office for Asia and the Far East (Western Zone)—Ceylon, India and Nepal.**

1, Ring Road, Kilokri, New Delhi 14.

*Acting Deputy Regional Representative :* Cecil Day.

*Administrative Officer :* A. G. Georgiadis.

*Administrative Officer (SF) :* F. E. Woodrow.

*Coordinator, FAO Applied Nutrition Team, India :* Dr. I. A. Simpson.

*Regional Animal Production and Health Officer :* Roy E. Stout.

*Nutrition Officer (Education and Training) :* Miss B. M. Purvis.

*Cattle Husbandry Adviser :* R. L. Naumann.

*Fisheries Adviser :* K. H. Bain.

**World Health Organisation Regional Office for South-East Asia : World Health House, Indraprastha Estate, Ring Road, New Delhi 1.**

*Regional Director :* Dr. C. Mani.

*Director Health Services :* Dr. H. Richards.

*Chief, Office of Administration & Finance :* W. R. Hornett.

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*WHO Representative to India :* Dr. E. A. Gillis.

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# TRADE COMMISSIONS

## AUSTRALIA

*New Delhi :*—R. K. Scott, Commercial Counsellor and Senior Trade Commissioner.

R. Fletcher, Asst. Trade Commissioner.

*Address :* 34, Golf Links Road, New Delhi, P.O. Box 3033.

*Bombay :*—D. K. Fagg, Trade Commissioner.

*Address :* Mercantile Bank Building, 52/66, Mahatma Gandhi Road, Bombay, P.O. Box 217.

*Calcutta :*—E. J. Gaffey, Trade Commissioner.

*Address :* 2, Fairlie Place, P.O. Box 303, Calcutta.

## BRITAIN

*Delhi :*—E. A. Midgley, C.M.G., M.B.E., Minister (Economic and Commercial).

R. Fell, Counsellor (Commercial) ; J. D. Rimington, First Secretary (Commercial) ; C. G. Crews, First Secretary, (Commercial); B. Abbott, O.B.E., First Secretary, (Commercial).

*Address :* British High Commission, Shantipath, Chanakyapuri, New Delhi-21.

*Telegrams :* "UKREP", New Delhi.

*Calcutta :*—J. N. McKelvie, Counsellor (Commercial).

J. Ashwood, First Secretary, (Commercial).

*Address :* 1, Harrington Street, Calcutta-16.

*Telegrams :* "UKREP", Calcutta.

*Bombay :*—J. H. Fawcett, First Secretary, (Commercial).

*Address :* Mercantile Bank Building, Mahatma Gandhi Road, Fort, Bombay-1.

*Telegrams :* "UKREP", Bombay.

*Madras :*—H. F. Codling, First Secretary, (Commercial).

*Address :* 6, Armenian Street, Madras-1.

*Telegrams :* "UKREP", Madras.

## CANADA

*New Delhi :*—Commercial Counsellor : R. R. Parlour.

*Address :* Office of the High Commissioner for Canada, 13, Golf Links Area, New Delhi 3. P.O. Box 11.

*Cable Address :* "CANADIAN."

*Bombay :*—Canadian Government Trade Commissioner : S. G. Harris.

*Address :* Gresham Assurance House, Mint Road, P.O. Box 886, Bombay 1. *Cable :* "CANADIAN."

## CEYLON

*Geylon Govt. Trade Commissioner :* R. A. M. C. Wanigaratne.

*Address :* Ceylon House, Bruce Street, Fort, Bombay.

### JAMMU AND KASHMIR

*Trade Agent :* Dr. S. S. Nishat.

*Address :* Manekji Wadia Building, 129, Mahatma Gandhi Road, Bombay 1.

*Trade Agent, Kashmir House, Court Road, Amritsar :* Hans Raj Avasthi.

*Trade Agent, Pathankot :* D. N. Kachroo.

*Trade Commissioner, 5, Prithviraj Road, New Delhi :* S. K. Raina.

### NEW ZEALAND

*Trade Commissioner in India :* Dr. W. A. Brooker.

*Address :* New Zealand High Commission, 39, Golf Links, New Delhi 3.

*Telegraphic Address :* " PUKATEA."

### AUSTRIA

*Austrian Trade Representative in India :* Robert Schmidt.

*Address :* Queen's Mansions, Bastion Road, P.O. Box 1385, Bombay 1. *Telephone :* 263483.

*Ag. Austrian Trade Representative in Calcutta :* Dr. H. Rampitsch.

*Address :* 2/2, Harington Street, Calcutta 16.

### BULGARIA

*Trade Representation of the People's Republic of Bulgaria in India :*

*Address :* 150, Golf Links Area, New Delhi 3.

*Cable :* "BULTARG", New Delhi.

### CZECHOSLOVAKIA

*Commercial Counsellor & Trade Representative :* Z. Mizera.

*Commercial Attache—Deputy Trade Representative :* Vacant.

*Address :* 65, Golf Links Area, New Delhi 3.

*Trade Commissioner :* Jaroslav Skokan.

*Address :* Kasturi Bldgs., Jamshedji Tata Road, Bombay 1.

*Trade Commissioner :* J. Bocek.

*Address :* 24, Park Street, 4th Floor, Calcutta 16.

*Trade Commissioner :* D. Fatara.

*Address :* 11, Rutland Gate, 4th Street, Madras.

### DENMARK

*Trade Commissioner :* Lars Blinkenberg.

*Address :* Pallonji Mansion, New Cuffe Parade, Colaba, Bombay 5. *Tel. :* 211854. *Grams :* " DANTRACOM."

### FINLAND

*Trade Commissioner :* Raimo Waltasaari.

*Address :*—Chartered Bank Building, Mahatma Gandhi Road, P.O. Box 73, Bombay 1.

### FRANCE

*New Delhi :*—The Commercial Counsellor to the French Embassy, 130, Jor Bagh.

*Bombay :*—The Trade Commissioner for France, "Adelphi", 3, Queen's Road.

*Calcutta :*—The Trade Commissioner for France, 13, Park Mansions, Park Street.

*Madras :*—The Trade Commissioner for France, 18, Wallace Gardens, 1st Floor, Madras 6.

### GERMAN DEMOCRATIC REPUBLIC

*Trade Representation :*

*Head Office :* New Delhi, 1, Kautilya Marg. Herbert Fischer, *Trade Representative*. Phone : 34206. *Cables :* HAVDIN, New Delhi.

*Branch Office, Bombay :* 122, Dinshaw Wacha Road. H. Sachse, *Regional Trade Representative*. Phone : 245051/8, *Cables :* HAVDIN, Bombay.

*Branch Office, Calcutta :* P-17, Mission Row Extension, Phone : 238531. *Cables :* CALHAVDIN. A. Frotscher, *Regional Trade Representative*.

*Branch Office, Madras :* 1/1, Kodambakkam High Road, Nungambakkam. Dr. H. Faulwetter, *Regional Trade Representative*. Phone : 87615. *Cables :* HAVGERMAN.

### GERMANY (FEDERAL REPUBLIC)

*Chief Economic Officer :* Vilaus Zeller.

*Deputy Economic Officer :* Vice-Consul Wolfgang Friedel.

*Assistant Economic Officer :* Werner Frank.

*Address :* Dugal House, Road No. 3, Backbay Reclamation, Bombay 1. (Tel. 246023/24/25).

### HUNGARY

Trade Representation of the Hungarian People's Republic :—

*Commercial Counsellor & Trade Representative :* T. Huszar.

*Address :* 18, Golf Links Area, New Delhi.

*Trade Commissioner :* J. Feher.

*Address :* 11-A, Wodehouse Road, Bombay.

*Trade Commissioner :* G. Czigany.

*Address :* 6/2, Gurusaday Road, Calcutta-20.

### ITALY

*Consul General for Italy with Jurisdiction over Commercial matters :* Adm. Umberto Del Grande.

*Address :* Vaswani Mansion, Dinshaw Wachha Road, Fort, Bombay 1.

*Telephone :* 245177.

*Commercial Counsellor, New Delhi :* Dr. Francesco Lo Prinzi.

*Address :* Italian Embassy, Commercial Section, 7, Jor Bagh, New Delhi 3.

*Consul for Italy, Calcutta, with Jurisdiction over Commercial matters :* T. Ferrante (*Ag. Consul*).

*Address :* 3, Raja Santosh Road, Alipore, Calcutta.

### JAPAN

*Consulate-General :* Bombay.

*Consul General :* Shigezo Yoshikawa.

*Consul :* Toshiro Nagata.

*Address :* Kashmir House, 19 Nepean Road, Bombay 6.

*Consulate-General :* Calcutta.

*Consul General :* N. Takase.

*Consul :* Shivji Shigihara.

*Address :* 12, Pretoria Street, Calcutta 16.

### POLAND

*New Delhi—Commercial Counsellor :* W. Zawidzki. *Address :* 42/44 Sundar Nagar, New Delhi.

*Bombay—Consul :* A. Wojcik. *Address :* 40/A Pedder Road, Bombay 26.

*Calcutta—Consul :* R. Kawinski. *Address :* 13 Camac Street, Calcutta 16.

### RUMANIA

Trade Representation of the Rumanian People's Republic in India, 61, Golf Links, New Delhi. *Cables Address :* 'ROMANOCOM', New Delhi. Phone Nos. 618626 and 611648.

Trade Representation of the Rumanian People's Republic in India, Steelcrete House, Dinsha Wacha Road, Churchgate Reclamation, Bombay-1. *Cable Address :* 'ROMANOCOM', Bombay. Phone Nos. : 246161 and 246162.

Trade Representation of the Rumanian People's Republic in India, 11 Rajindra Nath Mukherjee Road (8th floor), Calcutta. 1. *Cable Address :* 'ROMANOCOM', Calcutta. Phone No. 237005.

### SWEDEN

*Trade Commissioner for Sweden :* G. A. Dahlström.

*Address :* Shangri La, Carmichael Road, Bombay 26.

*Calcutta :* Mans Chr. Hegraeus, Trade Commissioner for Sweden, 7, Wellesley Place, Calcutta.

### THAILAND

*Commercial Attache to the Royal Thai Embassy :* Aran Sachaveta.

*Address :* E-17, Ring Road, Defence Colony, New Delhi 3.

*Telephone :* 74113. *Telegraphic Address :* "THAITRADE", New Delhi.

### U.S.A.

Economic Section.

*Address :* American Consulate-General, "Lincoln House," 78, Bhulabhai Desai Road, Bombay 26.

### U.S.S.R.

Trade Representation of U.S.S.R. in India, Plots Nos. 6 and 7, Block 50-E, Nyaya Marg, Chanakyapuri, New Delhi 21. *Cables :* 'Vneshtorg,' New Delhi.

*Calcutta Branch and Calcutta Showrooms of the U.S.S.R. Machinery and Equipment :* 1, Bishop Lefroy Road (Larger Bldg.), Calcutta 20. *Cables :* 'Vneshtorg,' Calcutta.

*Bombay Branch :* "Avantica," 46, Pedder Road, Bombay 26. *Cables :* 'Vneshtorg', Bombay.

*Bombay Showrooms of the U.S.S.R. Machinery and Equipment :* Vasundhara House, Bhulabhai Desai Road, Bombay 26.

*Madras Branch :* 50-A, St. Mary's Road, Alwarpet, Madras 18. *Cables :* "Vneshtorg," Madras.

### YUGOSLAVIA

*Trade Commissioner,* Milenko Kovacic, Vaswani Mansion, 120/4, Dinshaw Wachha Road, Bombay 1. (Tel. No. 246114).

# SOME WOMEN'S ASSOCIATIONS

## ALL-INDIA WOMEN'S CONFERENCE

*Address :* 6, Bhagwandas Road, New Delhi.

*President :* Smt. M. S. H. Jhabvala.

*Vice Presidents :* Rajkumari Nagesh, Smt. Avabai B. Wadia, Smt. Kusum Desai, Smt. Leela Damodara Menon, Smt. Nallamuttu Ramamurthy, Smt. Usha Kolte.

*Hon. Gen. Secy. :* Smt. Lakshmi Raghuramaiah.

*Hon. Treasurer :* Smt. Pramoda Gosalia.

*Hon. Secy. AIWEF Association :* Smt. Pushpa Mehta.

*Village Mobile Health Van :* Smt. Gulab Dalal.

The Conference was started in 1927 and is the oldest women's welfare organization in the country.

It publishes a bi-monthly Bulletin in English called *Roshni*.

*Membership :* 66,000.

There are 49 branches in :

Andhra, W. Bengal, Bihar, Bombay, Delhi, Gujarat, H. Pradesh, Kashmir, Kerala, M.P., Madras, Maharashtra, Mysore, Punjab, Rajasthan, Saurashtra, U.P., Vidarbha, Orissa, Goa.

## INDIAN FEDERATION OF UNIVERSITY WOMEN'S ASSOCIATION

Affiliated to the International Federation of University Women, with headquarters in London.

*Address :* 6, Bhagwandass Road, New Delhi.

*President :* Mrs. Lakshmi M. Menon. *Secretary :* Mrs. Leela Shah.

There are member Associations in :

Bombay, Calcutta, Delhi, Kozhikode, Lucknow, Madras, Nagpur, Poona, Coimbatore, Ahmedabad, Tiruchirapalli, Ernakulam, Trivandrum, Coonoor and Dehra Dun.

One of the chief aims of the Indian Federation is to promote friendship and understanding among the University women of different nationalities. Number of University women in India is about 1,69,627.

## MAHARASHTRA STATE WOMEN'S COUNCIL

*Address :* Town Hall, Bombay 1.

*Office bearers :*

*President :* Mrs. Shyama Jaitly, B.A.

*Vice-President :* Mrs. Irene Heredia.

*Hon. Treasurer :* Mrs. Padmavati R. G. Saraiya.

*Executive Secretary :* Miss H. M. Dadina, M.A.

*Branches of Maharashtra State Women's Council :* Poona Women's Council, Poona, Samata Darshan Association, Aurangabad, Mahila Mandal, Matheran.

*Affiliated Societies :* 28 Societies are affiliated to the Maharashtra State Women's Council.

There are Committees for :

Bapnu Ghar, Beggar, Children's Film, Children's Library, Children's Recreation, Child Welfare, Funds, Haj, Health, Labour, Parliamentary, Rescue Home, Small Savings Campaign, Social Education, Women's Home Industries Depot, Ad Hoc Milk and Ad Hoc Building (Worli).

There are Civic Group, Bulletin Group and Education Group.

Maharashtra State Women's Council has 1,425 members.

## NATIONAL COUNCIL FOR WOMEN IN INDIA

Affiliated to the International Council of Women.

*Headquarters Office :*

Dolly Dale, Byramji Town, Nagpur.

Present Office Bearers :—

*President :* Smt. Kamalrukh D. Cassad ; *Vice-Presidents :* Kumari Avie J. Cama (Nagpur) ; Rani Ramkumar Bhargava (Lucknow) ; Mrs. Annie Basil (Calcutta) ; Smt. N. Walawalker (Bombay) ; Smt. M. Clubwalla Jadhav (Madras) ; Smt. K. H. Kutar (Jamshedpur) ; *Hony. General Secretary :* Smt. Sumati Tarkunde ; *Hony. Treasurer :* Smt. Padmavati K. Chitnavis.

*Affiliated State Councils :* Maharashtra State Women's Council, Bombay ; West Bengal Council of Women, Calcutta ; National Council of Women in India, Lucknow ; National Council of Women in India (U.P. Branch), Allahabad ; National Council of Women in India, Nagpur ; National Council of Women in India, Jamshedpur ; Orissa Nari Seva Sanga, Cuttack ; National Council of Women in India, Simla ; Delhi State Council of Women, Delhi ; Assam Provincial Mahila Samity, Gauhati ; Bihar Council of Women, Patna ; Gujrat Council of Women, Goa, National Council of Women, The Kerala Council of Women, Ernakulam.

*Affiliated Societies :* Trained Nurses Association of India, Delhi ; Young Women's Christian Association of India, New Delhi ; Association for Moral & Social Hygiene in India, New Delhi.

## RATAN TATA INDUSTRIAL INSTITUTE

*Address :* Hughes Road, Bombay 7.

*Office bearers :*

*President :* Lady Navajbai Ratan Tata.
*Vice-President :* Mrs. Gulestan R. Billimoria.
*Gen. Secy. :* Miss Aloo F. Desai.
*Hon. Treasurer :* Mrs. Shirin S. Talati.

The Sir Ratan Tata Industrial Institute founded in 1928 by the Trustees of Sir Ratan Tata is a unique centre raised to the memory of an illustrious member of the famous House of Tatas.

For 37 years, this Institute has helped to partially solve the problem of poverty and distress among Parsi families from the lower income groups, by encouraging girls and women to earn a living through suitable industries.

The average number of workers employed during 1964 was 3,695 and the wages paid Rs. 4,67,862.

The amenities provided were :— Towards meals Rs. 68,687; towards conveyance Rs. 13,122; Prize distribution Rs. 900 and Bonus Rs. 35,503.

The departments run by the Institute are : Catering, confectionery, laundry, hand embroidery, machine embroidery, lingerie and bambino.

Total sales during 1964 amounted to Rs. 20,40,361 which included Catering Rs. 7,13,565 ; Confectionery Rs. 7,19,439 ; Hand Emb. Rs. 63,546 ; Machine Emb. Rs. 85061 ; Lingeric Rs. 56,433 ; Bambino Rs. 1,83,801 ; Horse Shoe Cafeteria Rs. 1,91,532 ; Dyeing Rs. 12,104 ; Laundry Rs. 14,880.

## YOUNG WOMEN'S CHRISTIAN ASSOCIATION OF INDIA

A National women's association with over 60 branches in India. It is affiliated to the World Y.W.C.A. with headquarters in Geneva, Switzerland, with associations in 70 countries. The membership is open to all women and girls of all communities and creeds.

*Address :* Parliament Street, New Delhi.

*Office bearers :*

*President :* Mrs. Violet Alva.

*Vice-President :* Mrs. Achamma Matthai ; Mrs. G. L. Chandran ; Mrs. V. K. Mani ; Miss Sarah Paul ; Mrs. Dorothy Roy ; Miss Doris Wilson ; *Gen. Secy. :* Miss Ivy Khan.

Hostels for working women are maintained in more than 30 centres, and Holiday Homes are operated, in the hill stations of Ootacamund, Coonoor, Darjeeling, Mussoorie, Naini Tal and Simla.

Primarily a welfare organization, the programme is geared to meet the interests and needs of various groups. Rural Welfare work, adult education classes, vocational training, Employment Bureaus and Nursery Schools form part of its regular programme. Training of Youth in Citizenship is a major emphasis—carried out through Camps, Conferences, Seminars and Summer Schools.

# WHO'S WHO IN INDIA

**ABDOH, H.E. Dr. Jalaludin,** Ambassador of Iran to India. *b.* 1908 ; *Educ. :* Law graduate from the Law Faculty of Univ. of Tehran ; degree in public and economic laws and a certificate of studies in criminology from the Faculty of Law, Paris ; a doctor in laws from the Univ. of Paris. Served in the Ministry of Justice, 1927-34 ; joined the Ministry of Foreign Affairs, 1934 ; Dy. Chairman, Iranian Permanent Mission to the U.N. with the rank of Minister, 1951-53 ; Political Adviser to the Ministry of Foreign Affairs of Iran, 1953-54 ; High Counsellor to the Ministry of Foreign Affairs and Head of the Directorate-General of Political Affairs with the rank of Minister, 1954-55 ; Permanent Rep. of Iran to the U.N.O. with the rank of Ambassador, 1955-59; Minister of Foreign Affairs, Iran and Member of the High Political Council, 1959-61 ; Roving Ambassador, 1961-65 : attended the various sessions of the U.N. General Assembly as a member of the Iranian delegation. *Address :* 5, Barakhamba Road, New Delhi.

**ABDUL QADIR, Syed,** I.A.S., Director-General of Employment & Training and Ex-Officio Joint Secretary, Ministry of Labour & Employment, since 1956. *b.* Dec. 1, 1907 ; *Educ. :* Aligarh, Andhra and Madras Univs., Joined Govt. Service, Madras 1928 ; was Collector and Dist. Magistrate and Regional Director of Resettlement & Employment, Madras region, 1947-54 ; Leader, National Productivity Team on Supervisory and Operatives Training to Japan, U.S.A., and W. Germany, Sept-Nov. 1960. Participant along with representatives of ten countries in the study tour on Vocational Training in the U.S.S.R., Sept.-Oct., 1961 ; Chairman, Meeting of the I.L.O. Panel of consultants on problems of Young workers, held in Geneva, Oct.-Nov. 1961 ; Participant, International Seminar on the Planning of Vocational Training in Developing countries held in W. Germany, 1963; External Collaborator, I.L.O. Asian Seminar on National Planning of Vocational Training, Kuala Lampur, Nov. 1964. *Address :* 28, Akbar Road, New Delhi.

**ABDULLAH, Sheikh Mohamad,** ex-Prime Minister, Jammu and Kashmir. *b.* 1905, in Soura, near Srinagar : *Educ. :* Srinagar ; graduated with distinction from Lahore : M.Sc., Aligarh Univ. Initiated a regular campaign for responsible Government, crystallising in the formation of the Kashmir Muslim Conference which later became the National Conference in 1938 ; launched the 'Quit Kashmir' movement, 1946, which aimed at complete democratisation of Kashmir ; was put in prison ; elected Pres., All-India States Peoples' Conference ; released, 1947 ; was the Head of the Emergency Administration, Kashmir ; member, Kashmir Delegation from India to the U.N.O. ; M.P. for Kashmir till 1952 ; was detained for 4½ years from Aug. 9, 1953 ; released, Jan. 8, 1958 ; detained again, April 29, 1958 under the Preventive Det. Act ; released on April 8, 1964 on withdrawal by Kashmir Govt. of the case against him ; placed under restricted movements within the municipal limits of Ootacamund under the Defence of India Rules for his anti-national activities outside India, May 1965 ; transferred to Kodaikanal, July 14, 1965. *Address :* C/o Soura, P.O. Noushera, Srinagar.

**ABID ALI,** M.P., Vice-Pres., I.N.T.U.C. Pres., Rashtriya Mill Mazdoor Sangh, Bombay. *b.* 1900. Joined non-co-operation movement, and, Khilafat organisations, 1921 ; Secy. : Wardha Khilafat and Congress Cttees. ; C.P.P.C.C. 1923, All India National Flag Satyagraha Cttee., 1923 ; joined Bardoli struggle, 1928 ; General Secy. : B.P.C.C., 1929-34 ; Congress Reception Cttee., Bombay, 1934 ; member : A.-I.C.C., for several years now ; Bombay Legislative Council, 1949-52 ; Chairman, Divisional Cttee., Bombay State Transport Corporation ; participated in all national struggles ; courted jail several times ; faced police lathis, also shot by the police resulting in several injuries ; Trade Unionist, since working in Kanpur Mill at the age of 13 ; among founders of the I.N.T.U.C., 1947 ; Pres., Bombay Prov. I.N.T.U.C., 1948-51 ; Dy. Min. for Labour, Govt. of India, 1952-62 ; represented Indian workers in International Conferences, Montreal, 1946 ; San Fransisco, 1948 ; Ceylon, 1950 and Geneva, 1963-64 ; member : I.L.O. Governing Body since March 1965 ; I.C.F.T.U. Executive Board, since Feb. 1965, I.C.F.T.U. Executive Cttee., since July 1965 on behalf of whole Asia ; Leader, Indian Delegation to I.L.O. Conference, Geneva, 1953 and 1961, and Asian Reg. Conference, Tokyo, 1953, Delhi, 1957 ; widely travelled. *Address :* Bombay 26.

**ACHARYA, H.E. Mr. Bejoy Krishna,** B.A. (Hons.) (Econ.) (Calcutta), High Commissioner to Canada since July 20, 1964. *b.* May 1, 1912 ; *Educ. :* Calcutta and London Univs. Entered I.C.S., 1936 ; held charge of several important Bengal districts like Howrah, 24 Parganas, Bakarganj & Darjeeling ; served as Dewan of Tripura & Dy. Chief Commissioner, Himachal Pradesh ; Deputy High Commissioner for India at Dacca ; Indian Minister in Cambodia ; Jt. Secy., Ministry of External Affairs ; Ambassador in Czechoslovakia & Rumania, 1959-62 ; Ambassador to Morocco & Tunisia, 1962-64. *Address :* C/o External Affairs Ministry, New Delhi.

**ADANI, Ratubhai Mulshankar,** Ex-Minister for Co-operation, Community Projects, Panchayats, Roads and Buildings, Gujarat State. *b.* at Bhanwad in Halar District. Left studies early in 1930 to join Satyagraha Movement ; courted imprisonment several times ; started constructive work at Tarawada after his release from jail in 1934 ; went underground in 1942 and was active in the Quit India movement ; was C.-in-C., Arazi Hakumat organised in 1947 to liberate Junagadh from Pakistan ; elected member, Saurashtra Leg. Assembly in 1951 from Keshod Constituency and appointed Minister for Development and Planning, 1951 ; Minister for Prohibition, Village Panchayat, and Cottage Industries, Bombay State, 1956-60 ; Min. for P.W.D., R.D.D. & Labour, Gujarat, 1960-62 ; Min. for R.D.D., Roads and Bldgs., Gujarat, 1962-63. *Address :* Gandhigram, Junagadh.

**ADARKAR, Bhaskar Namdeo,** M.A. (Cantab.), B.A. (Bombay Univ.), M.B.E. (1946), Deputy Governor, Reserve Bank of India, since June 1965. *b.* May 18, 1910 ; *Educ. :* Wilson Coll., Bombay ; Gonville and Caius Coll., Cambridge. Deputy Economic Adviser to the Govt. of India 1945-49 ; Member : Indian Tariff Board, June-Nov., 1949 and 1950-1952 ; Indian Tariff Commission 1952 to 57 ; Officer on Special Duty, Ministry of Finance, 1957 ; Govt. of India's Delegate to E.C.A.F.E. and U.N. General Assembly (1959) ; Executive Director, I.M.F., 1957-61 ; Minister, Indian Embassy, Washington, 1958-61 ; Jt. Secy., Ministry of Commerce & Industry, Government of India, 1961-63 ; Addl. Secy., Min. of Economic & Defence Coordination, Feb. to Aug. 1963 ; Served on the Advisory Committee of Ten Experts on Industrial Development set up under the Economic & Social Council of the United Nations at New York in March 1963 ; Addl. Secy., Min. of Finance : Dept. of Coordination, Sept. 1963 ; Deptt. of Econ. Affairs, Govt. of India, 1963-65. *Publications : Indian Tariff Policy ; Devaluation of the Rupee ; The Gold Problem ; History of the Indian Tariff ;* and several official publications. *Address :* Reserve Bank of India, Bombay 1.

**ADHIKAR, Mitradev Mahanta,** L.T., Rashtrapati Award (1961), Writer. *b.* June 23, 1895 ; *Educ. :* Cotton Coll., Gauhati ; L.T. in 1925. Served in the Education Deptt., Assam, as Asstt. Teacher, Supdt. and Head Master, 1915-50 ; presided over Assam Sahitya Sabha's annual conference at Digboi, 1964 ; recipient of two prizes from Central Govt. for juvenile literature ; initiated as the Adhikar of Letugram Satra, Sarbaibondha Jorhat, Assam, 1950. *Publications : Dhruba ; Kukuri Kaia ; Chandrahar ; Via Viparyaya ; Mow Mahabharata ; Geeli Shatadal ; Jun Juni ; Vaidehi Viyoga ; Balichalan, Prachanna Pandava ; Cheneha Jari ; Mohon Bhoga,* etc. *Address :* Letugram Satra, P.O. Jorhat (Assam).

**ADVANI, Pritamdas Bhojraj,** M.Sc. Tech. (Manch.), M.I.E. (India), Consulting Engineer and Industrial Adviser; Director : Automobile Products of India Ltd. ; J. K. Chemicals Ltd., Gangapur Sugar Mills Ltd., etc. ; Chairman, New India Fisheries Ltd. ; Pres., Indian Council of Foreign Trade. *b.* May 21, 1891 ; *Educ. :* Hyderabad, Sind & Manch. Univ. Engr., Metropolitan Vickers in their Manchester Works and Bombay till end of 1921 and thereafter Manager, Bombay Region till Aug. 1928 ; Director of Industries, Govt. of Bombay 1928-44 ; Chairman, Board of Directors for Technical Education and Industrial Training, Bombay till Oct. 1944 ; Chairman, Board of Trustees, V.J.T.I., Bombay, 1938-48 ; M.L.C., Bombay, 1932-36 ; on special duty in U.S.A., 1939 in connection with proposal for the establishment of the automobile industry in Bombay ; Member : Senate. Bombay Univ., 1931-45 ; Central Board of Irrigation and Power ; Electrical Commsr., Govt. of Bombay, 1944-51. *Address :* "OCEANA," Netaji Subhas Road, Bombay.

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**AGRAWALA, Dr. Vasudeva S.,** Ph.D., D.Litt., Hindi Writer : Professor, Banaras Hindu University ; Founder Director ; Rigved Academy. *b.* 1904 ; *Educ. :* Banaras Hindu Univ. (1923-27) ; Lucknow Univ. (1927-31) ; took Ph.D., 1941 and D. Litt., 1946. Curator, Mathura Museum (1931-39) ; Curator, Lucknow Museum (1940-45) ; Supdt., Museums Branch of the Archaeological Survey, Govt. of India, New Delhi (1946-51) ; Professor, Art and Architecture, Banaras Hindu Univ. (1951-64) ; General Editor, *Prakrit Text-Society Series ; Nepal Endowment Sanskrit Publications Series, Banaras Hindu Univ. Publications : Catalogue of the Mathura Museum ; India as Known to Panini ; Harshacharita—A cultural Commentary ; Jayasi's Padmavata—A Commentary ; Bharata-Savitri—A Running Cultural Commentary on the Mahabharata ; Kadambari—a Cultural Commentary ; Markandeya Purana ; Devi Mahatmya ; Matsya Purana Sparks from the Vedic Fire ; Chakra Dhvaja ; Thousand Syllabled Speech of Vedic Symbolism ; Indian Art (Symbolism). Address :* Banaras Hindu University, Banaras 5.

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**AHMAD, H.E. Mr. Zaiton Ibrahim Bin,** High Commissioner for Malaysia to India and concurrently to Ceylon and Ambassador to Nepal. *b.* May 25, 1921 at Taiping, Perak; *Educ.:* High School, Klang, 1939 attended Raffles Coll., Singapore; graduated from the Univ. of Wales, Cardiff; London School of Economics, 1954-55. Appointed to the Malay Administrative Service, F. M. S., 1945 and to the Malayan Civil Service, 1952. First Secy., U.K. High Commission, Karachi, 1955; Charge d'Affaires and Counsellor, Embassy of Malaya in Djakarta, 1957; Principal Asst., Secy. (Political and Information), Min. of Ext. Affairs, Malaya, 1957; Deputy Secy., 1959-62; Ambassador of Malaya to the Philippines, 1962-63; attended the General Assembly of the U.N. as a member and adviser to the Malayan Delegation, 1959; member, Prime Minister's good-will delegation to Viet Nam, 1958, Thailand, 1959 and Canada and U.S.A., 1960; on special duty, Ministry of Ext. Affairs, Malaysia, 1963-64. *Address:* 143, Sundarnagar, New Delhi-11.

**AHMED, Fakhruddin Ali,** B.A. (Cantab.), Bar-at-Law, Min. for Irrigation and Power, Govt. of India, since Jan. 24, 1966; Member, Congress Working Cttee. and All India Parliamentary Board, since 1964. *b.* May 13, 1905; *Educ.:* Govt. High School and St. Stephen Coll., Delhi; History Tripos, Cambridge Univ., 1927; called to the Bar from the Inner Temple, London, 1928. Enrolled as Advocate, Punjab High Court, 1930 and later of Assam High Court and as a Senior Advocate, Supreme Court of India; member: Indian National Congress, since 1928; Assam P.C.C., its Exec. Cttee. and A.I.C.C., 1937-57; Congress Working Cttee., 1946-47; courted jail in freedom struggle; M.L.A., Assam, 1937-45; was Minister for Finance and Revenue in the Bardoloi cabinet; Advocate-General, Assam, 1946-52; member, Rajya Sabha, 1954-57; leader, Indian Lawyers' delegation to the U.S.S.R., 1955; member, Indian delegation to the U.N. General Assembly, 1957; elected M.L.A. from Jania constituency, 1957; Minister, 1958-62; elected again as M.L.A., 1962; Min. for Finance, Assam State, 1962-66. *Address:* New Delhi.

**AIYANGAR, K. R. Padmanabha,** M.A., B.L., M.B.E. (1943), Member, Monopolies Enquiry Commission,* New Delhi, since May 1, 1964, *b.* March 12, 1905; *Educ.:* Madras Univ. Entered I.A. & A.S. April 1929; served A.G.'s Offices in Madras, Lahore and Bombay, 1929-34 and in Audit & Accounts Deptt. of late G.I.P. Rly., B.B. & C.I. Rly. and N.W. Rly., 1934-39; selected to the Finance and Commerce Pool of the Govt. of India, July 1939; Under Secy. and later Dy. Secy., Finance, Govt. of India, from Aug. 1943; Secy., Central Pay Commission, 946; Joint Secy., Ministry of Finance, May 1947; member, Central Board of Revenue, Aug. 1948; Joint Secy. and Financial Adviser to Commerce & Industry & Production Ministries and Director of Govt. Companies like Sindri Fertilizers, etc., July 1951; Chairman, Jute Enquiry Commission, 1952-53; Joint Secy., Deptt. of Company Law Administration, Aug. 1955; member, Company Law Amendment Cttee., 1957; Chairman, Tariff Commission, 1959-64. *Address:* New Delhi.

**AJWANI, Lalsingh Hazarisingh,** M.A., Ellis Scholar and Gangadas Scholar, Sindhi Writer: Principal and Professor of English, D. & H. National and W. A. Science Coll., Bandra. *b.* July 17, 1899; *Educ.:* D. J. Sind Coll., Karachi; Univ. of Bombay; first class first in B.A. in English, 1919. Professor of English for over forty years at several colleges; Chairman, Cttee. of Post-Graduate Teachers in English, Univ. of Bombay; Convener, Sindhi Advisory Board, Sahitya Akademi, Delhi. *Publications: Immortal India;* and Sindhi books *Vichar, Umang,* etc. *Address:* D. & H. National and W. A. Science College, College Road, Bandra, Bombay 50.

**AKHTAR-UL-IMAN,** M.A., Cine Writer & Poet. *b.* Nov. 12, 1915; *Educ.:* Delhi Coll. & Univ. of Aligarh. After graduation worked for a year as Editor of a literary magazine; was a clerk in supply Deptt.; Staff Artist, A. I. R.; became a Cine Writer and Dialogue Writer; wrote short stories too in the beginning which were published in different magazines; started writing poetry, 1933; joined Shalimar Pictures, Poona, 1944. *Publications:* Poems; *Girdab,* 1940; *Tareek Sayyara,* 1946; *Aab Joo* 1955; *Sab Rang,* 1947. *Yaden,* all in 1963; *Bint-e-Lamhat* under print. *Address.* 2, Hill View, 2nd Floor, 241, Hill Road, Bandra, Bombay 50.

**AKILANDAM, P. V.** *alias* **Akilan,** Secy.-Genl. for the Federation o All-India Tamil Writers; Tamil Novelist and Short Story Writer. *b.* Feb. 7, 1923; *Educ.:* Maharajah's Coll., Pudukkottai. Participated in the freedom movement, 1941-44; took to writing; takes active part in social uplift; attends college meetings as a speaker, etc.; broadcasts on radio; his novels and stories are being filmed for the Tamil screen; awarded first prize for his nove' by the Tamil Academy on behalf of the Madras Govt.; won the Sahitya Akademi Award for 1963 for his novel *Vengaiyin Maindhan. Publications:* 25 books (short stories, novels, literary articles, plays, juvenile literature and translations); contributes short stories and serial novels to *Kalaimagal, Kalki* and other leading journals in Tamil Nad. *Address:* 171, Lloyds Road, Madras 14.

**AL. Valliaapa,** Writer of children's books in Tamil; Member: Cttee. for the development of children's literature; Govt. of Madras; Tamil Adv. Board, National Book Trust, New Delhi; Founder, Children's Writers' Assoc., Madras. *b.* Nov. 7, 1922; *Educ.:* Pudukottai, Madras State. Some time Editor, *Poonjolai,* a monthly Tamil magazine for boys and girls; has been working for the growth of children's literature for the past 23 years; conducted a survey on 'Juvenile Reading habits in Tamil' and prepared a report for the UNESCO; awarded a silver shield by the Vice-President of India, on behalf of Children's Writers' Assoc., 1963. *Publications: Malarum Ullam,* a collection of 135 poems for children; got the Central Govt. award and also the Madras State award 1957; got the Madras State award for his story book for children *Nalla Nanbarkal,* 1955. Biographies: *Periyor Vazhvile, Chinnanchiru Vayadil,* 1958; Novel: *Manikku Mani;* Poems: *Malarum Ullam* Vol. II; and other 35 books. *Address:* 10, Vaidyaramier Street, Madras 17.

**ALEXANDER, M. P.,** Chairman, Coir Board, since Aug. 1962. *b.* Feb. 14, 1910; *Educ.:* Passed B.A. and M.A. from Madras Christian Coll. and B.L. from Law Coll., Trivandrum. Joined the Central Govt. Service, 1944; served as Supdt. and Asstt. Collector, Central Excise and Customs; Joint Chief Controller of Imports and Exports, New Delhi; Under Secy. and Deputy Secy., Ministry of Commerce and Industry, New Delhi. *Address:* Coir Board, Ernakulam.

**ALI, J. Sultan,** Diploma in Painting (Madras), Cert. in Textile Designing. Diploma in Photography, Painter; Exhibition Officer, Lalit Kala Akademi. *b.* Sept. 12, 1925; *Educ.:* Govt. School of Arts and Crafts, Madras; 1st Class Diploma, 1945; Textile Institute, Madras, 1946; British Institute of Photography, Madras, 1st Class Diploma, 1949. Asst. Instructor in Painting, Govt. School of Arts and Crafts Madras, 1947-48 worked with Gemini Film Studio, Madras, 1949-50;, Art Master, Rishi Valley School, Andhra Pradesh, 1951-54; one man shows, Madras, 1946 and 1947; Madanapalle, 1949; New Delhi, 1963; 1964; has participated in the National Exhibition of Art, Lalit Kala Akademi, since 1956; awarded President's Gold Plaque, for the best exhibit, in the 33rd Annual Art Exhibition by All India Fine Arts & Crafts Society, New Delhi; his paintings are exhibited in various important museums in India, besides private collections in India and abroad. *Address:* Lalit Kala Akademi, Rabindra Bhavan, New Delhi 1.

**ALI, Mr. Justice Syed Murtaza Fazl,** B.A. (Hons.), B.L., Judge, High Court, Jammu and Kashmir State, since April 8, 1958. *b.* Dec. 20, 1920; *Educ.:* St. Joseph's Convent, Patna; Patna Univ., Patna; Muslim Univ., Aligarh. Enrolled as an Advocate, Patna High Court, Nov. 7, 1944, and Federal Court, Dec. 1949; worked on the panel of lawyers for the State of Bihar in the Patna High Court from 1950; conducted important cases in the High Court and Supreme Court on civil, criminal, constitutional and revenue side. *Publications:* Ten Years' Questions and Answers of the Patna University on Hindu Law, Mohammadan Law, Contract Act, Torts and Criminal Law. *Address:* 2, Silk Factory Road, Srinagar.

**ALI YAVAR JUNG BAHADUR, Dr. Nawab (Mirza Ali Yar Khan),** B.A., Hons. (Oxford), Padma Bhushan (1959), Vice-Chancellor, Aligarh Muslim University; member, Univ. Grants Commission, since Feb. 1966. *b.* Feb. 16, 1905; *Educ.:* Nizam Coll., Hyderabad-Dn.; Queen's College, Oxford. Director of Information; then Secy. to Govt., Constitutional Affairs, and Home, Hyderabad Govt., 1934-45; Vice-Chancellor, Osmania Univ., 1945-46; Minister for Constitutional Affairs, Local Govt., Health and Education, 1946-47; delegate to U.N., 1946, 1950, 1952 and 1953 and Deputy Chairman of the Indian Delegation to the 1954, 1955, 1956, 1957 and 1960 Sessions; Vice-Chancellor, Osmania University, 1948-52; Indian Ambassador to Argentina and Minister Plenipotentiary to Chile, 1952-54; Ambassador

* The Commission has submitted its report and he ceases to be a member.

to Egypt and Minister Plenipotentiary to Lebanon and Libya, 1954-58; Indian Ambassador to Yugoslavia and Greece and Minister Plenipotentiary to Bulgaria, 1958-61; Chairman, U.N. Ad Hoc Cttee. for SUNFED, 1956; Doctor of Laws Honoris Causa, Osmania Univ., 1956; Ambassador of India to France, 1961-64. *Publications: Hyderabad in Retrospect. Address:* Aligarh Muslim University, Aligarh.

**ALKAZI, Ebrahim Hamed,** Graduate of The Royal Academy of Dramatic Arts, London, Sangeet Natak Akademi Award as Best Producer of the year (1962), Director, National School of Drama and Asian Theatre Institute, since 1962. *b.* Oct. 18, 1925; *Educ.:* The Royal Academy of Dramatic Arts, London. Is an associate, Drama Board of Great Britain; awarded the Starred Certificate for work of outstanding merit by the British Drama League; won the B.B.C. Broadcasting Award, 1950; was First Pres., Theatre Group, Bombay, 1947; Founder, Theatre Unit's School of Dramatic Arts, Bombay; was founder-Editor, Theatre Unit Bulletin; Principal, Natya Academy, Bombay, till June 1962. *Address:* Rabindra Bhavan, Ferozeshah Road, New Delhi-1.

**ALVA, Joachim,** B.A., LL.B., M.P. (Lok Sabha), Journalist and Advocate. *b.* Jan. 21, 1907, at Udipi, Mysore; *Educ.:* St. Aloysius Coll., Mangalore; St. Xavier's, Elphinstone and Law Colleges, Bombay. Twice imprisoned in freedom movement suffering 3 years in jail; gave up practice and entered journalism by starting *FORUM*, 1943; member, Standing Cttee., A.I.N.E.C.; Sheriff of Bombay, 1949; twice member, Executive Committee, Congress Parliamentary Party and Associate Member, A.I.C.C., 1956-57 and 1958; member, Parliamentary Consultative Cttees. of External Affairs, Defence, Finance and Atomic Energy, 1957-61; member: Provisional Parliament of India, 1950-52; First Business Advisory Cttee., Air India International; thrice elected to the Lok Sabha, 1952, 1957 and 1962 General Elections from Kanara Constituency, Mysore State; travelled extensively abroad, 1961 and 1962. *Publications: Men and Supermen of Hindustan* (Thackers). *Permanent Address:* "Forum," Bombay.

**ALVA, K. Nagappa,** M.B., B.S., Minister for Health, Govt. of Mysore, since March 14, 1962; Dy. Leader, Mysore Legislature Congress Party, since 1962. *b.* 1908; *Educ.:* Govt. Arts & Science Coll., Mangalore; Madras, Medical Coll., Madras. Organising Secy., Madras Students' Assoc. (1937-39); Secy., Madras Hospitals' House-Surgeons' Assoc.; Pres., Mangalore Circle Cttee. (1943-49) & South Kanara D. C. C. (1949-52); Member: K. P. C. C. from 1942, South Kanara Dist. Board (1946-57) and Mangalore Municipality for 12 years; Pres.: Mangalore Ports & Dock Workers' Union (1953-56); South Kanara Branch of the Indian Medical Assoc.; Member, A.I.C.C. from April 1958; Vice-Pres., Mysore P.C.C. from 1958; Medical Practitioner at Mangalore and Bangalore (1942-58); Hon. Physician, Bowring & Lady Curzon Hospitals (1959-61); elected twice from Panemangalore Constituency of South Kanara (1957 & 1962); member, Indian Delegation to XVI World Health Assembly, Geneva, 1963. *Address:* Minister for Health, Vidhan Soudha, Bangalore 1.

**ALVA, Shrimati Violet,** M.A., LL.B., Deputy Chairman, Rajya Sabha since April 19, 1962 (first Woman to be elected as Dy. Chairman of the Rajya Sabha). *b.* April 24, 1908; *Educ.:* St. Xavier's Coll.; Govt. Law Coll., Bombay. Jailed in the "Quit India" Campaign (1943); M.L.C., Bombay (1947-52); first woman member elected to the Standing Cttee. of the A.I.N.E.C. (1952); elected to the Exec. Cttee. of the Congress Party in Parliament (1953 and 1955); member: Public Accounts Cttee., Indian Parliament (1954-56); Vice-Pres. for India of the International Federation of Women Lawyers, from 1953; Pres., International Federation of Women Lawyers, 1962; attended the 1962 convention of I.F.W.L. held in Mexico; led delegation to U.N. seminar on protection of human rights in the administration of criminal justice, New Zealand, Feb. 1961; Official participant for U.N. seminar on human rights on freedom of information, Delhi, 1962; travelled U.S.A. extensively 1962; member, Indian Parliamentary Delegation to: Nigeria 1963; U.S.A., 1964; W. Germany, U. K. and Philippines 1965; also visited Japan; Dy. Min. for Home Affairs, Govt. of India, 1957-62; Pres.: Y.W.C.A. of India, 1964; Business and Professional Women's Club, Delhi, 1964. *Address:* 3, Asoka Road, New Delhi.

**AMERASINGHE, H.E. Mr. Hamilton Shirley,** B.A. (Hons.) (Lond.), High Commissioner for Ceylon in India, since Sept. 1963. *b.* March 18, 1913; *Educ.:* Royal Coll., Colombo; Ceylon Univ. Coll. Entered the Ceylon Civil Service, Jan. 1937; served in judical and administrative posts in districts; Secy. to the Minister of Health under the Donoughmore Constitution, 1941-46; Resident Manager, Gal Oya Development Board in charge of the Gal Oya Valley Multi-Purpose Project, 1950-52, Counsellor, Embassy of Ceylon, Washington D.C., 1953-55; In 1957 served as Ceylon's Delegate to the Fifth Cttee., U.N. General Assembly, 1957; appointed Permanent Secy., Ministry of Nationalised Services and Road Transport, and Chairman, Port (Cargo) Corporation, Colombo, Sept. 1958; Secy. to the Treasury, 1961-63; appointed Permanent Secy. to the Ministry of Finance, Member, Monetary Board and Alternate Governor for Ceylon, I. B. R. D., June 1961. *Address:* 3, Tilak Marg, New Delhi.

**ANAND, Mulk Raj,** B.A. (Hon.), Ph.D., Author, Novelist and Critic; Editor, *Marg* Magazine. *b.* December 12, 1905; *Educ.:* Punjab University, Universities of London and Cambridge. Sometime Tagore Prof. of Art and Literature, Univ. of Chandigarh, Punjab; Editor of various magazines; Leverhulme Fellow for research in Hindustani literature, 1940-42. Member: National Book Trust of India; Sahitya Akademi; appointed Chairman, Lalit Kala Akademi for 5 years, 1966-71. *Publications: Novels: Private Life of An Indian Prince, Seven Summers, The Big Heart, The Sword and the Sickle, Across The Black Waters, The Village, Two Leaves And A Bud, Coolie, Untouchable, Tractor and the Corn Goddess, The Barber's Trade Union.* Essays: *Apology for Heroism, Lines Written to an Indian Air, Hindu View of Art, Persian Painting,* etc. *Address:* 25, Cuffe Parade, Colaba, Bombay.

**ANANT, Ganesh Ram,** M.A., LL.B., Minister for Public Health, Madhya Pradesh, since May 1965. *b.* Sept. 23, 1923, in Dhawaipur; *Educ.:* Katghora A. V. M. School; Govt. High School, Bilaspur; B.A. from Arts Coll., Bilaspur; M.A. from Morris Coll., Nagpur; LL.B. from Univ. Coll. of Law, 1950; appeared for I.A.S., 1950. Elected M.L.A., M.P., from Janjgir-Pamgarh constituency, 1952; Chairman, Reception Cttee., All India Harijan Legislators and Workers Convention, Oct. 1952; Dy. Min. for Agriculture, 1952; Minister for Social Welfare, M.P., 1956; returned unopposed to the M.P. Leg. Assembly from Masturi double-member constituency, 1957; Minister for Cooperation, Social Welfare and Rural Local Govt., M.P., 1957-62; member, M.P.C.C. and P.C.C. Exec. Cttee.; Chairman: Olympic Assoc., M.P.; was Chairman, M.P. Sports Council; re-elected M.L.A. from Masturi constituency, 1962; member, Exec. Cttee., M.P. State Council for Child Welfare; Assoc. Member, Delimitation Commission for M.P.; Min. for Cooperation, 1963-65. *Publications:* Several articles in Hindi and English. *Address:* Cottage No. 5, near M.P. Secretariat, Bhopal.

**ANASUYA DEVI, Smt. Avasarala,** B.A., Musician and Cine Music Director. *b.* May 12, 1923; *Educ.:* P. R. Coll., Kakinada. Has been giving public concerts of lyric and folk music on important occasions all over India and from stations of the A.I.R. since 1938; has given records in H.M.V. and Columbia; directed music for the picture 'Mahatma Kabir' in Canarese and gave tunes for several pictures in South Indian languages and Hindi; member: Sangeet Natak Akademy, Andhra Pradesh, 1958-63; Central Audition Board for Sugam Sangeet, Madras; is a pioneer music composer with special emphasis on light and folk music of Andhra; started composing light classic, light and folk tunes early in life; gave lyric and folk music concerts at Rashtrapathi Bhavan, 1953; UNESCO Seminar, New Delhi, 1956; Tata's Diamond Jubilee Celebrations, Jamshedpur, 1958; inauguration of Andhra Pradesh at Hyderabad, 1956, etc. *Address:* 32, Raman Street, T. Nagar, Madras 17.

**ANDERSON, George Lloyd,** B.A., Managing Director, Firestone Tyre & Rubber Co. of India Private Ltd., since July 1959. *b.* Jan. 12, 1908; *Educ.:* Miami Univ., Oxford, Ohio, U.S.A.; took B.A., June 1928. Spent at Firestone Plants in Akron, Ohio, U.S.A., working in various departments securing broad background and comprehensive knowledge of Firestone tyres, tubes and other rubber products, 1928-31; engaged in setting up manufacturing processes, Firestone: Buenos Aires, Argentina, 1931-32; Bilbao, Spain, 1933-34; Basle, Switzerland, 1935-39; Production Manager, Firestone, Bombay, 1940-Oct. 1945; Plant Director Firestone, Bombay, Nov. 1945 to June 1959; President, I.R.T.D.A. *Address:* Marble Arch, Pedder Road, Bombay 26.

**ANEY, Dr. Madhao Shrihari,** B.A., B.L., M.P., Ex-Governor of Bihar. *b.* August 29, 1880; *Educ.:* Morris Coll., Nagpur. Joined Bar 1908 at Yeotmal; Vice-Pres., Indian Home Rule League; Pres., Berar P.C.C., 1921-30; joined C.D. Movement; Ag. Pres., Indian National Congress, 1933; M.L.A. for Berar, 1924-26, 1927-30 and 1935; member, Congress Working Cttee., 1924-25 and 1931-34; member, Nehru Cttee.; Vice-Pres., Responsivist Party; General Secy., Congress Nationalist Assembly Party, 1935; member, Viceroy's Executive Council (Indians Overseas), 1941-43; Representative of the Govt. of India in Ceylon, Aug. 1943—July 1947; Member, Constituent Assembly of India, July 1947—Jan. 1948; Governor of Bihar, 1948-June 1952; Member, Lok Sabha since 1959. *Publications:* Collection of writings and speeches in Marathi and English. *Address:* M.P. (Lok Sabha), Dn. No. 354, 5, Meenabag, Maulana Azad Road, New Delhi; C/o A. S. Bobde, Advocate, Civil Lines, Nagpur 1.

**ANGAMI, Jasokie,** Minister for Forests, Supply & Transport, Relief & Rehabilitation, Nagaland. *b.* 1927; *Educ.:* Matriculated from Kohima High School, 1948; B.Sc. from St. Edmund's Coll., Shillong, 1952. Joined the Naga independence movement and went underground, 1953; was Publicity Officer and Ag. Secy., Naga National Council; broke away from Phizo on the question of violence and came out and organised the Naga People's Convention which demanded separation from Assam and the formation of Naga Hills Tuensang Area, 1957; Secretary, Naga delegation to New Delhi to discuss the formation of Nagaland with Mr. Nehru, Oct. 1960; was Gen. Secretary, N.P.C. till the formation of the State of Nagaland; Exec. Councillor in Charge of Medical & Public Health, Excise, Forests, Jails, Commerce & Industry, 1961-63. *Address:* Kohima.

**ANGAMI, T. N.,** Speaker, Leg. Assembly, Nagaland, since Feb. 1964. *b.* in Zotsoma village four miles from Kohima. Has been closely associated with social and political activities from 1946; is an active member in the political life of Nagaland from 1950; was an Exec. member of the Naga National Council; broke away from that organisation in 1955 on the question of violence, 1955 and helped the formation of the Naga People's

Convention; elected member of Select Cttee. since the inception of Naga People's Convention, 1957; again elected member of Working Cttee. of N.P.C.; elected to the Interim Body from Angami tribe, Feb. 1961; Chairman, Interim Body, Nagaland, 1961-63. *Address:* Kohima.

**ANSARI, Abdul Qaiyum,** Minister for Public Health and Jails, Govt. of Bihar, since Oct. 1963. *b.* July 1, 1905, at Dehri-on-Sone (Bihar); *Educ.:* Sasaram and Dehri High Schools; Aligarh Muslim, Calcutta and Allahabad Univs. Joined the N.C. Movement, 1920; has been a staunch Congressman since then; courted imprisonment several times during the freedom struggle; started the Momin Movement to counteract the communal propaganda and the Two-Nation theory of the Muslim League, 1938; Pres.: Bihar Provincial Jamiat-ul-Momineen, 1938-47; All-India Momin Conference, since 1947; elected M.L.A. (Congress), Bihar, 1946, 1952 and 1962; Chairman: Zoological Society of Bihar, etc. Member: A.I.C.C.; Cong. Working Cttee., 1959-61; Pres.: Indian Muslim Youth Kashmir Front; Minister for Public Works, Govt. of Bihar, 1946-52 and 1955-57; Editor, *Tahzeeb*, an Urdu Monthly; Fellow, Patna Univ., 1940-51; Pres., B.P.C.C., till 1963. *Address:* Patna and Dehri-on-Sone.

**ANTHONY, Frank Reginald,** B.A. (Nagpur Univ.), M.P. and Pres., Anglo-Indian Assoc.; member: National Defence Council; National Integration Council, 1961; Viceroy's Gold Medallist in English, Univ. Prizeman and Scholar, Bar-at-Law of the Inner Temple, London. *b.* Sept. 25, 1908; *Educ.:* Nagpur Univ. and London. Leading criminal lawyer in M.P.; elected President-in-Chief, Anglo-Indian and Domiciled European Assoc., All-India & Burma, in 1942, in succession to the late Col. Sir Henry Gidney; nominated to the Central Leg., 1942; renominated in 1946; member: Viceroy's National Defence Council; Sapru Conciliation Cttee., etc.; Central Pay Commission; one of India's Delegates to the General Assembly of the U.N., 1946; one of India's representatives to the Commonwealth Parliamentary Conference, 1948; member, Constituent Assembly of India; nominated to the Lok Sabha under special provision in the Constitution for the Anglo-Indian Community, March 1952, April 1957 and March 1962; represented India at the Commonwealth Parliamentary Conference, New Delhi, Dec. 1957. *Address:* New Delhi and Jabalpur.

**ANTHONY, H.E. Major Seth Kwabla,** M.B.E. (Military Decoration), High Commissioner for Ghana in India and Ambassador to Afghanistan, since April 1962. *b.* June 16, 1915; *Educ.:* Achimota Coll., Ghana. Taught at Achimota College for two years; joined the Gold Coast Regiment, 1939; had training at the Sandhurst Officers' Cadet Training Unit (Surrey), England and one year's administrative course in Cambridge. Commissioned as 2nd Lieut.; promoted Major; twice mentioned in Despatches; joined the Administrative Service of the then Gold Coast, 1946; Dist. Officer in Ashanti, 1946–51; Asstt. Secy., Ministry of Defence and External Affairs, Gold Coast, 1952–54; Sr. Asstt. Secy., Ministry of the Interior, 1954–56; Counsellor and Charge d'Affaires, Ghana Embassy, Washington D.C.; Ag. Permanent Rep. of Ghana to the U.N., till Nov. 1957; Counsellor to the Ghana Embassy in Paris, 1959; was the Ghana Permanent Rep. and Consul-General in Switzerland. *Address:* 2, Golf Links, New Delhi.

**AO, P. Shilu,** Chief Minister, Nagaland, since Dec. 1, 1963. *b.* Dec. 15, 1916; *Educ.:* Matriculation in first division, 1939; B.A., B.T. from St. Edmund's Coll., Shillong. Served in the Education Department for six years; Assam Civil Service, 1951-60; took prominent part in the social welfare and political activities in Nagaland; an organiser of the Naga National Council formed at Wokha in June 1946; resigned from service and got elected as a member, Interim Body from Ao area; and subsequently to the Executive Council; Chief Executive Councillor, Nagaland, Mar. 16, 1961-Nov. 30, 1963. *Address:* Kohima.

**APPARAO, Dr. Ponanagi Sri Rama,** M.A., Ph.D., National Award (1961), Telugu Writer. *b.* July 21, 1923; *Educ.:* M.A. (Andhra Univ.); Ph.D. (Osmania Univ.). Lecturer in Telugu in various colleges, 1946-56; Govt. of India Research Scholar in Humanities, Osmania Univ., 1956-59; Officer-in-Charge of Nationalisation of Text-books in Andhra Pradesh, since 1959; Hon. Secy., A. P. Sangeeta Nataka Akademi, since 1961; recipient, National Award for his publication *Natya Sastramu*, 1961; is Text-books Officer, D.P.I.'s Office, Hyderabad. *Publications: Tajmahal* (Drama 1942); *Venuvu* (Poetic Prose 1952); *Viswabharati* (Novel 1946); *Natya Sastramu* (1959). *Address:* Text-books Officer, Office of the Director of Public Instruction, Hyderabad 22.

**ARDELEANU, H.E. Mr. Aurel,** Ambassador Extraordinary and Plenipotentiary of the Rumanian People's Republic to India, since March 3, 1964. *b.* Sept. 27, 1924 in the village of Teaca, Cluj Region, Rumania. *Educ:* The Bucharest Institute for Economic Sciences and Planning; graduated in 1948. Functions held up to now: Director in the Council of Ministers, 1953; Deputy Minister, Ministry of Home Trade, 1954; Vice Chairman, Central Union of Co-operatives, 1955; Secy., Central Cttee. of Trade Unions, 1960; Director, Ministry of External Affairs, 1963; awarded different Orders and Medals of the Rumanian People's Republic. *Address:* Embassy of the Rumanian People's Republic, New Delhi.

**ARMSTRONG, James Ridley,** A.M.I. Mech. E., Managing Director, Richardson & Cruddas Ltd., Engineers, Bombay and Madras, since 1962. *b.* June 18, 1902, at Bosworth, Leicestershire; *Educ.:* Latymer Upper School, London; Kilmarnock Technical Coll., Ayrshire; Heriot Watt Coll., Edinburgh; Pupil with The Kilmarnock Engineering Co. Ltd., Kilmarnock, Scotland. Joined Richardson & Cruddas and came to India, 1925; became Partner, 1946; and General Manager, 1950; Officer in Royal Artillery A.F. (I), 1926-30; Officer Commanding, Royal Engineers A.F.(I), Bombay, 1939-40. *Address:*—*Residence:* B-3, Mafatlal Park, Warden Road, Bombay 26; *Office:* Byculla Ironworks, Bombay 8.

**ATAL, H.E. Raja Jai Kumar,*** B.A. (Hons.) (Oxon.), I.C.S., Indian Ambassador in Ethiopia, since Feb. 1963. *b.* Jan. 19, 1914; *Educ.:* Winchester and Balliol Coll., Oxford-B.A. (Hons.), 1935. Joined I.C.S., 1936; Deputy Commissioner, Yeotmal, Nagpur, Chanda and Saugor, 1937-46; Private Secy. to Maulana Abul Kalam Azad, Dy. Secy., Ministries of Education, Transport and External Affairs, 1946-48; Dy. High Commsr. to Pakistan, 1952-54; Minister, Indian Embassy, Washington, 1954-56; Jt. Secy., Min. of External Affairs, 1957-59; Ambassador to Turkey, 1959-63. *Address:* Atal Ban, Jaipur; c/o Ministry of External Affairs, New Delhi.

**ATREYA, Dr. Bhikhan Lal, M.A., D., Litt. Padma Bhushan (1957), Knight Commander (Italy, 1949), etc.,** Philosopher and writer; Editor: *Darshana International; Psychics International; Garvesha* (Hindi); Hon. Director, Indian Child Guidance Clinic, Varanasi; Pres.: Indian Philosophical Congress, 1958; Akhil Bharatiya Darshan Parishad. *b.* Sept. 24, 1897; *Educ.:* Town School, Saharanpur; Govt. High School, Muzaffarnagar; Banaras Hindu Univ.; Coll. of Science, Calcutta Univ. Served the Banaras Hindu Univ., 1923-57; as Birla Visiting Prof. of Indian Philosophy and Culture, visited Thailand, China, Japan, U.S.A., England, Poland and several other European countries, 1948, 1951, 1952, 1954 and 1964; presided over the Indian Philosophical Congress, 1958; member: Editorial Board, Great English Indian Dictionary, etc.; Hon. Dir., International Research Instt., Dehra Dun. *Publications: Shankar's Doctrine of Maya* (Hindi); *The Philosophy of Yogavasistha; Sri Vasistha Darshanam* (Sanskrit); *The Spirit of Indian Culture, An Introduction to Parapsychology, A History of Indian Ethics,* (Hindi), etc. *Address:* Atreya Niwas, P.O. Hindu University, Varanasi 5.

**AUNG SAN, Her Excellency Madam (Maha Thiri Thudhamma Daw Khin Kyi), Ambassador Extraordinary and Plenipotentiary** of Burma to India, concurrently Ambassador to Nepal, since July 1960. *b.* April 16, 1911. Member of Parliament, 1947-48; Chief Commr., Burma Girl Guides Assoc.; Dir., Junior Red Cross; Lady Supdt.-in-Chief, Burma Ambulance Brigade; Vice-Pres., Ramakrishna Mission Hospital & Library; elected Pres., W.H.O. Regional Conference, Colombo, 1950; led Burmese delegation to World Health Assembly, Geneva, 1950, 1951 & 1952; has travelled widely in Europe, the Far East and the U.S.A. on study tours and goodwill missions; awarded Mother of Burma from U.S.A., 1950; Maha Thiri Thudhamma, 1951; Yugoslav Star Class II, 1955; Noble Order of the Crown of Thailand Class II, 1955. *Address:* Burma House, 24, Akbar Road, New Delhi.

**AYYANGAR, M. Ananthasayanam,** Law Graduate (Madras Univ.), Governor of Bihar, since May 12, 1962. *b.* Feb. 4, 1891 at Thiruchanoor, Chittoor Dist.; *Educ.:* Devasthanam High School, Tirupati; Pachaiappa's Coll. and Law Coll., Madras. Member: Fiscal Commission; Constituent Assembly of India; Steering Cttee. of Indian Constituent Assembly; Andhra P.C.C.; A.I.C.C.; Central Advisory Board of Education; Dy. Speaker, Lok Sabha; Chairman: Criminal Tribes Enquiry Cttee.; Estimates Cttee., 1950-54; Pres.: Harijan Sevak Sangh; D.C.C., Chittoor; Secy., Constitution Club; courted jail several times during freedom movement; conferred "Doctorate of Literature" by Shri Vaishnava Theological Univ., Brindavan, 1954; re-elected Speaker, May 1957. Elected Chairman, Commonwealth Parliamentary Delegation, 1957; Leader, Indian Parliamentary delegation to Czechoslovakia, Rumania, Bulgaria and Poland, 1959; Speaker, Lok Sabha, 1956-62. *Publications: Kamala Lectures on Culture and Indian Religious Thought; Our Parliament. Address:* Tirupati, Andhra; Raj Bhavan, Patna.

**AYYAR, Mr. Justice H. Anantanarayana,** B.A., I.C.S., Judge, High Court, Andhra, Pradesh, since Feb. 9, 1962. *b.* Nov. 24, 1907; *Educ.:* Tirunelveli; Tiruchirapalli, London (I.C.S. probation). Selected by open competition in London in the I.C.S., 1931; started training as Asstt. Collector in Madras State, Dec. 1932; Sub-Collector, Sept. 1934-Oct. 1936; on special duty for preparation of Administration Report of Madras Presidency, Oct. 1936–Jan. 1937; Sub-Collector, 1937-41; underwent judicial training, 1941-43; Dist Judge in various districts, 1943-53; allotted to Andhra State, in the partition of Madras, 1953; Chairman, Tribunal for Disciplinary Proceedings for Andhra at Madras, 1953-55; Secy. to Govt., Andhra Pradesh, Law Dept., Hyderabad, 1957-58; Chief Judge, City Civil Court, Hyderabad, 1959; Addl. Judge, High Court, Andhra Pradesh, Hyderabad, 1959-62. *Address:* Hyderabad.

**BABU, Banamali,** Law First Class First (Patna), Minister of Law, Orissa, since 1963. *b.* March 9, 1918; *Educ.:* Cuttack. Practised as an Advocate till 1955; took part in social welfare activities in the State; became Municipal Councillor, Sambalpur, 1959; elected M.L.A., Orissa in the mid-term election, 1961; has been connected with several organisations; organised Burla Medical Coll., Women's

* Appointed Ambassador to Yugoslavia.

Coll., Convent Secondary Trg. Coll. and several other institutions in Sambalpur Dist. *Address:* No. 6, Ganganagar, New Capital, Bhubaneshwar.

**BACHAWAT, Mr. Justice Ranadhir Singh,** M.A. (Cal.), LL.B. (Lond.), Judge, Supreme Court of India since 1964. *Educ.:* St. Xavier's Coll., Calcutta; B.A. degree 1925; was awarded the Jubilee Post Graduate Scholarship and Bankim Behari Sen Gold Medal as also Sarveswara Purna Chandra Gold Medal; M.A. degree from Calcutta Univ., 1927; LL.B. degree from London Univ., 1931; called to the Bar by the Inner Temple, in 1931. Enrolled as an Advocate, Calcutta High Court, 1931. Judge, Calcutta High Court, 1950-64. *Address:* Supreme Court, New Delhi.

**BACHCHAN, Harbans Rai,** M.A. (Alld.), Ph.D. (Cantab.), Officer on Special Duty (Hindi), Ministry of External Affairs, New Delhi, since Dec. 1955. *b.* Nov. 27, 1907; *Educ.:* Allahabad, Banaras and Cambridge. Research student at the Univ. of Cambridge (U.K.), 1952-54. Producer, A.I.R. (Allahabad), 1955; is a popular Hindi poet; has been writing since 1929. *Publications:* Author of about 40 books some of which are *Madhushala* (translated into English by Marjorie Boulton & R. S. Vyas as *House of Wine*), 1935; *Nishanimantran* (1939) (collection of songs); *Bengal Ka Kal* (1943); *Khadi Ke Phul* (1948) (Tributes to Mahatma Gandhi); *Macbeth* (Hindi translation in blank verse), 1957; *Jan-Gita* (Translation of *The Gita* into Avadhi—Doha-Chaupai, 1958; *Othello* (Hindi translation in Blank verse), 1959; *Tribhangima* (Collection of Poems), 1961; *Nai-Purane Jharokhe* (Collection of essays), 1962; *Char Kheme Chaunsath Khunte* (Collection of Poems), 1963; *Do Chottarean* (1965); *W. B. Yeats & Occultism* (English), 1965, etc. *Address:* 13, Willingdon Crescent, New Delhi 11.

**BAHADUR, Raj,** Minister of State in the Ministry of Information and Broadcasting, since Jan. 24, 1966; *b.* August 21, 1912; *Educ.:* Sadar High School, Bharatpur; Maharaja's High School and Maharaja's Coll., Jaipur; Agra Coll. and St. John's Coll., Agra. Member, Central Adv. Cttee., Bharatpur State, 1939-42; Mun. Commr., Bharatpur, 1941-42; participated in the Quit India Movement; imprisoned 1942-45 & 1947; elected to State Representative Assembly, 1943; Secy., Assembly Praja Parishad Party, 1943-48; Gen. Secy., Matsya Union Cong. Cttee., 1948-49; Vice-Pres., Bharatpur D.C.C.; Pres., Bar Assoc., Bharatpur, 1948-51; visited Turkey, Italy, France, Switzerland, U. K., Netherlands, U.S.A., Venezuela, Trinidad, W. Germany, Japan, Thailand and Malaya; elected to the Indian Constituent Assembly, 1948; Secy., Congress Party in Parliament, 1951-52; member: Rajasthan P.C.C.; A.I.C.C.; Dy. Minister for Communications, 1951-56; Leader, I.C.A.O. Assembly at Trinidad, 1956; Minister in the Ministry of Communications, Feb. 14-Dec. 7, 1956; Minister for Communications, 1956-57; Min. of State in the Ministry of Transport and Communications, 1957-62; re-elected M.P., 1957 and 1962; Minister for Shipping, 1962-63; Min. of Transport, Govt. of India, 1964-66. *Address:* 9, Akbar Road, New Delhi.

**BAHADUR, Mr. Justice Shamsher,** B.A. (Hon.) (Econ.) (Punjab), M.A. (History) (Punjab), B.Sc. (Econ.) (Hons.) (Lond.), Barrister-at-Law, Judge, Punjab High Court, since May 11, 1959. *b.* Nov. 15, 1907; *Educ.:* Central Model School, Lahore; Govt. Coll., Lahore; London School of Economics, London; Middle Temple, London. For some time a Univ. Prof. in Political Science; started practice in the Punjab High Court, 1933; was Reader of Law, Law Coll., and Hailey Coll. of Commerce, Lahore; on partition shifted to the East Punjab High Court, Simla; Dist. and Sessions Judge, Punjab, 1950; Chairman, Election Tribunals, 1952-53; Legal Remembrancer and Secy. to Punjab Govt., 1954-59. *Address:* Judge, Punjab High Court, Chandigarh.

**BAHADUR Singh, Indar Jit, M.A.** (Oxon.), B.Litt. (Oxon.), Bar-at-Law, Jt. Secretary, Ministry of External Affairs, since Jan. 1964. *b.* June 12, 1914; *Educ.:* Queen's Royal Coll., Trinidad; Univ. of Oxford. Broadcasting Officer, British Embassy, Chungking, 1944-45; Indian Consul, Shanghai, 1946-47; First Secy., Indian Embassy, Tokyo, 1947-48. India's Representative on the U.N. Temporary Commission on Korea, 1948; Dy. Secy., Ministry of External Affairs, 1949-50; First Secy., and later Counsellor, Indian Embassy, Washington, 1950-53; acted as Indian Consul General, New York; Political Adviser to the Indian Chairman of the Neutral Nations' Repatriation Commission in Korea, 1953-54; Counsellor, and for some period, Charge d'Affaires, Indian Embassy, Peking, 1955-58; Commr. for the Govt. of India in British East Africa and the Federation of Rhodesia and Nyasaland and Consul Gen. of India in the Belgian Congo and Ruanda Urundi, 1958-61; Political Officer in Sikkim and Bhutan from 1961-63. *Address:* C/o The Ministry of External Affairs, New Delhi.

**BAIG, Abbas Ali, P.P.E.** (Oxon.), Cricketer. *b.* March 19, 1939; *Educ.:* Osmania Univ., Felsham House, Suffolk and Univ. Coll., Oxford. Captained Hyderabad Schools side in cricket, 1954; made his debut in Ranji Trophy when 15, scored 105 runs against Mysore in the 2nd match, 1955, went to England, 1956; joined Oxford, 1959; holds Oxford records for highest aggregate on Parks ground, 5th wicket partnership and highest individual score since war; scored centuries against Lancashire and Yorkshire inside a week; joined the Indian touring team and scored 102 runs in the 1st match against Middlesex; played for the 1st time in the 4th Test and scored a century; scored six centuries in the 1959 cricket season, his aggregate score being 1,882 runs; was given visitors' award; awarded Somerset County Cup, 1960; flew down from England to play against Australia and Pakistan; 96 against Ceylon in 1964-65; toured W. Indies with Swanton's team and Africa, Greece and Far East with Roberts Commonwealth XI; is Manager, Sales Office, Hindustan Ferodo Ltd. *Address:* 133, C. C. I. Chambers, Bombay 1.

**BAJAJ, Kamalnayan,** Economics Tripos PT. I (Cambridge Univ.), Hindi Visharad, Prayag, M.P., business man and industrialist. *b.* Jan. 23, 1915; *Educ.:* Sabarmati Ashram, Gujarat Vidyapeeth, Ahmedabad, Satyagraha Ashram, Wardha, under Mahatma Gandhi and Acharya Vinoba Bhave; later at Colombo and Cambridge Univ. (England). Chairman & Mg. Dir., Bachhraj & Co. Ltd.; Chairman: Punjab National Bank Ltd.; Mukand Iron & Steel Works Ltd.; Bajaj Electricals Ltd.; Bajaj Auto Ltd.; Dir. several sugar, cement, banking and insurance companies, etc.; Trustee and member of Exc. Cttee., Gandhi Smarak Nidhi, etc.; Pres., Employers' Assocn. of Rajasthan; Mg. Cttee. Member: Rajasthan Chamber of Commerce & Industry, Jaipur; several educational, social and cultural institutions and assocs.; Chairman, Jamnalal Bajaj Seva Trust and Shiksha Mandal, Wardha; elected member, Lok Sabha from Wardha on Congress ticket, 1957 & 1962; Treasurer, Indian Parliamentary Group. *Address:* 51, Mahatma Gandhi Road, Bombay 1.

**BAKHSHI, Ghulam Mohammed,** Ex-Prime Minister, Jammu and Kashmir. *b.* July 21, 1907. Began life as a school teacher; served with the Local Branch of the All India Spinners Assoc.; courted imprisonment four times during the freedom movement in the State; jailed for 16 months, 1934; worked underground during the movement for Responsible Govt. in Kashmir, 1938; took a prominent part in mobilising Indian opinion from outside the State during the "Quit Kashmir" movement; organised the Peace Brigades and Border Scouts in Kashmir and Jammu during the tribal raids of 1947; Deputy Prime Minister in charge of Police, Militia, Transport, Supplies and P.W.D., Emporia in the Sheikh Abdulla Cabinet till Aug. 8, 1953; re-elected Leader, National Conference Parly. Party, after the General Elections in the State, 1957 and 1962; Prime Minister, J. & K. State, 1953-63; resigned under the "Kamaraj Plan" for Party Work, Sept. 1963; arrested and detained under D.I.R. on Sept. 22, 1964; released on health grounds, Dec. 1964. *Address:* Srinagar.

**BALAMANI Amma, Shreemati N.,** Writer. *b.* July 19, 1909; *Educ.:* Privately. Only literary career; awarded 'Sahitya Nipuna' Medal, instituted by the Maharaja of Cochin, Feb. 1963. *Publications:* *Mother* and Fourteen other volumes of poems. *Address:* C/o Mathrubhumi, Kozhikode, Kerala.

**BALIGA, Bantval Vittal, B.A., D.I.I.Sc.** (E.T.), D.I.I.Sc. (Commn.), Member Brit. I.R.E., Sr. Mem. I.R.E., Fellow, I.T.E., Managing Director, Bharat Electronics Ltd., Bangalore. *b.* June 13, 1909; *Educ.:* Madras Christian Coll., Madras; Indian Inst. of Science, Bangalore. Installation Engineer, A.I.R., 1937-39; Asstt. Chief Engineer, A.I.R., 1939-45; Chief Engineer, A.I.R., 1945-52; Wireless Adviser, Ministry of Communications, 1952-53; Chief Engineer, A.I.R., 1953-58; Chairman, Electro Tech. Divisional Council of Indian Standards Institution; Member: Bd. of C.S.I.R.; Exec. Council, N.P.L.; Court and Council, Indian Inst. of Science; Radio Research Cttee., etc. *Address:* Bel House, Jalahalli, Bangalore.

**BAM, Arvind Shankar,** B.Sc. (Bombay), B.Sc. (Hons.) (London), I.C.S., General Manager, Indian Airlines Corporation, since Dec. 1965. *b.* March 12, 1918; *Educ.:* B.Sc. from Fergusson Coll., Poona, 1939; B.Sc. (Hons.) from King's Coll., London, 1941. Entered Indian Civil Service, 1941; Asstt. Collector, Dharwar, 1942-March 1944; Special Officer, Civil Supplies, Darjeeling, 1944-45; Dist. Controller of Civil Supplies, Jalpaiguri, 1945-46; Asstt. Collector, Broach, July 1946-April 1947; Under Secy., Home Deptt., Govt. of Bombay, April-Aug. 1947; Deputy Secy., Aug. 1947-Aug. 1949; First Collector and District Magistrate, Kolhapur, Aug. 1949-Dec. 1952; Dy. Secy., Govt. of India, Ministry of Rehabilitation, Calcutta, Dec. 1952-March 1957; Iron & Steel Controller, 1957-61; Chairman, Tea Board, Govt. of India, till Dec. 65; led the Indian Tea Delegation to the U.S. & Canada, and also to Australia, New Zealand and Singapore, 1962. *Address:* Airlines House, 113, Gurdwara Rakabganj Road, New Delhi.

**BANERJEE, Bhabendra Nath,** B.Sc. (Cal.), LL.B. (Cal), LL.M. (London), Barrister-at-Law, Secretary, Rajya Sabha, since Oct. 1963. *b.* Jan. 8, 1916; *Educ.:* Scottish Churches School and Coll. (Calcutta); Univ. Law Coll. (Calcutta); London School of Economics; Inner Temple. Joined Bengal Judicial Service, 1942; Asstt. Solicitor, Ministry of Law, Govt. of India, 1950-52; Asstt. Legal Adviser and Legal Adviser to the High Commissioner for India in London (1952-1955); Deputy Secy., Ministry of Law, Govt. of India, 1956; Deputy Secy., Rajya Sabha Secretariat, 1956-59; Joint Secy., Rajya Sabha Secretariat, 1960-63. *Address:* Parliament House, New Delhi.

**BANERJEE, Mr. Justice Binayaknath,** M.A., LL.B., Judge, High Court, Calcutta, since 1957. *b.* June 1906; *Educ.:* Presidency Coll., Scottish Church Coll., Univ. Law Coll., and Post Graduate in Arts, Univ. of Calcutta; B.A. with Honours, 1928; M.A. (Univ. Gold Medallist), 1930; LL.B., 1931. Enrolled as an Advocate of the Calcutta High Court, 1933; Lecturer, Univ. Coll. of Commerce, 1949–57.

*Publication : Natural Justice and Social Justice before the Supreme Court (1950-59).* ***Address :*** 6/1, William's Lane, Calcutta 9.

**BANERJI, Asoka Nath,** Gen. Manager, Rourkela Steel Plant, since Jan. 1964. *b.* Dec. 19, 1917 ; *Educ. :* Muzaffarpur (Bihar), Patna and Calcutta. was in the Army, Nov. 1941-1947 ; joined Indian Administrative Service, 1947 ; has worked as Dist. Magistrate in various districts in West Bengal ; has also worked as Chief Passport & Visa Officer for India at Dacca for over a year, 1952 ; Deputy General Manager, Durgapur Steel Project, July 1956-April 1960 ; Secy., Hindustan Steel Ltd., Ranchi, 1960-61 ; Iron & Steel Controller, Govt. of India, 1961-64. ***Address :*** 33, Rourkela, Orissa.

**BANERJI, S. K.,** B.A., Indian Ambassador to West Germany, since Dec. 1964. *b.* Oct. 21, 1913 ; *Educ. :* Univ. of Allahabad and New Coll., Oxford. Entered I.C.S., 1937 ; served in C.P. and Birar as Deputy Commissioner in Khandwa, Balaghat, Nagpur and Akola upto 1946 ; Secy., Civil Supplies, 1946-47 ; First Secy. and later, Charge d'Affaires, Embassy of India in Tehran, 1947–49 ; Dy. Secy., Ministry of External Affairs, 1949–51 ; Dy. High Commissioner for India in Lahore, 1951-54 ; Consul-General of India, San Francisco, 1954-56 ; Chairman, U.N. Visiting Mission to British and French Togolands, 1955 ; Minister of India to Syria, 1956 ; Ambassador of India to Syria, 1957–58 ; High Commissioner for India to Malaya and Commissioner to Singapore, Sarawak, Brunei and North Borneo, 1958–59 ; Joint Secy., Ministry of External Affairs, 1960 ; Chief of Protocol, March 1961-Oct. 1964 and Addl. Secy., Ministry of External Affairs, Jan.-Oct. 1964. *Publications :* Official Reports. ***Address :*** C/o Ministry of External Affairs, New Delhi.

**BANSAL, Ghamandi Lal,** M.A., LL.B., Secretary-General, Federation of Indian Chambers of Commerce and Industry ; Ex-Member, Lok Sabha ; ex-Director, Central Board of the State Bank of India. *b.* Dec. 3, 1914 ; *Educ. :* A. V. Mission School, Ranikhet ; Govt. Coll., Almora ; Lucknow Univ. Represented International Chamber of Commerce at 5th Session of ECAFE ; attended International Labour Conferences, Geneva, 1950 and 1951 ; toured U.S.A. as Leader Specialist on American Govt. invitation ; elected member of Parliament on Congress ticket from Jhajjar-Rewari constituency, 1952-57 ; was member, Govt. Delegations to GATT, 1953 and 1954 ; attended the 12th Session of ECAFE as Govt. of India's delegate ; member, Indian Industrial Delegation to Europe and America, 1957 ; Delegate to the U.N. Conference on Trade and Development, 1964 ; represented Govt. of India on the Steering Cttee. of World Bank Study Team on Local Transportation, 1965 ; *Publications : India and Pakistan—An analysis of economic, mineral and agricultural resources.* ***Address :*** 28, Ferozeshah Road, New Delhi.

**BARMAN, Mr. Justice Satyabhushan,** B.A. (Hons.) (Econ. & Pol. Science), Barrister-at-Law, Judge, Orissa High Court, Cuttack, since 1958. *b.* May 1, 1907 ; *Educ. :* Mitra Institution, Bhowanipur, Calcutta ; Presidency Coll., Univ. Coll. and Law Coll., Calcutta ; King's Coll. & Birbeck Coll., London ; Lincoln's Inn, London ; called to the Bar (1932). Research in the treatment of young criminals in London with particular reference to the English Borstal system under the aegis of the Home Office in London (1932-34) ; Chairman, Cttee. of Enquiry into the working of the House of Detention and the Central Children Court, Calcutta (1948) ; Advocate, Supreme Court (1953) ; practised in Calcutta High Court (1935-58) ; Chairman, Enquiry Commission, Mahanadi Bridge Accident, 1963 ; Commission of Enquiry, Students' Agitation, Orissa, 1964. *Publications : The English Borstall System ;* Report on the results of enquiry into the House of Detention and the Central Children Court, Calcutta. ***Address :*** No. 1, Cantonment Road, Cuttack.

**BARUA, Hem,** M.A., M.P., Writer in Assamese and English. *b.* April 22, 1915 ; *Educ. :* Calcutta Univ. M.A. in 1938. Joined B. Borooah Coll., Gauhati, 1944 ; jailed in the Quit India Movement, 1942 ; M.P., 1957-62 ; visited Burma, 1950 ; U.S.A., U.K., France, Switzerland and Italy, 1953-54, Soviet Union, 1958. *Publications :* Assamese : *Sagar Dekhicha ; Sanmihali ; Ae Gaon Ae Git ; Adhunik Sahitya ; Sahitya Aru Sahitya ; Balichanda ; Ranga Karabir Phul ; Konnaki ; Cupid Aru Psyche* etc. etc. ; English : *August Revolution in Assam ; Fairs and Festivals of Assam ; Modern Assamese Poetry, (An Anthology) ; The Red River and the Blue Hill ; Idle Hours* 1961 *; Folksongs of India.* ***Address :*** 83-D, South Avenue, New Delhi.

**BARVE, Sadashiv Govind,** B.A. (Bombay & Cantab.), I.C.S. (Retd.), Member, Planning Commission, Govt. of India, since May 1965. *b.* April 27, 1914 ; *Educ. :* Fergusson Coll., Poona, Cambridge Univ., England. Joined I.C.S., 1935 ; Collector of Ahmedabad (1946), Poona (1947-48) ; Municipal Commissioner, Poona (1949-52) ; Jt. Secy., Govt. of India, Ministry of Finance (1952-55) ; Secy., Official Language Commission (1955) ; Secy. to the Govt. of Bombay/Maharashtra, P.W.D. (1957-61) ; Chairman, Study Group (Bombay City), 1958. Leader of the delegation to the World Bank (1959) for loan for the Koyna Project ; Min. of Finance, Maharashtra (1962-63) ; Chairman : Maharashtra State Irrigation Commission ; Maharashtra Industrial Development Corporation ; Administrative Reorganisation Cttee. ; Minister of Industries and Electricity, Maharashtra State, 1963-65. *Publications : Congresschya Umbarthyawar ; With Malice Toward None : A Critique of New India's Plans And Aspirations.* ***Address :*** Planning Commission, New Delhi.

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**BEG, Mr. Justice Nasir Ullah,** B.A. (Madras), M.A. (Cantab.), Judge, High Court, Lucknow. *b.* June 4, 1905 ; *Educ. :* Passed S.L.C. Exam. in the first class with distinction in Science, 1919 ; Intermediate Exam. from Nizam Coll., Hyderabad in the first class with distinction in Ancient History and Logic, 1921 ; awarded Lord Pentland Gold Medal for Muslim student who was first in the Univ. ; B.A. from Presidency Coll., Madras with first class in Philosophy, 1923 ; awarded Scott Elocution Prize from the Presidency Coll. ; B.A. (Hons.) in Law from Trinity Coll., Cambridge with 1st class in Qualifying Exam. in Law ; took M.A. degree from Trinity Coll., Cambridge ; called to the Bar from Gray's Inn, Jan. 1929. Asst. Govt. Advocate, Chief Court of Avadh, 1941–46 ; Govt. Advocate, Chief Court of Avadh, 1946–48 ; Govt. Advocate, High Court at Allahabad, 1948-51. ***Address :*** High Court, Lucknow.

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**BHARDE, Trimbak Shivram, B.A., LL.B.,** Speaker, Maharashtra Leg. Assembly; since March 17, 1962. *b.* May 25, 1914; *Educ.:* Ahmednagar; had a brilliant academic career. Joined Congress, 1936; courted jail in the freedom movement; became Editor, *Sanghshakti*, weekly, 1946; was Chairman, Reception Cttee., Bombay State Journalists' Conference, Ahmednagar; was later Pres., Journalists' Assoc.; introduced many reforms as Chairman, Exec. Cttee., Ahmednagar Dist. School Board; Hon. Secy., Ahmednagar Education Society; was Secy., Maharashtra Regional Congress Cttee.; elected M.L.A., Bombay from Ahmednagar, 1957; Minister for Co-operation, Bombay State, till April 1960 and of Maharashtra, 1960-62; is Chairman: Maharashtra State Bharat Sevak Samaj; Working Group, Khadi & Village Industries Board, Maharashtra; Samyukta Sadachar Samiti, Maharashtra; Working Chairman, Citizens' Defence Cttee. *Address:* "Nandanvan," 4, Little Gibbs Road, Malabar Hill, Bombay 6.

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**BHATT, Jyotindra Manshanker,** Post-Diploma in Painting, President's Gold Plaque (1956), Painter. *b.* March 12, 1934; *Educ.:* Fine Arts Coll., M.S. Univ. of Baroda, Baroda; Diploma in Painting, 1954 and Post-Diploma (Specialization), 1956; has been a painter; awarded President's Gold Plaque under the auspices of the Lalit Kala Akadami, 1956; and a National Award, 1963; recipient of a Cultural Scholarship of Govt. of India in Painting (1957–59) under the guidance of Prof. N. S. Bendre at Baroda; was Secy., Baroda Group of Artists, 1956–61; Recipient, Italian Govt. Scholarship for painting, 1961–62; teaches painting in the Deptt. of Painting, Faculty of Fine Arts, M. S. Univ., Baroda; awarded Fulbright Scholarship, U.S.A., 1965. *Address:* Fine Arts College, University Road, Baroda 2.

**BHATT, Ravishanker Santoshram,** B.A. (Bombay), B.A. (Hons.) (Lond.), M.A. (Lond.). Chairman, Unit Trust of India, Bombay, *b.* December 13, 1909; *Educ.:* Samaldas Coll., Bhavnagar; Bombay School of Economics and Sociology; B.A. (Hons.), 1932 and M.A., 1936 from London School of Economics and Political Science, London. Secy., Industrial Investment Trust, 1936-40; Secy., Diwan's Office, Bhavnagar and subsequently Nayab Diwan (Finance and Railway), 1940-47; Finance Officer, Oriental Govt. Security Life Assurance Co., 1948-53; Managing Director, Bombay State Financial Corporation, Nov. 1953-May 1957; member, Tariff Commission, 1957–60; Exec. Dir., Indian Investment Centre, Dec. 1960–April 1964. *Publications:* Literary essays and special studies on Economics and financial subjects in various journals. *Address:* Amar Building, P.M. Road, Bombay 1.

**BHATT, Smt. Urmilaben Premshankar,** B.A. (Special), Deputy Minister for Public Health, Jails, Social Welfare and Housing, Gujarat State, since Sept. 19, 1963. *b.* April 11, 1922, at Mandvi, Surat Dist.; *Educ.:* Mandvi High School, Mandvi, Surat Dist.; M.T.B. Coll., Surat. Entered public life, 1948; is Hon. Secy., Dakshin Gujarat Pachhat Varg Kelvani Mandal, Surat; elected Vice-Chairman, Dist. School Board, Surat, 1954-58; is member, Social Education Cttee. of the Dist.; actively participated in Congress activities; elected Secy., Chorashi Taluka Congress Cttee.; Co-opted member, Gujarat P.C.C.; member, Bombay State Social Welfare Board, 1955-60; Dy. Minister for Social Welfare, Prohibition, Excise and Rehabilitation, Gujarat State, 1960-62; Dy. Min. for Health and Jails, Gujarat, 1962-63. *Address:* Bungalow No. 8, Camp, Ahmedabad 3.

**BHATTACHARJEE, Jyotish,** Diploma in Commercial Art, Painter; Art Executive, Directorate of Commercial Publicity, Ministry of Commerce, Govt. of India, *b.* Nov. 3, 1922, at Chittagong (E. Pakistan); *Educ.:* Govt. School of Arts and Crafts, Calcutta. Participated in several exhibitions in India and abroad; held one-man shows in New Delhi, Calcutta and Italy; worked with the International Artist Association, Rome, 1957–58; member, Governing Council and Chairman, Exhibitions Cttee., All India Fine Arts and Crafts Society, New Delhi; Vice-Pres., Sculptors and Painters Assoc., Calcutta; President's plaque in 1959 and Gold Medal in 1960 for the best exhibit of the year; National Award of the Lalit Kala Akademi in 1963 and several other awards at various exhibitions · paintings acquired by National Gallery of Modern Art; Lalit Kala Akademi; Baux Arts Society, Cairo and by several others in India and abroad. *Publications:* Author of short stories and articles on art. *Address:* 15A/31, Western Extn. Area, Karol Bagh, New Delhi 5.

**BHATTACHARYA, Dr. Bhabani,** B.A. Hons. (Lond.) Ph.D. (Lond.), Writer and Journalist. *b.* Nov. 12, 1906; *Educ.:* Patna and Univ. of London. Press Attache, Embassy of India, Washington, 1949–50; member, first cultural delegation to the U.S.S.R., 1951; invited by Harvard Univ., U.S.A., 1959; delegate to: Harvard-Japanese International Seminar, Tokyo, 1960; invited by the Govt. of Australia as State guest, 1962; received Prestige Award from the Univs. of New Zealand, 1962; invited by West German Govt. and the British Council, 1963; Member, Advisory Board for English, Sahitya Akademi; Secy., Tagore Commemorative Volume Society. *Publications: Some Memorable Yesterdays; Indian Cavalcade; The Golden Boat* (Translations from Tagore); Novels: *So Many Hungers!*; *Music For Mohini*; *He Who Rides A Tiger*; *A Goddess Named Gold*; work translated into 26 languages, including 15 European languages; Editor of a selection of Tagore essays sponsored by Ford Foundation, *Towards Universal Man. Address:* "Godhuli", Bezonbagh, Nagpur.

**BHATTACHARYA, Sushil,** B.A. (Cal.), Secretary, the Revolutionary Socialist Party of India; Vice-Pres., U.T.U.C.; member: National Productivity Council; Labour Advisory Board, Delhi; *b.* Nov. 15, 1908; *Educ.:* Cal. Univ. Joined the secret revolutionary movement while a student; arrested and jailed, 1931-38; joined Congress Socialist Party 1939; was its Organising Secy. at Delhi; broke away from the party and joined the R.S.P., 1940; arrested at Allahabad as organiser of the R.S.P., 1941; figured prominently in the Lucknow-Barabanki conspiracy case; released, May 1946; went to China as leader of the U.T.U.C. delegation to the May Day celebration, 1955. *Publications:* Hindi Book on *R.S.P. Hi Kyun*; *Manav Samaj Ka Vikas* (Hindi); Articles in *The Call* and *Mehnatkash* (Hindi weekly). *Address:* 780, Ballimaran, Delhi 6.

**BHATTACHARYYA, Birendra Kumar,** B.Sc., M.A., Sahitya Academy Award (1961), Journalist and Writer in Assamese and English; Editor, *Sadiniya Navayug*. *b.* March 1, 1924; *Educ.:* B.Sc. from Cotton Coll., Gauhati, 1945; M.A. from Gauhati Univ. Asstt. Editor, *Banhi*, a literary monthly in Assamese, 1945–46; Editor, *Janata* (Assamese), 1947–50; Science Teacher, Ukhrul (Naga) High School, Manipur, 1951-53; Editor, *Ramdhenu*, 1953-63; translated Tagore short stories under Sahitya Akademi Scheme. *Publications: Rajpathe Ringiai* (The call of the main street); *AI* (Mother) (Novel); *Kolong Ajiu Boi, Iyaruingam* (Novel), 1961, *Satsari* (short stories) 1964; *Shatghni* (Novel) 1964. *Address:* Editor, *Narayug*, Kharghuli, Development Area, Gauhati.

**BHATTACHARYYA, Chapalakanta,** M.A., B.L., M.P. (Lok Sabha), Editor-in-Chief, *The Janasevak*. *b.* January 1901; *Educ.:* Orthodox Sanskrit Schools; Calcutta Aryan Institution; Presidency Coll., Calcutta Univ. Advocate, Calcutta High Court; edited an English weekly "The New Era"; editorial staff of "Forward" of late Deshbhandhu C. R. Das; Congress worker since 1920: member, Provincial Cttee. and the A.I.C.C.; member: International Press Institute Indian Assoc.; Indian Journalists' Association; Indian Cultural Academy; International Sanskrit Institute; Pres., All India, Newspaper Editors' Conference; Dean of Faculty and Head, Dept. of Journalism; member, Senate and Syndicate, Calcutta Univ.; Vice-Pres., Sanskrit Sahitya Parishad, Bengal Akhil Bharat Devabhasa Parishad.; was Editor, *The Ananda Bazar Patrika*. *Publications: Congress in Evolution*; *Radcliffe Award — a case for Revision* in English; and several works in Bengali. *Address:* 24A, Hemendra Sen Street, Calcutta 6.

**BHATTACHARYYA, Pares Chandra,** M.A., Governor, Reserve Bank of India, since March 1, 1962. *b.* March 1, 1903; *Educ.:* Univ. of Calcutta and Dacca. Joined the Indian Audit and Accounts Service, 1928; was in the Railway Accounts Dept. upto 1939; served in the Ministry of Finance, Government of India, in different capacities, 1939-52; Financial Commissioner, Railways, 1952-55; Secretary, Ministry of Finance, Govt. of India, Nov. 1955-Feb. 1957; Chairman, Board of Directors, State Bank of India, 1957-62. *Address:* Reserve Bank of India, Bombay.

**BHAVE, Acharya Vinoba,** Social Worker. *b.* Sept. 11, 1895, in Gagoda village near Pen, Kolaba Dist.; *Educ.:* Primary education in Gagoda; Baroda Coll., Baroda. At the age of 10, took a vow of celibacy and dedicated his life to the service of the country; at the age of 19, gave up studies and left home; went to Varanasi to study Sanskrit; heard of Gandhiji's historic speech at Varanasi Univ. and contacted him. Joined the Sabarmati Ashram, 1916; took a prominent part in all the activities of the Ashram; was made the head of the new Ashram at Wardha; started another hermitage at Paunar on the banks of the river Dham, six miles from Wardha; was named by Gandhiji as his first representative in the individual C. D. movement, started against the Br. Govt.'s policy of involving India in the World War II, 1940; was Director, Mahila Ashram, Wardha for a long time; imprisoned in the Freedom movement: staunch advocate of a new order of Society based on non-exploitation and non-violence; originator of the Bhoodan Yagna and the Sampattidan Movement; travelled over Telangana and successfully persuaded the landlords to donate land, and made it over to the landless poor; has been on a constant walking tour since Sept. 1951 through many States to promote the cause of Bhoodan which has now reached the phase of Gramdan and Gram Rajya; has made a study of all religions; is a linguist, knows Marathi, Hindi, Gujarati, Persian, Arabic, English, Bengali, Assamese, Oriya, Tamil, Telugu, Malayalam and Kanarese; is an effective speaker; undertook peace mission in the dacoit infested area of Bah-Pinahat on the border of U.P., M.P. and Rajasthan, Dists. of Bhind and Morena, 1960 when 19 dacoits surrendered; toured in Rangpur and Dinajpur districts of East Pakistan in 1962 in connection with Bhoodan Movement. *Publications:* several Marathi and Hindi Books of deep scholarly nature. *Gitai*, Marathi translation of Bhagavat Gita. *Address:* Sarva Seva Sangh, Rajghat, Varanasi P.O. (U.P.).

**BHAVE, Purushottam Bhasker,** B.A., LL.B., Marathi author and journalist and play and screen play writer. *b.* April 12, 1910; *Educ.:* Hislop Coll. and the Univ. Coll. of Law, Nagpur. Practised as lawyer at the Nagpur Bar, 1939-42; Co-editor, the weekly *Savadhan*, Nagpur, 1935-39; worked actively for the C.P. Marathi Hindu Sabha, 1934-48; held various offices in the organization from Vice-Pres. to the General Secy.; edited the weekly *Adesh*, Nagpur, 1940-48. *Publications:* 17 story books, three plays, nine novels, and six essay collections. *Address:* West Park Road, Dhantoli, Nagpur 1; Watwe's Bungalow, Dombivli, Thana Dist., Maharashtra.

**BHEEKHA Bhai, B.A., LL.B., Minister for** Social, Khadi and Village Industries, Govt. of Rajasthan, since 1965. *b.* April 28, 1916; *Educ.:* Maharana Coll., Udaipur; Govt. Coll., Ajmer; Banaras Hindu Univ. Law Coll. Advocate; Munsiff Magistrate, 1942-48; Education Minister in 1st Congress Ministry, former Dungarpur State, 1948; member: Scheduled Tribes Advisory Council, Rajasthan, since 1952; M.P., 1952-57; member: Backward Classes Commission, Govt. of India, 1953-55; Congress Exec. Party in Parliament; Planning Board, Rajasthan, since 1953; Dy. Min. for Irrigation, Power, Health and Social Welfare, Rajasthan, 1957–60; member, Central Exec. Cttee., Indian Conference of Social Works; Min. for Irrigation & Ayurved, Rajasthan, 1960–62; Minister for Forest, Labour, Irrigation, Ayurved and Social Welfare, March 1963–Nov. 1963; Minister for Forest, Labour & Ayurved, 1963-65. *Address:* 51, Sardar Patel Marg, Jaipur.

**BHIDE, M. R., B.Sc. (Nagpur), B.A. (Cantab.),** I.C.S. (Retd.), Dy. Governor, Reserve Bank of India, since March 1, 1964. *b.* Dec. 6, 1907; *Educ.:* Nagpur and Cambridge. Indian Civil Service. Jt. Secy., Deptt. of Economic Affairs, Govt. of India, Dec. 1955-June 1957; Jt. Secy., Planning Commission, Govt. of India, June 1957-March 1958; Adviser, Planning Commission, March 1958-Jan. 1959. Addl. Secy. to the Govt. of India, Deptt. of Co-operation, Jan. 1959-April 1960; Secy., Ministry of Community Development, Panchayat Raj and Cooperation, Govt. of India, April 1960–Feb. 1964. *Publications: Marketing of Sugarcane in United Provinces*. *Address:* 27, Bank House, Backbay Reclamation, Colaba, Bombay 5.

**BHOGILAL, Pratap,** M.A., Industrialist. *b.* Oct. 25, 1916; *Educ.:* M.A. (Economics), Bombay Univ., 1938; V.J.T.I., Bombay. Joined the house of Bhogilal Leherchand P. Ltd.; has been closely associated with cotton textile industry; Cttee. member, Millowners, Assoc. for several years; served on its Labour Sub-Cttee.; its Chairman for more than two years; Cttee. member: Indian Merchants' Chamber; Indian Cotton Mills Federation; has been a member, Bombay Textile Research Assoc.; Director-in-Charge, Shree Ram Mills Ltd., Bombay; Mg. Dir., Batliboi & Co. Director in a number of leading banking, investment, insurance, engineering, textile, chemical manufacturing companies; is Trustee, Bombay Port Trust; is member, State Council of Technical Education; is on the Board of Management, V.J.T.I., Bombay; has extensively travelled abroad for business contacts in the fields of raw cotton, textiles, machinery and trade. *Address:* 26, Ridge Road, Bombay 6.

**BHONSLE, Shrimati Nirmala Raje,** Minister for Social Welfare, Maharashtra State, since March 8, 1962. *Educ.:* Baroda and Poona. Joined the Congress as an active working member after the merger of Akalkot State, 1948; was elected to Bombay Assembly from North Sholapur constituency, 1952; appointed Hon. Parliamentary Secy. to the Chief Minister of Bombay, Sept. 1952; became Chairman, Sholapur City Social Education Cttee., 1952; and Chairman, Bombay Labour Welfare Board, 1953-62; Dy. Min. for Education, Bombay State, 1956-60; Maharashtra, 1960-62; State Commissioner, Bharat Scouts and Guides, Maharashtra for two terms; Vice-Patron, Indian Red Cross Society; Pres., Mg. Cttee., Bombay Art Society; Chairman,

Jehangir Art Gallery; is an Art Critic; is a good shot, musician and painter. *Address:* 'Parnakutir', Malabar Hill, Bombay 6; The Palace, Akalkot.

**BHOOTHALINGAM, Subramanya,** M.A. (Cantab.), I.C.S., O.B.E. (Jan. 1945), Secy., Deptt. of Economic Affairs, Ministry of Finance, since August 1964. *b.* Feb. 22, 1909; *Educ.:* Caius Coll., Cambridge. Joined I.C.S., Oct. 14, 1931; posted to Madras; served in various capacities till 1938; Officer in Charge, Agricultural Credit, Reserve Bank, Dec. 1938-40; Under Secy., Deptt. of Supply, Govt. of India, Jan. 1940; served as Dy. Secy., Joint Secy., Special Secy., and Secy., Govt. of India in the Ministries of Industry till June 1955; Chairman, Hindustan Steel, Aug. 1955 to April 1958; Secy., Min. of Steel, Mines & Fuel, 1955-61; Secy., Ministry of Finance, Dept. of Expenditure, 1961–62; Secy., Min. of Econ. & Defence Co-ordination, Nov. 1962–Aug. 1963; Secy., Dept. of Co-ordination, Ministry of Finance, Sept. 1963-August 1964; member, Univ. Grants Commission, 1961-65. *Address:* 25, Tughlak Road, New Delhi 11.

**BHUSHAN, Vidya,** G. D. Art (Bombay), Diploma in Mosaic and Fresco (Belgrade), Artist; Head of Painting Deptt., Govt. Coll. of Fine Arts, Hyderabad. *b.* June 15, 1923; *Educ.:* Udgir (Dist. Osmanabad); G. D. Art (Bombay), 1944 and Diploma in Mosaic and Fresco (Belgrade), 1955. Won several prizes in A.I. art competitions, held one man shows in Hyderabad and Delhi; did Murals for Nizam's palace, Delhi; did several life size portraits for Govt. Buildings in Hyderabad and Delhi; won Gold Medal in Hyderabad, 1942, was free-lance artist till 1952; won President's Gold Plaque in the National Exhibition of Art at Delhi, 1957; won Silver medal in the International Exhibition of Art in Moscow, July 1957; was a Kathak dancer; member, Music and Dance Academy; Hon. Secretary, Hyderabad Art Society. *Address:* Gagan Mahal Co-operative Colony, Hyderabad-Dn.

**BHUVARAHAN, Govindasami,** B.Sc. (Hons), Minister for Information, and Publicity Govt. of Madras, since 1962. *b.* Dec. 25, 1932; *Educ.:* St. David High School (formerly S. P. G. High School), Cuddalore O.T.; Annamalai Univ. Annamalainagar; B.Sc. (Hons.) in 1961; Student-Leader in College days; Vice-Pres., South Arcot Dist. Students Congress; Pres., Panchayat Board, Iruppu, Vriddhachalam Taluk; Agriculturist. *Address:* "Riverside", 20/5, Greenways Road, Madras-28.

**BILLIMORIA, (Mrs.) Gulestan Rustom** (*née* Gulestan Bahadurji), M.A., Licentiate, Trinity College of Music, London; Sheriff of Bombay (1957), Social Worker, Fellow of the Bombay University and member of its Academic Council and Syndicate for a number of years. Chairman, Junior Red Cross; President: United Women's Organizations Cttee; Women's Home Industries Depot; Hon. Secretary, All-India Conference of Social Work, 1949-56; Asstt. Treasurer, International Conference of Social Work, 1954-60 and member of its Permanent Cttee. Chairman: Women's Co-ordinating Cttee., Citizens' Defence Cttee; represents Maharashtra on Central Advisory Board for National Savings and also on Central Social Welfare Board; has travelled widely in Europe and America and led delegations to International Conferences; awarded Kaiser-I-Hind Silver Medal. *Publications:* Joint Author of *Governance of India* and also of *Constitution Functions and Finance of Indian Municipalities* a book favourably reviewed by the Press, including the *London Times Literary Supplement*. *Address:* Thoburn House, Apollo Bunder, Bombay.

**BIRLA, B. M.,** Industrialist. *b.* 1904, at Pilani, Rajasthan. One of the founders, Indian Chamber of Commerce. Pres.: Indian Chamber of Commerce, 1936 and 1944, Federation of Indian Chambers of Commerce & Industry, 1954; Founder and Pres.: Indian Sugar Mills Assoc.; Indian Paper Mills Assoc.; Ex-member, Fiscal Commission, Govt. of India; formerly Director, Central Board of the Reserve Bank of India; Chairman; Hindustan Motors Ltd.; Ruby General Insurance Co., Ltd.; India Exchange Ltd.; Managing Director, Birla Brothers Pvt. Ltd.; Director: Atul Products Ltd. and various other concerns. *Address:* 15, India Exchange Place, Calcutta 1.

**BIRLA, Ghanshyamdas,** Padma Vibhushan (1957). *b.* 1894. Managing Director of Birla Gwalior Pvt. Ltd.; member, 2nd Indian Legislative Assembly; resigned in 1930 as a protest against legislation for Imperial Preference; President: Indian Chamber of Commerce, Calcutta, 1924; Federation of Indian Chambers of Commerce and Industry, 1929; has been responsible for the founding and maintenance of a large number of educational and other public institutions in various parts of the country; member: Indian Fiscal Commission; Bengal Legislative Council; Royal Commission on Labour; Delegate, Labour Conference at Geneva, 1927; member, 2nd Round Table Conference, 1930; Unofficial Adviser to Government of India for Indo-British Trade Negotiations, 1936-37; *Address:* 15, India Exchange Place, Calcutta 1; Birla House, New Delhi.

**BIRLA, Lakshminiwas,** Industrialist. *b.* 1909, at Pilani, Rajasthan; *Educ.:* at College, 1924–27. Dir. in charge of Cotton Mills, Jute Mills and Engg. Industries, etc.; Managing Director, Birla Brothers Pvt. Ltd. controlling various industries; connected with various committees related to trade and industry sponsored by Government and F.I.C.C.I. *Publications:* Author of several books in Hindi and English covering poetry, Folk-tales, short stories and Novel; contributor in various important dailies and periodicals of India and abroad under pen-names. *Address: Residence:* Birla Niket, Raja Santosh Road, Calcutta 27. *Office:* 15, India Exchange Place, Calcutta.

**BIRLA, Rameshwardas,** Managing Director, Birla Bros. Private Ltd., Chairman, Bank of Baroda Ltd., *b.* 4th May 1892; *Address:* Industry House, 159, Churchgate Reclamation, Bombay 1.

**BISHI, Pramathanath,** M.A., M.L.C., Bengali Writer; Rabindra Nath Tagore Professor of Bengali Literature, Calcutta Univ. *b.* June 11, 1901; *Educ.:* Viswabharati Univ.; Calcutta Univ. Lecturer in Bengali, Ripon Coll. for ten years; Asstt. Editor, *Ananda Bazar Patrika*, Calcutta for four years. *Publications:* About 80 books on various subjects in almost every form: some of his books are: *Carey Shaheber Munshi* (novel); *Rabindra Karya Probaha* (criticism); *Chitra Chaitra* (biography of an age): *Yukta Veni* and *Uttar Megh* (poems); *Monchake Dhil* (drama); *Lal Kella* (Novel); awarded Ravindra Prize for his novel *Carey Shahiber Munshi*, 1960; *Address:* 162/36, Prince Anwarshah Road, Lake Gardens, Calcutta 45.

**BOSE, Debaki Kumar,** Sangeet Natak Akadami Award (1957), Padma Shri (1958), Motion Picture Producer and Director. *b.* Nov. 25, 1898; *Educ.:* Metropolitan Institution, Central Coll. and Vidyasagar Coll., Calcutta. Joined the non-co-operation movement while taking B.A. degree examination; managed and edited a nationalist weekly for some time; came to films as a story-writer, then turned actor and director; directed his first film "Blind God" produced in 1929; has so far directed 43 pictures. *Address:* 5, Dr. Satyananda Roy Road, Calcutta 29.

**BOSE, Mr. Justice Himansu Kumar,*** M.A., B.L. (Calcutta), Bar-at-Law (Lond.). Chief Justice, High Court, Calcutta, since June 1961. *b.* March 1, 1904; *Educ.:* Univ. of Calcutta; called to the Bar from Lincoln's Inn, London, June 1929. Practised as Barrister in the Calcutta High Court from Sept. 1929; Judge, Calcutta High Court, 1949-61. *Address:* 9/4, Middleton Row, Calcutta 16.

**BOSE, Satyendra Nath,** M.Sc., F.R.S., D.Sc. (Cal.), D.Sc. (Allahabad), F.N.I., D.Sc. (Hony.) (Jadavpur), Padma Vibhushan, (ex-M.P., Rajya Sabha), has been National Professor. *b.* Jan. 1, 1894; *Educ.:* Presidency Coll., and Univ., Calcutta; took M.Sc. degree, 1915; worked with Madame Curie, 1924-25 and with Albert Einstein, 1925-26. Lecturer, Calcutta Univ., 1916-21; Reader, Dacca Univ., 1921-24; Professor, Dacca Univ., 1926-45; Professor, Calcutta Univ., 1945-56; Vice-Chancellor, Visva-Bharati Univ., 1956-58. *Address:* 22, Iswar Mill Lane, Calcutta 6.

**BOSE, Sunil Kumar,** Scholar-musician, West Bengal; Director, Transcription and Programmes Exchange, A.I.R., New Delhi. *b.* June 23, 1914. *Educ.:* Post Graduate studies, Calcutta Univ. Learned classical music since childhood from outstanding Ustads; Radio & Gramophone Artist, since 1928; recipient of "Best Man" Gold Medals at All-India Music Competitions in Calcutta and Banaras, 1933; participated in All-India Music Conferences (1934–38); Music Director, Calcutta Films (1933–35); joined A.I.R. (1939); invented one musical instrument "Ballaki" (substitute for Cello) in AIR, Dacca (1941); member: Music Curriculum Cttee., Baroda Univ. (1950); Nagpur Univ., 1957-59; Examiner for music, Cal. Univ. (1955–56); delivered convocation address at Vishnudigambar Gandharv Mahavidyalaya, Poona (1960). *Publications:* Many articles on Music in different languages and lectures abroad. *Address:* A.I.R., New Delhi.

**BOWLES, His Excellency Chester,** United States Ambassador to India, since July 19, 1963. *b.* April 5, 1901, Springfield, Massachusetts; *Educ.:* Yale Univ. Founded the advertising firm of Benton and Bowles, 1929; Rationing Administrator, State of Connecticut, 1942; State Director, Office of Price Administration, 1942; General Manager, O.P.A., Washington, July to Oct. 1943; appointed by President Roosevelt Price Administrator for the nation, 1943-46; Director, Economic Stabilization, Feb.-July 1946; Delegate, UNESCO Conference, Paris, 1946; made official U.N. visits to England, France, Italy, Austria, Hungary, Czechoslovakia and Poland, 1948; Governor of the State of Connecticut, 1949-51; Ambassador to India and first American Ambassador to Nepal, 1951-53; elected to the U.S. House of Representatives, 1958; was selected for the House Foreign Affairs Cttee.; Chairman, Democratic Platform Cttee., July 1960; Under Secy. of State, Kennedy Administration; President Kennedy's Special Representative and Adviser on African, Asian and Latin American Affairs; has been a Director, Institute for International Education, American Council of Learned Societies and the Fund for Peaceful Development of Atomic Energy; is Trustee: Fletcher School of Law and Diplomacy; Franklin D. Roosevelt Foundation; Woodrow Wilson Foundation; Rockefeller Foundation. *Publications: Tomorrow Without Fear; Ambassador's Report; The New Dimensions of Peace; Africa's Challenge to America; The Coming Political Breakthrough; The Making of a just Society; American Politics in a Revolutionary World. Address:* Shanti Path, Chanakyapuri, New Delhi 21.

**BRAHMAYYA, Gottipati,** Chairman, Andhra Pradesh Legislative Council, since July 1964. *b.* Dec. 3, 1898; *Educ.:* Noble High School, Machilipatnam, Krishna Dist. Pres.: Dist., Congress Cttee. (1921-22); Khadi Board (1923-29); Taluk Board (1927-28); Andhra Ryot Congress (1936-37); Andhra P.C.C. (1962-64); Managing Dir., Hindustan Ideal

* Was due to retire in March 1966.

Insurance Co., Masulipatam (1937-40), Dist. Organiser, Harijan Uplift Movement (1933-34); General Secy., Andhra Prov. Congress (1937-40); Vice-Pres., A.P.C.C. (1951-52); presided over Andhra Political Congress, Nandyala (1937); Member: Village Officers Enquiry Committee (1958); member, Leg. Council from Assembly Constituency, 1958; re-elected M.L.C. from Assembly Constituency, 1962. *Address:* "Raghava Sadan", Somajiguda, Hyderabad-4, A.P.

**BROKER, Gulabdas Harjivandas,** B.A (Bom.), Gujarati Playwright and Short Story Writer. *b.* Sept. 20, 1909; *Educ.:* Porbandar High School, Bharda New High School, Bombay and Elphinstone Coll., Bombay. Courted jail in Satyagraha Movement; member, B.P.C.C. and its Executive Cttees., till 1936; began writing while in jail; won first prize for best drama written during 1947-54 from Govt. of Bombay in 1954; member, Advisory Board for Gujarati of Sahitya Akademi, Delhi; Executive and Jt. Hon. Secy., Sahitya Parishad, Gujarat; Vice-Pres., Gujrati Natya Mandal; member, Exec. Cttee., P.E.N. All-India Centre: Pres.: Nalanda, Bandra; Vile Parle Sahitya Sabha. *Publications:* about two dozen and a quarter books of short stories, Plays and Criticism. *Address:* 26, Swami Vivekanand Road, Vile Parle West, Bombay 56-AS.

**BUTAIL, Roshan Lal,** B.Sc. (Engg.), A.M. I.E.E. (London), Director, Central Water & Power Commission (Power Wing), New Delhi. *b.* Aug. 15, 1912; *Educ.:* Maclagan Engg. College, Lahore. Director: System Planning Directorate, July 1955-Aug. 1962; Tech. Exam. & Coordination Directorate, Aug. 1962-Jan. 1964; Rural Electrification, Jan. 1964-Aug. 1965; awarded U.N. Fellowship for studies in connection with preparation of Codes for Safe Design, Construction, Operation and Maintenance of Electrical Installations, in the U.K., Sweden, Norway, Germany and Switzerland, 1953-54. *Publications: Safety from Electrical Hazards—Codes of Practice; Rural Electrification Finance—its practice abroad and possible application in India; Training of engineering personnel in electricity supply industry*, etc. *Address:* Central Water and Power Commission, (PW) West Block-2, Ramakrishnapuram, New Delhi 22.

**BUTCHI BABU, Sivaraju Venkata Subbarao,** M.A., Telugu Writer; Artist; Programme Executive, All India Radio. *b.* June 14, 1916. *Educ.:* A. C. Coll., Guntur; Presidency Coll., Madras; Nagpur Univ.; held one man show of oil and water colours (landscapes), under the auspices of Andhra Academy of Arts, 1964. *Publications:* Stories: *Chaitanya Sravanti; Asapriya; Ame Needa; Desam Nakitchina Sandesam; Nagajumeda; Kalalo Jarina Kanneero Moodu Kotulu; Kumudam Katha;* Plays: *Rayala Karuna Krutyam; Omar Kayyam; Karya Dars Kalyani; Sashti Poorti; Uttama Illalu; Atmavanchana*, adjudged the best play of the year 1950 by the Andhra Nataka Kala Parishad (Kakinada); *Oke Nidra Enno Kalalo*, adjudged the best Telugu Play in the Drama Competition on the theme 'Indian Quest for Unity' conducted by Govt. of India, 1963. *Address:* Programme Executive, All India Radio, Hyderabad.

**CALINGO, H.E. Mr. Mauro,** Philippine Ambassador to India, since Aug. 1962; *Educ.:* Studied in public school; finished Law in Univ. of Philippines; member of the Philippine Bar; Govt. scholar to the U.S. to study immigration laws, 1938-39. Asstt. Chief and Chairman, Board of Special Inquiry, Immigration Office, 1939. Lecturer in Foreign Service Institute, Dept. of Foreign Affairs, 1946-47; Professorial lecturer in Foreign Service in Far Eastern Univ., 1946-54 and in the Manuel L. Quezon Univ., 1952-54; Chief, Division of Passports and Visas, Deptt. of Foreign Affairs, 1946; promoted Counsellor and head of the office of Admn. and Controls, 1949; Minister of Career, 1952; Asstt. to Secy.-General during SEATO Conference, Manila, 1954; Member: Philippines delegation to the U.N. General Assembly, 1955; 6th SEATO Council of Ministers Meeting, 1960; Minister Counsellor and Dy. Chief of Mission, Philippine Embassy in Washington, 1955-57; Minister Plenipotentiary 1957-61; Ambassador Extraordinary and Plenipotentiary, Jan. 1962; Chairman, Special Cttee., Deptt. of Foreign Affairs, May-Aug. 1962. *Address:* Thapar House, 124, Janpath, New Delhi 1.

**CANDETH, Lieutenant General Kunhiraman Palat,** Deputy Chief of the Army Staff, since May 7, 1965. *b.* Oct. 23, 1916; *Educ.:* Prince of Wales Royal Indian Military Coll., Dehra Dun; attended the Staff Coll. course, 1945. Commissioned in the Regiment of Artillery, from the Indian Military Academy, Aug. 30, 1936; posted to 'A' Field Brigade, Indian Army; saw active service in the N. W. F. Province and Middle East during the last war; took over the command of a Regiment, June 1947; promoted Brigadier and appointed Commander, 4 Infantry Division, Artillery Brigade Nov. 1947; Brigadier, Artillery, Eastern Command, Commandant School of Artillery, Commander Artillery, 1 Armoured Division and Brigadier Artillery Western Command 1949-57; commanded an Infantry Brigade, 1957-59; promoted Major General and appointed Director of Artillery; took over as G.O.C. 17 Mountain Divn. on the eve of GOA Operations, Dec. 1961; Military Governor of Goa, Daman and Diu, 1961-63; G. O. C., Nagaland, and subsequently G.O.C., 8 Mountain Division Oct. 1963-May 1965. *Address:* Deputy Chief of the Army Staff, Army Headquarters, New Delhi.

**CAPOOR, Mr. Justice Shyam Bihari,** B.A., Bar-at-Law, I.C.S., Judge, Punjab High Court, since Aug. 5, 1957. *b.* Jan. 15, 1907; *Educ.:* Allahabad Univ.; Oxford Univ.; Middle Temple, London. Appointed to the Indian Civil Service, 1931; has worked since then in various capacities in the Punjab and Delhi including District and Sessions Judge, Legal Remembrancer to the Govt., Joint Secy. to the Govt. of India in the Ministries of Rehabilitation and Law. *Address:* Chandigarh.

**CARIAPPA, General K. M.,** O.B.E. (1945), Ex-High Commissioner in Australia and New Zealand and Ex-Commander-in-Chief, Indian Army. *b.* Jan. 28, 1900, in Coorg, South India; *Educ.:* Central High School, Mercara; Presy. Coll., Madras. Commissioned from Daly Coll., Indore, Dec. 1919; served in Iraq (Arab Rebellion), 1920-21 and on the N.W.F.P., 1922-25, 1928-30 and 1946; first Indian Officer to enter the Staff College, Quetta, 1933; saw service in Iraq, Syria and Iran, 1941-42 and in Burma (Arakan), 1943-44; Imperial Defence College, Lond., 1947; promoted Major-General, Aug. 1947; was Chief of the General Staff for some time, G.O.C.-in-Chief, Eastern Command, Dec. 1947; transferred as G.O.C.-in-Chief, (now Western Command), D.E.P. Command, Jan. 1948; Commander-in-Chief, Army, Jan. 1949 to Jan. 1953 in the full rank of a General; conferred "Legion of Merit," Degree of Chief Commander by President Truman, Aug. 31, 1949; awarded the Hon. rank of a full General in the Nepalese army by H.M. the King of Nepal, Oct. 1952; conferred the Hon. degree of Doctor of Science of the Agra Univ., Jan. 1953. High Commissioner for India in Australia and in New-zealand, July 1953-April 1956. *Address:* The Roshanara, Mercara, Coorg, Mysore State.

**CASE, G. P.** A.B. (Colgate Univ.), General Manager, Esso India, since Nov. 1965. *b.* Nov. 26, 1915; *Educ.:* A.B. from Colgate Univ. Hamilton, N.Y., U.S.A., 1937. Has been in oil business for over 28 years; came to India on his first overseas assignment, 1938; held a series of marketing positions in India and Africa until return to New York, 1947; re-assigned to India, 1951 and served here for three years; has served in Viet Nam and Thailand as General Manager during the last ten years, as Regional Coordinator for Southeast Asia in Esso Standard Eastern's New York Headquarters; and with Standard Oil Company (New Jersey) as Assistant Regional Coordinator for the Far East, East and South Africa. *Address:* Esso Building, 17, Jamshedji Tata Road, Bombay 1.

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**CHADHA, Dr. Manohar Singh,** M.B.B.S, (Pb.), F.R.C.P. (Edin.), D.P.H. (Lond.). D.T.M. & H. (Eng.), Director, National Institute of Health Administration and Education, since March, 1965. *b.* Oct. 22, 1904; *Educ.:* Lahore, London & Edinburgh. Joined the Indian Medical Service, June 1934; served as Medical Officer and later as a Specialist in Pathology, 1934-45; served during the Second World War in Sudan and Egypt, Aug. 1940 to Dec. 1942; transferred to I.M.S. (Civil), May, 1945; Chief Health Officer, Delhi, 1947-48; Deputy Director of Health Services, Delhi, 1948-53; Director of Health Services, Delhi, 1953-58; Addl. Deputy Director General and then Deputy Director Genl. of Health Services, 1958-62; Dir.-Genl., Health Services, 1962-65. *Publications:* Articles of scientific interest in various journals and papers. *Address:* Patiala House, New Delhi.

**CHAGLA, Mahomedali Currim,** B.A. (Oxon.), Bar-at-Law, Hon. Fellow, Lincoln Coll., Oxford, Minister for Education, Govt. of India, since Nov. 21, 1963; leader of the House in Rajya Sabha, since March 6, 1964; Pres., Indian Council for Cultural Relations. *b.* Sept. 30, 1900; *Educ.:* St. Xavier's High School and Coll., Bombay; Lincoln Coll., Oxford; called to the Bar (Inner Temple), 1922. Prof. of Constitutional Law, Govt. Law Coll., Bombay, 1927-30; Hon. Secy., Bar Council, High Court of Judicature at Bombay, 1933-41; Delegate

to U.N. to fight the cause of Indians in South Africa, 1946; Puisne Judge, Bombay High Court, 1941-47; Chief Justice, 1947-58; Vice-Chancellor, Bombay Univ., Apri-Nov. 1947; Pres., Asiatic Society of Bombay, since 1947; member Law Commission; Governor of Bombay, Oct. 14-Dec. 10, 1956. *Ad Hoc* Judge, International Court of Justice, The Hague, 1957; Chairman, L.I.C. Cttee. of Enquiry, Feb.-March 1958; Member, Punjab Commission, 1962; Leader, Indian Delegation to: the Security Council Debate on Kashmir, Feb. & May 1964; Commonwealth Education Conference, Ottawa, Aug. 1964; UNESCO's General Conference, Oct. 1964; Received Hon. Degree of Doctor of Laws from the Univ. of Hartford, the Temple Univ., the Boston Univ. and Dartmouth College; Leningrad Univ. (USSR) 1964; Punjab Univ., 1964; Ambassador in U.S.A., 1958-61; Indian High Commr. in London & Amb. to Ireland, 1961-63; M.P. (Rajya Sabha). *Publications: The Indian Constitution* (1929); *Law, Liberty & Life; The Individual and the State; An Ambassador Speaks. Address:* 5, Dupleix Road, New Delhi.

**CHAITANYADEVA, B.,** B.Sc. (Hon.), Ph.D., Sangeet Acharya (1954), Sangeet Visharad (1959), Sangeet Alankar (1961), Special Officer (Music), Sangeet Natak Akademi, New Delhi, since 1962. *b.* Dec. 31, 1922; *Educ.:* National Theosophical High School, Adyar, Madras: Rishi Valley School, Andhra; Madras Christian Coll., Madras; Banaras Hindu Univ.; Shantiniketan; Poona Univ. Has been conducting research in the psychoacoustics of music and speech for more than a decade. Had training in Hindustani vocal music in Santiniketan and under musicians like Pt. Vinayakrao Patwardhan, Ustad Amanalli Khan and Pt. Keshavbua Ingale; Head, Deptt. of Applied Physics and Chemistry, Sir Cusrow Wadia Institute of Technology, Poona, 1957-62; is member, Faculty of Music, Delhi Univ.; has been a visiting lecturer on his subject in various Indian Univs. *Publications:* More than 20 research papers published both in India and in international journals like Acustica, Zeitschrift fur Phonetik and Nachrichtentechnische Fachberichte, Journal of Music Academy, Madras. *Address:* 16A/15, W.E.A., New Delhi-5.

**CHAKIAR, P. Mani Madhava,** Natyacharya (1934), Vidooshaka Ratnam (1960), President's Award (1964), *"Veerasrinkhalas"* from Taliparamba Temple, Zamorin Raja of Calicut, Jagadguru Sankaracharya of Kanchikamakotipeedam, etc., a leading exponent of Chakiar Koothu and Koodiyattam. *b.* Feb. 15, 1899; *Educ.:* Early education under his uncles; studied Sanskrit under Vidvan Sankaran Nambudiripad of Killikurissimangalam; higher studies in Alankara Shastra under the late His Highness Parikshit Thampuran, the Maharaja of Cochin. Had his Arangettam at the age of 14; played the principal role in several traditional Koodiyattam plays; has earned numerous titles and awards from the rulers of Kerala and also from temples; Sanskrit Teacher in the Sanskrit Patasala Mangalam; is a specialist in Rasabhinaya. *Publications: Atta Prakara for Kalidasa's Sakunthalam*, 2nd Canto (not published); Sanskrit verses on the Deity of the historic temple of Taliparamba. *Address:* Killikurussi Mangalam, P.O. Lakkidi, Kerala.

**CHAKRAVARTY, Dr. Amiya,** M.A. (Patna), Ph.D. (Oxford), Desikottama (Viswabharati Univ.), Writer in Bengali and English, Professor of Comparative Oriental Religions and Literature, Boston Univ., since 1953. *b.* April 10, 1901, at Serampore; *Educ.:* B.A. (First Class Hons.), 1921 and M.A., 1926, Patna Univ.; D. Phil., Oxford Univ., 1937; Rockefeller Foundation scholar, 1950; Fellow, Institute for Advanced Study, Princeton. Taught at International Univ. of Tagore, Santiniketan; Woodbrooke Coll., Selly Oak; Univs. of Calcutta, Howard, Yale, Kansas and Michigan; Literary Secy. to Dr. Rabindranath Tagore, 1926-33; travelled with him in Asia, Middle East, Europe and U.S.A.; joined Mahatma Gandhi in his peace marches in Indian villages during communal disturbances, 1946-48; Official Adviser to the Indian delegation, U.N., 1950-51; was associated with Dr. Albert Schweiltzer in England and France; was member, Conference of Religion and Philosophy at UNESCO in Paris, 1955 & 1957; inaugurated the Tagore Chair of Humanities, Madras Univ. and also gave lectures as the first occupant of the Chair, 1963; won UNESCO prize for travel book *Chalo Jai* (in Bengali), Jan. 1964; awarded a grant and the citation by the National Academy of Letters, New Delhi, for the book of poems *Ghare Ferar Din* (Bengali), April 1964; visited Thailand, Malaysia, Viet Nam and Japan to study social and religious cross-currents in Asia, 1964. *Publications:* Several volumes of prose and poetry in Bengali; *The Dynasts and Post-war Poetry*, 1934; *The Saint at Work*, 1950; *The Indian Testimony*, 1952; contributes to several journals. *Address: Office*—745, Commonwealth Avenue, Boston; *Residence*—232, Bay State Road, Boston.

**CHAKRAVORTY, Jatin,** B.A., B.L. (Calcutta), M.L.C.; West Bengal; Politician; Secy., United Trades Union Congress, since 1949. *b.* Nov. 9, 1911; *Educ.:* Calcutta, Hare School, Scottish Churches Coll., Ripon Coll. & Ripon Law Coll.; B.A., 1932; B.L. 1936; Has been in the trade union movement, since 1945; went to the United Kingdom under Colombo Plan Fellowship, 1952; visited U.S.S.R. & Eastern European countries as a fraternal delegate to the W.F.T.U., 1954; and again in 1961 as a member of the productivity team sponsored by the N.P.C. in 1961; visited U.S.A. & Japan as a member of a productivity team, 1964; represented U.T.U.C. on a number of tripartite Cttees. and Conferences; member, Governing Body, National Productivity Council, since its formation, 1958; elected M.L.A., West Bengal, on R.S.P. ticket, 1957. *Publications:* Author of Articles on Labour Problems published in Industrial Relations Journals. *Address:* 249, Bowbazar Street, Calcutta 12.

**CHALAMAYYA, Akurati,** Author and Publisher, Santinilaya Grandhamala. *b.* Jan. 1, 1901; *Educ.:* Santiniketan under Gurudev Rabindranath Tagore for 11 years; Supdt. in the Philanthrophic institutions at Pithapuram, 1927-40; Orphanage at Kakinada till 1946. *Publications: Mahatma Gandhi's Jeevan Veda; Netaji Bose's biography and letters and lectures;* Children's Series — stories, biographies and general knowledge — 20 vols.; *Viswa Kavi —Tagore's life and ideals; Santiniketan — Tagore's discourses; Buddha's life and ideals in stories; Bharat Bhaskar — Tagore's life and literature;* awarded Tagore birth centenary special prize by Dr. S. Radhakrishnan at the International Literary Seminar held in New Delhi, 1961. *Address:* Kakinada.

**CHALIHA, Bimalaprosad,** Chief Minister, Assam, since Dec. 1957. *b.* March 26, 1912, at Sibsagar; *Educ.:* Sibsagar Govt. High School; City Coll., Calcutta; left studies when he was in I.Sc. class, to join the national movement. Arrested in 1932 and jailed for six months; invented a mechanical automatic spinning wheel and obtained a patent for it; deputed by Mahatma Gandhi for training in Khadi under Shri Mathuradas Purushottam, Bihar; elected Secy., All India Spinners' Assoc., Assam Branch till 1942; detained for two years as security prisoner during 1942 Movement; elected M.L.A., Assam, from Sibsagar West, 1946; appointed Parliamentary Secy., 1947; was the first Chairman, Assam Co-operative Apex Bank and Assam Co-operative Cottage Industries Assoc.; General Secy., A.P.C.C., 1950; elected Pres., A.P.C.C., 1952; won by-election from Sibsagar to become Member, Lok Sabha, 1953; Regional Organiser for constructive work, A.I.C.C. for Eastern Zone, 1952; elected Chairman, Reception Cttee. of the 63rd Session of the Indian National Congress; resigned, Dec. 1957. *Address:* Shillong.

**CHAND, His Excellency Khub,** B.A. (Hons.), I.C.S., Ambassador to Sweden, concurrently Amb. to Finland, since Aug. 1962. *b.* Dec. 16, 1911; *Educ.*, Univ. of Delhi; Oriel Coll., Oxford. Joined the I.C.S., 1935; was first at the I.C.S. competition in India; District Magistrate, Azamgarh and Regional Food Controller, Banaras Region, 1943-47; Dy. Secy., Ministry of Defence, 1947-48. Head, Indian Military Mission, Berlin with military rank of Major-General, 1948-50 and Head, Indian Mission in Bonn with rank of Minister Plenipotentiary, 1949-50; Dy. High Commissioner for India in Pakistan, Sept. 1950; acted as High Commissioner in Pakistan, Nov. 1950-Aug. 1951; Minister in Iraq and Jordan, 1952-55; Jt. Secy., Ministry of External Affairs, 1955-57; Ambassador in Italy and concurrently Min. to Albania, 1957-60; High Commsr. in Ghana & Sierra Leone, Commr. in Nigeria and Amb. to Liberia, Guinea & Mali, 1960-62. *Address:* C/o External Affairs Ministry, New Delhi.

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**CHANDRA, Kailash,** B.A., LL.B., (Punjab), Secretary, Deptt. of Parliamentary Affairs, Govt. of India, since 1958. *b.* Dec. 8, 1915; *Educ.:* Govt. Coll., Jhang; Forman Christian Coll., Lahore; S. D. Coll., Lahore; Univ. Law Coll., Lahore. Practised as Advocate, Lahore High Court upto Aug. 1947; ex-editor *The Chenab* (monthly), 1935-37; *The National Weekly*, Lahore, 1944-46; political and social worker before independence; member D.C.C., 1938-47; Punjab Youth League, 1947; Congress Workers Convention, Lahore, 1945; General Secy; Punjab Refugees Reb. Cttee., Birla Mandir, New Delhi, 1947-48; Hony. Asst. Sec., Motilal Nehru Centenary Cttee., 1963-65; member, Lala Lajpat Rai Centenary Cttee; served in the Facts Finding Organisation to assist Justice G. D. Khosla of the Punjab High Court to write a book on partition disturbances on Govt. assignment; held different posts, *viz.*, Deputy Facts Finding Officer, Deputy Custodian of Evacuee Property, Officer on Special Duty, Deputy Collector, Rent Control and Eviction Officer, Sub Divisional Magistrate, Under Secy., of India, etc. *Publications:* (1) *Tragedy o*

*Jinnah* three editions; (2) *India's Parliament* 1958; (3) *Hamari Parliament* 1960, *Articles* and *Essays on Indian Parliamentary Practice*. *Address: Off.:* 14, Parliament House, New Delhi-1; *Res.:* 6, Lytton Lane, New Delhi-1.

**CHANDRA, Prabodh,** M.A., Minister for Education, Punjab State. *b.* Oct. 24, 1911; *Educ.:* Govt. Coll., Multan; Khalsa Coll., Amritsar; Dyal Singh Coll., Lahore; Hindu Sabha Coll., Amritsar; F. C. Coll., Lahore, 1933-37. Started Political career at the early age of sixteen; was a Founder Member of The Students Movement in the country; was jailed in the freedom struggle several times; elected M.L.A., Punjab, 1945–46; elected as the Sole Representative of the Students of India to the World Youth Congress in Budapest, 1938; but was arrested; Managing Editor, All-India Students' Tribune Monthly Journal, 1936–38; travelled extensively in Western Europe and Russia; was Speaker, Punjab Vidhan Sabha. *Publications: Students' Movement in India*, 1939; *Sixty Years of Congress*, 1946; *Rape of Rawalpindi*, 1947; *Pilgrims Progress*, 1955. *Address:* Chandigarh.

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**CHANDRACHUD, Mr. Justice Yeshwant Vishnu,** B.A., LL.B., Judge, High Court of Bombay. *b.* July 12, 1920; *Educ.:* Mostly at Poona except two years in Bombay; won the following awards in the 2nd LL.B. Exam. of the Bombay Univ., 1942: Judge Spencer Prize; Gussie K. Kanga scholarship; Sir Mangaldas Nathustral Legal scholarship; passed both Law exams in 1st Class; First class first in 2nd LL.B. exam. *Address:* High Court, Bombay 1.

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**CHANDRASEKHAR, Smt. Maragatham,** B.Sc., L.T., B.Sc., H. & S.S. (Lond.). Free-lance-Journalism (London), Domestic Science Dietetics Course (Lond.), Deputy Minister for Social Security, Govt. of India, since June 1964. *b.* Nov. 11, 1917; *Educ.:* Madras & London Univ. Union Deputy Minister for Health, 1952–57; Leader, Official Cultural delegation to Russia, Czechoslovakia & Poland, 1954; member, Central Second Pay Commission, 1957–59; Chairman, National Small Industries Corporation, 1959–61; took active part in India League, London, 1946–50; Member of National Union of Students (Y.M.C.A.) and Indian Students Bureau, London, 1946–50. State convener, Bharat Sewak Samaj, Madras State, 1947-59; Dy. Min. for Home Affairs, Govt. of India, May 1962-June 1964; Life member of Indian Council of Child Welfare; member, British Univ. Society of South India. *Publications:* Articles in Magazines and newspapers. *Address:* 6, Janpath, New Delhi.

**CHANDRASEKHAR, Dr. Sripati,** M.A., M. Litt. (Madras), M.Sc. (Columbia), Ph.D. (New York), D. Litt. Honoris Causa (Redlands Univ.), M.P., Director, Indian Institute for Population Studies, Gandhinagar, Madras. *b.* Nov. 22, 1918; *Educ.:* American Mission Voorhes High School, Vellore; Madras, Columbia, New York and Princeton Univs. Director of Demographic Research, UNESCO, Paris, 1947-49; Editor, *Population Review*, Madras; under the auspices of the Granary Fund, American Foundation, lectured in all the Middle Eastern and African Countries, 1960; lectured before 30 American Univs., 1960 and 40 American Universities on Chinese aggression, Winter 1962; Visiting Prof. of: Economics, Pittsburgh Univ., 1961; Demography, California Univ. 1964-65; delivered the National Science Foundation Lectures, U.S.A., 1964; elected M.P. (Rajya Sabha) from Madras, 1964. *Publications: India's Population* (New York, 1946); *Indian Emigration* (Madras, 1948); *Census and Statistics in India* (1948); *Hungry People and Empty Lands* (Bombay 1952); *Hungry People and Empty Lands* (London, 1953); *Population and Planned Parenthood in India* (London, 1955); *Infant Mortality in India* (London, 1959); *China's Population* (Oxford, 1959); *Communist China today* (Asia 1961); *Red China: An Asian View* (1961); *American Aid and India's Economic Development* (New York, 1965). *Address:* Gandhinagar, Madras.

**CHANDY, Smt. Justice Anna,** M.A., B.L., Judge, High Court, Kerala, since Feb. 1959. *b.* 1905; *Educ.:* Trivandrum; was one of the two lady students in the first batch in the Law Coll., Trivandrum. Enrolled as the first lady Advocate in Kerala, 1930; built up a good practice especially on the criminal side; member, Travancore Leg. Council, 1932-34 (the second lady member in its history); was appointed District Munsiff, the first woman judicial officer in India, 1938; promoted Additional District and Sessions Judge, 1943; Dist. & Sessions Judge, 1948-59; the first woman to be appointed to a High Court in India; (there are no women High Court Judges in the Commonwealth); Founder-Editor, *Shreemathy*, the first women's journal in Kerala. *Address:* High Court, Ernakulam.

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**CHATTERJEE, Nirmal Chandra,** M.A., P.R.S., LL.B., Bar-at-Law, M.P., Senior Advocate, Supreme Court of India; Ex-Pres., Hindu Mahasabha; Pres., All India Civil Liberties Council; Vice-Pres., Indian Branch of the International Commission of Jurists. *b.* Oct. 19, 1895; *Educ.:* Univ. of Calcutta and Univ. of London and Middle Temple. Ex-Judge, Calcutta High Court; member, Lok Sabha, 1952-57; presided over Bhopal, Hyderabad and Jodhpur sessions of All-India Hindu Mahasabha, 1952-57; led Kashmir Satyagraha movement along with late Dr. Syama Prasad Mookerjee; represented the Bar Assoc. of India at the Salzbur Conference, 1960; Supreme Court Bar at Commonwealth Conference at London, 1955; Deputy Leader, Indian Lawyers' Delegation to Moscow in 1959; was a member of the International Commission of jurists on Tibet; elected to the Lok Sabha from Burdwan Constituency in 1963. *Publications: Awakening of New India*. *Address:* 7-B, Pusa Road, New Delhi; P-514, Raja Basanta Roy Road, Calcutta 29.

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**CHATTERJI, Gyanesh Chandra,** M.A. (Punjab), M.A. (Cantab.), Padma Bhushan (1962); Chairman, Central Board of Secondary Education, since 1961; member, Univ. Grants Commn., 1957-61; Hony. Chairman, Board of Secondary Education, Rajasthan. *b.* March 4, 1894; *Educ.:* St. Stephen's Coll., Delhi; Trinity Coll., Cambridge, England; London Day Training Coll., Southampton Row, London. Principal, C. T. Coll., Lahore, 1939; D.P.I. and Education Secy., Punjab Govt., 1946; D.P.I. and Education Secy., E. P. Govt., 1947-49; Vice-Chancellor, E. P. Univ., April-July 1949; Member, U.P.S.C., 1949-53; Vice-Chancellor, Rajasthan Univ., 1953–60; Chairman, Muslim Univ. Enquiry Cttee., 1960; Chairman, National Book Trust of India 1960-61. *Publications:* "*Commonsense Empiricism*" *in Contemporary Indian Philosophy*; "*Empiricism*" *in History of Philosophy Eastern and Western* (Allen & Unwin); numerous papers in Indian and British journals. *Address:* New Delhi.

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**CHATURVEDI, Bishambhar Nath,** B.A., LL.B., Business man. *b.* Feb. 17, 1908; *Educ.:* Agra, Allahabad. Pres., Calcutta Stock Exchange Assoc., Sept. 1942-Sept. 1959; All India Investors Assoc., since March 1952; Director: United Bank of India Ltd.; Rohtas Industries Ltd.; Orient Paper Mills Co. Ltd.; Aluminium Corporation of India; J. K. Spinning & Weaving Co. Ltd.; Star Paper Mills Co. Ltd.; Sone Valley Portland Cement Co. Ltd.; Calcutta Insurance Co. Ltd.; Metal Corporation of India Ltd.; Bowreah Cotton Mills Ltd.; Hindustan Nat. Glass Mfg. Co. Ltd.; Chase Bright Steel Ltd.; Reliance Firebricks & Pottery Co.; Bharat Commerce & Industries Ltd.; Bombay Wire Ropes Ltd.; Hindustan Refractories & Ceramics Pvt. Ltd., etc. *Address:* Narayani Bldg., 9th Floor, 27, Brabourne Road, Calcutta 1.

**CHAUDHARI, Madhukar Dhanaji,** B.Com. (Nagpur), M.Com. (Nagpur), Minister for Education and Forests, Maharashtra State, since Feb. 19, 1964. *b.* June 16, 1928, at Nasik; *Educ.:* Janata Shikshan Mandal, Khiroda; Municipal High School, Faizpur; D. S. High School, Bhusawal; G. S. Coll. of Commerce and Economics, Wardha; B.Com., 1951; M.Com., 1953., Sanchalak of the Jaigaon Dt. Sarvodaya Kendra at Khiroda, 1953; participated in the "Quit India" movement in 1942; took a lead in organising co-operative movement in East Khandesh Dist. and took active interest in the work of the Harijan Sevak Sangh and Adivasi Seva; actively associated with the work of the Dist. Development Board, Dist. Industrial Assoc., Maharashtra Samajik Parishad, Maharashtra Seva Sangh, etc.; elected M.L.A., Bombay from Raver Constituency in E. K. Dist., 1957; Dy. Min. for Irrigation, Bombay State, 1957-60; Dy. Minister for Revenue, Maharashtra, 1960-62. Min. for Urban Development March-Nov. 1962; Min. for Pub. Health, Nov. 1962-Dec. 1963; Min. for Educ. Bldg. & Communications, Dec. 1963-Feb. 1964. *Publications:* Thesis on 'A Five Year Plan for the Socio-Economic Development of Village Mahakal'. *Address:* Satpuda, 20, Nepean Road, Malabar Hill, Bombay 6.

**CHAUDHRI, Girdhari Lal,** M.A. (1940), Minister for Irrigation and Power, U.P. *b.* Nov. 16, 1912; *Educ.:* D. A. V. College, Dehra Dun, and Hindu University, Varanasi. One of the leading members of All-India Depressed Classes League; also an active member of the Indian National Congress: elected member: Indian National Congress; U.P. Legislative Assembly, 1946; same year included in the State Cabinet; elected President of the U.P. Depressed Classes League, 1947; re-elected to U.P. Leg. Assembly, 1952; re-elected 1957 & 1962; elected Dy. Leader, U.P. Congress Legislature Party, 1965. *Address:* 3, Sarojini Naidu Marg, Lucknow.

**CHAUDHURI,* General Joyanto Nath,** O.B.E., title of "General of Royal Nepalese Army" by King Mahendra of Nepal, June 9, 1963; awarded 'Grand Cordon of the Order of Merit' by U.A.R. President (1964); Padma Vibhushan (1965); Chief of the Army Staff, Indian Army, since Nov. 20, 1962; Hon. A.D.C. General to the President, since June 7, 1963. *b.* June 10, 1908; *Educ.:* Hastings House, Bishops College and St. Xavier's College, Calcutta; Highgate School, London and Royal Military College, Sandhurst, England. Commissioned, Feb. 2, 1928; during World War II saw service in the Middle East, Far East; was senior Instructor at Staff College, Quetta; commanded 16th Light Cavalry in Burma: was mentioned in despatches three times; at end of war was Brigadier, I/c Administration, Malaya; commanded the Indian Victory Contingent to U.K., 1946; attended Imperial Defence College, 1947; Officiating Chief of General Staff 1948 and later Commander, 1st Armoured Division; Military Governor, Hyderabad State, till Dec. 1949; Adjutant-General and Chief of General Staff in Army HQrs., 1952-55; Corps Commander, 1955-58; Overall Commander, Goa operations, Dec. 1961; Colonel Commandant, Corps of E.M.E. and 16th Light Cavalry and Hon. Colonel of the Brigade of Guards; G.O.C.-in-C. Southern Command, May 1959-Nov. 1962. *Publications: Operation Polo. Address:* N. and G. Bank (Lloyds Branch), New Delhi.

**CHAUDHURI, Naranarain alias Sankho,** B.A. (Calcutta), Dip. in Fine Arts, (Viswa Bharathi), Sculptor; Professor of Sculpture, M.S. Univ., Baroda, since 1951. *b.* Feb. 25, 1916; B.A. in 1939 and Dip. in Fine Arts, 1945, from Santiniketan. Started as a free-lance artist in Bombay, 1947; held his first one man show in Bombay, 1949; went on a study tour of Europe, 1949–50; participated in various exhibitions in India and has won several awards including the National Award in 1956; has also participated in some of the exhibitions sponsored by the Govt. of India in other countries; held his second one-man show in Delhi, 1957; elected to the Lalit Kala Akademi 1956; represented India in the International Symposium of Sculptors held in Yugoslavia in 1961; participated in the Sao Paolo Biennale, 1961; visited Poland on a lecture tour under the culture exchange programme sponsored by the U.G.C., Govt. of India, and visited U.S.S.R. as a guest of the Artists Union; March 1965. *Address:* Dept. of Sculpture, M.S. Univ. of Baroda, Baroda 2.

**CHAUDHURI, Pratul Kumar,** B.Sc. (Cal.), Secretary, Central Cttee. of the Revolutionary Socialist Party, since 1950. *b.* Feb. 9, 1913; *Educ.:* Jagag M. E. School and Chatkhil Panchgaon Gupta H. E. School, Noakhali; Comilla Victoria Coll., Tipperah; Vidyasagar Coll., Calcutta; B.Sc., 1934. Was arrested under the B.C.L.A., May 1934; was in several detention camps, 1934-38; became a Marxist while in camp; was delegate to the Congress Session at Tripuri, 1939 and the Anti-Compromise conference at Ramgarh, 1940; joined the R.S.P. from its inception; member, Prov. Exec. Cttee. of R.S.P., 1946-48; started trade union work in Calcutta-Howrah-Hooghly, Sept. 1947; took charge of the Central Office of the R.S.P, Dec. 1948; elected to its Central Cttee., 1948; Manager, *The Call*, R.S.P.'s organ; its Mg. Editor, since 1957; visited Russia as Rep. of the U.T.U.C. May 1953; member, Wkg. Cttee., U.T.U.C., since 1948. *Publications:* Articles in *The Call* and *Mehnatkash* (a Hindi political weekly). *Address:* 780, Ballimaran, Delhi-6.

**CHAUDHURI, Sachindra,** M.A. (Cantab), LL.B. (Hons.) (Cantab), Barrister-at-Law, Minister for Finance, Government of India, since Jan. 1, 1966. *b.* Feb. 24, 1903; *Educ.:* Had a brilliant academic career; Matriculation from Rani Bhabani School, Calcutta with scholarship; intermediate from Presidency Coll., Calcutta; degree with honours in moral science from Cambridge Univ., 1923; LL.B. (Hons.) from Fitzwilliam Hall, Cambridge, 1927; called to the Bar from Lincoln's Inn, Jan. 1925; M.A. from Cambridge, 1927. Joined the Calcutta High Court, 1925; built up a roaring practice; has often assisted the Union Govt. in many intricate cases; appeared for employers in most of the major industrial tribunals in W. Bengal, 1948-57; delegate to the U.N. General Assembly, 1949 and 1951; is on the board of directors of many large corporations; was President, Calcutta Board of the State Bank of India; was member, the State Bank of India's Central Board; returned to the Lok Sabha from Ghatal constituency in Midnapur district, 1962; was a member of the Law Commission; has widely travelled. *Address:* New Delhi.

**CHAUDHURI, Tridib Kumar,** M.A. (Econ.), C.U., M.P. (Lok Sabha), General Secretary, R.S.P.; Author, Journalist and Political Worker. *b.* Dec. 1911; *Educ.:* K. N. Coll., Berhampore (West Bengal); obtained B.A. & M.A. degrees while in detention. Member, Indian National Congress prior to May 1947; Congress Socialist Party prior to May 1940; detained without trial as a suspected revolutionary and member, underground Anushilan Samiti, 1931-38 and 1939-46; resigned from Congress after 1947 when the R.S.P. group decided to come out of the Congress; imprisoned by Portuguese authorities in Goa, July 1955-Feb. 1957; Dy. Leader, United Progressive Parliamentary Group; member, Lok Sabha, since 1952; is connected with several labour and office employees' unions and their welfare organisations in West Bengal; Vice-Pres., United Trade Union Congress. *Publications: Swing Back* (1950); *Nineteen Months in Salazar's Prison* (1958); *About the R.S.P.; An outline of Socialism* and numerous other tracts, brochures and pamphlets. *Address:* Revolutionary Socialist Party, Central Office, 780, Ballimaran, Delhi 6.

**CHAUDHURY, M. Moinul Haque,** B.A., (Hons.), M.A., LL.B., Minister for Agriculture, P.W.D. (Irrigation), Veterinary, Government of Assam since April 22, 1957. *b.* July, 1923; *Educ.:* Cotton Coll., Gauhati; Presidency Coll., Calcutta; Aligarh Univ.; passed B.A. (Hons.), 1944, M.A. first class. first in History and Political Science, 1946; LL.B. (first class), 1946. Joined legal profession and became a leader; was member, Silchar Local Board and Municipal Board; connected with several educational institutions; twice under detention for political activities; elected M.L.A., Assam, 1952 on Congress ticket; re-elected, 1957 and 1962; member: executive Cttee., Assam P.C.C.; Assam Cong. Parliamentary Party; A.I.C.C., since 1959; travelled in Italy, Germany, France, Belgium, U.K., U.S.A., Canada etc. Indian delegate in the U.N. General Assembly, 1961. *Address:* Shillong, Assam.

**CHAVAN, Dajisaheb Ramrao,** M.A., LL.M. (Bombay), Deputy Minister for Labour, Employment and Rehabilitation, Govt. of India, since Feb. 14, 1966.; *b.* Aug. 22, 1916; *Educ.:* Kolhapur. Member, Dist. Local Board, Satara, 1942-44; Bombay Leg. Council, 1954-56; Lok Sabha, 1947-62; elected to the Lok Sabha from Karad Constituency, 1962; Dy. Min. for Defence, Govt. of India, May 1962-June 1964; Dy. Min. for Food and Agriculture, Govt. of India, June 1964-Jan. 1966; Planning, Jan. 24-Feb. 13, 1966. was practising as an advocate in the District Courts of Satara, Sangli and Kolhapur. *Address:* 21, Asoka Road, New Delhi.

* Is due to retire on June 10, 1966. Is to be succeeded by Lt.-Gen. P. P. Kumaramangalam.

**CHAVAN, Shankarrao Bhaorao, B.A., (Madras), LL.B. (Osmania), Minister for Irrigation and Power and Bldgs. and Communications, Govt. of Maharashtra, since Feb. 19, 1964.** *b.* 1920; *Educ.:* Paithan (Aurangabad District); City Coll., Hyderabad; Nizam Coll., Hyderabad. Has been connected with several social, educational, co-operative and other activities in the Marathwada area; was member, Minimum Wages Board, appointed by Govt. of India. Vice-Pres., Central Co-operative Bank at Nanded for five years; was Director, Hyderabad State Co-operative Bank; was on the executive body of the State Co-opreative Land Mortgage Bank; Chairman, Nanded Municipality, 1952-56; member, Executive Body of All India Federation of Local Authorities; entered politics, 1945; gave up practice and became a full time Congress worker, 1946; Secy., Nanded D.C.C., 1950-53; General Secy., Hyderabad P.C.C. for about 2 years; elected M.L.C., Bombay, 1956; elected M.L.A., Bombay, 1957 and 1962; Dy. Min. for Revenue, bilingual Bombay, 1956-60; Min. for Irrigation and Power, Maharashtra State, 1960-62; Min. for Irrigation and Power & Urban Development, 1962-64. *Address:* Ramtek, Narayan Dabholkar Road, Malabar Hill, Bombay 6.

**CHAVAN, Yashwantrao Balwantrao,** Minister for Defence, Govt. of India, since Nov. 21, 1962; Leader of the Congress Party in Rajya Sabha, since Aug. 1963. *b.* March 12, 1913, at Devrashtre, Satara Dist.; *Educ.:* Tilak High School, Karad; won several prizes in elocution competition; was a voracious reader; organised students movement, 1930; participated in the C.D. Movement 1932; imprisoned for his political activities 1930; matriculated, 1934; graduated from the Rajaram Coll., Kolhapur, 1938; took his LL.B. Degree from Law Coll., Poona, 1941. Started practice at Karad; was a Royist first, but later dissociated himself from that movement in 1939 on the issue of the Second World War; Pres., D.C.C., 1941; directed underground movement in Satara Dist., Aug. 1942-May 1943 until his arrest at Phaltan, 1944; member, Maharashtra P.C.C., since 1940; was its Secy., 1948, 1949 and 1950; elected M.L.A., Bombay, 1946; appointed Parliamentary Secy., 1946; took active part in organising Home Guards; started a Marathi daily, *Prakash* at Satara, 1948; in early days also started the Marathi weekly *Lokkranti*; after the general elections of 1952, appointed Minister for Civil Supplies, Bombay; as Civil Supplies Minister succeeded in introducing progressive decontrol; was Minister for Local Self-Govt. and Forests, Bombay; was also in charge of Community Projects; elected leader, Congress Leg. Party of the new Bilingual Bombay State, Oct. 1956; after the second general elections was unanimously re-elected leader of the Congress Legislature Party; Chief Minister, Bombay State, Nov. 1956-Nov. 62; elected leader, Maharashtra Leg. Congress Party, 1962 General Elections; elected to the Lok Sabha in Nasik by-election unopposed, 1964; visited U.S.A., U.S.S.R., U.K. in 1964 in connection with the programmes of military assistance to India; participated in the Indo-Pakistan peace talks at Tashkent, Jan. 1966. *Address:* 1, Race Course Road, New Delhi.

**CHAVDA, Shivsar Dhanjibhai,** G.D. Art, (Bombay), Diploma in Fine Arts, Practising Artist. *b.* Dec. 11, 1914 in Gujarat; *Educ.:* C.J.N.Z. Madresa High School, Navsari; Sir J. J. School of Art, 1930-35; Slade School, London, 1938; worked at the Academie de la Grande Chamiere, Paris; learned stage designing under the well-known Russian artist Polunin at the Slade School; also studied in St. Martin's School of Art, London. Represented in the UNESCO Exhibition in Paris, 1947, the Exhibition of Indian Art at Burlington House, London, 1948, the Salon de Mai, Paris & Exhibition of Indian artists in the U.S.A., Exhibition of Indian Art at Villa Hughel, Germany, 1959; represented at San Paulo Biennale Exhibition, 1961; Venice Biennale, 1962; International Exhibition of Drawings and Engravings at Lugano, Switzerland, 1964; held 20 one-man shows in and outside India—Djakarta, Singapore, 1951, London, 1955, Paris, 1955, Zurich, 1956 and New York 1965. Travelled widely in Bali, Europe, U.S.A. and Malaya. *Publications: Chavda* (contemporary Series of Indian Art published by Lalit Kala Akademi). *Address:* Ava Chambers, 1, Cinema Road, Dhobitalao, Bombay 1.

**CHEEMA, Capt. Autar Singh,** Padma Shri (1965), Sena Medal, Mountaineer. *b.* Jan. 15, 1938; *Educ.:* Govt. Coll., Ludhiana. Joined, I.M.A., July 1958; got commission, June 12, 1960; Skiing Courses, Jan.-April 1961; climbed Panchuli IV & V (Virgin Peaks), May 1964; climbed Rathong (Virgin Peak), Oct. 1964; climbed Everest, May 20, 1965. *Address:* 7th Bn., The Parachute Regt., C/o 56 A.P.O.

**CHERIAN, Dr. P.V., M.B.B.S., D.L.O. (R.C.S.), F.R.F.P.S.G., F.R.C.S.E., Papal Honour "Knight Commander of the Order of St. Gregory the Great";** Governor of Maharashtra since Nov. 14, 1964. *b.* July 9, 1893; *Educ.:* C.M.S. College, Kottayam; Madras Medical College; London, Glasgow and Edinburgh. Temporary commission in the I.M.S., 1917-22; was in Iraq, 1918-22; Asstt. to Prof. of Surgery, Madras Medical College, 1923-25; specialised in diseases of the Ear, Nose and Throat in London, Glasgow, Edinburgh and Vienna, 1925-27; Ear, Nose and Throat Surgeon, General Hospital and Prof. of Ear, Nose and Throat Diseases, Medical College, Madras, 1927-48; Principal, Madras Medical College, 1945-48; acted as Surgeon-General, Madras, 1947; retired, Aug. 1948; member, Syndicate of Madras and Annamalai Univs.; was Mayor of Madras, 1950; Ag. Vice-Chancellor, Annamalai Univ., March-May 1955; Chairman, Madras Leg. Council 1952-64, *Address:* Raj Bhavan, Bombay 6.

**CHERIAN, Mrs. P.V., B.A. (Madras),** Ex-Mayor of Madras; Social worker; *b.* May 28, 1913, in Madras; *Educ.:* Women's Christian Coll., Madras. Member: Senate of the Madras Univ.; Pres.: Advisory Board for the Hospital for Women and Children, Egmore, for over 20 years; delegate, Eastern Regional Organisation of Public Admn., Tokyo, 1961; was member, School Health Commission appointed by the Govt. of India; Vice-Pres., Indian Conference of Social Work and Hon. Secy. in charge of State Cttee. in connection with the visit of three cultural delegations from the U.S.S.R., China and Uzbekistan; had an interview with the Pope; the first lady to become the Mayor of Madras; organised the Mayor's School Children Midday Meal Fund; elected Pres., All Mayor's Conference, Hyderabad, June 1958; member: All India School Health Council; was Director: L.I.C. of India; I.A.C.; Regional Programmes Adv. Cttee., A.I.R.; Chairman, Handicrafts Cttee., Small-Scale Industries and Handicrafts Board. *Address:* 5, Victoria Crescent, Madras 8; Raj Bhavan, Bombay 6.

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**CHETTIAR, L. P. KR. Ramanathan,** Panditha Vidwan, Panditha (Madura Tamil Sangam), Vidwan (Madras Univ.), conferred titles of Muttamil Vittakar Ilakkiya Vithakar and Panditamani; Prof. and Head of the Dept. of Tamil (Oriental), and Dean, Faculty of Oriental Studies, Annamalai University, since June 1953. *b.* Nov. 6, 1915; Winner, King George V. Thousand Rupee Prize (Madras Univ.). Serves on various academic bodies of the Univs. of Annamalai, Madras, Mysore, Osmania, Sri Venkateswara, Andhra and Kerala, and on Special Cttees. constituted by the Govt. of India and of Madras and the Annamalai Univ.; Secy.: Tamil Music Research Cttee. of the Madras Tamil Isai Sangham from 1949; compiled the National Bibliography—Tamil Section for Sahitya Academy; member, Syndicate, Senate and Academic Council, Annamalai Univ.; visited universities and other educational institutions in U.S.A., Canada, U.K. and other European countries. *Publications:* Several papers and books such as *Katturai Kovai; Annamalai Arasar; Sanga Kala Tamilar Valvu; Vazhakkai Valam;* Tholkappiya Chelvam; compiled twenty books on Tamil music. *Address:* Annamalainagar.

**CHETTIAR, T. Sundaram, B.Com., Managing Director, East India Corporation Ltd.,** Cotton Merchants and Owners of several ginning factories in the south. *b.* 1915, at Madurai; *Educ.:* Passed B.Com. Exam., Calcutta Univ., 1938. Managing Agent: The Sree Meenakshi Mills Ltd., Madurai; Saroja Mills Ltd., Coimbatore; Sree Rajendra Mills Ltd., Salem; Sri Sarada Mills Ltd., Podanur; Vijayamohini Mills Ltd., Trivandrum, and other mills; Director, Madura Insurance Co. Ltd., Madurai; Pres., Rotary Club, Madurai, 1952; visited the U.S.A., U.K. and the Continent, 1948, 1961; Correspondent, Thiagarajar Coll., Madurai; Pres. Sri Visalakshi Kalasalai High School; Visalakshi-Thiagarajar Girls' High School; first Pres., Lions International, Madurai; past Dist. Governor, 304, South, Lions International; member: Thiagesar Trust; Thiagarajar Coll. Endowment Trust; Thiagarajar Educational Trust. *Address:* 'Meenakshi Nilayam', Tirupparankundaram Road, Madurai.

**CHHANGANI, Mr. Justice Lakshmi Narayan, M.A., LL.B., Judge, Rajasthan** High Court, Jodhpur, since Sept. 1, 1959. *b.* Oct. 13, 1910; *Educ.:* Sumer Pushtikar High School, Jodhpur; Jaswant Coll., Jodhpur; Univ. Law Coll., Nagpur; Hislop Coll., Nagpur. Enrolled as First Grade Vakil, 1933 and as Advocate, Jan. 1940; Part-time Lecturer, Jaswant Coll., Jodhpur, 1947–59; Govt. Advocate, Rajasthan, 1953–59; Part-time Lecturer, R.A.S. Training Coll., 1957–58; elected Pres., Bar Assoc., 1953; elected member, Jodhpur Municipality for some years; Member, Bar Council, 1953–59, and was Chairman of number of Bar Council Tribunals. *Address:* Inside Jalori Gate, Jodhpur.

**CHIMANLAL, Shrimati Indumati,** Minister for Education, Social Welfare & Prohibition, Gujarat State, since March 1962; *Educ.:* Graduated from Gujarat Vidyapeeth with first class. Member: Vocational Education Cttee. and Board of Basic Education, 1937; Municipal School Board, Ahmedabad, 1938; Gujarat Vidyapeeth Exec. Cttee., Pres., Vithal Kanya Vidyalaya, Nadiad, 1944-50; Mg. Trustee: Sheth C. N. Vidya Vihar, Ahmedabad; Smt. Manekba Vinayvihar, Ahmedabad; in 1946, she was elected M.L.A., Bombay; was Parliamentary Secy. to the Chief Minister, Bombay; Deputy Minister for Education, 1952-56; Minister for Social Welfare and Rehabilitation, 1956-57; Min. for Educ. & Social Welfare, Gujarat, 1962-63; has been a trustee, Mahadevbhai Memorial Trust, Jail reforms Cttee. and Gujarat Univ. Cttee.; is associated with the Mahila Samunnati Sangh, Dist. Social Welfare Assoc., the Ambawadi Sewa Sangh, Ahmedabad and many other educational and social service institutions. *Address:* Sachivalaya, Ahmedabad 15.

**CHINAI, Babubhai Manekial,** L.T.M. (V.J. T.I.), Padma Bhushan (1966), M.P. (Rajya Sabha), Ex-Pres.: F.I.C.C.I., New Delhi; Indian Merchants' Chamber, Bombay; The All India Assoc. of Industries, Bombay; International Chambers of Commerce, New Delhi; Trustee: Lalji Naranji Memorial I.M.C. Bldg. Trust; Sardar Vallabhbhai Patel Memorial Trust; Shri S. K. Patil Public Trust; Shri Brihand Bharatiya Samaj; B.B.C.C. Properties Trust; People's Jinha Hall Trust; Business man. *b.* April 1913, at Ahmedabad; *Educ.:* Seth Anandilal Podar High School; Sir Parsuram Bhau Coll., Poona; V.J.T.I. Bombay. Joined his family firm of Nagindas Fulchand Chinai; is mainly concerned with the establishment and development of rayon industry in India; courted arrest in freedom movement; Hon. Treasurer, Mahatma Gandhi National Memorial Fund (Bombay Cttee.); member: A.I.C.C.; B.P.C.C.; member of several delegations abroad; Dir.: Ruia Chinai & Co. Pvt. Ltd.; Bombay Oxygen Corporation Ltd.; and several other companies; Chairman: Sindhu-Hochtief (India) Ltd.; Usha Forgings & Stampings Ltd.; Gandhidham Spg. & Mfg. Co. Ltd.; Usha Spg. & Wvg. Mills Ltd. *Address: Residence:* St. James's Court, Netaji Subhas Road, Bombay 1; *Office:* 130-32, Apollo Street, Bombay 1.

**CHINAI, Rasiklal J.,** Industrialist. *b.* Aug. 21, 1914; *Educ.:* Panchgani Hindu High School and Bharda New High School; underwent a course of training in mechanical and textile engineering including spinning and weaving under private tutors at Ahmedabad. Joined Nagindas Fulchand Chinai, a family firm dealing in Art Silk and Raw Silk all over India, China and Japan, 1932; established National Art Silk Mills (P) Ltd., 1937; promoted and started the National Rayon Corporation, Ltd.; a leading rayon manufacturing unit in India. *Publications:* Articles in trade magazines. *Address:* 'Mount Pleasant', Swami Vivekananda Road, Andheri.

**CHINOY, Sir Sultan Meherally,** Kt. (1939). *b.* February 16, 1885; *Educ.:* Bharda New High School and Elphinstone College. A pioneer in the Motor Car and Petroleum trade in India; responsible for the introduction of Wireless Telegraphy in India on a commercial scale and founded the Indian Radio and Cable Communications Co., Ltd. (now nationalised by Govt.); Mayor of Bombay, 1938-39; President, Bombay Rotary Club, 1940-41 District: Governor, Rotary I, 89th District, 1944-45; organised Pageant in 1937 in aid of funds for Red Cross and again in 1940 in aid of the Amenities for Troops Fund, Bombay Presidency. *Publications: Pioneering in Indian Business. Address:* Meher Bldg., Chowpatty, Bombay 7.

**CHOPRA, H.E. Lt.-Col. Inder Sen,** O.B.E., Indian Ambassador to Argentina, Uruguay, and Paraguay, since December 1964. *b.* 1909; *Educ.:* Bishop Cotton School, Simla; Govt. Coll., Lahore; Royal Military Coll., Sandhurst. Commissioned, Indian Army, 1930; served with 1st Bn., East Surrey Regt., Probyn's Horse (K.E.O. Lancers), and 16th Light Cavalry; selected to join Indian Political Service, 1936; served as Asstt. Political Agent, Loralai; Asstt. Political Agent and Colonisation Officer, Nasirabad; Dir. of Food and Civil Supplies and Secy., Revenue, Baluchistan Govt.; Secy. to the Agent to the Governor-General and Resident in Baluchistan; Secy., Indian Embassy, Washington, 1946; Counsellor, 1948; Deputy Secy., Ministry of External Affairs, 1949; Joint Secy., May 1950; Joint Secy. and Chief of Protocol, Dec. 1950; Minister to Sweden, Denmark and Finland, Aug. 1955; Ambassador to Sweden, 1956; Ambassador to Denmark, 1958; Ambassador to Iraq and Jordan, 1958; Jordan, 1960-62; Lebanon, 1962; High Commr. in Cyprus, 1962; Amb. to Kuwait, 1963. *Address:* C/o Ministry of External Affairs, New Delhi.

**CHOPRA, Mulk Raj,** Civil Engineering, Higher Grade, Roorkee, Member, American Society of Civil Engrs. I.S.E., Chairman, Central Water and Power Commission, since March 1962. *b.* Aug. 18, 1906; *Educ.:* Govt. College, Lahore, 1923-26; Thomason Engineering Coll., Roorkee; had a brilliant academic career. Joined the Punjab Irrigation Branch, 1930; was Exec. Engr. in charge of heavy construction and running divisions; Under-Secy. to Govt., Punjab, Irrigation Branch; promoted Supdtg. Engr., 1948; led a team of engineers to U.S.A. for designing the Bhakra Dam, 1948; planned construction of Harike Barrage; selected 1st Secy., Bhakra Control Board and sent to U.S.A., 1950; took over construction of Bhakra Dam, 1953; promoted Dy. Gen. Manager and then Gen. Manager, Bhakra Dam and Beas Project, 1960-62 & Secy., Punjab Govt., Bhakra Dam Administration, 1958-62; led a team of engineers to France, U.S.A., Canada and Japan for planning of machinery for Beas Project. *Address:* Central Water & Power Commission, New Delhi.

**CHOUDHARY, Mr. Justice Rati Kant,** B.A., B.L., Judge, High Court, Patna, since April 4, 1953. *b.* Jan. 1, 1907; *Educ.:* T. N. J. Coll., Bhagalpur; Law Coll., Patna. Enrolled as an advocate of Patna High Court, Feb. 1935; Lecturer in Patna Law Coll., 1939-46. *Address:* Patna.

**CHOWDHURY, Devi Prasad Roy,** M.B.E. Padma Bhushan (Oct. 1958), Sculptor; Ex-Chairman, Lalit Kala Akademi, New Delhi. *b.* June 15, 1899; *Educ.:* Privately. Principal, Govt. School of Arts, Madras, 1929-57; Director, Regional Arts Seminar organised by UNESCO at Tokyo, 1955; won 1st prize in the National Modern Sculpture Exhibition, sponsored by the Govt. of India; executed large group composition in the bronze — Martyrs Memorial, Bihar; Triumph of Labour (Delhi & Madras); reproduction of his paintings were published at the London Studio, New York International Studio, Moscow and other places. *Publications:* About eight books consisting of short stories in Bengali. *Address:* 63, Shambunath Pandit Street, Calcutta 25.

**CHUNDRA, Bimal Kumar,** M.B., B.S. (Calcutta), 'Distinction Award' and 'Diploma' exam. of Royal Life Saving Society, Lond. (1959), Swimmer. *b.* Nov. 19, 1927; *Educ.:* Scottish Church Collegiate School, Scottish Church Coll. and R. G. Kar Medical Coll. Learnt swimming at the age of 9 at the Central Swimming Club, Calcutta; Calcutta Univ. Inter-Collegiate swimming champion, 1944-50; West Bengal State Champion, 1946-54; All-India Aquatic Champion in 400 metres and 1,500 metres Free Style, 1947-52; represented India in XIV World Olympic Games in Swimming, London, 1948; represented India in the 1st Asian Games in Swimming, New Delhi, 1951; awarded Bronze Medal being 3rd in 400 metres Free Style; swam in the river Ganges for seven hours and covered 27 miles; first Indian to swim the English Channel successfully from France to England in 13 hrs. 50 minutes in his first attempt, Sept. 1959; participated in the Cleveland International Programme in U.S.A. 1962; Life member, Royal Life Saving Society, London. *Address:* 46/1, Ramdulal Sircar Street, Calcutta 6.

**COELHO, H.E. Mr. Vincent Herbert,** B.Sc. (Hons.), Political Officer in Sikkim and also in Charge of Govt. of India's relations with Bhutan, since Nov. 1965. *b.* July 20, 1917; *Educ.:* Madras Joined I.A. & A.S., Aug. 1942; Asstt. Financial Adviser (Supply Dept.), 1944-45; Under Secy., Ministry of Finance, 1945-46; Private Secy., to Prime Minister, 1947-48; First Secy. Indian Embassy, Berne, March 1948-Aug. 1949; Trade Commissioner, Alexandria, Aug. 1949 to Dec. 1950; Consul-General, Goa, March 1951–July 1954; O.S.D. and later Deputy Secy., Ministry of External Affairs, Aug. 1954–57; Counsellor/Charge d'Affaires, Embassy of India, Ankara, Feb. 1957 to May 1959; Jt. Secy., Ministry of External Affairs, 1959-63; Ambassador of India to Brazil, Bolivia and Venezuela, 1963-65. *Address:* C/o External Affairs Ministry, New Delhi.

**CONTRACTOR, Noman Lookmanji,** Businessman. *b.* August 17, 1918; *Educ.:* Privately. Managing Director: Rainbow Ink & Varnish Mfg. Co. Pvt. Ltd.; Popular Fine Art Litho Works Pvt. Ltd.; Partner: The Union Research Laboratories and Messrs. Noman Brothers; Founder-member and President: All India Printing Ink Mfgrs. Assoc. Ltd. (1963-64); Hon. Gen. Secy., All India Federation of Master Printers, 1963-64; is its Pres.; Hon. Gen. Secy., Bombay Master Printers' Assoc.; A.I.M.O.; Indian Merchants Chamber; Indo-Arab Society; Panel for development of Printing Machinery Industry; Chemical and Allied Trades Export Promotion Council; Paper, Printing, Packaging and Allied Trades Research Association, England; International Association of Printing House Craftsmen Inc., U.S.A.; All India Playing Card Manufacturers' Assoc.; Bombay Industries Association, etc.; a Rotarian, a Free Mason and a J. P. Has travelled extensively in India, U.S.A., Japan, Europe, Middle East, and other countries abroad. *Publications:* Articles published in various printing and allied trades magazines. *Address:* 'Firdaus', 133-C, Vakola Pipe Line, Santa Cruz, Bombay 55 AS.

**COOPER, Jal Manekji,** F.R.G.S., Member, British Philatelic Association Ltd.; Hon. Secy., The Empire of India Philatelic Society. *b.* March 29, 1905. Member, Glasgow Philatelic Society, Philatelic Traders' Society, The Air Mail Society, etc.; Editor and Publisher of "India's Stamp Journal" (a monthly Philatelic Magazine); Auctioneer and Philatelic Valuer; Dealer in Rare Stamps and all kinds of Philatelic accessories. *Publications: Indian Rocket Mails, Early Indian Cancellations, Stamps of India, India used in Burma, India used Abroad,* and *Specialised Catalogue of Indian Stamps. Address:* Standard Building, Dadabhoy Naoroji Road, Bombay.

**COOPER, Dr. Rustom Cavasjee,** M. Com., Ph.D. (Econ.), F.C.A., F.S.A.A. (Hons.), Partner, P. C. Hansotia & Co., and Touche, Ross, Bailey & Smart. *b.* Aug. 18, 1922; *Educ.:* Sydenham Coll. of Commerce & Economics, Bombay; Univ. School of Economics, Bombay & British Coll. of Accountancy, London. Practising Chartered Accountant since 1948; Member, Managing Cttee., Indian Merchants Chamber, since 1954; Member: Senate, Univ. of Bombay, since 1954; Central Council, Institute of Chartered Accountants of India, since 1958; Pres., The Institute of Chartered Accountants of India, 1963-64; Member: Central Direct Taxes Advisory Cttee., since 1964; Research Programmes Cttee., Ministry of Finance, since 1960; Chairman, Bennett, Coleman & Co. Ltd., since 1964; Director: Victor Gaskets India Ltd.; Navsari Cotton & Silk Mills Ltd.; Gaekwar Mills Ltd.; Firth Sterling Steel Corp. of India Ltd.; Ramon & Demm Ltd., etc.; Hon. Treasurer, Indian Red Cross Society; Specialist in Taxation and Management Consultant; Member Local Board, State Bank of India; is Vice-Chairman, Bhavan International and Vice-Pres., Indian Merchants Chamber for 1966. *Publications: Bombay Public Trust Act* and *Handbook of Estate Duty. Address:* 51, Mahatma Gandhi Road, Jehangir Wadia Bldg., Bombay 1.

**DAHANUKAR, Dattatreya Mahadeo,** Chairman and Director, The Maharashtra Sugar Mills Ltd.; Director: Schrader—Scovill Duncan Ltd.; M. L. Dahanukar and Co. P. Ltd.; Mg. Dir., Arun Dahanukar & Co. P. Ltd. *b.* Dec. 21, 1911; *Educ.:* Bombay. Member: The Indian Merchants' Chamber, Bombay; The Maharashtra Chamber of Commerce, Bombay; Bombay Management Assoc., Bombay; Federation of Indian Chambers of

Commerce and Industry, New Delhi. *Address : Office :* Industrial Assurance Building, Churchgate, Bombay 1. *Residence :* "Bakhtawar", Narayan Dabholkar Road, Malabar Hill, Bombay 6.

**DAHANUKAR, Mahadeo Laxman,** Managing Director, M. L. Dahanukar & Co. Pvt. Ltd.; Managing Agents, The Maharashtra Sugar Mills Ltd. and The Belvandi Sugar Farm Pvt. Ltd.; Director, Dahanukar Sons Pvt. Ltd.; N.U.C. Pvt. Ltd.; Worli Chemical Works Pvt. Ltd.; ex-Sheriff of Bombay; ex-Pres., The Maharashtra Chamber of Commerce; Employers' delegate to the International Labour Conference, Geneva, 1939; Ex-member: Cttee. of the Indian Merchants' Chamber, Bombay; the F.I.C.C.I.; Indian National Cttee. of the International Chamber of Commerce; All-India Organisation of Industrial Employers; Provincial Housing Advisory Cttee.; Regional Disposal Advisory Cttee., Bombay and other Govt. Bodies; Employers' Federation of India; Councillor, Bombay Municipal Corporation (1932-39), and Bandra Municipality (1930-34); takes active part in all commercial, industrial and social activities. *Address :* Shree Sadan, 4A, Carmichael Road, Cumballa Hill, Bombay; Industrial Assurance Building, opp. Churchgate Station, Bombay 1.

**DALAL, Jayanti G.,** Gujarati Writer. *b.* Nov. 18, 1909; *Educ. :* Surat, Ahmedabad and Gujarat Coll., Ahmedabad. Gave up studies to join satyagraha, 1930; jailed, 1930, 1932-33, 1941, 1942-44, 1957, 1958; took to journalism and writing; organised Mahagujarat Janata Parishad, 1956; elected to Legislative Assembly; had been Chairman, Gujarat P.S.P.; awarded Ranjitram Medal for 1959 for one act plays and short stories. *Publications :* novels, short stories, one act plays, drama, etc., translated entire *War and Peace. Address :* Jivan Pole, Sankadi Sheri, Ahmedabad.

**DALAL, Manockji Nadirshaw,** Ex-Chairman, Council of State. *b.* January 7, 1905. Member, Council of State for over a decade; Sheriff of Bombay; Vice-Pres., Indian Branch of the Commonwealth Parliamentary Assoc.; Member of the Court, Delhi Univ.; served on almost all Advisory Cttees. of Ministries of the Govt. of India, Supply and Munitions Production Cttee., Central Advisory Council, Railway Board, Civil Defence Cttee., Food Cttee., Roads Cttee., Commonwealth Relations Cttee. etc.; Director: Sepulchre Bros. (India) Ltd.; Elpro International Ltd.; International Road Federation; member, Executive Cttee. of the Indian Merchants' Chamber; Chairman: Tractors (India) Ltd.; Coles Cranes of India Ltd.; Tractors & Equipment Corpn. Ltd.; Cranes and Equipment Corpn. Ltd.; Advisor, New India Assurance Co. Ltd.; Fellow, Incorporated Assoc. of Architects and Surveyors (London); Fellow, Royal Society of Arts (London); member, Royal Institute of Civil Engineers (Lond.); Honourably mentioned for the Charles Hawksley Prize, 1931, by the Royal Institute of Civil Engineers (London). *Address :* Nepean House, Ridge Road, Bombay 6.

**DALMIA, Jaidayal.** *b.* Dec. 1904, younger brother of Seth Ramkrishna Dalmia; *Educ. :* Privately. A leading industrialist and an able Executive; has wide knowleuge of machinery and plant; keenly interested in mass literacy, labour problems and maternity welfare; has travelled in India and Europe; has visited workshops of many important machinery manufacturers in Great Britain and the Continent and has good experience of different processes of cement manufacture; keenly interested in engineering; Chairman, Orissa Cement Ltd. *Address :* No. 2, Tilak Marg, New Delhi.

**DALMIA, Seth Ramkrishna.** *b.* April 7, 1893. Industrialist; his ancestors, noted for their love of spiritual service, belonged to Dalma, a village in the Punjab State, from where they migrated to Rajputana; *Educ. :* Without the help of a tutor, by reading books in leisure time, practical experience and natural gift, acquired knowledge specially in finance, banking, commerce, economics and philosophy; also acquired good knowledge of Hindi, Bengali, Gujrathi and English all of which he speaks well and with ease; well read in Hindu scriptures; started career at the age of 12 on Rs. 10 per mensem, as an apprentice with his maternal uncle; is the founder of the Dalmia-Jain Group of Industries consisting of many companies including banks, insurance and investment companies, chains of cement and sugar factories, chemicals, biscuit factories, aviation companies, railways, collieries, publishing house and newspapers; has now distributed most of the concerns between his brother and son-in-law, keeping just a few in his hands; had numerous ups and downs in his career but his steadfastness and strong will power raised him to his present position: his centres of activity have grown into self-sufficient towns, named after his ancestors and relations—Dalmianagar (Bihar), Dalmiapuram (South India), Dalmia-Dadri (Punjab), Ramkrishna Lok, Sawai Madhopur (Rajasthan), and Shantinagar (Karachi, Pakistan); one of the biggest philanthropists, his charities include schools and other institutions such as hospitals, widows' homes, poor houses, and religious institutions being run by Charity Trusts; since 1951 has lived on fruit and fruit juice, has vowed not to take cereals until cow slaughter is abolished; wears simple clothes and is frugal in his personal expenses; is on terms of friendship with religious and social leaders; orthodox in his living and having implicit faith in his own religion, has strong belief in the Supreme Power of Goddess "Jagadamba" who pervades and controls the Universe. *Address :* Dalmia House, New Delhi.

**DALMIA, Vishnu Hari,** Industrialist. *b.* May 1924; *Educ. :* Privately. From young age began taking active interest in various concerns owned and/or managed by the Dalmia Group like Bharat Bank Ltd., Bharat Fire & General Insurance Ltd and Bharat Insurance Co., Ltd.; Chairman: Dalmia Cement (Bharat) Ltd.; Raza Buland Sugar Co., Ltd.; The Rampur Distillery & Chemical Co., Ltd.; Director, Orissa Cement Ltd. and Bharat General Reinsurance Ltd.; Member: Main Cttee. of Indian Sugar Mills Assoc.; Cement Mfrs. Assoc.; All India Distillers Assoc., All India Organisation of Industrial Employers; was a member, Central Wage Board (Cement); widely travelled in Europe, Japan and U.S.A.; Keenly interested in cultural activities, welfare programmes for employees and religious literature; as a strict vegetarian, takes active interest in propagation of vegetarianism. *Address :* 4, Scindia House, New Delhi 1 (Office); 2, Tilak Marg, New Delhi 1 (Residence).

**DAMLE, Kashinath Raghunath,** B.Sc. (Hons.) (Allahabad and London), I.C.S., Lt. Governor of Goa, Daman & Diu and Administrator Dadra and Nagar Haveli, since Feb. 24, 1965 *b.* March 3, 1906; *Educ. :* Allahabad Univ.; King's Coll., London. Joint Magistrate and Dist. & Sessions Judge in various places in U.P. and Ajmer (1930-44); Secy. to High Commissioner for India in Australia, also Acting High Commissioner (1944-48); Joint Secy. and Offg. Secy. to Govt. of India and Vice-Pres., Indian Council of Agricultural Research (1949-55); Chairman, Tariff Commission, 1955-58; Secy.: Min. of Food & Agriculture, Govt. of India, 1958-62; Ministry of Mines and Fuel, Govt. of India, 1962-63; Ministry of Petroleum and Chemicals, 1963-64. Secretary to the President, Oct. 1964-Feb. 1965. *Address :* Cabo Raj Niwas, Caranzalem, Goa.

**DANDEKAR, Gopal Neelkanth,** Marathi Novelist. *b.* July 8, 1917; *Educ. :* Upto 5th standard at Nagpur; left school and house to join national movement of 1930; wandered all over India in company of Sages for a period of 15 years. *Publications :* Novels: Marathi: *Binduchi Katha; Tudavlele Gharkul; Padma; Sindhukanya; Shilu; Jagannatha Pandit; Pavnakathacha Dhondi; Padghavli; Purnamaychi Lekre; Kuna Ekachi Bhraman Gatha; Kisi Ekaki Bhraman Gatha* (Hindi); *Machivarala Budha; Aamhi Bhageerathache Putra* (a novel about Bhakra Dam); *Hum Bhageerath Kee Santan; Anandwanbhuwan* (a novel about lepers); *Shree Karnayan; Udoni Hans Chalila; Ajoon Nahee Jagen Gokul; Bhawartha Jnaneshwaree;* Dramas, Collections of stories, 75 books of various nature in Hindi and Marathi. *Address :* Talegaon-Dabhada, District Poona.

**DANDEKAR, Ramchandra Narayan,** M.A. (Sanskrit), M.A. (Ancient Indian Culture), Ph.D., Padma Bhushan (1962), Sanskrit Scholar; Professor of Sanskrit and Head of the Deptt. of Sanskrit and Prakrit Languages, Univ. of Poona; member, Central Sanskrit Board and Central Archaeology Board, Govt. of India; Secretary, Organising Cttee. of the 26th International Congress of Orientalists, New Delhi (1964). *b.* March 17, 1909; *Educ. :* Deccan Coll., Poona; Heidelberg Univ. (Germany); Hon. Secy., Bhandarkar Oriental Research Institute, Poona, since 1939; General Secy., All India Oriental Conference, since 1946; attended International Congresses of Orientalists at Paris (1948), Istanbul (1951), Cambridge (1954), Moscow (1960), Vice-Pres., International Union of Orientalists; member, Sahitya Akademi; Editor, Critical Edition of Mahabharata; Editor, *Annals of B.O.R.I., Journal of University of Poona, Erasmus. Publications : Der vedische Mensch, A History of the Guptas, Vedic Mythological Tracts, Vedic Bibliography, Satyaparvan, Rasaratnapradipika, Progress of Indic Studies, Srautakosa, Satyapuran;* has contributed to various Indian and foreign publications. *Address :* University of Poona, Poona 7.

**DANDEKER, Narayan,** B.Sc. (Econ.) (Hons.) (London), B.Com. (Hons.) (London), F.C.A. (Eng.), F.C.A. (India), I.C.S. (Retd.), M.P., Chartered Accountant; Director, Punjab National Bank Ltd.; Chairman, Indian Oxygen Ltd. *b.* June 24, 1908; *Educ. :* St. Mary's European High School, Madras; Univ. Coll., Colombo, Ceylon; London School of Economics, London; School of Oriental Studies, London. Joined the I.C.S., 1931; Commissioner of Income-Tax (1941-44), at Calcutta and then in Punjab, Delhi and N.-W.F. Provinces (1944-46); on special duty with the Central Board of Revenue (1946-47); Commsnr. of Income-Tax, Bengal (1947-48); Member, Central Board of Revenue (1948); Joint Secy., States Ministry (1948); member, Cttee. on Federal Financial Integration, 1948–49; Chief Executive, Scindia Steam Navigation Co., Ltd., Bombay, 1949–54; Managing Director, Cement Agencies Ltd., 1954–61; Chairman, Council for Econ. Education, 1958–62; Pres.: Bombay Chamber of Commerce, 1959–60; All-India Management Assocn., 1960–63; member, Bonus Commission, 1961–64 *Address :* Southlands, 177, Upper Colaba, Bombay 5.

**DANGE, Shripad Amrit,** Chairman, National Council, C.P.I., since April 29, 1962; General Secretary, All India Trade Union Congress. *b.* Oct. 10, 1899; *Educ. :* Bombay. Member, Central Executive Committee of the Communist Party of India and also member, Secretariat; Vice-Pres., World Federation of Trade Unions; courted jail for over 17 years under the British Govt. and the Congress Govt. for conducting strikes, struggles and political activities on behalf of the Communist Party; member, Lok Sabha, 1957-62. *Publications : India from Primitive Communism to Slavery,* 1949; *Hell Found,* 1928: *Gandhi vs. Lenin,* 1921, etc. *Address :* 9, Kohinoor Road, Dadar, Bombay 14; 7/4, Asaf Ali Road, New Delhi.

**DAPTARY, Chandra Kisan,** M.A. (Cantab.), Bar-at-Law, Attorney-General, Govt. of India, since March 1963. *b.* April 1, 1893; *Educ.:* St. Paul's School, London; Magdalene Coll., Cambridge; called to the Bar, January 1917, Advocate O.S., High Court; Advocate-General, Bombay, till July 1951; Solicitor-General, Govt. of India, 1951-63. *Address:* 3, Hastings Road, New Delhi.

**DARSHAN, Bhakt,** M.A. (Allahabad). Deputy Minister of Education, Government of India, since 1963. *b.* Feb. 12, 1912; *Educ.:* D. A. V. Coll., Dehra Dun; Vishwa Bharati, Shantiniketan; Univ. of Allahabad. Took active part in Congress movements and was imprisoned four times; founded and edited the *Karma Bhumi* (a Hindi weekly newspaper from Landsdowne) (Garhwal); was Chairman, Rural Development Assoc.; Pres., Dist. Board and Dist. Planning Officer, Garhwal for several years; was thrice elected to Lok Sabha from Garhwal (U.P.), 1952, 1957 and 1962. *Publications: Suman-Smriti-Granth; Garhwal-Ki-Divangat-Vibhutiyan* (both in Hindi). *Address:* Jaiharikal, Landsdowne, Dt. Garhwal (U.P.); 10, Hastings Road, New Delhi.

**DAS, Biswanath,** B.A., B.L., Governor of Uttar Pradesh since April 16, 1962. *b.* March 1881, in Ganjam Dist., Orissa; *Educ.:* B.A. from Ravenshaw Coll., Cuttack; B.L. from Univ. Law Coll., Calcutta. First elected Pres., Chhatapur Taluqa Board (Ganjam), the only elected non-official office then open to Indians, in Madras; practised in Ganjam District 1919-21; joined Congress, 1921; started Kisan Sangh in Madras Presidency, 1920; elected M.L.A., Madras Council from Ganjam Dist. for three terms, 1920-29; resigned obeying Congress call for Salt Satyagraha, 1929; courted imprisonment in the freedom movement several times; elected M.L.A., Orissa 1936; was elected leader, Congress Assembly Party, 1937; Chief Minister of Orissa, 1937-39; resigned on the War issue; Member, Constituent Assembly, 1947-51; was member, A.I.C.C. for many years, Pres., Utkal P.C.C. for 3 terms; was Member, Rajya Sabha for two terms; again elected M.L.A., Orissa. *Address:* Raj Bhavan, Lucknow, U.P.

**DAS, Debesh Chandra,** B.A. (Hons.) in England with First Class First, I.C.S., Secretary to Govt. of India for Social Security, since 1964. *b.* Sept. 1, 1911; *Educ.:* Calcutta & London Univs.; Middle Temple; B.A. (Hons.), 1931. Entered Govt. service as Under Secy., Home & Political Deptt., Assam Govt., 1938; held important posts in Assam & Govt. of India till he became Chief Secy., Assam; Secy., Union Public Service Commission 1951-54; Joint Secy., Govt. of India, Min. of Communications 1955-61; Managing Director, C.W.C., Min. of Food 1961-64; led Indian delegations abroad for: Civil Aviation Agreement 1956, Commonwealth Telecom. Agreement and World-wide Submarine Cables Conference 1958, Joint Policy Cttee. of UNICEF & FAO, 1965; Pres., All India Bengali Literary Conference, since 1952. *Publications: Europa; Prema Rag; Rajwara & Shield of Haldighat; Rajasi, Ardhek Manavi Tumi, Rome Theke Ramna; Sei Chirakal; Pratham Dharechhe Kali, Paschimer Janla, Sudur Banshari, Sei Kolkata* etc. Translated in several Indian and foreign languages; *Raktarag. Address:* 3, Raisina Road, New Delhi 1.

**DAS, Durga,** Editor in Chief, *India News and Feature Alliance*, since Nov. 1959. *b.* Nov. 23, 1900, at Aur (Punjab); *Educ.:* Jullundur and Lahore. Parliamentary Correspondent and Editor, Associated Press of India, New Delhi-Simla, 1918–37; Special Representative of the *Statesman*, 1938–43; Joint Editor, the *Hindustan Times*, 1944–57 and Chief Editor, 1957–59; studied working of the Press and Parliaments in Europe and the U.K., 1931; visited the Middle East, Italy and the U.K. as War Correspondent, 1945; Pres., U.P. Press Conference, 1946; Chairman, Press Gallery Cttee., Indian Parliament, 1951-59 and 1962-63; Delegate to the Commonwealth Press Conference, Ottawa, 1951; Pres., All-India Newspaper Editors' Conference, 1959-61; Pres., Press Club of India, New Delhi, 1959-62; member, Small Newspapers Enquiry Cttee.; made round-the-world tours, 1957 and 1959. *Publications: India & The World; Ram Rajya in Action; Infa Press Year Book. Address:* 2, Tolstoy Lane, New Delhi 1.

**DAS, Hari,** Minister for Food and Civil Supplies, Forests, Transport, Industries and Development, Himachal Pradesh Govt. since July 1963. *b.* 20 Bhadon, Samvat 1979 Bikrami. Became primary member of Congress, 1940; Secy., Kunihar Praja Mandal, 1945; courted jail in movements against the Rulers of the erstwhile States of Kunihar and Mehlog; was member, Dist. (Mahasu) and P. C. C. of Himachal Pradesh, 1948; Gen. Secy., Tehsil Congress Committee, Arki; Pres., D. C. C., Mahasu, 1958; Gen. Secy., H.P. Cong. Cttee., 1959; elected member, H.P. Territorial Council, 1962. *Address:* Simla 4.

**DAS, Dr. Nabagopal,** I.C.S. (Retd.), Ph.D. (London), Life Member, Royal Economic Society, Author; Economic Adviser and Vice-Pres., Hindustan Motors, Ltd., Calcutta, since 1964. *b.* Feb. 20, 1910; *Educ.:* Presidency Coll., Calcutta; London School of Economics. Entered the I.C.S., 1931; Director-General of Resettlement & Employment and Joint Secy., Ministry of Labour, Govt. India (1947-52); Secy. to Govt. of West Bengal, Commerce and Industries, Irrigation and Waterways and Home Deptts. (1952-58); Director General, Employers' Federation of India, Bombay (1959-63); attended the I. L. O. Sessions in San Francisco (1948) and Geneva (1949 and 1950) on behalf of Govt. of India and in Cologne (1959) on behalf of Indian Employers; Founder-member, Indian P.E.N. *Publications: Industrial Enterprise in India; Unemployment, Full Employment and India; The Public Sector in India; Experiments in Industrial Democracy;* also five novels and four collections of short stories in Bengali. *Address:* 4, Jubilee Park, Tollygunge, Calcutta-33.

**DAS, Dr. Pandit Nilakantha,** M.A., D.Litt., Padma Bhushan, Ex-Speaker, Orissa Legislative Assembly; Poet and Writer. *b.* Aug. 5, 1884. Appointed by Calcutta University to Post-graduate Professorship in 1920; imprisoned in N. C. movement; was Provincial Congress President, Utkal, several times from 1934-39 and President, Utkal All-Party Conference; elected Chairman, Reception Committee, I.N. Congress, Puri Session, 1931-32; Member, Delhi University Court for 6 years from 1924; Chairman, Orissa University Committee; M.L.A. (Central), 1924-30, again from 1935-45; M.L.A. (Orissa), 1952-57; Pro-Chancellor, Utkal Univ., 1955. *Publications:* Books for children on new lines; Critical Treatises, Essays, etc.; a new thesis on the Gita with commentary; Evolution of Oriya Literature; research articles on Vedic Language and Culture, Jagannatha and other similar institutions; Pres., Orissa Sahitya Akademi, 1957. *Address:* Village and P.O. Sriramchandrapur, Dist. Puri.

**DAS, Dr. Sudhi Ranjan,** Barrister-at-Law, LL.D., *Honoris Causa* of Allahabad and Calcutta Universities, Ex-Chief Justice of India. *b.* Oct. 1, 1894; *Educ.:* Tagore's School, Santiniketan, Bangabasi Coll., Calcutta, Univ., Coll., London; Graduated, Calcutta Univ., 1915; LL.B. (Lond.), 1st class 1st, 1918; called to the Bar, Gray's Inn, 1918. Joined Calcutta Bar, 1919; Lecturer, Univ. Law College; Additional Judge, Calcutta High Court, 1942-44; Puisne Judge, Calcutta High Court, 1944-49; Chief Justice, East Punjab High Court, 1949-50, Judge, Supreme Court of India, 1950-55; Chief Justice of India, 1956-59; Member, Univ. Grants Commission, 1962-65; Vice-Chancellor, Visva Bharati Univ., 1959-65. *Address:* C/o Visva Bharati, Santiniketan, West Bengal.

**DAS GUPTA, Bimal,** Diploma in Commercial Art, leading painter; Asstt. Director (Publicity), National Bldgs. Organisation, Ministry of Works, Housing & Rehabilitation, Govt. of India, *b.* Dec. 28, 1917; *Educ.:* Govt. College of Arts and Crafts, Calcutta. Won several prizes in all India poster competitions; also gold and silver medals as best water colourist in various exhibitions in India; awarded the national prize by the President of India, 1955; paintings exhibited in the principal cities of the world; held one man exhibitions of paintings in Delhi, Sept. 1955, Sept. 1957, Nov. 1960, Nov. 1962 and in Calcutta, Feb. 1957; his latest experiments are in unconventional *gouche* paintings; a water colour "Sacks and Sands" preserved in the Hermit Art Gallery, U.S.S.R.; visited Poland, Germany, France, England, Italy and Greece on a cultural exchange programme, 1961. *Address:* E-13, Moti Bag, New Delhi 5.

**DAS-GUPTA, Dr. Hirendra Nath,** M.Sc. (First-class) (Silver medalist), D.Sc. Professor and Head of the Deptt. of Silicate Technology and Ag. Principal, Coll. of Technology, Banaras Hindu Univ. *b.* Nov. 1904; *Educ.:* Calcutta Univ. Awarded a Post-graduate Research Scholarship by the Govt. of Bengal for carrying on original investigation on organo-arsenic drugs, 1930–33; Council Member, Indian Chem. Soc., 1948–50; Professor of Chemistry, Fuel & Metallurgy, Indian School of Mines and Applied Geology, Dhanbad; presided over the section of Engg. and Metallurgy of the 48th session of Indian Science Congress, Roorkee, 1961; member, Laboratory Glassware and related Apparatus Sectional Committee of the Indian Standards Institute. *Publications:* Published numerous papers embodying the results of original investigations in branches like organo-arsenic compounds; glass and silicates; sulphur, phosphorus, analytical chemistry and metallurgy. *Address:* 5/3, Kali Charan Dutta Rd., Calcutta.

**DAS-GUPTA, Niraj Nath,** M.Sc. (Cal.), Ph.D., (Lond.), F.N.I., Scientist; Professor of Biophysics, Saha Institute of Nuclear Physics, Calcutta Univ., since 1953. *b.* Feb. 1, 1909. *Educ.:* Hindu School, Calcutta (1925); B.Sc. (Hons.), Presidency Coll., Calcutta (1929); M.Sc. (1st Class 1st), Science Coll., Cal. (1931); Ph.D., King's Coll., Lond. (1938); Gold Medal and Prize (Cal. Univ., 1931); Mahendralal Sircar Research Medallist (1938); Research Associate, Stanford Univ., California (1945-46); Reader, Cal. Univ. (1947-52); member: Senate and Academic Council, Cal. Univ. since 1953; American Physical Society, since 1946; Biophysical Society, U.S.A., since 1956; Fellow, National Institute of Sciences, since 1958; Gen. Secy., Indian Physical Society, 1951-54; Secy., Biophysics Research Cttee., C.S.I.R. (1955-58); member, National Cttee. for Biophysics, India; research interests: biophysics, radiation biology, electron microscopy, tracer research, etc. *Publications:* Over thirty papers and a monograph in physics, translated into Russian. *Address:* 44, Hazra Road, Calcutta 19.

**DAS GUPTA, Prodosh Kusum,** B.A., F.R.S.A. (Lond.) (1955), Director, National Gallery of Modern Art, New Delhi, since July 1957. *b.* Jan. 10, 1912, Dacca; *Educ.:* B.A. from Scottish Church Coll., Calcutta, 1932; Govt. School of Arts and Crafts, Lucknow, and Madras; awarded Guru Prasanna Ghose Travelling Scholarship by the Calcutta Univ. in 1938 to study sculpture in Royal Academy of Arts, London; L.C.C. Central School of Arts and Crafts, London; Ecole De Grand Schaumere, Paris. Practised as a professional sculptor till 1950; went twice to South East Asian countries, 1950-51; Reader and Head, Deptt. of Sculpture, Baroda Univ., 1950; Prof. of Sculpture, Govt. Coll. of Arts and Crafts, Calcutta, 1951-57; represented India in the International Sculpture Competition, London, 1953; President Elect, International Association of Plastic Arts, UNESCO, Vienna

Session, 1960 ; member : Exec. Cttee. of International Assoc. of Plastic Arts ; Exec. Board, Lalit Kala Academy. *Publications : My Sculpture* (1956) ; many articles on Art in various magazines, periodicals and dailies both in English and Bengali. *Address :* Jaipur House, New Delhi.

**DASAPPA, Smt. Yashodhara,** Ex-Minister for Social Welfare, Mysore. *b.* May 28, 1905 ; *Educ. :* London Mission Girls' School, Bangalore and Queen Mary's Coll., Madras. Is the first woman to occupy Cabinet Minister's post in Mysore ; a veteran Congress worker from the days of the Shivapura Congress session ; elected Pres., Mysore P.C.C., 1950 ; was a close associate of Mahatma Gandhi and lived in Sevagram and Wardha for a long time ; was elected M.L.C., Mysore, 1939 ; actively participated in the freedom movement ; is a trustee, Gandhi Smarak Nidhi ; was an agent, Kasturba Gandhi National Memorial Trust, Mysore Branch ; founder of a school for rural women in Arsikere ; was Vice-Pres., Mysore State Grama Panchayat Parishad ; elected M.L.A., Mysore, from Hassan, 1962 ; Min. for Social Welfare, Mysore, 1962-65 ; resigned from the cabinet on Jan. 1, 1966. *Address :* C/o Vidhana-soudha, Bangalore.

**DAVE, Mr. Justice Durga Shanker,** B.A., LL.B., Chief Justice, High Court of Rajasthan, since June 1, 1963. *b.* Dec. 18, 1906 ; *Educ. :* Darbar High Schools at Bundi and Jhalawar ; B.A. from Banaras Hindu Univ. ; LL.B. from Agra Univ. Appointed City Magistrate, Bundi, 1930 ; District Magistrate and Civil Judge, 1931-37 ; District & Sessions Judge, Bundi, 1937-47 ; High Court Judge, Bundi, 1948 ; High Court Judge in former Rajasthan, 1948-Jan. 25, 1951 ; Judge, Industrial Tribunal, 1951-52 ; Judge, Rajasthan High Court, 1952-63. *Address :* 42, Railway Road, Jodhpur.

**DAVE, R. M.,** Industrialist. *b.* Jan. 1, 1918 ; *Educ. :* Baroda Univ. ; Sheriff of Madras (1960–61) ; Member : Cttee. of the Federation of Indian Chambers of Commerce & Industry (1960–61) ; Pres., Hindustan Chamber of Commerce, (1958–59) ; member : Working Cttee., Hindustan Chamber of Commerce ; Rotary Club of Madras ; The Gymkhana Club ; Cosmopolitan Club ; T.N.C.C. ; Telephone Advisory Cttee., Madras ; Central Excise Cttee. ; Madras ; Pres., Sri Mambalam Gujarati Samaj, Madras ; is actively connected with several social and cultural activities ; deals in Cotton, Iron & Steel, Cement, Hardware, Cycles and accessories ; Director : Sovereign Spg. & Wvg. Mills Ltd., Madras , Raka Chemicals & Food Products ; Hindustan Shipyard Ltd., Visakhapatnam ; Steel & Structural Machinery Ltd., Madras. *Address : Office :* 170, Broadway, Madras 1 ; *Res. :* 22, Boag Road, Madras 17.

**DAVE, Shantilal Somnath,** Post Diploma in Painting, Artist. *b.* Sept. 25, 1931 ; *Educ. :* Premier High School, Ahmedabad ; Fine Arts Coll., Baroda. Awarded Lalitkala Akadami Prize, 1956, '57 and '58 ; Governor's Prize—Bombay Art Society, 1956, '58 ; 3rd major prize, S.-E. Asian Art Exhibition at Manila, 1957 for paintings ; Recipient of a cultural Scholarship of Govt. of India for 1957-59 to study under the guidance of Prof. N. S. Bendre, Faculty of Fine Arts, M. S. Univ. ; Calcutta Academy of Fine Arts, Governor's Gold Medal, 1959 ; Bombay State Art Exhibition, Tamra Patra and cash prize of Rs. 1,000, 1959 ; Murals, for Air-India International—Frankfurt, New York, Los Angeles, New Delhi, Bombay and Taj Mahal, 1960 ; conducted one-man show in Los Angeles ; London ; Bombay (twice) ; Delhi (thrice). *Address :* E-61, South Ext. Part 1, New Delhi 3.

**DAYAL, Mr. Justice Bishambhar,** B.A., LL.B., Judge, High Court of Judicature at Allahabad, since May 6, 1957. *b.* Sept. 14, 1910 ; *Educ.:* C. A. V. Int. Coll., Allahabad ; St. John's Coll., Agra ; Agra Coll., Agra ; passed school final, 1926 ; Intermediate, 1928 ; B.A., 1930 and LL.B., 1932. Practised at Nainital and Allahabad, 1933-57 ; joined the High Court Bar, 1946. *Address :* 37, Thornhill Road, Allahabad.

**DAYAL, Rajeshwar,** M.A., I.C.S., Ambassador to France, since June 1965. *b.* Aug. 12, 1909, at Naini Tal, U.P. ; *Educ. :* Naini Tal, Allahabad and Oxford Univs. Entered I.C.S. by open competition, 1933 ; Home Secy., U.P., 1946-48 ; Counsellor, Minister, Embassy of India, Moscow, 1948 ; Charge d'Affaires, 1948-49 ; Alternate Representative of India to Security Council with rank of Minister, 1950 ; was Chairman, Cttee. of 12 on Disarmament ; Permanent Representative of India to the U.N., 1952-54 ; has negotiated on several occasions with Dr. Graham on the Kashmir Question ; was founder member, Asian-African group of countries ; Ambassador in Yugoslavia, 1954-58 ; Envoy Extr. & Minister Plenipotentiary to Rumania and Bulgaria, 1955-58 ; concurrently Indian Ambassador to Greece, Jan. to June 1958 ; member, U.N. Observer Group in the Lebanon, June-Dec. 1958 ; Representative of the U.N. Secretary-General in the Congo, 1960-61 ; High Commsr. in Pakistan, 1958-62 ; Spl. Secy., Min. of External Affairs, 1962-65 ; Commonwealth Secy., Feb.-May 1965. *Address :* C/o External Affairs Ministry, Govt. of India, New Delhi.

**DE, Biren,** Artist. *b.* Oct. 8, 1926 ; *Educ. :* Studied up to Intermediate in Science ; later at Calcutta Govt. Coll. of Arts and Crafts, 1944-49. Practised as free-lance artist ; executed many commissioned portraits of distinguished people and Mural decoration at convocation hall, Delhi Univ. ; held several one-man shows ; participated in several exhibitions abroad, e.g. Paris, 1951 ; San Paulo Biennale, Brazil 1961 ; Tokyo Biennale, Japan, 1960 and 1962 ; Venice Biennale, 1962 ; ten Indian Painters Exhibition touring the U.S.A. and S.E. Asian Countries ; won National Award for painting, 1958 and 1964 ; worked on Fulbright Grant in New York, 1959-60. *Address :* Kumar Gallery, 11, Sundar Nagar Market, New Delhi ; *Residence :* 1, Ramkishore Road, Civil Lines, Delhi.

**DE, Sushil Kumar,** M.A., Premchand Roychand Scholar (Calcutta Univ.), D. Litt. (London Univ.), Hon. F.R.A.S. (England) (1954), Sarojini Gold Medalist for researches in Bengali (Calcutta Univ.), Professor Emeritus, Jadavpur and Calcutta Universities ; Member, Sanskrit Commission, Govt. of India. *b.* 1890 ; *Educ. :* Presidency Coll., Calcutta ; School of Oriental Studies, London ; invited by the Univ. of Chicago to inaugurate Tagore Centenary Memorial Lectures, 1961. *Publications : Bengali Literature in the 19th century* (1919) ; *History of Sanskrit Poetics* (2 vols., 1923, 1925) ; *Early History of the Vaisnava Faith and Movement in Bengal* (1942) ; *History of Sanskrit Kavya Literature* (1947) ; Joint Editor, BORI edition of the Mahabharata, Poona (Udyoga (1940)), (Drona (1958)) ; *Bengali Proverbs* (1953) etc. ; several articles and monographs in various Oriental Journals, European and Indian, etc. *Address :* 19-A, Chaudhuri Lane, Calcutta 4.

**DEHEJIA, Venilal Tribhovandas,** B.Sc., Chairman : State Bank of India ; State Banks of Bikaner, Hyderabad, Indore, Jaipur, Mysore, Patiala, Saurashtra and Travancore. *b.* July 23, 1908 ; *Educ. :* Wilson Coll., Bombay Royal Coll. of Science, London ; Pragji Thackersey Mulji prize for standing first in the Univ. in B.Sc. ; Dakshina Fellow, Wilson Coll. Joined the Indian Civil Service, 1931 ; was Collector of Ahmednagar, Jacobabad, Kaira, Dharwar and Poona ; reorganised Excise Administration in Sind ; served in the Central Secretariat and in Sind and Bombay Secretariats ; was Chief Secretary, Sind and Saurashtra ; Secretary in Charge of Organisation and Methods and State Reorganisation ; member, Sales Tax Enquiry Cttee. ; Special Commissioner, Baroda ; Secy. : Home Deptt., Bombay, 1947–52 ; Finance Deptt., 1952-56 ; Special Secy., Political & Services Dept., 1956-59 ; Chairman, Bombay Port Trust, 1959–60 ; Secy., Min. of Fin., Govt. of India, 1960-65 ; Vice-Pres., Delhi Lawn Tennis Assoc. *Address :* 5, Harkness Road, Bombay 6.

**DENNIS, H. D.,** Resident Vice-President, Caltex (India) Ltd., and Managing Director, Caltex Oil Refining (India) Ltd. *b.* August 7, 1909, at Seattle, Washington ; *Educ. :* Univ. of Washington ; Degree in Civil Engineering. Served in various capacities in China, Japan, Ceylon, Australia and New York before coming to India in 1955 as General Manager. *Address :* Sorrento, Mt. Pleasant Road, Bombay-6.

**DESAI, Dajiba Balavantrao,** B.A. (Hons.), LL.B., M.P. (Rajya Sabha), General Secretary : Peasants and Workers Party, since 1955 and Samyukta Maharashtra Samiti ; Editor, *Rashtraveer* (weekly) ; *Educ. :* Maratha Mandal's High School and Gilginchi Artal High School, Belgaum ; Lingaraj Coll., Belgaum ; Rajaram Coll., Kolhapur ; Raja Lakhmagauda Law Coll., Belgaum. Joined Peasants and Workers Party, 1948 ; member : Central Committee of P. & W. Party, since inception ; Political Cttee. of P. & W. Party ; elected General Secy., P. & W. Party in Latur Conference, 1955 ; detained in prison, April 1956 ; released, Oct. 1956 ; member : Secretariat of Samyukta Maharashtra Central Cttee. ; Parliamentary Board and Policy Cttee. ; Action Cttee. of Maharashtra Ekikaran Samiti, Belgaum ; Goa Vilinikaran Sahayak Samiti ; Secretary, Border Action Cttee. *Publications :* Marathi : *Jamin Konachi ? Kusel Tyachi Ki Vikat Ghenaryachi.* *Address :* 42, Vijaynagar—Hindalaga, Belgaum ; 115, South Avenue, New Delhi.

**DESAI, Doulatrao Shripatrao,** B.A., LL.B., Minister for Home, Maharashtra State, since Dec. 1, 1963. *b.* March 10, 1910, at Marali near Patan, Dist. North Satara ; *Educ. :* Rajaram High School, Rajaram Coll. and Sykes Law College, Kolhapur. Commenced practice at Karad and Patan, 1939 ; twice elected Pres., Rural Development Board, Taluka Patan, 1940 ; President, District Local Board, Satara, 1941–52 ; member : Provincial Commodity Board since its foundation ; Provincial Education Board ; Provincial Physical Education Board ; Soldiers', Sailors', and Airmen's Board, Satara (N) ; Maharashtra Pradesh Social Education Board ; Bombay State Road Transport Corporation, 1955-57 ; Pres., Central Advisory Cttee. of Regulated Markets in Maharashtra ; Gen. Secy., P.C.C., 1952-57 ; Chief Whip, Congress Leg. Party ; elected M.L.A., Bombay from Patan Constituency, 1952, 1957 and 1962 ; Minister, P.W.D., Govt. of Bombay, 1957-60 ; Education Minister, Maharashtra, 1960–62 ; Minister for Agriculture, March 1962–Dec. 1963. *Address :* "Meghdut," Narayan Dabholkar Road, Bombay 6.

**DESAI, Hitendra Kanaiyalal,** B.A., LL.B., Chief Minister, in charge of Home, Planning, General Administration, Information, Law, Judiciary, Gujarat State, since Sept. 1965 ; *b.* Aug. 9, 1915, at Surat ; *Educ. :* Surat and Bombay ; awarded "Cobden Club Medal" for obtaining highest marks in Econ. Hons. at Bombay Univ. ; was Fellow for a year ; LL.B., 1939. Started practising law and made a mark in legal profession ; courted jail during freedom movement ; elected member, Surat Borough Municipality, 1946 ; Chairman : Law Cttee., 1946-49 ; Standing Cttee., since 1949 ; Vice-Pres. and Chairman, Standing Cttee., since 1952 ; member, Senate, Gujarat Univ. and Rural Advisory Cttee. of All India Radio ; takes active interest in the students movement and has worked hard in the social sphere ; M.L.A., Bombay from the Mangrol Constituency in the 1957 general elections ; Minister for Education : Bombay State, 1957–60 ; Gujarat State, 1960–62 ; Min. for Education, Social Welfare, Rehabilitation, Agriculture & Forest, Excise and Prohibition ; elected Dy. Leader, Gujarat Leg.

Congress Party, Sept. 19, 1963; Min. for Home, 1963-65; appointed leader of the House, since Feb. 17, 1964. *Publications:* Several popular booklets on political, economic and social topics. *Address:* Sachivalaya, Ahmedabad 15.

**DESAI, Mr. Justice Kapil Kalyandas,** B.A., LL.B., Judge, High Court, Bombay, since Aug. 18, 1958. *b.* Oct. 28, 1910; *Educ.:* Gurukul (Boarding School); B.A. from Elphinstone Coll., Bombay, 1932; LL.B. from Govt. Law Coll., Bombay, 1934; awarded Arnold scholarship, Judge Spencer's prize and several other scholarships. Commenced practising on the Original Side, High Court, Jan. 19, 1938; had lucrative practice. *Address:* 56, Ridge Road, Malabar Hill, Bombay.

**DESAI, Khandubhai Kasanji,** Snatak (Gujarat Vidyapith, Ahmedabad), M.P. (Rajya Sabha), Ex-Minister for Labour, Govt. of India. *b.* Oct. 23, 1898; *Educ.:* Bulsar Bai Avabai High School; Wilson Coll., Bombay. Joined the N. C. Movement, 1920; Gen. Secy., Textile Labour Assoc., Ahmedabad; established a net-work of unions throughout Gujarat; elected M. L. A., Bombay, 1937; as member, Textile Labour Enquiry Cttee., assisted in the first legislation of Industrial Disputes in Bombay Assembly; elected to the Constituent Assembly, 1946; was Vice-Chairman, B.P.C.C.; member, A.I.C.C. and Congress Working Cttee. for several years; Board of Trade, New Delhi; National Defence Council, Govt. of India; was Dir., Industrial Finance Corpn.; member, Employees' State Insurance Corpn.; led the workers' delegation to I.L.O., 1950; was mainly responsible for establishing the I.N.T.U.C., 1947; elected its first Gen. Secy.; was its Pres. successively for three years; Chairman: Board of Directors, Oil India Ltd.; Public Sector Award Cttee.; visited China; Attended I.C.F.T.U. World Congress, Berlin. *Address:* Textile Labour Assocn., Gandh Majoor Sevalaya, Bhadra, Ahmedabad.

**DESAI, Mr. Justice Manulal Chunilal,** B.A. (Tripos)(Cantab.), Chief Justice, High Court of Judicature, Allahabad, since Jan. 17, 1961. *b.* Feb. 25, 1904; *Educ.:* Govt. High School, Nadiad; Elphinstone Coll., Bombay; Baroda Coll., Baroda; Cambridge Univ.; Asstt. and Jt. Magistrate, 1926-33; Collector and Dt. Magistrate, 1933-42; Dt. and Sessions Judge, 1943-48; Judge, Allahabad High Court, 1948-61. *Address:* 31, Swami Dayanand Marg, Allahabad 2.

**DESAI, Morarji Ranchhodji,** B.A., M.P., Ex-Minister for Finance, Govt. of India; Chairman, Administrative Reforms Commission, Govt. of India, since Jan. 1966. *b.* Feb. 29, 1896; *Educ.:* Bulsar, Surat Dist., Gujarat; Wilson College, Bombay. Entered Provincial Civil Service of the Govt. of Bombay, 1918; resigned to join the C.D. Movement, 1930, and was convicted, 1930-34; Secy., Gujarat P.C.C., 1931-37 and again from 1939-46; Minister for Revenue, Co-operation, Agriculture and Forests, Bombay, 1937-39; convicted, 1940-41 and detained in prison, 1942-45; Minister for Home and Revenue, Bombay, 1946-52; Chief Minister of Bombay, 1952-56; Minister for Commerce and Industry, Govt. of India, 1956-58; Treasurer, A.I.C.C., 1950-58; Hon. Fellow, Coll. of Physicians and Surgeons, Bombay, 1956; Hon. Doctor of Laws, Karnatak Univ., 1957. Visited London, Washington, New York, Montreal, Aug.-Sept. 1958, in connection with foreign loans for India; visited France, Switzerland, U.K., U.S.A. and Japan for foreign aid to India and also to attend the Commonwealth Finance Ministers' Conference in London, Sept.-Oct. 1959; visited Yugoslavia, Poland, Czechoslovakia, West Germany, the Soviet Union and Egypt in connection with financial aid to India, June-July 1960; attended the Commonwealth Finance Ministers' Conference in Lond., Sept. 1960; attended the annual meetings of the World Bank and I.M.F. to discuss the prospects of American assistance for India's Third Plan, Sept.-Oct. 1960; went on a three-week tour to capitals of Europe *viz.*, Brussels, Bonn, Geneva, Paris and Rome, to mobilise foreign assistance for the Third Five Year Plan, July 1962; again visited Washington, Ottawa and Tokyo for aid for the economic development in India, Sept.-Oct. 1962: Finance Min., Govt. of India, 1958-63; resigned the Ministership under the Kamaraj Plan, Aug. 1963; Chancellor, Gujarat Vidyapeeth, Ahmedabad; Chairman: Navjivan Trust; All-India Prohibition Council; Adv. Board of Hindustani Prachar Sabha; The Collected Works of Mahatma Gandhi; Trustee: Gandhi Smarak Nidhi; Gandhi Peace Foundation; Kasturba Trust; associated with various other constructive and cultural organisations. *Address:* 7, Thyagaraj Marg, New Delhi.

**DESAI, Ranjeet Ramchandra,** Sahitya Acadami Award (1964), Marathi short story writer. *b.* April 8, 1928; *Educ.;* Vidyapith, J. C. H. High School, Kolhapur, Rajaram Coll., Kolhapur. So far has two hundred short stories to his credit. Has introduced different forms of short stories in Marathi Literature, such as rural, social, and historical stories. Started his career at the age of sixteen; has recently been writing novels; his recent historical novel *Swami* has been awarded the Sahitya Acadami Award of 1964. Presided over the 28th session of the Marathi Wangamaya Parishad at Baroda, 1965. *Publications:* Short Story Collections: *Rup Mahal; Madhumati; Kanav.* Jan. Novels: *Bari; Maza Gaon; Swami. Address:* Taluk Chandgad, Post Kowad; Dist. Kolhapur (Maharashtra).

**DESHMUKH, Mr. Justice Balkrishna Narhar,** M.A., LL.B., Judge, High Court of Bombay, Nagpur Bench, since June 8, 1965. *b.* Nov. 19, 1918; *Educ.:* Primary & Secondary education at Ahmednagar; Coll. education at Poona. After taking M.A. & LL.B. degrees in 1941, practised in Civil & Criminal Courts with his father at Ahmednagar till 1955; Asstt. Judge, Nasik and Poona, April 1955-Oct. 1957; Joint Judge at Thana and Ahmedabad; Dist. & Sessions Judge, Sangli, Sept. 1958-Nov. 1960; Judge in City Civil Court and Addl. Sessions Judge for Bombay, Nov. 1960-Nov. 1963; Dist. & Sessions Judge, Poona, Jan. 1964-June 7, 1965. *Address:* Civil Lines, Nagpur.

**DESHMUKH, Chintaman Dwarkanath,** B.A. (Cantab.), Bar-at-Law, Hon. Doctor of Laws by Universities of Princeton, New Jersey and Leicester, U.K. (1963); by Univs. of Mysore, Osmania, Hyderabad, (1957); Hon. D.Sc. by Univs. of Calcutta (1957), Karnatak, Dharwar (1963); Indian Statistical Institute, Calcutta (1965); Hon. Doctor of Letters by Univs. of Annamalai (1957), Allahabad (1958); Hon. D.Litt. by Univs. of Nagpur and Punjab (1959). Vice-Chancellor, University of Delhi, since February 28, 1962; Chairman, Administrative Staff College, Hyderabad, since Jan. 1960; Pres., India International Centre since March 1959; member, Bd. of Trustees of the U.N. Instt. for Training and Research, since 1965; Ex-Pres., Indian Statistical Instt., 1946-64; Ex-Chairman, National Book Trust, 1957-Sept. 1960. *b.* Jan. 15, 1896; *Educ.:* Elphinstone Coll., Bombay and Jesus Coll., Cambridge, Natural Science Tripos., Part I, B.A., Cambridge in 1917. Passed U.K. Bar Examination in 1919 and called to the Bar as a member of the Inner Temple in 1963. Entered the I.C.S., Nov. 1919; Financial Secy., C. P. and Berar, 1933-39; Jt. Secy., Govt. of India, Dept. of Education, Health and Lands, May-July 1939; Officer on Special Duty, Finance Dept., Govt. of India and Custodian of Enemy Property, 1939; Secy., Central Board, Reserve Bank of India, 1939-41; Dy. Governor, Dec. 1941-Aug. 1943; Governor, 1943-49; India's delegate to the World Monetary Conference, Bretton Woods, 1944; Governor for India on International Monetary Fund and International Bank for Reconstruction and Development, from 1946; Financial Representative of Govt. of India in Europe and America, 1949-50; member, Planning Commission, March 1950; Chairman, I.M.F. and International Bank for Reconstruction and Development, Sept. 1950; M.P. and Minister of Finance, Govt. of India, June 1950-July 1956; Chairman: Univ. Grants Commission, 1956-60; Indian Institute of Public Administration, 1964. *Address:* 40, Lodi Estate, New Delhi 3.

**DESHMUKH, Dr. Smt. Durgabai,** M.A., B.L., Hon. Doctor of Laws by Andhra University (1963); Founder President, Andhra Mahila Sabha, Madras & Hyderabad. Advocate, Supreme Court of India; Hon. Director, Council for Social Development, India International Centre, New Delhi. *b.* July 1910; *Educ.:* Banaras, Andhra and Madras Univs. Member, Constituent Assembly and Provisional Parliament of India 1946-52; practised as lawyer, 1942-52; Member: Planning Commission, 1952-53; Central Social Welfare Board, 1953-63; National Cttee. on Girls' and Women's Education, appointed by the Govt. of India; 1953-61; Chairman: Editorial Cttee. for *Social Welfare in India* and *Social Legislation;* Editorial Board on *Encyclopaedia of Social Work in India;* was Chairman, National Council for Women's Education. *Address:* Lodi Estate, Delhi 3.

**DESHPANDE, Atmaram Raoji,** B.A. (Hons.), LL.B., Marathi Poet; Adviser, Social Education, Ministry of Education since 1961; Vice-Pres., Indian Adult Education Assocn.; member, Exec. Council of Sahitya Academi. *b.* Sept. 11, 1901; *Educ.:* Hindu High School, Amravati; Fergusson Coll., Poona; took B.A. (Hons.), 1923 and LL.B., 1925. Lawyer (1925-28); Civil Judge & District & Sessions Judge (1929-47); Deputy Director of Public Instruction in Charge of Social Education, Nagpur (1948-52); Special Officer, Social Education Community Projects Administration (1952-56); UNESCO Fellowship (1956); Dir., National Fundamental Education Centre, 1956-61. *Publications:* Three collections of poems besides two longer poems; several articles on Literary Criticism & Social Education. *Address:* 26, Meenabag, M. Azad Road, New Delhi 11; 88, West Park, Dhantoli, Nagpur 1.

**DESHPANDE, Purushottam Yashawant,** M.A., LL.B., Sahitya Akademi Award (1962), Writer. *b.* Nov. 10, 1900; *Educ.:* M.A. from Poona, 1924; LL.B. from Nagpur, 1926. Lawyer, Civil Judge for some time and later writer and journalist; has taken part in politics; jailed during the freedom movement; M.P., 1950-52. *Publications:* Author of seven novels; his book called '*Anamikachi Chintanika*' secured Sahitya Akademi Award, 1962; among many other books three volumes on Saint Dnyanadeva's '*Anubhavamruta*'. *Address:* Ramdas Peth Park, Nagpur.

**DESHPANDE, Vishnu Ghanashyam,** M.A., Morris Memorial Fellow of Nagpur Univ. (1934-37), Sir Arthur Blenner Hasett Medalist (Nagpur Univ.), Pres., Hindu Mahasabha; Editor, *Free Hindusthan. b.* Nov. 17, 1912; *Educ.:* Sakharkherda, Mehkar, Khamgaon and Nagpur; took M.A. degree, 1934. Joined the Hindu Mahasabha, 1939; elected Gen. Secy.: M.P. Hindu Mahasabha 1939; All-India Hindu Mahasabha, 1940; imprisoned several times in connection with his activities in the Hindu Mahasabha, 1939, '41, '42, '47, etc.; imprisoned 5 times during Jammu Movement, 1953; was elected to the Lok Sabha from two constituencies, 1952; was the first M.P. to offer satyagraha in Goa; was imprisoned; participated in Samyukta Maharashtra movement; led the first batch of Satyagrahis who offered satyagraha near Flora Fountain, Bombay; was the Chief Whip of the National Democratic Party in Lok Sabha; was Editor, *Adesh* and *Hindu Outlook. Address:* C/o Hindu Mahasabha Bhavan, Reading Road, New Delhi.

**DEVA, B. C.** (See under Chaitanya Deva, B.).

**DEVARAJALU, G. K.,** a leading industrialist; Chairman, Indian Cotton Mills Federation, 1965-66. *b.* Dec. 7, 1912. Managing Agent & Director: Lakshmi Machine Works Ltd.; The Lakshmi Mills Co. Ltd., The Coimbatore Cotton Mills Ltd.; Managing Director, South India Viscose Ltd.; Director: The Madras Aluminium Co., Ltd., The Pankaja Mills Ltd., Lakshmi Card Clothing Mfg. Co., Pvt. Ltd., Lakshmi Machine Works Ltd.; Indian Overseas Bank Ltd.; The Premier Mills (CBE) Ltd., Sivananda Mills Ltd., Kothari Textiles Ltd., Vijayeswari Textiles Ltd., Sri Lakshminarayana Textile Ltd., all in Coimbatore District. Managing Trustee, G. Kuppuswamy Naidu Memorial Trust for Education & Medical Relief; Chairman: South India Textile Research Assoc., Coimbatore; Chairman, Indian Cotton Mills Federation, Bombay; Exec. Cttee. member, F.I.C.C. & I., New Delhi; widely travelled in Europe, America and Far East countries. *Address:* 'Shell House', Avanashi Road, Coimbatore.

**DEVI, Smt. Bindhya Basini,** Musician; Folk Music Producer, A.I.R., Patna. *b.* 1918 at Muzaffarpur; *Educ.:* Visharad from Hindi Univ., Aligarh; Sahitya Bhushan from Hindi Vidyapeeth, Deogarh; four years vocal musical course at Bhatkhande Sangeeth Vidyapith, Lucknow. Was Mistress, Arya Kanya Vidyalaya, Patna for ten years; founded with her husband, Mr. Sahdeshwar Chandra Verma, Vindhya Kala Mandir, Patna, 1949; a pioneer of folk songs, folk dance and folk drama of Bihar; started composing and research of folk songs, ballets and dances of Bihar from 1935; elected member, General Council, Sangeet Natak Akademi, New Delhi, for seven years; awarded title of "Lok Sangeet Visharda" by the late Acharya Seopujan Sahay; her folk songs were recorded by H.M.V. and Regional Pictures of Bihar. *Publications: Manaw; Lok Sangeet Sagar; Vaishali Mahima;* several folk stories. *Address:* C/o Vindhya Kala Mandir, Kazipur, Patna 4.

**DEY, S. K.,** M.Sc. (Engg.) (Michigan), Minister for Mines and Metals, Govt. of India, since Jan. 24, 1966. *b.* Sept. 13, 1906, at Medinimohal Village, Sylhet Dist.; *Educ.:* Zilla School, Rangpur; technical course at Rangpur; Bengal Engineering Coll.; B.Sc. in Electrical Engineering from Purdue Univ. on Scholarship from Sylhet Assoc. Private Trust; M.Sc. from Michigan Univ. Joined the General Electric X-Ray Corporation as an apprentice Engineer and was sent back to India to represent the firm in Lahore; became General Manager; relinquished, June 1947; Engineer, engaged in the work of rehabilitation of refugees, Nov. 1947-March 1952; Minister for Community Development, 1956-58; Min. for Community Devpt. & Cooperation, 1959-65. *Publications. The Quest: Fragments Across; Missing Link; Planning for Life: Random Thoughts,* Vols. I, II, & III; *Community Development; Panchayati Raj; Nilokheri; Community Development—A Chronicle; Community Development—A Bird's Eye View. Address:* No. 1, Tin Murti Marg, New Delhi.

**DHADDA, Siddha Raj,** M.A. (Pol.), LL.B., Chairman, Sarva Seva Sangh Publications; Vice-Pres., International Confederation for Disarmament and Peace; Editor, *Bhoodan Yagna* (Hindi Weekly); Trustee, Sarva Seva Sangh; Vice-Chairman, Rajasthan Sevak Sangh; *b.* Feb., 1909; *Educ.:* Maharaja's Coll., Jaipur; Canning Coll., Lucknow Univ. and the Allahabad Univ. Secy., Indian Chamber of Commerce, Calcutta and various other Assocs. (1934-42); has been connected with various political, social and cultural organisations; was arrested at Banaras and detained (1943-45), 'Quit India' movement; Founder and Chief Editor, Daily *Lokvani* from Jaipur, 1946-49; General Secretary, Rajputana P.C.C., 1947-48; Minister for Industries and Commerce, Govt. of Rajasthan, 1949-51; resigned from Congress, Aug. 1951. *Publications: Decentralised Economic Order* (Hindi) Contributes to English, Hindi periodicals. *Address:* Sarva Seva Sangh, Rajghat, Varnasi.

**DHAMIJA, Jagan Nath, M.A.** (Cantab.), Barrister-at-Law, Chief of Protocol and Controller General of Emigration, Government of India, Ministry of External Affairs, since July 1964. *b.* Aug. 17, 1913; *Educ.:* Emmanuel Coll., Cambridge; Lincoln's Inn, London; Cambridge Tennis Blue (1936-39); Indian Political Service, June 1944; served as Assistant Commissioner, Dera Ismail Khan, Under-Secy., to the Agent to the Governor-General, Baluchistan, Asstt. Political Agent and Dy. Commissioner of Gilgit Agency; Under-Secy., Foreign and Political Deptt., Govt. of India, 1946-49; Secy. and Adviser, Indian Delegation to U.N. General Assembly Session, Sept. 1948; First Secy., High Commission of India in Australia, 1949-52; was Acting High Commissioner; Officer on Special Duty, External Affairs Ministry, 1952; Deputy Secy., Ministry of States (later Ministry of Home Affairs), July 1953-March 1958; Commissioner for India in Mauritius, Oct. 1958-June 1960; Ambassador to Afghanistan, July 1960-June 1964. *Address:* Ministry of External Affairs, Govt. of India, New Delhi.

**DHARMAKUMARSINHJI, R. S.,** F.Z.S., M.B.O.U., M.Z.S., Vice-Chairman and Regional Secy., Indian Board for Wild Life. *b.* April, 1917; *Educ.:* Stanmore Park (Preparatory School); Harrow (Public School); Samaldas Coll., Bhavnagar. Served the erstwhile State of Bhavnagar as Adviser on Wild Life Conservation, 1949; member, Indian delegation to UNESCO Conference at Lake Success; Special Officer on duty, Ministry of States, Govt. of India, to make rapid survey of wild life and game in the State Unions, 1950; Vice-Chairman, I.B.W.L., 1952; joined the Bombay State Forest Deptt. as Wild Life Preservation Officer, 1955; elected Pres.; Bombay Aquarium Society, 1957 and Bombay and Maharashtra State Amateur Athletic Assoc., 1960; member, Natural History Section Cttee., Prince of Wales Museum. *Publications: Birds of Saurashtra,* 1954; won 1st prize national award for best book with illustrations of the year, Govt. of India; *A Field Guide to Big Game Census in India. Address:* 26, Lotus Court, Jamshedji Tata Road, Bombay 1.

**DHEBAR, Uchhrangrai Navalshanker,** Chairman, Khadi & Village Industries Commission; Ex-President, Indian National Congress; High Court Pleader. *b.* Sept. 21, 1905: *Educ.:* Rajkot and Bombay. Practised as a lawyer in the Court of Western India States Agency, Rajkot, 1929; abandoned practice for active Congress work, 1936; Secy., Kathiawar Political Conference, 1937-48; Secy., Gujarat Provincial Congress Cttee., 1945-47; Imprisoned thrice for taking part in Rajkot Satyagraha for nearly 5 months, 1938-39; for Individual Satyagraha for 6 months, 1941; in the Quit India movement, 1942-45; Chief Minister, Saurashtra, 1948-54; elected Pres., Indian National Congress for the 3rd term during the 63rd Session of Congress, Nov. 1957–Feb. 1959; Member: A.I.C.C., Working Cttee., 1955-63; Chairman, Scheduled Areas & Scheduled Tribes Commission, 1960-61; was M.P. *Address:* Iria Road, Bombay 56.

**DIAS, Anthony Lancelot,** B.A. (Econ. Hons.) (Bombay), B.Sc. (Econ.) (London), I.C.S., Secretary, Dept. of Food, Ministry of Food & Agriculture, since August 1964. *b.* March 13, 1910; *Educ.:* Deccan Coll., Poona; London School of Economics, London; Magdalene Coll., Cambridge: Dakshina Fellow, Cobden Club Medal (Bombay Univ.), The Hugh Lewis Prize (London School of Economics). Entered I.C.S., 1933 served in various capacities as Asstt. Collector, Collector, Director of Land Records & Settlement, Commissioner, Secy. & Supply Commissioner, Food & Civil Supplies Deptt., 1947-52; Secy., Education Deptt. 1952-55; Secy. Agriculture Deptt., 1955-57; Home Deptt., 1957-60; Ex-chairman, Bombay Port Trust. *Address:* New Delhi.

**DIGVIJAI NATH, Mahant,** Vice-President, All India Hindu Mahasabha. *b.* 1894 in Shishodia family in Udaipur; *Educ.:* St. Andrew's Coll., Gorakhpur; while a student, joined N.C. movement, 1919. Joined Congress, 1921; resigned, 1928; installed Mahanth of Shri Gorakhnath Temple, Gorakhpur, 1935; joined Hindu Mahasabha, 1937; arrested and detained in 'Quit India' movement on charge of harbouring Congress rebels, 1942-43; Pres., U.P. Hindu Mahasabha, 1945-48; arrested in Direct Action movement of the U.P. Hindu Mahasabha against U.P. Govt., 1947; Secy., All-India Hindu Mahasabha, 1950-51; Vice-Pres., 1951-60; Pres., Shimoga and Gwalior Session, All-India Hindu Mahasabha, 1960 & 1961; established Maharana Pratap Inter College, Maharana Pratap Degree College along with Women section, Maharana Pratap Polytechnic Institute, Maharana Pratap Shishu Shiksha Vihar; Founder Vice-Pres., Gorakhpur Univ.; Digvijaynath Junior High School, Maharajganj and Gorakhnath Sanskrit Vidyapith; Pres., Barapanth Avdhut Yogi Mahasabha. *Address:* Gorakhnath Temple, Gorakhpur, U.P.

**DIKSHIT, Narsingh Rao,** M.A. (Eng.), M.A. (Econ.); Minister for Education, Madhya Pradesh, since Nov. 1964. *b.* Dec. 7, 1920; *Educ.:* Allahabad Univ. and Lucknow Univ. Joined Indian National Congress in Etawah, 1937; participated in 1942 movement, Lucknow; set up legal practice in Bhind; elected to Madhya Bharat Vidhan Sabha from Bhind constituency, 1952; Education Minister, Madhya Bharat, 1952; took keen interest in the establishment of the Vikram Univ.; Home Minister, 1954; dacoit Mansingh was liquidated during his Home Ministership; Dy. Home Minister, M.P., 1956-62; succeeded in liquidating many notorious dacoit gangs; re-elected to M.P. Vidhan Sabha, 1962; Minister for Commerce & Industry & Natural Resources, M.P., Oct.-1963-Nov. 1964. *Address:* Civil Lines, Bhopal.

**DIMITROV, H.E. Mr. Christo,** "9thof September" order (1959), Ambassador Extraordinary and Plenipotentiary of the Peoples, Republic of Bulgaria to India. *b.* July 15, 1912; *Educ.:* Higher education in Sofia; First Secretary, Bugarian Legation in Rome, 1948-50; Chief of a Division, Ministry of Foreign Affairs, 1950-56; Envoy Extraordinary and Minister Plenipotentiary to Syria, 1956-58; Ambassador Extraordinary and Plenipotentiary to Indonesia, 1958-61; served with the Ministry of Foreign Affairs in Sofia before becoming Ambassador in India. *Address:* 36, Ratendone Road, New Delhi.

**DINKAR, Ramdhari Sinha,** B.A. (Patna), D.Lit. (H. Causa), 1962, Padma Bhushan (1959), Vice-Chancellor, Bhagalpur Univ., since 1964; Hindi Poet. *b.* Sept. 29, 1908; *Educ.:* Patna Coll.; B.A., 1932. Prof. of Hindi, 1950-52; elected to the Rajya Sabha on Congress ticket, 1952; awarded several prizes for work in poetry by the Govt. of India, Govt. of Uttar Pradesh and non-official bodies; awarded Sahitya Akademi Prize (1960) for "*Sanskriti ke char Adhyay*"; represented Indian poetry on behalf of the Government of India in the International Conference of Poets in Poland, 1955; visited China at the invitation of the Writers' Union of China, Nov. 1957; visited U.S.S.R., in Oct. 1961. *Publications:* 15 volumes of Hindi poems and 6 volumes of prose besides some books for children. *Address:* Bhagalpur.

**DIWAKAR, Ranganath Ramachandra,** M.A., Chairman: Gandhi Smarak Nidhi, since Sept. 1957; Gandhi Peace Foundation since 1959; Editorial Cttee., *Karnatak Through the*

*Ages*, Ex-Governor of Bihar (1952-57). *b.* Sept. 30, 1894 in Dharwar; *Educ.:* Belgaum, Hubli, Poona and Bombay. Joined N.C. Movement in 1921; was General Secretary, Karnatak P.C.C. and Editor, 'Karamveer' upto 1930; Pres., K.P.C.C., 1930-34; courted jail several times in the freedom movement; started National Literature Publication Trust now known as People's Education Trust at Hubli, 1935; member, P.E.N.; author of numerous books (inc. translations) in Kannada, Hindi and English; was M.P.; was member, A.I.C.C.; Minister of State, Information and Broadcasting, Govt. of India, Dec. 1948-April 1952; Governor of Bihar, 1952-57; Sole Trustee, P.E. Trust; Editor, *Samyukta Karnatak* (daily), *Kasturi* (monthly). *Publications:* (Eng.) *Satyagraha, History and Technique; Glimpses of Gandhiji; Satyagraha in Action; Upanishads in Story and Dialogue; Satyagraha Pathway to Peace; Mahayogi; Paramahansa Sri Ramkrishna; Bihar Through the Ages, etc. Address:* 2, Residency Road, Bangalore 25.

**DIXIT, Mr. Justice Purushottama Vinayak,** B.A. (Cantab.), B.Sc., Bar-at-Law, Chief Justice, Madhya Pradesh High Court, since Sept. 22, 1959. *b.* March 19, 1907 at Nagpur; *Educ.:* Patwardhan High School, Nagpur; B.Sc., Nagpur Univ. in first division; Christ's College, Cambridge; called to the Bar, 1931. Practised at Nagpur bar for 10 years; Codification Officer, Gwalior State, 1940-41; Judge, Gwalior High Court, 1941-42; Law Secy. and Foreign and Political Secy., Gwalior, 1942-45, Gwalior High Court Judge, 1945-46; Adviser to the Foreign and Political Ministers, 1946-47; Chief Justice, Gwalior High Court, 1946-48; Judge, M.B. High Court, 1948-56; Pres., Ratlam Incidents Enquiry Commission, 1949; presided over Gwalior Firing Enquiry, 1950; acted as Chief Justice, M.B. High Court in 1954; Judge, M.P. High Court, 1956-59. *Address:* Jabalpur.

**DOGRA, Pandit Girdhari Lal,** B.A., LL.B., Minister for Finance & Industry, Jammu-Kashmir since Oct. 22, 1964. Ex-Chairman, Jammu and Kashmir Bank Ltd. *b.* July 1915; *Educ.:* Hindu Sabha Coll., Amritsar; Law Coll., Lahore. Joined Jammu Bar, 1942; Advocate, Jammu and Kashmir High Court and Supreme Court of India; took prominent part in the movements started by the National Conference from time to time for democratisation of the State; was Emergency Officer, Kathua Dist. during the Tribal raid from Pakistan into Kashmir in 1947; elected member, Jammu & Kashmir Constituent Assembly, 1951; Pres., Provincial National Conference, Jammu; Chairman, Dogra Art Gallery, Jammu; Chairman of the Drafting Cttee. of the Constituent Assembly of State; Min., J. & K. State, 1947-57 & 1961-63. *Address:* Srinagar.

**DORAISWAMY, R.,** B.A. (Hons.) (Madras), M.Sc. (Econ.) (Lond.), L.A.S., Textile Commissioner, Govt. of India, since Sept. 1962. *b.* March 11, 1914; *Educ.*, Madras and London. Chief Research Officer to the Economic Adviser to the Govt. of India, Aug.-Dec. 1945; Secy., Reconstruction Policy Cttee. on Shipping, Deptt. of Commerce, Govt. of India, 1945-46; Officer on Special Duty, Ministry of Commerce, 1947-48; Under Secy., 1948-49; Secy., Indian Tariff Board, 1949-50; Jt. Chief Controller of Imports & Exports and ex-officio Dy. Secy. to the Govt. of India, Ministry of Commerce & Industry, 1950-51; I.A.S. Training School, Jan.-April 1952; Secy., Devpt. & Planning Deptt. & Devpt. Commissr., Saurashtra, April-Aug. 1952; Addl. Finance Secy. 1952-53; Finance Secy., 1953-55; Member, Forward Markets Commission, Govt. of India, 1955-57; Chairman, 1957-58; Chief Administrative Officer, Air-India International (On foreign service), 1957-60; Chairman, Forward Markets Commission, 1960-62. *Address:* Kalpana, Plot No. 14, Sewri-Wadala Road, Matunga, Bombay 19.

**DOSS, K. S. Gururaja,** D.Sc., F.R.I.C. (Lond.), F.Inst. P. (Lond.), F.A.Sc., F.N.I. Director, Central Electrochemical Research Institute, Karaikudi, since 1958. *b.* Aug. 10, 1906; *Educ.:* Univ. of Mysore; B.Sc. (Chemistry Main) & M.Sc. (Physical Chemistry) I Rank. Lecturer and later Asstt. Prof. of Chemistry, Central Coll., 1928-43; Physical Chemist, Prof. of Sugar Chemistry and Offg. Director, Indian Institute of Sugar Technology, Kanpur, 1943-57; Dy. Director-in-Charge, Central Electrochemical Research Institute, 1957-58; Discoverer of (*a*) Activated Accumulation. (*b*) Theory of Contact Angles, (*c*) Redoxokinetic effect, (*d*) Resistance heating of massecuites. *Publications:* Author of over 125 research publications in scientific journals, relating to theoretical and applied physical chemistry and sugar technology. *Address:* Cecrinagar, Karaikudi 3.

**DOUGLAS, Commodore George,** D.F.C., P.S.C., I.N., A.R.A.S., Vishisht Seva Medal Cl. II (Jan. 1966), Chief of Naval Aviation. *b.* March 6, 1915; *Educ.:* In India and Univ. Coll., Southampton, England. Cadet/Midshipman, Merchant Navy, 1930-32; Master Mariner, 1937; Lieutenant, Royal Navy Special Hazardous Service, 1940; Squadron Commander, Fleet Air Arm, 1942; Wing Leader and Group Air Commander, R.A.F.; Fighter Commander and H.M. Aircraft Carriers, 1943-44; awarded Distinguished Flying Cross for Gallantry—Air Operations over English Channel and France, 1943; Commander (Flying) H.M. Assault Aircraft Carriers, 1945; Nautical Serveyor & Examiner, Masters and Mates, Ministry of Transport, Govt. of India 1947-49; commanded Naval Air Station, Cochin (I.N.S. GARUDA) & I.N.S. SUTLEJ; Director, Air Staff Division, N.H.Q., April 1958; Capt. (D), 11th Destroyer Squadron, May 1960; graduate, National Defence Coll., 1962; specialized Naval Torpedo/Bomber Pilot; qualified Military Pilot, Piston jet and multi-engine aircraft; life member, Honourable company of Master Mariners, London. *Address:* 21, Akbar Road, New Delhi.

**DRAVID, Vyanktesh Vishnu,** B.Sc., President, I.N.T.U.C.; Ex-Minister for Agriculture, Labour, Housing and Chemical, Hydro-electric Projects, Madhya Pradesh. *b.* Aug. 10, 1913; *Educ.:* Victoria Coll., Gwalior. After graduation, conducted research in the Plant Institute, Indore; later took part in the labour movement in Indore and worked in the labour field at Ahmedabad with Shri Gulzarilal Nanda; sent to jail for taking part in the Freedom Movement; on release was appointed Minister for Labour and Local Self-Govt. in Indore State; appointed Minister for Commerce, Industries and Labour, M.B., 1948; attended the I.L.O. Conference at Geneva thrice, first as a delegate, 2nd as Leader of the Indian Delegation and 3rd as Govt. delegate in 1959. Elected M.L.A., M.B., in the General Elections; became Development and Labour Minister, M.B.; became Minister for Agriculture, Chambal Projects, Labour and Housing, M.P., 1956; resigned in Feb. 1964 to undertake the organisational work of INTUC; Pres.: Indian National Textile Workers Federation, M.P., I.N.T.U.C. and Indore Mill Mazdoor Sangh. *Address:* Shram Shibir, Indore.

**DUBEY, Kunji Lal,** B.A., LL.B., Padma Bhushan (1964), Speaker, M.P. Vidhan Sabha, since 1957. *b.* March 1897; *Educ.:* Jabalpur and Allahabad. Practised at the Jabalpur Bar; Professor of Law, at Jabalpur, 1935-40; Secy., Tripuri Session of the Indian National Congress; courted jail in individual satyagraha; detenu in 1942 struggle; M.L.A. of Madhya Pradesh, 1946-52; re-elected M.L.A., 1952; Chief Parliamentary Secy., 1946; Chairman, Inter-University Board of India, 1950; Speaker, M.P. Assembly, 1952; Vice-Chancellor, Nagpur Univ., 1947-Jan. 1956. Representative of Inter-University Board of India at the meeting of the Executive Council of the Association of Universities of the British Commonwealth at Kingston, Ontario (Canada), 1954; re-elected Speaker, M.P. Vidhan Sabha, 1957, 1962; appointed first Vice-Chancellor, Jabalpur Univ., June 1957. *Address:* Legislative Assembly, Bhopal.

**DUTT, Rabindra Chandra,** B.A. (Econ.) (Hons.) (Calcutta), Econ. Tripos (Cantab.), I.C.S., Revenue, Secretary, Ministry of Finance, Govt. of India, since Nov. 10, 1965, Chairman, Company Law Board, Ministry of Finance, since Jan. 23, 1964. *b.* Nov. 5, 1912; *Educ.:* Presidency Coll., Calcutta; Corpus Christi Coll., Cambridge; passed I.C.S. in London, 1936. Joined service in Bengal, Nov. 1937; Dist. Magistrate, Bankura 1943-45; Dy. Secy. to the Govt. of Bengal, Health Deptt., 1945-47; Labour Commsr, West Bengal, Aug.-Dec. 1947; Dy Secy., Home Ministry, Govt. of India, 1947-53; Dy. Commsr., Jalpaiguri, 1950; Joint Secy., Home Ministry, from 1953; Establishment Officer, Govt. of India, 1956-58; Mg. Dir., and subsequently Chairman, National Coal Development Corpn., 1959-64; Secy., Min. of Fin., Deptt. of Company Affairs & Insurance, 1964-65. *Address:* Reserve Bank Bldg., 6, Parliament Street, New Delhi.

**DUTT, Air Vice Marshal Ranjan,** Vir Chakra (26 Jan. 1950), Managing Director, Hindustan Aeronautics Ltd., since 1st Oct. 1964. *b.* Sept. 30, 1921; *Educ.:* Royal Indian Military Coll., Dehra Dun. Joined the I.A.F., 1940; during World War II, was posted to No. 32 fighter Squadron, Royal Air Force, Britain and operated against the German Air Force over France and the continent of Europe, 1941-42; took part in the Burma operations, both at Imphal and in the Arakan; commanded No. 1 Squadron, 1946; after independence filled staff appointments at Headquarters Operational Command; awarded Vir Chakra during Kashmir operations; commanded No. 1 Air Force Academy and held staff appointments; A.O.C.-in-C., Training Command, 1959; Mg. Dir., Hindustan Aircraft Ltd., Bangalore, 1960-64. *Address:* Baug-e-Sara (Third Floor), 16, Napean Sea Road, Bombay-6; (*Res.*) Steelcrete House (7th Floor), 3, Dinsha Vachha Road, Bombay 1.

**DUTTA, Mr. Justice Sarat Kumar,** B.A., (Cal.), B.Sc. (Lond.), Barrister-at-Law, Judge, Assam and Nagaland High Court, since 1961. *b.* Jan. 31, 1908; *Educ.:* Dibrugarh Govt. High School; B.A. (Hons.), Presidency Coll., Calcutta, 1928; B.Sc., Univ. Coll., London, 1932; called to the Bar from Middle Temple, London, 1933. Practised in Calcutta High Court (1933-37); Principal, Govt. Law Coll., Gauhati (1937-48); Dean, Faculty of Law, Gauhati Univ. (1948-50); Legal Remembrancer and Secy., Legislative and Judicial Deptts., Govt. of Assam (1950-55); District and Sessions Judge (1955-61); member, Court and Exec. Council, Gauhati Univ. (1948-61). *Publications: Prolegomena to the New Reforms;* Edited (*a*) History of Assam, (*b*) History of Jayantia. *Address:* Gauhati (Assam).

**DWARKA: His Holiness the Jagadguru Shankaracharya Swami Shri Abhinava Sachchidanand Teerthji Maharaj of Sharada Peeth,** of. Is an outstanding spiritual Head of western India. *b.* Sept. 25, 1919; *Educ.:* Studied privately. Took holy orders, 1934; installed at Dwarka on the holy seat of Shri Shankaracharya of western India, June 20, 1945; is a scholar and linguist; usually keeps moving about the whole of India delivering sermons on Religion, Culture and Philosophy; visited Holy Himalayan high peaks and Holy Mount Kailas and sacred lake Mansarovar in Tibet. Pres.: All-India Dharma Sangh Conference, several times; recognised by the Govt. as the Shankaracharya of Dwarka and a Primate of Hinduism; Founded a Univ. type society called Shri Sharada Peeth Vidyasabha which conducts Arts College, Research Institute, Sanskrit Vidya Peeth, Museum

etc.; is its permanent Pres. *Publications:* Several books in Gujarati, English, Kannada, Sanskrit and Hindi; "Nav-Bharati" a Gujarati monthly. *Address:* Dwarka (W. Rly.).

**DWIVEDY, Surendranath,** M.P. (Lok Sabha). *b.* Feb. 11, 1913. Joined C.D. movement and the Congress 1930; courted jail in the freedom movement; Foundation member, Congress Socialist Party, 1934; a working journalist, 1934-42; Founder and editor for several years of Oriya weekly 'Krishak'; elected Secy., Cuttack Dist. Congress Cttee., 1940; member, A.I.C.C. 1940-48; General Secy., Utkal P.C.C., 1946-47; resigned primary membership of the Congress, 1948; elected member, National Exec., Socialist Party, 1947 and of P.S.P. every year; was Provincial Secy. and Chairman, Utkal P.S.P. and S.P. for a number of years; member, Rajya Sabha, 1952-56; elected member, Lok Sabha, 1957; member, Lok Sabha, 1957-62 and also elected in 1962 from the same constituency; Dy. Chairman, P.S.P., 1958-62; member of the Panel of Chairmen of the Lok Sabha and leader, P.S.P. in Parliament; visited U.S.A. and Japan, 1963; visited England, European countries and Israel on invitation by the respective Governments. *Publications:* Oriya translations of Mr. Nehru's Autobiography and Glimpses of World History; other Oriya publications: *National Movement in India; Asia on the Path of Socialism,* etc. *Address:* Telengalazar, Cuttack 1, Orissa; 21, Canning Lane, New Delhi.

**ENGINEER, Air Marshal Aspy Merwan,** D.F.C., Distinguished Flying Cross (1942), Ambassador to Iran, since Nov. 1964; Ex-Chief of the Air Staff, Indian Air Force. *b.* Dec. 15, 1912: *Educ.:* D. J. Sind Coll., Karachi; R.A.F. Coll., Cranwell, England; passed R.A.F. Staff College, Bracknell, England; graduate of Imperial Defence College, London. Won Aga Khan Prize being first Indian to fly between England and India within one month, 1930; awarded Groves Memorial Flying Prize at Cranwell (1933); Deputy Chief of Air Staff, Indian Air Force, till May 1958; promoted Air Marshal, June 1959; Managing Director, Hindustan Aircraft Ltd., May 1958-Nov. 1960. Chief of Air Staff, Indian Air Force, Dec. 1960-April 1964. *Address:* C/o Ministry of External Affairs, Govt. of India, New Delhi.

**ERING, D.,** B.A., (D.Litt.), Parliamentary Secretary, Min. of Home Affairs, Govt. of India, since Feb. 15, 1966. *b.* 1930; *Educ.:* Sadiya Govt. H.E. School and Cotton Coll., Gauhati, Assam. Acted as Pres., ADI-MISING Students' Union, 1947-51; Member, Students' Congress, Cotton Colleges; Language Officer, 1952-54; A.P.O. II, 1954-60; A.P.O. I in cadre of the Indian Frontier Administration Service, 1960-61; Patron & Patron in-chief associated with a number of regd. social/cultural organisations; elected M.P. (Lok Sabha), March 1962; Parl. Secy., Min. of Extl. Affairs, till Feb. 1966. *Address:* P. O. Pasighat, N.E.F.A.; 16, Dr. R. P. Road, New Delhi.

**FALSHAW, Mr. Justice Donald,** B.A., I.C.S., Chief Justice, High Court, Punjab, since Dec. 15, 1961. *b.* Jan. 22, 1905; *Educ.:* Lancaster Royal Grammar School and Sidney Sussex College, Cambridge. Entered I.C.S., 1927; came to India, 1938; District and Sessions Judge in various places from 1933; Lahore, 1939-43; Delhi, 1943-4¢; appointed Acting Judge, Lahore High Court, Feb. 1946; Additional Judge, Dec. 1946; Addl. Judge, East Punjab High Court, Aug. 1947-June 1949; Puisne Judge till Dec. 1961. *Address:* Chandigarh.

**FERNANDES, Praxy Joachim,** B.A. (Hons.) (Bombay), Lord Minto Scholar, Ellis Prize Winner, Additional Textile Commissioner, Govt. of India. *b.* July 21, 1926; *Educ.:* Wadia Coll., Poona. Entered the Indian Administrative Service, 1948; served as Asstt. Collector, Belgaum and Karwar, Under Secy. (Finance Deptt.), Bombay, Deputy Secy. (Finance Deptt.), Bombay; Under-Secy. to the Cabinet Secretariat, New Delhi, 1953; Political Adviser, Indian Delegation to the International Commission, Viet Nam, 1954-56; services placed at the disposal of the Mysore Government, 1956; General Manager, Mysore Road Transport Dept., Bangalore, Municipal Commissioner, Bangalore and Secy. to Govt. Public Works Deptt., Bangalore; Chief Secretary, Govt. of Goa, Daman & Diu, 1963-64. *Address:* Mistry Bhavan, Dinshaw Vatcha Road, Bombay 1.

**FIRAQ, Raghupati Sahai,** M.A., Urdu writer. *b.* Aug. 29, 1896; *Educ.:* Govt. Jubilee High School, Gorakhpur; graduated from Muir Central Coll., Allahabad; selected for I.C.S. 1918; M.A. First Class First in English literature, 1930; winner of Ranade medal and Seshadre medals, 1930. Joined freedom struggle, 1919; courted Jail, 1920-22; Under-Secy., A.I.C.C., 1924-27; since 1927 Lecturer, Reader and Asstt. Prof. of English, Allahabad Univ.; has been writing lyrical poetry in Urdu continuously for forty years; has introduced in his lyrics cosmopolitan features; is ranked with leading Urdu poets; is a critic of Urdu literature; Akademi award for Gul-e-Naghma, 1961. *Publications:* Six volumes of Urdu lyrics; three volumes of critical essays. *Address:* 8/4, Bank Road, Allahabad.

**GADE, Hari Ambadas,** B.Sc., B.T., G.D. Art, A.M., Painter, art educationist. *b.* Aug. 15, 1917; *Educ.:* Nagpur and Bombay. Held several one man's exhibitions in important art centres. Went on a study tour in European countries, 1955-56; represented in public and private collections in India and abroad. *Address:* 70 T. Central Avenue, Chembur, Bombay 71; Central Institute of Education, Delhi 6.

**GADGIL, Gangadhar,** M.A., Marathi Writer; Principal and Professor of Economics, Narsee Monjee Coll., Bombay. *b.* Aug. 25, 1923; *Educ.:* Bombay Univ., did courses in literature and creative writing at Harvard and Stanford Univs. under Rockefeller Foundation Fellowship, 1957. Has created a new style in short story writing; awarded first prize in the Marathi short story competition held under the auspices of the *New York Herald Tribune;* awarded prizes for his books *Talavatalen Chandane, Ole Unha* and *Sata Samudra Palikade* by the Bombay Govt., 1956, 1958, 1960. *Publications:* Plays: *Vedyancha Choukon; Panch Natika;* Novel: *Lileeche Phool;* Travelogue: *Gopuranchya Pradeshat;* Collections of short stories: *Kadoo ani Goad; Talavatalen Chandane; Bandoo and ten others;* Literary Criticism: *Khadak ani Panee; Sahityache Manadanda;* has written three books for children; his stories have been translated into English, Italian, Hindi, Gujarati and other Indian languages; *Address:* A-4, Hirji Govindji Blocks, New Nagpada Road, Bombay 8.

**GAEKWAD OF BARODA: Hony. Lt. Col. His Highness Maharaja Fatesinghrao, Furzand-I-Khas-I-Dowlat-I-Englishia, Sena Khas Khel Shamshere Bahadur,** Chancellor, Maharaja Sayajirao Univ., Baroda; Chairman: Gaekwad Investment Corp.; Baroda Rayon Corpn.; Electro Equipment Corpn.; and director of several companies. President, Board of Control for cricket in India; Trustee, the National Rifle Assoc. of India. *b.* April 2, 1930; *Educ.:* Privately. Does social work in the former Baroda State; elected member, Lok Sabha, 1957, 1962; Parliamentary Secy. to Defence Min., 1957-62; member: Indian Board of Wild Life; Exec. Cttee., Congress Party in Parliament; Public Accounts Cttee. in Parliament, 1963-64; Cricket Club of India and M.C.C. (Eng.); Chairman, Board of Governors, National Institute of Sports, 1962-63. *Address:* Laxmi Vilas Palace, Baroda.

**GAJENDRAGADKAR, Pralhad Balacharya,** M.A., LL.B., Vice-Chancellor, Bombay Univ., since March 16, 1966. *b.* March 16, 1901. *Educ.:* Bombay University; Dakshina Fellow in Deccan College (1922-24); Jhala Vendant Prize and Bhagwandas Purshottamdas Sanskrit Scholarship 1924. Dean of Law Faculty, Bombay University; joined Bombay Appellate Side Bar, 1926; edited the "Hindu Law Quarterly"; Sir Lalubhai Shah Lecture Series on 'Law of Adoption' 1950; Karnatak University Extension lectures on Hindu Code Bill, 1952; President: Maharashtra Social Conference, Poona, 1953, Jalgaon 1954; Chairman, Bank Award Commission, 1955; Judge, Bombay High Court, 1945-57; Judge, Supreme Court, 1957-64; Lajpat Rai Memorial Lecture Series, Delhi, 1964; delivered lectures mostly on legal topics and the Indian Constitution during visits to U.S.A., U.K., U.S.S.R. etc., 1965. Connected with Univs., Educational and Social Institutions in India; Chief Justice of India, 1964-66. *Publications:* Sanskrit Text of Nanda Pandit's *Dattak Mimamsa* and its English Translation; *Law, Liberty & Social Justice;* many other articles and forewords. *Address:* Bombay University, Bombay 1.

**GANDHI,* Shrimati Indira,** Prime Minister of India, since Jan. 24, 1966; is the first woman Prime Minister of the largest democracy in the world and the second woman Prime Minister in the world. *b.* Nov. 19, 1917, at Anand Bhavan, Allahabad; *Educ.:* Allahabad, Poona, Bombay, Visva Bharati University, Shantiniketan, Switzerland and Somerville Coll., Oxford; her education was constantly interrupted by her parents' continuous jail going, World War II, and illness firstly her mother's and then her own; learnt world history through letters written to her by her father. Her favourite occupation as a very small child of three in 1920 was to deliver thunderous speeches to the servants, standing on a high table; at four, attended her first Congress session, 1921; at the age of 12, organised a Charkha Sangh and "Vanar Sena" of young boys and girls to help the Civil Disobedience movement in many ways and to promote it with a strong young base, 1930; was taught from the beginning to be brave and fearless; has been active in student movements in England and India; took an active part in the India League headed by Mr. V. K. Krishna Menon; is a patron and promoter of the arts and a source of encouragement and support to painters, dancers, etc.; became a member of the Congress, 1938; played an important role in the 1937 Elections; was actively associated with the independence movement; courted imprisonment for 13 months with her husband in Naini Central Prison during the 1942 "Quit India" movement soon after her marriage; has been active in elections and village mass contact work with special reference to women; worked under Mahatma Gandhi's direction in the riot affected areas of Delhi 1947; after independence in 1947, gave up home life to become Jawaharlal Nehru's hostess and later, his closest political aide; occupied this unique position for 17 years, 1947-64; accompanied her father on his official visits to several countries; had the opportunity to meet all the world's leading personalities—Chou En-lai, Krushchev, President Tito, President Nasser, four American Presidents—Truman, Eisenhower, Kennedy and Johnson, and others; later she went on her own on a goodwill mission to several African countries and also to the Soviet Union; became member, Working Cttee., A.I.C.C., 1955; Pres., Women's Deptt., A.I.C.C.; member, Central Election Cttee. and Central Parliamentary Board of the A.I.C.C.; is connected with several welfare organisations; member: Executive Board of UNESCO; Central Advisory Board of Education; various Trusts and Hospital Cttees.; Mountaineering Institute; Pres., Bal Bhavan sponsored by the Ministry of Education, Government of India; Pres., Indian Council for Child Welfare; has founded a co-operative centre in Delhi for the welfare

* Went on a nine-day foreign tour that took her to four capitals Paris, Washington, London and Moscow. Chancellor, Visvabharati Univ. for three years from April 1966.

of women and children; Pres. and Founder: Bal Sahyog, New Delhi; Kamala Nehru Vidyalaya, Allahabad; Vice-Pres., International Union for Child Welfare; elected Pres., Indian National Congress, Feb. 1959; was the third in three generations of the Nehru family to succeed to the *gadi* of the national organisation; was the fourth woman in the country elected to this high office; as Pres., Indian National Congress, played an important role in the bifurcation of bilingual Bombay into Maharashtra and Gujarat; it was due to her initiative that the first Communist Party Govt. in Kerala was pulled down from office on July 1, 1959; her extensive tour in the country as Pres. of the Congress and as Chairman of the National Integration Cttee. brought her into intimate touch with the masses and their problems; had a hand in forging the coalition which defeated the Communists at the polls in Kerala in Feb. 1960 when the Congress, P.S.P. and the Muslim League combined to defeat the Communists; after the death of Mr. Rafi Ahmed Kidwai, Jawaharlal Nehru began to lean more on his daughter's suggestions about the conduct of his policy; thus she became not only his confidante but also his confidential adviser; was member, Youth Advisory Board of the A.I.C.C.; took interest, out of compassion for the underprivileged, in various organisations dealing with social welfare; Trustee, Indian International Centre; Patron: Foreign Students' Assoc.: Children's Little Theatre; during the Chinese aggression, flew to the border areas and addressed public meetings there; kept up the morale of the jawans and the public in those areas; as Chairman, Citizen's Central Council formed after the Chinese attack, has had an opportunity of assessing national sentiments; visited the U.S.A. shortly before her father's death in May 1964 and met President Johnson; Minister for Information and Broadcasting, Govt. of India, June 1964-Jan. 24, 1966; appointed member, Emergency Cttee. of the Central Cabinet and National Defence Council, July 1964; elected to the Rajya Sabha unopposed from the U.P. Vidhan Sabha Constituency, Aug. 21, 1964; attended the Commonwealth P.Ms'. Conference, 1964; visited the U.K., Yugoslavia and U.S.S.R., Oct. 1964; Chairman, Third International Film Festival Cttee., Jan. 8-21, 1965; Chairman, Sangeet Natak Akademi, since Dec. 14, 1965; received Mother's Award, U.S.A., 1953; Yale Univ. Howland Memorial Prize, 1960; award for "her dedication to the freedom of communication in the world" was presented to her in Chicago by three leading professional journalism societies of the U.S., Jan. 30, 1965; awarded the "Isabella D'este" prize for outstanding ability by the Italian Govt., Nov. 1965; Doctor of Literature (*honoris causa*) at the Agra Univ. Convocation, Dec. 4, 1965; elected leader, Congress Parliamentary Party, Jan. 19, 1966. *Address:* New Delhi.

**GANDHI, Pravinchandra Varjivan,** Fellow, Indian Institute of Bankers, Mg. Dir., Devkaran Nanjee Banking Co. Ltd., since 1943. *b.* Aug. 25. 1922. *Educ.:* Elphinstone Coll., Bombay. Joined Dena Bank in 1939; member: All India Assocn. of Industries; Mg. Cttee., Indian Merchants' Chamber; Advisory Council, Bankers' Training Coll.; Mg. Cttee., Indian Banks Assocn.; Western India Automobile Assocn; Mg. Cttee. Indian Merchants' Chamber; Mg. Cttee., Indian Banks Assocn.; Exc. Cttee.; FICC & I; Bombay Telephone Advisory Cttee.; Central Direct Taxes Advisory Cttee.; Planning Adv. Board, Gujarat State; Maharashtra Transport Adv. Cttee.; Programme Adv. Cttee., AIR; Governing Council, All India Balkanji Bari; Council member, Indian Institute of Bankers; Dir.: Maharashtra State Fin. Corpn.; Gujarat State Fin. Corpn.; Export Credit & Guarantee Corpn.; Trustee: Bombay Port Trust; Lalji Naranji Memorial Indian Merchants' Chamber Bldg. Trust; Bharatiya Vidya Bhavan, Devkaran Nanjee Banking Co. Ltd.; Shri Pranlal Devkaran Nanjee Smarak Fund, etc.; Mg. Trustee, Swadeshi League Trust; Indian National Theatre. *Address:* Devkaran Nanjee Bldgs. 17, Horniman Circle, Fort, Bombay; 'Amelfi', Nepean Road, Bombay 6.

**GANESAN, Sivaji,** a leading Cine Artiste. *b.* Oct. 1, 1928. Joined a Drama Troupe at the age of six; gradually established reputation as an actor; his outstanding performance in the role of Shivaji earned him the title Shivaji; his title role in the tamil picture 'Para Sakthi' brought him to the limelight; is the only artiste in India who has successfully finished one hundred pictures in the main role in 12 years from 1952; the picture 'Veera Pandiya Kattabomman' brought him the Best Actor Award at the Afro-Asian Film Festival, Cairo, 1960; has donated liberally to various public and charitable institutions; owns a drama troupe by name 'Sivaji Nataka Manram'; his taking part in the National Defence Documentaries (Anti-Chinese) 'Thai Nadu' (Motherland), 'Singa Natham Ketkuthu' (The Lion's roar is heard) and the full length picture 'Baktha Thilakam' deserve praise; was the first artiste from India to go to the United States in their Cultural Exchange Programme as India's Cultural Ambassador; received recognition for more than 12 pictures from President of India; winner of the Best Actor Award from Cinema Kadir from 1958-63. *Address:* 11, Boag Road, T. Nagar, Madras 17.

**GANGULI, Bankim Chandra,** B.E., General Manager, Southern Railway, since November 1964. *b.* Jan. 16, 1914; *Educ.:* Bengal Engineering Coll., Sibpur, B.E. with 1st Class, 1935; awarded the Calcutta Univ. Gold Medal and the Ambika Charan Chowdhury Gold Medal; was Sibley Research Scholar, Calcutta Univ. Asstt. Engineer, Assam Bengal Rly., 1937–43; Exec. Engineer, Dec. 1943–53; one of the Executive Engineers responsible for the construction of the famous Assam Rail link; promoted as Divisional Supdt., 1953; was Dy. Chief Engineer, Northern Rly. and Dy. Chief Engineer and then Dy. General Manager, Chittaranjan Locomotive Works; Jt. Director and the Director, Civil Engg., Railway Board, 1957; Chief Engineer, Construction of the North-East Frontier Rly., 1959. General Manager, North-East Frontier Railway, Jan. 1962-Nov. 1964. *Address:* Southern Rly. Hqrs., Park Town, Madras 3.

**GANGWAL, Mishrilal,** Minister for Planning, Development, Economics & Statistics, Madhya Pradesh, since Oct. 1963. *b.* Samvat, 1859, Indore; *Educ.:* Indore. Took to the profession of his forefathers; is keenly interested in social and cultural work; was elected Pres. of several social and commercial institutions; was highly influenced by Mahatma Gandhi's writings and began to take active part in politics; was elected Pres., Ajmer-Merwara Provincial Congress and Indore Rajya Praja Mandal; was member, Central India States Peoples Conference and of the A.I.C.C. for several years—courted imprisonment thrice; was member, Indore Legislature; was Food Minister, Indore; was Civil Supplies Minister, Madhya Bharat; Commerce and Industries Minister, 1949–50; Finance Minister, 1950–52; elected Leader, Congress Legislature Party, M.B. Leg. Assembly, 1952; Chief Minister, M.B., 1952–55; Finance Minister, M.P. till March 1962; Min. for Finance & Social Welfare, 1962-63. *Address:* Bhopal.

**GANIGA, Haradi Rama,** Rajya Prashasti (1962), Rastra Prashasti in Yekshagana dance drama (1964), Dancer in Yekshagana. *b.* May 27, 1902. Joined the Mandarthi Yekshagana Mela as a Dancer and playright, 1920; and served there for more than forty years; was a dancer for some time in other Melas; was a hero actor from the early age of 20; participated in several drama competitions and had won prizes and awards from various institutions chiefly for his important character roles like Karna, Bhisma, Angaravarma, Arjuna, Chitrasena, Jambava; is an excellent speaker and expert in dramatisation. *Address:* P.O. Salekere, Brahmawar (Mysore).

**GARGI, Balwant,** M.A. (English Literature), Sahitya Akademi Award winner for his book 'Rang Manch' in Punjabi (1962), Writer. *b.* Dec. 4, 1918; *Educ.:* Forman Christian Coll., Lahore. Wrote his first play 'Loha Kut' (The Blacksmith) (1944) for a village theatre, and soon became a playwright; writer of 35 short plays, and ten full-length plays; travelled abroad and studied theatre in Europe, 1954-56; attended Moscow Art Theatre's rehearsals and watched Bertolt brecht at work in Berlin (1956); Founder-member, Delhi Art Theatre; his play 'Kesro' was staged in Poland (1955), in Germany — Ankelem Theatre (1958), in Tajikistan (1959), in Tokyo (1962–63); 'Sohni Mahiwal', a six-act song and dance packed play was staged by Gypsy Theatre, Moscow (1958–63). 'Kanak di Balli' (The Mango Tree) was staged by East-West Center, Honolulu (1963); went to U.S.A.; lectured at Columbia, Denver and Indiana Universities, 1962. *Publications: Loha Kut, Sail Pathar, Kesro, Kanak di Balli, Rang Manch, Kwari Teesi, Do Pase, Pattan di Beri. Sketches: Nimm de Patte. English - Theatre in India. Address:* 27, Curzon Road, New Delhi-1.

**GARWARE, B. D.,** J.P., Industrialist. *b.* 1903. Started business, 1921; Chairman: Garware Plastics Pvt. Ltd.; Plastics Packaging Pvt. Ltd.; Garware Nylons; Garware Motors & Engineers Pvt. Ltd.; Garware Fin. Corpn. Pvt. Ltd.; Garware Filament Corpn. Pvt. Ltd.; Maharashtra State Financial Corporation; Advisory Cttee. for Distribution of Iron & Steel; Pres.: Maharashtra Economic Development Council, Bombay; Director: State Bank of India; Central & Local Board (appointed by the Govt. of India); Sutlej Cotton Mills Ltd.; Khandelwal Ferro Alloys Ltd.; Khandelwal Udyog Ltd.; Bajaj Electricals Ltd.; Member: Advisory Cttee., Indian Airlines Corporation; Maharashtra State Housing Board; Maharashtra State Industries Advisory Cttee.; Bombay Port Export Advisory Cttee.; Maharashtra Labour Welfare Board; State Board for Export Promotion; is on the Exec. Cttees. of economic and industrial bodies as Chairman and active member, travelled widely in Europe, the U.S.A., and the Far East. *Address:* Chowpatty Chambers, Sandhurst Bridge, Bombay 7.

**GEORGE, Thayil Jacob Sony,** M.A., Editor, *The Searchlight*, since Dec. 1963. *b.* May 6, 1928; *Educ.:* Univ. Coll., Trivandrum; Madras Christian Coll.; M.A. in 1949. Worked on Free Press Journal, Bombay, in various editorial capacities, 1949-62; broke off for a year to work on an Indian cargo ship on the U.K.—Continent run, 1952; worked on a newspaper in Pennsylvania, U.S.A., 1957; appointed by the International Press Institute as its first Asian editorial consultant, 1963. *Publications: Krishna Menon, A Biography* (Jonathan Cape), 1964. *Address:* 52, Patalliputra, Patna 13.

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Calcutta, Aug. 1947; Master of Mint, Alipore, April 1952–Feb. 1954; Master of Mint, Bombay, March–May 1954; Master of Mint, Alipore, June 1954–May 1960; *Publications: History of Indian Coinage; The British Mints in India. Address:* C/o India Government Mint, Mint Road, Fort, Bombay 1.

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**GORAY, Narayan Ganesh,** B.A., LL.B., Chairman, Praja Socialist Party. *b.* June 15, 1907, at Hindla village, Ratnagiri Dist.; *Educ.:* Fergusson Coll., Poona. Social worker; joined Congress and Satyagraha campaign, 1930; was member: National Exec. of the Congress Socialist Party, 1934; All India Congress Cttee.; Joint Secy., Socialist Party, 1948, when it severed its connection with the Congress; General Secy., P.S.P., 1953-54; elected to the Court of the Univ. of Poona from the Trade Unions' Constituency, 1949-1962; led the first batch of Satyagrahis in Goa, May 1955; was sentenced to ten years' imprisonment by the Portuguese Govt.; released, Feb. 1957; Critic, essayist, story writer and translator; courted jail on several occasions in India's freedom movement; was elected to the Lok Sabha from Poona (1957–62); General Secretary, P.S.P., 1963. *Publications: History of the United States of America;* Short Stories, Essays, Translations, etc. in Marathi. *Address:* 1813, Sadashiv Peth, Poona 2.

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**GOVINDACHARI, Dr. Tuticorin Raghavachari,** M.Sc., Ph.D., F.N.I., F.A.Sc., Shanti Swarup Bhatnagar Award for Chemical Sciences (1960), Scientist; Director, CIBA Research Centre, Bombay, since Jan. 1963. *b.* July 30, 1915; *Educ.:* Presidency Coll., Madras; Univ. of Illinois, U.S.A. Research Asst., C.S.I.R.—Scheme on Electrolytic Reduction of Nitro Compounds under Dr. B. B. Dey—(1940-46); Addl. Prof. of Chemistry, Presidency Coll., Madras (1950); Prof. of Chemistry, (1951); Chief Prof. of Chemistry, (1952); Principal, Presidency Coll., Madras (1961, 1962). *Publications:* Over one hundred and fifty publications in the field of alkaloids, terpenoids and other natural products and also in the synthesis of heterocyclinc compounds. *Address:* CIBA Research Centre, Goregaon East, Bombay 62.

**GOVINDDAS, Doctor,** Sahitya Vachaspati, LL.D., Padma Bhushan (1961), Member, Lok Sabha. *b.* Vijay Dashmi Day, 1896; *Educ.:* Privately upto M.A. Entered politics, 1919; elected to the Central Assembly, 1923, 1934, & 1946, Council of State, 1925, Constituent Assembly, 1947 and Lok Sabha, 1952, 1957 & 1962; courted jail five times in freedom movements; member, A.I.C.C., since 1921; Pres., Mahakoshal P.C.C. for 20 years; elected Chairman, Reception Cttee. of Congress Session, Tripuri, 1939; Pres., All-India Hindi Sahitya Sammelan 1948; Leader, Delegation to Commonwealth Parliamentary Conference, New Zealand 1950; member, Congress Working Cttee., 1950-51 & 1958; elected first Pres., M.P.C.C. of reorganised M.P., 1957; appointed Speaker, Lok Sabha till the election of permanent Speaker in 1957 and 1962; awarded the degree of Doctor of Laws by the University of Jabalpur, 1960. *Publications:* Has written 109 plays in Hindi, one novel *Indumati* and 4 travel books on Africa, New Zealand, Australia, Fiji & Malaya, World Tour and Badrinath and Autobiography in three vols. *Address:* 33, Ferozshah Road, New Delhi 1; Raja Gokuldas Palace, Jabalpur (M.P.).

**GOWDA, G. Narayana,** B.A., Minister for Agriculture, Govt. of Mysore, since 1962. *b.* 1910; *Educ.:* Govt. High School, Kolar; Maharaja's Coll., Mysore. Has been an active Congressman since 1937; took active part in the Quit India Movement and was jailed; detained in the "Chalo Mysore" movement, 1947; member: Mysore Rep. Assembly from 1936; State Constituent Assembly, 1947; Mysore Leg. Assembly, 1940-57; Univ. Senate, 1945-47; Syndicate, 1958-61; Secy., Mysore State Cooperative Devpt. Board, 1958-60; Pres., D.C.C., Kolar and Jt. Secy., Mysore P.C.C., 1953-56; is member, Exec. Cttee., Mysore P.C.C.; elected M.L.A., Mysore from Sreenivasapur, 1962; is keenly interested in Harijan uplift and social welfare. *Address:* Bangalore.

**GOYAL, Air Vice-Marshal Suren,** M.B.E., Air Officer Commanding-in-Chief, Training Command, Indian Air Force. *b.* Dec. 11, 1917; *Educ.:* Allahabad Univ., 1935; R.A.F. Coll., Cranwell (U.K.), 1936; Staff Coll., Bracknell (U.K.), 1946. Director, Air Headquarters, Commandant, Air Force Academy, Principal Staff Officer, Air H.Q., Commandant, School of Land-Air Warfare. *Publications: Air Power in Modern Warfare* (Thackers, Bombay, 1952). *Address:* C/o Air Headquarters, New Delhi.

**GRACIAS, His Eminence Valerian Cardinal,** D.D., M. Agg., Padma Vibhushan (1966), Archbishop of Bombay since Dec. 1, 1950. *b.* October 23, 1900; *Educ.:* St. Patrick's High School, Karachi; St. Joseph's Seminary, Mangalore; The Papal Seminary, Kandy, Ceylon and The Gregorian Univ., Rome. Secy. to the Archbishop (1929–1936); Chancellor of the Archdiocese, 1929; Editor of *The Messenger of the Sacred Heart* (1935); Co-Editor of *The Examiner* (1938); Rector of the Pro-Cathedral, Dec. 1941; Titular Bishop

of Tannis and Auxiliary to the Archbishop of Bombay, April 11, 1946; Archbishop of Bombay, Dec. 1, 1950; created Cardinal, Jan. 12, 1953; Consultor to the Sacred Congregation for the Oriental Churches, The Sacred Congregation of the Sacraments and the Sacred Congregation for the Propagation of the Faith; President, Catholic Bishops' Conference of India. *Publications: Features of Christian Life; Heaven and Home; The Vatican and International Policy; The Decline of Public Morals.* *Address:* Archbishop's House, Bombay 1.

**GROVER, Mr. Justice Amar Nath,** M.A., LL.B. (Cantab.), Barrister-at-Law, Puisne Judge, Punjab High Court, since Nov. 21, 1959. *b.* Feb. 15, 1912; *Educ.:* Govt. Coll., Lahore; Christ's Coll., Cambridge, Passed M.A. (Hist.), Punjab, 1932; Law Tripos, Cambridge, 1935; LL.B. Degree, Cambridge, with First Class, 1936; awarded 1st Prize in Law by Christ College, Cambridge and elected Hony. Scholar of the Coll., 1936; called to the Bar by the Middle Temple, 1936. Started practice as an Advocate, High Court, 1937; became a leader of the Bar; member, Punjab Bar Council, 1954-57; Addl. Judge, Punjab High Court, 1957-59. *Address:* Punjab High Court, Chandigarh.

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**GULABCHAND, Hirachand,** Industrialist. *b.* 1896, at Sholapur; *Educ.:* Sholapur, Poona and Bombay. Chairman: The Premier Construction Co. Ltd.; Walchandnagar Industries Ltd.; The Ravalgaon Sugar Farm Ltd.; Walchand & Co. Private Ltd.; Indian Sugar Mills Assoc., 1953–54; Deccan Sugar Factories Assoc., 1942–43, 1947–48 and 1951–52; Deccan Sugar Technologists' Assoc., 1951–52; member: Bombay State Sugarcane Cttee.; Indian Central Sugarcane Cttee.; Development Council for Sugar Industry; Standing Advisory Cttee. on Sugar Standard; Minimum Wages Central Advisory Board; Central Wage Board for the Sugar Industry; visited U.K., the Continent and U.S.A., 1939, 1951 1954 and 1958; sentenced to 18 months' R.I. and fined Rs. 20,000 for breaking the restrictions placed on him during 1932 political movement. *Address:* Construction House, Wittet Road, Ballard Estate, Bombay.

**GUNDEVIA, Yezdezard Dinshaw,** B.A. (Hons.) (Philosophy) (Bom.), I.C.S., Secretary to the President, since Feb. 1965. *b.* June 19, 1908; *Educ.:* Bharda New High School, Bombay; Wilson Coll., Bombay; called to the Bar from Middle Temple, London. Entered the I.C.S., 1931; held various important posts in U.P., 1930, 1931-45; Secy. to Representative of the Govt. of India in Burma, 1945-47; Counsellor in the Embassy of India, Rangoon, 1948; Joint Secy. and Controller-General of Emigration, Ministry of External Affairs, 1948-50; Minister-Counsellor, Moscow, 1950-53; Ambassador Extraordinary and Plenipotentiary for India in Switzerland and also Minister Plenipotentiary and Envoy Extraordinary in Austria and the Holy See, 1953-54; Dy. High Commissioner for India in U.K with rank of Ambassador, 1954-56; High Commissioner to Ceylon, 1957-60; Special Secy., Ext. Affairs Min., June 1960; Commonwealth Secy., Dec. 1960; Foreign Secy., Dec. 1963-Feb. 1965. *Address:* Rashtrapati Bhavan, New Delhi 4.

**GUPTA, Bhupesh,** B.A. (Calcutta), LL.B. (Lond.), Barrister-at-Law, M.P. (Rajya Sabha), Member, National Council and Central Secretariat of the C.P.I.; Editor, *New Age*, Monthly, since Jan. 1966. *b.* Oct. 1914; *Educ.:* Calcutta and London Universities, Middle Temple; passed Intermediate and B.A. examinations while in detention without trial in Berhampore Detention Camp, 1933-36. Has been a whole time political worker. *Publications:* A critique of the Second Five Year Plan and of political pamphlets. *Address:* G7, Govt. Housing Estate, Karaya Road, Calcutta 19; 5, Feroze Shah Road, New Delhi.

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to Europe, North America, and the Scandinavian Countries, 1956-57; Private Secy. to Premier, Western Nigeria; Trade Officer, Western Nigeria Office, London; served in Washington D.C., New York, London, since 1957; Head of Division, Min. of External Affairs, Tokyo, 1960-64; participated in several International Conferences and Seminars including Disarmament in Geneva, Convention on Diplomatic Relations in Vienna, Organisation of African Unity, First Dag Hammarskjold Seminar on International Law, Hague. *Address:* Nigerian High Commission, D7, South Extension Part II, Ring Road, New Delhi-16.

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**HAKSAR, His Excellency Sundar Narain,** M.A., B.Sc., Indian Ambassador to U.A.R. and concurrently Ambassador to Libya and Yemen, since July 11, 1964. *b.* Dec. 4, 1909; *Educ.:* St. Stephen's Coll., Delhi. Joined the I.C.S., 1933; served in various capacities in the Punjab; transferred to the Indian Foreign Service, 1948; Counsellor in Embassy at Cairo, 1948-49; Joint Secy., Ministry of External Affairs, 1950-March 1953; Minister in Embassy at Washington, Aug. 1953-Sept. 19, 1954; Ambassador at Ankara, Nov. 1954-Nov.-1956; Ambassador in Afghanistan, 1957-60; Ambassador to Italy, 1960-64. *Address:* C/o External Affairs Ministry, New Delhi.

**HALDULKAR, Ramakant Kesheorao,** General Secretary, All India Forward Bloc, since 1955. *b.* Jan. 4, 1916, at Bijakwara Village, M.P.; *Educ.:* Nagpur; Hindi Bhashi Sangh High School; City Coll., Nagpur. Arrested on 11th Nov. 1934 in connection with the Sitabaldi Bomb Case and was released after an undertrial period of 7 months on 4th May 1935 without conviction; started first Trade Union in coal mine area of Chhindwara Dist., June 9, 1940; secured various awards for mine workers; took active part in the freedom movement and detained in Quit India movement, 1942-45; joined the All India Forward Bloc, 1939; is Pres., M. P. Mine Workers' Union and various trade unions; was Vice-Pres., A.I.T.U.C.; resigned, Aug. 15, 1958; elected Pres., A. I. Mineworkers' Federation, 1959; Editor and Publisher, *Inquilab* (Weekly), Chhindwara, since Nov. 1958; started Janata Publications. *Address:* General Secretary, All India Forward Bloc, Subbash Ward No. 2, Chhindwara, Madhya Pradesh.

**HALL, F. R.,** B.A. (Princeton Univ.), Assistant General Manager (Marketing), Esso India, since Nov. 1964. *b.* Sept. 19, 1916; *Educ.:* Princeton Univ., B.A. in 1938. Public Relations Manager, Esso Brazil (1947-50); Treasurer (1953-56); Manager, Southern Division, Esso Brazil (1956-59); took over as Pres., Esso Uruguay, 1960; Regional Coordinator for Australia and Philippines in Esso Standard Eastern's New York Hqrs. (1963-64). *Address:* Esso Building, 17, Jamshedji Tata Road, Bombay 1.

**HAMIED, Dr. K. A.,** B.Sc., M.A., Ph.D. (Berlin), F.C.S., F.S.C.I., F.R.I.C. (Lond.), Member, American Chemical Society, F.I.A.Sc. (Ind.), J.P.; ex-M.L.C., Maharashtra State; Fellow, Bombay University; Hon. Prof., Aligarh Univ., Business man. *b.* October 31, 1898; *Educ.:* Allahabad University; Took an active part in the fight for freedom; established business in chemical and pharmaceutical products in Bombay; started Cipla Ltd., 1935; is its Chairman and Technical Expert; had been member of the Bombay (later Maharashtra) Leg. Council for over 25 years and always stood by the Congress; Director of several firms in Bombay; President, Indian Chemical Manufacturers Assoc., 1945-48 and 1949-50; Leader, Indian Chemical Delegation to U.K. and U.S.A., 1945-46; Sheriff of Bombay, 1952-53; Member: Governing Body of the Council of Scientific & Industrial Research; Standing Advisory Cttee. for Industries, Bombay; member, Pharmaceutical & Drugs Research Cttee., Govt. of India; member, Adv. Cttee. (Chemicals), Industrial Finance Corpn. of India; Maharashtra State Industrial Research Cttee. *Address:* 289, Bellasis Road, Byculla, Bombay 8.

**HANNA, J. B.,** Graduate in Petroleum Engineering, Univ. of Pittsburg, Managing Director, Esso Standard Refining Co. of India, Ltd. and Assistant General Manager (Manufacturing), Esso India, since 1964. *b.* April 24, 1911; *Educ.:* Univ. of Pittsburg, U.S.A. Joined Esso Standard Oil Company; worked at Esso's Bayway Refinery, 1935-52; transferred to South Africa as Refinery Manager of Stanvac's Durban Refinery, 1952; later became its Managing Director; returned to New York for a special assignment in Refining Coordination Division, 1956; Managing Director, Stanvac Bombay Refinery, 1957-60; re-assigned to New York in 1960, in charge of Refining Coordination Division; later appointed Regional Coordinator, South Asia Region and Regional Coordinator for Japan. *Address:* Esso Building, 17, Jamshedji Tata Road, Bombay 1.

**HANUMANTHAIYA, Kengal, B.A., LL.B.,** M.P., Ex-Chief Minister, Mysore; Chairman, The Punjab Administrative Reforms Commission, since Nov. 1964; member: Exc. Cttee., Cong. Party in Parliament; All-India Council of Institutes of Technology; Spl. Counsultative Group for Administrative Reforms, Govt. of India. *b.* 1908; *Educ.:* Maharaja's Coll., Mysore; Law Coll., Poona; B.A., 1930; LL.B., 1932. Pres., Bangalore D.C.C. for 10 years; imprisoned 7 times during freedom struggle; started "Palace Satyagraha" movement in 1948 to achieve democratic Govt. in Mysore State; Pres., Bangalore City Municipal Council, 1942; Leader, Congress Party, Mysore Rep. Assembly, 1945-49; Dy. Leader, Congress Party, Mysore Constituent Assembly, 1948-49; Pres. of Mysore P.C.C., 1950-52; delegate, Inter Parliamentary Conferences: Stockholm, 1948; Dublin, 1950; Brazil, 1962; Chief Minister, Mysore, March 1952—Sep. 1956; as Chief Minister introduced several reforms in the State; nationalised K.G.F. Gold Mines; was chiefly responsible for integration of Karnataka; got 'Vidhana Soudha' built; re-elected to Mysore Leg. Assembly, 1956; elected Member, Lok Sabha, 1962. *Address:* "Kengal Krupa", Bangalore 6.

**HARISH CHANDRA, H.H. Maharajrana,** of Jhalawar, Minister for P.W., Power, Industries, Civil Supplies and Presses, Rajasthan, since 1960. *b.* Sept. 27, 1921, at Oxford; *Educ.:* Raj Kumar Coll., Rajkot; Aldenham Public School, England; had administrative training at the I.C.S. Probationers' Course at Dehra Dun and at the Indian Police Coll., Moradabad. Succeeded his father as Ruler of Jhalawar, 1943; was one of the first Rulers in Rajasthan to hand-over the administration to the people by nominating two popular Ministers in the Cabinet; joined the Indian Foreign Service and was posted in Rome and Burma; joined the Congress Party, 1955; elected M.L.A., Rajasthan, 1957; became the first Pramukh of the Zila Parishad, Jhalawar; appointed Minister for Public Works and Power, Rajasthan, 1960. *Address:* Jaipur.

**HATHI, Jaisukhlal,** Minister of State in the Ministry of Home Affairs, Govt. of India, since March 1964; also in charge of Deptt. of Defence Supply, Ministry of Defence, since Oct. 1965. *b.* Jan. 19, 1909. Passed Law Exam. Enrolled as Advocate, Bombay High Court; for some time Dist. & Sessions Judge, Rajkot State; elected member, Constituent Assembly, 1946–47; was member, Provisional Parliament; appointed Chief Secy., Saurashtra, Feb. 1948; was Secy. in-charge, election organisation of the Saurashtra Congress Cttee., 1952; returned to the Rajya Sabha from Saurashtra; served as one of the whips of the Congress Party in the Rajya Sabha; returned to the Lok Sabha, 1957; returned to the Rajya Sabha, 1962; Chairman: Bhartiya Vidya Bhavan; President: Saraswati Samaj; All India Anuvrat Samiti; Dy. Min. for Irrigation & Power, Govt. of India, 1952-62; Min. of State for Labour, Govt. of India, April-Nov. 1962; Minister of Supply, Nov. 1962-March 1964. *Address:* New Delhi.

**HAZARI, Captain Durgdas Gehisingh,** Master Mariner (F.G.), Member of Institution of Marine Technologists, Member of Company of Master Mariners, J.P. (Greater Bombay), Captain Superintendent, Training Ship "Dufferin", since Sept. 1962. *b.* Dec. 3, 1916; *Educ.:* P.N. Anglo-Sanskrit High School, Patna (1921–31); Training Ship "Dufferin" (1931-33); Merchant Navy, Dec. 1933 to June 1943; Executive Officer, Training Ship "Dufferin", June 1943 to May 1950; Chief Officer Training Ship "Dufferin", May 1950 to Dec. 1954; Captain Supdt., Training Ship

"Nau Lakhi", Navlakhi, Saurashtra, Dec. 1954 to Oct. 1959; Captain Supdt., Training Ship "BHADRA", Calcutta, Oct. 1959 to Sept. 1962. *Address:* Training Ship "Dufferin", Off Mazagaon Pier, Bombay-10.

**HEBBAR, Kattingeri Krishna,** Padma Shri (1961), Artist. *b.* June 15, 1912; *Educ.:* General Christian High School, Udipi, S. Kanara; Sir J. J. School of Art, Bombay and Academy Julian, Paris. Held one-man shows in India, London, Paris, Switzerland and New York; travelled extensively in Europe, U.S.S.R., Poland, U.S.A., Mexico & Japan; member, Lalit Kala Akademi, New Delhi; Winner of several important top awards in exhibitions; paintings in several museums and private collections in India and outside. *Publications: Hebbar Drawings and Paintings* (Nalanda Publications, Bombay); *Hebbar's Lalit Kala Akademi*, New Delhi, 1960; *Drawings 'The Singing Line'* (Peacock Publications, Bombay). *Address:* Sunshine, 81, Cadell Road, Mahim, Bombay 16.

**HECKSCHER, H. E. Dr. Gunnar E.,** Ph.D. (Political Science), Ambassador of Sweden to India. *b.* July 8, 1909; *Educ.:* took Doctor Phil. (Political Science), 1934. Served as a Professor in Political Science at the Universities of Uppsala and Stockholm; was the Chancellor of the Stockholm Institute of Social Science; has been the leader of the Conservative Party in Sweden from 1961; served in the U.N. as an expert. *Publications:* Many treatises and books mainly on political science. *Address:* Swedish Embassy, New Delhi 21.

**HEGDE, Doddamane Ramakrishna,** M.A., LL.B. Minister for Finance, Excise, Prohibition, Information and Publicity, Mysore State, since, June 7, 1965. *b.* Aug. 29, 1927 in Siddapur Taluk, N. Kanara Dist.; *Educ.:* School education in Siddapur and Sirsi; B.A. from Kashi Vidyapith, Banaras; M.A., LL.B. from Lucknow Univ. Started practice at Sirsi; Pres., North Kanara D.C.G. 1954-57; Deputy Minister for Planning and Development 1957-58; Gen. Secy., M.P.C.C. 1958-62; re-elected M.L.A., Mysore in the 1962 General Elections from the Sirsi Constituency; Min. for Dev., Panchayati Raj and Co-op. 1962-65. *Address:* Bangalore 1.

**HEGDE, Mr. Justice Kawdoor Sadananda,** M.A., B.L. (Madras), Judge, High Court of Mysore. *b.* June 11, 1909; *Educ.:* St. Aloysius, Coll., Mangalore; Presidency Coll., Madras; Law Coll., Madras. Advocate from 1936; Public Prosecutor and Govt. Pleader, Aug. 1947-Sept. 1951; Member of Parliament, April 1952-Aug. 1957; represented India in the United Nations as an alternate delegate, 1954. *Address:* Bangalore 1.

**HENSMAN, Smt. Mona,** B.A. (Hons.) (Lond.), Ex-Regional Officer, U.S. Educational Foundation, Madras. *b.* Aug. 25, 1899; *Educ.:* Bedford High School and Westfield Coll., London; King's Coll., and Maria Grey Trg. Coll., London, 1924. Languages: Latin, French, Urdu, Hindi, Tamil and English; member: Senate, Univ. of Madras, 1930; Syndicate and Academic Council, Madras Univ., 1936-60; Leg. Council, Madras, 1937-52; Hon. Pres. Magistrate (J.P.) and Pres., Juvenile Court, since 1930; Vice-Pres., World's Y.W.C.A., 1934-47; travelled in Italy, Switzerland, France, the British, Isles, Canada, U.S.A., Mexico, China, Ceylon, Pakistan, Burma, Russia and throughout Europe, India, Australia, New Zealand; member, Rajya Sabha, 1952-56; Pres., Federation of Univ. Women in India, 1957-59; Delegate to the U.N. General Assembly, 1957; Principal, Ethiraj Coll. for Women, 1953-60. *Publications:* Articles of current interest. *Address:* 13, Victoria Crescent, Madras 8.

**HIDAYATULLAH, Mr. Justice M.,** B.A., (Nagpur), M.A. (Cantab.), Barrister-at-Law, O.B.E. (1946), Judge, Supreme Court of India, since Dec. 1, 1958. *b.* Dec. 17, 1905; *Educ.:* Govt. High School, Raipur (1922); Phillip's Scholar, Morris Coll., Nagpur (1926); Trinity Coll., Cambridge (1927-30), English and Law Tripos, Lincoln's Inn, Bar-at-Law (1930). Advocate, Nagpur High Court (1930-46); Advocate-General, Madhya Pradesh (1943-46); Puisne Judge (1946); member: Nagpur University Executive and Academic Councils Court, etc. (1934-53); Dean of the Faculty of Law, 1949-53; Chief Commissioner, Madhya Pradesh Bharat Scouts and Guides, 1950-53; awarded the highest award Silver Elephant (1950); member, Faculty of Law, Saugar Univ.; Univ. Court, Vikram Univ. and Aligarh Muslim Univ. (1954); Faculty of Law, Aligarh Muslim Univ.; Chief Justice, Nagpur High Court, 1954-56; M.P. High Court, 1956-58. *Publications:* Miscellaneous papers. *Address:* 2, Teen Murti Marg, New Delhi.

**HOMOUD, H. E. Mr. Kemal,** Diploma in International Affairs, London, Ambassador of Jordan in India, since Oct. 3, 1964. *b.* Dec. 26, 1920; *Educ.:* University College, Aly, Lebanon. Chief of Protocal, Royal Palace, 1951-54; Minister, Jordan Legation, Santiago De Chief; Ambassador of Jordan in Iran, 1962-63. *Address:* 154, Malcha Marg, Chanakyapuri, New Delhi-21.

**HUSAIN, Dr. Iqbal,** M.A., B.L., Ph.D., Persian Scholar. *b.* Nov. 22, 1905; *Educ.:* Patna and Law Colleges, Patna; Univ. Prizeman, Gold Medalist and Research Scholar. Was in Bihar Educational Service, 1935-60; Dean of Faculty of Arts, Patna Univ.; Principal, Patna Coll. and Prof. and Head of the Deptt. of Persian, Patna Univ., 1944-61. Member: Senate, Syndicate, Academic Council and Faculties of Arts and Law, Patna Univ.; examiner up to Ph.D. and D. Litt. of Indian Univs.; member: Bihar Madrasa Examination Board, 1938-44 and 1952-62; Governing Body, Madrasa-i-Shamsul Huda; Language expert of the Bihar Hindustani Cttee.; representative of Patna Univ. in the Indian Council of Cultural Relations, Govt. of India, 1953-61; member, Bihar Public Service Commission, 1961-65; All-India Oriental Conference; Governing Body of Govt. Urdu Library; Art Purchase Cttee., Govt. of India. *Publications: Tuhfa-i-Sami; The Early Persian Poets of India, and Selected Qasidas of Urfi.* *Address:* Exhibition Road, Patna 1.

**HUSAIN, Saiyid Ehtesham,** M.A. (Urdu), Gold Medalist, Urdu Critic; Professor in Urdu, Allahabad Univ., since Nov. 1961. *b.* July 11, 1912; *Educ.:* Wesley High School, Azamgarh (U.P.); Govt. Intermediate Coll., Allahabad; Allahabad Univ., Allahabad; took M.A. in Urdu, 1936. Appointed in the Persian and Urdu Deptt., Lucknow Univ., 1953; appointed Fellow of the Rockefeller Foundation (U.S.A.) to study 'Sociology & Literary Criticism' in U.S.A. & Europe, Sept. 1952—July 1953; member, Sahitya Akademi and Hindustani Academy, etc. *Publications: Viraney; Tangidi Jaeze; Ravayel Aur Baghawat; Adab Aur Samaj; Tanqid Aur Amali Tanqid; Zauq-e-Adab Aur Shaoor; Sahil aur Samundar; Urdu Sahitya Ka Itihas; Urdu Ki Kahani; Hindustani Lisaniyat Ka Khaka, Tangidi Nazariat; Aks aur Aaine; Afkor-o-Masael; Etbar-e-Nazar;* Translated the Japanese classic *Tale of Genji* by Lady Murasaki, *Kalki* by Dr. S. Radhakrishnan and Romain Rolland's (abridged) Ramakrishna & Vivekanand in Urdu. *Address:* Allahabad.

**HUSAIN, Dr. Zakir,** MA., Ph.D. (Berlin), D.Litt. honoris causa (Delhi, Calcutta, Allahabad, Aligarh and Cairo), Padma Vibhushan (1954), Bharat Ratna (1963), Vice-President of India, since 11th May, 1962; Chancellor, Univ. of Delhi since 1962. *b.* Feb. 8, 1897, at Hyderabad-Deccan; *Educ.:* Islamia High School, Etawah (U.P.); M.A.O. Coll., Aligarh; Univ. of Berlin. Vice-Chancellor, Jamia Millia, Delhi (1926–48); Pres., Hindustani Talimi Sangh, Sevagram, 1938–50; Vice-Chancellor, Aligarh Muslim Univ. (1948–56); Chairman: International Students Service, India Cttee. till 1955; World Univ. Service, Geneva, 1955–57; Central Board of Secondary Education till 1957; Basic National Education Cttee., 1937; Member: Univ. Grants Commission, till June 1957; Rajya Sabha, till 1957; Exec. Board, UNESCO, Paris, 1956–58; Univ. Educ. Commission, 1948–49; Indian Press Commission; Educational Reorganization Cttees. of Bihar, U.P. & M.P.; Patel Memorial Lectures on Principles of Educational Reconstruction in India (1958); Mavalankar Memorial Lecture on Ethics and the State (1960); Governor of Bihar, July 1957–May, 1962; visited U.A.R., Morocco, Algeria and Tunisia, July 1964; 22 days goodwill tour of Kuwait, Saudi Arabia, Jordan and Greece, May-June 1965; visited Moscow, Aug. 7, 1965. *Publications: Shiksha* (Hindi); *Capitalism: An Essay in Understanding;* translation into Urdu of Plato's *Republic*, Fr. List's *National System of Economics*, Edwin Cannan's *Elements of Economics;* Lectures on the scope and method of Economics (Hindustani Academy, U.P.); *Educational Discourses* (Urdu); *Dynamic University.* *Address:* No. 6, Maulana Azad Road, New Delhi.

**HUSSAIN, H.E. Mr. Arshad,** B.A. (Cantab), Bar-at-Law, High Commissioner for Pakistan in India, since Oct. 1963. *b.* Jan. 9, 1910; *Educ.:* Cambridge Univ. Advertising Consultant to the Government of India, 1943-47; after independence appointed Director, Deptt. of Films and Publications, Govt. of India; joined Pakistan Foreign Service, Jan. 1950; worked as Deputy Secy., Ministry of External Affairs; attended a course at the Imperial Defence Coll., London, 1952; acted as Counsellor-Charge d'Affairs of Pakistan in Belgium, 1954-56; Deputy High Commissioner in New Delhi with rank of a Minister, 1956-57; appointed Pakistan's Ambassador to Sweden and concurrently accredited to Norway, Denmark and Finland, 1959; Ambassador for Pakistan to U.S.S.R. and concurrently accredited to Czechoslovakia, Mongolia and Poland, 1961-63. *Address:* 8-B, Hardinge Avenue, New Delhi.

**IBRAHIM, Hafiz Mohd.,** B.A., LL.B., Ex-Governor of Punjab. *b.* 1889; *Educ.:* Aligarh Muslim Univ.; Univ. of Allahabad. Practiced as an Advocate at Nagina, Bijnor and Moradabad for over 21 years; elected member, U.P. Leg. Council, 1926 and joined Swaraj Party; worked for the organisation of Muslim Waqfs of U.P.; opposed the White Paper in 1933 and the Report of the Jt. Parliamentary Cttee. on Constitutional Reform in 1934; appointed Minister in the first Congress Cabinet of U.P., 1937; resigned Nov. 1939; sentenced to one year, 1940–41; detained, Aug. 1942; has fought vehemently for Hindu-Muslim unity and accord; one of the main founders, Muslim Majlis, 1943; convened All India Muslim Conference under the presidentship of Maulana Azad at Lucknow, which called upon the Muslims of the country to give up communal political organisations, 1947; Minister for Finance, Power, Industries, etc. U.P., 1937–39 and 1946–58; was Minister for Irrigation and Power, Govt. of India, April 1958–June 1963; was member, A.I.C.C., Working Cttee., Central Parliamentary Board and U.P. Congress Cttee. *Address:* C/o Raj Bhavan, Chandigarh.

**IMLONG, K. Akum,** Minister for Tuensang Affairs, Information, Publicity and Tourism, Nagaland, since Jan. 1964. *b.* March 1935, in Mokokchung; *Educ.:* Matriculation from Mokokchung Govt. High School, 1954; Intermediate Exam., 1956 from St. Paul's Coll., Calcutta, 1956; St. Stephen Coll., Delhi Univ., 1956-59; member, Working Cttee., Naga People's Convention; Circle Officer, Nagaland, 1960; resigned; elected member, Interim Body by Chang Tribe of Tuensang Dist., 1960;

elected as a member of the Exc. Council, Feb. 1961 ; re-elected to the Nagaland Legislative Assembly, Dec. 1963. *Address :* Kohima.

**INDORE, Her Highness Shrimant Saubhagyawati Maharani Indirabai Holkar.** *Educ.:* Privately. Takes keen interest in charitable institutions and is connected with Ahilya Sadan of Indore, Rajawade Historical Research Institute, Ramdas Research Institute of Dhulia, Maharashtra Sahitya Parishad, Vedic Research Society of Poona, Dharmakosha Karyalaya of Wai, All India History of Indian Philosophy, Village Uplift and the Red Cross Society; managed the Education, Medical, Charitable and Household Depts. of the State during 1923-24; Chairman, Reception Cttee., A.I.W.C. Silver Jubilee Session held at Poona, May 1953. *Address :* Shree Wasudeobag, Indore.

**IVALO, H. E. Mr. Asko,** Bach. of Law, Ambassador of Finland in India, since Sept. 1, 1964, (concurrently Bangkok, Colombo, Jakarta, Rangoon). *b.* June 24, 1901 ; *Educ.:* Helsinki Univ. Entered Finnish Foreign service, 1926; Attache, Secy., Counsellor, Legations, Tallinn, Stockholm, Moscow, Budapest (with Residence in Istanbul), Paris, 1927-41 ; Director, Political Affairs, Foreign Ministry, Helsinki, 1941-47 ; Minister : The Hague, 1947 ; Ankara, 1951 (Concurrently Teheran, Karachi); Rome, (Concurrently Cairo), 1954-59 ; Ambassador, Rome 1955, (Concurrently Minister, Tirana 1956-59, Tunis and Rabat 1959-61); Director, Adm. Affairs, Foreign Ministry, Helsinki, 1961 ; Acting Secy. General, 1964. *Address :* Embassy of Finland, New Delhi.

**IYA, Dr. Krishnaswamy Kilara,** Ph.D. (Wisconsin), A.I.I.Sc., I.D.D. (Hons.), Dairy Development Adviser to the Govt. of India, Min. of Food and Agriculture, since Jan. 7, 1965. *b.* June 26, 1920 ; *Educ.:* St. Xavier's Coll., Bombay; A.I.I.Sc., Indian Institute of Science, Bangalore ; Ph.d., Univ. of Wisconsin ; I.D.D. (Hons.), Imperial Dairy Institute, Bangalore ; B.Sc., (Microbiology). Organised bacteriological research laboratories, supervised research programmes on important bacteriological aspects of milk and milk products handling ; Founder-member and Vice-Pres., Indian Dairy Science Assoc.; member, Dairy Science Cttee. and other Scientific Cttees., I.C.A.R., I.C.A.E., I.S.I.; etc.; Official correspondent for Dairying, Commonwealth Agricultural Bureau ; Rotarian ; Govt. delegate, F.A.O. Conference on Hydrogen Peroxide, Interlaken, Switzerland, Sept. 1957; F.A.O. Conference on Animal Production, Bangkok, Thailand, Dec. 1961; FAO World Food Congress, Washington, July 1963 ; member, W.H.O. Expert Advisory Panel on Environmental Sanitation ; and F.A.O. Panel on Milk Hygiene ; Dir., National Dairy Research Institute, Karnal, 1957-65. *Publications :* Over 50 Scientific papers and 25 popular articles. *Address :* Krishi Bhavan, New Delhi.

**IYENGAR, Ariyakudi T. Ramanuja,** Sangita Ratnakara (1934), Sangita Kalanidhi (1938), Asthana Vidwan of Mysore Palace (1941), Gayakasikhamani (1947), President's award for Karnatic music (1952), Padma Bhushan (1957), Isai Peraringar (1960), etc., Musician. *b.* May 19, 1890 ; *Educ.:* Local school in Ariyakudi; studied lessons in music from Malayappa Aiyar of Pudukottai; gurukulavasa for two years under Mr. Namakkal Narasimha Iyengar in Srirangam and under Mr. Ramnad Srinivasa Iyengar for eight years. Has been giving concerts from his 20th year ; has trained many leading musicians like Dhanammal, B. Rajam Aiyar etc. ; has composed two tillanas in Bilahari and Kanada ragas ; has recorded about 30 songs ; has set to carnatic tunes the songs of Arunachala Ravi's Rama Natakam, Andal's Tirupavai, etc. *Publications:* Articles on music in leading journals in India. *Address :* Ramanuja Vilas, Tukkambalayam Street, Kumbakonam (Dist. Tanjore).

**IYENGAR, K. R. Srinivasa,** M.A., D.Litt., University Professor of English, Andhra Univ., Waltair, since June 1947 and President, Faculty of Arts. *b.* April 17, 1908 ; *Educ.:* Hindu College, Tirunelveli ; St. Xavier's College, Palamcottah. Taught in Ceylon (1928-31); Professor of English, Lingaraj College, Belgaum (1933-44); Vice-Principal, Basaveshvar College, Bagalkot (1944-47); Visiting Prof., Leeds Univ., 1959. *Publications: Lytton Strachey : A Critical Study,* 1938 ; *Indo-Anglian Literature,* 1943 ; *Literature and Authorship in India,* 1943 ; *Sri Aurobindo,* 1945 ; *The Indian Contribution to English Literature,* 1946 ; *A New Deal for Our Universities ; The Mind and Heart of Britain,* 1955 ; *Indian Writing in English* and *The Adventure of Criticism* (1962), *Francois Mauriac* (1964), *Shakespeare : His World & His Art* (1964), *Rabindranath Tagore* (1965), and other books. *Address :* University Campus, Uplands, Waltair.

**IYER, Mr. Justice Arni Ramaswami Somnath,** B.A., LL.B., Judge, High Court of Mysore, since July 11, 1957. *b.* Dec. 30, 1907 ; *Educ. :* Central Coll., Bangalore ; Law Coll., Poona. Enrolled as an Advocate, Feb. 3, 1930 ; also Advocate, Supreme Court ; Advocate General, 1950-53. *Address :* 'Annapurna', High Grounds, Bangalore 1.

**IYER, K. N. Chinnaswamy,** Sangeetha Kalanidhi (1960), Sangeetha Natak Akademi Award (1964), Violinist. *b.* 1882 at Karur, of a family of distinguished violinists ; *Educ. :* trained by his father in his earlier years and later by his brother Vidwan Devudu Iyer. Has given solo recitals and accompanied leading vocalists in India and abroad ; has presented Indian music to audiences in Malaya, Burma and Ceylon ; was honoured by the Maharaja of Mysore, 1904 ; awarded the titles of 'Ghanarva' and 'Sangeetha Kalanidhi'. *Address :* Karur.

**IYER, Maharajapuram Viswanatha,** Sangeetha Bhupathi (1939), Sangeetha Kalanidhi (1945), a leading musician and vidwan in carnatic music. *b.* Sept. 15, 1896 in Maharajapuram, Tanjore Dist. ; *Educ. :* had training under the great music Vidwan Umayalpuram Swaminatha Iyer ; received training in the 'Laya' aspect of music from the Mridanga Vidwan Sri Rangappa Iyer of Palni. Gave his maiden public performance in Kodavasal temple, near Kumbakonam, 1909 ; is a master in Kshetrakgna Padams, Ganam Krishna Iyer's Padams, Purandaradasa's compositions, etc. ; has given a number of performances throughout the country ; is good at abhinaya. *Address :* Police Quarters Road, Usman Road Bus Terminus, T. Nagar, Madras 17.

**IYER, Mudikondan C. Venkatarama,** President's Award (1961), Karnatic Musician ; Principal, Teachers' Coll. of Music, Madras. Began career as a vocal musician ; honoured by Mysore and Travancore Maharajas ; was conferred the titles of Ganasagara, Gayaka Vidwat Sekhara at Masulipatam, Sangita Chandroday by Udipi Swamiji and Sangita Kalanidhi by the Madras Music Academy (1949) ; regularly reviews books on Music ; was member, Board of Studies in Music and Examiner in Madras, Annamalai and Delhi Univs. for many years ; is a leading exponent of Ragam, Tanam, Pallavi and Swara singing. *Publications : Maha Bharata Chudamani,* 4th part on Music ; contributes articles to souvenirs, journals, etc. *Address :* Principal, The Teachers' College of Music, Music Academy, Mowbray's Road, Madras 14 ; Mudikondan, S.O. Tanjore District.

**IYER, Sangeetha Kalanidhi Musiri Subrahmania,** Carnatic Musician ; Principal, Central Coll. of Karnataka Music, Madras. *b.* 1899 in Musiri, Tiruchi Dist. ; *Educ. :* Took initiation in Carnatic music from the late Vidwan Sabesa Iyer. Settled in Madras, 1919 ; recorded a dozen songs, 1932 ; is an authority on Thyagaraja compositions ; has a distinct style and originality of his own, popularly known as the "Musiri style" ; acted the title role in the film 'Tukaram' ; Pres., annual conference of the Madras Music Academy, 1939 ; won the President's award for the best Carnatic musician (vocal) for 1957 ; is a leading exponent of the Karnata Sampradaya Sangeetha in India and one of the prominent living masters of Sasthreeya Sangeetha in South India. *Address :* 18, Oliver Road, Mylapore, Madras.

**JABBI, Gurbachan Singh,** A.I.S.M. (Min. Eng.), F.C.C. (Coal), (Met.), M.M.G.I., Chief Inspector of Mines, Govt. of India, since April 1961 ; Chairman, National Council for Safety in Mines, since Aug. 1963. *b.* May 19, 1908 ; *Educ. :* Forman Christian Coll., Lahore ; Indian School of Mines, Dhanbad. Joined Department of Mines, 1937 ; Deputy Chief Inspector of Mines, 1954-58 ; Addl. Chief Inspector of Mines, 1958-61 ; Pres., Coal Mines Rescue Stations Cttee., 1950-51 and 1954-58 ; T.C.M. Fellow to the U.S.A., 1951-52 ; member, First Govt. of India UNTAA Team of Engineers to U.S.S.R., 1955 ; visited France and the U.K. to study their mining methods, 1962 and Poland, Hungary and France, 1963 ; Chairman : Mine Safety Education Cttee., 1960 ; Mine Safety Equipment Cttee., 1960-61 ; Cttee. on Vocational Training of Mine Entrants, 1961 ; Chairman : Boards of (Coal and Met.) Mining Exams, since 1961 ; Pres., Mining, Geological and Metallurgical Institute of India, 1961–62 ; awarded Dewan Bahadur D. D. Thacker Gold Medal for 1962. *Address :* Hirapur House, Dhanbad.

**JACKSON, Richard Owen,** General Manager of Burmah-Shell Marketing Co. and Acting Chief Representative of Burmah-Shell Companies in India, since January 1966. *b.* Sept. 26, 1925 ; *Educ.:* Southend-on-Sea High School, Essex ; Queen's Coll., Cambridge. Served with R.A.F.V.R. in England and Egypt, April 1944-Sept. 1947 ; joined Burmah-Shell, Sept. 1949 ; held various positions in Burmah-Shell before taking an appointment in Shell International Petroleum Co., London, in 1962 as Head of Hong Kong, China, Thailand, Vietnam, Cambodia and Laos Division in the organisation of the Area Co-ordinator Oil, Far East ; Managing Director and Chairman, Shell Ghana Ltd., Feb. 1964–Jan. 1966. *Address :* 1-A, Altamount Road, Cumballa Hill, Bombay-26.

**JADHAV, Mrs. Mary Clubwala,** A.T.C.L., Padma Shri (Jan. 26, 1955), M.L.C., J.P., Social Worker. *b.* June 10, 1908, at Wellington, Nilgiris ; *Educ. :* Nazareth Convent, Ootacamund. Founder, Hon. Secy. : Madras School of Social Work ; Seva Samajam Boys' and Girls' Institution ; Girls' Trg. Institution and Vocational Centre ; Indian Hospitality Cttee. ; Vice-Pres., Madras Parsi Anjuman ; Chief Commissioner, Guides, 1957-60 ; is Pres., Indian Conference of Social Work ; first woman Sheriff of Madras, 1956-57 ; Vice-Pres. & Chairman, Guild of Service ; member : Central Social Welfare Board ; Exec. Cttee., T. B. Assn. of India ; Permanent Cttee. of the International Conference of Social Work ; After Care Cttee. of the Central Social Welfare Board, etc. ; Life Member : Indian Council for Child Welfare, New Delhi ; Indian Conference of Social work ; Chairman : After Care Home for Males ; Amenities to Troop Relief Fund Cttee., Madras State and Pondicherry ; Sea Cadet Corps, Madras ; Working Group on Social Welfare (Fourth Plan) ; travelled widely in India, U.S.A., Canada, Australia, Thailand, Burma, Japan, Greece, Finland, Sweden, Egypt, Russia, Switzerland & West Germany ; has collected over Rs. two crores for charity. *Publications*. Several articles on organizations and persons in India and abroad in connection with Children's work. *Address :* "Philroy", Nungambakkam High Road, Madras 34.

**JAGANNATHAN, K. V.,** M.A., Vidwan, Vagheesa Kalanidi, Sentamil Selvar, Tamil Kavi Bhushanam Tamil Perum Pulavar, Upanyasa Kesari etc., Tamil Essayist and short story writer; Editor, *Kalaimagal*; Vice-Pres., All-India Tamil Writers' Assocn. *b.* April 11, 1906; *Educ.*: Kulitalai and Madras. Member: Sahitya Akademi, Tamil Research Council, Tamil Academy and Gandhi Works Publishing Sangh; Adv. Cttee. for the preparation of legal terms in Tamil; Children's Film Society; Pres., Tamil Writers' Co-operative Society, etc. *Publications*: Nine Volumes of short stories in Tamil; several volumes of literary essays and research, a collection of poems, altogether 130 books in Tamil. *Address*: Kaanta Malai, Kalyananagar, Madras 28.

**JAGDISH SAHAI, Mr. Justice,** M.A., LL.B., Judge, High Court, Allahabad, since May 6, 1957. *b.* May 19, 1909; *Educ.*: Theosophical National School; Banaras Hindu Univ., Banaras; B.A. in 1929; LL.B. in 1931 and M.A. in 1932 from the Allahabad Univ. Started practice in Shahjahanpur, 1933; shifted practice to Allahabad High Court, Dec. 1945. *Address*: 33, Thorn Hill Road, Allahabad.

**JAGTAP, Dhondiram Shidoji,** B.A., LL.B., Deputy Minister for Urban and Rural Development and Legislative Affairs, Maharashtra, since Nov. 1962. *b.* 1921, at Karad; *Educ.*: New English School, Satara; Baroda Coll., Baroda; Rajaram Coll., Kolhapur; Sykes Coll., Kolhapur. Set up legal practice at Karad; left it to take up social work; Pres., Satara Dist. Local Board, 1952-57; was Vice-Chairman, Dist. Devpt. Board, Satara; was member: Rural Advisory Cttee., A.I.R., Poona; Employment Exchange Cttee., Poona, for five years; elected member, Poona Univ. Court, 1953-58; Chairman, Dist. School Board, Satara and Shri Shivaji Education Society, Karad; member: Regional Transport Authority, 1952-59; Divl. Advisory Cttee., State Transport, Poona Divn. for five years; Maharashtra State Road Transport Corporation for 3–4 years; elected M.L.A., Maharashtra from Satara, 1962; Chief Whip, Maharashtra State Leg. Congress Party. *Address*: Palm Court, Block No. 3, First Floor, New Queen's Road, Bombay 1.

**JAIN, Ajit Prasad,** M.A., LL.B., Ex-Governor of Kerala. *b.* 1902, *Educ.*: Lucknow Univ. Advocate; Chairman: Rural Urban Relationship Cttee.; Board of Management, U.P. Agricultural Univ., 1960–64; Leader, Plan Projects Agricultural Team; member: Constituent Assembly of India 1946-50; A.I.C.C. continuously for many years; Minister for Relief and Rehabilitation, Union Govt., 1950-54; Minister for Food and Agriculture, Union Govt., 1954-59: Pres., U.P.C.C., 1961-64; Governor of Kerala, April 1965-Feb. 1966. *Publications*: *U. P. Agrarian Laws*; *Rafi Ahmad Kidwai—Memoirs of His Life and Times*, several contributions to publications on current subjects. *Address*: 5, Rafi Marg, New Delhi.

**JAIN, Lakshmi Chandra,** B.Sc., I.C.S., Secretary to the Government of India, Deptt. of Communications, since Oct. 1963 and Director-General, Posts and Telegraphs and Chairman, P. & T. Board, since Nov. 1962. *b.* June 30, 1910; *Educ.*: Christ Church Coll., Kanpur; Allahabad Univ.; School of Oriental Studies, London. After serving in various capacities at Aligarh, Lalitpur, Nainital, etc. appointed Chief Secy., Hyderabad, Oct. 23, 1948; Chief Labour Commissioner, Ministry of Labour, 1951; Director-General of Resettlement and Employment and Ex-officio Jt. Secy., Min. of Labour and also Labour Commissioner, 1952; D.G., Civil Aviation, Min. of Transport and Communications, 1953; Offg. Commissioner, Meerut Division, 1958-61; Chief Secy., U.P., 1961-62. *Address*: 15, Tughlak Road, New Delhi.

**JAIN, Sahu Shriyans Prasad,** Industrialist; ex-M.P. (Rajya Sabha), 1952–58. *b.* 1908 in the Sahu family of Najibabad—(Ganesh Sadan), renowned for its traditional liberality and public service; has rendered invaluable services to the people of his town and district; has given large sums in charity and takes keen interest in all matters of social reform and public enlightenment; has done pioneering work in the field of girls' education, Seva Samitis and public libraries for the welfare of his district in particular and the State in general: President, Education Committee of the District Board, Bijnor; and Vice-Chairman, Municipal Board, Najibabad, for many years; has outstanding executive ability and a knack for big business; Chairman: Dhrangadhra Chemical Works Ltd.; Director: Carona Sahu Co. Ltd.; The Dawn Mills Co., Ltd.; Podar Mills Ltd.; Bajaj Electricals Ltd.; The New Swadeshi Mills of Ahmedabad Ltd.; The Amitabh Textile Mills Ltd.; Sahu Rubber Private Ltd.; The Premier Automobiles Ltd.; The Gwalior Rayon Silk Manufacturing (Wvg.) Co., Ltd.; Bombay Oxygen Corporation Ltd.; Indequip Engineering Ltd.; The Simplex Mills Co. Ltd.; Ex-President: Alkali Manufacturers Association of India, Federation of Indian Chambers of Commerce & Industry; All India Digamber Jain Parishad; Bharat Jain Mahamandal; Pres. for two years of Afro-Asian Econ. Conference and presided over the Conference held at Karachi in Dec. 1962; member: Indian Industrial Delegation to the U.S.A., the U.K. and the Continent, sponsored by F.I.C.C.I. 1957; Bombay Telephone Advisory Cttee.; Indian Merchants' Chamber, Bombay; Assoc. of Indian Trade & Industry, Bombay. *Address*: "Shikharkunj," 29-A, Carmichael Road, Cumballa Hill, Bombay.

**JAIN, Shanti Prasad,** B.Sc., Industrialist. *b.* 1912 at Najibabad, Dt. Bijnor, U.P.; *Educ.*: Banaras Hindu Univ. and Agra Univ. Has 25 years' close association with and knowledge of working and management of inportant industries like Cement, Sugar, Jute, Paper, Coal, Chemicals, Fertilisers, Vanaspati, Asbestos Cement Sheets, Cycles, Plywood, Light Railway, Newspapers and Periodicals and controls a chain of industries situated in Bihar, U.P., Rajasthan, West Bengal and Kashmir; a keen student of Economics and Finance and deeply interested in statistical studies; strives for and believes in all-round industrial development through Indian enterprise for improvement in the people's standard of living; visited the Dutch East Indies (1936), Australia (1945) and U.S.S.R. (1954) as member, Indian Trade and Industrial Delegations; also visited the European countries, U.S.A., Canada, Japan, Norway, Sweden, etc.; Chairman and Director: Sahu Jain Ltd., Rohtas Industries Ltd., The Jaipur Udyog Ltd., President: Bihar Industries Assoc., Patna; Shri Ahimsa Prachar Samity, Calcutta; Ex-Pres.: Federation of Indian Chambers of Commerce and Industry, New Delhi; All-India Organisation of Industrial Employers, New Delhi; Indian Chamber of Commerce, Calcutta; Bihar Chamber of Commerce, Patna; Indian Sugar Mills Assoc., Calcutta; Indian Paper Mills Assoc., Calcutta; Rajasthan Chamber of Commerce & Industry, Jaipur; Eastern U.P. Chamber of Commerce & Industry, Allahabad; Employers Assocn., Calcutta; Chairman-Trustee: Gobind Ballabh Pant Bhawan Trust, Calcutta; Rajendra Chhatrabas Samity, Calcutta; Trustee: Sahu Jain Trust; Founder Trustee, Bharatiya Gyan Peeth (Academy), Varanasi. *Address*: 11, Clive Row, Calcutta.

**JAIN, Surendra Kumar,** B.A. (Hons.), M.A. (Econ.), LL.M., Director, International Labour Office (I.L.O.), Asian Field Office, Colombo. *b.* Dec. 22, 1922; *Educ.*: Govt. Coll., Lahore; Univ. of Lucknow. Lecturer in Law, Univ. of Delhi (1945–46); joined permanent staff of International Labour Office, Geneva (1946); member, Cooperative Section (1946-49); Secy., I.L.O., Indian Branch (1949–51); member, I.L.O. Mission to Far East (1948–49); member, Technical Assistance Division (1951–56); Chief of Director General's Cabinet (1957-58); Dir., I.L.O. Middle East Office, Istanbul (1959-62); numerous missions to countries of Asia and the Near and Middle East to plan, negotiate and inspect I.L.O. technical assistance projects; Secy. to a number of I.L.O. Cttees.; represented I.L.O. at various national and international conferences. *Publications*: Contributions to the *International Labour Review* and other publications and periodicals. *Address*: 9, Horton Place, Colombo (Ceylon); I.L.O., New Delhi or Geneva.

**JAIN, Takhatmal** (*See under* **Jalori, Takhatmal**).

**JALAN, Iswar Das,** M.A., B.L., Attorney-at-Law, Minister for Judicial, Legislative and Excise, West Bengal, since 1962. *b.* 1895; *Educ.*: Muzaffarpur and Calcutta. Solicitor; Councillor, Calcutta Corporation, 1927–30; member: Bengal Legislative Assembly, 1938–47; West Bengal Legislative Assembly, since 1947; Speaker, West Bengal Legislative Assembly, 1947–52; Minister for Law, Constitution and Election Branch of Home Departments 1952–62. *Address*: 47, Zakaria Street, Calcutta 7.

**JALAN, Nandkishore,** Industrialist. *b.* March 8, 1921. *Educ.*: Privately. Entered business at the early age of 18; Partner, Soorajmull Nagarmull; looks after the management of the Bengal Jute Mill Co., Ltd.; Naskarpara Jute Mills Co. Ltd.; The Elphinstone Spg. & Wvg. Mills Co., Ltd., and the Bombay Gas Co., Ltd.; Member: Port Export Promotion Advisory Cttee.; Exec. Cttee., The Coal Consumers' Assocn. of India; Bengal National Chamber of Commerce & Industry; Rajasthan Chamber of Commerce & Industries, Jaipur; Indian Central Jute Cttee.; Chairman, Calcutta Jute Fabric Shippers' Assocn. (1956–58); Trustee, The Howrah Improvement Trust (1957–60); Cttee. Member: Indian Chambers of Commerce (1955); Indian Jute Mills Assn. (1954–61); Pres., Indian Society for Quality Control; Director: The Elphinstone Spg. & Wvg. Mills Co., Ltd.; Bombay Gas Co., Ltd.; J. K. Chemicals; The Ganges Manufacturing Co., Ltd.; Shahjahanpur Electric Supply Co., Ltd.; Bengal Jute Mill Co., Ltd.; W. H. Harton & Co. Ltd.; The New Great Eastern Spg. & Wvg. Co. Ltd.; Life Member, Indian Red Cross Society. *Address*: Soorajmull Nagarmull, 8, Dalhousie Square East, Calcutta 1.

**JALORI, Takhatmal,** Ex-Minister for Planning, Development, Irrigation and Power, Madhya Pradesh. *b.* 1895, at Basoda. Practised at the State Bar, 1913–43; member, Working Cttee., Gwalior State Congress, 1939; Convener, first meeting of Public Workers of Gwalior State, which resulted in the formation of State Congress; the first non-official Minister for Rural Welfare and Local Self-Govt., Gwalior State; resigned, 1942; again appointed Minister as Congress nominee, 1947; Founder, Trustee, Chairman or Vice-Chairman of several educational institutions; was Finance Minister in the Responsible Govt. in Gwalior State, 1948 and later in Madhya Bharat State, 1948; Chairman: Transport Nationalisation Cttee., Madhya Bharat, 1949; Harijan Disabilities Enquiry Cttee.; Chief Minister, M.B., 1950-52 and April 1955-Oct. 1956; Pres., Madhya Bharat P.C.C., 1953; Chairman: M.B. Land Reforms Cttee., 1954; Commerce, Industries & Agriculture Minister, M.P., Nov. 1, 1956–Aug. 1958; General Secretary, A.I.C.C., New Delhi, 1958–60. *Address*: 1, Char Bungalow, Bhopal (M.P.).

**JAMBUNATHAN, M. R.,** Tamil writer. *b.* Aug. 23, 1896; *Educ.*: Madras. Editor of Vedas and Upanishads in Tamil; Short Story Writer,

biographer, translator, Indologist, and research worker. *Publications : Life and Teachings of Mazzini ; A. B. C. of Vedas ;* Translation of *Sama, Yajur and Atharva Vedas. Address :* Radha Niwas, 375, First Road, Khar, Bombay-52.

**JAMIR, R. C. Chitten,** M.A., L.L.B., L.S.G.D., Minister for Agriculture, Law, etc., Nagaland, since Jan. 1964. *b.* in Mokokchung Dist., Feb. 1926 ; *Educ. :* Matriculation from Mokokchung High School, 1948 and Intermediate from Gauhati, 1950 ; M.A., LL.B. from Allahabad Univ., 1951-57. Active in Political field since 1946 in student movement ; joined Naga National Council, 1946 ; broke way from Phizo on use of violence ; participated in first conference of Naga People's Convention, 1957, elected member, Select Cttee. of the Conference ; visited Delhi as member, N.P.C. delegation, 1957 ; elected member, Exec. of N.P.C. (Naga People's Convention), 1959 ; member of Naga delegation to New Delhi, 1959 ; elected to the Interim Body, 1960 ; Member, Executive Council, Naga Interim Body 1961–63 ; returned uncontested in the Gen. Election to Nagaland Leg. Assembly, 1963. *Address :* Kohima ; Mokokchung, Nagaland.

**JAMIR, S. Chubatoshi,** B.A., LL.B., Parliamentary Secretary to the Ministry of External Affairs. *b.* Oct. 17, 1931 ; *Educ. :* Univ. of Allahabad. Secretary, S.C.M., 1957 ; Pres., S.C.M., at Allahabad, 1958 ; Secy., Naga People's Convention which made settlement with the Govt. of India for the creation of Nagaland State ; member : Negotiating Body, N.P.C. ; Interim Body, Nagaland, 1961 ; Chairman, Boundary Commission for Nagaland ; elected to the Lok Sabha from Nagaland, 1962 ; member, Indian delegation to the 17th session of the U.N. *Address :* Mokokchung, Nagaland ; Ministry of External Affairs, New Delhi.

**JAMMU and KASHMIR, Maharaja Karan Singh, Maharaja of** (*See under Karan Singh, Maharaja*).

**JATTI, B. D.,** B.A., LL.B., Minister for Food Mysore State, since June 7, 1965. *b.* Sept. 10, 1912, at Savalgi, Jamkhandi Taluka, Bijapur Dist. ; *Educ. :* Bijapur Govt. High School ; Rajaram Coll., Kolhapur ; Sykes Law Coll., Kolhapur. Practised as a pleader at Jamkhandi for five years ; elected member, Jamkhandi State Legislature ; was appointed Minister, Jamkhandi State under the diarchy Govt. ; became its Chief Minister ; reverted to legal practice March 8, 1948 ; nominated M.L.A., Bombay to represent the merged areas ; appointed Parliamentary Secy. to Mr. B. G. Kher, then Chief Minister of Bombay ; appointed Dy. Minister for Health and Labour, Bombay, 1952 ; became M.L.A., Mysore after the reorganisation of States ; appointed Chairman, Land Reforms Cttee. ; Chief Minister, Mysore State, 1958–62 ; re-elected to the Leg. Assembly from Jamkhandi constituency, 1962 ; Min. for Fin., July 1962-June 1965. *Address :* Bangalore.

**JAYKRISHNA Harivallabhdas,** Millowner and business man ; Chairman : Gujarat State Fertilizer Co. Ltd. ; Shri Ambica Mills Ltd. ; S. L. M. Manekial Industries Ltd. ; Shri Ambica Tubes Ltd. *b.* Oct. 31, 1919 ; *Educ. :* Calcutta and Ahmedabad. Joined his father's business early in life, 1936 ; on the demise of his father, took over management of Shri Ambica Mills Ltd. ; Director : New India Industries Ltd. ; Vulcan Insurance Co., Ltd., Central Bank of India Ltd. ; elected, M.L.A., Bombay from Ahmedabad City on Congress ticket in the General Elections, 1952 ; made liberal donations of about Rs. 20,00,000 on behalf of him and the concerns managed by him, to Ahmedabad Education Society, Gujarat Univ. and other similar institutions ; has made extensive tour of foreign countries to acquaint himself with industrial development there ; attended the I.L.O. Conference at Geneva as Employers' Representative on behalf of the Govt. of India ; Pres. : Gujarat Chamber of Commerce, 1961–62 ; Ahmedabad Mill Owners Assoc., 1956–57 ; 1960–61 ; member : Advisory Board of the Industries Development of Gujarat State ; Western India Automobile Assoc. ; elected Mayor, Ahmedabad, May 1961 and later consecutively for four years. *Address :* Shahibag, Ahmedabad 4.

**JEJEEBHOY, Sir Jamsetjee** (Bart.), B.A. (Cantab), J.P., Business man. *b.* May 10, 1909 ; *Educ. :* Cathedral and John Connon High School, Bombay ; Gonville and Caius Coll., Cambridge. Is the 6th Baronet ; Director : Bombay Dyeing & Mfg. Co. Ltd., the Central Bank of India Ltd., and several joint stock companies ; Chairman : Sir J. J. P. B. Institution, N. M. Wadia Charities, Bombay Pinjrapole ; Member : Bombay Municipal Corporation 1934-35 ; Trustee, Willingdon Sports Club, Bombay ; Rotarian and first Pres., Progressive Group, Bombay, 1936-39. *Address :* Sett Minar, Pedder Road, Bombay 26.

**JHA, Aditya Nath,** B.A. (Hons.) M.A., LLB., I.C.S., Chief Commissioner, Delhi. *b.* Aug. 18, 1911 ; *Educ. :* Allahabad and Oxford. Joined the I.C.S. in 1936 at Faizabad, U.P. ; worked in the Foreign and Political Deptt. of the Govt. of India 1939-42 ; worked in different capacities as Secy : Agriculture, Irrigation, Planning ; Food Production Commissioner, Development Commissioner, in U.P. till 1954 ; Chief Secy., Govt. of U.P., 1954-58 ; Vice-Chancellor, Sanskrit Univ., Varanasi, 1958-60 ; Director, National Academy of Administration, Mussoorie, 1959-62 ; Secy. Planning Commission, 1962-63 ; Secy., Deptt. of Defence Production, Govt. of India, 1963-64 ; Secy., I. & B., Govt. of India, 1964-66. *Address :* Maya, George Town, Allahabad (U.P.) ; New Delhi.

**JHA, Bhola Nath,** M.A., I.C.S., C.I.E. (1946), Chairman, Union Public Service Commission, since Dec. 11, 1961. *b.* Feb. 1902 ; *Educ. :* Muir Central Coll. and the Univ. of Allahabad. Passed I.C.S., 1924 ; I.C.S. probationer at Exeter Coll., Oxford, 1924-26 ; Assistant, Joint, and District Magistrate in U.P. Districts, 1926-36 ; Secy., U.P. Board of Revenue, 1937-38 ; Deputy Secy., Agriculture, Industries, 1939-41 ; Revenue Secy., 1942-46 ; Development Commissioner, 1946-March 1947 ; Chief Secy., U.P., March 1947-June 1949 ; Senior Adviser, Rajasthan, 1949-51 ; Chief Secy., U.P., 1951-53 ; Secy., Ministry of Communications, Govt. of India, March 1953-Jan. 1958 ; Secy., Min. of Home Affairs, Govt. of India, 1958-60 ; Secy. to the Cabinet and Secy., Planning Commission, Govt. of India, 1960-61 ; Secy., Min. of Home Affairs, Govt. of India, March-Nov. 1961. *Address :* Union Public Service Commission, Dholpur House, New Delhi.

**JHA, Binodanand,** Ex-Chief Minister, Bihar, *b.* 1900 ; *Educ. :* Calcutta. Entered freedom movement, 1917 ; jailed five times during his political activities ; elected Commissioner, Deoghar Municipality ; elected M.L.A., Bihar, 1936 ; Parliamentary Secy., 1937–39 ; Minister, for L.S.G. and Public Health, Bihar, 1946 ; presided over the Agricultural Engineering Cttee. and Unemployment Enquiry Cttee. ; Leader, Indian delegation to the 44th Session of the I.L.O., 1960 ; nominated member, All-India National Integration Cttee. ; Revenue Minister, Bihar till he was elected leader of the Bihar Legislature Congress Party, Feb. 8, 1961 ; Chief Min., Bihar, 1961–63 ; resigned under the "Kamaraj Plan", Aug. 1963 ; has been taking active interest in trade union movement. *Address :* Patna.

**JHA, Chandra Shekhar,** O.B.E., I.C.S., Foreign Secretary, Govt. of India, since Feb. 1965. *b.* 1909 ; *Educ. :* M.Sc. and LL.B., Patna Univ., School of Oriental Studies, London. Joined the I.C.S., 1933 ; Secy., Supply and Transport Deptt., Govt. of Orissa, 1943-46 ; Dy. Secy., Govt. of India, Commonwealth Relations Deptt,. March 1946-May 1947 ; appointed Jt. Secy., Ministry of External Affairs, May 1947 ; Charge d'Affaires, Embassy of India, Ankara, 1950-51 ; appointed Ambassador of India to Turkey, Oct. 1951 ; member, Indian Delegations to the U.N. General Assembly, 1946-49 ; Jt. Secy., Ministry of External Affairs, May 1954 ; member, Indian Delegation to the Asia-African Conference in Bandung, 1955 ; and the first Suez Conference in London, 1956 ; Ambassador of India to Japan, May 1957-Jan. 1959 ; Chairman : Human Rights Commission, 1961-62 ; U.N. Cttee. of Contributions, 1960-62 ; U.N. Spl. Cttee. on the ending of Colonialism, 1962 ; permanent Representative for India in U.N., 1959-62 ; Indian High Commissioner in Canada, 1962–63 ; Commonwealth Secy., Govt. of India, 1964–65. *Address :* Ministry of External Affairs, New Delhi.

**JHA, Lakshmi Kant,** B.A. (Cantab.), I.C.S., M.B.E. (1946), Secretary to the Prime Minister, since July 14, 1964. *b.* Nov. 22, 1913 ; *Educ. :* Hindu Univ., Banaras and Trinity College, Cambridge. Deputy Secy., Govt. of India Supply Department, 1942-46 ; Chief Controller of Imports and Exports, 1947-50 ; Chairman of the Contracting Parties to the General Agreement on Tariffs and Trade, 1957-58 ; Chairman, U.N. Interim Cttee. for Co-ordination of International Commodity Arrangements, 1959-61 ; Joint Secy., Ministry of Commerce and Industry, 1950-56 ; Secy., Ministry of Heavy Industries, 1956-57 ; Addl. Secy., Ministry of Commerce & Industry, 1957–60 ; Secretary, Dept. of Economic Affairs, Ministry of Finance, Govt. of India, 1960–64. *Publications : India's Foreign Trade,* Parts I & II. *Address :* 36, Aurangzeb Road, New Delhi.

**JHALA, Harshadray Ishverlal,** M.D. (Bom.), F.C.P.S. (Bom.), D.T.M. (Cal.), F.A.M.S., Director, Haffkine Institute, Bombay, since 1957. *b.* Jan. 13, 1919 ; *Educ. :* Baroda High School ; B. J. Medical School, Ahmedabad ; Madras Medical Coll. ; School of Tropical Medicine, Calcutta ; Grant Medical Coll., Bombay ; M.D. (Bom.), 1947 ; F.C.P.S. (Bom.), 1945 ; D.T.M. (Cal.), 1941. Started as tutor in Bacteriology, B. J. Medical School, Ahmedabad, 1941 ; Clinical Pathologist, Grant Medical Coll., 1944 ; Asstt. Prof. of Pathology, 1946 ; Professor of Pathology : B. J. Medical Coll., Ahmedabad, 1948–51 ; Grant Medical Coll., Bombay, 1951–57. *Publications :* Several contributions in scientific journals. *Address :* Haffkine Institute, Bombay 12.

**JHAVERI, Mansukhlal Maganlal,** M.A., Gujarati Poet and Critic ; Ex-Principal, Navyug Arts & Commerce Coll., Porbandar. *b.* Oct. 3, 1907, at Jamnagar, Saurashtra ; *Educ. :* Nawanagar High School, Jamnagar ; St. Xavier's Coll., Bombay ; Samaldas Coll., Bhavnagar ; Fellow, Univ. of Bombay, 1949-59. Member : A. C., since 1954 ; Board of studies in Gujarati of the Univs. of Bombay, Poona, S.N.D.T., Baroda and Gujarat ; member : Advisory Board, for Gujarati and Gen. Council, Sahitya Akademi, New Delhi ; Producer, Spoken Word, Gujarati, A.I.R., Bombay, 1956-59. *Publications :* Poems : *Chandradoot ; Phool Dol ; Aradhana ; Abhisar ; Anubhooti ; Kavyaushama ;* Criticism : *Thoda Vivechan Lekho ; Paryeshna Kavyavimarsha ;* Literary History ; *Gujarati Sahityanun Rekha Darshan ;* Translations : *Abhijnana Sakuntala* from Sanskrit ; *India Today and Tomorrow* from English. *Address :* 1/7, Samant Block, Cama Road, Andheri, Bombay 58.

**JOHNSON, Leslie James,** M.A. (Punjab), I.C.S., Additional Secretary, Deptt. of Rehabilitation, Govt. of India, since May 17, 1965. *b.* Sept., 8, 1914 ; *Educ. :* St. Fidelis' School, St. George's Coll., Mussoorie, U.P. ; Govt. Coll., Lahore. Joined the I.C.S., Sept. 8, 1939 ; did I.C.S. probation at New Coll., Oxford ; Asstt. Commissioner, Banaras, 1939 ; Jt. Magistrate, Agra, 1940–42 ; Asstt. Commissioner and Jt. Magistrate, Ranikhet, 1942–45 ; Town Rationing Officer and A.D.M., Kanpur, 1945, 1947 ; Regional Food Controller,

1947-48; Dt. Magistrate, Banda, 1948-50; Director of Civil Supplies, Delhi, 1950-52; Chief Secretary, Delhi State, 1952-54; Dy. Secy., Ministry of Rehabilitation, 1954-55; Chief Settlement Commissioner and Joint Secretary, Govt. of India, 1955–59; Chief Administrator, Dandakaranya Project, Dec. 1959–June 1964; Dir-Genl. of Relief, Min. of Rehabilitation, 1964-65. *Address:* Jaisalmer House, Man Singh Road, New Delhi.

**JONES, Wilson Lionel Garton,** Padma Shri (1965), leading Billiards Player, since 1950. *b.* May 2, 1922; *Educ.:* Bishop's High School and St. Vincent's High School, Poona. Munition Factory, Kirkee, 1939-46; Mazagon Dock, Bombay, 1947-50; National Billiards Champion of India, 1950-52, 1955, 1957, 1960, 1961, 1963-65; National Snooker Champion of India, 1948, 1952, 1954, 1958, 1960; represented India in World Billiard Championships, 1951, 1952, 1954, 1958, 1960, 1962, 1964 and World Snooker Championships in 1963; World Billiards Champion (Calcutta) 1958, (Auckland) 1964; Arjuna Award, 1963. *Address:* No. 2, Wallace Flour Mills Co., Ltd., Sleater Road, Bombay.

**JOSHI, Dr. Amar Chand,** D.Sc., F.N.I., Adviser, Planning Commission, since July 1965; Vice-Chancellor Emeritus, Punjab University, since July 1965. *b.* Sept. 18, 1908. *Educ.:* Lahore. Professor of Botany, Banaras Hindu Univ., 1931-45; Prof. of Botany, Govt. Coll., Lahore, 1945-47; Prof. of Botany, Govt. Coll., Hoshiarpur, 1947-51; Principal, Govt. Training Coll. for Teachers, Jullundur, 1951-53; Director of Public Instruction and Secy. to the Govt., Punjab, 1953-57; Vice-Chancellor, Kurukshetra Univ., 1956-March 1959; member: Univ. Grants Commission; Adm. Board, International Association of Univs., Paris; Vice-Pres., National Institute of Sciences of India, 1963 and 1964; member: National Planning Council; Central Adv. Board of Education; Vice-Chancellor, Punjab Univ., 1957-65. *Address:* Planning Commission, New Delhi.

**JOSHI, Harideo,** Minister for Mines and Mineral Based Industries, Publicity, Public Health, Elections and Legislative Assembly, Rajasthan, since June 2, 1965. *b.* Dec. 17, 1921. Started career as an ordinary teacher of Sewa Sangh in Dungarpur; took active part in political movements there 1942-46; entered State Politics; member, A.I.C.C. and P.C.C., 1949; General Secy., Rajasthan P.C.C., 1952-60; M.L.A., Rajasthan, since 1952, now representing Ghatol Constituency; Chief Whip, Rajasthan Assembly Congress Party, 1957-63; Chairman, Public Accounts Cttee, Rajasthan Assembly, 1957-65; Founder Editor, Daily 'Navyug', Jaipur; also working Pres., Rajasthan P.C.C., since May, 1962. *Address:* Nai Abadi, Banswara; B-4, M.L.A. Quarters, Jaipur.

**JOSHI, Puran Chandra, M.A., LL.B.,** Communist Leader; Journalist. *b.* April 14, 1908; *Educ.:* Allahabad Univ. Joined the Communist Party of India as a student, Dec. 1928; arrested in Meerut Conspiracy case, 1929 and convicted for five years; member, Central Cttee. and General Secy., 1934–47; again in the Central Cttee. since Palghat Congress of the C.P.I. 1956; Convenor of the History Commission set up by the National Council of the Party; Editor, *New Age*, till Jan. 1966. *Publications: Communist Reply to Working Committee;* 1857 *Rebellion*, and numerous pamphlets published by the Communist Party. *Address:* 7/4, Asaf Ali Road, New Delhi.

**JOSHI, Ramchandra Bhikaji,** M.A. (Bom.), Kavyatirtha (Cal.), Marathi Writer; Professor of English, Siddharth Coll. of Commerce, Bombay; ex-Principal, Dr. Ambedkar College, Mahad (Kolaba). *b.* June 26, 1903; *Educ.:* Holkar Coll., Indore; Allahabad Univ.; Univ. of Bombay; Kavyatirtha (in Sanskrit Poetry and Drama). Started writing in 1932-33; has since contributed short stories, essays, travelogues, articles on literary problems, reviews and criticisms to leading literary journals in Marathi; has written on Marathi literature for English journals also; member, P.E.N., All India Centre. *Publications:* Two volumes of original short stories in Marathi and two of stories translated from Urdu; two volumes of Travelogues in Marathi; one volume of essays in criticism in Marathi; one novel translated from Urdu. *Address:* Shalwala Building No. 1, Cadell Road, Bombay 28.

**JOSHI, Shridhar Mahadev,** B.A., LL.B.; Chairman, Samyukta Socialist Party; Social Worker. *b.* Nov. 12, 1904; *Educ.:* Primary education at Golap in Ratnagiri; New English School, Fergusson Coll. and Poona Law Coll., Poona; B.A., 1929 and LL.B., 1934. Secretary, Youth League, Poona, 1929; Joint Secy., Presidency Youth Conference, 1928; joined Congress, 1930; courted jail several times in the freedom movement; convicted for salt satyagraha, May 11, 1930 for six months; again arrested on April 7, 1932 and detained for two months; convicted under 124A in Dec. 1934; went underground, 1942; detained, 1943-46; Founder Mem., Congress Socialist Party; Member, Bombay Assembly, 1952-62; Gen. Secy., Samyukta Maharashtra Samiti; Gen. Secy., All India Defence Employees Federation. *Address:* 1170, Sadashiv, Poona 2.

**JOSHI, Umashankar Jethalal,** M.A., Gujarati Poet, Critic, Essayist; Editor, *Sanskriti* (Culture). Gujarati monthly, 1947; Director, School of Languages, Gujarat Univ., 1954. *b.* July 21, 1911; *Educ.:* Bamna; Idar High School; Gujarat Coll.; Elphinstone Coll., M.A. First Class. Post-graduate Teacher, Gujarat Vidya Sabha, Ahmedabad (1939-46); member: Sahitya Akademi, General Council and Exec. Board; visited: China, Indonesia, Malaya, 1952; U.S.A. and U.K. as a member, Govt. of India Team to study General Education, 1956; attended the 29th World P.E.N. Congress, Japan, 1957; member, Indian Cultural delegation to U.S.S.R., 1961. *Publications:* Poetry: *Vishva Shanti; Gangotri; Nisheeth; Gul-e-Poland* (Tr.); *Prachina; Atithya: Vasant-Varsha; Mahaprasthan;* One Act Plays: *Sapna Bhara: Shaheed;* Short Stories: *Shravani Melo; Visamo;* Novel: *Parkan Janyan;* Essays: *Goshthi; Ughadi Bari;* Criticism: *Sama-Samvedan; Akho a Study; Abhiruchi; Niriksha, Shaili ane Swarup, Kavini Sadhana, Shri ane Saurabh;* Research: *Gujarat in the Puranas;* Translations: *Uttar-Ramacharita, Sakuntala. Address:* 'Setu', 12, Sardar Patel Nagar, Ahmedabad 6.

**JOSHUA, Gurram,** Ubhaya Bhasha Praveena (Andhra), M.L.C., Telugu Poet. *b.* Sept. 28, 1895; *Educ.:* Vinukonda, Guntur Dt. Started his career as a school teacher; worked for some time as an interpreter with a movie cinema touring talkies; was Playwright with a noted Telugu drama company till 1920; Telugu Pandit, 1920-42; Song Publicity Officer, Govt. of Madras, 1942-45; Producer, A.I.R., Madras, 1956-60; awarded the titles of Kavita Visarada, Kavi Kokila, Madhura Srinadha, Nava Yuga-Kavi-Chakravarthi, Viswa-Kavi-Samrat, etc.; All India Sahitya Akademi's award for the best work in Telugu Literature for his book *Kristu Charitra*, 1965; member, A.P. Sahitya Akadami. *Publications: Firadausi; Gabbilamu; Bapuji; Netaji; Kotta Lokam; Kristu Charitra; Khanda Kavyalu* (7 parts), etc. *Address:* Gopalakrishnaiah Tota, Guntur 2.

**KABIR, Humayun,** M.A. (Cal.), M.A. (Oxon.), Univ. Gold Medals, Prizes, etc. (1926 & 1928), State Scholar (1927). Exeter College Foundation Prize (1931), Ex-Minister for Petroleum and Chemicals, Government of India. Formerly Educational Adviser to the Govt. of India; Ex-Chairman, Univ. Grants Commission. *b.* Feb. 22, 1906. Leader, Peasants Party, Bengal Leg. Council; Pres., All-India Students Congress; Pres., Indian Council of Cultural Relations, 1958-64; Pres.: All India Education Conference, 1955; Indian Philosophical Congress; Indian Science Congress, 1964; International Congress of Orientalists, 1964; Consultant to the Fund for the Advancement of Education, New York; Minister of Civil Aviation, 1957–58; Min. for S.R.C.A., Govt. of India, April 1958–Nov. 1963; Min. for Petroleum & Chemicals, Govt. of India, Nov. 1963–Jan. 1966. *Publications:* *Swapna-Sadh* (Bengali); *Poems* (Basil Blackwell), *Kant on Philosophy in General; Immanuel Kant* (Bengali); *Dharabahik* (Bengali); *Poetry Monads and Society; Sarat Chandra Chatterjee; Muslim Politics*, 1906–42: *Mahatma and other Poems; Banglar Kavya* (Bengali); *Men and Rivers; The Indian Heritage; Three Stories; Of Cabbages & Kings; Marx Vad*, 1948; *Nadi-O-Naree*, 1950; *Science, Democracy and Islam, Education in New India, Indian Philosophy of Education*, (Several works translated into European languages). *Address:* New Delhi.

**KAJROLKER, Narayan Sadoba,** M.P., Harijan leader and public worker. *b.* 9th July 1896. Is interested in the uplift of the Depressed and Backward Classes; General Secretary and Trustee, the Depressed Classes Mission Society of India; member, Harijan Sevak Sangh, Central Board, Delhi; Pres., Provincial Board of Bombay; Pres. and Trustee, Rohidas (Chambhar) Samaj; President: Anand Vihar Housing Society; Producers' Co-operative Society; Butter Manufacturers' Association; Vice-Pres., Bharatiya Depressed Classes League; Member of Parliament, 1952-57; Central Harijan Board, Home Ministry; member, Panel for Leather and Leather Goods, Commerce Ministry. *Address:* 112, Medows Street, Bombay.

**KAKAR, H.E. Mr. Jagdish Chandar,** B.A. (Hons.), Ambassador to Hungary from April 1966. *b.* Jan. 1, 1915; *Educ.:* Bishop Cotton School, Simla; Govt. Coll. Lahore; Univ. Coll., London. Indian Air Force (Administrative and Special Duties Branch), 1941-47; Indian Foreign Service, since 1948; First Secy.: Kabul, Karachi, Washington; Director, Ministry of External Affairs; Counsellor, London; High Commissioner for India in Ghana (concurrently accredited as High Commissioner to Sierra Leone and Ambassador to Liberia, Guinea and Mali), 1962-66. *Address:* C/o Ministry of External Affairs, New Delhi.

**KAKATI, Satis Chandra,** B.A. (Hons) (Econ.), Concurrently Editor, *The Assam Tribune* (English Daily) since 1963 and *Asam Bani* (Assamese Weekly), since 1954. *b.* Oct. 1914; *Educ.:* Govt. Cotton Coll., Gauhati; B.A. (Hons.) in Economics, 1936. Asstt. Headmaster, Kamrup Academy, Gauhati, and Correspondent of Hindusthan Standard and U.P. (1936-47); Asstt. Director of Publicity, Govt. of Assam (1948-51); Asstt. Editor, *Assam Tribune* 1951-63; Chairman, Gauhati Municipal Board (1962-63); Pres., Assam Working Journalists Assoc., (1963-64); Member, Standing Cttee., AINEC (1963-64); travelled in U.K. (1959), U.S.A. (1960), West Germany, U.K. and France (1963). *Publications: Jawaharlal Nehru; Discovery of Assam. Address:* Hillside Road, Uzanbazar, Gauhati, Assam.

**KAKKAN, P.,** Minister for Home, Govt. of Madras, since Oct. 1963. *b.* June 18, 1909; *Educ.:* Tirumangalam. Was Secy., Taluk Congress Cttee. and Treasurer, Madurai D.C.C.; imprisoned for one-and-a-half years for taking part in C.D. Movement, 1942; member, Constituent Assembly of India; was member: Tamilnad Congress Working Cttee.; Madras Legislative Assembly, 1946–52 and 1957–62; Lok Sabha, 1952–57; Pres., T.N.C.C., 1954–57; Minister for Works, Govt. of Madras, 1957–62; Minister for Agriculture, Govt. of Madras, 1962–63. *Address:* Alagarkoil Road, Melur, Madurai; "Greenways", Madras 28.

**KALELKAR, Dattatreya Balkrishna, (Acharya Kakasaheb), Padma Vibhushan,** B.A. (Bombay), Academician. *b.* Dec. 1, 1885; *Educ.:* Ferguson Coll., Poona. Educationist; Vice-Chancellor, Gujarat Vidyapith, 1928-34; Edited Mahatma Gandhi's Weeklies & Magazines; worked for the spread of Hindi throughout India; Pres., Hindustani Talimi Sangh (Basic Education till 1957), Hindustani Prachar Sabha; Chairman, Backward Classes Commn. appointed by the President of India, 1953-55; was one of the Vice-Pres., Indian Council of Cultural Relations, New Delhi; Pres.: Gujarat Sahitya Parishad (1959); Gandhi Hindustani Sahitya Sabha, New Delhi; M. P. (Rajya Sabha) 1952-64; awarded Padma Vibhushan by President, 1964; knows 7 languages; travelled extensively all over the world. *Publications:* Author of 50 books in Gujarati, Marathi, Hindi and English—some books being translated into English and many Indian languages; won National Award (1966) for his book *Jeevan Vyavastha.* At present editing *Mangal Prabhat*—a Hindi fortnightly. *Address:* Sannidhi, Rajghat, New Delhi.

**KAMALADEVI Chattopadhyay, Smt.,** Politician and Social Worker; Chairman, All-India Handicrafts Board. *b.* 1903; *Educ.:* Mangalore, Bedford College, School of Economics, London. Participated actively in freedom struggle, 1929–44; imprisoned several times; member, All India Congress and Working Committee, 1946–49; Organising Secretary, then President, All India Women's Conference; founded Indian Cooperative Union to rehabilitate refugees from Pakistan in cooperatives; active in field of arts and crafts; Vice-Pres., World Crafts Council; founder, Bharatiya Natya Sangh (Indian National Theatre Centre), of the International Theatre Institute; travelled extensively; represented India at International Conferences, United Nations Commissions. *Publications:* Writer and author of nine books including *Indian Handicrafts; Socialism and Society; Awakening of Indian Womenhood; Towards a National Theatre*, etc. *Address:* 2, Canning Lane, New Delhi.

**KAMARAJ, K.,** President, Indian National Congress; Ex-Chief Minister, Madras State. *b.* 1903; *Educ.:* Virudhunagar, Ramnad District, Madras. Entered public life, 1920 during Salt Satyagraha; convicted for two years; elected member, Working Cttee., Tamil Nad Congress, and member, A.I.C.C., 1931; convicted for one year R.I. in 1932 movement; one of the accused in Virudhunagar bomb case, 1934; later acquitted; elected Secy., Tamil Nad Congress Cttee., 1935; elected to Madras Legislative Assembly, 1937 and again in 1946; detained during the individual Satyagraha Movement, 1941; while in detention was elected Chairman, Virudhunagar Municipality, 1941; again detained in 1942 and released, 1945; elected to the Constituent Assembly of India, 1947; chosen as a member, All-India Congress Working Cttee., 1949; elected to Parliament, 1951; Pres., T.N.C.C., 1939–54; elected Leader, Madras Legislature Congress Party, March 30, 1954, 1957 and 1962; Chief Min., Madras, 1954–63; sponsored the "Kamaraj Plan" which was passed by the A.I.C.C. for revitalising the Congress organisation; resigned under this plan for party work, Oct. 2, 1963. *Address:* Tirumalai Pillai Road, Tyagaraya Nagar, Madras 17.

**KAMATH, Hari Vishnu,** B.Sc. (Hons.), M.P. (Lok Sabha), Chairman, Parliamentary Board, Praja Socialist Party; Politician. *b.* July 13, 1907; *Educ.:* Mangalore, Presidency Coll., Madras; passed into the I.C.S., in London, 1929. Served in the I.C.S., 1930-38; resigned for political reasons; joined Congress, then the National Planning Cttee. as Secy. and subsequently the Forward Bloc as its General Secy.; was in prison, 1940-45; elected member, Constituent Assembly, 1946; re-elected to Lok Sabha on P.S.P. ticket, May 1955; elected to the National Executive of the P.S.P., Dec. 1953; elected Chairman, P.S.P., M.P., Feb. 1958; Delegate: The Session of the Council of the Socialist International, Haifa (Israel), April, 1960; Belgrade Cfce. of the Socialists Alliance of Working People of Yugoslavia, April 1960; visited W. Germany, Berlin (East West) and Italy at the invitation of the Govts. of W. Germany and Italy, July/Aug. 1960; elected to Lok Sabha, 1962; visited U.S.A. at the invitation of Friends of India Cttee., June-Aug. 1963. Author of book *Communist China Colonizes Tibet, Invades India*, Oct. 1959. *Address:* Dhantoli, Nagpur.

**KAMTEKAR, D. S.,** M.A., LL.B., Ag. High Commissioner of India in Malawi, since Sept. 1964. *b.* Dec. 18, 1928; *Educ.:* Bombay. Appointed to the Indian Foreign Service through competitive examination, April 2, 1952; postings in Switzerland (Embassy of India, Berne), Oct. 1955–Dec. 1956, Ministry of External Affairs, Jan. 1957–June 1958, Iraq, Jordan, Kuwait and Bahrein, Aug. 1958–Jan. 1961, Germany (Frankfurt, Hamburg, Berlin), Feb. 1961–Sept. 1964. *Address:* High Commission of India, P.O. Box No. 398, *Blantyre* (Malawi).

**KANE, Pandurang Vaman,** M.A., LL.M., D.Litt. (Allahabad and Poona Universities, Honoris Causa), Bharat Ratna (1963), Hon. Degree of Doctor of Laws, Bombay Univ., 1963, Sanskrit Scholar; Advocate; National Research Professor of Indology, since Aug. 15, 1959. *b.* May 7, 1880; *Educ.:* S.P.G. Mission High School, Ratnagiri Dist.; Wilson Coll. and Govt. Law Coll., Bombay. Life member and for many years Vice-Pres. of Bombay Asiatic Society; Vice-Chancellor, Bombay Univ., 1947–49; Fellow, London School of Oriental Studies; Govt. of India's representative to the International Congress of Orientalists, at Paris, 1948, Istanbul, 1951 and Cambridge, 1954; nominated M.P., 1953–59; awarded the Rs. 5,000 prize for his 4th volume of the *History of Dharmasastra*, as the best work on Sanskrit Literature during 1953-56, by the Sahitya Akademi, New Delhi, Nov. 1956; awarded a certificate of merit, a robe and a Sannad for a pension of Rs. 1,500 per year for life, for his works in Sanskrit, Aug. 1958. *Publications: History of Sanskrit Poetics, History of Dharmasastra*, Vols. I—V (two parts), *Hindu Customs and Modern Law and others. Address:* Angre's Wadi, Bombay 4.

**KANERIA, Raghav,** Diploma in Sculpture, Professional Sculptor. *b.* March 19, 1936 at Anida, Saurashtra. *Educ.:* Fine Arts College, Baroda, 1955–60; Govt. of India Scholar, 1960–62. Exhibited in the Paris Biennale, 1959; Commonwealth Art Exhibition, London, 1962; won several awards the most important being Lalit Kala Akademi Award 1959 and 1963; *Tamra Patra*—Bombay State Art Exhibition 1959, Poona and Ahmedabad, 1960; Silver Medal of the Indian Sculptors' Association, 1960; Silver Medal of the All India Fine Arts and Crafts Society, Delhi 1961; First prize at the Gujarat State Art Exhibition, Surat, 1962; Gold medal of the Bombay Art Society, 1962; Silver medal and Governor's Prize of Bombay Art Society, 1962; Prize at the Gujarat State Art Exhibition, Rajkot, 1963; One-man show at Bombay, 1963. *Address:* C/o Jyoti Bhatt, Fine Arts College, Baroda 2.

**KANKEYAN, A. S.,** B.A. (Maths.), Finance Minister, Pondicherry, since 1964. *b.* June 15, 1911; *Educ.:* Model High School, Saidapet, Madras; Christian Coll., Madras. Member: Import Advisory Council, New Delhi, 1956-61; Chamber of Commerce, Pondicherry, 1944-63; Pres.: Shop Merchants' Assoc., Pondicherry, 1946-63; Pondicherry Orphans' Welfare Home, Pondicherry; Representative Assembly, Pondicherry, 1959-63; Vice-Pres., Co-operative Urban Bank Ltd., Pondicherry, 1955-64; Speaker, Leg. Assembly, Pondicherry, 1963-64. *Address:* 19, Vellala Street, Pondicherry.

**KANTAWALA, Mr. Justice Ramanlal Maneklal,** M.A., LL.B., Judge, Bombay High Court, since Jan. 1962. *b.* Oct. 6, 1916; *Educ.:* Elphinstone Coll. and Govt. Law Coll., Bombay. B.A., first class, 1938: Duke of Edinburgh Fellowship, Bombay, and other prizes; Dakshina Fellow, Elphinstone Coll., 1938–40; M.A., 1940; LL.B., 1941. Enrolled as Advocate, High Court, Sept. 1941. *Address:* 'Mahavir', Ridge Road, Malabar Hill, Bombay 6.

**KANTHI, Shivalingappa Rudrappa,** B.A., LL.B., Education Minister, Mysore State, since June 1962. *b.* Dec. 21, 1908; *Educ.:* Karnatak Coll., Rajaram Coll., Kolhapur; Sykes Law Coll., Kolhapur. Enrolled at the Bagalkot Bar, 1935; has been taking active part in the organisations of Harijans, ryots and weavers; elected member, K.P.C.C. and A.-I.C.C., 1939; elected Pres., Bijapur Dist. Congress Cttee., 1940–46; organised the "Individual Satyagraha" in the Bijapur Dist., 1940–41; arrested and sentenced to 10 months S.I., 1941; arrested and detained in the 1942 Aug. Movement; took active part in famine relief work; was elected Working Pres., Dist. Ryots' Conference, Feb. 1946; Parl. Secy., Govt. of Bombay, 1946-52; Dy. Speaker, Bombay Leg. Assembly, 1952-56; Leader, Indian delegation that toured West Germany, 1961; Speaker, Mysore Leg. Assembly, 1956-62; elected Leader, Mysore Legislature Congress Party, March 1962; Chief Minister, March–June 1962. *Address:* P.B. No. 74, Vidhana Soudha, Bangalore 1.

**KANUNGO, Nityanand,** B.A., B.L., Governor of Gujarat, since Aug. 1, 1965. *b.* May 4, 1900; *Educ.:* Ravenshaw Coll., Cuttack and Univ. Coll., Calcutta. Minister for Home, Law, Industries and Agriculture, Govt. of Orissa, 1937–52; Secy., All-India Spinners' Association, Local Branch, 1939–42; Pres., All-India Village Industries Association, Orissa, 1946; Chairman, Cotton Textile Enquiry Cttee., 1952; Leader, Indian delegation to International Rice Commission, 1952; Dir., State Co-op.Bank, Orissa, 1952-54; member, A.I.C.C.; Dy. Min., Commerce and Industry, Govt. of India, Sept. 1954–Aug. 1955; Minister for Industries, Govt. of India, Aug. 1955–June 1956; Minister of Commerce & Industries, 1956–1957; Minister of Commerce, Govt. of India, 1957–62; Min. of Industry, 1962-64; Min. of Civil Aviation, Govt. of India, June 1964-Aug. 1965. *Address:* Raj Bhavan, Ahmedabad.

**KAPADIA, Gopaldas Padamsey,** B.Com. (Bombay), F.C.A., J.P., Chairman, I.M.C. Economic Research and Training Foundation; Pres., Indian Merchants' Chamber, 1958; Senior Partner, G. P. Kapadia and Co., Chartered Accountants. *b.* Feb. 2, 1905; *Educ.:* Elphinstone High School, Elphinstone Coll. and Sydenham Coll. of Commerce and Economics, Bombay. Was elected the first Pres., Institute of Chartered Accountants of India for three years; led the Indian Delegation to the International Congress on Accounting, London, 1952; served on important Cttees. appointed by the Govt. such as the Stock Exchange Enquiry Cttee., the Visakhapatnam Shipyard Cttee., the Company Law Cttee. and the Direct Taxes Adm. Enquiry Cttee.; member, Sales Tax Enquiry Cttee.; *Publications:* Paper read at International Congress on Accounting in London, 1952: *Incidence of Taxation;* several contributions on taxation matters and economic subjects. *Address: Office:* Hamam House, Hamam Street, Fort, Bombay 1.

**KAPUR, Jeevan Lal,** B.A. (Punjab), M.A., LL.B. (Cantab.), Chairman, Delimitation Commission, 1963; Law Commission, India, since Dec. 23, 1961; Commission of Inquiry (Exodus of Minorities from East Pakistan), since Jan. 8, 1965. *b.* Dec. 13, 1897; *Educ.:* Govt. Coll., Lahore (Punjab Univ.); Magdalene Coll., Cambridge; Inner Temple, Barrister-at-Law; B.A., Punjab Univ., 1917;

B.A. (Cantab.), 1920; LL.B., 1921; M.A. (Cantab.), 1924. Practised at Lahore High Court, Lahore, 1922–47; Vice-Pres., All India Postmen's Union, 1926–47; Member, F.P.S.C., New Delhi, 1947–49; Judge, Punjab High Court, 1949–57; Judge, Supreme Court of India, 1957–62. *Publications:* *Laws of Adoption in India and Burma.* *Address:* 11, York Road, New Delhi.

**KARAN SINGH, Maj.-Gen. Maharaja Dr.,** M.A., Ph.D., Governor, Jammu and Kashmir, since April 1965. *b.* March 9, 1931; *Educ.:* Doon School; Univ. of Jammu and Kashmir; Delhi Univ. Appointed Regent, Jammu and Kashmir, 1949; elected Sadar-i-Riyasat (Head of State) by Jammu and Kashmir Legislative Assembly, Nov. 1952; recognised by the President of India and assumed office, Nov. 17, 1952; re-elected 1957 & 1962; Chancellor, Univ. of Jammu and Kashmir; Chancellor, Banaras Hindu Univ. *Address:* The Palace, Srinagar; The Palace, Jammu, Tawi, Jammu and Kashmir State.

**KARANJIA, Russy K.,** B.A. (Hons.), Publisher and Journalist. Editor-in-Chief, *Blitz, News Magazine* (Weekly), published in English, Hindi & Urdu. *b.* Sept. 15, 1912; *Educ.:* St. Xavier's High School and Wilson Coll., Bombay. Took training in journalism in India and U.K. Commenced journalistic career as reporter, sub-editor and special correspondent with the *Times of India* publications; joined *Sunday Standard* as Deputy-Editor and later became Editor-in-Chief of the *Sunday Standard* and *Morning Standard* (today *Indian Express*); started *Blitz* in Feb. 1941; Editor and Director of *Blitz* Publications; Author of *How Others See Us, Seato, Arab Dawn, Dawn or Darkness, The Mind of Mr. Nehru, How Nasser Did It,* etc.; his intimate interviews with revolutionary leaders like Jawaharlal Nehru, Nikita Khrushchov, Fidel Castro and Gamal Nasser earned him the title of "Chronicler of revolutions and biographer of revolutionaries"; was honoured with the gift of a machine-gun named "Port Said" by President Nasser of U.A.R. and the award of the Republican Order of Merit (Grade I), the highest honour of the State. *Address:* Framroze Court, Netaji Subhas Road, Bombay.

**KARANTH, K. Shivarama,** Hon. Doctorate of Letters, Karnatak Univ. and Mysore Univ., 1963, Kannada Author and Publisher. *b.* Oct. 10, 1902; *Educ.:* Board High School, Coondapoor, South Kanara, Joined the N.C.O., Feb. 1922; took to writing, 1924; editor of a Kannada monthly, 1924–29; made experiments in child education, drama and dance; pursued literary profession. *Publications:* Wrote a large number of plays and novels; wrote *Balaprapapanch,* 3 Vols. —Encyclopaedia for children. Published 1936-39, some 20 novels, 20 or more plays, Kannada-Kannada dictionary, a monogram on Yakshagana dance drama, Popular Science Encyclopaedia in Kannada. *Address:* Puttur (S. Kanara).

**KARMALI, Vithal Subraya,** B.A. (Hons.) (Econ.), Minister of Education, Public Health, Public Works, Information and Tourism, Govt. of Goa, Daman and Diu, since Dec. 20, 1963. *b.* July 14, 1932, at Kakoda, Goa; *Educ.:* Upto S.S.C. at Curchorem and Margao, Goa; College education at Bombay. As a student, participated in the Goa Freedom Movement, 1946; Secy.: Bombay branch, National Congress, Goa, 1955–57; Maharashtra Mandal, Malad, Bombay, 1958–59; Quepem D.C.C. 1963; Gen. Secy., Quepem Dt. Branch of National Defence Cttee.; resigned from Congress on the issue of Goa's merger with Maharashtra and joined Maharashtravadi Gomantak Party; elected to the Leg. Assembly defeating the Pres. of the Goa Pradesh Congress Cttee. from Curchorem Constituency, 1963. *Address:* Sachivalaya, Panjim, Goa.

**KARMARKAR, Vinayak Pandurang,** Padma Shri (1964), Sculptor. *b.* Oct. 2, 1891; *Educ.:* School of Art, Bombay, 1910–13; Royal Academy, London, 1920–22. Travelled Italy, France, Hungary, 1932; professional visit to U.S.A., 1949; member, Gen. Council of Lalit Kala Akademi; National Academy of Art, New Delhi; established himself as a sculptor; Vice-Pres., Bombay Art Society; Ex-Pres., Art Society of India, Bombay. *Publications:* Occasional articles in Marathi and Presidential Address; fellowship from Lalit Kala Academy, 1962. *Address:* 7, Union Park, Chembur, Bombay 71; Studio, Deonar Road, Chembur.

**KARVE, Dattatreya Gopal,** M.A. (Bombay), Chairman, I.C.A., International Commission; Hon. Advisor on Training, Reserve Bank of India. *b.* Dec. 24, 1898; *Educ.:* New English School and Fergusson Col., Poona. Cobden Club Medallist, 1921; Wedderburn Scholar, 1923. Secy., Deccan Educ. Soc., Poona, 1940-44; Mem., Bombay Local Board of Reserve Bank of India, 1952; Director, Programme Evaluation, Planning Commission, 1952-55; Dir., Indian Inst. of Public Administration, 1954-55; Chairman: Villlage and Small-Scale, Industries (2nd Five Year Plan) Cttee., 1955; Pres., Indian Society of Agricultural Economics, 1960-62; member, Co-operative Development and Warehousing Board; Vice-Chancellor, Univ. of Poona, 1959-61; Vice-Chairman, State Bank of India, 1960-62; Dy. Governor, Reserve Bank of India, 1962-64; Member, Fourth Finance Commission, 1965. *Publications: Indian Federal Finance,* 1929; *Poverty and Population in India,* 1936; *Democracy and Capitalism,* 1936; *The New Indian Constitution, Prospects and Principles,* 1940; *Ranade, The Prophet of Liberated India,* 1942; *Population Planning in India,* 1948; *Public Administraiton in a Democracy,* 1950; *Administrative Implications of Planning,* 1956; *Rural Development,* 1957, and others. *Address:* 'Suyog', 899/1, Shivajinagar, Poona 4.

**KASBEKAR, Dr. Gajanan Shantaram,** M.Sc. (Bombay), Ph.D. (Manchester), Patuck Prize (Manchester Univ.), F.R.I.C. (Lond.), M.I.I.Chem. E. (India), M.I. Chem. E. (Lond.), Managing Director, Hindustan Organic Chemicals Ltd., Panvel. *b.* Nov. 15, 1909; *Educ.:* Wilson Coll., Bombay; Coll. of Technology, Victoria Univ., Manchester. Lecturer, Wilson Coll. and Prof., Ramnarain Ruia Coll., Bombay, 1933–41; Sr. Research Officer, Forest Research Institute, Dehra Dun, 1948–49; Supdt., High Explosives Factory and Explosives Project, Kirkee, 1949–55; Asstt. Director, General Ordnance Factories, Calcutta, 1956–58; Dy. Director General, Ordnance Factories, Calcutta, 1959–61; Project Officer, New Explosives Factory, Bhandara, 1961–62; Mg. Dir., Hindustan Antibiotics Ltd., Pimpri, 1962–65. Pres., Indian Institute of Chemical Engineers, 1958-60. *Publications:* Over 25 scientific publications in recognised scientific journals in India and abroad, on "Action of Nitric Acid on Metals", "Swelling of Cellulose", "Manufacture of Explosives" etc. *Address:* Managing Director, Hindustan Organic Chemicals Ltd., Rasayani, P.O. Panvel, Dt. Kolaba.

**KATARI, Vice-Admiral Ram Dass,** I.N., i.d.c., Indian Ambassador to Burma since June 1964; Ex-Chief of Naval Staff, Indian Navy. *b.* Oct. 8, 1911; *Educ.:* Mahboob College, Secunderabad; Nizam Coll., Hyderabad; Training Ship, "Dufferin", Bombay; Hooghly River Survey for a few years; then Indian Navy; War Service in Atlantic and Indian Oceans; several sea-commands since; Chief of Personnel at Naval Headquarters, 1949-51; Imperial Defence College, London, 1953; Dy. Chief of the Naval Staff, Indian Navy, 1954-55; Flag Officer Commanding Indian Fleet, Oct. 1956–April 1958; Chief of Naval Staff, Indian Navy, 1958-62; Chairman, Andhra Pradesh State Road Transport Corpn., Nov. 1962-June 1964. *Address:* C/o Ministry of External Affairs, Govt. of India, New Delhi.

**KATHJU, Raj Nath,** AFRAES, Director-General of Civil Aviation, since Jan. 11, 1962. *b.* March 7, 1907; *Educ.:* Apprenticeship with de Havilland Aircraft Co. in England, 1931-33. Chief Engineer and Principal, Aeronautical Training Centre of India, 1935-39; elected Associate Fellow of the Royal Aeronautical Society of England, 1936; held several positions in the Inspection Directorate of Civil Aviation Deptt. since 1939; Principal, Civil Aviation Training Centre, Allahabad, 1948-55; Director of Air Transport and Deputy Director General of Civil Aviation till Jan. 1962; Pres., the Aeronautical Society of India; member: Court of the Indian Institute of Science, Bangalore; Exec. Council, National Aeronautical Laboratory, Bangalore; holds current Aircraft Maintenance Engineer's Licences in categories A, B, C, D & X. *Address:* CI/8, Hardinge Avenue, New Delhi.

**KATJU, Dr. Kailas Nath,** M.A., LL.D., D.Litt., Ex-Chief Minister, Madhya Pradesh. *b.* June 17, 1887; *Educ.:* Barr High School, Jaora (M.P.); Forman Christian College, Lahore; Muir Central College, Allahabad. Practised at Kanpur (1908-14); joined High Court Bar, Allahabad, 1914; Advocate, Allahabad High Court (1921); member, Council of U.P.C.C. and A.I.C.C. till 1946; elected Chairman, Allahabad Municipal Board (1935-37); Chancellor, Prayag Mahila Vidyapith; Editor, *Allahabad Law Journal* (1918-46); member, Executive Council, B.H.U., and Constituent Assembly of India (1946-47); Minister of Justice, Industries and Development, U.P. Govt., 1937-39 and 1946-47; courted jail in freedom movement; Governor of Orissa, 1947-48; West Bengal, 1948-51; Minister for Home Affairs and Law, 1951–52; Minister for States and for Home Affairs, 1952-55; Defence Minister, 1955-57; Chief Minister, M.P., 1957-62; elected to the Leg. Assembly, M.P., 1962. *Publications: My Parents,* 1950; *Reminiscences and Experiments in Advocacy,* 1952; *My memorable cases; Main Bhool Nahin Sakta; Rural Development through Self-help,* revised edition, 1957; *The Days I Remember,* 1961. *Address:* 25, Edmonstone Road, Allahabad.

**KATRE, Dr. Sumitra Mangesh,** M.A., Ph.D. (London), Director, Deccan College Post-graduate and Research Institute, Poona, since 1942; Editor, Dictionary of Sanskrit on Historical Principles. *b.* April 11, 1906; *Educ.:* Ganapathi High School and Govt. College, Mangalore; Presidency College, Madras; School of Oriental Studies, London Univ., Orientalisches Seminar, Univ. of Bonn. Professor of Sanskritic Languages, N. Wadia College, Poona (1933-34); S. P. College, Poona (1937-39). Professor of Indo-European Philology, Deccan College Post-graduate and Research Institute, Poona (1939-42); Hon. Treasurer, Linguistic Society of India, since 1954. *Publications:* Founder-Editor, *New Indian Antiquary* and *Oriental Literary Digest,* and of several commemoration volumes; *Formation of Konkani; Introduction to Indian Textual Criticism; Prakrit Languages and their Contribution to Indian Culture.* *Address:* Deccan College, Poona 6.

**KAUL, B. K.,** Minister for Finance, Excise and Taxation, Rajasthan. *b.* June 18, 1903 at Moradabad, U.P.; *Educ.:* Jammu, Meerut and Aligarh Univ.; studied upto B.A. Entered politics, 1920; received political training under late Lajpat Rai and started political work at Ferozepur; shifted to Allahabad in 1921 and worked in U.P. under guidance of Pt. Jawaharlal Nehru; Manager, Ajmer Branch, Lakshmi Insurance Co., 1930-39; imprisoned several times during the freedom movement; was member, Rajasthan and Central India P.C.C. and A.I.C.C.; elected member, Ajmer Municipal Board, 1945; elected member, Advisory Cttee. of Chief Commissioner, Ajmer 1948; elected M.L.A., Ajmer, 1952; Home and Finance Minister, Ajmer State, 1952-58; elected to Rajasthan Vidhan Sabha, 1962. *Address:* 11, Civil Lines, Jaipur; Srinagar Road, Ajmer.

**KAUL, H.E. Mr. Triloki Nath,** B.A. (Hons.) (Punjab), LL.B. (Alld.), LL.M. (London), Fellow, Royal Society of Arts, London (1963),

I.C.S., Indian Ambassador to U.S.S.R. & Mongolia, since Dec. 1962. *b.* Feb. 8, 1913; *Educ.:* S. P. Coll. (Srinagar); Prince of Wales Coll. (Jammu); Law Faculty (Allahabad); King's Coll. & School of Oriental Studies (London Univ.). Passed I.C.S., 1936; Secy., Indian Council of Agricultural Research, Govt. of India, 1945-47; First Secy., Indian Embassy, Moscow, 1947–49; Dy. Secy.-Genl., Indian Delegation to U.N., 1947; First Secy., Indian Embassy, Washington, 1949–50; Counsellor, Indian Embassy, Peking, 1950-52; Minister, Indian Embassy, Peking, 1952-53; Joint Secy., Ministry of External Affairs, Govt. of India, 1953-56; member of delegation which negotiated the Sino-Indian Agreement on Tibet, 1954; Chairman, International Commission and leader, Indian delegation, Viet Nam, 1957-58; Ambassador to Iran, 1958-60; Dy. and Acting High Commsr., London, 1960-62. *Address:* C/o Ministry of External Affairs, New Delhi.

**KAUL, (Master) Zinda,** B.A. (Punjab), Kashmiri Poet; Pensioner, Jammu and Kashmir Govt. *b.* Aug. 1884; *Educ.:* Church Mission School, Srinagar. Worked as Teacher, 1901-22; as Surveyor, Archaeology, J. & K. Govt., 1922-31; Translator, Publicity, J. & K. Govt., 1931–39; began writing poetry in Kashmiri since 1940; won Govt. of India Rs. 5,000 prize for *Smaran;* popularly called by pupils 'Masterji'; was a theosophist. *Publications: Patra Pushp* (Hindi poems); *Smaran* (Kashmiri poems); *Philosophy of a Sheep* (Eng. prose pamphlet against meat-eating or animal sacrifice); *Paramananda* (Life & poems of Kashmiri Saint-Poet with Eng. translation and notes). *Address:* Shehlateng, Srinagar, Kashmir.

**KAUR, Shrimati Prabhjot,** B.A. (Punjab), Sahitya Akademi Award (1964), Rajya Kavi (Poet Laureate) by Punjab Govt. (1963), Sahitya Shiromani (1963), Poet and writer. *b.* July 6, 1927; *Educ.:* Punjab Univ., Lahore. Member, National Commission of India for UNESCO; is associated with many social and welfare organisations; her works have been translated into many languages including Persian, French, Russian, English, Italian and Rumanian; has rendered into Punjabi difficult philosophical works as Dr. Radhakrishnan's, *My Search for Truth* and *An Idealist View of Life*; has also translated the *Life of Vivekananda* by Romain Rolland, on behalf of Sahitya Akademi; has represented her language and the women writers of India at national and international literary seminars and conferences. *Publications:* Poetry: *Lat Lat Jot Jage* (Intensely Burns the Undying Flame), 1943; *Pabbi* (The Plateau); *Ban Kapasi* (The Tulip); *Pankheru* (the Birds); *Do Rang* (Two Strains): Short Story: *Kinke* (The Atoms); *Aman De Nan* (Dedication to Peace): has published about 30 works so far. *Address:* C/o Lt. Col. Narenderpal Singh, Dy. Military Secretary to the President, Rashtrapati Bhavan, New Delhi.

**KELKAR, Dattatraya Keshav,** B.A., Marathi Writer; Retd. Professor, Ruia Coll., Bombay. *b.* March 4, 1895; *Educ.:* Poona. President, Bombay Marathi Literary Assoc. for 4 years. *Publications: Kavyalochana* (Constructive Survey of Poetics); *Sanskruti-Sangam* (Synthesis of Civilisations); *Udyachi Sanskruti* (Tomorrow's Socialistic Civilisation); *Sanskriti Ani Vidyan* (Science and Civilization); *Wadali Ware* (Stormy Winds); *Sahitya Vihar* (Literary Essays); *Vichar Taranga* (Waves of Thoughts); *Marathi Sahityache Sivaolokam* (Survey of Marathi Literature). *Address:* Plot No. 447, Matunga, Bombay 19.

**KESAVAN, B. S.,** M.A. (Lond.), Diploma in Librarianship (Lond.), Padma Shri (1960), Director, Indian National Scientific Documentation Centre, National Physical Laboratory. *b.* May 10, 1909; *Educ.:* Mysore and London Univs. Served on the English Faculty, Univ. of Mysore for seven years; recruited as Education Officer, Govt. of India; Curator, Central Bureau of Education for a short while; Librarian, National Library for nearly 15 years; Scientific and Industrial Research Asstt. Secy., C.S.I.R.; member, International Advisory Cttee. on Bibliography, Documentation and Terminology appointed by the UNESCO; has been Pres., Indian Library Assoc., Vice-Pres., Indian Assoc. of Special Libraries and Information Centres; Hon. Member, Indian Assoc. of Special Libraries & Information Centres; was member, Advisory Commission on Libraries. *Publications: National Library of India. Address:* Director, INSDOC, National Physical Laboratory, Hillside Road, New Delhi 12.

**KESKAR, Dr. Balkrishna Vishwanath,** D.Litt. (Paris), 1935, Chairman: National Book Trust, India, since June 4, 1962; Cement Corporation of India. *b.* 1903; *Educ.:* Poona, Hyderabad, Banaras (Kashividyapith) and Paris. Active Congress worker in the U.P. since 1920; General Secy., Indian National Congress, 1946; elected to the Constituent Assembly from U.P., Jan. 1948; Member, Indian delegation to the U.N. General Assembly, 1950; widely travelled in America, Europe and the Far East; elected to the Lok Sabha from Sultanpur Dist. (U.P.), Feb. 1952; re-elected from Musafirkhana constituency (U.P.), 1957. Dy. Minister for External Affairs, 1948–52; Minister of Information and Broadcasting, 1952–62; member, Foreign Affairs Sub-Committee of Cabinet, 1958-62. *Address:* 3, Kushak Road, New Delhi 11.

**KHAIRAGARH, Rani Padmawati Devi, Rani of,** Minister for Local Government, Madhya Pradesh, since Dec. 1964. *b.* July 17, 1918, at Pratabgarh, U.P.; *Educ.:* Privately. Founded Indira Sangit Vidyalaya, Khairagarh, 1944, which developed into Indira Kala Sangit Viswavidyalaya in 1956; keenly interested in social service; gifted her residential palace, valued at Rs. 15 lakhs for the Viswavidyalaya; Founder Pro-Chancellor of the Viswavidyalaya; member: Hindi Sahitya Sammelan, M.P.; Univ. Court, Khairagarh; Board of Governors, Scindia Kanya Vidyalaya, Gwalior; Governing Body, All-India Women's Education Fund Association; Pres.: Mahila Vibhag, Rashtra Bhasha Prachar Samiti, M.P.; Patron-in-Chief, Mahakoshal Women's Hockey Assoc., has widely travelled in India and abroad; attended, Plenary Session, 13th and 14th World Health Assemblies, Geneva, 1960, New Delhi, 1961; elected M.L.A. from Bori-Deokar Constituency, M.P., 1952; returned uncontested from Birendranagar Constituency, 1957 & 1962; Min. for Social Walfare, M.P., 1963-64; leader, International Conference of Social Work, Athens, 1964. *Address:* Bhopal; Kamal Vilas, Khairagarh, M.P.

**KHAITAN, Matadin, Business man.** *b.* May 1913. Is connected with various public bodies; Vice-Pres., Calcutta Stock Exchange Assoc. Ltd.; Cttee. member: Development Council for the Sugar Industry, Govt. of India; Indian Sugar Mills Assoc.; Life-member: Indian Red Cross Society; National Sports Club of India; President, Bengal Sugar Merchants' Assoc. (1945, 1947, 1949, 1950, 1952); Vice-Pres., B. B. Dist. Congress Cttee. (1954); Director: Matadin Khaitan & Co., Ltd.; Sahu Properties Ltd.; Vegetable Products Ltd.; Hind Sugar Co. Ltd.; Tulsipur Sugar Co. Ltd.; Trustee: Matadin Khaitan Charitable Trust; Gyan Bharati; travelled extensively in Japan and Far East during 1952 and U.S.A. and continental countries of Europe during 1954. Visited U.S.A., Germany, U.K., in National Productivity Council Marketing & Distributing Team, 1960. *Address:* Khaitan House, 27, Vivekanand Road, Calcutta 7.

**KHAN, Ahmed Jan, Thirkwa,** Padma Shri, Sangeet Marthand, a leading tabla artist; Professor, Lucknow Music Coll. *b.* 1891; *Educ.:* Bombay and Moradabad by Muneer Khan Sahir. Has been playing tabla since the age of nine; learned the instrument regularly for 30 years from Muneer Khan, Sher Khan, Fiyaz Khan and Haji Sahib, etc.; served the Ghandharva Natak Company of Poona for some years; was attached to the Rampur State for about 20 years. *Address:* 61, Victoria St., Lucknow.

**KHAN, Allauddin,** D.Mus. (1944), Sangeet Nayak and Sitare Hind, Aftabe Mouseque, Sangeet Samrat, Bharat Gourab Sangeet Acharya, Jind of Music, Musician, awarded title of Padma Bhushan (1958), Hon. Principal, Govt. Music College, Maihar; *Educ.:* Under many ustads and gurus of music, namely Ahmad Ali Khan, Mohd. Hussain Khan and Vazir Khan, for forty years; learned on Indian instruments like Sarod, Vina, Surangar, Rabab, Sitar, Shahnai, Mridang, Tabla and Dhol and English instruments like Violin, Cornet and Clarionet; has given many music performances at important places in India and abroad specially European countries; invented new string instruments, *viz.*, Sur-Sitar and Chandrasarang. *Address:* Maihar, Madhya Pradesh.

**KHAN, Bafati,** Musician, unique in Dholak; Staff Artist, All India Radio, Lucknow, since 1957. *b.* June 16, 1917; *Educ.:* Jhansi; learned music from his forefathers who were experts in the line. Won many awards for his performances in Dholak; has a fairly good knowledge of tabla in theory and practice. *Address:* All India Radio, Lucknow.

**KHAN, Barkatullah,** B.A., LL.B., Minister for Law, Local Self-Government, Tourism and Wakf, Rajasthan. *b.* Aug. 25, 1920; *Educ.:* Jodhpur & Lucknow Univ. Minister, former Jodhpur State, 1948; Resident Rep. of former Jodhpur State in Delhi; Pres., Municipal Board, Jodhpur, 1951; M.P., 1952–57; M.L.A., Rajasthan, 1957; Dy. Minister for Planning, Power, Technical Education, State Enterprises and Tourism, Rajasthan, 1959-62; has been an active member of Congress and has held various offices in the organisation. *Address:* 49, Civil Lines, Jaipur.

**KHAN, Ustad Bismillah,** Padma Shri (1961), Musician. *b.* March 21, 1916 at Dumraon, Shahabad Dist., Bihar; *Educ.:* Received Shahnaee training under his uncle Ali Bux Khan and father Paigamber Khan. Gave his first public performance at the age of 14 at the All India Music Conference at Allahabad, 1930; again appeared at the Music conference at the Lucknow Exhibition, 1934, and awarded gold medals; awarded three gold medals at the All India Music Conference, Calcutta, 1937; gives frequent performances at the A.I.R. stations in India; awarded Academy Award for Hindustani Instrumental Music by late President Rajendra Prasad, April 1956. *Address:* C. K. 46/62, Sarai Harha, Banaras.

**KHAN, Dr. Jehangir,** a leading Tabla Player, *b.* Jan. 11, 1869, at Banaras; *Educ.:* Banaras, Bareilly, Delhi and Lucknow; had training in tabla under late Ustad Mubarak Khan Sahib, Abid Hussain Khan Sahib of Lucknow and Chhannu Khan Sahib of Bareilly; attained proficiency in the tabla styles of Ajiradal Purab and Delhi. Obtained President's Award, March 1959; degree of Doctor of Music was conferred by Indira Kala Music Univ. of Khairagarh. *Address:* 21, Tukoganj, Safed Kothi No. 1, Indore.

**KHAN, Sadath Ali,** Indian Ambassador to Turkey, since March 1966. *b.* Sept. 16, 1916; *Educ.:* Nizam Coll., Hyderabad. Elected to Parliament on Congress ticket, 1952 and 1957; attended the Trusteeship Council Session of the U.N. as an Alternate Delegate, Jan.-April 1954; attended the General Assembly Session of the United Nations as an Alternate Delegate, Sept.-Dec. 1954; Parl. Secy., External Affairs Ministry, 1958–62; travelled widely in the Middle East, both in official as well as

private capacity; was Ambassador to Iraq till 1966. *Publications: Projects for Prosperity* (A Govt. of Hyderabad Publication); *Brief Thanksgiving. Address:* C/o External Affairs Ministry, New Delhi.

**KHAN, Shah Nawaz,** Deputy Minister for Labour, Employment & Rehabilitation, Govt. of India, since Jan. 24, 1966. *b.* Jan. 24, 1914; *Educ.:* Prince of Wales Royal Indian Military Coll., Dehra Dun; Indian Military Academy, Dehra Dun; took Chiefs Colleges Diploma, 1930. Commissioned as 2/Lt. in the Indian Army in 1/14th Punjab Regt., Feb. 1935; promoted Actg. Capt., Oct. 1939; proceeded Overseas, Jan. 1941; joined Azad Hind Fauj of Netaji and promoted Major General, 1945; principal accused in the Red Fort Trial of the I.N.A.; elected M.P. from Meerut; Parliamentary Secy. to the Minister for Railways and Transport, Aug. 12, 1952–Sept. 20, 1956; Deputy Minister for Transport and Railways, September 1956-April 1957; Dy. Min. for Railways, 1957-64; again elected to the Lok Sabha, 1957 & 1962; Dy. Min. for Food and Agri., June 1964-Jan. 1966. *Publications: I.N.A. and its Netaji. Address:* 3, Safdarjung Road, New Delhi.

**KHANAL, H.E. Mr. Y. N.,** M.A. (Cal.), B.Sc. (Cal.), Dip in Education (Lond.), Gorkha Dakshin Bahu 1st Class, Ambassador of Nepal to India. *b.* 1915; *Educ.:* Calcutta and London. Prof., Trichandra Coll., Kathmandu, 1943; Member-Secy., Nepali Delegation to the Asian-African Conference, Bandung, 1955; Home Secy., 1956; member: Planning Commission, 1958; Nepali delegation to the 14th and 15th sessions of the U.N. General Assembly, 1959 and 1960; Tribhuvan Univ. Senate and Syndicate, 1960; Nepalese Delegation to the Belgrade Conference of the Heads of Non-aligned States, 1961; Foreign Secy., 1961; has travelled over Western Europe, Asia, North America, Japan and the Middle East; member: Kathmandu Municipality, 1949; Exec. Cttee., Nepal Council of Asian Relations and World Affairs, 1953–56; Pres., U.N. Assoc. of Nepal, 1961. *Publications: Principles of Criticism* (Nepali); *Reflections on Nepal-India Relations* (English); several articles in English and Nepali on International questions as well as on literary and educational subjects. *Address:* Royal Nepalese Embassy, Barakhamba Road, New Delhi.

**KHANDEKAR, Vishnu Sakharam,** Marathi Writer; President, Marathi Sahitya Sammelan, since 1941. *b.* Jan. 11, 1898; *Educ.:* Sangli High School, Sangli; Fergusson Coll., Poona. Headmaster, T. E. School, Shiroda (Dt. Ratnagiri), 1920-38; Screenplay Writer to Huns Pictures, Navyug Pictures and Prafulla Pictures, 1936-47; Author, Short Story Writer, Critic, Novelist, Essayist. *Publications:* About 60 books in Marathi, many of which have been translated into Gujarati, Tamil, Hindi, etc.; Sahitya Akademi Award for his Novel *Yayati* (1961). *Address:* 7, Rajarampuri. Kolhapur.

**KHANDELWAL, Govardhan Das,** M.A., General Manager, South Eastern Railway, since Oct. 31, 1961. *b.* Jan. 7, 1912; *Educ.:* Allahabad Univ. Joined the former East Indian Rly. as Probationer Transportation (Traffic) Officer, Sept. 1935; promoted to senior scale, 1942; confirmed as Commercial Supdt., 1947; Deputy Chief Operating Supdt., 1951-52; Deputy Chief Operating Supdt., Eastern Rly., 1952-54; Regional Transportation Supdt., Bilaspur, 1954-55; Joint Director, Traffic (Transportation), Rly. Board, 1955-56; Divisional Supdt., Eastern Rly., 1956-58; Chief Operating Supdt., 1958-59; Chief Operating Supdt., South-Eastern Railway, 1959-61; Director, Bokaro Steel Ltd. *Address:* General Manager, South-Eastern Railway, Calcutta 43.

**KHANNA, Mehr Chand,** Minister for Works, and Housing, Govt. of India, since April 15, 1964. *b.* 1897. Finance Minister, North-West Frontier Province, 1946-47; migrated to India after partition; has been connected with the problems of rehabilitation of displaced persons since its very inception in 1948 as Adviser, Ministry of Rehabilitation, Government of India, 1948–54 and Minister of Rehabilitation, Govt. of India, Dec. 1954–April 1962. Min. for Works, Housing & Supply, Govt. of India, April-Oct. 1962; Min. for Works, Housing & Rehabilitation, Govt. of India, Nov. 1962-April 1964. *Address:* New Delhi.

**KHANOLKAR, Dr. Vasant Ramji, B.Sc., M.D.** (London), Hon. LL.D. (Melbourne), Hon. F.R.C.P. (Edin.), F.A.Sc., F.N.I., Hon. LL.D. (Bomb.) (1965), Padma Bhushan (1955), Scientist; National Research Professor in Medicine, since April 1963. Ex-Vice-Chancellor, Bombay Univ. *b.* April 13, 1895; *Educ.:* Bombay; London Univ.; M.D. (Pathology), London Univ., 1923. Professor of Pathology, Grant Medical Coll., Bombay, 1924-25; Seth G. S. Medical Coll., Bombay, 1925-41; has done pioneering work on cancer in India; elected Chairman, International Cancer Research Commission, 1950; elected Pres., International Union against Cancer for four years, July 1958; member, U.N. Scientific Cttee. on the Effects of Atomic Radiation, since 1956; appointed Vice-Chairman, June 1958; received citation from the Cancer Cytology Foundation of America, 1960; elected Hon. Member, Austrian Cancer Society, 1960; elected member, Academy of Medical Services, U.S.S.R.; Hon. Fellow, Royal Society of Medicine, Lond.; Director, Indian Cancer Research Centre, 1950-63; Fellow & Pres., Indian Academy of Medical Sciences; Pres., National Institute of Sciences of India, 1965. *Publications:* 118 scientific publications, including a book entitled "A Look at Cancer". *Address:* 66, Padmalaya, Sion East, Bombay 22.

**KHARE, Dr. Narayan Bhaskar,** B.A., M.D. *b.* 1884. Ex-Chief Minister & M.L.C., M.P., 1923; Imprisoned in 1930 C.D. Movement; M.L.A. (Central), 1935–37, where he placed on the Statute the "Ariya Marriage Validation Bill"; 1st Prime Minister of M.P., 1937–38; member, Viceroy's Executive Council, Dept. of Commonwealth Relations, 1943–46; responsible for securing citizenship rights for Indians domiciled in America, saving lives of Indians accused of high treason in Malaya, for commutation of life sentences on Chimur accused and for various steps taken against South Africa; Prime Minister, Alwar State, 1947-48; elected Pres., All-India Hindu Mahasabha at its Calcutta Session, Dec. 1949 and Poona Session, Dec. 1950 and Jaipur Special Session, April 1951; elected to Lok Sabha, 1952. *Publications: My Defence* (English), 1938; Autobiography in Marathi and Hindi, 1956 and English, 1959; *Nehru as I Know*, 1957; *Khare Vs. Nehru* and *Azad's Autobiography Autopsied* 1961; *Khare-Darshan* (Marathi), 1964. *Address:* Indira Mahal, Dhantoli, Nagpur.

**KHATAL, Bhikajirao Jijaba,** B.A. (Hons.), LL.B., Dy. Minister for Cooperation, Food and Civil Supplies, Maharashtra, since Dec. 1963. *b.* March 26, 1919; *Educ.:* Sangamner. Baroda and Poona. Was an advocate at Sangamner, Ahmednagar Dt.; appointed as Civil Judge, Junior Division-cum-Magistrate; Pres., Municipal Labour Union, Sangamner; Adviser, Bidi Workers' Union, and member, Dist. Development Board; Chairman: Sangamner Oil Mill; Akola Market Cttee. and of several other institutions; an active social worker in the cooperative and educational field; elected M.L.A., Maharashtra from Sangamner Constituency, 1962; Dy. Min. for Cooperation, Maharashtra, 1962-63. *Address:* Sachivalaya, Bombay 32.

**KHEDKAR, Gopalrao Bajirao,** Minister for Rural Development, Maharashtra, since March 8, 1962. *b.* 1900, in Khed Village, Amravati Dist. Left secondary school at Gandhiji's call to join the freedom struggle; courted jail on several occasions; was founder and consolidator, Congress Seva Dal, Vidarbha; Pres., Vidarbha Congress Cttee., 1948–57; founder and promoter of several educational institutions; closely associated with Shivaji Education Society, Vidarbha; was responsible for establishing a net-work of primary schools in Akola Dist.; elected M.L.A., Madhya Pradesh, 1947; Pres., Vidarbha P.C.C., 1948–58; elected to Lok Sabha, 1952 and 1957; was member, Nine-Member Cttee. appointed by Congress Working Cttee. for reorganisation of Bombay State; elected Pres., M.P.C.C., 1960; elected M.L.A., Maharashtra, 1962. *Address:* 'Deogiri', Narayan Dabholkar Road, Malabar Hill, Bombay 6; Civil Lines, Akola.

**KHER, Atmaram Govind,** B.A., LL.B., Chairman, U.P. Bharat Sevak Samaj and Bhoodan Yogya Samiti. *b.* Sept. 25, 1894; *Educ.:* Jhansi; Central Hindu College, Banaras, and Law College, Allahabad. Chairman, Municipal Board, Jhansi, for 3 terms; member, District Board, Jhansi, for ten years; thrice member, Legislative Assembly; member, District, Provincial and All-India Congress Committees, several times; imprisoned for political activities five times; twice Parliamentary Secretary to Minister of Health and Local Self-Govt.; Minister for Local Self-Govt.; Speaker, U.P. Assembly, 1952-62; Pres.: Bharat Scouts and Guides, U.P. *Address:* D-13, Park Road, Lucknow.

**KHILNANI, H.E. Mr. Khemchand Rewachand Fatehchand,** M.A. (Hons.), (Econ. Tripos), (Cantab.), Bar-at-Law (Lincoln's Inn), F.R.E.S., Ambassador of India to Rumania since Sept. 1963 and concurrently to Bulgaria, since July 1964. *b.* Feb. 6, 1913; *Educ.:* D. J. Sind Coll., Karachi; Elphinstone Coll., Bombay; Trinity Hall, Cambridge; Bar-at-Law (Senior Counsel), Chief Court of Sind, 1936-48; joined I.F.S. 1948; Under Secy., Min. of E.A., 1948-49; Asstt. Commissioner-General for economic affairs for Europe, Paris, 1949; served as First Secy. in Prague, Bulgaria, Rumania, Albania, Hungary, Poland, U.S., Colombo, Rome, Yugoslavia & Greece, 1949-57; Counsellor, Cairo, 1957-59; Jt. Secy. to the G. of I. in charge of Foreign Trade, 1959-61; Director, S.T.C. and Director, Shipping Corporation of India, 1959-61; Commissioner for India in East and Central Africa and Consul-General to Ruanda-Urundi, 1961-63; Chairman, ECAFE Cttee. on Trade, 1961; Leader, India's Trade Delegations to Western Asian and Eastern European countries, 1959-61. *Publications: Languages:* Foreign :-Persian, German, French, Italian, Arabic and Rumanian. Indian :-Gujarati, Sindhi, Punjabi & Hindi. *Address:* C/o The Ministry of External Affairs, New Delhi; The Embassy of India, Bucharest (Rumania).

**KHOBARAGADE, Bhaurao Dewaji,** B.A. (Nagpur), Barrister-at-Law (Lincoln's Inn), M.P., Founder Secretary, Republican Party of India, since Oct. 1957. *b.* Sept. 25, 1925; *Educ.:* Govt. Jubilee High School, Chanda; Coll. of Science, Nagpur; B.A. from Morris Coll., Nagpur, 1945; Bar-at-Law from Lincoln's Inn, 1949. From early life interested in uplift and emancipation of the untouchables; Secy., Scheduled Castes Students' Federation (M.P.), 1943-44; Vice-Pres., Municipal Cttee., Chanda, 1952-56; Pres., Nagpur Pradesh S. C. Federation, 1953-55; General Secy., All India S. C. F., Aug. 1955-Dec. 1956; elected Pres., All India S.C.F., Dec. 1956-Oct. 1957; Founder Pres., Presidium, an organisation to control the various educational, religious and social institutions started by late Dr. B. Ambedkar; Pres., Bombay Pradesh Bidi Majoor Sangh; Founder Pres., Siddharth Shikshan Sahayyak Sanstha (Nag-Vidarbha); elected to Rajya Sabha, March 1958; attended world Buddhist Conference at Bangkok, 1958; offered satyagraha in favour of landless labourers of Maharashtra, 1959; member, Public Accounts Cttee., 1963-64. *Address:* Chanda.

**KHOSBAYAR, H. E. Mr. Oyuny,** Ambassador of the Mongolian People's Republic to India, since Sept. 1964. *b.* Dec. 1923; *Educ.:* University, Ulanbator, Mongolia. First Secy., Mongolian Embassy, Peking, 1955; First Secy., Mongolian Embassy, New Delhi, 1956; Director, Political Deptt., Ministry of Foreign Affairs, 1957-59; Mongolian Ambassador to Hanoi, 1960-61; Director, Political Deptt., Ministry of Foreign Affairs, 1961-62; Deputy Foreign Minister, 1963-64. *Address:* 21/48, Panch Sheel Marg, New Delhi 21.

**KHOSLA, Dr. Ajudhia Nath,** B.A. (Hons.), C.E.(Hons.)(Roorkee), Dr. Engineering (Honorary), Rennselaer Polytechnic Institute, U.S.A., Dr. Engineering (Honoris Causa), Roorkee Univ., D.Sc. (Honoris Causa), Punjab Univ. (1961), Padma Bhushan (1955), Governor of Orissa, since Sept. 15, 1962; Vice-Chancellor, Roorkee Univ., 1954-59; M.P., 1958-59. *b.* Dec. 11, 1892; *Educ.:* D.A.V. Coll., Lahore; Thomason Coll. of Engineering, Roorkee; Special Secy., Govt. of India, Ministry of Irrigation & Power, 1953; Founder Pres., International Commission on Irrigation and Drainage, 1950; Honorary President, since 1954; Chairman, Bhakra Board of Consultants, since 1952; Beas Board of Consultants since 1961; Chairman: Board of Consultants for Sabarigiri (Kerala); Ramganga and Yamuna Projects (U.P.); Pres., National Institute of Science, 1961-62; Member, Planning Commission, 1959-62. *Publications: Levelling of precision across Rivers—Evolved the Khosla Disc; Design of Weirs on Permeable Foundations; Silting of Reservoirs; Rainfall and Runoff; Pressure observations under Dams; Precast Concrete Through Roofs. Address:* Governor's Camp, Bhubaneswar, Orissa.

**KHOSLA, Jagan Nath,** B.Sc. (Econ.), (London), Ph.D. (Econ.), (London), Barrister-at-Law, Director, Indian Institute of Public Administration, New Delhi, since Jan. 1964. *b.* Jan. 28, 1906; *Educ.:* Srinagar, Lahore, London and Paris. Editor, *Indian Journal of Political Science*, 1945-48; Fellow of the Punjab Univ., 1947-48; represented India in several International Conferences; Head, Consular Deptt., High Commission of India, London, 1948-51; Charge d'Affaires of the Indian Embassy, Rome and concurrently at Belgrade, 1951-52; Head of the Historical Division, Ministry of External Affairs, 1953-54; Pres., International Commission for Control and Supervision, Laos, Indo-China, 1954-55; Ambassador to Czechoslovakia, 1955-58 and concurrently to Rumania, Feb.-Oct. 1958; Ambassador to Indonesia, 1958-61; Amb. to Yogoslavia, Bulgaria and Greece, 1961-64. *Publications:* Scientific papers in journals. *Address:* Indian Institute of Public Administration, Indraprastha Estate, Ring Road, New Delhi.

**KIDWAI, H.E. Mr. Mustafa Kamil,** B.A., LL.B., High Commissioner for India in Malaysia, since July 1965. *b.* April 16, 1908 at Masauli, Barabanki, U.P.; *Educ.:* Aligarh Muslim Univ., U.P.; Lucknow Univ. Judicial Officer with Civil and Criminal Powers, U.P. Judicial Service, 1934-46; Under Secy. and Asstt. Legal Remembrancer, U.P. Govt., 1946-47; attached to the Ministry of Law, Govt. of India, 1947-48; Deputy Secy. and Dy. Legal Remembrancer, U. P. Govt., 1948-49; Secy., Durgah Khwaj Ajmer Enquiry Cttee., appointed by Ministry of Home Affairs, Govt. of India, 1949-50; Dy. Secy. and Dy. Legal Remembrancer, U.P., 1950-51; Consul-General of India in Saudi Arabia, 1951-54; Charge d'Affaires, Indian Legation, Jeddah, 1954-55; Minister, Legation of India, Jeddah, 1955-56; Ambassador in Saudi Arabia, 1957-61. Commr. in Mauritius, and Amb. in Somalia, 1961-64; Amb. to Saudi Arabia, 1964-65. *Address:* C/o External Affairs Ministry, New Delhi.

**KILACHAND, Ambalal,** Business man. *b.* July 23, 1912; *Educ.:* Elphinstone High School, Bombay and in England. Director, Kilachand Devchand & Co. Private Ltd., and their associated companies as also other private & public limited concerns such as the Kesar Sugar Works Ltd., The New Great Insurance Co. of India Ltd., The Indian Dye-stuff Industries Ltd., The Polychem Ltd.; Trustee, Bombay Port Trust, 1957-60; member: Customs Advisory Cttee.; Pres., Indian Merchants' Chamber, 1953-54; was member, Import Advisory Council set up by the Govt. of India since its inception up to 1956; is an ardent Rotarian; President, Rotary Club, Bombay, 1965-66; has extensively travelled in the U.K., Europe and the Far Eastern countries; also U.S.A., E. Africa and Japan; elected Pres., All India Plastic Mfrs.' Assoc., July 1963. *Address: Office:* 45/47, Apollo Street, Fort, Bombay 1; *Residence:* 95, Nepean Sea Road, Bombay 6.

**KILACHAND, Chinubhai,** Business man. *b.* June 20, 1919; *Educ.:* Fellowship High School and St. Xavier's, Bombay and in England, On his return from England, joined the family firm of Kilachand Devchand & Co. Private Ltd., 1939; has been responsible for developing its Foreign Cotton Deptt.; Director: Kilachand Devchand & Co. Private Ltd. and its associated companies; also of other public companies; Joint Managing Director, Premier Automobiles Ltd.; Bombay; has travelled widely in the U.K., Europe and in the United States of America in connection with the development of the business of his firm; is a prominent figure in the social circles in Bombay, Delhi and other important cities of India. *Address: Offices:* 45/47, Apollo Street, Fort, Bombay 1; *Residence:* 95, Nepean Sea Road, Bombay 6.

**KILACHAND, Ramdas,** Business man. *b.* Sept. 18, 1909; *Educ.:* Elphinstone High School, Bombay and in England. On his return from England, joined his family firm of Kilachand Devchand & Co., Ltd., 1926; developed the Company's cotton and oilseeds export business; Director, East India Cotton Assoc. Ltd., for over 15 years; is its Vice-Pres.; Pres., Bombay Oilseeds & Oils Exchange Ltd. for more than 25 years; now its director; is Director: Kesar Sugar Works, Ltd.; Polychem Ltd.; Synthetics & Chemicals Ltd., etc. Ex-Trustee, Bombay Port Trust; Pres., Indian Merchants' Chamber, 1948-49; member: Indian Central Oilseeds Cttee.; Indian Central Cotton Cttee.; was member, Export Promotion Advisory Council set up by the Govt. of India; elected M.L.A., Bombay in the general elections in 1952, as an Independent from a constituency in Mehsana District in north Gujarat; Trustee, Bombay Panjrapole; Pres., Commerce Graduates' Assoc.; has widely travelled in the U.K., and the Continent of Europe, the U.S.A. and the Far East. *Address: Office:* 45/47, Apollo Street, Fort, Bombay 1; *Residence:* 95, Nepean Sea Road, Bombay 6.

**KILACHAND, Tulsidas,** Business man. *b.* July 1, 1906; *Educ.:* Elphinstone High School, Bombay, and privately in England. Joined his father's firm Kilachand Devchand & Co., Ltd., at the early age of 18; is actively interested in banking, insurance, automobile, chemical, sugar and synthetic rubber industry; Leader, Govt. of India's Trade Mission to Japan, 1947; was member: Export Advisory Council of the Govt. of India; Three-Man High Power Import Control Inquiry Cttee.; member: Planning Commission Advisory Board, 1950-51; Standing Cttee., Indian Council of Agricultural Research; Standing Cttee. of the Export Promotion Advisory Council; Pres., Federation of Indian Chambers of Commerce & Industry, New Delhi, 1950-51; Chairman, Indian Bankers Assocn., 1961-65; elected M.P. in the General Elections in 1952 as an independent from Mehsana District; has widely travelled in the U.K., Europe, U.S.A., and the Far East. *Address: Office:* 45/47, Apollo Street, Fort, Bombay 1; *Residence:* 95, Nepean Sea Road, Bombay 6.

**KIRLOSKAR, Shantanu Lakshman,** B.Sc. (M.I.T.), Padma Bhushan (1965), Industrialist; Pres., F.I.C.C. & I., 1965-66. *b.* May 28, 1903, at Sholapur; *Educ.:* Massachusetts Inst. of Technology, U.S.A., 1926. Chairman: Indian Diesel Engine Mfgs. Assoc., Poona; Chairman, Board of Directors: Kirloskar Oil Engines Ltd., Poona; Kirloskar Pneumatic Co. Ltd., Poona; Kirloskar Cummins Limited, Poona; Kirloskar Consultants Private Ltd., Poona; Bharat Forge Company Ltd., Poona; Swastic Rubber Products Ltd., Poona; Padamjee Pulp & Paper Mills Ltd., Poona; The Central Pulp Mills Ltd., Poona; Director: Kirloskar Brothers Limited, Kirloskarwadi; The Mysore Kirloskar Limited, Harihar; Kirloskar Electric Company Ltd., Bangalore; Kirloskar Asea Limited, Bangalore; The Lakaki Works Private Ltd., Lonavala; The Ahmedabad Electricity Co. Ltd., Bombay; Bajaj Auto Limited, Bombay; Delhi Cloth & General Mills Co. Ltd., Delhi; Bharat Ball Bearing Company Ltd., Delhi; Escorts Limited, New Delhi; The Jay Engineering Works Limited, Calcutta; The Bank of Maharashtra Ltd., Poona; Nominated member: The Central Advisory Council of Industries; The Board of Trade; The Indian Standards Institution; The Koyna Control Board; The Maharashtra State Adv. Council of Industries; The National Institute for Training in Industrial Engineering; President: The Mahratta Chamber of Commerce & Industries, Poona; Committee member: Maharashtra Chamber of Commerce, Bombay. *Address: Office:* Kirloskar Oil Engines, Ltd., Elphinstone Road, Kirkee, Poona 3; *Res.:* 'Lakaki', Poona 16.

**KIRPAL, P. N.,** M.A. (Punjab and Oxford), B.A., LL.B., Secretary and Educational Advisor to the Govt. of India, since 1960. *b.* April 30, 1909; *Educ.:* Univ. of the Punjab, Lahore; Balliol Coll., Oxford University. Lecturer in History, Lahore, 1934-38; Prof. of History and Political Science, Lahore, 1938-45; Educational Adviser to the High Commissioner for India in the U.K. 1945-48; Deputy Secy. to Govt. of India, Ministry of Education and Secretary-General, Indian National Commission for UNESCO (1948-52); Seconded to UNESCO Department of Cultural Activities for appointment as Deputy Director and Later as Director (1952-57); Joint Secy. to the Govt. of India, Ministry of Education and Secretary-General, Indian National Commission for UNESCO, 1957-60: member: All India Council of Sports; University Grants Commission; Exc. Board, UNESCO; Indian Education Commission, July 1964. *Address:* Ministry of Education, Government of India, New Delhi.

**KISHAN, Ram,** Chief Minister, Punjab, since July 6, 1964. *b.* 1913, at Jhang Dist., West Pakistan. Left college to join the freedom struggle in the wake of the death of Lala Lajpat Rai, 1929; is a staunch Congressman; courted jail for six years during the independence movement; detained during the 'Quit India Movement'; elected Commissioner, Lahore Municipal Corporation, 1946; Office Secy., Punjab P.C.C. before partition; elected M.L.A., Punjab from Jullundur Constituency, 1952-57; Municipal Commissioner, Jullundur City, 1948-51; Gen. Secy., Pradesh Congress; was Pres., Dist. Congress Cttee., Jullundur, for four years; Deputy Minister, Punjab, 1956-57; again elected to the Punjab Leg. Assembly, 1962; member, A.I.C.C.; became a Minister of State, Punjab, 1962; resigned in the wake of the Chinese aggression when it was decided to reduce the strength of the Cabinet; member, National Development Council, since July 1964. *Address:* Chandigarh.

**KNOX, Most Rev. James R.,** Titular Archbishop of Melitene; Apostolic Internuncio to India, since 1957. *b.* March 2, 1914; *Educ.:* Urban Coll. "de Propaganda Fide", Rome.

Vice-Rector, Coll. "de Propaganda Fide", 1945-48; attached to Secretariat of State of His Holiness Pope Pius XII, 1948-50; Secy. of the Apostolic Internunciature, Tokyo, Japan, 1950; nominated Apostolic Delegate, British East and West Africa, 1953. *Address:* Apostolic Internunciature, Chanakya Puri, New Delhi 21.

**KOHLI, Dina Nath,** B.Sc. (Hons.), M.Sc. (Industrial Chemistry) (Punjab), Narcotics Commissioner to the Govt. of India, since 1961. *b.* June 6, 1914; *Educ.:* Forman Christian Coll., Lahore. Supdt. of Central Excise, 1940-46; Asstt. Collector, Central Excise, 1946-55 · Asstt. Director, Directorate of Inspection (Customs and Central Excise), New Delhi, 1955-57; Collector of Central Excise, Bangalore, 1957-59; Collector of Central Excise, Nagpur, 1959-61. *Address:* 20, The Mall, Morar, Gwalior.

**KOHOUT, H. E. Mr. Jaroslav,** Ambassador of the Socialist Republic of Czechoslovakia to India. *b.* Feb. 19, 1915, in Prague; *Educ.:* graduated from the Economics Faculty of the Prague Univ. Joined the Ministry of Foreign Trade, 1947; has been Deputy Minister of Foreign Trade, since 1955; has represented his country in many international and inter-State conferences; was elected one of the Vice-Chairmen of the Council while participating in the Geneva Conference on Trade and Development, 1964; has received many awards and decorations. *Address:* 45-46, Sundar Nagar, New Delhi 11.

**KOLTE, V. B., M.A., LL.B., Ph.D.,** Marathi Writer; Principal, Vidarbha Mahavidyalaya, Amraoti. *b.* June 22, 1908; *Educ.:* Govt. High School, Khamgaon; B.A. in 1929 and M.A. from Morris Coll., Nagpur, in 1931; LL.B. from Univ. Coll. of Law, Nagpur, in 1931; K. B. Malak Gold Medal, 1931; N. K. Behare Gold Medal, 1931. Asstt. Prof. of Marathi, King Edward Coll., Amraoti, 1931–44; Morris Coll., Nagpur, 1944; Pres., Vidarbha Sahitya Sangh and Sammelan, 1948; Reader in Marathi, Nagpur Mahavidyalaya, 1956–59; held charge as Principal, 1956–58; member: Marathwada Univ. Cttee., 1957; Sahitya Akademy, 1957–62; Maharashtra State National Discipline Scheme Cttee., since 1960; Maharashtra State Language Advisory Board, since 1961: Maharashtra State Anglo-Indian Edn. Cttee., 1962; Dean, Faculty of Arts, Nag. Univ. 1961-64; Principal, Nagpur Mahavidyalaya, 1959–64; *Publications: Lawhali* (poems); *Sod-Chilthi* (Drama); *Bhaskar Bhatta Borikar* (Life and Works); *Mahanubhao Tatwadnyan; Mahanubhawancha Achardharma; Shri Chakradhara Charitra; Marathi Santonka Samajik Karya* (Hindi); edited: *Uddhao Geeta. Rukmini Swayamwar, Shishupal Wadh,* etc. *Address:* Principal, Vidarbha Mahavidyalaya, Amraoti.

**KOTHARI, Daulat Singh,** M.Sc. (Allahabad), Ph.D. (Cambridge), F.N.I., Chairman, Univ. Grants Commission, since Feb. 1961; Professor of Physics, Delhi University, and Scientific Adviser to the Minister of Defence, Govt. of India. Chairman, Education Commission, Govt. of India, Since July 1964. *b.* 1906; *Educ.:* Udaipur, Indore, Allahabad and Cambridge; studied physics under Dr. Megh Nath Saha at Allahabad Univ. Appointed on the staff of Physics Dept., Allahabad Univ., 1928; joined Delhi Univ., 1934 and the Ministry of Defence, 1948; has been Pres., Indian Physical Society; is Vice-Pres., National Institute of Sciences of India. *Publications:* Published numerous papers in Indian and foreign scientific journals on Statistical Thermodynamics, Theory of White Dwarf Stars, and other Physical and Astrophysical subjects; showed that atoms can be ionized (broken down) by the application of pressure alone; *Nuclear Explosions. Address:* New Delhi.

**KOTHARI, Dayanand Chandulal,** M.A., (Madras) Business man, Share & Stock-broker, Industrialist & Managing Agent. *b.* Feb. 1914. *Educ.:* Madras Christian Coll. Was Pres.: All India Organisation of Industrial Employers; United Planters' Assen. of S. India; was Chairman, Southern India Millowners' Association; member: Federation of Indian Chambers of Commerce & Industry; Indian Sugar Mills Association; Indian Cotton Mills Federation, Indian National Cttee. of the International Chamber of Commerce; is Pres.: Madras Stock Exchange Ltd.; Ex-Sheriff of Madras; Dir.: Kothari Textiles Ltd.; Adoni Spg. & Wvg. Co. Ltd.; The Investment Trust of India Ltd., Madras Aluminium Company and several others; Partner, Kothari & Sons, Madras; Chairman: Madras School of Social Work; Cotton Textile Loan Advisory Committee; South Indian Sugar Mills Assocn. *Publications:* Investors' Encyclopaedia. *Address:* "Kothari House", 3, Kothari Road, Nungambakkam, Madras 34.

**KOTHARI, Harshad Chandulal,** Share, Stock Exchange Broker & Director and Managing Agent; Partner, Kothari & Sons, Madras. *b.* April 18, 1918; *Educ.:* Madras Christian Coll. Member: Tea Board; Coffee Board; Sugar Development Council; Madras Land Board; is Director: Adoni Spinning & Weaving Co. Ltd., Adoni; Investment & Finance Corpn. Pvt. Ltd., Madras; Kothari Mehta & Co. Pvt. Ltd.; Kothari & Sons, (Agencies) Pvt. Ltd. and several others; was President: Madras Stock Exchange Ltd.; Pres., United Planters' Association of Southern India, Coonoor; Director, Madras Industrial Investment Corpn. Ltd.; has travelled extensively in the Continent, States and Indonesia. *Address: Office:* Oriental Buildings, Armenian Street, Madras 1; *Residence:* 4-A.A., Nungambakkam High Road, Madras 34.

**KOTHARI, Hemraj,** B.Sc., D.W.P. (Lond.), A.C.C.G.I. (Lond.), etc., Chartered and incorporated Engineer, Journalist and Management Consultant; Founder-Editor, *Who's Who in Indian Engineering & Industry; Compact Weekly; What's on in Calcutta* (Fortnightly); *Professional Engineer* and *the Director;* Founder-Organiser: The Association of Indian Engineers (U.K.), Institute of Directors (India) & The Engineers Guild (India), *b.* Nov. 10, 1933, at Sujangarh; *Educ.:* Delhi, Calcutta, Darjeeling, London and Oslo. Partner, Kothari & Sons Calcutta, since 1955; Founder-Proprietor, Kothari Organisation; life Fellow: British Interplanetry Society; Geological, Mining & Metallurgical Society; Institute of Directors (Lond.), etc.; life Member: National Academy of Sciences; New York Academy of Sciences; Indian Science Congress; Indian Inst. of Public Administration; member: Indian and Eastern Newspaper Society; International Chamber of Commerce—India National Cttee., International Pres. Assn. for study of overseas problems (Paris); Television Society, etc.; has widely travelled in Europe and Middle East (1953-60). *Publications: Who's Who in Indian Science; Professional & Trade Organisations in India; Kothari's World of Reference Works; Technological Education; Directory of Directors; Who's who in India. Address:* Office: 12, India Exchange Place, Calcutta 1; *Home:* Sujangarh-Rajasthan; 58, Upper Chitpore Road, Calcutta.

**KRIPALANI, Acharya J.B.,** M.A. (History and Economics), M.P.; Director, Shri Gandhi Ashram, Village and Khadi Organisation, U.P., Delhi. *b.* 1888. General Secretary of Indian National Congress, 1934–46; elected Pres., Indian National Congress, Oct. 1946; resigned Nov. 1947; *Educ.:* M.A., 1912. Joined Mahatma Gandhi in Champaran Satyagraha, 1917; Private Secretary to Pandit Madan Mohan Malaviya, 1918; organised Gandhi Ashram; started Khadi and Village work, 1920, through the Gandhi Ashram, Banaras; courted jail in freedom movement several times; Member, Constituent Assembly of India, 1946-51; formed the Congress Democratic Front, 1951; resigned from Congress and formed Kisan Mazdoor Praja Party, 1951; merged K.M.P.P. with the Socialist Party, Oct. 1951; was Chairman, P.S.P. till Dec. 1954; and Railway Corruption Enquiry Committee, 1954–55; elected to Lok Sabha, 1952, 1957 & 1963; Chairman, Language Cttee., U.P., 1962-63; has resigned from the P.S.P. *Publications: The Gandhian Thought, The Non-Violent Revolution, The Indian National Congress, The Politics of Charkha, The Future of the Congress, The Fateful Year, Gandhi the Statesman, The Latest Fad, Basic Education, Where are we going, The Second Plan, The Gandhian Critique, Planning, Pomp and Poverty, Voice of Vigilance, Current Affairs. Address:* Shri Gandhi Ashram, Lucknow.

**KRIPALANI, Smt. Sucheta,** M.A. (Delhi Univ.), Chief Minister, Uttar Pradesh, since Oct. 2, 1963. *b.* 1908; *Educ.:* Lahore and Delhi. Acted as Secy., Women's Deptt., A.I.C.C., 1941–42; imprisoned in connection with the freedom struggle, 1940–41 and 1943–45; appointed Organising Secy., Kasturba Memorial Trust, 1945; elected member, Constituent Assembly, 1946; subsequently elected M.P.; delegate to the General Assembly of the U.N.O., 1949; Member, Congress Working Cttee. (National Executive), 1948-51; resigned from the Congress, June 1951; joined the Kisan Mazdoor Praja Party; was member, National Executive of the Party; was elected member, National Executive, P.S.P. Elected to Lok Sabha in 1952 and again 1957; rejoined the Congress; Gen. Secy., Indian National Congress, 1958–60; re-elected M.L.A., U.P., 1962; Min. for Labour, U.P., 1960–63; elected Leader, U.P. Legislature Congress Party, Sept. 21, 1963; is the first woman Chief Minister in India. *Address:* 11, Gautam Palli, Lucknow.

**KRISHNA, Kanwal,** Painter; Head of the Art Deptt., Modern School, New Delhi, since June 1953. *b.* Jan. 3, 1910 in Montgomery, West Punjab; *Educ.:* Lahore; Engineering Coll., Banaras; School of Art, Calcutta, was the first Indian war artist to be commissioned by the Army to paint the battle scenes during the Kashmir operations, 1948; three of his new experiments on the technique in etching and engraving were exhibited in the International Graphic Art Exhibition, Switzerland, 1958; awarded Governor's Gold Medal for experiments in Graphic Art, 1960; held exhibitions of his graphics in Nepal, 1961; Afghanistan, 1962, Japan (Museum of Modern Art of Tokyo), Nov. 1962: held solo-exhibition of his paintings, Calcutta, Dec. 1962. Participated in the international exhibition of graphics in Yugoslavia and Australia, 1963; in the international biannale exhibition of art at Sao Paulo in Brazil and won an award, 1963; invited by the N. Y. Univ. on a lecture-cum-demonstration tour of U.S.A., 1964. *Publications:* Contributed several articles to important journals in India and abroad. *Address:* Head, Art Department, Modern School, New Delhi.

**KRISHNAMACHARI, Tiruvallur Thattai,** Ex-Minister for Finance, Government of India; Ex-Member, Planning Commission. *b.* Nov. 26, 1899; *Educ.:* Madras Christian College, Madras. Entered business, 1921; was elected representative of the Indian Commerce Constituency to the Madras Leg. Assembly, 1937 and played a prominent part in legislative and other work in the Madras Assembly during the time of the Congress Ministry; elected to the Central Assembly in October 1942 in bye-election for Tanjore-Trichinopoly non-Mohammedan Rural Constituency and was a prominent member in the last Central Assembly; elected member, Constituent Assembly of India, 1946; member, Drafting Cttee. of the Indian Constitution; Minister for Commerce and Industry, Govt. of India, May 1952-Aug. 31, 1956; was Minister for Iron and Steel in addition, June 1955 to April 1957; Minister for Finance, Govt. of India, Sept. 1, 1956-Feb. 14, 1958; resigned Ministership, Feb. 14, 1958; elected unopposed to Lok Sabha from Tiruchendur Constituency, Feb. 1962; Minister without portfolio, Govt. of India,

June 8 to Nov. 14, 1962; Min. for Economic & Defence Coordination, Govt. of India, 1962–63; Min. for Fin., Govt. of India, Aug. 1963-Dec. 1965; resigned from the cabinet, Dec. 31, 1965; has extensively travelled abroad; attended the Commonwealth Prime Ministers' Conference in London, July 1964; attended the meeting of the World Bank and the I.M.F., Aug. 1964. *Address:* C/o Ministry of Finance, New Delhi.

**KRISHNAN, Mr. Justice Harikesanalur Ramasastri,** B.A. (Madras), M.Sc. (Banaras), I.C.S., Judge, High Court, M.P., since 1958. *b.* Jan. 9, 1910; *Educ.:* T. H. School, Ambasamudram; Hindu Coll., Tirunelveli; Presidency Coll., Madras; Banaras Hindu Univ.; Sidney Sussex Coll., Cambridge. Joined the Indian Civil Service, 1935; S.D.O. and Dt. Judge at different places in Bihar; Law Secy. to the Govt. of Orissa; Judicial Commissioner, Vindhya Pradesh, 1950-53; Jt. Secy., Min. of Law, Govt. of India (1953-57). *Publications:* Occasional articles in newspapers and magazines. *Address:* Indore.

**KRISHNAN, Dr. Maharajapuram Sitaram,** M.A. (Madras), A.R.C.S., D.I.C., Ph.D. (London), Hon. Professor of Geology, Osmania Univ., Hyderabad. *b.* Aug. 24, 1898; *Educ.:* St. Joseph's Coll., Tiruchirapalli; Presidency Coll., Madras; and Imperial Coll. of Science and Technology, London. Director, Indian Bureau of Mines, 1948-51; Fellow of the National Institute of Sciences of the Indian Academy of Sciences and of several geological and mineralogical societies at home and abroad; member of several Govt. Research Cttees.; Director, Geological Survey of India, 1951-55; General Pres., Indian Science Congress, 1956; Jt. Secretary, Ministry of Natural Resources, 1955-57; Dir., Indian School of Mines, 1957–58; Head, Dept. of Geophysics, Andhra Univ. 1959-61; Dir., National Geophysics Research Institute, 1961-63. *Publications: Geology of India & Burma* (Madras 1943, 4th edition, 1960); *Introduction to the Geology of India* (Madras 1944, 1951, 1959); *Geology of Gangpur State, Orissa* (1938); *Mineral Resources of Madras* (1952); *Structural & Tectonic History of India* (1953); More than 100 other papers on geological topics. *Address:* C/o Geology Dept., Osmania University Campus, Hyderabad 7.

**KRISHNAN, Ramanathan,** M.A., a leading tennis player; Mg. Director, Madras Cylinder Gas Co. Pvt. Ltd. *b.* April 11, 1937; *Educ.:* Loyola Coll., Madras. National Lawn Tennis Champion of India, 1954, 1957, 1959, 1960, 1961, 1963, 1964 and 1965. Wimbledon Junior Lawn Tennis Champion, 1954. Won the London Grass Court Championship, and the American Hard Court Championship, 1959; won the Lawn Tennis Championship of Asia, 1959, 1963, 1964 and 1965; was the first Indian to enter semi-finals at Wimbledon, 1960 and 1961; has played for India in the Davis Cup since 1953; ranked as India's No. 1 since 1953. *Address:* 'Ram Nivas,' 37, Thiruvenkatam Street. Raja Annamalaipuram Post, Madras 28.

**KRISHNAPPA, M.V.,** Minister for Revenue and Food, Mysore, since Feb. 1962. *b.* 1918; *Educ.:* Joined school at a late age; after release from imprisonment for 2½ years in the 'Quit India' movement, passed B.A. Exam.; joined Madras Law Coll. Elected M.L.A., Mysore, 1944; Chief Whip, Congress Party, Mysore State Assembly, 1944-52; ex-Pres., Mulbagal Development Cttee.; Dir., State-manage Bhadravati Iron, Steel and Cement Works, for 5 years; member, Dist. Board for 8 years; Secy., Reception Cttee., Bangalore Session of the A.I.C.C.; returned to the Lok Sabha from Kolar Gold Fields Constituency, Mysore State, 1952, and again in 1957 from Tumkur; appointed Parliamentary Secy. to Food Minister, 1952; Deputy Minister for Food, 1952–57; Dy. Min. for Agriculture, 1957–62. *Address:* Bangalore.

**KULKARNI, K. S.,** G.D. Art, Painter and Sculptor. *b.* April 7, 1918; *Educ.:* G.D. Art from Sir J. J. School of Art, Bombay, 1940; was mural decoration scholar awarded by Bombay Govt.; Research Scholar, Sir Ratan Tata Trust for Indian Painting, 1940-41; held one man shows of his paintings in India and in the United States and European Countries; represented India at the International Arts Programme in the U.S.A., 1950-51; has travelled widely and exhibited his works in the Middle-East, Europe, America, South America, Canada, Mexico, Japan and South-East Asia, 1958–59; a Founder member and Chairman of the Delhi Silpi Chakra; executed important mural and sculpture work in India and abroad—work in his own ceramic studio; Dir., Art Dept. and Founder-member, Triveni. *Publications: Human form in Indian Sculpture. Address:* Triveni, Tansen Marg, New Delhi.

**KULKARNI, Waman Laxman,** M.A., B.T., Marathi Writer; Prof. and Head of the Deptt. of Marathi, Marathwada Univ., since 1959; Chairman, Board of Editors, Marathwada Univ. Journal. *b.* April 6, 1911; *Educ.:* Govt. High School, Nasik; Wilson Coll., Bombay; won the Chiplunkar Marathi prize. Elected: Sectional Chairman, Criticism Section, 39th All India Marathi Sahitya Sammelan, Aurangabad, 1957; Chairman, Fiction Section, 40th All India Marathi Sahitya Sammelan, Malwan, 1958; Prof. and Head of the Dept. of Marathi, Wilson Coll., Bombay, 1944–59; member, State Board of Literature & Culture, Maharashtra; member, Univ. Broadcasts Consultative Panel etc. *Publications: Woman Malhar; Wangmaya-darshan* (1944); *Wangmayatil Wadasthale* (1946); *Wangmayeen Mate ani Matabhed* (1940); *Wangmayeen Teepa ani Tippani* (1954); *Shripad Krishna: Wangmaya-darshan* (1959); *Wangmayeen Drishti ani Drishtikon* (1959); *Sahitya ani Sameeksha* (1964); *Natakkar Khadilkar: Ek Abhyasa* (1964). *Address:* Marathi Dept., Marathwada University, Aurangabad (Dn.).

**KUMAR, Jitendra,** B.A. (Hons.) (Calcutta), Viswabharati Diploma in Fine Arts, Sculptor; Head, Fine Arts Deptt., Gorakhpur Univ. *b.* June 25, 1922, at Najibabad; *Educ.:* Shiksha Bhavan and Kala Bhavan, Santiniketan; Visvabharati. Held his 1st one man show at Mussoorie, 1952; won All-India prizes for his sculptures in wood at Bombay, 1955, '57 and '58; awarded by Lalit Kala Akademi the President's award for his sculpture 'Dipping Hair', 1956; also won State Lalit Kala Akademi Award 1964 for the sculpture 'Toilet'; member, cultural delegation to China, 1956; two of his sculptures have been sent by the Govt. of India to S. E. Asia and Europe for touring exhibition; works in stone, wood, concrete, oil, water colour, etchings and woodcuts; member: Adv. Cttee., Govt. Coll. of Arts & Crafts, Lucknow; Faculty of Fine Arts, Banaras Univ.; Board of Studies, Allahabad Univ. *Address:* C/o Gorakhpur University, Gorakhpur, U.P.

**KUMAR, Naresh,** B.Com., Leading tennis player; Business man. *b.* Dec. 22, 1928; *Educ.:* St. Xavier's Coll., Calcutta; Govt. Coll., Lahore. National Junior Tennis Champion, 1945, 1946; ranked India's No. 1, 1951-52; member of Indian Davis Cup Team, 1952-53-54-55-56-57-58-59-60-61; Captain, Indian Davis Cup Team, 1955-56-57-58-59-60; winner of Irish Championships, 1952 and 1953; ranked India's No. 2, 1955–56, 1958–59; Winner of: Essex Championships, 1957; National Championships of India in doubles with R. Krishnan, 1956–57–58–59; North of England Championships, 1957, 1958, and 1959 in doubles; Mixed Doubles Championships with Mrs. K. Singh, 1956–57–58–59; reached mixed doubles quarter-finals at Wimbledon with Miss E. Buding (Germany), 1957; reached men's doubles quarter-finals with R. Krishnan, Wimbledon after beating holders G. Mulloy and B. Patty, 1958; won doubles championships of Moscow with A. Huber (Austria), 1957; Asian Doubles Champion with Krishnan, 1962-63 and 1963-64; received the Arjuna Award, 1962 in Lawn Tennis from the Govt. of India. *Address:* 1-A, Russell Street, Calcutta.

**KUMARAMANGALAM, Lt.-Gen. P. P.,** D.S.O., Vice-Chief of the Army Staff, Indian Army; since Jan. 15, 1965; Army Chief Designate, *b.* July 1, 1913. Commissioned in the Indian Army, Aug. 29, 1933; attended a course at Larkhill, U.K., 1933-34; intelligence course at Poona, 1937 and basic para course at Chakala, 1947; was imprisoned twice in the West Asian operations; was a prisoner of war in Italy, 1942; escaped and again imprisoned in Germany; returned to India, 1945; member, Brigadiers' Cttee. as Lt. Col., 1945; commanded 9 Independent Heavy Anti-Aircraft Regt. and 12 Independent Field Regt., 1945-47; attended the advance artillery officers' course at the Field Artillery School, Oklahoma, U.S., 1947-48; appointed Commandant, Artillery School, Deolali in the rank of Brigadier, July 1948; Brigadier, Artillery Hqrs., Western Command, Aug. 1950; Director of Artillery, Army Hqrs., 1950-55; Commander of an independent para brigade, 1955-56; promoted Maj.-Gen. and appointed Commander of an infantry division, 1956-59; Commandant, Defence Services Staff Coll., Wellington, 1959; Adjutant General in the rank of Lt.-Gen., Army Hqrs., Oct. 1959-May 1963; G.O.C.-in-C., Eastern Command, May 1963—Nov. 1964; Deputy Chief of the Army Staff, Nov. 1964—Jan. 15, 1965; awarded Distinguished Service Order for his role in the operations in the Second World War; is due to take over as Chief of the Army Staff on June 10, 1966. *Address:* Army Headquarters, New Delhi.

**KUMARAYYA, Mr. Justice Nampalli,** B.A., LL.B., Judge, High Court of Andhra Pradesh, Hyderabad, since October 23, 1957. *b.* June 15, 1909; *Educ.:* B.A. from Osmania Univ., Hyderabad, 1929. Munsif Magistrate, Hyderabad, 1935; Divisional and Sessions Judge, 1948; entrusted with various additional duties, 1949-55; appointed Special Judge for Laik Ali's escape case and other Ex-Ministers' case; Pres.: Industrial Tribunal, 1949–50; Election Tribunal; Agricultural Income-tax Tribunal; Advisory Board under Hyderabad Public Security Measures; member, Advisory Board to the Govt. constituted under the Preventive Detention Act; Chairman, Wage Board for some of the industries in Hyderabad State; Judge, Hyderabad High Court, 1955. *Address:* 14-A, Maredpally East, Secunderabad.

**KUNDU, Dr. B. C.,** M.A., Ph.D. (Leeds), F.L.S., F.B.S., F.N.I., Head of the Division of Botany, Central Drug Research Institute, Lucknow, since 1960. *b.* April 1905; *Educ.:* Calcutta Univ., Calcutta; Leeds Univ., England; Sir Rash Behari Ghosh Research Scholar, Calcutta Univ., 1928-30. Prof. of Botany Presidency Coll., Calcutta and Hon. Lecturer, Calcutta Univ., 1939-45; Dir., Jute Agri. Res. Instt., 1946-60; Pres., Botany Section, Indian Science Congress, Hyderabad Session, 1954; Bengal Botanical Society, since 1957; member: Council, National Institute of Sciences of India, since 1958; Council, Indian Science Congress, 1955-57; Cttee., Indian Science News Assoc.; Medical Plants Cttee., I.C.A.R.; *Publications:* Several text-books on botany and biology; *Jute in India—a monograph;* monograph on Indian Charophyta; about 150 papers on Plant Anatomy, Plant Breeding, Systematic Botany, Medicinal Plants, etc. *Address:* Lucknow.

**KUNZRU, Pandit Hriday Nath,** B.A., B.Sc., LL.D. (Hon.), President, Servants of India Society, since 1936. *b.* 1887; *Educ.:* Allahabad Univ.; London School of Economics. Joined the Servants of India Society, 1909; member: U.P. Leg. Council, 1921-23; Indian Leg. Assembly, 1927–30; Indian Constituent

Assembly and the Provisional Parliament; Council of State, 1937-46; Pres., East African National Congress, 1929; National Liberal Federation, 1934; member, States Reorganization Commission; Leader, Indian Delegation to: South Africa, 1950; Member (Rajya Sabha) 1952–62; Institute of Pacific Relations Conference, Kyoto (Japan); Pres.: Indian School of International Studies, New Delhi; Indian Council of World Affairs; Anjuman-e-Tarraquie-e-Urdu Hind; Gen. Secy., All India Seva Samity; member: Univ. Grants Commission; Executive Councils of Delhi and Banaras Univs.; National Commissioner, Bharat Scouts and Guides 1950-57 & 1961-63; Chairman, Railway Accidents Cttee. (1962); Vice-Pres., Univ. Film Council and Bharatya Adamjati Sevak Sangh. *Address:* Sapru House, Barakhamba Road, New Delhi; 1, P. D. Tandon Road, Allahabad, U.P.

**KURUP, G. Sankara,** Jnanpith Award (1965), Sahitya Salahkar, AIR, Malayalam Writer; Editor, *Thilakam;* President, Kerala Sahitya Samithi; Member: Kerala Sahitya Akademi; Advisory Board of Sahitya Akademi. *b.* June 1901; *Educ.:* mostly privately after High School Course. Joined service as teacher, 1921; began publishing poems from the seventeenth year; was Malayalam Professor, Maharaja's Coll., Ernakulam; got the National Award from the Central Sahitya Akademi for the collection of poems 'Viswadarsanam' in 1964; won the Bharatiya Jnanpith award of Rs. One lakh for his book '*Odakuzhal*', Dec. 29, 1965. *Publications:* Poems; *Sahitya Kautukum; Viswadarsanam; Moonnaruviyum oru Puzhayum; Vanagayakan; Suryakanti; Patheyam: Odakkuzhal; Navathithi; Muthukal; Ithalukal; Pathikande Pattu; Antardaham; Vellil Pravakal; Nimisham; Jeevanasangeetham* etc.; Translations: *Meghachaya* (a rendering of a Kalidasa's Megha Dutha); *Vilaslahari* (Roobayyath of Omar Khayyam), Gitanjali and Ekotharasathi from Bengali; One Act Plays: *Iruttinumunpu; Sandhya;* etc.; Prose: *Gadyopaharam; Lekhamala; Rakknyilukal; Muthum Chippiyum;* Children's poems: *Ilamchundukal. Address:* Bhadralayam, Ernakulam.

**KURUP, Thakazhi Poyipoilli Kalathil Kunju,** Padma Shri (1965), Kathakali Natyaachariyan, Kalathilakam by the Zamorin of Kozhikode. *b.* March 20, 1880; *Educ.:* About 12 years at Thakazhi, under Chabbakkulam Sanku Pillai and another 12 years under M. M. J. Namboodiripad. Is a leading Kathakali dancer in India; spent the early part of his life in Travancore and then settled down in Malabar with Kathakali as his chief profession; worked with late Poet Mahakavi Vallathol; got appreciation from Tagore, Nehru, Prithviraj Kapoor; prominent disciples—Ramgopal, Mrinalini Sara Bai, Gopinath, Tara Chowdiri, Ananda Sivaram, Kalamandalam Madhavan, Kalamandalam Krishnan, Santa Rao, Hari; conducts a Kathakali School at Kottayi. *Address:* Lakshmi Vilas, P.O. Kottayi (*via*) Palghat.

**KUTCH Lt.-Col. H. H. Maharaja Dhiraj Mirza Maharao Shri Madansinhji Savai Bahadur, Maharao of.** *b.* Oct. 12, 1909; Heir-Apparent, Maharaj Kumar Shree Prithvirajsinhji; *Educ.:* Privately. Transferred Kutch State to the Govt. of India on June 1, 1948, following the independence of India on August 15, 1947 and in conformity with the policy of the unification of the States with the Indian Union; has been given a fixed Privy Purse in perpetuity; has been guaranteed by the Govt. of India the same personal rights, privileges, dignities and titles as he enjoyed as Ruler of Kutch, prior to 1st June 1948; has travelled widely in Europe, U.S.A. and Africa; served for three and a half years with the Indian High Commission in London with rank of Minister; India's first Ambassador to Norway, 1956–60; Ambassador to Chile, 1960-61. *Address:* Bhuj, Kutch.

**LAHIRI, Dr. Adinath,** M.Sc., Ph.D. (Lond.), F. Inst. Fuel, F.Inst. Pet., F.R.I.C., M.I.E., F.N.I., Padma Sri (1960), Director, Central Fuel Research Institute of India, since April 1954. *b.* Aug. 24, 1916; *Educ.:* Presidency Coll., Calcutta; Imperial Coll. of Science and Technology as Sir T. N. Palit Foreign Scholar for higher research. Conducted research at Royal Coll. of Science, 1938-42; Senior Scientific Officer, Royal Aircraft Estab., Farnborough, U.K. 1942-45; Council of Scientific & Industrial Research of India, Central Fuel Research Institute, 1945; member, Council of Institution of Engineers (India); Chairman: Commonwealth Fuel Research Cttee. (1963-68); Institute of Fuel (U.K.) in India; Dir.: Board of Durgapur Projects Ltd. (W. Bengal); Board of National Coal Devpt. Corpn. Ltd. *Publications:* Over 400 research papers on various aspects of Fuel Technology and in Geochemistry, Physical Chemistry, Geology, etc. *Address:* Fuel Research Institute, Dhanbad Dist., Bihar.

**LAKSHMANAN, Major-General Cheruvari Kottieth,** L.M.S. (Mad.), M.R.C.S. (Lond.), D.T.M. & H. (Lond.), D.P.H.(Eng.), Secretary-General, Indian Red Cross Society; Hon. Secy., Hind Kusht Nivaran Sangh. *b.* April 5, 1898; *Educ.:* Madras Christian Coll.; Madras Medical Coll., St. Barthalomew Medical Coll. and Hospital, London. In the I.M.S., 1925-47; Dir., All-India Institute of Hygiene & Public Health, Calcutta; Special Consultant to U.N.I.C.E.F. to assess child health needs in South East Asia; member, Indian Delegation to third, seventh, eighth and ninth World Health Assembly at Geneva, 1950, 1954, 1957 and Mexico, 1955; Delegate to the third, fourth, fifth and seventh Sessions of W.H.O. Regional Cttee. for S. E. Asia held in Ceylon, 1950, Rangoon, 1951, Bandung (Indonesia), 1952 and New Delhi, 1954; attended the first and second sessions of the W.H.O.'s Expert Cttee. on International Quarantine at Geneva, 1953 and 1954; Dir. Genl. of Health Services, Govt. of India, June 1952-Feb. 1958. *Address:* 1, Red Cross Road, New Delhi 1.

**LAKSHMIKANTHAM, Pingali,** M.A. (Madras), Telugu Writer. Professor and Head of the Dept. of Telugu, S. V. University, Tirupati. *b.* Jan. 10, 1894; *Educ.:* Hindu High School, Masulipatam; Noble Coll., Masulipatam. Research Fellow, Madras Univ.; and Head of the Deptt. of Telugu, Andhra Univ.; Member, General Council of the National Academy of Letters; elected as a member of the Executive Board of the Academy; Literary Producer, A.I.R., Vijayawada. *Publications:* Poetry *Tolakari* (Lyric) and *Soundaranandam* (Epic) (both in collaboration with Katuri Venkateswararo). Prose: *Gouthama Vyasamulu* (Essays); *Gowtama Nighantu* (English-Telugu Dictionary); *Palanati Veera Charitra* (Historical Ballad of 15,000 lines); *Madhura Pandita Rajam* (Poetry). *Address:* S. V. Univ., Tirupati.

**LAL, Muni,** M.A. (Philosophy), High Commissioner for India, Port of Spain, Trinidad. *b.* Jan. 11, 1913; *Educ.:* Punjab Univ. Was on the Editorial staff of the Civil and Military Gazette, Lahore; joined the Indian Foreign Service, 1947; served in Pakistan, Australia, U.S.A., Indonesia and in the U.K.; was Director of Indian Information Service, London and Washington; Director, Ministry of External Affairs, 1961; played regularly for Northern India in the cricket Championship of India for the Ranji Trophy, 1932-47; represented his State against all foreign visiting teams, 1932-47; captained the Punjab Univ., 1935; Vice-Captain, Northern India Cricket Assoc. team, 1936-37; captained the Govt. Coll. Cricket team, 1935. *Publications: Schopenhaur, the Sage of the West. Address:* High Commissioner for India, 3rd Floor, Salvatori Building, Port of Spain, Trinidad.

**LAL, Air Marshal Pratap Chandra,** Vice Chief of the Air Staff, *b.* Dec. 1916, at Ludhiana. *Educ.:* Delhi; graduated from King's Coll., London. Commissioned in the I.A.F., in Nov. 1939. Navigation and Flying Instructor, No. 1 Service Flying Training School and No. 152, Operational Training Unit; posted to No. 7 Squadron, Oct. 1943; assumed command of the squadron, June 1944; took it into Burma for a second tour, 1945; was mentioned in despatches and awarded D.F.C. for his part in the operations of 1944 and 1945 from north Burma to Rangoon; did a course at the RAF Staff Coll., Andover; held several senior appointments including those of Director of Plans at Air Hqrs., Deputy Secy. (Military) to the Cabinet and A.O.C. Training Command; was a member of several Govt. Missions abroad; General Manager, Indian Airlines Corporation, 1957-62; was concurrently member, Board of Directors, IAC and Air India; returned to the I.A.F., 1963; held the posts of Air Officer incharge of Maintenance at Air Hq., A.O.C.-in-C., Western Air Command, awarded Padma Bhushan for distinguished service of a high order during the recent Indo-Pakistan conflict. *Address:* Air Headquarters, New Delhi.

**LALBHAI, Kasturbhai,** Industrialist and Banker; Director in 20 concerns, such as Textile, Insurance, Electricity, Steamship etc.; All India Council for Technical Education from 1955; Planning Committee, W. Region, Govt. of India from 1955; Chairman, Governing Body of Ahmedabad Educ. Society. *b.* Dec. 19, 1894; *Educ.:* Govt. R.C. High School and Gujarat Coll., Ahmedabad. Pres.: Ahmedabad Millowners' Assoc., 1933–35, F.I.C.C.I., 1934–35; Council of Administration of the Ahmedabad Textile Industry's Research Assoc. since 1947; Chairman, West Coast Kandla Port Development Cttee., appointed by the Govt. since 1948; Member: C. S. I. R. Board and governing body from 1940; Senate, Gujarat Univ. from 1950; Leader and Pres., Jain Community in India; Leader of the Indian Delegation, Industrial and Agricultural Delegation to the U.S.S.R., 1954; Patron, Ahmedabad Education Society 1935-60; Director, Reserve Bank of India, 1937-49 and 1957-60; Chairman: Indian Institute of Technology, 1955; Governing Trustees, Kasturba Gandhi National Memorial Trust, 1957; member: Indian Investment Centre, 1960; Cotton Textile Consultative Board; leader of delegation for discussions with the Cotton Board, Lancashire, 1964 & 1965. *Address:* Pankore's Naka, Ahmedabad; Shahibag, Ahmedabad.

**LALCHAND HIRACHAND,** B.A., Industrialist; Pres., Maharashtra Chamber of Commerce, 1960–64; Pres., Maharashtra Economic Development Council, 1962–63; Chairman: The Premier Automobiles Ltd., Indian Hume Pipe Co., Ltd.; Bombay Cycle and Motor Agency Ltd., etc.; Director: The Premier Construction Co. Ltd., Hindustan Construction Co. Ltd., Walchandnagar Industries Ltd., Cooper Engineering Ltd., etc., Pres.: Indian Sugar Mills' Assoc., 1943–44; Deccan Sugar Technologists' Assoc., 1943–50; Chairman, Deccan Sugar Factories Assoc. for three successive years from 1943 · Pres.: The Automotive Manufacturers' Assoc. of India, 1954–59; Assoc. of Indian Automobile Manufacturers, 1960–61; Pres.: Indian Merchants' Chamber, 1959; member: Bombay Leg. Council, 1939; Rajya Sabha, 1952–58; was member: Import Advisory Council of the Govt. of India. *Address: Office:* Construction House, Ballard Estate, Bombay 1; *Residence:* Neela House, Pedder Road, Bombay 26.

**LALL, Diwan Chaman,** B.A (Oxon.), Bar-at-Law, M.P. (Rajya Sabha), Ex-Ambassador of India in Turkey. *b.* Oct. 30, 1892. *Educ.:* Jesus Coll., Oxford; Middle Temple, London; Paris. Started as a journalist; was editor, *Coterie,* London, Asstt. Editor and chief leader writer, *Bombay*

*Chronicle*; founded the A.I.T.U.C., 1920; Pres., A.I.T.U.C., 1927; Founder and ex-Pres., Federation of Posts and Tele. Unions, All India Telegraph Workmen's Union, and many other all India Trade Unions; M.L.A. (Central), 1924-31 and 1945-48; member, Constituent Assembly of India, 1946–48; M.L.A., Punjab, 1937–45; Pres., Indo-Afghan Friendship Society and other similar organisations. Chairman: Cttee. of Indian Parliamentarians for Peace; All-India Peace Council, 1964; member, India's Parliamentary Conference Delegation to U.K., 1962; led goodwill mission to Socialist Countries, 1963. *Publications:* Author of *Coolie—The Story of Capital and Labour in India*— (2 Vols.); *Visiting the Soviet Union*; Poems: *Old and New*; *The Nehru Doctrine and India's Role in the Contemporary International World*. *Address:* 30, Prithvi Raj Road, New Delhi 1.

**LOHIA, Dr. Rammanohar,** M.P., founder, Socialist Party; Ex-General Secy., P.S.P. *b.* 1910; *Educ.:* Bombay, Banaras and Calcutta; Doctor of Philosophy of the Berlin Univ. At the age of 14 attended the Gaya Congress as a delegate; was leader of the Congress Socialist Party; Editor, *Congress Socialist* till 1939; organised the Foreign Department of the A.I.C.C. at the invitation of Mr. Nehru; elected to the A.I.C.C., 1936: prosecuted for sedition in Calcutta, 1938; led 1942 underground movement; initiated Goa and Nepal struggles, 1946; Chairman, Congress Socialist Conference, 1946; Gen. Secry., P.S.P., 1954; imprisoned for taking active part in the freedom movement; founded and formed the Socialist Party of India, 1956; elected to the Lok Sabha in bye-election from Farrukhabad constituency in May 1963; Chairman, Editorial Board, *Mankind*. Formulated theories of: *Twin origins of capitalism and imperialism*; *Small-unit machine*; *Equal irrelevance*; *The Third Camp*; *Immediacy*; *Oscillation between class and caste*; *Efficiency, total or maximum*; *Physical and cultural Approximation of mankind*, etc. *Publications:* Several books amongst them; *Wheel of History*; *Will to Power*; *Marx, Gandhi & Socialism*; *Gandhi & Socialism*; *Guilty Men of India's Partition*; *Address:* Socialist Party, 14-1-323, Sitarampet, New Aghapura, Hyderabad.

**LOKANATHAN, Dr. Palamadai S.,** M.A. (Madras), D.Sc. (Econ.), London, the Most Noble Order of the Crown of Thailand First Class, Dir.-Genl., National Council of Applied Economic Research, since 1956; Chairman, National Productivity Council, New Delhi, since Feb. 16, 1964. *b.* Oct. 10, 1894; *Educ.:* St. Joseph's Coll., Univ. of Madras, London School of Economics, Univ. of London. Prof. of Econ., Univ. of Madras; Editor, *Eastern Economist*, 1943-47; Exec. Secy., U.N. Economic Commission for Asia and Far East, Bangkok, 1947-56; Visiting Professor, Luxembourg Univ.; Chairman: Asian Productivity Organisation 1963; Advisory Board, Demographic Research and Training Centre: Export Incentives Cttee., Bd. of Trade; All India Board of Technical Studies in Commerce, etc.; Pres., Madras Education Assn., New Delhi; Vice-Pres.: Indian Cttee. of the Afro-Asian Council; Indian Council of World Affairs; member: Court of Governors, Administrative Staff Coll. of India, Hyderabad; Development Centre, O.E.C.D., Paris; Export-Import Advisory Council, Govt. of India; Adv. Cttee. on Economic Policy, Planning Commission; Indian Institute of Management, Calcutta; on Distribution of Income & Levels of Living, Plng. Commn.; Bd. of Governors, Indian School of International Studies. *Publications: Industrial Welfare in India*; *Industrial Organisation in India*; *Indian Industry*; *The Supply of Entrepreneurs & Technologists*; *A Study of Saving in India*; *Indian Economic System*; *Report on Sales-Tax in Madras*; *Report on Taxation in Orissa*; *Report on Taxation in Andhra Pradesh*. *Address:* National Productivity Council, New Delhi 1; *Res.:* 5-B, Pusa Road, New Delhi 5.

**MADAN, Dr. Bal Krishna,** M.A., Ph.D., Dy. Governor the Reserve Bank of India and Vice-Chairman, Ind. Dev. Bank of India, since July 1964. *b.* July 13, 1911; *Educ.:* Univ. of Punjab; Dir. of Research, Reserve Bank of India, Bombay, 1941-45; Secretary, Indian Delegation to International Monetary Confce., Brettonwoods; Dy. Secy., Indian Tariff Board, 1945; Exec. Dir., I.M.F., 1948-50; Economic Adviser to Reserve Bank of India, 1950; member: Finance Commission. Indian Govt., 1952; Taxation Enquiry Commission, 1953-54; U. N. Experts Group on SUNFED, 1955; Principal Adviser, Reserve Bank, 1957-59; Dir., Ind. Fin. Corpn. of India, 1959-64; member: Governing Body of Indian Investment Centre, since 1960; Executive Director, Reserve Bank of India, 1959-64. *Publications: India and Imperial Preference—A Study in Commercial Policy*, 1939; *Aspects of Economic Development and Policy*, 1964. *Address:* Reserve Bank of India, Central Office, Bombay-1.

**MADGULKAR, Vyankatesh Digambar,** Marathi Writer; Producer, Rural and Farm Forum Programmes, A.I.R., Poona. *b.* July 7, 1927; *Educ.:* Atpadi (South Satara). Published his first book, 1949; was awarded first prize thrice by the State for best books; has written extensively about village folk; his novel Banagarwadi has been translated into English entitled *The Village had no Walls*, Hindi and Gurumukhi. Many of his short stories have been translated into Hindi, Gujarati, etc. *Publications: Mandeshi Manse*; *Gavakadchya Gosti*; *Bangarwadi*, etc.; stories and screen-plays for over a dozen Marathi pictures and a few folk plays staged in villages of Maharashtra. *Address:* Akshar, 110/10, Erandvana, Poona 4.

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**MAHALANOBIS, Prof. Prasanta Chandra,** M.A. (Cantab.), D.Sc. (honoris causa), F.R.S., Hon. D.Sc. (Cal. Univ.) 1957, (Delhi Univ.) 1964, Hon. Fellow, King's Coll. (Cambridge) 1958, Hon. Statistical Adviser to the Cabinet, since 1949; Hony. Secy. and Hony. Director, Hon. Statistical Adviser to the Cabinet, since 1949; Hony. Secy. and Hony. Director, Indian Statistical Institute, Calcutta, since 1931; member, Planning Commission, Govt. of India, since 1955. *b.* June 29, 1893, at Calcutta; *Educ.:* B.Sc. (Hons.) in Physics, Presidency Coll., Calcutta Univ., 1912; M.A., Cambridge Univ., 1915; Hon. Deshikottama (Visva Bharati) 1961; D.Sc. (Sofia State Univ. Bulgaria) 1961; F.R.S. 1945; Weldon Medal and Prize, Oxford Univ., 1944; Sir Debaprasad Sarbadhikari Gold Medalist of Calcutta Univ. 1957; Foreign Member, U.S.S.R. Academy of Sciences, 1958; Fellow, American Statistical Association, 1961; Foundation Fellow, National Institute of Sciences, India; its Pres. 1957-58; Chairman: U.N. Statistical Commission, 1954-58; Founder-Editor, "Sankhya", The Indian Journal of Statistics, since 1933; made scientific tours and gave lectures and held conferences at Univs., laboratories and other institutions in several foreign countries; Leader, Indian Delegation: International Statistical Conference, 1947, '49, '51, '53, '55, '57, '58, '60, '61, '63, '65; Congress of Mathematicians, 1950; Scientific delegation to the U.S.S.R. Academy of Sciences, Moscow, 1951, '52, '54, '62. *Address:* 204, Barrackpore Trunk Road, Calcutta 35; 8, King George Avenue, New Delhi.

**MAHAPATRA, Mr. Justice Haribar,** B.A. (Hons.), M.A., B.L., Judge, Patna High Court. *b.* Nov. 3, 1904; *Educ.:* Ravenshaw Coll., Cuttack; Patna Coll.; Patna Law Coll.; B.A. (Hons.), 1925; M.A., 1927; B.L., 1931. Joined Bar at Cuttack, Orissa, 1931; Member of Senate and Syndicate, Utkal Univ., since 1945; Delegate to World Universities Conference, Montreal, Sept.-Oct. 1958; visited several Universities and High Courts in Canada, U.S., U.K., France, Germany, Denmark, Holland, Switzerland, Greece, Austria, Rome and Egypt, 1958; was Advocate-General, Orissa; Founder Secy. & Pres.: Rotary Club, Cuttack; Council of World Affairs, Patna; English Speaking Union of Commonwealth, Bihar Branch. Edited a vernacular monthly literary magazine, *JUGABINA*, 1932–38. *Publications: SabujKabita* (Poem); *Basanti* (Novel). *Address:* Stoney Road, Cuttack; High Court, Patna.

**MAHARAJ, Birju,** President's Academy Award (1964), Director, Kathak Ballet Deptt., Bharatiya Kala Kendra, New Delhi; Dancer. *b.* 1937; *Educ.:* Vidyant Coll., Lucknow. Started learning dancing at the age of five from his father, late Achchan Maharaj; after his father's death, had also training from his uncles; gave his first performance at the age of seven at Jubilee Talkies, Delhi; became Teacher, Sangit Bharati, New Delhi, 1952; later joined the Bharatiya Kala Kendra; has danced in almost all places in India; toured Russia, U.S.A., Ceylon, Japan, Laos, Hongkong, Burma, Nepal, Afghanistan, etc. leading a delegation of the Kalakendra troupe of dancers. *Address:* Jhanlal Phul, Bhaironji Road, Lucknow; Bharatiya Kala Kendra, 2, Mata Sundari Road, New Delhi.

**MAHESHWARI, Panchanan,** D.Sc. (1931), F.N.I. (1936), F.A.Sc. (1934), F.B.S. (1950), F.N.A. Sc., (1963), F.R.S., (1965), Hon. D.Sc., (McGill Univ., Montreal, (1959), Scientist; Professor and Head, Deptt. of Botany, Univ. of Delhi, since 1949. *b.* Nov. 9, 1904; *Educ.:* Jaipur and Allahabad; travelled abroad and visited botanical institutions. Pres.: Botany

Section, Indian Science Congress (1950); Indian Botanical Society (1952); Embryology Section, International Botanical Congress, Paris (1954); International Society of Plant Morphologists (1954, 1965); The Indian Assn. of Biological Secs. (1965); Vice-Pres., International Botanical Congress, Edinburgh (1964); Fellow: Indian Academy of Sciences; National Institute of Sciences; Foreign Fellow; American Academy of Arts & Sciences; Indian Botanical Society; National Academy of Sces.; American Botanical Society; Leopold Academy of Sciences; Royal Dutch Botanical Society; recipient of the Birbal Sahni Memorial Medal by Indian Botanical Society; Hora Memorial Medal by National Institute of Science; Pres., National Academy of Sciences, India (1964, 1965); Editor: Phytomorphology since 1951. *Publications:* Author of *Embryology of Angiosperms; Monograph on Gnetum* (with Vimla Vasil); *Recent Advances in the Embryology of Angiosperms; Dictionary of Economic Plants in India* (with U. Singh); Editor of Publications, National Institute of Science; and about 200 papers on Botany particularly on plant morphology, and embryology. *Address:* 29, Probyn Road, Delhi 7.

**MAHTAB, Harekrushna,** Ex-Dy. Leader of the Congress in Parliament. *b.* Nov. 1899; *Educ.:* Ravenshaw College, Cuttack. Elected M.L.A., Bihar and Orissa, 1924; was editor, *Prajatantra,* and also *Rachana;* courted jail several times in the freedom movement; Pres., Utkal P.C.C., 1930 and 1937; member, Congress Working Cttee., 1938–46; Leader, Congress Assembly Party, Orissa; Chief Minister, Orissa, 1946–50; was conferred Honorary Degree, Doctor of Literature by the Andhra Univ. in 1950, Utkal Univ., 1956 and Sagar Univ., 1958; Minister for Commerce and Industry, Government of India, 1950-52; Secretary-General, Congress Parliamentary Party, 1952-54. Governor of Bombay, 1955-56; Chief Minister: Orissa, 1957-60; Editor, *The Jhankar,* a monthly literary journal of Orissa. *Publications:* Popular novels; dramas; *History of Orissa,* the only authentic history of the Province. *Address:* New Delhi.

**MAI-SWARUP, Mai-Markand,** (formerly Rao Saheb M. R. Dholakia, L.C.E.), Founder of Mai-ism and President, "Mother's Lodge (Mai Mandals)". *b.* Dec. 23, 1885; *Educ.:* Poona Engineering Coll. Retired as Govt. Special Land Acquisition Officer, Bombay in 1942; installed Universal Mother Mai (Sept. 2, 1932); started Mother's Lodge in Poona, on Gudi Padwa Navaratra day (March 27, 1933); has been conducting Mother's Lodge, an institute of sisters and brothers with branches and followers in Bombay and South; started Mai Adherents' Institute and installed Mai, in Mai Viddyuth Temple both in charge of Bro. Ramankutty Nair, in Tricuhur and Mai Kripa Temple, Perintalmanna, in charge of Bro. U. G. Menon; visited Kerala to bless Mai Convocation, Ernakulam (Kerala), held on Dasserah days 7th, 8th and 9th Oct. 1962 and inaugurated by Mr. Alexander Parambithara; Elected Sub-Councillor-in-Chief, I.R.F., Japan, Shimizu City in 1955; celebrated many Dasserah Mai Sisters' Socials and Mai convocations; released on Christmas day 1957, "The World's need and Mai-ism" by Rev. Bro. Ernest Kirk, Editor of Life; elected 1959-65, by 271 members, as Vice-Pres. of U.R.A., religiously connected with over 75 countries and also as minister for "Peaceful Human Relations". Since 1962 introduced initiation with oath sworn by Mai Adherents as U.R.M. (Universal Religionist Mai-ism). *Important Publications: Mother's Message, Mother and Mother's Thousand Names,* and *Mai-ism* (each over 750 pages); *Pre-natal narration and preamble of I.R.F.,* etc. *Address:* Mai-Niwas, Santa Cruz West, Bombay 54.

**MAITI, Miss Abha,** B.A., LL.B., Minister for Refugee Relief and Rehabilitation Deptt. & Home (Social Welfare, Constitution and Election Deptts.), West Bengal, since Oct. 1963. *b.* May 23, 1925; *Educ.:* Bethune Collegiate School, Bethune Coll., Calcutta; Univ. Law Coll., Calcutta. Participated in the Quit India movement, 1942; Secy.: Women Sub-Cttee. of West Bengal Pradesh Congress, 1948-54; West Bengal Pradesh Congress Cttee., 1954-59; Pres., Midnapore Dist. Congress Cttee., 1959; member: A.I.C.C., since 1952; West Bengal Leg. Assembly, 1952-57; a trustee of the Calcutta Improvement Trust, 1954-57; member, West Bengal Khadi Board; Secy., Prime Minister's Relief Fund Cttee. work centres, West Bengal, 1952-58; member: Congress Working Cttee., 1960; General Secy., Indian National Congress, 1960; member, Rajya Sabha, 1960; Joint Secy., Paschim Banga Khadi Kendra since 1957; Pres. and member, Managing Cttee. of several boys' and girls' High and Middle schools and colleges; was editor, *Satyagraha Patrika,* a Bengali Weekly. *Address:* P-14, Durga Charan Mitra Street, Calcutta 6; 97, South Avenue, New Delhi.

**MAJID, Abdul,** B.A., Urdu Writer and Broadcaster. *b.* 1892; *Educ.:* Lucknow and Aligarh. Editor, *Sidq* (weekly), Lucknow, since 1925; member, Hindustani Academy Council, Allahabad; Pres., Shibli Academy, Azamgarh; member, All India Radio Advisory Cttee., Lucknow; Chairman, Urdu Prize-books Cttee., U.P. Govt.; Examiner, Indian Univs. *Publications:* Author of about 30 books mostly in Urdu. In Urdu: *Commentary on the Holy Quran* (7 vols.); *Popular Psychology; Logic;* in English: *Commentary on the Holy Quran* (7 vols.); *Psychology of Leadership;* translation into Urdu of: Lecky's History of European Morals (2 Vols.); Buckle's "History of Civilisation in England". *Address:* P.O. Daryabad, Bara Banki, U.P.

**MAJID, S. M. A.,** Minister for Local Administration, Govt. of Madras. *b.* Jan. 12, 1924; *Educ.:* Board High School, Kadayanallur; St. Xavier's Coll., Palayamkottai. An active Congressman from 1945; Treasurer, North Mandal Congress Committee, Kadayanallur since 1955; Pres., Town Congress Cttee., Kadayanallur and Joint Convener, Youth Congress Cttee., Tirunelveli Dist. Teacher, M.Y.M. Adult School, Kadayanallur for three years; Life Member, Muslim Educational Assoc., South India and Bharathiya Krishik Samaj; Pres., M.Y.M. Library and Assoc., Kadayanallur and Alangulam Marketing Society Branch, Kadayanallur; Master in Dyeing and Handloom Weaving. *Address:* 188/9, New St., Kadayanallur, Tirunelveli Dt.

**MAJITHIA, Sardar Sir Surendra Singh,** Kt. (1946), C.I.E., D.O.L., Industrialist; Chairman, Saraya Sugar Mills Pvt. Ltd. and Saraya Engineering Works Pvt. Ltd. *b.* March 4, 1895; *Educ.:* Khalsa Collegiate High School, Khalsa Coll., Amritsar. Proprietor, Saraya Estate; Dir.: The Punjab & Sind Bank Ltd., Dehra Dun; U.P. Pulp and Paper Mills Ltd., Manserpur; U.P. State Industrial Corps. Ltd., Kanpur: Vice-President, All India Badminton Association; Pres.: Working Cttee., Maharana Pratap Inter-Coll., Gorakhpur: Buddha Degree Coll. Asian Languages, Kushinagar, Deoria; Member: Council of Khalsa Coll., Amritsar; Advisory Cttee.; Govt. Industrial & Technical Institute, Gorakhpur; N.E. Rly. Zonal Users' Consultative Cttee.; U.P. Tuberculosis Assoc., Lucknow; Cttee., Deoria Mahavidyalaya Degree Coll.; and several other educational and cultural associations. *Address:* Saraya Sugar Mills Pvt. Ltd., P.O. Sardarnagar, Dist. Gorakhpur (U.P.).

**MALAVIYA, Pt. Keshav Deva,** M.Sc., M.P., Ex-Minister of Mines and Fuel, Govt. of India. *b* June 11, 1903, at Allahabad; *Educ.:* M.Sc. from the Allahabad Univ.; completed short-term course in Oil Technology from the Harcourt Butler Technological Institute, Kanpur, 1929. Joined the Congress movement, 1921; courted jail several times; Secy., City Congress Cttee., Allahabad; Gen. Secy., U.P.P.C.C. for many years; Organiser of the first General Elections of the Congress in 1937 as Gen. Secy., Congress Parliamentary Board; M.L.A., U.P., 1946-51; Parliamentary Secy., U. P. Govt., 1946; Minister of Development and Industries 1947; resigned from the Ministry, Aug. 1951; Parl. Secy., Govt. of India, June 3–Aug. 11, 1952; Dy. Minister, Natural Resources and Scientific Research, 1954-57; Minister of Mines and Oil, 1957-62; Min. for Mines & Fuel, 1962-63. *Address:* C/o 2, Safdarjang Lane, New Delhi.

**MALI, Gobind P.,** LL.B., Sindhi Novelist. *b.* Aug. 5, 1921; *Educ.:* L. B. High School, Tharushah, Sindh; D. J. Sind Coll., Karachi; S. C. Shahani Law Coll., Karachi. Started writing poems and articles at the age of 15; took active part in school and college literary and debating societies; jailed in Quit India Movement, 1942-43; organised Sindhi writers in Sindhi Abadi Sangat; became its Gen. Secy., 1946; one of the pioneers of Sindhi Sahit Mandal; its Gen. Secy., 1948-49, 1952-53, 1953-54; member, Sahitya Akademi's Advisory Board for Sindhi, since 1957. *Publications:* Novels: *Desi Sena Kajan?* (1958); *Jin Suri Bhain Seja* (1959), etc.; two novels translated and published in Hindi—*Sharam Booti* (1959), *Pakhiara Valar Khan Vichhudia* (Panchhi Bichhud Gae, 1960); *Dehi Pardehi Thia* (1961); *Pyar ji Shikast* (1962); *Sharambooti;* about 25 short stories about 20 dramas; many articles besides translations and adaptations of novels, dramas and stories. *Address:* E-7, Sindhi Colony, Iraniwadi, Kandivli, Bombay 67.

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**MALLICK, Mr. Justice Prakash Chandra,*** B.A. (Hons.)(Econ.), M.A. (Econ.)(Cal.), B.L., Judge, Calcutta High Court, since 1954. *b.* March 12, 1904, at Calcutta; *Educ.:* South Suburban School; matriculated in the first division, 1920; St. Xavier's Coll.; gave up studies to join non-co-operation movement, 1921; resumed studies at Vidyasagar Coll.; B.A. (Hons.) in Economics, Presidency Coll., 1926; M.A. (Econ.) from Cal. University with 1st Class, 1928; won the University Gold Medal; B.L. with 1st Class, 1929. Enrolled as Advocate, 1930; came first in the examination held by the High Court for being entitled to practise on the original side, 1932. *Address:* 24B, Mohini Mohan Road, Calcutta 20.

**MALLIK, Umesh,** Film Producer and Script writer. *b.* 1916. Entered film industry as Asstt. Director and Script Writer, 1942; won literary awards while studying in the Calcutta Univ.; trained in Denham and Elstree studios in London as an observer in various units for several years; co-produced "The Man Who Couldn't Walk" from his own story and script; first Indian to produce English films in England with entirely British casts, technicians; promoted and presented ballet and a variety of shows in the West End of London,

* Was due to retire in March 1966.

Dublin, Paris, etc.; broadcast numerous talks; produced another film entitled "A Guy called Caesar" from his own story and script for Columbia Picture Corporation Distribution; Chairman: Mallicon Film Productions Ltd.; Molliko Films (Lond.) Ltd. *Publications:* Author of many books, short stories, etc. *Address:* 63, South Audley St., Mayfair, London W. 1.

**MALPEKAR, Smt. Anjanibai,** Fellow of The Sangeet Natak Akademi (Awarded, 1958), Musician. *b.* April 22, 1883; *Educ.:* Academic education in Marathi, Urdu, Gujarati and a little English; learnt Music by private tuition from Ustad Nazir Hussein Khan (Bhendibazarwale) for 36 years and occasionally from Ustads Chajjukhan and Khadim Hussain. Received many honours and cash gifts from Nepal, Indore and Baroda Rulers; has been a leading figure in the music world. *Address:* 11A, New Bhatwadi Cross Lane, Awantikabai Gokhale Road, Bombay 4.

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**MANDLOI, Bhagwantrao Annabhau,** B.A., LL.B., Ex-Chief Minister, Govt. of Madhya Pradesh; Pres., M.P.P.C.C. *b.* Dec. 15, 1892; *Educ.:* Govt. High School, Sagar; B.A from Govt. Coll., Jabalpur, 1914; LL.B., from Univ. School of Law, Allahabad, 1917. Practised as a Lawyer at Khandwa; has been Pres., Municipal Cttee., Khandwa for three terms of five years each; was member, Governing Body of Women's Hospital, Khandwa; has been a member, P.C.C. for the last 20 years; member C.P. & Berar Leg. Council, 1935-37; member, M.P. Leg. Assembly, since 1937; was member, Constituent Assembly and Interim Parliament; Revenue and Education Minister, M.P. till 31st Oct. 1956; member, A.I.C.C.; Minister for Revenue, M.P., 1956-62; responsible for the M.P. Land Revenue Code Act, Fixation of Ceiling on Agricultural Holdings Act, and concessions for the development of new industries in the State; re-elected, 1962; Chief Min., M.P., 1962-63; resigned under the "Kamaraj Plan," Aug. 1963. *Address:* Bhopal.

**MANE, Pratap Vishnurao,** B.Sc. Agri. (Hons.), Editor, *Plant Food Review*, since 1961. *b.* Nov. 29, 1928; *Educ.:* College of Agriculture, Poona. Asstt. Editor, *Indian Farming* and other periodicals of the Indian Council of Agricultural Research, New Delhi, 1953-56; Editor, *Fertiliser News* and Public Relations Officer, Fertiliser Association of India, New Delhi, 1956-61; Director, Swati Industries P. Ltd., Bombay, since 1961; Adviser to the Indian Delegation, International Fertiliser Development Conference of the ECAFE, 1963; elected member, Council of the Indian Society of Soil Science, May 1965. *Publications:* Nearly 100 scientific papers and articles. *Address:* Vithal Nivas, V. P. Road, Bombay 4.

**MANEKLAL, Premchand,** Financier. *b.* Sept. 7, 1889; *Educ.:* Bombay. Chairman, Industrial Investment Trust Ltd.; Director: Alcock Ashdown & Co. Ltd., Premier Construction Co. Ltd., Ahmedabad Mfg. & Calico Ptg. Co. Ltd., Shree Niwas Cotton Mills Co. Ltd., Bombay Dyeing & Mfg. Co. Ltd., West Coast Paper Mills Co. Ltd., Walchandnagar Industries Ltd. Century Spg. & Mfg. Co. Ltd., Western India Match Co. Ltd., Kohinoor Mills Co. Ltd., Mckenzies Ltd., Modern Mills Ltd., Belapur Co. Ltd., Mysore Spg. & Mfg. Co., Ltd. Azofen Ltd., Oudh Sugar Mills Ltd., Killick Industries Ltd., Coorla Spg. & Wvg. Co. Ltd. *Address:* 63, Apollo Street, Fort, Bombay 1.

**MANEKSHAW, Lieut-Gen. Sam Hormuzji Framji Jamshedji,** G.O.C. in-C., Eastern Command, since Nov. 16, 1964. *b.* April 3, 1914; *Educ.:* Sherwood Coll., Naini Tal; Indian Military Academy, Dehra Dun. Commissioned, 4 Feb. 1934; awarded Military Cross; graduated from Staff Coll., Quetta, 1943; served as Brigade Major of the Razmak Brigade in Waziristan, 1943-44; Instructor, Staff Coll., Quetta, 1944; active service in Burma and French Indo-China, 1945-46; General Staff Officer Grade 1, Military Operations Directorate, A.H.Q., 1946-47, promoted Brig., '47; Director of Military Operations, 1948-52; commanded 167 Infantry Brigade, 1952-54; Director of Military Training until Jan. 1955; took over command of the Infantry School at Mhow, 1955; attended Imperial Defence Coll., Lond., 1957; promoted Major General and appointed Commander of 26 Infantry Division in Jammu and Kashmir, Dec. 1957; Commandant, Defence Services Staff College, Nilgiris, Oct. 1959—Nov. 1962; G.O.C. IV Corps 1962-63; Colonel of the 8th Gorkha Rifles, since April 1953; G.O. C.in-C., Western Command, 1963-64. *Address:* C/o The National and Grindlays Bank Ltd., Bombay, New Delhi.

**MANGALDAS, Madanmohan,** B.A. (Bom.), Industrialist and business man, Ahmedabad. *b.* Oct. 5, 1917. Director of various cotton, textile Mills and Associate concerns; Dir., Bank of India Ltd.; Pres., Ahmedabad Millowners' Assoc. 1955 and 1958; was mainly responsible for the five years' Bonus Pact between the employers and the employees of the cotton textile industry in Ahmedabad; elected M.L.A., Bombay, from Ahmedabad, 1951; representative of employers on Employees' State Insurance Corporation and its standing cttee.; member: Council of Administration, ATIRA; Cotton Textile Loan Advisory Committee of The National Industrial Development Corpn.; Cttee. of F.I.C.C. & I. and also its Stg. Cttee.; Adv. Cttee. (Textiles) of Ind. Fin. Corpn. of India; Board of Governors, Indian Institute of Management, Ahmedabad; Chairman, Gujarat Housing Board; Director: Gujarat State Fertilisers Co. Ltd.; Mahindra Ugine Steel Co. Ltd.; Vice-Chairman, Indian Cotton Mills Federation; was member, Indian Industrial Delegation to U.S.A. and Europe sponsored by F.I.C.C.I., 1957. *Address:* Mangal Bag, Ellis Bridge, Ahmedabad 6.

**MANGAT Rai, Edward Nirmal,** B.A. (Hons.) (History), M.A. (History), I.C.S., Chief Secretary, Jammu & Kashmir State. *b.* March 30, 1915; *Educ.:* Prince of Wales Royal Indian Military Coll., Dehra Dun; St. Stephens Coll., Delhi; Oxford Univ., England; Harvard Univ., U.S.A. I.C.S. 1938; held various positions mostly in the Punjab State, including those of Planning and Development Commissioner, Finance Secy., Chief Secy., Director-General, Food and Financial Commissioner, Development. *Publications: Civil Administration in Punjab—An Analysis of a State Government* (Harvard University Press); *How Indian Federalism Works* (Harvard University Press). *Address:* Srinagar.

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**MEHTA, Desraj,** B.A. (Hons.), C.E., M.B.E. (1939), O.B.E. (1943), Member, Union Public Service Commission, since Jan. 1964. *b.* Nov. 21, 1902; *Educ.:* D.A.V.Coll., Lahore; Thomason Engineering Coll., Roorkee. A Civil Engineer and a member of the Indian Service of Engineers, 1925-57; Chief Engineer, Irrigation & Tubewells, Bihar, 1950-56; Chief Engineer (Floods), Govt. of India, 1956-58; Chief Engineer, Exploratory Tubewells, Ministry of Food & Agriculture, Govt. of India, 1958-62; awarded U.N.O. Fellowship on Irrigation & Land uses in Australia, 1953-54; elected Pres.: Central Board of Irrigation & Power, 1955, Institution of Engineers (Bihar centre) for three years in succession. *Address:* 12, Lodi Estate, New Delhi-3.

**MEHTA, Gaganvihari L.,** M.A. (Bom.), Padma Vibhushan (1959), Chairman: Industrial Credit and Investment Corpn. of India Ltd., Bombay; Indian Investment Centre; member: Air India and Indian Airlines Corporation, since Jan. 15, 1965. *b.* April 15, 1900; *Educ.:* Bombay; London School of Economics. Honorary Degree, LL.D. Rollins Coll. (Winter Park Flo), Simpson Coll. (Indianola, Iowa) (1953); College of Education, Providence, Rhode Island, 1956. Asstt. Editor, *Bombay Chronicle*, 1923-25; Manager Scindia Steam Navigation Co., Ltd., Calcutta, 1928-47; held various advisory or administrative positions such as Pres., Indian Chamber of Commerce and F.I.C.C.I.; member: Constituent Assembly; Planning Commission, 1950-52; Pres., Indian Tariff Board, Bombay, 1947-50; Chairman: Tariff Commission, Jan.-Sept., 1952; Hindustan Shipyard, 1958-62; National Shipping Board, 1959-63; Indian Ambassador to the U.S.A. and Mexico, Sept. 1952-May 1958; Indian Minister to Cuba, 1956-58. *Publications:* Frequently contributes to daily and weekly journals in India and abroad; *Conscience of a Nation* (1932); *From Wrong Angles* (1935); *Perversities* (1942); *Understanding India* (1959). *Address:* C/o The Industrial Credit and Investment Corporation, 136, Backbay Reclamation, Third Road, Bombay 1.

**MEHTA, Gaman Manilal,** Business man. *b.* May 22, 1906, at Surat; *Educ.:* Sarvajanik High School, Surat. Joined the Sun Process Works, Ltd., Bombay, 1930; became its Managing Director, 1941; its Proprietor, since 1956; Rotarian since 1948; Freemason since 1940; Past Master, Trustee, Lodge Reginald Spence No. 109 G.L.I., P.M., Lodge Islam No. 587 S.C., P.Z. of the Chapter Crecent No. 346 S.C., P.S.R. Conclave Darius No. 58; Member, Indian Merchants' Chamber; travelled extensively; toured round the world by air, 1955. *Address: Office:* No. 58, Swadeshi Mills Compound, Tata Road, Off New Queen's Road, Bombay 4; *Residence:* G. Bansilal Building, Opera House Tram Terminus, Bombay 4.

**MEHTA, Gunvantrai Umiashanker,** Business man; Managing Director, Vakil & Sons Pvt. Ltd., Bombay, since 1951. *b.* Aug. 2, 1917. *Educ.:* Morvi. Saurashtra and St. Xavier's Coll., Bombay. Joined family business in South Africa, 1936; represented All India Federation of Master Printers at the International Printing and Allied Trades Exhibition, London, 1955; elected Pres., Bombay Master Printers, Assoc. for 1961-62; visited the U.K., U.S.A. and Japan to study productivity in the printing industries, as member, the Indian Productivity Team on Printing Industry, 1961; elected Pres., All India Federation of Master Printers, 1962-63; appointed member, Central Advisory Publicity Cttee. for the Directorate of Advertising & Visual Publicity, 1962; visited U.S.A. 1964 under a grant from Council on Leaders and Specialists, sponsored by the Deptt. of State, U.S.A. *Address:* Narandas Building, Sprott Road, 18, Ballard Estate, Bombay 1.

**MEHTA, Mrs. Hansa Manubhai,** B.A. (Philosophy, (Hons.), Padma Bhushan, 1959, D.Lit., Allahabad Univ., 1958, D.Lit., Baroda Univ., 1959, LL.D., Leeds Univ., 1965, Ex-Vice-Chancellor, Baroda University. *b.* July 3, 1897; *Educ.:* Baroda. Pres., B.P.C.C., 1930; Fellow of the Senate of Univ. of Bombay, 1931-46; member: Senate and Syndicate of the Indian Women's Univ.; Leg. Council, 1937 and 1940; Parliamentary Secy., Education and Health, 1937-39; Vice-Pres., A.I.W.C., 1930; member: Constituent Assembly, 1947-50; All India Council of Secondary Education, 1955; President: A.I.W.C., 1945-46; Indian Conference of Social Work, 1954-57; Member, Executive Board, UNESCO, 1958-60; leader, Indian delegation to the Tenth International Conference of Social Work, Rome. *Publications:* In Gujarati, *Tran Natako, Hamlet* (translated from Shakespeare), *Venice no vepari* (*Merchant of Venice*), *Bal Kand, Ayodhya Kand, Aranya Kand* and *Kiskindha Kand*, 1956; *Sunder Kand*, 1957; *Yudha Kand*, 1958; In English, *Adventures of King Vikram, Women under the Hindu Law of Marriage and Succession, Tract on Post-War Educational Reconstruction and Civil Liberties*, etc. *Address:* C/o The Bank of Baroda Ltd., Fort, Bombay.

**MEHTA, H. E., Dr. Jivraj Narayan,** L.M. & S. (Bom.), M.D. (Lond.) (Univ. Medal), M.R.C.P. (Lond.), F.C.P.S. (Bom.), Indian High Commissioner in London, since Dec. 1965. *b.* Aug. 29, 1887; *Educ.:* Amreli, Gujarat State, Grant Medical Coll., Bombay and London Hospital. Dean, K.E.M. Hospital and G. S. Medical College, Bombay, 1925-42; Pres., Indian Medical Assoc., 1930, '43 & '45; member: Medical Council of India, 1938-43, and 1947-64; Board of Scientific and Industrial Research, India, 1942-62; C.S.I.R., 1960-62; ex-Secy., Health Ministry, Govt. of India; Chief Adviser to Govt. of India and Govt. of Bombay on Baroda Affairs, June-August 1949 and Adviser, Ministry of Health, India, 1949; courted jail in freedom movement; Dir.-Gen. of Health Services, Govt. of India, 1947-48; Prime Minister, Baroda State, June 1948-49; Member, Syndicate, Univ. of Baroda, 1949-60; P.W.D. Minister, Bombay, 1949-52; Minister for Finance, Govt. of Bombay, 1952-60; Chief Min., Gujarat, 1960-63; resigned, Sept. 1963. *Publications:* "Studies regarding presence of glycogen in Suprarenal Bodies"; "The Height, Weight & Chest Measurements Enquiry relating to some School Children in Bombay". *Address:* C/o External Affairs Ministry, New Delhi.

**MEHTA, Dr. Mohan Sinha,** M.A., LL.B. (Alld.), Ph.D. (Lond.), Bar-at-Law (Middle Temple), Vice-Chancellor, Rajasthan Univ., since Jan. 4, 1960. *b.* April 20, 1895, at Bhilwara; *Educ.:* D. A. V. High School and Govt. Collegiate School, Ajmer; Agra Coll., Agra; Ewing Christian Coll. and Univ. School of Law, Allahabad; London School of Economics & Political Science, London. Hon. Scout Commsr. for India, S.S.B.S.A., 1922-38; Founded Vidya Bhawan Society, Udaipur, 1931; was in Meawar State service in various capacities, 1922-37, 1941-44 and finally as Finance Minister, Meawar State, 1947-48; Diwan, Banswara State, 1937-40; Chief Minister, 1944-47; Meawar State Rep. to Indian Constituent Assembly; Indian Amb. to the Netherlands, 1948-51; High Commissioner in Pakistan, 1951-55; Indian Amb. to Switzerland, 1955-58; member, Indian Delegation to The U.N. Gen. Assembly, 1959; the Second Commonwealth Education Conference, 1961. *Publications: Lord Hastings and the Indian States. Address:* Vice-Chancellor, University of Rajasthan, Jaipur.

**MEHTA, Mohanlal Tulsidas Sopan,** Editor, *Sukani* (News Weekly) & *Jeevanmadhuri*, since its inception, Jan. 1957. *b.* Jan. 14, 1910; *Educ.:* Karachi. Took active part in National Struggle from 1930-47; joined as Editor, Weekly *Pravasi*, Dec. 1940; *Janmabhoomi* (Daily), 1948-61; also became Editor, *Nootan Gujarat*, daily and *Akhand Anand*, monthly; was Pres., Gujarati Natya Mandal; member: State Prohibition Board, Maharashtra; Press Accreditation Cttee., Maharashtra. *Publications:* 45 publications in Gujarati: Story, Novel, Biography, Sociology and Politics; Some of his books have been translated into English, Hindi, Sindhi, Tamil and Malayalam; visited U.S.S.R., 1958 and other European countries, U.S.A., Japan, etc., 1959. *Address:* Gulbahar, Barrack Road, Dhobi Talao, Bombay 1.

**MEIYAPPAN, A. V.,** Business man, Studio Owner and Film Producer; Sole Proprietor, A.V.M. Studios, Madras. *b.* July 28, 1907; *Educ.:* Karaikudi, Madras State. Built up a firm for making gramophone records under the name and style of Saraswathi Stores at Madras, 1932; soon after took to film production; subsequently built up his own Studio; travelled widely in India and abroad in Japan, Hong Kong, U.S.A., England, U.S.S.R., Malaya, Singapore and Ceylon for business and study. *Address:* A. V. M. Studios, Madras 26.

**MENON, Gopal Rajagopal,** B.A. (Madras), Managing Director, Indian Rare Earths Ltd. (A Government concern), since Jan. 1, 1962. *b.* Aug. 11, 1912; *Educ.:* Madura and Trivandrum. Commissioned in the Army (Infantry), June 29, 1937, and served there for about 14 years holding the appointments of Quartermaster, Adjutant, Field Security Officer, Second-in-Command and Commandant of an Infantry Unit; retired as Lt.-Col., April 1951; Chief Administrative Officer, Indian Rare Earths Ltd., 1951-61. *Address: Office:* C/o Indian Rare Earths Ltd.; Pil Court, 111, Queen's Road, Bombay-1; *Residence:* 21, Hampton Court, 125, Wodehouse Road, Colaba, Bombay-5.

**MENON, Dr. K. B.,** M.A., Ph.D. (U.S.A.), Politician. *b.* June 18, 1897; *Educ.:* Christian Coll., Madras; Sydenham Coll., Bombay; the Universities of Colorado and California. Joined the Nizam's Educational Service; was sent for higher studies in the U.S.A.; took the Master of Arts and Economics and the Doctorate of Philosophy in Sociology, 1936; took charge of the Indian Civil Liberties Union as General Secy., 1937; appointed one of the Secretaries of the Indian States Peoples Conference, 1940; took active part in the 1942 struggle and was sentenced to 10 years R.I.; joined the P.S.P.; elected M.L.A., Madras from Trithala Constituency, 1952; elected member, Lok Sabha from Badagara Parliamentary Constituency, 1957; President, The Trithala High School, Trithala; Secy.-Manager, Aftercare Home Wood Work Shop for cured lepers, Calicut, 1963. *Address:* Cheruthuruthy, Trichur Dt., Kerala State.

**MENON, K. P. Kesava,** B.A., Bar-at-Law, Padma Bhushan (1966), Chief Editor, MATHRUBHUMI, Kozhikode, since Oct. 1952. *b.* Sept. 1, 1886, in Kerala; *Educ.:* Madras; called to the Bar 1915. Set up practice in Calicut; joined the Indian National Congress; Secy.: Malabar Dist. Congress; Home Rule League started by Mrs. Annie Beasant; gave up practice to join the 1921 Non-Co-operation Movement; Secy., Kerala P.C.C.; founded the MATHRUBHUMI, Malayalam Daily, 1923; led the famous Vaikam Satyagraha movement in Travancore to establish the right of the untouchables to walk along public roads, 1924; imprisoned and released 1924; set up practice in Singapore, 1927; took active part in the Indian associations and labour organisations; imprisoned by the Japanese, 1944; released after the liberation;

Pres., Aikya Kerala Cttee., 1949 ; was member, Standing Cttee. of the All-India Newspaper Editors' Conference ; High Comm. for India in Ceylon, 1951-52 ; Vice-Pres., Kerala Sahitya Akademi, 1957-62. *Publications :* Various books in Malayalam. *Address :* Kozhikode.

**MENON, K. P. S.,** M.A. (Oxon.), C.I.E., Padma Bhushan (1958), I.C.S. (Retd.), Ex-Indian Ambassador to Russia ; Chairman, Bhavan International. *b.* Oct. 18, 1898 ; *Educ. :* Christian Coll., Madras ; Christ Church, Oxford, I.C.S., 1921. Addl. Dy. Secy. to the Govt. of India, Foreign and Political Dept. ; Under-Secy. to the Hon. Resident at Hyderabad ; also on the Frontier for 3 years ; Agent to the Govt. of India in Ceylon, 1929-33 ; deputed by Govt. of India on Special Mission to Zanzibar, Kenya & Uganda, to enquire into the position of Indians there, 1934 ; Dewan of Bharatpur State for about 3 years ; attended the San Francisco Conference in 1945 ; attended the General Assembly of the U.N., 1946 ; Agent-General of the Govt. of India in China, 1943-47 ; Ambassador for India in China, March 1947 ; Chairman, U.N. Commission on Korea, 1948 ; Forgn. Secy., Govt. of India, May 1948-Sept. 1952 ; Ambassador to U.S.S.R., Hungary & Poland, 1952-61. *Publications : Delhi-Chungking ; Russian Panorama ; The Flying Troika. Address :* Palat House, Ottapalam, Kerala State.

**MENON, Shrimati Lakshmi N.,** M.A., L.T. (Madras), T.Dip. (Lond.), LL.B. (Lucknow), Padma Bhushan (1957), Ex-Minister of State for External Affairs, Government of India, *Educ. :* H. H. Maharaja's School and Coll. for Women and H. H. Maharaja's Arts Coll., Trivandrum, Lady Willingdon Trg. Coll., Madras, Maria Grey Trg. Coll., London. Member, All-India Women's Conference ; Lecturer : Queen Mary's Coll., Madras, 1922-25; Gokhale Girls' School, Calcutta, 1928-30 ; Isabella Thoburn Coll., Lucknow, 1930-33 ; Alternate delegate at the 3rd, 5th, 8th and 9th sessions of U.N. General Assembly, 1948, 1950, 1953 and 1954 ; Chief of Section on the Status of Women in the Human Rights Division U.N. Secretariat at Lake Success, 1949–50 ; Principal, Women's Trg. Coll., Patna, 1951-53 ; State Commissioner for Guides in Bihar, since 1952 ; worked in the 3rd and 4th Cttees. of the U.N.O. dealing with social, cultural, humanitarian trusteeship and non-self governing territories' questions ; Pres., All India Women's Conference, 1955–59 ; Parliamentary Secy. to Prime Minister, 1952–57 ; Dy. Min. of External Affairs, 1957–62 ; Min. of State for External Affairs, Govt. of India, 1962-66 ; elected to the Rajya Sabha, 1952, 1954 and 1960 ; member, Parliamentary Delegation to China, 1956 ; represented India on the U.N. Working Group on the Status of Women at Bangkok ; visited Australia and New Zealand as their guests and Malaya and Burma, 1957 ; Leader, Indian delegation to the Independence Celebrations of Somalia, 1960 and Tanganyika, 1961 ; attended the Triennial Conference of International Federation of Univ. Women in Mexico, 1962 ; visited Norway, Sweden and Denmark, 1962 ; visited Burma, Cambodia, Indonesia and Ceylon to present India's case in the Sino-Indian border dispute, 1962 ; leader, Indian Delegation to ECAFE Conference at Manila, 1963 ; accompanied the President of India on his State visit to the U.S.A. & U.K., 1963 ; represented India at the inauguration of Malaysia. *Address :* C/o 15, Asoka Road, New Delhi.

**MENON, Dr. Mambillikalathil Govind Kumar,** M.Sc. (Bombay), Ph.D. (Bristol), Fellow of the "Indian Academy of Sciences", Padma Shri (1961), Director, Tata Instt. of Fundamental Research, Bombay, since Feb. 1966. *b.* Aug. 28, 1928 ; *Educ.* Jaswant Coll., Jodhpur (1942-46) ; Royal Institute of Science, Bombay (1946–49) ; Univ. of Bristol, England (1949–55). Research career ; Research Associate, Univ. of Bristol (1952–53) ; held Senior Award of the Royal Commission for the Exhibition of 1851 (1953–55) ; since 1955, at the Tata Institute of Fundamental Research, Bombay—as Reader (1955–58) ; Associate Prof. (1958-60) ; Professor, 1960-64 ; Senior Professor and Dy. Dir. (Physics), 1964-66 ; invited delegate at "International Union of Pure and Applied Physics" Conferences on Cosmic Rays and High Energy Physics ; received S. S. Bhatnagar Award of C.S.I.R. for Physical Sciences for 1960. *Publications :* About forty-five on Cosmic Ray and Elementary Particle Physics. *Address :* 17, Jenkins House, Henry Road, Bombay 1.

**MENON, Mr. Justice M. S.,** M.A., Barrister-at-Law. Chief Justice of Kerala, since Jan. 20, 1962. *b.* June 12, 1907 ; *Educ. :* Christian Coll., Madras ; and Lincoln's Inn; called to the Bar, June 17, 1931. Enrolled as Advocate, High Court of Cochin, Oct. 29, 1931 ; enrolled as Advocate, High Court of Madras, Nov. 23, 1931 ; Legal Adviser to the Port of Cochin, 1932-53, and to the Armed Services at Cochin during World War II ; Member and Hony. Secy. of the Bar Council for many years ; took the oath of office as a Judge of the High Court of Travancore-Cochin, Jan. 29, 1953, as a Judge, High Court of Kerala, Nov. 1, 1956, as Acting Chief Justice of Kerala, Oct. 1, 1961. *Address :* Sudharma, Ernakulam ; Aranyaka, Pallivasal.

**MENON, Panampilli Govinda,** M.A., B.L., Minister of State for Food, Ministry of Food & Agriculture, Govt. of India, since Jan. 24, 1966. *b.* Oct. 1, 1908 ; *Educ. :* St. Thomas Coll., Trichur ; M.A. from St. Joseph's Coll., Trichinopoly, 1929 ; B.L. from Law Coll., Madras, 1931. Became Food Minister, Cochin State, Sept. 1946 ; Member, Constituent Assembly of India, April 1947 ; Education Minister, Travancore-Cochin State, July 1949 ; attended the I.L.O. Conference, Geneva, as representative, Govt. of India, 1953 ; Chief Minister, Travancore-Cochin State, Feb. 1955 ; Member, 3rd Finance Commission, 1961 ; elected to Lok Sabha from Mukundapuram, Kerala, March 1962 ; Leader, Indian Parliamentary delegation to the Inter Parliamentary Conference, Belgrade, 1963 ; Chairman, Parliamentary Cttee. on Public Undertakings, 1964. *Address :* Pullepati Road, Ernakulam ; New Delhi.

**MENON, Puthezhath Raman,** B.A., B.L., Sahithya Kusalan, Advocate, High Court, Kerala ; Malayalam Writer ; President, Kerala Sahitya Akademi. *b.* Nov. 1889 ; *Educ. :* Trichur, Ernakulam and Madras. Dist. Court Advocate for 21 years ; Public Prosecutor for one year ; Sarvadhikaryakkar to the Maharajah of Cochin, 3 years ; Dist. Judge for four years ; Actg. High Court Judge for one year ; retired, 1944 ; is a scholar, good orator and learned writer in Malayalam ; is a humorous writer. *Publications :* Author of over three dozen popular books, one of the most important publications being *Sakthan Thampuran*, pertaining to the history of Cochin and the biography of its great Ruler Sakthan. *Address :* Retired Judge, Trichur 1.

**MENON, V. K. Krishna,** B.A. (Madras), B.Sc. (Econ.), London, M.A., London, M.Sc. (Econ.), Diploma in Educ. (Lond.), Bar-at-Law, Middle Temple, King's Inns, Dublin (Honoris Causa), LL.D., Glasgow (Honoris Causa), LL.D. (Honoris Causa) : New Brunswick (Canada), Saugor (M.P.), Osmania (Hyderabad), Utkal (Orissa), D. Litt. (Mysore), Padma Vibhushan (1954), M.P., Ex-Minister for Defence, Government of India. *b.* 3rd May 1896 ; *Educ. :* Tellicherry and Kozhikode (Kerala), Madras and London, National Univ., Adyar. Lecturer, 1919-22 ; Boy Scout Commissioner, Madras and Cochin, 1918-24 ; Teacher, St. Christopher School, Letchworth, England ; Secretary, The India League, 1929-47 ; Councillor, St. Pancras, London, 1934-47 ; Chairman, Arts Council, St. Pancras ; Labour Parliamentary Candidate, Dundee, Scotland, 1939-42 ; Special Representative of the Government of India, 1946-47 ; Alternate delegate at the U.N. General Assembly meeting at Lake Success, 1946-47 ; represented India at various International Congresses on behalf of Indian National Congress for Jawaharlal Nehru from 1936 ; visited various European capitals as Pandit Nehru's Personal Representative and made preliminary arrangements for establishing diplomatic relations ; High Commissioner for India in London, 1947-52 ; India's Ambassador to Ireland, 1949-52 ; Chairman of the Indian Delegation to the Gen. Assembly of the U.N., 1952-53, '54, '55, '56, '57, '58, '59, '60, '61 & '62 ; Minister without Portfolio, Govt. of India, 1956-57 ; Defence Min., 1957-62. President, Indian Society of International Law & Diplomacy ; Senior Advocate, Supreme Court of India ; Elected Member of Parliament from North Bombay Constituency, 1957 and 1962. *Publications :* First Editor, Pelican Books ; Editor, 20th Century Library (Bodley Head) ; Pamphlets and Articles such as *India, Britain and Freedom ; Why must India Fight ; Britain's Prisoner · Nehru ; Unity with India against Fascism ; Independence*, in collaboration with the Ellen Wilkinson, *The Condition of India. Address :* 19, Teen Murti Marg, New Delhi.

**MERCHANT, Salim Mahomedbhai,** B.A., LL.B., Presiding Officer, Central Govt. Industrial Tribunal and National Industrial Tribunal since Aug. 1962 and Chairman, Central Wage Board for Coal Mining Industry, Bombay. *b.* Jan. 13, 1907; *Educ. :* Bharda New High School, Elphinstone Coll., and Govt. Law Coll., Bombay. Started practice as Advocate, High Court, Bombay, 1931 ; appointed Adjudicator, Industrial Tribunal, 1948 and later as Member, Industrial Court, Bombay, 1955 ; Member, Labour Appellate Tribunal of India, 1955-57 ; Central Govt. Industrial Tribunal, Dhanbad, 1960 ; transferred as Central Govt. Industrial Tribunal, Bombay. *Address :* 'Dinshaw Lodge', 18, Turner Road, Bombay 50.

**MIABHOY, Mr. Justice Nomanbhai Mahmedbhai,** B.A., LL.B., Chief Justice, High Court, Gujarat. *b.* Sept. 16, 1905 ; *Educ. :* Gujarat Coll., Ahmedabad ; B.A. from Elphinstone Coll., Bombay, 1927 ; LL.B. from Sir Lallubhai Shah Law Coll., Ahmedabad, 1929. Practising Advocate at Ahmedabad, 1929-41 ; joined Judicial Service as an Asstt. Judge, Dec. 15, 1941 ; Permanent District Judge, Dec. 27, 1942—March 1957 ; Judge : Bombay High Court, 1957-60 ; Gujarat High Court, 1960-66. *Address :* Ahmedabad.

**MICHAEL, John,** Trade Union Leader ; Member, A.I.C.C. ; President : Indian National Iron & Steel Workers' Fed. ; Indian National Mineworkers' Fed. ; and Colliery Mazdoor Sangh. *b.* Nov. 29, 1903, at Vepery, Madras ; *Educ. :* Dufton Coll., Madras. Courted imprisonment for political and trade union activities, 1941, 1942-45 ; Pres., I.N.T.U.C., 1952, 1953, 1960-61, 1961-62 and of its Bihar and Orissa branches ; Vice-Pres. : Miners' International Federation, London ; Member : Bihar Legislative Assembly, 1946-52 ; Rajya Sabha 1957-62 ; National Productivity Council ; Central Advisory Council of Industries ; Central Cttee. of International Metalworkers' Federation ; Standing Labour Cttee. ; Dev. Council for I.C.E. & Pumps ; National Savings Central Advisory Board ; Central Wage Board for Iron & Steel Industry ; Iron Ore Mines Industry ; Tripartite Standing Cttee. & Evaluation & Implementation, Bihar ; Bihar Regional Employees Prov. Fund Commission ; Indian Institute of Management, Calcutta ; Dir. : Hindustan Steel Ltd. ; Hindustan Shipyard Ltd. *Address :* 17/27, K. Road, Jamshedpur, Bihar.

**MIR QASIM,** M.A., LL.B., Minister without portfolio, J. & K. State, since Sept. 10, 1965 ; Gen. Secy., National Conference, Jammu and Kashmir since July 1964. *b.* Aug. 1921 ; *Educ. :* Aligarh. Entered political career, 1943 ; was arrested during Quit Kashmir movement, 1946 ; Advocate, Kashmir High Court ; member : Kashmir Constituent Assembly, 1951-56 ; Chief Parliamentary Secy.

in 1952; Secy., Basic Principles Cttee. and Drafting Cttee. of Kashmir Constituent Assembly; Kashmir Leg. Assembly, since 1957; became Revenue and Rehabilitation Minister in Bakshi's Cabinet, 1953; left the organisation in 1957 and formed the opposition group of the Democratic National Conference; again joined the organisation in 1960; Min. for Law, Irrigation & Power, Jan. 1961-April 1962; Min. Revenue & Rehab., 1962-63; Ex-Min. for Revenue, Rehabilitation, Food & Agriculture. J. & K. State. *Address:* Dooru, Anantnag, Kashmir; Gagribal, Srinagar, Kashmir.

**MIRAJKAR, Shantaram Savlaram,** Trade Unionist; President, All-India Trade Union Congress since 1958; member, Presidential Committee, All India Peace Council. *b.* Feb. 8, 1902; *Educ.:* Maratha High School, Girgaum, Bombay; Trade Unionist since 1920; Secy.: Workers' and Peasants' Party (1927); Girni Kamgar Union (Red Flag) (1928); Founder Member, Communist Party of India (1926); Vice-Pres., All-India Trade Union Congress (1948-57); Member, Bombay Municipal Corporation (1939-48; 1957); Chairman, Standing Cttee., Bombay Municipal Corporation (1957-58); Mayor, Greater Bombay, 1958-59. *Publications:* Various Tracts and Marathi Publications. *Address:* New Municipal House, Sion (East), Bombay 22.

**MIRDHA, Nathu Ram,** M.A., LL.B., Minister for Agriculture, Animal Husbandry, Food, Irrigation and Education, Rajasthan. *b.* May 31, 1922; *Educ.:* Sir Pratap High School, Jodhpur; B.A. from Jaswant Coll., Jodhpur; M.A., LL.B., from Lucknow Univ. Joined the Bar at Jodhpur; Popular Minister, former Jodhpur State, 1948; Minister for Finance and Education, Rajasthan, 1953; took great interest in the political, social and economic uplift of agriculturists; was responsible for the merger of Kisan Sabha with the Congress; was Chairman, Dist. Congress Cttee., Nagaur. *Address:* 14, Civil Lines, Jaipur

**MIRDHA, Ram Niwas,** M.A. (Pol. Science), LL.B., Speaker, Rajasthan Legislative Assembly, since 1957. *b.* Aug. 24, 1924; *Educ.:* Jaswant Coll., Jodhpur; Allahabad Univ., Allahabad; Lucknow Univ., Lucknow; Univ. of Geneva, Switzerland; Graduate Institute of International Studies. Entered Govt. service, Jodhpur State, 1944; elected M.L.A., Rajasthan; became Minister for Agriculture, Irrigation and Transport, Rajasthan, 1954; visited China as member of a delegation, 1956; Pres.: Indian Council of World Affairs, Jaipur; U.N. Assoc., Rajasthan; Caravan of India, Jaipur; Young Farmers' Assoc., Rajasthan; United Schools Organisation of India; Vice-Patron, Indian Council of Child Welfare, Rajasthan Branch; Vice-Pres., Indian Federation of U.N. Assocn.; Chairman: Rajasthan State Lalit Kala Academy; Cttee. on Cooperation, appointed by the Govt. of India; member, Exec. Cttee., State Co-operative Union; visited U.S.A. at the invitation of U.S. Deptt. of State, 1959; delegate to the Commonwealth Parliamentary Conference, London, 1961 and Jamaica, 1964. *Address:* 13, Civil Lines, Jaipur.

**MISHRA, Pt. Dwarka Prasad,** B.A., LL.B., D.Litt. (Honoris Causa), Chief Minister, Madhya Pradesh, since Oct. 1963. *b.* Aug. 5, 1901; *Educ.:* St. Paul's High School, Raipur, M.P. (Matriculation); Christ Church Coll., Kanpur (Intermediate); Robertson Coll., Jabalpur (B.A.); Law Coll., Allahabad (LL.B.). Elected to the Indian Leg. Assembly, 1926; elected Pres., Municipal Cttee., Jabalpur, 1932; appointed Minister, C. P. & Berar, 1937; appointed Home Minister, M.P. Govt., 1946; Vice-Chancellor, University of Sagar, 1956-61; elected Leader, Madhya Pradesh Legislature Congress Party, Sept. 24, 1963. *Publications: Krishnayan* (Life of Lord Krishna in Hindi Verse). *Address:* Nishat Manzil, Bhopal, M.P.

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**MISRA, Mr. Justice Ram Asray,** M.A., LL.B., Judge, Allahabad High Court, since July 14, 1959. *b.* June 15, 1907; *Educ.:* Govt. Jubilee Inter Coll., Lucknow; Christian Coll., Lucknow; Lucknow Univ. Joined Bar, 1932; practised mostly on the criminal side; Special Counsel: to prosecute several cases against Tehsildar Singh and others (Man Singh's gang), 1955-56; for S.P.E., Govt. of India, to prosecute H. D. Mundhra in a case under Sec. 420 I.P.C., 1958. *Address:* Gopal Sadan, Canning Street, Lucknow.

**MISRA, Shambhu Maharaj,** Padma Shree, Dancer; Rashtrapati Golden Award through Sangeet Natak Akadami, March 27, 1955. Senior Professor of Dancing; Teacher of Dancing to Govt. scholarship holders in Bhartiya Kala Kendra, Delhi. *b.* Nov. 15, 1907; *Educ.:* Learned music under Ustad Rahim Udin Khan in Faizabad, 1920-21; had training in dancing under his brother and Guru Jagannath Parsad *alias* Achan Maharaj, Rampur State, 1921-25. Started dancing career in 1925; spread the Kathak Natvari Nirtya from Lucknow; danced at Lucknow Music Conference, 1925; danced in the following cities where music conferences were held: Ajmer, Jaipur, Calcutta, Bombay, Baroda and Allahabad; was honoured as 'Nirta Samrat' in Dehra Dun, 1936; awarded Padma Shree, Oct. 27, 1958. *Address:* 6A/6, W.E.A., Karol Bagh, New Delhi 5.

**MITRA, Asok,** B.A. (Cal.), I.C.S. Registrar General & Census Commissioner, India, since July 1958; Secy., Min. of Information & Broadcasting. *b.* March 1, 1917; *Educ.:* Presidency Coll., Calcutta; Merton Coll., Oxford. Served in districts of Bengal in various capacities, 1940-50; Supdt. of Census Operations, West Bengal, 1950-52; Joint Development Commissioner and Development Commissioner, West Bengal, 1952-54; Secy., Commerce & Industry, Cottage and Small Industry and Co-operation Deptts., West Bengal, 1955-June '58; Addl. Secy., Planning Commission, 1965-66; Editor, *The Folk Dances of Bengal* and *District Records of West Bengal Districts* (a series). *Publications: Census Report of West Bengal* (7 Volumes); *Revised District Gazetteers of West Bengal Districts* (14 volumes); *The Tribes and Castes of West Bengal*; a short history of European painting in Bengal called *Paschim Europer Chitrakala*; a concise history of Indian painting in Bengali called *Bharater Chitrakala*; English translation of Tagore's *Chaturanga*; Author: *Calcutta: India's City. Address:* 8, Grove Lane, Calcutta 26; 2A, Mansingh Road, New Delhi 11.

**MITRA, Dr. Bhupendra Nath,** ex-Colonel, D.Sc. (Dacca), Ph.D. (Minnesota), F.R.I.C., Sigma. XI, Director, Central Indian Medicinal Plants Organisation, Lucknow, since Feb. 1964. *b.* 1905; *Educ.:* Dacca, Minnesota, Rothamsted Experimental Station, England; awarded Rockefeller Foundation fellowship (1936-37); invited to attend International Congress for microbiology, New York (1939) and for pure and applied chemistry, London (1947); visited numerous research institutes in U.S.A., U.K. and Europe; appointed in Forest Research Institute and Colleges, Dehra Dun (1929-30); Indian Research Fund Assoc. (1931-39); commissioned in the Indian Army (1940-57) and held a number of key positions in armament technology; Asstt. Director General, C.S.I.R. (1958-59); Director, Regional Research Laboratory, Jorhat (1959-64). *Publications:* Research papers in chemistry, biochemistry and allied subjects; special studies in protein chemistry; author of military explosive PEK. *Address:* Central Medicinal Plants Organisation, Lucknow; 83/1A, Ballygunj Place, Calcutta-19.

**MITRA Biren,** B.A., Ex-Chief Minister of Orissa. *b.* Nov. 26, 1917; *Educ.:* Ravenshaw Coll., Cuttack. Has been taking keen interest in the amelioration of the down-trodden from his early life; was an outstanding leader of students' movement; imprisoned while leading the medical students strike; courted jail in 'Quit India' movement, 1942; took active part in labour movement; elected to the Orissa Assembly for the third term from Cuttack City Constituency during the mid-term election, 1961; Deputy Chief Minister in charge of Political and Services, Health (Local Self Govt.), Planning & Co-ordination, Law and Community Development and Panchayati Raj, 1961-63; elected leader of the Congress Leg. Party, Sept. 1963; Chief Minister, 1963-65. *Address:* Katgorasahi, Cuttack.

**MITRA, Gajendra Kumar,** Bengali writer. *b.* Nov. 11, 1908; *Educ.:* Banaras; Central Kashi Institution; Anglo-Bengali School and at Calcutta; Jagatbandhu Institution; St. Xavier's Coll. Began editing mss. magazines at the age of eight; started publication business independently with a partner; made a hit picture "Kangan"; based on

*Rajanigandha* and subsequently several other short stories and novels filmed. *Publications :* Began contributing regularly to some weekly and fortnightly magazines from 1927 ; published the 1st book a children's book, 1929 ; 1st short story collection, 1939 ; 1st Novel 1940 ; wrote some historical novels ; some of his works are *Bharate Bari ; Ratrir Tapasya ; Janmechi Ei Deshe ; Nari O Niyati ; Sohagpura; Parush O Ramani ; Malachandan ; Kalkatar Kachei ;* Akademi award (1959-60). *Banhi Banya ; Akashlipi ; Upakanthe ; Nilkanthi ;* Danan-O-Dipti ; *Pous Faguner Pala ;* Rabindra Memorial Prize, 1964 ; *Prithivir Itihas,* etc. *Address :* Beni Bannerjee Avenue, Dhakuria, Calcutta 31.

**MITRA, Mr. Justice Sankar Prasad,** M.A. (Cantab.), Barrister-at-Law, Judge, High Court, Calcutta, since Dec. 1957. *b.* Dec. 26, 1917 ; *Educ. :* Calcutta, Cambridge and London. As a student in England from 1938 to 1943, took active part in Indian Independence Movement ; was Pres., Cambridge Majlis ; General Secy., Indian Students' Federation in U.K. and Secy., Swaraj House, London. Joined Calcutta High Court, 1944; was M.L.A., West Bengal, 1952-57 ; is a good debator ; visited the People's Republic of China as member, Cultural Delegation, 1954 ; appointed Minister-in-charge of the Land & Land Revenue, Judicial and Leg. Deptt., West Bengal, 1956 ; proceeded to U.S.A. to study the legal system and observe cultural institutions at the invitation of the American Govt., Sept. 1958 ; is connected with numerous voluntary and charitable organisations in West Bengal. *Address :* 5, Mahatma Gandhi Road, Calcutta 9.

**MITRA, Sombhu,** Akademi Award as the Best Stage Director (1959), Actor and Stage Director. *b.* Aug. 22, 1915 ; *Educ. :* Ballyganj, Govt. High School, and St. Xavier's Coll., Calcutta. Joined the Public Stage of Bengal, 1939 ; actor in the Public Stage, 1939-42 ; Producer-Director-Actor, Indian People's Theatre Assoc., 1943-46 ; organized a Theatre Unit, Bohurupee, 1948 ; successfully produced the following plays, *viz.*, "Four Chapters" (1951), "Red Oleanders" (1954), "Sacrifice" (1961), "The King of the Dark Chamber" (1964) ; also adapted and produced plays of Ibsen, Sophocles and other Masters — "An Enemy of the People" (1952), "A Doll's House" (1958), "Oedipus-Rex" (1964) ; won the "Grand Prix" award for his film "Under the Cover of Night" (Ek Din Ratre) at the Carlovy Vary Film Festival, 1957. *Publications : Abhinay-Natak Mancha* (1957) ; *Putul Khela* (1958) ; *Kanchanranga* (1961). *Address :* 11A, Nasiruddin Road, Park Circus, Calcutta-17.

**MITTER, Mr. Justice Gopendra Krishna,** B.Sc. (Hons.) (Patna), Bar-at-Law, Lincoln's Inn, Judge, Calcutta High Court, since 1952. *b.* Sept. 24, 1906 ; *Educ. :* Zilla School, Muzafferpore ; Patna Coll., Patna ; The Univ. Coll., London. Started practising in the courts at Muzafferpore, 1931 ; practised at the Bar of the Calcutta High Court, 1934-52. *Address :* 36/4, South End Park, Calcutta 29.

**MODAK, Narayan Vinayak,** C.I.E. (Jan. 1945), B.E. (Civil) (1911), member of the Institution of Civil Engineers (London) (1936), Fellow of the Royal Society of Health, Member, Institute of Municipal Engineers, Member, Municipal Public Health Engineers (U.S.A.), Consulting Public Health Engineer since Sept. 1961. *b.* Dec. 1890. Was Adviser, Union Ministry of Health for Delhi's Water Supply, sewerage and sewage disposal Schemes ; elected Fellow, Univ. of Bombay for over 25 years ; ex-Chairman, Engineering and Metallurgy section, Indian Science Congress ; worked as Deputy City Engineer, Hydraulic Engineer, City Engineer, Ag. Municipal Commissioner, Special Engineer—(author of Vaitarna-cum-Tansa Scheme) and Consulting Engineer, Bombay Municipal Corporation, 1930-61 ; worked on two expert Committees of W.H.O. : (*a*) drinking water supply standards and (*b*) public health aspects of Housing ; worked on the 'Housing' and 'Public Health' Panels of the Planning Commission ; Chairman of the Panels on (*a*) Slum clearance, and (*b*) National Water Supply and Sanitation programme of the Building Projects Team — Planning Commission. *Address :* "Udyam," Shivaji Park, Bombay 28.

**MODI, Rai Bahadur Seth Gujarmal,** Chairman, Modi Industries Ltd., Modinagar (Meerut), U.P. *b.* August 1902, Patiala State ; *Educ. :* Privately. Entered business at a very early age ; founder, 'Modinagar', in Dt. Meerut, U.P. ; established various industries, *viz.* Modi Vanaspati Mfg. Co., Modi Gas & Chemicals, Modi Paint and Varnish Works, Modi Arc Electrodes Co., Modi Spg. & Wvg. Mills Co. Ltd. and other factories at Modinagar and other places in the Punjab and U.P. ; Chairman, Modi Charitable Fund Society and R. B. Multanimal Charitable Trust ; Founder of Western U.P. Chamber of Commerce ; Pres. : Western U. P. Productivity Council ; Indian Sugar Mills Assocn. ; All-India Organisation of Industrial Employers ; Dir., Reserve Bank of India, North Zone ; Member ; Exc. Cttee., F.I.C.C.I. ; State Planning Board, U.P., State Technical Education and Training Board, U.P. ; Dev. Council, Art Silk Industry Govt. of India ; is a philanthropist ; his donations run into several lakhs ; has built an Industrial Colony known as 'Govindpuri', with the help of the U.P. Govt., to rehabilitate the displaced persons near Modinagar. *Address :* P. O. Modinagar (Meerut), U.P.

**MODI, Mr. Justice Inder Nath,** B.A., LL.B., Judge, Rajasthan High Court, since Jan. 29, 1953. *b.* March 1, 1905 : *Educ. :* Allahabad Univ. ; had a brilliant academic career. Joined the Bar, 1935 ; enrolled as Senior Advocate, Supreme Court of India, 1951 ; elected Pres., Jodhpur Bar Assoc., 1938, '39, '42, '43, '48, '49 and '51 ; elected member, Jodhpur Municipality, 1937, '39 and '44 ; first elected Pres., Jodhpur Municipality, 1940-41 ; Director, Local Self-Govt., Jodhpur State, 1945-46 ; member : Marwar Legislative Assembly, 1947-48 ; Rajasthan Leg. Assembly, 1952 ; served on numerous Cttees. and institutions connected with education, public health, Harijans, labour, municipalities, panchayats and legal and political subjects, 1937-52 ; Life member and elected Pres., Red Cross and other allied Societies, Jodhpur, 1950-52 and 1959-62 ; Pres., Indian Council of World Affairs, Jodhpur Br., 1964-65. *Address :* Jodhpur, Rajasthan.

**MODY, Sir Homi,** M.A., LL.B., K.B.E. (1935), Grand Commander, Order of George I of Greece, Treasurer, Swatantra Party, Ex-Governor of U.P., Ex-Dir., Tata Sons Ltd. *b.* Sept. 23, 1881 ; *Educ. :* St. Xavier's Coll., Bombay. Pres., Bombay Municipal Corporation, 1923-24 ; Chairman, Bombay Millowners' Association, 1927 and 1929-34 ; Pres. : Indian Merchants' Chamber, Bombay, 1928 ; Employers' Federation of India ; member, Indian Leg. Assembly, 1929-43 and Constituent Assembly, 1948-49 ; member, First R.T.C. 1929 and Reserve Bank Cttee. of the Conference, 1934 ; Member for Supply, Viceroy's Executive Council, 1941-43 ; Governor of Bombay, Sept. 1947 ; Chairman : Central Bank of India ; Indian Hotels Co. Ltd. ; Sir Dorab Tata Trust ; C. C. I. Ltd. ; Life Pres. : Indo-American Society ; Indian Council of World Affairs, B'bay Br. ; Fellow, Royal Society of Arts ; Governor of U.P., May 1949-June 1952. Hon. LL.D., Banaras, Aligarh and Poona Univs. ; D. Litt., Agra Univ. *Publications : The Political Future of India ; Biography of Sir Pherozeshah Mehta ; Reflections, Wise and Otherwise. Address :* "Spirospero," Carmichael Road, Cumballa Hill, Bombay 26.

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**MOGENSEN, Erik Brunnich,** M.Sc., Civil Engineer, Director, F. L. Smidth & Co. (Bombay) Private Ltd. *b.* Sept. 8, 1906 in Denmark ; *Educ. :* Copenhagen Univ. Hon. Consulting Engineer (Cement) to the Govt. of India, 1945-56 ; Consul for Denmark, 1950 ; Consul General, 1957. *Address :* Shangrila, Carmichael Road, Bombay.

**MOHAMMED, Bakshi Ghulam (See under Bakshi Ghulam Mohammed).**

**MOHAN, Yadava,** C.E. (Hons.), M.I.E., Vice-Pres., the International Commission for Irrigation and Drainage, since 1963 ; Chairman and Administrator, Rajasthan Canal Board, since July 1962 ; member, Boards of Technical Consultants for Beas and Banaganga multipurpose projects. *b.* July 20, 1908 ; *Educ. :* Meerut Coll., Meerut ; C.E. (Hons.) from Thomason Coll. of Civil Engineering, Roorkee, 1928. Civil Engineer in various capacities (Asstt. Exec. ; Exec., Supdtng. and Chief Engineer) in the Irrigation Dept. of U.P., on deputation in U.S.A. on U.S. Bureau of Reclamation, Army Corps of Engineers, TVA, etc. Chief of the Natural Resources Development Division, Planning Commission, New Delhi, 1953-58 ; Secy., Advisory Cttee. for Irrigation and Power Projects for the Second Plan, 1953-58 ; member, Planning, Central Water and Power Commission 1958-62. Secretary Genl., the International Commission for Irrigation and Drainage, 1957-63. *Publications :* A number of articles of engineering interest and humanities in engineering magazines and daily newspaper. *Address :* A-3, Gandhinagar, Jaipur.

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**MONDOL, Rt. Rev. Shot Kumar,** B.A., S.T.D., D.D., LL.D., Bishop, Methodist Church in Southern Asia, since Jan. 1. 1941. *b.* Oct. 11, 1896; *Educ.:* Scottish Church Coll. and St. Paul's Coll., Calcutta. Principal, Collins Institute, Calcutta; Pastor, Dist. Supdt., Railway Chaplain, Calcutta and Asansol; Commsr., Asansol Municipality, 1938-40; Acting Pres., National Christian Council of India, 1947-50; Pres., 1950-56; Pres.: National Missionary Society of India, 1943-58; India Sunday School Union, since 1948; World Council of Christian Education and Sunday School Assoc., 1958-62; United Mission to Nepal since 1958; North West India Christian Council since 1958; Bible Society of India, Delhi Auxiliary, since 1959; Young Men's Christian Assocn., Delhi since 1960; Chairman, Christian Medical Coll., Vellore, since 1961. *Address:* Bishop's House, 12, Boulevard Road, Delhi 6.

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**MOOKERJEE, Sir Biren,** M.A. (Cantab.), M.I.E. (Ind.), Kt. (1942), Governing Director, Martin Burn Ltd., Calcutta. *b.* Feb. 14, 1899; *Educ.:* Hastings House and Sibpur Engineering Coll., Calcutta; Trinity Coll., Cambridge. Joined Martin & Co. as an Assistant, 1924; made partner, Burn & Co., 1931 and Martin & Co., 1934; was closely associated with the negotiations which led to the formation of The Steel Corporation of Bengal Ltd., 1937 and the subsequent construction of the steel works at Napuria alongside the Hirapur Works of The Indian Iron & Steel Co. Ltd.; during World War II, appointed to the Munitions Board and the Defence Council; elected Sheriff of Calcutta, 1940; was Chairman: Calcutta Board, former Imperial Bank of India, Governing Body, Sibpur Engineering Coll.; Fellow, Faculty of Engineering of the Calcutta Univ.; was member, Indian Mission which negotiated Rs. 15 crore loan from the World Bank to the Indian Iron & Steel Co. Ltd. *Address:* 7, Harrington Street, Calcutta 16.

**MOOLGAOKAR, Sumant,** B.Sc. (Hons.) (Lond.), J.P., Business Executive. *b.* March 5, 1906; *Educ.:* St. Xavier's High School and St. Xavier's Coll., Bombay; Imperial Coll., London. Started career with the A.C.C. Ltd.; served the cement industry in various technical and managerial capacities, 1930-48; became Managing Director TELCO Ltd., 1949; was Chairman, Engg. Capacity Survey Cttee.; Machine Tools Development Cttee.; member: National Planning Council, Planning Commission; Adv. Bd., Coll. of Mily. Engg., Poona; Director: Tata Industries Pvt. Ltd.; Tata Engineering and Locomotive Co. Ltd.; Tata Hydro-Electric Agencies Ltd.; A. C. C. Ltd.; Tata Johnson Ltd.; ACC-Vickers-Baboock Ltd.; Cement Agencies Ltd., Heavy Engg. Corpn., Ranchi. etc. *Address:* Bombay House, Fort, Bombay.

**MORAES, Dominic,** M.A. (Oxon.), Writer. *b.* July 19, 1938; *Educ.:* St. Mary's High School, Bombay; Jesus Coll., Oxford. Contributed to several English Papers and Magazines. Author of *A Beginning* (1957) which took the 'Hawthornden Prize; awarded 'Lamont Prize' 1958; Travel books on India. *Gone Away* (1960) and *Poems* are Book Society's and Poetry Society's Choice for their year. *Address:* C/o Curtis Brown Ltd., Library Agents, 13, King's St., London–W.C.1.

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**MUDHOLKAR, Mr. Justice Janardan Rangnath,** B.A., LL.B. (Cantab.), Bar-at-Law, Judge, Supreme Court of India, since Oct, 1960. *b.* May 9, 1902; *Educ.:* Elphinstone High School, Bombay; Elphinstone College, Bombay; Sidney Sussex College, Cambridge; Lincoln's Inn, London. Practised at the Bar, 1925-41; District & Sessions Judge, Sept. 1941-June 1948; Judge, Nagpur High Court, June 1948-Oct. 1956; Bombay High Court, Nov. 1956-Sept. 1960; acted as Chief Justice, Bombay High Court, Aug.-Sept. 1960. *Address:* Supreme Court, New Delhi.

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**MUKERJEE, Hirendra Nath,** M.A. (Calcutta et Oxon.), B.Litt. (Oxon.), Barrister-at-Law, M.P., Communist leader and Educationist. *b.* Nov. 23, 1907; *Educ.:* Calcutta and Oxford. Head of the Dept. of History, Surendranath Coll., Calcutta, since 1936; member: A.I.C.C., 1938; Jt. Secy., Congress Socialist Party, Bengal, 1938; Bengal Provincial Cttee., C.P.I., 1947-49; detained without trial (1948-49); elected M.P. from Calcutta North-East, Jan. 1952, Calcutta Central, 1957; and again in 1962; Deputy Leader, Communist Parliamentary group since 1952 and after secession of the Left, leader, 1964; member: National Council, C.P.I.; Calcutta Univ. Senate, 1953 and 1957; Central Advisory Board of Archaeology, 1952-55 and since 1957; Panel on Education, Planning Commission; Emotional Integration (Sampurnanand) Cttee., 1961-62; Press Consultative Cttee., 1962; All India Council of Sports; Eng. Cttee. on Small Newspapers, 1964. *Publications: An Introduction to Socialism* (1939); *China Calling* (1942); *Under Marx's Banner* (1944); *India Struggles for freedom* (1946); *Gandhiji: A Study* (1958); *Himself a True Poem, A Study of Tagore; India and Parliament; The Gentle Colossus: A study of Jawaharlal Nehru;* and other volumes in English and in Bengali. *Address:* 14, Indian Mirror Street, Calcutta 13.

**MUKERJI, Sashadhar,** M.Sc., a leading Film Producer; Chairman, Filmalaya Private Ltd. *b.* Sept. 29, 1909; *Educ.:* Allahabad. Joined Bombay Talkies, 1935; produced "Kangan", "Bandhan", "Jhoola", "Naya Sansar" and "Kismet"; founded Filmistan, 1943; and produced "Shikari", "Sindoor", "Shahnai", "Sargam", "Actress", "Anand Math", "Samadhi", "Sajan", "Do Bhai", "Shaheed", "Anarkali", "Nagin", "Nastik", "Shabnam", "Jagriti", "Munimji", "Paying Guest", and "Tum Sa Nahin Dekha"; severed his connection with Filmistan, May 1958; inaugurated Filmalaya Private Ltd.; Produced "Dil Deke Dekho", "Love in Simla", "Hum Hindustani" in colour and "Ek Musafir Ek Hasina". *Address:* "Grotto Villa", 2nd Hasanabad Lane, Santa Cruz West, Bombay 54.

**MUKHERJEE, Hemant Kumar,** Music Director, Playback Singer and Picture Producer. *b.* June 16, 1922 at Varanasi; *Educ.:* Calcutta; studied music lessons at home, all by himself. Was enrolled as an artiste in the A.I.R.; rendered voice for Sailesh Dutta Gupta, 1937; was assigned to compose for a Bengali film, 'Purbaraag', 1945; got more and more assignments; was closely associated with the I.P.T.A.; joined Filmistan, 1951, his assignments being 'Anandmaath', 'Shaart', etc.; rendered voice for masters in the line like Naushad, S. D. Burman, C. Ramchandra and Shanker Jaikishen; Filmfare Award for him in 'Nagin', 1954; 'Shaap', 'Mochan' and 'Miss Mary' were his next assignments; produced 'Neel Akasher Neechey', 1958; 'Bees Saal Bead', 1962, 'Kohraa', 1964, all acclaimed as having great artistic skill in the filmdom. *Address:* Gitanjali, 14th A Road, Khar, Bombay 52; 26/2A, Rupnarayan Nandan Lane, Calcutta 25.

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**MUKHERJEE, Sudhir Krishna,** B.A. (Hons.), (Econ.), M.A. (Econ.) (Calcutta), Univ. Gold medalist, Secretary, Border Roads Development Board, and ex-officio Joint Secretary, Ministry of Transport, since March 1960. *b.* Jan. 3, 1915; *Educ.:* Presidency Coll. and Calcutta Univ. (1930-37); Joined Indian Defence Accounts Service, Nov. 27, 1940; served in various capacities in the Defence Accounts Deptt., including a year in the N.W. F.P.; Asstt. Military Accountant-General (Administration), 1944-47; Asstt. Financial Adviser (Ministry of Finance/Defence), 1947-50 and Deputy Financial Adviser and Joint Financial Adviser, 1952-56; Controller of Defence Accounts (Southern Command), Poona, 1956-60. *Address:* 96, Shahjehan Road, New Delhi 11.

**MUKHERJI, Balai Chand,** M.B., B.S., Bengali Writer and Pathologist. *b.* 1899; *Educ.:* Patna and Calcutta; passed matriculation, 1918, I.Sc. 1920 M.B.B.S., 1927. Took up literary career from 1918 and wrote under the pen-name 'Bonophul'; started as a pathologist in Bhagalpur, 1929. *Publications:* 70 books: Poems, dramas, short stories, novels, satires and essays. *Address:* Gole-Kuthi, Adampur, Bhagalpur (Bihar).

**MUKTIAR, Moni Ram Dutta,** Bayana, Muktar, Dancer and musician. *b.* May 1881 Jestha 22, 1803 Sakabda; *Educ.:* Sree Sree Kamalabari Satra, Sibsagar Dist.; Represented Satriya before All India Dance Seminar, New Delhi, 1958; received Sangeet Natak Academy award 1963 and Assam Sangeet Natak Academy award, 1961; by the Assam Sahitya Sabha offered felicitations for outstanding work in popularising the Satriya Art and Culture, 1963. *Address:* P. O. Kamalabari, Mujuli, Dist. Sibsagar, Assam.

**MUKTIBODH, Sharadchandra Madhav,** M.A., LL.B., Marathi Poet, Critic and Novelist; Lecturer, Nagpur Mahavidyalaya, Nagpur. *b.* Jan. 21, 1921. *Educ.* Holkar Coll., Indore (M.P.). Commenced writing verse while at school; has been accorded an important place in contemporary Marathi poetry. *Publications: Navi Malwat* (Poetry); *Yatrik* (Poetry); *Kshipra* (Novel); *Sarhadda* (Novel); *Kahi Nibandh* (Criticism). *Address:* Shankar Nagar, Nagpur.

**MULLA, Anand Narayan,** M.A., LL.B., Sahitya Akademi Award (1964). Urdu Writer; Advocate, Supreme Court. *b.* Oct. 24, 1901, at Lucknow; *Educ.:* Govt. Jubilee High School and Canning Coll., Lucknow. Started writing poems in English, 1917; switched over to Urdu, 1926; practised law at Lucknow, 1926-46; Chairman, Indo-Pak Military Pensions Appeals Tribunal, 1946; rejoined profession, March 1952; Judge, Allahabad High Court, 1954-58; Senior Judge, Lucknow Bench, 1958-61; resumed practice, 1961; takes active part in political, civic and cultural activities. *Publications: Mazamin-E-Nehru* (1938); Translation in Urdu of Pandit Nehru's selected articles; collection of poems: *Jue Sheer* (1949); *Kuch Zarre Kuch Tare* (1959); *Meri Hadise Umre Gurezan* (1963), which won Sahitya Akademi Award, 1964. *Address:* 2, China Bazar Road, Lucknow.

**MUNDASSERY, Joseph,** M.A., Politician and Malayalam Writer; Principal, Co-op. Coll., Trichur. *b.* 1902. Recipient of titles from H.H. The Maharaja of Cochin for literary work,—Sahithyakusala and Sahithyanipuna; visited China, Soviet Union and European countries; entered active politics, 1946; member, World Peace Council,; has been associated with educational activities for several years; has been in the forefront of the Progressive movement in Literature; was M.L.A. for about 10 years; Minister for Education, Kerala, 1957-60; was Editor of various literary journals and also a daily. *Publications:* Has produced more than thirty volumes including fiction, travel, biography, literary criticism and general essays; Some Books: *Professor, Konthayilninnukurisilekku, China Forward, Mattoli, Manadandam, Vayanasalayil Manushyakathanugayikal,* etc. *Address:* Trichur.

**MUNSHI, Kanaiyalal Maneklal,** B.A., LL.B., D.Litt., LL.D., Ex-Governor of U.P. (1952-57); Founder, Pres., Bharatiya Vidya Bhavan, since 1938; *b.* 30th Dec. 1887; *Educ.:* Baroda College. Advocate, Bombay High Court, 1913; Fellow of the Universities of Bombay and of Baroda; M.L.A., Bombay, 1927-46; member: Working Cttee., Indian National Congress, 1930; A.I.C.C., 1930-36 and 1947; Secy., Congress Parliamentary Board, 1934; Home Minister, Govt. of Bombay, 1937-39; member, Constituent Assembly of India and of its Drafting Cttee. and of Parliament, 1947-52; Agent General to the Govt. of India, Hyderabad, 1948; Chairman, Institute of Agriculture, Anand, since 1951. Trustee: Birla Education Trust and other trusts, since 1948; Food and Agriculture Minister, Govt. of India, 1950-52; Chairman, Sanskrit Vishwa Parishad, since 1951; Vice-Pres., All-India Swatantra Party; courted jail several times in the freedom movement. *Publications:* (Gujarati): Over 50 books, incl. Novels, Plays, Essays, Memoirs, (English): *Kulapati's Letters,* Vol. I, II, III, & IV; *Gujarat and its Literature: Imperial Gurjaras; Bhagawad Gita and Modern Life; Creative Art of Life; To Badrinath; Saga of Indian Sculpture; End of an Era—Hyderabad Memories; Warnings of History; Reconstruction of Society through Trusteeship; Foundations of Indian Culture, Krishnavatara (Part I, II & III)* and *Tapasvini, etc. Address:* Bharatiya Vidya Bhavan, Chowpatty, Bombay.

**MUNSHI, Srimati Lilawati,** Chairman, The Women's Advisory Cttee. of Indian Std. Institution, 1964; Vice-Pres., Bharatiya Vidya Bhavan, Bombay, Delhi, Kanpur and Gujarat, since their inception; Pres.: Bharatiya Sangit Shiksha Pith of Bharatiya Vidya Bhavan; All India Women's Central Food Council, New Delhi, 1950-64; Harijan Sevak Sangh, Bombay, 1943-52; College of Catering and Institutional Management, 1954-64; Bharatiya Stree Seva Sangh, 1948-64; Vice-Pres.: National Council of Women in India, 1953-58; Friends of the Trees, 1958-64; member: Small Scale Industries Board 1962-64; National Campaign Cttee., 1963-64; Senate, Sardar Vallabhai Vidyapith, since 1956 and its Syndicate, 1962-64; organised Swadeshi Market and was elected its Pres.; courted jail thrice in the freedom movement; M. P. (Rajya Sabha) 1952-58; Chairman, Institute of Catering Technology and Applied Nutrition, 1963-64. *Publications: Rekhachitro Ane Bija Lekho; Kumaradevi; Jeevamathi Jadeli; Rekha Chitro—Juna Ane Nava;* miscellaneous articles. *Address:* Bharatiya Vidya Bhavan, Chowpatty, Bombay.

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**MURTHY, Ramnathpur Venkatesa,** M.A., Editor, *Records & Statistics*. *b.* Nov. 12, 1906; *Educ.*: Mysore and Bombay. Joined the editorial staff of *Commerce*, March 1936; became its first Indian editor; resigned, end of 1951; Chief Editor, *The Bharat*, 1951; after a few months, appointed Special Representative, *Eastern Economist*: after the Second World War, proceeded to the U.K. to make an on the spot study of post-war industrial conditions and prospects of Indo-British economic relations; edits Daily Cotton and Textile Market Review; broadcasts often from the A.I.R. on economic subjects; is connected with a number of educational and cultural institutions and is a keen co-operator; is Chairman, Press Guild of India. *Publications*: Has edited and published a number of specialised publications, including *The History of Technical Education in India* and *Industrial India*; contributes to leading journals, in India and abroad. *Address*: 5, Ratan Lodge, Bombay 19.

**MURTI, Ram.** M.A., LL.B., Minister for Community Development, Uttar Pradesh. *b.* 1910; *Educ.*: Hindu Univ., Varanasi & Lucknow Univs. Genl. Secy., DCC, Bareilly 1937-46; and Member: PCC and AICC; imprisoned in 1930, 32, 40 and 42 in freedom movement; Member, State Legislature, since 1946; Deputy Minister, 1952 & Irrigation Minister, 1957; resigned 1958; Irrigation Minister till he became Development Minister. *Address*: Minister for Community Development, Uttar Pradesh, Lucknow.

**MUSAFIR, Giani Gurmukh Singh,** M.P.; member, Executive Congress Party in Parliament, since 1952; Ex-Pres., Punjab Pradesh Congress Cttee., *b.* Jan. 1899; *Educ.*: Rawalpindi and Training Coll., Lahore. Took active part in Akali movement, Jathedar Akal Takhat; Gen. Secy., S.G.P.C. and Shiromani Akali Dal; devoted to poetry and journalism; joined Congress, 1923; courted jail in almost every movement; member, A.I.C.C. since 1930; Constituent Assembly, 1947; Working Committee, 1952-57; Chairman, Jallianwala Bag Trust Managing Cttee.; Chairman, Reception Cttee., 61st Session of the Indian National Congress; member, Delegation to Stockholm Peace Conference, 1954; visited Japan, Russia and continental countries. *Publications*: Poetry, short stories, etc. in Punjabi. *Address*: 21, Feroze Shah Road, New Delhi.

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**MUTHIAH Chettiar of Chettinad, Dr. Rajah Sir Muthiah Annamalai,** Kt., B.A., D.Litt., M.L.C., Pro-Chancellor, Annamalai University; Chairman: The Indian Bank Ltd., Madras; Chettinad Cement Corpn. Ltd., Madras. *b.* 1905; *Educ.*: Presidency Coll., Madras. Member: Madras Leg. Council, 1930-37; Madras Franchise Cttee., 1931; Madras Leg. Assembly, 1936-46, 1946-52, 1952-57 and 1957-62; awarded Hony. Degree of D. Litt. by Annamalai Univ., 1955; member: Syndicate, Madras Univ., 1940-46; Indian Constituent Assembly, 1946-50; Chief Whip and Chairman, Justice Party; Mayor of Madras, 1932-33; again Mayor of Madras 1934-35; Education and Public Health Minister, Madras and Pro-Chancellor, Madras Univ., 1936-37; Local Self-Govt. Minister, Madras, 1937; Pres.: Southern India Chamber of Commerce, 1941; Federation of Indian Chambers of Commerce and Industry, 1943-44; Local Board, former Imperial Bank, Madras; Trustee, Pachaiyappa's Coll. Board, 1928-63; its Pres., 1942; Director: former Imperial Bank; A. & F. Harvey Ltd., Madura; Madura Mills Co., Ltd., Madura; Pandyan Insurance Co., Ltd., Madura; India Reinsurance Corpn. Ltd., Bombay; Punalur Paper Mills Ltd., Punalur, Kerala; Binny & Co. Ltd., Madras. *Address*: Chettinad House, Rajah Annamalaipuram, Madras 28.

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**NAG, Balwant Singh,** I.S.E., C.E. (Hons.) (Roorkee), M.I.E., M.I.A.H.R., Padma Shri (1959), Adviser, Irrigation & Power, Planning Commission, Govt. of India. *b.* May 1, 1906; *Educ.*: Khalsa Coll., Amritsar; and Thomason Coll. of Civil Engineering, Roorkee, passing with Honours, 1929, winning the Harcourt Butler Cup for "the best student at work and play." Selected for the Indian Service of Engineers, 1930; Served in the U. P. Irrigation Deptt. till 1941; served during the War; was the first Indian to be a Commander, Royal Engineers; was Project Officer, Central Water and Power Commission, and later Director, Designs, and Director, Technical Examination; Chief Engineer and Secy. to Govt., Assam, 1954-57; member, High Level Cttee. on Floods, 1957-58; has toured Japan, Australia and Europe. *Address*: No. 11, Safdarjang Road, New Delhi.

**NAGENDRA,** M.A. (English), M.A. (Hindi), D. Litt., *Rasa Sidhanta* (Sahitya Akademi Award 1965), Professor & Head of the Deptt. of Hindi, Delhi Univ., since Sept. 1955. *b.* March 1915 (Chaitrakrishna 9, Samvat 1971 Vikrami); *Educ.*: St. John's College, Agra. Dean, Faculty of Arts, Univ. of Delhi, 1958-60; Pres., Bharatiya Hindi Parishad, 1960-62. *Publications*: *Original*:— *Sumitranandan Pant*; *Adhunik Hindi Natak*; *Vichar aur Vishleshan*; *Adhunik Hindi Kavita ki Mukhya Pravritiyan*; *Deva aur un ki kavita*; *Riti Kavya ki Bhoomika*; *Bharatiya Kavyashastra ki Bhumika* (Parts I & II); *Arastoo ka Kavya Shashtra* (Translation and interpretation of Aristotle's Poetics); *Kavya men Udatta Tatva* (Hindi Translation of the Sublime), etc.; *Edited*: *Hindi Dhvanyaloka*; *Bharatiya Kavyashastra ki Parampara*; *Bhartiya Natya Sahitya*; *Hindi Sahitya ka Brihat Itihas*; *Indian Literature* (English); etc. *Address*: Professor and Head of the Department of Hindi, University of Delhi, Delhi.

**NAGPUR, John William Sadiq,** M.A., B.D. (Hons.), Bishop of. *b.* July 18, 1910; *Educ.*: St. John's Coll., Agra with First Class M.A. in Persian; passed B.D. and B.D. (Hons.) examinations of the Serampore Coll. as an external student. Teacher in St. John's School, Agra, 1933-34; Secy., Student Christian Movement, 1934-35; Lecturer and later Prof. of Persian, Wilson Coll., Bombay, 1935-46; Secy., National Christian Council, 1946-57; William Paton Lecturer, Selly Oak Colleges, Birmingham, England, 1950-51; Secy., Bible Society, May-Sept. 1957; Consecrated Bishop at Poona, Sept. 15, 1957; Enthroned as Bishop of Nagpur, Oct. 6, 1957; Chairman, Divn. of World Mission and Evangelism of the World Council of Churches; Regional Officer of the Anglican Communion with respectability for India, Ceylon & The Far East; *Publications*: Pamphlets dealing with Devotional Life and on Youth and Family Life. *Address*: Cathedral House, Nagpur 1.

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**NAYUDAMMA, Dr. Yelavarthy,** B.Sc. (Industrial Chemistry) (Banaras), M.Sc., Ph.D. (Chem.) (Lehigh), F.I.C. (India), Fellow Indian Academy of Sciences, Director, Central Leather Research Institute. *b.* Sept. 10, 1922; *Educ.:* Banaras Hindu Univ.; Lehigh Univ., U.S.; Coll. of Leather Technology, Northampton, England. Actively participated in the conference of the International Society of Leather Trade's Chemists held at Rome, 1957, Munich, 1959, Washington, 1961, Holland, 1963, Australia & New Zealand, 1964; Hony. Prof., Leather Technology, Madras Univ.; member: Academic Council, Senate and Univ. Cttees. connected with technological education; Board of Governors, Indian Institute of Technology, Madras; Planning Body, Regional Research Laboratory, Orissa; Board of Scientific and Industrial Research etc.; Chairman: Board of Visitors, Institute of Leather Technology, Madras; Leather, Sectional Cttee., Indian Standards Institution; Director: Mysore Chrome Tanning Co.; National Research Dev. Corpn.; Pres., Indian Leather Technology Assoc.; Adviser, Indian Investment Centre: Editor, *Leather Science;* Rotarian. *Publications:* Over 215 publications. *Address:* Director, Central Leather Research Institute, Adyar, Madras.

**NAYUDU, Mr. Justice Canakapalli Sanjeeva Row,** B.A., B.L., Rao Sahib (1941), Judge, High Court, Assam and Nagaland, since Dec. 1, 1963. *b.* March 8, 1906; *Educ.:* Pachaiyappas High School, Madras, Presidency Coll., Madras, Law Coll., Madras. Advocate, Madras High Court, since 1929; Senior Advocate, Supreme Court of India; practised in the Supreme Court, 1950-58. Served as a King's Commissioned Officer, during the last war on the Assam Burma front 1943-45; recipient of Burma Star, 1939-45 Star, War Medal and Independence Medal; served in the Judge Advocate General's Deptt., 1945-50; Judge-Advocate, Indian Navy, New Delhi, 1950–1958; Judge, Andhra Pradesh High Court, 1958-62; Judge, High Court, Assam, 1962-63. *Publications: Handbook of Military Law;* One Act play: *What is in a Name. Address:* Rajeev Nivas, Upper Strand Road, Gauhati, Assam.

**NEGI, Jagmohan Singh,** B.A., LL.B., Food Minister, Uttar Pradesh, since July 1961. *b.* July 5, 1905; *Educ.:* Banaras Hindu Univ., Varanasi. Organised Udaipur Bhratri Mandal, 1928–30; detained in the Congress movement, 1930; elected 1st Pres., D.C.C., 1930–31; elected member, Dist. Board, 1931; Pres., Educ. Cttee., Dt. Board, Garhwal; has been a member, P.C.C.; was member, A.I.C.C.; elected M.L.A., U.P., since 1937; Parliamentary Secy., U.P., 1951; Deputy Minister: Forest, 1952–57; Planning and Heavy Industries, 1957–58; Minister for Food, 1958–60; resigned, Dec. 1960. *Publications:* Several articles on different subjects such as Tourism, Forestry, Grow More Food, Roop-kund Mystery, Elephant Ploughing, etc. *Address:* Food Minister, Uttar Pradesh, Lucknow.

**NEGI, Thakur Sen,** B.Sc. (Agr.), LL.B., I.A.S., Chief Secretary, Himachal Pradesh. *b.* Oct. 4, 1906; *Educ.:* Schools in Himachal Pradesh and in Colleges at Lyalpur and Lahore in West Punjab. Officer of the Erstwhile Bushahr State in Simla Hills, 1932–43; Officer in the Indian Navy, 1943–48; joined the Himachal Pradesh Govt., 1948. *Publications: Settlement Reports of Certain Parts of the Mahasu District in Himachal Pradesh and of the Chamba District of Himachal Pradesh; District Gazetteer of Chamba; Perspective Plan of Himachal Pradesh. Address:* A-4, Bamloe, Simla-1.

**NEHRU, H.E. Mr. Braj Kumar,** B.Sc. (Allahabad), B.Sc. (Econ.) (London), I.C.S., Ambassador in U.S.A. *b.* Sept. 4, 1909; *Educ.:* Allahabad University; London School of Economics; Balliol College, Oxford; Inner Temple. Joined the I.C.S., 1934; Hon. LL.D. Missouri Valley Coll., Miss. 1963; Hon. Litt.D., Jacksonville U., Florida 1964; Asstt. Commsr., Punjab, 1934-39; Under-Secy. to the Govt. of India, Dept. of Education, Health and Lands, 1939; Officer on Special Duty, Reserve Bank of India and Under-Secy., Finance Dept., 1940; Dy. Secy., 1941; Joint Secy., 1947; Executive Director, I.B.R.D., and Minister, Indian Embassy, Washington, 1949-54; Jt. Secy., Dept. of Economic Affairs, 1954-57; Secy., 1957-58; Commr.-Gen. for Economic Affairs, Washington, 1958-61; member: U.N. Advisory Cttee. on Administrative and Budgetary Questions, 1951-53; U.N. Investments Cttee., since 1961; represented India at the Reparations Conference, 1945; Commonwealth Finance Ministers' Conference, 1949-50, 1955-56, 1958; U.N. General Assembly, 1949-52, 1960; F.A.O. 1949-50; Sterling Balance Conferences, 1947-48-49 and at the Bandung Conference, 1955. *Publications: Speaking of Asia. Address:* Washington.

**NEHRU, Smt. Rameshwari,** Padma Bhushan (1955), President, Afro-Asian Solidarity Committee of India. *b.* 1886; *Educ.:* Privately. Edited Women's Magazine *Stridharpan* from 1909; President, All-India Women's Conference, 1940; Vice-President Kasturba Gandhi National Memorial Trust; led a non-official delegation to the World Conference, against A. & H. Bombs and for disarmanent at Tokyo, August 1957; Leader, Indian delegation to the Conference at Cairo for the ban of A. & H. Bomb tests, Jan. 1958 for strengthening the friendship of the Afro-Asian Countries; was Pres.: Central Advisory Board for Rahabilitation; The Assocn. for Moral & Social Hygiene in India; Disarmament Congress at Stockholm, July, 1958 and representative of the Disarmament Congress to the Secretary General of the U.N. Assembly at New York in Aug. 1958; awarded Lenin Peace prize, 1961. *Publications: Gandhi is my Star*—Collection of speeches and writings, edited by Professor Somnath Dhar; *Manav Vikas Ki Jhalak* (Hindi). *Address:* Harijan Sevak Sangh, Kingsway. Delhi 9.

**NEHRU, Ratan Kumar,** B.A. (Oxon.), Vice-Chancellor, Allahabad Univ., since 1965. *b.* Oct. 10, 1902; *Educ.:* Allahabad and Oxford. Joined I.C.S., 1925; Dy. Commsr., M.P.; Dy. Secy. to Govt. of India; Collr. of Customs, Bombay (1936); Commissioner, Central Excises, Northern India (1939-42); Joint Secy., Supply and Commerce (1942-46); Rep. on U.N. Commissions (1947); Additional Secy., Finance (1947); Chairman, C.B.R. (1947); Secretary, Communications Ministry (1947); Minister in Washington (1948); Ambassador of India, Envoy Extraordinary and Minister Plenipotentiary of India in Sweden, Finland and Denmark till Sept. 1951; was Foreign Secy. Govt. of India; Amb. to China, 1955-58; Ambassador to the U.A.R. and Amb. Extraordinary & Minister Plenipotentiary to Libya and Lebanon, 1958-60; Secy.-Gen., Min. of Extnl. Affairs, 1960-63; member: Board of Trade; National Defence Council; Spl. Amb. and India's Rep. on Disarmament Cfce., and U.N. Trade and Development Cfce., Geneva, 1964. *Address:* Senate Hall, Allahabad.

**NEOG, Dr. Maheswar,** B.A. Hons. (English) (Calcutta), M.A. First Class First (Calcutta), D. Phil. (Gauhati), Poet, essayist, art and literary critic; Reader in Postgraduate Depts. of Language and Literature, Gauhati Univ., since July 1957. *b.* 1918; *Educ.:* Sibsagar, North Lakhimpur and Jorhat Govt. High English Schools; Gauhati Cotton Coll. Govt. of Assam's nominee on the General Council of the Central Sangeet Natak Akademi; member, the Central Sahitya Akademi; member, Exec. Cttee. and Pres. elect, Tech. Sciences and Fine Arts Section, All India Oriental Cfce.; Pres., All Assam Library Assocn.; Editor and compiler of anthologies of Assamese poetry and folk songs. *Publications: Sankaradeva* (literary biography); *Dawarar Sipare Dhuniya Desh* (stories of Greece & Rome for Children); *Sankaradeva and His Times* (in English); critical editions of old Assamese texts *Bhaktipradipa, Kirtanaghosha*, etc.; author, *Samaj Aru Sonskriti; Asamiya Gitisahitya; The Art of Painting in Assam; Asamiya Premgatha; Asamiya Sahityar Ruparekha; Bilvamangala's Krisnastotra;* contributes to leading research journals. *Address:* "Vaijayanti," Uttar Saraniya, P.O. Silpukuri, Gauhati (Assam).

**NEOGI, Provat Chandra,** B.E. (Civil), M.I. Mech. E., M.I. Loco. E., Resident Director, Durgapur Projects Ltd., since Jan. 1964. *b.* Jan. 1906; *Educ.:* Hindu School, Calcutta; Presidency Coll., Calcutta; Bengal Eng. Coll., Sibpur, West Bengal. Joined Indian Railway Service of Engineers and posted to North-Western Railway, June 1929: Exec. Engineer, 1943-45; Deputy Chief Engineer, 1948-54; Divisional Supdt. 1954-55; Chief Engineer, 1955-58; Director-General, Railway Research, Design and Standards Organisation, 1959-61; Genl. Mgr., Hindustan Steel Plant, Durgapur, 1960-63; had extensive experience in design, construction, bridge work and maintenance of Indian Railways. *Address:* Bungalow-AN-2, First Avenue, Coke Oven Colony, P.O. Durgapur, Burdwan District, West Bengal.

**NIGAM, Mr. Justice Bishan Narain, M.A.,** LL.B., Judge, High Court, Allahabad (Lucknow Bench), Lucknow, since 1958. *b.* April 4, 1906; *Educ.:* Govt. High School, Kanpur (1914-22); Christ Church Coll., Kanpur (1922-24); Allahabad Univ. (1924-29); M.A., 1928 and LL.B., 1929; School of Oriental Studies, London (1929-31). Passed the I.C.S. 1929; Asstt. Magistrate, Banaras and Nainital (1931-33); Joint Magistrate, Bahraich, Gonda and Barabanki (1933-37); Dy. Commissioner, Barabanki, 1937; Civil and Sessions Judge, Bareilly, 1937-39; Dist. and Sessions Judge, Farrukhabad, Sitapur, Banaras and Meerut, 1939-49; member: Election Tribunal, 1946-47; U.P., Administrative Tribunal, 1949-50; Dist. and Sessions Judge, Bareilly (1950); Registrar, High Court of Judicature and Member, U.P. Administrative Tribunal 1951-52; Judicial Commissioner, State of Ajmer (1952-56); Dist. and Sessions Judge, Agra, Lucknow (1956-57); Addl. Judge, High Court (Nov. 1957). Chairman, Mohri Railway Accident Enquiry Commission (1958). *Address:* 39, Butlerganj, Lucknow 1.

**NIJALINGAPPA, Siddavvanahalli, B.A.,** LL.B., Chief Minister, Mysore, since June 21, 1962. *b.* Dec. 10, 1902; *Educ.:* Central Coll., Bangalore and Law Coll., Poona. Enrolled as Advocate of the Mysore High Court, 1926; joined Indian National Congress, 1926; political prisoner 1939; debarred from practice, 1940; political detenu, 1942, 1944 and 1947; member, Mysore Congress Working Cttee., 1939-51; Pres.: Mysore P.C.C., 1945-46; Karnataka P.C.C., 1946-54; member, Working Cttee. and Parliamentary Board, Indian National Congress, 1948-53 & 1960; Constituent Assembly, 1946-52; member: Parliament, 1952-56; Mysore Constituent Assembly, 1948-50; elected Leader, Mysore Leg. Congress Party, Oct. 21, 1956; Chief Minister, Mysore State, 1956-58; Chairman, Indian Oil Co. Ltd. upto Dec. 1962; Pres., Mysore P.C.C., 1960-62. *Address:* Bangalore.

**NIJHAWAN, Bal Raj,** B.Sc. (Met.) (Banaras), Ph.D. (Met.) (Sheffield), F.I.M. (Lond.), F.N.I., Padma Shri (Jan. 26, 1958), Director, National Metallurgical Laboratory, Jamshedpur, since March 1956. *b.* Sept. 22, 1915; *Educ.:* Punjab, Banaras and Sheffield (England). Asstt. Director, National Metallurgical Laboratory, Jamshedpur, 1948–53; Dy. Dir., 1953-56; Pres., The Institute Indian Foundrymen; Vice-Pres., S.M.D.C. of Indian Standards Institution; Director: Hindustan Steel Ltd.; Nat. Res. Dev. Corpn. of India; Nat. Minl. Dev. Corpn. Ltd.; Gujarat Minl. Dev. Corpn. Ltd.; Leader N.P.C. Study Team on Non-ferrous Metal Industry, U.S.A. & U.K., 1962; presided over the Technical Session of the U.N. Inter-regional Conference on "the application of modern technical practices in the Iron & Steel Industry to developing countries" in Prague and Geneva, Nov. 1963. Official guest at the spl. meeting of the British Iron & Steel Institute, July 1964; member, Japan Iron and Steel Institute; awarded gold medal for his contributions in the field of metallurgy by the Iron & Steel Institute, Japan, April 1965. *Publications:* Over 200 research and technical review papers on metallurgical research and industrial subjects singly or jointly; author of several patents on metallurgical subjects including nickel-free austenitic chromium-manganese and nitrogen stainless steels. *Address:* National Metallurgical Laboratory, Jamshedpur.

**NIMBKAR, Mrs. Kamala Vishnu,** B.A. (Columbia), F.T.C. (Froebel Union—London), O.T.R. (American Occupational Therapy Association), Social Worker in the field of Occupational Therapy and Rehabilitation of the Handicapped. *b.* Jan. 5, 1900; *Educ.:* George School (Quaker Prep. School), Drexel Institute (Phila.); Barnard Coll. of Columbia Univ.; Selly Oak Coll. (Birmingham, Eng.); Phila. School of Occupational Therapy. Member: National Advisory Council for the Education of the Handicapped, Ministry of Education, Govt. of India, since 1955; Adviser to the Govt. of Maharashtra Local Self Govt. and Health Deptt. for Occupational Therapy and Rehabilitation; also Social Welfare Directorate since 1958; Editor: *Indian Journal of Occupational Therapy*, 1955-59; *Journal of Rehabilitation in Asia*, since 1959; Secy., Gen. Ind. Soc. for Rehabilitation of the Handicapped; received the 1965 International Award from the Spanish National Assoc. of Civilian Handicapped. *Publications: Service for the Disabled and Handicapped; Occupational Therapy for Medical Conditions* and *What the Doctor should expect of an Occupational Therapist. Address:* The Amerind, 15th Road, Khar, Bombay 52.

**NIMBKAR, Vishnu,** B.Sc., M.E. (N. Y. Univ.), M.A.S.M.E. (U.S.A.), A.M.I.Mech.E. (London), A.I.Loco.E. (London). Chairman, Machine Tool Development Council, Ministry of Supplies and Technical Development. *b.* June 25, 1900; *Educ.:* Deccan Coll., Poona, New York Univ., U.S.A. and Columbia Univs., N.Y., U.S.A. Service Engineer, Consolidated Pneumatic Tool Co. Ltd., Bombay, 1929-32; Manager for Bombay, 1932-34; Acting General Manager for India, 1939-42 and apptd. Resident General Manager, 1943; General Manager, 1945; General Manager, India & Pakistan, 1948-57; Managing Dir., Consolidated Pneumatic Tools Co. (India) Pvt. Ltd., 1957-58; Director: Mineral Mining Co. Pvt. Ltd., Madras; Ogale Glass Works Ltd., Ogalewadi; Fuel Injections Ltd., Bombay; Kirloskar Oil Engines Ltd., Poona; Standard Batteries Ltd., and several other companies; Managing Director, Hindustan Mineral Products Pvt. Ltd., Bombay; member, Governing Council, Central Machine Tool Institute, Bangalore. *Address:* 'Amerind', 15th Road, Khar, Bombay 52.

**NORD, H. E. Mr. Haakon,** Cand. jur., Officer of the Royal Order of St. Olav (1958), GC. Lib.O., GC. Tun. Rep. O., GC.M. Ouissam Alaouite, Ambassador of Norway in India, concurrently accredited to Rangoon and Colombo, since 1964. *b.* July 21, 1911; *Educ.:* Univ. of Oslo. Joined Norwegian Foreign Service, 1938; various postings including post of Permanent Representative to the Council of Europe, 1938-58; Minister, later Ambassador to Morocco, 1958; jointly accredited at Tunis, Algiers and Tananarive. *Address:* Royal Norwegian Embassy, New Delhi-11.

**NORGAY, Sherpa Tenzing,** Padma Bhushan (1959), Mountaineer, Field Training, The Himalayan Mountaineering Institute, Darjeeling. *b.* 1914, in Solo Khumboo village, Eastern Nepal. Participated in expeditions; has taken part in more Everest expeditions than any other person; first visited Everest as a youth of 21 when he accompanied Shipton's Reconnaissance Party, 1935; participated in the expedition under Ruttledge, 1936; reached a height of 28,210 ft. with Raymond Lambert, May 28, 1952; conquered the summit of Mount Everest with the New Zealand mountaineer Sir Edmund Hillary under the leadership of Sir John Hunt of the British Expedition, May 29, 1953; presented by the King of Nepal with the Nepal Pratap Bardat, June 1953; awarded George Medal by Queen Elizabeth; awarded Iran's highest sports medal by the Shah of Iran and another gold medal from France; presented with a special gold medal by Dr. Rajendra Prasad, President of India for extraordinary courage and heroism in the Everest Expedition; awarded the U. S. Hubbard Medal, the medal of the National Geographical Society of America. March 16, 1954; awarded the highest medal for outstanding achievement in the fields of sports by the Union of Sports Societies of the Soviet Union in 1962. *Address:* Darjeeling, West Bengal.

**OAK, Mr. Justice Vidyadhar Govind,** B.Sc. (Hons.), I.C.S., Judge, High Court, Allahabad, since March 1955. *b.* May 18, 1909; *Educ.:* Jaipur, Indore, Allahabad; passed B.Sc. (Hons.), 1929. Joined Indian Civil Service, 1931; served in U.P. as Joint Magistrate and as District Judge. *Address:* High Court, Allahabad.

**ODEDRA, Maldevji Mandlikji,** LL.B., Minister for Finance, Forestry and Fisheries, Gujarat State, since 1965. *b.* 1918; *Educ.:* Porbandar, Bhavnagar and Ahmedabad. Practised as an advocate at Porbandar, Bombay and Rajkot; active social worker; elected M.L.A., Saurashtra, 1951-52 general elections from Porbandar; was member, Estimates Cttee., Public Accounts Cttee. and various other Cttees. for a long time; member, Indian Delegation to the Agricultural Conference of the U.N.O., Lahore; takes keen interest in economic development and planning; was Chairman, Planning Cttee., Junagadh Dist.; Dy. Min. for Finance & Labour, Gujarat, till March 1962; Dy. Min. for Finance, 1963–65. *Address:* Sachivalaya, Ahmedabad 15.

**OGRODZINSKI, H.E. Mr. Przemyslaw,** Polish Ambassador in India, since Sept. 1962. *b.* 1918; *Educ.:* Graduated in Law from Cracow Univ. Joined the Polish Foreign Ministry as head of a division, 1945; Counsellor, Polish Embassy in Rome, 1945–47; Counsellor-Minister, Polish Embassy in Paris, 1947–54; Representative in the International Commission in Vietnam, 1954–55; Director-General with the rank of Ambassador, Ministry of Foreign Affairs, Poland, 1956–62. *Address:* 22, Golf Links Area, New Delhi 3.

**PADMANABHAN, H.E. Mr. K. V., M.A.** (Madras), LL.B. (Delhi), Indian Ambassador to Thailand, since Feb. 1964. *b.* Feb. 13, 1911; *Educ.:* Presidency Coll., Madras; Law Coll., Delhi. Supdt., Federal Court, 1944–46; Asstt. Secy., Constituent Assembly of India, 1946–47; Under Secy., June 1947; First Secy., Embassy of India, Paris, 1949–51; Deputy Secy., Min. of Ext. Affairs, 1952–54; First Secy., Embassy of India, Stockholm, 1954–55; Consul-General of India, Geneva, 1955–58, with concurrent accreditation as Permanent Representative of India to the European Hqrs. of the U. N. and other International Organizations at Geneva; Member, Indian Delegation to I.L.O., W.H.O. GATT, International Cttee. of Red Cross, etc., 1955–58; Deputy High Commissioner for India, Karachi, 1958–60; Joint Secy., Min. of Ext. Affairs, 1960–63. *Publications: Dominion Constitution of India* (in collaboration with P. N. Murthy)—1948; *Federal Court Rules and Procedure*—1949. *Address:* Office: Embassy of India, 139 Pan Road, Bangkok; Residence: No. 63, Lane No. 39 (Soi Phrom Phong), Bangkapi, Bangkok.

**PAI, Laxman,** G.D.Art (Bombay), Mayo Medal (1948), Artist-Painter and Graphic Artist. *b.* Jan. 21, 1926; *Educ.:* Bombay. Exhibitions: Individual shows in Bombay, 1950, 1954, 1957, 1959, 1962; New Delhi, 1953, 1955, 1958, 1962; Calcutta, 1962; Paris: Eight individual shows between 1952 and 1960; London, 1952, 1959; Munich, 1953, Bremen (Germany), 1961; New York, 1957; has exhibited in several important exhibitions in India and abroad; National awards, 1961, 1963; Collections in Museum of Modern Art, Paris; Lalit Kala Akademi, National Gallery of Modern Art, New Delhi, New York Public Library and in several public and private collections in India and abroad; *Other Contributions*—Paintings from: *Gita-Govinda, Ramayana, Life of Mahatma Gandhi; Life of the Buddha, Kalidasa's Ritusamhara. Address:* C/o Bhulabhai Institute, 89, Bhulabhai Desai Road, Bombay 26.

**PAI, Mangalore Purushotham,** B.A. (Madras), B.A. (Hons.) (London), I.C.S. Chairman, Tariff Commission, since July 1, 1964. *b.* December 1, 1906; *Educ.:* Madras, London and Oxford. Controller of Coffee, Indian Coffee Board, 1940-42; Provincial Textile Commissioner, Madras, 1942; Controller of Supplies, S. I. Circle, Govt. of India, 1942-45; Joint Secy.,

Ministry of Industry & Supply, 1946-49; Jt. Secy., Ministry of Works and Supply, 1949-52; Offg. Managing Dir., Sindri Fertilisers and Chemicals Ltd., April-July 1952 and Feb-Sept. 1953; Jt. Secy., Ministry of Production, Govt. of India, 1952-53; Member, Board of Revenue, Andhra, 1953-56 and of Andhra Pardesh, 1956-57; Chief Secretary, Andhra Pradesh Govt., May 1957—June 1964. *Address:* 101, Queen's Road, Bombay 1.

**PAI, Nath,** B.A., Bar-at-Law, M.P. (Lok Sabha), Political worker. *b.* Sept. 1924; *Educ.:* Vengurla, Belgaum, Poona and London. Courted jail in the Freedom Movement; worked in the Congress Youth Movement and the Student Movement: won Inter-collegiate and All India Elocution Competition, 1940 and 1941; joined the first Goa Freedom Movement, 1946; founded the Indian Socialist Group in London; elected Pres.: London Majlis, 1950 & 1951; Socialist Youth International at Copenhagen, 1954; worked in the 2nd Goa Movement, 1955; elected to the Lok Sabha, 1957 & 1962; led Central Govt. employees in the 1957 strike; joined the P.S.P. National Executive, 1957; represented India at Warsaw I.P.U. Conference; jailed again for leading the Central Govt. Strike, 1960. *Address:* 29, Shah Nagar, New Delhi; Sir J. J. School of Art Bungalow, Bombay 1.

**PAI, Dr. Tonse Madhava Anantha,** M.B.B.S., Padma Shri (1965), Educationist; Pres. & Registrar, The Academy of General Education, Manipal; Chairman, Syndicate Bank Ltd., Manipal; Governor, District 317 Rotary International. *b.* April 30, 1898; *Educ.:* Christian High School, Udipi; St. Aloysius' Coll., Mangalore; M.B.B.S. from the Madras Medical Coll., 1925. Set up practice at Udipi; devoted himself to medical relief of the people in the rural areas; founded along with his brother, the Syndicate Bank Ltd., 1925; was its Managing Director for 36 years; in 1942 founded The Academy of General Education at Manipal as a community enterprise, 1942; has also founded a number of commercial and industrial concerns; is actively associated with many civic and business organizations. *Publications: Tax-Free State or Taxless Society; Lake City University. Address:* Central Avenue, Manipal, South Kanara, Mysore State.

**PAL, Dr. B. P.,** M.Sc. Hons. (Rgn.), Ph.D. (Cantab.), F.L.S., F.R.H.S., F.B.S., F.N.I., Padma Shri (1958), Rafi Ahmed Kidwai Prize for Agricultural Botany (1960), Birbal Sahni Medal for Botany (1962), Srinivasa Ramanujan Medal, 1964, Director Genl., Indian Council of Agricultural Research, New Delhi. *b.* May 26, 1906. Leader, Indian Delegation to the International Botanical Congress, Paris, 1954; Official Delegate to the International Genetics Symposia, Japan, 1956; member, Indian Delegation to Commonwealth Scientific Cttee. Meetings, New Zealand, 1961; member of a large number of Scientific Organisations and Cttees.; has been President, Botany & Agricultural Sciences Section of the Indian Science Congress, Indian Botanical Society, Indian Society of Genetics & Plant Breeding, Horticultural Society of India; Pres., Rose Society of India and Delhi, Agricultural Society; Vice-Chairman, All India Fine Arts & Crafts Society; was Second Economic Botanist, Imperial Economic Botanist (later re-designated Head of the Division of Botany). *Address:* Indian Council of Agricultural Research, New Delhi 12.

**PAL, Dr. Radhabinod,** M.A., LL.D. (Calcutta), Padma Vibhushan (1959), Jurist; elected member, U.N. International Law Commission by the Gen. Assembly, since Nov. 28, 1961; National Professor of Jurisprudence. *b.* Jan. 1886; *Educ.:* Presidency Coll., Calcutta. Calcutta Univ. Prof. of Mathematics, Anandamohan Coll., Mymensingh, 1911-20; joined Calcutta Bar, 1921; Prof. of Law, Univ. Law Coll., Calcutta, 1923-36; Tagore Prof. of Law, 1925, 1930 and 1938; Legal Adviser to Govt. of India on Income-tax matters in Bengal, 1927-41; Jt. Pres., International Academy of Comparative Law, Hague, 1937; Member, International Law Assoc. (U.K.), since 1937; Judge, High Court, Calcutta, Jan. 1941; Vice-Chancellor, Calcutta Univ., 1944-46; Member, International Military Tribunal for the trial of major war criminals of the Far East (Tokyo), 1946-48; dissentient judgment in the above trial; member, 1953, 2nd Vice-Chairman, 1954, 1st Vice-Chairman, 1957, Chairman, 1958 and 1962, International Law Commission 1959; American Society of International Law, U.N. *Publications: Law of Limitation*, 1931; *Law of Primogeniture with special reference to India*, 1925; *Hindu Philosophy of Law in the Vedic Age*, 1924; *Law of the Income-Tax*, 1939; *Crimes in International Relations*, 1955; *History of Hindu Law in the Vedic Age*, 1958. *Address:* 229, Netaji S. C. Bose Road, Calcutta 47.

**PALEJWALA, Fatehali Husenuddin,** B.A., LL.B. Speaker, Gujarat Legislative Assembly. *b.* June 11, 1911; *Educ.:* B.A. from Baroda, 1937; LL.B. from Bombay, 1939. Probationer, former Baroda State Govt. for the post of Mamlatdar, 1939–43; started practice at Baroda, 1944; took active interest in educational and co-operative institutions; elected Vice-Pres., Baroda Borough Municipality, 1951–55; elected Chairman, Municipal School Board, Baroda, 1954–59; an active Congressman from 1951; Pres., Baroda City Congress Cttee., 1959–62 *Address:* "Samtula" 3, Shahi Bag, Ahmedabad 4.

**PALSIKAR, Shankar Balvant,** G.D. Art (Painting), Painter; Lecturer, Deptt. of Fine Art, Sir J. J. School of Art, Bombay. *b.* May 17, 1916; *Educ.:* Sir J. J. School of Art, Bombay; took G.D. Art (Painting), 1947. Awarded gold medal of Bombay Art Society and Academy of Fine Art, Calcutta, 1950; exhibited paintings in all the leading exhibitions in India and abroad, Russia, America, Japan, England; through Lalit Kala Akademi represented India at the International Assoc. of Plastic Arts, London, June 1965. *Address:* B-9, Officers' Quarters, Bldg. No. 13, Haji Ali Park, Bombay 34, W.B.

**PANDE, Ghananand,** B.Sc., C.E., Vice-Chancellore, Roorkee Univ., since March 1961; member, National Planning Council, since Feb. 1965. *b.* Jan. 1, 1902; *Educ.:* B.Sc. from Muir Central Coll., Allahabad, 1922; C.E. from Thomason Coll. of Engineering, Roorkee, 1925. Joined Indian Railway Service of Engineers, 1926; worked in various capacities on the Engineering and Administrative side including as General Manager, Ganga Bridge Project and North Eastern Rly., 1926-54; Chairman, Rly. Board, 1954-56; Chairman, Hindustan Steel Ltd., New Delhi and Ranchi, 1957-60; Chairman, Small Car Project Cttee., 1960-61. *Publications:* Various articles in Technical and other Journals and periodicals. *Address:* Vice-Chancellor, Roorkee University, Roorkee, U.P.

**PANDEY, Mr. Justice Kanhaiyalal,** B.Sc., LL.B., Judge, High Court of Madhya Pradesh, Jabalpur, since Sept. 26, 1958. *b.* Sept. 20, 1909; *Educ.:* Bilaspur, Nagpur, Jabalpur and Allahabad, B.Sc., 1930, LL.B., 1932, placed 2nd in order of merit in Allahabad Univ. Sub-Judge, Oct. 16, 1934-Nov. 1947; Addl. Dist. & Sessions Judge, Nov. 17, 1947-56; Legal Remembrancer and Secy. to the Govt. of Madhya Pradesh in the Law Deptt., Dec. 2, 1957. *Address:* Civil Lines, Jabalpur.

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**PANDIT, A. D.,** B.Sc. (Allahabad), I.C.S., Secretary, Ministry of Defence, Govt. of India, since April 1965. *b.* April 1, 1909; *Educ.:* B.Sc. from Univ. of Allahabad, 1930; Balliol Coll., Oxford. Entered the I.C.S. 1933; Joint Magistrate and Dist. Magistrate in various districts, 1933-42; Deputy Secy. to Govt. of U. P., 1942–45. Served as District Magistrate for a brief period; appointed Secy., P.W.D., Govt. of U.P. in charge of both buildings and roads as well as irrigation and power; Chief Secy., Assam Govt., 1950–52; Chief Commissioner, Ajmer 1952–54; Chief Commissioner, Delhi 1954–59; spent a year at the Centre for International Affairs, Harward Univ., in 1960–61 as a Fellow nominated by the Govt. of India; served the Planning Commission for a brief period. Special Secretary to the Govt. of India, Ministry of Food and Agriculture, Deptt. of Agriculture, and Vice-Pres., I. C. A. R., 1962–65. *Address:* Ministry of Defence, South Block, New Delhi.

**PANDIT, Chintaman Govind,** M.B.B.S. (Bombay), Ph.D. (Lond.), D.P.H. (Lond.), D.T.M. (Lond.), Padma Shri (1956), O.B.E. (1943), Director, Indian Council of Medical Research, New Delhi, since 1948. *b.* July 25, 1895; *Educ.:* Bombay & London. Director, Medical Research Institute and Pasteur Institute, Shillong, 1933, 1935 and 1940; Pres., Medical Section of the Indian Science Congress, 1942; Member: WHO/OIHP/Expert Groups, Cholera, Smallpox, Trachoma; W.H.O. Expert Group, Cholera, Rabies; awarded Minto Medal for Medical Research, 1937; Lady Brahmachari Reader in Medicine, Calcutta Univ., 1957; member: Indian Assoc. of Leprologists, Indian Assoc. of Pathologists, Indian Public Health Assoc., Fellow of the National Institute of Sciences and Indian Academy of Medical Sciences. *Publications:* Over 70 original publications on: Plague, Cholera, Virus Diseases, Fluorosis, etc. *Address:* Indian Council of Medical Research, Medical Enclave, P.O. Box 494, New Delhi.

**PANDIT, Mr. Justice Prem Chand,** B.A. (Hons.), LL.B., Judge, Punjab High Court, since March 4, 1960. *b.* Feb. 14, 1913; *Educ.:* D. A. V. High School and Coll., Lahore; Govt. Coll. and Law Coll., Lahore; had a brilliant academic career; awarded several prizes and medals in inter-collegiate debates; LL.B., 1933; took active part in sports especially hockey and tennis. Started practice at Lahore High Court, 1937; shifted practice to Chandigarh; rose to be one of the leaders of the bar; was member, Punjab Bar Council; was Secy., D. A. V. Coll. Managing Cttee., Lahore. *Address:* 6, Judge's House, Sector IV, Chandigarh.

**PANDIT, Srimati Vijaya Lakshmi,** M.P., Ex-Governor, Maharashtra State. *b.* 18th August 1900; *Educ.:* Privately by tutors and governesses. Member, Allahabad Municipal Board, 1936; elected to U.P. Assembly, 1936 & 1946; Minister of Local Self-Government and Public Health, U.P. (first woman in India to hold ministerial rank); piloted the Panchayat Raj Bill during her term of office; Pres., All-India Women's Conference, 1940-42; Vice-Pres., Women's International League for Peace and Freedom; attended

Pacific Relations Conference at Hot Springs, Virginia, U.S.A., as leader of Indian delegation appointed by the Indian Council of World Affairs; toured extensively in U.S.A.; was present in San Francisco during the first meeting of the U.N. where she challenged the right of the British-appointed Indian delegation to speak for India and voiced India's claim to independence outside the conference hall; Leader, Indian delegation to the U.N.O., 1946, 1947, & 1963; imprisoned thrice in connection with C.D. Movements 1932, 1941 and 1942; Indian Ambassador in U.S.S.R., 1947–49; Ambassador in U.S.A., 1949–52; President, U.N. General Assembly, 1953-54; Governor of Maharashtra, 1962-64; elected to the Lok Sabha from Phulpur, Dec. 1964; has received 16 honorary doctorates from Indian and foreign universities and a number of awards for work in the international bodies. *Address:* New Delhi.

**PANDYA, Bhanuprasad Valjibhai,** M.A., Ph.D., Dy. Minister, Education, Prohibition, Excise, Govt. of Gujarat, since Sept. 19, 1963. *b.* Oct. 29, 1929; *Educ.:* Village School at Rupal, T. Dholka; I.P. Mission High School and New Education High School, Ahmedabad; Gujarat Coll., Ahmedabad; School of Economics, Bombay Univ.; M.A., 1952; Ph.D., 1957. Junior Research Officer, Saurashtra Economic Survey, 1952; Prof. of Economics, Siddhartha Coll., 1953–61; actively worked for the establishment of Co-operative Weavers' Society at Rupal and Chiyada, Co-operative Tanning and Leather Working Society at Kerala, and Harijan Housing Society at Rupal, 1956–58; Hony. Secy., Indian Research Society for Welfare of backward classes, 1958. Dy. Min. for Agriculture & Forest, Gujarat, 1962-63. *Publications: Striving for Economic Equality* (1959); *Economic History of India, England, Japan, U.S.S.R. & U.S.A.* (1960). *Address:* Bungalow No. 18, Cantonment, Ahmedabad 3.

**PANICKER, T. K. Chathunni,** Kathakali Guru, Darpana Akademi, Ahmedabad. *b.* 1922 of the illustrious Kavingal family of Kathakali actors in Kerala. Even as a child, showed great interest in the dance, always following Kathakali troupes from village to village; began to take part in Kathakali performances from the age of 14; joined Mrinalini Sarabhai's troupe, 1945; his popular roles are Ravana, Hanuman, Bhima and Narasimhan has popularised Kathakali in Western and Eastern countries; works in close collaboration; with Mrinalini Sarabhai in her choreographic, experiments. *Address:* Darpana Akademi, Chidambaram, Ahmedabad 13.

**PANIGRAHI, Kalindi Charan,** B.A. (Patna), Oriya Novelist; Programme Producer, spoken words, A.I.R., Cuttack. *b.* 1903; *Educ.:* Ravenshaw Coll., Cuttack; B.A., Patna Univ., 1925. Member, Exc. Board, Sahitya Akademi; Organiser, the Sabuj (Green) Group of writers; Pres. of several literary and cultural Assocs.; is a poet, playwright, novelist, essayist and short story writer, among the progressive group of modern times; writer of children's literature. *Publications:* Poetry: *Manenahin; Kshyanika Satya* etc.; Short Story: *Sesha Rashmi,* etc. Novels: *Matir Manisha; Amara Chita,* etc. Essays: *Sahitya Samachar,* etc. Dramas: *Piyadasi; Padmini,* etc. Biography: *Bhaktakabi Madhusudan.* (Novel *Matir Manisha* has been published by Sahitya Akademi in all Indian languages). *Address:* 'Swapnapuri,' Pithapur, Cuttack-1, Orissa.

**PANIKKAR, Dr. N. Kesava,** M.A., M.Sc., D.Sc., F.A.Sc., F.N.A.Sc., F.N.I., F.R.S.A., F.Z.S.I., Director, Indian Ocean Expedition, C.S.I.R., since 1962; Scientist. *b.* May 17, 1913. *Educ.:* Kottayam and Madras Christian Coll.; Univs. of Madras, London and Cambridge. Research Scholar, Madras Univ., 1933-36; Lecturer, Madras Univ., 1936-38; Overseas Scholar, Royal Commission for Exhibition of 1851 at Univs. of London and Cambridge and Marine Lab., Plymouth 1938-43; Prof. of Zoology, Univ. of Travancore, 1943-44; Director, Univ. Zoological Lab., Madras, 1944-46; various fisheries positions, 1946-50; Director, Central Marine Fisheries Research Institute, Mandapam, 1956-57; Fisheries Development Adviser to the Govt. of India, 1957-62; Chairman, Indo-Pacific Fisheries Council, 1954-57; Pres.: Zoological Section, Indian Science Congress, 1952; Inter-Governmental Oceanographic Commission, since 1964; Chairman, Cttee. on Fisheries Education, Govt. of India, 1958-60; Secy., National Institute of Sciences of India, since 1964; represented India at various international conferences on Fisheries and Oceanography from 1949 onwards. *Publications:* Several research papers in Zoology, Comparative Physiology, Fisheries and Oceanography. *Address:* Council of Scientific & Industrial Research, Rafi Marg, New Delhi 1.

**PANJWANI, Ram Partabrai,** B.A., Sahitya Akademi Award for his reminiscences *Anokha Azmooda,* (1964), Sindhi novelist, dramatist, poet and singer. Chairman, Board of Studies in Sindhi, Prof. and Head of the Deptt. of Sindhi, Jai Hind Coll., Bombay, since 1948. *b.* Nov. 20, 1911; *Educ.:* D. J. Sind Coll., Karachi; Graduated, 1935. Exponent of folklore of Sind; has written dialogues for Sindhi pictures 'Abana and Rai Dyach'; member: Academic Council (Univ. of Bombay), since 1954; Students' Welfare Board, Bom. Univ.; Sindhi Advisory Board, Sahitya Akademi, since 1957. *Publications:* Original Novels: *Qaidi, Sharmila, Latifa,* etc. Plays: *Sindh Ja Sat Natak* (Dramatised version of stories of Shah Latif); *Purab Joti* (Budha) and *Maya Jo Moh;* Translations: *Padma* (Eternal City by Hall Caine); *Dost Kian Kajan and Dilyun Kian Chhikjan;* (How to win Friends and influence People by Carnegie). Essays: *Adabi Ghuncho.* Compilations: *Shirin Shair, Chund Kalam, Sindh Ji Sookhri* and *Sika Ji Soghat,* etc. *Address:* 8, Qureshi Mahal, Bombay 16.

**PANT,* H. E. Mr. Apasaheb Balasaheb,** B.A. (Bombay), M.A. (Oxon.), Bar-at-Law, Padma Shri (Aug. 15, 1954), Ambassador of India to Norway, since June 13, 1964. *b.* Sept. 11, 1912, of the family of the Pratinidhis of Aundh; *Educ.:* Deccan Coll., Poona, Oxford (B.N.C.); Lincoln's Inn. Served as Education Minister, Aundh State; first elected Prime Minister, for four years till the State was merged into Bombay State, March 1948; member, A.I.C.C., 1948; an alternate delegate at U.N., 1951 and 1952; Commissioner for the Govt. of India in British East Africa, 1948-54; apptd. Consul-General to Belgian Congo & Ruanda-Urundi, Nov. 1950 & Commissioner to Central Africa and Nyasaland, Dec. 1950; Officer on Special duty, External Affairs Ministry, 1954–55; Political Officer in Sikkim and Bhutan with control over Indian Missions in Tibet, 1955–1961; Amb. of India to Indonesia, Oct. 1961-June 1964. *Address:* Amrai Camp, Deccan Gymkhana, Poona 4; C/o External Affairs Ministry, New Delhi; Embassy of India, Oslo.

**PANT, Sumitranandan,** Padma Bhushan (1961), Hindi Poet; Sahitya Salahkar, All India Radio. *b.* 1900 at Kosani in Almora Dist.; *Educ.:* Early education at Almora; matriculated from Banaras; Allahabad Univ. Made an extensive study of Sanskrit, English, Bengali and Hindi literature; Shelley and Tagore were among the early influences in moulding his poetic career; one of the principal architects of the Chhayavad (romantic) school of poetry in Hindi; gave a new trend to poetic writing in Hindi; became Chief Producer, Hindi (Spoken Word) programmes, A.I.R., 1955. *Publications: Vina; Granthi; Jyotsna; Yugvani; Pallava; Gunjan; Gramya; Suarnadhooli; Swarna Kirana; Yug Path; Uttara; Rajat Shikhar; Atima; Shilpi; Sauvarna; Ship Aur Darshan; Vani; Kala Aur Burha Chand* Akademi Award (1961); Lokayatan (Epic) 1964. *Address:* 18/B-7, K. G. Marg, Allahabad.

**PARANJPYE, Dr. Sir Raghunath, Purushottam,** M.A. (Cantab.), B.Sc. (Bombay), D.Sc. (Calcutta), D.Litt. (Poona), Ex-Vice-Chancellor, Poona University. *b.* Murdi, 16th Feb. 1876; *Educ.:* Maratha H. S., Bombay; Fergusson Coll., Poona; St. John's Coll., Cambridge (Fell.), 1901-07, and Hon. Fellow, 1945; Paris and Göttingen; Govt. of India Scholar; bracketed Senior Wrangler at Cambridge, 1899. Principal and Prof. of Math., Fergusson Coll., Poona, 1902–24; has taken prominent part in all social, political and educational movements in Bombay State; Vice-Chancellor of Indian Women's Univ., 1916-20; M.L.C., Bombay, 1913-23, 1927; Kaisar-i-Hind Gold Medal in 1916; Knighted, 1942; Minister, Bombay Govt., 1921-23, 1927; member, Indian Taxation Inquiry Cttee., 1924-25; India Council, 1927-32; Vice-Chancellor, Lucknow Univ., 1932-38; President, National Liberal Federation, 1924-1939; High Commissioner for India in Australia, 1944-47. *Publications: Gokhale, Karve, The Crux of the Indian Problem, Rationalism in Practice; Eighty-four Not Out. Address:* Poona 4.

**PARECATTIL, Most Rev. Dr. Joseph,** B.A., D.D., Archbishop of Ernakulam. *b.* April 1, 1912, at Kidangoor, Ankamaly; *Educ.:* Papal Seminary, Kandy, Ceylon. Ordained priest, 1939; worked as Assistant and Vicar in some parishes; Editor, *Satyadeepam* for 6 years; consecrated Titular Bishop of Arethusa and Auxiliary to the Archbishop of Ernakulam by His Eminence Cardinal Tisserant, Nov. 30, 1953. Installed as Archbishop, January 9, 1957; invested with the Sacred Pallium by H. H. Pope Pius XII at Castelgandolfo, Aug. 4, 1959; member, Pontifical Commission; Consultor Sacred Oriental Congregation; celebrated Sacerdotal Silver Jubilee, Aug. 1964. *Address:* Archbishop's House, Ernakulam-1.

**PAREKH, Hasmukh Thakordas,** B.A., B.Sc. (Econ.) (London), General Manager, The Industrial Credit and Investment Corporation of India Ltd., since 1956. *b.* March 10, 1911; *Educ.:* Wilson Coll., Bombay; London School of Economics, London. Part-time Lecturer in Economics, St. Xavier's Coll., Bombay, 1937-39; with Messrs. Harkisondass Lukhmidass, Share & Stock Brokers, Bombay, 1936-56; Director: Bombay Potteries & Tiles Ltd.; Premier Automobiles Ltd.; Trustee, Unit Trust of India; Bombay State Co-operative Bank Ltd., 1955-61; member, Investment Committee, L.I.C., 1956-59. *Publications: The Bombay Money Market* (1953 by Oxford Univ. Press); *The Future of Joint Stock Enterprise in India* (1958, by Jaico Publishing House). *Address:* Kastur Nivas No. 1, French Road, Chowpatty, Bombay 7.

**PAREKH, Nagindas Narandas,** Bhashavisharad (G.V.), Gujarati Writer. *b.* Aug. 30, 1903; *Educ.:* Gujarat Vidyapith, Ahmedabad; Visvabharati, Santiniketan. Teacher, Gujarat Vidyapith, 1926–33 and 1935–41; Managing Editor, Mahagujarat Publishing Co., 1941–42; Reader, Navajivan Prakashan Mandir, 1944–47; Prof.: B.J. Institute of Learning and Research, Ahmedabad, 1947–54; H.K. Arts Coll., Ahmedabad, since 1954; Editor: *Kishore,* 1934–36; *Buddhiprakash,* 1947–56; member, Gujarati Textbook Cttee., Bombay, 1948–50. *Publications:* More than fifty—mostly translations from English and Bengali; *Kavyaparichay, Premanand, Navalram, Mahadev Desai, Hindustani vakaran Pravesh, Sattavan, Vama, Kalki, Sahityavivechanna Siddhanto, Ghare Bahire, Panchbhoot, Natini Pooja, Kavyavichar,* etc. *Address:* Sardar Patel Nagar, Ahmedabad 6.

**PARIJA, Dr. Pran Krushna,** O.B.E., M.A. (Cantab). D.Sc., I.E.S. (Retd.), F.N.I., Padma Bhushan (1955), Vice-Chancellor, Utkal Univ., since 1955; Chairman, Stg. Cttee., Inter. Univ. Board, since 1962. *b.* April 1, 1891; *Educ.:* Ravenshaw Coll., Cuttack; Presidency Coll.

* Is appointed Ambassador to U.A.R. Is expected to take charge in July 1966.

Calcutta; Christ's Coll., Cambridge; Cambridge Univ. Professor of Botany, Ravenshaw Coll., 1921; elected Fellow, Patna Univ., 1925-43; member, Syndicate of Patna Univ. for a number of years; nominated to the Bihar & Orissa Leg. Assembly in connection with the Amendment of the Patna Univ. Act; elected Foundation Fellow, National Institute of Sciences of India, 1934; Principal, Ravenshaw Coll., Cuttack, 1938; First Vice-Chancellor, Utkal Univ., 1943; Director of Agriculture, Orissa, 1945; Pro-Vice-Chancellor, Banaras Hindu Univ., 1949; Pro-Chancellor, Utkal Univ., 1951; elected M.L.A., Orissa, 1952; member, Official Language Commission, India, 1955; elected Pres., Indian Science Congress for 1960. *Address:* 10, Cantonment Road, Cuttack-1.

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**PATASKAR, Hari Vinayak,** B.A., LL.B. (Bombay), LL.D. (Honoris causa) Jabalpur, Sagar & Vikram Univs., Padma Vibhushan (1963), Ex-Governor, Madhya Pradesh. *b.* May 15, 1892; *Educ.:* Fergusson College, Poona; Govt. Law Coll., Bombay, Enrolled as an Advocate, Bombay High Court and subsequently Supreme Court of India; Congressman since 1920; entered Bombay Leg. Council, 1927; resigned as a protest against the incarceration of Gandhiji, 1930; elected, M.L.A., Bombay, 1937 & 1945; member, Constituent Assembly of India, 1947; returned to the Lok Sabha, 1952. Jailed for taking part in the freedom movement, 1942; was elected Pres., Borough Municipality, Chalisgaon, continuously for 15 years; Chairman, Educational Society, Chalisgaon, since 1922; successfully piloted the Hindu Code Bills; was Chairman, Select Cttee., Company Law Bill; successfully mediated in the boundary dispute between Andhra and Madras; member, 4-man committee on Maharashtra-Mysore boundary dispute; Minister for Legal Affairs, Govt. of India, 1955-57; Minister for Civil Aviation, Dec. 1956-Apr. 1957; Governor, Madhya Pradesh, 1957–65; Chairman, Assam Hill Area Commission, 1965-66. *Address:* 1, Jantar Mantar Road, New Delhi.

**PATEL, Bahadurbhai Kuthabhai,** B.Sc., Deputy Minister for P.W.D. & Ports, Gujarat State, since Sept. 19, 1963. *b.* Nov. 11, 1913; *Educ.:* Pratap High School, Bansda; Baroda Coll., Baroda. Social worker in Congress since 1947; Pres.: Bansda Rajya Praja Mandal; Taluka Congress Cttee., Bansda; started Co-op. movement at Bansda; is associated with the 'Vedchhi Ashram', founded by Mahatma Gandhi and the Mahadeo Desai Smarak Trust; Congress Delegate, A.I.C.C.; nominated M.L.A.; was member: Bombay State Backward Classes' Board; Regional Transport Board and Gujarat Univ., Senate; M.P., 1952–57; member: Central Tribes Advisory Council; Govt. of India Scholarship Board; Joint Select Cttee. for Representation of People Act; Deputy Minister, Social Welfare, Govt. of Bombay, April 1957–May 1960; Deputy Minister, Agriculture and Forests, Gujarat, 1960–62; Dy. Min. for Roads, Bldgs., and Irrigation, Gujarat, 1962-63. *Address:* Sachivalaya, Ahmedabad 15; Bhinar, *Via* Billimora, District Bulsar.

**PATEL, Bhagvatprasad R., M.A., A.I.A.,** I.C.S., Vice-Chairman and General Manager, Air India since Sept. 1955; Chairman, Export-Credit & Guarantee Corpn., since June 1964. *Educ.:* Proprietary High School, Ahmedabad and Gujarat College and Baroda College; M.A., 1933; passed I.C.S. Examination, 1935. Became Associate of the Institute of Actuaries, London, 1936. Joined I.C.S., 1936: took service in Sind; served as Asstt. Collector, Asstt. Revenue Officer, Barrage, Collector, Dy. Secy. and Secy., Food & Civil Supplies Department; was in Ministry of Food, Govt. of India, April 1947 to Aug. 1948; was Chairman, Capital Selection Cttee. for Saurashtra and Rajasthan; Chief Secy., PEPSU, Aug. 1948-March 1950; Chief Secretary, Saurashtra, March 1950-May 1954; Director-General of Shipping, May 1954-Aug. 1955. *Address:* Air India, New India Assurance Building, Mahatma Gandhi Road, Bombay 1.

**PATEL, Bhogilal P.,** B.Sc., Bar-at-Law, I.C.S., Chairman, State Trading Corporation of India Ltd., New Delhi. *b.* Oct. 16, 1912; *Educ.:* Primary and Secondary: Khanpur Nar and Baroda; Baroda College and Royal Institute of Science, Bombay; London School of Economics and Middle Temple Inn, England. 1933-37. Asst. Collector, Satara, 1937–41; Settlement Officer, C. D. Sholapur, 1941; Asstt. Commissioner, Central Division, Poona, 1942; Collector of Ahmednagar, 1943; Collector of Ratnagiri, 1943–46; Registrar of Co-operative Societies and Director of Agricultural Marketing and Rural Finance; also Registrar General of Moneylenders, Bombay State, 1946–50; Commissioner, Ahmedabad Municipal Corporation, 1950–54; General Manager, B.E.S.T. Undertaking, Bombay, 1954–56; Managing Director State Bank of India, Bombay, 1956-60, Adviser (Programme Administration), Planning Commission and Ex-Officio Addl. Secy., Govt. of India, 1960-63. *Address:* Express Bldg., Mathura Road, New Delhi.

**PATEL, Dr. Chaturbhai Shankerbhai,** B.A. (Hons.) & M.Sc. (Bombay), Ph.D. (Chemistry) (Leeds), Vice-Chancellor, M.S. Univ. of Baroda, since April 30, 1964. *b.* Nov. 7, 1897; *Educ.:* Sojitra High School, Sojitra; Baroda Coll., 1914-22; Leeds Univ., 1928-30. Prof. of Chemical Technology and Dye House Supdt., Kalabhavan Technical Institute, 1921-41; Director, Technical Institute and Industrial

Chemist, Baroda, 1941-49; member, Bombay Univ. Senate, 1935-47; Prof. of Chemistry, Faculty of Science, M.S. Univ. of Baroda, 1950-51; Prof. of Chemistry and Dean, Faculty of Science, 1951–54; Pro-Vice-Chancellor, 1953–64; member: Industrial Research Cttee., Govt. of Bombay; Food Industries Panel No. 1 (Milk and milk products), Food Directorate, Govt. of India; Exec. Cttee., Indian Science Congress Assoc.; travelled in Europe, France, Germany, Belgium and Holland, 1930 and Germany, England and France, 1955. *Publications:* Published jointly papers and abstracts—Journal of Indian Chemical Society, Journal of Chemical Society, London, and others as abstracts in the Proceedings of the Indian Science Congress. *Address:* 'Dhanvantari', University Road, Baroda 2.

**PATEL, Mr. Justice Dahyabhai Vallabhbhai,** B.Sc., LL.B., Judge, High Court, Bombay. *b.* 1909; *Educ.:* Fergusson Coll., Poona; Law Coll., Poona. Joined the Bar, 1934. *Address:* "Rocky Hill," Flat No. 8, Narayan Dabholkar Road, Malabar Hill, Bombay 6.

**PATEL, Surg.-Capt. Jal Ratanji,** M.D., F.C.P.S., F.C.C.P., F.I.C.A., F.A.C.C. (U.S.A.), Padma Bhushan (1962), J.P., Chairman, Exec. Council, Council of Scientific and Industrial Research; Fellow of the American Coll. of Chest Physicians; Fellow of the International Council of Angiology (U.S.A.); Hony. Physician to the President, Indian Republic; Director, Post-graduate & Research Pharmacology, Grant Medical College, Bombay; Examiner in M.D. and Ph.D., Bombay, Lucknow, Madras; Surgeon (Indian Navy); Hon. Cardiologist to the personnel stationed in Bombay of the Naval Hospital; Hon. Consulting Physician, Telephones, Bombay Dist. and Hon. Consulting Physician and Cardiologist, Central and Western Railways; Retd. Prof. of Pharmacology, Grant Medical Coll., Bombay; awarded Hony. rank of Surg.-Capt. in the Indian Navy by the President of India, May 1961; nominated member, Maharashtra Medical Council, Aug. 1964. *Publications: Preliminary work on Malkangunt; Experimental Work on Tranquillizer. Address:* Bombay House, Bruce Street, Bombay 1.

**PATEL, Jehangir Pestonji,** M.A. (Cantab.), Cotton Merchant. *b.* 1st February 1905; *Educ.:* St. Xavier's High School, Bombay and Downing College, Cambridge. Mg. Director of Patel-Volkart Private Ltd.; Director: Bhopal Sugar Industries Ltd., The New Great Insurance Co. of India Ltd., G. Claridge & Co. Ltd., The Khatau Makanji Spg. & Wvg. Co. Ltd., Bombay Steam Navigation Co. (1953) Ltd., The Scindia Steam Navigation Co., Ltd.; State Bank of India, Bombay; The Ahmedabad Electricity Co., Ltd.; The Lakshmi-Vishnu Cotton Mills Ltd., etc.; Partner, Messrs. Patel Brothers, Cotton Brokers, Bombay; Member: New York Cotton Exchange; New York and Liverpool Cotton Assoc. Ltd., Liverpool. *Address:* "Goolestan," 37, Cuffe Parade, Bombay 5.

**PATELL, Jehangir J. K.,** B.A., F.C.A., F.C.C.S., R.A., F.C.R.A., F.I.C.S., J.P. and Hon. Presidency Magistrate, Secy., W.I.A. Association, Bombay, since 15th April 1939; Secy., A.I.T., Asian Zone Secretariat; Jt. Secy., W.I.A.A. Foundation for Traffic Improvement & Safety Soc. *b.* 2nd August 1905; *Educ.:* St. Xavier's School and College; Davar's College of Commerce and School of Accountancy, London. Asstt. Secy., W.I.A. Association 1931-39; Vice-Patron and Life Member: Bombay Presidency Olympic Assoc. and the Bombay Symphony Orchestral Society; W.I.A.A.; W.I.F.A. Member: Asiatic Society of Bombay; Member, Govt. Traffic Advisory Cttee.; was Pres., Society of the J.P.s and Hon. Presidency Magistrates of Bombay; Dt. Grd. Pursuivant, Dt. Grd. Lodge, E.C. and Dt. Grd. Almoner, Dt. Grd. Lodge, S.C.; Hon. Grand 'J' of the Grand Chapter, U.S.F.I.C., was Dist. Senior Grand Deacon, Grand Lodge, Bombay; Hon. Treasurer, B'bay Dt. Soc. of Incorporated Secretaries. *Address:* Laichand Mansion, Dubash Estate Road, Colaba, Bombay 5.

**PATHAK, Murlidhar Sadashiv,** B.Sc., B.E. (Mech.), B.E. (Electrical), Master, India Security Press and ex-officio Controller of Stamps, since Aug. 6, 1960. *b.* Aug. 21, 1914; *Educ.:* Govt. High School, Nasik City; Fergusson Coll., Poona; Coll. of Engineering, Poona. Served apprenticeship with Killick Nixon & Co. at Sabarmati Power House, Ahmedabad and Volkart Brothers in their Air Conditioning Deptt.; joined the Corps of Indian Engineers at Madras Sappers & Miners, Bangalore, Nov. 1, 1941; commissioned as an Emergency Commissioned Officer, May 2, 1942; services in Iraq, Iran, Palestine and India; rank on release: War Substantive Captain; released under class 'B' scheme to join India Security Press as Asstt. Master; Asstt. Master, June 5, 1946-March 17, 1951; Deputy Master, March 18, 1951-Aug. 5, 1960; undertook study-cum-observation tour in U.K., Switzerland and Italy in 1963. *Address:* Caxton House, Nasik Road (C. Rly.).

**PATIALA, Lieutenant-General His Highness the Maharajadhiraj Yadavindra Singh Mahendra Bahadur,** G.C.I.E. 1946; G.B.E. 1942, LL.D., Maharaja of, Indian Ambassador to Italy, since Dec. 1965. *b.* 1913; *Educ.:* Aitchison Coll., Lahore; Hon. LL.D. Banaras Hindu Univ., 1939, Punjab Univ., 1949; was Rajpramukh of Patiala and East Punjab States Union till 1956; Founder and Hon. Life Pres., Asian Games Federation; Pres. Indian Olympic Assoc. till Jan. 1960; Chairman, All India Council of Sports; Patron and Pres. of many other organisations; was Chancellor of the Chamber of Princes; served war in Malaya, Italy and Burma 1939-45; Delegate of India to the XIth Session of the U.N., New York, 1956-57; UNESCO Conference in Paris, 1958; leader, Indian delegation to Food & Agriculture Organization Conference in Rome, 1959 & 1961-62. *Address:* Motibagh Place, Patiala, Punjab (Winter); Rajgarh Palace, Chail (Simla Hills) (Summer); C/o Ministry of External Affairs, Govt. of India, New Delhi.

**PATIL, Gundu Dashrath,** B.A., Bar-at-Law. Deputy Minister for Planning, Industries and Electricity, Maharashtra state, since Dec. 1963. *b.* 1921; *Educ.:* Lingraj Coll., Belgaum; Willingdon Coll., Sangli; Lincoln's Inn, Lond.; a wrestling and swimming champion and a keen sportsman during College days. After working underground for about two years in the Quit India Movement, was arrested, 1944; released 1946; returned to the Bombay Leg. Assembly from Tasgaon East-Kavthe-Mahankal Constituency in S. Satara Dist., 1952; from Miraj Constituency, 1957 and 1962; Dy. Minister for Planning and Development, Bombay State, 1957-1960 & for Planning Labour & Industries, Maharashtra, 1960-63. *Address:* A-7, Foreshore Road, Bombay 1.

**PATIL (Sisode), Kalyanrao Pandharinath rao,** B.A., LL.B., Deputy Minister for Home and Labour, Maharashtra State, since Dec. 1963. *b.* March 28, 1931; *Educ.:* Aurangabad, Amravati and Hyderabad. Was a legal practitioner at Paithan and Aurangabad; participated in the freedom movement of Hyderabad State during college days; took keen interest in the economic and social uplift of rural masses; appointed Hony. Secy., Aurangabad Divisional Development Council; is a pioneer in the Marathwada Youth Congress; participated in the International Youth Conference at Yugoslavia; was Vice-Pres., Paithan Development Block; is on the forefront in the activities of Bharat Sevak Samaj, National Cadet Corps, Family Planning, etc.; elected M.L.A., Maharashtra from Paithan constituency, 1962; Dy. Min. for Social Welfare, Maharashtra, March 1962—Dec. 1963. *Address:* Government Bungalow; B-1, Madame Cama Road, Bombay-1.

**PATIL, Rajaram Anant,** LL.B., Minister for Revenue and Forests, Maharashtra, since June 23, 1965. *b.* Aug. 1, 1920; *Educ.:* Kasegaon, Poona, Baroda and Kolhapur. Has been a prominent political worker in Western Maharashtra; founded the Azad Vidyalay at Kasegaon; President, South Satara Dist. Local Board, 1952-62; Pres., M.P.C.C., and later its Gen. Secy.; took keen interest in the development of rural uplift; was Chairman, Maharashtra Cooperative Housing Society, Bombay; was member, Maharashtra State Electricity Board; Chhatrapati Shivaji Vidyapit; deputed by A.I.C.C. to the U.K. to study the parliamentary activities there, 1960-61; elected M.L.A., Maharashtra from Walwa constituency, 1962. *Address:* Bungalow No. A/4, Opp. Sachivalaya, Bombay 32.

**PATIL, S. K.,** Minister for Railways, Govt. of India, since June 9, 1964. *b.* Aug. 14, 1900 in Ratnagiri Dist.; *Educ.:* St. Xavier's Coll., Bombay and London Univ. Joined non-co-operation movement 1920 and conducted National School, till 1934; studied journalism at the London School of Economics and London Univ. Took part in C.D. movements and was sentenced 8 times; member: A.I.C.C. for last 31 years; Congress Working Cttee., 1945-51, 56, 57; Treasurer, Cong. Wkg. Cttee., 1960-64; member: C.W.C., since 1965; Central Parliamentary Board since, 1963; Bombay Municipal Corporation for 20 years; was General Secy., Bombay P.C.C. for 17 years until he became Pres., in 1946; M.L.A. Bombay 1937-46; was member: Central Board of Film Censors; Chairman, Govt. of India's Film Enquiry Cttee. and Cantonment Cttee.; member, C.C.I., Central Council, N.S.C.I., W.I.A.A., etc.; Pres.: Local Self-Govt. Institute of India; All-India Motor Unions Congress; Marathi Granth Sangrahalaya, Bombay; International Club and Indo-German Cultural Society; Indo-Japan Friendship Assoc.; closely connected with various social organisations and educational institutions in the City of Bombay; toured important cities of Europe, America and Pacific coast several times to study City Administration and Motion Picture Industry and met important personalities; had the unique honour of being elected Mayor of Bombay for three consecutive terms, 1949–52; member, Constituent Assembly 1947–52; Fellow of the Royal Geographical Society for four years; Pres., Brihad Bharatiya Samaj since its inception; toured African and Middle East countries many times in connection with the work of the Samaj; organized the Congress campaign in the Andhra General Elections of 1955; was Pres., I.M.P.P.A. for a year; was Pres., B.P.C.C., 1946-57; Minister for Irrigation and Power, Govt. of India, 1957-58; Union Minister for Transport and Communications, April 1958–Aug. 1959; Union Min. for Food & Agriculture, 1959-63; resigned as Minister under the "Kamaraj Plan," Aug. 1963; toured officially all over Europe, U.S.A., Latin American Countries, U.S.S.R. and eastern region; toured U.S. & Latin American Countries & U.K. as a special envoy of the Prime Minister of India to explain India's reaction to the Pakistani aggression and other related matters to the leaders of Western hemisphere, Oct. 18–Nov. 6, 1965. *Address:* Shanti Kutir, Marine Drive, Bombay 1; 12, Akbar Road, New Delhi 11.

**PATIL, Uttamrao Laxmanrao,** M.A., LL.B., Politician. *b.* Feb. 12, 1921; *Educ.:* East and West Khandesh; higher education at Baroda, Poona and Kolhapur. Enrolled as Advocate, Bombay, 1947; set up practice at Dhulia, 1948; has been associated with several co-operative and other public bodies as legal adviser; took keen interest in rural problems; nominated Director, West Khandesh Central Co-operative Bank, since 1958; elected M.L.C., Bombay, from Graduates' Constituency, Central Division, 1954; resigned on Samyukta Maharashtra issue, 1956; became member, Bharatiya Jana Sangh, 1953; elected Pres., Maharashtra Pradesh,

1954-59; member, working Cttee., Jana Sangh, since 1956; nominated Vice-Pres. 1960; was M.P. (Lok Sabha) till 1962; Editor, *Prabodha*, Weekly, 1954–56; Editor and owner, *Sudarshan*, Marathi Weekly. *Publications: Sahakari Shetila Virodh Va Paryaya; Mahagai Meemansa. Address:* Agra Road, Dhulia.

**PATNAIK, Bijoyananda,** Ex-Chief Minister, Orissa. *b.* March 5, 1916; *Educ.:* Ravenshaw Coll., Cuttack. Joined the Indian National Airways and became its ace pilot; took active part in the "Quit India" movement; courted jail for his activities in the freedom struggle; flew the Indonesian Premier Mr. Sutan Sjharir to New Delhi during the Indonesian freedom fight against the Dutch; landed the first Indian plane in Kashmir when Pakistan attacked her; took to industries after returning to Orissa; among his concerns is the Kalinga Airways; elected to Orissa Assembly from Choudwar during the mid-term election, 1961; Chief Minister, Orissa, 1961–63; resigned under the "Kamaraj Plan," Aug. 1963. *Address:* Bhubaneswar.

**PATNAIK, Kali Charan,** Kavichandra (1942), Natyacharya (1944), Oriya poet and dramatist; writer of Children's Literature. *b.* Dec. 23, 1900; *Educ.:* Ravenshaw Coll., Cuttack. Editor, *Puribasi & Sangita Prabha*, 1924-28; Founder-Director, Sakhigopal Natya Sangh (1926-39); Orissa Theatres (1939-50); Founder: Suralekha Record Productions; Odissi Music & Dance Institute; Founder-Pres.: Utkal Natya Sangh; Vice-Pres.: Bharatiya Natya Sangh (1958); Chairman, Board of Studies in Music, Utkal Univ. (1949-57); member, Orissa Sangeet Natak Academy, since 1954. *Publications:* 57 Oriya and 2 Hindi Dramas; a Book of Short Stories; three Books on Songs; five Books on Music; four Books on Dance; seven Dance-Dramas; thirteen One-Act Plays; is Director of the Full Length Oriya Film "Lalita" (1948), "Nari" (1963), and 3 Documentary Films in early forties; Lyric composer of three films, 1949-58. *Address:* "Kavi Nivas", Jagannath Ballav Cuttack-1 (Orissa).

**PATNAIK, Nagarl Mohan,** B.A. (Hons.), I.A.S., Chief Secretary to the Govt. of Kerala, since Nov. 30, 1962. *b.* Aug. 12, 1911; *Educ.:* Angul M.E. School; Ravenshaw Collegiate School and Coll.; Patna Coll., Patna. Held posts in the Orissa Civil Service, Jan. 16, 1935 to Dec. 31, 1947; appointed to the I.A.S. Jan. 1, 1948; Special Officer-cum-Under Secy., Govt. of Orissa, 1948; Home Secy., to Delhi Administration, 1948-49; worked as Deputy Secy., Labour Ministry; Central Provident Fund Commissioner; Director General, Resettlement and Employment and Chief Labour Commissioner till March 1957; Addl. Secy., Political and Services Dept., Govt. of Orissa, 1957-58; Chief Commissioner, Tripura Administration, 1958-62. *Address:* Chief Secretary to the Government of Kerala, Trivandrum.

**PATTABHI RAMAN, C. R.,** B.A., LL.B. (Lond.), Bar-at-Law, Min. of State in the Ministry of Law, Govt. of India, since Jan. 24, 1966. *b.* Nov. 11, 1906; *Educ.:* B.A., Presidency Coll., Madras; LL.B., London School of Economics and Political Science; Barrister-at-Law, Middle Temple. Pres. for eight years, now Patron: Madras Cricket Assoc.; Pres., South Madras Bharat Scouts and Guides; Legal Adviser, Indian Delegation to the tenth Session of the Assembly of the United Nations, 1955; and member, Indian Delegation, 1961; returned to the Lok Sabha as Congress candidate from Kumbakonam Constituency, March 1957; again 1962; Dy. Min. for Employment and Planning, Govt. of India, 1962-64; Chairman, Select Cttee., Gift Tax and Estate Duty Amending Bills; Office of Profit & Members' Disqualification Cttee.; Employees' State Insurance Scheme, 1963; Planning Forum Coordination, 1965; Dy. Min. for Information & Broadcasting, June 1964–Jan. 1966; Ex-Chairman, Public Accounts Cttee., Lok Sabha and Neyveli Lignite Corpn. *Publications:* "Periyar Water Rights Arbitration" proceedings as Counsel; collaborated with Justice N. Chandrasekhara Aiyar in the XI Edition of Mayne's Hindu Law. *Address:* "The Grove", Teynampet, Madras 18; "De Lisle", Ootacamund; 5, Safdarjang Road, New Delhi.

**PATTAMMAL, Smt. D. K.,** Sangeet Natak Akademi Award (1962), Musician (Karnatac Vocal). *b.* March 19, 1919; *Educ.:* Kancheepuram. Was awarded the title of "Gana Saraswathi" by the late Tiger Varachariar in 1943; recipient of the Sangeet Natak Akadami award, presented by the President of India Dr. Radhakrishnan in 1962. *Address:* 7, Srinagar, Madras 15.

**PAVATE, Dadasaheb Chintamani,** B.A. (Hons.) (Bombay), M.A. (Cantab.), Vice-Chancellor, Karnatak University, since July 1954. *b.* Aug. 2, 1899; *Educ.:* Karnatak Coll., Dharwar; B.A. (Hons.), first class, Bombay Univ., 1923; Sidney Sussex Coll., Cambridge; obtained a double first class in Mathematics Tripos exams. of the Cambridge Univ. and became a Wrangler, 1927. Prof., Mathematics, Banaras Hindu Univ., 1928–30; admitted to the Bombay Education Service Class I, June 1930; Director of Public Instruction, Bombay State, 1947–54; member, Official Language Commission, 1955–56; Leader, Indian Delegation to the 19th International Educational Conference, Geneva, July 1956; visited several Universities in France, Germany (East & West), England, America, Canada, Australia, New Zealand and Japan to study their administrative structure, courses of studies and the system of examinations; member: Univ. Grants Commission; Assoc. of Univs. of the Commonwealth. *Publications: Elements of Calculus; Modern Algebra; Memoirs of An Educational Administrator* and some other books in Mathematics. *Address:* Vice-Chancellor, Karnataka University, Dharwar.

**PAVRY, Dasturzada Dr. Jal,** M.A., Ph.D., Spiritual Head of the Liberal Zoroastrian Church of Europe and America; Orientalist and Author. Received highest academic honours at Bombay Univ., 1916-20, and at Columbia Univ., New York, 1921-25. First scholar from India to be elected a Fellow and appointed a member of Columbia Faculty; awarded the University's Alumni and Bicentennial Medals; represented Columbia Univ. at Univs. of Calcutta, Madras and Bombay Centennial Celebrations, 1957; Author of several important works on history and religions of Israel and Iran; President Emeritus, Columbia University Alumni Association of India; Vice-Pres., World Alliance for International Peace through Religion, of World Fellowship of Faiths and of All-Inclusive Spiritual Centre of Geneva; Edited, *Dastur Pavry Centenary Volume* in English, French and German, prepared by 70 savants from 17 countries and to be published by Oxford Univ. Press in England (1964). *Address:* Malabar Hill, Bombay.

**PAZ, H.E. Mr. Octavio,** Ambassador of Mexico, since Sept. 10, 1962. *b.* March 31, 1914, in Mexico City; *Educ.:* National Univ. of Mexico. Entered the Mexican Foreign Service, 1944; has occupied different posts in the consular and diplomatic missions of Mexico in San Francisco, New York, Paris, New Delhi, Tokyo, Bern, Geneva etc.; has been the Director-General of International Organizations of the Ministry of Foreign Affairs in Mexico; was a delegate of Mexico to the General Assembly of the U.N. and other international conferences of the Organization of American States, UNESCO etc.; was Minister Plenipotentiary and Charge d'Affaires in France. *Publications:* Several books of poetry and essays (some have been translated into English, French, Italian, Swedish, Greek etc.). *Address:* 136, Golf Links, New Delhi.

**PENDSE, Shripad Narayan,** B.Sc. (Bombay). Marathi Writer; Rockefeller Fellow, 1955-56. *b.* Jan. 5, 1913; *Educ.:* Bombay. Wrote his first novel *Elgar*, 1949; awarded a travelling fellowship by the Rockefeller Foundation and toured the Continent, U.K., U.S.A., Japan, Philippines, Indonesia, Burma, Ceylon and Pakistan, 1955; critics hold *Elgar* as a turning point in Marathi fiction. *Publications:* Two collections of short stories; Novels: *Elgar*, (awarded a prize as the best book of the year); *Haddapar* (awarded Govt. prize as best novel of the year) whose English translation is *The Brahmin; Garambeecha Bapoo; Hatya*, awarded Govt. prize for the best novel of the year (Oct. 1954); *Kalandar* (1959)—awarded Govt. Prize as best novel of the year; *Mahapur* a play (1961); *Rathachakra*—a novel (1962); won Sahitya Akademi Award for the best book in Marathi, 1963; *Raiemaster* (1964); *Yashoda* (1965). *Address:* Gokhale Wadi, B. S. Road, Bombay 28.

**PILLAI, C. I. Parameswaran,** B.A., B.L., Central Akademi Award for Malayalam Stage Acting (1959); a leading Malayalam Stage Actor; Chairman, Kerala Sangeet Natak Akademy, since Jan. 1965; Advocate and Legal Adviser to Kerala Co-op. Central Land Mortgage Bank Ltd., Trivandrum. *b.* Feb. 1898, at Alwaye; *Educ.:* Kottayam, Trichinopoly and Trivandrum; called to the Bar, 1930. Chief Legal Adviser to the Kerala Univ., 1955-60; Vice-Chairman, Kerala Sangeet Natak Akademi, 1956-59; engaged in amateur stage activity for over 40 years; recognised by the public as an outstanding amateur artiste in both English and Malayalam plays especially for character-acting; developed his own style and technique in acting. *Address:* Advocate, Vanchiyoor, Trivandrum.

**PILLAI, Namakkal Kavignar Ramalingam,** Poet Laureate (1948), M.L.C. (Madras), Tamil Writer. *b.* Oct. 19, 1888; *Educ.:* B. H. School, Namakkal; Arts Coll., Coimbatore. Professional Artist and portrait painter, 1909-20; attended the Coronation Durbar of King George V at Delhi as an artist at the instance of the Madras Govt., 1912; joined the N. C. Movement, 1921; composed songs for the Movement; courted jail in the movement; gave up the artist's profession and continued composing songs for the Gandhian cult; was popularly called the Gandhian poet; nominated M.L.C., Madras. *Publications:* Five books of poetry, four novels, five research books and six treatises; new commentary of *Thirukkural*. *Address:* Namakkal, Dt. Salem, Madras State.

**PILLAI, P. S. Veerusami,** Sangeetha Kalanidhi, Nathaswara Vidva Sironmani, Esaikunamani Esaipperaringar, Nathaswaram Artist. *b.* 1901 at Perambur Village, Tanjore Dist.; *Educ.:* Learned Nagaswaram under his father. Had played together with some of the great masters of Nagaswaram like Sempoonarkoil Ramaswami Pillai, Tiruvidalmarudur Sivakkolundu Pillai and T. N. Rajaratnam Pillai; had further training under Vidwan Konerirajapuram Vaidyanatha Iyer, Violin Vidwan Govindasami Pillai and Vidwan Nagasuram Natarajasundaram Pillai; became Adheena Vidwan of Tiruvavaduthurai and Dharmapuram and Asthana Vidwan of Nachiar Devasthanam of Srivilliputtur and of T. T. Devasthanam, Tirupathi; had been honoured in the States of Cochin and Travancore and by several public bodies and heads of several Maths and Devasthanams in the South; awarded the title of 'Sangita Kalanidhi', 1962, 'Esaipperaringar', 1959 and Mathyarsuna Mahanadhamani, by His Holiness Sankaracharya of Kancheepuram, 1964. *Address:* Tiruvidaimarudur (Dt. Thanjavur), S. India.

**PILLAI, Thakazhi Sivasankara,** Malayalam Writer; Lawyer. *b.* April 14, 1914; *Educ.:* Home Village; High School, Karuvatta; Law course, Trivandrum. Began writing at the age of 15; one of the pioneers of realism in Malayalam literature and the progressive

movement in Kerala; won the Sahitya Akademi award in 1957 for the novel *Chemmeen* which has been translated into Russian and Czech, and English; his novel *Rantidangazhi* is being translated into all the major languages in India under the auspices of the Sahitya Akademi; member, Kerala Sahitya Akademi. *Publications :* More than 500 short stories and 15 novels. *Address :* Thakazhi, Ambalapuzhai, Kerala.

**PILLAI, V. M. C. Varada,** Labour and Welfare Minister, Pondicherry, since Sept. 11, 1964. *b.* Dec. 31, 1928; *Educ. :* Modern Coll., Karaikal. Pres. : Neravy and Tirumalrayanpattinam Mandala Congress Cttee., 1957; Temple Sadayapuriswaraswamy of Tirumalrayanpattinam Commune, 1959; Member, Representative Assembly, 1959-63; Mayor, Tirumalrayanpattinam Commune, 1961-64; Minister for Agriculture and Community Development, 1963-64. *Address:* Pensionnat des Jeunes Filles, Rue Dumas, Pondicherry-1; Tirumalrayan Pattinam, Karikal.

**PISHAROTY, Dr. Pisharoth Rama,** B.A. (Hons.), M.A. (Madras), M.A. (Calif.), Ph.D. (Calif.), Scientist; Director, Institute of Tropical Meteorology, Poona. *b.* Feb. 10, 1909; *Educ. :* Trichinopoly. Bangalore and California (Los Angeles). Conducted substantial research under Sir C. V. Raman at Bangalore; joined the India Meteorological Deptt., 1942; Research Meteorologist in U.S.A., 1952-54; was also closely associated with weather forecasting; is a member, Meteorological Societies in India, U.K., and U.S.A.; is a Fellow of the Indian Academy of Sciences; India's delegate in several International meetings of the World Meteorological Organisations, since 1964; one of the twelve members, Advisory Board of the Exec. Cttee., W.M.O. *Publications :* 50 Scientific papers—about ten in physics and the rest on Meteorology and geomagnetism. *Address :* Director, Institute of Tropical Meteorology, Poona 5.

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**PODAR, Ramnath Anandilal,** Industrialist and business man. *b.* Jan. 21, 1910; *Educ. :* Marwari Vidyalaya High School. Joined father's business, 1927; Chairman: Podar Group of Concerns; Indian Cotton Mills Federation, 1963-65; Export Credit Guarantee Corpn., 1962-64; Rajasthan Chamber of Commerce & Industry; The Rajasthan Financial Corpn.; Millowners' Assoc., Bombay, 1957-60; Cotton Advisory Board (1957-62); Director, State Bank of India; J.P.; Member: Parliament of India (1952-54); Bombay Leg. Assembly (1956-62); Bombay Municipal Corporation (1942-52); Dy. Chairman, Bombay Textile Research Assoc.; Vice-Pres., Indian Merchants Chamber, 1965; member: Export-Import Advisory Council; Cttee. of F.I.C.C.I.; All India Oganisation of Industrial Employers; Millowners' Assocn., B'bay; A. I. Assocn. of Industries Ind. Nat. Cttee. of International Chamber of Commerce; numerous Institutions having activities connected with research, medical relief, social welfare and education; Dir., many commercial and industrial enterprises. *Address :* Podar Chambers, Fort, Bombay 1.

**POONACHA, Cheppudira Muthana,** Minister in the Ministry of Transport, Aviation, Shipping and Tourism, Govt. of India, since Jan. 24, 1966. *b.* 1910, at Attur village, South Coorg; *Educ. :* Mercara and Verajpet in Coorg and St. Aloysius Coll., Mangalore. Discontinued studies to join Satyagraha Movement, 1930; imprisoned twice during Salt Satyagraha Movement, 1932 and 1933; detained during individual Satyagraha Movement, 1940-41 and again during Quit India Movement, 1942-44; Secy., D.C.C., Coorg, 1933; Member, Exec. Cttee., Karnatak P.C.C., 1938; A.I.C.C., 1938; Coorg Dist. Board, 1938, and its Pres., 1941; Coorg Leg. Council and Leader of the Congress Leg. Party in the Council, 1945-46; Constituent Assembly and Provisional Parliament, 1947-51; Chief Minister of Coorg, 1952-56; Minister for Industries and Commerce, 1957 and later for Home and Industries, Mysore; Chairman, State Trading Corporation of India, 1959-63; Leader, Government of India Trade Delegation to some East European countries, 1960 and State Trading Corporation Delegation to Japan, 1961 and Czechoslovakia, Rumania, Hungary and Yogoslavia, 1963; elected to the Rajya Sabha, April 1964; Minister of Revenue and Expenditure, the Ministry of Finance, Govt. of India, Jan. 2-24, 1966; has extensively travelled in East European countries, Russia and Japan. *Address :* 2, Tughlak Road, New Delhi; Home Estate, Attur Post, Via Pollibetta, South Coorg, Mysore State.

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**POTDAR, Datto Vaman,** Mahamahopadhyaya (1946), B.A. (Bombay), Ex-Vice-Chancellor, Poona University. Member, State Board for Archives & Monuments (Bombay). *b.* Aug. 5, 1890; *Educ. :* Poona. Orator, Educationist; researches in Mahratta History and Literature; founded the Indian History Congress in Poona, 1935; presided over its Delhi session, 1948; President's Award (Sanad) 1961; Chairman, Shikshana Prasaraka Mandali, Poona; member, National Book Trust; Chairman, Central Sanskrit Board; Kul-Guru of the Tilak Vidyapeeth, Poona; Pres., Maharashtra Rashtra Bhasha Sabha; represented the Govt. of Bombay at the 3rd International Congress on Archives at Florence, 1956; led Vice-Chancellors' delegation to U.S.S.R. and Mongolian Republic 1963. *Potdar Commemoration Volume :* presented on Oct. 28, 1950. *Publications : A History of Marathi Prose Literature, Inside Maharashtra,* etc. *Address :* 498, Shanwar Peth, Poona 2.

**PRABHA, Mrs. B.,** G.D. Art. in Painting, Painter. *b.* Jan. 1, 1931; *Educ. :* G. D. Art in painting in first class from Sir J.J. School of Art, Bombay, 1954. First prize of Maharashtra Govt. exhibition, 1958; many other prizes and medals till 1960; 15 one-man shows of her paintings in India and abroad; visited eastern countries, 1962 and Australia & New Zealand, 1965; painted a mammoth mural at Tokyo for the Indian Embassy; painted murals for Air India office, Bankok and Indian Overseas Bank Building, Madras and Syndicate Bank Ltd. at Manipal, Bangalore, Bombay & Delhi. *Address :* Studio Sea Green, Flat No. 4, Worli Sea Face, Bombay 18.

**PRAKASA, Sri,** B.A. (Allahabad), B.A., LL.B. (Cantab.), Bar-at-Law, Padma Vibhushan, (Jan. 26, 1957). *b.* August 3, 1890; *Educ. :* B.A., Allahabad, 1911; B.A., LL.B. (Cantab.), 1914; called to the Bar, 1914. Educationist, Journalist and Politician; connected with the Banaras Hindu Univ. (1914-17); Kashi Vidyaputh (1921-43); member, A.I.C.C. (1918-45); General Secretary, U.P.C.C. (1928-34), and Indian National Congress (1929-31); President, U.P.C.C. (1934-35); M.L.A. (Central), 1934; re-elected, 1945; Chairman, Reception Cttee., Indian National Congress, 1936; imprisoned for Congress activities in 1930, 1932, 1941 and 1942; elected member, Indian Constituent Assembly from U.P., 1946; High Commissioner for India in Pakistan, 1947-49; Governor of Assam, 1949-50; Minister of Commerce, Govt. of India, 1950-51; Minister for Natural Resources & Scientific Research, Govt. of India, 1951-52; elected M.P., Feb. 1952; subsequently resigned; Governor of : Madras, 1952-56; Bombay (later Maharashtra) 1956-62. *Publications : Annie Besant, as Woman and as Leader; Pakistan : Birth and Early Days* (In English); *Grihasta Gita; Sphut Vichar; Nagarik Shastra; Hamari Antarik Gatha* (in Hindi). *Address :* Sevashrama, Varanasi 1; Vishranti Kutir, Rajpur, Dehra Dun.

**PRAKASH Kailash,** M.Sc., Minister of Education & Finance, U.P. *b.* Dec. 19, 1909; *Educ.:* Meerut Coll., Meerut; passed M.Sc. from Agra Univ. topping the list of successful candidates, 1932. Imprisoned in the Congress movement, 1930, 1932, 1940 and 1942; was teacher for four years; elected M.L.C., 1948; worked as Dy. Minister, Education, Dy. Minister, L.S.G., Minister, L.S.G. and Minister Health, Uttar Pradesh. *Publications :* Some books on Mathematics. *Address :* Begumbagh, Meerut; Motimahal, Lucknow.

**PRASAD, Baleshwar,** M.A. (English), I.A.S., Chief Commissioner, Manipur, since Nov. 1963. *b.* January 1, 1914; *Educ. :* Patna Coll., University of Patna. Served in the I.A.S. in Bihar, 1950-56; Political Adviser to the Indian Delegation to International Commission for Supervision and Control in Viet Nam (1956-59); Dewan of Sikkim (1959-63). *Address :* Chief Commissioner's House, Imphal, Manipur.

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**PRITAM, Smt. Amrita,** Sahitya Akademi award (1956), Writer. *b.* Aug. 31, 1919; *Educ. :* Lahore (Punjab). Edited a monthly in Punjabi, *Navin Dunian,* 1938-40; Staff Artist, All

India Radio, 1948-60. *Publications :* 14 collections of peoms, 11 novels, 5 books of short stories, 3 collections of folk songs, one book of articles, one travelogue. *Address :* K 25, Hauz Khas, New Delhi 16.

**PURI, H.E. Yogendra Krishna,** I.C.S., Indian Ambassador to Morocco and Tunisia. *b.* July 25, 1916; *Educ. :* Govt. Coll., Lahore ; Univ. Coll., London. Appointed to the I.C.S., Sept. 24, 1938 ; served in Assam successively as Asstt. Commr., Under-Secy. (Pol.) and Secy., Supply Deptt. till Oct. 1946 ; appointed to the Finance & Commerce Pool, Govt. of India, 1946 ; Dy. Secy. : Finance Ministry, July 1947 ; Ministry without Portfolio, Oct. 1947 ; Dir-Gen., Rehabilitation Ministry, 1948 ; Dy. High Commr. for India in Pakistan, Lahore, 1948–51 ; Dy. Secy., Min. of External Affairs, 1951–53 ; Counsellor, Embassy of India, Paris, 1953–55 ; Counsellor Indian High Commission, London, Sept. to Dec. 1955 ; Jt. Secy., Min. of External Affairs, 1956-60 ; High Commissioner in Malaya, 1960-64. *Address :* C/o Ministry of External Affairs, New Delhi.

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**PUTTASAMAYA, B.,** Sahitya Akademi Award (1964), Kannada Writer. *b.* May 27, 1897 ; *Educ. :* St. Joseph's Coll., Bangalore. Took up journalism at an early age ; worked as leader writer and general editor of various Kannada dailies and weeklies, *Janavani, Mathru Bhoomi, Prajamatha ;* Founder-Editor, *Prajavani*, 1948. *Publications :* Plays : *Kurukshetra ; Dasavathara ; Ramayan ; Akka Mahadevi ; Budha ; Thualasi*, etc; Novels : *Kranthi Kalyan* Series of six novels (historical) ; won the Sahitya Akademi Award for the last part of the book published in 1963. *Address :* 1st Cross, Sreeramapuram, Bangalore 9.

**PUVVADA, Seshagiri Rao, 'Kavipadusha',** poet, scholar and writer of Andhra. *b.* in Movva, 1906. Is an educationist of repute ; addressed and presided over numerous literary and cultural meetings all over India ; also a broadcaster ; participated in the National Symposium of Poets inaugurated by President Rajendra Prasad on the Republic Day, 1958 ; member, Adv. Panel, Anglo-Intra Indian Multi-Lingual Dictionary ; Dir., Dramatic Association ; strives for communal harmony. *Publications :* Kavyas, novels, plays and essays, Poems : *Satapatram ; Govatsam ; Taj Mahal ; Dara ; Palavelli ;* prescribed as text books of Modern Poetry for degree examinations in Andhra, Madras and Utkal Univs., Prose ; *Eruvaka ; Aura ; Evaru ; Andhra Tejam* : *Parasuramudu ; Madhukalasamu ;* Plays : *Durga Das ; Delhi Durbar ; Tissa Parishkaram ; Prithvi Putri ; Prana Rakshana ; Pratapa Rudrama Devi ; Sahapankti ; Silpakavyam ; Totrupatu ;* Ballad : *Raktatarpanam. Address :* Professor of Telugu, National College, Masulipatam.

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book *Malwa Men Yugantar* by the Hindi Sahitya Sammelan, Allahabad; awarded a prize by the U.P. Govt. for his Hindi book *Purva-Adhunik Rajasthan*, Feb. 1954; Corresponding member, Ind. Hist. Rec. Comm., 1937-42 and since 1952; *Publications:* (Hindi) *Purva-Madhyakalin Bharat, Bikhare Phool, Sapta Deep, Malwa Men Yugantar, Shesha Smritiyan, Jeevan Dhuli, Jeevan Kan, Ratlam ka Pratham Rajya, Purva-Adhunik Rajasthan;* (English) *Malwa in Transition, Indian States and the New Regime, A Hand-List of Important Historical Manuscripts in Shri Raghubir Library.* Translated into Hindi Dr. Jadunath Sarkar's *A Short History of Aurangzib* under the title *Aurangzib. Address:* "Raghubir Niwas", Sitamau (Malwa-M.P.).

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**RAI, Amrit,** M.A., Sahitya Akademi Award (1963), Hindi Writer. *b.* Aug. 15, 1921; *Educ.:* Lucknow, Banaras and Allahabad; M.A. in 1942. Took to writing at an early age; edited the Hindi Magazine, *Hans*, 1942-52; active in the Progressive Writers' Movement; a Marxist; was in political detention, 1950. *Publications:* Novels: *Beej; Nagphani Ka Desh; Hathi Ke Dant;* Story Collections: *Itihas; Qasbi Ka Ek Din; Kathgharey; Bhor se Pahle; Gili Mitti; Chitraphalak; Lal Dharti; Jeevan Ke Pahlu;* Literary Criticism: *Nayee Sameeksha;* Biography: *Premchand—Qalam Ka Sipahi* (Won the Sahitya Akademi Award for best original work in Hindi, 1963); has translated extensively from English, Urdu and Bengali; for his translation of Howard Fast's Spartacus called *Adividrohi*, won the Govt. of India's best translation Award, 1958; other translations include *Hamlet*, Ostrovsky's *How the Steel Was Tempered; Rabindra Nibandhmala, Fucik's notes from the Gallows*, etc. *Address:* 18, Hastings Road, Allahabad.

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**RAJABHOJ, Pandurang Nathuji,** Journalist and Agriculturist. *b.* March 15, 1905; *Educ.:* Nutan Marathi Vidyalaya and Maharashtra Education Society's High School, Poona. Ex-member, I.N. Congress; Secy., All-India Depressed Classes League, 1935-37; represented the depressed classes on the Franchise Cttee. of the Simon Commission; imprisoned several times in connection with Satyagraha movement of Scheduled Castes; General Secy., A.I.S.C.F., 1942-54; attended the 5th World Buddhist Conference at Thailand, 1958; Pres.: Indian Buddhist Society; Bharat Dalit Sevak Sangh; travelled in Holland, Switzerland, England, France, West Germany, U.S.A., Turkey, Japan, Australia, Ceylon, Hongkong, Singapore, etc.; has now rejoined the Congress; member, A.I.C.C., since 1961; one of the signatories to the Poona Pact; M.P.; Lok Sabha, 1952-57; Rajya Sabha, 1957-62. *Publications: Lashkari Pesha* (Marathi); pamphlets in Marathi on Buddhism; translation of Dr. Ambedkar's books. *Address:* 207, Ghorpade Peth, Poona 2.

**RAJADHYAKSHA, Mangesh Vitthal,** M.A., Justice of Peace, Writer; Lecturer, Elph. Coll., Bombay. *b.* June 7, 1913; *Educ.:* Elphinstone Coll., Bombay. Taught English at the following Govt. colleges: Gujarat Coll., Ahmedabad; Rajaram Coll., Kolhapur and Ismail Yusuf Coll., Bombay, since 1936; Member, General Advisory Board and Advisory Board for Marathi, National Book Trust, India, Advisory Board for Marathi, Sahitya Akademi, New Delhi; Government of India Panel of Advisers on the Import of Pornographic Literature. *Publications: Panch Kavi* (1946); *Akash Bhashite* (1963); *Khardeghashi* (1963). *Address:* 7, Jaira; House, 141, Colaba Road, Bombay 5.

**RAJAGOPALACHARIAR, C.,** B.A., B.L., Bharat Ratna (1954), Leader, Swatantra Party. *b.* 1878 in a village near Hosur, Salem Dist.; *Educ.:* Central Coll., Bangalore; Presidency Coll. and Law Coll., Madras. Joined Bar in 1900; joined Satyagraha campaign, 1919 and N.C. Movement in 1920; edited Mahatma Gandhi's paper *Young India* during the latter's imprisonment; General Secy., Indian National Congress, 1921–22; member, Working Cttee. of Congress, 1922–42 and 1946–47; imprisoned on five occasions in Congress campaigns. Vice-Pes., Dakshin Bharat Hindi Prachar Sabha; Prime Minister, Madras 1937–39; resigned with other Congress Ministers, Oct. 1939; resigned in April 1942 from Congress on account of difference of opinion; assisted Mahatma Gandhi in the Gandhi-Jinnah talks in Sept. 1944; member of Governor-General's Council, September 1946-August 15, 1947; Governor of West Bengal, Aug. 1947; acted as Governor-General of India, Nov. 1947; Governor-General of India, June 1948-Jan. 26, 1950; Minister, Govt. of India, without portfolio, May-Dec. 1950 and Home Affairs, Jan.–Nov. 1951; Chief Minister, Madras, 1952-54; as Leader, Three-man Indian delegation from the Gandhi Peace Foundation to canvass support for the prohibition of nuclear tests, visited America, England and Italy, Oct. 1962. *Publications:* Tamil books on Socrates, Marcus Aurelius, Bhagavad-Gita, Mahabharata, Ramayana and Upanishads; *Fables and Short Stories;* (in English) Mahabharata, Ramayana, Bhagavad-Gita, Upanishads, *Voice of The Uninvolved, Kambaramayunam-Ayodhya Kudam* and *Hinduism Doctrine and Way of Life. Address:* Bazlullah Road, Thyagarajanagar, Madras 17.

**RAJAMANNAR, Dr. Pakala Venkata,** B.A., B.L., D.Litt., LL.D., Chairman, 4th Finance Commission since May 18, 1964. *b.* May 10, 1901; *Educ.:* Madras Christian Coll. and Law Coll.; called to the Bar, 1924. Advocate-General of Madras, 1944-45; Judge, Madras High Court, 1945-48; Chief Justice, Madras High Court, 1948-61; Chairman, National Academy of Music, Drama and Dance since it was established, 1953-61; Chairman, Madras State Lalit Kala Akademi, 1962; Member, Syndicate of the Madras Univ. and Chairman, Board of Studies in Law. *Publications:* Several full length and one Act plays in Telugu; "One Act Plays" have been collected and published. *Address:* 9, Victoria Crescent Road, Egmore, Madras 8.

**RAJAN, V. N.,** Flute Vidwan. *b.* 1919 at Palladam; *Educ.:* Learned music under his own father; had coaching under Sangeetha Kalanidhi Sri Karur Chinnaswamy Iyer and later under Sangeetha Kalanidhi Venugana Sironmani Palladam Sanjeevi Rao. Gave his first performance in his fourteenth year; gave several concerts and earned a name for himself; awarded the title of "VENUGANA KESARI"; was presented a golden shawl by His Holiness Sri Sankaracharya of Kamakoti Peetam; has been responsible for bringing up his brothers in the same field; travelled far and wide and has given performances at Bombay, Delhi, Simla and other important cities. *Address:* Agraharam, Palladam.

**RAJAN, Viswanatha Nata,** B.A. (Hons.) (Madras), I.C.S., Director General, Employees' State Ins. Corpn. since 1960. *b.* Oct. 22, 1907; *Educ.:* Presidency Coll., Madras; B.A. (Hons.), 1928; London School of Economics; London School of Oriental Studies; passed I.C.S., 1930. Held important posts in West Bengal, Govt. of India and Madras till he became Chief Secy., Travancore-Cochin Govt., 1952–54; D. G., Supplies & Disposals, Govt. of India, 1954–60; member, Permanent Cttees. of International Social Security Association, Geneva, 1963; Chairman, Asian Working Group of ISSA on Organisation and Methods of Social Security, Geneva, 1963; Rapporteur, XV General Assembly, ISSA, Washington 1964 on "Developments and Trends in Social Security in Asia & Oceania, 1961-63"; Chairman, Asian Regional Medico-Social Cttee., ISSA, 1964-67; Officer Bureau, ISSA, 1964-67; Member Co-ordinating & Planning Cttee. ISSA, Geneva, 1965. *Publications:* Several articles in newspapers and periodicals on *ESIC—Symbol of Social Security. Address:* Director-General, Employees' State Ins. Corpn. (Ministry of Law and Social Security), New Delhi.

**RAJGURU, Pandit Basavaraj, Gunakokila** (1938), Sangeet Sudhakar (1941), Sangeet Ratna (1947), Musician. *b.* Aug. 24, 1920, at Dharwar; *Educ.:* Took his lessons in music from his father and later from experts in the line like Pandit Panchakshari Buwa of Shivayoga Mandir, Sawai Gandharva and Mr. Suresh Babu Mane. Has recorded many popular songs; has participated in several music conferences; broadcasts frequently from almost all stations of the A.I.R.; has so far given nine national programmes; is one of the sponsors of the World Congress for General Disarmament and Peace; is member, Sangeet Natak Akademi, Delhi; Chairman, Board of Examiners for Hindustani Music, Mysore State. *Publications: Sangit Tarangini* (under print). *Address:* Balguru Building, Malamaddi, Dharwar.

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(1946–53); Adviser, Indian Delegation to the U.N. (1952–53); Commissioner for India in Fiji (1953–54); Deputy Secretary-General, International Supervisory Commission in Viet Nam (1954–55); Consul-General in Laos (1955-57); Commissioner for India in West Indies and British Guiana and Consul-General in Surinam (1957-61); Ambassador of India in Senegal, Upper Volta and Ivory Coast (1961–64); *Publications:* Editor: *Indian Affairs* (A.I.C.C.); *Indian Political Parties* (1948); *One Year of Freedom* (1949); *Development of the Congress Constitution* (1960); *The Problem of French India* (1951); *Indians Outside India* (1951); *Pilgrimage and After* (1952); *Background of India's Foreign Policy* (1952); Articles and short stories. *Address:* Embassy of India in Poland, 16, Niegolewskilgo, Warsaw.

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**RAJU, Mr. Justice Penmetsa Satyanarayana,*** B.A., B.L., Judge, Supreme Court of India. *b.* Aug. 17, 1908; *Educ.:* Tanuku, Vijianagram and Madras. Enrolled as Advocate, High Court of Madras, Sept. 25, 1930; practised at Madras mostly on the appellate side; appointed Govt. Pleader of composite Madras State, July 15, 1950; appointed State Counsel, Madras, Dec. 21, 1951; Govt. Pleader, Andhra State, Nov. 26, 1953-Oct. 1954; Judge, High Court of Andhra, Nov. 1954-Oct. 31, 1956; acted as offg. Chief Justice of A.P., Nov. 20-Dec. 19, 1963 and Nov. 23-Dec. 29, 1964; Judge, A. Pradesh High Court, 1956-64; Chief Justice, A.P., 1964-65. *Address:* New Delhi.

**RAJU, Dr. P. T.,** B.A. (Allahabad), M.A. (Calcutta), Ph.D. (Calcutta), Sastri (Banaras), Padma Bhushan (1958), Prof. of Philosophy and Indian Studies, The Coll. of Wooster, Ohio, since 1963. *b.* Aug. 17, 1903. General President, Indian Philosophical Congress, 1960; Tata Visiting Prof. of Philosophy, The Asia Institute, New York, 1949; Visiting Prof. of Philosophy, Univ. of California, 1950; Visiting Prof. for Comparative Philosophy, Univ. of Illinois, 1952–53; Merton Guest Professor, Mainz Univ., W. Germany, 1961–62; Gillespie Professor Wooster, Ohio, 1962–63; Member, Editorial Board, *Philosophy—East and West*, Univ. of Hawaii. *Publications:* Philosophical views: *Vedanta and Critical Humanism.* A number of articles in British, Indian and American philosophical journals; *Thought and Reality; Comparative Studies in Philosophy; Telugu Literature; India's Culture and Her Problems; Idealistic Thought of India; Indian Idealism and Modern Challenges; The Concept of Man* and chapters in Essays, *in East-West Philosophy; Cultural Heritage of India; Philosophy; Eastern and Western and Radhakrishnan; Introduction to Comparative Philosophy. Address:* The College of Wooster, Wooster, Ohio, U.S.A.

**RAJU, P. V. G., Raja of Vizianagram,** Minister without Portfolio, Andhra Pradesh, since 1965. *b.* May 1, 1924; *Educ.:* Intermediate Coll., Bangalore, Presidency Coll., Madras and Columbia Univ. (U.S.A.). Joined Congress, 1947; left, 1948; was a prominent Socialist Leader till he joined Congress again in 1959; member, composite Madras Assembly 1952; elected to Lok Sabha from his home constituency as Socialist, 1957 General Elections; Minister for Health, Andhra Pradesh, 1960–1962; Min. for Education, A.P., 1962–65. *Address:* Begumpet, Hyderabad 16.

**RAJU, Mr. Justice Vadrevu Bhadri,** M.A. (First Class), I.C.S. Judge, Gujarat High Court, since May 1960. *b.* Oct. 28, 1907; *Educ.:* Presidency Coll., Madras; London Univ. Selected for the I.C.S. by competition, 1930; joined service in Bombay, 1932; was Dy. Secy., Finance Deptt., and Director, Food Supplies, Bombay; worked as Dy. Secy. in charge of General Elections, 1946; served as Dist. and Sessions Judge, Poona, Ahmednagar, Kaira, Surat, Sholapur, Dharwar, Kolhapur and Nagpur; judge, Bombay High Court, June 1959–April 1960; devised a common script for Indian languages, which is adapted for typewriting. *Publications: Law of Murder; Penal Code; Law of Evidence;* etc. *Address:* Ahmedabad 3.

**RAKESH, Mohan,** M.A. (Skt. and Hindi) M.O.L., Sangeet Natak Akademi Award, (1959),, Playwright. *b.* Jan. 8, 1925; *Educ.:* Hindu Coll., Amritsar; Oriental Coll., Lahore. Teacher, Elphinstone Coll., Bombay, Bishop Cotton School, Simla and D.A.V. Coll., Jullundur, 1947-57; Editor, *Sarika*, a Times of India Publication, 1962-63; has been writing books since 1957; has travelled extensively in India. *Publications: Andherey Band Kamrey* (Novel); *Akmiri Chattan Tak* (a travelogue); *Ashadh Ka Ek Din, Lehron Ke Rajhans* (Plays); four collections of short stories and a number of edited books. *Address:* R. 522, New Rajendra Nagar, New Delhi 5.

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**RAM, Charat,** Industrialist. *b.* Jan. 1, 1918; *Educ.:* St. Stephen's Coll., Delhi. Chairman; Jay Engineering Works Ltd.; India Hard Metals Pvt. Ltd.; India Capacitors Pvt., Ltd.; Fertilizer Association of India; Usha Refrigeration Industries Ltd.; Export Inspection Council; Vice-Pres., All India Management Association; Dir.: Mng. Agents: the Delhi Cloth & General Mills Co. Ltd.; Dir.: Reserve Bank (Northern Board); Industrial Finance Corporation of India; Amar Dye Chem. Ltd.; Shri Ram Associations P. Ltd. *Address:* 26, Sardar Patel Road, New Delhi-11.

**RAM, Jagjivan,** Minister for Labour, Employment and Rehabilitation, Govt. of India, since Jan. 24, 1966. *b.* April 1908 at Arrah in Bihar; *Educ.:* Banaras Hindu Univ.; Calcutta Univ.; B.Sc., 1930; took active interest in the uplift of Depressed Classes early in life; Pres., All India Depressed Classes League, 1936–46; nominated M.L.C., Bihar, 1936; elected M.L.A., Bihar, 1937; Parliamentary Secy., Bihar, 1937–39; Secy., Bihar P.C.C., 1940–46; courted jail in freedom movement; appeared before the Cabinet Mission as the accredited leader of the Scheduled Castes; leader of Indian Delegation to the I.L.O. Conference, Geneva, June 1947; elected Chairman, Preparatory Asia Regional Conference of the I.L.O. held in New Delhi, Oct.-Nov. 1947; member, Congress Working Cttee., A.I.C.C., since 1948; Leader, Indian Delegation to 33rd Session of I.L.O. Conference, June 1950 and unanimously elected Chairman of the Conference; member: Central Parliamentary Board, A.I.C.C., since 1950; Central Election Cttee., 1951; Congress Economic Planning Cttee., since 1950; Gandhi National Memorial Trust and Sardar Vallabhbhai Patel Memorial Trust; Jawaharlal Nehru Memorial Trust; was Pres. of several trade unions; Labour Minister, Govt. of India, Sept. 1946-May 1952; Communications Minister, Govt. of India, May 1952-Dec. 1956; was responsible for the nationalisation of air transport in India; Minister for Transport and Railways, Dec. 1956–April 1957; Min. for Railways, April 1957–April 1962; Minister for Transport & Communications, 1962–63; resigned under the "Kamaraj Plan," Aug. 1963. *Address:* 7, Raisina Road, New Delhi.

**RAMACHANDRAN, Dr. Mrs. T. S. Soundram,** M.B.B.S., D.G.O., Padma Bhushan (1962), Deputy Minister of Education, Govt. of India. *b.* 1905, at Nagercoil; *Educ.:* M.B.B.S. from Lady Hardinge Medical Coll., Delhi, 1936. Has been taking active work in women's and children's welfare; Kasturba Gandhi National Memorial Trust's agent for Tamilnad till 1953. Founded the Gandhigram institution along with Mr. G. Ramchandran, 1947; was Founder Director for the five years; Treasurer ever since; elected M.L.A., Madras, from Athoor, 1952, from Vadasandoor, 1957; Hony. Project Exec. Officer, Madurai Periyar Project, 1952–57; founded and started the "Avvai Ashram" for women at Sivasailam; appointed Vice-Chairman, State Khadi and Village Industries Board, April 1960; Chairman, Pilot Health Project in Athoor Block; actively interested in Family Planning Work; nominated member, Family Planning Board of the Central Govt. & State Govt.; elected M.P. from Dindigul Constituency, 1962. *Address:* New Delhi.

**RAMAIAH, V.,** Minister for Food, Madras, since Nov. 1964. *b.* 1920; *Educ.:* B.A. degree from the Loyola Coll., Madras. Expelled from Annamalai Univ. for participating in the students movement during the 1942 movement; took active part in the Students Congress movement in the Loyola Coll.; Secy., Indian Students Congress (Madras State), 1944–45; was elected to the Constituent Assembly and the Provisional Parliament; Pres., Pudukottai Dist. Congress, 1952–55; was member, A.I.C.C. and Tamilnad Congress Exec. Cttee. for a term; took active part in the Scout Movement and in the St. John's Ambulance Brigade; elected M.L.A., Madras from the Thirumayam Constituency, Tiruchy District; Minister for Electricity and Transport, Madras, 1957–62. Minister for P.W. & Revenue, Madras, 1962–64. *Address:* Madras.

**RAMAMURTI, P.,** Ex-M.P., Communist Leader. *b.* Sept. 20, 1909; *Educ.:* Banaras Univ. and Presidency Coll., Madras. Courted Jail in 1930-32 Congress Movement; political worker, ever since; was in the executive of the Tamilnad Congress Socialist Party, 1935-39; member, A.I.C.C. for about 4 years; Working Cttee. member, A.I.T.U.C.; a top ranking Trade Union leader in Madras State; is an orator; went to I.L.O. Conference, 1946. *Publications: Kandal Deepavali* (on cloth famine, in Tamilnad); *Open Letter to Kumaraswami Raja. Address:* 3, Anthony Street, Royappetta, Madras.

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* Death on 20-4-1966, is reported.

Franklin Institute, Philadelphia; International Lenin Prize for 1957; Foreign member, Soviet Academy of Sciences (1957); Foreign Associate, Paris Academy of Sciences (1949); Pontifical Academician (1961). *b.* Nov. 7, 1888; *Educ.:* A.V.N. Coll., Vishakapatnam & Presidency College, Madras; Officer, Indian Finance Dept., 1907-17; British Association Lecturer (Toronto), 1924; Research Associate, California Institute of Technology, 1924; Mateucci Medallist. Rome, 1929; Hughes Medallist of the Royal Society (1930); Hon. Fellow, Zurich Phys. Soc., Hungarian, Czechoslovak and Rumanian Acad., Royal Irish Acad., Chinese Phys. Soc., Royal Phil. Soc., Glasgow, Optical Society of America, Franklin Institute, Societe Philomathique (Paris); President, Indian Academy of Sciences, 1934; National Research Professor of Physics, 1949. *Publications: Molecular Diffraction of Light; Music Instruments; The Physiology of Vision;* and numerous scientific papers in Indian, British and American Journals. *Address:* C/o Raman Research Institute, Hebbal, Bangalore.

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**RAMANUJACHARI, R.,** M.A., Vidyaratna and Tattvasastraratna, Professor, from 1936 and Head of the Deptt. of Philosophy and Dean, Faculty of Philosophy and Education, since 1953, Annamalai Univ. *b.* Dec. 6, 1902; *Educ.:* Presidency Coll., Madras. Represented the Univ., at the 8th Quinquennial Session of the Congress of Univs. of the British Commonwealth at Montreal, and visited Univs. and cultural institutions in U.S.A. and the U.K. at the invitation of the U.S. Govt. and the British Council respectively. *Publications:* Has published critical editions of Indian philosophical classics with English translations, such as *Nyayakulisa, Nitimala, Siddhitraya* and *Bhavanopanishad;* publications in Tamil on psychology, such as Educational Psychology, *The Children We Teach* and *Learning and Teaching* and a Tamil rendering of Dr. S. Radhakrishnan's *"Kalki" & "Plato's Republic". Address:* Annamalai University, Annamalainagar.

**RAMANUJAM, G.,** Secretary, Indian National Trade Union Congress and Pres., Tamilnad Prov. National Trade Union Congress. *b.* Feb. 2, 1916; *Educ.:* Srirangam, Trichinopoly Dist. Founder Secy., Tamil Nad I.N.T.U.C., 1947-58; elected Pres., I.N.T.U.C., 1958; again 1959; Pres., Indian National Plantation Workers' Federation, 1960 and Gen. Secy., 1965; visited China, 1954; elected Pres., Indian National Textile Workers Federation, 1956; is a member of several Cttees. connected with labour; member: Textile Tripartite Enquiry Cttee. appointed by the Govt. of Madras; Central Wage Board for the Cotton Textile Industry in India; Central Wage Board for Tea Plantation Industry in India; attended the 42nd Session of the I.L.O. as workers' delegate in June 1958 and the British T.U.C. Conference in Blackpool and the Constitutional Convention of the AFL-CIO in San Francisco as a fraternal delegate, Sept. 1959; visited Japan, Sept. 1959; Director: Hindustan Machine Tools, Bangalore; National Instruments Ltd., Calcutta. *Address:* "Vengadam", Vivekananda Road, Coimbatore 9.

**RAMA RAU, Smt. Dhanvanthi,** M.A. (Hons.), (Madras), Padma Bhushan (1959), Kaiser-I-Hind Gold Medal, 1938, Lasker award of America 1955. Social Worker; Pres., International Planned Parenthood Federation; Ex-Pres., Family Planning Assocn. of India. *b.* May 10, 1893; *Educ.:* Hubli; Presidency Coll., Madras. Has been interested in social work and questions relating to women's suffrage and women's rights for over 45 years; Lecturer in English, Queen Mary's Coll., Madras, 1917-19; Pres., All India Women's Conference, 1946; member: Family Planning Board, Govt. of India; ex-member, Central Social Welfare Board, New Delhi; exec. Chairman, Cttee. of the International Planned Parenthood Federation. *Address:* 10-D, Mafatlal Park, Bombay 26.

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**RAMASWAMI, Mr. Justice Vaidyanathier,** M.A., M.Sc., Barrister-at-Law, I.C.S., Judge, Supreme Court, since Jan. 4, 1965. *b.* Oct. 30, 1904; *Educ.:* Madras, Allahabad and Oxford Univ., called to the Bar from the Inner Temple. Entered Indian Civil Service, Oct. 1929; Addl. Judge, Patna High Court, November 1, 1947-Oct. 1948; Puisne Judge, Patna High Court, Oct. 28, 1948-April 1956; Chief Justice, Patna High Court, April 1956-Dec. 1964. *Publications:* Articles on legal topics in various periodicals. *Address:* 7, Motilal Nehru Place, New Delhi.

**RAMDAS, Dr. Lakshminarayanapuram Ananthakrishna,** M.A., Ph.D., M.B.E. (1946), "Padma Shri" (1958), F.N.I., F.N.A.Sc., F.A.Sc., F.W.A., F.R. Met., Scientist. *b.* June 3, 1900; *Educ.:* Sircar High School, Trichur; Maharajah's Coll., Ernakulam; Presidency Coll., Madras; Univ. Coll., Calcutta; Indian Assoc. for the Cultivation of Science, Calcutta. Palit Research Scholar under Sir C. V. Raman, 1923-26; discovered phenomenon of "Scattering of Light by pure liquid and solid surfaces", 1923; Doctorate for thesis on above subject and allied topics, 1927; recorded "Raman Effect" for the first time in a Vapour (Ether), 1928; Dy. D.G. of Observatories, 1953; Offg. Dir.-Gen., 1955; Pres., Physics Section, India Science Congress, 1948; participated in UNESCO'S Arid Zone Research Cttee. Sessions in Delhi, 1954, in Tehran, 1958, in Madrid, 1959, Paris, 1960; Rome, 1961; Tashkent, 1962; Jaipur, Dec. 1964; visited U.S.A. in 1960 as a visiting foreign scientist and in June-July 1961 to attend Planning Conference on Atmospheric Sciences at Boston; attended International Radiation Symposium, Leningrad, Aug. 1964; elected Fellow, World Academy of Art and Science (FWA), 1963. *Publications:* Numerous original papers in Physics, Meteorology, etc. in various Indian and foreign Scientific Journals. *Address:* C/o National Physical Laboratory, New Delhi 12.

**RAMPURIA, Ratanlal,** Industrialist. *b.* June 20, 1926. Is a partner of Messrs. Hazarimul Heeralal, Calcutta. Director of many industrial concerns; Chairman: Board of Directors, The Bank of Bikaner Ltd., 1950 & 1958; Hoare Miller & Co., Ltd.; Director: Singell Tea Co., Ltd.; Scott & Pickstock Ltd.; Containers and Closures Ltd.; Rampuria Bros. (Private) Ltd.; Rampuria Cotton Mills Ltd.; National Insurance Co., Ltd.; Asian Refractories Ltd., etc.; member, Managing Cttee., Bengal Textile Institute, 1960: created charity trust and appointed trustee of various charity trusts; Chairman, Refugee Relief Cttee., Bikaner, 1949; patron, life member and member of various industrial, commmercial and educational associations, chambers and societies of India; Pres., Jain Sabha, 1959-60 & 1960-61; Bengal Millowners' Assoc. *Address:* 22, Rowland Road, Calcutta.

**RANADIVE, Bhalchandra Trimbak, M.A.** (Bom.), Communist Leader. *b.* Dec. 1904; *Educ.:* M.A. from Wilson Coll., Bombay, 1927. Joined the Communist Party, 1929; jailed 1929, 1934, 1940; elected member, Central Cttee., 1943; elected member, Secretariat of the National Council at the Amritsar Congress of the Party, 1958; detained under D.I.R., since 1962. *Publications: Crisis of Indian Economy* (1952); *First Five Year Plan* (1954); *Sarvodaya* (1958), etc. *Address:* Vyankatesh Niwas, Bhaudaji Road, Bombay 19.

**RANDHAWA, Dr. Mohinder Singh,** B.Sc. (Hons.), M.Sc., D.Sc., F.N.I., I.C.S., Dir.-Genl., Intensive Agricultural Areas and Spl. Secy. to Govt. of India, Min. of Food and Agriculture, since March 1964. *b.* Feb. 2, 1909; *Educ.:* Govt. Coll., and Punjab Univ., Lahore. Held Govt. posts in the Punjab, 1934-55; Vice-Pres., I.C.A.R., 1955-61; Advisor, Natural Resources and Scientific Research, Planning Commission, 1961-64; Pres., National Academy of Sciences; Northern Indian Science Association; Horticulture Society; All-India Fine Arts and Crafts Society; Indian Academy of Photography; Chairman, Agriculture and Food Products Division, I.S.I.; Vice-Pres., Indian Society of Agricultural Statistics. *Publications:* English: *Out of the Ashes*; *Beautifying India*; *Flowering Trees in India*; *Kangra Valley Paintings*; *Basohli Paintings*; *Kangra Paintings of the Bhagavata Purana*, *Kangra Paintings on Love*; *Kangra Paintings of Gita Govinda*; *Beautiful Trees and Gardens*; *Farmers of India*; Punjabi: *Folk Songs of Punjab*; Hindi: *Folk Songs of Kangra*, *Kulu and Hariana*; Other Publications: Monograph on Zygnemaceae. *Address:* 7, Tinmurti Lane, New Delhi.

**RANGA, Prof. N. G.,** M.P.; Chairman, Swatantra Party; Leader, Swatantra Group, Lok Sabha, since 1959; Principal, Indian Peasants Institute, Nidubrolu. *b.* Nov. 7, 1900; *Educ.:* Oxford. Member, Congress Working Cttee., 1947-51; Ex-President, A.P.C.C.; Founder, Indian Peasant Movement; toured extensively in Europe and America spreading Gandhian philosophy and ideals; resigned from Congress, April, 1951; formed the Bharat Krishikar Lok Party, 1951; rejoined Congress, 1955; elected Gen. Secy., Congress Parliamentary Party; resigned on Co-operative Farming issue, 1959; became the leader of the Swatantra Party, June 1959, founded by Rajaji; presided over the first four conventions held in Bombay, Patna, Agra and Bangalore in 1959, 1960, 1961 & 1964 respectively. *Publications:* 20 books including *Economic Organisation of Indian Villages*, *Colonial and Coloured Peoples*, *World Role of National Revolution*, *Outlines of National Revolution*, *Peasants and Communists*, *Revolutionary Peasant*, *Towards World Peace*, *Credo of World Peasantry*, *Peasant and Cooperative Farming*, *Panchayat Landlordism Vs. Peasant Economy*. *Address:* Nidubrolu (Post).

**RANGACHARYA, Adya,** B.A. (Bombay) M.A. (Lond.), Playwright. *b.* Sept. 26, 1904; *Educ.:* Deccan Coll., Poona; School of Oriental Studies, London. Sanskrit Lecturer, Bombay Edn. Service, 1930–48; organised song and drama division in the Ministry of Information & Broadcasting, 1954–56; Drama Producer, A.I.R., Bangalore, 1956–59; Founder, Kannada Amateurs, Dharwar; Founder and First Pres., Natya Sangha, Theatre Centre, Mysore State; actively associated with Karnatak Unification and Karnatak Univ. movements; Pres., Kannada Sahitya Sammelan, etc.; *Publications:* 30 full length plays, more than 50 one-acts, original book on Gita, book on laughter and theory of humour (all in Kannada); book on the origin of Sanskrit drama (English); nine novels (Kannada) and many humorous essays, criticisms, reviews, etc.; Winner, play-wright Award, Central Sangeet Natak Akademi 1963. Pen-name 'SHRIRANGA'. *Address:* 381, 6th Main Road, Malleswaram, Bangalore 3.

**RANGANATHAN, Saurirajan,** M.A. (Madras), I.C.S., Comptroller and Auditor-General of India (due to take over in Aug. 1966). *b.* Nov. 12, 1908; *Educ.:* P. S. High School, Madras; and Presidency Coll., Madras; passed M.A., 1929. Indian Civil Service: U.P. Cadre; has been permanently deputed to the Govt. of India; was Secretary, Min. of Industry, Govt. of India. *Address:* Delhi.

**RANGANATHAN, Shiyali Ramamrita,** M.A., D.Litt. (Univ. of Delhi, 1948; Pittsburgh, 1964), L.T., F.L.A., Padma Shri, Educationist. *b.* 1892; *Educ.:* Madras Christian Coll.; Univ Coll., London. Mathematics Lecturer, Govt. Coll., Madras, 1917-24; Univ. Lib. and Prof. of Lib. Sc., Madras, 1924-44; Banaras, 1945-47; Prof. of Lib. Sc., Delhi Univ., 1947-55; Chairman, Doc. Comm. and Lib. Buildings Comm., Ind. Stand. Inst., since 1947; Chairman, U.G.G. Lib. Comm., 1958 and Courses Comm. in Lib. Sc., U.G.C., 1962; founded Sarada Ranganathan Chair of Lib. Sc., Madras Univ., 1957 and Sarada Ranganathan Endowment for Lib. Sc. (India), 1963; is Natl. Res. Prof. in Lib. Sc., 1965—and Hon. Prof., D.R.T.C., Bangalore, since 1962. *Publications: Preface to Lib. Science*, 1948; *Rural Adult Educ.*, 1949; *Lib. Development Plan for India*, 1950; *Rules for the Rendering of South Asian Names* (Prepared for UNESCO), 1953; *Lib. Administration*, 1959; *Social Science Research and Libraries*, 1961; *Documentation and its Facets*, 1963; *Colon Classification*, 1963; *Classified Catalogue Code*, 1964; etc. *Address:* Documentation Research and Training Centre, 112, Cross Road 11, Bangalore 3.

**RAO, Dr. Aragula Nagaraja,** B.Sc. (Mysore), M.Sc. (Calcutta), Dr. Ing. (Berlin), Padma Shri (Jan. 1958), Scientist; Adviser (Industry & Minerals) and Addl. Secy. (Ex-Officio), Planning Commission, since March 1964. *b.* Nov. 15, 1906; *Educ.:* Bangalore, Calcutta and Berlin. Chemical Adviser, then General Manager and Managing Dir., Eastern Chemical Co., 1944-50; Chief of Division, Industry, Trade and Transport, Planning Commission, 1950; selected for the I.A.S., 1948; Industrial Adviser (Chemicals), Min. of Commerce & Industry, June 1951; Chief Industrial Adviser and ex-officio Jt. Secy., Ministry of Commerce and Industry, Sept. 1954; Jt. Secy., Min. of Commerce & Industry, July 1958; Chairman, Heavy Engg. Corpn. Ltd., Ranchi, 1959-64. *Publicatons:* A number of papers dealing with both pure and applied physico-chemical problems and diverse aspects of sugar and other industries. *Address:* Planning Commission, Yojana Bhavan, New Delhi.

**RAO, B. Shiva,** M.A. (Allahabad) in English Literature, Member, University Grants Commission, since 1962. *b.* Feb. 26, 1891; *Educ.:* Madras and Allahabad. Was on the Indian Workers' delegation, I.L.O. Conference, Geneva, 1929-30; a delegate to the Round Table Conference in London, 1930-31; a member of the Indian delegation to the U.N. General Assembly in 1947, '48, '49, '50, '52; member: Constituent Assembly of India, 1946-50; Lok Sabha, 1952-57; Rajya Sabha, 1957-60. *Publications: India's Constitution in the Making*—A collection of Papers by the late Sri B. N. Rau (Allied Publications); *The Industrial Worker in India* (Allen & Unwin, London, 1939). *Address:* 85, Lodi Estate, New Delhi 3.

**RAO, Balantrapu Rajanikanta,** B.A. (Hons.), Sahitya Akademi Award for Telugu (1961-62), Playright, Programme Executive, A.I.R., Hyderabad, since 1960. *b.* Jan. 29, 1920; *Educ.:* Andhra Univ. Coll., Waltair; B.A. (Hons.), 1940. Sub-Editor, Andhra Pracharini Ltd., Kakinada, 1940-42; Staff-artist and Playright, A.I.R., Madras, 1942-44; Programme Officer, A.I.R., Madras, 1944-56; Programme Executive, A.I.R., Vijayawada, 1956-60; has also worked as composer of lyrics and music director in 'Swargasima', 'Grihapravesam', etc. *Publications: Satapatrasundari* (Lyrics) (Telugu Bhasha Samiti Award, 1952-53; *Andhra Vaggeya Karacharitram* (Central Sahitya Akademi Award in 1961-62); *Jejimamayya Patalu* (Songs for Children), 1962; *Viswavina* (Collection of 18 operas), 1964. *Address:* Programme Executive, All India Radio, Hyderabad.

**RAO, Banda Kanakalingeswara,** B.A., B.L., Drama Producer, All India Radio, Vijayawada. *b.* Jan. 20, 1907; *Educ.:* Noble Coll., Masulipatam; Law Coll., Madras. Practised as a lawyer till 1935; acted in Telugu films "Draupadi", "Sarangadhara", Balanagamma", "Kalachakram" and "Paduka". Later, took to stage career and formed a drama troupe "Prabhat Theatres, Eluru"; toured Eastern Europe, Soviet Union, etc., in a cultural delegation to study theatres, 1954. Received the Sangeet Natak Akademi Award for Acting on Stage in Telugu; solely responsible for the revival and propagation of the Kuchipudi Dance and founded a National Institute of Kuchipudi Dance at Kuchipudi Village; Founder Secy., "Sri Siddhendra Kalakshetram, Kuchipudi"; Director, Kalakshetram, Eluru; member, Central Sangeet Natak Akademi, New Delhi; Fellow of the State Sangeet Natak Academi. *Publications:* 58 Articles in leading papers and journals on Stage and Kuchipudi Dance; published volumes of Radio Plays and a Book on Kuchipudi Dance. *Address:* C/o All India Radio, Vijayawada.

**RAO, C. Balakrishna, M.A., I.C.S. (Retd.).** Writer and Journalist; Editor, *Madhyam* (Hindi Monthly). *b.* Dec. 27, 1913; *Educ.:* Allahabad Univ. and Christ Church, Oxford. Served in U.P., Vindhya Pradesh and Govt. of India until resignation in 1954; Provincial Press Adviser, U.P., 1941–42; Collector, Banda and Jaunpur, 1943–45; 1946–48; Chief Secy., Vindhya Pradesh, 1948–49; Dy. D.G., All India Radio, 1949; Dy. Secy., Ministry of I. & B., 1949–54; twice officiated as D.G., All India Radio and Jt. Secy., Ministry of I. & B.; visited U.S.A., 1949; toured Eastern Europe including Russia, Sweden and Denmark as member of a Writers' Delegation, 1957; Pres., Hindustani Academy, U.P.; Chairman, Kendriya Hindi Shikshan Mandal, Agra; member, Governing Council, Hindi Sahitya Sammelan, Allahabad; Mayor of Allahabad, 1961–62. *Publications:* Collections of poems (Hindi), *Kavi Aur Chhavi* (1947); *Raat Beeti* (1954); Verse translation of *Samson Aganistes* (*Vikrant Samson*) (1956); *Hamari Rah* (1957); *Ardhashati* (1964); translation of Milton's *Aeropagitica* (1965). *Address:* 'Amravati', 9, Tagore Nagar, Allahabad.

**RAO, Chandra Rajeswar,** Public Worker; Secretary, Andhra Communist Party. *b.* June 6, 1914 at Mangalapuram, Kistna Dt., Andhra Pradesh; *Educ.:* Hindu High School, Masulipatam; Banaras Hindu Univ.; passed I.Sc. and studied up to B.Sc.; joined Vizagapatam Medical Coll., 1936; discontinued. 1937. Joined the Communist Party, 1931 at Banaras; worked in Andhra in youth and peasant movements from 1936; member of Central Cttee., C.P.I., from 1948; General Secy., C.P.I., 1950-51. *Address:* Himayatnagar, Hyderabad.

**RAO, Devulapalli Ramanuja,** B.A. (Madras), LL.B. (Nagpur), Author. *b.* Aug. 24, 1917; *Educ.:* Nizam Coll., Madras; Law Coll., Nagpur. Literature, Education, Journalism and Politics; member, Osmania Univ. Senate (1954-56); Central Advisory Board for Education, Hyderabad Govt. (1952-55); Central Text Book Cttee. (1952-56); Selection Cttee. for Teachers of Hyderabad Govt. (1952-56); Secy., Andhra-Pradesh Sahitya Akademi, Hyderabad; Member, Rajya Sabha, 1960-62; Secy., State Cttee. for Tagore Centenary Celebrations, Andhra Pradesh (1960); member: Osmania Univ. Syndicate; AIR Advisory Cttee.; Modern Languages Dev. Cttee., Andhra Pradesh. *Publications:* Literary criticism

*Navya Kavitha Neerajanamu* (1946); *Saraswatha Navaneethamu* (1955); *Vyasa Manjoosha* (1956); Children's Literature: *Mana Desamu* (1954); *Adima Nivasulu* (1956); contemporary politics: *Visalandhra Vachindi* (1956); Literary Essays: *Navaneethamu* (1955); Poetry: *Pacha Thoranamu* (1961), etc. *Address:* Andhra Saraswatha Parishath, Tilak Road, Hyderabad 1.

**RAO, Dr. Kannru Lakshman,** B.E., M.Sc., Ph.D.(Birm.), M.I.C.E. (Lond.),M.I. Struct. E. (Lond.), M.I.E. (India), Padma Bhushan (1963), Minister of State for Irrigation and Power, Government of India, since July 1963. *b.* July 15, 1902; *Educ.:* Madras and Birmingham. Chief Engineer, Floods, Central Govt.; was engaged in the designs of most of the major river valley projects in the country; has visited most of the dams in Egypt, Europe, U.S.A. and China; Pres., National Cttee. of the International Conference on Soil Mechanics and Foundation Engineering; awarded the President's Gold Medal thrice for the best contributions to the Journal of Institution of Indian Engineers and Hon. D.Sc. degree by Andhra Univ.; Vice-Pres., International Conference on Soil Mechanics and Foundation Engineering; Pres., Institution of Engineers for 1959-60 and 1960-61; was Member (Designs & Research), Central Water and Power Commission, Govt. of India and Pres., Central Board of Irrigation & Power; elected to the Lok Sabha, 1962; was awarded Padma Bhushan, 1963. *Publications: Calculations, Designs & Testing of Reinforced Concrete;* contributed various articles for various technical institutions. *Address:* New Delhi.

**RAO, M. Anand,** C.E. (Hons.), M.I.E. (India), F.ASCE. M. Inst. T., M.I.C.E., Member (Engineering), Railway Board, since 1965. *b.* March 15, 1909; *Educ.:* Thomason Coll. of Civil Engineering, Roorkee. Appointed Asstt. Exec. Engineer, Jodhpur Rly. 1931; General Manager, 1948-52; Divl. Supdt., Northern Rly., 1952-58; Senior Dy. General Manager, Central Rly., Jan. to June 1958; Senior Dy. General Manager, Eastern Rly. 1958-59; Principal, Indian Rlys. Staff Coll., Baroda, 1959-60; Chief Engineer, N.E. Rly. 1960-61; led a study team to Nigeria deputed by the Government of India under the Special African Commonwealth Assistance Plan in June, 1961; General Manager: N. F. Rly. 1961-62; Nigerian Rly. Corporation (on deputation), 1962-63; Integral Coach Factory, Perambur, May-Aug. 1963. *Publications:* Report on the Bornu Extension Project and other works in the capital development programme of the Nigerian Railway Corporation; General Manager, North Eastern Railway, Gorakhpur, 1963-65. *Address:* Railway Board, New Delhi.

**RAO, Madapati Hanumantha,** D.Litt. (Osmania Univ., 1956), Padma Bhushan (1955), Ex-Chairman, Andhra Pradesh Legislative Council. *b.* Jan. 28, 1885; *Educ.:* Warangal. After his education, served under the then Nizam's Govt. for 14 years. Enrolled and practised as an Advocate of the former Hyderabad High Court for 24 years; was elected Mayor of Hyderabad consecutively for three terms, April 1951-April 1954; is popularly called "Andhra Pitamaha" for services rendered to Andhra public in Hyderabad State; Chairman, A. P. Leg. Council, July 1958-July 1964. *Publications:* Telugu: *History of Andhra Movement in Telangana;* Two collections of short stories named *Mallika Gucham* and *Malathi Gucham. Address:* Andhra Kutir, Hanuman Tekdi, Hyderabad.

**RAO, Mysore Subba,** B.A. (Mysore), I.C.S., Chairman, Hindustan Steel, Ltd., since Jan. 15, 1963; Director: Heavy Engg. Corpn., Ranchi, since Jan. 24, 1964; National Coal Development Corpn., since Dec. 26, 1964. *b.* Oct. 25, 1907; *Educ.:* Bangalore. Joined the I.C.S., 1931; held several posts in Orissa and Bihar till he became Chief Secy., Bihar, Aug. 1955; Additional member, Board of Revenue and Land Reform Commission, 1955-56; Ch. Secy., Govt. of Bihar, Aug. 1956-Nov. 1961; Dir. (Personnel), H.S.L., Nov. 1961-Jan. 1963. *Address:* Hindustan Steel Ltd., Ranchi (Bihar).

**RAO, Pandurangi Kodanda,** M.A. (Madras), has been Member, Servants of India Society, 1921-58. *b.* Dec. 25, 1889; *Educ.:* Presidency Coll., Madras. Private Sec. to Rt. Hon. V. S. Srinivasa Sastri in India, England and South Africa, 1922-32; Editor, *Servant of India,* Poona, 1930-33; Carnegie Scholar, Yale Univ., U.S., 1934-35; World Study Tour, 1934-37; Senate, Academic Council and Executive Council, Nagpur Univ., 1939-42 and 1948; Vice-President, Indian Council of World Affairs, New Delhi, 1954-57; Pres. of its Bangalore Branch; Member, Mysore Educational Reforms Cttee., 1952-53; member, Prohibition Enquiry Cttee., Govt. of India, 1955. *Publications: East* Versus *West; Denial of Contrast; Culture Conflicts; Cause and Cure; Rt. Hon. V. S. Srinivasa Sastri—Political Biography. Address:* "Aloha," Basavangudi, Bangalore 4.

**RAO, R. Krishna,** Diploma in Fine Arts—Painting, Instructor in Commercial Arts, Govt. School of Arts and Crafts, Madras, since 1948. *b.* Nov. 4, 1915; *Educ.:* Union Christian High School, Mathurai. Layout Expert, Deptt. of War Publicity, 1945; Textile Designer, 1946-48; his painting 'Street Scene' is in the National Art Gallery, Madras and at the National Gallery of Modern Art, New Delhi; three of his works have been acquired by Mysore State and one at Bharatiya Kala Bhavan, Banaras; six of his works have been acquired by Madras Govt.; commissioned to do a panel for the murals of Lok Sabha; has been influenced in his paintings of subjects of South Indian interest; participated in the All-India Art Exhibition; member, Exec. Board, Madras State Lalit Kala Akademi; Secy., Progressive Painters' Association; Madras. *Address:* 22, Trustpuram Major, Madras 24.

**RAO, S. V. Krishnamoorthy,** B.Sc., LL.B., Deputy Speaker, Lok Sabha, since April 23, 1962. *b.* Nov. 15, 1902; *Educ.:* Collegiate High Schools in Shimoga and Tumkur; Central Coll., Bangalore; Fergusson Coll. and Law Coll., Poona. Suffered imprisonment in the Quit India Movement, 1947; member; Mysore Representative Assembly, 1945-49; Constituent Assembly of India, 1947-50; Deputy Chairman: Council of States, 1952-54; Rajya Sabha, 1954-62. Leader, Parl. Delegation to U.S.S.R. and Yugoslavia, May-June 1955; visited U.K., West Indies, U.S.A., Canada and Japan on a study tour of Parliamentary Institutions, Jan. & Feb. 1959, and Ceylon, Singapore, Indonesia, Australia, Malaya and Burma, Sept.-Nov., 1959, Kenya and Uganda, Sept. 1960; Dy. Chairman, Rajya Sabha till 1962; leader, I.P.U. Delegation to Brazil, 1962. *Publications:* (In Kannada); *Satyagraha in South Africa, To the Women* by Gandhiji; *Discovery of India,* by Pandit Nehru; *Letters from Delhi; Life of Louis Pasteur;* (In English): *The Leftist Experiment. Address:* No. 10, Akbar Road, New Delhi.

**RAO, Dr. Vijayendra Kasturi Ranga Varadaraja,** M.A. (Bombay), B.A., Ph.D. (Cambridge), D.Litt. (Delhi), Member, Planning Commission, since May 1963; Chairman, Indian Institute of Foreign Trade, since July 1965; Director, Institute of Economic Growth, 1960-63 and ex-Vice-Chancellor, Delhi University. *b.* July 8, 1908; *Educ.:* Wilson College, Bombay; Gonville and Caius Coll., Cambridge. Director of Statistics and subsequently Planning Adviser, Food Dept., Govt. of India (1944-46); Chairman, U.N. Sub-Commission on Economic Development (1947, 1948, 1949, 1950); Corresponding Member, Institute de Science Economique Appliquee, Paris, since 1948; member, Univ. Professor and Founder Director, Delhi School of Economics, Univ. of Delhi, 1942-57. *Publications: Taxation of Income in India; An Essay on India's National Income,* 1925-29; *The National Income of British India,* 1931-32; *War and Indian Economy; Post-war Rupee. Address:* Planning Commission, New Delhi.

**RATAN LALL,** C.E. (Hons.) (Roorkee), General Manager, Central Railway, Bombay, since Dec. 18, 1961. *b.* March 1, 1909; *Educ.:* C.E. (Hons.) from Civil Engineering Coll., Roorkee, July 1930. Asstt. Traffic Supdt., East Indian Rly., July 7, 1931—June 7, 1942; promoted to senior scale, June 8, 1942; worked on the Howrah, Asansol, Moradabad, Lucknow and Allahabad divisions of the E. I. Rly.; Dy. Chief Operating Supdt. (Goods), 1948-52; Officer on Special Duty in connection with the integration of the former East Indian and Bengal-Nagpur Rlys., 1952; appointed Regional Traffic Supdt., Bilaspur, June 1952; Rly. Expert on the Indian delegation for negotiations with Russian team for setting up Bhilai Steel Plant, Nov. 1954; member, Pilot and Depot Capacities Cttee., 1954-55; Chief Operating Superintendent, Southern Rly., 1955-57; Director, Traffic (Transportation), Rly. Board, Nov. 1957-Aug. 1960; General Manager, N.E.F. Rly., Aug. 1960-Dec. 1961. *Address:* General Manager, Central Railway, Bombay 1.

**RATANJANKAR, Dr. Shrikrishna Narayan,** B.A., Doctor of Music, Padma Bhushan (1957), Music Composer. *b.* Dec. 31, 1899; *Educ.:* Bombay and Baroda; made a special study and practice of Hindusthani vocal classical music; was trained in music by prominent musicians like the late Pt. V. N. Bhatkhande, late Ustad Faiyaz Hussain Khan, etc. Principal, Bhatkhande Coll. of Hindustani Music, Lucknow, 1925-56; Vice-Chancellor, Indira Kala Sangeeth Vishwavidyalaya, Khairagarh, 1957-60; regularly signs at the A.I.R., Lucknow, Delhi and Bombay; has been examiner in music for B.A., M.A. and Ph. D., Univs. of Madras, Delhi, Nagpur, Agra, Saugar, Jabalpur, Vikram, Punjab and Kurukshetra; Vice-Chairman, Music Audition Board, A.I.R.; conducted music auditions at Colombo at the invitation of Radio Ceylon, 1949 and 1951. *Publications: Sangeet Shiksha* (2 parts); *Abhinava Geeta Manjari* (2 parts); *Tana Sangraha* (3 parts); *Hindusthani Sangeet Ki Swaralipi: Varna Mala. Address:* 10A, Hill View, Raghavji Road, Cumballa Hill Post, Bombay 26.

**RATNAM, His Excellency Mr. Perala,** M.A. (Madras), M.A. (Toronto), M.Sc. (Cantab.), Ambassador of India to Indonesia since Jan. 1965. *b.* July 1, 1911; *Educ.:* Univs of Andhra, Madras, Toronto and Cambridge (England). Appointed in the Senior Scale of I.F.S., April 1948; First Secy., Tokyo, 1948-50; Deputy Secy., E. A. Ministry, 1950-51; Trade Commissioner, Egypt, June 1951 to May 1953; First Secy., Canberra, June 1953 to August 1955; Counsellor, Moscow, Oct. 1955 to Dec. 1957; Joint Secy., E. A. Ministry, Jan. 1958 to June 1959; Amb. of India in Laos (Vientiane), 1959-61; Ambassador to Chile, Columbia and Peru, 1962-64. *Address:* C/o Ministry of External Affairs, New Delhi.

**RAU, Sir Benegal Rama,** Kt. (1939), C.I.E. (1930), M.A. (Cantab.), Ex-Governor, Reserve Bank of India. *b.* Jan. 10, 1889; *Educ.:* Presidency Coll., Madras, and King's Coll., Cambridge. Entered I.C.S., Nov. 1913; Under-Secy. and Dy. Secy., Govt. of Madras, 1919-24; Dy-Secy., Indian Taxation Cttee., 1925-26; Dy-Secy., Finance Dept., Govt. of India, 1926-28-Financial Adviser, Simon Commission, 1928-30; Jt. Secy., Industries Dept., Govt. of India, 1930-31; Secy., R.T.C. and Jt. Select Cttee. of Parliament on India Bill, 1931-34; Dy. High Commissioner in London, 1934-38; Agent-General and High Commissioner for India in the Union of South Africa, 1938-41; Chairman, Bombay Port Trust, 1941-46; Indian Ambassador in Tokyo, 1947-48; Leader

of Indian Delegation, Commonwealth Conference at Canberra, 1947; Indian Ambassador in U.S.A., 1948–49; Governor, Reserve Bank, 1949-57. *Address :* Mafatlal Park, Bombay 26.

**RAU, M. Chalapathi,** M.A., B.L., Editor, *National Herald*, Lucknow, since 1946. *Educ. :* Presidency Coll. and Law Coll., Madras. Advocate, Madras High Court, 1934; entered journalism, 1936; Asstt. Editor: *National Herald*, 1938-42; *Hindustan Times*, 1943-45; member, UNESCO Press Experts Commission, Paris, 1950; Co-Founder, International Press Institute, New York, 1950; Pres.: All India Convention of Working Journalists, New Delhi, 1950; Federation of Working Journalists, 1950-55; member: Press Commission, 1952-54; Official Goodwill Mission to China, 1952; UNESCO Experts' Conference on Journalism Education, Paris, 1956; Delegate, UNESCO General Conference, New Delhi, 1956; Representative, U.N. General Assembly, 1958; Delegate, UNESCO General Conference, Paris, 1960; Trustee, Jawaharlal Nehru Memorial Fund; Member, Cttee. on Broadcasting and Information Media. *Publications :* Co-Editor, Gandhiji, Seventy-fifth Birthday volume, 1964; Fragments of a Renovation, 1965. *Address : National Herald*, Lucknow.

**RAU, Nittoor Sreenivasa,** B.Sc., B.L., Central Vigilance Commissioner, New Delhi, since Feb. 19, 1964. *b.* Aug. 24, 1903; *Educ. :* A. V. School, Challakere; Govt. High School, Shimoga; Govt. Collegiate High School, Bangalore; Central Coll., Bangalore; Govt. Law Coll., Madras. Honorary Teacher, National High School, Bangalore, 1925-26 and 1927-28; Advocate, High Court, Bangalore, 1928-55; Advocate General, Mysore State, 1953-55; Judge, High Court of Mysore, Bangalore, 1955-61; Chief Justice of Mysore, 1961-63; acted as Governor of Mysore, Aug.-Sept. 1963. *Publications :* Co-translator into Kannada of Gandhiji's "Experiments with Truth" and commentary on the Gita (*Anasaktiyoga*). *Address :* 3, Dr. Rajendra Prasad Road, New Delhi.

**RAUT ROY, Satchidananda,** Padma Shri (1962), Poet and Writer. *b.* 1915, in Orissa; *Educ. :* Graduated, 1939. First to Introduce modern verse-forms in Oriya literature, ushered in a new era in the literature of Orissa; participated in the Harvard International Seminar of Arts and Science on invitation of Harvad Univ., 1955; represented India in Social Services Seminars held in Australia & New Zealand, 1952; visited on study and lecture tours of the South-East Asian Countries, and U.K., France, Italy, Switzerland, 1952; member, Delegation of Indian Writers & Journalists, U.S.A., 1962; was given National Sahitya Akademi Award in 1963 for his work "*Kavita*—1962". *Publications :* English: *The Boatman Boy and Forty Poems;* Poems and books on Industrial relations; *Reference : Sochi Raut Roy—A Poet of the People* written by 22 eminent persons of India; other works: *Swagata; Pandulipi; Baji Raut; Avignyan; Avijan; Bhanumatir Desa; Palli-Shri; Kavita*—1962. Short stories; *Masanir Fulla; Matir Taj; Chhai*, etc. *Address :* Managing Director, Orissa Board Mills Ltd., Meria Bazar, Cuttack 1.

**RAVAL, Anantrai Manishankar,** M.A., Ranjitram Gold Medal, 1955, Gujarati Writer; Director of Languages, Gujarat State; Member, General Council of Sahitya Akademi, Delhi. *b.* Jan. 1, 1912; *Educ. :* High School, Amreli; Samaldas Coll., Bhavnagar. Professor of Gujarati, Gujarat Coll. Ahmedabad, 1934-59; Principal, D. K. V. Coll., Jamnagar, 1959-60; Research Officer, Directorate of Languages, Gujarat State, 1960-64. *Publications : Sahitya-Vihar; Gandhakshat; Sahitya-Vivek; Sahitya-Nikash; Sameeksha;* Yearly reviews of the Gujarati publications of the years 1937, 1945, 1946, 1947; *Gujarati Sahitya* Part I, etc.; edited *Nalakhyana, Chandrahas Akhyana Madan-mohana, Sneh-mudra, Nanalal-Madhukosha, Kalapi-no-Kavya Kalap, Botadkar-ni-Kavya Sarita. Address :* 2, Sri Sadma Society, Navrangpura, Ahmedabad 9.

**RAWAT, Jagan Prasad,** B.Sc., LL.B., Minister for Public Works, Uttar Pradesh, since Oct. 1963. *b.* Aug. 18, 1904; *Educ. ;* B.Sc., LL.B. from Agra Coll., 1929. Took active part in the boycot of Simon Commission; imprisoned several times in the freedom movement; Secy.: Agra D.C.C., 1929-34; P.C.C., 1942-46; member: P.C.C., 1930-51 and 1957 to date; A.I.C.C., 1942-51 and 1961 to date; Standing Cttee., Newspaper Editors' Conference, 1940; Agrarian Reforms Cttee., Zamindari Abolition Cttee.; All India Co-operative Development and Warehousing Board; elected M.L.A., U.P., 1937-57; 1962 to date; Whip and Secy., Legislature Party, 1937-39; Parliamentary Secy., 1946-52; Deputy Minister for Agriculture and Police, U.P. 1952-57; member, Indian Agricultural Delegation to Russia and other European Countries, 1954; Chairman, Provincial Land Mortgage Bank, U.P., 1960-62. *Address :* Windsor Place, Havelock Road, Lucknow.

**RAY, Dr. Nihar Ranjan,** M.A., P.R.S. (Cal.), D. Litt. & Phil. (Leiden), Dip. Lib. (London), F.A.S. (Cal.), F.L.A. (Gr. Br.), F.R.A.S., F.R.S.A. (Lond.), Director, Indian Institute of Advanced Study, Simla, since June 1, 1965. Dean of the Faculty of Arts and Vice-President, Post Graduate College of Arts, Calcutta Univ., since 1959. *b.* Jan. 14, 1904; *Educ. :* A. M. Coll., Mymensingh; M. C. Coll., Sylhet; Univ. Coll., Calcutta; Univ. Coll., London; Univ. of Leiden. Chief Librarian, 1937-44; Lecturer in Indian History and Culture, 1931-44; Reader in Indian Art and Culture, 1944-46; member: Central Advisory Boards of Education, Archaeology and Anthropology; Sangit Natak, Lalit Kala and Sahitya Akademies, since 1960. Pres., Indian Library Assoc., since 1959; was Bagisvari Professor of Indian Art and Culture, Head of the Deptt. of Ancient Indian History and Culture. *Publications: Brahmanical Gods in Burma; Sanskrit Buddhism in Burma; Theravada Buddhism in Burma; Art in Burma; Dutch Activities in the East; Maurya and Sunga Art; Indian Painting; Indian Sculpture; An Introduction to the life and works of Rabindranath Tagore* (in Bengali); *A Peoples History of Bengal* (in Bengali) etc., etc. *Address :* 68-4A, Purna Das Road, Calcutta-29; Indian Institute of Advance Study, Rashtrapati Niwas, Simla.

**RAY, Smt. Renuka,** B.Sc. (Econ.) (London), M.P., member: A.I.C.C.; Exc. Cttee., Cong. Party in Parliament. *b.* Jan. 1904; *Educ. :* Loreto House School and Dioscesan Coll., Calcutta; London School of Economics, London University (1922-25). Member and Social Secy., All India Women's Conference, since 1931; member: Central Leg. Assembly, 1943-46; Central Board of Education, Govt. of India, 1941-47; Governing Body of Visva-Bharati Univ., Santiniketan, 1941-48 and since 1 May 1958; Constituent Assembly and provisional Parliament, 1948-52; Indian Delegate, U.N. General Assembly, 1949; Pres., All-India Women's Conference, 1952-54; Minister of Rehabilitation, Govt. of West Bengal, 1952-57, Member of Estimates Cttee., Lok Sabha; 1957–59; Chairman, Cttee. on School Health (Ministry of Health); re-elected from Malda (W. Bengal) to Lok Sabha, 1962; leader, Plan Projects Cttee. on Social Welfare; Chairman, Fly. Ping. Natl. Awards Cttee.; Pres., Women's Co-ordinating Council, W. Bengal. *Address :* 24/1, Ballygunge Circular Road, Calcutta 19.

**RAY, Satyajit,** B.A., Padma Shri (1958), Padma Bhushan (1965), Film Producer and Director. *b.* May 2, 1922; *Educ. :* Presidency Coll., Calcutta; Kalabhavan, Santiniketan; studied under Nandalal Bose for three years at Viswa-Bharati Univ., Santiniketan. Entered publicity business in Calcutta, 1942; started work on *Pather Panchali*, October 27, 1952 and finished in March 1955; won the maximum number of awards in foreign festivals in Europe and America for the picture *Pather Panchali;* won the 1959 Selznick award and the gold laurel trophy for his films *Pather Panchali* and *Aparajita;* won the 1963 Selznick's Golden Laurel for the non-American best film showing international understanding; his other films are *Aparajita, Apur Sansar, Paras Pathar, Jalsaghar* and *Devi;* a festival of his films was organised at Bombay by Virarts, June, 1960; awarded first prize for best film direction for his 'Charulata' by the Berlin International Film Festival, July 1965; often wrote on films in leading Western European film journals. *Address :* 3, Lake Temple Road, Calcutta 27.

**REDDI, Dr. Bezwada Gopala, D. Litt.,** M.P., Dy. Leader, Congress Parliamentary Party, since May 1965; Chairman, Children's Film Society. *b.* Aug. 5, 1907; *Educ. :* Viswa Bharati, Santiniketan, Pres.: Dakshina Bharat Hindi Prachar Sabha (A.P.); Telugu Bhasha Samiti, since 1947; Andhra Pradesh Sahitya Academy, since 1957; All India Chess Federation, since 1959; Hindi Assoc. of Parliament; Chairman: Finance Cttee. Central Sahitya Academi; member, A.I.C.C., since 1931; elected M.L.A., Madras, 1937-46; Minister for Local Administration, Govt. of Madras, 1937-39; Pres., Andhra P.C.C., 1953; Pro-Chancellor, Andhra Univ., 1951-57; Chief Minister, Andhra, 1955-56; Finance Minister, Madras, 1947; Home Minister, Andhra Pradesh, 1956; Finance Minister, A.P., 1957; elected M.P., Rajya Sabha, 1958-60; Lok Sabha, 1962; Minister of Revenue & Civil Expenditure, Govt. of India, 1958–61; Minister for Information & Broadcasting, 1962–63; resigned under the 'Kamaraj Plan', Aug. 1963. *Publications : Chitranguda;* has translated some books of Tagore into Telugu from original Bengali. *Address:* Buckireddipalen, Nellore Dt., Andhra Pradesh.

**REDDI, Dinnapati Sadasiva,** M.A. (Hons.) (Madras), M.A. (Hons.) (Oxford), Diploma in Anthropology (Oxon.), Vice-Chancellor, Osmania Univ., Hyderabad, since April 30, 1964; member, Univ. Grants Commission, since Aug. 1965. *b.* April 28, 1897; *Educ.* Madras Christian Coll., Madras; M.A. (Hons.), 1918; St. John's Coll., Oxford; M.A. (Hons.), 1921; Diploma in Anthropology, 1922. Joined the education service of Madras State, 1923; served in various capacities in the teaching and administrative branches; Director of Public Instruction, Madras, 1948–52; in Liberia as Head of the UNESCO Technical Assistance Mission, June 1952–May 1954; again D.P.I., Andhra, 1954-57; awarded the M.B.E. in 1940; Grand Commander of the Order of Star of Africa, 1954 (Liberia); Vice-Chancellor, Osmania Univ. 1957; D. Litt. (Hons.), Andhra Univ., Dec. 1960. *Address :* Vice-Chancellor's Lodge, Hyderabad 7.

**REDDI, Dr. (Smt.) S. Muthulakshmi,** M.B. C.M., Padma Bhushan (1956), Politician and social worker. *b.* 1886; *Educ. :* Madras Univ.; first woman medical graduate of the Univ.; won five gold medals and honours for distinction in medicine, surgery and midwifery. Gave up practice and devoted whole-heartedly to the emancipation of women and for the care and protection of children; Indian delegate to the International Conference of Women, Paris and America; associated with the Women's Indian Assoc. since its inception, 1917; is now its Pres.; was Pres. and Chairman, A.I.W.C.; presided over the Congress Contructive Workers' Conference during the last visit of Mahatma Gandhi, 1946; Founder and Dir., Avvai Home for Destitute Children and Women; Founder and Chairman, Cancer Institute, Madras; Vice-Pres., Madras Leg. Council, 1926-30. *Publications : Stri Dharma; Mrs. Margaret Cousins and her work in India; Maternity and Child Welfare; Women's Work*

*in Madras; My experience as a Legislator.* *Address:* "Shanti", 15, Besant Avenue, Adyar, Madras.

**REDDY, B. V. Narayana,** B.A. (Hons.), Treasurer, Swatantra Party; Chairman, Bangalore Cheshire Home, Bangalore. *b.* Jan. 4. 1900; *Educ.:* Madras Christian Coll.; B.A. (Hons.), 1922. Appeared for the Mysore Civil Service Exam., 1925 and appointed Probationer; confirmed as Asstt. Comptroller, State-Financial Service; services lent to the Bank of Mysore Ltd. as Deputy General Manager of the Bank, 1942; General Manager, 1943-58. *Publications:* Articles on financial and political affairs. *Address:* 8, Grant Road, Bangalore 1.

**REDDY, Mr. Justice Jaganmohan Pingle,** B.Com. (Leeds), B.A. (Law Tripos), LL.B. (Cantab.), Barrister-at-Law, Judge, High Court of Andhra Pradesh, since Nov. 1956. *b.* Jan. 23, 1910; *Educ.:* St. George's Grammar School, Hyderabad; City of Leeds School, Leeds; Univ. of Leeds; Trinity Hall, Cambridge; called to the Bar by Gray's Inn. Practised in the High Courts of Bombay, Madras and Hyderabad (1937-46); Legal Adviser to the Govt.-sponsored commercial undertakings (*viz.*, State Bank of Hyderabad, Deccan Airways Ltd., and the Hyderabad Commercial Corporation); Expert Member, Leg. Council for Income-tax and Company law; Addl. Judge, Hyderabad High Court (1948); Dist. & Sessions Judge, Secunderabad (1950-52); Puisne Judge, Hyderabad High Court (1952-Nov. 1956); Member of the Syndicate, Dean, Faculty of Law, 1952-59; Offg. Vice-Chancellor, Osmania Univ. (1959). *Publications: The Hyderabad Excess Profits Tax.* *Address:* Saifabad, Hyderabad.

**REDDY, Kasu Brahmananda,** B.A., B.L., Chief Minister, Andhra Pradesh, since Feb. 29, 1964. *b.* July 28, 1909. Member, A.I.C.C.; Andhra Univ. Senate; imprisoned, 1941 and detained, 1942; Pres., Guntur Dist. Board, 1936; Member, Madras Assembly, 1946-52; General Secy., Andhra Pradesh Congress Cttee. from March 1955; Finance and Planning Minister in Sanjiva Reddy cabinet; Finance Min., 1960-62; Min. for Finance & Cooperation, Andhra Pradesh, March 1962-Feb. 1964; unanimously elected leader, A. P. Legislative Congress Party, June 26, 1964. *Address:* 'Fairlawns,' Somajiguda, Hyderabad.

**REDDY, Kyasambally Chengalarya,** B.A., B.L., LL.D. Honoris Causa, Governor, Madhya Pradesh, since Feb. 11, 1965. *b.* May 4, 1902; *Educ.:* Pachaiyappa's Coll., and Law College, Madras. Pres., Mysore Peoples' Federation, 1935-37; was for some time Editor of *Janavani:* Pres., Mysore Congress, 1937-38 and 1946-47; was incarcerated four times; elected Pres., Mysore Congress and successfully launched Satyagraha for the establishment of Responsible Govt. in Mysore; elected Leader of the Assembly thrice since 1947 and was Chief Minister, 1947-52; member, Indian Constituent Assembly, 1947-50; elected again M.L.A., Mysore, 1952; member: Rajya Sabha; visited U.S.S.R. & Europe, on those Govt.s' invitation, Oct.-Nov. 1956; elected member, Lok Sabha, March 1957, 1962; member, Exec. Cttee., All-India States Peoples' Conference, 1944-45; Working Cttee., Mysore Congress, since 1937; Pres., Rashtrabhasha Prachar Samiti of Wardha, Delhi Centre, since 1952; Founder Member, Delhi School of Economics; Minister for Production, Govt. of India May 1952-April 1957; Minister for Works, Housing & Supply, 1957-61; Minister for Commerce and Industry, Govt. of India, 1961-63; Dy. Leader, Congress Party in Parliament, 1963-64. *Address:* Kyasambally Village P.O., K.G.F., Mysore State; Raj Bhavan, Bhopal.

**REDDY, N. Ramachandra,** B.A., Minister for Revenue, Andhra Pradesh, since March 12, 1962. *b.* Jan. 11, 1919; *Educ.:* Nagpur; was expelled from Osmania Univ., for participating in Vandematram movement. Held offices in District Congress Organisations; General Secy., Andhra Pradesh Congress Cttee., 1956-57; Minister for Agriculture, Andhra Pradesh, Jan. 11, 1960-March 11, 1962; Pres., Andhra Pradesh State Sports Council. *Address:* Begumpet, Hyderabad.

**REDDY, Neelam Sanjiva,** Minister for Transport, Aviation, Shipping and Tourism, Govt. of India, since Jan. 24, 1966. *b.* May 19, 1913; *Educ.:* Adyar; Arts College, Anantapur. Secretary, Andhra P.C.C., 1936-46; courted jail several times for participation in Satyagraha movement; elected M.L.A., Madras, on Congress ticket from Anantapur General Constituency, 1946; was Secy., Madras Congress Legislature; member, Indian Constituent Assembly, 1947; Minister for Prohibition, Housing and Forests, Madras, April 1949-April 1951; resigned and elected Pres., Andhra P.C.C.; was Exec. Cttee. member and Parliamentary Board member of A.I.C.C. till the Avadi Congress Session; elected member, Rajya Sabha in bye-election, 1952-53; elected member, Leg. Assembly from Kalahasthi Constituency, 1953 and 1955; unanimously elected Leader, Andhra Congress Legislature Party; became the first Dy. Chief Minister of Andhra State, Oct. 1, 1953; Dy. Chief Minister, Andhra, 1955-56; Leader, Andhra Pradesh Congress Legislature Party, Oct. 21, 1956; Chief Minister, Andhra Pradesh, 1956-60; Pres., Indian National Congress, 1960-62; Chief Minister, Andhra Pradesh, 1962-63; M.P. (Rajya Sabha); Min. for Steel and Mines, Govt. of India, June 1964–Jan. 1966. *Address:* New Delhi.

**REDDY, Mr. Justice P. Chandra,*** B.A., B.L., Chief Justice, High Court, Madras, since Nov. 23, 1964. *b.* July 1, 1904; *Educ.:* V. R. High School, Nellore; Pachaiyappa's Coll., Madras; Law Coll., Madras. Enrolled as an Advocate, Madras High Court, Aug. 1928; acted as Crown Prosecutor, 1946; Judge High Court, Madras, 1949-54; Chairman, Society for the Protection of Children, 1953-54; Judge, Andhra High Court, July 1954-Oct. 31, 1956; Judge, Andhra Pradesh High Court, Nov. 1, 1956-Jan. 30, 1958; Offg. Ch. Justice from Jan. 31, 1958 to June 15, 1958; Chief Justice, Andhra Pradesh High Court, Jan. 1958-Dec. 1964; acted as Governor of A.P. Nov. 20 to Dec. 19, 1963; Jan.-March 1966. *Publications:* Commentary on the Madras Hindu Religious Endowment Act and the Madras Estates Land Act, *Address:* High Court, Madras.

**REDDY, Ravi Narayan,** M.P. (Lok Sabha), Communist Leader. *b.* June 4, 1908; *Educ.:* Nizam Coll., Hyderabad. Discontinued college studies and joined the C. D. movement, 1930; one of the founders of the State Congress; joined Andhra Mahasabha, 1933; elected Pres. and presided over three open annual sessions, 1941, 1944, 1945; joined Communist Party, 1939; jailed twice, once as a Congressman, 1938 and as a Communist, 1951; was underground for five years; elected to the State Legislature, 1957; was Dy. Leader of the Opposition and Chairman, Public Accounts Cttee., Andhra Pradesh Leg. Assembly; elected M.P., 1962. *Address:* 3, Windsor Place, New Delhi.

**REGE, Purushottama Shivarama,** B.A. (Bombay), B.Sc. (Econ.) (Lond.), Marathi poet and writer; Principal and Professor of Economics, Elphinstone Coll., Bombay. *b.* Aug. 2, 1910; *Educ.:* Bombay and London; B.A. from Bombay, 1931; B.Sc. (Econ.) from London, 1934; *Publications:* Books on Scientific Method and Civics; Poems, Short Stories, Dramas and Novels. *Address:* Elphinstone Coll., Bombay 1.

**REU, Bisheshwar Nath,** Sahityacharya (1909), Mahamahopadhyaya (1942), Sanskrit Writer and Historian. *b.* July 2, 1890; *Educ.:* Jodhpur & Jaipur. Supdt., Archaeology & Sumer Public Library, Jodhpur; Examiner for M.A., Banaras Hindu Univ. 1942; Co-opted. as an expert for Ph.D. to the Research Degree Cttee. by Agra Univ., 1945; Corresponding Member to Historical Records Commission, 1938; its Associate member later; member, Cttee. to advise the Govt. of India about the management of the Archives of Indian States, 1947; Chairman, Mg. Cttee., Sumer Public Library, Jodhpur, Feb. 1951–May 1957. *Publications:* *Bharat-ke-Prachin Rajvansh* (Three vols.); *Raja Bhoj; Marwar-ka-Itihas* (Two vols.); *Rashtrakuton-ka-Itihas: History of Rastrakutas; Glories of Marwar and Glorious Rathors; Coins of Marwar; Rathod-Durgadas; Aryavidhanam* (Hindu Law); *Vishveshvar Smriti;* translated *Shaiv Sudhakar, Rigvedic India; The Arctic Home in the Vedas* and *Orion;* Other works: *Rigved-Par-ek-Aitihasik-Drishti; Rigved-ka-Samajik - Samskritik-aur - Aitihasik - Sar* - *Address:* Chandpol, Jodhpur.

**ROONGTA, Jagmohanlal Bilasrai,** Managing Director, Famous Cine Laboratories & Studios Ltd. since Aug. 1960. *b.* June 18, 1919; *Educ.:* Shri Marwari Vidyalaya, Sandhurst Road, Bombay. Joined business, 1937; elected Pres., Indian Motion Picture Producers' Assoc., Bombay for the years 1958-59-60; President, Assocn. of Studio Owners for 1963, 1964 and 1965. *Address:* 18, Samudra Villa, Darabshaw Road, off Nepean Sea Road, Bombay 26.

**ROY, Dr. Bhabesh Chandra,** B.Sc. (Hons.) (Cal.), A.I.S.M., D.I.C., M.Sc. (Lond.), Ex-Dr.-Ing. (Freiberg), Director-General, Geological Survey of India; member (Partition) O.N.G.C. (1964-65); Vice-Pres., Int. Union Geol. Sc. (1961-65); Secy. Genl. Int. Geol. Congress, New Delhi (1961-64). *b.* Aug. 1, 1907; *Educ.:* Calcutta Univ., Indian School of Mines, Imperial Coll. of Science and Technology, London Univ., Institute of Applied Geology, Nancy Univ. (France) and Freiberg Univ. (Germany). Joined the Geological Survey of India, 1937; Official Delegate: Int. Union Geol. Sc., Copenhagen (1962) and Rome (1963); member, ECAFE Team of Geologists in the U.S.S.R., U.K., France, West Germany and East Germany (1955); ECAFE Conferences, Tokyo (1955) and Kuala Lumpur (1958); studied Mineral Development in U.S.A. and Canada as a U.N. Fellow, 1957; UNESCO meeting, Bandung (1963) and Vienna (1964); Fellow, National Institute of Sciences of India; Pres.: Geology & Geography section of the Indian Science Congress (1957); Geol. Min. Met. Inst. Ind. (1958-59); Dir. Geol. Survey of India, 1958-61. *Publictions:* Author of about 45 scientific publications on Mineral Resources, etc. *Address:* Geological Survey of India, 27, Chowringhee, Calcutta 13.

**ROY CHOUDHURY, Birendra Kishore,** B.A. (Cal.), Author and Musician; Lecturer, Calcutta and Rabindra Bharati Univs.; A.I.R. Artist. *b.* Aug. 1, 1903; *Educ.:* Presidency Coll., Calcutta; awarded Bankim Chandra medal for being first in Bengali in B.A.; studied music under the last descendants of Mian Tansen; specialised in the instruments Veena, Rabab Surasringar and Vocal Dhrupad. M.L.A., Bengal, 1937; was M.L.C. during pre-partition days; active member of the Indian National Congress; Director, Hindustan Co-operative Insurance Society, 1935-55; member, Jadavpur Univ. Board; Central Music Audition Board, A.I.R.; Fellow, Sangeet Natak Akademi (Central), since 1964; Pres., Gouripur Industries P. Ltd. and Gouripur Music Trust and Natanarayani. *Publications:* *Hindusthan Sangeeta Tansenen Sthan; Permanent Settlement in Bengal; Uttar Bharatiya Sangeet Kala; Atmar Pragati; Indian Music and Mian Tansen,* etc. *Address:* 55, Ballygunge Circular Road, Calcutta 19.

**ROY, Pratap Kumar,** M.Sc., General Manager, Bennett, Coleman & Co., Ltd., Proprietors of The Times of India and Allied Publications. *b.* Dec. 8, 1921; *Educ.:* Presidency College,

* Is due to retire in July 1966.

Calcutta & Banaras Hindu University. Director, Press Trust of India and Audit Bureau of Circulations Ltd.; Trustee, Press Institute of India; Member, Executive Committee, Indian & Eastern Newspaper Society and Bombay Management Association. *Address:* Gitanjali, 75, Walkeshwar Road, Bombay 6.

**ROY, Miss Sudha,** B.A. (Calcutta), Trade Unionist; General Secy., United Trades Union Congress. *b.* Feb. 16, 1913; *Educ.:* Eden High School & Eden Intermediate Coll., Dacca; Ashutosh Coll., Calcutta; B.A., 1934. Became connected with trade union movement and also women's movement from 1933; attended the 3rd Congress of the W.F.T.U. at Vienna as a fraternal delegate from the Dock Mazdoor Union, Calcutta and the 3rd Congress of the Women's International Democratic Federation at Copenhagen as a fraternal delegate from Mahila Sanskritik Sammelan, 1953; visited different parts of U.S.S.R., Czechoslovakia & Hungary; attended the 5th World Congress of Women in Moscow as a delegate from N.F.T.W. in June 1963; Pres., Dock Mazdoor Union, Calcutta; member, Calcutta Dock Labour Board; Vice-Pres., National Federation of Indian Women; General Secy.: Loka Shiksha Parishad; Mahila Sanskritik Sammelan, Exec. Cttee. member, Water Front Workers' Educational Assoc. & Save the Children's Cttee. (India). *Address:* 153-A, Motilal Nehru Road, Calcutta 29.

**RUIA, Madanmohan Ramnarain,** B.A., Merchant, Banker and Millowner. *b.* Aug. 24, 1914: *Educ.:* Marwari Vidyalaya and St. Xavier's College, Bombay. Director: Ramnarain Sons Private Ltd., Phoenix Mills Ltd., United Commercial Bank Ltd., United Agencies Private Ltd., Bombay Oxygen Corpn. Ltd., Bajaj Auto Ltd., Baroda Rayon Corporation Ltd., Ramanarain Sons (Pakistan) Ltd., The Great Eastern Shipping Co. Ltd., Dawn Mills Co. Ltd., Century Spg. and Mfg. Co. Ltd., Mukund Iron & Steel Works Ltd., M. Ramnarain Private Ltd., etc.; Pres., F.I.C.C.I., 1959-60; East India Cotton Assoc. Ltd., Pres., Cotton Buyers' Assoc.; Trustee, Bombay Port Trust; member: Cotton Imports Advisory Cttee., Bombay, Customs Advisory Cttee., Cttee. of Indian Merchants' Chamber etc.; Leader, Indian delegation to Afro-Asian Economic Conference, 1958; Goodwill-cum-Trade Mission to Europe and U.S.A., 1959; International Businessmen's Conference, Karachi, 1960. *Address:* State Bank Building, Bank Street, Fort, Bombay

**RUIA, Radhakrishna Ramnarain,** B.A., Merchant and Millowner; Chairman, Millowners' Assoc., Bombay, since Sept. 1, 1963. *b.* 14th January, 1916; *Educ.:* Marwari Vidyalaya and St. Xavier's College, Bombay. Director: Ramnarain Sons Private Ltd.; Phoenix Mills Ltd.; Bradbury Mills Ltd.; Dawn Mills Co. Ltd.; United Agencies Pvt. Ltd., Kolhapur; Malabar Steamship Co. Ltd.; Ruia Industries Pvt. Ltd.; Radhakrishna Ramnarain Pvt. Ltd.; Kolhapur Sugar Mills Ltd., Kolhapur; Ramnarain Sons (Pakistan) Ltd., Karachi; Paper Mill Plant & Machinery Manufacturers Ltd., etc.; Member: Morarjee Gokuldas Spg. & Wvg. Co. Ltd.; Cooria Spg. & Wvg. Co. Ltd.; West India Chemicals Ltd.; Vice-Chairman, Indian Cotton Mills Federation; Chairman, Bombay Regional Committee on Maintenance of Machinery; Member, Governing Council of Bombay Textile Research Assoc. and on the Board of Management of V.J.T.I. *Address:* State Bank Building, Bank Street, Fort, Bombay 1.

**RUIA, Ramniwas Ramnarain,** Merchant, Banker and Millowner; Senior Director, Ramnarain Sons Private Ltd., Bombay. *Educ.:* Marwari Vidyalaya, Bombay and privately. Entered business at an early age; Director: Ramnarain Sons Private Ltd., Phoenix Mills Ltd., Finlay Mills Ltd., Gold Mohur Mills Ltd., Bank of India Ltd., Andhra Valley Power Supply Co. Ltd., New India Assurance Co. Ltd., Modern Family Planning Products Ltd. Syndicate Private Ltd. Trafford Cotton Co. Ltd., England, Dawn Mills Co. Ltd., Kolhapur Sugar Mills Ltd., National Machinery Mfrs. Ltd., Bradbury Mills Ltd., International Computers & Tabulators (India) Pvt. Ltd., Indoplast Ltd., Carona Sahu Co. Ltd., Synthetics & Chemicals Ltd., etc.; Chairman of Royal Western India Turf Club Ltd. Member, Assoc. of Indian Trade and Industry. *Address:* State Bank Building, Bank Street, Fort, Bombay.

**RUKMINI Devi,** Padma Bhushan (1956), recipient of the Sangeeth Natak Akademi's award for Bharatanatyam, ex-M.P., President, Kalakshetra International Arts Centre, Tiruvanmiyur, Madras; Chairman, Animal Welfare Board. *b.* 1904, Madura. Started dancing under the personal guidance of Anna Pavlova; conducted research in dance, music, drama; has specialised in Bharata Natya, Music drama, painting and crafts. Dramatic productions include *The Light of Asia; Incidents from the Life of Bhishma; Rukmini Swayamvaram* (Kathakali); *Kutrala Kuravanji* (Temple drama); *Kumara Sambhavam; Ramayana; Sita Swayamvaram;* Dance dramas: *Usha Parinayam; Kannappar Kuravanji; Sri Rama Vanagamanam; Paduka Pattabhishekam; Shyama; Andal Charitram; Gita Govindam* (Dance-Poem); *Kannappar Kuravanji & Rukmini Kalyanam* (addl. Compositions); Director: The Besant Theosophical School, Adyar; the Dr. V. Swaminatha Iyer Tamil Library; Pres., The Bharata Samaj; Head of the International Theosophical Centre, Huizen, Netherlands; Director, The Arundale Training Centre for Teachers, Tiruvanmiyur; Member, Exec. Board: Indian National Commission for Co-operation with UNESCO; Indian Council for Cultural Relations; Central Sangeet Natak Akademi. *Address:* Adyar, Madras 20.

**RUSSELL, James,** Associate and Member of the Institute of Bankers in Scotland, Manager, The Chartered Bank, Calcutta. *b.* June 14, 1916; *Educ.:* Hamilton Academy. Joined the Commercial Bank of Scotland, 1934; mobilised Territorial Army, Sept. 1939 and saw foreign service in Madagascar, Kenya and Uganda; demobilised, Feb. 1946 and granted the honorary rank of Major; recipient of the Territorial Decoration; joined The Chartered Bank, 1946; has served in Malaya and India having been stationed in Singapore, Penang, Bombay, Calcutta, Madras and Calicut. *Address:* 5, Raja Santosh Road, Alipore, Calcutta 27.

**SACHAR, Bhim Sen,** B.A., LL.B., High Commissioner for India in Ceylon and also concurrently Ambassador to Maldives, since Jan. 1966. *b.* Dec. 1, 1893; *Educ.:* Punjab University. Called to the Bar in 1918; joined N. C. Movement, 1921; Secretary, Punjab P.C.C., 1921; Municipal Commissioner, Gujranwala, 1924-33; elected M.L.A., Punjab on Congress ticket, 1936-47; leader, Congress Party, Punjab Leg. Assembly, 1940-47; Finance Minister, Punjab Govt., 1946-47; elected member, Constituent Assembly of Pakistan from West Punjab in 1947 and Deputy Leader of the Congress Party; leader, Congress Leg. Party, Punjab, India, April 1949; Chief Minister, Punjab, India, 1949 and 1952-56; Governor of Orissa, 1956-57. Governor, Andhra Pradesh, 1959-62. *Address:* C/o External Affairs Ministry, New Delhi.

**SADIQ, Ghulam Mohammad,** B.A., LL.B., Chief Minister, Jammu & Kashmir State since Feb. 28, 1964. *b.* 1912; *Educ.:* C. M. S. High School, Srinagar; S. P. Coll., Srinagar; Islamia Coll., Lahore and Muslim Univ., Aligarh. Elected member, first State Leg. Assembly, 1934; courted arrest in agitation against Government in 1938; Chairman, Muslim Conference when it resolved itself into the National Conference, 1939; elected Deputy Leader, National Conference Assembly party; acted as Head of Administration of the State during Sheikh Mohammad Abdullah's visit to U.N., Jan.-Feb. 1948; Development Minister, 1948-51; elected Pres., Jammu & Kashmir Constituent Assembly, Oct. 1951; Health and Education Minister, 1953-57; Founder Pres., Kashmir Cultural Congress; resigned from the Council of Ministers and the National Conference party, 1957 and formed the Democratic National Conference; was its Leader till its merger with the National Conference, 1961; Hon. Vice-Pres., Indian Society of International Law; member, National Defence Council, since July '64. *Address:* Gagribal, Srinagar, Kashmir.

**SAFRANI, H.E. Mr. Abid Hasan,** Ambassador of India to Senegal, since July 1964 and concurrently Ambassador to Upper Volta, since Nov. 1964 and to Mauritania, since 1965. *b.* 1911; *Educ.:* Berlin. Under Secretary, Ministry of External Affairs, March-May 1949; First Secy., Embassy of India, Cairo, 1949-50; Under Secy., Ministry of Ext. Affairs, 1950-51; First Secy.: Embassy of India, Peking, 1952-54; Embassy of India, Berne, 1954-56; Embassy of India, Baghdad, 1956-58; Counsellor, 1958-59; Consul General in Syria, Feb. 1959-61; Ambassador at Damascus, 1961-64. *Address:* c/o External Affairs Ministry, New Delhi.

**SAGARA, Piraji Chimanaji,** Artist. *b.* Feb. 2, 1931, at Ahmedabad; *Educ.:* Passed S.S.C. at Ahmedabad, 1952; studied fresco painting in Banasthali Vidyapith, Jaipur, 1958; Gold medal for the best work in oil, Calcutta: Fine Art Academy, 1960; Gold medal for the best work in Modern Art Calcutta; Fine Art Academy, 1961; First Prize, Gujarat State Art Exhibition, Surat, 1962; National Award, Lalit Kala Academy, New Delhi, 1963; his paintings have been kept in U.S.A. and Switzerland among private collections; his one man shows: Bombay 1964; Ahmedabad, by State Lalit Kala Akademi, 1964; Lalit Kala Akademi, Delhi has his paintings in its collections. *Address:* Khatriwad, Behind Vaishya Sabha, Ahmedabad 1.

**SAHAI, Mr. Justice Kamla,** M.A., B.L., Barrister-at-Law, Judge, High Court, Patna, since July 1953. *b.* Dec. 1, 1904; *Educ.:* Nalanda Collegiate School at Bihar Sharif, Banaras Hindu Univ., Patna Coll. and Patna Law Coll.; passed M.A., 1927 and B.L., 1928 from Patna Univ. Enrolled as an Advocate, July 2, 1928; called to the Bar from the Middle Temple, London, Nov. 1929. Started practice at the Patna High Court, Feb. 1930; part-time Lecturer, Patna Law Coll., 1936-43; Addl. Dist. & Sessions Judge, 1943-44; Dist. & Sessions Judge, 1944-53; Legal Remembrancer & Secy. to the Govt. of Bihar in the Law Department, May-July 1953. *Address:* Off Fraser Road, Patna-1.

**SAHAY, Bhagwan,** B.Sc. (Allahabad), Padma Bhushan (1961), Governor of Kerala State, since Feb. 1966. *b.* Feb. 15, 1905; *Educ.:* Univ. of Allahabad; School of Oriental Studies, London. Jt. Magistrate, U.P., 1929; Dy. Secy. to Govt., U.P., 1936-39; Supdt., Census operations, 1939-41; Secy., Indian Council of Agricultural Research, 1941-43; Joint Secy., Govt. of India, 1944-45; Commissioner, Food & Civil Supplies 1946-49; Chief Secy., U.P. Govt., 1949-51; Chief Commissioner: Himachal Pradesh, 1951-52; Bhopal, 1952-54; Indian Ambassador to Nepal, 1954-59; Chief Commissioner, Delhi, Dec. 1959-July 1963; Lt. Governor, Himachal Pradesh, 1963-65. *Address:* Raj Bhawan, Trivandrum.

**SAHAY, Krishna Ballabh,** B.A. (Hons.), Chief Minister, Govt. of Bihar, since Oct. 2, 1963. *b.* Dec. 31, 1898; *Educ.:* St. Columba's Coll., Hazaribagh; Patna Coll. and Patna Law Coll.; passed B.A. with distinction;

awarded gold medal for being 1st in English Honours. Joined N.C. Movement, 1920; courted jail for his political activities, 1930, '32, '33, '40 and '42; Parliamentary Secy., Bihar Cabinet, 1937; Minister for Land Revenue, Bihar, 1946-57; piloted the Bihar Zamindari Abolition Bill, 1948; Min. for Co-operation & Planning, Bihar, 1962-63; elected leader, Bihar Legislative Congress Party, Sept. 24, 1963. *Address:* 155, Chhajubagh, Patna.

**SAHAY, Vishnu,** B.Sc. (Allahabad), I.C.S., Governor of Assam, since Sept. 7, 1962, and Governor of Nagaland, since Dec. 1, 1963. *b.* November 22, 1901; *Educ.:* Allahabad and Oxford. Deputy Commissioner; Registrar, Co-operative Societies; Director of Agriculture, Uttar Pradesh; Director-General, Food; Secy., Ministry of Food, 1947-49; Secy. for Kashmir Affairs; Secretary, Govt. of India, Ministry of Food and Agriculture, 1951-53; Secretary for Kashmir Affairs and Labour Secy., 1953-57; Acting Governor of Assam Nov. 1960-Jan. 11, 1961; Cabinet Secy., Govt. of India, 1958-62; member, Planning Commission, 1962. *Address:* Raj Bhawan, Shillong (Assam).

**SAHGAL, Dr. Bhagat Ram,** Social Worker; President: United Nations Citizen's Forum (India), Indian Council for Social and Cultural Development, etc. *b.* Jan. 1, 1900; *Educ.:* Lahore. Took active part in the freedom movement; worked hand in hand with Lala Lajpatrai and Mahatma Gandhi; worked hard for the removal of untouchability; travelled extensively in many parts of the world to preach his mission of universal brotherhood; spoke in foreign countries on the basic aspects and concepts of Indian culture and civilization to counteract the nefarious propaganda in Miss Mayo's "Mother India", 1926–33; founded the Vedic Churches of Love in Catomonor, Pieter Maritzburg, South Africa, Singapore, Malaya, London and various other places; is Pres., Board of Control, Adarsh Mahila Maha Vidyalaya; takes active interest in the Visva Yoga Bharati, Borivli. *Publications: A Message to the Universe; Bible of the East. Address:* 34, Raja Gardens, New Delhi 15; Visva 'Yoga' Bharati, Vallabhnagar, Borivli, Bombay 66.

**SAIT, H.E. Mohomad Sulaiman,** B.A., (Hons.) (Oxon.), B.C.L. (Oxon.), Bar-at-Law, Ambassador of India to Philippines. *b.* 1911. Bombay High Court, 1936-39; Asbestos Cement Ltd. Bombay, 1940-43; Deputy Director, Ministry of Industries and Supplies, 1944; Addl. Dy Textile Commissioner, Ministry of Industry & Supplies, 1945-46; Director, Ministry of Industries and Supplies, 1946-47; Secretary to Chief Commissioner, Delhi, 1947-48; joined Indian Foreign Service in Oct. 1948; First Secy. (Commercial), Embassy of India, Tehran, 1949-50; First Secy. Legation of India, Stockholm, 1950-54; Embassy of India, Addis Ababa, 1954-56; Dy. Secy., Min. of Ext. Affairs, 1956-58; Counsellor, Embassy of India, Paris, 1958-60. Consul-General of India, Saigon, 1960-62. *Address:* C/o External Affairs Ministry, New Delhi.

**SAIYIDAIN, Dr. Khwaja Ghulam,** B.A., M.Ed., Doctor of Letters (Honoris Causa), Aligarh, 1962; Visiting Professor of Education, University of Wisconsin, U.S.A.; was Secretary and Educational Adviser to the Govt. of India. *b.* Feb. 14, 1904; *Educ.:* Univ. of Aligarh and Leeds (England). Educational Adviser to Rampur Govt., 1945-47, to Bombay Govt., 1947-50; Joint Educational Adviser to Govt. of India, 1950-61; Pres., International New Education Fellowship, London, since 1956; Visiting Professor and Sachs Memorial Lecturer at Columbia University; Educational Adviser, Kashmir Govt., 1961-62; Visiting Professor of Education, Stanford University, 1964; member, Indian Educ. Commission, 1964-66. *Publications:* (English and Urdu) *The School of the Future; Principles of Education; Iqbal's Educational Philosophy; Problems of Educational Reconstruction; Education for International Understanding; Education, Culture and the Social Order; Education of the National Character; Aandhi Men Chiragh; Man in the Modern World; Faith of An Educationist; Universities and the Life of the Mind; Humamist Tradition in Indian Educational Thought. Address:* New Delhi.

**SAKSENA, Ram Bahadur,** M.A., (Econ.), M.A. (Persian), LL.B., I.A.S., Chief Secretary, Govt. of Manipur. *b.* Jan. 14. 1925; *Educ.:* Alligarh; Allahabad. Served in the following capacities: District Planning and Development Officer, Faizabad; City Magistrate, Varanasi; Addl. District Magistrate, Allahabad; Joint Director of Industries, U.P.; Deputy Commissioner, Nainital, U.P.; Addl. Commissioner, Sales-Tax, U.P. *Address:* Chief Secretary, Government of Manipur, Imphal.

**SAMBAMOORTHY, P.,** B.A., B.L., Fellow Sangeet Natak Akademi (1964), Writer; Professor of Musicology, S. V. Univ, Tirupati, since Nov. 1964. *b.* Feb. 14, 1901; *Educ.:* Madras Christian Coll., Madras Presidency Coll. and Madras Law Coll.; studied Western music at Munich Univ. and State Academy of Music, Munich, Germany. Lecturer in Indian Music, Queen Mary's Coll. ,Madas, 1928-37; joined the Deptt. of Indian Music, Univ. of Madras, Aug. 1937; retired as Reader and Head of the Dept. of Indian Music, Feb. 1961; Director, Sangita Vadyalaya, Madras, 1961-64. *Publications: Dictionary of South Indian Music and Musicians; South Indian Music Books* 1-5; *History of Indian Music; Aids to the Teaching of Music; Great Composers; Great Musicians; Elements of Western Music for Students of Indian Music:* Descriptive catalogue of Musical Instruments in Madras Museum; *Sruthi Vadyas: Laya Vadyas. Address:* Professor of Musicology, Sri Venkateswara Univ., Tirupati; 116, Santhome High Road, Mylapore, Madras 4.

**SAMPURNANAND, Dr.,** B.Sc. (Alld.), L.T. (Allahabad), Governor of Rajasthan, since April 1962. *b.* Jan. 1, 1891; *Educ.:* Queen's College, Banaras; Training College, Allahabad. Headmaster, Dungar Coll., Bikaner, 1918-21; was Editor, *Today* (Eng. Daily now defunct) and *Maryada* (Hindi monthly); Professor, Kashi Vidyapith 1922; Member, A.I.C.C. since 1922; thrice Secy., U.P.P.C.C.; Pres.: second All-India Socialist Conference, Bombay; 29th Hindi Sahitya Sammelan, Poona Session, 1940; Minister for Education, U.P. Govt., 1938-39; Education, Finance and Labour, U.P., 1946-51; Home and Labour, U.P., 1951-54; Chief Minister, U.P., Jan. 1955-Dec. 1960; resigned, Dec. 1960. *Publications:* Thirty-five books in Hindi and Sanskrit on political, historical and philosophical subjects, and in English on Politics and Philosophy; received Mangala Prasad prize of Rs. 1,200 for his book 'Samajavada' (Socialism). *Address:* Jalipa Devi, Banaras; Raj Bhawan, Jaipur.

**SAMSON, Rear Admiral Benjamin Abraham,** The Flag Officer Commanding, Indian Fleet, since Jan. 1964. *b.* Sept. 25, 1916; *Educ.:* Training Ship "Dufferin". Dufferin Cadet 1932-34; passed with distinction obtaining an extra 1st class certificate and winning the Viceroy's Gold Medal; joined the Merchant Navy and served for 5 years; commissioned in the Royal Indian Navy, Sept. 23, 1939; was Indian Naval Adviser in the U. K.; Chief of Personnel, Naval Hq.; Commanding Officer, I.N.S. Delhi and Captain Supdt., Naval Dockyard, Bombay; promoted Rear Admiral and appointed Commandant, National Defence Academy, Dec. 1958; completed a course at the Imperial Defence Coll., U. K., 1963. *Address:* C/o Fleet Mail Office, Bombay.

**SANJIVAYYA, D.,** B.A., B.L., Minister for Industry, Govt. of India, since Jan. 24, 1966. *b.* Feb. 14, 1921; *Educ.:* B.A. from Govt. Arts Coll., Anantapur; B.L. from Madras Law Coll. Enrolled as an Advocate, 1950; joined the Congress and was elected to Parliament from the Madras Legislature as a Congress nominee; elected M.L.A. (Madras) from Kurnool Reserved Constituency as a Congress candidate in the general elections, 1952; Minister for Co-operation and Housing, Govt. of Madras, 1952-54; Minister for Planning, Labour & Public Health, A. P., 1953-54; Min. for Transport, Taxes, Law & Coop., A. P., 1954-56; Min. for Cooperation, Social Welfare & Religious Endowments, Andhra Pradesh, 1956-60; Chief Min., 1960-62; President Indian National Congress, 1962-63; Min. for Labour and Employment, Govt. of India, 1964-66. *Address:* New Delhi.

**SANKALIA, Dr. Hasmukh Dhirajlal,** M.A., LL.B., Ph.D. (London), Prof. and Head of the Dept. of History and Joint Dir., Deccan Coll. Post Graduate and Research Institute, Poona. *b.* Dec. 11, 1908; *Educ.:* Elphinstone High School; St. Xavier's Coll. and Law Coll., Bombay; Univ. Coll., London; Bhagwanlal Indraji Prizeman (1933), Silver Jubilee Medal, Bombay Branch, Royal Asiatic Society (1944). Conducted excavations and explorations in prehistory and early history relating to Gujarat, 1941–42, 1944, 1945, 1947–49, Maharashtra, 1945–46, 1950–51, 1953–54, 1954–60, Karnatak, 1949, 1956, Madhya Pradesh, 1952–53, '57–59, '65, Andhra, 1960, Mysore 1964–65. *Publications: Rajasthan,* 1962; *The University of Nalanda; Archæology of Gujarat; Historical Geography & Cultural Enthnography of Gujarat; The Godavari Polœolithic Industry; Excavations of Brahmapuri* (Kolhapur); *Excavations of Maheshwar and Navdatoli; From History to Pre-history of Nevasa; Indian Archæology Today; Pre-history and Proto-history in India and Pakistan* and *Stone Age Tools: Their Techniques and Probable Functions* and over 100 papers on Indian History, Epigraphy, Iconography and Pre-history. *Address:* Deccan College Research Institute, Poona 6.

**SANKAR, R.,** B.A., B.L., Ex-Chief Minister, Kerala State. *b.* March 30, 1908; *Educ.:* B.A. from Science College, Trivandrum; B.L. from Law Coll., Trivandrum. Started practice at Quilon Dist. Court; joined the State Congress struggle, 1939; was imprisoned; General Secy., State Congress, 1940-44; was Secy. and Pres., S.N.D.P. Yogam; nominated to the Franchise & Delimitation Cttee. in 1946 and Reforms Cttee. in 1947; elected to the Travancore Leg. Assembly, and to the Indian Constituent Assembly, 1948; was member, Travancore Devaswam Board; was Pres., K.P.C.C.; Dy. Chief Minister, Kerala, 1960-62; Chief Minister, Kerala 1962-64. *Address:* C/o. Secretariat, Trivandrum.

**SANYAL, B. C.,** Painter, Sculptor; Ex-Professor and Head of the Art Deptt., Delhi Polytechnic, 1952-61. *b.* April 22, 1904; *Educ.:* Calcutta Univ.; Govt. School of Art, Calcutta. Member, Central Board of H.S. Education; travelled extensively in Russia, Poland, Hungary etc. as leader of the Artists' delegation, 1955-56; visited important art galleries, museums and institutes in U.S.A. under the leaders and specialists exchange programme of U.S.A. Govt., 1959; visited Canada on a lecture tour under the auspices of the Canadian Council for Co-operation with UNESCO, 1959; Netherlands to study Dutch painting and culture, 1959 and Nepal under the Colombo Plan to advise on art education; works represented in Art Museums in foreign countries and in India; Secy., Lalitkala Akademi. *Publications:* Articles on Art in journals, newspapers and for radio broadcast. *Address:* B-15, Nizamuddin East, New Delhi.

**SANYAL, Probodh Kumar,** Bengali Author, Playwright and Journalist. *b.* July 7, 1905; *Educ.:* Scottish Churches School & City Coll., Calcutta. Imprisoned during N.C., 1922;

Associate Editor, *Jugantar*, 1937–41; travelled extensively in India, Burma, Tibet, Pakistan and Soviet Union; awarded first prize as the best scenario-writer, 1942-52; Pres., All-India Bengali Literary Conference, Agra, 1956, Burma 1957; Delegate, Afro-Asian Writers' Conference at Tashkent, 1958; member, Indian Cultural Delegation to Pakistan, 1957; Nepal, 1960; again visited U.S.S.R. on invitation by the Soviet Writers' Union Board, 1959; visited Germany, England & France on invitation by Govts. and Cultural organisations, 1962; travelled Austria, Switzerland and Italy; Founder-Pres., Calcutta Himalayan Association. *Publications:* 94 books comprising fiction, travels, dramas, anecdotes, etc.; *Mahaprasthaner Pathe* and *Devatatma Himalaya* (forewords by Tagore and Jawaharlal Nehru). *Address:* 6, Ballygunge Terrace, Calcutta 19.

**SARABHAI, Ambalal,** Industrialist & Company Director. *b.* Feb. 25, 1890; *Educ.:* Gujarat College, Ahmedabad. Joined business, 1908; Director, Karamchand Premchand Private Ltd., Managing Agents of Calico Mills; Director: Bank of India Ltd., Bombay; also Director of Bakubhai & Ambalal Ltd., London with branch in New York under the name of Sarabhai Agencies and of Kampala General Agency (1942) Ltd., Kampala; was Pres., Ahmedabad Millowners' Assoc. and member, Ahmedabad Municipality; awarded by the former British Govt. Kaiser-i-Hind Gold Medal which he returned on arrest of Mahatma Gandhi in 1930; travelled extensively in India and abroad. *Address:* The Retreat, Shahibag, Ahmedabad.

**SARABHAI, Smt. Bharatidevi,** B.A. (Hons.) (Bom.) and (Oxon.), English and Gujarati Poet and Playwright and Theatre Organiser. *b.* July 31, 1912; *Educ.:* Home School, Bombay and Oxford Univs. Professor of Indian Research and Culture, Post-Graduate Institute (B. J. Institute of Learning & Research, Ahmedabad); Principal, Shreya Coll., Gujarat Univ., 1955–61; Pres., Theatre Centre, India, affiliated to the I.T.I. of UNESCO, 1960; Hon. Secy., Gujarat Univ. Commission (at first unofficial and then appointed by the Govt.), 1945–47. *Publications: The Well of the People* (a poetic drama); *Two Women: Be Nari* and *Ghar Lakhoti* (in Gujarati). *Address:* Shahibag, Ahmedabad 4.

**SARABHAI, Dr. Vikram Ambalal,** M.A., Ph.D. (Cantab.), Physicist; Professor of Cosmic Ray Physics, Physical Research Laboratory, Ahmedabad. *b.* Aug. 12, 1919; *Educ.:* Gujarat Coll., Ahmedabad; St. John's Coll., Cambridge; Cavendish Laboratory. Did research for five years on cosmic radiation under Sir C. V. Raman, N. L., at the Indian Institute of Science, Bangalore; member: National Planning Council; Pughwash Continuing Cttee.; Governing Body of the Council of Scientific & Industrial Research (CSIR), New Delhi; Senate, Academic Council and Syndicate of Gujarat Univ.; Central Advisory Board of Education Ministry of Education, Govt. of India; Court of Governors, Administrative Staff College of India, Hyderabad; Dir.: The Ahmedabad Mfg. & Calico Ptg. Co. Ltd.; Anil Starch Products Ltd.; Tata Chemicals Ltd., etc. *Chairman:* Indian National Cttee. for Space Research of the Dept. of Atomic Energy; Consultative Group on Potentially Harmful Effects of Space Experiments, set up by the Cttee. on Space Research; Sarabhai Merck, Ltd., Baroda; Suhrid Geigy Ltd., Baroda, etc.; Suhrid Geigy Trading Ltd., Bombay; Swastik Oil Mills Ltd., Bombay; Std. Pharmls. Ltd., Calcutta; Hon. Director, Indian Institute of Management, Ahmedabad. *Publications:* Several publications in Physical Review, Nature, Physical Society of London, and Proceedings of the Indian Academy of Sciences. *Address:* "Chidambaram", Ahmedabad 13.

**SARAIYA, Ramanlal Gokaldas,** B.A., B.Sc., Padma Bhushan (1963), J.P., Cotton Merchant and Chairman, Narandas Rajaram & Co. Pvt. Ltd., Bombay, since 1961. *b.* Jan. 16, 1898; *Educ.:* B.A., B.Sc. (Bombay Univ.); took post-graduate course in Chemical Engineering in England and diploma of City and Guilds of London Institute in oils and fats and also in soap manufacturing; elected Fellow of the Chemical Society, London. Vice-Pres., Indian Central Cotton Cttee., 1947-52; Pres.: Indian Merchants' Chamber, 1950; F.I.C.C.I., 1953-54; Leader, Indian Delegation to the International Cotton Advisory Cttee., 1948, 1949, 1950, 1960 and 1964, at Cairo, Brussels, Washington, Mexico City and Frankfurt respectively: Chairman, 22nd plenary Session of I.C.A.C., Bangalore; Hon. Advisor to the Govt. of India on Export Promotion, Bombay; Chairman: Maharashtra State Road Transport Corporation, Cotton Textile Fund Cttee., New Standard Engg. Co. Ltd.; etc.; Director: Central Board of the Reserve Bank of India, Hind Cycles Ltd., Bagalkot Cement Co. Ltd., Tata Chemicals Ltd., etc.; member; Cotton Advisory Board, Export-Import Advisory Council, the Cttee. of the F.I.C.C.I., Central Cotton Cttee., Reserve Bank's Standing Advisory Cttee. on Agricultural Credit, Textile Commissioner's Advisory Cttee., etc. *Address:* Vasant Vihar, 85, Nepean Sea Road, Bombay 6.

**SARASWATHI BAI, Smt. C.** Harikatha Performer. *b.* Dec. 15, 1896, in Gooty; *Educ.:* Madras; studied under Pandit Krishnachar of Tanjore; attained profic ency in Tamil, Telugu, Kanarese, Marathi, Hindi and Sanskrit even at a young age. Is one of the pioneers in Harikata field with over 50 years of experience; toured all over India, Burma, Ceylon and Far East; honoured by many Rajas and Nawabs of former States; conferred several awards, a few of which are Kirtanapatu by Lokamanya B. G. Tilak at Poona, 1920; Sangita Ratna by Bharath Dharma Maha Mandal, Kasi, 1938; Sangita Kala Sikhamani, by Indian Fine Arts Society, Madras, 1956; honoured as the best exponent of Harikatha by the Tamiland Sangeetha Nataka Sangham, 1962; Fellow of the Sangitha Natak Academy, by the President of India, 1964. *Address:* 17, 7th Main Road, Raja Annamalaipuram, Madras 28.

**SARKAR, Mr. Justice Amal Kumar,*** Barrister-at-Law, Chief Jutsice, Supreme Court of India, since 16th March, 1966. *b.* June 29, 1901; *Educ.:* Scottish Churches and Bangabasi Colleges; Univ. Law College. Practised as an advocate in the High Court, at Calcutta. Judge, Calcutta High Court, Jan. 24, 1949-March 1957; Judge, Supreme Court, 1957-66. *Address:* 34, Aurangzeb Road, New Delhi.

**SARKAR, Ranadhir Chandra Sarma,** M.A., LL.B. (Cal. Univ.), Gold medals, Prizes etc. from Cal. Univ. & won medals in many debating competitions, Secretary, Ministry of Law (Legislative Dept.), Govt. of India, since Aug. 1, 1960. *b.* Feb. 1, 1908; *Educ.:* City Coll. School, Scottish Churches Coll. and Presidency Coll., Calcutta. Lecturer in Economics, 1934; joined West Bengal Civil Service (Judicial) 1935 and served in various capacities; joined Ministry of Law, Govt. of India, 1949; Deputy Secy., 1949; Addl. Draftsman, 1950–57; Joint Secy., 1957–60; represented India at an International Conference held in Palermo (Italy) on constitution of new states; Editor, Calcutta Univ. Institute Magazine. *Address:* 1, King Georges Avenue, New Delhi.

**SARMA, Siddhinath,** B.Sc., B.L., Minister for Revenue, Forests, Transport and Political, Sufferers' Depts., Assam. *b.* May 18, 1891; *Educ.:* Cotton Collegiate High English School, Cotton Coll., Earle Law Coll., Gauhati. Joined Gauhati Bar, 1924; Accommodation Secy., A.I.C.C. Pandu Congress Session, 1926; Secy.: Gauhati D.C.C. 1926-37; Assam P.C.C., 1937-50; its Pres., and member, Congress Working Cttee., 1950-52; member, A.I.C.C. for several terms; imprisoned five times for participating in the Congress movement; was Vice-Chairman and Chairman for two terms, Gauhati Local Board; was Chairman, Gauhati School Board; M.L.A., Assam, since 1937; Dy. Chief Whip, Assam Congress Leg. Party, 1937-46; elected Dy. Leader, Assam Cong. Leg. Party, 1952; Minister for P.W.D., Irrigation, etc., 1952-57; again Pres., Assam P.C.C.; re-elected M.L.A., Assam, 1962. *Address:* Shillong.

**SARMIENTO C., H.E. Mr. Eduardo,** Engineer (Lima Univ.), Ambassador of the Republic of Peru in India, since 1964. *b.* Sept. 5, 1904; *Educ.:* Lima, Peru and The United States of North America; Univ. of Lima Engineers and Univ. of Portland, Oregon, U.S.A. Vice-Consul of Peru in New York, U.S.A., 1930-32; Consul in Portland, Oregon, U.S.A., 1933-42; Consul General in Africa, Chile, 1943.; Chief of Deptt. Europe and Asia, Ministry of External Affairs en Lima, Peru, 1944; First Secy., Embassy of Peru, Mexico, 1945; Consul General in: Amsterdam, Netherlands, 1946-48; Antwerp, Belgium, 1949-50; Director, Min. of Ext. Affairs, Lima, Peru, 1951-62; Minister Plenipotenciary of Peru in India to initiate diplomatic relations, 1963. *Address:* Ashoka Hotel, New Delhi.

**SASTRI, B. S. Krishnamurthy,** Musician; Principal, Kalakshetra, Adyar, Madras. *b.* April 28, 1896; *Educ.:* Learnt vocal music under his father Sri Sethurama Sastrigal; took training in vocal music from Konerirajapuram Sri Vaidyanatha Iyer; learned gottuvadyam from Sri Muthia Bhagavathar; has been giving concerts continuously for the last 50 years; awarded by the President a shawl, a gold *shrinkal* and a sanad in recognition of his service to the cause of instrumental music, April 1958; Sangeet Kalanidhi Title conferred by Music Academy, Madras, on Jan. 1, 1964; Visiting Prof. Karnatic Coll., Madras. *Address:* 27, Urur, Adyar, Madras 20.

**SASTRI, Yajnaswami Mahalinga,** B.A. (History), M.A. (Sanskrit), B.L., Kavi Sarvabhauma by H. H. Sri Kanchi Kamakoti Peethadhipati (1957), Kavi Sekhara by the Mylapore Sanskrita Academy (1957), Jnana Bhaskara by H. H. Swami Sivananda (Feb. 10, 1958), Sanskrit Writer. *b.* July 31, 1897; *Educ.:* Findlay Coll., Mannargudi; Presidency Coll. and Law Coll., Madras; M.A. privately. Lawyer, 1920-34; Principal, Oriental Coll., Dharamapuram, 1946-55. *Publications:* Sanskrit (Prose, Poetry and Drama): *Bhasakatha Sara; Kinkini Mala; Vyajokti Ratnavali; Desikendra Stavanjali; Vana Lata,* etc.; *Sringara Naradiyam* (Prahasanam); *Pratiraja Suyam; Udgatr Dasananam Ubhaya Rupakam Adikaoyodayam* (Natakams), *Stuti Pushpopahara, Bharati Vishada* (Poems); a set of Sanskrit Readers, etc.; Tamil Novels: *Namonru Ninaikka; Mappillai Thazhan;* short stories: *Mappillai Album;* English Journalist and Reviewer. *Address:* Sahitya Candra Sala Tiruvalangadu, *Via* Narsingampet, Tanjore Dist., Madras State.

**SATHE, Dr. Ramchandra Vishwanath,** M.D. (Bombay), M.R.C.P. (Lond.), elected Fellow of Royal College of Physicians, London, Ex-Vice-Chancellor, Bombay Univ.; Pres., Diabetic Assoc. of India; Hony. Director of Post-graduate Studies in Medicine and Emeritus Prof. of Medicine, Grant Medical Coll., Bombay; Consulting physician. *b.* Nov. 28, 1905; *Educ.:* Elphinstone High School, Elphinstone Coll. and Grant Medical Coll., Bombay; London; won several scholarships, J. J. Gold Medal for Clinical Medicine and Hewlett prize for Hygiene. Member: Medical Council of India and its Post-graduate Medical Education Cttee., Maharashtra (Bombay Area) Medical Council; Senate and Faculty of Medicine, Univ. of Bombay; Health Survey and Planning Cttee., Govt. of India; New York Academy of Sciences; Indian Medical Assoc. delegate, World Medical Education Conference at Chicago and World Medical

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Assoc. session at Montreal, 1959; Pres., Ind. Med. Assoc., 1962; World Medical Assoc., 1962-63. *Address:* Nagindas Mansion, Girgaum Road, Bombay 4.

**SATPATI, Smt. Nandini,** M.A., Deputy Minister for Information and Broadcasting, Government of India, since Jan. 24, 1966. *b.* 1930. *Educ.:* Orissa. Is an author of short stories and essays in Oriya published in magazines and periodicals; has been a political and social worker; was for some time Secretary, Orissa Girl Students' Assoc. and Orissa Women's Relief Cttee.; was member, Orissa State Council for Education of Women and Girls; Convener, Women's Deptt., Utkal P.C.C., since 1960; elected to the Rajya Sabha, 1962; was once associated with the Communist Party of India. *Address:* Ministry of Information and Broadcasting, New Delhi.

**SATWALEKAR, Madhav,** G.D. Arts, Artist. *b.* Aug. 13, 1916. *Educ.:* Completed Painting course in Sir J. J. School of Arts, Bombay; took G. D. Arts, 1935; later studied in Italy at Florence and at the Slade School, London. Since his return to India has had several exhibitions in Bombay and Delhi; spent a year in East Africa painting that country, 1949: has painted portraits of the Pres. and Vice-Pres. of India and others; visited Europe, 1963 to study new art trends and latest methods of art training; held exhibitions in Berlin and Zurich; Pres., Federation of Art Institutions; was Chairman of the Bombay Art Society. *Address:* "Hasman", 89, Warden Road, Bombay 26.

**SAVANT, Parshuram Krishnarao,** B.A., LL.B., Minister for Agriculture, Food and Civil Supplies, Maharashtra State, since June 22, 1965. *b.* June 8, 1908, at Mirya, Ratnagiri Dist.; *Educ.:* Primary & Secondary at Ratnagiri; Higher at Bombay. Practised as a lawyer in Bombay till 1940; became a full-time Congress worker, 1940; member, Bombay Municipal Corpn., 1939-46; Gen. Secy., Bombay Municipal Congress Party; was Chairman, Markets and Gardens Cttee., was a member, B.P.C.C. and its General Secy., for some time; was member, Bombay State Road Transport Corpn., Bombay, the Labour Welfare Board, etc.; elected M.L.A., Bombay, 1946; Parliamentary Secy., Bombay Govt., 1946-48; resigned to enter into the trade union movement; since then had been Pres., Rashtriya Mill Mazdoor Sangh, Bombay; had been Pres., Bombay branch of INTUC, Treasurer, INTUC (Central) and Pres., All India Textile Workers' Federation; Adviser, Workers' Delegation to the I.L.O., Geneva, 1954; is member: Exec. Cttee., Maharashtra Congress Cttee.; A.I.C.C.; Min. for Agriculture, Maharashtra, 1960–62; Min. for Public Health, Maharashtra, March-Nov. 1962; Dy. leader, Cong. Leg. Party & Min. for Home, 1962-63; Min. for Agriculture, 1963-65. *Address:* Sachivalaya, Bombay 32.

**SCHLUMBERGER, H.E. Dr. Georg,** LL.D. (Vienna), Austrian Ambassador to India and concurrently Minister to Ceylon and Nepal. *Educ.:* Vienna University. Held diplomatic assignments in Berne, Strassbourg, Luxembourg, London. *Address:* Austrian Embassy, 3A, Nyaya Marg, Chanakyapuri, New Delhi.

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**SEHGAL, Amarnath,** B.Sc., M.A. (Art. Ed.) (U.S.A.), Sculptor; Art Consultant to the Govt. of India, since May 1955. *b.* Feb. 5, 1922; *Educ.:* B.Sc. from Govt. Coll., Lahore, 1941; M.A. (Art. Ed.) from New York Univ., U.S.A., 1950. Held one man shows of sculptures in New York, 1950-51, Paris, 1952 and East Africa and India; won sculpture award for 1957; "To space unknown" a bronze, exhibited at P.M.'s house in honour of Yuri Gagarin, world's first cosmonaut; commissioned to decorate Vigyan Bhavan with sculpture relief, won President's award (gold plaque) of Lalit Kala Akademi for his sculpture 'Cries Unheard", 1958; 'Sculpture voice of Africa', presented to Dr. Nkrumah, P.M. of Ghana, 1959; 'A Cricketer' statue presented by Indian P.M. to Pakistani team, 1961; one man sculpture exhibition at Military Museum, Belgrade, 1964; Pauls Krishe Frankfurt/Main, West Germany, 1964; Museum of Modern Art, Paris, 1965; Haus Am Lutzoplatz, West Berlin, 1965. *Publications: Arts and Aesthetics; Organising Exhibitions in Rural Area. Address:* C/o Ministry of Community Development, Govt. of India, Krishi Bhavan, New Delhi.

**SEHGAL, Mrs. Zohra,** Eurythmics Diploma, Associate of Drama Board, B.D.L. (Lond.), Sangeet Natak Akademi Award for Acting (1963), Actress, B.B.C. Sound and Television. *b.* April 27, 1912; *Educ.:* Queen Mary's Coll., Lahore, Mary Wigman's School of Dance, Dresden. Danced in Uday Shankar's ballet in India, Malaya, Burma, Indonesia, Middle East, Europe and America, 1935-38; Organiser and Teacher, Uday Shankar's Culture Centre, Almora, 1938-43; Co-Director, Zoresh Dance Institute, Lahore, 1943-45; leading Actress and Dance Director, Prithvi Theatre, Bombay, 1945-59; has also acted in and directed dances for eleven films; Vice-Pres., I.P.T.A., Bombay, 1949; Principal, Natya Academy, New Delhi; Dance Director, Hindustani Theatre; Dance Critic, *Shankar's Weekly*, 1959-62; acted in nine television plays; invited by U.S.S.R., Germany and Czechoslovakia to lecture in Indian dance and drama, 1962; taught at Ramgopal's School of Dancing and appeared with him at Queen's Theatre, London. *Publications:* Articles in magazines. *Address:* 14, Lyndhurst Gardens, London, N.W. 3.

**SEKSARIA, KUDILAL,** Industrialist and Millowner. *b.* 1928, in Bombay. Is the Chairman of several commercial and industrial concerns, namely, Govindram Brothers Private Ltd.; The Indore Malwa United Mills Ltd.; Seksaria Sugar Mills Private Ltd., etc., etc.; is vitally interested in the biggest group of Textile Mills of the country, namely, The India United Mills Ltd.; has been taking active interest in the Management of this Company as Director for several years; liberally donates to several charitable institutions; runs numerous educational institutions like Commerce & Science Colleges, Technical Institutes under Shri Govindram Seksaria Charity Trust, of which he is the Chairman; takes keen interest in philosophy and has been supporting publications and research on Hindu religion and culture. *Address:* 74, Marine Drive, Bombay.

**SEMA, Hokishe,** Minister for Finance and P.W.D., Nagaland, since Dec. 1, 1963. *b.* March 6, 1921 in Mokokchung Dist.; *Educ.:* Matriculation from Mokokchung Govt. High School, 1947; Intermediate Arts from Serampore Coll., West Bengal, 1949; B.A. from St. Anthony Coll., Shillong, Gauhati Univ., 1956; Pres., Sema Students' Union, 1942–52; Sub-Inspector of Schools for Sema and Lotha Tribes, 1952–55; Political Asstt. to Dy. Commissioner, 1956–58; Asstt. Commissioner, 1958; about 1,000 hostiles with 200 rifles surrendered due to his pursuasion; Pres., Sema Public Organisation, 1958–60; member, Select Cttee. and Drafting Cttee., Naga People's Convention; elected member, Interim Body, Nagaland, 1961 from Sema area and subsequently elected to the Assembly, Nagaland in 1963. *Address:* Kohima.

**SEN, Asoke Kumar,** M.P., Ex-Minister for Law, Govt. of India. *b.* Oct. 10, 1913. Joined the revolutionary movement in Bengal at the early age of fourteen; is an active member even now of Satirtha Sangha; was under police surveillance, 1931-35; passed M.A. with 1st class in Economics, 1935; passed M.Sc. in Economics from London School of Economics, 1939; was called to the Bar from Grays Inn, 1941; while in England, joined the India League; participated in the campaign for Indian independence. Enrolled as Advocate, Calcutta High Court, 1941; became one of the leaders of the bar; Junior Standing Counsel to the Govt. of West Bengal, 1950-56; India's delegate to the 10th Assembly of the U.N., 1955; has been Editor, *Calcutta Law Journal;* elected M.P. from Calcutta North West constituency as a Congress candidate, 1957; Min. for Law, Govt. of India, 1958-66; led the U.N. Conference on the Law of the Sea in Geneva in 1958 and 1960; leader, Indian Delegation to the U.N. Seminar on human rights held in Tokyo in May 1960; represented India at the Nigerian Independence Celebration, 1960; visited Hungary and Czechoslovakia on invitation, 1962; visited Egypt and Ghana, Dec. 1962 to present India's case on the question of Sino-Indian border dispute; Author of Handbook of Commercial Law; has started Samaj Seva Samities all over Calcutta and West Bengal. *Address:* C/o Ministry of Law, New Delhi.

**SEN, Binay Ranjan,** Director-General, Food and Agriculture Organization of the United Nations, since Nov. 1956. *b.* Jan. 1, 1898; *Educ.:* Calcutta and Oxford Univs. Director of Civil Evacuation, Bengal, 1942-43; Relief Commr., 1942-43; Director-General, Food, Govt. of India, 1943-46; Secy. to the Govt. of India, Dept. of Food, 1946; Minister to the Embassy of India in the U.S.A., 1947-50; Indian Ambassador to Italy and Yugoslavia, 1950-51 and 1953-54; Indian Ambassador to the U.S.A., 1951-52; Member, Indian Delegation to the General Assembly of U.N., 1947; Agriculture Secy. to the Govt. of India, 1948; Head of Jt. Mission of F.A.O. and E.C.A.F.E. in the Far East to study agricultural development plans; Head of the Indian Delegation to: E.C.O.S.O.C. (Economic and Social Council of the U.N.), 1949 and 1953; Annual Conference of the F.A.O., 1949 and F.A.O. Council, 1950, '51, '53; Indian Ambassador to Japan, 1955-56. *Address:* F.A.O., Rome, Italy.

**SEN, Boshi (Basiswar),** B. Sc. (Calcutta), Padma Bhushan (1957), Wattumull Award for Agriculture, 1962. Fellow, A.A.A.S., Ind. Bot. Soc., N.A.S.I., Scientist; Director, Vivekananda Laboratory, Almora. *b.* Nov. 1887; *Educ.:* Calcutta Univ.; research with Sir J. C. Bose, Bose Institute, Calcutta; London Univ.; Strangeways Laboratory, Cambridge; Marine Biological Laboratory, Plymouth and New York Univ., New York. Joined J. C. Bose for research, 1911; accompanied him in his world lecture tour as a Special Asstt., 1914-15; visited Universities in Japan, U.S.A. and England, 1923-24; founded the Vivekananda Laboratory in Calcutta for research in General Physiology; joined the short course of Peaceful Uses of Atomic Energy at Oak Ridge, U.S.A., 1955 and attended the First International Conference in Geneva; Member: Am. Bot. Soc.; Am. Soc. of Agro. and Crop Sci.; Am. Soc.

of Pl. Physiology Farady Soc.; Physiol. Soc. of G.B.; Pres., Indian Soc. of Pl. Physiol. for 1961. *Publications :* A large number of scientific papers in Indian, British and American Journals. *Address :* Kundan House, Almora, U.P.

**SEN, Mr. Justice Kamalesh Chandra,** B.A. (Hons.), M.A., LL.B., Judge, Calcutta High Court, since Nov. 16, 1959. *b.* Dec. 1, 1904; *Educ.:* Krishnagar Coll., Presidency Coll., Calcutta Univ. Post-graduate and Univ. Law Coll., Calcutta; B.A. (Hons.), 1925; M.A., 1927. Passed B.L. with I Class. Practised as Advocate, Calcutta High Court, 1931–34; entered the Bengal Civil Service (Judicial), as a Munsif, March 18, 1935; held several judicial posts both in the lower and higher judicial service; Deputy Secy., Judicial Deptt., West Bengal, 1954; Registrar, Appellate Side, Calcutta High Court, 1955-59. *Address :* 1, Lansdowne Terrace, Calcutta 26.

**SEN, Mihir Kumar,** B.Sc., LL.B., Barrister-at-Law, Padma Shri, Swimmer. *b.* Nov. 16, 1928, at Purulia (West Bengal); *Educ.:* Ravenshaw Collegiate School and Ravenshaw Coll., Cuttack, Orissa; called to the Bar from Lincoln's Inn, Nov. 1954; read in the chambers of Mr. D. N. Pritt, Q.C., London. Set up practice at Calcutta High Court, May 1956; as the first Indian ever, made a bid to swim the English Channel; swam the Channel from England to France on 26th/27th Sept. 1958, as the first Indian and only Asian, with a time of 14 hours 45 minutes, then the fourth fastest in this direction on record; name entered in the Black Books of Lincoln's Inn—in recognition of his achievement; swam Palk Strait, a distance of 22 miles between India and Ceylon in 25 hrs. 36 min., April 6, 1966, the first Indian to do this; founder, Explorers' Club of India, Calcutta. *Address :* Bar Library, Calcutta High Court, Calcutta.

**SEN, Nakul,** B.A. (Hons.), I.C.S., Secretary, Ministry of Petroleum and Chemicals (Deptt. of Chem.), since Aug. 1, 1964. *b.* Aug. 14, 1910; *Educ.:* Govt. High School and Hindu Coll., Delhi. Joined the I.C.S., Sept., 1935; starting as Asstt. Commissioner, held several posts till he became Jt. Secy., Min. of Reh., July 20, 1949; Jt. Secy., Oct. 1, 1951; Offg. Secy., May-Aug., 1953 and May-Sept., 1954; Commr., Jullundur Divn., Jan. 17, 1955; Chief Secy. to the Govt. of Punjab, Jan. 4, 1956; Financial Cmmr., Revenue, and Secy., Revenue, Excise and Taxation, Forests and Game Preservation Deptts., Nov. 18, 1957; on deputation to the G.O.I. as Jt. Secy., Min. of Transport and Communication (Deptt. of Transport) upto Feb. 28, 1961; O.S.D. in the Ministry of Industry & Commerce upto April 4, 1961; Chairman & Mg. Dir., Indian Drugs & Pharmaceuticals Ltd., 1961-64. *Address :* Central Secretariat, North Block, New Delhi.

**SEN, Nikhil Ranjan,** D.Sc. (Cal.), Dr. Phil. (Berlin), F.N.I., Scientist. *b.* May 23, 1894 at Dacca; *Educ.:* Govt. Schools at Dacca, Rajshahi; M.Sc. from Presidency Coll., Calcutta, 1916; Munich and Berlin Univs. Appointed Post-graduate Lecturer in Applied Math., Calcutta, 1917; studied in Germany and France, 1921–24; Pres., Calcutta Mathematical Society, 1935–57; member, National Cttee. for India, International Mathematical Union; Prof., Applied Maths., Calcutta Univ., 1922–59. *Publications :* Original contributions in Indian and foreign journals on cosmology and theory of turbulence. *Address :* 58A, Block D, New Alipore, Calcutta 53.

**SEN, Paritosh,** Diploma from Madras School of Art, Painter; Senior Lecturer for Typography, Design & Layout, School of Printing Technology, Calcutta, since 1956. *b.* Oct. 18, 1918; *Educ.:* Madras School of Art; Paris. Art Master, Daly Coll., Indore, 1940-49; practised as a painter in Paris, 1949-54; exhibited in London and Brussels; Senior Art Master, Bihar Govt.'s New Public School in Neterhat, 1954-56; visited Europe on a study tour; held exhibitions in London. *Address :* 162/39, Lake Gardens, Calcutta-45.

**SEN, Prafulla Chandra,** Chief Minister, West Bengal, since July 9, 1962. *b.* 1897 in a village of Sahabad Dist., Bihar; *Educ.:* Sasharam, Buxar and Deoghar; B.Sc. from the Scottish Church Coll., Calcutta; was articled to a firm of Incorporated Accountants. Joined the Non-co-operation Movement and went to Hooghly Dist. as a teacher, Hooghly Vidyamandir; took a leading part in the mass Civil Disobedience movements organised in the years 1930, 1932 and 1942 in Arambagh Sub-division of Hooghly Dist.; courted jail several times; worked for Dwarkeshwar flood relief in Arambagh, 1922; started Khadi centres in many villages of Arambagh and settled there; elected M.L.A., West Bengal, on Congress ticket from Khanakul Constituency with an overwhelming majority, 1962. *Address :* Calcutta.

**SEN, Dr. Sachin,** M.A., B.L., Ph.D., Editor, *The Indian Nation* (daily), Patna and former President, All-India Newspaper Editors Conference; Life member, Patna Univ. Senate. *b.* Nov. 1902; *Educ.:* Dacca and Calcutta. Some time Asstt. Secy., British Indian Assoc., Calcutta, and Lecturer, Vidyasagar Coll., Commerce Deptt.; acted as Secy. to Sir P. C. Mitter during the 2nd Round Table Conference in London, 1931; made extensive study tours in the U.S.A., Germany and Japan after the Second World War. *Publications : The Political Thought of Tagore; An Introduction to Science of Economics; Studies in the Land Economics of Bengal; The Birth of Pakistan; The Press and Democracy,* etc. *Address : The Indian Nation* Office, Patna.

**SEN, Salil Chandra,** B.Sc. (Engg.) (Hons.) (Glasgow), Principal, Delhi College of Engineering (formerly Delhi Polytechnic), since 1949. *b.* April 12, 1909; *Educ.:* Presidency Coll., Calcutta; B.Sc. (Engg.) (Hons.) from Glasgow Univ., 1932. Asstt. Engr., Calico Mills, Ahmedabad, 1935-39; Chief Engineer, Dhakeshwari Cotton Mills, Narayanganj, Dist. Dacca, 1939-41; Vice-Principal, Delhi Polytechnic, Delhi, 1941-49. *Address :* Kashmere Gate, Delhi 6.

**SEN, H.E. Mr. Samar,** B.A. (Cal.), B.Sc. (Lond.), I.C.S., Kaiser-i-Hind (1943), Padma Shri (1957), Ambassador of India in Jordan, Kuwait & Lebanon and High Commissioner to Cyprus, since Dec. 1964. *b.* Aug. 10, 1914; *Educ.:* Bengal, London & Oxford. Entered I.C.S., 1938; held several posts in Bengal, 1939-46; selected for Indian Political Service, 1946; Under-Secy., Dept. of Ext. Affairs, Govt. of India; Liaison Officer, Govt. of India to the U.N., New York, 1946–48; Dy. Secy., Ministry of Ext. Affairs and Commonwealth Relations; Head of Chancery, High Commission of India in London; Dy. Secy. (Ext. Affairs) in Charge of External Publicity 1951–53; Consul General in Switzerland (Geneva) and Indian Rep. to the International Organisation at Geneva, 1953–55; Chairman, International Commission, Laos, 1955–57; Joint Secy., Ministry of Ext. Affairs, 1957–59; High Commissioner in Australia and New Zealand, 1959-62; Ambassador to Algeria, 1962-64. *Address :* C/o Ministry for External Affairs, Govt. of India, New Delhi.

**SEN, Dr. Samar Ranjan,** Ph.D. (Dacca), Ph.D. (London), Adviser (Programme Admn.) and Addl. Secretary, Planning Commission. *b.* July 2, 1916; *Educ.:* Calcutta Univ., 1935-37; Dacca Univ., 1937-39; London Univ., 1945-47. Took part in Independence Movement, 1932 & 1942; Leader, Indian Agricultural Delegation to U.S.S.R., 1954; Chairman, Cttee. on Commodity Problems, and Tech. Cttee. on Economics of F.A.O., 1956-Director, F.A.O. Farm Management Centre, 1957; Chairman: Jute Inquiry Cttee., 1957; ECAFE/FAO Expert Group on Agricultural Planning, 1960; Pres., All-India Agricultural Economics Conference, 1958–59; Vice-Pres., Indian Society of Agricultural Statistics; Delegate, U.N. Conference on Science and Technology, 1963 and U.N. Conference on Trade and Development, 1964; Chairman, Sugar Enquiry Commission, 1965; Economic & Statistical Adviser, Govt. of India, 1950-58. *Publications ; Economics of Sir James Stuart; Employment and Money; The Strategy for Agricultural Development,* etc. *Address :* 20, Lodi Estate, New Delhi 3.

**SEN, Mr. Justice Sudhanshu Bhushan,** M.A., LL.B., Judge, High Court, Madhya Pradesh, Indore, since April 1959. *b.* Benda-Kalia (Pak.), Oct. 1, 1910; *Educ.:* Zilla School, Khulna; Govt. Coll. Krishnagar; Scottish Church Coll., Calcutta; M.A from Morris Coll., Nagpur; LL.B. from Nagpur Univ. Started practice in Nagpur, 1936; enrolled as an Advocate, Nagpur High Court, 1939; Public Prosecutor, Nagpur, 1952–55; Government Advocate, High Court, Nagpur, 1955; transferred to the High Court at Jabalpur in the same capacity, and served in that capacity till 1959. *Address :* High Court, Indore.

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**SHAH, M. L.,** J.P., Prominent businessman and industrialist of Calcutta; Commissioner for the Port of Calcutta. *b.* August 1894. Partner in the firm of Managing Agents, for The Mohini Mills. Ltd. Nos. 1 and 2 and Chimanlal Vadilal & Co.; was thrice Pres., Indian Chamber of Commerce and Bengal Millowners' Assen., Calcutta; is Pres.: Indian Society for Quality Control; Director of several banking, jute, tea and insurance institutions in Calcutta; Ex-Pres., A.I.M.O.; Cttee. Member: F.I.C.C. & I.; Cotton Advisory Board; Indian Cotton Mills Federation; Central Allocation Cttee., Housing Directorate, State Implementation & Evaluation Cttee., etc. Indian Chamber of Commerce; Indian National Cttee.; International Chamber of Commerce, New Delhi; Regional Cttee., West Bengal (Employees' Provident Fund), Calcutta; Pres., All India Textile Assocn. (Calcutta Branch); member: Cotton Textile Export Promotion Council, Bombay; All-India Board of Technical Studies in Textile Technology, New Delhi; Finance Committee of the Indian Red Cross Society, West Bengal State Branch. *Address*: 22, Canning Street, Calcutta.

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of India, 30th April 1956-14th June 1956; Minister for Heavy Industries, June 1956-May 1957; Minister of Industry, Govt. of India, 1957-62; Minister of International Trade, Govt. of India, April, 1962-June, 1964. *Address:* 1, Tughlak Road, New Delhi.

**SHAH, Kum. Meena,** M.A., a leading badminton player. *b.* Jan. 31, 1937; *Educ.:* Had a brilliant academic career; took M.A. degree from Lucknow Univ., 1958; Diploma in German, 1962. Represented U.P. in badminton 1953-58; won All India Women's doubles title, 1956 and All India mixed doubles title, 1958; awarded Lucknow Univ. Gold Star as best sportswoman of the year, 1957; joined the Railways, 1959; has been representing the Railways in All-India National Championships and other major tournaments; ranked India's No. 1, 1957; became National Champion, 1959; retained the title 1960, '61, '62, '63 and '64; Vice-Captain, Indian Uber Cup team which played international championships in England, Canada & the U.S.A.; Captain of the team, which won the Uber cup tournament defeating the Hong Kong team, 1962 and the New Zealand team, 1963; awarded the Arjuna Award (the first Indian Woman to get this award), March 28, 1963; won the Indian Rlys. award, April 1963; Captain, joint Indian team which toured Europe and the U.A.R., March 1965. *Address:* No. 8, Kaiserbagh, Lucknow.

**SHAH, Shantilal Harjivan,** B.A., LL.B., Minister for Public Health, Law & Judiciary, Maharashtra State since Dec. 5, 1963; Solicitor. *b.* July 30, 1898; *Educ.:* Gujarat Coll., Ahmedabad; Elphinstone Coll., Bombay. Congress worker in the Bombay Suburban District; was convicted and jailed for 18 months, 1932 and for 9 months, 1941; arrested and detained for 33 months, 1942; member, Bombay Legislative Assembly; Partner, Messrs. Bhaishanker Kanga and Girdharlal, Solicitors. Bombay; Minister for Labour and Public Health, Govt. of Bombay, till Oct. 31, 1956; Minister for Education and Law, Govt. of Bombay, Nov. 1956-April 1957; Minister for Labour and Law, Bombay State, April 1957-May 1960; Min. for Law, Judiciary and Labour, Maharashtra, May 1960-March 1962; Min. for Educ., March 1962-Dec. 1963. *Address:* Sachivalaya, Bombay.

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**SHAMSUDDIN, Kwaja,** Ex-Prime Minister, Jammu and Kashmir State. *b.* 1922, Anantnag; *Educ.:* Passed Intermediate while in jail, 1947; graduated in Law, 1953. Started life as a petition writer in the early forties; participated in the Quit Kashmir movement which aimed at complete democratisation of Kashmir, and courted jail, 1946; elected to the State Assembly, 1957; appointed Minister for Agriculture, Jammu and Kashmir, 1957; is connected with cooperative banks and Muslim educational religious trusts in Anantnag; unanimously elected leader of the State Legislature National Conference Party to succeed Bakshi Ghulam Mohammed, Oct. 10, 1963. *Address:* Srinagar.

**SHANKAR, Ravi,** Presidential Award (1962), Musician. *b.* April 7, 1920; *Educ.:* Learned music and dancing; began his career in the company of Uday Shankar; travelled extensively in India and abroad; left dancing and devoted himself to sitar with Ustad Allaudin Khan; founder of National Orchestra; Director of Music, A.I.R., 1949-55; invited with artistes of western music to participate in the 10th Anniversary celebration of the U.N. and UNESCO's music festival in Paris, 1958; first Indian musician to write music for foreign films; toured U.S.A. and gave 41 concerts, 1961; and 55 in 1964; wrote and conducted orchestral music for a ballet set to Nehru's *Discovery of India;* has written scores for films that won the President's award: *Pather Panchali, Apur Sansar, Kabuliwallah* and *Anuradha,* 1961; presented Melody and Rhythm in Bombay, 1962 and *Nava Rasa Ranga,* 1964; opened the Kinnara School of Music, 1962; won coveted Silver Bear for score and Venice Festival Award. *Publications: Book Music Memory;* various articles on music and musicians. *Address:* 6, Pavlova, Little Gibbs Road, Bombay 6.

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**SHANTARAM, V.,** leading Film Producer, Director and Actor. *b.* Nov. 18, 1901; *Educ.:* Kolhapur. Actively associated with film industry from 1920; founder member, Prabhat Film Co., Poona; has so far produced and directed over 60 pictures, the first in 1926; is considered one of the best directors in the world; recipient of National and International Awards for best picture, best direction, best techniques, etc.; was Chief Producer, Govt. Films Division; was member, Censor Board, Film Advisory Board, etc.; 'Shakuntala' produced and directed by him was the first Indian picture commercially released in the U.S.A.; his film "Two Eyes Twelve Hands" won the "Gold Bear" of the International Film Festival, Berlin, The Hollywood Foreign Press' Samuel Goldwyn Award for the "Best Picture" and a plaque by the Catholic Film Bureau, Brussels for the "best human document." *Address:* Rajkamal Kalamandir (Pvt.) Ltd., Parel, Bombay 12.

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**SHARMA, Ram Bilas, M.A., Ph.D. (Lucknow),** Hindi writer; Professor and Head of the Deptt. of English, B. R. Coll., Agra, since 1943. *b.* Jan. 10, 1912, in a peasant family in Unnao Dist., U.P.; *Educ.:* M.A. in English Literature from Lucknow Univ., 1934; Doctorate from Lucknow Univ., 1940. Lecturer in English, Lucknow Univ., 1938-43. *Publications:* English: *Introduction to English Romantic Poetry* (Agra 1944); *Studies in Nineteenth Century English Poetry* (Agra, 1961); Hindi: Several Critical Studies—*Premchand aur unka Yuga; Bharatendu-Yuga; Nirala; San Sattavan Ki Rajyakranti; Bhasha aur Samaj,* etc.; Poems: *Roopa-Taranga. Address:* 30, New Rajmandi, Agra.

**SHARMA, Dr. Shanker Dayal, M.A., LL.M., Bar-at-Law, D.P.A. (Lond.), F.R.A.S. (Lond.), Ph.D. (Cantab.),** Minister for Commerce & Industry, Madhya Pradesh, since Nov. 30, 1964. *b.* Aug. 1918; *Educ.:* Allahabad, Lucknow and Cambridge Univs.; Brandeis Fellow of Harvard Law School, U.S.A.; Fellow of the Academy of International Law at Hague, Holland. Lecturer, Law Faculty, Cambridge Univ.; Lecturer and Reader in Law, Lucknow Univ.; Editor-in-Chief, Lucknow Univ. Union Journal; Editor, Lucknow Law Journal; Chief Minister, Bhopal; Min. for Education, Law & P.W.D., M.P., till Sept. 1963. Minister for Edn. & Languages, 1963-64. *Publications:* Published literary and legal articles in Indian and foreign periodicals. *Address:* Bhopal.

**SHARMA, Pandit Vichitra Narain,** Ex-Minister for Local Self-Govt. & Housing, U.P. *b.* May 10, 1898; *Educ.:* D. A. V. High School, Dehra Dun; Banaras Hindu Univ., Banaras. Participated in non-co-operation movement, 1920; founded with Acharya Kripalani, Gandhi Ashram, 1920; jailed several times in the freedom movement, 1921, 1932 and 1942; General Secy., Gandhi Ashram, since its foundation till 1958; Secy., Kashmir Charkha Sangh, 1938-43; nominated member, old Leg. Council, 1947; elected M.L.A., U.P. at the first general elections, 1952; Minister for Transport, U.P., May 1952-Dec. 1954. Minister for Public Works, U.P., Dec. 1954-March 1957; Min. for L.S.G., U.P., 1957–60; and 1962-63; Gen. Secy., Gandhi Ashram, 1961. *Address:* 3, La Place, Lucknow.

**SHASTRI, Pandit Hiralal, Sahitya Shastri,** B.A., President, Banasthali Vidyapith. *b.* Nov. 24, 1899; *Educ.:* Maharaja's Coll., Jaipur. Secy., Foreign and Home Dept. Council of State, Jaipur; founded Jiwankutir for village uplift; following the sudden death of his only daughter, Shantabai, founded Banasthali Vidyapith, national institution for girls' education: General Secy. and Pres., Jaipur Rajya Prajamandal; Gen. Secy., All India States' Peoples' Conference; member, Constituent Assembly of India; member, Provisional Parliament of India; first popular Chief Minister, Jaipur State and then Rajasthan State; Editor, "Jiwan Sandesh," Hindi Weekly; Founded Navajiwan Kutir, Jaipur for general education of the people; Founder-Chairman of "Lokvani," Hindi Daily; M.P., Lok Sabha from Sawai-Madhopur, 1957-62. *Publications: Geet-Pachchisi, Navjiwan Karyakram. Address:* Banasthali Vidyapith, Rajasthan

**SHASTRI, Smt. Ratan,** Social Worker; Upadhyaksha, Banasthali Vidyapith (Rajasthan). Founded, together with her husband, Pandit Hiralal Shastri Banasthali Vidyapith, national institution for women's education, following the sudden death of their only daughter Shantabai (1935); directed Jaipur Satyagraha (1939); Regional Rep., Kasturba Memorial Trust; member: State Social Welfare Board; Jiwan Kutir, Navajiwan Kutir, Matri Mandir Mahila Vidyalaya and Lokvani Societies; State Educational Advisory Board, State Educational Grants Cttee., Zonal Cttee., Gandhi Memorial Trust; the first person in Rajasthan to be awarded Padma Shri for distinguished services in field of education (1955). *Address:* P.O. Banasthali Vidyapith (Rajasthan).

**SHELAT, Mr. Justice J. M., M.A. (Lond.),** Bar-at-Law, Judge, Supreme Court of India, since March 1966. *b.* July 16, 1908; *Educ.:* Jubilee Institution, Umreth (Dist. Kaira); took B.A. (Hons.) in literature, from Elphinstone Coll., Bombay, 1928; B.A. degree from the Univ. of London and M.A. degree by writing a thesis on the "Creation of the Senate" in the Constitution of the U.S.; called to the Bar (Inner Temple, London), Jan. 1933. Started practice in Bombay High Court, Oct. 1933; Judge, City Civil Court and Addl. Sessions Judge, Greater Bombay, 1948–54; Principal Judge and Sessions Judge, 1954–57; Addl. Judge, Bombay High Court, Jan. 6, 1957–Nov. 23, 1957; Judge, Bombay High Court, 1957–60; Judge, Gujarat High Court, 1960–63; Chief Justice, Gujarat State, 1963–66. *Publications:* Author of *Akbar;* wrote several articles in journals and magazines; was one of the contributors to *Munshi, His Art and Work. Address:* Supreme Court, New Delhi.

**SHINDE, Annasahib Pandurang,** B.A., LL.B., Parliamentary Secretary to the Minister for Community Development & Cooperation, Govt. of India, since Jan. 1966. *b.* Jan. 21, 1922; *Educ.:* Law Colleges, Poona and Ahmedabad. Was a legal practitioner till May 1962; elected to Lok Sabha from Kopergaon, 1962; has organised several cooperative institutions like the Pravara Agricultural and Industrial Cooperative Society at Pravaranagar; is associated with a number of co-operative institutions; is responsible for organising Arts, Commerce and Science colleges at Shrirampur and Sangamner; is connected with Sir David Sassoon Trust. Chairman, Federation of Cooperative Sugar Factories, Maharashtra State, 1960-62; Parl. Secy., Min. of Food and Agriculture, Govt. of India, 1962-Jan. 1966. *Address:* Parliamentary Secy., Ministry of Community Development & Cooperation, Govt. of India, New Delhi.

**SHIRWADKAR, V. V. *alias* Kusumagraja,** B.A. (Bom.), Marathi Author and Editor; Managing Editor, *Kumar* (monthly) for Children. *b.* Feb. 27, 1912; *Educ.:* Nasik; B.A. from Bombay, 1934. Worked on the editorial staff of several Marathi journals in Bombay and Poona; Pres., Maharashtra Sahitya Sammelan, Madgaon, Goa, 1964. *Publications:* Published the first book of poetry, 1933; and collection of poems 'VISHAKHA', 1944; Several books of poetry, drama and fiction, noteworthy among them being Poetries: *Kinara, Samidha, Marathi Mati, Swagat, Himaresha:* Novels: *Janhavi, Vaishnav;* Stories: *Satariche bol;* Plays: *Dusara Peshawa, Kounteya, Doorache Dive;* Adaptations: *Vaijayanti;* Translations: Kalidas's *Meghadoot* and Shakespeare's *Macbeth* and *Othello;* edits school text books. *Address:* Shivaji Road, Nasik.

**SHIVESHWARKAR, Sadanand Waman, B.Sc. (Bom.), M.A. (Cantab.), M.B.E. (1945),** I.C.S., Addl. Member (Vigilance), Railway Board. *b.* March 1, 1912; *Educ.:* Sawantwadi High School, Sawantwadi: Fergusson Coll., Poona; Sydney Sussex Coll., Cambridge; awarded Pragji Moolji Thackersey scholarship for B.Sc., 1932; Mathematical Tripos at Cambridge Univ. and declared star wrangler, 1932-34; awarded Rayleigh Prize and Sheepshanks Exhibition, Cambridge Univ.; elected Fellow, Royal Astronomical Society of London. Entered I.C.S., 1935; held several postsin the State and Central Governments as Under Secy., Dy. Secy., Textile Commissioner etc., 1935-47; Administrator, Junagadh State, 1947-49; Chief Secy., Hyderabad Govt., till 1951; Chief Secretary, Rajasthan Govt., 1951-53; Excise Commr., U.P., 1953-54; Commr., Banaras Dn., 1954-57; Commissioner, Lucknow Dn., 1957–60; Chief Settlement Commissioner and Custodian General of Evacuee Properties, 1960-62 Jt. Secy., Min. of Food & Agr., 1962-64. *Publications: Stellar Dynamic* and *Galatic Rotation* (1943). *Address:* Rail Bhavan, New Delhi.

**SHRIMALI, Dr. Kalu Lal, M.A. (Philosophy and Psychology), Ph.D., M.P.,** Vice-Chancellor, Mysore Univ., since March 16, 1964. *b.* Dec. 30, 1909; *Educ.:* Banaras Hindu Univ.; Calcutta Univ.; Columbia Univ., New York. Headmaster, Vidya Bhawan, 1931-42; Principal, Vidya Bhawan Teachers' Coll. from 1942 to 1954; member, Secondary Education Commission, Govt. of India, 1953; Convener, Rural Higher Education Cttee., 1954; Parliamentary Secy. to the Minister for Education, Govt. of India; Dy. Minister for Education, Govt. of India, May 1955-April 1957 and Min. of State in the Ministry of Education and Scientific Research, Govt. of India from April 18, 1957 to March 12, 1958; Min. of Education, Govt. of India, 1958-63; resigned under the Kamaraj Plan, Aug. 1963. *Publications: The Wardha Scheme; Adventures in Education; Education in Changing India; Buchon Ki Kuoh Samasyayen* (Hindi); *Shiksha Aur Bhartiye Loktantra* (Hindi). *Address:* Mysore University, Mysore.

**SHRINAGESH, General Satyavant Mallannah,** Ex-Governor of Mysore, May 4, 1964 to February 1965. *b.* May 11, 1903; *Educ.:* Public School in England; Cambridge University and Sandhurst. Was commissioned in 1923; officiated as Brigade Commander, 64 Indian Infantry Brigade of the 19th Indian (Dagger) Division in Burma, Aug. 1945; selected to go to Germany as Deputy Chief of the Indian Military Mission, November 1945; worked as Economic Adviser and Counsel, Commandant, Kumaon Regimental Centre, 1946; commanded 268 Indian Infantry Brigade, Japan, January 1947; was promoted Major-General and appointed G.O.C., Madras Area, Sept. 1947; Adjutant-General, A.H.Q., India, 1948; over-all command of Indian Forcesin Jammu and Kashmir, Sept. 1948; G.O.C.-in-C: Western Command, 1949-53; Southern Command, 1953-55; awarded the Legion of Merit (Degree of Commander) at Washington, Sept. 2, 1955; Chief of the Army Staff, Indian Army, 1955-57; Principal, Administrative Staff Coll. of India, Hyderabad, 1957-59; Governor of Assam, 1959-62; A. P., 1962-64; Mysore, 1964-65. *Address:* 12 A, Friends Colony, Mathura Road, New Delhi.

**SHRIVASTAV, Dr. Jag Bhushan, M.D. (Bom.),** D.B. (London), Fellow, Indian Academy of Medical Sciences, Srinivasan Gold Medal of Ophthalmological Society of India for research on trachoma (Feb. 58), Director, Central Research Institute, Kasauli and Editor, Indian Journal of Medical Research. *b.* April 12, 1918; *Educ.:* Coll. of Science, Nagpur; G. S. Medical Coll. & K.E.M. Hospital, Bombay; School of Tropical Medicine & Hygiene, London; Gonville & Caius Coll., Cambridge. Research Fellow, I.C.M.R., 1946-48; Govt. of India Research Fellow in England, 1948-51; member:

Governing Body of I.C.M.R.; Indian Pharmacopoeia Cttee., Govt. of India; Drugs Technical Advisory Board, Govt. of India; W.H.O. Expert Advisory Panel on Biological Standardization; Export Cttee. on Laboratory Services; Indian National Cttee. for Type Cultures of micro-organisms under the Ministry of S.R. & C.A.; Cttee. for Achievement Audit of the Division of Biological Products of the Indian Veterinary Research, Izatnagar; Chairman: Microbiology of Export Group of I.C.M.R.; Immunological Products Sub-Cttee. of Indian Pharmacopoeia Cttee.; Chairman, Board of Studies, Microbiology, Punjab Univ. & Microbiology Export Cttee. of I.C.M.R. *Publications:* A large number of research publications on Pathology, Bacteriology, Parasitology, and Virus Diseases in English, American & Indian Medical Journals. *Address:* Director, Central Research Institute, Kasauli, Punjab.

**SHRIVASTAVA, Nirmal Chandra,** B.Sc., I.C.S., Secretary, Govt. of India, Ministry of Mines & Metals; Secretary, Min. of Steel & Mines, 1963-65. *b.* Sept. 1, 1913. *Educ.:* Patwardhan High School and Univ. of Nagpur; School of Oriental Studies, London. Joined I.C.S., Sept. 1936; Posts held: Asstt. Commissioner and Under Secy., C.P. & Berar Govt. upto Feb. 1942; Under Secy., Deputy Secy. and Director-General of Resettlement and Employment, Govt. of India, Dept. of Labour till Aug. 1947; Deputy Secy., Chief Settlement Commissioner, Chief Claims Commissioner and Joint Secy., Ministry of Rehabilitation, Govt. of India, upto Aug. 1957; General Manager, Bhilai Steel Plant, Aug. 1957 to April 1961; Adviser (Industry & Minerals), Planning Commn., June 1961-Dec. 1963. *Address:* 34, Prithviraj Road, New Delhi-11.

**SHRIVASTAVA, Mr. Justice Shivdayal Parmeshwardayal,** B.Sc., LL.B., Judge, High Court, M.P., since Nov. 3, 1958. *b.* Feb. 28, 1916; *Educ.:* Gwalior and Agra. Started practice, 1938; enrolled Advocate, 1939; Deputy Govt. Advocate, 1949-58; Professor of Law (Part Time), 1948-58; Member and Vice-Pres., Municipal Cttee., Gwalior, 1945-47; Member (Independent), M. B. Leg. Assembly, 1948-49; Pres., Rotary Club, 1952-53. *Publications:* Shrivastava's Law Dictionary (English-Hindi); and Law Digests. *Address:* Parmeshwar Bhawan, Morar; Ram Ashram, 575, South Civil Lines, Jabalpur.

**SHROFF, Kaikhushru Ruttonji P.,** Ex-President, Stock Exchange, Bombay, *b.* July 27, 1878; *Educ.:* Bharda New High School and Byramjee Jeejeebhoy College of Commerce. Has written books on Mathematics; recipient of Silver Jubilee and Coronation Medals. *Publications. Elementary Arithmetic and Algebra for P. E. Students. Address:* Sunshine, Churchgate Reclamation, Bombay.

**SHUKLA, Shambhunath,** B.A., LL.B., Minister for Finance, Madhya Pradesh, since Oct. 1, 1963. *b.* 1903; *Educ.:* Allahabad Univ. Entered politics during the Dandi March, 1932; imprisoned for participating in the 'Quit India' movement; released, 1944; Food and Civil Supplies Minister and later Finance Minister, Rewa State, 1947; nominated M.P. by the Governor-General, 1949; elected M.L.A., Vindhya Pradesh, 1952; Founder Editor, *Bhaskar,* Hindi Weekly of Rewa, 1945; was Gen. Secy., V.P.C.C.; its Pres.; organised and managed khadi work; elected to the State Assembly in the general elections; unanimously elected leader of the Congress Party in the State Assembly and was Chief Minister till Oct. 31, 1956; Min. for Forests, Natural Resources, Cooperation, P.W.D. and Education, M.P., 1956–63; elected M.L.A., M.P., 1957, 1962. *Address:* Bhopal, Madhya Pradesh.

**SHUKLA, Vidya Charan,** Deputy Minister for Parliamentary Affairs and Communications, Government of India, since Jan. 24, 1966. *b.* Aug. 2, 1929, at Raipur; *Educ.:* Morris Coll. and Univ. Law Coll., Nagpur. Has been a member of the Lok Sabha since 1957. *Address:* Deputy Minister for Parliamentary Affairs and Communications, Government of India, New Delhi.

**SHUKLA, Yagneswhar Kalyanji, G.D.Art.,** Diploma, Royal Academy of Fine Arts, Rome, Artist. *b.* Sept. 10, 1907; *Educ.:* Sir J. J. Schoool of Art, Bombay, 1934; Diploma from Academy of Fine Arts, Rome, 1939; diploma in Painting, 1934. Awarded gold medal of the Poona Fine Art Society, 1934; exhibited in the exhibitions of Modern Indian Art and the Artists of the British Empire Overseas in London, 1934 and 1938; was Inspector of Drawing & Craft Work, Gujarat State; exhibited his works in Italy, Paris, Japan and London; represented in the Prince of Wales Museum, Bombay; National Gallery of Modern Art, Delhi, Lalit Kala Akademi, Delhi; Picture Gallery and Museum, Baroda; member, National Academy of Art, Delhi. *Address:* Old Mahajan's Bungalow, Ansari Road, Vile Parle (West), Bombay.

**SIDDIQI, Muhammad Zubayr, H.A. (Punjab), M.A., B.L. (Patna), Ph.D. (Cambridge),** first Sir Asutosh Professor of Islamic Culture, Calcutta University (1929-1961). *b.* 1896; *Educ.:* Madrasa Aliya of Rampur (U.P.); Oriental Coll., Lahore; Bihar National Coll., Patna; King's Coll., Cambridge. Member, Senate and Syndicate, Calcutta Univ., 15 years; elected Vice-Pres., Asiatic Society of Calcutta, six years; Hon. member, Islamic Research Society of Bombay and Fellow of Asiatic Society of Calcutta; elected Pres., Arabic, Persian, Urdu and Islamic Culture section, All India Oriental Conferences, Nagpur, Hyderabad and Darbhanga; awarded certificate and robe of honour by the President of India, Aug. 1958. *Publications:* Critical Edition of *Firdausul-Hikmat* of al-Tabari (Paradise of wisdom), Berlin 1928 and *Tarikh Nama -i-Harat* of Sayfi, Cal. 1944; *Al-Sayrul-Hathith fi Tadwinil-Hadith; Studies in Arabic and Persian; Medical Literature,* 1959; *Hadith Literature, its Origin, Development and Special Features,* 1961. *Address:* P. 6, Suhrawardy Avenue, Calcutta 17.

**SIKRI, Mr. Justice Sarv Mitra,** Bar-at-Law, Judge, Supreme Court of India. *b.* April 26, 1908. *Educ.:* B.A. (Cantab); Bar-at-Law (Lincoln's Inn), Cambridge. Started practice, Lahore High Court, 1930; Asstt. Advocate-General, Punjab, 1949; Advocate-General, Punjab, 1951-64; Judge Supreme Court of India, 1964; Alternate Representative of the U.N. Cttee. on Codification and Development of International Law, 1947; Legal Adviser, Min. of Irrigation and Power, 1949; Member: International Law Assoc. Cttee. on International Rivers, 1955; Indian Law Commission, 1955-58; Indian Delegation to Law of the Sea Conference, Geneva, 1958; Delegate to World Peace Through Law Conferences, Tokyo, 1961, Athens 1963; Accra Assembly, Accra, Ghana, 1962; Member, Exec. Cttee.: and Governing Council, Indian Law Institute; Indian Commission of Jurists; Indian Branch of International Law Assoc.; Trustee, Sir Ganga Ram Hospital, 1956. *Address:* 8, Motilal Nehru Marg, New Delhi.

**SILAM, Sayaji Laxman,** B.A., LL.B., Lieut.-Governor, Pondicherry. *b.* May 18, 1896; *Educ.:* Wilson High School, Wilson Coll. and Govt. Law Coll., Bombay. General Secy., Bombay P.C.C. (1946–49); Vice-Pres., B.P.C.C. (1941); was Chairman, Prohibition Inauguration Celebration Cttee. and member, Greater Bombay Prohibition Cttee.; is connected with several educational Institutions; courted jail in individual satyagraha and Quit India Movement; member, Bombay Municipal Corporation, 1922–46; was Chairman: Standing Cttee. and Works and Markets and Gardens Cttee. of Corporation; elected to Bombay Leg., 1946; Prohibition Commissioner (1937–38); Secy., Tilak Memorial Cttee.; was Chief Whip, Bombay Leg. Congress Party; Speaker: Bombay Assembly, 1956-60; Maharashtra Assembly, 1960–62; Co-ordinating Convener, State Bharat Sevak Samaj; Pres., Bombay City Soc. Edu. Cttee. *Publications: Gitalap* (Marathi). *Address:* 16, Khetwadi 12th Lane, Bombay 4; Pondicherry.

**SINGH, S. Ajmer,** B.A., LL.B., Minister for Planning, Local Govt. and Sports, Punjab Government, since June 1965. *b.* April 9, 1911; *Educ.:* Patiala and Lahore; B.A., 1930; LL.B., 1933. Practised at the Bar mainly on the criminal side with Hqurs. at Ludhiana, 1933-62; joined the Akali Party, 1950; elected M.L.A., Punjab, on Akali ticket, 1952; joined Congress, 1957; again elected M.L.A. Punjab on Congress ticket; elected Chairman, Punjabi Regional Committee till 1962; again elected M.L.A. on Congress ticket; Revenue Minister in S. Kairon's cabinet, 1962-64. *Address:* Planning, Local Govt. and Sports Minister, Punjab, Chandigarh.

**SINGH, Mr. Justice Anant,** B.A., B.L., Judge, Patna High Court, since Dec. 1, 1959. *b.* Nov. 1, 1904; *Educ.:* Arrah Model Institute. 1921 and Banaras Hindu Univ., 1923; B.A. from Patna Coll., 1925; B.L., Patna Law Coll., 1928. Was school teacher in H. N. Kshatriya High School, Arrah; Inspector of Excise, 1928–31; appointed Munsiff in the Bihar Judicial Service. Served in different capacities as Munsif, Registrar of Civil Courts, Asstt. Registrar and Dy. Registrar, High Court and Asstt. Sessions Judge; Addl. Dist. and Sessions Judge, 1952–54; Dist. and Sessions Judge, Patna, 1954–56; Registrar, High Court, Patna, 1956–59. *Address:* Patna High Court, Patna.

**SINGH, Air Chief Marshal Arjan,** D.F.C., Padma Vibhushan (1965), Chief of the Air Staff, Indian Air Force, since August 1, 1964. *b.* April 15, 1919, at Lyallpur; *Educ.:* Montgomery in West Pakistan; Govt. Coll., Lahore; Pilots' training at Cranwell, U.K.; Staff Coll., Bracknell, U.K., 1945; was a good sportsman during his student days. Commissioned in the Indian Air Force, Dec. 1939; Flying Officer No. 1, Squadron, 1942; promoted Wing Commander, 1945; Group Captain, 1947; Air Officer Commanding, Operational Command; Air Officer in Charge, Personnel & Organisation, Air Hq., 1952; promoted Air Vice-Marshal, June 1960; A.O.C.-in-C., Operational Command, till 1961; A.O. in Charge (Adm.), Air Hq., 1961–62; Deputy Chief, Air Staff, Jan. to Aug. 1963; Vice-Chief, Air Staff, Aug. '63 to July '64; Chief-de-Mission, Indian Contingent for the 1956 Olympiad at Melbourne; Overall Commander, Joint Air Training Exercises 'Shiksha' held in India with the U.S. Air Force, R.A.F. and Royal Australian Air Force, Nov. 1963; was member, Indian Defence team, which visited Washington for talks with the U.S.A. Defence officials, 1964. *Address:* Air Hqrs., New Delhi.

**SINGH, Balbir,** B.A., Padma Shri (1957), leading Hockey Player; Deputy Director (Admn.), The Directorate of Sports, Punjab. *b.* Oct. 10, 1924; *Educ.:* Dev Samaj High School, Moga (Punjab); Khalsa Coll., Amritsar, Punjab Univ. Entered Class Hockey, 1942; Captained Punjab Univ. Eleven, 1945, captained Punjab State Eleven, 1949; represented India in the World Olympics at London, 1948, won gold medal; captained Indian Hockey Team to Afghanistan, 1950; played two Test Matches against Japanese Hockey team touring India, 1951; represented India in Olympic Games at Helsinki, 1952; won Gold Medal; captained Indian Hockey team to Singapore and Malaya, 1954; captained Indian Olympic team to Melbourne Olympic Games, 1956; won Gold Medal; captained the Indian Hockey Team for the Asian Games at Tokyo, May, 1958; member, I.H.F. Selection Cttee., since 1959. *Address:* Dy. Director, Sports and Youth Programme, Punjab, Chandigarh.

**SINGH, BATUK, M.A., M.B.E. (1943), Member,** Union Public Service Commission, since April 19, 1963. *b.* Sept. 21, 1903; *Educ.:* Udai Pratap Coll., Varanasi; Allahabad Univ. Entered the Indian Defence Accounts Service, 1929; served in various capacities in Quetta, Meerut and Poona, 1929–44; was with the 10th Army in Iraq and Iran, 1941–42; Deputy Secy. and Joint Secy., Ministry of Finance, Govt. of India, 1944–56; retired as Controller-General, Defence Accounts, 1959; was Financial Adviser, River Valley Projects Deptt. and State Electricity Board, Bihar. *Address:* Member, Union Public Service Commission, Dholpur House, New Delhi 11.

**SINGH, Sardar Darbara,** F.A., Minister for Home Affairs, C. D., Agriculture, Fisheries, Punjab, since July 6, 1964. *b.* March 2, 1916; *Educ.:* Khalsa Coll., Amritsar. Suffered imprisonment several times in the freedom movement; M.L.A., Punjab, since 1952; member, Public Accts. Cttee., 1953; Pres., Jullundur D.C.C., 1946-49; Gen. Secy., 1950-52; Gen. Secy., Punjab P.C.C., 1954-58; Minister for Consolidation, Cooperative Societies and Political Sufferers, Punjab, 1956-57; Pres.: Punjab P.C.C., 1958-62; Punjab Coop. Bank, Jullundur; Govt. National Motor Transport Workers' Union; Punjab Coop. Union; Punjab Motor Union; member: Police Commission; Working Cttee., Indian National Congress; Secy., Punjab Pradesh Constructive Work Board. *Address:* House No. 2J, Sector 2, Chandigarh.

**SINGH, Dinesh,** B.A., Minister of State for External Affairs, Govt. of India, since Jan. 24, 1966. *b.* July 19, 1925 at Kalakankar, U.P.; *Educ.:* Doon School, Dehra Dun; Colvin Coll., Lucknow Univ. Private Secy. to the Prime Minister; Secy., High Commission of India in London and Embassy of India, Paris; Member, 2nd Lok Sabha, Estimates Cttee. of 2nd Lok Sabha; Gen. Secy., Indian Council for Africa; Indian delegate to: F.A.O. Regional Marketing Conference, 1959; U.N. General Assembly, 1960; E.C.A.F.E., 1961; National Tourist Development Council, 1960–61; Tourist Advisory Cttee. (Northern Zones); travelled extensively in Europe, U.S.A. and Africa; attended the All African People's Conference at Tunis, 1960 and Cairo, 1961; Deputy Min. for External Affairs till Jan. 1966. *Address:* Rajbhawan, Kalakankar, Dt. Pratapgarh (U.P.); Ministry of External Affairs, New Delhi.

**SINGH, Gur Bakhsh,** B.Sc., C.E. (1922), Punjabi Writer. *b.* April 26, 1895; *Educ.:* F. C. Coll., Lahore; Thomason Coll., Roorkee; Michigan Univ., Ann Arbor (U.S.A.). During the Great War, attached with Royal Engineers; Railway Engineer, 1925-32; Power Farming, 1932-37; founded *Preet Lari*, 1933; founded Preet Nagar, a colony on co-operative lines, 1938; travelled extensively in Europe, Russia, China, U.S.A., Canada, Iraq and Persia; Vice-Pres.: All-India Peace Council; Kendri Punjabi Lekhak Sabha. *Publications:* Autobiography; *Shabnam*; *Adjusted & Balanced Life*; *Unmarried Mother*; *The Strange & Alone etc. etc.*; *Poem of Life*. *Address:* Editor, *Preet Lari*, Preet Nagar, Dist. Amritsar.

**SINGH, Gurmukh Nihal,** M.Sc. (Econ.), (Lond.), Barrister-at-Law, Ex-Governor of Rajasthan. *b.* March 14, 1895; *Educ.:* Rawalpindi and London; called to the Bar, June 1919. Served in the Banaras Hindu Univ. and other colleges as Prof. and Dean till 1952; elected Speaker, Delhi State Leg. Assembly, May '52; unanimously elected Leader, Congress Vidhan Sabha Party and Chief Min., Delhi State, 1955–56; Governor, Rajasthan State, 1956–62; was member, almost all Univ. Bodies at the B.H.U. and Univ. of Delhi and also of some of the Univ. Bodies at Allahabad, Lucknow and Bombay; organised the First Indian Political Science Conference at Banaras, 1938; was the first Secy. and Treasurer of the Assoc. (1939–42); its Pres., 1942; *Publications: Indian States and British India: Their Future Relations*, 1928; *Landmarks in Indian Constitutional and National Development*, 1935; *The Changing Concept of Citizenship*, 1958; several other books. *Address:* C-193, Defence Colony, New Delhi 3.

**SINGH, Brig. Gyan,** Padma Shri (1961), Leader of the first Indian Expedition to Mount Everest, March–June 1960. *b.* April 12, 1918 at Ramgarh, Ludhiana Dist.; *Educ.:* Lucknow. Joined 8 Cavalry as a Sowar, 1936; commissioned in the Artillery Regt., July 1940; served in the Kashmir operations including the Zoji La operation; climbed extensively in connection with reconnaissance duties; held appointments as Commandant, Winter Warfare School, Asstt. Commandant, School of Artillery, Commandant of a Regt. of Artillery and Asstt. Adjutant and Quarter Master General in a division; Principal, Himalayan Mountaineering Institute, Darjeeling, 1958-62; attended International Mountaineers' Meets, Chamonix (France) and Rosenlaui (Switzerland); also visited mountaineering institutions in Austria, Germany, Belgium and England; promoted Brigadier, Feb. 1960. *Publications: Lure of Everest* (The story of a first Indian Attempt on Everest in 1960). *Address:* 39, Faiz Bazar, Delhi 6.

**SINGH, Sardar Harbans,** C.E. (Hons.), Member (Staff), Railway Board, since Oct. 1, 1964. *b.* Aug. 8, 1908; *Educ.:* Govt. Coll., Lahore; C.E. (Hons.) from Thomason Coll. of Civil Engineering, Roorkee, 1930. Traffic Officer on the old North Western Rly., 1931; served in various administrative posts including Divisional Supdt., Central and Northern Rly.; Dy. Chief Operating Supdt., Goods and Coaching, Central and Northern Rlys.; Dy. Chief Commercial Supdt., Claims, Rates, etc., Northern Rly., 1949-55; Chief Operating Supdt., North Eastern Rly., 1955-58; represented India at the Fifth Session of the Inland Transport Cttee. of the E.C.A.F.E. at Bangkok, 1956; Sr. Dy. General Manager, Northern Rly., 1958; is a keen scouter and sportsman; Pres., Railway Sports Control Board; Gen. Manager, N.-E. Rly., 1960-63; Gen. Manager, Northern Rly., 1963-64. *Address:* New Delhi.

**SINGH, Sardar Hukam,** LL.B., Speaker, Lok Sabha since April 17, 1962. *b.* Aug. 30, 1895, at Montgomery; *Educ.:* Khalsa Coll., Amritsar; Law Coll., Lahore. Was a prominent member of the Shiromani Akali Dal; entered politics and actively participated in the Gurudwara Prabandhak Reform movement; arrested and imprisoned, 1924-25; member, Shiromani Gurudwara Prabandhak Cttee., 1926-41; Pres., Dist. Bar Assoc., 1943 and 1944; Judge, Kapurthala High Court, 1947-48; President, Shiromani Akali Dal, 1950; member: Constituent Assembly & Prov. Parliament; Lok Sabha since 1952; Ex-member: Estimates Cttee. of the Parliament; Chairman, Conference of Presiding Officers of Legislative Bodies in India; Pres., Indian Parliamentary Group; member: Parliamentary delegation to: U.S.S.R., 1955; to Commonwealth Parliamentary Confce., Delhi 1957; Australia 1959 and London in 1961; Dy. Speaker, Lok Sabha, 1956-62; Leader, Parliamentary delegation to: U.S.S.R. and Mongolia, 1962; Commonwealth Parliamentary Conference, Nigeria, 1962; U.S.A., 1963; Commonwealth Parliamentary Conference, Malaysia, 1963; West Germany and U.K., 1964; Philippines, 1965; attended 700th anniversary celebrations of British Parliament, June 1965; visited Japan, Singapore, Burma, Poland, Canada, U.K. and various other European countries; Founder, *Spokesman*, an English Weekly. *Publications: Sikh Case*; *The Problem of the Sikhs*; *Russia—As I saw It*. *Address:* 20, Akbar Road, New Delhi.

**SINGH, Iqbal,** Deputy Minister for Petroleum and Chemicals, Government of India, since Jan. 24, 1966. *b.* June 7, 1924, at Killianwali, Punjab; *Educ.:* M. B. High School, Abohar; Sikh National Coll., Lahore. Was the first President, Punjab Students' Congress, 1944-46; member, Working Cttee., All India Students' Congress; member, Shiromani Gurdwara Prabhandhak Cttee.; returned to the Lok Sabha, 1952, '57 and '62. *Address:* Deputy Minister for Petroleum and Chemicals, Government of India, New Delhi.

**SINGH, Jaipal, M.P. & Pres., All-India Adibasi Mahasabha.** *b.* Jan. 3, 1903; *Educ.:* St. Paul's School, Ranchi; Grammar School, Darlington, St. Augustine's College, Canterbury, and St. John's College, Oxford. Full Blue at Oxford for Hockey; captained the Indian Olympic Team at the Olympiad in 1928; Headmaster and Officiating Vice-Principal, Rajkumar College, Raipur, 1936–37; Colonisation Minister and Revenue Commissioner, Bikaner State, 1937–39; Civilian Adviser, Services Selection Board, 1943–46; Pres., Delhi Flying Club; and Delhi Fishing Club; Editor, *Adibasi Sakam*, 1941-42; President, Jharkhand Party; member, Press Commission, 1952–53; member, Estimates Cttee. of Parliament, 1952-54; Minister, C.D. & Panchayati Raj, Bihar, 1963; Pres., Delhi Football Assoc.; member: Rly. Accidents Enquiring Cttee.; National Integration Council; Public Accounts Cttee. *Publications:* Articles on Games and Social Anthropology. *Address:* Ranchi, Chhota Nagpur.

**SINGH, Lt.-Gen. K. Bahadur,** P.Sc., I.D.C., N.D.C., G.O.C.-in-C., Central Command since May 1963. *b.* Aug. 5, 1910 at Palaitha, Kotah; *Educ.:* Prince of Wales Royal Indian Military Coll; commissioned from Royal Military Coll., Sandhurst, Jan. 29, 1931; graduated from Staff Coll., Camberley; attended a course at the Imperial Defence Coll., London, 1954; served in the 4th battalion and the Training Centre of the Kumaon Regt. before World War II, holding all the normal regimental appointments; proceeded to the Far East with the 4th Kumaon, 1939; was in Singapore disaster; held a number of Staff appointments, including Deputy Secretary (Military) to the Cabinet, and Brigadier, General Staff of a Command; commanded a brigade, and Fourth and Fifth Infantry Divisions. Adjutant General, A.H.Q., Sept. 1956-Sept. 1959; First Commandant, National Defence Coll., 1959-63; member, Indian Council of World Affairs. *Address:* Central Command, Lucknow.

**SINGH, Sardar Kapoor,** B.A., LL.B., Minister for Finance, Punjab, since July 6, 1964. *b.* 1898; *Educ.:* Khalsa College, Amritsar. Practised Law, 1923-34 and 1938-40; Sessions Judge, Chief Revenue Secretary and Dewan, Ajai Garh State, 1935-37; resigned and joined the Congress party, Punjab Assembly; member, Dist. Board, Ludhiana, 1925-40; Vice-Pres. of the Board for 5 years; member, Municipal Cttee., Ludhiana, 1927-37 and Vice-Pres. for a term; M.L.A., Punjab, 1937-52; Secy., Congress Assembly Party, 1942-45; Chief Whip, Congress Assembly Party, 1946-47; Dy. Speaker, Punjab Leg. Assembly, 1946-47; Speaker, Punjab (1) Leg. Assembly, 1947-51. Chairman, Punjab Leg. Council, 1952-64. *Address:* Chandigarh.

**SINGH, Karam,** B.Sc. (Agr.), Revenue Minister, Himachal Pradesh, since July 1, 1963. *b.* July 10, 1919; *Educ.:* Vijay High School, Mandi; B.Sc. (Agr.), Khalsa Coll., Amritsar. Joined Army, 1942; took part in Praja Mandal Movement, 1947; joined Congress, 1948; elected as Member, H.P. Vidhan Sabha, 1952; General Secy., H.P. Congress Assembly Party, 1953–54–55; Chairman, H.P. Territorial Council, 1957-63. *Address:* Red Roof, Simla 4; Snowland Orchards and Nursery, Kutachi, Dt. Mandi, H.P.

**SINGH, Kewal,** B.A. (Hons.), LL.B., I.C.S., Padma Shri (1955), High Commissioner for India in Pakistan, since Aug. 1965. *b.* June 1, 1915; *Educ.:* Forman Christian Coll.,

Lahore; Law Coll., Lahore; joined I.C.S., 1938; Balliol Coll., Oxford, 1938–39. Asstt. Commissioner, Ferozepore (1940); S.D.O., Dalhousie (1940–42); Colonisation Officer, Nili Bar (1945–46); Dy. Commissioner, Shahpur (1946–47); Simla (1947–48); First Secy.: Indian Embassy, Turkey (1948–49); Indian Military Mission, Berlin (1949–51); Charge d'Affaires, Legation of India, Lisbon (1951–53); Consul-General of India, Pondicherry, 1953–54; Chief Commissioner, the State of Pondicherry, Karaikal, Mahe and Yanam, 1954–57; Ambassador to Cambodia, 1957–58; Indian Ambassador to Sweden, Denmark and Finland, 1959-62; Dy. High Commissioner for India in U.K., 1962–65. *Address:* C/o External Affairs Ministry, New Delhi.

**SINGH, Kripal,** M.Sc. (Banaras), Chairman, Railway Board and ex-officio Principal Secy., Ministry of Railways, since Aug. 1965. *b.* Jan. 22, 1907; *Educ.:* High School, Lakhaoti; Banaras Hindu Univ.; won the Rai Bahadur Mata Prasad Gold Medal for topping the list in B.A. & B.Sc. exams., 1927. Served in the old N.W. Railway as Asstt. Traffic Officer, Divi. Transportation Officer, Operating Officer in all divisions and Dy. Chief Operating Supdt., 1930-50; Div. Supdt., Ferozepur, 1950-52 and at Allahabad, 1952-54; Divi. Supdt., Asansol 1954; Indian Railways' delegate to the Rly. Sub-Cttee. of the E.C.A.F.E., Japan, 1954; Chief Operating Supdt., Eastern Rly., 1955; General Manager, Eastern Rly., March 1958-Oct. 1959; Member (Transportation), Rly. Bd. and ex-officio Secy., Min. of Railways, 1959-65; led the Indian delegation to and elected Chairman, Inland Transport & Tele-Commn. Cttee. Meeting, the ECAFE, Bangkok, 1962; delegate to 4th Asian Rly. Confce., Cairo, 1963; knows Hindi, Urdu, Bengali, Marathi and Gurumukhi. *Address: Office:* Railway Board, Rail Bhavan, New Delhi; *Residence:* 7, Dupleix Road, New Delhi.

**SINGH, Mairembam Koireng,** Chief Minister, Manipur, since July 1, 1963. *b.* Dec. 19, 1915; *Educ.:* Bengali High School, Imphal. Entered active politics as member, Nikhil Manipuri Mahasabha, a prominent political party in Manipur, 1938; joined I.N.A. (Azad Hind Fauz), 1944; member, Manipur State Leg. Assembly, 1948; member, Electoral College, Manipur, 1951; Pres., Manipur State Congress Cttee., 1955-57; member, Manipur Territorial Council, 1957-62; Chairman, Manipur Territorial Council 1962-63. *Address:* Moirang, P.O. Moirang, Manipur.

**SINGH, Milkha,** Padma Shri, 1960, Leading sportsman; Dy. Director of Sports, Punjab. *b.* 1935. Started his career, 1953; specialised in 400 meters race; after coming first in the Indo-Pakistan meet at Delhi, 1956, was selected for the World Olympic Games at Melbourne, 1956; represented the country in III Asian Games at Tokyo and won the gold medals in 200 and 400 meters; participated in British Empire and Commonwealth Games, Cardiff and won Gold Medal in 440 yards; participated in Olympics, Rome and stood fourth, 1960; also in the fourth Asian Games at Djakarta and won Gold medals for 400 metres, and 4 × 4 relay. *Address:* Deputy Director of Sports (Coaching), Sports Department, Kothi No. 263, Sector 9C, Chandigarh.

**SINGH, Mohan,** M.A., M.O.L. (1933), Punjabi poet; Managing Director, Hind Publishers Ltd., Jullundur; Founder, *The Panj Darya*, Punjabi Monthly. *b.* Oct. 20, 1905; *Educ.:* Oriental Coll., Lahore. Started the *Panj Darya* at Lahore, 1939; Head of Persian and Punjabi Department, Sikh National Coll., Lahore, 1940-44; floated Hind Publishers Ltd., 1946; member: Advisory Board for Punjabi, Sahitya Akademi; General Council, Sahitya Akademi, Delhi; Exec. Council, Sahitya Akademi, New Delhi. *Publications: Sawe Pattar*, 1936; *Kasunbra*, 1939; *Adhwate*, 1943; *Asia Da Chanan*, 1944; *Kach Sach*, 1950; *Awazan*, 1954; *Niki Niki Washnan* (short story), 1942; *Wadda Walia* 1958; won the Sahitya Akademi's National Award of Rs. 5,000 in 1960; *Jandre*, 1964. *Address:* Civil Lines, Jullundur.

**SINGH, Dr. Nagendra,** M.A., LL.D. (Cantab.), M.A., B. Litt., LL.D. (Dublin), D. Litt. (Bihar), D.Phil. (Cal.), D.Sc.—Law (Moscow), D.C.L. (Delhi), Bar-at-Law, I.C.S., i.d.c., Associate of the Institute De Droit International; member: Bureau Permanent Comite Maritino International, Council of Unidroit, Rome. Secretary and Director General of Shipping, Ministry of Transport, since Feb. 1965; Chairman, Hindustan Shipyard Ltd., since 1962; Dir.: Shipping Corpn. of India, since July 1, 1962; Mazagon Dock Ltd., 1961-64; joined I.C.S., 1938; Deputy Secy., Ministry of Defence, 1946-57; Deputy Secy., Ministry of Information & Broadcasting, 1948-50; Deputy Secy. & later Jt. Secy., Ministry of Defence, 1951-56; Chairman, The Mogul Line Ltd., since 1963; Pres. Inter-Governmental Maritime Consultation Organisation, since January, 1964; Sp. Secy., Ministry of Information and Broadcasting in addition to Dir-Gen. of Shipping, Ministry of Transport, 1964. *Publications: Termination of Membership of International Organisations; Nuclear Weapons and International Law; Defence Mechanism of the Modern State; International Conventions of Merchant Shipping. Address:* 30, Tughlak Crescent, New Delhi.

**SINGH, Raja Naresh Chandra,** Maharajah of Sarangarh and Minister for Tribal Welfare, Madhya Pradesh. *b.* Nov. 21, 1908; *Educ.:* Rajkumar Coll., Raipur, 1918–29; holder of the all-rounder cup for three years, a triple blue and a King Scout. Hon. Asstt. Commissioner, Raipur, 1929–32; Education Minister and 1st Class Magistrate, Sarangarh, 1936–37; became Ruler of Sarangarh, April 29, 1946; merged his State with M. P., 1948; elected M.L.A., M.P., 1952; Minister for P.W.D., Electricity and Tribal Welfare, M.P., 1952; Pres., All India Adim Jati Sewak Sangh Sammelan, Jagdalpur, 1954; elected M.L.A., M.P. from Sarangarh, 1957; Min. for Tribal Welfare 1957; member: D.C. and P.C. Working Cttees., 1959; A.I.C.C.; elected M.L.A. from Pussore constituency, 1962. *Address:* Bhopal.

**SINGH, Colonel Raja Surendra,** Adviser, (Programme Admn.) & Ex-officio Addl. Secy., Planning Commission, Govt. of India; also member, Board of Trade, and former Ruler of Nalagarh State in the Punjab. *b.* 1920; *Educ.:* Aitchison Coll., Lahore; had administrative training with the Punjab Government and held appointments in the Police, Revenue, Judicial, Public Health and Forest Deptts. Joined the Indian Army and served with the Dogra Regt.; succeeded to the *Gaddi* on his father's death, 1946; elected M.L.A., PEPSU, in both the General Elections; appointed Minister for Finance, Planning & Development; mainly responsible for bringing PEPSU's Five-Year Plan upto-date; represented India in the 8th Conference of the F.A.O. of the U.N. in Rome, 1955 & 10th Conference, 1959; Adviser: Min. of Food & Agri., 1958-62; Colonization, Min. of Home Affairs, 1962. *Address:* 10, Teen Murti Lane, New Delhi 11.

**SINGH, Ram Subhag,** Shastri (Banaras), M.A. (Missouri), Ph.D. in Journalism (Missouri), M.P., Minister of State in the Ministry of Railways, Govt. of India, since June 1964. *b.* July 7, 1917; *Educ.:* Arrah Town School, Sri Kashividyapith, Varanasi; Missouri Univ.; Columbia, U.S.A.; member, Provisional Parliament, 1950-52; elected to the Lok Sabha in 1952, '57 and '62; member: Exec. Cttee. of the Congress Party in Parliament, since 1954; Cong. Working Cttee., since Jan. 1961; Secy., Congress Party in Parliament, 1955-62; Leader, Indian delegation to eighth Session of the International Rice Commission and sixth F.A.O. Regional Conference held at Kuala Lumpur, Sept. 1962; leader, Indian Delegation, Anglo-Asian Rural Reconstruction Conference, Kuala Lumpur, Feb.-March 1964; Minister of State for Agriculture, Govt. of India, May 1962-June 1964, travelled extensively in U.S.A., Canada, U.S.S.R., Egypt, Lebanon, Syria, Jibouti, Ceylon, Japan, Thailand, Burma, Malaya and Singapore. *Publications:* Articles in some American and Indian papers. *Address:* Khajuria, Dhamar, Arrah (Bihar); 12, Janpath, New Delhi.

**SINGH, Sachindra Lal,** Chief Minister, Tripura, since July 1, 1963. *b.* 1907, in Agartala; *Educ.:* U.K. Academy, Agartala; Victoria Coll., Comilla (East Pakistan). Had an eventful career; an uncompromising fighter; courted jail on several occasions in his flight against British Imperialism and the monarchy in Tripura; spent about 14 years in jail; was connected with the Chittagon-armoury raid; externed from Tripura and detained by the British Govt. for his revolutionary activities; after release, founded "Tripura Rajya Gana Parishad" and the Tripura State Congress Cttee. of which he was Pres. for about 10 years; was again externed for his land reform movement; Adviser to the Chief Commissioner, Tripura, 1953–57; elected Chairman, Territorial Council, 1957; is the first Chief Minister of Tripura. *Address:* Agartala.

**SINGH, Lt. General Sant,** Colonel, Bihar Regiment; Member, National Defence Council, since July 1964 and Military Affairs Cttee. *b.* Nov. 28, 1903; *Educ.:* Arya High School, Ludhiana, Khalsa Coll., Amritsar, Royal Military Coll., Sandhurst, England. Commissioned as 2nd Lt. in the Indian Land Army, Jan. 1925; joined Indian Army Bn. 1/14 Punjab Regt.; took part in various N.W.F. operations; served overseas in Iran, Iraq and Malaya and mentioned in Despatches for distinguished services during the 2nd World War; promoted Col., Jan. 1947, Brig., Sept. '47 and Maj. Gen., Dec. 1947; appointed M.G.O. Army Hqrs.; G.O.C.-in-C., Eastern Command, 1953–57; was Hon. A.D.C. to the President of India; officiated as Chief of the Army Staff, 1955 and 1956; member: Central Advisory Cttee. of Territorial Army and Lok Sahayak Sena; Yadavindra Public School, Patiala; Defence Cttee., Punjab State; Board of Governors, Sainik Schools in India; Director, National Institute of Sports, 1961-65. *Address:* Dakha, Ludhiana.

**SINGH, Sardar Swaran,** B.Sc. (Hons.), M.Sc., (Physics) (Lahore), LL.B., Minister for External Affairs, Govt. of India; Member, Planning Commission. *b.* Aug. 19, 1907; *Educ.:* Govt. Coll., Lahore. Elected M.L.A., Punjab, 1946; Min. for Devpt., Food & Civil Supplies, Punjab; member, Security Council to advise Govt. on the day-to-day problems relating to law and order, March 1947; was member, Partition Cttee. to divide the assets of the Punjab; Home, General Administration, Revenue, Irrigation and Electricity Minister, Punjab, 1947; Minister of Capital Project and Electricity, Punjab, April-May 1952; Minister for Works, Housing and Supply, Govt. of India, May 1952-March 1957; led the Indian delegation to the sessions of the Economic and Social Council of the U.N., at Geneva, 1954 and 1955; elected to the Lok Sabha, 1957, 1962; led a delegation to U.S.S.R. 1959; Min. for Steel, Mines and Fuel. 1957-62; Min. for Railways, Govt. of India, 1962-63; Minister for Food & Agriculture, Govt. of India, Sept. 1963-June 1964; was Minister for Industry & Supply; visited Nepal, Aug. 1964 and Burma, Sept. 1964; attended the Conference of Foreign Ministers of non-aligned countries, Oct. 1964; leader, Indian delegation to U. N. Gen. Assembly, Dec. 1964; *Address:* 7, Hastings Road, New Delhi.

**SINGH, Master Tara,** Akali Sikh Leader; Ex-Pres., Shiromani Gurdwara. *b.* June 24, 1885, at Harial, Rawalpindi Dist.; *Educ.:* Rawalpindi; Khalsa Coll., Amritsar. Embraced

Sikhism at the age of 17; fought in the Gurdwara Reform Movement for freeing the Sikh holy places from the control of the traditional priesthood; became Secy., Shiromani Gurdwara Prabandhak Cttee.; jailed thrice as a result of clash with the authorities; became Pres., Akali Dal and Gurdwara Cttee.; took active part in the C. D. Movement, 1930; elected for the first time Pres., Shiromani Gurdwara Prabhandak Cttee. while in jail; rejected Cripps proposals on the ground that they provided a loop-hole for the partition of India; organised the Panthic Akali Party in the elections to the provincial legislatures; re-elected Pres., Akali Dal, July 27, 1954; again elected Pres., Shiromani Gurdwara Prabandhak Committee, Feb. 7, 1955; was taken into preventive custody in connection with Punjabi Suba agitation, May 24, 1960; undertook a fast unto death from Aug. 15, 1961, as some think, for the acceptance of the principle of a Punjabi Suba and as others think for the establishment of the Punjabi Suba; resigned S.G.P.C. presidentship on grounds of health; formed 'Save Democracy Cttee.' consisting of all opposition parties of Punjab. *Address:* Amritsar.

**SINGH, Tarlok,** B.A. (Hons.) (Bom.), B.Sc. (Econ.) (Hons.) (Lond.), I.C.S. (Retd.), Padma Shri (1954), Padma Bhushan (1962), Member, Planning Commission. *b.* Feb. 26, 1913; *Educ.:* St. Vincent's School and Deccan Coll., Poona; Gujarat Coll., Ahmedabad; London School of Economics. Joined I.C.S., 1937; Colonization Officer, Nili Bar Colony, Punjab, 1943; served in Finance Dept., Govt. of India, 1944-46; Private Secy. to the Vice-President, Interim Govt. and to Prime Minister, 1946-47; Director-General, Rehabilitation, 1947-49; with Planning Commission, from March 1950 and Addl. Secy., 1958-62; elected Hon. Fellow, London School of Economics, 1963; Chairman, Cttee. on Transport Policy and Coordination, 1964. *Publications: Poverty and Social Change* (Longmans, 1945); *Land Resettlement Manual, Punjab and PEPSU,* 1952; articles, etc. *Address:* New Delhi.

**SINGH, Tribhuan Narayan,** Minister of Iron & Steel, Govt. of India since Jan. 1966; was Minister of Industry, Govt. of India, 1964-65. *b.* 1904 at Banaras. Has worked with "Indian Daily Telegraph", Lucknow, "Hindustan Times", New Delhi and "National Herald", Lucknow, in various journalistic capacities; was General Manager, "National Herald" and Managing Partner, Janata Press; was member of a number of important Cttees. and Commissions set up by the Govt. of India, like Grow More Food Enquiry Cttee.; Railway Freight Structure Enquiry Cttee.; Press Commission; was Secy., Textile Labour Union, Delhi; suffered imprisonment for participating in the freedom movement during 1930-31, 1932 and 1942; member, Provisional Parliament, 1950-52; Secretary, Congress Party in Parliament, 1951; elected member, Lok Sabha, from Chandauli constituency, U.P. in 1952 and re-elected in 1957; was Chairman, Public Accounts Cttee. till joining the Planning Commission; Member, Planning Commission, 1958-64. *Address:* New Delhi.

**SINGH, Tribhuban Prasad,** B.A. (Hons.) (Econ.), M.A., I.C.S., Secy. to the Govt., Dept. of Expenditure, Ministry of Finance, since Feb. 1965. *b.* May 9, 1913; *Educ.:* Patna Univ.; London School of Economics. Joined the I.C.S., 1937; was posted to Bihar; held assignments mostly on the developmental side; Secy., Deptt. of Supply and Secy., P.W.D. 1946-49; Commissioner of Patna and Tirhut Divisions, 1949-53; Chief Administrator, River Valley Projects, Bihar; Addl. Secy. and from Jan. '64 to Feb. 65, Secy. to the Govt. of India, Planning Commission; is member, Air India and Indian Airlines Corporation. *Address:* C/o Ministry of Finance, North Block, Secretariat, New Delhi. *Permanent.* Mohalla Sheikhpura, Patna Town, Bihar.

**SINGH, Triloki,** Deputy Chairman, Praja Socialist Party; President Lucknow Educ. Society and founder of various educational & cultural institutions. *b.* March 10, 1908; *Educ.:* Church Mission High School and Jubilee Coll., Lucknow. Joined Youth League and Indian National Congress, 1928; elected Chairman, District Board, Lucknow, 1939; member, U.P. Leg. Assembly, 1946 and 1957; formed Jan Congress, 1950; joined K.M.P.P., 1951; Leader of the Opposition, U.P., 1950-52 and 1957-62; Gen. Secy., P.-S. P., 1954-58. *Address:* Ghasiari Mandi, Lucknow, U.P.

**SINGHANIA, Kailashpat,** Banker & Millowner. *b.* 1908; *Educ.:* privately. Vice-President, J. K. Organisation; joined J. K. Cotton Spg. & Wvg. Mills Co. Ltd. as Director; became later its Director-incharge; Director: J. K. Jute Mills Co. Ltd., Kanpur; J. K. Investors (Bombay) Private Ltd., Bombay; Director: J. K. concerns; Bombay Gas Co. Ltd.; Partner: Juggilal Kamlapat Bankers; J. K. Hosiery Factory; Kamalapat Motilal Gutalya Sugar Mills Co. etc.; Member: St. John Ambulance Corps; Indian Council of World Affairs; Faculty of Commerce, Lucknow Univ.; Merchants Chamber, U.P. Jaipur Chamber of Commerce; All India Marwari Sammelan, etc.; Cttee. member, Royal Western India Turf Club, Bombay. *Publications:* Writes occasionally on economic and industrial topics. *Address:* J. K. House, 59, Warden Road, Bombay.

**SINGHANIA, Lakshmipat** Industrialist; is the Head of the Eastern Zone of J. K. Organisation, comprising more than 60 industrial and commercial enterprises. *b.* 1910. Embarked on business career at the early age of 20 years; Director Incharge: the Aluminium Corporation of India Ltd.; the Straw Products Ltd. (Paper and Board Mills); Chairman: Ganges Manufacturing Co. Ltd.; J. K. Steel Ltd.; National Insurance Co. Ltd.; Director: J. K. Cotton Spg. & Wvg. Mills Co. Ltd.; Nav Bharat Vanijya Ltd.; Bengal & Assam Investors Ltd.; J. K. Industries Private Ltd.; J. K. Iron & Steel Co. Ltd., National Research Development Corporation, etc.; is also one of the few Indian underwriting members of the Lloyds Society of London; was Pres.: F.I.C.C. & I.; All India Organisation of Industrial Employers; Bharat Chamber of Commerce; member: Stg. Adv. Cttee. of the F.I. C. C. & I.; Indian National Cttee. of the International Chamber of Commerce; Indian Institute of Social Welfare and Business Management; Jagdis Bose National Science Talent Search, All-India Heart Foundation and also member of Government Bodies like the Industries Development Procedures Cttee., Central Cttee. on Employment, and Housing and Regional Planning Panel; travelled extensively around the world several times. *Address: (Office):* 7, Council House Street, Calcutta; *(Res.):* J. K. House, 12, Alipore Road, Calcutta 27.

**SINGHANIA, (Sir) Padampat,** Industrialist and business man. *b.* 1905. Pres., J. K. Organisation comprising Industrial and Commercial units; founded Merchants' Chamber, U.P., 1932; Past Pres.; F.I.C.C.I.; Vice-Pres.: Seva Samiti, Allahabad; was member, U.P. Legislature; is one of the signatories of the Indian Constitution, having been a member of the Constituent Assembly; member: First General Council of the U.P. Assoc. for the Blind; Indian Institute of International Affairs' (New Delhi & Kanpur); Board of Governors, Indian Institute of Technology; Heavy Industries Advisory Cttee., U.P. Govt.; Adv. Council, Industries (A) Deptt., Rajasthan; Chairman, Export Sector Cttee. in the Board of Trade; Director, U.P. State Industrial Corpn., Ltd.; helped in establishing several institutes like J. K. Institute of Sociology and Human Relations, Lucknow; J. K. Institute of Radiology and Cancer Research, Kanpur; Lala Kamlapat Memorial Hospital, Kanpur; Chairman, Hindustan Commercial Bank Ltd.; *Publications:* Writes occasionally on economic and industrial topics. *Address: Office:* Kamla Tower, Kanpur; *Residence:* Ganga Kutir, Kanpur.

**SINGHJI, Maharaja Karan**
*(See Jammu & Kashmir under Who's Who)*

**SINHA, Bhuvaneshwar Prasad** B.A. (Hons.), M.A., B.L., LL.D. (Honoris, Causa), Patna Univ., April, 1960; Bhagalpur Univ., March 1962, Vikram Univ., Nov. 1962, Ex-Chief Justice, Supreme Court; Exc. Chairman, Indian Law Institute, New Delhi; Pro-Chancellor, Delhi Univ., since 1959. *b.* February 1, 1899; *Educ.:* Arrah Zila School, Patna College and Patna Law College; topped the list of successful candidates at the B.A. (Hons) and M.A. Exams. of the Patna Univ. in 1919 and 1921 respectively. Shrimati Radhika Sinha Gold Medalist for standing first in History. Vakil, Patna High Court, 1922-27; Advocate, 1927-35; Lecturer, Govt. Law Coll., Patna, 1926-35; was member, Senate, of the Faculty of Law and of the Board of Examiners in Law, Patna Univ.; member, Court of the Banaras Hindu Univ.; Govt. Pleader, 1935-39; Assistant Govt. Advocate, 1940-42; Judge, Patna High Court, 1943-51; Chief Justice, Nagpur High Court, 1951-54; Judge, Supreme Court, Dec. 1954-Sept. 30, 1959. Chief Justice, Supreme Court, 1959-64. *Address:* Indian Law Institute, New Delhi.

**SINHA, Mr. Justice Deep Narayan, B.A., Barrister-at-Law** (Lincoln's Inn), Judge, Calcutta High Court. *b.* Jan. 14, 1908; *Educ.:* Hastings House; Santiniketan; Presidency Coll.; T. N. J. Coll., Bhagalpur; Lincoln's Inn, London. Practised as Barrister on the Original Side, Calcutta High Court. *Address:* 6, Queen's Park, Ballygunj, Calcutta.

**SINHA, Ganga Sharan,** M.P., *b.* 1905. Joined non-co-operation movement, 1921; since then has been working in political field; was in the Indian National Congress till 1948; had been member, A.I.C.C. and working Cttee., Bihar P.C.C.; Vice-Pres., & Mg. Trustee, Balika Vidyapath Lakhisarai; left Congress, 1948; member, Bihar Socialist Party, Congress Socialist Party, Socialist Party and Praja Socialist Party; had been member, Working Cttee. and Standing Cttee., All-India and Bihar Sahitya Sammelans; Secy., Central Parliamentary Board of the P.S.P., 1954-56; Life member: Bihar Mahila Charkha Samiti; Kamala Nehru Shishu Vihar; member: Mg. Cttee. Dr. Rajendra Prasad Med. Res. Instt.; Chairman: Reception Cttee.; Second Asian Socialist Conference, Bombay, 1956; All-India Praja Socialist Party, 1956-59; Central Parliamentary Board of Praja Socialist Party, 1956-63; member, Mg. Cttee., Hindi Vidyapeeth, Deoghar (S.P.); Amigrah Seva Sadan; Leader, P.S.P. in Rajya Sabha 1956-64; Pres.: All India Fed. of Hindi Organisation; Akhil Bharat Hindi Samartha Sangh since 1964. *Address:* Kharagpur P.O. Bihta, Dt. Patna.

**SINHA, Mahesh Prasad,** B.A., B.L., Minister for River Valley Project, Irrigation & Power, Bihar, since Oct. 1963. *b.* June 8, 1901; *Educ.:* Matriculation from Monghyr, B.A. from Patna Univ. Practised as an Advocate at Muzaffarpur; courted imprisonment, 1920, 1940 and 1942; was Chairman, Dt. Board, Muzaffarpur; member, Senate and Syndicate, Patna and Bihar Univs.; Founder of a number of colleges and institutions; Minister for Industry, Information and Public Relations, 1952–57; Chairman, Khadi Board; was responsible for nationalisation of road transport; member, A.I.C.C., since long; Treasurer, B.P.C.C. *Address:* Patna.

**SINHA, Rabindralal,** M.A., B.L., Education Minister, Govt. of West Bengal. *b.* Nov. 5, 1910; *Educ.:* Ramkrishnapur M.E. School, Howrah Zilla School, Presidency Coll., Calcutta, Univ. Law Coll., Calcutta. Legal Practitioner; Chairman, Howrah Municipality;

ex-Member of the Senate, Calcutta Univ.; ex-Pres., West Bengal Municipal Assn.; ex-Secy., Howrah Bar Assoc.; Joint Secy., West Bengal Lawyers' Assoc.; Member, West Bengal Leg. Council; was Pres.: Howrah Dt. Congress Cttee.; West Bengal P. C. C.; ex-Associate Editor, Students' Organs, *Bhabi-Kal* and *India Tomorrow*. *Address:* 39, Charu Chandra Sinha Lane, Howrah.

**SINHA, H. E. Rajkumar Raghunath,** of Sitamau, M.A. (Cantab.), Bar-at-Law, I.F.S., Ambassador of India to Netherlands, since July 1963. *b.* Dec. 6, 1912; *Educ.:* St. John's Coll., Agra; Magdalene Coll., Cambridge; Lincoln's Inn, London; Research Scholar, Cambridge Univ. Dewan and Pres., Council of Administration, Sitamau State; Minister, Alwar State; joined the Indian Foreign Service, 1948; was posted as First Secy., Indian High Commission, London and then in the Indian Embassy, Addis Ababa, Ethiopia; Indian Govt. Trade Commissioner in Karachi, 1952; Consul-General of India in Egypt; Consul-General of India for the Western States of the United States, San Francisco; Indian Amb. to Cambodia. *Address:* Embassy of India, Buiterustwag 2, The Hague; Saras Niwas, Sitamau (Madhya Pradesh).

**SINHA, Satya Narain,** Minister for Communications and Parliamentary Affairs, Government of India, since June 1964; *b.* 1900, at Darbhanga (Bihar); *Educ.:* Patna, Participated in the Non-Co-operation movement and was imprisoned, 1920; member: Bihar Legislature, 1926-30; Indian Constituent Assembly was Chief Whip, Congress Party in the Central Assembly and Constituent Assembly; Minister of State for Parliamentary Affairs, Govt. of India, 1949-62; returned to the Lok Sabha from Samastipur East Constituency, Bihar in the general elections; re-elected to Lok Sabha, 1962; Minister of Parliamentary Affairs, 1962-June 1964, also Minister of I. & B., Sept. 1963–June 1964; appointed leader of the Lok Sabha, Feb. 1966. *Address:* 19, Akbar Road, New Delhi.

**SINHA, Satyendra Narayan,** M.A., LL.B., Minister, Education, Agriculture & Local Self Govt., Bihar, since Oct. 1963. *Educ.*. Govt. High School, Rae Bareilly; Ewing Christian Coll., Allahabad; Univs. of Allahabad, Lucknow and Patna. Enrolled as Advocate: Patna High Court, 1941; Supreme Court of India, 1950; Asstt. Secy., Bihar State Cttee. of Kasturba Gandhi National Memorial Fund; Secy., Bihar State Cttee., Mahatma Gandhi National Memorial Fund; Fellow: Patna Univ., 1946–60; Bihar Univ., 1952–60; member, Syndicate: Patna Univ., 1946–60; Bihar Univ., 1958–60; member: Bihar P.C.C., since 1946; A.I.C.C., since 1950; Bihar P. C. Exec. Cttee., since 1958; Bihar P. C. Election Cttee., since 1961; M.P., 1950–61; Delegate, Inter Parliamentary Union Conference at Helsinki, 1955; leader, Indian Cultural Delegation to Afghanistan, 1963; member: Standing Finance Cttee., Lok Sabha, 1950-52; Estimates Cttee., Lok Sabha, 1956-58; Tourist Development Council of India; Director, Sindri Fertilizer Corpn. Ltd. and later Fertilizer Corpn. of India, 1958–61. Min. for Education & L.S.G., 1961-63. *Address:* 2, Strand Road, Patna or Boring Road, Patna.

**SINHA, Mr. Justice Ujjal Narain,** B.A., Barrister-at-Law, Judge, High Court, Patna, since 1957. *b.* Sept. 29, 1910; *Educ.:* C. M. S. High School, Bhagalpur; St. Paul's Coll., Calcutta; Lincoln's Inn, London. Enrolled in Patna High Court, 1938; practised mostly on the Civil side. *Address:* Buddha Marg, Patna-1.

**SIRUR, Gopichand Venkatrao,** B.Sc., B.Sc. (Tech.), M.S. Chem. Engg. (N.U., U.S.A.), Chairman, All India Cottonseed Crushers' Association; Director: N. Sirur & Co. Pvt. Ltd., The Modern Mills Ltd., Sundatta Foods & Fibres Ltd., The Mysore Spg. & Mfg. Co. Ltd., *b.* Dec. 30, 1923; *Educ.:* Hubli-Dharwar, Poona, Bombay, Evanston, Il1. (U.S.A.); B.Sc., 1945, B.Sc. (Tech.) Chem. Engg. 1947, Univ. of Bombay, and M.S. Chem. Engg., North Western Univ., Evanston Il1., U.S.A., 1948. Worked with M/s. Singamaster & Breyer, Consulting Chemical Engineers, New York City; promoted in cooperation with his other colleagues, Sundatta Foods & Fibres Ltd., in India, 1950; is member, reconstituted Development Council for oils, detergents & paints; Chairman, Compound Feeding-stuffs Sub-Cttee. *Address:* 10A, Mount Pleasant Road, Bombay-6.

**SIVASAMBAN, Tiruvalam Kumaraswami,** B.A., B. L., C.A., Managing Director, A. & F. Harvey Ltd., since April 6, 1965. *b.* March 14, 1909, at Vishakapatnam; *Educ.:* Presidency and Law Colleges, Madras. Cttee. member: Indian Cotton Mills Federation, B'bay; The South Indian Cotton Mills Assocn., Coimbatore; Employers Federation of Southern India, Madras; member, Institute of Chartered Accountants, New Delhi; Director: Madura Mills Co. Ltd.; Fenner, Cockill Ltd.; South India Viscose Ltd.; National Machinery Mfrs. Ltd.; Chairman: Punalur Paper Mills Ltd.; The Indian Textile Paper Tube Co. Ltd.; Pandyan Insce. Co. Ltd.; Tuticorin Co. Ltd.; Exc. Dir., A. & F. Harvey Ltd.; 1963-65. *Address:* Pasumalai, Madurai.

**SIVASANKAR, Tumkur,** B.Sc. (Chem.) (Mysore), M.Sc. (Tech.) (Manchester), I.C.S., Chairman, Damodar Valley Corporation, since Sept. 1963. *b.* Oct. 14, 1902; *Educ.:* Mysore Univ. B.Sc. (Chem.), 1922; Manchester Coll. of Technology M.Sc. (Tech.), 1926; Balliol Coll., Oxford; awarded Manchester City Council Research Scholarship, 1925; Patuck Prize for best all-round student in Manchester, 1924 and 1925. Joined I.C.S., 1927. Sub-Collector, Dy. Commissioner of Excise, Secy. to the Central Traffic Board, and Collector, Madras Govt., 1927-40; Development Secy., Madras, 1943-47; Member, *ad hoc* Cttee. on cloth and yarn prices, and later, Textile Commissioner, Govt. of India, 1947-48; D.G.I. S., and Chairman, Automobile Experts Cttee., Govt. of India, 1950-51; Secy., Union Ministry of Irrigation and Power, and Vice-Chairman, Bhakra Control Board, also part-time Chairman, for some time, of the D.V.C., 1953-60; Secy., Union Ministry of Works, Housing and Supply, 1960-62; Lt.-Governor, Goa, Daman and Diu, June 1962–Aug. 1963. *Address:* Alipore, Calcutta 27.

**SOLANKI, Madhavsinh Fulsinh,** B.A. (Hons.), LL.B., Deputy Minister for Revenue, Home & Forests, Govt. of Gujarat, since Sept. 19, 1963. *b.* July 29, 1927; *Educ.:* Amod, Dist. Broach; Gujarat Coll. and L.D. Arts Coll., Ahmedabad; Law Coll., Ahmedabad. Joined *Gujarat Samachar* (Daily) as sub-editor; served for 8 years as a journalist and editor of The Municipal Samachar; in 1957 started legal practice in Borsad, 1957; elected M.L.A., Bombay, 1957; worked on several important cttees.; specialised in Land Reforms, Co-operation, Agricultural and Rural Development; elected M.L.A., Gujarat from Bhadran Constituency, 1962; Dy. Minister for Revenue & Accommodation Control, Gujarat, 1962-63. *Address:* Bungalow No. 15, Cantonment, Ahmedabad 3.

**SOMAN, Vice-Admiral Bhaskar Sadashiv,** Ex-Chief of the Naval Staff, Indian Navy. *b.* March 30, 1913, at Gwalior; *Educ.:* Tilak Vidyalaya run by the Indian National Congress; Chintamanrao High School, Shahapur, Sangli State; Sardar High School, Belgaum; I.M.M.T.S. "Dufferin". After completing Dufferin Training, was selected for the R.I.M. Training in U.K. for two and a half years and returned to India as Sub-Lieutenant, Aug. 1934; promoted Lieut., 1937 and Lieut. Commander, 1945; Acting Commander, 1946; acting Captain, 1947; held important positions in the Navy as Chief of Personnel, and Chief of Administration, Naval Hqrs., Naval Officer-in-Charge, Vishakapatnam, Commodore-in-Charge, Cochin, Commodore-in-Charge, Bombay; made Substantive Rear-Admiral June 12, 1958 and appointed Flag Officer, Bombay; Flag Officer Commanding, Indian Fleet, 1960-62; was in command of the Naval Operations during the Goa action, Dec. 1961; appointed Hon. A.D.C. (Navy) to the President, Aug. 1964; Chief of the Naval Staff, Indian Navy, 1962-66. *Address:* C/o Naval Headquarters, New Delhi 11.

**SOMANI, Gajadhar,** Industrialist and Mill-owner. *b.* April 1908; *Educ.:* Shree Vishudhanand Vidyalaya, Calcutta. Twice elected to Parliament; Ex-Chairman, Bombay Mill-owners' Assoc.; was Pres., All-India Organisation of Industrial Employers, New Delhi for four years; ex-Pres., Rajasthan Chamber of Commerce & Industry, Jaipur; is on the Executive Cttee., Federation of Indian Chambers of Commerce & Industry, New Delhi; Mill Owners' Assn. B'bay.; Indian Cotton Mills' Federation, B'bay.; Pres., Cement Mfrs' Assocn.; was Pres., Indian Merchants' Chamber, Bombay for 1963-64; Director on the Board of various companies; is connected with several religious, social and educational institutions; served on Parliamentary Consultative Cttees. i.e. of the Ministries of Finance, Commerce & Industry, and Labour & Employment; appointed Chairman, Textile Mills Standing Advisory Cttee. to go into the working on uneconomic and sick units in the industry. *Address:* Shreeniwas House, Waudby Road, Fort, Bombay 1.

**SOMASUNDARAM (Somu), M. P., Vidwan (Madras Univ.), Tamil poet and short story** writer; Chief Producer, Features for the Southern Regions, A.I.R. *b.* June 17, 1921; *Educ.:* M. D. T. Hindu Coll., Tirunelveli. Is popularly known by his pen name 'Somu'; Editor, *Kalki*—Tamil Weekly, 1954-56; awarded the Bharati Gold Medal, 1938, the first prize in the All-India Tamil Short story competition, 1940, the Madras Govt.'s Poetry Prize, 1948; The Madras Govt's. Short Story Prize in 1961; Sahitya Akademi Award for his travel Book, 1963; deputed from the Information & Broadcasting Ministry to the B.B.C., 1960; has studied the philosophy of sidhas; knows Sanskrit, Hindi, Malayalam. *Publications:* Eleven volumes of short stories, two volumes of poems, six books of essays, six novels and a travelogue. *Address:* c/o AIR, Madras 4.

**SOMASUNDRAM, Krishnan John,** M.A., I.A.S., Chief Secretary to the Government of Pondicherry, since May 20, 1963. *b.* Feb. 24, 1915; *Educ.:* B.A. (Hons.), 1938 and M.A., 1939, Madras Univ. Commissioned as 2nd Lieut., Punjab Regt., 1940; was in active service in World War II in the Far East; joined the I.N.A. 1944; served under Netaji Subhas Chandra Bose as Lt. Col. commanding the 9th Guerilla Regt.; was political prisoner in Red Fort, Delhi and Bhopal jail; released in the I.N.A. trial, 1946; served in various capacities in the Madras Civil Service from Jan. 1948; promoted to I.A.S., 1953; Collector of Nilgiris, 1957–60; as Director of Handlooms led a successful trade delegation to Colombo, Singapore, Penang, Bangkok, Saigon, Hongkong and Rangoon and promoted the export of handloom fabrics from Madras State; Collector, South Arcot, 1961–63; acted as Chief Commissioner, Pondicherry State. *Address:* Chief Secretary to the Govt. of Pondicherry, Pondicherry 1.

**SONAVANE Shankarrao Vithalrao,** Minister for Prohibition, Maharashtra, since Nov. 1964. *b.* Feb. 12, 1909; *Educ.:* Graduated from Nagpur Univ., 1937. Has been taking an active interest in educational and social activities; founded and conducted a hostel for Harijan students and Nav Bharat Basic Trg. Coll. at Wardha; has been Chairman, Harijan Boarding House, Pusad; elected to Wardha Municipality, 1937; was Pres., Wardha City

Congress Cttee. for some time ; was practising as a lawyer at Wardha from 1952 ; elected M.L.A., M.P., continuously, since 1946 ; elected M.L.A., Maharashtra from the Pulgaon constituency in Wardha district, 1962. *Address :* Sachivalaya, Bombay.

**SONAWANE, Keshavrao Sitaram,** B.A., LL.B., Minister for Co-operation, Maharashtra State, since March 8, 1962. *b.* Feb. 4, 1925, at Mogarga, Dist. Osmanabad ; *Educ. :* Primary and Secondary education at Latur and at Nutan Vidyalaya, Mominabad ; B.A., 1949 and LL.B., 1951, Osmania Univ. Took active part in the "Quit-College" movement launched by the then Hyderabad National Students' Union ; practised Law at Latur ; elected M.L.A., Bombay, from Latur Constituency, 1957 ; was associated with Dayanand Arts & Science Coll. and a High School at Latur ; reorganised and developed a number of Co-operative and Marketing Societies ; was member, State Co-operative Council ; member, National Coop. Farming Board constituted by G.O.I., Ministry of C.D. and Panchayati Raj. *Address :* Sachivalaya, Bombay 32.

**SORCAR, Pratul Chandra,** Padma Shri (1964), Magician. *b.* Feb. 23, 1913, at Tangail, Eastern Pakistan. *Educ. :* Calcutta Univ. ; F.R.A.S. (Lond.) Took to magic at an early age ; won the "Sphinx" Gold Award (the 'Noble Prize' of Magic) from New York twice ; hailed as "World's greatest Magician" in Germany and awarded Royal Medallion and the Golden Laurel ; Hon. Member of the very exclusive Magicians' Club, Tokyo ; Pres., All-India Magic Circle, Calcutta ; Calcutta Branch, International Brotherhood of Magicians, U.S.A. ; cycled on Place de l'Opera, Paris, blindfolded and hooded, 1950 and in Calcutta, 1936 ; also in the Times Square New York City, June 1957; performed at World Magic Convention (Chicago) May 1950 ; has had long shows in Paris, 1955 ; London, 1956, U.S.S.R., 1962 ; became 'Judge' at the World Magic Congress, Boston, U.S.A., in July 1960. *Publications :* 16 works on magic and allied subjects in English, Hindi and Bengali ; regular contributor to French, German, Dutch, Belgian, Spanish, English, and American magic journals. *Address :* "Indrajal," 276/1, Rash Bihari Avenue, Calcutta 19.

**SREENIVASULU, K.,** Diploma in Fine Arts (First Class), Painter ; Officer in Charge, Design Demonstration Centre, Egmore, Madras. *b.* Jan. 6, 1923 ; *Educ. :* Graduated from school of Arts, Madras, 1943. Artist ; won the President's Award for the best picture of the year 'Lotus Garland', 1953 ; held one man's exhibition, Madras, 1955 ; as a Fullbright Scholar visited the U.S.A. and exhibited his works at India House, New York ; exhibited his works in U.S.S.R., China, Japan, Philippines and Australia ; nominated representative of Madras State on the General Council of Lalit Kala Akademi, 1956-57 ; member : Exec. Board, Madras State Lalit Kala Akademi ; Cttee. for Purchasing Art Works, National Art Gallery, Madras ; Small Scale Industries and Handicrafts Board, Madras. *Address :* 31-C, Bhaktavatsalam Nagar, Adyar, Madras 20.

**SRI KRISHNA, Dr.,** C.I.E. (1942), Ph.D., D.Sc. (Lond.), F.N.I., Scientist. *b.* July 1896, at Lahore ; *Educ. :* Punjab Univ. ; D.S.I.R. (England) Research Scholar, 1919–21 ; Queen's College, London ; King's College, London. Elected Fellow of the Royal Institute of Chemistry, 1925 ; Reader in Organic Chemistry, Punjab Univ., 1925 ; Biochemist, Forest Research Institute, Dehra Dun, 1928 ; Foundation Member, National Institute of Sciences, India, 1937 ; Pres., Chemistry Section, Indian Science Congress, 1940 ; Vice-Pres. Forest, Research Institute & Colleges, Dehra Dun, 1947 ; its Dir. of Forest Research, 1948-50 ; Leader, Scientific Delegation to Australia, 1948 ; Dy. Dir., C.S.I.R., New Delhi, 1952-53 ; Scientific Adviser & Scientific Liaison Officer, Indian High Commission, London, till 1959. *Publications :* Over a hundred publications, mainly on plant products. *Address :* 62, Perryn Road, London, W. 3 ; 88, Rajpur Road, Dehra Dun, U.P.

**SRINIVASAN, Sirulur Desikachari,** M.A., F.I.A., Managing Director, Life Insurance Corporation of India, Bombay, since Jan. 1960. *b.* July 1, 1910 ; *Educ. :* Presidency Coll., Madras. Joined insurance as an agent ; appointed as Asstt., 1936 ; became Manager, 1947 ; General Manager, National Insurance Co. Ltd., Calcutta, 1953–59 ; Ag. Managing Director, L.I.C., 1959–60 ; Local Rep. of the Institute of Actuaries, London ; Pres. : Actuarial Society of India ; Federation of Insurance Institutes, Bombay ; was Pres., Life Offices' Assoc. ; member, Exec. Cttee., General Insurance Council from its inception ; Director : Industrial Finance Corpn., New Delhi ; Export Credit and Guarantee Corpn. Ltd., Bombay ; Oriental Fire & General Insurance Co. Ltd., Bombay ; Indian Guarantee & General Insurance Co. Ltd., Bombay ; Trustee, Unit Trust of India, Bombay ; travelled extensively abroad for life and general insurance ; is a rotarian. *Address :* Yogakshema, Madame Cama Road, Bombay 1.

**SRI RAM, Nilakanta,** B.A. (Madras), President, Theosophical Society. *b.* Dec. 15, 1889 ; *Educ. :* Madras. Worked with Dr. Annie Besant on her newspaper, *New India*, 1919-20 and 1923-32 ; was on the *Leader* staff for a short time, 1922-23 ; has been Secy., Treasurer and Vice-Pres., Theosophical Society ; elected international Pres., Feb. 1953 ; has been travelling abroad, lecturing and writing. *Publications : Thoughts for Aspirants, An Approach to Reality, A Theosophist Looks at the World, The Human Interest, Man, his Origins and Evolution*, etc. Edits the monthly *Theosophist*. *Address :* Adyar, Madras 20.

**SRIVASTAVA, Bishwambhar Nath,** M.Sc., D.Sc. (Alld.), F.N.I., F.N.A.Sc., F.P.S. (London), Scientist ; Professor of General Physics, Indian Assoc. for the Cultivation of Science, Jadavpur, Calcutta, since 1953. *b.* Aug. 23, 1905 ; *Educ. :* Jaunpur, Allahabad and Oxford Univ. Elected Fellow, National Institute of Sciences of India, 1946 ; awarded Education Minister's gold medal by the National Academy of Sciences of India, 1950 ; elected : Recorder of Physics Section, Indian Science Congress, 1953 ; Fellow of Physical Society, London, 1953 ; Member of Commission I of International Institute of Refrigeration, Paris, 1957. *Publications :* Over 100 research papers mainly on thermal ionization, quantum statistics, transport properties of gases, etc. ; author (jointly with Prof. M. N. Saha) of *Treatise on Heat*, etc. *Address :* Indian Association for the Cultivation of Science, Calcutta 32.

**SRIVASTAVA, J. K.,** B.Sc. Tech. (Manch.), A.M.C.T., A.T.I., Ex-M.L.A., Chief Business Executive, Sir J. P. Srivastava Group of Industries. *b.* Nov. 13, 1913 ; *Educ. :* Grimes Tutorial School, College of Technology, Univ. of Manchester. President, Upper India Chamber of Commerce, 1957-60 ; Deputy Pres. : Associated Chambers of Commerce of India, 1957 and again in 1959 ; Employers' Fedrn. of India, since 1959 ; Twice Pres., Upper India Chamber of Commerce ; Ex-Chairman, Employers' Association of Northern India ; Member : State Planning Board, U.P. ; Export Promotion Advisory Council, Govt. of India ; Zonal Advisory Cttee. L.I.C. ; Indian Central Cotton Cttee. : Exc. Cttee., Indian Cotton Mills Federation ; All India Board of Technical Studies in Management ; Central Employment Adv. Cttee. ; U.P. Legislative Assembly, 1945-52 ; Cttee., Cotton Advisory Board, Govt. of India and many other Govt. and Private bodies ; Chairman : Northern Regional Cttee., Employers' Federation of India ; Governing Council, Northern India Textiles Research Association ; Leader, Indian Delegation, International Organisation for Standardisation, U.S.A., 1952 ; Delegate, International Chamber of Commerce, Paris, 1950. *Address :* 14/1, Civil Lines, P.B. No. 376, Kanpur.

**STACK, Cecil,** Chairman and Managing Director, The Dunlop Rubber Co. (India) Ltd. *b.* Feb. 15, 1904 ; *Educ. :* Whitgift School, Croydon, England. Joined Dunlop Rubber Co. Ltd., England, Sept. 1922 ; posted to India, Dec. 1924 ; served in various capacities till his appointment as Managing Director in 1951, which post he held until his departure in April, 1957, to take up the position of Deputy Director, Overseas Sales, Dunlop, U.K. : became Overseas General Manager, 1958. Returned to India, June 1965 ; Chairman, Institution of the Rubber Industry (London), Indian Section, and Chairman, Assoc. of Rubber Manufacturers in India. *Address :* 52/3, Ballygunge Circular Road, Calcutta-19.

**STEVENSON, Kenneth Anthony Patrick,** M.A. (Oxon.), B.A. (Hons.) (Oxon.), Vice-Chancellor, U.P. Agricultural Univ., since Dec. 1959. *b.* Aug. 27, 1920 ; *Educ. :* St. George's Coll., Mussoorie ; Exeter Coll., Oxford Univ. Commissioned in Intelligence Corps, Indian Army, Aug. 1942 ; promoted Captain, June 1943 ; Staff Officer, Inter Services Counter Intelligence, Armed Forces Hqr., Oct. 1946 ; joined I.A.S. (allotted to the U.P. Cadre) ; held several important posts in the U.P. Govt., including the post of Deputy Secretary, Joint Secy. and Director of Small Savings, 1947–59 ; Secy. to Govt., U.P. in Agriculture, Animal Husbandry, Forest, Co-operative & Economics & Statistics Deptts., 1955–59 ; Administrator, U.P. Agricultural Univ.-cum-Special Secy., Agriculture Deptt., U.P. Govt., 1959. *Publications : Review of U.P. Zamindari Abolition Act*, 1952 ; *A New University—The U.P. Agricultural University*, 1960. *Address :* Tarai Bhawan, P.O. Pantnagar, District Nainital, U.P.

**SUBBARAMAN, K. N.,** B.E. (Madras), Chairman, Neyveli Lignite Corpn., since May 27, 1963. *b.* Feb. 15, 1911 ; *Educ. :* Maharaja's Coll., Ernakulam ; B.E. from Govt. Engineering Coll., Madras, 1934. Appointed in the Indian Railway Service of Engineers, 1935 ; held posts of Asstt. and Executive Engineer, East Indian Rly., since Sept. 1935 ; prepared Project Report for Chittaranjan Locomotive Works, Dec. 1947 ; Supdt. of the Works in this construction, 1948 ; Dy. Chief Engineer, 1949-52 ; Dy. Chief Engineer, Dy. General Manager and Divisional Supdt., Eastern Rly., 1952-56 ; Chief Engineer, Bhilai Steel Project, July 1956-Feb. 1959 ; Genl. Manager (Planning and Construction), Hindustan Steel Ltd., to plan the expansion of steel capacity in the 3rd Five Year Plan, July-Nov. 1959 ; Director (Construction), Hindustan Steel Ltd. ; Jan. 1960-May 1963. *Address :* 22, Lower Bouleward, Neyveli 1, South Arcot Dt., Madras State.

**SUBBARAO, Mr. Justice Koka,** B.A., B.L. Judge, Supreme Court of India, since Jan. 31 1958. *b.* July 15, 1902 ; *Educ. :* Govt. Arts Coll., Rajahmundry (A.P.) ; Law Coll., Madras. Practised as Advocate, Madras High Court, 1926-48 ; Judge, Madras High Court, March 1948-July 1954 ; Chief Justice, Andhra High Court, July 5, 1954 to Oct. 31, 1956 ; Chancellor, Sri Venkateswara Univ., 1954-55 ; Chief Justice, Andhra Pradesh High Court, Nov. 1, 1956-Jan. 30, 1958 ; acted as Chief Justice of India, Jan. 1965. *Address :* No. 2, Motilal Nehru Marg, New Delhi 11.

**SUBBARAO, Rayaprolu, Sahitya Sthapaka** (1947), Telugu Poet. *b.* March 1892 ; *Educ. :* Nizam Coll., Hyderabad ; Santiniketan. Joined Osmania Univ., as Head of the Telugu Deptt., 1920 ; Principal, Univ. Coll., Warangal, 1947-50 ; Head of the Telugu Deptt., S.V. Univ., 1956-59 ; President,

the All Andhra Poets and Pandits Conference, Rajahmundry, 1934; Jt. Pres., Hyderabad Telugu Academy, 1950; member: Sahitya Akademi General Council. *Publications: Lalita*, Poetic work (1909), *Thrinakankan*, pure lyric (1913); *Kashtakamal; Swapna Kumar; Telugu Tota; Sneha Lata; Jada Kuchulu; Andhravali; Vanamala; Ramya Lekum; Madhuri* and *Kanne Patalu* (verses and songs); *Roopa Navanitam*, drama (1953); Translations of Omar Khayam; Kalidasa's *Meghadoota* and Bhavabhuti's *Uttara Rama Charita* (1958); *Misramanjari* (1964); Shakuntala (1965). *Address: Lalita* Kutir, 44, Nehru Nagar, Secunderabad.

**SUBBULAKSHMI, Smt. Madurai Shanmugavadivu,** Padma Bhushan (1954), President's Award for Karnatic Music (1956), Classical Carnatic Musician. *b.* Sept. 1916. *Educ.:* Learnt music from her childhood from her mother; as a young girl gave vocal assistance to her mother; in the latter's Veena concerts; started giving solo performances in a few years; before eighteen, was acknowledged as a first rate musician; came to be known to North India by giving a concert in Bombay under the auspices of the Vikramaditya Celebrations, 1944; her part as heroine in the Hindi film "Meera" won for her all India popularity; has given more than a hundred benefit recitals in aid of many national, social and religious causes; represented Karnatic Music in the Edinburgh International Festival of Arts, 1963; also gave concerts in London, Frankfurt, Geneva and Cairo. *Address:* "Kalki Buildings", 20, Dr. Guruswamy Mudaliar Road, Kilpauk, Madras-10.

**SUBRAHMANYAN, Dr. V.,** B.A. (Madras), D.Sc. (London), F.R.I.C. (London), F.N.I. (India), F.I.C. Padma Shri (1960); Kidwai Prizes (1960 & 1963); Babcock Hart Award of the Institute of Food Technologists (1962), International Friesland Award (1965), Emeritus Scientist (C.S.I.R.), Central Food Technological Research Institute, Mysore since 1963; F.A.O. Expert in Food Technology, Manila (1964). *b.* 1902; *Educ.:* Madras Univ.; London; Research Medallist of the Royal Agricultural Society of England (1926); Prof. of Biochemistry, Indian Institute of Science, Bangalore; 1931-39, Director, Central Food Technological Research Institute, 1950-63; was Pres.: Chemistry Section, Ind. Sce. Congress; Society of Biological Chemists, Institution of Chemists and Association of Food Technologists; Chairman, National Cttee. for Biochemistry; National Representative, International Congress of Nutrition, Food, Science & Technology. *Publications:* More than 500 research papers having a bearing on agricultural chemistry, biochemistry, nutrition, etc. *Address:* Central Food Technological Research Institute, Cheluvamba Mansion, V. V. Mohalla P.O., Mysore.

**SUBRAMANIAM, C.,** B.A., B.L. (Madras), Minister for Food and Agriculture, Govt. of India, since June 9, 1964; Member, Planning Commission. *b.* Jan. 30, 1910, at Pollachi, Coimbatore Dist.; *Educ.:* Coimbatore and Madras; B.A., 1930, B.L., 1932. Started practice in Coimbatore, 1936; courted imprisonment thrice in the freedom movement; closely associated with the Coimbatore Textile Labour Movement and Sri Ramakrishna Mission Vidyalaya in Coimbatore Dist.; was Pres., Coimbatore D.C.C.; member: P.C.C., A.I.C.C.; working Cttee., Tamil Nad Congress; took a keen interest in students organisations and youth movements; elected to the Constituent Assembly, 1946-52; elected M.L.A., Madras, from the Coimbatore City Constituency, Jan. 1952; again elected to the Madras Assembly, 1957; Finance, Education and Law Minister, Madras till 1962; elected to the Lok Sabha from Pollachi, 1962; Minister for Steel & Heavy Industries, Govt. of India, 1962-63; Min. for Steel, Mines & Heavy Engineering, Nov. 1963-June 1964; visited the U.K. and the Continent, 1960; toured Russia, U.S.A., Canada, Japan and Singapore and established friendly relations with many of the leading statesmen, administrators and industrialists, 1961; led Indian Delegation to the F.A.O. regional conference at Manila, 1964. *Publications:* two travelogues in Tamil *Countries I have visited & Round the World. Address:* New Delhi.

**SUBRAMANIAN, Sitaram,** M.A., Chairman, Tariff Revision Cttee., Govt. of India, since 1964. *b.* Aug. 12, 1909; *Educ.:* St. Joseph's Coll., Trichinopolly. Lecturer, Annamalai Univ., 1930-39; Statistician, Ministry of Commerce & Industry, 1939-51, and Director, Administrative Intelligence Room; Joint Director, Central Statistical Organisation and Statistical Adviser, Ministry of Commerce & Industry, 1951-58; Dir.-Genl., Commercial Intelligence and Statistics, Govt. of India, 1959-64. *Publications: Cost of Living Index Numbers in India; Guide to Current Official Statistics; Recent Social and Economic Trends in India; Report on Enquiry into the Family Budgets of Middle Class Employees of the Central Govt.* (1945-46); *History of Indan Statistical Organisation; Thirty-five Papers on Mathematical, Statistical and Economic Subjects. Address:* C/o Ministry of Commerce, Udyog Bhavan, New Delhi 11.

**SUBRAMANYAN, K. G.,** Diploma in Fine Arts (Viswabharati), Painter; Reader in Painting, Faculty of Fine Arts, Baroda, since 1961. *b.* Feb. 15, 1924; *Educ.:* Presidency Coll., Madras; Kalabhawan, Viswabharati, Santiniketan; Slade School of Art, London. Lecturer in Fine Arts, Baroda Univ., 1951–58; went on a British Council Scholarship to Britain, 1955–56; travelled in France and Italy; Dy. Director (Designs), All India Handloom Board, 1958–61; Design Consultant to All India Handloom Board; member: Gujarat Lalit Kala Akademi; All India Board of Technical Studies in Applied Art; one-man shows in Delhi, 1955, 1958 and 1962; Bombay, 1957 and 1960; participated in various international exhibitions; received medallion of honourable mention in the Sao Paolo Bienniale, 1961 & National award, 1965. *Publications:* Articles in *Marg, Viswamanav, Kumar, Kshitij. Address:* Faculty of Fine Arts, Pushpa Bagh, Baroda.

**SUDHANSU, Dr. Lakshmi Narayan,** M.A., D.Litt., Speaker, Bihar Leg. Assembly, since 1962. *b.* Dec. 15, 1906 in Rupaspur Village, Purnea Dist.; *Educ.:* Purnea; Zila School, Bhagalpur; Banaras Hindu Univ. A Congressman since 1927; Chairman, Purnea Dist. Board, 1939-40; M.L.A., Bihar, since 1946; Chairman, State Hindi Cttee., since 1949; General Secy., Bihar Leg. Congress Party, 1948-49; Pres., Bihar P.C.C., 1950-52; underwent imprisonment twice in the freedom movement; Principal, Hindi Vidyapith, Deogarh, 1935-38; Editor, *Sahitya* of Bihar Hindi Sahitya Sammelan; Pres., 21st Conference (1950) and 29th Conference (1962), Bihar Hindi Sahitya Sammelan, Gaya and Forbesganj (Purnea) respectively; Editor, *Avantika*, 1953-56; Founder Pres., Purnea Kala Bhavan, since 1955; edited, "Congress Souvenir" 67th session of Indian National Congress, Patna, 1962; Adviser, Encyclopaedia of Hindi; Pres., Conference of Bihar Raj Bhasa Parishad, 1962; awarded the title of "Sahitya Vachaspati" of the All India Hindi Sahitya Sammelan, Allahabad. *Publications: Kavya me Abhivyanjanavada; Jivan Ke tattva Aur Kavya Ke Siddhanta. Address:* Village Rupaspur, Dt. Purnea (Bihar); 2, King George Avenue, Patna.

**SUKHADIA, Mohanlal,** L.E.E. (Bombay), Chief Minister, Rajasthan, since Nov. 13, 1954. *b.* July 31, 1916; *Educ.:* Nathdwara (Udaipur) and Bombay. Interned during 'Quit India Movement'; Minister for Civil Supplies, P.W.D., Relief & Rehabilitation, Mewar State; became Development Minister when the State of Rajasthan was first formed; elected to the Legislative Assembly from Udaipur City constituency; Minister for Civil Supplies and Agriculture including Irrigation, Vyas Cabinet, Rajasthan, April 26, 1951-March 3, 1952; Minister for Agriculture, Revenue (except Forests and Co-operation), and Famine Relief, Paliwal Cabinet, March 4, 1952-Oct. 31, 1952 and in Vyas Cabinet, Nov. 1, 1952-Nov. 12, 1954; mainly responsible for the land reforms and Panchayati Raj in the State. *Publications: Our Administrative Problems;* Articles on political, economic and social subjects. *Address:* 8, Civil Lines, Jaipur.

**SUKHATME, Pandurang Vasudeo,** B.Sc., Ph.D. (London), D.Sc. (London), F.N.I., Director, Statistics Division, Food and Agriculture Organisation of the U.N., Rome, since Jan. 1959. *b.* July 27, 1911; *Educ.:* Fergusson College, Poona; University College, London; Galton Laboratory, London; Rothamsted Agricultural Experimental Station, Harpenden. Statistics Adviser, I.C.A.R., 1940-51; Chief, Statistics Branch, F.A.O., U.N., 1951-58; Fellow, National Institute of Sciences, India, 1941; was Research Professor, Iowa State Univ., Ames, Iowa, U.S.A.; was Pres., Statistics Section, Indian Sec. Congress; awarded the Guy Medal by the Royal Statistical Society, Gr. Britain, 1963. *Publications:* Co-author with Dr. V. G. Panse of the book on *Statistical Methods for Agricultural Workers'*, 1955; *Sampling Theory of Surveys with Applications* translated into Spanish by Fondo de Cultura Economica Mexico; *The World's Hunger and Future Food Needs*, 1961, translated and published in French and Spanish by F.A.O. *Feeding India's Growing Millions;* Published by Asia Publishing House, Bombay and also author of several original research memoirs. *Address:* Rome, Italy.

**SUKTHANKAR, Yeshwant Narayan,** C.I.E. (June 1941), M.A., LL.B. (Cantab.), Bar-at-Law (Lincoln's Inn). I.C.S. (Retd.), Govt. Dir., Board of Indian Shipping Companies, Bombay. *b.* Aug. 24, 1897; *Educ.:* Bombay and Cambridge Univs. Joined the I.C.S., Oct. 30, 1922; held several posts in the M. P. Govt. till he was transferred as Deputy Secy., Commerce Dept., Govt. of India, July 1937; Deputy Commissioner, August 1937; Tea Controller for India, Oct. 1939; Secy., Commerce Dept., Govt. of India, Aug. 1946-Aug. 1947; Secy., Ministry of Transport, Aug. 1947-Dec. 1951; Secy., Commerce and Industry Ministry, Dec. 1951-Dec. 1952; Special Secy., Cabinet and Secy., Planning Commission, Dec. 1952-May 1953; Cabinet Secretary and Secy., Planning Commission, Govt. of India, 1953-57; Governor of Orissa, 1957-1962. Pres., Maritime Freight Commission. *Address:* Directorate General of Shipping, Commerce House, Ballard Estate, Bombay 1.

**SUMATI Morarjee, Smt.,** Ex-Chairman, Indian National Steamship Owners' Association. *b.* March 13, 1909; *Educ.:* Privately. Director: Managing Committee, The Scindia Steam Navigation Co., Ltd.; Kamal Shipping Co., Ltd.; Jalanath Insurance Ltd.; The Eastern Bunkerers Ltd.; Narottam & Pereira Ltd.; Member: Sea Cadet Council; All India Handicraft Board; Regional Handicrafts Design Centre; Indian and Tourist Industry's Council; National Shipping Board; Merchant Navy Training Board; Shipping Co-ordination Committee; Export Promotion Council; Deputy Chairman, Lloyds India Cttee.; Vice-Chairman, Maritime Law Assoc. of India; Stand Member, R.W.I.T.C. *Address:* Palm Bun, Gandhi Gram, Juhu, Bombay 54.

**SUNDARAM, C. R.,** B.Sc. (London), A.R.C.S. (1933), Chairman, National Small Industries Corporation Ltd., since Nov. 1961. *b.* Feb. 28, 1910; *Educ.:* Presidency Coll., Madras; Imperial Coll. of Science and Technology, Univ. of London. Joined Rallis Bros. Ltd.; was trained for a year at their Head Office in London; posted in India as a Covenanted

Asstt.; worked with Rallis in several parts of India; worked as Asstt. Director (Textiles), Supply Deptt., Govt of India until Aug. 1942; with Tata Sons Ltd., Bombay, 1943-49; appointed as a Director, Tata Incorporated, New York, 1949; became its Vice-Pres.; was Pres., Indian Chamber of Commerce of America Incorporated; Branch Manager, Voltas Ltd., New Delhi 1954–59; Director: National Small Industries Corporation Ltd., 1960; Bharat Electronics Ltd. *Publications:* Articles contributed to various Journals. *Address:* C/o National Small Industries Corporation Ltd., 4, Rouse Avenue, New Delhi.

**SUNDARAM, Kuthur Vaidyanath Kalyan,** B.A. (Hons.) (Madras Univ.), I.C.S., Chief Election Commissioner. *b.* Jan. 1, 1904; *Educ.:* Coimbatore College; Presidency College, Madras and Christ's College, Cambridge. Appointed to the I.C.S., October 1927; served in Madhya Pradesh as Assistant Commissioner, District Judge and later as Registrar of the Nagpur High Court, 1927-36; Reforms Officer of the Govt. of India, 1936-38; Legislative Department of the Govt. of India, 1938-48; Secy., Ministry of Law, 1948-58. *Address:* 5, Race Course Road, New Delhi 11.

**SUNDARAM, Tribhuvandas Purushottamdas Luhar,** "Bhasha Visharad" (1929), Gujarati Poet, Short Story Writer and Critic. *b.* March 22, 1908; *Educ.:* Gujarat Vidyapith, Ahmedabad. *Publications:* —Poetry: *Kadvi Vani; Kavya Mangala; Rang Rang Vadalian; Vasudha; Yatra;* Short Stories: *Hirakani & Other Stories; Piyasi; Unnayan;* Travel: *Dakshinayan;* Criticism: *Arvachin Kavita; Avalokana;* Biography: *Maha Yogi Sri Arvind;* Translations: *Mrichchhakatik, Kayapalat; Janata ane Jan. Address:* Sri Aurobindo Ashram, Pondicherry.

**SWAMI CHIDANANDA. (Pre-monastic name Sridhar Rao),** President, Divine Life Society, Rishikesh. *b.* Sept. 24, 1916, at Mangalore, South Kanara Dist.; *Educ.:* Mangalore till 1932; then at Madras, B.A. from Loyola coll., Madras. Religiously inclined since birth; sought the company of devotees and saints even in his boyhood and youth; practised yoga at home and developed kindness, compassion, simplicity, devotion, love of solitude and a spirit of selfless *Paropakara;* powerfully influenced by the lives of Ramakrishna Paramahamsa, Jesus Christ, Swami, Vivekananda, Ramathirtha, Ramana Maharshi, Ramadas and Swami Sivananda; renounced the world and journeyed north to the Himalayas, 1943; met his spiritual Guru H. H. Swami Sivananda at Rishikesh and dedicated himself to the Guru's service; ordained as a sannyasin, 1949; was made General Secy. of the Divine Life Society; travelled over India as Swami Sivananda's spiritual representative till 1959; toured Europe and the Americas to spread the gospel of Divine Life and India's message of Yoga and Vedanta, 1960-61; elected Pres., D.L.S. at passing away of the holy founder, 1963. *Address:* P. O. Sivanandanagar, Dt. Tehri—Garhwal, U.P.

**SWAMI, Prajnanananda,** Secretary, Ramakrishna Vedanta Math, Calcutta. *b.* 1907. *Educ.:* City Coll., Calcutta; Varanasi. Joined the Ramakrishna Vedanta Math, 1927. Took Sanyasa initiation from Swami Abhedananda, the direct disciple of Shri Ramakrishna Paramahansa, 1927; studied Nyaya and Vedanta Philosophies at Varanasi. Learnt Indian Classical Music under eminent musicians like Harinarayana Mukherjee of Varanasi, Gopeswara Banerjee and others; conducted research on History of Indian Music; awarded: Sisir Memorial Prize, 1958, Rabindra Memorial Prize, 1960; awarded fellowship by Sangeet Natak Akademi, New Delhi, 1963; connected with various educational and cultural Institutions. *Publications.* On Music: *Historical Development of Indian Music; A Historical Study of Indian Music; A History of Indian Music; Bharatiya Sangeeter Itihasa* (Bengali); *Raga O Rupa* (Bengali); *Bangala Dhrupadamala* (with notations); Philosophy. *Philosophy of Progress and Perfection; Abhedananda-darsana* (Bengali); *Tirtharenu* (Bengali); *Mana O Manusa* (Bengali), etc. *Address:* Ramakrishna Vedanta Math, 19B, Raja Rajkrishna Street, Calcutta-6.

**SWAMI, Raja Yogi Nathji Ananda,** B.A. (Allahabad), Diploma in Hosiery and Textile, Chairman, Visva 'Yoga' Bharati, Borivli, Bombay. *b.* Feb. 19, 1900; *Educ.:* Hindu Coll., Delhi; B.A. from St. John's Coll., Agra, 1926. Took a vow to lead a life of four varna ashrama in response to a discourse on Hindu dharma by an American lady in 1926 when he was a student in the 9th class; Principal, Govt. Hosiery Institute, Ludhiana, 1926–33; initiated for Dhyana Yoga at the age of 12 and for Raja Yoga at 18; devoted fully to Yogaprasan during his Vanaprastha Ashrama; founded the 'Visva Yoga Bharati' and its constituent institutions are Raja Yoga Vedanta Centre, Raja Yoga Vanaprastha Ashram, Dhyana-Yoga Brahmachari Gurukula and a Central Yoga-cum-Natural Therapy at Vallabhnagar, Borivli. *Publications: Raja Yoga Thesis; India's Message of Spirit Force Development. Address:* Chairman, Visva Yoga Bharati, 5, Vallabhnagar, Borivli, Bombay 66.

**SWAMI Ranganathananda,** Secretary, Ramakrishna Mission Institute of Culture, Calcutta, since April 1962. *b.* Dec. 15, 1908. A Sanyasin of the Ramakrishna Order of Monks; joined the Ramakrishna Mission, Mysore in 1926; took orders in 1933; served as Secy. & Librarian of the Ramakrishna Mission Society, Rangoon, July 1939 to Feb. 1942; President, Ramakrishna Math and Mission Branch at Karachi, Aug. 1942 to Aug. 1948; Secy., Ramakrishna Mission, New Delhi, 1949-1962. Cultural lecture tours to Japan, 1958, eight South East Asian countries 1960, and 17 European countries, incl. U.K. and U.S.S.R., 1961. *Publications: Eternal Values for a Changing Society,* a volume of his speeches and writings brought out by the Advaita Ashrama, Calcutta in Nov. 1958. *Address:* The Ramakrishna Mission, Institute of Culture, Gol Park, Calcutta 29.

**TAKRU, Mr. Justice Jawahar Nath,** B.A., LL.B., Judge, High Court, Allahabad, since May 6, 1957. *b.* Dec. 6, 1906; *Educ.:* The Allahabad and the Edinburgh Universities: took his degree in Arts, 1926; studied abroad for two years, graduated in Law, 1931; did one year's training in the chamber of Dr. K. N. Katju; joined the Allahabad Dist. Court Bar and practised in the Dist. Courts for 10 years; shifted to the Allahabad High Court and practised, Dec. 1942-May 1957; Addl. Judge, Allahabad High Court, May 6-Oct. 20, 1957. *Address:* 12, Sir T. B. Sapru Road, Allahabad, U.P.

**TALEYARKHAN, Homi J. H.,** B.A. (Bombay), Minister for Housing, Printing Presses, Fisheries, Savings and Tourism, Maharashtra State, since March 8, 1962. *b.* Feb. 9, 1917; *Educ.:* Bombay Univ.; King's Coll. and Middle Temple, London. Member and Chief Whip, Congress Party, Bombay Municipal Corporation, 1948-52; was Chairman, Works Cttee.; on invitation from President Truman, visited U.S.A. on a goodwill and study tour and spent about four months there explaining India's economic progress and foreign policy; elected M.L.A., Bombay, from Walkeshwar-Mahalaxmi Constituency, 1952, 1957 & 1962; appointed Gen. Secy., Leg. Congress Party; was member, Estimates Cttee. for two years; toured Japan, 1956; toured Germany to study their parliamentary system and economic development, 1960; appointed chief whip of the Leg. Congress Party and Parliamentary Secy. to the Chief Minister, 1957; was mainly responsible for collecting a larger amount than the target and ahead of all other States in the Small Savings Scheme; is member, Exec. Cttee. of the Commonwealth Parliamentary Assoc.; is an Associate delegate of the A.I.C.C.; is Chairman, Society for the Prevention and Rehabilitation of Beggars; pioneered a scheme for low-income group holiday resorts; Pres., Walkeshwar Mahalaxmi Group of Social Welfare Cttee. and Society of Goodwill; Chairman, Workshop for the Blind; Minister for Public Health, Small Savings and Tourism, Maharashtra, 1960-62: also held the portfolios of Food & Civil Supplies, 1962-65. *Address:* Sachivalaya, Bombay 32.

**TALEYARKHAN, Smt. Thrity Homi Jehangir,** 'Padma Shri' (1965), Social Worker. *b.* July 22, 1925; *Educ.:* St. X'avier's Coll., Bombay. Member: All India Handicrafts Board, since 1963; Executive Cttee., Maharashtra State Women's Council; Governing Council, Bharatiya Vidya Bhavan; Board of Governors, Institute of Catering Technology and Applied Nutrition; is Cttee. member, Society for the Protection of Children in Western India; youngest and only lady from Maharashtra to be awarded Padma Shri in 1965; is Chairman: Shilpi Kendra, inaugurated by Pandit Jawaharlal Nehru in Dec. 1963, to promote Indian Handicrafts; two of the Cttees. of Maharashtra State Women's Council; State Committee for Small Savings (collected Rs. 10 crores for Defence Savings Certificates, 1963); Advisory Cttee., G. T. Hospital, Bombay; organised 'Our Heritage' exhibition, the first of its kind in India, Nov.-Dec. 1964; is General Secy., All India Women's Central Food Council, which she helped to found in 1950; played a significant part in popularizing non-cereal foods at cheap rates in the country; helped greatly in the promotion of exports of Indian tea; selected to represent India on the world Seminar on Women's Problems, in Germany—July-Aug. 1965. *Address:* 'Seva Sadan', 21, Narayan Dabholkar Road, Bombay 6.

**TALWAR, Sardari Lal,** Industrialist. *b.* July 17, 1912; *Educ.:* Lahore. Founded jointly with Mr. Roshan Lal Talwar The Paper Products Co., pioneers of specialised flexible packaging in India, 1935; appointed Chairman and Managing Director, Paper Products Ltd., on its incorporation as a Public Limited Co., June 1950; Director of: The Peshawar Electric Supply Co. Ltd., The Sialkot Electric Supply Co. Ltd., The General Mines & Quarries Ltd., *Address:* C/o The Paper Products Ltd., 120, Dinshaw Vachha Road, Bombay 1; C/o The Paper Products Ltd., 13-14, Ajmeri Gate Extension, New Delhi 1.

**TALYARKHAN, Rustom Furdoonji Sorabji,** M.A. (Cantab), Bar-at-Law, Chairman & Chief Executive, Voltas Ltd., Bombay, since April, 1966. *b.* Aug. 30, 1907; *Educ.:* Clifton Coll., Bristol; Gonville and Cauis Coll., Cambridge. Practised at the Bombay High Court, 1929-35; joined Tata Sons Ltd., Bombay, Feb. 1935; Dy. General Manager, Tata Aircraft Ltd., Bombay, 1946; Dy. Agent, Tata Iron & Steel Co. Ltd., Bombay, 1952; Director and Dy. General Manager, Voltas Ltd., Bombay, 1954; Director: Commercial Printing Press Ltd.; International Tractor Co. of India Ltd.; Roche Products Ltd.; Tacar Air Conditioning & Refrigeration Private Ltd.; Scottish Indian Machine Tools Ltd.; Gokak Mills Ltd.; Mg. Dir. Voltas Ltd., 1963-66. *Address:* Lyndewode House, B. Petit Road, Cumballa Hill, Bombay 26.

**TAMBE, Mr. Justice Yeshwant Shripad,** B.A., LL.B., Chief Justice, High Court, Maharashtra, since Dec. 1965. *b.* July 31, 1904; *Educ.:* Elphinstone College, Bombay; Govt. School of Law, Bombay. Judge, High Court, Nagpur, 1954-56; acted as Chief Justice, Maharashtra State, Nov. 1960 and Oct.-Nov. 1962 and again Sept. 4, 1963-Dec. 17, 1963; Judge, High Court, Maharashtra, Nov. 1956-Dec. 1965. *Address:* 14, Harkness Road, Malabar Hill, Bombay 6.

**TANDON, Prakash Lal,** B.A., B.A. (Com.) (Manch.), F.I.C.A. (Eng. & Wales); Chairman, Hindustan Lever Ltd., since 1961. *b.* June 11, 1911; *Educ.:* Punjab and Manchester Univs.,

Joined Lever Bros. (India) Ltd., 1937; Sales Manager, Hindustan Vanaspati Mfg. Co. Ltd., 1941; Marketing Controller, 1945 and Marketing Director, 1951; Co-ordinating Director, Hindustan Lever, 1956; Administrative Dircetor, 1959; Vice-Chairman, 1960; Chairman, Vanaspati Manufacturers Assoc.; Pres., Bombay Chamber of Commerce and Industry, 1964-65; Member, Court of Governors, Administrative Staff Coll. of India, Hyderabad.; Chairman, Indian Institute of Management, Ahmedabad; Member, Council of the Institute of Chartered Accountants of India; Director: Hindustan Steel Ltd., Central Board of the Reserve Bank of India; Food Corporation of India; attended Harvard School of Business Administration's Advanced Management Programme, 1958; led a Marketing and Distribution Team of the National Productivity Council of India to the U.K., U.S.A. and West Germany, 1960. *Publications: Punjabi Century* 1857-1947, 1961. *Address:* "Dakshin Pali", D'Monte Park, Bandra, Bombay 50.

**TANDON, Raj Krishna,** B.A., LL.B. (Punjab), B.A. (Hons.) (Cantab.) Barrister-at-Law, Ambassador to Ireland, since Jan. 1966. *b.* Feb. 10, 1910; *Educ.:* Forman Christian Coll. and Law Coll., Lahore, Emmanuel Coll., Cambridge and Middle Temple, London. Joined Punjab Civil Service; Under-Secy., 1942 and later Deputy Secy., Information and Broadcasting Deptt., Govt. of India; Officer on Special Duty, Commerce Deptt., Govt. of India, Feb. 1946; Trade Commissioner in Ceylon, 1946-48. Dy. Chief Controller of Imports & Exports, Bombay, 1948-50; Dy. Secy. and Joint Chief Controller of Imports, Govt. of India, 1950; Consul-General of India, Pondicherry, 1950-53; Ag. Commissioner in British East Africa and the Federation of Rhodesia and Nyasaland and Ag. Consul-General in Belgian Congo and Ruanda Urundi, 1954; Commissioner for the Govt. of India in Singapore and the Federation of Malaya, 1954-57; Jt. Secy. and Chief of Protocol, Ministry of External Affairs 1957-59; Ambassador of India in Netherlands 1960-63; High Commissioner for India in Kenya, 1964-66. *Publications:* Articles in various papers. *Address:* C/o External Affairs Ministry New Delhi.

**TANGE, H. E. Sir Arthur Harold,** Kt. (cr. 1959), C.B.E. (1955) B.A., High Commissioner for Australia to India and Australian Ambassador to Nepal. *b.* Aug. 18, 1914; *Educ.:* Gosford High School, Univ. of Western Australia. Bank of New South Wales, 1931; Economics Research, various Commonwealth Departments, Canberra, 1942-46; First Secy., Australia Mission to the U.N., 1946-48; Counsellor, U.N. Division, Canberra, 1948-50; Asstt. Secy., Canberra, 1950-53; Australian Minister, Washington, D.C., 1953-54; Secy., Deptt. of External Affairs, 1954-65; Member, Australian Delegations: Bretton Woods Monetary Conference; U.N. Preparatory Commission; General Assembly, Econ. & Social Cl., London and New York; Reparations Conference, Paris; I.L.O. Paris, Montreal and San Francisco; International trade conferences, London, Geneva and Havana; British Commonwealth Ministerial Conferences, London, Colombo, Sydney 1944-64. *Publications: Australia Foots the Bill* (joint author). *Address:* The Residence, Australian Compound, Shanti Path, Chanakyapuri.

**TARE, Mr. Justice Prabhakar Kesheo,** B.A., LL.B., Judge, M. P. High Court, since December 1957. *b.* Oct. 11, 1913; *Educ.:* Agricultural Middle School, Powarkhera; Ramjas High School, Delhi; Holkar Coll., Indore; Morris Coll., Nagpur; LL.B. from Univ. Coll. of Law, Nagpur, 1936. Enrolled at the Hoshangabad Bar: joined Congress; resigned Congress as a protest against the action against Subhas Chandra Bose; joined Forward Bloc, 1939; courted jail several times in the freedom struggle; started practice in Nagpur High Court, Oct. 1945; Secy., M.P. Forward Bloc throughout; for some time Secy., All India Forward Bloc; gave up politics, 1952. *Address:* Judge, M.P. High Court, Indore Bench, Kali Kothi No. 2, Yeshwant Niwas Road, Indore.

**TARNEJA, Dr. Ram,** B.A. (Hons.) (Delhi), M.A. (Delhi & Virginia), Ph.D. (Cornell), Gold Medallist, Director of Personnel, Sahu Jain Industries. *b.* December 7, 1931, at Karachi; *Educ.:* L.R.D.A.V. High School, Karachi; S. R. Coll. of Commerce (B.A. Hons.), 1947-51; awarded, Hora Gold Medal, 1951; St. Stephen's Coll., Delhi (M.A.), 1951-53; Univ. of Virginia, U.S.A. (M.A.), 1953-55; Cornell Univ. (Ph.D.), 1955-57. Dir., Arun Metal Industries (P) Ltd.; Governor, Indian Institute of Management, Calcutta; Council Member, All-India Management Assoc.; member, Board of Studies for Commerce Hons. & Post-Graduate. Andhra Univ.; Vice-Pres., Patna Management Assoc.; Member: Exc. Cttee., Calcutta Management Association; Faculty Research Fellow, Ford Foundation, 1960-61; Professional Member, Academy of Management, Indian Institute of Public Administration, etc., Indian Institute of Personnel Management and Calcutta Management Assoc.; Associate Professor of Management, Duquesne Univ., U.S.A., and Management Consultant. *Publications:* Several in professional journals on business administration and economics. *Address:* 11, Clive Row, Calcutta 1.; 3C/22, Rohtak Road, New Delhi 5.

**TATA, Jehangir Ratanji Dadabhoy,** Industrialist. *b.* Paris, France, July 29, 1904; *Educ.:* India, France, Japan. Chmn., Tata Sons Private Ltd., 1938; founder, Tata Airlines, 1932; Chmn.: Air-India Ltd., 1946; Air-India Internat. Ltd., 1948; Air-India 1953; Mem., Indian Airlines Corp., 1953; Chmn.: Tata Industries Private Ltd., Tata Iron and Steel Co. Ltd., Tata Hydro-Electric Agencies Limited, Tata Oil Mills Co. Ltd., Tata Engineering & Locomotive Co. Ltd., Tata Chemicals Ltd., Investment Corporation of India Ltd., Tata Ltd., London, Tata Inc., N. Y., Tata A. G., Zug, Tata International, Zug; Lady Tata Memorial Trust, J. R. D. Tata Trust, J. N. Tata Endowment for Higher Education of Indians, Tata Institute of Fundamental Research; Dir.: Indian Hotels Co. Ltd., Swadeshi Mills Co. Ltd., New India Assurance Co. Ltd. (Vice-Chairman); Trustee, Sir Dorabji Tata Trust; Mem., Exec. Comm. Internat. Air Transport Assn., Tata Inst. Social Scis. (governing bd.), Council Sci. and Indsl. Research (governing bd.), Nat. Council Applied Econ. Research (Gen. Body); Central Advisory Council of Industries; Pres., The Court of the Indian Inst. of Science; decorated Legion of Honour, 1954; named International Management Man, National Association of Foremen, 1953; Doctor of Science (Honoris Causa), Allahabad Univ., 1947; recipient, Padma Vibhushan, Govt. of India, 1955; Hon. member, Iron & Steel Institute, Lond., 1963; Commander Knight of St. Gregory the Great, Feb. 1965. *Address: Residence:* 'The Cairn' Altamount Road, Cumballa Hill, Bombay 26; *Office:* Tata Sons Private Ltd., Bombay House, Bruce Street, Fort, Bombay 1.

**TAWDE, Dr. Nanasaheb Ramji,** B.A. (Hons.), B.Sc. (Bombay), M.Sc. (Bombay), Ph.D. (Lond.), F Inst. P. (Fellow of Institute of Physics, Eng.), F.N.I. (Fellow of National Institute of Sciences, India), F.A.Sc. (Fellow of the Indian Academy of Sciences), Vice-Chancellor, Marathwada Univ., since June 19, 1964. *b.* Jan. 15, 1898; *Educ.:* General Education Institute, Dadar; St. Xavier's Coll., Bombay; Royal Institute of Science, Bombay; Univ. of London; Univ. of Stockholm (Sweden). Pres., Physics Section of Indian Science Congress, Lucknow, 1953; Fellow, Univ. of Bombay; was Chairman, Board of Studies in Physics and member, Academic Council of Univ. of Bombay; member: Syndicate, Senate, Academic Council and Board of Studies, Karnatak Univ., Ag. Vice-Chancellor, Karn. Univ., 1962; elected member, Institution of Nuclear Engineers, London, 1960. *Publications:* About 110 on various modern problems of Physics; Author of *Jeevan Vidnyan* (Science Series) text-books for Marathi Schools. *Address:* Marathwada Univ., Aurangabad (Deccan).

**THACKER, Prof. Manekla Sankalchand*,** B.Sc. (Eng.), (Bristol), D.Sc., D.Litt., D. (Eng.) (*honoris causa* of several Indian Universities), F.N.I., F.I.A.Sc., Fellow, Amer. Inst. of Electrical Engineers, Padma-Bhushan (1955); Member, Planning Commission in charge of Natural Resources, Irrigation and Power, Health, Housing etc., since Oct. 25, 1962. *b.* Dec. 3, 1904; *Educ.:* Ahmedabad and Bristol Univ., U.K. Covenanted Officer, Calcutta Electric Supply Corporation, 1932-47; Prof. Power Engg., Indian Inst. of Science, Bangalore, 1947-49; Dir., Indian Inst. of Science, Bangalore, 1949-55; Chairman, British Commonwealth Scientific Cttee., 1961-63; Gen.-Pres., U.N. Confer. on application of Sci. & Techy., 1963; Fellow or member of several learned and professional bodies in India and abroad; was Pres., Indian Science Congress; has toured extensively in Europe, U.S.A., U.S.S.R., Canada, South America, Australia and other countries and has led several scientific delegations to international conferences; has been chairman of various development committees for the promotion of machine tools, engineering industry, scientific instruments, etc.; Secy. and Educational Adviser (Tech.) Min. of S. R. & C. A.; Dir.-Genl., C.S. & I.R. 1955-62. *Publications:* Numerous research papers and memoirs in electro-technology, high voltage and power engineering and energy development. *Address:* 4, Kushak Road, New Delhi 11.

**THACKERSEY, Dr. Smt. Premlila Vithaldas,** D. Litt. (Banaras Hindu Univ.) and (S.N.D.T. Univ.), Vice-Chancellor, S.N.D.T. Univ., since 1957. *b.* Jan. 8, 1894; *Educ.:* Studied English and Sanskrit at home with the help of learned shastris and professors. Went on a world tour, 1919; began taking interest in social and educational activities, 1926; nominated Vice-Chancellor, S.N.D.T. Univ., 1951; elected in 1957, 1960 and 1963; Chairman: Kasturba Gandhi National Memorial Trust; Prof., J. P. Trivedi Memorial Trust; Lady Northcote Hindu Orphanage and a prominent worker of Vanita Vishram. *Address:* Parnakuti, Veravda Hill, Poona 6.

**THADANI, Haso Nenumal,** B.E. (Mech., Elect.), Business man. Industrial and Management Consultant. Managing Director, Endesco Private Ltd., Bombay. *b.* 20th June 1916. Chairman and Managing Director of Ibcon Private Limited, Bombay 1956-64; was one of the founders of that Company. Chairman of the Institute of Industrial Engineers (India), from 1959 upto date; Member of the Board of Governors, NITIE; Member, Rotary Club of Bombay; Leader of NPC-USAID Study Team to U.S.A. and Japan for "Industrial Engineering", 1964; Member, Governing Council of NPC; has been Consultant to Government of Ceylon, Government of Iraq and Government of Burma for development of new industries. *Address: Residence*—"The Cliff", 11, Carmichael Road, Bombay 26; *Office:*—"Shivaenumh", 205, Dr. A. Besant Road, Worli, Bombay 18.

**THANU Pillai, A.,** B.A., B.L., Governor of Andhra Pradesh, since May 4, 1964. *b.* July 1885 in Trivandrum; *Educ.:* B.A. from Maharaja's Coll., Trivandrum; B.L. from Law Coll., Trivandrum. Set up practice in the second decade of the century and soon made his mark as a lawyer; began to take active interest in public affairs; elected member, Travancore Leg. Assembly, 1928; has been M.L.A., Travancore-Cochin and Kerala ever since with a short break when the State Congress members were banned

* Elected member, Textile Assoc. of India for 1966.

from contesting the seat; was Pres., Travancore State Congress; Chairman, State Cttee. of the P.S.P.; Chief Minister, Travancore, 1948; Travancore-Cochin, 1954; Chief Minister, Kerala State, Feb. 1960-September 1962; Governor of Punjab, Oct. 1962-May 1964. was Chief Editor, *Kerala Janata*. *Address:* Raj Bhavan, Hyderabad.

**THAPAR, General Pran Nath,** Indian Ambassador to Afghanistan; Ex-Chief of Army Staff, Indian Army. *b.* May 8, 1906; *Educ.:* Govt. Coll., Lahore. Commissioned from Sandhurst, 1926; ten years with the 1st Punjab Regt.; Staff Courses at Quetta and Minleymanor, England; service in Burma, 1941; in the Middle East and Italy, 1943; was Asstt. Military Secy., G.H.Q., India; selected to serve on the Army Reorganisation Cttee.; commanded the 1st Bn., 1st Punjab Regt. in Indonesia, 1946; later commanded 161 Indian Infantry Brigade in East Bengal; Director of Military Operations and Intelligence, A.H.Q., India, Aug.-Dec. 1947; officiated as Chief of General Staff; Military Secy., 1948-49; M.G.O., 1949-50; G.O.C. of a Division, May 1950; Commander of a Corps, 1953-55; attended Imperial Defence Coll. Course, London, Jan. to Dec. 1956; G.O.C.-in-C.: Southern Command, 1957-59, Western Command, 1959-61; Chief of the Army Staff, 1961-62; Hon. Col., Rajputana Rifles. *Address:* C/o Ministry of External Affairs, New Delhi.

**THAPAR, Prem Nath,** B.A. (Hons.) (Punjab), B.A. (Oxon.), I.C.S. (Retd.), Vice-Chancellor, Punjab Agri. Univ., Chandigarh, since March, 1962. *b.* April 13, 1903; *Educ.:* Govt. Coll., Lahore; New Coll., Oxford. Joined I.C.S., 1926; worked as Deputy Commissioner, Settlement Officer and Colonization Officer till 1941; Joint Secy., Govt. of India Information and Broadcasting Deptt., 1941-46; Secy., Food and Civil Supplies Deptt., Punjab, 1946-47; Commissioner, Lahore and Jullundur Division, 1947-48; Financial Commissioner, Rehabilitation and Chief Administrator, Chandigarh Capital Project, Punjab, 1948-53; Adviser, National Planning Commission, New Delhi, 1953-54; Secy., Govt. of India, Ministry of Food and Agriculture, 1954-58; member for Finance and Administration, Atomic Energy Commission and Secy., Govt. of India (Finance), 1958-62. *Address:* Ludhiana, Punjab.

**THIAGARAJAN, Karumuttu,** a leading Textile Industrialist of South India; started The Sree Meenakshi Mills, Ltd., 1921. *b.* 1893; *Educ.:* St. Thomas' Coll., Colombo. Joined the "Morning Leader" as an apprentice; reported on labour conditions in the plantations in Ceylon; founded a Labour Union; was its Secy. for seven years; was responsible for improving the terms and conditions of employment of estate labour; joined the Congress, 1914; Secy., Provincial Congress, 1916; member, A.I.C.C., 1917; led the agitation against the introduction of Hindi in Tamil Nad, 1937; Thiagarajar High Schools, Madurai; Thiagarajar College, Madurai; Thiagarajar College of Preceptors, Madurai; Thiagarajar College of Engineering, Madurai; Thiagarajar Polytechnic, Salem and Alagappanagar; Sree Visalakshi Kalasalai, A. Thekkur (Ramnad) etc.; Managing Editor, *Tamil Nadu*, a leading Tamil Daily published from Madurai. *Address:* 'Meenakshi Nilayam', Thirupparankundram Road, Madurai.

**THOMAS, A.M.,** B.A., B.L., Minister for Defence Production, Ministry of Defence, Govt. of India, since June 1964. *b.* June 4, 1912; *Educ.:* St. Thomas' Coll., Trichur; Maharaja's Coll., Ernakulam; Law Coll., Trivandrum. Set up practice in Ernakulam; elected to the Cochin Council, 1948; member, Travancore-Cochin Assembly, 1949-52; was Speaker, 1951; elected to Lok Sabha, 1952, 1957 & 1962; Dy. Minister for Food and Agriculture 1957-63; Minister of State for Food & Agriculture, Nov. 1963-June 1964. led Indian delegation to U.N. Sugar Conference in Geneva 1958 & 1961; led also Food Dept. delegation to Canada and U.S.A. in 1960. *Address:* New Delhi 1.

**THOMAS, A. V.,** Business man. *b.* Aug. 9, 1891. Managing Director, A. V. Thomas & Co. Ltd., and Allied Concerns; controls Planting (Tea, Coffee and Rubber), and other companies with a total capital of about four crores; elected to Parliament in the General Elections, 1952; returned to Madras Leg. Assembly in the Gen. Elections, 1957; Pres., National Council of Y.M.C.A.s, since Dec. 1961; member, Defence Aid Cttee. *Address:* 2/21, First Line Beach, P.B. No. 1603, Madras 1.

**THOMAS, Clayton B.,** B. S. (in Industrial Engineering) General Manager, Esso Standard Eastern Inc. India/Burma/Ceylon. *b.* Jan. 15, 1911; *Educ.:* Yale Univ. Esso Standard Oil Co., U.S.A., 1932-36; India Div., 1936-42; Esso Refinery, U.S.A., 1942-50; Esso, N.Y., 1950-52; Affiliate South Africa, 1952-54; Esso, N.Y., 1954-61; India Division, 1961-date. *Address:* "Mont Blanc", Dadyseth Hill, Bombay 26.

**TIDKE, Narendra Mahipati,** B.A. (Hons.) (Nagpur), LL.B., Minister for Labour, Maharashtra State, since Dec. 5, 1963. *b.* Nov. 2, 1920; *Educ.:* Nagpur. Organising Secy., All India Students Congress; Chairman, Steering Cttee., 1st All India Session of National Union of Students; Secy., Youth wing of Nagpur Pradesh Congress Cttee.; participated in 1942 freedom struggle and was in jail; was General Secy., Nagpur Pradesh I. N. T. U. C.; Pres.: Rashtriya Mill Mazdoor Sangh, Nagpur; Ballarpur Paper Mill Mazdoor Sabha; was Secy., All-India National Textile Workers' Federation; represented Indian workers at 39th Session of I.L.O. at Geneva & participated in the Study Conference at Oxford, 1956; was member, Nagpur Univ. Court; Secy., Maharashtra Rajya Shikshan Sanstha; elected to the Leg. Assembly from Saoner Constituency, 1962; Dy. Minister for Rural Development, 1960-63. *Address:* Sachivalaya, Bombay 32.

**TRIPATHI, Kamalapati,** Shastri (Kashi Vidyapith), Pres., U.P.C.C., since 1964; Ex-Minister for Finance, U.P. *b.* Bhadra Shukla 5, 1962 (Vikram); *Educ.:* Central Hindu School and Kashi Vidyapith. Was Editor, *Aj* and *Sansar* (Hindi dailies) for more than two decades; took active part during the freedom movement; courted jail in 1921, 1930, 1932, 1933, 1940 and 1942; awarded the Mangala Prasad Puraskar for *Bapu Aur Manavta*; presided over Prantiya Hindi Sahitya Sammelan, 1947; elected M.L.A., U.P., 1936, 1946, 1952, 1957 and 1962; was member, Constituent Assembly and one of the members of Constitution Translation Sub-Cttee. (Hindi); Minister for Irrigation and Information in Pandit Pant's Ministry; Minister for Home, Education and Information till 1960; resigned Ministership, July 1964. *Publications:* Hindi *Maurya Kaleem Bharat; Islami Duniya ka Sartaj; Cheen Aur Chiang; Bapu Aur Manavta; Bapu Aur Bharat; Bandi ki Chetana; Patra Aur Patrakar; Yug Purush* and *Bapu Ke Charnon Men*. *Address:* Aurangabad; Varanasi.

**TRIPATHY, Sadasiba,** Chief Minister, Orissa State, Since Feb. 1965. *b.* April 1910; *Educ.:* High School, Jeypore, Dist. Koraput. Joined Congress in the early thirtees and was elected to the Orissa Leg. Assembly, 1937; was M.L.A. continuously for 28 years; elected for the fifth time on Congress ticket from Omerkote Constituency; Revenue Minister, 1948-56; was responsible for piloting and implementing the Orissa Estates Abolition Act; resigned from the Cabinet, Sept. 1956; resigned from the Assembly immediately after the formation of the Coalition Ministry; was member, A.I.C.C., 1938-55; was Exec. Member, Pradesh Congress Cttee., 1938-55; imprisoned for one year during the Individual Satyagraha Movement; detained during Quit India Movement, 1942-45; Secy., Orissa Bhoodan Yagna, 1959-61; Min. for Revenue, Orissa, 1961-65. *Address:* Bhubaneswar.

**TRIVEDI, Sir Chandulal Madhavlal,** K.C.S.I. (1945), Kt. Bach. (1945), C.S.I. (1941), C.I.E. (1935), O.B.E. (1931), LL.D. (Honoris Causa, Punjab Univ.), Doctor of Letters (Honoris Causa), Andhra Univ., Padma Vibhushan, 1956, Ex-Governor, Andhra Pradesh. *b.* July 2, 1893; *Educ.:* B.A. from Elphinstone College, Bombay, 1913; St. John's College, Oxford. Entered I.C.S., 1917; Under-Secy. to C.P. & Berar Govts.; Dy. Secy. and Offg. Jt. Secy. to Govt. of India, Home Deptt.; Commissioner in various divisions in C.P. & Berar; Chief Secy. to Govt., C.P. and Berar; Addl. Secy., Deptt. of Communications, Govt. of India, March-June 1942; Secy., War Deptt., Govt. of India, New Delhi until 1946; Governor of Orissa, April 1946 to August 1947; Governor of Punjab, Aug. 15, 1947-March, 1953; Governor, Andhra State, Oct. 1, 1953-Oct. 31, 1956; Governor of A.P., 1956-57; member Planning Commission, 1957-63; Dy. Chairman, Planning Commission, Oct.-Dec. 1963; Arbitrator, U.P.—Bihar Boundary Dispute, Jan.-Aug. '64; Chairman, M.P. Police Commission 1964-65. *Address:* Chandra Bhuvan, Kapadwanj, Kaira Dist.

**TRIVEDI, Vijaykumar Madhavlal,** B.A., LL.B., Minister for P.W.D., Ports and Civil Supplies, Gujarat State, since Sept. 19, 1963. *b.* Jan. 1, 1911; *Educ.:* at Patan, Baroda and Bombay; B.A., 1931, LL.B., 1933. Worked as active volunteer at the time of floods in Gujarat, 1927; actively participated in the Satyagraha movement, 1930; served Mehsana and Baroda Districts through various Assocs. such as Primary Teachers' Assoc., Railway Servants' Union, Harijan Sevak Sangh, etc.; M.L.A. in the former Baroda Assembly, 1946; elected M.L.A., Gujarat, 1962; Min. for Irrigation, Transport, Municipalities & Civil Supplies, Gujarat, 1962-63. *Publications:* Short stories. *Address:* Minister, Gujarat State, Ahmedabad.

**TRIVEDI, Vishnuprasad Chunilal,** B.A. (Hons.), B.A. (Tripos) (Cambridge), M.A. (Cantab.), Ambassador of India to Switzerland and concurrently Amb. to the Vatican, since Dec. 1964. *b.* Feb. 12, 1916; *Educ.:* Univs. of Bombay and Cambridge. Served Govt. of Bombay, 1940-44; served Govt. of India in various capacities, including Under Secy. and Deputy Secy., Ministries of Commerce and External Affairs, 1945-50; First Secy., Indian Embassy, Tokyo, 1950-53; Counsellor, Indian High Commission, London, 1955-59; Dy. High Commissioner, Dacca, 1959-60; Ag. High Commissioner, Karachi, 1960-61; Jt. Secy., Ministry of External Affairs, 1961-64; Rep. to the U.N. General Assembly, 1963; led the Indian delegation to the 18 Nation Disarmament Conference in Geneva, 1963; Dy. Leader, U.N. Disarmament Commission meeting in New York, 1965; Leader, Indian delegation to the Economic and Social Council, 1965. *Address:* Indian Embassy, Berne, Switzerland.

**TRIVEDI, Vishnuprasad Ranchhodlal,** M.A. (Bombay), Gujarati Critic; Dir., Chunilal Gandhi Vidya Bhavan, Surat. *b.* July 4, 1899, at Umreth, Dist. Kaira; *Educ.:* Thasra, Nadiad and Ahmedabad. Retd. Life Member, Sarvajanik Education Society, Surat; twice Sectional Chairman, Gujarati Sahitya Parishad; Thakkar Vassonji Lecturer of Bombay Univ.; G. M. Tripathi Lecturer, Gujarat Univ.; Fellow, Gujarat Univ.; Pres., Guj. Sahitya Parishad 1961; Sahitya Akademi Award, 1963. *Publications: Vivechana; Upayana; Govardhanram; Parishilan; Arvachin Chintanatmak Gadya.* *Address:* 'Maitri', Adarsha Society, Surat.

**TYABJI, Badruddin Faiz Hasan Badruddin,** B.A. (Honours), I.C.S., Indian Ambassador to Japan, since March 1965. *b.* Nov. 12, 1907; *Educ.:* St. Xavier's School and College, Bombay; Balliol College, Oxford. Passed the I.C.S. in London, 1931; served in the Punjab Govt., 1932-42; Controller of Supplies, Govt. of India, Karachi and Bombay, 1942-44; Dy. Secy., Govt. of India Planning and Development, 1944-46; Dy Secy. and Joint Secy., Constituent Assembly, Secretariat and Ministry of External Affairs and Commonwealth Relations, 1946-48; Charge d'Affaires, Indian Embassy. Brussels, Belgium, 1948-50; Jt. Secy., Ministry of External Affairs, 1950-52: Commonwealth Secy., 1952-53; Ambassador in Indonesia, 1954-56; Iran, 1956-58; W. Germany, 1958-60; Spl. Secy., External Affairs Ministry, 1961-62; Vice-Chancellor, Aligarh Muslim Univ., Oct. 1962-Feb. 1965. *Address:* C/o Ministry of External Affairs, New Delhi.

**TYABJI, Mrs. Khadija Shuffi,** Social Worker; Ex-J.P., Hony. Presidency Magistrate; ex-M.L.A., Associate Serving Sister, St. John Ambulance, Bombay State, *b.* 1885. An elected member of the Municipal Corporation; first Commissioner, Municipal Girl Guides; was State Commissioner (Guides); is Vice-Pres., Bharat Scouts and Guides; Chairman, Red Cross Reforms, 1930; Chairman, Red Cross Executive, 1928; Vice-President, Social Service League; Chairman, Mahila Seva Mandal; member, Port Haj Committee; Chairman, Albless and Cama Hospital Advisory Board and is also connected with the following institutions for many years—Govt. Urdu Text Book Committee; Infant Welfare Society; The Bombay Mothers and Children Welfare Society; Society for the Protection of Children in Western India, etc.; President, All-India Educational Conference, Women's Section, Poona, 1940; awarded Kaiser-i-Hind Silver Medal, 1935; Gold Medal, 1941; awarded Silver Star by the National Hqrs., Bharat Scouts & Guides, 1962. *Address:* Khatau Mansion, Oomer Park, Warden Road, Bombay 26.

**TYAGI Mahavir,** M.P., Ex-Minister for Rehabilitation, Govt. of India. *b.* 1900, Dhabarsi Village, Moradabad Dist. (U.P.) *Educ.:* Privately. Has been a Staunch Congressman; courted jail eleven times for Congress activities: member: A.I.C.C., 1923-65; Constituent Assembly of India, 1946-49; Provisional Parliament, 1950; ex-member, U.P. Leg. Assembly; organnised Tyagi Police, U.P., Aug. 1947; returned to the Lok Sabha from Dhera Dun District-cum-Bijnor Dist. (North West)-cum-Saharanpur Dist. (West) Constituency, U.P. in the general elections; Minister of Revenue and Expenditure, Govt. of India, 1951-53; Minister, Defence Organisation, 1953-57; Chairman: P.A.C. 1962-64; Direct Taxes Administration Enquiry Committee, *Address:* New Delhi.

**UKIL, Ranada,** Painter; Ex-Lecturer, Women's College, Banaras Hindu Univ. and Director, Ukils' School of Art, Banaras. *b.* Sept. 5, 1900; *Educ.:* Govt. Coll. of Art at Calcutta and Royal College of Art, London; was Govt. of India scholar; was commissioned twice to do the Mural Painting in India House, London; Their Majesties George V and Queen Mary, and Sir William Rothenstein were greatly impressed by his work; was honoured by Queen Mary who bought his painting "Shahjahan's Dream of the Taj" in an Arts Exhibition in New Bond Street, London. *Address:* Ukil School of Art, Bhelupura, Varanasi (Banaras).

**UNTWALIA, Mr. Justice Nand Lall,** B.A., B.L., Puisne Judge, High Court, Patna, since Nov. 4, 1958. *b.* Sept. 2, 1915; *Educ.:* Sitamarhi H. E. School; G. B. B. Coll., Muzaffarpur; Univ. Law Coll., Calcutta; passed B.A., 1937; B.L., 1940. Practised as a Pleader at Muzaffarpur, from Nov. 1940; enrolled Advocate, March 1944; shifted practice to Patna, March 1947; Addl. Judge, Patna High Court, Jan. 2—Nov. 3, 1958. *Address:* Kadamkuan, Patna.

**UPADHYAYA, Pt. Deendayal,** B.A., L.T., General Secretary, Bharatiya Jan Sangh, since 1953. *b.* Oct. 10, 1917, at Farah village, Dist. Mathura, U.P.; *Educ.:* Matriculated from Sikar, Jaipur State; Intermediate (Arts) Birla Coll., Pilani; B.A., S. D. Coll., Kanpur, 1939; L. T., Govt. Training Coll., Allahabad, 1942. Joined the Rashtriya Swayamsewak Sangh; became R.S.S. Organiser, 1942; Managing Director, Rashtra Dharma Prakashan Ltd., Lucknow, 1947-52; Joint Provincial Organiser, R.S.S. in U.P., 1945-51; General Secy., Bharatiya Jan Sangh, U.P., 1951-53. *Publications:* in Hindi: *Jagadguru Shankaracharya; Chandragupta Maurya; Mahan Vishwaseghat; Bharatiya Arthniti; Rashtra Jivana ki Samsayen;* in English: *The Two Plans: Promises, Performance and Prospects. Address:* Bharatiya Jan Sangh, Ajmeri Gate, Delhi 6.

**UPPAL, Dr. Badri Nath,** Ph.D. (Iowa), Fellow, Indian Academy of Sciences, National Institute of Sciences, M.B.E. (1945), Padma Shri (1959), Agricultural Adviser, Punjab Govt. since July 1960: member, Board of Management, Punjab Agrl. Univ. *b.* Aug. 6, 1899; *Educ.:* Punjab Univ.; Iowa State Univ. of Sci. & Technology (U.S.A.); Rothamsted Experimental Station (England); Rockefeller Inst. for Medical Research (Princeton), Wisconsin Univ. Research Fellow, Iowa Agric. Exp. Station; Director of Agriculture (Research and Education), Director of Agriculture, Bombay till Aug. 1952; Agricultural Commr., Govt. of India, 1952-59; Chairman, Wasteland Survey and Reclamation Cttee., Min. of Food & Agriculture, Govt. of India, 1959-61. Consultant in Agriculture, Rajasthan State. *Publications:* Scientific papers. *Address:* Agricultural Adviser, Agriculture Dept., New Secretariat, Chandigarh, Punjab.

**URS, D. Devaraj,** B.Sc., Minister for Labour, Tourism & Transport, Mysore. *b.* 1915; *Educ.:* B.Sc., from Central Coll., Bangalore. Member: Mysore Representative Assembly, 1941–48; Mysore Leg. Assembly, 1951–56; elected to the Mysore Leg. Assembly from Hunsur Constituency, 1957; elected unopposed to the Mysore Legislative Assembly from the same Constituency, 1962. *Address:* Bangalore.

**UVALIC, H.E. Dr. Radivoj,** Doctor of Law, Ambassador of Yugoslavia in India, since Oct. 1962. *b.* April 20, 1912; *Educ.:* Univ. of Paris; Institute of Statisticis and Institute of Advanced International Science, Paris Univ. Participated in the Spanish Civil War 1937; was Head of the Deptt. in the Federal Ministry of Industry and Head., Dept. for Reconstruction of the Govt. of People's Republic of Serbia, 1945; Dean of Economic Faculty, 1947-50; Vice-Rector, Belgrade Univ., 1950–52; Editor-in-Chief, *Economist*, 1948–53; Pres., Society of Economists of Serbia, 1949-53; Deputy, Parliament of the Republic of Serbia, 1951-54; Min. Plenipot. in Norway, 1953–56; Amb. in Austria, 1956–57; Amb. in France, 1957–60; Director, Institute of Social Sciences, Belgrade, 1960-62; Pres., Scientific Section of Federation of Economists of Yugoslavia; member, Federal Board, Socialist Alliance of the Working People of Yugoslavia, since 1960; Associate member, Serbian Academy of Science and Arts in Belgrade, since 1961; awarded several Yugoslav and foreign decorations. *Publications:* Monographs and articles on Economic Matters in Yugoslav and Foreign Languages. *Address:* 3/50 G, Niti Marg, Chanakyapuri, New Delhi.

**VAGHELA, Gautam Dahyabhai,** Painter; Art Designer, All India Handloom Board. *b.* Jan. 5, 1936; *Educ.:* Visharad (Hindi Sahitya Sammelan Prayag), 1954; Diploma in Fine Arts and Art Master's examination from Sir J. J. School of Art, Bombay, 1960 — first rank in both. Has participated in many State and national exhibitions and has won many an award; has twice won the Lalit Kala Academy annual award, 1961 and 1963; a few of his paintings are in the collection of Lalit Kala Academy and the Museum of Modern Arts, New Delhi; won H. H. Aghakhan's Gold Medal for the best group in 28th Annual Exhibition of Akademi of Fine Arts, Calcutta; won awards in Mahakavi Kalidas Art Exhibition, Gwalior in 1961, 62, 63 & 64; First-Prize for 'Modern Style', by Bombay Art Society, 1963; Madras State Art Exhibition, 1964. *Address:* 3/2, Ellai Ammam Colony, Teynampet, Madras 6.

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Fine Arts Society; Kathakali Club, Ernakulam; Pres., Ayyappa Dharma Parishad, Ernakulam; has invented some specifics and tonics. *Address:* Madhava Pharmaceutical Laboratories, Ernakulam 8.

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**VASAN, S. S.,** Editor, *Ananda Vikatan*, a leading nationalist weekly; Proprietor, Gemini Studios, Madras; Chairman, Gemini Pictures Circuit Private Ltd. *b.* 1903, at Tiruthuraipundi, Tanjore Dist. Took to journalism at an early age and started a Tamil journal, *Ananda Vikatan*, 1928; pioneer in introducing the unique feature of caricatures in South India through this weekly; was once a keen punter; turned to film business, 1939; founded the Gemini Studios, 1941; as a producer, occupies a prominent position in the world of talkies; member, Indian and Eastern Newspaper Society; is a shareholder of P.T.I.; Pres., South Indian Motion Picture Producers' Association. *Address:* 'Gemini House,' Edward Elliot Road, Mylapore, Madras 4.

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**VERMAN, Dr. Lal C.,** F.N.I., M.I.E., M.I.T.E., Ph.D., M.S., B.S. (Eng.), Director, Indian Standards Institution, since June 1947 and Hony. Adviser on Standardization, Govt. of India, since 1951. *b.* Sept. 3, 1902 in Amritsar; *Educ.:* Punjab, California, Michigan and Cornell Univs., Teaching and Research in American Universities, 1925–31; Research Fellow, Indian Institute of Science, Bangalore, 1931–33. Research Physicist, London Shellac Research Bureau, 1933–36; Research Officer, Industrial Research Bureau and CSIR, 1936-44; Ag. Dir., Physical Laboratories, C.S.I.R., 1944-47; Vice-President, International Organization for Standardization, Geneva, 1949-55; Pres., Institution of Telecommunication Engineers, 1961 & 62; Chairman: Plastics Research Cttee., C.S.I.R., 1950-58; Advisory Board of Indian Lac Cess Cttee., since 1958; Pres., Mechanical Engineers' Assoc. (India), 1960; Fellow: Std. Engineers Soc., U.S.A.; National Institute of Sciences of India; member, Institution of Engineers (India); responsible for secretariats of I.S.I. and several I.S.O. and I.E.C. Cttees; awarded Leo B. Moore award by the Standards Engineers Society of America for his contribution and service in the field of standardisation, 1964. *Publications:* Over hundred papers in Indian, British and American scientific and technical periodicals; number of Indian, British and U.S.A. patents on variety of industrial processes. *Address:* Director, Indian Standards Institution, Manak Bhavan, New Delhi.

**VIRA, Dharma,** I.C.S., Cabinet Secretary, Govt. of India, since Nov. 18, 1964; member: Atomic Energy Commission. *b.* 1906; *Educ.,* Lucknow and Allahabad Univs.; London School of Economics and Political Science. Joined Indian Civil Service, 1930; Joint Magistrate: Aligarh, 1930–34; Almora, 1934–36; Bareilly, 1936; Joint Secy., Industries and Agricultural Exhibition, Lucknow, 1936–37; Officiating Dist. Magistrate, Bareilly, 1937

Dist. Magistrate: Etah, 1937–38; Almora, 1938–41; with Commerce Deptt., Govt. of India, 1941–44; Deputy Secy., Industries and Civil Supplies Deptt., 1944–45; Textile Commr., 1945–47; Joint Secy. to Cabinet, 1947–50; Principal Private Secy. to Prime Minister, 1950–51; Commercial Adviser, High Comm. in London, 1951–53; Ambassador to Czechoslovakia, 1954–56; Secy., Rehab. Min., 1956–62.; Secy., Min. of Works, Housing and Rehab., 1962-63; Chief Commissioner, Delhi, Aug. '63-Nov. '64. *Address:* Cabinet Secretariat, New Delhi.

**VISEN, Hukam Singh,** B.A., LL.B., Minister for Revenue, Uttar Pradesh, since 1957; Dy. Leader, Lower House and Leader, Upper House. *b.* 1892; *Educ.:* Bahraich and Lucknow. Elected M.L.A., U.P., 1937; appointed Parliamentary Secy., to the Revenue Minister, U.P., Aug. 1937; resigned in October 1939 consequent to the general policy of Congress; re-elected to Assembly, 1946; suffered imprisonment in the freedom movement, 1932, 1940, 1942 and 1943; appointed Minister for Revenue and Forests, Aug. 7, 1946; reappointed Minister, 1952, '57 & '62. *Address:* No. 6, Darulshafa, Lucknow.

**VISSANJI, Pratapsinh Mathuradas,** Business man. *b.* March 19, 1916; *Educ.:* New High School, Bombay. Director: Ahmedabad Advance Mills Ltd.; Indian Mfg. Co. Ltd.; Alsales Ltd.; Western India Match Co. Ltd.; A.C.C. Ltd.; Formica India Ltd.; Bombay Burmah Trading Corp. Ltd.; Great Eastern Shipping Co., Ltd.: Khatau Makanji Spg. & Wvg. Mills Ltd.; Wallace Flour Mills Co. Ltd.; Premier Automobiles Ltd.; Bombay Dyeing & Mfg. Co. Ltd.; Mysore Spg. & Mfg. Co., Ltd.; Tata Chemicals Ltd.; Tata Hydro-Electric & Power Supply Co. Ltd.; W. H. Brady & Co. Ltd.; State Bank of India (Central Board and Local Board, Bombay); Lakshmi Vishnu Cotton Mill Ltd., etc. *Address: Residence:* Sir Mathuradas Vissanji Road, Andheri; *Office:* 9, Wallace Street, Fort, Bombay.

**VISWANATHAN, Venkata,** B.Sc., I.C.S., Lt. Governor, H. P., since Feb. 7, 1966. *b.* Jan. 25, 1909; *Educ.:* Central Coll., Bangalore; Univ. Coll., London; Balliol, Oxford. Appointed to I.C.S., 1930; Asstt. & Joint Magistrate, Agra, Azamgarh, Banaras, 1931–36; Dist. Magistrate, Banaras, 1936; Asstt. Settlement Officer and Settlement Officer, Bahraich, Kheri, 1936–40; Under-Secy., Govt. of India, 1940; Deputy Secy., Govt. of India, 1942; Secy. to Representative of the Govt. of India in Ceylon, Colombo, 1943; Addl. Deputy Secy. and Secy. to Representative of the Govt. of India with the Govt. of Burma, 1944; Registrar, Cooperative Societies, U.P., 1946; Dist. Magistrate, Dehra Dun, 1947; India's Alternate Delegate on U.N. Commission, Palestine, 1947; Dy. High Commissioner for India in Pakistan, 1947-48; Chief Secy. and Adviser, Madhya Bharat, 1948-50; Chief Commissioner, Bhopal, 1950-52; Joint Secy., Ministry of States and Ministry of Home Affairs, 1952-58; Special Secy., Ministry of Home Affairs, 1958; Secretary, Min. of Home Affairs, Nov. '61-Nov. '64 Chief Commissioner, Delhi 1964-66. *Address:* Raja Bhavan, Simla.

**VON MIRBACH, H. E. Freiherr Dietrich,** Ambassador of the Federal Republic of Germany to India. *b.* Sept. 20, 1907; *Educ.:* Studied law at the Univs. of Marburg, Freiburg, Lausanne and Koenigsberg. Joined the Ministry of Foreign Affairs, 1935; Embassy of Germany in Ankara, 1935-37; Consulate General in Danzig, 1937-38; Ministry of Foreign Affairs, 1938-39; Third Secy., Legation of Germany in Bucharest, 1939-43; First Secy., Ministry of Foreign Affairs, 1943-45; Bureau in charge of Trade Agreements, Foreign Trade Assoc. in Frankfurt/Main, 1949-51; Federation of German Chambers of Industry and Commerce, Bonn, Ministry of Foreign Affairs, 1951-52; First Secy. and Counsellor, Embassy of the Federal Republic of Germany in Cairo, 1952-55; Ministry of Foreign Affairs, 1956-59: Ambassador of the Federal Republic of Germany in Djakarta, 1959-63; Ambassador on Special Duty, Ministry of Foreign Affairs, 1963. *Address:* 6, Shantipath, Chanakyapuri, New Delhi.

**VYAS, Mohanlal Popatlal,** B.A., Minister for Health, Labour and Housing, Gujarat. *b.* May 2, 1907; *Educ.:* Bahauddin Coll., Junagadh. Joined trade union movement, April 1929; Secy., Textile Labour Union, Bhavnagar, 1931–36; successfully carried out prohibition work in Ahmedabad, 1940; Labour Welfare Officer, Govt. of Bombay, 1940–50; organised and developed the labour welfare activities in Ahmedabad; awarded Social Affairs Fellowship by U.N.O. for six months to study and observe industrial work in the U.K., 1948; appointed Chairman: All India Shuddha Ayurvedic Education Cttee., Jan. 1963; Central Board for Shuddha Ayurvedic Education, Jan. 1964; Vice-Chairman, Panel on Ayurveda in Planning Commission, May, 1965. *Address:* Sachivalaya, Ahmedabad 15.

**WADIA, Ardeshir Ruttonji,** Rajasevasakta, Hon. D.Litt., Bar-at-Law, Padma Bhushan (1961), M.P. (Rajya Sabha), Ex-Director, Tata Institute of Social Sciences, Bombay. *b.* June 4, 1888; *Educ.:* St. Xavier's High School and Wilson College, Bombay; Middle Temple, London; St. Catherine's, Oxford; Fitzwilliam Hall, Cambridge. Prof. of English and Philosophy, Wilson Coll., Bombay, 1914; Lecturer in Psychology, Univ. of Bombay, 1914-16; Prof. of Philosophy, Mysore Univ., 1917-42; D.P.I., Mysore (Retd.); Principal, Victoria Coll., Gwalior (1946-49); Pro-Vice-Chancellor, M.S. Univ., Baroda, 1949-52; Governor of District No. 51, Rotary International, 1951-52; Indian Delegate to UNESCO Conference, 1952 and 1954. *Publications: The Ethics of Feminism; Pragmatic Idealism* in *Contemporary Indian Philosophy, Zoroaster, Religion as a Quest for Values; The Future of English in India; The Philosophy of Mahatma Gandhi* and other Essays: Philosophical & Sociological; Editorial Board, History of Philosophy: Eastern and Western. *Address:* Kalpana, 96, Netaji Subhas Road, Bombay.

**WADIA, Darashaw Nosherwan,** M.A., D.Sc., F.N.I., F.R.S., Padma Bhushan (1958), Geological Adviser, Govt. of India. *b.* 1883; *Educ.:* Baroda Coll., Bombay Univ. Prof. of Geology, Prince of Wales College, Jammu (Kashmir), 1907-20; Geological Survey of India, 1921-39; carried out the Geological Survey of N.-W. Punjab, Hazara and Kashmir as part of official duties; Mineral Adviser, Ceylon Government till 1944; President, Indian Science Congress, XXIX Session, 1942; President, National Institute of Science of India, 1945-46; "Back Award," Royal Geographical Society, London, 1934; "Lyell Medal" awarded by Geological Society, London, 1943. *Publications: Geology of India; Syntaxis of N. W. Himalayas* (1931); *Geology of Nanga Parbat and Gilgit District* (1932). *Structure of the Himalayas* (1938). *Address:* 10, King George Avenue, New Delhi.

**WADIA, Neville Ness,** Chairman, Nowrosjee, Wadia & Sons (Private) Ltd.; The Bombay Dyeing & Mfg. Co. Ltd.; National Peroxide Ltd.; Belapur Co. Ltd.; Sturdia Chemicals Ltd.; Botanium Ltd. *b.* Aug. 22, 1911; *Educ.:* Malvern & Trinity, Cambridge. *Address:* Bella Vista, Pedder Road, Bombay 26; *Office:* The Bombay Dyeing and Mfg. Co. Ltd., Neville House, Ballard Estate, Bombay 1.

**WADIA, Mrs. Sophia,** Padma Shri (1961), Editor, *The Aryan Path*, 35th Vol., and *The Indian P.E.N.*, 31st Vol. Bombay. *b.* Sept. 13, 1901; *Educ.:* Lycee Moliere, Paris; Columbia Univ., New York; School of Oriental Studies, London. Associate of The United Lodge of Theosophists; Lecturer, Founder-Organiser of the P.E.N. All-India Centre; a Founder and Pres. of the Indian Institute of World Culture, Bangalore; and worker in women's educational, social and cultural movements. *Publications: The Brotherhood of Religions; Preparation for Citizenship. Address:* 40, New Marine Lines, Bombay 1.

**WANCHOO, Mr. Justice Kailas Nath,** B.A. (Allahabad), I.C.S., Judge, Supreme Court of India, since Aug. 11, 1958. *b.* Feb. 25, 1903; *Educ.:* Pandit Pirthi Nath High School, Kanpur; Muir Central College, Allahabad and Wadham College, Oxford. Passed into the Indian Civil Service, 1924; joined service, Dec. 1, 1926; served as Joint Magistrate and District and Sessions Judge in various Districts in Uttar Pradesh; Judge, Allahabad High Court, Feb. 1947-Jan. 1951; Chief Justice, Rajasthan High Court, 1951-58; Chairman, U.P. Judicial Reforms Cttee., 1950-51; reported to the Govt. of India on the financial and other implications of the new State of Andhra, Feb. 1953; Sole Member, Indore Firing Enquiry Commn., 1954; Chairman, Dholpur Succession Case Commn. 1955; Member, Law Commn., India, 1955, *Address:* 6, Motilal Nehru Place, New Delhi.

**WANCHOO, Niranjan Nath,** M.A. (Punjab), O.B.E. (1945), I.C.S., Secy., Ministry of Iron and Steel Govt. of India, since June 1964. *b.* May 1, 1910; *Educ.:* Government Coll., Lahore; King's Coll., Cambridge. Joined the I.C.S., in 1934; served in Bihar and Orissa; later in the Commerce and Food Deptts. of the Govt. of India; Imperial Defence Coll., London, 1947; D. G. of Ordnance Factories, 1948; Jt. Secy., Ministry of Defence & Controller-General of Defence Production, 1948–57; member, Univ. Grants Commission, 1958–61; Secy., Min. of Finance (Dept. of Expenditure), 1958–61; Secy., Min. of Steel, Mines & Heavy Engg., 1961-64. *Address:* 4, Akbar Road, New Delhi.

**WANKHEDE, Sheshrao Krishnarao,** B.A., Bar-at-Law, Minister for Finance, Maharashtra State, since Dec. 5, 1963. *b.* Sept. 24, 1914; *Educ.:* B.A., Morris Coll., Nagpur, 1934; called to the Bar, 1937. A leading educationist, a keen sportsman and a progressive agriculturist; was connected with 67 Institutions either as an office-bearer or an ordinary member; unanimously elected Chairman, Nagpur District Council, 1938-48; jailed for individual Satyagraha, 1940; elected member, Nagpur Univ. Executive Council, 1947; was Treasurer, Nagpur Univ. for 9 years; was the first Mayor of Nagpur Corporation; later elected for two more years; represented India at the: F.A.O. Conference, 1953; a member, Indian Central Cotton Cttee. for 12 years; Ex-Vice-Chairman, M.P. Electricity Council; was elected Dy. Speaker, M.P. Leg. Assembly, 1952; was Dy. Speaker in enlarged Bombay State's first Assembly; Minister for Planning, Development, Electricity and Industries, Bombay State, 1959-60; Min. for Finance, Maharashtra, 1960-62; Min. for Industries, Law & Judiciary, Maharashtra, 1962-63. *Address:* Sachivalaya, Bombay.

**WATSON, Derrick Easthope Browning,** M.A. (Oxon), Executive Director, A. & F. Harvey Ltd., since April 6, 1965. *b.* Nov. 18, 1917, at Bushey, Herts, U.K. Director: Madura Mills Co. Ltd.; Punalur Paper Mills Ltd.; The Indian Textile Paper Tube Co. Ltd.; Fenner, Cockill Ltd.; Pandyan Insurance Co. Ltd.; Tuticorin Co. Ltd.; Pandyan Hotels Ltd.; Overseas Associate Member, Technical Section, British Paper and Board Makers' Assoc. (Incorporated) U.K. *Address: Residence:* 11, Race Course, Madural, South India.

**WAZIR, Mr. Justice Janki Nath,** B.A. (Punjab), LL.B. (Lond.), Bar-at-Law, Middle Temple, Chief Justice, High Court of Jammu and Kashmir, since April 1948. *b.* Dec. 6, 1905; *Educ.:* Kashmir and London Univ. Was enrolled as an Advocate of the Lahore High Court, 1931; Part-time Law Lecturer, Law Coll., Lahore, 1933–36; Judge, High Court of Jammu and Kashmir State, Dec. 1936—April 1948; Vice-Chancellor, Univ. of Jammu and Kashmir, June 1950-57. *Address:* Srinagar.

**WILLIAMS, Lieut.-General Sir Harold,** K.B.E. (1956), C.B. (1953), M.I.C.E., M.I.E., M.I.S. (Ind.); Engg. Consultant, Planning Commission, since 1965. *b.* June 1, 1897; *Educ.:* Mountjoy School, Dublin: R.M.A., Woolwich; Cambridge Univ. 2nd Lieut., 1917; Adjt., Bengal Sappers & Miners, 1929–33; Ind. Mil. Academy, 1933–36; Bt. Major, 1934; Prof., Civil Engineering, Roorkee Coll., 1936-38; C.R.E. 1st Armd. Div., 1940-41; Brig., Engr. Staff, 1942-43; C.E. IV Corps, 1943-44; Comd. S.M.E., 1945-47; C.E., Southern Command, 1947; Engineer-in-Chief, Army Headquarters, 1948-55; Pres.: Inst. Engineers, 1954; Inst. Surveyors (Ind.), 1954; Member, Council, Inst. C.E., 1951-54 and 1958-61; Colonel-Comdt., Corps of Engineers, 1951–55; Director, Central Building Research Institute, Roorkee, 1955-62; *Address:* Planning Commission, Yojana Bhavan, New Delhi.

**WINCHESTER, Most Hon. the Marchioness of (the former Miss Bapsy Pavry),** M.A., Litterateur; Honorary Member of British-American Society; Member of Council of World Alliance for International Friendship; conferred Order of Merit by the Shah of Iran (1955); accorded Civic Reception by the Mayor of Winchester at the historic Guildhall (1953); *Educ.:* Queen Mary High School and St. Xavier's College, Bombay; M.A., Columbia University; has travelled extensively abroad on several occasions; received by Heads of State of several countries in Europe, Asia and America; was guest of many European and Asian Kings and Queens; attended the historic Reception given in Paris by the President of France in honour of King George and Queen Elizabeth (1938), and in honour of Queen Elizabeth and Prince Philip by the President of India in New Delhi (1961); attended the historic Peace Conference in Paris (1946), Asian Relations Conference in New Delhi (1947), Parliamentary Conference on World Govt. (London, 1954), and represented Karnatak Univ. at Columbia Univ. Bicentennial Convocation (New York, 1954); awarded Bicentennial Medal, *Publications: Heroines of Ancient Iran* (Cambridge, 1930); limited deLuxe edition of 250 numbered copies (Hutchinson, London, 1955). *Address:* Malabar Hill, Bombay.

**YASHPAL,** B.A. (Lahore), leading Hindi writer. *b.* Dec. 3, 1903, at Ferozepur Cantt.; *Educ.:* Gurukul Kangri and National Coll., Lahore; graduated, 1926. Courted jail in the freedom movement; started *Viplava*, a monthly magazine. *Publications:* 15 short story collections, nine novels and two travel books; one book of reminiscences in three volumes; five collections of humorous essays; one collection of One Act Plays; five socio-political books; his works have been translated into almost all Indian languages and some foreign languages also; best novels: *Divya, Amita, Deshdrohi, Manushya ke rup, Jutha Sach;* Short story collections: *Pinjare-ki-Uran, Chitra ka Shirshak, Gyandan, Abhishapt;* Politico-Social Writings: *Gandhiwad Ki Shav Pariksha* (Post-mortem of Gandhism). *Address: Res:* 335-B, Mahanagar: *Office:* 'Viplava', 21, Shivaji Marg, Lucknow.

**ZAHEER, Syed Ali,** B.A., LL.B., Bar-at-Law, Minister for Justice, Legislative & Muslim Waqfs, U.P., since Oct. 1963. *b.* March 21, 1896; *Educ.:* M.A.O. College, Aligarh; Canning College, Lucknow; Law College, Allahabad; Oxford. Called to Bar, 1922; member, Legislative Council, 1930–37 and again from 1939 till supersession of legislature; left Muslim League, 1937; organised Shia community; elected Pres., All India Shia Political Conference, 1941, 1945; same year convened Shia All-Parties' Conference which agreed to dissociate itself from Muslim League policy; Member for Law and Communications, Nehru's first Interim Cabinet; resigned in October, 1946 when Muslim League joined Viceroy's Executive Council; Indian Ambassador in Iran, 1947-51; Minister in Iraq, concurrently, 1949-51. Minister of Justice and Labour, U.P. Cabinet in Aug. 1951; elected M.L.A., Jan. 1952; Minister for Justice and Excise, 1952-55; Minister for Justice and L.S.G., 1955-57; Minister for Justice, Food, Civil Supplies & Forests, U.P., 1957-58; Min. for Finance & Forests, U.P., 1958-60; member, A.I.C.C., since 1955. *Publications: The Dead Past;* Articles published in various newspapers and magazines. *Address:* "Alleya", 9A, Clyde Road, Lucknow, U.P.

**ZAHEER, Dr. Syed Husain,** M.A. (Oxon), Dr. Phil. Nat. (Heidelberg), F.R.I.C., Director-General, Scientific and Industrial Research, since Sept. 1, 1962 and Secretary (*ex officio*), Ministry of Education (Department of Science), since Feb. 1963; Chairman: Inventions Promotion Board; Board of Directors, National Research Development Corporation of India. *b.* Nov. 7, 1901; *Educ.:* Lucknow, Oxford and Heidelberg (Germany). Member, Indian National Congress, 1935–47; courted jail during Quit India Movement; Director, Regional Research Laboratory, Hyderabad, 1948–62; Discussion Leader, Indian delegation in four sessions of the U.N. Conference on the Application of Science and Technology for the Benefit of Less Developed Areas held at Geneva, Feb. 1963; leader, Indian delegation to the Sixth World Petroleum Congress at Frankfurt, June 1963; leader, Scientists' delegation to UAR, July 1963; associated with several expert committees concerning primary, secondary and collegiate education as well as industrial development projects; associated with preparation of project reports and blue prints for starting many new industries in the country; has over 60 patents to his credit. *Publications:* Over 90 research papers; *Address:* 87, Lodi Estate, New Delhi-3.

**ZAKARIA, Dr. Rafiq,** M.A. (1st class), Ph.D. (London), Bar-at-Law, Chancellor's Gold Medalist (Bombay Univ.), Minister for Urban Development & Waqfs, Govt. of Maharashtra, since Feb. 18, 1964. *b.* April 5, 1920; *Educ.:* Anglo-Urdu High School, Poona; Ismail Yusuf Coll., Govt. Law Coll., Bombay; London Univ. and Lincoln's Inn. Political correspondent on Indian affairs for the 'Observer' (London) (1947–48); Pres.: London Majlis (1945–47); Chairman, Federation of Indian Students' Societies in British Isles and Europe (1947); Delegate to Inaugural Session of International Union of Students held at Prague (1946); General Secy., Bombay Youth Congress (1950-51); Pres.: Indo-Arab Society; Founder and Pres., Maulana Azad College of Arts, Science & Commerce, Aurangabad; has travelled widely; has written for several Indian and foreign newspapers and broadcasts often; nominated M.L.C., Maharashtra, June, 1960; appointed Congress Chief Whip of the Maharashtra Leg. Council, July 1960; elected M.L.A., Maharashtra from Aurangabad constituency, Feb. 1962; elected member, Exec. Cttee. M.P.C.C., and member, A.I.C.C.; Dy. Minister for Bldgs. & Communications, Maharashtra, 1962-64; is Advocate, Bombay High Court; Indian Delegate to the U.N. General Assembly on Kashmir, Oct. 1965. *Publications: A Study of Nehru. Address:* B-7, Foreshore Road, Bombay 1.

# LATE PARTICULARS

**Under this we publish articles and give notes on items which could not be included in the body of the text.**

## AKHIL BHARAT HINDU MAHASABHA*

**(Hindu Mahasabha Bhawan, Mandir Marg, New Delhi.)**

*President :* Nitya Narayan Banerjee.
*Vice-Presidents :* Prof. Ram Singh, V. G. Deshpande, Mahant Digvijay Nath, Gnanendra Nath Banerjee, K. G. Gangurde.
*General Secretary :* Pt. Brijnarayan Brajesh.
*Total membership of Party :* 4,50,000.
*Strength in the Lok Sabha :* 1.

### AIMS AND OBJECTS

The aim of the Hindu Mahasabha is to establish a really democratic Hindu State in Bharat, based on the culture and tradition of Hindu Rashtra and to re-establish Akhand Bharat by all constitutional means.

The objects of the Hindu Mahasabha are 1. To remove all forms of inequalities and disabilities, and thus to establish an order in which all nationals will enjoy equal opportunities to serve the State ; 2. To assure to each national, full freedom of thought, expression, association and worship ; 3. To make Bharat militarily strong and self-reliant in defence ; 4. To promote the glorious ideals of Aryan womanhood ; 5. To make Bharat politically, economically, morally and materially strong and self-reliant ; 6. To remove gross inequalities in the distribution of wealth, to assure a decent standard of living to each national and to secure to the workers and peasants their rightful share in the economy of the country ; 7. To industrialise the country as rapidly as possible ; 8. To reclaim all those who have left the Hindu fold and welcome others into it ; 9. To promote cow-protection and to stop cow-killing ; 10. To establish Sanskritised Hindi as the national language and Devanagri as the national script, with due regard to regional languages ; 11. To cultivate friendly relations with other nations with a view to maintaining international peace and progress ; 12. To lay down from time to time suitable programmes with a view to accomplishing as soon as possible the above objects.

Hindu Mahasabha has also undertaken to hold a conference — Vishwa Hindu Dharma Sammelan — of Hindus including the Buddhists all over the world. The main objects of Vishwa Hindu Dharma Sammelan are :

1. To bring about a mutual appreciation and understanding and a sense of oneness amongst the various orders of Hindu heritage.

2. To form a permanent forum of Hindus living all over the world for exchange of information and assistance.

3. To provide means of cultural, social and spiritual contact amongst Hindus of various countries and those of their spiritual centres in Bharatvarsha.

4. To make Hinduism a dynamic force whereby world peace and co-existence can be realised.

5. To revive and reinterpret the philosophical theories of Hindu way of life and bring them up-to-date by orientation in order to answer the present day socio-cultural and economic needs of the Hindu Society and in view of the scientific progress and technological development.

* The articles in this section are based on the material provided by the parties themselves.

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## ALL INDIA FORWARD BLOC

**(Central Office, Chhindwara, Madhya Pradesh.)**

*Chairman :* Hemanta Kumar Bose, M.L.A.

*General Secretary :* R. K. Haldulkar.

The Election Manifesto was adopted by the All India Council of the Party as directed by the Delhi Session of the Party, in its meeting held at Patna (Bihar) on the 1st and 2nd of October 1961. The Party contested about 100 seats to the State Assembly and 10 seats to the Lok Sabha in the States of West Bengal, Bihar, U.P., Madhya Pradesh, Delhi and Madras. One member from Madras and one member from West Bengal have been returned to the Lok Sabha and 18 members from West Bengal and 3 members from Madras have been returned to the State Assemblies. One M.L.A. elected as an independent from Yeotmal in Maharashtra State has joined the Forward Bloc. The Party has retained its strength in the Lok Sabha and has increased its strength in the W. Bengal Assembly from 8 to 13 and lost in M.P. as both the sitting M.L.A.s in Betul District of M.P. lost their seats to the Congress.

As far as its Election Manifesto is concerned it wants nationalisation of all key industries in the country, equitable redistribution of land with special provision to allot land to the landless peasants, fair wage to the workers, right to strike and full trade union rights to the workers, appointment of a Commission to go into the economic condition of kisans and suggest means of greater production of foodgrains to meet the deficit, action to vacate aggression of China on the northern frontiers of the country, free education to the students upto the degree level and up-to-date training of our defence forces to meet any aggression from outside.

The Party is opposed to any talks with Pakistan over the Kashmir issue and wants military action to vacate the Pak-occupied portion of Jammu and Kashmir.

The invitation of the S.S.P. to merge the A.I.F.B. with it was rejected by an overwhelming majority, in a special Delegates Session, held at Patna, on the 19th and 20th December 1964, as it felt that there was a vast difference between the S.S.P. and A.I.F.B. over its ideology and programmes.

In its meeting of the Central Committee held at Chinsurah in West Bengal on 8th and 9th May 1965 the Committees has demanded of the Govt. to set up a fresh Enquiry Commission under the Chairmanship of a Supreme Court Judge to enquire into the whereabouts of Netaji Subhas Chandra Bose as the party is of opinion that he is alive.

It was decided to hold the Silver Jubilee Session of the party at Madurai in Madras State from 23rd to 26th December 1965.

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## BHARATIYA JAN SANGH

**(Ajmere Gate, Delhi.)**

*President,* Bachraj Vyas.
*Vice-Presidents,* Pt. Premnath Dogra ; Pitamber Dass.
*General Secretary,* Deendayal Upadhyaya.
*Secretaries,* Atalbehari Vajpayee, M.P. ; Jagannathrao Joshi ; Sunder Singh Bhandari.
*Treasurer,* Jhamatmal Wadhwani.
*Office Secretary,* J. P. Mathur.
*Total membership of party in country,* 8,12,000.
*Strength in the Lok Sabha :* 13.
*Strength in Rajya Sabha :* 4
*Total strength in State Legislatures :* 120.

No. of votes polled in elections to Lok Sabha : Over 74 lakhs.

Has branches in all the States including Jammu & Kashmir.

### AIMS AND OBJECTS

The party has put forward the following programme :

Opposition to copying U.S.A. or U.S.S.R. systems.

Promotion of private enterprise with adequate checks against concentration of power.

Top priority to food, defence, unemployment.

Right to work should be a fundamental right. Unemployment benefits.

Is opposed to the mechanization of agriculture.

Economic power should be decentralized.

Spheres of small-scale and large-scale industry should be clearly demarcated. Will promote small-scale industry by reserving markets, encouraging co-operative industries, giving protection to handloom industry.

Nationalisation of basic industries and defence industries. Other industries subject to supervision and regulation. Is opposed to nationalisation of banking and road transport. The present trend

in the nationalisation of industry will destroy democracy.

Indianization of foreign-owned industries (*e.g.* tea, coffee and rubber plantations). In others, two-thirds of investment and staff should be Indian. A ceiling on the profit which can be remitted abroad.

Co-sharing and Co-partnership in industry. Adequate representation of labour on boards of management. Encouragement of labour unions and automatic recognition. A permanent Wage Board. Periodic revision of scales of pay. Rs. 125 as the minimum wage at present. Social security legislation. Special allowance for hazardous jobs. Abolition of the employees' contribution to the Employees' State Insurance scheme. Equal pay for equal work.

Rs. 2,000 as maximum expendable income for individual—to be brought about through taxation and compulsory loans and investment.

Generally opposed to indirect taxation. Abolition of Sales Tax and excise duty on the necessities of life such as cloth.

Compulsory military training. Establishment of defence industries. Abolition of untouchability and fighting caste feeling to bring about unity in Hindu society.

Stands for unitary rather than federal conceptions.

Will abolish Legislative Councils and repeal the Preventive Detention Act and the Public Safety Acts and amend Sections 107, 108, 109 and 144 of the Criminal Procedure Code and Sections 124A and 153 of the I.P.C. to protect civil liberty.

Rs. 500 a month as a Minister's salary.

Strict reciprocity towards Pakistan.

Will press for full compensation for property left by refugees in Pakistan, and no concession in the matter of loans or canal dues.

Kashmir an integral part of India.

No plebiscite in Kashmir; and no special position to Kashmir in the Indian Union: same status as other States.

Non-involvement in foreign affairs. Friendly relations with all. Opposition to colonialism and Communist expansion.

Co-operation with U.N.O. Amendment of the Charter to make U.N.O. truly representative of the people. Permanent seat for India in the Security Council. Full support for people in revolt against Western Colonialism or Russian imperialism.

Is opposed to the extension in the fifteen-year limit laid down for the replacement of English by Hindi. Will have a five-year plan for the development of Hindi and other Bharatiya languages. Stands for the inclusion of Sindhi in the list of Bharatiya languages.

Stands for giving Hindi its rightful place in the State of Jammu and Kashmir.

Stands for (1) primary education through the mother tongue, (2) secondary and higher education through the regional language and Hindi as compulsory subject, (3) making learning of one regional language compulsory for Hindi-speaking students, (4) compulsory course of Sanskrit studies, (5) recognition of graduates of Hindi and of other recognised Indian languages as on par with English, (6) autonomy of educational institutions and universities.

Free and compulsory education at the primary and secondary stages. Free education to poor but deserving students at the higher stages.

**Co-operative Farming :**—The party is opposed to co-operative farming.

The Jan Sangh stands for peasant proprietorship and supports service co-operatives which should not be manned by officials or party cadres.

It suggests the following procedure: Immediate ceiling on future acquisition; Tenants are to be given fixity of tenure and fair rents are to be fixed; A scheme is to be put in operation to assist landless peasants to buy the additional lands required for an economic holding and to acquire full rights over the land; Fair wages are to be fixed for agricultural labourers; Ceiling at thirty acres or equivalent thereof yielding a minimum of Rs. 6,000 should be fixed. Owners of land are to be allowed a period of three years to sell their surplus land to peasants. The price is to be paid in instalments. There should be a comprehensive scheme for the consolidation of landholdings and the development of agriculture.

**State Trading in Food Grain :**—This will inevitably lead to compulsory procurement and rationing which is undesirable. With a view to guaranteeing a fair price to the producer and to arresting rising prices, the State should assume partial trading, but no monopoly.

**Third Plan :**—The party feels the need for a basic change in outlook. Planning should be viewed against the background of the country's cultural, social and political objectives. The party feels that a Socialist economy, invariably leads to concentration of power in the State and is not compatible with democratic ideals. The aim of planning should be mainly to create condition for people to have more and more initiative and facilities for engaging themselves in gainful economic activities. The party proposes the Plan should aim at providing full employment. Top priority should be given to agricultural production. Stress should be laid on mechanised small-scale industries. The public sector should pay more attention to consolidation than expansion. Emphasis should be shifted from big projects to small schemes. Greater attention should be given to the education and training of personnel required for a growing economy.

As for foreign economic aid this can be accepted if there are no political conditions. But in the main we should use our own resources.

The outlay on the Third Plan is too ambitious and the burden of taxes would be crushing. Agriculture must have priority. So must small-scale industry.

**Punjabi Suba :**—The Jan Sangh is opposed to the demand of Punjabi Suba as voiced by the Akali Dal.

**China :**—China should be unequivocally declared an aggressor and dealt with accordingly.

India should withdraw her support of the Chinese case in the U.N.O.

No talks should be held with China on any level till her aggression is vacated. Demanded rejection of Colombo Proposals. Accepts independent status of Tibet as a State, advocates its liberation and that Dalai Lama should be allowed to form an Emigre Government.

Effective steps should be taken to curb Chinese espionage and fifth column activities in the country.

The Communist Party should be banned.

Effort must be made to develop communications on the border.

**Pakistan :**—

About joint defence, the party suggests that it has little meaning so long as Pakistan does not change its anti-Indian policy and remains in forcible occupation of one-third of Kashmir. The time is not ripe for joint defence.

**Minorities in East Pakistan :**—The Government of India should assume a political responsibility for their safety and security. Sanctions against Pakistan to secure equal treatment to all. Migration rules be completely relaxed in the case of minorities. Compensation for immovable property left by them be assured. Safe transit provided. Rehabilitation expenses and compensation to be claimed from Pakistan. Citizenship rights conferred on the migrants. Evacuee laws for the eastern zone be enacted. Those muslims who want to opt for Pakistan be provided all facilities to dispose of their property or compensation and safe transit. Pakistan infiltrators be immediately expelled.

**Foreign Policy :**—The Jan Sangh believes that the enlightened self-interests of India demand a policy of non-alignment with two power blocs in her foreign relations. It should, however, be considered a policy and not a dogma. Nothing should prevent us from increasing our military strength by securing the latest weapons from any possible source. Care to be taken that Asian neighbours do not continue to pass over into Chinese fold and that those who are threatened by China do not remain neutral to us but become our active associates.

**Communalism :**—Believes that there is no place for communalism, casteism and religionism in a democratic country. To meet this evil it thinks necessary that the conception of 'majority' and 'minority' based on religion should be given no quarter, no distinction in matters of services, trade and education etc. on basis of differences in the ways of worship be made.

# COMMUNIST PARTY OF INDIA

**(7/4, Asaf Ali Road, New Delhi.)**

*SECRETARIAT : Chairman :* S. A. Dange; *General Secretary :* C. Rajeswara Rao; Dr. Z. A. Ahmad, M. N. Govindan Nair, Bhupesh Gupta, Romesh Chandra, Yogindra Sharma, Dr. G. Adhikari and N. K. Krishnan.

In the 1962 general elections the Communist Party retained its position as the second party of the nation, next only to the Indian National Congress. In the elections to the Lok Sabha, the Communist Party polled 1,15,46,439 votes. In the Lok Sabha the Communist Party occupied the position of the leading Opposition Group and in the two State legislatures, viz. Andhra and West Bengal it is the recognised Opposition Party.

*The Policy :*

## DEMOCRACY

Reorganise administration and services in such a way as to make them subordinate and responsible to popularly elected State organs at all levels.

Grant universal and equal suffrage to all male and female citizens of India who have attained the age of 18 years in elections to Parliament, legislative assemblies and local bodies through secret ballot; introduce proportional representation in all elections and right of recall of elected representatives by majority of electors.

Abolish second chambers and such reactionary, out-dated institutions and practices as the post of State Governors, rule by ordinances, detention without trial and privy purses and other privileges of the princes.

Establish elected legislatures with full powers and responsible governments in centrally administered areas like Delhi, Manipur, Tripura, Himachal Pradesh on par with other States.

Enforce directive principles of the Constitution like right to work, living wage, free education, social security, etc.

Ensure inviolability of person and domicile, unhampered freedom of conscience, religious belief and worship, speech, press, assembly and organisation, strike and combination, freedom of movement and occupation.

Abolish social disabilities from which women suffer.

Abolish social and economic oppression of one caste by another. Make such oppression punishable by law. Strengthen secular basis of the State.

Separate judiciary from the executive. Ensure simpler, cheaper and speedier justice within reach of the common man. Provide free legal aid for poorer sections of population.

### Industry and Commerce

Stop further entry of foreign private capital; adopt necessary measures to bring about total elimination of existing foreign private capital from national economy.

Expand scope of State sector by vigorously developing key and heavy industries in the State sector and also by extending sphere of nationalisation to banks, general insurance, foreign trade, oil, coal and other mines and plantations.

In the case of existing largescale industries producing cotton and jute manufactures, sugar, cement, etc. impose control over prices, raw materials and rate of profit.

Give facilities to non-monopolistic private enterprises and smallscale industries. Special attention be given to help developing industries in backward regions.

Help organisation of handicrafts men into their respective cooperatives.

Reorganise taxation system and base it on principle of capacity to bear burden. Introduce ceiling on profits, and incomes and graded tax system in industry, trade and agriculture.

Introduce state-trading in essential commodities like foodgrains, cloth, etc. and supply them to people at reasonable prices.

Promote formation and development of cooperative sector in small-scale industry and distribution.

### Working Class

National minimum wage should be fixed and workers should be assisted in securing fair wages which should be above the minimum. Sliding scale of D.A., bonus, gratuity and holidays with pay.

Enlarge and liberalise social security measures, such as provision against unemployment, ill-health and old age. Provide housing facilities at cheap rent.

Guarantee full trade union and democratic rights.

### Agriculture

Break concentration of land by abolishing all forms of landlordism, by imposing effective ceilings on landholdings and distributing surplus land to agricultural labourers and poor peasants free of cost.

All types of fallow lands in the hand of the State be distributed to agricultural labourers and poor peasants. Long-term development loans be advanced for reclamation of these lands by the Government.

All land reform measures be implemented with the help of popular committees of accredited representatives of peasants and agricultural labourers. Financial and technical aid also be distributed in a similar way.

Stop payment of remaining portion of compensation to big zemindars and jagirdars. Cancel all oppressive debts of peasants and agricultural labourers owed to landlords and usurers.

Introduce graded land tax based on income, exempting all uneconomic holdings from tax.

Organise multipurpose cooperatives to provide cheap credit, seed, manure, pesticides, etc. to peasants and ensure remunerative prices for their products. Provide cheap irrigation facilities; start agro-industries in the countryside.

Ensure adequate wages and living conditions for agricultural labourers.

Establish model State farms on mechanised and modern lines (e.g. Suratgarh) where vast tracts of land are available.

Encourage cultivators to form cooperative farming societies on a voluntary basis.

### Armed Forces

Ensure decent living standards for members of the armed forces, including the police.

Ensure them all democratic rights which the citizens of the country enjoy, including the right to stand for election, consistent with the needs for maintaining the armed forces as a disciplined and efficient body. Educate and infuse armed forces with spirit of patriotism, democracy and love for people of the country.

### Language Problem

Ensure that English as medium of administration and instruction is replaced by Indian languages. Every State should use its own language for its internal administrative purposes. It should also be medium of instruction at all levels.

Gradually replace English by Hindi as the medium of communication between different State governments and between the Centre and State governments.

### International Relations

Strengthen independent foreign policy of peace, non-alignment and anti-colonialism.

Participate in common initiative of peace-loving countries for reduction of tension; fight for universal and complete disarmament, for banning of nuclear weapons and liquidation of all foreign military bases.

Build solidarity with Afro-Asian and Latin American countries fighting against colonialism and neo-colonialism. Accomplish India's withdrawal from British Commonwealth.

Work for peaceful settlement of all differences and disputes with neighbouring countries such as Pakistan, China, Nepal, Burma and Ceylon and establish friendly relations with them on the basis of Panch Sheel.

Develop relations of close cooperation with socialist countries.

### India-China Border Dispute

The Party stands for a peaceful settlement of India-China border dispute. The frontier of India in the Eastern Sector lies along the MacMahon Line, and that in the Western Sector it is the traditional frontier between the two countries that should be recognised. The Party stands for defence of the territorial integrity of the country.

### Communist Split

In April 1964, a section of the Party led by P. Sundarayya, E. M. S. Namboodiripad, Jyoti Basu and A. K. Gopalan split away from the C.P.I. Reasons for the split were political-ideological differences which had become very much sharpened particularly since the Chinese aggression of October 1962.

The split became final when those who had walked out decided to hold their own "Seventh Congress" in Calcutta, where Mr. P. Sundarayya was elected General Secretary in November 1964.

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# DRAVIDA MUNNETRA KAZHAGAM

**(Arivaham, Suryanaryana Chetty Street, Royapuram, Madras.)**

*General Secretary :* C. N. Annadurai.

### AIMS AND OBJECTS

The attainment of a sovereign independent socialist republic of Dravidanad, comprising the four linguistic States of Tamilnad, Andhra, Karnatak and Kerala. The four linguistic units will have full internal autonomy in the federal structure and the right to secede.

This State will have an independent foreign and defence policy.

India is not a nation. It is a sub-continent consisting of many nations.

English should be retained as an official language for all-India purposes. Regional languages should be the State languages in the States.

Hindi is not a national language. It is only one of many regional languages. There should therefore be no compulsory teaching of Hindi in schools in South India.

The membership of the party is over 2,00,000 and the number of branches over 2,000, in Madras State. There are also branches in Kerala, Mysore and Andhra.

The D.M.K. stands for elections based on proportional representation with the right given to the voters to recall their representatives.

It polled more than 23 lakhs of votes in the third general elections and returned 50 members to the Madras Assembly, eight members to the Lok Sabha and one to the Rajya Sabha.

# INDIAN NATIONAL CONGRESS

**(7, Jantar Mantar Road, New Delhi.)**

*President :* K. Kamaraj.

*General Secretary :* T. Manaen.

*Treasurer :* Atulya Ghosh.

*Working Committee :* D. Sanjivayya, N. Sanjiva Reddy, Smt. Indira Gandhi, Atulya Ghosh, Morarji Desai, Jagjivan Ram, S. K. Patil, K. Kamaraj, Mohanlal Sukhadia, Y. B. Chavan, Ram Subhag Singh, Gulzarilal Nanda, S. Nijalingappa, Sadiq Ali, Fakhruddinali Ahmed, Biju Patnaik, Darbara Singh and T. Manaen.

*Presidents of Pradesh Congress Committees :* P. Thimma Reddy (Andhra), Sarat Chandra Sinha (Assam), Rajendra Mishra (Bihar), P. G. Kher (Bombay), Mushtaq Ahmed (Delhi), Tribhuvandas K. Patel (Gujarat), Satya Dang (Himachal), K. C. Abraham (Kerala), S. S. N. Mushran (Madhya Pradesh), Vinayakrao Patil (Maharashtra), Mohd. Ali (Mysore), N. Seetharama Chettiar (Pondicherry), Bhagwat Dayal Sharma (Punjab), Hardeo Joshi (Rajasthan), R. K. Naidu (Tamilnad), Bijoy Kumar Pani (Utkal), Kamalapati Tripathi (Uttar Pradesh), Vacant (West Bengal), Puroshottam Kakodkar (Goa.)

*Central Parliamentary Board :* Smt. Indira Gandhi, Jagjivan Ram, K. Kamaraj, Morarji Desai, S. K. Patil, Y. B. Chavan, Fakhruddinali Ahmed.

*Central Disciplinary Action Committee :* Morarji Desai, Jagjivan Ram, S. K. Patil, Atulya Ghosh, Gulzarilal Nanda.

*Leader, Congress Party, Parliament :* Smt. Indira Gandhi.

*Deputy Leaders, Congress Party, Parliament :* Dr. B. Gopala Reddi (Lok Sabha) ; Surendra Mohan Ghose (Rajya Sabha).

*Secretaries :* Raghunath Singh, Bibhuti Mishra, R. S. Panjhazari.

*Treasurer :* Rameshwar Tantia.

*Total membership of Party in country :* (1965): Primary : 1,73,40,000 ; Active : 332,000.

*Strength in Lok Sabha :* 374.

*Strength in Rajya Sabha :* 174.

*Total Strength in State Legislative Assemblies :* 2,096.

*Total number of votes polled in the General Election:* Lok Sabha : 5,15,09,084 ; State Assemblies : 4,65,75,920 (excluding Kerala and Orissa where mid-term elections were held previously).

The Indian National Congress includes the following bodies :

The All-India Congress Committee, the Working Committee, Pradesh or Territorial Congress Committees, District or City Congress Committees, Block Congress Committees and Committees subordinate to the Block Congress Committees to be determined by the Pradesh Congress concerned.

There are 19 Pradesh Congress Committees :

Andhra, Assam, Bihar, Bombay, Delhi, Gujarat, Himachal, Jammu & Kashmir, Kerala, Madhya Pradesh, Maharashtra, Mysore, Punjab, Rajasthan, Tamilnad, Utkal, Uttar Pradesh, West Bengal and Tripura.

There are five Territorial Congress Committees:

Goa, Manipur, Nagaland, NEFA and Pondicherry.

The Block Congress Committee, on which the organization is finally based, covers an area having a population of about 60,000 coterminus with a Development Block and is made up of active members residing or working in the Block area.

The District and Pradesh Territorial Committees are elected by the elected members of the Block Congress Committees. Also there are on them representatives of certain organizations or institutions working in the area in accordance with certain rules. These allied organizations are trade unions, kisan and youth bodies.

The A.I.C.C. also has on it representatives of allied institutions and organizations.

## AIMS AND OBJECTS

The ideology, outlook and policy may be described as follows :

The object of the Indian National Congress is the well-being and advancement of the people of India and the establishment in India by peaceful and constitutional means of a Socialist State based on Parliamentary Democracy in which there is equality of opportunity and of political, economic and social rights, aiming at world peace and fellowship.

The provision of the basic needs of food, clothing and shelter, and of opportunity for cultural growth for all people.

With a view to achieving the above objects planning should take place with a view to the establishment of a socialistic pattern of society where the principal means of production are under social ownership or control and there is equitable distribution of national wealth.

Full employment should be achieved in ten years.

The State should initiate and operate large-scale schemes, providing services such as power, transport ; have over-all control of resources, social purposes and trends ; maintain strategic controls ; prevent private trusts and cartels ; maintain standards of labour and production ; the public sector must progressively play a greater part particularly in the establishment of basic industries ; the private sector should function in terms of the national plan.

Organization of industry, commerce, agriculture on a co-operative basis.

Participation of workers in management of industry.

Perspective planning ; flexible short-term plans in the context of a long-term plan.

Backward areas and regions should be specially helped to develop themselves.

The per capita income should be doubled in fifteen years.

Belief in a secular State ; all citizens to have equal rights ; removal of barriers which divide people on the basis of religion, caste, class or region.

### Land Reform

Abolition of old and out-dated agrarian systems of tenure ; security of tenure and fair rents for tenants and tillers of the soil.

Land reform should be effected quickly, agricultural prices stabilized at a reasonable level and facilities for rural credit greatly enlarged.

There should be a ceiling on holdings.

Co-operative farming ; the village as the unit of co-operative management.

Local administration through Panchayats.

Promotion of small-scale and cottage industries as supplier of consumer goods and source of employment ; organization of cottage industries in industrial co-operatives.

State trading should be undertaken whenever the balance of advantages lies in favour of such a course.

Control of distribution is essential in times of scarcity.

Redirection of public expenditure, imposition of estate duties and of tax on wealth and spending for the removal of inequalities and the provision of resources for the Second Plan.

There should be a reasonable relationship between maximum and minimum incomes.

Better housing for workers.

Effective machinery to commend good work and condemn bad work in the public services.

Summary method to deal with corruption.

### Education

Basic education will provide the future pattern of primary as well as secondary education. Primary Schools will be converted to the Basic type in a well-planned manner within ten years.

Multi-purpose schools will be established.

Manual work as part of curriculum of higher education ; no degree or diploma without manual work.

The medium of instruction at the primary stage must be the mother tongue. Where the mother tongue of a child is not identical with the regional language instruction in the mother tongue should be made available, provided there is a reasonable number of persons demanding such instruction.

At the secondary stage instruction should ordinarily be in the regional language, though other languages could be used if there is a large enough demand.

At the university stage, the regional language should be the medium, though Hindi and even English could be used as this will facilitate inter-provincial cultural intercourse.

In the teaching of scientific and technical subjects the transition from English to Hindi or the regional language should be gradual.

Hindi should be a compulsory second language at the Secondary stage.

The study of English should be taken up at the secondary school stage and continued at the university.

Progressively, examinations for the all-India services should be held in English, Hindi and the regional languages. Candidates who have chosen Hindi or a regional language should pass separately in English.

Successful non-Hindi candidates should take a test in Hindi at an early stage.

Hindi Prachar Sabhas in the headquarters of every Taluka in the south.

It is desirable for people in Hindi-speaking areas to learn at least one regional language.

Proper representation to minorities in legislatures and other public bodies.

Social and legal disabilities hindering the progress of women should be removed and women should be placed on a footing of equality in the matter of marriage, property, inheritance and divorce through a series of Hindu law reform bills.

Formation of regions within a State may be necessary for the full development of a language or culture.

On the whole, it is best not to have relatively small units.

The Congress is committed to prohibition.

### Foreign Policy

Independent line in foreign policy ; friendly relations with all countries.

India's relations with foreign countries will be governed by the Panch Shila. They should also be the basis of the relations between all nations.

Regional military pacts which happen to serve specific interests of the Great Powers will not promote the cause of peace.

**India will not be aligned to any power bloc, and will not take part in other people's wars.**

**China must be admitted to the United Nations. Membership should, in fact, be universal.**

**In general, people under colonial rule should be free.**

**Racialism should end.**

### Disarmament

Disarmament, which has been long considered and discussed, has now become an immediate and essential necessity because of the terrible consequences of modern war and the impending threats to human survival as a result of the use of weapons of mass destruction.

### Durgapur Session

The 69th plenary session of the Indian National Congress was held at Congress Nagar, Durgapur, from 6th to 10th Jan. 1965.

### Resolutions

Condolence resolutions expressing deep sense of sorrow and grief at the deaths of Shri Jawaharlal Nehru and other prominent leaders and congressmen were moved from the chair. The resolutions were passed and all the delegates observed two-minutes' silence.

A resolution expressing sympathy to the victims of cyclone disaster at Rameswaram was also moved from the chair.

### Jawaharlal Nehru Memorial Fund

The congressmen appealed to all the countrymen to contribute generously to the Jawaharlal Nehru Memorial Fund, so that the ideals and activities which were dear to the heart of Shri Jawaharlal Nehru might be effectively furthered and his dream of a just, self-reliant, democratic and socialist India might be brought to early fruition.

*National reconstruction :* The congress considers that in the task of National reconstruction it is as important for the various Pradesh and District Committees to maintain close and living contact with the people. The youth of the country has to be infused with a sense of purpose and participation in the development of the country. Their vast energies have to be channeled in the right direction and properly utilised. This calls for a well co-ordinated youth programme.

Contacts with the farmers are of the highest importance. A good deal of assistance can be provided to the farmer in matters connected with increased agricultural production, especially food production.

The country's economic development is a matter of vital necessity. Industrial labour plays a vital role in the economic development of the country. The congressmen should render all assistance to the I.N.T.U.C. in its efforts in building up a responsible and devoted labour movement in the country. Agricultural labour forms a major portion of our weaker section of the community. They deserve all the support the congress organisation can give in respect of regeneration of rural economy.

*International Affairs :* The Indian National Congress reaffirms its determination to continue to pursue the policy of non-alignment and peaceful co-existence, which in the context of the recent charges in the international situation has an ever widening and constructive role to play in the maintenance and consolidation of international peace and security. The vast advances in science which can do much for the prosperity and well being of humanity should be exploited only for the purpose of peaceful development and progress of the mankind. The congress declares that efforts be redoubled for the development of peaceful use of atomic energy for the prosperity and well-being of the people.

The proliferation of the atom bomb has increased the menace to the people of the world. The peace loving nations should unite together in raising their voice against the increasing threat to human existence. The United Nations and the major nuclear powers should pay urgent and serious attention to this problem, so that the danger of vast devastation to mankind by any use of nuclear weapons is obviated. The congress recognises that the Moscow Partial Test Ban Treaty helped to achieve a measure of success and hopes that the countries who have not already done so should subscribe to the Moscow Test Ban Treaty which should also be extended to cover underground tests. The congress also welcomed the reaffirmation of the principles of peaceful co-existence by the Cairo Conference and hoped that General Assembly of the U.N. would adopt these principles on the occasion of its 20th anniversary.

*Democratic Socialism :* The congress resolution on 'Democracy & Socialism' adopted at the Session of the Indian National Congress at Bhubaneswar laid down the goal as well as the basis of economic policy for the nation. It also set down the broad outlines of the programmes and measures needed to fulfil the aspirations of the people of India, which found expression in the resolution. The congress reaffirms its faith in these basic concepts and programmes.

### Congress Unit in Kashmir

The Kashmir National Conference had been functioning on the same lines as that of the Congress. Many people in Kashmir and the rest of the country had expressed a strong desire that the National Conference should become an integral part of the Congress. In the plenary session this decision was adopted and moved, and initial work for the establishment of a Congress Unit in Kashmir started from January 26, 1965.

### Bangalore Session

The 70th Session of the Indian National Congress was held in Bangalore on July 23, 24 and 25, 1965.

Members of the Working Committee who had a prolonged discussion on Kutch on July 23, 1965, decided not to place any official-resolution before the AICC lest it should lead to a public expression of divergent points of view through a series of amendments.

Though many members in the committee felt that the agreement was disadvantageous in several respects, it was ultimately conceded that the Government had acted in the best interests of the country.

It was learnt that Mr. Shastri and Mr. Swaran Singh had each brought with them draft resolutions on the Kutch situation for adoption by the committee. Both of them were persuaded by the committee not to move any formal resolution but throw the subject open for a general discussion through a brief statement by the Prime Minister.

Mr. Morarji Desai and Mr. V. K. Krishna Menon were among the members who pointed out that the Indo-Pakistani cease-fire proposals were dissatisfactory. Mr. Desai felt that a better agreement could have been secured if the Government had acted more firmly. The agreement was wholly disadvantageous to India.

Mr. Menon examined the legal aspects of the accord and maintained that India should have assessed its implications more carefully before accepting it.

### Text of Resolutions

The following is the text of the resolution on inter State harmony.

"The challenge which the country faces today in the task of economic development with a view to providing adequate food, clothing, shelter and other basic necessities of life to the common man can be met successfully only by the united and determined will of the people.

"The energies of the nation have to be concentrated fully on this task and they should not be dissipated in any measure owing to the existence of disputes between one State and another in matters relating to borders, river waters, or the supply of electric power and the like. The continued existence of such disputes tends to create friction and disunity and saps the energy of our people.

"A.I.C.C. considers that it is imperative for us all to realise that in all such matters the interests of the country as a whole must receive precedence over all other considerations. It wishes to emphasise the need for the promotion of unity and harmony among the States through resolute and persistent endeavours.

"A.I.C.C. considers that all efforts must be made to settle such disputes by mutual negotiations backed by a sincere desire to find fair and equitable solutions. In cases where such efforts do not succeed, A.I.C.C. recommends that the Government of India should set up appropriate machinery for a speedy and final settlement of the disputes."

The resolution on organisational unity said :

"The people of India have continued to give their support to and repose confidence in the Indian National Congress. A.I.C.C. considers that this has cast an increasing responsibility on the organisation to keep under continuous review organisational and other matters to ensure that the party discharges its responsibilities to the satisfaction of the people.

In this context, A.I.C.C. expresses its concern over the dissensions which continue to exist among individuals and groups within the Congress, which harm and weaken the organisation. It recognises that in a democratic organisation there is room for honest differences of opinion. But it is unfortunate, however, that personal and group rivalries have developed within the organisation.

A.I.C.C., therefore, appeals to all Congressmen to realise that prolonged dissensions have an undesirable effect on the party and on the larger interests of the nation, it urges Congressmen to make a genuine and sincere endeavour to forget the past and close their ranks, inspired by the ideals of service to the nation.

A.I.C.C. recommends that, with a view to resolving such differences as exist at present or as may emerge from time to time, the Working Committee should constitute a panel out of which the president may appoint boards to settle the differences."

On July 25, 1965 the All-India Congress Committee unanimously adopted the resolution on organisational solidarity.

The next session of the A.I.C.C. was to be held at Jaipur from Feb. 9, 1966.

# PEASANTS AND WORKERS PARTY OF INDIA

**(Jyotiba Phule Road, Naigaum, Bombay 14.)**

*General Secretary :* Dajiba Desai.

### AIMS AND OBJECTS

To promote international relations on the basis of equality and mutual co-operation and strengthen the forces of peace.

To oppose imperialism and all kinds of domination by one country over another and to support the movements for national independence and against racial discrimination, all over the world.

To establish People's Democracy as a first step towards the realisation of the final goal of a socialist society in this country.

To nationalise all key and basic industries and control the industries in the private sector to ensure their management in the interests of the country.

To nationalise Banks and the remaining sectors of the insurance business.

To industrialise the country rapidly and ensure labour participation in management.

To abolish unemployment by rapid industrialisation, decentralisation of industries, balanced industrial development of different regions, provision of technical training, promotion of the growth of small-scale and village industries and by increasing the capacity of the existing industries.

To abolish all kinds of feudal relationships in agriculture and introduce co-operative farming.

To ensure reasonable prices to the farmers and to entrust the selling, purchasing, processing and warehousing functions to the co-operative societies.

To guarantee minimum wage to agricultural labour and to distribute surplus and Government lands among them.

To guarantee the right of work and a minimum wage to everybody.

To introduce free and compulsory education upto the age of 14 and to subsidise increasingly secondary and higher education. To provide free technical education.

To abolish untouchability by the economic improvement of the Scheduled Castes and Tribes and other backward communities.

Equal rights to women and the enforcement of the principle of equal pay for equal work.

To decentralise the administration and make it responsive to the people's needs and criticism.

To form unilingual States and draw the boundaries of the States on linguistic basis.

*Total Membership :* As a Marxist Party the membership of the Party is strictly restricted to those who are active workers and devote a major part of their time to party work. The rest are put in the class of sympathisers.

Both classes of members together number about 10,000.

*Strength in Lok Sabha :* 1.
*Strength in Rajya Sabha :* 1.
*Strength in State Legislatures :* 15.
*Strength in Legislative Councils :* 4.
*Percentage of votes polled in the election to the Lok Sabha and to the Assemblies respectively by P.W.P. was* 9%.

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# PRAJA SOCIALIST PARTY

**(18, Windsor Place, New Delhi 1.)**

The National Executive of the Praja Socialist Party decided to annul the tentative merger with the Socialist Party arrived at in June, 1964.

An emergency conference of the Praja Socialist Party was held at Varanasi, on January 31, 1965, under the Chairmanship of Shri Surendranath Dwivedy, M.P.

The emergency conference was attended by 625 out of the 800 PSP delegates present at the Varanasi Samyukta Socialist Party Conference. The emergency conference passed the following resolution unanimously :

(1) This Conference of the delegates of the PSP endorses the statement submitted to the Chairman of the erstwhile SSP at its foundation conference by the PSP's representatives on the National *Ad Hoc* Committee of the SSP, and considers the merger of the PSP and SP as annulled.

(2) The conference further resolves to revive the units of the Praja Socialist Party at all levels immediately.

(3) The conference reaffirms its faith in the Policy Statement of the PSP and reiterates the policy of the PSP adopted at Bhopal, in June 1963.

(4) The Conference adopts the former Constitution of the PSP and its election symbol, the "HUT".

The Conference elected the following office-bearers :—

*Chairman :* N. G. Goray ; *Dy. Chairman :* Triloki Singh ; *General Secretary :* Prem Bhasin ; *Treasurer :* Sanat Mehta.

*Joint Secretaries :* M. R. Dandawate ; Shishir Kumar ; Bagaram Tulpule ; Surendra Mohan.

*Members of the Executive :* N. G. Goray ; Triloki Singh ; Prem Bhasin ; Sanat Mehta ; Surendranath Dwivedy ; H. V. Kamath ; Hem Barua ; Mukut Beharilal ; Basawan Sinha ; Debu Bose ; Brij Mohan Toofan ; Harbhajan Singh.

*Central Parliamentary Board : Chairman :* H.V. Kamath ; *Secretary,* K. K. Menon.

Strength in Lok Sabha 9 and in Rajya Sabha 7.

*Strength in State Assemblies :* W. Bengal 2 ; Bihar 9 ; Orissa 10 ; U.P. 5 ; Madhya Pradesh 22 ; Gujarat 2 ; Goa 2 ; Maharashtra 4 ; Mysore 22.

*Strength in Councils :* Bihar 2 ; U.P. 2 ; Maharashtra 1 ; and Mysore 2.

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# THE REPUBLICAN PARTY OF INDIA

**(Gandhi Road, Chanda, Vidarbha.)**

*President,* B. K. Gaikwad, M.P.

***General Secretary,*** **B. D. Khobaragade, M.P.**

The main aims and objects of the Party are to realise the aims and objects set out in the preamble to the Indian Constitution, namely : The equality of all persons ; the right of self-development ; freedom of religion ; and economic and political freedom ; equality of opportunity with the proviso that those who had none in the past should have priority ; freedom from exploitation of man by man, class by class, nation by nation ; the parliamentary system of government.

The R.P.I. has three members in the Lok Sabha and 11 in the Assemblies.

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# REVOLUTIONARY SOCIALIST PARTY

**(780, Ballimaran, Delhi 6.)**

*General Secretary*, Tridib Kumar Chaudhuri, M.P.

*Secretaries*, Pratul Chaudhuri, N. Sreekantan Nair, M.P., Makhan Paul, Keshav Prasad Sharma, Durga Bagchi and Sushil Bhattacharya.

The party is a Marxist Leninist Party and relies on mass and class action. It is organized on the principle of democratic centralism.

But it is opposed to subservience to the foreign policy of Russia or China.

It believes in the redistribution of land with ceilings, joint cooperative farming and mechanization. It supports the general ideas underlying the Third Plan but insists that the sacrifices involved in deficit financing should be shared by all equitably. It believes in the policy of heavy industrialization, nationalization of all basic industries and of all large-scale organized industries, with private sector limited to small and cottage industries only and their organization on cooperative lines. It also advocates the introduction of appropriate democratic devices for workers' and consumers' control over publicly owned industries, enterprises and financial institutions. The party also favours balanced regional economic development. On China, it condemns the Chinese aggression and in the current background of Sino-Indian armed conflict and cease-fire supports the Colombo Proposals evolved by the six non-aligned Powers in Dec. 1962 as a basis for negotiations between the two countries.

The manifesto for the 1962 Elections advocated the formation of United Front of all leftist parties including both C.P.I. and P.S.P. in order to oppose the Congress Party at the polls.

*Members in the Lok Sabha :* Two (West Bengal 1; Kerala 1).

*Total number of members in the State Assemblies :* Eight (West Bengal 8).

*Total membership of party :* 25,752.

The party has branches in Assam, West Bengal, Bihar, Uttar Pradesh, Delhi, Rajasthan, Maharashtra, Madras and Kerala.

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# SAMYUKTA SOCIALIST PARTY

**Central Office : Kendra Karyalaya,**
**179, South Avenue, New Delhi 11.**

The new socialist party formed by the merger of the Praja-Socialist and Socialist parties, was christened Samyukta Socialist Party on June 6, 1964. Mr. S. M. Joshi was elected Chairman of the new party and Mr. Raj Narain as General Secretary at the meeting on June 8, 1964. However, at the first conference of the newly formed party called at Varanasi (Banaras) from Jan. 29 to Feb. 1, 1965, a small section of the former Praja Socialist members quit the S.S.P. to revive the P.S.P.

**Aims and Object**

To achieve, by democratic and peaceful means, a socialist society, free from social, political and economic exploitation of man by man and of nation by nation.

The Party will organise, guide and lead peaceful revolutionary class struggles, mass movements and civil disobedience; promote constructive efforts; and also use parliamentary methods to secure political power in order to eliminate all forms of injustice and feudal-capitalist exploitation.

Members of Parliament and State Legislatures and other levels as well who have been elected on P.S.P. and S.P. tickets are now members of the Samyukta Socialist Party.

The party position in the Parliament and Legislatures is : Lok Sabha 9 ; Rajya Sabha 4 ; Legislative Assemblies 167 ; Legislative Councils 13.

The Party is active on the trade union front through the Hind Mazdoor Panchayat, a central organisation of trade unions. On the youth front, it works through the Samajwadi Yuvajan Sabha, while a women's front is being organised through the Samajwadi Mahila Sabha. The Hind Kisan Panchayat organises the small farmers and agricultural labourers.

Membership of the Party stood at over 400,000 on December 31, 1965. Of these, about 75,000 were affiliated members from trade unions, kisan and youth organisations. The rest were individual members enrolled through the Constituency units. The annual membership fee for individual members is 50 paise.

*Office Bearers : Chairman :* S. M. Joshi; *General Secretary :* Ramsevak Yadav ; *Treasurer :* George Fernandes.

The Central Parliamentary Board consists of : Badrivishal Pittie, *Chairman ;* M. Samba Murthy, *Secretary ;* and Karpuri Thakur, Deven Sen, Raj Narain, A. Shreedharan, Mangaldev Visharad, Madhu Limaye and Mrs. Shanti Nayak, *Members.*

Efforts are being made for the merger of Peasants' and Workers' Party with the S. S. P. and of the All India Forward Bloc. No final decision had been taken upto the time of writing this.

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# SHIROMANI AKALI DAL

Broadly speaking there are three groups among the Sikhs. One group is the main body of the Shiromani Akali Dal. It is in favour of maintaining the separate identity of the Sikh community and the formation of a Punjabi Suba.

Before the 1957 general elections the Akali Dal adopted by an overwhelming majority four amendments to its constitution by which members were enabled to join the Congress and exclude politics from the Dal's domain.

The Akalis and Sikhs in general accepted the new Punjab of the States Reorganization Act (Pre-reorganization Punjab and PEPSU) and the regional formula with a zonal council for the Hindi and Punjabi speaking areas. The Sikhs are in a majority in the Punjabi-speaking zone, where the court language is Punjabi in the Gurmukhi script. It is estimated that the Sikhs form about 57 per cent of the population of the Punjabi zone.

In the general elections that followed though one group led by Giani Kartar Singh supported Congress candidates, the other group led by Master Tara Singh opposed some though not all Congress candidates.

Besides the Akalis, there is a large body of Sikhs who belong to the Congress. They do not believe that Sikhs as Sikhs should have a separate political identity.

The differences between the two groups among the Akalis—that of Giani Kartar Singh who was a Minister in the Government, and of Master Tara Singh—and also between Master Tara Singh and the Congress were widening all through the latter half of 1958.

According to Tara Singh this could be ascribed to : The alleged interference in the Gurdwara affairs which led to the defeat of Master Tara Singh in the S.G.P.C. elections, the alleged encouragement given to Giani Kartar Singh to divide the Sikhs, the Congress refusal to redistribute the boundaries of the Punjab on a linguistic basis, the half-hearted implementation of the regional plan embodying the Sachar language formula, the inadequate representation of Sikhs in the services and the alleged corruption and nepotism in the administration.

In the middle of Feb. 1959 the Shiromani Akali Dal decided to abrogate the Congress-Akali Pact and revive political activity.

Akali Dal thinks that Congress Government is the only hurdle to the way of Punjabi Suba. On the initiative of Master Tara Singh, all the opposition parties in the Punjab excluding Communists, have formed a united front to fight Congress. The main demand of Akali Dal, however, remains "Punjabi Suba".

At present there are two rival groups of the Akali Dal, one the Master Tara Singh group whose president is Giani Bhupinder Singh and the Sant Fateh Singh group with Sant Fateh Singh as President.

In the Shiromani Gurdwara Prabandhak Committee Poll, on Jan. 18, 1965, the group led by Master Tara Singh could win only 45 seats while Sant Fateh Singh's group secured 91 seats.

Shiromani Akali Dal chalked out a vigorous programme to help the kisans and the mazdoors and established two sections in the organisation viz., Kisan section and Mazdoor section. Shiromani Akali Dal have mobilised public opinion for necessary amendment to the Hindu Succession Act, of 1956 and has urged upon the Government of India to make the daughter shareholder in father-in-law's property instead of father as already enacted.

*President :* Giani Bhupinder Singh.
*Gen. Secretary :* Sardar Atma Singh.

**Punjabi Suba***

The Government of India set up on Sept. 23, 1965 a Cabinet Sub-Committee consisting of Mrs. Indira Gandhi, Mr. Y. B. Chavan

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* The Government of India has decided to divide Punjab into two States, the Punjabi Suba and Hariana. A three-man Commission has been appointed to make recommendations about the boundaries of the proposed states (April 1966).

and Mr. Mahavir Tyagi to examine afresh the Punjabi Suba question and look into the grievances of the Sikhs To assist in its work a consultative committee of both houses of Parliament was set up subsequently with the Speaker of the Lok Sabha as its Chairman. Fourteen members of the Lok Sabha were nominated by the Speaker and seven of the Rajya Sabha were nominated by the Chairman of the Rajya Sabha as members of the Parliamentary Committee. Sant Fateh Singh opposed the formation of the committees as he was of the view that the formation of such committees will only prolong issues instead of solving them. The Cabinet sub-committee was expected to finalise its report by the end of December 1965. Upto the time of writing this (Jan. 28, 1966) the report has not been finalised. The cabinet sub-committee and the parliamentary committee have been functioning independently but in mutual co-ordination to avoid duplication of work.

The Punjab Cabinet unanimously decided on Jan. 5, 1966, to oppose the Akali demand for a division of the Punjab on a linguistic basis. The Cabinet has appointed a four-man committee to place its views on the Punjabi Suba issue before the consultative committee of Parliament, the three-man Central Cabinet Subcommittee and the other Central leaders. This sub-committee is understood to have formulated an alternative proposal. Its broad outlines are understood to have been discussed by the subcommittee with Mr. G. L. Nanda. Upto the time of writing, there has been no further development.

# SWATANTRA PARTY

## ( 143, Mahatma Gandhi Road, Bombay 1. )

*President :* Prof. N. G. Ranga.

*Vice-Presidents :* K. M. Munshi, Prof. M. Ruthnaswamy, H. H. Maharani Gayatri Devi of Jaipur, Jathedar Udham Singh Nagoke.

*General Secretary :* M. R. Masani.

*Treasurers :* Sir Homi Mody, Dr. R. C. Cooper, C. Rai; *Joint Secy.*, N. Dandekar.

*Members of the National Executive :* C. Rajagopalachari, R. N. Singh Deo, Lakshman Singh, Bhailalbhai Patel, P. K. Deo, Bhanu Pratap Singh, K. B. Jinaraja Hegde, Sardar Basant Singh, G. Latchanna, B. Ramachendra Reddy, Dahyabhai V. Patel, Hari Hara Das, J. M. Lobo Prabhu, Jaideepsingh, G. K. Sundaram, Mandhata Singh, Inder Singh, K. K. Kuruvilla, Smt. Shantabai Gulabchand Doshi, Sardar Ram Singh.

The Party has 21 members in the Lok Sabha and 11 members in the Rajya Sabha, with Prof. N. G. Ranga as leader in the Lok Sabha and Dahyabhai Patel as leader in the Rajya Sabha. The Party has 205 members in the various State Assemblies. The Party is the largest opposition group in both Houses of Parliament.

The Swatantra Party was established in Bombay on August 1 and 2, 1959, at a preparatory convention which was convened for the purpose of establishing the Party and adopting a statement of principles. Earlier an informal meeting had been called in Madras on June 4 at the initiative of the All India Agriculturists' Federation at which a decision was taken to launch a new Party under this name.

The first National Convention of the Party was held in Patna on March 19 and 20, 1960. Over one thousand delegates were nominated representing over 3,36,000 members spread throughout the country.

The constitution of the party was adopted by the Convention. It was also decided that a five pointed white star on a blue background would be the flag of the Party. The Convention also adopted a 9,000 word statement of policy based on the statement of principles adopted in Bombay.

The Second National Convention which met in Agra on Nov. 25 and 26, 1961, adopted the Party's Election Manifesto for the General Elections early in 1962.

The Third National Convention of the Party met in Bangalore on February 1 and 2, 1964. Clauses 4, 5 and 6(*b*) of the Party's Constitution dealing with membership were revised resulting in a radical change in the Party's structure.

Arising out of this revision in the Party's Constitution, two categories of adherents to the Party have now come into being, namely, Workers and Members. All those persons who have completed 18 years of age, signify in writing their agreement with the Party's principles and willingness to work for the Party and pay an annual subscription of Rs. 3 per year or Rs. 100 can become Workers or Life Workers respectively of the Party. Those who express in writing their agreement with the Party's principles but do not find it possible to work for the Party can become Members by signing the Party pledge form. They need pay no subscription. While such members will be consulted from time to time, they will not possess the right to vote in Party elections.

The Party's basic policy is contained in its Statement of Principles which runs as follows :

The Swatantra Party is pledged to social justice and equality of opportunity for all people without distinction of religion, caste, occupation or political affiliation.

The Party holds that the progress, welfare, and happiness of the people depend on individual initiative, enterprise, and energy. The Party stands for the principle of maximum freedom for the individual and minimum interference by the State, consistent with the obligation to prevent and punish anti-social activities, to protect the weaker elements of society, and to create the conditions in which individual initiative will thrive and be fruitful. The Party is, therefore, opposed to increasing State interference of the kind now being pursued.

The Party holds that the State should foster and utilise the sense of moral obligation, the pride, satisfaction, and fulfilment felt by individuals in serving others, which are inherent in our tradition, instead of adopting legislative or other forms of compulsion which commence with want of faith in the people and are consummated in the serfdom of the governed under the official machine, in an omnipotent State controlled by a political party voted to power. The Party, therefore, adheres to the principle of Trusteeship adumbrated by Gandhiji.

The Party holds that the policies of Government should be founded on faith in the people and not on State compulsion and the encouragement of hatred and conflict between class and class, expropriation, repudiation of obligations, and the conferment of more and more powers on the officials of Government at the expense of the freedom of the citizens.

The Party stands for every effort being made to foster and maintain spiritual values and preserve what is good in our culture and tradition, and avoid the dominance of a purely materialist philosophy of life which thinks only in terms of a standard of life without any reference to its content or quality.

The Party holds that steps should be taken to remove the pervading sense of uncertainty that has been created by the present policies of the Government and its varying forecasts of future plans, leading to the drying up of initiative and enterprise in land, shop, and factory alike. The Party holds that a sense of stability and incentive for individual effort can be restored only by strict adherence to the Fundamental Rights and Guarantees specified in the Constitution as originally adopted in respect of freedom of property, trade, and occupation, and just compensation for any property compulsorily acquired by the State for public purposes.

The Party holds that in the policies adopted for national development, priority must be assigned to the basic needs of the people, namely, food, water, housing, and clothing.

The Party believes that every citizen has a fundamental right to educate his children according to his choice and in a free atmosphere untramelled by official directives and that the State should afford facilities for such education without discrimination.

The Party holds that the paramount need is for increasing food production and this is best attained through the self-employed peasant proprietor who is interested in obtaining the highest yield from his land.

The Party believes in an intensive programme of agricultural improvement by promoting the material and psychological inducements for greater production without disturbing the harmony of rural life. The Party holds that there should be no disturbance of ownership, management, and cultivation of land, but believes in a more effective programme than is being followed at present in respect of irrigation, and the supply of material, implements, credit and marketing facilities.

The Party believes in the need for giving every kind of help to agriculture, but is opposed to cultivation through organisations which reduce private ownership to an empty paper-title and which bring into being a loose kind of multiple ownership which is certain to sap the incentive of the farmer and his family, reduce output, and take us to a collective economy with official management. It is firmly opposed to collectivisation and bureaucratic management of the rural economy.

The Party takes note of the dissatisfaction amongst the rural population that adequate attention has not been paid to their needs. It holds that the level of life of the rural people should be improved by removing all such impediments as are likely to stand in the way of their attaining a high standard of life, and by taking all steps necessary for the purpose, in particular for maintaining a reasonable and steady price for agricultural produce, which is in parity with other prices.

In industry, the Party believes in the incentives for higher production and expansion inherent in competitive enterprise, with adequate safeguards for the protection of labour and against unreasonable profits, prices and dividends, where there is no competition or where competition does not secure the necessary corrective.

The Party stands for the restriction of State enterprise to heavy industries such as are necessary to supplement private enterprise in that field, such national services as Railways, and the starting of new enterprises which are difficult for private initiative.

The Party is opposed to the State entering the field of trade and disturbing free distribution, and introducing controls and official management with all its wastefulness and inefficiency.

The Party believes that in the field of production, the free choice of the producer and the consumer must be given basic place and importance.

The Party stands for the preservation of the freedom of the small and self-employed artisans, craftsmen, and traders, who are in danger of losing their occupational opportunities by reason of the policy of Statism. These persons perform a great, widespread, and inexpensive function in our society, and their gradual extinction will be a national misfortune and add to our unemployment problem.

The Party stands for greater thrift in public expenditure. It holds that taxation should be kept at such levels as will not interfere with reasonable living standards for the people, both rural and urban, and which, while being necessary and sufficient for the carrying on of administration and such social and economic services as are taken up by the State, is yet not so high and exacting or so ubiquitous as to prevent capital formation and private investment.

The Party is opposed to a programme of development based on crippling taxation, abnormal deficit financing, and foreign loans which are beyond the capacity of the country to repay.

The Party is opposed to all policies that lead to excessive inflation, high prices that reduce the value of savings, endowments, and fixed incomes, and which create undue hardship for the present generation in the hope of a distant gain.

The Party believes that the cost of public administration should be reduced considerably. It stands for integrity and efficiency in the services. It is against the expansion of the bureaucratic machine, with a hierarchy of officials asked to do work which is best done by citizens and private agencies, resulting in unproductive waste of national resources.

The Party believes that the State will best serve the nation by encouraging and affording facilities for a decentralised distribution of industry and by limiting its own regulatory function to the prevention and punishment of anti-social activities wherever called for.

The Party stands for the creation of opportunities for full and lasting employment in all sectors of life. It stands for a programme of all-round industrialisation with a view to developing national resources and reducing unemployment. It believes in a balanced development of capital-goods industries, organised consumer-goods industries, and rural industries that afford supplementary employment in the small scale processing of the products of agriculture.

The Party stands for a fair deal for labour whether in the field, factory or office and for correlating wages to increased productivity and for the workers' right to organise for the purpose of collective bargaining. It stands for harmonising the interests of capital and labour when they get into conflict.

The Party is opposed to any form of political pressure being put on officials to deflect them from the course of fair and just discharge of duties without discrimination. It stands for the rule of law, an independent judiciary, and for the full play of the powers of judicial review given to the Courts by the Constitution.

The Party shall, in all matters, keep before itself the cardinal teachings of Gandhiji, maintaining faith in the people and in the efficacy of truth and non-violence.

The Swatantra Party holds that democracy is best served if every political party allows freedom of opinion to its members on all matters outside the fundamental principles of the party. It, therefore, gives its members, full liberty on all questions not falling within the scope of the principles stated above.

**ELECTORAL UNDERSTANDINGS :**

The Swatantra Party will continue to try its utmost in all elections to secure the co-operation of other democratic Opposition parties to avoid multilateral contests which give undue advantage to the ruling party. Such efforts should be no reason for any slackening in building up the party's own organization, which should enjoy the highest priority.

**SWATANTRA ALTERNATIVE :**

The Party believes that Planning should aim at abundance, that this should be effective immediately and not prospectively, that it should begin with the poorer and not the richer classes, that it should not substitute State help for self-help and that it should not increase the power of Government but the prosperity of the people.

The Party is not for *laissez-faire* nor is it opposed to all planning. It reiterates its stand that all planning must be devised and carried out within the framework of the freedoms guaranteed in the Constitution and calculated to achieve the welfare of the people.

The Party's approach to the problems of economic development and planning would be to apply to each policy and measure the test suggested by Mahatma Gandhi, namely, to ask if the step contemplated is going to be of any use to the poorest and the weakest members of the community. In the light of such a test, the Party believes that the present approach to planning needs to be replaced by one which provides for the following :

A proper order of priorities starting with the increase in production and the provision of elementary necessities such as pure drinking water, food, clothing and shelter and employment.

A reallocation of the role of State and free enterprise so that the State may perform its proper function of providing the infra-structure through the provision of roads and railways, efficient communications, facilities for the peasant such as irrigation and easy credit, cheap electric power and education, both technical and general; while all other economic activity should normally be left to competitive enterprise.

The incentive of legitimate gain under conditions of competition among producers.

The elimination of monopoly in both State and free sectors so as to provide maximum efficiency and service at minimum cost to the consumer.

Reducing to a minimum governmental controls and regulation to foster economic expansion and minimizing corruption.

The maintenance of stable prices through the observance by Government of measures of monetary discipline.

The revision of policies relating to taxation including land revenue so as to foster saving, investment and employment opportunities.

Remunerative prices for agricultural producers.

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# AUTOMOBILE INDUSTRY

THE world's automobile industry in its present form is essentially a twentieth century development. One of the first automobiles to be seen in the streets of Bombay was owned by Shri Jamshedji Tata, the pioneer industrialist of India.

It would appear that the first motor car was imported into India in 1898. The practice to the end of the first world war was to purchase complete motor vehicles directly from abroad or through agents or dealers in India.

It was in 1920 that two automobile manufacturers, one from the U.S.A. and the other from Canada, set up local companies to do business in motor cars and trucks.

General Motors India Ltd. commenced assembling trucks and cars from components and parts imported from the U.S.A. in c.k.d. condition in their factory at Bombay in 1928. The first car came out of the assembly line on Dec. 4, 1928. The Ford Motor Company of India Ltd. commenced c.k.d. assembly of automobiles at Madras in 1930, and at Bombay and Calcutta in 1931.

Addison and Co., Ltd. commenced c.k.d. assembly of cars and trucks at Madras in 1936.

In addition to the above, other firms in the field were : Standard Motor Products of India Ltd., Madras ; Automobile Products of India Ltd., Bombay ; Ashok Motors Ltd., Madras ; Dewar's Garage and Engineering Works, Calcutta ; Peninsular Motor Corporation Ltd., Calcutta ; French Motor Car Co., Ltd., Bombay ; and Mahindra and Mahindra Ltd., Bombay.

The total annual assembling capacity of the firms mentioned above was estimated around 84,014 cars and commercial vehicles.

The importance of establishing an automobile industry was recognised by the Government of India in 1945 when a Panel on Automobiles and Tractors was constituted to make recommendations on the development of manufacture of automobiles and tractors in India. However, no definite action seems to have been taken on the recommendations of this Panel which were submitted in 1947. In the statement of Industrial Policy made in the Indian Parliament in April, 1948, automobiles and tractors were classified among industries of importance, which would be subject to regulation and control by the Central Government. In 1949, Government of India decided that import of motor vehicles should be allowed only in completely knocked down condition (c.k.d.). at the same time, further increase in assembling capacity beyond what was in existence prior to 1948, was not encouraged. From April 1, 1950, customs duty on certain parts which were being manufactured in the country was raised pending enquiry into the question of grant of protection and assistance to the industry.

In 1944, two companies, Hindustan Motors Ltd., Calcutta, and Premier Automobiles Ltd., Bombay, with an authorised capital of Rs. 20 crores and Rs. 10 crores respectively, were established with a programme for progressive manufacture of complete automobiles.

Premier Automobiles Ltd. established their factory at Kurla, Bombay in March 1947. Hindustan Motors Ltd. commenced operations at Uttarpara near Calcutta in 1948.

In pursuance of an assurance given by Government during the debate in Parliament in March, 1950, an Automobile Expert Committee was appointed in June 1950 to examine the position in regard to the inclusion of particular parts of automobiles in categories bearing different rates of import duty and to make recommendations of their classification. The main recommendations of this Committee were accepted by the Government and given effect to in March 1951. Certain other measures were also taken to promote the

development of the industry. For effective standardisation of types and models of vehicles to be imported into the country, restriction was imposed on the assemblers requiring them to import only three types of cars and trucks from each of the dollar and soft currency areas. In March 1952, the Government of India referred to the Tariff Commission for enquiry and report the question of the grant of protection and assistance towards encouragement of automobile industry in India. The Commission submitted its Report in 1953.

In 1953 Government accepted the recommendations of the Tariff Commission that out of the 12 manufacturers and/or assemblers in the country only 5 who had manufacturing programmes should be allowed to assemble and progressively manufacture vehicles in the country except in the case of Jeep type vehicles. The remaining units which were pure assemblers curtailed their operations by stages and eventually closed down their assembly shops. Of the five approved manufacturers, one could not proceed with their programme of manufacture and consequently the approval was withdrawn.

Ashok Motors Ltd. one of the approved manufacturers subsequently entered into an agreement with Leyland Motors Ltd., England and converted themselves into a new company known as Ashok-Leyland Ltd. for the manufacture of commercial vehicles of G. V. W. of about 10 tons and above. Mahindra & Mahindra Ltd. submitted a programme for the manufacture of jeeps which was approved by Government. Approval was also granted to a new unit, *viz.* Tata Engineering & Locomotive Co., Ltd., for the manufacture of diesel commercial vehicles in collaboration with Daimler-Benz A.G. of West Germany. For automobile diesel engines, Government recognised Simpson & Co., Ltd., Madras, and the Automobile Products of India Ltd., Bombay, as approved manufacturers of Perkins and Meadows automobile diesel engines these two makes of engines being the power units for diesel chassis (less engines) manufactured by Hindustan Motors Ltd., and Premier Automobiles.

## MANUFACTURERS

With the additions mentioned above, the country had thus eight approved manufacturers of automobiles and/or engines by the end of 1955:

1. Hindustan Motors Ltd., Calcutta:—Hindustan Cars and Studebaker trucks now replaced by Bedford trucks.
2. Premier Automobiles Ltd., Bombay:—Fiat Cars and Dodge and/or Fargo trucks.
3. Standard Motor Products of India Ltd., Madras:—Standard Cars.
4. Ashok-Leyland Ltd., Madras:—Leyland Trucks.
5. Mahindra & Mahindra Ltd., Bombay:—Willy's jeeps (now styled as Kaiser jeeps).
6. Tata Locomotive & Eng. Co. Ltd., Bombay:—Tata-Mercedes-Benz Trucks.
7. Simpson & Co., Ltd., Madras:—Perkins Engines.
8. Automobile Products of India Ltd., Bombay:—Meadows Engines.

Though the Government had originally accepted the recommendations of the Tariff Commission (1953) for the manufacture of (*a*) Baby and Big cars as well by Hindustan Motors Ltd., (*b*) Big cars as well by Premier Automobiles Ltd., and (*c*) medium cars as well by Standard Motor Products of India Ltd., certain policy changes were later made by the Government. The difficult foreign exchange situation that developed by the end of 1956 and in the beginning of 1957 necessitated these changes with the result that the types and makes of vehicles to be developed were rationalised to only 3 passenger cars, 3 medium type trucks, one heavy truck, one jeep and one light truck.

*Cars:* Three manufacturers of cars:

1. Standard Ten, 2. Fiat 1100, 3. Hindustan Ambassador/Land Master.

*Trucks:* One manufacturer of

(a) *Trucks: Light*—1 *ton:* Dodge/Fargo (Petrol or Diesel).

Three manufacturers of:

(b) *Trucks: Medium*—3/5 *tons:* 1. Dodge/Fargo (with petrol or diesel engine), 2. Mercedes-Benz (with diesel engine), 3. Bedford.

One manufacturer of; (c) *Trucks: Heavy:* Leyland Comet. Tiger/Titan.

Three manufacturers of:

*Diesel Engines (for medium trucks):* 1. Perkins—P6, 2. Meadows. Both suitable as original fitment for Dodge and Bedford Trucks, and 3. Tata Mercedes Benz.

One manufacturer of:

*Jeeps:* Kaiser Jeeps (formerly called Willy's jeeps).

Thus the country had 3 models and 3 manufacturers for cars and medium trucks and one model and one manufacturer for light trucks, heavy trucks and jeeps in 1957.

Messrs. Automobile Products of India Ltd., discontinued the manufacture of Meadows automobile diesel engines early in 1961 and the rights for the same were acquired by Messrs. The Premier Automobiles Ltd. The latter are now manufacturing Meadows engines and a percentage of their Dodge/Fargo diesel trucks are fitted with this make of engine.

Messrs. Standard Motor Products of India Ltd., Madras are now manufacturing Standard Heralds instead of Standard '10.'

The Ministry of Defence also entered the field of manufacture through an agreement with the M.A.N. of West Germany for the manufacture of multi-fuel medium trucks by the ordnance factories. This was in Sept. 1958. The rate of output is reckoned at 2,000 per annum. It was understood that considerable saving would accrue to the Ministry.

The 'Shaktiman' truck, as the truck has been called, has advantages over other trucks which the Army have been getting like increased payload by 30 per cent, multi-fuel engine and other special features which will make it a sturdy cross-country vehicle more suitable than other kinds for military purpose.

In 1960–61, Government entered into a collaboration agreement with the manufacturers of Nissan trucks in Japan for the progressive manufacture of this make of vehicle in the ordnance establishments in India.

The manufacture of Shaktiman trucks in India commenced in June 1959. The manufacture of Nissan 1-ton trucks commenced in the year 1961–62 and the manufacture of Nissan petrol jeep type vehicles commenced in 1962–63.

Only 803 Shaktiman trucks were manufactured in 1961–62, the third year of production of these trucks, as against the planned output of 2,000 units. The indigenous content was of the order of 50 per cent against an anticipated indigenous content of 70 per cent in the third year. The total production of tracked vehicles in the Ordnance factories in India in the year 1962–63 was 2,733. Of these, 621 were 3-ton Shaktiman trucks, 1,046 Nissan 1-ton trucks and 1,066 Nissan (Jonga) Jeeps.

The reported indigenous content of the products of the Ordnance factories as at April 1963 is — Shaktiman: 73 per cent; Nissan 1-ton truck: 35 per cent; Nissan (Jonga) Jeep: 28 per cent.

The production of Shaktiman trucks in the ordnance factories averaged 80 to 100 per month in the year 1963. The average indigenous content was reported to be about 62 per cent.

The manufacture of Nissan petrol trucks and Nissan jeep type vehicles received a fillip since the declaration of emergency. Early in 1964, a project report was drawn up for increasing the manufacture of Nissan jeep type vehicles and Nissan 1-ton trucks as these vehicles were expected to be useful for high altitude operation.

The production of Shaktiman trucks in 1963–64 was 1,030 and during 1964–65 it was 1,094.

The unprovoked and flagrant aggression on India's northern and north-eastern frontiers by China in the autumn of 1962 necessarily brought in its wake a reappraisal of the transport requirements of the Defence departments.

Production of vehicles in the Ordnance establishments was stepped up. Simultaneously, a sizeable percentage of the production of the vehicles in the civilian factories commenced to be taken over by the Government for the Defence needs of the country.

The Government has since decided to augment the production capacity of the Defence vehicle 6,000 Shaktiman and 7,200 Nissan vehicles per annum. This is proposed to be achieved by setting up a self contained unit at Jabalpur.

Until the new unit is established and within the existing capacity and available facilities the target of production for the year 1965-66 is 1,350 Shaktiman 3 tonnes, 3,600 one-ton jeep type vehicles and 1,200 Nissan petrol vehicles. The indigenous content at the end of the year 1965 is reported to be 69 per cent in the case of Shaktiman, 39 per cent in the case of Nissan 1 ton jeeps and 30 per cent in the case of Nissan petrol vehicles. A sizeable portion of the indigenous content is manufactured in the private sector. Imports for Shaktiman component is from Germany and for Nissan components from Japan.

In 1959, the Government of India constituted a Development Council for Automobiles, Automobile Ancillary Industries and Transport Vehicle Industries. The Council is reconstituted once in every two years. The recently reconstituted Council has also been entrusted with the responsibility of looking after the development of tractors and earth-moving equipment industries. More recently, the road roller industry was also added to the list of industries for which this Development Council is responsible.

The authorised capital of Automoolle and Transport Vehicle Manufacturing Firms was about Rs. 65 crores with a paid-up capital of about Rs. 35 crores, early in 1961, at the end of the Second Five Year Plan period. The investment in Plant, Machinery and Buildings was over Rs. 30 crores. Of this total capital, the investment in the Ancillary Industry was about Rs. 6 crores.

The Third Five Year Plan envisages a production of 30 000 cars, 10,000 jeeps, 60,000 commercial vehicles and 60,000 two-three wheeler vehicles. The actual production in the fourth year of the Third Five Year Plan is cars 24,187; jeeps 9,835; commercial vehicles 36,870; two-three wheeler vehicles 40,054. The Development Council for Automobiles, etc., had estimated that the total investment in the industry by the end of the Third Plan period would be Rs. 130 crores, Rs. 100 crores by the Main Manufacturers and Rs. 30 crores by the Ancillary Sector. The Council had estimated the total value of production at the end of the Third Plan period at well over Rs. 260 crores.

In the beginning of the Third Plan period, emphasis was rightly placed on providing foreign exchange for the import of machinery necessary to increase the indigenous content to 90 per cent. Foreign Exchange allocations and Aid arrangements for imported plant and machinery for achieving the indigenous content of 90 per cent and for the planned expansion programme, were settled by the middle of 1964. The expansion programme for motor cars was, however, kept in abeyance. Most of the plant and machinery required by the Main Manufacturers and by the Ancillary Industry for achieving 90 per cent indigenous content have arrived and are in the course of erection. Thus, there has been a considerable increase in the authorised capital, paid-up capital, number of units in the ancillary sector and investment in plant, machinery and buildings in the automobile and ancillary industries during the last four years. By the end of the Third Plan period, the industry

should be fully geared to achieve the target laid down in the Third Five Year Plan period with an indigenous content of over 90 per cent

The order of production for the different makes of commercial vehicles at the end of the Third Five Year Plan is expected to be as follows:—Tata Mercedes Benz 24,000 Nos.; Dodge/Fargo vehicles 15,000 Nos.; Bedford vehicles 15,000 Nos.; Ashok Leyland Comets 6,000 Nos.

Messrs. Premier Automobiles Ltd. and Messrs. Hindustan Motors Ltd. have been granted licences to manufacture their own make of diesel engines while at the same time, Messrs. Simpson & Co. Ltd. have been granted a licence to manufacture a medium commercial vehicle chassis of their choice.

The difficult foreign exchange position and the border situation resulted in a drastic cut in the allocation of foreign exchange for motor cars in the year 1963. Though commercial vehicles were given a high order of priority, a token cut was imposed in the allocation of foreign exchange for these as well. Despite this token cut, the overall allocation of foreign exchange for commercial vehicles stood at a higher figure in 1963–64 consequent to the need for stepping up of the production to meet the requirements of Defence.

A World Bank Mission toured India in 1963 and inspected the major establishments in the Automobile & Ancillary Industries with a view to deciding the nature and extent of assistance which the World Bank could render for the Automobile, Road Transport and Machine Building Industries. Based on the recommendations of this team, Automobile & Ancillary Industries were given assistance by the World Bank to the tune of 47 million dollars, *i.e.* about Rs. 23·4 crores. This assistance was confined to manufacture and maintenance of commercial vehicles *i.e.*, to enable additional imports of (1) components and parts in c.k.d. and semi-finished form, (2) spare parts and (3) machinery by way of balancing equipment, all for commercial vehicles.

Similar assistance of a slightly higher order was made available by the World Bank in the second half of 1965 which should go a long way to ensure a continuous flow of production till the end of 1965-66.

## PRODUCTION

The automobile industry has progressed rapidly as a result of the efforts made both by the Government and the Industry. The production of vehicles went up steadily till 1957. This increase however was not maintained in 1958 mainly because of the lack of adequate provision of foreign exchange. The upward trend has been maintained from 1959 onwards. There was, however, a drop in production of passenger cars in the year 1963 for reasons stated earlier. The production figures were :

| Production for the year | Passenger Cars & Station Wagons | Jeeps | Commercial Vehicles |
|---|---|---|---|
| 1957 .. | 12,211 | 4,599 | 16,248 |
| 1958 .. | 8,126 | 4,118 | 14,579 |
| 1959 .. | 11,993 | 4,568 | 20,342 |
| 1960 .. | 19,096 | 5,501 | 27,512 |
| 1961 .. | 21,662 | 7,052 | 26,214 |
| 1962 .. | 23,326 | 7,597 | 26,894 |
| 1963 .. | 15,711 | 8,104 | 28,482 |
| 1964 .. | 23,227 | 10,391 | 33,157 |
| 1965 .. (anticipated) | 23,700 | 10,572 | 37,554 |

Production of Diesel Engines for fitment on Dodge/Fargo and Bedford Chassis is given hereunder :—

| | Perkins P6V | Meadows | Total |
|---|---|---|---|
| 1957 .. | 3,011 | 387 | 3,398 |
| 1958 .. | 3,819 | 436 | 4,255 |
| 1959 .. | 7,814 | 893 | 8,707 |
| 1960 .. | 9,249 | 1,317 | 10,566 |
| 1961 .. | 9,761 | 60 | 9,821 |
| 1962 .. | 7,653 | 822 | 8,475 |
| 1963 .. | 7,993 | 958 | 8,951 |
| 1964 .. | 7,625 | 604 | 8,229 |
| 1965 .. (anticipated) | 7,764 | 1,010 | 8,774 |

The value of production of the ancillary components has been continuously on the increase (Rs. crores):—1959 : 7·5 ; 1960 : 9 ; 1961 : 12·5; 1962 : 18 ; 1963 : 22·5 ; 1964 : 28 ; 1965 (anticipated) 40.

The progress of an industry could be judged by the extent of indigenous content achieved by it in a period of four to five years. In 1953 there was no manufacture, only assembly from imported components, the only indigenous material used being tyres, tubes, battery and upholstery materials. There was, however, one exception to this the Hindustan. The rate of increase is dependent upon the installation of additional machine tools which in turn is dependent upon the foreign exchange and foreign exchange has not been very favourable.

By the end of 1960, the position had completely changed.

Percentage of indigenous content as at the end of 1960 : Commercial vehicles 75 ; passenger cars 65 ; Jeeps 73·6 ; Motor Cycles 62 ; Scooter and 3 wheelers 35 to 50.

The indigenous content achieved by the end of 1961 are — Standard Ten 58 per cent ; Fiat '1100' 66 per cent ; Hindustan Ambassador 79 per cent ; Jeeps 74 per cent ; Dodge-3 ton 165" W.B. 82 per cent ; Tata Mercedes Benz 77 per cent ; Leyland Comet 61 per cent ; Perkins engines 75 per cent.

The indigenous contents achieved as at the end of 1964 were — Standard 75 per cent ; Fiat '1100' : 74 per cent ; Hindustan : 81 per cent ; Kaiser Jeep 87·65 per cent ; Dodge/Fargo : 88·48 per cent ; Tata Mercedes Benz : 86 per cent ; Leyland Comet : 81·5 per cent.

The average indigenous content of automobiles was well over 85 per cent in the middle of 1965.

The indigenous content of diesel engines has reached the 90 per cent mark in 1965.

*Satisfactory progress :* In 1959, the Government appointed an Ad Hoc Committee to review the progress of the automobile industry, to recommend the measures to be taken to reduce the cost to the consumer of the different vehicles and to examine the feasibility of producing a low cost car within the price range of Rs. 5,000 to Rs. 7,000. The Report of the Committee was received by the Government in the beginning of 1960. Reviewing the progress made by the automobile industry since the Tariff Commission's enquiry in 1956, the Committee has remarked that the decision to grant protection to the industry was a sound one, that the achievement of self-sufficiency regarding transport vehicles was of great importance to the economy and that even in regard to passenger cars the consumer would have been far worse off, if in the present difficulties regarding foreign exchange there had been no domestic industry. The Committee considered the progress of the automobile industry satisfactory on the whole and particularly in the last few years. It also observed that most of the automobile vehicles were expected to reach 80 per cent or more of indigenous content before the end of 1961. In regard to the production of the low cost car, the Committee were of the view that its production was feasible. To examine further the development of the low cost car, the Government appointed an Expert Committee, who submitted the report in May, 1961. Recently a fresh move is afoot to re-examine the feasibility of the production of a low cost car in the public sector.

The proposal to manufacture a low cost car in the public sector was reported to be kept in abeyance.

## MOTOR CYCLES, SCOOTERS, THREE-WHEELER VEHICLES

The manufacture of motor cycles, scooters and three-wheelers was established only in the year 1955. There are at present seven firms manufacturing these items. The types of vehicles under development and their production yearwise have been :—

(in Nos.)

| | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 (anticipated) |
|---|---|---|---|---|---|---|
| *Motor cycles :* 150 cc, 350 cc .. | 3,998 | 8,636 | 7,640 | 9,456 | 13,858 | 20,550 |
| *Scooters :* 150 cc; *Scooterette :* 48 cc .. | 12,880 | 13,617 | 15,936 | 15,422 | 20,043 | 20,544 |
| *3-Wheelers :* 150 cc, 350 cc, 400 cc .. | 496 | 1,267 | 1,426 | 1,701 | 2,493 | 2,022 |
| TOTAL .. | 16,878 | 23,520 | 25,002 | 26,579 | 36,394 | 43,116 |

The average indigenous content of the two- and three-wheeler vehicles as well was expected to be nearing 90 per cent by the end of 1965.

Transport capacity could be augmented by using truck-trailer combination. With this end in view, the manufacture of trailers has been strongly encouraged. There are at present 14 units manufacturing trailers of 2, 4 and 8 wheel types having a carrying capacity of upto 10 tons. The production of trailers since 1960 has been as under :—

(in Nos.)

| 1960 | 1961 | 1962 | 1963 | 1964 | 1965 (anticipated) |
|---|---|---|---|---|---|
| 2,012 | 3,048 | 2,019 | 3,396 | 6,792 | 7,000 |

By 1965–66 these vehicles were expected to reach over 90 per cent indigenous content.

## ANCILLARIES

Items like tyres, tubes, battery, rubber parts, upholstery material and paints are all obtained from indigenous sources for all the vehicles in the manufacturing programme.

There were about 200 recognised units engaged in the manufacture of various ancillary items in the year 1964. This is exclusive of an equal number of establishments in the cottage and small scale industries sectors.

It can be safely stated that by the end of 1964 production capacities were established for the manufacture of all components and parts earmarked for the ancillary sector. It is,

however, true that the installed capacities for some of the ancillary items fall short of the combined requirements of the original manufacturers and the replacement market. Similar to vehicle manufacturers, the ancillary manufacturers as well, were allotted foreign exchange for the expansion programmes envisaged in the Third Five Year Plan. Plant and machinery for increasing the production in the ancillary sector were in course of erection at the end of 1964.

Some of the important ancillary items which have recorded significant progress in the year 1965 are wheels, brakes, radiators, steering wheels, tie rod ends, shock absorbers, clutch assemblies and brake linings, etc.

### Automobile Prices

The relation between quantity of output and cost of production is more pronounced in the case of mass production industries like the automobile industry than in a majority of other industries. That is the main reason why the restricted volume of production has a direct impact on the cost of production in India. The ex-factory price of a vehicle in India is inclusive of direct and indirect taxes, particularly import duties and excise duties. The customer, in addition, is called upon to pay sales tax on the vehicles. The incidence of Government duties is so high that the purchaser of an automobile contributes anything from 30 to 40 per cent of the price paid by him towards the Government Exchequer.

The Indian Automobile Manufacturer is working under another serious handicap in as much as he is called upon to pay a high price for the capital plant and machinery installed in his works. In addition, he has to buy imported raw materials at a cost 50 per cent in excess of that paid by his counter-part in foreign countries.

## EMPLOYMENT

The total employed directly in the automobile and ancillary manufacturing industries including those in the Small Scale Industry Sector is in the neighbourhood of 1,25,000. This figure, however, does not include the indirect employment this industry affords in various distribution, operation and maintenance centres, connected with it. It would not be an exaggeration to say that the indirect employment figure would be about 20 times the figure of labour directly employed by the industry.

The National Council of Applied Economic Research conducted an enquiry in 1960 on the employment potential in road transport in India and came to the conclusion that the total number of persons who find employment in the road transport industry in its broad sense is about 2·40 millions.

It can now be safely reckoned that this figure would have been increased by about 18 per cent as the vehicular population in the country between March 1960 and March 1965 has increased by 56 per cent, *i.e.* from 6,30,000 to 9,84,000. The break-up of the estimated population of motor vehicles in India as on 31-3-1965 is given hereunder :—

| | |
|---|---|
| Motor Cycles, Scooters & Three-Wheelers .. .. .. .. | 1,91,000 |
| Jeeps, Cars & Motor Cabs .. .. | 4,16,000 |
| Buses, Goods Vehicles & Miscellaneous Vehicles .. .. .. | 3,77,000 |
| TOTAL .. .. .. .. | 9,84,000 |

## THE AUTOMOBILE INDUSTRY AND THE FOURTH PLAN

The Development Council for Automobiles, etc., has estimated the target of production in the last year of the Fourth Plan as follows :—

| | |
|---|---|
| Commercial Vehicles.. .. .. | 1,55,000 |
| Cars .. .. .. .. .. | 75,000 |
| Jeeps .. .. .. .. .. | 15,000 |
| Two & Three Wheelers .. .. | 1,50,000 |
| Trailers .. .. .. .. | 8,000 |

The Council has estimated the total capital required to achieve the above rate of production at the end of Fourth Plan period at Rs. 312 crores. On the basis of a pre-Fourth Plan investment of Rs. 140 crores, an additional sum of Rs. 172 crores would have to be found during the Fourth Plan period. The Council has estimated the foreign exchange element on capital account at Rs. 88 crores. The Foreign exchange on maintenance account for the Fourth Plan period exclusive of steel and raw material, is estimated at Rs. 87·5 crores. The total steel requirement of the industry for the Fourth Plan period may amount to 2 million tonnes. It is reported that the preliminary appraisal of the Fourth Plan targets by the Planning Commission has resulted in the pruning down of the above targets of production of motor vehicles. The minimum target of production said to be receiving consideration is as under :—

| | |
|---|---|
| Commercial Vehicles .. .. | 1,20,000 |
| Cars .. .. .. .. | 60,000 |
| Jeeps .. .. .. .. | 20,000 |
| Motor Cycles and Scooters .. | 1,50,000 |
| Output of Ancillaries .. .. | 200 crores. |

### Export of Automobiles and Ancillaries

It is gratifying to record that a start has been made in the export of Indian manufactured vehicles and automobile ancillary products to neighbouring countries. Vehicles of Indian origin now run on the roads of nearby countries *viz.* U.A.R., Aden, Ceylon, Viet Nam, Cambodia, Tibet, Sikkim, Bhutan, etc.

The value of the exports for the years 1962, 1963 and 1964 is as follows : 1962 : Rs. 17·08 lakhs ; 1963 : Rs. 41·25 lakhs ; 1964 : Rs. 66·43 lakhs.

Sizeable orders for Tata Mercedes-Benz and Ashok-Leyland comet vehicles were placed on the respective Indian manufacturers by the Ceylon passenger transport board in the year 1964-65.

The Engineering Export Promotion Council has recommended an export target of Rs. 2 crores in the Fourth Plan.

STATEMENT

*Population of motor vehicles in the different States of India.*

| STATE | Motor Cycles | Auto-rickshaws. | Jeeps | Private Motor Cars | Motor Cabs | Other Public service vehicles | Goods Vehicles | Miscel. Vehicles | Total | As on |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Andhra Pradesh .. | 10,588 | 88 | 3,623 | 22,051 | 1,125 | 5,876 | 14,004 | 5,086 | 62.441 | 31- 3-1964 |
| Assam* .. .. .. | 1,110 | 19 | 1,875 | 7,841 | 475 | 1,296 | 8,463 | 4,942 | 26.021 | 31- 3-1960 |
| Bihar .. .. .. | 6,326 | 27 | 3,593 | 10,536 | 986 | 2,418 | 11,582 | 1,268 | 36.736 | 31- 3-1964 |
| Gujarat .. .. .. | 7,160 | 1,412 | 3,426 | 19,215 | 723 | 3,526 | 16,880 | 5,594 | 57,936 | 31- 3-1963 |
| Jammu & Kashmir@ .. | 871 | 16 | 354 | 1.226 | 186 | 830 | 3,131 | 69 | 6,683 | 31- 3-1964 |
| Kerala .. .. .. | 3,877 | 175 | 1,802 | 17.564 | 3,619 | 4,392 | 8,173 | 841 | 40,443 | 31- 3-1964 |
| Madhya Pradesh (R) .. | 5.660 | 214 | 3.700 | 10.182 | 517 | 4,073 | 12.831 | 4.667 | 41.844 | 31- 3-1963 |
| Madras .. .. .. | 11.881 | 669 | 1,943 | 29.296 | 3,110 | 6,118 | 13.364 | 1,631 | 68.012 | 31- 3-1964 |
| Maharashtra .. .. | 22,205 | 994 | 4,588 | 56,845 | 8,006 | 6,762 | 36.891 | 5.280 | 14.1571 | 31- 3-1964 |
| Mysore .. .. .. | 11,974 | 1,213 | 2,713 | 19,310 | 1,000 | 5,729 | 14,903 | 4,289 | 61.131 | 31- 3-1964 |
| Orissa .. .. .. | 1,794 | — | 2,473 | 3,170 | 139 | 950 | 6,120 | 853 | 15.499 | 31- 3-1964 |
| Punjab .. .. .. | 9,908 | 532 | 1,167 | 6,474 | 569 | 2,704 | 7,814 | 2,315 | 31.483 | 31-12-1963 |
| Rajasthan .. .. | 4,034 | 69@@ | 1,030@@ | 12,039 | 298† | 5.225 | 10.282 | 5.517 | 38.443 | 31- 3-1963 |
| Uttar Pradesh * .. | 11,577 | 25 | 3,277 | 13,362 | 425 | 7,637 | 18,200 | 2,542 | 57.045 | 31- 3-1964 |
| West Bengal@ .. .. | 14,640 | 117 | 6,776 | 64,781 | 5,401 | 5,469 | 31.348 | 6,621 | 1,35.153 | 31- 3-1964 |
| Himachal Pradesh .. | 21 | 1 | 228 | 62 | 86* | 672* | 548 | 87 | 1.705 | 31- 3-1964 |
| Manipur .. .. | 142 | — | 511 | 134 | — | 161 | 614 | 140 | 1.702 | 31- 3-1965 |
| Tripura .. .. .. | 80 | — | 410 | 162 | 61 | 201 | 719 | 189 | 1.822 | 31- 3-1964 |
| Delhi* .. .. .. | 22,700 | 4,710 | 920 | 18,241 | 1,976 | 1,479 | 4.397 | 4.406 | 58.829 | 31- 3-1964 |
| Andaman & Nicobar Islands .. .. | 75 | — | 66 | 30 | 24 | 16 | 159 | 88 | 458 | 31- 3-1965 |
| Goa .. .. .. | 1,070 | — | — | 2,721 | 579 | 563 | 3.679 | — | 8.612 | 31- 3-1962 |
| | 1,47,693 | 10,281 | 44,475 | 3,15,242 | 29,305 | 66,097 | 2,24,052 | 56,425 | 8,93,569 | |

* Provisional Figures. @ Estimated Figures. (R) Revised figures. † Includes contract carriages.

@@ The figures against the State of Rajasthan under auto-rickshaws and jeeps depict the position as on 31st March, 1962, and the additions during the year ended 31st March, 1963, are included in the figures for 'Motor Cycles' and 'Private Motor Cars' respectively.

# CAPITAL MARKET

THE Government of India has so far (up to Nov. 1965) recognised eight stock exchanges, namely, The Stock Exchange, Bombay, The Ahmedabad Share and Stock Brokers' Association, Ahmedabad, The Calcutta Stock Exchange Association Ltd., Calcutta, The Madras Stock Exchange Ltd., Madras, The Delhi Stock Exchange Association Ltd., New Delhi, The Hyderabad Stock Exchange, The Share Brokers' Association, Indore and The Bangalore Stock Exchange. The recognition for the last two mentioned has been granted for five years in the first instance. The general principles regarding grant of recognition to a stock exchange as laid down in Section 4(1) of the Securities Contracts (Regulation) Act, 1956, has been followed. The Act does not envisage amalgamation, as such, of stock exchanges either before or after recognition is granted under section 4 thereof. Nevertheless, to avoid undue hardship to members of the exchanges which have not been recognised, the Government has prescribed certain terms and conditions on which active members of the unrecognised exchanges can seek admission to the recognised exchange.

Section 13 of the Securities Contracts (Regulation) Act, 1956, has been made applicable to the Greater Bombay area in Maharashtra State with effect from 15th October 1957. The effect of the application of section 13 to the Greater Bombay area is that every contract in this area which is entered into after 15th October 1957, otherwise than between members of the recognised Stock Exchange or through or with such member, is illegal.

## SECURITIES ACT

The Securities Contracts (Regulation) Act, 1956, is the first All-India legislation seeking to control transactions on securities and to regulate stock exchange practices. Prior to this Act, there was no legislation for the purpose except in the old State of Bombay.

Broadly speaking, the Act applies to transactions other than spot delivery contracts. But power has been taken in the Act to regulate spot delivery contracts also, if the Government regards it as desirable in the interest of trade or in the public interest.

As regards contracts other than those for spot delivery, the regulation takes the form of either controlling the activities of stock exchanges in those areas or States where stock exchanges operate, or through a system of licensing of persons who deal in stocks and shares. In those areas where the stock exchanges operate and to which Section 13 of the Act will be applied, every contract which is entered into otherwise than between members of a recognised stock exchange in such State or area or through or with such members is illegal.

The Act permits only those stock exchanges to function which are recognised by the Central Government. For this purpose, each stock exchange is required to make an application in the prescribed manner to the Central Government, who will grant recognition if the Government is satisfied in regard to certain conditions. Every recognised stock exchange is required to furnish to the Central Government such periodical returns relating to its affairs as may be prescribed.

Subject to the previous approval of the Central Government, any recognised stock exchange may make bye-laws for the regulation and control of contracts. But the Government has the power to make or amend these bye-laws.

Important provisions relating to the listing of securities on a stock exchange are also contained in the Act. In regard to the licensing of dealers and brokers in securities, there are no detailed provisions.

So also no direct provisions are contained in the Act to restrict the prevalence of blank transfers, but there is a provision to discourage blank transfers indirectly.

The Securities Contracts (Regulation) Amendment Bill was passed by the Lok Sabha on 17th November 1959. As a result of the amendments, the contracts made by foreign financial investors involving options, which, by their very nature, are not of a speculative character have been exempted from some of the provisions of the Act. Convertible bonds and share warrants contracted by foreign financial investment corporations are exempted from the purview of section 20 of the Act. Further, the incorporated stock exchanges are empowered to make rules restricting voting rights to members only restricting the right to appoint proxies and introducing the principle of one member-one vote, and override the Companies Act in this respect.

The Government of India has established a Stock Exchange Directorate which functions under the Department of Economic Affairs of the Union Ministry of Finance, with headquarters in Bombay and branch offices at Calcutta and Delhi. The Directorate is composed of expert officials. It maintains close contact with Stock Exchanges and keeps a careful watch over the activities of operators.

## GILT-EDGED MARKET

The gilt-edged market, which had evinced a firm trend during 1963-64, showed a marked decline during 1964-65, mainly in a process of adjustment to the emerging higher pattern of interest rates following the reinforcement of money policy. Despite the weakness in gilt-edged prices, the Reserve Bank's open market operations in 1964-65 resulted in large net sales amounting to Rs. 98.6 crores as compared to Rs. 44.7 crores in the preceding year (excluding the purchases from the State Bank of India on account of P. L. 480 funds), which reflected mainly the increased demand from banks for Government securities in view of the new liquidity requirements which came into force in Sept. 1964.

The market ruled easy during April 1964 in sympathy with the higher yields offered on the Central loans. The first instalment of the borrowing programme of the Central Government for 1964-65 announced at end of March 1964 with an offer of the 4 per cent Loan 1970 and the 4½ per cent 1989 in conversion for the maturing 3½ per cent Loan 1964 and the 3 per cent Loan 1964 gave higher yields (4.19 and 4.75 per cent. than those on existing issues of more or less comparable maturity (4.13—4.50 per cent). During the next three months (May to July), however, with improved demand for gilt-edged following the advent of the slack season, the market tended to be steady, the yield offered under the second instalment of the borrowing programme of the Central Government, announced on July 3, with an offer of further trenches of the 4 per cent Loan 1970 and the 4½ per cent Loan 1989 being in tune with the market expectations. The steadiness, however, proved short-lived, and the market turned easy again from mid-August in a process of adjustment to the higher yields offered on the new State Loans. The yields offered on the new State Loans, namely the 4½ per cent Loans 1976, announced on August 3, were in the range of 4.75—4.81 per cent as compared to 4.52—4.62 per cent on existing issues of more or less comparable maturity. The increase in the Bank rate from 4½ per cent to 5 per cent on Sept. 25, 1964 and further to 6 per cent on Feb. 17, 1965, followed by a tightening of the Bank's credit control policy, accentuated the easiness in the gilt-edged market.

The Reserve Bank's All India index of Government and Semi-Government securities (base: 1952–53 = 100) after an initial decline from 99.7 at end-March 1964 to 99.5 by mid-April, recovered to 99.9 by end-March 1965, representing a net decline, over the year, of 1.8 per cent as against a rise of 0.7 per cent in the preceding year. Region-wise, Bombay showed the largest decline (2.7 per cent) followed by Calcutta (2.1 per cent) and Madras (0.9 per cent).

Loan-wise, the 3 per cent Conversion Loan 1986 or later showed the largest decline of Rs. 5.25 over the year. Among the long-dated, the 4 per cent Loans 1980 and 1981 declined by Rs. 4.25 each to Rs. 94. The medium-dated Loans recorded declines ranging from 50 P. in the case of the 4½ per cent Loan 1973 to Rs. 4.75 in the case of the 3½ per cent Loan 1974. In the short-dated section, the 3½ per cent Loan 1967, 1968 and 1969 declined by 10 P.—75 P. Both the new Loans floated in 1964–65 *viz.* (1) the 4 per cent Loan 1970 and (2) the 4½ per cent Loan 1989 were quoted at a discount over their issue prices, the discount as at the close of the year 1964 being 45 P. in the case of the former and 30 P. in the case of the latter.

In the State list also, prices showed widespread declines. In the medium-dated section, the decline in the 4 per cent 1971 Loans ranged upto Rs. 3. The 4½ per cent Loan 1972 of Kerala, West Bengal, Gujarat and Maharashtra recorded declines ranging upto Rs. 1.35. Among the short-dated, the 4 per cent 1968 and the 4 per cent 1969 Loans of most of the States recorded declines ranging upto Rs. 1.05. The new 4½ per cent 1976 Loans issued by 13 States in August 1964 were quoted at a discount over their issue prices, the discount as at end-march 1965 ranging between Rs. 1 and Rs. 3.75.

Reflecting the fall in gilt-edged prices, the yields recorded all-round increases, the increase being particularly marked in the case of medium long-dated securities. In the Central list, rise in yields of long-dated ranged upto 0.42 per cent and of medium-dated upto 0.69 per cent. The yield on the 3 per cent Conversion Loan advanced by 0.43 per cent to 5.19 per cent. Among short-dated, the yields on the 3½ per cent Loans 1968 and 1969 recorded rises of 0.15 per cent and 0.31 per cent respectively. In the State List, the rises in yield ranged upto 0.46 per cent in short-dated and upto 0.61 per cent in medium-dated loans.

## SHARE MARKET

*Equities:* The industrial securities market evinced a general bearish trend in 1964-65. There were occasional spells of recovery as for instance from mid-June to early September and again from end-December to early-February but these proved short-lived and the All-India index for Variable Dividend Industrial Securities closed for the year 1964 substantially lower on balance reflecting mainly the impact on the markets of (1) the disquieting developments on the Indo-Pakistan borders, (2) the two Bank rate rises and other credit control measures during the year and (3) the fact that the concessions in the 1965-66 Budget did not come up to market expectations in some respects.

The nervousness following the presentation of the 1964-65 Budget on Feb. 29, 1964 continued upto mid-June. The other adverse factors affecting sentiment were the acute stringency in the money market which was accentuated by a further tightening of credit control measures on March 11, 1964, fears of drastic Government measures to hold the price line and the statement by the Deputy Chairman of the Planning Commission on June 9, 1964 indicating the need for a quicker expansion of the public sector. The Reserve Bank's weekly All-India Index of Variable Dividend Industrial Securities (base: 1952–53 = 100) fell from the pre-budget level of 174·3 at end-February 1964 to 160·8 by mid-June.

From mid-June upto early September, 1964 there was a revival, the main factors contributing to the recovery being (1) some relaxation

in the system of margins on stock exchanges, (2) the setting up of the Industrial Development Bank, (3) reports of substantial purchases of shares by the Unit Trust of India, (4) the authorisation to the Controller of Capital Issues to relax the present-debt-equity ratio of 2 : 1 at his discretion in suitable cases and (5) the World Bank President's reassuring statement regarding flow of aid to India for economic development. The index of share prices recovered from 160·8 in mid-June to 168·6 in the week ended September 5, 1964.

Subsequently, however, the market resumed the earlier bearish trend, sentiment being affected by a number of adverse factors including reports of Chinese incursions on the Sikkim and Nepal borders, the raising of the Bank rate to 5 per cent and other credit control measures announced on Sept. 25, 1964, the statement made by the Managing Director of the I. M. F. indicating further scope for increasing taxation in India, the adoption by the A.I.C.C. in Nov. 1964 of the non-official resolution on ceiling on urban property holdings, the provision to restrict the period of currency of blank transfers contained in the Companies (Second Amendment) Bill 1964, and fears of reduction in foreign exchange allocation for imports for the half year Oct. 1964–March 1965 (which materialised on Dec. 31). The index of share prices fell from 168·6 in early September to 161·8 in the week ended Dec. 12, 1964.

There was again a temporary revival from end-December 1964 to early Feb. 1965, aided, among other things, by the announcement by the Union Finance Minister on Dec. 24, 1964, of certain tax concessions to individual investors including a scheme of tax credit for investment in a new issues upto Rs. 35,000 and renewed hopes of further substantial measures of relief to the corporate sector in the 1965-66 Budget. However, following the raising of the Bank rate to 6 per cent on Feb. 17, 1965 and the imposition on the same date of a regulatory customs duty of 10 per cent on all imports with a few exceptions, the bearish trend reasserted itself. It was further accentuated in the wake of the Central Budget, with the concessions proposed in the corporate and personal taxation and selective cuts in excise duties falling short of market expectations. In particular the market was disappointed by the absence of anticipated reliefs in the surtax, in the supertax on dividends on equity capital and in the capital gains tax on bonus issues. In the context of the new pattern of higher interest rates and the growing stringency in the money market, equities declined sharply. The index of share prices, which had recovered partially from 161·8 in mid-December 1964 to 164·2 in early Feb. 1965—the lowest level since the general down-trend started in May 1962. Over the year, the index registered a decline of 5·9 per cent as against a rise of 4·6 per cent during 1963–64 and a fall of 16·8 per cent during 1962–63.

Region-wise, Calcutta showed the largest decline over the year 1964 (8 per cent) and was followed by Delhi (6 per cent), Madras (4·5 per cent) and Bombay (4·2 per cent).

In line with the general trend, most of the sub-groups recorded declines over the year 1964. Jute textiles fell by 15·6 per cent; although the jute industry showed an increase in both production and exports, it was faced with the problem of growing costs of production resulting mainly from the rise in the prices of raw jute. Coal shares continued to remain depressed despite successive increases granted in prices of coal, the index declined by 11·1 per cent; the industry was faced with the problem of reduced demand for coal and larger accumulation of pit-head stocks. Among plantation shares, while tea showed a significant decline of 9·6 per cent, coffee and rubber shares were more or less maintained at their previous levels. Total tea production was estimated to be higher in 1964 although the average auction prices for tea realised in Calcutta were reported to be lower. Cotton textiles, cement and paper shares registered losses of around 8 per cent each. In Bombay, the Century and Standard, among the textile group, closed for 1964, lower at Rs. 541 and Rs. 431 as against the preceding year's levels of Rs. 616·50 and Rs. 664 respectively. The iron and steel group, which had shown the largest rise (26·1 per cent) in 1963–64, declined by 1·9 per cent. Tata Steel at Rs. 143 and Indian Iron at Rs. 24·38 showed net declines of Rs. 3·75 and 34 paise over the year 1964–65. The following sub-groups, however, recorded rises: electricity generation and supply (8·3 per cent), construction (7·2 per cent), trading (4·8 per cent) and banks (3·7 per cent). There was a broadening of demand in the face of shortage of floating stocks for electricity shares in view of expectations of a higher return following the increase in Bank rate. Cash scrips in general, barring a few exceptions showed widespread losses. Colour-chem fell by Rs. 73·75 to Rs. 267·50, Permanent Magnets by Rs. 45 to Rs. 70, Ceat Tyres by Rs. 39·25 to Rs. 77, Synthetics and Chemicals by Rs. 38 to Rs. 58 and Baroda Rayon by Rs. 22 to Rs. 64·50.

In view of the depressed state of ordinary shares, investors seemed to have shown preference for fixed interest industrial securities. The All-India index of preference shares moved up from 81·5 at end March 1964 to 82·8 in the week ended Sept. 26, 1964. Following the two Bank rate increases, however, the general up trend in preference shares was halted; the index, after moving around 82 till mid-Feb., dropped to 80·9 by end-March, 1965, showing a net decline of 0·7 per cent over the year as against a rise of 1·6 per cent in 1963–64 and a decline of 2·9 per cent in 1962–63. The index of debentures, after rising from 97·9 at end-March 1964 to 99 by end-Jan. 1965, receded to 97·3 towards the close of the year 1964, showing a net decline of 0·3 per cent in 1963–64 and 2·7 per cent in 1962–63.

The pattern of yields showed an upward levering in line with the structure of high interest rates prevalent in the economy. Thus, the average yield on Variable Dividend Industrial Securities moved up over the year 1964 from 4·91 per cent to 6·05 per cent. Likewise, the average yield on preference shares rose from 5·99 per cent to 6·72 per cent and that on debentures from 4·75 per cent to 5·78 per cent.

## REGULATORY MEASURES

On July 1, 1964, some relaxations in the system of margins were made in response to the representations from the Stock Exchanges in this behalf. The margins on daily outstanding purchases and sales of each security and additional carryover margin rates were substantially revised downwards through a modification of the slabs and a lowering of the rates on the highest slabs. The interim margins payable on individual scrip, whenever it rises or falls by more than 10 per cent from the last making-up price, were also reduced from 100 per cent of the difference between the interim making-up price and the last making-up price to 50 per cent. However, the margin of 2 per cent on business carried forward was retained. The newly constituted Department of Company Affairs and Insurance in the Ministry of Finance, Government of India, continued to exercise vigilance over the Stock Exchanges.

From December 1946, the Reserve Bank of India started constructing indices of security prices. These indices (all-India) reveal the following trend :—

| Average of Weeks | Government & Semi-Government Securities | Industrial Securities | | Banks | Insurance | Investment Trusts | Electricity Generation and Supply | Shipping and other Transport | Tea Plantations | Cotton Textiles | Jute Mills | Coal | Mining | Iron and Steel | Sugar and Breweries | Chemicals | Paper | Cement |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Fixed Dividend | Variable Dividend | | | | | | | | | | | | | | | |
| **Base : 1949–50 = 100** | | | | | | | | | | | | | | | | | | |
| 1956–57 .. .. .. .. | 90·5 | 82·9 | 121·2 | 93·7 | 87·2 | 89·9 | 112·4 | 117·8 | 170·4 | 133·7 | 70·2 | 78·1 | 232·7 | 146·6 | 105·0 | 144·0 | 266·1 | 175·7 |
| **Base : 1952–53 = 100** | | | | | | | | | | | | | | | | | | |
| 1959–60 .. .. .. .. | 101·2 | 92·2 | 155·3 | 191·8 | 136·7 | 99·3 | 89·9 | 124·7 | 160·1 | 129·2 | 96·6 | 113·7 | 171·5 | 161·0 | 178·6 | 166·8 | 208·9 | 136·0 |
| 1960–61 .. .. .. .. | 101·0 | 87·2 | 171·7 | 195·3 | 139·1 | 91·4 | 82·0 | 107·5 | 162·8 | 151·1 | 90·3 | 120·2 | 181·5 | 159·5 | 186·8 | 208·0 | 223·6 | 143·5 |
| 1961–62 .. .. .. .. | 100·9 | 83·2 | 183·7 | 234·7 | 151·2 | 90·7 | 84·2 | 96·0 | 160·8 | 180·1 | 90·9 | 123·4 | 187·3 | 164·0 | 157·6 | 212·2 | 211·2 | 149·0 |
| 1962–63 .. .. .. .. | 100·1 | 81·3 | 179·5 | 230·5 | 164·1 | 89·5 | 85·9 | 90·3 | 145·7 | 179·8 | 100·5 | 120·4 | 181·4 | 150·8 | 135·3 | 186·0 | 215·5 | 155·2 |
| 1963–64 .. .. .. .. | 99·4 | 81·6 | 167·1 | 208·1 | 157·0 | 84·4 | 86·0 | 91·5 | 136·6 | 167·2 | 97·0 | 107·2 | 167·8 | 153·0 | 128·3 | 177·4 | 196·6 | 144·2 |
| 1964–65 .. .. .. .. | 99·5 | 81·8 | 163·9 | 213·0 | 156·0 | 79·0 | 94·0 | 95·0 | 127·0 | 159·0 | 84·0 | 94·0 | 158·0 | 163·0 | 129·0 | — | 191·0 | 140·0 |

## CAPITAL ISSUES

New issue activity which had suffered a setback during 1963–64 as a sequel to the declaration of the Emergency in Oct. 1962 and its aftermath, showed recovery during 1964–65 with a substantial increase in the magnitude of capital issues floated. The public response to the issues, however, remained largely selective with the result that some entrepreneurs were still experiencing difficulty in raising the necessary resources, particularly risk capital, from the open market. Despite the improved performance of the corporate sector, as revealed by the generally higher profits and larger dividends declared during 1964 and despite the provisions in the 1964–65 Budget of various incentives to review the capital market, the attitude of individual investors for investment in industrial securities remained pessimistic which was attributed to the imposition in that Budget of a new 7½ per cent tax on the distribution of equity dividends by companies and the extension of capital gains tax to bonus shares in the hands of investors. The persistent weakness of the Stock markets further impaired the outlook for prospects of capital appreciation which adversely affected investment in new issues. New companies, in particular, encountered greater difficulty in raising the necessary capital. In the prevailing uncertain conditions, the tendency on the part of entrepreneurs to have their issues underwritten became more pronounced during 1964. Consequently, there was an increase in underwriting activity and both the number of issues and the amount underwritten rose substantially during 1964. In view of the generally poor response from the public, the underwriters were obliged to take up a substantial portion of the issues left unsubscribed. The underwriters, which included the specialised financial institutions, played an important part in providing the requisite finance to the corporate sector for enabling sustained investment activity through substantially greater underwriting commitments. In the context of the difficult capital market conditions for raising risk capital and in response to the market's changed psychology in favour of fixed income yielding securities, there was a growing tendency on the part of entrepreneurs to raise capital through the issue of preference shares and debentures instead of equity capital. These trends were reflected in a relatively greater increase in both the number and amount of preference shares and debentures in comparison with equities. Debenture issues showed a particularly marked rise during 1964.

The official data on consents for capital issues, which indicate broadly the investment intentions of the private sector, showed a decline in the amount of consents during 1964. Total consents (including bonus and miscellaneous issues) for non-Government companies† were lower at Rs. 224·8 crores during 1964* than Rs. 237·6 crores in 1963. Consent for the issue of shares (other than bonus) and debentures, which had dropped from the peak of Rs. 163 crores in 1962 to Rs. 141·5 crores in 1963, declined further to Rs. 138·9 crores in 1964. Security-wise, the total consents for ordinary shares fell from Rs. 114·4 crores in 1963 to Rs. 101·8 crores in 1964 while those for debentures showed a rise from Rs. 15·4 crores to Rs. 25·4 crores and those for preference shares also showed a fractional rise. The proportion of equity shares in the total consents for the issue of shares (other than bonus) and debentures declined from 80·8 per cent to 73·2 per cent during 1964 while that of debentures rose from 10·9 per cent to 18·3 per cent and that of preference shares fractionally from 8·3 per cent to 8·5 per cent. Consents for bonus issues declined steeply from Rs. 10·8 crores in 1963 to Rs. 4·1 crores in 1964. There was also a steep fall in the number of consents for initial issues, *e.g.* first issues by new companies (from 116 in 1963 to 52 in 1964) as well as in their amount (from Rs. 85 crores to Rs. 54·7 crores). As regards foreign participation, the number of consents involving foreign participation fell sharply from 161 in 1963 to 90 in 1964 while the amount involved in such consents was also slightly lower at Rs. 59·3 crores as against Rs. 61·8 crores in the previous year, although as a proportion to the total consents (including bonus and miscellaneous issues), there was a fractional increase from 26 per cent in 1963 to 26·4 per cent in 1964.

As regards capital actually raised against consents and under the Exemption Order, the total amount raised by non-Government companies through shares (other than bonus) and debentures in 1964 (Rs. 92·6 crores) was only of the same order as in 1963 (Rs. 92·7 crores), which was lower than both in 1962 (Rs. 107·3 crores) and in 1961 (Rs. 101 crores).

During 1964, the Government continued their efforts to bring about a revival of the capital market and adopted a series of further measures with a view to restoring investor confidence and stimulating private investment. A number of fiscal reliefs designed to induce a greater flow of personal savings and investments were given to individuals, while selective tax concessions were announced for a wide range of industries with a view to stimulating production and exports and encouraging their expansion and development. In order to encourage public response to issues of equity capital, the Government in Dec. 1964 announced an incentive scheme for investments in equity shares of new industrial companies in the form of tax-free tax credit certificates equivalent to 5 per cent of such investments upto Rs. 15,000, 3 per cent for the next Rs. 10,000. The tax credit certificates for a maximum amount of Rs. 1,250 on a total equity investment of Rs. 35,000 will be given to individuals and Hindu undivided families for a period of four years from the year of such investment provided these are in ordinary shares issued for the first time by the Indian public limited companies engaged in specified industries and held by them as original subscribers. The scheme is thus intended to help finance new industrial companies which find it particularly difficult to raise funds from the open market. This tax credit scheme was later incorporated as part of the 1965-66 Budget proposals and was extended to cover purchases by individuals and Hindu undivided families of eligible issues of capital also from underwriters. The Finance Bill, as finally passed by Parliament, provided for a number of other fiscal concessions and reliefs both to individuals and the corporate sector with a view to stimulating investment in desired channels. Thus, in addition to the aforementioned tax credit benefits, investments in equities of industrial companies issued for the first time have also been exempted from the levy of wealth tax for a period of five years. This exemption will apply to shares forming part of an initial issue of equity share capital made after March 31, 1964, whether subscribed directly or purchased from the market. These incentive measures have been taken to facilitate the acquisition of shares of new companies by the public from the financial institutions which have underwritten and have been obliged to hold new equity issues in terms of their underwriting obligations. Tax relief has also been given to equity shareholders in respect of capital gains tax on bonus shares allotted by a company after March 31, 1964 by way of rebate of 12½ per cent of the face value of such shares. Further, dividends received from the Unit Trust of India by individuals and Hindu undivided families have been given a concessional treatment, such dividends being deemed as earned income in the same way as interest on Central and State Government securities is treated.

Besides the above measures providing a stimulus to investment in equity issues, 1965–66 Budget also provided for fiscal concessions designed to encourage higher production and exports as well as growth and expansion of specified industries. The benefit of the tax rebate of 10 per cent of income tax and 20 per cent of surtax given in the 1964–65 Budget to companies in specified basic or priority industries was extended to include a wide range of industries while the development rebate in respect of new plant and machinery installed after March 31, 1965 by the specified industries listed in the Fifth Schedule to the Income Tax Act was also increased from the existing 20 per cent to 25 per cent. A scheme of tax credit certificates was also announced in favour of manufacturers and exporters on their increased production and exports over the specified base period. Besides these aforesaid fiscal reliefs and concessions, it was also decided, on the recommendations of the Capital Issues Advisory Committee, to relax the capital issues control. An important step taken in this direction was the decision to relax the debt equity ratio in respect of capital intensive industries by permitting a larger proportion of debt in relation to equity.

† Total consents given to Government Companies during 1964 amounted to Rs. 167·5 crores as against Rs. 306·7 crores in 1963. Their share in the total consents declined from 56·3 per cent to 42·7 per cent.

* The exemption limit for obtaining consents for the issue of capital was raised from Rs. 10 lakhs to Rs. 25 lakhs in Dec. 1963.

**Control of Capital Issue**
**(Non-Government companies only)**

(Rupees in Crores)

| YEAR | APPLICATIONS* | | CONSENTS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Total | | Initial | | Further Others | | Further Debenture | | Further Bonus | |
| | No. of Companies | Amount | No. of Companies | Amount | No. of Companies | Amount | No. of Companies | Amount | No. of Companies | Amount | No. of Companies | Amount |
| 1956 .. .. | 362 | 254·49 | 297 | 230·15 | 69 | 80·29 | 113 | 76·67 | 12 | 11·40 | 72 | 8·50 |
| 1957 .. .. | 484 | 182·73 | 345 | 153·32 | 54 | 43·32 | 128 | 38·34 | 22 | 9 08 | 103 | 15·40 |
| 1958 .. .. | 281 | 96·93 | 259 | 89·45 | 33 | 18·50 | 120 | 31·46 | 21 | 16·30 | 47 | 9·88 |
| 1959 .. .. | 264 | 152·60 | 242 | 149·58 | 47 | 49·09 | 103 | 53·27 | 13 | 9·90 | 29 | 2·88 |
| 1960 .. .. | 290 | 151·96 | 277 | 150·13 | 85 | 50·22 | 126 | 44·06 | 18 | 19·66 | 19 | 0·77 |
| 1961 .. .. | 351 | 202·06 | 335 | 185·06 | 110 | 56·43 | 106 | 55·03 | 16 | 21·24 | 69 | 10·34 |
| 1962 .. .. | 410 | 227·39 | 397 | 219·45 | 115 | 66·60 | 138 | 53 14 | 16 | 43·30 | 95 | 13·51 |
| 1963 .. .. | 377 | 251·38 | 344 | 237·57 | 116 | 85·00 | 110 | 41·08 | 16 | 15·39 | 55 | 10·75 |
| 1964 .. .. | 221 | 228·02 | 201 | 224·80 | 52 | 54·71 | 62 | 58·85 | 21 | 25 37 | 30 | 4·08 |

* Figures relate only to applications disposed of during the period and not to applications actually received during the period.

## PUBLIC COMPANIES

The main features of the Company Act are:

(1) Equity shares with differential rights regarding voting, dividend, participation in capital on dissolution, are prohibited.

(2) It puts restrictions on inter-company loans and investments.

(3) There is a ceiling on overall managerial remuneration.

(4) Most decisions of the management and even of the Shareholders of a Company require the approval of the Government before they are put into effect.

(5) The appointment of a managing agent or an associate as a selling or buying agent outside India requires approval by a special resolution.

### New Company Registrations in 1964-65

There were 1,366 new companies registered in the country during 1964–65 against 1,227 in 1963–64.

The total authorised capital of all the newly-registered companies of 1964–65 amounted to Rs. 330 crores against Rs. 340·4 crores during the previous year.

In the second important industrial group, commerce, trade and finance, 368 companies were registered with an aggregate authorised capital of Rs. 1,977 lakhs. The number of companies registered in the community and business services came to 56, and the authorised capital amounted to Rs. 379 lakhs, and in the transport and communication group, the number of newly-registered companies stood at 64 with an authorised capital of Rs. 611 lakhs.

During the last quarter of 1963–64, 317 new companies were formed against 353 during the third quarter, October–December 1963, 285 new companies registered during the second quarter July to September 1963 and 272 new companies registered during the first quarter of this year.

### Statewise Registrations

| States | 1962–63 | | Total | 1963–64 | | Total |
|---|---|---|---|---|---|---|
| | Public | Private | | Public | Private | |
| Andhra Pradesh | 21 | 34 | 55 | 5 | 22 | 27 |
| Assam, Manipur & Tripura | 6 | 13 | 19 | 2 | 15 | 17 |
| Bihar | 6 | 20 | 26 | — | 21 | 21 |
| Gujarat | 10 | 47 | 66 | 5 | 57 | 62 |
| Maharashtra | 39 | 254 | 293 | 27 | 216 | 243 |
| Kerala | 12 | 33 | 45 | 12 | 30 | 42 |
| Madhya Pradesh | — | 11 | 11 | 2 | 23 | 25 |
| Madras | 36 | 216 | 252 | 33 | 125 | 158 |
| Mysore | 5 | 38 | 43 | 8 | 23 | 31 |
| Orissa | 4 | 12 | 16 | 2 | 16 | 18 |
| Punjab & Himachal Pradesh | 3 | 35 | 38 | 0 | 44 | 50 |
| Rajasthan | 4 | 10 | 14 | 3 | 7 | 10 |
| Uttar Pradesh | 6 | 47 | 53 | 3 | 49 | 52 |
| West Bengal | 45 | 282 | 327 | 34 | 204 | 238 |
| Delhi | 21 | 217 | 238 | 12 | 211 | 223 |
| Goa | — | 1 | 1 | 1 | 9 | 10 |
| TOTAL | 227 | 1,270 | 1,497 | 155 | 1,072 | 1,227 |

## FINANCE CORPORATIONS

Under the Industrial Finance Corporation Act, a Corporation was established on July 1, 1948 to provide medium and long-term finance to public limited companies and co-operative societies registered in India, including the acceding States, and engaged in the manufacture or processing of goods or in mining or in the generation or distribution of electricity or any other form of power. Individuals, partnership firms or private limited companies are thus excluded from the purview of the Corporation's operations. With the setting up of a number of State Financial Corporations, it was agreed that applicants for loans upto Rs. 10 lakhs or 10 per cent of the paid-up capital of the State Financial Corporation of the State in which they are situated, if that was lower than Rs. 10 lakhs, should be advised to apply not to the Industrial Finance Corporation but to the State Financial Corporation concerned.

An Act to provide for the establishment of State Financial Corporations was passed in October 1951. The Act enables the State Governments to establish a Financial Corporation for the State under a name to be specified by notification; and the State Government concerned, the Reserve Bank, scheduled banks, insurance companies, investment trusts, co-operative banks and other financial institutions will be entitled to subscribe to the share capital. Parties other than these can also be shareholders; but their aggregate holding will not exceed one-fourth of the total capital. The shares allocated will not be transferable except to the State Government, the Reserve Bank or any other recognised financial institution.

Fifteen States have established State Financial Corporations—Punjab, Madras, Maharashtra, West Bengal, Kerala, U.P., Rajasthan, Assam, Bihar, Madhya Pradesh, Andhra, Orissa, Mysore, Jammu and Kashmir and Gujarat.

Besides the State Financial Corporations, there are other State Corporations and All India Corporations. For details see under the articles "State Corporations" and "All India Corporations".

# INDUSTRIAL STRUCTURE AND POLICY

FOR particulars about industrial structure one is dependent on the data compiled under the collection of Statistics Act, 1953. The latest available data are for 1962. A general review of the Annual Survey of Industries, has recently been published by the Government. The survey has classified the industries into 63 groups and 209 subgroups.

The coverage of the survey extends to the entire factories sector, factories being those registered as such under the Factories Act, 1948. The Collection of Statistics Act, 1953, does not apply to Jammu and Kashmir but factories in that State are covered on a voluntary basis. Factories employing 50 or more workers with the aid of power, or 100 or more workers without the aid of power are completely enumerated. The remaining factories, namely, employing 10 to 49 workers with the aid of power or 20 to 99 workers without the aid of power, are covered on the basis of probability sample.

In 1962 there were 9,733 registered factories employing 50 or more workers with the aid of power and 100 or more workers without the aid of power. Returns have so far been received from 9,314 (96%). The 9,314 factories which reported data accounted for a productive capital of Rs. 3,078 crores. They employed in all 3·2 million persons. The total salaries, wages and imputed value of benefits in kind paid, were of the order of Rs. 574 crores. The value of total output (*ex*-factory) was Rs. 3,966 crores and that of input including depreciation was Rs. 2,892 crores, the net value added by manufacture was Rs. 1,074 crores.

Table below shows certain important characteristics in respect of India as a whole for the years 1961 and 1962 and also the percentage increase/decrease of these characteristics in 1962 over 1961.

| | 1961 | 1962 | Percentage increase over 1961 |
|---|---|---|---|
| 1. Number of factories | 9,161 | 9,733 | 6·24 |
| 2. Number of factories reporting | 8,930 | 9,314 | 4·30 |
| 3. Productive capital (Rs. crores) | 2,374 | 3,078 | 29·65 |
| 4. Employment ('000) | 3,050 | 3,215 | 5·41 |
| 5. Salaries, wages and benefits, total (Rs. crores) | 536 | 574 | 7·09 |
| 6. Ex-factory value of output (Rs. crores) | 3,693 | 3,966 | 7·39 |
| 7. Value at factory of input including depreciation (Rs. crores) | 2,716 | 2,892 | 6·48 |
| 8. Value added by manufacture (Rs. crores) | 987 | 1,074 | 8·81 |

Table below gives relative percentage shares of the important industry groups to the total (main items) as in the years 1961 and 1962.

| Industry Group | Returns Received | | Productive Capital | | Employment | | Gross Output | | Value added | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1961 | 1962 | 1961 | 1962 | 1961 | 1962 | 1961 | 1962 | 1961 | 1962 |
| Sugar | 2·53 | 2·49 | 5·91 | 4·38 | 4·19 | 3·93 | 6·31 | 5·44 | 4·76 | 4·04 |
| Miscellaneous food | 13·91 | 12·49 | 5·85 | 4·62 | 7·19 | 6·49 | 10·46 | 9·48 | 5·79 | 5·19 |
| Tobacco | 4·41 | | 1·24 | 0·96 | 3·49 | 2·97 | 2·40 | 2·32 | 2·02 | 1·79 |
| Textiles | 11·50 | 3·60 | 17·90 | 15·69 | 37·39 | 34·22 | 26·84 | 25·82 | 31·16 | 29·33 |
| Printing, Publishing, etc. | 3·71 | 11·34 | 1·66 | 1·50 | 2·61 | 2·67 | 1·63 | 1·81 | 2·54 | 2·80 |
| Rubber | 0·87 | 3·70 | 1·24 | 1·55 | 1·11 | 1·09 | 2·02 | 2·19 | 2·71 | 2·65 |
| Chemicals (including fertilizers) | 1·46 | 0·84<br>1·33 | 7·68 | 6·43 | 1·83 | 1·55 | 3·38 | 3·31 | 3·93 | 3·51 |
| Miscellaneous Chemicals | 3·03 | 3·38 | 3·35 | 3·27 | 2·07 | 2·26 | 3·91 | 4·74 | 4·84 | 5·62 |
| Iron and Steel | 4·04 | 4·16 | 11·91 | 21·93 | 5·63 | 8·38 | 7·40 | 9·14 | 6·32 | 7·72 |
| Metal Products (except machinery and transport equipment) | 3·72 | 4·07 | 2·00 | 1·78 | 2·01 | 2·16 | 2·21 | 2·61 | 2·20 | 2·26 |
| Machinery | 4·71 | 5·93 | 3·35 | 3·75 | 3·58 | 4·07 | 2·83 | 3·38 | 3·87 | 4·35 |
| Electrical machinery | 2·86 | 2·40 | 3·37 | 3·35 | 2·65 | 2·64 | 3·14 | 2·92 | 3·82 | 3·20 |
| Railway Equipment | 1·29 | 1·17 | 3·10 | 2·63 | 5·14 | 5·04 | 3·18 | 2·62 | 3·99 | 3·71 |
| Electricity and Gas | 1·30 | 3·94 | 8·31 | 7·56 | 1·23 | 1·94 | 2·22 | 2·00 | 2·75 | 2·44 |
| Total of 14 Groups | 59·34 | 60·84 | 76·87 | 79·40 | 80·12 | 79·41 | 77·93 | 77·78 | 80·70 | 78·61 |

## INDUSTRIAL POLICY

With the bringing together for the first time, the results of the census and sample sectors of the Annual Sample Survey for the years 1960 and 1961, the total picture of the position of the factory sector in the manufacturing industry has now been made available by the Central Statistical Organisation. Productive capital employed in 1961 increased by 20 per cent over the previous year, as against the increase in the working force by only 2 per cent. Value of gross output recorded an increase of 15·5 per cent, while value added by manufacturing industry increased by 15 per cent.

All the 42,809 factories in India in 1961 employed over Rs. 2,733 crores of productive capital and about 3·7 million persons. The value of their gross output was over Rs. 4,523 crores and the value added by manufacture was Rs. 1,172 crores. In 1960, the total number of factories increased to 40,467 and their productive capital rose to Rs. 2,277 crores, employment to over 3·64 million, value of gross (*ex*-factory) output to Rs. 3,915 crores and value added to Rs. 1,017 crores.

Table below shows the comparative picture of the two sectors:

| Items | Census Sector | | Percentage increase over 1960 | Sample Sector | | Percentage increase over 1960 |
|---|---|---|---|---|---|---|
| | 1960 | 1961 | | 1960 | 1961 | |
| 1. No. of factories (reporting) | 8,704 | 9,161 | 5·3 | 31,763 | 33,648 | 5·9 |
| 2. Productive capital (Rs. crores) | 2,000 | 2,374 | 18·7 | 277 | 359 | 29·6 |
| 3. Persons employed ('000) | 2,904 | 3,050 | 5·0 | 740 | 679 | — 8·2 |
| 4. Ex-factory value of output (Rs. crores) | 3,150 | 3,693 | 17·2 | 765 | 830 | 8·5 |
| 5. Value added (Rs. crores) | 864 | 987 | 14·4 | 153 | 184 | 20·3 |

Table below gives the percentage share of large (Census Sector) and small (Sample Sector) factories to the total in regard to the important characteristics.

| Item | Census Sector | | Sample Sector | |
|---|---|---|---|---|
| | 1960 | 1961 | 1960 | 1961 |
| 1. Number of factories .. .. .. | 21·5 | 21·4 | 78·5 | 78·6 |
| 2. Productive capital .. .. .. | 87·8 | 86·9 | 12·2 | 13·1 |
| 3. Persons employed .. .. .. | 79·7 | 81·8 | 20·3 | 18·2 |
| 4. Gross (ex-factory) output .. .. | 80·5 | 81·6 | 19·5 | 18·4 |
| 5. Value added .. .. .. .. | 84·9 | 84·3 | 15·1 | 15·7 |

The 1948 Industrial Policy Resolution, of which the text is given in the 1959 Directory, was reviewed and a new Industrial Policy Resolution was placed before Parliament by the Prime Minister on 30th April 1956.

This is now the accepted industrial policy of the Government.

The major part of Government's policy is concretised in the Five Year Plans, the first of which started in 1951 as also in a series of industrial undertakings collectively known as the public sector. These are dealt with in the article entitled "Government Industrial Undertakings".

In the First Plan the target outlay on industrial development both in the public and private sectors was Rs. 327 crores, about 8 per cent of the total target, outlay on the whole plan. The main emphasis was on agriculture, irrigation and power.

Of this the target for the public sector was Rs. 94 crores and the private Rs. 233 crores. But while the actual investment in the private sector was about the same as the target, in the public sector the actual investment was of the order of Rs. 60 crores.

The aggregate investment outlay and the combined share of industries and minerals under the 2nd and 3rd Five-Year Plans are given below:

(In crores of Rs.)

| | Second Plan | | Third Plan | |
|---|---|---|---|---|
| | Aggregate outlay | Industries and Minerals | Aggregate outlay | Industries and Minerals |
| Public sector .. .. .. | 3,650 | 870 | 6,300 | 1,520 |
| Private sector .. .. | 3,100 | 675 | 4,100 | 1,050 |
| Total .. .. | 6,750 | 1,545 | 10,400 | 2,570 |

## THREE CATEGORIES

The following is a summary of the text of the industrial policy resolution placed before Parliament by the Prime Minister on 30th April 1956:

These basic and general principles were given a more precise direction when Parliament accepted in December, 1954, the socialist pattern of society as the objective of social and economic policy. Industrial policy, as other policies, must, therefore, be governed by these principles and directions.

The Government of India have in consultation with the Planning Commission, decided to classify industries into three categories having regard to the part which the State should play in each of them. It should also be remembered that it is always open to the State to undertake any type of industrial production.

In the first category will be industries, the future development of which will be the exclusive responsibility of the State. The second category will consist of industries, which will be progressively State-owned and in which the State will, therefore, generally take the initiative in establishing new undertakings, but in which private enterprise will also be expected to supplement the efforts of the State. The third category will include all the remaining industries, and their future development will, in general, be left to the initiative and enterprise of the private sector.

Industries in the first category have been listed in Schedule A of this resolution. All new units in these industries, save where their establishment in the private sector has already been approved, will be set up only by the State. This does not preclude the expansion of the existing privately owned units, or the possibility of the State securing the co-operation of private enterprise in the establishment of new units when the national interests so require.

Railways and air transport, arms and ammunition and atomic energy will, however, be developed as Central Government monopolies. Whenever co-operation with private enterprise is necessary, the State will ensure, either through majority participation in the capital, or otherwise, that it has the requisite powers to guide the policy and control the operations of the undertakings.

Industries in the second category will be those listed in Schedule B. With a view to accelerating their future development, the State will increasingly establish new undertakings in these industries. At the same time private enterprise will also have the opportunity to develop in this field, either on its own or with State participation.

All the remaining industries will fall in the third category and it is expected that their development will be undertaken ordinarily through the initiative and enterprise of the private sector, though it will be open to the State to start any industry even in this category. It will be the policy of the State to facilitate and encourage the development of these industries in the private sector, in accordance with the programme formulated in successive Five-Year Plans, by ensuring the development of transport, power and other services, and by appropriate fiscal and other measures.

The State will continue to foster institutions to provide financial aid to these industries, and special assistance will be given to enterprises organised on co-operative lines for industrial and agricultural purposes. In suitable cases, the State may also grant financial assistance to the private sector. Such assistance, especially when the amount involved is substantial, will preferably be in the form of participation in equity capital, though it may also be in part in the form of debenture capital.

Industrial undertakings in the private sector have necessarily to fit into a framework of the social and economic policy of the State and will be subject to control and regulation in terms of the Industries (Development and Regulation) Act and other relevant legislation. The Government of India, however, recognise that it would, in general, be desirable to allow such undertakings to develop with as much freedom as possible, consistent with the targets and objectives of the national Plan. When there exist in the same industry both privately and publicly owned units, it would continue to be the policy of the State to give fair and non-discriminatory treatment to both of them.

In appropriate cases, privately owned units may be permitted to produce an item falling within Schedule A for meeting their own requirements or as by-products. There will be ordinarily no bar to small privately owned units undertaking production, such as the making of launches and other light-craft, generation of power for local needs and small-scale mining. Further, heavy industries in the public sector may obtain some of their requirements of lighter components from the private sector, while the private sector in turn would rely for many of its needs on the public sector. The same principle would apply with even greater force to the relationship between large-scale and small-scale industries.

## COTTAGE INDUSTRIES

The State has been following a policy of supporting cottage and village and small scale industries by restricting the volume of production in the large-scale sector, by differential taxation, or by direct subsidies. While such measures will continue to be taken, whenever necessary, the aim of State policy will be to ensure that the decentralised sector acquires sufficient vitality to be self-supporting and its development is integrated with that of large-scale industry.

The State will, therefore, concentrate on measures designed to improve the competitive strength of the small-scale producer. For this it is essential that the technique of production should be constantly improved and modernised, the pace of transformation being regulated so as to avoid, as far as possible, technological unemployment.

Lack of technical and financial assistance, of suitable working accommodation and inadequacy of facilities for repair and maintenance are among the serious handicaps of small-scale producers. A start has been made with the establishment of industrial estates and rural community workshops to make good these deficiencies. The extension of rural electrification and the availability of power at prices which the workers can afford will also be of considerable help.

Many of the activities relating to small-scale production will be greatly helped by the organisation of industrial co-operatives. Such co-operatives should be encouraged in every way and the State should give constant attention to the development of cottage and village and small-scale industries.

## REGIONAL DEVELOPMENT

In order that industrialisation may benefit the economy of the country as a whole, it is important that disparities in levels of development between different regions should be progressively reduced.

This programme of industrial development will make large demands on the country's resources of technical and managerial personnel. To meet these rapidly growing needs for the expansion of the public sector and for the development of village and small-scale industries, proper managerial and technical cadres in the public services are being established.

Steps are also being taken to meet shortages at supervisory levels, to organise apprenticeship schemes of training on a large-scale both in public and in private enterprises, and to extend training facilities in business management in universities and other institutions.

The living and working conditions of workers should be improved and their standard of efficiency raised. The maintenance of industrial peace is one of the prime requisites of industrial progress. In a socialist democracy labour is a partner in the common task of development and should participate in it with enthusiasm.

Some laws governing industrial relations have been enacted and a broad common approach has developed. With the growing recognition of the obligations of both management and labour there should be joint consultation and workers and technicians should, wherever possible, be associated progressively in management. Enterprises in the public sector have to set an example in this respect.

With the growing participation of the State in industry and trade, the manner in which these activities should be conducted and managed assumes considerable importance. Speedy decisions and a willingness to assume responsibility are essential if these enterprises are to succeed. For this, wherever possible, there should be decentralisation of authority and their management should be along business lines. It is to be expected that public enterprises will augment the revenues of the State and provide resources for further development in fresh fields. But such enterprises may sometimes incur losses. Public enterprises have to be judged by their total results and in their working they should have the largest possible measure of freedom.

### SCHEDULE A

The future development of the following industries will be the exclusive responsibility of the State :

1. Arms and ammunition and allied items of defence equipment. 2. Atomic energy. 3. Iron and steel. 4. Heavy castings and forgings of iron and steel. 5. Heavy plant and machinery required for iron and steel production, for mining, for machine tool manufacture and for such other basic industries as may be specified by the Central Government. 6. Heavy electrical plant including large hydraulic and steam turbines. 7. Coal and lignite. 8. Mineral oils. 9. Mining of iron ore, manganese ore, chrome ore, gypsum, sulphur, gold and diamond. 10. Mining and processing of copper, lead, zinc, tin, molybdenum and wolfram. 11. Minerals specified in the schedule to the Atomic Energy (Control of Production and Use) Order, 1953. 12. Aircraft. 13. Air transport. 14. Railway transport. 15. Shipbuilding. 16. Telephones and telephone cables, telegraph and wireless apparatus (excluding radio receiving sets). 17. Generation and distribution of electricity.

### SCHEDULE B

The following industries will be progressively State-owned. The State will generally take the initiative in establishing new undertakings but private enterprise will not be excluded.

1. All other minerals except "minor minerals" as defined in section 3 of the Minerals Concession Rules, 1949. 2. Aluminium and other non-ferrous metals not included in Schedule "A". 3. Machine tools. 4. Ferro alloys and tool steels. 5. Basic and intermediate products required by chemical industries such as the manufacture of drugs, dyestuffs and plastics. 6. Antibiotics and other essential drugs. 7. Fertilizers. 8. Synthetic rubber. 9. Carbonisation of coal. 10. Chemical pulp. 11. Road transport. 12. Sea transport.

It is from these schedules and the foregoing policy announcement that Government entered the industrial field and set on foot a large number of industrial undertakings.

A full list of these with notes on their progress is given in the chapter entitled, "Government Industrial Undertakings".

## INDUSTRIES DEVELOPMENT & REGULATION ACT

Towards the end of 1951, Parliament passed the Industries (Development and Regulation) Bill. The Act applied to 37 industries listed in the First Schedule to the Act.

The Act was amended in 1956 when new industries were added to the list.

The most important provision is the establishment of Development Councils which deal with the problem of productivity and service to the community.

At the top is the Central Advisory Council for Industries which advises Government on rules, directions to industrial undertakings and taking over the management of industrial concerns.

The Act provides for the registration of existing industrial undertakings and licensing of new ones.

It also empowers Government to investigate into the causes of any possible fall in the production of any concern or any deterioration in the quality of the product, and to take action.

The Act contains provisions for direct control by the Central Government in certain cases.

The Central Advisory Council of Industries was established in 1952 consisting of 27 representatives of industry, labour, consumers and primary producers pertaining to the scheduled industries.

A Licensing Committee was also set up consisting of representatives of the Ministries of Commerce and Industry,* Finance, Railways, Production and of the Planning Commission to examine application for licences.

The Third Plan targets for a number of industries were fully covered by licences issued under the Industries (Development and Regulation) Act, 1951. The number of licences granted during the year 1963 was 942 as compared to 1,097 in 1962. With a view to implementing speedily the schemes licensed, energetic steps were taken to render all necessary assistance to licensees. Licences issued to those parties who failed to take effective steps were revoked. The licensing procedure has been streamlined and in regard to 211 industries where further establishment of capacity is not to be allowed, Government have been authorised to reject applications without formal reference to the Licensing Committee.

The national emergency has necessitated a re-orientation of industrial pattern so as to give priority to defence needs. It is a tribute to the flexible manufacturing pattern built up in the past that in vital commodities such as steel, engineering and chemical products and other lines, it is possible to attempt this switch over without much dislocation. The highest priority is being given to industries having a direct bearing on defence efforts.

The diversification of industries into related fields of manufacture and the establishment of entirely new ranges of production were significant pointers to the broad-based industrial economy. Amongst the new items, production of which was commenced during the year, mention may be made of formaldehyde, heavy water, tyre cord yarn, polyester resins, transistors and diodes, permanent magnets, microscope slides and punch-card sorters.

An *ad hoc* committee reviewed the procedure obtaining in the Ministry of Commerce and Industry* for disposal of applications for licences under the Industries (Development and Regulation) Act and suggested several changes with a view to speeding up the disposal of these applications. It has been decided in consultation with the Licensing Committee that certain types of simple applications in which all the concerned officers had agreed to the sanction of a licence should be disposed of in the prescribed manner without prior reference to the Committee and reported to them later for information. Applications for additional capacity in regard to certain items where there is sufficient capacity in the country already are to be rejected for a specified period. Applications from undertakings for diversification of production which involve no foreign exchange implications are to be approved subject to certain conditions. In regard to certain lines of manufacture where further expansion is clearly desirable, the applications are to be placed before the Capital Goods Committee straightway for examining the question of import of plant and machinery.

There are now Development Councils for (1) Automobile, automobile ancillary industries and Transport vehicle industries, (2) Bicycles, sewing machines and instruments, (3) Heavy electrical industries, (4) Light electrical industries, (5) Internal combustion engines, power driven pumps, air compressors and blowers, (6) Non-ferrous metals, (7) Machine tools, (8) Acids and fertilizers, (9) Alkalis and allied industries, (10) Alcohol and other fermentation industries, (11) Art silk industry, (12) Drugs, dyes and Intermediates, (13) Food processing industries, (14) Oil based and plastics industries, (15) Sugar industry and (16) Woollen Industry.

Where an industry was not sufficiently developed, a number of Panels or Expert Committees for inquiring into and studying the problems were set up. The following is the list of the Panels and Committees thus set up :

(1) Panel for paper and pulp, (2) X-ray equipment, (3) Surgical instruments and appliances, (4) Electronics and wireless equipment, (5) Refractories, (6) Agricultural tractors (7) Aluminium, (8) Power alcohol, (9) Earth-moving and allied equipment, (10) Milk powder industry, (11) Scooters, motor-cycles : moped and three wheeler industry, (12) Cotton-seed oil industry, (13) Textile machinery manufacturing, (14) Salt and (15) Cement.

### REGULATED INDUSTRIES

All undertakings pertaining to the industries below, employing 50 or more workers with the aid of power, or 100 or more workers without the aid of power, fall within the purview of the Industries (Development and Regulation) Act, 1951, as amended.

1. METALLURGICAL INDUSTRIES : *Ferrous :* Iron and steel (metal) ; Ferro-alloys ; Iron and Steel castings and forgings ; Iron and Steel structurals ; Iron and Steel pipes ; Special steels ; Other products of iron and steel. *Non-ferrous :* Non-ferrous metals and alloys ; Semi-manufactures and manufactures.

2. FUELS : Coal, lignite, coke and their derivatives ; Mineral oil (crude oil), motor and aviation spirit, diesel oil, kerosene oil, fuel oil, diverse hydrocarbon oils and their blends including synthetic fuels, lubricating oils and the like; Fuel gases—(coal gas, natural gas and the like).

3. BOILERS AND STEAM GENERATING PLANTS.

4. PRIME MOVERS (OTHER THAN ELECTRICAL GENERATORS) : Steam engines and turbines; Internal combustion engines.

5. ELECTRICAL EQUIPMENT : Equipment for generation, transmission and distribution of electricity including transformers ; Electrical motors ; Electrical fans ; Electrical lamps ; Electrical furnaces ; Electrical cables and wires ; X-ray equipment ; Electronic equipment ; Household appliances such as electric irons, heaters and the like ; Storage batteries ; Dry cells.

6. TELECOMMUNICATIONS : Telephones ; Telegraph equipment ; Wireless communication apparatus ; Radio receivers, including amplifying and public address equipment ; Television sets ; Teleprinters.

7. TRANSPORTATION : Aircraft ; Ships and other vessels drawn by power ; Railway locomotives ; Railway rolling stock ; Automobiles

* Now Ministry of Commerce and Ministry of Industry.

(motor cars, buses, trucks, motor cycles, scooters and the like); Bicycles; Others, such as fork lift trucks and the like.

8. INDUSTRIAL MACHINERY: *Major items of specialised equipment used in specific industries*:—Textile machinery (such as spinning frames, carding machines, powerlooms and the like) including textile accessories; Jute machinery; Rayon machinery; Sugar machinery; Tea machinery; Mining machinery; Metallurgical machinery; Cement machinery; Chemical machinery; Pharmaceuticals machinery; Paper machinery.

*General items of machinery used in several industries, such as the equipment required for various 'unit processes'*: Size reduction equipment—crushers, ball mills and the like; Conveying equipment—bucket elevators, skip hoists, cranes, derricks and the like; Size separation units—screens, classifiers and the like; Mixers and reactors—kneading mills, turbo mixers and the like; Filtration equipment—filter presses, rotary filters and the like; Centrifugal machines; Evaporators; Distillation equipment; Crystallisers; Driers; Power driven pumps—reciprocating, centrifugal and the like; Air and gas compressors and vacuum pipes (excluding electrical furnaces); Refrigeration plants for industrial use; Fire fighting equipment and appliances including Fire engines.

*Other items of Industrial Machinery*: Ball, roller and tapered bearings; Speed reduction units; Grinding wheels and abrasives.

9. MACHINE TOOLS.

10. AGRICULTURAL MACHINERY: Tractors, Harvesters and the like; Agricultural implements.

11. EARTH-MOVING MACHINERY: Bulldozers, dumpers, scrapers, loaders, shovels, drag lines, bucket wheel excavators, road rollers and the like.

12. MISCELLANEOUS MECHANICAL AND ENGINEERING INDUSTRIES: Plastic moulded goods; Hand tools, small tools and the like; Razor blades.

13. COMMERCIAL, OFFICE AND HOUSEHOLD EQUIPMENT: Typewriters; Calculating machines; Air conditioners and refrigerators; Vacuum cleaners; Sewing and knitting machines; Hurricane lanterns.

14. MEDICAL AND SURGICAL APPLIANCES: Surgical instruments—sterilisers, incubators and the like.

15. INDUSTRIAL INSTRUMENTS: Water meters, steam meters, electricity meters and the like; Indicating, recording and regulating devices for pressure, temperature, rate of flow, weights, levels and the like; Weighing machines.

16. SCIENTIFIC INSTRUMENTS.

17. MATHEMATICAL, SURVEYING AND DRAWING INSTRUMENTS.

18. FERTILISERS: Inorganic, Organic and Mixed.

19. CHEMICALS (OTHER THAN FERTILISERS): Inorganic heavy chemicals; Organic heavy chemicals; Fine chemicals including photographic chemicals; Synthetic resins and plastics; Paints, varnishes and enamels; Synthetic rubbers; Man-made fibres including regenerated cellulose-rayon, nylon and the like; Coke oven by-products; Coal tar distillation products like naphthalene, anthracene and the like; Explosives including gun powder and safety fuses; Insecticides, fungicides, weedicides and the like; Textile auxiliaries; Sizing materials including starch; Miscellaneous chemicals.

20. PHOTOGRAPHIC RAW FILM AND PAPER: Cinema film; Photographic amateur film; Photographic printing paper.

21. DYE-STUFFS.

22. DRUGS AND PHARMACEUTICALS.

23. TEXTILES (INCLUDING THOSE DYED, PRINTED OR OTHERWISE PROCESSED): made wholly or in part of cotton, including cotton yarn, hosiery and rope; made wholly or in part of jute, including jute, twine and rope; made wholly or in part of wool, including wool tops, woollen yarn, hosiery, carpets and druggets; made wholly or in part of silk including silk yarn and hosiery; made wholly or in part of synthetic, artificial (man-made) fibres, including yarn and hosiery of such fibres.

24. PAPER AND PULP INCLUDING PAPER PRODUCTS: Paper—writing, printing and wrapping; Newsprint; Paper board and straw board; Paper for packaging (corrugated paper, kraft paper, paper bags, paper containers and the like); Pulp—wood pulp, mechanical, chemical, including dissolving pulp.

25. SUGAR.

26. FERMENTATION INDUSTRIES: Alcohol; Other products of fermentation industries.

27. FOOD PROCESSING INDUSTRIES: Canned fruits and fruit products; Milk foods; Malted foods; Flour; Other processed foods.

28. VEGETABLE OILS AND VANASPATHI: Vegetable oils, including solvent extracted oils; Vanaspathi.

29. SOAPS, COSMETICS AND TOILET PREPARATIONS: Soaps; Glycerine; Cosmetics; Perfumery; Toilet preparations.

30. RUBBER GOODS: Tyres and tubes; Surgical and medicinal products including prophylactics; Footwear; Other rubber goods.

31. LEATHER, LEATHER GOODS AND PICKERS.

32. GLUE AND GELATIN.

33. GLASS: Hollow ware; Sheet and plate glass; Optical glass; Glass wool; Laboratory ware; Miscellaneous ware.

34. CERAMICS: Fire bricks; Refractories; Furnace lining bricks—acidic, basic and neutral; China ware and pottery; Sanitary ware; Insulators; Tiles.

35. CEMENT AND GYPSUM PRODUCTS: Portland cement; Asbestos cement; Insulating boards; Gypsum boards, wall boards and the like.

36. TIMBER PRODUCTS: Plywood; Hardboard, including fibre-board, chip-board and the like; Matches; Miscellaneous (furniture components, bobbins, shuttles and the like).

37. DEFENCE INDUSTRIES: Arms and ammunition.

38. MISCELLANEOUS INDUSTRIES: Cigarettes.

The Government of India decided in January 1959 to bring within the scope of the registration and licensing provisions of the Industries (Development and Regulation) Act the following industrial gases:—

Hydrogen gas of all varieties; nitrogen gases of all varieties; carbon dioxide gas of all varieties; refrigerant gases of dichlorodifluoro methane and allied groups; rare gases like helium, argon, neonkrypton, neon, etc.; fire extinguishing gases of chlorobromo methane and allied groups; nitrous oxide propane; cyclopropane and ethylene.

*Explanation* 1.—The articles specified under each of the headings Nos. 3, 4, 5, 6, 7, 8, 10, 11 and 13 shall include their component parts and accessories.

*Explanation* 2.—The articles specified under each of the headings Nos. 18, 19, 21 and 22 shall include the intermediates required for their manufacture.

The Government of India, in September 1963, appointed a committee under the chairmanship of Mr. T. Swaminathan to examine the operation of the controls applicable to the establishment of additional industrial capacity under the Industries (Development and Regulation) Act, 1951, the import of capital goods, the issue of capital and foreign investment and collaboration; and also to suggest such modifications as would reduce delays in decision.

The Government of India accepted the recommendations contained in the interim report submitted to Government in December 1963. The committee drew up a list of 22 key industries for special treatment in regard to the effective establishment of capacities for the attainment of Plan targets and the need for speedily establishing additional capacity in certain industries which are important for the promotion of self-sustaining industrial growth. This list is not exhaustive and is intended to be of immediate practicability. The list will be revised from time to time.

According to another recommendation of the committee, a "letter of intent" would be issued to an industrialist within about a month from the date of the receipt of an application from him for starting an industry in the country. The "letter of intent" will merely indicate that the Government will be prepared to consider favourably the proposal put forward by the industrialist. It will enable the industrialist to negotiate with foreigners for collaboration or for the supply of capital goods.

The committee submitted to Government its final report towards the end of March 1964. It has recommended that Government should accord priority treatment to eight non-key industries so as to ensure that adequate manufacturing capacities are speedily established. These are: industrial chains, transformer oil, insulating paper, high tensile galvanised steel wires, laboratory glass ware, detonators and detonating fuse, synthetic fibres and caprolactum. It has also suggested that the accelerated licensing procedures recommended for the key industries in its interim report may be applied in these cases too.

## STATE AID

State aid is given in a number of ways. The various financial corporations give financial assistance.

The National Industrial Development Corporation grants loans for the modernization of plant, especially in the textile, jute and also the machine tool industry.

The Industrial Finance Corporation affords financial assistance in the form of advances and long-term loans to industrial concerns.

The State Financial Corporations assist medium and small-scale industries that fall outside the scope of the all-India Corporations.

The Refinance Corporation finances medium-scale industries.

(There are factual notes on the National Industrial Development Corporation, the Refinance Corporation, the State Financial Corporations and the Industrial Finance Corporation in the Chapter on 'Corporations'.)

The Industrial Development Bank provides risk capital and technical expertise.

Technical assistance is arranged through the Point Four Programme, the Colombo Plan and the U.N. Technical Assistance schemes.

Tariff is regulated to foster indigenous industry. Tax concessions are made (see below under 'Foreign Capital'). Foreign exchange is granted under a system of priorities, especially to facilitate the import of essential raw material and basic intermediates.

In the current policy governing the budgeting of foreign exchange, maintenance requirements in the economy have a high priority. In relation to the Plan, it has been laid down that foreign exchange allotments should be limited in the main to commitments which arise in relation to the 'core' projects, i.e., steel plants, coal mining, railways, and certain power projects.

Outside the 'core', new commitments in foreign exchange are permitted only in respect of those projects whose entire foreign exchange cost is covered by foreign credits or investment and, in certain circumstances, by appropriate deferred payment arrangements.

## NATIONAL PRODUCTIVITY COUNCIL

The National Productivity Council works to help increase general productivity. It is an autonomous organisation established by the Government of India in 1958. Representatives of Government, employers, labour and various other interests participate in its work.

(See under "Delhi State Associations" for more details).

## MANAGING AGENCY SYSTEM

Government attitude may be summed up briefly as follows: The system has filled an important role in the country's economic development. There is therefore nothing inherently objectionable in it. But it is chiefly responsible for the slow growth of institutional financing of industry, as it has itself provided the necessary funds.

Before a managing agency is abolished much formality has to be gone through. There has to be an investigation, a reference of the findings to the Company Law Advisory Commission, scrutiny of the latter's recommendations by Government. And if there is a decision to abolish the system in the industry, a resolution has to be placed before Parliament. Then there is a notice period of three years before the decision becomes effective.

Abolition or continuance of any particular managing agency will be decided on the manner in which it has discharged its duties. There is no desire to make use of the power for compulsory renewal for the purpose of abolishing the system. The ten-year term for a managing agency on its first appointment is usually extended to fifteen years in the case of certain industries like steel, for instance.

Government does not approve of overseas firms trying to come in on the managing agency system. Nor does it approve of cases in which a firm of managing agents expands its scope from a single enterprise to a number of new manufacturing plants.

The Government of India have decided that the remuneration of Managing Agents and Secretaries and Treasurers should ordinarily be fixed according to a sliding scale of commission on the net profits of managed companies. Under the Companies Act, 1956, the Government have to satisfy that the conditions of the agreement to be entered into between the managed company and the Managing Agents or Secretaries and Treasurers are fair and reasonable. While considering applications in this behalf, therefore, the Government have to determine what would be a fair and reasonable remuneration and tenure within the maxima permissible under the Act, in the circumstances of each case. This matter was given very careful consideration and the Government fixed the remuneration and tenure for Managing Agents or Secretaries and Treasurers. The scale of commission fixed is as follows:

Managing Agents: 10 per cent on the first Rs. 10 lakhs or fraction thereof, 9 per cent on the next Rs. 10 lakhs or fraction thereof, 8 per cent on the next Rs. 10 lakhs or fraction thereof, 7 per cent on the next Rs. 10 lakhs or fraction thereof, 6 per cent on the next Rs. 10 lakhs or fraction thereof, 5½ per cent on the next Rs. 25 lakhs or fraction thereof, 5 per cent on the next Rs. 25 lakhs or fraction thereof and 4 per cent on any sum over one crore of rupees.

Secretaries and Treasurers: 7½ per cent on the first Rs. 10 lakhs or fraction thereof, 6½ per cent on the next Rs. 10 lakhs or fraction thereof, 6 per cent on the next Rs. 10 lakhs or fraction thereof, 5½ per cent on the next Rs. 10 lakhs or fraction thereof, 4½ per cent on the next Rs. 10 lakhs or fraction thereof, 4½ per cent on the next Rs. 25 lakhs or fraction thereof, 3½ per cent on the next Rs. 25 lakhs or fraction thereof and 3 per cent on any sum over one crore of rupees.

The Government have also decided that the term of office should ordinarily be 10 years when a company appoints Managing Agents or Secretaries and Treasurers for the first time, and five years on reappointment or successive appointments.

## INDIAN INVESTMENT CENTRE

The Indian Investment Centre was inaugurated by the Finance Minister on February 16, 1961. It is a non-profit, semi-official organization managed by a governing body composed of ten prominent representatives of business, finance and government. It is the aim of the Centre to encourage participation of private foreign capital in all projects to which the Government of India attach a high priority.

(See under "Associations" of Delhi State for more details).

### Taxation Policy

The following are some of the important tax incentives allowed by the Government:

Profits of a new industrial undertaking are exempt from tax up to six per cent of the capital employed for a period of five years. Dividends out of such profits are also exempt from tax. A development rebate equal to 20 per cent of the cost of the plant and machinery is allowed as a deduction from the taxable income in the year of installation. This rate is being put at 25 per cent in the case of Schedule V Industries of I. T. Act.

A higher rate of development rebate is being allowed in the case of Shipping and Coal industry *i.e.*, 40 per cent and 35 per cent of the value of machinery installed after March 31, 1965.

Dividends received by a company, Indian or foreign, from an Indian company formed after 31st March 1952 and engaged in specified industries are exempt from super tax. Dividends received from Indian companies not engaged in specified industries but formed and registered after 1st April 1959, are taxable at a lower rate of super tax than the other income of the investing company, the percentage being 40. Interest on loans from approved foreign institutions on terms previously approved by the Government is exempt from tax. In computing business profits capital expenditure incurred on scientific research related to the business is allowed to be spread over five years and charged to the revenue in addition to the current expenditure which is allowed in full.

Royalties received from an Indian concern by a foreign company (which does not declare dividends in India) in pursuance of an agreement made with it on or after 1st April 1961, which has been approved by the Government are charged to super tax at a concessional rate of 50 per cent.

Technicians of foreign nationality taking up employment in India are exempt from tax on their remuneration for 365 days and where contracts are approved by the Government for 36 months. If the technician continues to remain in employment in India after the said period of 36 months and the employer pays tax on the technician's income chargeable under the head 'salaries' for a period not exceeding 24 months following the expiry of the said 36 months, such tax shall not be treated as income of the technician.

The value of periodical home leave passages provided to employees of foreign nationality is excluded from their taxable income.

Agreements for the avoidance of double taxation exist with a number of countries, *e.g.* Pakistan, Ceylon, Sweden, Norway, Japan, the Federal Republic of Germany and Denmark. These agreements ensure that the benefit of tax concessions is actually retained by the foreign investor as far as possible.

Arrangements for double taxation relief are in force with the Governments of some countries *e.g.*, Kenya, Tanzania, Uganda and Zanzibar.

*Exchange Control:* All transactions involving foreign exchange are controlled by the authorities. The general policy adopted in respect of foreign investments is briefly described below, though variations in individual cases on merits are permissible.

*Entry of Foreign Investment:* The inflow of foreign investments into India is encouraged. It is regulated so as to channel them into fields consistent with the national economic policy. Thus, foreign investment is encouraged in the field of manufacturing and in industries for which adequate capacity does not already exist in the country, but is not permitted, for instance, in purely trading or financial enterprises.

The usual forms of foreign financial participation in India are equity capital and long-term loans. Technical collaboration against payment of fees or royalties on reasonable terms is also permitted.

Repatriation of investments from sterling area countries is allowed freely.

The income earned by non-resident investors on their investments in India is allowed to be remitted freely to their country.

Persons of foreign domicile resident in India, are, in general, offered liberal remittance facilities for meeting all their current expenses including maintenance of their families abroad and for transfer of assets to their country at the time of retirement.

*Currency Convertibility Agreement with U. S. A.:* Under the agreement signed in 1957 by India and U.S.A. based on the U.S. Investment Guarantee Programme, U.S. private investors, on payment of a small premium, can obtain guarantee from their Government for the reconvertibility into U.S. dollars of the proceeds from the sale of their investments in India and/or earnings from investments in projects approved by the Government of India. In 1959, this agreement was extended so as to provide for the payment of adequate compensation to U.S. investors in the event of expropriation of their assets in India.

## COMPANY LAW

The Companies Act, 1956 (Act No. 1 of 1956) *inter alia* recognises two forms of companies *viz.*, public company and private company. A private company which is a subsidiary of a public company is for many practical purposes treated as a public company.

For the incorporation of a company, documents such as (*i*) Memorandum of Association and (*ii*) Articles of Association have to be presented for registration to the Registrar of Companies along with proposed agreements, if any, regarding the management and a declaration that all requirements under the Act have been duly complied with. In the case of a public company, a list of persons who have agreed to become directors together with their consent letters should also be filed.

On the issue of the Certificate of Registration, a private company can forthwith commence its business but a public company is further required to undergo certain formalities and to obtain a Certificate for commencement of business (Sec. 149).

A public company or a private company which is a subsidiary of a public company can issue only two kinds of share capital *viz.* (*i*) equity and (*ii*) preference (Sec. 86).

Every company must have a Board of Directors consisting of at least three directors in case of a public company and at least two directors in case of a private company (Sec. 252). Only individuals can be appointed as directors (Sec. 253). No individual at a time can hold office as a director in more than 20 companies (excluding private companies) (Secs. 275 & 278). A company may be managed by a Board of Directors directly and/or *by any one only* (Sec. 197A) out of the following four categories:— (1) Managing Director or a wholetime director (Secs. 267 to 269), (2) Managing Agent (Secs. 324 to 377), (3) Secretaries & Treasurers (Secs. 378 to 383) and (4) Manager (Secs. 384 to 388). A public company is required to obtain the approval of the Central Government for the appointment, reappointment, the remuneration and the increase in remuneration of any of these categories of personnel (Secs. 269, 311, 326, 352, 378, 379 and 388).

The term of office of a Managing Director cannot exceed 5 years at a time (Sec. 317) and he cannot act as a Managing Director in more than two companies simultaneously (Sec. 316) unless the approval of the Central Government has been obtained. The term of office of the first Managing Agent is subject to a maximum period of 15 years (subject, however, to the approval of the Central Government as regards the terms

and period of appointment, etc., etc.). This initially cannot exceed 15 years and the renewal of the term cannot at a time be for more than 10 years (Sec. 328). Ordinarily the initial appointment of a Managing Agent is approved by the Government for a maximum period of ten years only and that the period of renewal will be approved for a maximum period of 5 years only (*vide* Central Government's Press Note dated 23rd October 1959). The Managing Agents cannot have a Managing Agent for itself and the Managing Agents are prohibited from being appointed as Managing Agents of more than 10 public companies at a time (Sec. 332). The Secretaries and Treasurers must be a firm or a company and not an individual (Sec. 378) and they will not have any right to appoint directors to the Board of Directors of the Company managed by them (Sec. 382). In the case of a Manager, he must be an individual and cannot be a firm or a company and the terms of his appointment as such should not exceed 5 years at a time. He is prohibited from being appointed as a Manager in more than two companies at a time unless permitted by the Central Government (Sec. 386).

The *overall managerial remuneration* which can be paid by a public company or a private company which is a subsidiary of a public company should not exceed 11 per cent of the net profit of the company (Sec. 198). However, in case of inadequacy or lack of profits, the Central Government may approve the payment of such remuneration to the extent of Rs. 50,000 per annum. Even this ceiling may be relaxed by the Central Government (Sec. 198(4)). The remuneration of a Managing Director or a whole-time director or a manager cannot exceed 5 per cent of the net profit and if they are more than one, the same may be to the extent of 10 per cent of the net profit for all of them together. This ceiling may also be relaxed by the Central Government (Secs. 307 and 387). As regards the remuneration which can be paid to the Managing Agents or the Secretaries and Treasurers, the Act has laid down that the same should not exceed 10 per cent or 7½ per cent respectively of the net profit of the company (Secs. 348 and 381). Additional remuneration even in excess of the prescribed limits may be paid if the Central Government approves of the same as being in public interest (Secs. 352 and 379). The maximum remuneration which can be paid to a Managing Agent is ordinarily fixed by the Central Government on the basis of a sliding scale which ranges from 10 per cent on the first million rupees of net profits to 4 per cent on any sum of net profits exceeding 10 million rupees. The sliding scale in like circumstances in respect of the remuneration of the Secretaries and Treasurers ranges from 7½ per cent to 3 per cent of the net profits.

The Act requires every company to file with the Registrar of Companies certain prescribed documents in prescribed manner and within a prescribed time limit and further every company has been required to keep and maintain several prescribed Registers.

Sections 591 to 602 of the Act lay down several provisions in relation to the foreign companies. Any foreign company *i.e.* a company incorporated outside India and carrying on business in India or having a place of business in India is considered to be a foreign company. The Act does not make any discrimination as such against the foreign companies which like their counterparts in India are required to observe practically all the requirements with regard to the filing of the documents with the Registrar of Companies (a foreign company has to file all such documents with the Registrar of Companies at New Delhi as also with the Registrar of Companies in the State or States in which the company has its place or places of business). The provisions applicable to foreign companies with regard to the accounts of the company are comparably more favourable to the foreign companies. (For details about address and important officials see Delhi).

The new Companies (Amendment) Act, except the provisions of Section 8, has come into force with effect from 1st January, 1964. The enforcement of Section 8 which provides for the exercise of voting rights by the public trustee in respect of shares held in trust in excess of the limits specified in the new Section 153B, is to be notified later. The amended Act *inter alia* provides for the constitution of a tribunal for inquiring into cases against managerial personnel which may be referred to it by the Central Government, and also for transferring to the tribunal functions under certain sections of the Companies Act which were conferred on the court. The Act also empowers the Government to constitute a board to be called the Company Law Board to exercise such powers and functions as may be delegated to it by the Central Government, and to appoint a person as public trustee for the exercise of voting rights in respect of shares held in trust.

Other important changes effected in the original Act relate to sections 81, 397, 398 and 408. The scope of sections 397, 398 and 408 has been enlarged to provide for the entertainment of applications under these sections on grounds of public interest as well.

The new section 153B inserted by section 7 of the Amendment Act makes it obligatory for persons holding shares or debentures in trust, to make a declaration to the public trustee to be appointed by Government, where the trust is created by instrument in writing and the trust money invested exceeds the limits specified in sub-section (4).

In the Companies (Amendment) Act, 1965, all sections except 13 and 46 came into force with effect from October 15, 1965. The Sections 13 and 46 seeking restrictions on the conveyance of blank transfers of shares and restrictions on inter-company loans will come into force only after notification.

Besides many other minor changes, sections 1, 13, 69, 75, 76, 108, 149, 227, 233B, 240A, 370, 395, 497 and 509 of the original Act were amended with some other insertions of minor sub-sections.

# INDIA'S FRONTIER WITH CHINA

The course of the frontier may, broadly speaking, be described as follows.

India's northern frontier with China extends over 2,500 miles from north-west Kashmir to the tripartite junction of India, Burma and China near the Talu Pass. The frontier is traditional and well enough known.

In some sectors it has also been demarcated or defined. It runs along the Muztagh and the Karakoram ranges through the Karakoram pass and then along the Kuen Lun ranges to a point east of 80° longitude. Thereafter, it follows the watershed and runs through Lanak pass and along the Changchengmo range. Cutting across the Pangong Tso and the Spanggur Tso, it runs through Chang pass and along the Kailash range. It then turns south-west near Demchok and skirting the Hanle mountains cuts across the Para Chu river south of Chumar. It then follows the watershed between the Spiti and the Para Chu and the watershed between the Ganga and the Sutlej to the tri-junction of India, Nepal and China.

The boundary of Sikkim and Tibet is also a watershed, while the crest of the Himalayas forms the boundary between Bhutan and Tibet.

The north-east frontier of India, about 700 miles long, from the eastern Limits of Bhutan to a point near the Talu pass, is for the most part the northern watershed of the Brahmaputra. This is the so-called McMahon Line.

**Frontier of Kashmir with Tibet:** The frontier in this sector is about 1,100 miles long. About 300 miles of the extreme western sector is covered by the territory of Kashmir which is illegally occupied by Pakistan. The major part of Kashmir's frontier with China runs along a well-defined watershed, and the eastern section in particular has been recognised by custom for over three centuries. It was also confirmed by treaties signed between Ladakh and Tibet *circa* 1684 and in 1842. This boundary includes in India, the whole of the Aksaichin plateau, the Changchengmo valley, and the Pangong, Rupshu and Hanle areas. However, Chinese maps have been showing the boundary in this area much further west so as to include about 6,000 square miles—the greater part of Aksaichin, and parts of the Changchengmo valley, and the Pangong, Spanggur Tso and Chang La areas—in Tibet. The road constructed by the Chinese runs for about a hundred miles through the eastern part of Aksaichin. In September 1957 it was announced that this road had been completed. Indian parties have been arrested near the northern extremity of Aksaichin in 1958 and in the Spanggur area in 1959.

**The Punjab-Tibet Frontier:** This is about 70 miles in length. In the southern part of this sector, some Chinese maps show the boundary four to five miles west of the traditional boundary which is the watershed between the Spiti and Para Chu rivers. In 1956 and 1957, Chinese parties visited this area.

**Himachal Pradesh and Uttar Pradesh boundary with Tibet:** It is about 320 miles long and follows well-defined watersheds. In Himachal Pradesh it is the watershed between the eastern and western tributaries of the Sutlej, and in Uttar Pradesh that between the Sutlej on the one hand and the Kali, Alakhnanda and Jadhganga on the other. The six passes on the watershed—Shipki, Mana, Niti, Kungri Bingri Darma, and Lipu Lekh—have been mentioned in the 1954 Agreement as passes between India and China. The Great Himalayan Range in this region lies in some places thirty to forty miles south of the watershed. The Nilang-Jadhang area, about a hundred square miles in area, has always been Indian territory.

**Sikkim-Tibet Frontier:** This was defined in the Anglo-Chinese Convention of 1890, and was later, in 1895, demarcated on the ground. All Chinese maps seem to show this boundary correctly.

**Bhutan-Tibet Frontier:** This is a customary boundary and follows the crest of the Himalayan Range for about three hundred miles. Chinese maps level out Bhutan in two sectors in the north and include a considerable part of south-eastern Bhutan in Tibet.

**McMahon Line:** From the eastern border of Bhutan to a point near the Talu pass, the frontier is a customary one which was defined in detail at the Simla Conference of 1914. The line follows the northern watershed of the Brahmaputra except where the Lohit, Dihang, Subansiri and the Namjang rivers break through. This watershed is for its greater part the Himalayan Range and in other places the highest range in the area. In one place the Line departed from the watershed to leave two sacred lakes, the village of Migyitun and a pilgrimage route in Tibet.

The line shown on Chinese maps includes in Tibet nearly 32,000 square miles of our territory in this area. This piece of territory comprises

the whole of three Divisions of the North-East Frontier Agency—Kameng, Subansiri and Siang—and the major part of the fourth—the Lohit Frontier Division. In the extreme west it includes a belt of the Assam plains also.

## INDIAN CASE

Having traced the course of the customary frontier between India and China we may next describe the Indian point of view.

Briefly it is this.

India's traditional frontier with China is well known being based partly on treaty, partly on custom and partly on agreement.

The present controversy arose because, the Chinese Government laid claim for the first time to extensive areas of Indian territory in the Chinese Prime Minister's letter of 8th September 1959.

The tension on the India-China border increased in 1959 and 1960 because Chinese forces had been pushing forward to assert their claims, and this has resulted in clashes involving the death of Indian personnel.

The Government of India have stated that in spite of recent Chinese provocations they will always explore the possibilities of a peaceful settlement. But they cannot accept the Chinese contention that the entire India-China frontier is undelimited. Negotiations on this basis are unacceptable to the Government of India. But they are prepared to discuss with the Chinese Government existing disputes and such minor rectifications of the frontier as may be considered necessary by agreement.

Though this is not part of the Indian case it may be added that the precise nature of the Chinese claims have not been stated by Chinese authorities. They can only be inferred from Chinese maps published from time to time.

The entire length of this border has been either defined by treaty or recognized by custom or by both, and until the present controversy no Chinese Government had ever protested against the exercise of jurisdiction by the Government of India upto the customary border.

The Government of the People's Republic of China contend in their letters that this boundary is entirely undelimited. This is wholly incorrect. The traditional border has been well-known for centuries. It follows the geographical principle of the watershed which is in most places the crest of the Himalayan mountains.

Moreover, in most parts the boundary has the sanction of specific international agreements.

### NORTH-EASTERN FRONTIER

In the north-east, the traditional boundary was formalized at a Tripartite Conference held in Simla from October 1913 to July 1914 and attended by the Plenipotentiaries of the Governments of India, Tibet and China. The Indian, Tibetan and Chinese Plenipotentiaries had equal status. The boundary between India and Tibet in the sector east of Bhutan was confirmed by an exchange of notes between the Tibetan and Indian representatives on 24th and 25th March 1914. The boundary was delineated on two sheets of a large-scale map of the north-east frontier. Two copies of the map were signed and sealed by the Indian and Tibetan representatives. The line was drawn after full discussion and later re-affirmed by a formal exchange of notes. The Indo-Tibetan boundary line as agreed upon by the Indian and Tibetan Plenipotentiaries was incorporated on the map attached to the draft convention and was never challenged by the Chinese representative at that time or afterwards.

There is nothing to indicate that the Tibetan authorities were, in any way, dissatisfied with the delineation. On the other hand, Lonchen Shatra, the Tibetan Plenipotentiary, stated explicitly in the letters exchanged that he had received orders from Lhasa to agree to the boundary as marked on the map.

There is no doubt that the McMahon Line (so called after McMahon, the British representative at the Conference) merely confirmed the natural, traditional, ethnic and administrative boundary in the area. It runs mostly along the crest of the High Himalayan Range which forms the natural frontier between the Tibetan plateau in the north and the submontane region in the south. The Monba, Aka, Dafla, Miri, Abor and Mishmi tribes, who inhabit the area, are of the same ethnic stock as the other hill-tribes of Assam and have no kinship with the Tibetans. The Tibetans refer to these tribes as Lopas—southern barbarians beyond the pale.

It has to be appreciated however that boundaries between any two countries are not determined by ethnic affiliations of people living in frontier regions. It is also possible that people of the same racial stock live on either side of a border. India is a multi-national State in which many racial minorities enjoy rights of citizenship. In this context, it is relevant to mention that there are thousands of Indian citizens of Tibetan origin in our frontier areas. The fact is that the ethnic composition of frontier peoples is not a determining factor.

The important consideration to bear in mind is that Tibetan authorities had not exercised jurisdiction at any time in this area. On the other hand, the exercise of jurisdiction by the Government of India has been long and continuous.

Both the Simla Convention and the map attached to it were signed by Ivan Chen, the Chinese Representative. Although the Chinese Government later repudiated his signature, the objections to the Simla Convention listed in their memorandum of 25th April, 1st May and 13th June 1914 and 30th May 1919 were solely in regard to the boundary between Inner Tibet and China and between Inner Tibet and Outer Tibet. China neither protested against the boundary between India and Tibet nor did she seek modification of it after the Simla Convention. It is significant too that the Chinese Government agreed in 1956-57 to consider the eastern sector of the McMahon Line, which for about 120 miles forms the boundary between Burma and China, as the traditional boundary between the two countries.

### CENTRAL SECTOR

The central sector of the boundary between Tibet and India is the frontier of Uttar Pradesh, Himachal Pradesh and the Punjab States in north India. The boundary between Uttar Pradesh and Tibet follows the watershed between the Sutlej on the one hand and the Ganges (the Kali, the Alaknanda and the Jadhganga) on the other. In this sector, the High Himalayan Range, with passes at a height of about 17,000 feet, runs 30 miles south of the water-parting, which is a lower range easily crossed from the Tibetan plateau. However, this watershed has been the traditional and well-known boundary. Revenue records of the Garhwal district as far back as 1850 establish this. Even Chinese maps upto 1958 showed the watershed as the frontier. The Nilang-Jadhang area, Bara Hoti, Lapthal and Sangcha Malla, which according to the contention of the Chinese Government lie in Tibet, are in fact well on the Indian side of the watershed.

Nilang-Jadhang is an area of about 700 square miles north of the main Himalayan range but south of the watershed. Bara Hoti, a small area of about 1½ square miles, also lies between the highest range of the Himalayas and the main watershed. Lapthal and Sangcha Malla are south-east of Bara Hoti, in Almora district in Uttar Pradesh. The boundary between Himachal Pradesh and Tibet is the water-parting between the eastern and the western tributaries of the Sutlej; and the boundary between the Punjab and Tibet is the major watershed between the Pare Chu and the Spiti river systems.

### LADAKH

The boundary of Jammu and Kashmir with Sinkiang and Tibet is about 1,100 miles in length. Of this the frontier of Ladakh (which is part of Jammu and Kashmir) forms nearly two-thirds.

This boundary between Ladakh and Tibet, long sanctified by custom, was reaffirmed by the Treaty of 1842 signed by the representatives of Kashmir on the one hand and the Dalai Lama and the Emperor of China on the other. The Tibetan text of the treaty confirms that China was a party to it. It is true that the treaty did not define the boundary but referred merely to the "old established frontiers". This was because these frontiers were well-known and did not require any formal delimitation. In 1847 the Chinese Government informed the British Government that as the boundary was sufficiently and distinctly fixed, there was no need for additional measures for fixing them. The area was surveyed by Indian officials and, once a detailed first-hand knowledge was obtained of the region, official Indian maps began to show the boundary with precision. Even an official Chinese map of 1893 showed the boundary in this area as depicted in official Indian maps today.

For many years after 1949, when the People's Republic was established, there was no reason to believe that the Chinese authorities either were unaware of the traditional boundary or disputed its alignment. In 1950 the Chinese Government expressed their gratification over the desire of the Government of India "to stabilize the Chinese-Indian border" and the Government of India replied that "the recognized boundary between India and Tibet should remain inviolate". The Chinese Government questioned neither the location nor the recognition of this boundary, and the Government of India saw no reason to assume that there was any doubt regarding the border. On various occasions in 1951 and 1952, Indian interests in Tibet were discussed but the Chinese Government never suggested that there was any frontier issue to be negotiated.

The only cause for doubting whether the Chinese authorities accepted the traditional boundary was the fact that different alignments were being shown on Chinese maps. The alignments included about 36,000 square miles of territory on the north-eastern frontier and an area of about 15,000 square miles in north-eastern Ladakh within China.

### INDIAN BORDER POST IN LADAKH ENCIRCLED BY CHINESE TROOPS

The first major clash since India started building up its military strength in Ladakh, occurred when an Indian outpost in Galwan Valley was encircled by about 400 Chinese troops on July 10, 1962, only about 48 hours after the Chinese had accused Indian border guards of carrying out "provocations" against a small Chinese patrol.

The Govt. of India lodged an emphatic protest with the Chinese Govt. against the encirclement and the "threat posed to the post by the Chinese intruders." The Note said that "if any untoward incident should now occur, the responsibility will entirely rest on the Govt. of China".

On 11th night China however answered India's charge with the countercharge that in fact the Chinese troops in the area were being encircled by Indian troops.

India warned on July 13 that if the Chinese troops encircling the Indian post in Galwan Valley in Northern Ladakh came closer, the Indian soldiers would fire in self-defence. The Note mentioned that the Chinese had established nine new posts in recent weeks inside Indian territory in the Chip Chap river region, the Chang Chemno Valley and the Spanggur region.

Early in the morning of July 14, the Chinese troops encircling the Indian post in Galwan Valley withdrew to a distance of 200 yards after coming forward menacingly within 15 yards of it, late on the previous night. They were still surrounding the post. They withdrew further on July 15. In the Indian reply of July 14, India has mentioned that the Chinese have set up in recent months "no less than 13 new posts" in northern Ladakh.

The Chinese troops opened fire on Indian patrols on July 21 at two places in the Chip Chap river region and the Pangong Lake area in Northern Ladakh. In the Chip Chap region, the Indian patrols fired back in self-defence. The Govt. of India lodged an emphatic protest against the Chinese firings.

## UNILATERAL WITHDRAWAL BY INDIA—CHINA SUGGESTS

In a Note handed to the Indian Embassy in Peking on Aug. 7, the Chinese Govt. rejected India's suggestion that both sides withdraw in the western sector of the boundary to a line claimed by the other as a desirable prelude to negotiations. The Chinese insisted on unilateral withdrawal by India.

Mr. Nehru told the Lok Sabha during the debate on the Sino-Indian border question that negotiations with China on the basis of the officials' report on the northern border issue "cannot start unless the present tensions are removed and the boundary which has been altered by force is restored". On May 14, 1962 Mr. Nehru had renewed his old proposal for talks between India and China on the basis of each country's withdrawal to the boundaries shown in the other's maps. This suggestion applied to the Ladakh area and not to the eastern sector of the Sino-Indian border.

## CHINESE ATTEMPT TO EXTEND AREA OF CONFLICT

On Sept. 12, the Chinese troops were reported to have infiltrated into Indian territory near Tawang in the Kameng frontier division of NEFA and encircled an Indian outpost. On receipt of the report the Indian troops were instructed to open fire if necessary to repel the Chinese incursion across the McMahon Line. The Chinese were bringing in fresh reinforcements to the Bhutan and NEFA areas. Chinese troops resumed their patrols on the western sector of the border and set up new posts.

On the 20th of September the Chinese suddenly attacked an Indian patrol post two miles east of Dhola and so the Indian troops had to open fire. India lodged a strong protest.

In the Chinese Note of September 13, in reply to India's Note of Aug. 22, she rejected India's invitation to send a representative to Delhi for preliminary discussions. Instead, she proposed that discussions on the basis of the officials' report should start from Oct. 15, first in Peking and then in Delhi alternatively. India accepted their proposal but without any preconditions. China's suggestion that "the line of actual control" should be accepted was not acceptable to India. The Chinese proposal that each side should withdraw its forces by 20 kilometers "suffers from the serious defect that it leaves the aggressor who altered the *status quo* by unilateral action over the last few years in possession of the fruits of his aggression. This could hardly create that climate of confidence and goodwill—which is an essential prerequisite for fruitful discussions." India's Note regretted the threat of force indicated in the Chinese Note.

The Chinese sent a Note on Oct 3. This Note asked the Govt. of India to send a representative to Peking on Oct. 15 to begin discussions on the border dispute, but it had laid down the precondition that the proposed talks should cover not only the Western sector but also the middle and eastern sectors of the Sino-Indian border. In other words, the Chinese are now questioning the *status quo* of the eastern sector of the boundary along McMahon Line on the basis of their latest act of aggression on the NEFA border. On the same day India sent a reply making it equally clear that India is also not prepared to extend the scope of the proposed preliminary talks to include the question of the *status quo* in the eastern sector.

To cover up the Chinese aggression in NEFA they have mentioned in their note that firing took place north of the boundary line though the established fact is that they crossed the recognised boundary near the trijunction of India, Bhutan and Tibet.

After ten days of lull on the NEFA border, the Chinese attacked an Indian post on the southern side of Thagla Ridge on 10th Oct. There was lull for some time after this clash. On Oct. 19, the Chinese tried to provoke a clash by throwing a hand-grenade at one of the Indian positions in the Dhola area south of the Thagla ridge. But there was no incident.

## LARGE-SCALE OFFENSIVE BY CHINESE

On October 20, the Chinese forces mounted a large-scale and pre-meditated offensive at several points on the NEFA and Ladakh borders and attacked Indian positions in both the eastern and western sectors in successive waves, supported by heavy mortars and medium machine-guns. The attack covered a 20-mile front from Dhola to Khinzemane in the Thagla ridge area. The Dhola and Khinzemane posts fell to the Chinese. Simultaneously they attacked the forward Indian posts in the Chip Chap valley in the northern Ladakh and two of these posts fell.

They advanced further south of Namkha Chu River in the NEFA area on Oct. 21. Two more posts fell in the Chip Chap Valley.

On Oct. 23, the Chinese forces crossed the Bomdi La Pass, 12 miles east of Thagla Ridge. To the south they reached Brokenthang and Zamithang. In four days they advanced to a depth of about 8 miles. On Oct. 24, they captured Lumpu, 10 miles south of McMahon Line.

The Chinese occupied Tawang on Oct. 25 after Indians fought bitterly and evacuated on the previous evening. After capturing Tawang, they launched a heavy attack on Oct. 26, at the other end of the McMahon Line to occupy Walong in the Lohit Division near the Burmese border. In the Tawang area the Chinese reached Jang, about five miles south on the route to Bomdila and Tezpur. In the Ladakh area there has been no change in the situation since Oct. 25. The Chinese had thrown more than 30,000 troops into the invasion of NEFA upto Oct. 26, 1962.

On October 24, 1962, China put forward a three-point "peace" proposal. According to this, both parties should respect the 'line of actual control' between the two sides along the entire India–China border and the armed forces of each side should withdraw 20 kilometres (12½ miles) from this line and disengage. The Chinese Prime Minister clarified the 'line of actual control' as "basically still the line of actual control as existed between the Chinese and the Indian sides on November 7, 1959."

On October 26, 1962, a state of emergency in the country was declared by the President in a proclamation issued in New Delhi.

The Prime Minister of India rejected the Chinese proposal on 27th Oct. 1962 and urged the restoration of the position as obtaining prior to Sept. 8, 1962 before China's latest aggression, as a preliminary first step to any peaceful settlement.

Between the line separating the two forces, immediately prior to Sept. 8, 1962 and the fictitious 'line of actual control' on Nov. 7, 1959, as defined by China, there is a difference of 2,500 square miles of Indian territory which China has occupied as a result of her recent massive attack. Hence the acceptance of the Chinese proposal will give China the fruits of her recent aggression and place her in an advantageous and dominating position for further aggression in future. India, therefore, rightly rejected China's three-point proposal. On October 27, the Chinese troops attacked the Indian border posts in Damchok area in Ladakh. Chang La Pass and Jara La fell to the Chinese.

The following is a chronological review of leading events in India–China relations from October 30, 1962 :

30 *October :* India told the U.N. General Assembly that if Communist China really desired a peaceful settlement of the border issue, it should accept India's proposal and restore the *status quo* as it obtained prior to its former aggression which started on September 8, 1962.

1 *November :* Government of India took up the question of Indian prisoners of war with International and Indian Red Cross Organisations.

2 *November :* China rejected the four-point proposal made by President Nasser for the settlement of the Sino-Indian border conflict.

3 *November :* Indian troops retook three hamlets between Jang and Tawang in NEFA.

4 *November :* Mr. Chou En-lai rejected Prime Minister Nehru's peace proposal and reiterated that his three-point proposal should be accepted by India.

5 *November :* India announced the planned withdrawal by Indian troops from Daulat Beg Oldi in Ladakh. The Chinese are in occupation of practically the entire area claimed by them in Ladakh and even of one or two places beyond the 1960 claim line.

7 *November :* Indian troops repulsed Chinese attack near Walong.

9 *November :* Chinese shelled Indian forces in Walong area and Indian forces shelled enemy positions in Jang area.

14 *November :* Indian troops launched an attack on a Chinese position north-west of Walong and raided a village held by Chinese near Jang.

15 *November :* Chinese launched a massive attack at several points in Walong area. This attack was described as the biggest after the first one in October.

16 *November :* Indian troops yielded some ground in the north and north-west of Walong. The Chinese occupied Walong an air strip on the outskirts of Walong.

17 *November :* Chinese shelled Chushul area and attacked two forward Indian posts east and south-east of Chushul.

The Indian troops withdrew 7 or 8 miles in Jang area and bitter fighting was in progress within a mile or two of Sela Pass in the Jang area.

18 *November :* A second Indian forward post in Chushul area fell to the enemy after severe fighting and heavy enemy casualties. Indian troops fell back in Sela and the Chinese cut the road from Sela to Bomdi La.

19 *November :* Bomdi La fell to the Chinese.

20 *November :* The Chinese Government announced cease-fire effective midnight on November 21 withdrawal beginning from December 1, to positions 20 kilometres behind the lines of actual control which existed on November 7, 1959 and intention to set up check posts manned by civil police on their line of actual control.

22 *November :* Prime Minister Nehru replied to Mr. Chou En-lai's letter of November 4, and reiterated that Chinese troops should withdraw to the position of September 8, 1962.

24 *November :* The Government of India sought clarification of several points in the Chinese Government's statement on cease-fire. President Nkrumah of Ghana made new proposals for solving Sino-Indian dispute.

China offered 'No war' pact with Pakistan.

25 *November :* An official spokesman of the External Affairs Ministry clarified that Chinese description of the line of actual control is not the same as that which existed on November 7, 1959.

Over 1,000 Indian troops returned from forward areas of NEFA.

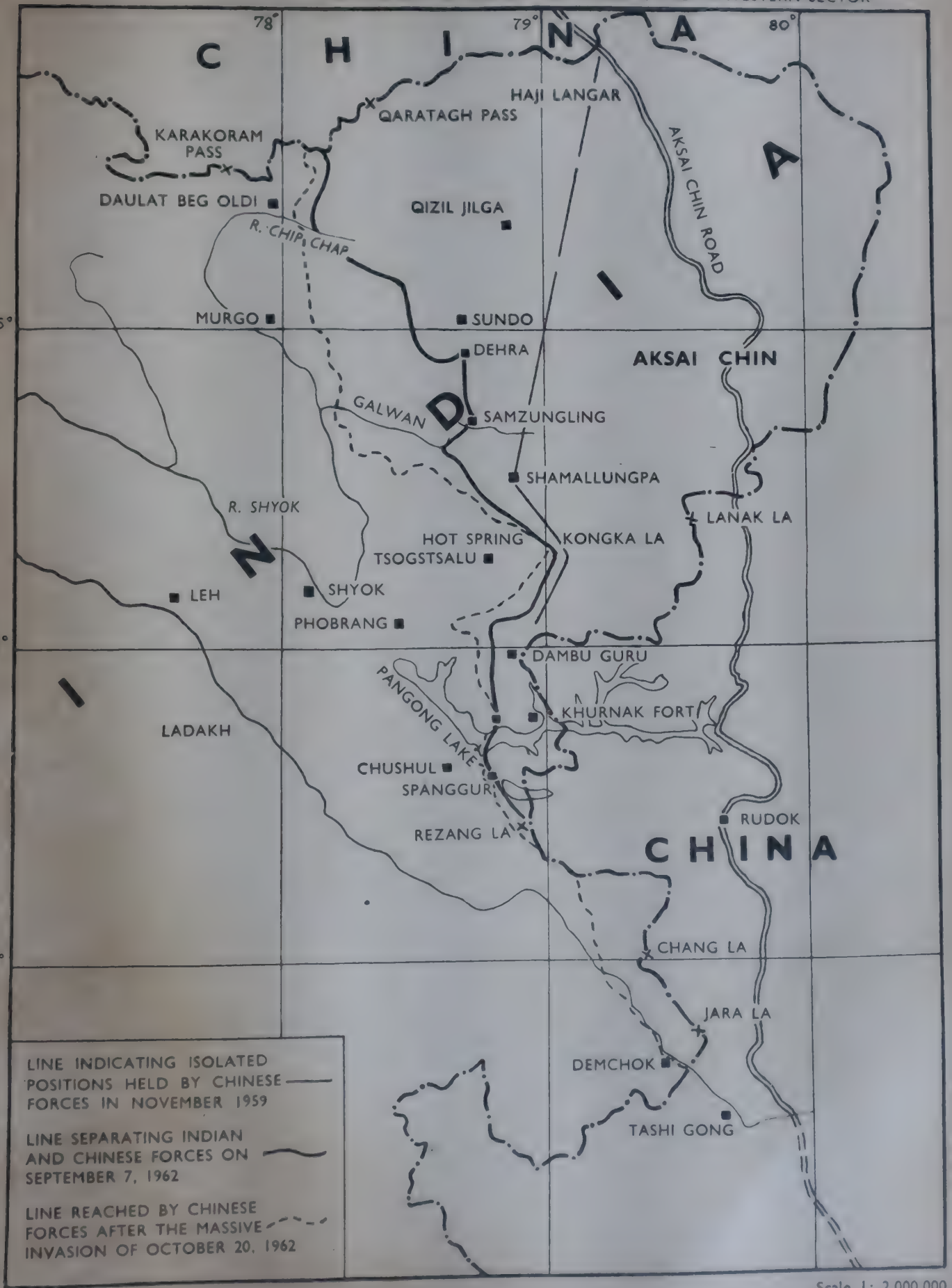
26 *November :* An official spokesman of the External Affairs Ministry stated that the Chinese proposal in effect sought to retain effective control over large areas of Indian territory which the Chinese had seized by force after September 8, 1962.

The Chinese Government mounted a new diplomatic offensive in Afro-Asian capitals 'to sell their point of view' on Sino-Indian dispute.

27 *November :* An official spokesman of the External Affairs Ministry characterised the Chinese Government's account of events leading

# LADAKH AREA

LINE SEPARATING INDIAN AND CHINESE FORCES ON SEPTEMBER 7, 1962 IN WESTERN SECTOR




Scale 1: 2,000,000

Projection: Lambert conical orthomorphic

e invasion of India as a "complete travesty cts." He described as baseless the Chinese ntion that the Sino-Indian boundary dispute a long-standing one.

ri A. K. Sen, Union Law Minister, left Delhi U.A.R. and Ghana to explain India's case.

*November :* An Indian Mission headed by Laxmi Menon, Minister of State for External rs, left for Burma, Ceylon and Cambodia xplain India's case.

*November :* The clarification issued by the ese of their original proposal made it clear they want to identify the November 7, line of actual control with the position now by its troops in Ladakh.

*November :* The Government of India d the Chinese Government to give more ise information about its cease-fire proposals.

*December :* The Chinese started their uni- al withdrawal as announced on November 962.

*December :* The Chinese Foreign Ministry vered a 5,000-word memorandum to Indian assy in Peking demanding a clear and ite reply to Chinese proposals on cease-fire.

*December :* Six-nation Colombo Conference ed at Colombo.

*December :* Colombo Conference concluded. f communique said Ceylon Prime Minister ld visit New Delhi and Peking to convey proposals.

*December :* Civil administration re-estab- ed in Bomdi La, Kameng Division in NEFA.

*December :* Civil administration at Darrang ng (Kameng Division of NEFA) resumed.

*December :* Official spokesman confirmed rts of Chinese military concentration in mbi valley (Sikkim border).

*December :* Civil administration resumed at long (Lohit Division) and at Machuka (Siang ision, NEFA).

*December :* Sino-Pak joint announcement order alignment between China and Pakistan- pied Kashmir.

*December :* China formally rejected India's and for restoration of September 8 position, cease-fire is not "stable."

*December :* Ceylon Prime Minister arrived China on peace mission.

*January* 1963 *:* Peking said China had given itive response' to Colombo proposals.

1–13 *January :* Colombo proposals dis- ed between Nehru and Mrs. Bandaranaike, Sabri of UAR and Kofi Asante Ofori-Atta of ana. Joint communique issued at the end of discussions. Indian decision held in abeyance Parliament considered the proposals.

## COLOMBO CONFERENCE

fter individual countries like Ghana, Tanga- ka* and the United Arab Republic had failed heir efforts to persuade China to accept their pective proposals for a settlement of the o-Indian conflict, opinion among the Afro- an nations crystallized in favour of holding onference of non-aligned nations to promote ct negotiations between India and China. ntually, at the invitation of Mrs. Sirimavo ndaranaike, Prime Minister of Ceylon, a ference of representatives of six non-aligned ions was held in Colombo from December 10 12, 1962. The six nations were: Ceylon, A.R., Indonesia, Cambodia, Ghana and Burma.

n her opening speech, Mrs. Bandaranaike d that the purpose of the Conference was to lve "an equitable and just basis on which h sides can be persuaded to accept cease-fire angement as a preliminary to settling down the larger task of arriving at a solution of the der dispute itself. . . . We might also suggest at, in our opinion, is an equitable basis for a se-fire line."

### COLOMBO PROPOSALS

"1. The Conference considers that the existing *facto* cease fire period is a good starting point a peaceful settlement of the Indian–Chinese nflict.

"2. (*a*) With regard to the Western Sector, the Conference would like to make an appeal to the Chinese Government to carry out their 20 kilometres withdrawal of their military posts as has been proposed in the letters of Prime Minister Chou En-lai to Prime Minister Nehru on November 21 and November 28, 1962.

(*b*) The Conference would make an appeal to the Indian Government to keep their existing military position.

(*c*) Pending a final solution of the border dispute, the area vacated by the Chinese military withdrawals will be a demilitarised zone to be administered by civilian posts of both sides to be agreed upon, without prejudice to the rights of the previous presence of both India and China in that area.

"3. With regard to the Eastern Sector, the Conference considers that the line of actual control in the areas recognised by both the Governments could serve as a cease fire line to their respective positions. Remaining areas in this sector can be settled in their future discussion.

"4. With regard to the problems of the Middle Sector, the Conference suggests that they will be solved by peaceful means, without resorting to force.

"5. The Conference believes that these proposals, which could help in consolidating the cease fire, once implemented, should pave the way for discussions between representatives of both parties for the purpose of solving problems entailed in the cease fire position.

"6. This Conference would like to make it clear that a positive response for the proposed appeal will not prejudice the position of either of the two Governments as regards its conception of the final alignment of the boundaries."

### Clarifications

On a request from the Government of India, the Ceylon Prime Minister, Mrs. Bandaranaike, Mr. Ali Sabry of the U.A.R. and Mr. Ofori Atta of Ghana gave clarifications of paragraphs two, three and four of the Colombo proposals during their negotiations in New Delhi from January 10 to 15, 1963. The clarifications were also conveyed to the Chniese Government by the Ceylon Premier. Following is the text of the clarifications:

*Western Sector* (Para 2 of the proposals).

(*i*) The withdrawal of Chinese forces proposed by the Colombo Conference will be 20 kilometres as proposed by Prime Minister Chou En-lai to Prime Minister Nehru in the statement of the Chinese Government dated 21st November and in Prime Minister Chou En-lai's letter of 28th November 1962, *i.e.*, from the line of actual control between the two sides as of November 7, 1959, as defined in Maps III and V circulated by the Government of China.

(*ii*) The existing military posts which the forces of the Government of India will keep to will be on and up to the line indicated in (*i*) above.

(*iii*) The demilitarised zone of 20 kilometres created by Chinese military withdrawals will be administered by civilian posts of both sides. This is a substantive part of the Colombo Conference proposals. It is as to the location, the number of posts and their composition that there has to be an agreement between the two Governments of India and China.

*Eastern Sector* (Para 3 of the proposals).

The Indian forces can, in accordance with the Colombo Conference proposals, move right up to the south of the line of actual control, *i.e.*, the McMahon Line, except for the two areas on which there is difference of opinion between the Governments of India and China. The Chinese forces similarly can move right up to the north of the McMahon Line except for these two areas. The two areas referred to as the remaining areas in the Colombo Conference proposals, arrangements in regard to which are to be settled between the Governments of India and China according to the Colombo Conference proposals, are Che Dong or the Thagla ridge area and the Longju area, in which cases there is a difference of opinion as to the line of actual control between the two Governments.

*Middle Sector* (Para 4 of the proposals).

The Colombo Conference desires that the *status quo* in this sector should be maintained and neither side should do anything to disturb the *status quo*.

### India Accepts

On Jan. 24, 1963, Mr. Nehru announced in the Lok Sabha that India would accept *in toto* the Colombo proposals as clarified by the delegations of Ceylon, the United Arab Republic and Ghana during their talks with the Union Govt. in Delhi on Jan. 12 and 13, 1963. The proposals were thoroughly discussed in Parliament. Since they were on the whole in conformity with her own stand on the issues involved and as proof of her sincere desire to co-operate with the Colombo Conference and make its initiative a success, the Lok Sabha approved the Govt. policy on the proposals. India accepted the proposals *in toto* and the Prime Minister of Ceylon was informed accordingly.

### China Rejects

The Chinese Government, however, have rejected the essential features of the Colombo proposals. They are opposed to the proposal that the demilitarised area in the Western Sector should have civilian posts of both India and China. They insist that they alone should have the right to re-establish the seven posts that they claim they maintained in this area prior to Sept. 7, 1962 and that there should be no Indian presence of any kind in this demilitarized zone. And, in the Eastern Sector, contrary to the Colombo proposals, they insist that Indian troops should not move up to the frontier. By taking up this attitude, they are clearly flouting the Colombo Conference powers, and spurning their efforts to promote a settlement.

By January 28, 1963, Siang Division (NEFA) was reported free from Chinese occupation. Chinese forces had pulled out of Khinzemane (Kameng Division) and Kibitoo (Lohit Division). On Feb. 1, 1963, the Chinese were reported to have vacated "disputed areas" in NEFA like Thagla and Longju.

The Prime Minister said in Rajya Sabha on Feb. 17, 1963 that Colombo proposals fail unless China accepts them *in toto*. The Congress Working Committee approved on Feb. 20, 1963 the Government stand on Colombo proposals.

On March 1, 1963 the Chinese Defence Ministry claimed to have completed withdrawal to 20 kilometers behind November 7, 1959 line. They proposed to set up 26 check posts—16 in the eastern sector, 3 in the middle sector and 7 in the western sector.

Mr. Nehru told Chou En-lai that talks can be held only if China accepts the Colombo Proposals.

In a note of May 11, 1963, the Government of India protested to China against provocative troop activities in the Spanggur area of Ladakh which belie the Chinese claim of withdrawing 20 kilometres east of the so-called line of actual control. The Chinese have been reinforcing their forward positions with fresh troop concentrations in Ladakh and NEFA sectors. It was reported in May that the Chinese were secretly maintaining pockets of troops in the so-called demilitarised zones both in Ladakh and NEFA.

China rejected India's protest note of May 11 and maintained that China was "within its right to enter the 20-kilometre" demilitarised zone. By June 1963, the Chinese had set up 26 civilian posts within the 20 kilometre zone on their side of the "line of actual control" along the Sino-Indian border. Six of the above 26 civilian posts are in the Indian territory in Ladakh, occupied by China after its massive invasion in November 1962.

* Now called Tanzania.

A fresh aggression was committed by China by putting up a check-post in the vicinity of Depsang La, south-east of Daulat Beg Oldi in Ladakh. As part of their anti-Indian activities the Chinese set up on July 5, 1963 a new post for offensive against India over the Lha Pass on the McMahon Line in the Subansiri Division of NEFA. Chinese build-up was reportedly taking place in the eastern sector of India-China border, while Pakistan had rushed reinforcements to East Pakistan (July 25, 1963). According to official information on July 26, 1963, the Chinese had already violated the 20-kilometre demilitarized zone at several places. There were indications that the Chinese might attempt to reoccupy the so-called demilitarized zone in Ladakh and NEFA. On July 27, it was reported that on the northern border the Chinese troops had moved down from their battle stations to forward striking positions. In spite of these, India was not going to take any offensive measures.

Cases of Chinese air violations of Indian air space were now more frequent than 1962. Ten air violations were made between May and Aug. 1963.

The Chinese official spokesman said that China would not launch a new attack against India if India does not cross the "line of actual control of November 7, 1959". Chinese troop concentration on the Indian border had been brought to the notice of the Colombo Powers.

## DEFENCE MINISTER'S STATEMENT ON SEPTEMBER 9, 1963

The Defence Minister in his statement of Sept. 9, 1963, stated that there has not only been appreciable increase in the total quantum of Chinese forces in Tibet, all along our northern borders, but the bulk of these forces is concentrated at strategic points closer to our borders than they have ever done before. There has also been a steady and constant build-up of war-like stores and maintenance supplies and considerable activity by way of construction of barracks, gun emplacements, storage dumps, roads and airfields near our borders. It is difficult to know the Chinese intentions, but this concentration of men and material may well be for use as a spring-board for another aggressive action against India.

India has repeatedly made it clear that she has no aggressive intentions against any country and that she wants to settle differences with her neighbours in a peaceful manner. So far as our border differences with China are concerned, we have, despite the crisis forced on us by Chinese aggression and massive attacks last October/November, accepted the proposals made by the six non-aligned countries who met at Colombo as a basis for consolidation of the cease-fire so that on similar acceptance of these proposals by China, the proposals can be implemented on the ground and, in the atmosphere of peace thus restored, we can discuss the differences regarding the boundary and attempt to resolve the differences peacefully.

As the Prime Minister stated, we have also indicated to the Government of the People's Republic of China that we are prepared, in case our differences cannot be resolved by direct talks and discussions, to refer the differences for settlement to the International Court of Justice at The Hague or to mutually acceptable arbitration procedures in accordance with recognised international practice.

## CHINA'S BORDER AGREEMENT WITH OTHER COUNTRIES

China has so far concluded border agreements with Burma, Nepal, Outer Mongolia and Pakistan. All these agreements are a post-1959 feature. The manner of reaching these agreements and their timing lead strongly to the suspicion that these agreements have been concluded not out of any desire for peaceful settlement of disputes with neighbours, but as instruments in China's strategy of isolating India. It could not be without significance that China made serious moves for border agreements about the same time as she made her big territorial claims on India in September 1959.

Another noteworthy feature common to most of China's border agreements is the leisurely way China initially set about negotiating them until 1959-60, when the dispute with India came to a head. The pace of negotiations was markedly accelerated thereafter. The talks with Burma for a border pact were begun in 1956 and after dragging on for nearly four years, were concluded in January 1960, about four months after China openly laid claim to large Indian territory. With Nepal, the Sino-Nepalese Boundary Committee was set up on August 11, 1960. On October 5, 1961 the boundary treaty was concluded.

The same was the case in respect of the so-called Sino-Pakistan "border treaty". The Pakistan Government had sent the Chinese their first note on this subject on March 28, 1961. The Chinese authorities replied to this after nearly a year, that is, early in February 1962. On May 3, 1962, the two Governments announced that they had agreed to conduct negotiations. An "agreement in principle" was announced by the two Governments on December 26, 1962 on the eve of the first round of Indo-Pak talks to discuss Kashmir and other related matters. The agreement itself was signed on March 2, 1963 in Peking.

China's border pacts are but another phase of her aggressive diplomacy. The aim of this strategy is to isolate and weaken India, so that China can lord it over the smaller nations of Asia.

## PRESENT POSITION

The Government of India having received definite information that the Chinese troops in Aksai Chin area were setting up stone cairns in the region to mark the so-called Chinese "line of actual control", sent a protest note to the Chinese Government on February 26, 1964. The note said: "Under the guise of accepting the Colombo proposals "in principle", the Chinese Government have, in open and wilful contravention of the same proposals, established 7 posts in the Western Sector, 6 of which are located in the 20 kilometre demilitarised zone. As indicated in the Government of India's note dated the 6th July, 1963, these posts which China claims to be only civilian posts are largely the creation of the massive Chinese aggression on India in October/November, 1962. It is obvious that what the Chinese Government seek to do is to impose an unilateral settlement on India in the terms of the Chinese declaration of 24th October and 21st November, 1962.

"This illegal activity of attempting to mark what China calls the "line of actual control" by setting up stone cairns is a clear proof of the Chinese intention to consolidate their illegal occupation of Indian territory in the Western Sector, which they have overrun by force of arms. This action of the Chinese Government is in direct contradiction to China's acceptance in "principle" of the Colombo proposals.

On April 13, 1964 Prime Minister Nehru speaking in Lok Sabha stated that Mrs. Bandaranaike had asked in one of her recent letters that if the Chinese vacated all their posts in the demilitarised area in Ladakh, India would consider that as fulfilment of the Colombo proposals. This was first mentioned to him by two representatives of Lord Russel who visited him during the summer of 1963. He had answered to them that India would be prepared to consider the proposal if China made it. Since then no such proposal had been made by China and so the situation remained the same as before.

In the Colombo proposals it was stated that in this demilitarised area of Ladakh both parties should have by agreement an equal number of posts. It was possible to consider that this was satisfied if both parties by agreement decided to have no posts at all in this area.

Prime Minister Nehru speaking at the A.I.C.C. session at Bombay on May 17, 1964, said that India was always prepared to consider a direct offer from China for vacating her posts in Ladakh. He, however, made it clear that India stuck to the Colombo proposals as the basis for negotiations with China.

China, Shri Nehru said, had not fully accepted the Colombo proposals. In two of these matters the Chinese had their own reservations. There was a suggestion for discussion on the demilitarisation of the 12½ mile zone in Ladakh.

While India was prepared to discuss that suggestion there was no move on the part of China in that matter so far, and the *status quo* continued.

Shri Lal Bahadur Shastri, made a statement in Lok Sabha on June 1, 1964, regarding the reported news about the Chinese rejection of the proposal regarding talks on the basis of no posts in the demilitarised zone. After recalling the Late Prime Minister Shri Nehru's statement on the subject in Lok Sabha on April 13, 1964, in the course of his reply to the demand for grants, Shri Lal Bahadur Shastri said: Our position on this question remains unchanged. We have declared our willingness to solve the border question through peaceful negotiations. We have demonstrated this willingness by accepting, without reservations, the recommendations of the Colombo Conference.

Mr. Swaran Singh, Minister for External Affairs, Govt. of India said at a press conference on Aug. 21 that the withdrawal of the posts from the demilitarised zone in Ladakh by the Chinese could be considered a substantial fulfilment of the Colombo proposals, but some other proposals outlined in Colombo proposals would have to be done before real negotiations could start. In other words the External Affairs Minister had meant that China should accept the Colombo proposals *in toto*.

In a statement published on Aug. 30, 1964 the newspapers in Peking, the official New China News Agency said that there is no reason whatsoever for the Indian Government to ask China to withdraw its civilian posts" from the demilitarised zone in Ladakh. This was made as a sequel to Mr. Swaran Singh's press conference, on August 21, 1964.

Peking's response to our conciliatory gestures has always been negative and uncompromising. On October 8, 1964, at the time of the Non-aligned Nations' Conference at Cairo, the Chinese Government issued an official statement rejecting Mrs. Bandarenaike's suggestion that negotiations be held between the two Governments on the basis of there being no posts on either side in the demilitarized zone. Thus China has obstructed the policy of a peaceful settlement of the border problem and also has continued to build up its military strength along the Indian border, which was heavier at the end of 1964 than in the autumn of 1962. On Dec. 24, 1964, the late Prime Minister Mr. Lal Bahadur Shastri made it clear in the Lok Sabha that India could not go beyond the Colombo proposals and any talks with China would have to take place on the basis of these proposals. He, however, added that there was no question of any negotiations with that country now.

On December 31, 1964, the Government of India lodged a vehement protest against provocative intrusions by Chinese troops in Sikkim.

The following are some of the important events relating to Sino-Indian relations, which took place up to the time of going to press: Jan. 13, 1965: The Government of India rejects allegations that Indian planes intruded into Chinese territory in December 1964. Jan. 21: The Government accuse China of aggressive designs against Sikkim. Feb. 15: India again repudiates China's claim that the so-called line of "actual control" in the western sector of the Sino-Indian boundary has "long existed" and that it has "always exercised effective jurisdiction over the areas up to this line on its side." In a note handed over to the Chinese Embassy on 12th Feb. the Ministry of External Affairs reiterated that this line of actual control was created as a result of Chinese aggression and was the farthest line of advance reached by the Chinese forces during their massive military operations in Ladakh in the autumn of 1962.

In a note handed over to the Chinese Embassy in New Delhi on Feb. 10, 1965, the Ministry of External Affairs referred to the Peking announcement about the completion of the work of the so-called joint China-Pakistan boundary were contrary to the Bandung principles to which "China pays vociferous lip service."

March 15, 1965 : The Chinese have constructed a net-work of roads in the area bordering the Ladakh territory and have linked by feeder roads all the seven military posts which they had established in the occupied area of Ladakh.

March 26, 1965 : Official circles describe the boundary agreement between China and Pakistan as one of the "most opportunistic deals in Asian history." The new Prime Minister of Ceylon, Senanayake, backs India's stand in the Sino-Indian dispute. The territory referred to in the so-called Sino-Pakistan boundary agreement protocol signed on March 26, was part of India's Jammu and Kashmir State where the occupying forces of Pakistan had entrenched themselves in defiance of international law.

April 25, 1965 : Heavy military build-up all along the NEFA border is continuing according to official sources.

May 14, 1965 : The Chinese troops are trying to intimidate Indian patrols near the Mana Pass, one of the border passes between Uttar Pradesh and Tibet.

During the Indo-Pak conflict which started on Aug. 14, 1965 China started creating trouble in the frontier. China put up several demonstrations.

September 8, 1965 : China delivers a threatening Note to the Indian Government demanding that India should dismantle all "military structures" it has built beyond or on the China-Sikkim border, withdraw its armed forces and "stop all acts of aggression and provocation against China in the Western, middle and eastern sectors of the Sino-Indian border." Otherwise, the Note adds ominously "India must bear all responsibility, for all the consequences arising therefrom".

September 17, 1965 : China tells India in a Note to dismantle all military installations on or over the China-Sikkim boundary within three days or face "grave consequences". The Note is handed to the Indian Charge D'Affaires in Peking by the Chinese Foreign Ministry. The Note severely condemns alleged Indian troops' "incursions" and "provocations" across the Sino-Indian boundary and the China-Sikkim boundary.

September 17 : India agrees to a joint Sino-Indian inspection of those points of the Sikkim-Tibet border across which Indian troops are alleged to have set up military structures in Tibetan territory.

A fitting reply to the Chinese ultimatum is given by the Prime Minister by warning Peking that "if we are attacked, we shall fight for our freedom with grim determination".

September 18 : Soon after Peking's ultimatum, Chinese troops start moving forward in the Tibetan side to places nearer the Indian border in the Demchok area of Ladakh and the Sikkim region which are about 800 miles apart.

September 19 : Communist China extends the deadline of her ultimatum to the midnight on Wednesday, 22nd September, Peking also rejects India's proposal for joint inspection of the installations.

September 20 : The Chinese troops fire a few provocative shots at a number of places on the Ladakh border and in the Sikkim region, but the Indian troops do not return the fire.

September 21 : Indian and Chinese troops exchange fire across the Sikkim-Tibet border near the Nathu La Pass at 2 a.m. There are no casualties on either side.

India categorically denies the allegations made by China in two Notes dated 19th and 20th September that Indian personnel have intruded into Chinese territory in Ladakh and across the Sikkim border.

At 11 a.m. 60 Chinese soldiers cross the Lipu Leh Pass, on the U.P.-Tibet border, and enter Indian territory.

September 23 : China formally acknowledges that there are now no Indian troops on the Chinese side of the border with Sikkim, where the Indians were alleged to have established military installations. China tells India that it has "Yet to return the Chinese border inhabitants and the cattle seized".

The Chinese Forces pull back about 300 yards from the Nathu La, but they are still entrenched on the northern and southern shoulders of the strategic gateway from the Chumbi Valley into Sikkim. They are still in occupation of two positions on the Indian side across the Dengchuli La and Nathu La.

September 25 : Official reports say that the Chinese troops have withdrawn from all positions close to the Sikkim-Tibet border. Some of the troops which had taken up positions on either side of the Nathu La Pass till yesterday have also pulled back.

September 28 : Chinese military activity continues in the Ladakh and Sikkim border regions.

October 2 : Twenty Chinese soldiers cross the Yak La Pass on the Sikkim-Tibet border in the morning, surround a three-man Indian observation post well within Indian territory and fire on it.

October 9 : Three armed Chinese soldiers intrude into Indian territory across the Lipu Leh Pass in the middle sector of the northern boundary.

November 13 : About 70 to 100 Chinese troops open intensive fire on two of the Indian observation posts in the Dongchuli La area on the Sikkim border in the morning.

The Chinese troops withdraw to their side during the night after a heavy exchange of fire lasting the whole day. These troops have been indulging in repeated provocations.

November 15 : China has virtually re-militarised the 20 k.m. demilitarised zone in Ladakh, thus clearly violating the recommendation 2 (A) of the Colombo proposals.

November 19 : Fifty Chinese soldiers intrude into north Sikkim across Bomcho La at noon and stealthily march about a mile. An hour later they withdraw to the Tibetan side on being chased by the Indian patrol party.

Chinese troops intrude into undisputed Indian territory in the Daulat Beg Oldi area of Ladakh.

November 21 : China violates the international border.

November 22 : India sends two protest Notes against the Chinese intrusion.

November 25 : Forty Chinese soldiers cross into North Sikkim territory. North-West of Bomcho and withdraw only after being fired by an Indian patrol.

November 30 : The Defence Minister Mr. Y. B. Chavan informs the Lok Sabha that China has increased the strength of its troops all along the northern border which constitute a "real and serious" threat to India.

December 1 : About a hundred Chinese troops cross over to the southern bank of the Namkachu River south of the Thagla ridge, the international boundary near the trijunction of India, Bhutan and Tibet, and take up positions there.

December 6 : The Defence Minister informs the Lok Sabha that the Chinese troops who had crossed over to the southern bank of the Namkachu River, south of the Thagla ridge in NEFA, have withdrawn from the area.

December 11 : Nearly 300 Chinese soldiers have been concentrated for the past several days in an area of the 20-kilometre demilitarised zone in Ladakh which is near the Indian civilian checkpost at Demchok. These troops have been carrying out provocative exercises in the demilitarised zone.

December 12 : About 250 to 300 Chinese troops intrude into an area three miles north-west of Sese La and fire at an Indian patrol. The fire is returned.

The Minister for External Affairs Mr. Swaran Singh declared at Chandigarh on Dec. 18, that in spite of frequent intrusions and provocations by China, India was prepared to have direct talks with China on the basis of the suggestions put forward by the Colombo Powers.

Chinese military personnel who have intensified their provocative activity on the Sikkim-Tibet border in recent months crossed into Sikkim territory thrice on December 25 and 26. In a strong protest Note handed to the Chinese Embassy in New Delhi on Dec. 31, 1965 the Union Government said that the violations of its well-recognised border "cannot be anything but calculated aggressive moves by China."

China has always been trying to keep tension in the northern borders by frequent threats of violence and also by encouraging Pakistan in her conflict with India. The Chinese are not at all happy at the Tashkent agreement which is a step forward in bringing Pakistan and India closer.

# INDO-PAKISTAN RELATIONS

IN a way the cease-fire line in Kashmir has always been disturbed. For instance, in 1963 there were 448 cease-fire violations, in 1964 there were 1,522 and in the first seven months of 1965 about 1,800. In the Pakistan-occupied part of Kashmir the so-called Mujahids and Razakars have been constantly under training with a view to activising the cease-fire line or for possible infiltration whenever the Pakistan authorities thought that the times were propitious, or there was political gain to be had by stirring up trouble in Kashmir. It is usual to regard the action in Kutch in April 1965 as a sort of curtain-raiser or a probing operation. There was also an attempt to cut the Srinagar-Leh road which is essential to India's communications to Ladakh. The Indian Army retorted by pushing forward to occupy two Pakistani posts at Kargil, which, however, were later evacuated on a U.N. assurance that the road would not be allowed to be cut again.

But detailed preparations for some kind of assault on Indian territory went forward, as is revealed in captured documents from Pakistan armed personnel or the direct evidence of prisoners of war.

Conventionally, August 5, 1965 is cited as the date on which armed infiltration into Kashmir began. But as a matter of fact small-scale infiltration probably preceded this date. It is possible 'Operation Infiltration' was formally launched on August 1, when the cease-fire line was crossed at several points through woods and over hills. For instance, on August 4, the presence of suspicious uniformed armed men was reported to the police by a man looking after grazing cattle in the Uri-Poonch area. Another Kashmiri saw armed strangers near Galuthi in the Mendhar sector and reported his discovery to the authorities. The Government in Srinagar was immediately informed, and the Army instructed to keep a careful watch. That very day regular clashes were reported with armed intruders. The U.N. Secretary-General's report, as we know, mentions August 5 — this is based on the findings made by General Robert Nimmo, Chief U.N. Observer — as the date for major

large-scale crossings of the cease-fire line. These men were well armed and carried stores and ammunition, and were in considerable strength. The origin of the arms they carried was not in doubt; they were all from Pakistan ordnance depots, and many of the men were from the regular army, and the rest armed civilians (mujahids). The U.N. report put the strength of the infiltrators at this time August 7-8 around 1,000. It is clear there must have been many more; many kept crossing and re-crossing, while fresh parties continued to pour into Kashmir. The Pakistan Army on the cease-fire line actively helped by maintaining a barrage of fire with the double object of keeping the Indian Army engaged and diverting the Indian Army's attention from the infiltrators. But the Army and the police had been warned in advance so that not only were vital installations put under special guard but thoroughgoing combing operations were set on foot.

The infiltration tactics did not go as planned. In the first place, the authorities had been alerted. Secondly, there was no co-operation whatever from the local inhabitants on which Pakistan had counted. The Pakistani assumption was that Kashmir was simmering with revolt, and all that was needed was some encouragement from an outside power. The assumption was proved wrong. Not only was there no popular revolt, but the mass of the people were actively hostile, thus rendering mopping up operations by the authorities very much easier.

The raiders' plans had however been well laid. The idea was to converge on the valley from a number of assembly points, enter Srinagar unnoticed when the people celebrate an impending feast and join the protest demonstration planned for August 9, the anniversary of Sheikh Abdullah's arrest. The disturbances were to look like a popular revolt, when vital centres like the air field and the radio station in Srinagar were to be captured, while other armed parties cut the Jammu-Srinagar road, thus isolating the entire Indian force in Srinagar. Kashmir was to 'liberate' itself from inside; no blame would then attach to Pakistan. That was the strategy. A shadow 'Government' had already been thought of consisting partly of men in Pakistani held Kashmir and partly of hostile elements in Kashmir itself such as the Action committee and the Plebiscite Front. On its formation, such a Government was to ask for recognition and of military support. At this stage regular Pakistani units were to march in to take over. These designs, as we know, were wholly defeated by the alertness of the security forces and the hostility of the people who had no desire to come under Pakistani rule.

But scattered bands of intruders remained to do sporadic damage — there were attacks in isolated bridges and police pickets; some of them managed to reach the outskirts of Srinagar and set fire to a suburb (Aug. 14). One or two small places (Mandi, Thana Mandi) were also captured by the infiltrators, and held for a short while. Aggression on a far more serious scale started, however, on Aug. 14, when Pakistani regular armed forces in battalion strength crossed the cease-fire line in the Chhamb area and pushed forward nearly a mile. This was full-scale invasion of the traditional type, preceded by heavy artillery and mortar fire. On the following day August 15, the Pakistan Army crossed the international boundary dividing Pakistan and the Jammu and Kashmir territory of India and raided the village of Rajpur five miles inside Indian territory. This made the aggression plain and blatant. Thus either in the Kargil assault or the later Chhamb invasion, it was Pakistan that started aggressive action according to U.N. evidence itself. The Indian reply was first to occupy three Kargil posts (Aug. 15) in order to protect the Srinagar-Leh road.

Meanwhile attacks by regular Pakistani forces continued across the cease-fire line — Keran (Aug. 16), Uri (Aug. 16), Chhamb (Aug. 17 and 18), Mendhar (Aug. 21, 22, 23, 26). They were all repulsed. Then the Pakistani Air Force also intervened to drop supplies to isolated parties of infiltrators, and make air attacks in the Naushera and Gurais sectors.

The back of the infiltrators had meanwhile been broken, but more could come in and more did. To check any further intrusion the Indian Army moved across the cease-fire line in the Tithwal sector and captured three posts, and then pushed forward towards the Kishenganga river, thus blocking one possible point of entry. Then the Army took similar action to close a second route, which lies through the Haji Pir Pass and generally the Uri-Poonch bulge (Aug. 27-28). The bulge itself was straightened out when two columns which had advanced from Uri and Poonch met.

All of Pakistan's plans had thus gone awry. The infiltrators were disintegrating, while the escape routes had also been sealed. There could be no further infiltration on a big scale, while the Indian Army was astride dominating positions.

It was in the morning of September 1 that Pakistan launched its well prepared offensive in the Chhamb sector — the so-called 'Operation Grandslam'. The U.N. military observer in the area had warned the Indian authorities of what was coming. Probing operations in full strength, as we mentioned, had already been conducted (Aug. 14, 16, 17, 18). The attack began with a concentrated artillery barrage near Chhamb village. Then there were three massed infantry attacks in the neighbourhood, all of which were repulsed. At this stage Pakistan threw Patton tanks into the action, supported by an infantry of brigade strength. Faced with the heavy armour which Pakistan deployed the Indian Army undertook certain planned withdrawals. The Air Force was summoned to harass the advancing invaders; in the process 18 Pattons were put out of action. The Pakistan Air Force now joined in with its Sabre Jets. After a series of encounters between Gnats and Sabre Jets the I.A.F. came out on top. The main Pakistan Army, however, continued its advance towards Akhnoor. The plan obviously was to capture Akhnoor, and then by another lightning thrust also attack Jammu, and thus cut off the entire Indian Army in Kashmir including Ladakh and force its surrender. On this ground of Pakistan's choosing the Indian Army was at a disadvantage. If this could, therefore, be achieved at one rapid stroke, Pakistan calculated there would be dismay, despondency and confusion in Delhi, and the will to deliver a counter-blow would be smothered. If India did show any disposition to try to break through, then Pakistan had prepared counter thrusts to prevent such a move — one possibly across Dera Nanak and Gurdaspur aimed at the strategic junction of Pathankot, and another further south from Kasur to Beas and Amritsar towards the Grand Trunk Road from Delhi.

At this stage the U.N. came into the picture, when U Thant appealed for a cease-fire and presented a report on the Kashmir events to the Security Council. The Security Council made its first call for a cease-fire on September 4, Pakistan refused a cease-fire downright, while India agreed on condition that Pakistan would pull out from Chhamb, withdraw infiltrators and there was also some assurance that such aggression would not be repeated.

The following is the text of the Security Council resolution, jointly submitted by Bolivia, Ivory Coast, Jordan, Malaysia, Netherlands and Uruguay and adopted unanimously:

> "The Security Council,
>
> "Noting the report of the Secretary-General (S/6651) dated 3 September 1965,
>
> "Having heard the statements of the Representatives of India and Pakistan,
>
> "Concerned at the deteriorating situation along with the cease-fire line in Kashmir,
>
> "1. Calls upon the Governments of India and Pakistan to take forthwith all steps for an immediate cease-fire;
>
> "2. Calls upon the two Governments to respect the cease-fire line and have all armed personnel of each party withdrawn to its own side of the line;
>
> "3. Calls upon the two Governments to co-operate fully with the UNMOGIP in its task of supervising the observance of the cease-fire;
>
> "4. Requests the Secretary-General to report to the Council within three days on the implementation of the resolutions".

It was at this stage that the Chinese made their first diplomatic intervention. On September 3, the Pakistan Ambassador had a meeting with Mr. Chou En-lai in Peking, and China declared that India was stirring up tension in Kashmir. The following day on September 4, Marshal Chen Yi, the Chinese Foreign Minister came post-haste to Karachi where there were further consultations. As the plot was being hatched India had to make certain momentous decision. The fate of the whole Indian Army in Kashmir was in danger; an armed invasion of India had already occurred. If India could not meet Pakistani aggression on Kashmir soil a counter-attack must be launched elsewhere. This would partly relieve pressure at Chhamb and would also disrupt a possible second attack on India in the Gurdaspur area. Accordingly the Indian Army crossed into Punjab in strength in the Lahore sector. This happened on September 6. The I.A.F. lent powerful air support by attacking a number of military targets. In the eyes of the West, however, this was the beginning of the war, and the basis of its initial condemnation of India.

The Indian attack spread over a thirty-mile front and was directed along three lines — from Wagah, Kalra and Khem Karan (Kasur). An attack further north at Dera Nanak led to the blowing up of the bridge across the Ravi by Pakistan, and this incidentally nullified the chances of a possible invasion.

When the Indian forces reached the Ravi and the now famous Icchogil canal, there were naturally fierce counter attacks, with the battle line swaying to and fro. But the objectives had been achieved. The pressure at Akhnoor had eased, and Pakistan withdrew a large part of the armour to defend her homeland at Sialkot. Then there was news of the first air-dropping of paratroopers by Pakistan in the neighbourhood of three key airfields — Pathankot, Adampur and Halwara, three place-names which were constantly in the news throughout the period of the struggle. Paratroops in order to be effective have to be well-trained and in perfect trim — this was obviously beyond Pakistan's primitive resources. The fate of the first batch of paratroopers proved this, for they were quickly rounded up, most of them being in very poor shape.

The course of the war may now be sketched in its broad outline. It was in essence a matter of thrusts and counter-thrusts in a series of lines across the frontier from Sialkot in the Punjab to Gadra in Rajasthan, the main object of which was to ease off enemy pressure elsewhere and prevent a possible offensive. The air war started with penetrations fairly deep inside one another's territory with such names as Akwal, Peshawar, Kohat, Risalwala, Chaklala and, of course, Sargodha in Pakistan and Pathan-Adampur, Halwara, Jodhpur, Jammu, Srinagar in India appearing constantly in the papers.

Going back to ground warfare, in the Lahore sector the fighting finally settled down with the Indian Army firmly in control of the entire length of the Ichhogil canal and of fortified areas of Dograi and Burki. Some of the fiercest battles were witnessed in Kasur-Khem Karan area where a major Pakistan offensive appeared to be developing and the Indian forces had for a time to give ground, but that eventually held the onward drive. It was in one of the infantry actions here against a Pakistan armed brigade that Company Quarter Master Havlidar Abdul Hamid knocked out three Patton tanks and disabled a fourth before he himself was killed.

It was also in the final Pakistan attack in this area that the G.O.C. Pakistan 1st Armoured division, Major-General Nasir Ahmed Khan and the artillery commander, Brigadier A.R. Shamin were killed. It is reckoned that in this one offensive Pakistan lost 97 tanks and two lieutenant-colonels, six majors, six other officers and several other ranks were captured. It was one of the most impressive victories of the war. The biggest of the tank battles were, however fought in the Sialkot area, when Indian armoured columns marching towards Phillora clashed with defending Pakistani units which made a counter-attack. The fighting lasted full 15 days with the enemy committing a large force of Pattons, Shermans, Chaffes and tank destroyers. On one single day — September 11 — Pakistan lost 66 tanks against the Indian loss of only six. At the end of the war here, the Indian Army held a salient which at one end was only 4,000 yards from Sialkot.

The eastern region was largely unaffected, in spite of Pakistan's attempts to escalate the conflict. The Paskitan air force indulged in some scattered attacks ; there was also shelling of Indian border posts by Pakistani ground forces near Mughal Hat and Gitalda in Cooch Behar and Golakganj in Assam. The naval bombardment of Dwarka, where there were no military installations may also be mentioned.

An ominous development was the Chinese ultimatum issued on September 16 to the effect that certain military structures alleged to be on the Chinese side of the Tibetan border should be dismantled and some yaks and sheep alleged to have been stolen were to be returned. It was a patently cooked up charge for demonstration purposes. The first ultimatum of three days was extended to another three days and later withdrawn. The purpose of this might have been two fold — first to demonstrate China's solidarity with Pakistan, and secondly to compel the Great Powers to call a halt to the conflict by playing on their fears of involvement.

In the air though the I.A.F. cannot be said to have established complete mastery before the cease-fire came, it achieved a situation which was definitely in its favour. Several attempts made to draw the P.A.F. into battle had no success ; the P.A.F. simply refused to face up. Pakistan planes indulged in hit and run tactics, and added to poor marksmanship. All this resulted in indiscriminate bombing, even where this may not have been deliberately intended though cases of wanton attacks on civilians did occur in a number of places such as Amritsar or Ambala. Also with two exceptions Halwara (near Ludhiana) and Kalaikunda (near Calcutta) the attacks were delivered mostly by night. The Pakistan Air Force had the advantage of an effective radar net-work, widely dispersed bases from which to operate and a single-type multi-purpose fighter like F-86 Sabre and the B-57 Canberra bomber. Pakistan had also the supersonic F-104 Star-fighter but this had to be used for reconnaissance purposes because it could not operate effectively at low level at which most of the action in the air took place. The Indian anti-aircraft crew had also to work with less than modern equipment, but they acquitted themselves well in spite of the handicaps. All in all, the Air Force discharged its multifarious tasks such as reconnaissance, air defence, raids on enemy bases and support of ground operations extremely well. The superiority of I.A.F. in gunnery and flying skill was beyond question. The Gnat proved to be a great asset.

The U.N. was, of course, greatly concerned and the U.N. Secretary-General U Thant paid a visit to the sub-continent in pursuance of instructions from the Security Council to arrange a cease-fire. He visited Rawalpindi on September 9. and New Delhi on September 12. His appeal that hostilities should cease on September 14 was accepted by India but again rejected by Pakistan. He left on September 15 to report to the Security Council. At a meeting on September 20, the Security Council demanded that India and Pakistan should stop fighting by 12-30 p.m. I.S.T. September 22. The vote was 10 in favour, none against and one abstention, Jordan. The cease-fire was to be followed by a subsequent withdrawal of all armed personnel back to the positions held by them before August 5, 1965. It further requested the Secretary-General to provide the necessary assistance to ensure supervision of the cease-fire and withdrawal of all armed personnel, and called on all States to refrain from any action which might aggravate the situation in the area. The Council also decided to consider what steps should be taken to help towards a settlement of the political problem underlying the present conflict once the cease-fire had been achieved. The resolution was introduced by the Netherland's representative, Mr. J. G. de Beus.

**Security Council Resolution of 27 September 1965**

The following resolution was adopted unanimously by the Security Council at its meeting on 27 September 1965 :

The Security Council

Noting the reports of the Secretary-General (S/6710, ADD. 1 and 2),

Reaffirming its resolutions of 4, 6 and 20 September 1965 (S/RES/209, S/RES/210 and S/RES/211),

Expressing the grave concern of the Council that the cease fire agreed to unconditionally by the Governments of India and Pakistan is not holding,

Recalling that the cease fire demand in the Council's resolutions was unanimously endorsed by the Council and agreed to by the Governments of both India and Pakistan.

Demands that the parties urgently honour their commitments to the Council to observe the cease fire; and further.

Calls upon the parties promptly to withdraw all armed personnel as necessary steps in the full implementaton of the resolution of September 20.

The cease-fire, however, actually came into force at 3-30 a.m. on September 23.

What are the physical results of this 22-days long conflict ? One authoritative statement on this point was that of the Chiefs of Staff of the Indian Army and the Air Force, General J. N. Chaudhuri and Air Marshal Arjan Singh made at a press conference in New Delhi on September 24. Roughly the position was as follows :—

India was in occupation of nearly 700 square miles of enemy territory while Pakistan held only 210 square miles of Indian territory. Apart from the three Kargil posts, the Indian forces were occupying 20 square miles of enemy territory in the Tithwal sector, 200 square miles in the Uri-Poonch bulge, 180 square miles in the Sialkot region, 140 square miles in the Lahore-Kasur area, and about 150 square miles across the Rajasthan border in Sind.

The Pakistani Army was holding about 190 square miles in the Chhamb-Jaurian area and another 20 square miles at the most across the Punjab border around Khem Karan near Ferozepore. They had also captured or infiltrated towards a number of Indian posts in the Rajasthan desert on the eve of the cease-fire.

**EXTENT OF DAMAGE**

It was stressed that India had essentially fought a war of attrition in which territorial gains or losses were comparatively of little consequence. What really mattered was the extent of damage inflicted by India on Pakistan's armed forces.

According to the casualty figures given at the press conference, 4,802 Pakistani soldiers including 22 officers were killed and 457 including 20 officers captured in this conflict. The number of Indian troops killed was 1,333 including 80 officers.

Gen. Chaudhuri said a total of 471 Pakistani tanks were destroyed, including 38 captured. This included 236 Pattons destroyed and 26 captured, 60 Chaffes destroyed and one captured, and 26 Shermans destroyed and 11 captured. Another 111 were destroyed but it was not possible to identify them definitely as Pattons, Shermans or Chaffes.

Against this staggering loss sustained by the enemy, India lost only 128 tanks in all these battles. The Indian armoured units used five types of tanks ranging from the 65-ton Centurions to the light French-made AMX-13s. Some of the Indian tank regiments were still managing with pre-war shermans. But none of the Russian tanks recently acquired by India were thrown into these battles.

Gen. Chaudhuri said that he did not want to gloat over the enemy losses and jump to the conclusion that the Pakistani Army's striking power had been badly blunted.

Speaking with great humility—and with characteristic under-statement—he said that "it would be a criminal folly on my part" to imagine that the Pakistani Army had been rendered ineffective.

Air Marshal Arjan Singh said only half the Indian Air Force was used in this war with Pakistan. The IAF was organised into three operational commands—Western, Eastern and Central air commands—and that the air operations against Pakistan were conducted only from the Western Air Command without withdrawing any aircraft from the other two commands.

The Pakistan Air Force started the war with 104 F-86 Sabre jets, twelve F-104s and 24 B-57 bombers and lost more than half the total number of these aircraft. Pakistan lost in all 73 planes as against 35 lost by India.

Gen. Chaudhuri said the Indian Army never really wanted to occupy Lahore. He knew perfectly well that Lahore was well defended with a canal system and a bunker system and that a lot of Indian troops would be used up in occupying the city which by itself would have achieved little.

Both in Lahore and in Sialkot sectors, the whole country-side is interspersed with canals and there was a lot of sub-soil water in many places. It was not a suitable terrain for heavy tank attacks and plunging thrusts by fast-moving armoured formations.

Pakistan's armed forces, in short, suffered considerable reverses both on the ground and in the air and any prolongation of the fighting by another week or two would have resulted in complete disaster for Pakistan. Pakistan had thrown in its entire army with its two armoured divisions and armoured reserves. India on the contrary committed a much smaller part of the army and had not in any way reduced her strength on other fronts. The Pakistanis had superior equipment and, so many Western observers thought, more rigorous training. The two sides, therefore, started on even terms — India's slight superiority in numbers being balanced by Pakistan's more modern equipment. The fact that Pakistan had the worst of the fighting shows that Indian forces were better led and had higher morale. At the end of the hostilities the jawans were all in fine fettle. One notable fact was that the battle honours and casualty lists fully reflected the social and religious diversity of the country, with Hindus, Muslims, Sikhs, Christians, Parsis and Jews pulling their full weight.

India had a number of objectives in fighting this war. India wanted to show that Pakistan cannot annex Kashmir by force ; that India would fight if provoked beyond a certain degree to make clear that if Kashmir was important to Pakistan it was no less important to India. Militarily, the objective was not to gain territory or subjugate the people of Pakistan but to emasculate the Pakistani war machine to an extent that Pakistan would not launch out on another attack. The war also proved a number of things. It became clear that while Pakistan cannot fight at all without American aid, it cannot fight hard enough without Chinese support. It showed the Western Powers that

when they give military aid they cannot always be sure of controlling the use of the arms that are gifted away. It also proved the folly and the impracticability of any policy which tried to maintain a military balance within the subcontinent between two nations one of whom was far bigger than the other and therefore potentially much more powerful. In addition, the war proved that the defence potential of underdeveloped countries cannot be strengthened by military alliances—this was a triumphant vindication of India's belief in the efficacy of nonalignment, the conviction that the benefits of a military alliance between unequal Powers could often be of a dubious nature. In the domestic field, specially in perspective planning it showed that India was essentially right in placing her emphasis on heavy industry. If she had done otherwise she would have been completely at the mercy of a foreign Power for arms at a critical hour in its destiny as Pakistan was.

The war, of course, cannot be regarded as being over. What we have is a cease-fire and a very uneasy and precarious cease-fire at that. Pakistan is trying to recoup her losses, restore her prestige by continuous infiltration, encroachment and attempts to seize tracts of Indian territory, more especially in the desert of Rajasthan. Pakistan is also in a war-like mood, threatening to fight for a thousand years, to leave the U.N. unless she gets satisfaction, and foreign arms. She is intent on maintaining tension in order to put pressure on the Security Council to adopt a resolution on Kashmir favourable to herself.

In this respect there is one basic difference between India and Pakistan. The Security Council resolution of September 20 envisaged a three-stage procedure — cease-fire, withdrawal of all armed personnel to the position of Aug. 5 and a consideration of the political factors underlying the conflict. Pakistan would like political discussions to go forward simultaneously with cease-fire and withdrawal processes, while India would like the procedure to follow the chronological order as laid down in the Security Council Resolution. The cease-fire and the withdrawals must be fully accomplished, while withdrawals include the withdrawal of the armed infiltrations. There should also be firm guarantees against a recurrence of armed attacks from across the cease-fire line of whatever nature. Only after all this is secured can India go forward to the third stage. If the three stages were telescoped and political discussions synchronised with withdrawal, it would be tantamount to rewarding the aggressor instead of punishing him. We would also be setting a bad precedent. There are also basic differences between India and Pakistan on the nature of the political factors underlying the recent conflict. Briefly, in Pakistani eyes, what is responsible for the conflict, is the fact that no plebiscite has been held in Kashmir. To India the cause of the trouble is simply Pakistani aggression against what is indubitable Indian territory and the general animus, that Pakistan has nurtured against India through the years. There was also another difference between India and Pakistan and this was about the supervision of the cease-fire. India regarded the war on the Punjab front as an extension of the Kashmir conflict since both are Indian territory. Hence all that was needed was that the U.N. Observer team in Kashmir should be expanded to include the group supervising the cease-fire on the Lahore front, the whole to work under General Nimmo. After an initial argument this was accepted and it was decided that there was to be a single team and General Nimmo was to coordinate the work of both observer groups.

In pursuit of her aim to get political talks started simultaneously with cease-fire and withdrawal Pakistan proposed a four-man committee, of the Security Council to take the initiative in the matter. On India's firm opposition however, the proposal was dropped. Another move for talks by face to face encounter under the auspices of the President of the Security Council of the time also proved abortive since India was opposed to it on the same grounds.

With Pakistan holding out for no cease-fire or withdrawal without talks, and India standing firmly by the Security Council resolution of September 20, there was no progress until eventually the Security Council after protracted private consultations passed another resolution at a meeting on November 5, with Jordan and Russia abstaining. In essence this resolution asked for prompt and unconditional execution of the resolution of September 20, and went on to say that there should be a meeting of the representatives of Pakistan and India with a suitable representative of the Secretary General appointed in consultation with the two parties. These representatives should then formulate an agreed plan and a schedule for the withdrawal of armed personnel, and a time-limit shoud be set for implementation. The Secretary-General was to report in three weeks' time.

**Security Council Resolution of 5 November**

The Security Council,

Regretting the delay in the full achievement of a complete and effective cease-fire and a prompt withdrawal of armed personnel to 5 August positions as called for in its resolutions 209, 210, 211 and 214 of 4, 6, 20 and 27 September 1965.

1. Reaffirms its resolution 211 of 20 September 1965 in all its parts.

2. Requests India and Pakistan to co-operate towards a full implementation of paragraph 1 of the resolution of 20 September 1965, calls upon them to instruct their armed personnel to co-operate with the United Nations and cease all military activity, and insists that there be an end to violations of the cease-fire ;

3. Demands the prompt and unconditional execution of the proposal already agreed to in principle by the Governments of India and Pakistan, for a meeting of their representatives with a suitable representative of the Secretary-General appointed without delay after consultation with both parties, for the formulation of an agreed plan and schedule for the withdrawals by both parties, urges that such a meeting shall take place as soon as possible and that such a plan contain a time-limit on its implementation, and requests the Secretary-General to report on the progress in this respect within three weeks of the adoption of this resolution ;

4. Requests the Secretary-General to submit for its consideration as soon as possible a report on compliance with this resolution.

India was satisfied with the resolution since it did not go much beyond the resolution of Sept. 20 and no special emphasis was laid on political discussions, and no link was indicated between the cease-fire and withdrawal on the one hand and political talks on the other. Pakistan also appeared to be satisfied and Mr. Bhutto declared Pakistan's readiness to co-operate in the implementation of cease-fire and withdrawal. This appeared to be a retreat on the part of Pakistan from the original stand to the effect that there would be no withdrawal unless steps for a political settlement were clearly chalked out. Thus India and Pakistan both agreed to U Thant's suggestion that he should send a military representative to assist in working out a schedule for withdrawal. U Thant's original proposal was that Lt. Gen. Sarmento of Brazil, Commander of the U.N. Emergency Force in the Middle East should be his representative, and that he would arrange the discussions to be held. But later it was agreed that General Morambio of Chile should be the Secretary-General's representative. He would arrange a meeting to formulate a plan of withdrawal.

Another development which must be mentioned is Pakistan's acceptance of the Soviet suggestion that India and Pakistan should have summit talks in a Russian City — later Tashkent was fixed as site—under Soviet auspices. Pakistan had earlier rejected the Soviet offer. The acceptance by Pakistan was followed by a visit to Moscow by Mr. Bhutto. Other political moves followed. President Ayub journeyed to the United States and addressed the U.N. Assembly on December 14 ; in his speech he declared that he was prepared to sign a no-war declaration on condition, as he put it, the Kashmir people were given an opportunity to settle their future. He then went on to Washington, where he had a meeting with President Johnson. Mr. Shastri himself was to go to the United States where he was to meet President Johnson on February 1.

The Tashkent summit meeting started on January 4, 1966. Mr. Kosygin played a prominent part in the meeting.

The purpose of the meeting as mentioned in the Moscow communique which announced the date was to secure an improvement in the relations between India and Pakistan. It was clear that President Ayub had agreed to the meeting without conditions. There was a tacit agreement that Mr. Shastri and President Ayub would deal with the totality of Indo-Pak relations. India has made it clear that it wishes to restore normal relations with Pakistan as quickly as possible. If friendly relations cannot be brought about immediately India hopes that the two countries would at least be on peaceful terms so that there is no danger of a resumption of hostilities. One expects that in this context the Tashkent meeting would discuss Mr. Shastri's offer of a no-war declaration. Then there is the cease-fire which must be stabilised. So far as other outstanding problems are concerned India has indicated her desire that they should be tackled step by step. India envisages a series of Indo-Pak summit meetings after the initial talks at Tashkent. In making a statement on the impending Tashkent talks in the Lok Sabha on December 10, Mr. Shastri said that there was no question of parting with any of our territory.

## TASHKENT AGREEMENT

Indo-Pakistani relations took a new turn—so it was hoped—by the agreement signed in Tashkent on January 10 by Mr. Lal Bahadur Shastri, the late Prime Minister of India and Mr. Ayub Khan, the President of Pakistan.

The agreement is essentially a compromise—it could not be anything else if the willing assent of both sides was to be obtained—and there would undoubtedly be details to which either side could take exception. The Tashkent agreement is important because of the spirit that inspired it, namely, the ardent desire to improve relations, the anxiety to liquidate the problems thrown up by the armed conflict and to solve other problems by peaceful means over a length of time. Both sides made compromises, as was inevitable, but the declaration itself, it was widely recognised, had to be judged as a whole and by the frame of mind that inspired it. It was also realised that if the improvement for which the signatories hoped was to come about, the same spirit must continue to inspire the policies and actions of both countries.

Some of the points that may give rise to controversy may be mentioned here. For instance, it is possible to argue that the renunciation of force by Pakistan is conditional and not absolute. Second, the agreement to withdraw to August 5, position carries no explicit guarantees except what is offered under the U.N. Charter where it refers to non-interference in the internal affairs of other countries. Also, Pakistan continues to cast doubts on the precise meaning of 'armed personnel'—the question whether this term includes the armed infiltrators into Kashmir. Moreover, it was claimed by Pakistan that the Soviet good offices at Tashkent virtually meant mediation and there were clauses in the agreement which implied the creation of self-executing machinery for the settlement of what Pakistan calls the 'Kashmir dispute.'

The belief is widely expressed in India, however, that in spite of these difficulties Tashkent provides the means for putting Indo-Pakistan relations on a friendly and durable footing.

The following is the text of the Tashkent declaration signed today by Prime Minister Shastri and President Ayub Khan :

The Prime Minister of India and the President of Pakistan, having met at Tashkent and having discussed the existing relations between India and Pakistan, hereby declare their firm resolve to restore normal and peaceful relations between their countries and to promote understanding and friendly relations between their peoples. They consider the attainment of these objectives of vital importance for the welfare of the 600 million people of India and Pakistan.

(*I*) The Prime Minister of India and the President of Pakistan agree that both sides will exert all efforts to create good neighbourly relation between India and Pakistan in accordance with the United Nations Charter. They reaffirm their obligation under the Charter not to have recourse to force and to settle their disputes through peaceful means.

They considered that the interests of peace in their region and particularly in the Indo-Pakistani sub-continent and, indeed, the interests of the peoples of India and Pakistan were not served by the continuance of tension between the two countries. It was against this background that Jammu & Kashmir was discussed, and each of the sides set forth its respective position.

**Troops Withdrawal**

(*II*) The Prime Minister of India and the President of Pakistan have agreed that all armed personnel of the two countries shall be withdrawn not later than February 25, 1966, to the position they held prior to August 5, 1965, and both sides shall observe the cease-fire terms on the cease-fire line.

(*III*) The Prime Minister of India and the President of Pakistan have agreed that relations between India and Pakistan shall be based on the principle of non-interference in the internal affairs of each other.

(*IV*) The Prime Minister of India and the President of Pakistan have agreed that both sides will discourage any propaganda directed against the other country, and will encourage propaganda which promotes the development of friendly relations between the two countries.

(*V*) The Prime Minister of India and the President of Pakistan have agreed that the High Commissioner of India to Pakistan and the High Commissioner of Pakistan to India will return to their posts and that the normal functioning of diplomatic missions of both countries will be restored. Both Governments shall observe the Vienna Convention of 1961 on diplomatic intercourse.

**Trade Relations**

(*VI*) The Prime Minister of India and the President of Pakistan have agreed to consider measures towards the restoration of economic and trade relations, communications, as well as cultural exchanges between India and Pakistan, and to take measures to implement the existing agreements between India and Pakistan.

(*VII*) The Prime Minister of India and the President of Pakistan have agreed that they give instructions to their respective authorities to carry out the repatriation of the prisoners of war.

(*VIII*) The Prime Minister of India and the President of Pakistan have agreed that both sides will continue the discussions of questions relating to the problems of refugees and eviction of illegal immigration. They also agreed that both sides will create conditions which will prevent the exodus of people. They further agreed to discuss the return of the property and assets taken over by either side in connection with the conflict.

**Soviet Leaders Thanked**

(*IX*) The Prime Minister of India and the President of Pakistan have agreed that both sides will continue meetings both at the highest and at other levels on matters of direct concern to both countries. Both sides have recognised the need to set up joint Indo-Pakistani bodies which will report to their Governments in order to decide what further steps should be taken.

(*X*) The Prime Minister of India and the President of Pakistan record their feelings of deep appreciation and gratitude to the leaders of the Soviet Union, the Soviet Government and personally to the Chairman of the Council of Ministers of the USSR for their constructive, friendly and noble part in bringing about the present meeting which has resulted in mutually satisfactory results. They also express to the Government and friendly people of Uzbekistan their sincere thankfulness for their overwhelming reception and generous hospitality. They invite the Chairman of the Council of Ministers of the USSR to witness this declaration.

**Accord on Operation Disengagement**

The Commander-in-Chief of the Pakistan Army General Mohammad Musa and the Chief of the Army Staff, Indian Army General J.N. Chaudhuri formulated on Jan. 22 at New Delhi an agreed plan for military disengagement in all sectors in accordance with the Tashkent declaration. They discussed the principles and procedures for the proposed withdrawal, by both sides of all armed personnel to their August 5 positions. A joint statement issued at the conclusion of these talks referred significantly to the proposed withdrawals as "disengagement" since the primary purpose of restoring the status *quo ante* is to prevent the recurrence of an armed conflict. The two chiefs, therefore, agreed to take suitable steps to reduce tension in both western and eastern sectors to help consolidate the new atmosphere of peace between India and Pakistan. The withdrawals are to be completed by February 25 as provided in the Tashkent agreement.

The next meeting between the two Army chiefs is likely to be held in Pakistan about the second week of February. An Indo-Pakistani conference at the ministerial level is also likely to be held soon to initiate measures for the normalisation of commercial and diplomatic relations between the two countries in accordance with the Tashkent declaration. Up to the time of writing (Feb. 7, 1966) the meetings have not taken place.

# THIRD AND FOURTH FIVE-YEAR PLANS

An account of the First and Second Plans was given in the previous editions of the book.

Parliament gave its general approval to the Third Plan Draft Outline in August 1960.

The Draft Outline was discussed throughout the country and served as the basis for the preparation of the plans of States. These were considered with the Chief Ministers of States between September and November, 1960.

In January, 1961, the National Development Council made its recommendations concerning the overall size of the Third Plan, the Council also set up a Committee on Savings to suggest ways of securing the maximum mobilisation of resources for the Third Plan. Finally, on May 31 and June 1, 1961 the National Development Council considered the Draft Report on the Third Plan and generally approved it.

The final draft of the Plan was placed before the Parliament on August 7, 1961.

The Planning Commission in the final draft proposes additional taxation of Rs. 1,710 crores as against Rs. 1,650 crores in the draft outline. The investment outlays of both the public and private sectors have been raised from those of the draft outline.

The Rs. 10,400-crore Plan covering the period 1960-61 to 1965-66 aims at increasing national income from Rs. 14,500 crores to Rs. 19,000 or by 30 per cent and per capita income of the people from Rs. 330 to Rs. 385 or by 17 per cent, the pattern of investment being designed also to sustain this rate of growth during subsequent Plan periods. Other principal aims are :—

(1) to achieve self-sufficiency in foodgrains, and increase agricultural production to meet the requirements of industry and export;

(2) to expand basic industries like steel, chemical industries, fuel, and power and establish machine-building capacity, so that the requirements of further industrialisation can be met within a period of 10 years or so mainly from the country's own resources;

(3) to utilise to the fullest extent possible the manpower resources of the country and to ensure a substantial expansion in employment opportunities; and

(4) to establish progressively greater equality of opportunity and to bring about reduction in disparities in income and wealth and a more even distribution of economic power.

To achieve these aims, a certain minimum development must take place in different sectors of the economy during the next five years.

**THIRD PLAN TARGETS**

| | Unit | 1960-61 | 1965-66 | Percentage Increase |
|---|---|---|---|---|
| Foodgrains production | million tons | 76 | 100 | 32 |
| Area Irrigated (net total) | million acres | 70 | 90 | 29 |
| Co-operative movement advances to farmers | Rs. crores | 200 | 530 | 165 |
| Steel ingots | million tons | 3·5 | 9·2 | 163 |
| Aluminium | 000 tons | 18·5 | 80 | 332 |
| Machine tools | value Rs. in crores | 5·5 | 30·0 | 445 |
| Sulphuric acid | 000 tons | 363 | 1,500 | 313 |
| Petroleum products | million tons | 5·7 | 9·9 | 70 |

## THIRD PLAN TARGETS—*Continued.*

| | Unit | 1960-61 | 1965-66 | Percentage Increase |
|---|---|---|---|---|
| *Cloth :* | | | | |
| Mill-made | million yards | 5,127 | 5,800 | 13 |
| Handloom, powerloom and Khadi | million yards | 2,349 | 3,500 | 49 |
| Total | million yards | 7,476 | 9,300 | 24 |
| Iron ore | million tons | 10·7 | 30·0 | 180 |
| Coal | million tons | 54·6 | 97·0 | 76 |
| Exports | Rs. in crores | 645 | 850 | 32 |
| Power : Installed capacity | million kW. | 5·7 | 12·7 | 123 |
| Rail freight carried | million tons | 154 | 245 | 59 |
| Com. vehicles | in 000 | 210 | 365 | 74 |
| Shipping | lakh g.r.t. | 9·0 | 10·9 | 21 |
| Students in Schools | in millions | 43·5 | 63·0 | 47 |
| Engineering and technology (degree level intake) | in 000 | 13·9 | 19·1 | 37 |
| Hospital beds | in 000 | 186 | 240 | 29 |
| Doctors (practising) | in 000 | 70 | 81 | 16 |
| Cloth | yards per capita per annum | 15·5 | 17·2 | 11 |
| *Consumption levels :* | | | | |
| Food | Calories per capita per day | 2,100 | 2,300 | 10 |

The Plan envisages a 30 per cent increase in agricultural production whose index (base: 1949-50 = 100) is expected to go up from 135 to 176 and a 70 per cent increase in industrial output whose index (base: 1950-51 = 100) will move up from 194 to 329.

The increase in population, the growing expectations of the people and the urgent need for attaining the stage of self-sustained growth over the next two or three Plan periods make it essential that there should be every effort to achieve the targets during the next five years, says the Commission.

In addition, certain measures must be taken during the Plan period itself in preparation for the Fourth Plan. The physical pogrammes included in the Third Plan have been formulated with both these objectives in view.

The estimated financial resources have been placed for the present at Rs. 7,500 crores and are distributed as follows :

## RESOURCES FOR THE THIRD PLAN

(Rs. crores)

| Head | Second Plan | | States | Union Territories | Centre | Total | Percentage |
|---|---|---|---|---|---|---|---|
| | Total expenditure | Percentage | | | | | |
| Agriculture and community development | 530 | 11 | 919 | 24 | 125 | 1,068 | 14 |
| Major and medium irrigation | 420 | 9 | 630 | 2 | 18 | 650 | 9 |
| Power | 445 | 10 | 880 | 23 | 109 | 1,012 | 13 |
| Village and small industries | 175 | 4 | 137 | 4 | 123 | 264 | 4 |
| Organised industry and minerals | 900 | 20 | 70 | neg. | 1,450 | 1,520 | 20 |
| Transport and communications | 1,300 | 28 | 226 | 35 | 1,225 | 1,486 | 20 |
| Social services and miscellaneous | 830 | 18 | 863 | 87 | 350 | 1,300 | 17 |
| Inventories | .. | .. | .. | .. | 200 | 200 | 3 |
| Total | 4,600 | 100 | 3,725 | 175 | 3,600 | 7,500 | 100 |

Out of this, investment is estimated to be Rs. 6,300 crores and current outlay, representing expenditure on staff, subsidies, etc., Rs. 1,200 crores. Investment in the private sector is placed at Rs. 4,100 crores (exclusive of Rs. 200 crores to be transferred from public revenues to this sector by way of loans and other assistance). Thus the total investment will be Rs. 10,400 crores.

The scheme of financing the public sector plan that is now envisaged is indicated in the Table below. The last two columns indicate the estimates separately for the Centre and the States :

## FINANCIAL RESOURCES

(Estimates for the Second and the Third Plans)

(Rs. crores)

| | Second Plan | | Third Plan | | |
|---|---|---|---|---|---|
| | As initially estimated | As estimated now | Total | Centre | States |
| 1. Balance from current revenues (excluding additional taxation) | 350 | (−) 50 | 550 | 410 | 140 |
| 2. Contribution of Railways | 150 | 150†† | 100 | 100 | — |
| 3. Surpluses of other public enterprises | •• | •• | 450 | 300 | 150 |
| 4. Loans from the public (net) | 700 | 780• | 800 | 475 | 325 |
| 5. Small savings (net) | 500 | 400 | 600 | 213 | 387 |
| 6. Provident funds (net) | | 170 | 265 | 183 | 82 |
| 7. Steel equalisation fund (net) | 250 | 38 | 105 | 105 | — |
| 8. Balance of miscellaneous capital receipts over non-plan disbursements | | 22 | 170 | 428 | (−) 258 |
| 9. Total 1 to 8 | 1,950 | 1,510 | 3,040 | 2,214 | 826 |
| 10. Additional taxation including measures to increase the surpluses of public enterprises | 4,50† | 1,052 | 1,710 | 1,100 | 610 |
| 11. Budgetary receipts corresponding to external assistance | 800 | 1,090‡ | 2,200 | 2,200 | — |
| 12. Deficit financing | 1,200 | 948 | 550 | 524 | 26 |
| Total | 4,800 | 4,600 | 7,500 | 6,038 | 1,462 |

† In addition there was a gap of Rs. 400 crores to be covered by additional domestic effort.
†† Inclusive of increased fares and freights.
• Includes investments by the State Bank out of PL 480 funds.
•• Included in items 1 and 8 in the Table.
‡ This includes investment of PL 480 funds by the Reserve Bank in special securities in 1960-61.

## INVESTMENT AND FOREIGN EXCHANGE REQUIREMENT

(Rs. in Crores)

| | Total investment | Foreign exchange |
|---|---|---|
| A *Public Sector* | | |
| 1. Agriculture and community development | 610 | 30 |
| 2. Major and medium irrigation | 650 | 50 |
| 3. Power | 1,012 | 320 |
| 4. Village and small industries | 100 | 20 |
| 5. Large and medium industries and minerals (including oil) | 1,470 | 690 |
| 6. Transport and communications | 1,486 | 320 |
| 7. Social services and miscellaneous | 572 | 90 |
| 8. Inventories | 200 | † |
| Total (Public Sector) | 6,100 | 1,520 |
| B *Private Sector* | | |
| 1. Large and medium industries, minerals and transport | 1,350 | 495 |
| 2. Villages and small industries | 325 | 15 |
| 3. Others | 2,625 | Neg. |
| Total (Private Sector) | 4,300 | 510 |
| C *Grand Total* (A + B) | 10,400 | 2,030 |

† Included under other heads.

## OUTLAYS IN II AND III PLANS

(Rs. in Crores)

| | Second Plan | | | Percentage | Third Plan | | | Percentage |
|---|---|---|---|---|---|---|---|---|
| | Public | Private | Total | | Public | Private | Total | |
| Agriculture and Community Development | 210 | 625 | 835 | 12 | 660 | 800 | 1,460 | 14 |
| Major and Medium Irrigation | 420 | .. | 420 | 6 | 650 | 275 | 650 | 6 |
| Power | 445 | 40 | 485 | 7 | 1,012 | .. | 1,026 | 10 |
| Village and Small Industries | 90 | 175 | 265 | 4 | 150 | 50 | 425 | 4 |
| Organised Industry and Minerals | 870 | 675 | 1,545 | 23 | 1,520 | 1,050 | 2,570 | 25 |
| Transport | 1,275 | 135 | 1,410 | 21 | 1,486 | 250 | 1,736 | 17 |
| Social Services | 340 | 950 | 1,290 | 19 | 622 | 1,075 | 1,697 | 16 |
| Inventories | .. | 500 | 500 | 8 | 200 | 600 | 800 | 8 |
| Total | 3,650 | 3,100 | 6,750 | 100 | 6,300 | 4,100* | 10,400 | 100 |

* Excludes transfers from public to private sector.

### STATES' PLANS

Among the States, Uttar Pradesh has the single largest plan accounting for Rs. 497 crores. This is followed by Maharashtra whose outlay is Rs. 390 crores and Bihar with an outlay of Rs. 337 crores. The Third Plan outlays for different States with figures in brackets representing the estimated outlay in the Second Plan are : (Rs. in crores.)

Andhra Pradesh—305 (175); Assam—120 (51); Bihar—337 (166); Gujarat—235 (143); Jammu and Kashmir—75 (25); Kerala—170 (76); Madhya Pradesh—300 (145); Madras—290·9 (167); Maharashtra—390 ( ); Mysore—250 (122); Orissa—160 (85); Punjab—231·4 (148); Rajasthan—236 (99); Uttar Pradesh—497 (227); West Bengal—250(†) (145); Total—States—3847·3 (1981).

Of the total investment of over Rs. 4,300 crores in the private sector, Rs. 200 crores will be provided by way of transfer of resources from the public sector. The assistance by the Reserve Bank to agriculture, small-scale industries and co-operatives will also be on a larger scale. External assistance to the private sector may be of the order of Rs. 300 crores.

Investment in the private sector during the Second Plan has been at high levels and there is evidence of a greater readiness on the part of private enterprise to avail itself of the opportunities being created by the development process. Investment in the private sector of the order of Rs. 4,300 crores does not appear to be difficult of achievement.

### ADDITIONAL TAXATION

For financing the Rs. 7,500-crore outlay in the public sector heavy reliance is placed on additional taxation and external assistance which will account for Rs. 1,710 crores and Rs. 2,200 crores respectively.

The credit of Rs. 2,200 crores taken for external assistance is part of the total of such assistance envisaged in the Plan, namely Rs. 3,200 crores.

The entire amount of Rs. 3,200 crores does not come to the public exchequer. About Rs. 450-500 crores of the total receipts of external

† Provisional.

assistance will go towards repayments of loans maturing during the Third Plan while about Rs 300 crores might go directly to the private sector by way of private capital inflows or loans from agencies like the I.B.R.D., the International Finance Corporation and the U.S. Export-Import Bank.

Another Rs. 200 crores may represent agreed retentions of rupee resources by the U.S. authorities and additions to buffer stocks from P.L. 480 imports.

Thus, about Rs. 1,000 crores in all would not be available for the budget.

The resources for the Plan are sought to be raised as follows:

## 15-YEAR OUTLOOK

Taking a broad view of the development of the Indian economy, it is reckoned that, at 1960-61 prices, the national income should rise from about Rs. 14,500 crores at the end of the Second Plan to about Rs. 19,000 crores at the end of the Third Plan, about Rs. 25,000 crores at the end of the Fourth and about Rs. 33,000 to Rs. 34,000 crores at the end of the Fifth Plan.

Allowing for the estimated annual increase in population of about two per cent., on these estimates, income per head should go up from around Rs. 330 at the end of 1960-61 to about Rs. 385, Rs. 450 and Rs. 530 in 1966, 1971 and 1976.

This will require net investment as a proportion of national income to rise from about 11 per cent. at present to 14-15, 17-18 and 19-20 per cent, per annum by the end of the Third Fourth and Fifth Plans respectively.

In other words, as compared to about Rs. 10,500 crores postulated for the Third Plan, net investment over the Fourth and the Fifth Plan periods should be of the order of Rs. 17,000 crores and Rs. 25,000 crores.

Domestic savings would have to rise in corresponding measure from about 8·5 per cent. at present to about 11·5, 15 to 16, and 18 to 19 per cent of the national income at the end of the Third, Fourth and Fifth Plans.

By the end of the Fifth Plan the economy will be strong enough to develop at a satisfactory pace without being dependent on external assistance outside of the normal inflow of foreign capital.

In the course of preliminary studies on the Third Plan the following tentative targets of capacity have been suggested for some important items for 1970-71.

| | | |
|---|---|---|
| Steel ingots | million tons | 18–19 |
| Pig iron | million tons | 3–4 |
| Aluminium | thousand tons | 230–250 |
| Electric power | million kW | 21–23 |
| Coal | million tons | 170–180 |
| Oil refining | million tons | 18–30 |
| Nitrogenous fertilisers | million tons (N) | 2·0–2·2 |
| Cement | million tons | 24–26 |
| Machine building | Rs. crore of output | 1,600 |
| Railway freight transport—long distance (originating traffic) | million tons | 380–420 |
| Food Grains | million tons | 135 |
| Exports | Rs. crores | 1,300–1,400 |

These targets indicate the order of effort called for as a basis for further studies.

The Plan says that for working out a long-term plan on these lines there is need for close and continuous collaboration between various Government agencies at the Centre and in the States and with leading institutions engaged in scientific, economic and social research.

*Foreign Exchange:*

The following Table sets forth the balance of payments estimates for the Third Plan.

**Financing of foreign exchange requirements for the Third Plan**

(Rs. crores)

| | Total Second Plan | Total Third Plan | 1961-62 | Annual average Third Plan |
|---|---|---|---|---|
| **A. RECEIPTS** | | | | |
| 1. Exports | 3,053 | 3,700 | 667 | 740 |
| 2. Invisibles (net) (excluding official donations) | 420* | nil | 28 | nil |
| 3. Capital transactions (net) (excluding receipts of official loans and private foreign investment) | (−) 172 | (−) 550 | (−) 133 | (−) 110 |
| 4. External assistance | 927† | 2,600 | 575** | 520 |
| 5. Draft on foreign exchange reserves | 598 | nil | nil | nil |
| Total (1 to 5)‡ | 4,826 | 5,750 | 1,131 | 1,150 |
| **B. PAYMENTS** | | | | |
| 1. Imports of machinery and equipment for Plan projects | 4,826 | 1,900 | 825 | 380 |
| 2. Components, intermediate products etc., for raising production of capital goods | | 200 | 60 | 40 |
| 3. Maintenance imports | | 3,650 | 746 | 730 |
| Total (1 to 3)‡ | 4,826 | 5,750 | 1,131 | 1,150 |

* Includes reimbursements from the U.S.A. for freight expenses on P.L. 480 imports initially incurred by India.

** Represents external assistance required for financing imports as shown below.

† Including net drawing on the I.M.F.

‡ P.L. 480 imports are excluded from both sides — about Rs. 534 crores for the Second Plan and Rs. 600 crores for the Third Plan.

## PRICE POLICY

The Plan postulates a price policy which will ensure that movements of relative prices are in keeping with its priorities and targets and that prices of essential goods which enter into the consumption of low-income groups do not rise unduly.

In the Third Plan stress is being placed on the careful phasing of projects in relation to one another. Prices fluctuated widely in the First Plan period and they have shown a rising trend through the Second Plan period. At the commencement of the Third Plan, the levels of wholesale prices and cost of living are already high and it is essential to ensure that there is no accentuation of inflationary pressures in the course of the Third Plan and that the levels of living of the more vulnerable classes in society are safeguarded.

† Provisional.

## TARGETS

**The following table shows the targets set. It also shows the progress and development over the period 1950-51 to 1960-61.**

| Item | Unit | 1950-51 | 1955-56 | 1960-61 (estimated) | 1965-66 Targets | Increase in 1960-61 over 1950-51 (percentage) | Increase in 1965-66 over 1960-61 (percentage) |
|---|---|---|---|---|---|---|---|
| 1. *Agriculture & Community Development* | | | | | | | |
| **Agricultural Production :—** | | | | | | | |
| Foodgrains | million tons | 52·2(*a*) | 65·8(*a*) | 76·0 | 100·0 | 46 | 32 |
| Cotton | million bales | 2·9 | 4·0 | 5·1 | 7·0 | 76 | 37 |
| Sugarcane-gur | million tons | 5·6 | 6·0 | 8·0 | 10·0 | 43 | 25 |
| Oilseeds | million tons | 5·1 | 5·6 | 7·1 | 9·8 | 39 | 38 |
| Jute | million bales | 3·3 | 4·2 | 4·0 | 6·2(*b*) | 21 | 55 |
| Tea | million lbs. | 613 | 678 | 725 | 900 | 18 | 24 |
| Tobacco | '000 tons | 257 | 298 | 300 | 325 | 17 | 8 |
| Fish | million tons | 0·7 | 1·0 | 1·4 | 1·8 | 100 | 29 |
| Milk | million tons | 17·1 | 19·3 | 22·0 | 25·3 | 29 | 15 |
| Wool | million lbs. | 60 | 65 | 72 | 90 | 20 | 25 |
| **Agricultural Services :—** | | | | | | | |
| Area Irrigated (net total) | million acres | 51·5 | 56·2 | 70·0 | 90·0 | 36 | 29 |
| Land reclamation (additional area) (*d*) | million acres | .. | 2·7 | 1·2 | 3·6 | .. | 200 |
| Soil Conservation (Additional area benefited) (*d*) | million acres | .. | 0·7 | 2·0 | 11·0 | .. | 450 |
| Nitrogenous Fertilisers consumed | '000 tons of N | 55 | 105 | 230 | 1,000 | 318 | 335 |
| Phosphatic Fertilisers consumed | '000 tons of $P_2O_5$ | 7 | 13 | 70 | 400 | 900 | 471 |
| Seed farms (*d*) | number | .. | .. | 4,000 | 4,800 | .. | 20 |
| **Community Development :—** | | | | | | | |
| Blocks | number | .. | 1,069 | 3,110 | 5,223 | .. | 68 |
| Villages covered | thousands | .. | 106 | 368 | 550 | .. | 49 |
| Population served | million number | .. | 69 | 204 | 359 | .. | 76 |
| **Cooperation :—** | | | | | | | |
| Primary agricultural credit societies | '000 numbers | 105 | 160 | 210 | 230 | 100 | 10 |
| Short and medium term Loans advanced | Rs. crores | 22·9 | 49·6 | 200·0 | 530·0 | 773 | 165 |
| 2. *Power* | | | | | | | |
| Electricity (installed capacity) | million kW | 2·3(*c*) | 3·4(*c*) | 5·7 | 12·7 | 148 | 123 |
| Electricity generated | million kWh | 6,575 (*c*) | 10,777 (*c*) | 19,850 | 45,000 | 202 | 127 |
| Towns and villages electrified | thousands | 3·7 | 7·4 | 23·0 | 43·0 | 523 | 87 |
| 3. *Minerals* | | | | | | | |
| Iron ore | million tons | 3·2 | 4·3 | 10·7 | 30·0 | 234 | 180 |
| Coal | million tons | 32·3 | 38·4 | 54·6 | 97·0 | 69 | 76 |
| 4. *Large-scale Industries* | | | | | | | |
| **Metallurgical Industries :—** | | | | | | | |
| Steel ingots | million tons | 1·4 | 1·7 | 3·5 | 9·2 | 150 | 163 |
| Finished steel | million tons | 1·0 | 1·3 | 2·2 | 6·8 | 120 | 209 |
| Pig Iron (for sale) | million tons | 0·35 | 0·38 | 0·90 | 1·50 | 157 | 67 |
| Alloy, tool and special steels (finished) | '000 tons | .. | .. | 40 | 200 | .. | 400 |
| Aluminium | '000 tons | 3·7 | 7·3 | 18·5 | 80·0 | 400 | 332 |
| Copper | '000 tons | 6·6 | 7·5 | 8·9 | 20·0 | 35 | 125 |
| **Mechanical and Electrical Engineering :—** | | | | | | | |
| Cement machinery | value in Rs. lakhs | .. | 34 (*c*) | 60 | 450 | .. | 650 |
| Sugar machinery | value in Rs. lakhs | .. | 19 | 330 | 1,000 | .. | 203 |
| Industrial boilers | value in Rs. lakhs | .. | .. | 40 | 2,500 | .. | 6,150 |
| Machine tools (graded) | value in Rs. lakhs | 34 | 78 | 550 | 3,000 | 1,518 | 445 |
| Ball and roller bearings | million number | 0·1 | 0·9 | 2·9 | 14·0 (*e*) | 2,800 | 383 |
| Diesel engines | thousands | 5·5 | 10·0 | 40·0 | 66·0 | 627 | 65 |
| Tractors | number | .. | .. | 2,000 | 10,000 | .. | 400 |
| Electric motors (200 b.h.p. and below) | '000 h.p. | 100 | 272 | 700 | 2,500 (*f*) | 600 | 257 |
| Electric transformers (33 kV and below) | '000 kva | 179 | 625 | 1,200 | 3,500 | 570 | 192 |
| Electric cables (ACSR) conductors | '000 tons | 1·7 | 8·7 | 22·0 | 44·0 | 1,194 | 100 |
| **Railway Locomotives :—** | | | | | | | |
| Steam | number | 7 | 179 | 295 | 1,175 (*d*) | 3,214 | |
| Diesel | number | .. | .. | .. | 434 (*d*) | .. | .. |
| Electric | number | .. | .. | .. | 232 (*d*) | .. | .. |
| **Rubber manufactures :—** | | | | | | | |
| Automobile tyres | million numbers | .. | 0·9 | 1·85 | 3·0 | .. | 122 |
| Bicycle tyres | million numbers | .. | 5·8 | 11·0 | 31·0 | .. | 182 |

(*a*) Estimates of production adjusted for changes in statistical coverage and methods of estimation upto 1956-57.
(*b*) Excludes mesta which may provide an additional 1·3 million bales in the Third Plan.
(*c*) Relates to calendar year
(*d*) Relates to five-year period.
(*e*) By working the capacity on three shifts.
(*f*) 300 h.p. and below.

TARGETS—*Contd.*

| Item | Unit | 1950-51 | 1955-56 | 1960-61 (estimated) | 1965-66 Targets | Increase in 1960-61 over 1950-51 (percentage) | Increase in 1965-66 over 1960-61 (percentage) |
|---|---|---|---|---|---|---|---|
| Chemicals :— | | | | | | | |
| Fertilisers : | | | | | | | |
| Nitrogenous (in terms of nitrogen) .. | '000 tons of N. | 9 | 79 | 110 | 800 | 1,122 | 627 |
| Phosphatic fertilisers (in terms of $P_2O_5$) | '000 tons | 9 | 12 | 55 | 400 | 511 | 627 |
| Sulphuric acid .. .. .. .. | '000 tons | 99 | 164 | 363 | 1,500 | 267 | 313 |
| Soda Ash .. .. .. .. | '000 tons | 45 | 81 | 145 | 450 | 222 | 210 |
| Caustic Soda .. .. .. .. | '000 tons | 11 | 35 | 100 | 340 | 809 | 240 |
| Sulpha Drugs .. .. .. .. | tons | .. | 83 (*c*) | 150 | 1,000 | .. | 567 |
| D.D.T. .. .. .. .. | tons | .. | 284 | 2,800 | 2,800 | .. | .. |
| Dyestuffs .. .. .. .. | million lbs. | .. | 4·0 | 11·5 | 18·0 | .. | 57 |
| Other Industries :— | | | | | | | |
| Sewing machines (organised sector only) | thousands | 33 | 111 | 297 | 700 | 800 | 136 |
| Bicycles (organised sector only) .. | thousands | 101 | 513 | 1,050 | 2,000 | 940 | 90 |
| Motor Cycles and Scooters .. .. | thousands | .. | 1·5 | 18 | 50 | .. | 178 |
| Automobiles .. .. .. .. | thousands | 16·5 | 25·3 | 53·5 | 100·0 | 224 | 67 |
| Shipbuilding .. .. .. .. | '000 GRT | .. | 50 (*d*) | 20 | 50–60 | .. | 150–200 |
| Cotton Textiles (mill made) .. .. | million yards | 3,720 | 5,102 | 5,127 | 5,800 | 38 | 13 |
| Rayon filament .. .. .. .. | million lbs. | 0·4 | 16·0 | 47·0 | 140·0 | 11,650 | 198 |
| Sugar (*g*) .. .. .. .. .. | million tons | 1·12 | 1·86 | 3·0 | 3·5 | 168 | 17 |
| Steel Structural Fabrications .. .. | '000 tons | .. | 90 | 150 | 1,000 | .. | 567 |
| Cement .. .. .. .. .. | million tons | 2·7 | 4·6 | 8·5 | 13·0 | 215 | 53 |
| Petroleum Products .. .. .. | million tons | .. | 3·6 | 5·7 | 9·9 | .. | 74 |
| Paper and Paper Board .. .. .. | '000 tons | 114 | 187 | 350 | 700 | 207 | 100 |
| Plastics .. .. .. .. .. | '000 tons | .. | 0·7 | 10·0 | 74·0 | .. | 640 |
| Glass and glassware .. .. .. | '000 tons | 92 | 125 | 225 | 440 | 145 | 96 |
| Industrial gases—Oxygen .. .. | million cft. | .. | .. | 700 | 1,650 | .. | 136 |
| 5. *Village and Small Industries* | | | | | | | |
| Khadi :— | | | | | | | |
| Traditional .. .. .. .. | million yards | 7·3 | 28·9 | 48·0 | | 558 | |
| Ambar .. .. .. .. .. | million yards | .. | .. | 26·0 | | | |
| Handloom .. .. .. .. | million yards | 742 | 1,471 | 1,900 | 3,500 | .. | 49 |
| Powerloom .. .. .. .. | million yards | 148 (*c*) | 273 (*c*) | 375 | | 156 | |
| Sericulture .. .. .. .. | million tons | 2·5(*h*) | 3·2(*c*) | 3·6(*c*) | 5·0 | 153<br>44 | 48 |
| 6. *Transport and Communications* | | | | | | | |
| Transport Services :— | | | | | | | |
| Railways : | | | | | | | |
| Freight carried .. .. .. .. | million tons | 91·5 | 114·0 | 154·0 | 245·0 | 68 | 59 |
| Roads : | | | | | | | |
| Surfaced including national highways .. | '000 miles | 97·5 | 122·0 | 144·0 | 169·0 | 48 | 17 |
| Commercial vehicles on roads .. .. | '000 numbers | 116 | 166 | 210 | 365 | 81 | 74 |
| Shipping .. .. .. .. | lakh GRT | 3·9 | 4·8 | 9·0 | 10·9 | 130 | 21 |
| Major Ports :— | | | | | | | |
| Handling capacity .. .. .. | million tons | 20 | 25 | 37 | 49 | 85 | 32 |
| Communications :— | | | | | | | |
| Post Offices .. .. .. .. | '000 numbers | 36 | 55 | 77 | 94 | 114 | 22 |
| Telegraph Offices .. .. .. | '000 numbers | 3·6 | 5·1 | 6·5 | 8·5 | 81 | 31 |
| Number of Telephones .. .. .. | '000 numbers | 168 | 280 | 460 | 660 | 174 | 43 |
| 7. *Education :* | | | | | | | |
| General Education :— | | | | | | | |
| Students in Schools .. .. .. | million numbers | 23·5 | 31·3 | 43·5 | 63·9 | 85 | 47 |
| School going children as percentage of children in the respective age groups : | | | | | | | |
| Primary stage .. .. .. .. | 6-11 years | 42·6 | 52·9 | 61·1 | 76·4 | 79(*i*) | 45(*i*) |
| Middle stage .. .. .. .. | 11-14 years | 12·7 | 16·5 | 22·8 | 28·6 | 102(*i*) | 55(*i*) |
| High/higher secondary stage .. .. | 14-17 years | 5·3 | 7·8 | 11·5 | 15·6 | 139(*i*) | 57(*i*) |
| Institutions : | | | | | | | |
| Primary/junior basic schools .. .. | '000 numbers | 209·7 | 278·1 | 342·0 | 415·0 | 63 | 21 |
| Middle/senior basic schools .. .. | '000 numbers | 13·6 | 21·7 | 39·6 | 57·7 | 191 | 46 |
| High, higher secondary schools .. | '000 numbers | 7·3 | 10·8 | 16·6 | 21·8 | 128 | 31 |
| Multipurpose schools .. .. .. | '000 numbers | .. | 0·3 | 2·1 | 2·4 | .. | 14 |

(*c*) Relates to Calendar year.
(*d*) Relates to five-year period.
(*g*) Relates to crop year (Nov. to Oct.).
(*h*) Calendar year 1951.
(*i*) Worked out from enrolment figures.

TARGETS—*Contd.*

| Item | Unit | 1950-51 | 1955-56 | 1960-61 (estimated) | 1965-66 Targets | Increase in 1960-61 over 1950-51 (percentage) | Increase in 1965-66 over 1960-61 (percentage) |
|---|---|---|---|---|---|---|---|
| Technical Education :— | | | | | | | |
| Engineering and Technology degree level (intake) | number | 4,120 | 5,890 | 13,858 | 19,137 | 236 | 38 |
| Diploma Level (intake) | number | 5,900 | 10,480 | 25,570 | 37,390 | 333 | 46 |
| Agriculture : | | | | | | | |
| Degree Level (intake) | number | 1,060 (*j*) | 1,989 | 4,600 | 6,200 | 334 | 35 |
| Veterinary : | | | | | | | |
| Degree Level (intake) | number | 434 (*j*) | 1,269 | 1,300 | 1,460 | 200 | .. |
| 8. *Health* | | | | | | | |
| Institutions :— | | | | | | | |
| Hospitals and dispensaries | '000 numbers | 8·6 | 10·0 | 12·6 | 14·6 | 47 | 16 |
| Hospital beds | '000 numbers | 113 | 125 | 186 | 240 | 65 | 29 |
| Primary Health Units | number | .. | 725 | 2,800 | 5,000 | .. | 79 |
| Family Planning Centres | number | .. | 147 | 1,649 | 8,200 | .. | 397 |
| Personnel :— | | | | | | | |
| Medical Colleges (intake) | number | 2,500 | 3,500 | 5,800 | 8,000 | 132 | 38 |
| Doctors (*k*) | '000 numbers | 56 | 65 | 70 | 81 | 25 | 16 |
| Nurses (*k*) | '000 numbers | 15·0 | 18·5 | 27·0 | 45·0 | 80 | 67 |
| Midwives* (*k*) | '000 numbers | 8·0 | 12·8 | 19·9 | 48·5 | 149 | 144 |
| Nurse-dais and dais (*k*) | '000 numbers | 1·8 | 6·4 | 11·5 | 40·0 | 539 | 248 |
| Health assistants and sanitary inspectors | '000 numbers | 3·5 | 4·0 | 6·0 | 19·2 | 71 | 220 |

(*j*) Relates to 1951-52. (*k*) In Practice or Service.
* Including nurses registered as auxiliary-nurse midwives.

STATE-WISE PLAN ALLOTMENTS FOR 1965-66

(Rs. in lakhs)

| States | Agriculture and Community Development | Irrigation and Power | Industry and Mining | Transport and Communications | Social Services | Miscellaneous | Total |
|---|---|---|---|---|---|---|---|
| Andhra Pradesh | 2,326 | 5,100 | 353 | 357 | 1,450 | 14 | 9,600 |
| Assam | 587 | 1,147 | 215 | 211 | 914 | 26 | 3,100 |
| Bihar | 1,985 | 3,973 | 267 | 371 | 1,536 | 26 | 8,158 |
| Gujarat | 1,548 | 1,975 | 350 | 492 | 1,310 | 15 | 5,690 |
| Jammu & Kashmir | 319 | 643 | 185 | 277 | 533 | 109 | 2,066 |
| Kerala | 977 | 2,201 | 439 | 209 | 904 | 28 | 4,758 |
| Madhya Pradesh | 1,977 | 2,613 | 209 | 302 | 1,538 | 141 | 6,780 |
| Madras | 1,807* | 3,430 | 540 | 184 | 1,999 | 25 | 7,985 |
| Maharashtra | 3,395 | 4,024 | 428 | 1,100 | 3,118 | 20 | 12,085 |
| Mysore | 1,765 | 2,450 | 190 | 283 | 1,256 | 12 | 5,956 |
| Orissa | 1,198 | 2,376 | 330 | 439 | 917 | 29 | 5,289 |
| Punjab | 1,236 | 3,203 | 311 | 317 | 1,202 | 117 | 6,386 |
| Rajasthan | 958 | 2,565 | 65 | 194 | 995 | 23 | 4,800 |
| Uttar Pradesh | 4,498 | 5,880 | 685 | 707 | 2,877 | 769 | 15,416 |
| West Bengal | 1,787 | 2,011 | 562 | 611 | 2,100 | 360 | 7,431 |

* Includes Rs. 523 lakhs for Minor Irrigation outside the State Plan.

## MID-TERM PLAN REVIEW

A mid-term appraisal of industrial programmes in the Third Plan has shown that there will be a sizable spill-over into the fourth Plan and that the production in many sectors will fall short of targets. It has been found that delays have marred industrial plans : there has been delay even in the implementation of public sector projects for which foreign exchange credit was available.

A detailed examination of the project reports of three important Third Plan projects has cast doubts about their viability. These three projects, namely the phyto-chemical project, organic intermediate chemical plant and the ophthalmic glass project, have not yet been taken up.

In respect of most of the projects included in the category C of the list of the public sector projects such as ball and roller bearings, heavy compressors, second heavy plate and vessels works, even preliminary details are yet to be worked out. The Commission is of the view that their construction is most unlikely to commence in the Third Plan.

The appraisal has shown that industrial production in the first two years of the Plan has recorded only a modest increase over the preceding years. There has been an increase of 6·7 per cent and 8·9 per cent in the first two years of the Plan as against the average increase of 11·1 per cent envisaged in the Third Plan. The Commission is of the view that the increase in the producer and basic industries has not been insignificant considering the strains experienced in the economy during these two years. The industries in which considerable increase in production has been achieved during the first half of the Plan are : steel, aluminium, machine tools, electric transformers, fertilisers, caustic soda and rayon staple fibre.

The Commission feels that considering the investment targets envisaged in the Third Plan, the progress of the private sector has been satisfactory. But the progress in specific industries in this sector has been below expectation.

The following are some of the points believed to have been made in the mid-term appraisal in respect of specific industries:

*Electrical Transformers and Electric Motors :* These industries are progressing more or less according to the planned programme and it is expected that the targets laid down for these industries will be achieved by 1965-66. In the case of electric motors, production of flame proof motors and multispeed motors has started while in the case of transformers the range of manufacture of many private sector projects has been extended.

A committee was set up under the chairmanship of Mr. S. S. Kumar to assess the demand for various types of heavy electrical equipment such

as generators, transformers, switchgear and control gear etc. The Committee submitted its report in July, 1962. Based on its findings, to bridge the gap between requirements and the capacity that has already been planned in the public sector projects, licences have been granted to existing private sector units to manufacture heavy transformers and high voltage switchgear.

*A.C.S.R. Conductors :* The capacity and production targets of 55,000 tons and 44,000 tons originally fixed for 1965-66 for A.C.S.R. conductors have been revised to 68,000 tons and 55,000 tons respectively. The present installed capacity is 31,400 tons. Production during 1962-63 is estimated at 28,000 tons. On the basis of present estimates it is expected that the revised targets for this industry would be achieved by 1965-66.

*Fertilisers Nitrogenous :* The capacity and production targets indicated in the Third Plan for nitrogenous fertiliser industry in terms of nitrogen are 1 million tons and 800,000 tons, respectively. The present capacity is of the order of 358,000 tons. In order to ensure the fulfilment of plan targets, several schemes which will increase the total capacity of the industry to 1·388 million tons have been licensed or approved in the public and private sectors.

There will be significant shortfall in the capacity and production targets of nitrogenous fertilisers. It is estimated by the Department of Heavy Industries that by the end of 1965-66, capacity of about 640,000 tons only would materialise and production would be of the order of 500,000 tons. The break-up of anticipated capacity and production by 1965-66 factorywise as estimated by the Department of Heavy Industries is given below :

| Name of the Project | Annual Capacity (Tons '000) | Anticipated production by 1965-66 (Tons '000) |
|---|---|---|
| Sindri .. | 117·0 | 110·0 |
| Nangal .. | 80·0 | 75·0 |
| FACT .. | 70·0 | 60·0 |
| Varanasi .. | 20·0 | 15·0 |
| Rourkela .. | 120·0 | 90·0 |
| Ennore .. | 16·5 | 8·0 |
| Trombay .. | 90·0 | 85·0 |
| Neyveli .. | 70·0 | 30·0 |
| Namrup .. | 45·0 | 15·0 |
| Other by-products .. | 12·0 | 12·0 |
| Total .. | 640·5 | 500·0 |

The shortfall is largely on account of the delay in the implementation of private sector projects. Out of a capacity of about 400,000 tons licensed in the private sector, no major scheme is expected to materialise in the Third Plan. The contribution of the private sector is thus of a negligible order. Most of the private sector projects are held up as it has not been possible to arrange suitable foreign collaboration terms.

*Phosphatic Fertilisers :* As against the capacity and production targets of 500,000 tons and 400,000 tons of P205 respectively by 1965-66, the present capacity of phosphatic fertilisers is of the order of 129,000 tons and production about 80,000 tons. A number of schemes have been licensed or approved under the Industries Act which on their implementation are expected to increase the capacity for phosphatic fertilisers to 530,000 tons. However, in relation to the targets considerable shortfall in production is expected in the phosphatic fertilisers. This would not be so much on account of inadequate capacity as on account of the poor offtake of the phosphatic fertilisers. The anticipated production in 1965-66 is not expected to be more than 200,000 tons.

*Heavy Chemicals :* A review of the progress made by the heavy chemical industry indicates that though the targets for caustic soda may be nearly achieved, there will be considerable shortfall in the case of sulphuric acid and soda ash. As against the capacity target of 1·75 million tons of sulphuric acid, the capacity likely to be achieved in 1965-66 is estimated to be of the order of only 1·5 million tons. This shortfall is expected to be mainly on account of anticipated shortfall in the production of phosphatic fertilisers for which sulphuric acid is an important raw material. In the case of soda ash, one of the licensed schemes viz. Bhiwandiwalla, is not expected to fructify by the end of the Third Plan period.

*Automobile tyres :* The capacity and production targets for automobile tyres originally fixed at 3·7 and 3·0 million have subsequently been revised to 5·2 and 4·5 million respectively. The present capacity of the industry is 2·4 million. A number of schemes have been licensed which would increase the capacity to 4·6 million. It is anticipated that a capacity of only this order would materialise by the end of the Third Plan period and it would not be possible to achieve the revised targets.

The main raw materials required by the Industry are natural rubber, synthetic rubber, rayon tyre cord, carbon black etc. At present 50 per cent of the total requirements of natural rubber are being met from indigenous sources, while balance of rubber and other raw materials have to be imported. To put the industry on a sound footing, steps have been taken to establish projects for the manufacture of these raw materials. The Synthetic Rubber project at Bareilly in U.P. has gone into production. The plant when in full production will have a capacity of 30,000 tons of synthetic rubber per annum. The plant of National Rayons for the manufacture of rayon tyre cord with 4 million lb. per annum capacity has also gone into production and licences for additional capacity to the extent of 29 million lbs. have been granted. Similarly, licences for a capacity of 37,000 tons have been given for the production of carbon black.

*Paper and Paper Board :* There are at present 36 paper and paper board factories with an installed capacity of 483,000 tons. It has been estimated that the demand for paper and paper board will show an annual progressive increase of 12½ per cent during the Third Plan period and would increase to 700,000 tons by the end of the Third Plan period. To achieve this target a capacity target of 820,000 tons has been fixed for 1965-66.

As against this target, schemes have been licensed under the Industries Act, which, if all of them were to be implemented, will increase the capacity of the industry to about 1·07 million tons per annum. Out of this, schemes covered by import licences, cleared by C.G./HEP Committee and based on indigenous machinery amount to 900,000 tons. However, though licensing has been done in the paper industry substantially in excess of the target, the progress made so far on the implementation of the schemes has been slow. It is estimated that at the present rate of progress, capacity of the order of 680,000 tons and production of about 580,000 tons only will materialise by the end of the Third Plan period.

*Newsprint industry :* The Third Plan aims to meet the supplies of newsprint to the maximum extent possible from within the country so as to keep down imports and consequent drain on foreign exchange. With this end in view, a capacity target of 150,000 tons and production target of 120,000 tons had been provisionally set for the Third Plan.

As against the above targets, there is at present only one factory namely Nepa Mills manufacturing newsprint with an annual capacity of 30,000 tons. The production of newsprint in 1962-63 is estimated at 25,000 tons. With a view to increasing the capacity of the industry during the Third Plan period a number of schemes have been approved or licensed in the private sector. These schemes when implemented will increase the newsprint capacity to 210,000 tons.

Not much progress has, however, been made on the implementation of these licensed or approved projects and it is doubtful if any one of them will materialise during the Third Plan period. However, with a view to expediting the implementation of the doubling of the Nepa Mills it has suggested to the C. & I. Ministry that a programme based on imported pulp may be drawn up. A programme on this basis is being worked out.

*Cement :* There are at present 35 cement factories with a total annual installed capacity of 9·7 million tons. Production during 1962-63 is estimated at 8·8 million tons. The Third Plan targets of capacity and production are 15·0 million tons and 13·0 million tons respectively.

The demand for cement in the last few years exceeded the supply and this imbalance has been further accentuated by the national emergency. Further restrictions have, therefore, been imposed on supply and works unconnected with defence efforts. It is estimated that due to the increased requirements of defence, on account of present emergency, demand for cement may turn out to be higher than 13 million tons envisaged by 1965-66.

Several schemes have been licensed or approved for increasing the capacity of this industry. If all the schemes were to materialise the capacity of the industry would increase to about 18·8 million tons. The indigenous machinery industry is, however, not in a position to supply plant and equipment according to requirements and as a result the achievement of the targets by 1965-66 is doubtful. It is estimated that the production by the end of the Third Plan period would be only 12 million tons as against the production target of 13 million tons. In order to expedite the installation of further capacity, it has been decided that two plants of 400 tons per day capacity each may be allowed to be imported under Polish or Yugoslav credit for the public sector cement projects in U.P. and Andhra Pradesh.

Steps are also being taken for the implementation of the slag cement schemes with a total capacity of about 2 million tons based on granulated slag from Bhilai, Durgapur and Rourkela plants. The granulation plant at Bhilai will be installed shortly and the project will go into production in 1964. Steps are also being taken for the implementation of the slag cement scheme at Durgapur. Regarding Rourkela slag scheme, however, there are some difficulties with regard to the quality of Rourkela slag. Experimentation is going on to test the suitability of the slag.

*Refractories :* The capacity and production targets for refractories indicated in the Third Plan are 2 million tons and 1·5 million tons respectively. As against these targets, the present installed capacity of the industry is about 8·4 lakh tons. Production in 1962-63 has been estimated at about 6·7 lakh tons.

Several schemes which would increase the total capacity to 25 lakh tons have been licensed or approved. These include the refractory plant of the U.P. Government with a capacity of 34,000 tons which is being set up at Churk and the basic refractory plant with a capacity of about 80,000 tons of fire clay, bricks and 45,000 tons of basic bricks proposed to be set up at Bhilai by the Hindustan Steel.

An appraisal of the progress made so far in the implementation of the licensed schemes indicates that it would not be possible to achieve the capacity and production targets and there will be shortfall to the extent of 0·6 million tons in the capacity target and 0·4 million tons in the case of production target. This shortfall is, however, not of serious consequences since the latest demand estimates indicate the requirements at a lower level than indicated in the Plan.

*Cotton Textiles :* The target of production fixed for the Third Plan for cotton textiles is 5,800 million yards of cloth and 2,250 million lbs. of yarn for the mill sector to be achieved by increasing the spindleage to 16·5 million and loomage to 2·25 lakhs. As against this, at present there are 490 mills with a total installed capacity of 13·9 million spindles and 2·0 lakh looms. The production of cloth and yarn in 1962-63 is estimated to be of the order of 5,200 million yards and 1,900 million pounds respectively. Though the targets for cotton yarn and cloth are expected to materialise, it is doubtful if it will be possible to achieve the export target. It was visualised in the Plan that 850 million yards of cloth would be exported by 1965-66. The export of cloth has shown a declining trend and it may not perhaps be possible to achieve the export target of 850 million yards. Steps are, however, being taken to boost exports. Government have formulated an incentive scheme for all textile items including non-fabrics. The procedure for grant of import entitlements has been further simplified. It has also been decided to replace plain looms by automatic looms (7,500) provided the mills undertake to export 50 per cent of their production at the rate of 13,333 yards per loom per year and give a bank guarantee for the fulfilment of the obligation.

*Jute :* A capacity target of 1·2 million tons on single shift and production target of 1·3 million tons have been set for the jute industry for 1965-66. The present production of jute manufactures is 1·1 million tons. Due to a record jute and mesta crop of the order of 79·74 lakh bales in 1961-62, the production and export of jute went up in 1962-63. With the return to normal conditions and availability of plentiful supplies of raw materials, the jute industry has been able to dispense with restrictive measures of production and to utilise all its looms without compulsory ceiling.

A Committee was set up in 1962 to recommend steps necessary to enable the jute industry to fulfil its export target of 900,000 tons per annum. The Committee has submitted its report which is under the consideration of the Government.

*Rayon Filament and Staple Fibre :* The present installed capacity of rayon filament is 76·7 million pounds and that of staple fibre 56 million pounds. The demand for rayon filament by the end of the Third Plan is estimated at 140 million pounds and for staple fibre at 75 million pounds. On the assumption of 100 per cent utilisation of capacity, the capacity targets have been placed at 140 million pounds of filament and 75 million pounds of staple fibre for 1965-66. As against the targets mentioned above, schemes have been licensed to increase the capacity for rayon filament to 156·4 million pounds and for staple fibre to 62·2 million pounds. However, on the basis of the progress made in the implementation of schemes, capacity of 148·4 million pounds for rayon filament and 70·2 million pounds for staple fibre may be expected by the end of the Third Plan period.

In view of the likelihood of a shortfall in cotton target, the Ministry of C. &. I proposed that the target for staple fibre should be increased from 75 million pounds to 136 million pounds. The proposal of the Ministry has been agreed to in principle by the Planning Commission subject to certain conditions.

*Rayon Grade pulp :* The requirements of rayon grade pulp are at present entirely met by imports. To meet the requirements of the rayon and cellulose film industry it was estimated that capacity of the order of 100,000 tons would be established by 1965-66. However, though a number of schemes with a total capacity of the order of 300,000 tons has been licensed, progress on the implementation of these schemes has been very slow. It is estimated that capacity of 61,000 tons only is likely to materialise by the end of the Third Plan period and that there would be substantial shortfall in the targets.

*Sugar :* The existing capacity of the sugar industry is placed at 2·67 million tons of sugar per annum. In addition, schemes have been licensed which will increase the capacity of the industry to 3·35 million tons. The target for the sugar industry is 3·5 million tons. There is, therefore, a gap of 0·15 million tons still to be filled in for achieving the target. This gap is expected to be higher as some of the licensed schemes may not fructify.

A record production of about 3 million tons of sugar was achieved in 1960-61. This was possible because of an abundant availability of sugar-cane and longer crushing season that year. As this resulted in fairly heavy stocks of sugar, further licensing of sugar was suspended. Since then however, sugar production has gone down and was 2·7 million tons in 1961-62. The production in 1962-63 is estimated at 2·3 million tons. The export outlook has meanwhile considerably improved and stocks at the end of the current season are expected to be slow. In view of this, the licensing of further capacity is under consideration. With the licensing of additional capacity, the target in the Third Plan is expected to be achieved.

In view of the shortage of conventional raw materials, the expansion of the paper and newsprint industry has to be based on utilisation of bagasse. Schemes have already been licensed for the manufacture of newsprint and paper based on bagasse. The sugar factories are, however, not interested in the supply of bagasse to outside agencies due to uncertainty of availability of coal and its higher price compared to bagasse. Ways and means are under consideration to facilitate the release of bagasse for manufacture of paper and newsprint by providing alternative fuel *i.e.* furnace oil to the sugar factories at competitive price.

*Machine-building :* The programme for machine-building included in the Third Plan covers the establishment of projects for the fabrication of steel plants, fertiliser plants chemical plant equipment, heavy electrical equipment, mining machinery, machine tools and a variety of machinery for industries like cement, sugar, paper and textiles.

The heavy machinery project under construction at Hathia in collaboration with the Soviet Government is designed to produce 45,000 tons of machinery items in the first stage and 80,000 tons of machinery in the second stage. The plant is intended to produce machinery and equipment primarily for the iron and steel industry but it would also have the capacity to meet the requirements of other industries like mineral oil, coal mining chemicals, fertilisers, cement cranes and excavators. Considerable progress has been made in the civil construction work in regard to this project and installation of equipment has already started. It is proposed to start initially production of items like overhead electric cranes, oil drilling rigs from the latter half of 1963-64. The full output of this project is expected to be reached only by the middle of the Fourth Plan.

As regards the coal mining machinery project which was initially designed to produce 30,000 tons of coal mining machinery, the capacity is proposed to be expanded to 45,000 tons per annum in the second stage. Full output from this project is, however, expected to be reached only by the middle of the Fourth Plan, though the unit is expected to go into production in 1964-65.

Another important public sector project in the machinery field is the heavy structural, heavy plates and vessels works. This scheme is of crucial importance because it has to provide facilities for the fabrication of plant and equipment for chemical and fertiliser factories. No progress has, however, been made on this scheme and it is not likel to be completed by the Third Plan. Early efforts have to be made to define the scope of the project and to arrange credit for its implementation.

The Government is currently examining a proposal to expand the capacity of the Heavy Electrical Plant at Bhopal to an output of Rs. 50 crores. It has been proposed that the manufacture of steam turbines should be undertaken under this expansion programme initially. The Bhopal factory is expected to reach its full rated capacity by the end of the Fourth Plan. The detailed project report on the Ranipur heavy electrical plant is being examined by the Government. It envisages the manufacture of steam turbines and generators for an annual output of 1·5 million Kw hydro turbines and generators for a total output of 1·2 million Kw and medium and large-sized industrial motors for an annual output of 0·52 million Kw. The construction of the project is expected to be completed by 1966.

The Heavy Electrical Project at Ramachandrapuram was originally planned for the production of steam turbines of lower ratings. The project report was received in September, 1962. It has, however, been decided to modify the production programme with emphasis on the production of higher ratings. The project report is accordingly being revised. Because of this delay this project may not be completed in the Third Plan period.

The high pressure boiler project at Tiruchirapalli is planned for the production of high pressure boilers for a total capacity of 0·75 million Kw. The project report has been accepted by the Government in principle subject to certain modifications in regard to the scope of the project. A formal agreement for the supply of plant and equipment is expected to be reached with Czechoslovakia shortly. Initial production is to start in 1965.

*Cotton Textile Machinery :* The capacity and production target of Rs. 22 crores and Rs. 20 crores respectively are expected to be realised. The actual production of the industry currently is Rs. 13 crores.

*Sugar Mill Machinery:* The present capacity in the industry is equivalent to 14 new standard plants per annum. The manufacture of most of the components, including the manufacture of centrifugal and heavy duty gears for the milling plant has been undertaken. The imported component of complete machinery is less than 20 per cent. The target in this industry will be fully achieved.

*Cement Machinery :* The capacity and production target for cement machinery have been placed at Rs. 4·5 crores each to be achieved by 1965-66. Four manufacturers are at present equipped to take orders for the supply of complete cement plants of 600 tons capacity per day by the end of the Third Plan. Capacity for fabricating complete plants, 9 plants per year, would be available. On this basis, it is estimated that the capacity available by 1965-66 would be about Rs. 8 crores per annum.

There has also been improvement in the indigenous content of the cement plants produced in the country. Until recently foreign exchange of the order of Rs. 60 lakhs was released per standard plant. This has now been brought down to Rs. 45 lakhs and is expected to be further brought down by 1965-66.

*Paper Machinery:* Twenty-three firms with an aggregate capacity of about Rs. 25 crores per annum have been licensed for the manufacture of paper machinery. Some of these schemes are not expected to materialise. Even so, the production target of Rs. 65 crores is expected to be realised by 1965-66.

In respect of other items of industrial machinery like rayon machinery cranes, structural fabrication, the capacity targets are not likely to be reached and there will be shortfalls.

*Machine Tools :* The development programme of this industry under the Third Plan envisages capacity and production valued at Rs. 30 crores by 1965-66 (exclusive of the contribution from

the small sector valued at Rs. 5 crores for that year). The output from the public sector was envisaged at Rs. 16 crores and the private sector was expected to contribute Rs. 14 crores.

The projects included in the public sector are: the expansion of the Hindustan Machine Tools Factory, the establishment of a second machine tool factory at Pinjore in Punjab and at the heavy machine tool factory at Ranchi. It was also envisaged that one or two more machine tool factories would be set up—details were still to be worked out—during the Third Plan.

The expansion of the Hindustan Machine Tool was completed in 1961-62. The Pinjore factory is under construction and is expected to be ready for production by the end of 1963.* It has been decided to set up under the aegis of the Hindustan Machine Tools a fourth factory in Kerala with an annual output of Rs. 3 crores. This factory is also expected to go into production in the Third Plan period. The establishment of a fifth machine tool factory at Secunderabad has been accepted in principle. The detailed time schedule for this factory is being worked out.

As regards the heavy machine tool factory at Ranchi which is being planned for a capacity of 10,000 tons, the detailed project report has been received. A formal agreement with the Czech Government for the supply of plant and machinery is expected to be entered into shortly. The plant is expected to go into trial production in 1965-66.

The progress in the private sector has, however not been satisfactory. It is unlikely that the output of Rs. 14 crores envisaged under the private sector would be forthcoming by 1965-66.

Against the target of Rs. 30 crores the output of machine tools by 1965-66 is now expected to be about Rs. 25 crores.

*Shipbuilding:* The programme under shipbuilding envisages the expansion of the Hindustan Shipyard and the construction of a dry dock at Visakhapatnam. It was expected that with the completion of these, the Visakhapatnam shipyard would be capable of producing ships of a total tonnage of 50,000 to 60,000 dwt per year. A second shipyard at Cochin at an estimated cost of Rs. 20 crores was also included in the Third Plan.

The expansion of the Hindustan Shipyard is in progress. Its annual capacity is at present of the order of 30,000 to 35,000 dwt. It is expected that the expansion programme would be completed by the end of the Third Plan period.

As regards the second shipyard, part of the land to be required has been acquired. A project report submitted by the Mitsubishi Shipbuilding and Engineering Company is under examination. The technical and financial details concerning the project are expected to be settled shortly. The shipyard is expected to be completed early in the Fourth Plan.

*The Automobile Industry:* The production target for passenger cars, commercial vehicles, jeeps and station wagons is 30,000, 60,000 and 10,000 respectively. The expansion of commercial vehicle capacity is of high priority in the context of expanding transport facilities. The expansion of the existing units to about 60,000 has recently been approved. Foreign exchange release to the extent of Rs. 23·8 crores has been made to the main automobile manufacturers. Further release of foreign exchange to complete the expansion programme already approved is under consideration. It is expected that World Bank assistance may be available for this purpose.

On the basis of the progress made so far, it is unlikely that the production of more than 54,000 commercial vehicles will be possible by 1965-66. As regards the increase in indigenous content, it is expected that with the foreign exchange release already made, the target of 90 per cent indigenous content by 1965-66 would be achieved. In the case of passenger cars on account of the low priority of the industry for foreign exchange release, it may not be possible to increase production beyond 25,000 as against the target of 30,000.

*Ball and Roller Bearings:* A production target of 15 million has been fixed for 1965-66. As against this there are at present only two units with an installed capacity of 3·5 million. The industry has been assigned priority in the release of foreign exchange. It is expected that a capacity of the order of 12 million would be available by 1965-66.

No progress has, however, been made so far in the public sector project included in the Third Plan for the manufacture of ball bearings. Russian credit is now likely to be available for this project. The project can, however, materialise only in the Fourth Plan.

*Bicycles:* The production target for bicycles to be achieved by 1965-66 is 2 million. The production of bicycles has not shown any appreciable increase in the last three years. At the present price level the current production seems to be meeting the demand. It is felt that unless the prices of bicycles are brought down it would not be possible to achieve the production target.

### PLAN SPENDING IN STATES IN 1964-65

The pace of Plan spending during 1964–65 in the States will be considerably stepped up, to take it to 78 per cent of the total outlay, compared with nearly 54 per cent in the first three years.

The Planning Commission has approved of accelerated expenditure because of the lag in the initial years. The total Plan outlay for States is Rs. 3,847·5 crores, of which Rs. 2,071 crores would have been spent by the end of the current financial year.

The improvement in the overall spending in four years covers a varied pattern in the individual States, with one State exceeding the total Plan outlay, two States spending over 90 per cent, six States over 75 per cent, but less than 90 per cent, and six other States 75 per cent or less.

Orissa would have spent 103 per cent by 1964–65. West Bengal and Madras would have done well, with an expenditure of 95 per cent and 91 per cent, respectively. The expenditure in Andhra Pradesh would have been 77 per cent, Assam 84 per cent, Gujarat 79 per cent, Kerala 77 per cent, Mysore 77 per cent, and Maharashtra 76 per cent. States spending 75 per cent or less would be Punjab (75 per cent), U.P. (73 per cent), Madhya Pradesh (72 per cent), Jammu and Kashmir (71 per cent), Bihar (70 per cent) and Rajasthan (65 per cent).

The financial assistance from the Centre to the States next year is placed at Rs. 558·5 crores. Additionally, a special allocation of Rs. 15 crores for agriculture and Rs. 1·5 crores for social services are being made. The total assistance in the first three years was Rs. 1,221 crores, leaving a balance of Rs. 595·5 crores for the last year of the Plan. The original assistance ceiling was Rs. 2,431 crores but it was subsequently scaled down to Rs. 2,375 crores.

# FOURTH PLAN

## INTRODUCTION

The Memorandum on the Fourth Five Year Plan prepared by the Planning Commission in October 1964 was considered by the National Development Council on Oct. 27 and 28, 1964. While generally endorsing the proposals of the Planning Commission regarding the size and objectives of the Fourth Five Year Plan, the Council laid special emphasis on according top priority to agricultural development and providing resources and inputs sufficient to achieve a rate of growth of not less than five per cent per annum in regard to agricultural production. The Council also decided that in the field of social services, priority should be given to family planning, technical education and supply of drinking water in both rural and urban areas.

The National Development Council, while recognising the need for a development effort of the dimensions indicated in the Memorandum, also noted that the tentative estimate of resources available at that time did not seem adequate to finance a total outlay of the order of Rs. 22,500 crores. It was felt that if a total outlay of the order of Rs. 22,500 crores was to be made feasible, a careful study of the scope for raising additional resources for the Plan should be made and total size of the Plan effort should be determined on the basis of non-inflationary sources of finance likely to be available to the public and private sectors.

In pursuance of these suggestions, the National Development Council constituted Five sub-Committees to consider respectively—(*a*) Agriculture and Irrigation, (*b*) Industry, Power and Transport, (*c*) Social Service, (*d*) Resources (*e*) Development of Hill areas.

The Council further suggested that the Central Government should indicate the directions in which additional resources might be raised by States in the Fourth Plan so that a broadly uniform all-India approach to resource mobilization might be evolved.

Subsequently, the various sub-Committees set up by the Council, have, along with the Planning Commission and the concerned Central Ministries, re-examined the sectoral programmes of development as well as questions relating to aggregate resources for the Plan.

The preliminary memoranda of the States together with the tentative estimates of States' resources were discussed by the Planning Commission with each State in a series of meetings held during June/July 1965. With the assistance of the members of the National Planning Council, Central Ministries and various other agencies in the public and private sectors, the Commission has examined in considerable detail the physical contents of the sectoral programmes which could be undertaken in the Fourth Plan period, keeping in mind the administrative and financial constraints that may be relevant to the Plan as a whole.

These discussions and deliberations have led to certain alterations in the total outlay in the sectoral allocations which had been set out in the Memorandum.

## SIZE OF THE PLAN OUTLAY

The Planning Commission is of the view that a firm decision on aggregate Plan outlay should now be taken so that a Draft Outline of the Plan can be drawn up in greater details and on the basis of closer estimates. The Planning Commission considers that with necessary effort it would be possible to mobilize adequate resources for a total Plan outlay of Rs. 14,500 crores in the public sector and Plan investment of Rs. 7,000 crores in the private sector over the five year period.

If the total Plan outlay is to be contained within the ceiling of Rs. 21,500 crores, it will obviously be necessary to adjust downwards some of the physical target set out in the Plan Memorandum. It is proposed to make these adjustments in such a way that two essential conditions are satisfied; firstly, requisite financial resources are fully provided for activities like agricultural development, family planning, export promotion, drinking water supply, etc., for which very high priority has to be accorded, and secondly emphasis is laid in all sectors on securing the largest possible increase in output from investments already made or from investments to be undertaken in the initial years of the Fourth Plan. In other words, the larger part of the impact of bringing down Plan outlay from the Memorandum-aggregate of Rs. 22,500 crores to the level of Rs. 21,500 crores now considered feasible, is likely to fall on programmes and activities the benefits from which will accrue in the Fifth Plan period.

* Has since gone into production.

The size and pattern of outlays proposed for the Fourth Plan in the public and private sectors are given below :

**TABLE A**

(Rs. crores)

| | Public Sector | | | Private sector investment | Total investment | Total Plan outlay (public and private sectors) |
|---|---|---|---|---|---|---|
| | Total | Current outlay | Investment | | | |
| Agriculture | 2,372 | 858 | 1,514 | 700 | 2,214 | 3,072 |
| Irrigation | 924 | .. | 924 | .. | 924 | 924 |
| | 3,296 | 858 | 2,438 | 700 | 3,138 | 3,996 |
| Power | 1,828 | .. | 1,828 | 50 | 1,878 | 1,878 |
| Small Industry | 395 | 145 | 250 | 400 | 650 | 795 |
| Organised industry | 2,866 | .. | 2,866 | 2,400 | 5,266 | 5,266 |
| Transport and communications | 2,768 | .. | 2,768 | 650 | 3,418 | 3,418 |
| | 7,857 | 145 | 7,712 | 3,500 | 11,212 | 11,357 |
| Education | 1,260 | 715 | 545 | 100 | 645 | 1,360 |
| Scientific research | 148 | 61 | 87 | .. | 87 | 148 |
| Health | 578 | 364 | 214 | .. | 214 | 578 |
| Water supply | 371 | .. | 371 | .. | 371 | 371 |
| Housing | 297 | 10 | 287 | 1,470 | 1,757 | 1,767 |
| Welfare of backward classes | 188 | 120 | 68 | .. | 68 | 188 |
| Social welfare | 54 | 45 | 9 | 10 | 19 | 64 |
| Craftsmen training and labour welfare | 143 | 83 | 60 | .. | 60 | 143 |
| Public co-operation | 12 | 7 | 5 | .. | 5 | 12 |
| | 3,051 | 1,405 | 1,646 | 1,580 | 3,266 | 4,631 |
| Rural works, Hill Areas and special areas | 148 | 18 | 130 | .. | 130 | 148 |
| Rehabilitation | 69 | 15 | 54 | .. | 54 | 69 |
| Miscellaneous | 79 | 25 | 54 | .. | 54 | 79 |
| Inventories | * | * | * | 1,200 | 1,438 | 1,496 |
| | 296 | 58 | 238 | 1,200 | 1,438 | 1,496 |
| Grand total | 14,500 | 2,466 | 12,034 | 6,980 | 17,014 | 21,480 |

* Part of the inventories under the public sector is caused in sectoral outlays and part will also be financed through the banking system.

The total outlay indicated above may be compared with the provision in the Memorandum of Rs. 22,600 crores (Rs. 15,620 crores public sector and Rs. 6,980 crores private sector). It may also be compared with the Third Plan provision of Rs. 11,600 crores (Rs. 7,500 crores public sector and Rs. 4,100 crores private sector). Investment in the private sector has been kept at the same figure as indicated in the Memorandum. A technical committee has been set up to examine this investment.

A table showing the comparative provisions in the Third Plan, the Memorandum and the proposals now made under each head of development, together with the percentage distribution is given below :

**Public Sector Outlay**

**TABLE B**

(Rs. crores)

| | Anticipated expenditure in the Third Plan | Allocation in the Memorandum | Allocation now proposed | Percentage distribution | | |
|---|---|---|---|---|---|---|
| | | | | Of Col. 2 | Of Col. 3 | Of Col. 4 |
| | 2 | 3 | 4 | 5 | 6 | 7 |
| Agriculture | 1,090 | 2,400 | 2,372 | 13·3 | 15·4 | 16·4 |
| Irrigation | 648 | 1,000 | 924 | 7·9 | 6·4 | 6·4 |
| | 1,738 | 3,400 | 3,296 | 21·2 | 21·8 | 22·8 |
| Power | 1,187 | 1,950 | 1,828 | 14·5 | 12·4 | 12·6 |
| Small Industry | 233 | 450 | 395 | 2·8 | 2·9 | 2·7 |
| Organised Industry | 1,662 | 3,200 | 2,866 | 20·3 | 20·5 | 19·8 |
| Transport and Communications | 1,940 | 3,000 | 2,768 | 23·6 | 19·2 | 19·1 |
| | 5,022 | 8,600 | 7,857 | 61·2 | 55·0 | 54·2 |
| Education | 557 | 1,400 | 1,260 | 6·8 | 9·0 | 8·7 |
| Scientific Research | 72 | 175 | 148 | 0·8 | 1·1 | 1·0 |
| Health | 240 | 750 | 578 | 2·9 | 4·8 | 4·0 |
| Water Supply | 105 | 340 | 371 | 1·3 | 2·2 | 2·6 |
| Housing and Construction | 112 | 400 | 297 | 1·4 | 2·6 | 2·0 |
| Welfare of Backward Classes | 104 | 205 | 188 | 1·3 | 1·3 | 1·3 |
| Social Welfare | .. | 65 | 54 | .. | 0·4 | 0·4 |
| Craftsmen Training and Labour Welfare | .. | 145 | 143 | .. | 0·9 | 1·0 |
| Public Cooperation | 250 | 15 | 12 | .. | .. | 0·08 |
| | .. | 3,945 | 3,051 | .. | 22·4 | 21·08 |
| Rural Manpower, Hill Areas and Special Areas | .. | 25 | 148 | .. | 0·2 | 1·0 |
| Rehabilitation | .. | 50 | 69 | .. | 0·3 | 0·5 |
| Miscellaneous | .. | 50 | 79 | .. | 0·3 | 0·5 |
| Investments | .. | a | a | .. | a | a |
| | .. | 125 | 296 | .. | 0·8 | 2·0 |
| Grand Total | 8,200 | 15,620 | 14,500 | 100·0 | 100·0 | 100·0 |

(a) Part of the inventories is covered in sectoral outlays and part will also be financed through the banking system.

It is proposed that in the Fourth Plan maximum efforts be made to secure a large growth in the agricultural sector, with a view to reducing and even obviating the need for the import of foodgrains at the end of the Plan period and also to give necessary support for larger exports of commercial crops. A new head has been suggested—Rural Manpower Programmes, Hill Areas and Special Areas. A provision of Rs. 148 crores is being made under this head and is intended to utilise rural manpower resources for productive activities and for building community assets in the rural areas, providing at the same time employment opportunities for some of the increased labour force in the countryside. Steps will also be taken to accelerate the economic development of Hill Areas and Special Areas.

The distribution of outlays between the Centre, the States and the Union Territories under different heads of development can be estimated with precision after the Plans have been examined and accepted in consultation with the Central Ministries and Governments of States and Union Territories.

On the existing basis of classification of Centrally sponsored, Centrally aided and State Plan schemes, a very tentative distribution of Plan Outlays under the Centre, States and Union Territories is indicated in the table below:

FOURTH PLAN OUTLAY—CENTRE, STATES AND UNION TERRITORIES

(Rs. crores)

| | Centre | States | Territories | Total |
|---|---|---|---|---|
| Agriculture | 325@ | 1,987@ | 60@ | 2,372 |
| Irrigation | 58 | 859 | 7 | 924 |
| Total | 383 | 2,846 | 67 | 3,296 |
| Power | 225 | 1,553 | 50 | 1,828 |
| Small Industry | 196 | 191 | 8 | 395 |
| Organised Industry | 2,716 | 145 | 5 | 2,866 |
| Transport and Communications | 2,330 | 383 | 55 | 2,768 |
| Total | 5,467 | 2,272 | 118 | 7,857 |
| Education | 380 | 816 | 64 | 1,260 |
| Scientific Research | 148 | .. | .. | 148 |
| Health | 227 | 314 | 37 | 578 |
| Water Supply | .. | 345 | 26 | 371 |
| Housing | 137 | 125 | 35 | 297 |
| Welfare of Backward Classes | 113 | 70 | 5 | 188 |
| Social Welfare | 30 | 20 | 4 | 54 |
| Craftsmen Training and Labour Welfare | 84 | 54 | 5 | 143 |
| Public Cooperation | 4 | 7 | 1 | 12 |
| Total | 1,123 | 1,751 | 177 | 3,051 |
| Rural Works, Hill Areas Backward regions and Special Areas Programmes | 70 | 64 | 14 | 14 |
| Rehabilitation | 69 | .. | .. | 69 |
| Miscellaneous | 45 | 33* | 1 | 79 |
| Total | 184 | 97 | 15 | 296 |
| Grand Total | 7,157 | 6,966 | 37 | 14,500 |

@ Certain proposals which have been received from the Central Ministry of Food and Agriculture for the allocation of Central and Centrally sponsored sectors of the Plan, are still under discussion. Consequently, this distribution of outlays is liable to be altered. * Includes outlay on State Capital Projects.

**Third Plan Targets, Likely Achievement, Fourth Plan Targets as in Memorandum and Target as Now Proposed.**

The following is the selected targets of production and development (in the order of head of development, unit, 1965-66 target, likely achievement, 1970-71 target as in Memorandum and target as now proposed).

*Agriculture:* Foodgrains—m. tonnes; 100; 92; 120; 120; cotton—lakh bales; 70·55; 63·40; 65; 85; sugarcane (gur)—lakh tonnes; 100; 110; 135; 135; oil seeds—lakh tonnes; 98·2; 75; 100; 100; Jute—lakh bales; 62; 22; 80; 80; nitrogenous fertilisers consumed—m. tonnes; 1·00; 0·65; 2·00; 2·00; phosphatic Fertilisers consumed—m. tonnes; 0·50; 0·25; 1·00; 1·00; potassic fertilisers consumed—m. tonnes; 0·20; 0·15; 0·35; 0·35; irrigation (additional utilization) (gross)—m. acres; 25·60; 21·50; 28·00; 26·00; soil conservation—m. acres; 11·00; 11·80; 20·00; 20·00; land reclamation—m. acres; 3·60; 3·00; 2·50; 2·50; extension of area through double cropping—m. acres; ..; ..; 22·50; 22·50; area under improved seeds-foodgrains—m. acres; 204·00; 164·00; 274·00; 274·00; organic and green manures (*a*) green compost—mln. tonnes; 5·00; 4·42; 5·40; 5·40; (*b*) green manures—mln. acres; 41·00; 27·90; 64·00; 64·00; plant protection—mln. acres; 50·00; 40·00; 160·00; 160·00.

*Irrigation and Power:* Electricity: (*a*) installed capacity—m.k.w.; 12·7; 10·3; 22; 21; (*b*) generated—m.k.h.; 45,000; 39,000; 88,000; 82,000; Irrigation: (*a*) cumulative potential at outlet (gross)—mln. acres; 29·5; 11·84; 14 (addl.); 13·0 (addl.); (*b*) cumulative utilisation (gross)—mln. acres; 22·8; 15·0; 11 (addl.); 9·0 (addl.).

*Small Industries:* Handlooms, powerlooms and khadi—Production (mln. yds.); 3,500; 3,500; 5,000; 5,000; exports (Rs. crores); ..; 12·0*; ..; 20·00*; sericulture—production (lakh kgms.); 23·0; 21·5; ..; 31·0; exports (Rs. crores); ..; 3·0; ..; 4·5; Coir—exports (Rs. crores); 9·5; 12·0; ..; 16·0; handicrafts—exports (Rs. crores); ..; 24·0; ..; 32·0; industrial estates—no. of new estates; 300; 200; ..; 300**.

*Transport and Communications:* Railways—Freight traffic; mln. tonnes; 249; 206; 355; 320; roads—surfaced roads; ooo kms.; 270; 281; 331; 331; road transport—Commercial vehicles on the road; buses; 000 Nos.; 80; 73; 126; 110; trucks; 000 Nos.; 365; 328; 596; 570; major ports: handling capacity; mln. tonnes; 50; 60; 86 to 89; 79 to 80; shipping: tonnes; 50; 60; 86 to 89; 79 to 80; shipping: coastal; lakh grt; 3·2; 4·0; 4·5; 4·5; oversees; lakh grt; 10·4; 15·0; 30·0; 30·0; Civil air transport: Air India—available capacity; mln. tonnes km.; N.S.; 348; 594; 594; Indian Airlines Corporation—available capacity; mln. tonnes km.; N.S.; 185; 270; 342; communications: post offices; 000 Nos. (addl.); 17; ..; 15; 12; telephone connections; 000 Nos. (addl.); 300; 350; 700; 650; public call offices; 000 Nos. (addl.); 2; 2; 3; 2.

*Education:* A. Elementary Stage: (*i*) enrolment in classes I-V; lakhs; 502·9; 515; 150; 705; (*ii*) percentage of age group (6-11); 76·4; 78·5; ..; 93·5; (*iii*) enrolment in classes VI-VIII; lakhs; 101·6; 110; 65; 190; percentage of age group (11-14); 29·8; 32·2; ..; 47·4; B. Secondary Education: (*i*) enrolment IX-XI; lakhs; 46·1; 52·4; 38; 90; (*ii*) percentage of the age-group (14-17); 15·7; 17·8; ..; 22·1; C. University Education: (*i*) enrolment in arts, science and commerce; lakhs; 10·82; 11; 4; 16*; (*ii*) percentage of the age-group (17-23); 1·9; 1·9; ..; 2·5‡; D. Technical Education (admission capacity)† (*i*) diploma courses; No.; 37,390 (no targets were laid down); 51,450 (2,500); 17,900 (7,100); 71,700 (18,500); degree courses; No.; 19,140 (no targets were laid down); 27,850 (3,000); 11,700 (1,400); 34, 650 (6,500).

*Health:* Hospital beds (including beds for PHCS); 000 Nos.; 240·1; 240·1; 240·0; 300·0; 300·0; doctors; 000 Nos.; 81·0; 86·4; 131·4; 131·4; nurses; 000 Nos.; 45·0; 45·0; 87 to 90; 87 to 90; aux. nurse midwives and midwives; 000 Nos.; 48·5; 35·0; 95·0; 95·0; dais/nurse dais; 000 Nos.; 40·0; 30·0; 280·0; 280·0; health visitors; Nos.; 3,500; 3,500; 3,700; 3,700.

*Housing:* Subsidised industrial housing; no. of houses; 73,000; 56,000; 1,50,000; 1,50,000 slum clearance; no. of houses; 1,26,000; 90,000; 4,00,000; 3,50,000; low income group housing; no. of houses; 75,000; 45,000; 2,50,000; 2,25,000; village housing; no. of houses; 1,25,000; 30,000; 3,50,000; 3,25,000; plantation labour housing; no. of houses; 3,200; 1,400; 75,000; 50,000.

**Targets of Capacity and Production for Selected Industries**

Selected targets of capacity and production for selected industries in the order of item, unit, capacity, likely achievement of production, capacity target as in Memorandum, capacity as now proposed and production as now proposed:

*Metals:* Iron and steel: (*a*) steel ingot—000 tonnes; 8,900; 7,100; 16,500; 14,600; 13,000; (*b*) finished steel—000 tonnes; 6,600; 5,300; ..; 11,000; 10,000; (*c*) pig iron for sale—000 tonnes; 1,200; 1,200; 4,000; 3,200; 3,200; Alloy, tool and stainless steel (finished)—000 tonnes; 50; 35; 500; 500; 400; Aluminium—000 tonnes; 73; 80; 240; 263; 260.

*Mining:* Iron ore mln. tonnes; ..; 22; 54; ..; 56; Coal—mln. tonnes; ..; 67; 125; ..; 113.

*Machinery:* Commercial vehicles—000 Nos.; 44; 40; 100; 100; 100; generators—thermal—000 kw; 600; ..; 2,900; 3,000; 1,500; generators—hydro—000 kw.; 500; ..; 1,700; 1,700; 1,200; turbines—steam—000 kw.; 600; ....; 2,900; 3,000; 1,500; turbines—hydro—000 kw.; 500; ..; 1,700; 1,700; 1,200; transformers 33 kv and below—'000 KVA; 3,000; 3,500; 8,500; 6,000; 5,000; machine tools (organised sector)—Rs. mln.; 376; 300; 900; 1,100; 1,000; metallurgical and other equipment—'000 tonnes; 30,; 15; 106; 100; 60; Coal and other mining machinery—'000 tonnes; 45; 12·5; 45; 60; 45; cotton textile machinery—Rs. mln.; 400; 280; 500; 500; 450; paper machinery—Rs. mln.; 73; 22; 250; 400; 300; sugar machinery—Rs. mln.; 175; 90; 250; 250; 220; cement machinery—Rs. mln.; 178; 45; 200; 300; 280; agricultural machinery: (*a*) agricultural tractors—'000 nos.; 15; 6; 25; 40; 40; (*b*) power driven pumps—'000 nos.; 180; 180; 300; 350; 350; (*c*) diesel engines (stationary)—'000 nos.; 150; 80; 140; 200; 200; fertilisers: (*a*) nitrogenous (in terms of N)—'000 tonnes; 586·5; 300; 2,200; 2,300; 2,000; (*b*) phosphatics (in terms of $P_2O_5$)—'000 tonnes; 270; 200; 1,000; 1,000; 1,000; drugs and pharmaceuticals—Rs. mln.; 1,750; 1,000; 3,000; 2,500; 2,500; paper and paper board—'000 tonnes; 680; 530; 1,350; 1,250; 1,100; newsprint—'000 tonnes; 30; 30; 165; 165; 150; cement—mln. tonnes; 13·0; 11·5; 30·0; 25·0; 23·0; Cotton textiles; Cotton fabrics (mill-made)—mln. metres; 2·18@;

* Figures of exports pertain to handloom cloth only. ** Including cooperative industrial estates.

N.S.—Not specified. ‡ Including 1·5 lakh students to be educated through correspondence Courses. † The admission capacity includes facilities for correspondence and part-time courses. These are shown in brackets. @ Lakh looms.

4,770 ; 5,486 ; 2·3* ; 5,450 ; sugar—mln. tonnes ; 3·25 ; 3·20 ; 4·5 ; 4·5 ; 4·5 ; bicycles—mln. Nos. ; 2·0 ; 1·7 ; 3·5 ; 3·5 ; 3·5 ; motor cycles and scooters—'000 nos. ; 75 ; 50 ; 100 ; 120 ; 120 ; electric fans—mln. nos. ; 2·0 ; 1·5 ; 3·5 ; 3·5 ; 3·5 ; petroleum refining—mln. tonnes ; 15·25 ; 10·55 ; 25·25 ; 22·75 ; 22·75 .

## FINANCIAL RESOURCES FOR THE PLAN

In their report to the Planning Commission, the Resources Working Group have indicated that the size of the Fourth Plan could be Rs. 21,500 crores provided an effort is made to mobilize internal resources of Rs. 3,000 crores through additional taxation and other measures and provided foreign assistance of the order of Rs. 4,000 crores is available. They have also assumed, on the basis of the studies made by the Reserve Bank of India, that private savings of the order of Rs. 7,000 crores would be directly available for private investment. As visualised by the Group, the total resources of the Fourth Plan are as follows (Rs. crores): Public sector resources at existing rate of taxation 11,500 ; additional taxation 3,000 ; total public sector 14,500 ; private investment 7,000 ; total Plan outlay 21,500.

A small technical committee of officers from the Ministry of Finance, Planning Commission and the Reserve Bank of India, has been set up to work out proper estimates of private savings and investment in the Third Plan period as well as likely sources of finance for private investment envisaged for the Fourth Plan period. In the meantime, the Commission has maintained Plan investment in the private sector as in the Memorandum, viz. at Rs. 7,000 crores.

Concentrating on the public sector, the summary picture with regard to the availability of internal resources during the Fourth Plan period as indicated by the Resources Working Group is as follows :

*Resources available for the Fourth Plan (Rs. crores) :* Balance from current revenues at existing rates of taxation 2,755 ; surpluses of public enterprises at present prices of products : Railways 405 ; Central undertakings other than railways 720 ; State undertakings 250 ; total 1,375 ; Capital receipts : (*i*) Market loans (net) 1,500 ; (*ii*) Small savings (net) 1,000 ; (*iii*) Annuity deposits (net) 200 ; (*iv*) Provident Funds (net) 540 ; (*v*) Miscellaneous capital receipts (net) 860 ; (*vi*) Additional mobilization under each of the above heads for Reserve Bank support to Government loans 500 ; total 4,600 ; Budgetary receipts corresponding to external assistance 2,750 ; Total resources (without additional taxation) Rs. 11,480 or say 11,500.

The Planning Commission has considered it necessary to allow for the possibility of a reduction in the balance from current revenues at the Centre as a result of the Fourth Finance Commission's award, while keeping the rest of the Resources Working Group's estimates unaltered. For this reason the Commission has taken the view that the resources likely to be available to the public sector at the base level (that is to say, apart from additional taxation) may be Rs. 10,850 crores or Rs. 650 crores less than the Rs. 11,500 crores estimated by the Resources Working Group.

As regards additional resource mobilization, the Resources Working Group has suggested a figure of Rs. 3,000 crores over the five year period. The National Development Council Sub-Committee on Resources has also recommended that an additional resource mobilization of this order should be undertaken in the Fourth Plan period. Because of the adjustment that has to be made to provide for the Finance Commission's award additional resource mobilization of Rs. 3,000 crores by the public sector will not fully cover the public sector's Plan outlay of Rs. 14,500 crores. The Planning Commission considered this matter most carefully and is of the view that through more intensive effort at economy in public expenditure, better administration of taxes and public enterprises and, if necessary, additional measures of resources mobilization, a further amount of Rs. 650 crores may be made available for Plan purposes and the anticipated Plan expenditure in the public sector be taken at Rs. 14,500 crores for working out the final details of the Plan.

The major question to be decided on the resources for the Fourth Plan relates to the task of additional mobilization. The performance of this task requires the taking of hard decisions at the political and administrative levels. It is therefore of the utmost importance that a firm view is taken on this matter by the National Development Council. In general terms, the Plan, if implemented with speed and determination, should result in national income growth of the order of 6·5 per cent per annum. Even if a cautious view is taken and the likely increase in national income over the Fourth Plan period is projected at a rate of 6 per cent per annum, the level of national income would rise from an estimated Rs. 21,000 crores in 1965-66 to Rs. 28,000 crores in 1970-71 (both at 1965-66 prices). To ensure non-inflationary financing of the Plan, it will be necessary to aim at securing about 27 per cent of these additional incomes for purposes of investment, leaving the other 73 per cent or so to add to consumption standards within the country.

It will be necessary in the Fourth Plan period to raise the proportion of total investment to total national income to about 17 per cent by the end of the Fourth Plan as compared to about 14 per cent at present. Correspondingly, domestic savings as a proportion of national income has been raised from around 10·5 per cent at the end of the Third Plan to about 15 per cent at the end of the Fourth Plan. A good part of the increase in domestic savings has to be secured through additional taxation going into public savings. Tax receipts as a proportion of national income have risen steadily to nearly 13 per cent in 1965-66. Without additional taxation, this percentage would rise to about 15 by the end of the Fourth Plan as receipts from income and corporation taxes, excise duties, sales tax, electricity duties, etc. are likely to grow at a more rapid rate than national income. The additional tax effort visualised would require the raising of tax receipts as a percentage of national income further, to around 18 per cent by the end of the Fourth Plan. It may be pointed out that, for achieving a cumulative total of Rs. 3,000 crores over the five-year period, measures yielding new revenues of the order of Rs. 200 to Rs. 230 crores will have to be introduced in each of the five years.

The problem of external resources is likely to be a difficult one during the Fourth Plan period. Detailed studies relating to exports indicate that export earnings during the Fourth Plan period may aggregate to Rs. 5,100 crores, rising to a level of Rs. 1,100 crores in 1970-71 from an estimated level of a little over Rs. 840 crores in 1965-66. Requirements of maintenance imports, including imports of components needed for the manufacture of industrial machinery and transport equipment, have been estimated at a total of Rs. 5,300 crores for the Fourth Plan period. These calculations are based on the assumption that a strict import policy will continue to be followed during the Plan period, and that imports of consumer goods and of raw materials for the manufacture of a number of consumer items will be held down at restricted levels.

Our external debt servicing obligations by way of interest payments and repayment of capital are estimated at Rs. 1,350 crores during the Fourth Plan period. While the great bulk of these payments will be on account of external loans already contracted, some provision has been made in the calculations for interest charges to be paid on new loans to be obtained during the Fourth Plan period. Of the total, interest payments are estimated to account for Rs. 650 crores and capital repayments of Rs. 750 crores. Other items on invisible and Capital account are expected to be more or less in balance during the Fourth Plan period.

It will be seen from the above that there is not only a gap of Rs. 200 crores on the maintenance account but also a Foreign exchange outflow of Rs. 1,350 crores to meet debt servicing obligations. Foreign exchange resources by way of external assistance have thus to be found not only to meet these payments, but also to finance the imports required for the projects and programmes included in the Plan. Firm indications are not yet available of the total quantum of external assistance, including private foreign capital, likely to be forthcoming during the Fourth Plan period. Our present assumption in drawing up the Fourth Plan, however, is that an aggregate amount of Rs. 4,000 crores of gross external assistance may be available. While this assumed figure of gross external assistance is substantially larger than the amount of Rs. 2,600 crores of gross assistance received during the Third Plan, the requirements of net assistance after allowing for interest payments and repayments of capital are not very much larger as compared to the Third Plan. The corresponding figures of net assistance are Rs. 2,100 crores for the Third Plan and Rs. 2,650 crores for the Fourth Plan — a step-up of Rs. 550 crores from the Third to the Fourth Plan period. This moderate increase in net external assistance may be viewed against the much larger step-up in aggregate investment from the Third to the Fourth Plan period —from a level of Rs. 10,000 crores to Rs. 19,000 crores.

## PLAN GAPS

The Planning Commission is reported to be of the view that whatever be the prospects at the moment, net external aid of the order of Rs. 2,500 crores is essential during the Fourth Plan to fill gaps in the production structure.

The planners also feel that adequate non-project assistance should be available for maintenance imports to utilise the existing capacity both productive and fabricating.

Imports of special and alloy steels and other raw materials covered by united aid would help push through some of the key projects and produce engineering and chemical goods without adversely affecting the Fifth Plan, according to them.

The external assistance requirements for the Fourth Plan are broadly assumed at Rs. 4,000 crores covering the Aid India Consortium countries, the communist bloc and the World Bank. Of this, Rs. 1,500 crores are required for debt servicing during the Fourth Plan.

## POLICY QUESTION

While negotiations have taken place with the Soviet Union and Czechoslovakia on aid for the Plan, the position on aid from the Western countries is not yet clear. No discussion is likely to take place until the suspension of aid by some of them, notably the U.S., comes to an end.

One major policy question that is receiving attention at present is whether India should go in for more of bilateral aid or the consortium type assistance. No firm conclusions are yet available.

The then Finance Minister, who visited Czechoslovakia and the Soviet Union, had plans to visit Japan early in January 1966. It is likely that the present Finance Minister may visit Japan, France and West Germany. Even if the existing consortium arrangement is to be continued, bilateral efforts are considered necessary for a proper appraisal of India's needs and performance.

The Soviet and Czech aid for the Fourth Plan covers both project and non-project assistance and trade. The Soviet assistance will also cover defence hardware and the provision of components and spares for industries set up with its collaboration, it is learnt.

The formulation of the Fourth Plan has to some extent been tied up with the prospects of foreign aid. If external assistance of the assumed level is not forthcoming, the Plan would undergo changes. The Commission is already engaged in

several exercises on import substitution and indigenous know-how as part of the efforts to reduce external assistance.

Normally, a World Bank team should have visited India in September-October for discussions on the progress of the Third Plan followed by another team before the end of the year to assess the requirements of aid for the Fourth Plan.

If economic aid is resumed by countries like the U.S., it is expected these teams might come to India in the next three or four months.

## PLAN OUTLINE

Meanwhile, the Planning Commission hopes to bring out the outline of the Plan in April and the final Plan document in July/August. The original schedule to publish the final Plan in April has been upset by the Indo-Pakistani conflict.

A clearer picture of external assistance is likely to emerge early in 1966. The U. S. Government is likely to invite India's new Prime Minister soon after the election on January 19.* Economic development is expected to figure in the talks between the new Prime Minister of India and President Johnson during the former's visit to the U.S.

One of the matters which is likely to be considered in the context of external assistance is in the area of debt servicing, such as the portion of interest that might be paid and the part that might be capitalised.

But, according to Commission sources, it would be necessary to ensure that the net aid available fulfils the Plan assumption and that an adequate share of maintenance imports is provided for. In the latter event, industrial production is expected to go up by Rs. 500 crores, according to one estimate.

If the assistance turns out to be of the same order as in the Third Plan (Rs. 2,600 crores), the net aid for the Fourth Plan projects after repayment of obligations might be approximately Rs. 1,200 crores. The Plan would then have to be adjusted to this scale of new assistance and Rs. 1,400 crores of project assistance for the Third Plan in the pipeline.

Non-project aid from the U.S. formerly was of the order of $260 million (about Rs. 120 crores). The absence of maintenance imports, it is feared, would have a detrimental effect on the utilisation of the existing capacity.

The Commission sources hope that in the next two months, some of the problems of external assistance would be sorted out.

The U.S. recently sanctioned $50 million (about Rs. 24 crores) for fertiliser imports.

Meanwhile, consultations have been continuously taking place between the Commission on the one hand and the Defence Ministry, scientists and technologists on the other hand for making the Plan more defence-oriented and attaining self-reliance in as many fields as possible.

## PLAN OUTLAY FOR 1966-67

The annual Plan outlay for 1966-67, the first year of the Fourth Plan period, is likely to be of the order of Rs. 2,050 crores, according to the latest indications.

A sum of Rs. 1,150 crores will be in the Central sector including outlays in Union Territories totalling between Rs. 80 and Rs. 85 crores.

Of the States' sector accounting for nearly Rs. 900 crores, the Central assistance would be Rs. 500 crores.

The States' own contribution, according to resources in sight, is calculated at Rs. 250 crores, to which would be added additional resources of the order of Rs. 120 crores to be raised by them during the coming year.

A gap of about Rs. 30 crores still left is expected to be covered from the States' share of additional taxation at the Centre.

## STATEWISE PLAN OUTLAYS FOR 1966-67.

| State | Approved Outlay (Rs. Crores) | Central Assistance (Rs. Crores) |
|---|---|---|
| Andhra Pradesh .. | 79·25 | 50·00 |
| Assam .. .. .. | 26·45 | 23·40 |
| Bihar .. .. .. | 71·83 | 42·50 |
| Gujarat .. .. | 49·69 | 19·40 |
| Jammu & Kashmir .. | 19·04 | * |
| Kerala .. .. | 40·55 | 28·30 |
| Madhya Pradesh .. | 58·10 | 33·60 |
| Madras .. .. | 75·33 | 33·30 |
| Maharashtra .. .. | 120·34 | 23·00 |
| Mysore .. .. | 50·72 | 34·00 |
| Nagaland .. .. | 5·11 | 4·40 |
| Orissa .. .. .. | 45·77 | 24·70 |
| Punjab .... .. | 59·93 | 33·00 |
| U.P. .. .. .. | 133·95 | 79·50 |
| Andaman Islands .. | 1·58 | * |
| Delhi .. .. .. | 26·17 | * |
| Goa .. .. .. | 8·60 | * |
| Himachal Pradesh .. | 9·20 | * |
| Laccadive Islands .. | 0·62 | * |
| Manipur .. .. | 3·86 | * |
| NEFA .. .. .. | 2·67 | * |
| Pondicherry .. .. | 3·50 | * |
| Tripura .. .. | 5·02 | * |
| Total .. .. | 897·28 | 429·10 |

* The outlay will be financed by the Centre.

Discussions on the Plans for Rajasthan and West Bengal were inconclusive. Rajasthan has proposed an outlay of Rs. 48 crores, while its resources including Central assistance of Rs. 26 crores amount to Rs. 38 crores. In the case of West Bengal, the outlay proposed by the State is Rs. 76·47 crores as against the estimated resources of Rs. 57·30 crores including Central assistance of Rs. 27·50 crores. Both the States have been asked by the Planning Commission to revise their proposals or to find additional resources.

## TALKS WITH STATES

The Planning Commission has had discussions with over 12 State Governments so far on their annual Plans though some of the State plans are yet to be finalised.

Some gaps in the annual plans of States like Maharashtra (Rs. 9·6 crores) and Madras (Rs. 2·5 crores) are yet to be covered though the size of their Plans has been determined.

But as these States have reserves and there is a possibility of improved tax receipt with a brightening up of the economy, not much difficulty is anticipated in overcoming these gaps. In the case of Maharashtra, the resources position will be reviewed in July.

The Commission will complete the finalisation of the annual Plans of both the States and the Centre including the Union Territories before the end of January.

The following is a summary of the Statewise Plan allotments for 1966-67 as approved by the Planning Commission :

**Andhra Pradesh :** The Planning Commission approved a total outlay of Rs. 79·25 crores for the annual plan of Andhra Pradesh for 1966-67.

The Central assistance is likely to be of the order of Rs. 50 crores. The State's resources have been estimated at Rs. 29·25 crores inclusive of Rs. 4 crores to be raised by additional taxation in 1966-67 besides Rs. 2 crores already raised in the current year.

The outlay under various sectors (which are subject to marginal adjustments) for 1966-67 are :

Agriculture—Rs. 15 crores ; power—Rs. 32 crores ; the Nagarjunasagar irrigation project—Rs. 8·5 crores ; major and medium irrigation schemes—Rs. 4·9 crores : social services—Rs. 9 crores ; co-operation and C. D. —Rs. 2·81 crores ; transport—Rs. 4 crores and industry—Rs. 2·90 crores.

**Bihar :** An outlay of Rs. 75·83 crores has been approved by the Planning Commission for the annual plan of Bihar for 1966-67.

The Central assistance to the State for 1966-67 was estimated at Rs. 42·5 crores.

The tentative sectoral allocations, subject to adjustments, are as follows (in crores of rupees) : agricultural programmes 15·75, co-operation and community development 3·59, irrigation and power 36·71, industry and mining 2·66, transport and communications 3·3, and social services 10·67. In the allocation for social services a provision of Rs. 2·2 crores has been made for Getalsud project.

**Gujarat :** An investment of just under Rs. 50 crores has been approved by the Planning Commission for Gujarat's Plan for 1966-67. This includes nearly Rs. 30 crores for agriculture and related programmes.

A feature is the token allocation of Rs. 2 lakhs for development schemes in the border areas suggested by the late Mr. Balvantray Mehta. These include small-scale and village industries and training schemes.

Central assistance will aggregate Rs. 19·4 crores, the State itself having to raise the balance of Rs. 30 crores. In addition, Rs. 1 crore will have to be found by the State for the energisation of tube-wells and pumping sets.

The sectoral allocations are : agriculture Rs. 14·14 crores, co-operation and community development Rs. 2·78 crores, irrigation Rs. 10·28 crores, energisation of tube-wells Rs. 2·70 crores, transport and communications Rs. 4·20 crores, power Rs. 6·45 crores, industry and mining Rs. 2·50 crores, and social services Rs. 6·48 crores.

In addition, nearly Rs. 18·6 lakhs will be reserved for the welfare of backward classes, Rs. 3·3 lakhs for social welfare and Rs. 30 lakhs for labour welfare.

**Jammu and Kashmir :** An outlay of Rs. 19·05 crores has been fixed by the Planning Commission for the annual plan of Jammu and Kashmir for 1966-67. This will be in addition to Rs. 4 crores for development schemes undertaken in the Third Plan, which will be treated as next year's " committed expenditure ".

The effective total investment in the Jammu and Kashmir State during 1966-67 will thus be around Rs. 23 crores, against the anticipated investment of about Rs. 16 crores in the current year.

The main emphasis in the State programme for the next year will be on food production, including a crash programme to bring under intensive cultivation an area of 15,000 acres. The tentative allocations for the main sectors of development for 1966-67 are (in lakhs of rupees) : agricultural programmes 313·53, community development and co-operation 93,43, irrigation and power 555·80, industry and mining 186·92, transport and communications 292·00, social services 365·17, development of Ladakh 65, and miscellaneous 31·55.

**Madhya Pradesh :** The Planning Commission has approved a total outlay of Rs. 58·10 crores for the annual plan for Madhya Pradesh for 1966-67. The Centre's contribution to the State will be of the order of Rs. 39·6 crores.

The tentative allocations approved for various sectors of development are : agriculture programme Rs. 17·98 crores, community development and co-operation Rs. 4·11 crores, irrigation and power Rs. 20·54 crores, industry and mining Rs. 2·10 crores, transport and communication Rs. 3·49 crores, social services Rs. 8·31 crores and miscellaneous Rs. 1·47 crores.

**Madras :** The Planning Commission has approved an outlay of Rs. 75·30 crores for the annual Plan of Madras for 1966-67. The Central assistance to the State next year has been fixed at Rs. 33·3 crores.

* Prime Minister Mrs. Indira Gandhi has visited the U.S.A. in March 1966 ; had discussions with President Johnson about aid.

The State's Third Plan expenditure for the five-year period as a whole is expected to be Rs. 341 crores against the outlay of Rs. 291 crores. This was made possible by the State contributing an additional Rs. 45 crores for the Plan.

According to official sources, Madras is likely to fulfil, and in some cases, exceed the physical targets except in the case of agriculture production potential, improved seeds and power where the performance rate is at 70 to 80 per cent. of the targets.

The sectoral allocations for 1966-67 are (in crores of rupees): Agricultural programmes 16·51, c.d. and co-operation 5·22, irrigation and power 29·30, industry and mining 5·55, transport and communications 2·25, social services 16·27 and miscellaneous 0·11.

With the State's resources inclusive of Central Assistance estimated at Rs. 72 crores, Madras may have to find some additional resources to finance the Rs. 75-crore plan.

Besides the two major irrigation schemes, the Plan also provides for the completion in 1966 of Gomukhi medium project to irrigate 5,000 acres. Rs. 6 crores have been set apart for rural electrification, particularly energisation of wells.

In industries, the Plan includes proposals for the setting up of the Madras Industrial Development Corporation and an agro-industries corporation for which a provision of Rs. 25 lakhs and Rs. 5 lakhs respectively has been made. The provision for mineral development is Rs. 15 lakhs.

**Maharashtra:** An investment of Rs. 120·34 crores in Maharashtra's Plan for 1966-67 has been approved by the Planning Commission.

The Centre's contribution to the Plan will aggregate Rs. 23 crores, the understanding being that the balance will be made up by the State.

The following is the sectorwise breakdown of the Plan: Agriculture Rs. 33·04 crores, Co-operation and Community Development Rs. 7·07 crores. Irrigation and Power Rs. 45·78 crores. Industry and Mines Rs. 3·95 crores. Transport and Communications Rs. 13·14 crores, and Social Services Rs. 17·25 crores.

**Mysore:** A Rs. 50·72 crore Plan for 1966-67 for Mysore has been approved by the Planning Commission. Central assistance will be Rs. 34 crores.

Allocations under the various heads are as follows: agriculture Rs. 13·94 crores, community development and co-operation Rs. 3·37 crores, irrigation and power Rs. 19·21 crores, mining Rs. 1·81 crores, transport and communications Rs. 4·65 crores, social services Rs. 7·50 crores and miscellaneous Rs. 0·24 crore.

**Nagaland:** A total outlay of Rs. 5·11 crores has been fixed for Nagaland's annual plan for 1966-67 by the Planning Commission.

Of the outlay, a sum of Rs. 1·10 crores will go to the development of communications and Rs. 60 to 65 lakhs each to education, electricity and medical services.

**Punjab:** A total outlay of Rs. 59·92 crores has been approved by the Planning Commission for the annual Plan of the Punjab for 1966-67.

The Centre's contribution to the State will be Rs. 33 crores. The State's resources have been estimated at Rs. 22·50 crores. The State will raise an extra amount of Rs. 2·2 crores through additional levies on irrigation rates, land revenue, electricity rates and urban immovable property on the lines agreed to between the neighbouring States of the Punjab, Rajasthan and Uttar Pradesh during the next year. The Central assistance wil thereafter be correspondingly raised by Rs. 2·2 crores.

The tentative allocations for main sectors of development will be as follows: agricultural programmes Rs. 1·40 crores, community development and co-operation Rs. 2·67 crores, irrigation and power Rs. 31·45 crores, industry and mining Rs. 2·5 crores, transport and communications Rs. 2·79 crores, social services Rs. 7·95 crores and miscellaneous Rs. 1·11 crores.

**Andamans:** An outlay of Rs. 158·30 lakhs has been approved by the Planning Commission for the annual plan of Andaman and Nicobar islands for 1966–67.

In addition to the normal Plan, Andamans will have a special area development plan, controlled by the Union Ministry of Rehabilitation. Details of the special area programme will be worked out by the Ministry of Rehabilitation and the scheme will be co-ordinated with the rural development plan.

The tentative outlays for the main sectors of development in the annual Plan of the Union Territory will be as follows (in lakhs of rupees):—

Agricultural programmes 32·75, community development and co-operation 11·26, power 9·10, village and small industries 2·17, transport and communications 65·34, social services 34·53, and miscellaneous 3·15.

**Goa:** A total outlay of Rs. 8·6 crores has been approved by the Planning Commission for the annual Plan of the Union territory of Goa, Daman and Diu for 1966-67.

The tentative outlays for main sectors of development will be as follows (in lakhs of rupees): agricultural programmes 172·88; community development and co-operation 42·30; irrigation and power 160·20; industry and mining 26·30; transport and communications 91·35: general and technical education 79·00, health 142·71, housing 20·00; welfare of backward classes, social welfare, labour and labour welfare 22·88; public co-operation 2·27; buildings 70·00; and miscellaneous 33·49.

**Laccadives:** The Planning Commission has approved an outlay of Rs. 61·76 lakhs for the annual plan of Laccadive, Minicoy and Amindivi Islands for 1966-67.

The tentative outlays for the main sectors of development for next year's plan of the Union Territory will be as follows (in lakhs of rupees):

Agricultural programmes 16·82; co-operation 2·43; power 4·36; industry 0·87; transport 25·67; social services 11·46; and miscellaneous 0·21.

**NEFA:** A total outlay of Rs. 2·67 crores has been fixed by the Planning Commission for the Annual Plan of the NEFA for 1966-67. A high priority has been given for agricultural programmes and roads, followed by social services, including education and health.

The tentative outlay for agricultural programmes will be Rs. 50·94 lakhs, in addition to Rs. 21·48 lakhs for community development and Rs. 15·31 lakhs for co-operation.

The allocation for transport and communications including roads, will be Rs. 70 lakhs, including provision for development of roads to link up administrative centres and villages, thereby facilitating fuller exploitation of resources of the Territory.

For social services, an allocation of Rs. 77·83 lakhs has been made in the next year's Plan of which Rs. 45 lakhs will be for health services and the remaining amount for educational schemes.

An additional amount of Rs. 50,000 will be available to the Administration for schemes such as visits of technical experts, including doctors, engineers, etc., from other areas, to render social service to the people.

Other important allocations will be as follows: Power Rs. 15 lakhs, village and small industries Rs. 9 lakhs, and miscellaneous Rs. 3·1 lakhs.

**Tripura:** An outlay of Rs. 5·02 crores has been fixed by the Planning Commission for the annual plan of the Union Territory of Tripura for 1966-67.

The outlays for main sectors of development (in lakhs of rupees) are: Agricultural programmes 100, co-operation and community development 38, irrigation and power 64, industry and mining 40, transport and communications 116, social services 128·81, and miscellaneous 15·70.

The outlay for power, fixed at Rs. 56 lakhs, will meet the needs of the Gumti hydro-electric project, the installation of the main transmission line from Assam, and the 500 k.w. unit to be set up in Agartala. It is expected that, with the completion of these schemes. Tripura will have no power problems by the end of 1966-67.

Among industrial schemes, allocations have been made in the next year's plans for a spinning mill with 51 per cent. government participation, extension of Tripura Small Industries' Corporation and a private plywood factory. Other projects under consideration are a jute mill and a paper plant, both of which are in the preliminary stage.


## AIRWAYS COMPANIES—(*Contd.*)

**SWISSAIR**

*Bombay:* Manek Mahal, 90, Vir Nariman Road; Tel.: 24 20 66/68.

*Calcutta:* 18 Park Street,, Tel.: 23 80 12.

*New Delhi:* 56, Janpath; Tel.: 4 82 05/4 48 50.

*Madras:* Connemara Annexe; Tel.: 8 25 83/8 25 92.

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# IMPORTANT EVENTS OF THE YEAR 1965

## JANUARY

4 : Increase in dearness allowances for Central Government employees announced.

8 : The All-India Congress Committee at Durgapur endorses the Government's policy of not making nuclear weapons.

15 : A cabinet panel finds Mr. B. Patnaik and Mr. Biren Mitra guilty of impropriety.

22 : Prime Minister Lal Bahadur Shastri inaugurates the country's first plutonium extraction plant at the Atomic Energy Establishment at Trombay.

24 : The first unit of the Sharavathi Valley Project, the biggest hydro-electric project in Asia, is commissioned.

25 : Violent anti-Hindi riots break out in Madurai, Madras and several other South Indian cities.

An agreement for the construction of the Bokaro Steel Plant and for the grant of Rs. 100 crore credit for the foreign exchange cost of its first stage is signed between India and U.S.S.R.

30 : Mr. Biren Mitra, Chief Minister of Orissa resigns following the findings of "impropriety" against him by a Central Cabinet panel.

## FEBRUARY

1 : Two corporations are set up in the Public Sector—India Tourism Hotel Corporation and India Tourism Corporation.

An agreement for the construction of a shipyard at Cochin is signed between the Government of India and Mitsubishi Heavy Industries of Japan.

5 : General Ne Win of Burma arrives in Delhi on an 8-day State visit.

6 : Mr. Pratap Singh Kairon, former Chief Minister of Punjab is shot dead in his car by four masked gunmen 20 miles out of Delhi.

12 : Police and troops fire on violent anti-Hindi agitators in Madras.

18 : The railway budget for 1965-66, providing for increased fares and freight is presented to Parliament.

25 : Prime Minister Shastri reaffirms the basic decision that "Hindi is the official language of the Union and English is to continue as an associate language."

27 : The Union Budget for 1965-66 is presented to Parliament promising tax relief at all levels of personal incomes.

## MARCH

3 : Mr. H. V. Kamath places on the table of the Lok Sabha the secret report of the Central Bureau of Investigation on corruption charges on Mr. Patnaik and Mr. Biren Mitra along with the Cabinet sub-committee's findings thereon.

5 : At the general election in Kerala the leftist communists emerge as the largest single party getting 44 out of the 130 seats.

6. The 25 crore rupees Dhuvaran thermal power project is commissioned by Prime Minister Lal Bahadur Shastri near Baroda.

7 : The Kandla Free Trade Zone is inaugurated.

20 : Mr. E. M. S. Namboodripad threatens to launch direct action in Kerala, if his party is not allowed to form a Government.

24 : President's rule is proclaimed in Kerala, dissolving the newly elected Legislative Assembly.

## APRIL

1 : Sheikh Abdullah sees Mr. Chou En-lai at Algiers to seek support for "self-determination" for Kashmiris.

5 : The Union Government cancels all endorsements of Sheikh Abdullah's passport except those necessary for his Haj pilgrimage.

10 : Units of the Indian Army take over the Kutch border following attacks by the Pakistani Army.

14 : Prime Minister Shastri indicates his intention of setting up a panel to investigate charges of corruption against Ministers.

16 : The proposed visit to the United States in June by Prime Minister Shastri is cancelled.

22 : The Aid India Consortium pledges 1027 million dollars to India for the final year of the Third Plan.

23 : In a speech in the Lok Sabha Prime Minister Shastri gives an ultimatum to Pakistan to stop aggressive actions against India.

24 : Pakistan mounts a massive assault on India at the Kutch border.

## MAY

1 : President Ayub Khan threatens a total war against India.

8 : Sheikh Abdullah is interned at Ooty under the Defence of India Regulations.

12 : Prime Minister Shastri arrives in Moscow on a seven-day visit.

20 : Two members of the Indian expedition led by Lt. Commander M. S. Kohli reach the top of Mount Everest.

28 : About 400 miners are feared dead in an underground explosion in a Bihar coal mine, the worst-ever blast in India's mining industry.

31 : An ordinance is promulgated by the President making it compulsory for employers having 20 or more workers to pay a minimum bonus even if the concern did not make any profit.

## JUNE

7 : A conference of Home Ministers decides to set up a central command to guard the nation's far-flung borders.

9 : Prime Minister Shastri leaves on an extended trip to U.A.R., Canada, U.K., and Algeria.

10 : The Union Government assumes special powers under the Defence of India Rules to regulate the distribution of petroleum products.

17 : India receives a non-project loan of 190 million dollars from the United States for financing commodity imports during 1965-66.

25 : India and Pakistan agree on a three-member arbitration tribunal on Kutch.

29 : India and Pakistan sign an agreement for a formal cease-fire in the Rann of Kutch.

## JULY

4 : Chinese light tanks and armoured trucks roll into occupied Ladakh in a massive effort to reinforce the Communist troops menacing India.

7 : Prime Minister Shastri renews the offer to sign a "no-war" pact with Pakistan.

25 : Mr. K. Kamraj is elected President of the Congress Party for a second term.

28 : Prime Minister Shastri arrives in Belgrade on a four-day state visit.

## AUGUST

1 : Dr. Milton Obote, the Prime Minister of Uganda arrives in Bombay on a ten-day visit to India.

7: Heavily armed Pakistani sabotage parties infiltrate two sectors of the cease-fire line in Jammu and Kashmir.

16 : Indian forces retake the three Pakistani posts in Kargil in the face of attempts to cut the Srinagar-Leh lifeline.

A mammoth protest demonstration before Parliament House by an estimated two lakh Jan Sangh volunteers demand that the "ignoble" Kutch agreement be revoked.

19 : India cancels the August 20 talks with Pakistan Foreign Minister Bhutto on the Kutch issue.

Finance Minister Krishnamachari's supplementary budget on the Lok Sabha proposes extra indirect taxes to the tune of Rs. 3,000 crores for the Fourth Five Year Plan period.

25 : Indian security forces cross the cease-fire line in Kashmir at two points and establish new positions.

30 : The Indian Army clears the Uri-Poonch bulge on the Pakistan side of the cease-fire line of Pakistani raiders' bases and occupies Haji Pir Pass.

## SEPTEMBER

1 : A huge column of Pakistani troops backed by 70 medium tanks makes an unsuccessful attempt to break through the Indian lines in the Chhamb sector.

5 : The Indian Army begins to march on Lahore against stiff resistance by Pakistani armoured columns.

8 : Armoured columns of the Indian Army advance into West Pakistan in the direction of Hyderabad (Sind).

13 : A major clash in the Sialkot sector as the Indian Army storms its way towards the town.

17 : China issues a 72-hour ultimatum to India to dismantle military installations on the Sikkim border and Prime Minister Shastri promptly warns China against trying to intervene militarily in the India-Pakistan conflict.

19 : Mr. Balwantray Mehta, Chief Minister of Gujarat is shot down by a Pakistani Air Force plane.

22 : Communist China claims that Indian troops have dismantled their "illegal military structures" on the Sikkim border.

India and Pakistan accept the cease-fire proposals of the Security Council.

23 : The Union Government sets up a Cabinet sub-committee to go into the question of Punjabi Suba.

30 : President Radhakrishnan arrives in Yugoslavia on a State visit.

## OCTOBER

1 : The new 15-member Gujarat Ministry headed by Mr. Hitendra Desai is sworn in .

6 : China again warns India to stop incursions "along the Sikkim border" or "bear the responsibility for all the grave consequences."

11 : The first phase of the three-million tonne Gujarat refinery at Koyali is commissioned.

17 : Prime Minister Shastri visits Bombay to be greeted by the biggest-ever crowds seen in the city.

19 : In a nation-wide broadcast to the nation, Prime Minister Shastri announces the introduction of various schemes for economic mobilisation including a 15-year Gold Bond scheme.

24 : Prime Minister Shastri lays down India's minimum conditions for the U.N. Security Council's immediate consideration to ensure peace in the sub-continent.

30 : Pakistan seizes Indian jute and tea worth more than Rs. 5 crores from ships carrying the cargo.

## NOVEMBER

4 : The Mysore Cabinet decides to relax prohibition immediately more or less on the pattern of Maharashtra.

6 : The 39·50-crore Trombay Fertiliser factory is formally opened.

8 : President's rule is extended in Kerala for another six months.

16 : Prime Minister Shastri declares his willingness to have talks with President Ayub Khan of Pakistan in Tashkent on any issue except Kashmir.

17 : India pledges unqualified support to Khan Abdul Gaffar Khan in his fight for Paktoonistan.

23 : Prime Minister Shastri accepts in principle, Soviet Prime Minister Kosygin's invitation for talks with President Ayub Khan in Tashkent.

**DECEMBER**

2 : The Maharajkumar of Vizianagaram, who was awarded Padma Bhushan in 1958 for his contribution to cricket, dies of a heart attack.

8. The Monopolies Inquiry Commission submits its report.

9 : The Union Cabinet decides to make ex-gratia payments to the employees of all non-competing public sector undertakings, equivalent to the bonus amount under the payment of Bonus Act.

18 : 950 Indian nationals interned in Pakistan during the hostilities are returned to India in exchange for 998 Pakistanis.

Prime Minister Shastri arrives in Rangoon on a three-day official visit.

# CEMENT INDUSTRY

**THE first venture in the manufacture of Portland Cement in India took place in 1904, in a small factory just outside Madras, but it quickly went out of business.**

The cement industry in India occupies a position of basic and strategic importance in the economy. At the beginning of the 1st Plan, there were 21 cement factories. At present there are 36 cement factories with a total installed capacity of 10·12 million tonnes.

Between 1948 and 1959, the total world production of cement nearly doubled to 292 million tonnes. In 1948, the total production of cement in India was 1,578 thousand tonnes constituting about 1·5 per cent of total world production in that year. Production in India in 1959 was nearly three and a half times that of 1948. With a production of 6·9 million tonnes, India contributed some 2·4 per cent of the total world production in 1959. In that year, India was the ninth biggest producer of cement in the world in quantitative terms after U.S.A., U.S.S.R., West Germany, Japan, France, Italy, Britain and Mainland China in that order.

In 1950–51, there were 21 factories in India with a total installed capacity of 3·3 million tonnes per annum. At the end of the First Five Year Plan, there were 27 units with a total capacity of 5·0 million tonnes. The Second Five Year Plan placed the provisional target for the cement industry at a capacity of 16·0 million tonnes per annum and production at 13·0 million tonnes by 1960–61. Subsequently, however, the target of capacity was revised to 11·0 million tonnes per annum. At the end of the Second Five Year Plan, the units engaged in the production of cement numbered 34, and the total installed capacity reached the level of about 9·2 million tonnes per annum. The largest number of units were located in Bihar (7). The distribution of the rest was : Andhra Pradesh (5), Gujarat (5), Madras (4), Madhya Pradesh (3), Mysore (3), the Punjab (2), Rajasthan (2), Orissa (1), Uttar Pradesh (1) and Kerala (1). The actual production of cement rose from 4·7 million tonnes in 1955–56 to about 7·9 million tonnes in 1960–61.

On account of the vast construction programmes taken up in the country, the indigenous consumption of cement has gone up considerably during the last few years. Consumption of cement is currently expected to increase by 10 per cent per year. To meet the estimated requirements for domestic consumption and for exports the targets for capacity and production of the cement industry have been fixed at 15 million tonnes and 13·50 million tonnes per annum, respectively, to be achieved by 1965–66. During the first year of the Third Five Year Plan, schemes for expansion of capacity of three existing units (inclusive of a capacity for 170 thousand tonnes of slag cement) and setting up of a new unit (in Mysore) were nearing completion. Of the newly licensed units, two are projected to be located in Andhra Pradesh, one each in Jammu and Kashmir, Madras, Assam, Madhya Pradesh, Maharashtra and Gujarat. Schemes for expansion of 14 existing units have also been licensed or approved for licence. The new schemes which are not yet covered by import licence inclued projects for establishing units in West Bengal, Gujarat, Rajasthan, Madras and the Punjab.

*Slag cement* :—The initial growth of the cement industry in India was helped by the plentiful supply of raw materials. The principal raw materials required for the manufacture of portland cement are limestone, clay, gypsum and coal. Coal is used both as fuel and as raw material. As the reserve of good quality limestone is rather limited in the country and as the demands of other industries have increased in recent times attempts have been made to utilize new kinds of raw materials such as blast furnace slag and pozzolanic materials. Blast furnace slag available from the iron and steel plants has, however, to be suitably granulated according to actual requirements. It has been estimated that the foreign exchange needed for slag cement plant and machinery is less than that for portland cement equipment.

In the First Five Year Plan no capacity was developed for the manufacture of slag cement in the country but at the end of the Second Five Year Plan period, a total annual installed capacity of 18 thousand tonnes of slag cement was developed. Subsequently, a scheme was implemented for the expansion of a cement factory in Bihar for the production of 170 thousand tonnes of slag cement per year. Schemes not yet covered by import licence or which are expected to be implemented with indigenous machinery include a further capacity of 1·2 million tonnes per annum for production of slag cement by two new factories in West Bengal and Madhya Pradesh and by four existing factories in Bihar and Orissa.

Two units located at Kottayam in Kerala and Porbandar in Gujarat have commenced production of white cement. The additional capacity planned for creation during the Third Plan period includes a capacity of 0·4 lakh tonnes of white and coloured cement by a new unit in Madras and an existing unit in Madhya Pradesh.

Decorative waterproof cement coating, cement waterproofing compound and coloured portland cement of various shades are also now manufactured in India.

At present asbestos cement products including roofing materials and pipes are made by seven units with an installed capacity of 279,000 tonnes a year. Actual production of these products during 1960, 1961 and 1962 were placed at 211,270 tonnes, 214,000 tonnes and 234,030 tonnes, respectively.

It is a growing industry, for the demand for cement is expected to rise by 12·5 per cent a year to 12·8 million tonnes in 1964. If the schemes which had already been licensed for substantial expansion of existing units and for establishment of new units materialised as scheduled, the industry would have 42 factories by the end of 1964 and be represented in all the States, except West Bengal.

Despite the marked expansion of the cement industry, *per capita* consumption is not more than 20 kg., which is among the lowest in the world.

The trend of capacity and actual production in the past three years is indicated below :

(in thousand metric tons)

| | 1964 | 1963 | 1962 |
|---|---|---|---|
| Capacity .. | 10,800 | 9,684 | 9,728 |
| Production .. | 9,696 | 9,360 | 8,587 |

The annual capacity of the cement industry has continued to show a steady rise from 9·47 million tonnes at the end of 1961 to 10·8 million tonnes at the end of 1964. The production of cement during 1963 was of the order of 9·36 million tonnes which is about 9·40 per cent more than the production in 1962.

The cement production capacity is expected to be raised by 1,750,000 tonnes in 1965-66 bringing the industry's total capacity to 13,000,000 tonnes by the end of the Third Plan. The present production (Feb. 1965) is of the order of 10,000,000 tonnes against an estimated demand of about 12,500,000 tonnes. The cement production in the Fourth Plan is likely to be 15 to 16 million tonnes. Out of this, about five million tonnes are likely to be produced in the public sector.

The production of asbestos cement sheets and pipes increased from 3·02 lakhs tonnes in 1963 to 3·72 lakh tonnes in 1964 despite shortage of foreign exchange for import of raw asbestos fibre. The annual capacity of the industry during 1964 was 3·84 lakh tonnes.

The total investment required for the achievement of a production capacity of 15 million tonnes of cement by 1965-66 is estimated at Rs. 55 to Rs. 60 crores during the Third Plan. The foreign exchange requirements for the implementation of the schemes envisaged in the Third Plan are estimated at Rs. 15 crores.

The Union Government has set up a State-owned public limited company called the Cement Corporation of India with a view to bolstering up the development of the cement industry.

The establishment of the corporation is one of the steps designed to accelerate the development of basic and producer goods industries according to the pattern visualised in the Plan.

The corporation will not only direct its efforts towards facilitating private investment in the private sector, especially in its expansion programmes, but will also assist the growth of the public sector in this vital industry.

The need for such a corporation has arisen because of the expected phenomenal increase in the demand for cement during the Fourth Plan.

According to the Fourth Plan projections made by the Planning Commission, the likely growth in demand for cement in the next Plan would call for the creation of fresh capacity of at least 10 million tons per annum.

The principal raw material of the industry is limestone. But inadequate knowledge of the country's limestone reserves has been one of the factors retarding the development of the industry in recent years.

The survey, prospecting and providing of cement grade limestone in the country is thus one of the two principal objectives of the corporation.

Its other objective would be the installation of sufficient capacity for the manufacture of cement in the public sector to help achieve the cement production target of the Fourth Plan. (*For more details see under "All India Corporations."*)

There are already two State Governments *viz.*, U.P. and Mysore who are in the field of cement manufacture. Large quantities of blast furnace slag are lying unutilised in the steel plants in the public sector. About six to seven lakh tons of slag are produced per million tons of ingot steel and the expansion of public sector steel production from six million tons in 1966 to 13 million tons by 1971 is going to mean a very sizable slag by-product.

### PRICE

On 31st October 1961, the Government of India announced its decisions on the recommendations of the Tariff Commission in respect of the fair prices payable to producers of cement. The Government made two major departures from the recommendations of the Commission. They were (1) it rejected the Commission's suggestion for continuance of the system of differential ex-works prices and instead preferred a uniform ex-works price of Rs. 69·50 per tonne for naked cement with certain minor adjustments to cover the varying cost of some units. Secondly, it raised the ex-factory price by less than what the Commission had recommended—by Rs. 13 per tonne, including selling and distribution charges of Rs. 3 per tonne, as against Rs. 16 per tonne recommended by the Commission.

In the Government resolution it was stated that the prices then fixed would be in force till March 31, 1966, subject to adjustments, whenever called for, for variations consequent on governmental action, including escalation for fuel and power.

Since then there have been increases in the cost of coal, power and limestone and railway freight on raw materials. After the declaration of emergency, the cement industry was also brought under the emergency risk insurance scheme.

The Government, on a representation by the cement industry, has examined the incidence of these increases on the cost of production of cement and has decided that with effect from June 1, 1963, the *ex*-works price to be paid to the industry should generally be increased by Rs. 2·75 per tonne.

It has been stated that besides the *ex*-works cost, distribution cost of cement has also risen on account of increases in railway freight since November 1961. With a view to minimising the increase payable by the consumer, the Government has restricted the increase on this account and has also advised the State Trading Corporation to effect all possible economy in the movement and distribution of cement by the Corporation and the selling agents. Consequently, the selling price was raised by Rs. 3·75 per tonne.

The prices of indigenous and imported cement are pooled and its distribution has been taken over by the State Trading Corporation in order to provide for substantial import of cement in the interests of consumers and to rationalise properly and regulate the use of cement when its demand has gone up so high.

The excise duty on cement was raised from Rs. 20 to Rs. 24 per ton with effect from 1st March 1958.

Cement distribution has been decontrolled with effect from Jan. 1, 1966. A mutually agreed quota of 50 per cent of overall production is to be supplied to the Government.

### EXPANSION

The Third Plan contains large scale programmes for these projects, which means that the demand for cement will rise markedly in the coming years. The aggregate requirements in the last year of the Third Plan, that is, 1965-66, are expected to be of the order of 13·50 million tons, whereas the capacity at the end of the Second Plan is put at 8·93 million tons on the basis of three shifts working 300 days in a year. The capacity target to be achieved by 1965–66 is 15·00 million tons. The total fixed investment is put at Rs. 60 crores, of which the foreign exchange component is Rs. 12 crores.

By the end of the Third Plan six to seven cement plants with a daily production capacity of 500 tons will be manufactured annually. The total value of the plants is estimated at Rs. 4·5 crores, with indigenous content of 90 per cent. The investment outlay is estimated at Rs. 3 crores, including foreign exchange expenditure of Rs. 2 crores.

One of the cement factories in South India has already switched over from coal to oil in one of its three kilns. This is on the lines of the Government decision that cement factories in Western and Southern India should switch over to furnace oil in view of the difficulties experienced in moving coal from collieries in north India.

Six firms have been registered or licensed for the manufacture of cement machinery. Much of this will be manufactured in India by the end of the Plan.

In 1964-65 India exported Rs. 30 lakhs worth of cement and imported Rs. 7 lakhs worth of cement.

# CHEMICAL & PHARMACEUTICAL INDUSTRY

FOR purposes of industrial production, chemicals fall easily into one of two major groups: (*a*) Heavy Chemicals; and (*b*) Fine Chemicals.

According to the latest data, there are over 474 factories with a productive capital of nearly Rs. 306 crores and providing employment for about 1,29,730 workers.

### SULPHURIC ACID

The installed capacity and production of sulphuric acid since 1954 are shown below:

(Metric tons)
(Monthly averages or calendar months)

| | Installed capacity | Production |
|---|---|---|
| 1954 .. .. | 16,699 | 12,775 |
| 1955 .. .. | 17,606 | 14,072 |
| 1956 .. .. | 20,756 | 13,989 |
| 1957 .. .. | 23,123 | 16,601 |
| 1958 .. .. | 24,560 | 19,185 |
| 1959 .. .. | 31,673 | 24,738 |
| 1960 .. .. | 39,622 | 29,495 |
| 1961 .. .. | 46,989 | 35,208 |
| 1962 .. .. | 58,189 | 39,122 |
| 1963 .. .. | 68,410 | 47,346 |
| 1964 .. .. | 84,263 | 56,553 |
| 1965 .. .. | 87,339 | 57,369 |

The overall demand for sulphuric acid is expected to go up to about 1·5 million tonnes by 1965–66 representing an increase of 325 per cent over the level which obtained in 1960–61. The following picture shows the programme of development for sulphuric acid during the Five-Year Plans.

(In '000 tonnes)

| 1950-51 Production | 1955-56 Production | 1960-61 Production | Targets for 1965-66 | |
|---|---|---|---|---|
| | | | Capacity | Production |
| 107 | 168 | 423 | 1,778 | 1,524 |

Orders have been placed with a British Firm for setting up, on a turnkey job, a pyrites based sulphuric acid plant with a capacity of 400 tonnes per day. The plant is proposed to be located at Durgapur.

Whereas the production of sulphuric acid has so far been based on sulphur, a part of the capacity set up in the Third Plan period is linked with by-product smelter gases (zinc and copper smelters) and with pyrites from the Amjor Deposits in Bihar.

The overall consumption of the acid by 1965-66 is expected to be about 15,24,000 tonnes as against a capacity of 526,000 tonnes at the end of the Second Plan.

India imported sulphuric acid of the value of Rs. 21,034 in 1960-61, Rs. 68,144 in 1961-62, Rs. 51,002 in 1962-63, Rs. 90,165 in 1963-64 and Rs. 1,21,690 in 1964-65. The main items under imports are concentrated fuming and Battery sulphuric acid. The main suppliers are Canada, W. Germany, U.K. and U.S.A.

Some exports are also taking place. India exported sulphuric acid worth Rs. 132,295 in 1960-61, Rs. 78,559 in 1961-62, Rs. 1·40 lakhs in 1962-63, Rs. 1,90,281 in 1963-64 and Rs. 84,054 in 1964-65.

### ALKALI INDUSTRY

The alkali industry comprises the manufacture of soda ash and caustic soda, sodium bicarbonate, bleaching powder, benzene hexachloride, liquid chlorine and zinc chloride.

At the beginning of the Second Plan production of soda ash was about 176,638 tonnes. In the current plan period, the demand has been estimated at 4,57,200 tonnes a year by 1965-66. The total investment planned for the current plan is Rs. 12 crores, including Rs. 6 crores in foreign exchange.

The trend of production of soda ash in tons is as under:—

1956, 84,240; 1957, 91,925; 1958, 90,862; 1959, 95,972 metric tonnes; 1960, 145,284 tonnes; 1961, 176,664 tonnes; 1962, 222,660 tonnes; 1963, 266,964 tonnes; 1964, 282,408 tonnes.

On the basis of the Tariff Board's report in 1951 the estimated consumption of soda ash was placed at 115,000 tons. This was expected to rise to 155,000 tons by 1955–56 and to 230,000 tons by 1960–61.

The import policy and the high prices since 1951 gave an impetus to this nascent industry though the heavy imports allowed in the first two years of the First Plan caused some tempo-

rary difficulties to indigenous producers owing to accumulation of stocks. The figures of imports of soda ash during the last few years are given below :

| Year | Q | V |
|---|---|---|
| 1960-61 .. .. .. .. .. .. .. .. | 99·65 | 180·22 |
| 1961-62 .. .. .. .. .. .. .. .. | 33·99 | 67·41 |
| 1962-63 .. .. .. .. .. .. .. .. | 40·54 | 74·25 |
| 1963-64 .. .. .. .. .. .. .. .. | 23·11 | 41·57 |
| 1964-65 .. .. .. .. .. .. .. .. | 33·47 | 60·01 |

*Q :* Quantity in million kilograms.
*V :* Value in Rs. lakhs.

The tariff protection to this industry was extended up to the end of 1964.

The following table summarises the programme of development of the soda ash industry :—

('000 tons)

| 1950-51 Production | 1955-56 Production | 1960-61 | | Targets for 1965-66 | |
|---|---|---|---|---|---|
| | | Estimated Capacity | Estimated Production | Capacity | Production |
| 45 | 81 | 268 | 145 | 530 | 450 |

It is estimated that about Rs. 17 crores were invested in the expansion of soda ash industry during the Second Plan period, the foreign exchange component being Rs. 9 crores. A further investment of Rs. 12 crores is planned during the Third Plan.

In 1963 the production in tonnes of hydrogen peroxide was 2,175 as against 1,815 tonnes in 1962. The overall targets of production of hydrogen peroxide in 1965-66 is placed at 8,198 tonnes. Imports of 30 kilolitres of hydrogen peroxide were valued at Rs. 46,726. Netherland and U.S.A. were the main suppliers.

**Caustic Soda.**—There were at the end of 1961 18 units manufacturing caustic soda and the production of caustic soda amounted to 1,19,856 tonnes in 1961, 1,26,624 tonnes in 1962, 1,52,280 tonnes in 1963 and 1,84,032 tonnes in 1964.

Actual indigenous production of caustic soda and the associated chemicals has been as under :—

| Year | Caustic soda in Tonnes | Liquid chlorine in Tonnes | Bleaching powder in Tonnes |
|---|---|---|---|
| 1959 .. | 69,876 | 24,780 | 5,184 |
| 1960 .. | 100,000 | 31,000 | 5,700 |
| 1961 .. | 119,854 | 33,922 | 7,129 |
| 1962 .. | 126,420 | 36,972 | 6,828 |
| 1963 .. | 152,280 | 44,232 | 6,972 |
| 1964 .. | 184,032 | 50,580 | 7,932 |

Imports of caustic soda in tons were : 1957 : 66,042 ; 1958 : 61,734 ; 1959 : 147,162 ; 1960-61 : 38·75 million kgs. ; 1961-62 : 26·80 million kgs. ; 1962-63 : 86·98 million kgs. ; 1963-64 : 65·25 million kgs ; 1964-65 : 67·12 million kgs.

During the Second Five-Year Plan the installed capacity of the industry rose from 44,300 tons in 1955–56 to 124,300 tons in 1960–61 and actual production from 36,000 tons to 100,000 tons. A production target of 340,000 tons was envisaged by the end of the Third Plan.

The table below summarises the programme of caustic soda industry during the Third Plan :

(Tons)

| | 1960–61 | 1965–66 |
|---|---|---|
| Installed capacity .. | 124,440 | 400,000 |
| Actual production .. | 97,000 | 340,000 |

Based on the requirements related to the targets of the various industries consuming caustic soda, the demand for caustic soda for 1965–66 is estimated to be roughly 340,000 tons.

A new factory of Dhrangadhra Chemical Works went into production in 1959 with an initial capacity of 30,000 tons per annum which is to be increased to 55,000 tons. The expansion scheme of Tata Chemicals, will further increase the production.

## MISCELLANEOUS CHEMICALS

The progress of production of important miscellaneous chemicals during 1960 to 1964 is given below :

(Metric Tonnes)

| Name of Product | 1960 | 1961 | 1962 | 1963 | 1964 |
|---|---|---|---|---|---|
| Bleaching Powder .. | 5,928 | 7,128 | 6,720 | 7,344 | 7,932 |
| Bichromates .. .. | 5,016 | 5,244 | 7,044 | 6,924 | 6,984 |
| Copper Sulphate .. | 3,840 | 4,344 | 3,888 | 3,672 | 4,764 |
| Sodium Sulphate .. | 2,305 | 2,604 | 2,292 | 2,340 | 3,132 |
| Hydrogen Peroxide .. | 1,188 | 1,620 | 1,812 | 2,280 | 2,700 |
| Potassium Chlorate .. | 3,480 | 3,780 | 4,116 | 4,512 | 3,672 |
| Sodium Bicarbonate .. | 7,704 | 8,676 | 10,680 | 7,824 | 10,752 |
| Hydrochloric Acid .. | 10,056 | 15,384 | 15,732 | 16,968 | 23,136 |
| Nitric Acid .. .. | 5,424 | 36,468 | 7,032 | 200,724 | 11,688 |
| Sodium Sulphide .. | 15,516 | 21,564 | 23,004 | 28,908 | 32,976 |
| Sodium Aluminate .. | 496 | 408 | 727 | 905 | 965 |
| Nickel Sulphate .. | 60 | 32 | 112 | 326 | 497 |

The production of hydro-sulphite of soda, an important chemical for the textile industry, which has now to be imported at the cost of Rs. 1 crore per year, began for the first time in 1958. Two units which went into production had a capacity of 2,300 tonnes at the end of 1961. This would meet about 60 per cent of the total requirements by the end of the Plan.

**Third Five Year Plan targets for some of the Chemicals :—**

The Third Five Year Plan target for caustic soda is 3·4 lakh m/tons ; soda ash 4·5 lakh m/tons ; bleaching powder 15,000 m/tons ; Hydrogen peroxide 8,000 m/tons ; alum/aluminium sulphate 1·2 lakh m/tons ; ammonium chloride 1·05 lakh m/tons ; copper sulphate 6,000 m/tons ; sulphuric acid 1·5 lakh m/tons ; and ammonium sulphate and superphosphate 10 lakh and 4 lakh m/tons respectively.

Protection for bichromates has been withdrawn with effect from 1st January 1959, while that for calcium carbide was extended up to the end of December 1964.

There are six units producing bichromates reporting a total capacity of about 8,300 tonnes and a production of 6,923 tonnes in 1963. For ammonium chloride, the present installed capacity is about 50,000 metric tonnes and production in 1962 was 16,896 tonnes.

Potassium chlorate forms an important raw material for industries like matches, ammunitions and explosives. The capacity target for this industry has been fixed at 9,600 thousand tonnes per year.

## FERTILISERS

### NITROGENOUS FERTILISERS

The total installed capacity of nitrogenous fertiliser factories as on 30-9-1964 was as follows :

(Tonnes of nitrogen)

| | |
|---|---|
| Sindri .. .. .. .. | 120,040 |
| FACT .. .. .. .. | 28,320 |
| Mysore .. .. .. .. | 1,380 |
| By-product ammonium sulphate .. | 14,840 |
| Sahu Chemicals .. .. .. | 10,160 |
| Nangal .. .. .. .. | 79,540 |
| Rourkela .. .. .. .. | 60,880 |
| TOTAL .. .. .. .. | 312,960 |

*Source :* Fertiliser Statistics, 1963-64.

The year-wise production of nitrogenous fertilisers and the capacity at the beginning of each year are as under :

(Tonnes)

| Year | Capacity | Production |
|---|---|---|
| 1959 .. .. | 89,952 | 78,252 |
| 1960 .. .. | 93,576 | 80,100 |
| 1961 .. .. | 164,808 | 108,336 |
| 1962 .. .. | 175,104 | 114,216 |
| 1963 .. .. | 193,968 | 123,396 |
| 1964 .. .. | 193,968 | 125,796 |

The Government proposes to enter into long-term contracts with foreign countries for the supply of fertilisers. The total input of nitrogenous fertilisers in 1965-66 is fixed at 350,000 tonnes, of which the import from the U.S. is 134,290 tonnes. The internal output is placed at about three lakh tonnes.

The total investment in the nitrogenous fertilizer industry during the Second Plan period amounted to Rs. 47 crores including a foreign exchange component of nearly Rs. 17·5 crores. Out of this total investment, the public sector outlay accounted for Rs. 44 crores. This industry employed nearly 16,000 persons. The Second Plan envisaged the expansion of capacity from 85,000 tons of nitrogen in 1955-56 to 382,000 tons in 1960-61.

*Development programme in the Third Plan :* It was estimated that the demand for nitrogenous fertilisers in the country would be met if one million tons of nitrogen were available by 1965-66. Apart from expansion of capacity in the existing plants, the Third Plan envisaged the setting up of three new units in the public sector to be located at Trombay (Maharashtra), Kamrup (Assam) and Gorakhpur (Uttar Pradesh).

*Public Sector projects :* Trombay fertiliser project will have a capacity of nearly 90,000 tons of nitrogen and 45,000 tons of phosphate per

year. The factory will produce 3,30,000 tons of nitrophosphate. Total cost of the project is estimated to be Rs. 33·40 crores. It will make use of refinery gases and naphtha.

*Assam fertiliser project :* The factory will be located at Kamrup in Assam. The overall capacity of the plant will be 32,500 tons of nitrogen based on the production of 50,000 tons of urea and 50,000 tons of ammonium sulphate by the acid neutralisation process, the acid being produced from imported sulphur.

*Gorakhpur fertiliser project :* The end-product of the factory would be urea by the total recycle process. The capacity of the factory would be 80,000 tons.

In addition to the above public sector projects, there is a scheme for further expansion of Messrs. Fertilisers and Chemicals, Travancore, by 30,000 tons of nitrogen to manufacture ammonium sulphate/ammonium phosphate and ammonium chloride.

Private sector schemes include Kothagudium Fertiliser Project, Visakhapatnam Fertiliser Project, Madhya Pradesh Fertiliser Project, and Rajasthan Fertiliser Project. Besides, private enterprise in partnership with the West Bengal Government will set up a fertiliser factory at Durgapur with a capacity of 58,000 tons of nitrogen. In collaboration with private sector, the Government of Gujarat proposes to put up a factory with a capacity of 96,000 tons of nitrogen.

The following table summarises the position in regard to nitrogenous fertilisers in the Third Plan :

(Quantity in '000 tons of nitrogen)

| | Total requirement | Installed capacity | Indigenous production |
|---|---|---|---|
| 1961–62 | 400 | 242 | 140 |
| 1962–63 | 525 | 300 | 200 |
| 1963–64 | 650 | 400 | 300 |
| 1964–65 | 800 | 600 | 500 |
| 1965–66 | 1,000 | 1,000 | 800 |

## PHOSPHATIC FERTILISERS

The rise in the capacity of the phosphatic fertilizer industry in India was almost entirely due to the expansion of the manufacture of single superphosphate. The progress made by the superphosphate industry is given below :

(Figures in tonnes of single superphosphate)

| | Capacity | Production |
|---|---|---|
| 1959 .. | 55,992 | 41,940 |
| 1960 .. | 57,276 | 53,028 |
| 1961 .. | 70,740 | 62,040 |
| 1962 .. | 1,06,296 | 74,616 |
| 1963 .. | 1,25,088 | 96,672 |
| 1964 .. | 1,41,672 | 117,948 |

Imported raw materials, rock phosphate and sulphur are used for the manufacture of single superphosphate. The following are the quantities and value of imported rock phosphate during the last few years :

| | Quantity ('000 tons) | Value (Rs. crores) |
|---|---|---|
| 1960-61 .. .. | 253.8 | 2.17 |
| 1961-62 .. .. | 253.9 | 2.29 |
| 1962-63 .. .. | 305.9 | 2.59 |
| 1963-64 .. .. | 336.8 | 2.76 |
| 1964-65 .. .. | 426·3 | 3·74 |

The total estimated investment in the phosphatic fertilisers industry (excluding sulphuric acid and complex nitrogen-phosphorus fertilisers) during the Second Plan was Rs. 2·1 crores of which the foreign exchange component is about Rs. 30 lakhs. This industry employed about 1,800 persons.

The total investment required for achieving the target production is estimated to be about Rs. 10 crores. The additional employment created by the achievement of this target would be for about 4,000 persons.

*Potassic Fertilisers :* No systematic attempt has been made to develop the manufacture of potassic fertilisers in India. It is produced indigenously in the small scale sector and the annual production is estimated to be around 2,000 tons as muriate of potash. The figures of imports of potassic fertilisers during the last few years :

Q = Quantity in tonnes.
V = Value in Rs. lakhs.

| | 1961-62 | | 1962-63 | | 1963-64 | | 1964-65 | |
|---|---|---|---|---|---|---|---|---|
| | Q | V | Q | V | Q | V | Q | V |
| Muriate of Potash | 44,518 | 110.6 | 77,891 | 193.6 | 70,802 | 169.0 | 76,524 | 178.6 |
| Sulphate of Potash | 8,942 | 28.6 | 3,265 | 10.5 | 4,281 | 12.9 | 10,240 | 32.3 |

The main supplying countries are East Germany, West Germany and France.

Three Companies have been granted licences for the manufacture of muriate of potash from salbitterns for a capacity of about 3,000 tons per annum but practically no progress has been made by them. The total availability in 1959 amounted to about 36,000 tons of $K_2O$ which exceeded the originally estimated requirement of 30,000 tons of $K_2O$ by 1960–61.

*Third Plan Requirements :* The demand for Potassic Fertilisers is estimated by the Ministry of Food and Agriculture to be 200,000 tons of $K_2O$ by 1965–66. From the present trends it appears that the requirement would have to be met mainly by imports.

If phosphates are not used while applying nitrogenous fertilisers, it may result in rapid drain of the mineral content of the soil. During the Second Plan period a ratio of $N:P_2O_5$ : : 3 :1 was envisaged. During the Third Plan period a ratio of $N : P_2O_5$ : : 2 : 1 was proposed. The targets of capacity and production to be attained by the end of the Third Plan had been fixed between 400 and 500 thousand tons of $P_2O_5$.

So far in India the inorganic nitrogenous fertiliser almost universally employed has been ammonium sulphate. There are at present eight units in West Bengal and Bihar with a rated capacity of about 425,900 tons of ammonium sulphate per annum. The Sindri factory went into production in November 1951.

The production of ammonium sulphate was 78,084 tonnes in 1958. During 1959 and 1960 there was a fall in production and in 1961 it rose to 79,080 tonnes and to 88,512 tonnes in 1964.

In spite of the full utilisation of the capacity of the Sindri Factory, it has been necessary to import large quantities of nitrogenous fertilizers because of increasing demand. India imported Rs. 10.67 crores worth of fertilisers in 1960-61, Rs. 11.89 crores in 1961-62, Rs. 27.26 crores in 1962-63, Rs. 24·6 crores in 1963-64 and Rs. 20·5 crores in 1964-65.

At present there are nine units with an annual installed capacity of 110,410 tonnes. The annual installed capacity of Sindri is 73,260 tonnes.

Imports of ammonium sulphate were : 1960-61: 25,278 tonnes ; 1961-62 : 242,066 tonnes ; 1962-63 : 573,292 tonnes ; 1963-64 : 451,865 tonnes ; 1964-65 : 453,140 tonnes.

The expert committee appointed to go into under-production in the Sindri Fertilizer Factory has submitted its report. The committee is reported to have recommended that, in the first instance, the factory should change over to the direct sulphuric acid process for part of its production, thus reducing to some extent dependence on gypsum. One of the handicaps faced by the factory was stated to be shortage of good quality gypsum. The committee has recommended that out of the daily rated capacity of 1,240 tons, 240 tons may be produced from the direct acid process.

The Fertilizer Production Committee submitted its report in 1955 and suggested suitable location for the establishment of new plants.

On 15th May 1957, the Government of India brought into force the Fertilizers (Control) Order 1957, with a view to regulating supply of chemical fertilisers of the prescribed standard to cultivators at fair prices. The order empowers the Central Government to fix the maximum price at which any fertiliser may be sold by a manufacturer or a dealer in a particular area and for a specific class of consumer with due regard to local conditions and other circumstances prevalent in that area.

| Chemical | Production | | | | | Main uses |
|---|---|---|---|---|---|---|
| | 1960 | 1961 | 1962 | 1963 | 1964 | |
| Acetic acid (thousand kgs.) .. .. | 3,096 | 3,660 | 5,256 | 7,488 | 7,068 | Rayon, white lead, lead, acetates, dyeing, rubber |
| Acetone (tonnes) .. .. .. | — | 756 | 540 | 900 | 624 | Solvent explosives |
| Benzene (thousand litres) .. .. | 4,764 | 8,220 | 10,284 | 21,168 | 20,040 | Solvent |

The Government is planning to provide one fertiliser factory for each State, though the new plants would be smaller than that at Sindri or Nangal, the cost being about Rs. 5 crores, as against Rs. 25 crores for the existing factories and those already approved.

## FINE CHEMICALS

The term "fine chemicals" is applied usually to substances such as photographic materials, drugs and pharmaceutical products, paints, pigments and varnishes, and dyestuffs. All the figures given below are in tons per annum except where otherwise stated.

The average annual demand has been estimated at 60 tons for calcium lactate, 80 tons for iron-ammonium citrate, 200 tons for potassium citrate and 50 tons for sodium citrate. Government has, on the Board's recommendation, converted the 36 per cent. standard and 26 per cent. preferential revenue duty on calcium lactate into a protective duty.

Production of bromine and bromides at one of the alkali works has been attempted and an annual output of 144 thousand kgs. bromine, and 144 thousand kgs. bromide has been recorded. The total installed capacity of bromides in 1964 was 456 thousand kgs. and the actual production was 144 thousand kgs. tonnes as compared to 276 thousand kgs. in 1963.

Coal, tar and wood distillation products are not sufficiently exploited to manufacture fine chemicals and even the war-time production of methanol and formaldehyde has been recently curtailed. Synthetic fine chemicals are yet to be turned out in India on a commercial scale.

**Photographic Materials.**—The basic chemical required for the photographic industry are: (*i*) gelatin, silver halides and sensitizers in the coating of film, plate and paper base, and (*ii*) hypo-sodium sulphite metal, hydroquinone and chrome alum in the processing stages.

Borax, boric acid, acetic acid and metal and photographic-grade sodium sulphite are still imported. The capacity of sodium sulphite in 1960 was 856 tonnes and the production was 750 tonnes. There are four units producing sodium sulphite. Their production in 1961 amounted to 678 tonnes. The production for 1963 was 771 tonnes against 618 tonnes in 1962. The installed capacity stood at 870 tonnes in 1964. Production capacity of 30 tons for potash chrome alum has been established.

Pre-war imports of raw film base into India were enormous, the film industry alone consuming some 80 million ft. per annum. Hindustan Photo Films Manufacturing Co., Ltd., was incorporated in Nov. 1960, with an authorized capital of Rupees three crores to implement the project for the manufacture of raw films, photographic films, X-ray films and other sensitized materials in collaboration with Messrs. Ets Banchet & Co., France.

## PAINTS AND VARNISHES

There are at least 200 factories manufacturing paints and varnishes, but nearly 150 of them are very small in size. The bigger ones are concentrated in Bombay and Calcutta. Eighteen units with a capacity of 36,360 tons are in Calcutta, and 16 with an annual capacity of 18,360 tons are in Bombay. Manufacture of ship bottom paints has been commenced by a unit in Calcutta. Another unit in Bombay has been allowed technical collaboration for marine paints.

The annual national loss due to corrosion of iron and steel is estimated at Rs. 60 crores. The prevention of corrosion occupies prime importance where the valuable and costly plants are concerned.

A wide variety of products including different kinds of paints, varnishes, enamels, lacquers, and other types of surface coating materials are manufactured by the Industry which uses mainly indigenous and some imported raw materials. The important raw materials used are zinc oxide, white lead, titanium dioxide, red lead, yellow and green chrome pigments, carbon black, linseed oil, etc. The industry contributes substantially to the national exchequer in the form of taxes, excise duty, customs duty, etc.

The capacity of the paints, varnishes and enamels industry has recently been reassessed by the Development Wing of the Ministry of Industry at about 85,000 tons. The State-wise distribution of the reassessed capacity is as follows:

| State | No. of factories | Annual capacity (tons) |
|---|---|---|
| Maharashtra .. .. | 23 | 34,000 |
| West Bengal .. .. | 19 | 39,500 |
| Uttar Pradesh .. .. | 5 | 8,100 |
| Madras .. .. .. | 3 | 2,000 |
| Delhi .. .. .. | 2 | 1,000 |
| Andhra Pradesh .. | 1 | 300 |
| TOTAL .. .. | 53 | 84,900 |

The production of paints, varnishes, zinc oxide, white lead, red lead and nitrocellulose lacquers including ancillaries from 1959 onwards is given below:

| Year | Paints & Varnishes (*a*) | White Lead (*b*) | Zinc Oxide (*a*) | Red Lead (*a*) | Nitrocellulose Lacquers (*c*) |
|---|---|---|---|---|---|
| 1959.. .. .. .. | 4,593 | 1,010 (*i*) | 579 | 372 | 113 |
| 1960.. .. .. .. | 4,318 | 866 (*i*) | 724 | 289 | 132 |
| 1961.. .. .. .. | 4,924 | 902 | 662 | 287 | 148 |
| 1962.. .. .. .. | 5,450 | 1,050 | 865 | 436 | 147 |
| 1963.. .. .. .. | 6,198 | 1,096 | 883 | 387 | 164 |
| 1964.. .. .. .. | 6,314 | 907 | 795 | 341 | 181 |

*Note:* Figures are monthly averages.
(*a*) Thousand kg. (*b*) Tonnes. (*c*) Thousand Litres. (*i*) Tons.

Manufacture of new products like super-synthetic enamels for coating of copper wire, finishes for bakelite, luminous paints, anti-pest finishes, cold curved epikote finishes, hot dip protective coatings, etc, was taken during the Second Plan period.

To attain a production of the order of 140,000 tons in 1965–66, a capacity target of 160,000 tons is considered adequate for the Third Plan. A capital investment of Rs. 2·0 crores is estimated to be required during the Third Plan period to achieve the capacity target of 160,000 tons. The foreign exchange component is placed at Rs. 20 lakhs.

The table given below summarises the development programme for the paints and varnishes industry in the Third Five-Year Plan:

| | 1960–61 | 1965–66 |
|---|---|---|
| Capacity ('000 tons) .. | 88* | 160 |
| Production ('000 tons).. | 52·5* | 140 |

* Figures relate to the organised sector only.

There has been a marked improvement in exports of Indian paints to Middle East and African countries. India, exported paints, enamels, lacquers, varnishes, and related products worth Rs. 26·5 lakhs in 1964-65, Rs. 21·5 lakhs in 1963-64, Rs. 23·93 lakhs in 1962-63, Rs. 33·06 lakhs and Rs. 35·75 lakhs in 1961-62 and 1960-61 respectively.

## DRUGS AND PHARMACEUTICALS

Drugs and pharmaceuticals cover a large variety of products from simple extracts of vegetable drugs and glandular preparations to highly complex synthetic drugs and antibiotics.

The pharmaceutical industry in India can be said to have registered phenomenal growth. There is evidence that the industry will attain its Third Plan target of Rs. 175 crores. In the sphere of exports it has made a fair beginning despite severe world competition. The Pharmaceutical Enquiry Committee in 1954 assessed the capital investment at 23.64 crores. There are nearly 2,800 production units producing pharmaceuticals and drugs, licensed under the Drugs Act. Out of these, only 125 large-scale units are licensed under the Industrial Development and Regulation Act.

Annual exports amount to Rs. 8·2 million which are progressively increasing. Dependence on imported chemicals and substances has also progressively fallen though the volume of finished goods has rapidly increased, thus keeping foreign exchange expenditure to the minimum. The following are the principal fields in which progress has been remarkable: Penicillin, Streptomycin and Dihydrostreptomycin, Tetracycline, Chloramphenicol, synthetic drugs, vitamins, synthetic hormones, glandular products and vaccines and sera.

Most manufacturers in the organised sector have collaboration arrangements with well-known pharmaceutical firms in England, America, Switzerland, Germany, Italy, the U.S.S.R., etc. This collaboration is not only financial, but also extends to the scientific, technological, and training fields. The research findings and the technological know-how of these foreign firms are freely available to their Indian counterparts.

The total capital investment in this sector is about Rs. 560 million, out of which Rs. 174 million represents investment of foreign capital. These units employ about 40,000 workers, out of whom about 4,000 are technically trained. The products they manufacture are equal in quality and purity to those manufactured in best advanced countries of the world.

Development programme in the Third Plan:

The following targets for production of some of the important essential drugs, broadly at par with the demand estimates for the Third Plan were envisaged.

| Name of the drug | Unit | Target |
|---|---|---|
| 1. Penicillin .. | Million mega | 120 |
| 2. Streptomycin .. | Tons | 150 |
| 3. Chloramphenicol .. | ,, | 50 |
| 4. Tetracylines .. | ,, | 50 |
| 5. Sulpha drugs .. | ,, | 1,000 |
| 6. P.A.S. .. .. | ,, | 400 |
| 7. I.N.H. .. .. | ,, | 100 |
| 8. Procainehydro-chloride .. | ,, | 75 |
| 9. D.D.T. .. .. | ,, | 6,000 |
| 10. B.H.C. .. .. | ,, | 15,000 |

**Developments in the public sector :**

The Third Plan visualises one big manufacturing unit in public sector, *viz.*, the Antibiotic Factory at Rishikesh under Russian collaboration. It will manufacture 300 tons of streptomycin sulphate, 140 M.M.U. penicillin, chlorotetracycline and other antibiotic drugs every year. Costing Rs. 22 crores, this project will save foreign exchange of Rs. 3 crores a year and is expected to earn an annual revenue of Rs. 25 crores. This factory will employ over 4,000 skilled and unskilled workers. Four insecticide and pesticides factories are already licensed in Bihar. These, costing about Rs. 20 lakhs, will be set up at Ranchi, Bhagalpur, Muzaffarpur and Patna. The Government of India has also approved of the scheme of Hindustan Antibiotics Ltd., Pimpri for setting up the plant for the manufacture of hamycin.

Besides meeting the domestic demands, India is also exporting drugs and pharmaceuticals. An export target of Rs. 8 crores had been set up for the year 1965-66. The value of exports is given in the accompanying table.

| Year | Value (Rs. lakhs) |
|---|---|
| 1960–61 .. .. .. | 98·72 |
| 1961–62 .. .. .. | 98·23 |
| 1962–63 .. .. .. | 106·71 |
| 1963-64 .. .. .. | 98·18 |
| 1964-65 .. .. .. | 115·03 |

During 1964-65 there was considerable increase in the production of antibiotics (penicillin, streptomycin and chloramphenicol) Vitamin C, Vitamin $B_6$ and Vitamin A, Antihistaminic drug (buclizine), tranquiliser (hydroxyzine) and the anaesthetic drug procainehydrochloride. Notable rise in production has also been registered in respect of anti TB (PAS and its salts and INH), antipyretic (Aspirin) and antidiabetic (Tolbutamide) drugs, and other items like niketham ide.

Synthetic production of prednisolone, an important cortecosteroid hormone has been established from indigenous dioscorea deltoida roots. Production has commenced for the first time of items like hydroxocobalamin (vitamin B-12) promethazine, an antihistamin drug, while additional capacity has been established for the production of streptomycin with the commencement of production by one unit in Gujarat State. Additional capacity has also been established for the antidiabetic drug (tolbutamide) Vitamin $B_{12}$ and thiacetazone. One unit for the production of the antidiabetic drug insulin starting from pancreas glands has been established in Maharashtra State. Another unit which has so far been manufacturing sulpha drugs based on imported intermediates has set up a basic manufacturing plant for the purpose. A new undertaking has been established very recently for the manufacture of PAS and its salts particularly its benzoyl derivative.

Before the close of 1959, the Central Government took decisions on the locations for the drugs projects as under :

1. Synthetic drug project, Sanatnagar (Hyderabad), Andhra Pradesh; 2. Antibiotics project, Rishikesh (U.P.); 3. Phyto-chemicals project, Neriamangalam (Kerala); 4. Surgical Instruments project, Guindy (near Madras).

***Production :*** The important items of production in the public sector, *e.g.*, penicillin and D.D.T. recorded increased output as shown below :

| Year | Penicillin million mega units | D.D.T. (tons) |
|---|---|---|
| 1956 .. .. | 14·09 | 814 |
| 1957 .. .. | 17·50 | 623 |
| 1958 .. .. | 26·93 | 1,755 |
| 1959 .. .. | 28·71 | 2,199 |
| 1960 .. .. | 39·70 | 2,786 |
| 1963 .. .. | 71.88 | 2,569 |
| 1964 .. .. | 84·26 | 2,593 |

**Progress in the private sector :**

Major schemes for the manufacture of bulk drugs were implemented in the private sector between 1956–61. The particulars regarding major schemes implemented in the Second Plan period are given below:

| Firm (1) | Drug (2) | Annual Capacity—installed (3) |
|---|---|---|
| Messrs. Alembic Chemicals, Baroda .. .. .. .. | Penicillin | 10 million mega units |
| | Calcium lactate | 60 tons |
| Messrs. MaC Laboratories .. | Chloramphenicol | 0·8 ton |
| Messrs. Parke Davis .. .. | —do.— | Expansion from 3·60 to 10 tons |
| Messrs. Dumex .. .. .. | Tetracycline | 2 tons |
| | Oxytetracycline | 5 tons |
| Messrs. Glaxo Laboratories .. | Vitamin 'A' | 10 million mega units |
| Messrs. Roche Products .. | —do.— | —do.— |
| Messrs. Sarabhai-Merck .. .. | Vitamin 'C' | 60 tons |
| Messrs. Merck Sharp and Dohme | Vitamin $B_{12}$ | 25 kilograms |
| Messrs. Sarabhai Chemicals .. | Nicotinic acid | 15 tons |
| | Calciumlactate | 132 tons |
| Messrs. Ciba Pharma .. .. | Reserpine | 12 kilograms |
| Messrs. May & Baker .. .. | Ephedrine | 1·0 ton |
| Messrs. British Drug House, Messrs. Ciba Pharma .., Messrs. Glaxo Laboratories, Messrs. Merck Sharp & Dohme | Synthetic hormones | 398 kilograms |
| Messrs. Geoffrey Manners .. | Phenacetin | 20 tons |
| Messrs. Alta Laboratories .. | Aspirin | 196 tons |
| Messrs. Atul Products .. .. | Niketham ide | 4·8 tons |
| Messrs. Hoechst Pharmaceuticals | Procaine Hydrochloride | 6·4 tons |

Establishments such as Sarabhai Chemicals, May & Baker, Parke-Davis, Dumex, Glaxo Laboratories, Sarabhai-Merck, Alembic Chemicals are already producing quality goods.

Monthly average production of drugs from 1960 to 1964 is given below:

| | Unit | 1960 | 1961 | 1962 | 1963 | 1964 |
|---|---|---|---|---|---|---|
| 1. Liver Extract: | | | | | | |
| (*i*) Injection .. .. | '000 cc. | 3408·2 | 3780·0 | 3662·0 | 3582·0 | 3221·0 |
| (*ii*) Oral .. .. | '000 kg. | 13·4 | 12·9 | 13·9 | 13·9 | 14·2 |
| 2. Anti-dysentery drugs | kg. | 1,725·0 | 3,003·0 | 3,681·0 | 4,921·0 | 5,855·0 |
| 3. Niketham ide .. .. | kg. | 259·0 | 492·0 | 553·0 | 577·0 | 652·0 |
| 4. I. N. H. .. .. | '000 kg. | 2·3 | 3·3 | 3·9 | 4·7 | 5·2 |
| 5. P. A. S. .. .. | '000 kg. | 7·0 | 8·6 | 12·0 | 19·1 | 19·0 |
| 6. Vitamin A .. .. | MMV | 1·2 | 1·2 | 1·5 | 1·5 | 1·7 |

**The following statement shows the year-wise value of important categories of drugs and pharmaceuticals imported during the last few years :**

Rs. in lakhs.

| Item | 1961–62 | 1962–63 | 1963-64 | 1964-65 |
|---|---|---|---|---|
| Antibiotics Aureomycin .. | 20·94 | 0·52 | — | — |
| Chloromycetin .. .. | 42·56 | 30·04 | 29·82 | 25·60 |
| Penicillin and its preparations | 63·45 | 57·96 | 37·96 | 20·24 |
| Streptomycin and its preparations .. .. .. | 122·51 | 159·97 | 79·09 | 28·15 |
| Terramycin .. .. .. | 25·19 | 1·36 | 1·71 | 0·37 |
| Other antibiotics .. .. | 89·08 | 73·57 | 43·96 | 70·27 |
| TOTAL .. .. .. | 363·73 | 323·42 | 190·83 | 144·63 |
| Vitamins and vitamin preparations .. .. .. | 124·70 | 84·04 | 75·46 | 75·53 |
| Antimalarials .. .. | 16·21 | 30·59 | — | — |
| Sulpha drugs .. .. .. | 90·70 | 81·20 | 92·23 | 75·45 |
| Proprietary and patent medicine .. .. .. .. | 99·66 | 75·87 | 90·01 | 50·04 |
| Other drugs and pharmaceuticals .. .. .. | 422·42 | 329·18 | 385·84 | 202·71 |
| GRAND TOTAL .. .. | 1,117·42 | 924·30 | 834·37 | 548·36 |

*Programme of development in the Third Five-Year Plan :* The demand for drugs and pharmaceuticals falls under the category of an essential requirement which will impose a heavy strain on foreign exchange resources if it has to be met from imports. The rate of expansion of demand for drugs is very much influenced by the price level as well as the programmes for expansion of medical facilities envisaged by the public authorities.

D.D.T. and B.H.C. are the two of the most important insecticides. Hindustan Insecticides Ltd., a public sector undertaking went into production in March 1955. The Second Five Year Plan envisaged the expansion of H. I. Ltd. from an annual capacity of 700 to 1,400 tons and establishment by the undertaking of a second D.D.T. plant at Alwaye in Kerala.

The production targets for 1965-66 as accepted by the Planning Commission are summarised below :

| Item | Unit | Production |
|---|---|---|
| Sulpha drugs .. | Tonnes | 1,016 |
| Penicillin .. | Million mega units | 120 |
| Streptomycin .. | Tonnes | 152 |
| P.A.S. .. | ,, | 406 |
| Anti-dysentery drugs .. | ,, | 76 |
| I.N.H. .. | ,, | 102 |
| Phyto-chemicals | ,, | 77·6 |
| D.D.T. .. | ,, | 6,096 |
| B.H.C. .. | ,, | 15,240 |

# BIHAR STATE

**Area :67,196 sq. miles.**

**Total Population : 46,455,610 (1961 census). Density 691 ; Literacy 18·23 per cent.**

**Capital : Patna.**

**Administrative Divisions :—Patna, Bhagalpur, Tirhut and Chota Nagpur.**

**Districts with names of District Headquarters in brackets in each Division :**

***Patna Division :*** **Patna (Patna) ; Gaya (Gaya); Shahabad (Arrah).**

***Tirhut Division :*** **Muzaffarpur (Muzaffarpur); Saran (Chapra) ; Champaran (Motihari) ; Darbhanga (Laheriasarai).**

***Bhagalpur Division :*** **Bhagalpur (Bhagalpur); Monghyr (Monghyr) ; Purnea (Purnea); Santal Parganas (Dumka) ; Saharsa (Saharsa).**

***Chota Nagpur Division :*** **Ranchi (Ranchi); Hazaribagh (Hazaribagh) ; Palamau (Daltenganj) ; Singhbhum (Chaibassa); Dhanbad (Dhanbad).**

**Number of Districts : 17 ; Number of District Boards : 17; Number of Municipalities (including Patna Municipal Corporation): 49 ; Improvement Trusts : 4 ; Notified Area Committees 41.**

**Number of Notified Area Committees : 28 ; Number of notified Panchayats : 10,761 (1962) ; Names of towns with a population of over 50,000 : Patna, Monghyr, Jamshedpur, Muzaffarpur, Gaya, Chapra, Bhagalpur, Arrah, Ranchi, Darbhanga and Gaya.**

*(For names, area and population of taluks see under Population.)*

**Complete switch-over to Hindi in all Govt. departments was to take effect from June 1, 1960.**

**Separation of judiciary from the executive has been implemented in all the districts of the State with effect from June, 1, 1964.**

## GEOGRAPHY

**Bihar is more thickly populated than Germany. Hindus form an overwhelming majority of the population. Though Muslims form about one-tenth of the total population they constitute more than one-fifth of the urban population of the State. The scheduled tribes account for 9·1 per cent as ascertained from 1961 census. These are inhabitants of the Chota Nagpur plateau and the Santal Parganas, the latter district being a continuation of the plateau in a north-easterly direction.**

**Although there is a great deal of mineral wealth in Chota Nagpur and important industries are developing in connection with it, still for the bulk of the population of the State agriculture continues to be the basic occupation. Over 81·5 per cent of the population depends wholly on agriculture, while only 7·8 per cent depends on industries.**

**The soil throughout the whole of that portion of the Indo-Gangetic plain lying within the State boundaries is extremely fertile, particularly in North Bihar, in parts of which the density of the population is more than 900 people to the square mile. The State occupies a transitional position between Ganges delta with its damp climate so suitable for the paddy crop and the States to the north and west where large irrigation schemes have had to be provided to enable the soil to produce its bounty. As in the delta of the Ganga, rice is by far the most important crop as it occupies normally an area of approximately 12 million acres or over 50 per cent of the net cropped area of the State. In the circumstances, the importance of the south-west monsoon to the State of Bihar cannot be overestimated.**

**In addition to the rice crop, however, other grain crops are grown on a tolerably large scale. Of the monsoon cereals, maize, wheat and barley are extensively grown. The cultivation of oilseeds like castor, mustard and linseed forms a large and important part of the agriculture of Bihar.**

**After Uttar Pradesh, Bihar is the most important white sugar area in India, some one-sixth of the total production of white sugar in the country being turned out in Bihar factories.**

**Jute has been an important crop and is confined almost entirely to the Purnea District part of which has gone to West Bengal after reorganization.**

**Tobacco is a crop of increasing importance in the State and one which is likely to expand in importance.**

## LARGE AND MEDIUM INDUSTRIES

**Heavy Engineering Corporation Ltd. :** The Heavy Engineering Corporation Ltd. was incorporated in Bihar on the 31st December 1958 with its headquarters at Ranchi, as a full-owned Government of India Undertaking to meet the country's growing requirements of heavy capital equipments.

2. The Corporation is now engaged in establishing the following projects :—

(*a*) *Heavy Machine Building Project :* Estimated capital outlay on the project excluding township is likely to be of the order of Rs. 106 crores.

The Plant is expected to achieve full capacity production by 1970-71 by which times it will be able to supply 80 per cent of the machinery required for a one-million ton steel plant. See note under '*Govt. Industrial Undertakings.*'

**Foundry Forge Project.**—See note under '*Govt. Industrial Undertakings*'.

**Heavy Machine Tools Project—**

Capital outlay on the project excluding the cost of township is expected to be approximately Rs. 15 crores. At full production, it will provide employment to more than 2,000 staff and workers.

See note under '*Govt. Ind. Undertakings*'.

**Indian Refineries Limited.**

The company was incorporated in August, 1958, for the purpose of constructing and operating two oil refineries at Gauhati in Assam and Baarauni in Bihar to process crude oil to be made available from the oil-fields in Upper Assam by the Oil India Limited.

The Refinery at Barauni which is the biggest in the country, has a processing capacity of 2 million tons of crude oil per year. It has been set up with technical and financial assistance of the USSR.

The first one-million stage of the Refinery went into production in July, 1964. The second million stage is nearing completion. It is expected to reach three million ton capacity, through further expansion, by the middle of 1966. It produces a number of products ranging from liquified petroleum gas (LPG) and aviation gasoline to lubricants, bitumen and coke.

**National Coal Development Corporation Limited**

The National Coal Development Corporation was incorporated in September, 1956, with its headquarters at Ranchi, with an authorised capital of Rs. 1·50 crores. The total investment in this corporation today stands at over Rs. 110 crores.

Please see "*All India Corporation*" for further details.

**Sindri Fertilizers and Chemicals Ltd.**

The Sindri Fertilizers and Chemicals Ltd. was incorporated in December, 1951, with its headquarters at Sindri in the district of Dhanbad. The object of the Company mainly is to carry on the business of manufacturing, storing, and its distribution of fertilizers.

It employs nearly 10,000 persons both skilled and unskilled.

Further details are given under '*Govt. Ind. Undertakings*'.

**Pyrites and Chemicals Development Company Ltd.**

Please see P. 143 under '*Govt. India Undertakings*'.

**Uranium Processing Plant**

The Government of India are also setting up a plant for processing uranium ore at an estimated cost of Rs. 4·3 crores at Jadugudda in the Singhbhum district. The Plant will exploit large deposities of atomic minerals in the State and supply uranium fuel for the four atomic reactors being set up in the country.

## STATE PUBLIC SECTOR PROJECTS

For the development of industries in the State, some of the major steps taken by the State Government include the establishment (*a*) Bihar State Financial Corporation, a statutory body and (*b*) the Bihar State Industrial Development Corporation as well as (*c*) the Bihar State Small Industries Corporation, both companies entirely owned and financed by the State Govt.

**Bihar State Financial Corporation.**

Pl. see p. 108 under '*State Corporations*'.

**Bihar State Industrial Development Corporation Ltd.**

Pl. see p. 109 under '*State Corporations*'.

**Bihar State Superphosphate Factory, Sindri (Dhanbad).**

Pl. see p. 144 under '*Govt. Industrial Undertakings*'.

**High Tension Insulator Factory, Ranchi:** The High Tension Insulator Factory, Ranchi, has been set up in technical collaboration with Czechoslovakia. Construction of the factory and erection of the plant were completed in 1963. The factory produces high tension electric insulators upto 132 KV and a small quantity of low tension post and telegraph insulators.

**Electric Equipment Factory, Tatisilwai Ranchi :** An Electric Equipment Factory is being established at Tatisilwai (Ranchi) in collaboration with the General Electric Co., at an estimated capital cost of Rs. 1·38 crores for manufacture of electric motors, transformers and switch gears. The total capacity of the factory will be 1,62,000 KVA of transformers and 63,000 H.P. motors per year. 137 acres of land has already been acquired for this purpose and preliminary works like preparation of project development of site, construction of site offices completed.

The erection of the factory is likely to be completed by 1967-68. The factory will employ about 700 persons when in full production, and produce goods worth Rs. 1·30 crores per year.

**Bihar State Small Industries Corporation :** The Bihar State Small Industries Corporation was registered in August, 1961, with an authorised capital of Rs. 1,50 crores, for execution of commercial schemes and carry the pace of industrial expansion forward, mainly in the small industries sector. Pl. see P. 109 for further details.

**Industrial Estates and Workshop Sheds :** Two Urban, two Semi-urban and twentyseven Rural Industrial Estates had been sanctioned during the Third Plan period. The two urban estates are being located at Bhagalpur and Muzaffarpur, where construction work is nearing completion. The two Semi-urban Industrial Estates are coming up at Purnea and Daltonganj. Progress of work at Purnea has already been

achieved to about 45 per cent but in case of Daltonganj, construction work has started only recently. Out of 27 Rural Industrial Estates, six are of 'A' type, four of 'B' type and seventeen of 'C' type at an estimated cost of Rs. 3·00 lakhs, Rs. 2·00 lakhs and Rs. 1·00 lakh respectively.

## KHADI AND VILLAGE INDUSTRIES

The area of Bihar has been divided into 588 anchal-cum-development Blocks, out of these 440, which come to about 76 per cent, have been covered by some kind of development activity under the Khadi and Village Industries. As regard's Khadi production, Bihar has a place of pride in the whole of country. Last year Khadi and Village Industries in Bihar produced articles worth Rs. 8 crores, 53 lakhs and 31 thousands. The sale effected was 8 crores 34 lakh and 90 thousands. The total number of persons finding part time or whole time employment was 31 lakhs and 80 thousands and the sum of Rs. 2 crores, 61 lakhs and 58 thousands was distributed among them as wages. The number of Khadi Bhawans in the State is 497.

Industries other than the Khadi, which are being organised in Bihar are as follows:—

Ghani Oil, Hand processing of cereals and pulses, leather, Gur Khandsari, Palmgur, Non-Edible Oil and Soap, Handmade Paper, Bee-Keeping, Pottery, Fibre Cottage Match, Carpentary and Black-Smithy, Gobar Gas and Gram Ekai.

The Industries which have made considerable progress are Ghani Oil, Hand processing of cereals and pulse and Bee-Keeping. The Ghani Oil Industry has 1,100 Co-operatives which have produced Oil worth Rs. 4,61,12,477 and given employment to 7,844 persons. The Hand processing of Cereals and pulses has 507 Cooperative, which have produced rice worth Rs. 42,69,923 and given employment to 13, 706 persons. The Bee-Keeping Industry made a remarkable progress. This year (1964-65) 4,226 Bee-Keepers produced 1,04,150 Kilogram of Honey—57 per cent more than the production in year 1963-64.

## SMALL-SCALE INDUSTRIES

Common Facility Service Centres, Rural Workshop Production Centres, Model Workshops and Raw Materials Depots are some of the important schemes which are being implemented for the development of small-scale industries. Production Centres consist of a Footwear Unit at Bhagalpur and Shoe-lace Factory at Hajipur. Under Model Workshop, 4 Tanneries one Footwear unit and 3 Carpentry Units are being started. Ten Rural Workshop Sheds have been sanctioned and they are under various stages of implementation.

With a view to ensuring efficient management of commercial and semi-commercial schemes and of industrial estates and other small industrial units the State Government registered a Company in October 1961 known as "The Bihar State Small Industries Corporation Ltd.", which has an authorised capital of Rs. 50 lakhs The Corporation has taken effective steps to orient the working of the schemes transferred to it, so as to meet the defence needs. All the leather schemes have also been transferred to the Corporation for manufacture of army boots.

*Handloom:* Handloom is the most organised cottage industry in the State employing nearly 10 lakhs of persons annually on two lakh looms.

*Handicrafts:* During the Third Five Year Plan two production centres, in cane and bamboo, one each in paper machie and one centre for bell and brass metal have been set up. A Craft Museum has been located in Patna for display of handicrafts products. For supply of raw materials to handicrafts workers at reasonable prices, a Raw Materials Depot has been located in Patna. An Institute of Industrial Designs is functioning at Digha which besides making research in designs, also conducts training courses for artisans and instructional staff of training centres.

*Sericulture:* Bihar is the largest producer of tassar in India and about one lakh persons in this State are engaged in different branches of this industry, from the rearing of silk worm to the finishing of silk fabrics. Incidentally, this industry provides large-scale employment to the Adivasis of Chhotanagpur and Santhal Parganas.

## KHADI AND VILLAGE INDUSTRIES

The schemes of Khadi and Village Industries are implemented by the Bihar State Khadi Village Industries Board which receives funds from the Khadi and Village Industries Commission.

*Technical Education:* At present six Engineering Colleges and 12 Engineering Schools and Polytechnics are functioning in the State. These institutions now have an annual intake capacity of 1,196 at the degree level and 1,475 at the diploma level. During the Third Five Year Plan the above training capacity was proposed to be expanded further for meeting longer requirements of trained manpower in industry.

In the field of mining education, it is proposed to introduce Co-operative Courses in Mining Engineering at the Bihar Institute of Technology, Sindri. Evening Mining Classes for training out skilled operators for mining industry are also proposed to be set up in Bokaro—Barkakana area.

During 1961-62, three industrial pilot projects and three women's industrial schools have been established for small industries. Four industrial estates at Patna, Ranchi, Biharsharif and Darbhanga were expected to be completed by 1962-63. Also, locations have been finalised for setting up eight rural and six urban estates.

### MINERALS (1964)

| Mineral | Unit of quantity | Quantity | Value Rs. '000 |
|---|---|---|---|
| Apatite .. | Tonnes | 3.402 | 102 |
| Asbestos .. | ,, | 417 | 51 |
| Bauxite .. | ,, | 336,762 | 2,869 |
| Chinaclay (Non-saleable crude) .. | ,, | 108,573 | N.A. |
| Chinaclay (saleable crude) .. | ,, | 9,754 | 98 |
| Chinaclay (Processed) | ,, | 30,522 | 2,053 |
| Chromite .. | ,, | 2,243 | 101 |
| Coal .. | '000 Tonnes | 29,580 | 695,160 |
| Copper Ore .. | Tonnes | 472,963 | 24,121 |
| Dolomite .. | ,, | 4,956 | 39 |
| Felspar .. | ,, | 328 | 4 |
| Fireclay .. | ,, | 80,105 | 781 |
| Iron Ore .. | ,, | 3,531,651 | 33,116 |
| Kyanite .. | ,, | 33,475 | 6,252 |
| Limestone .. | ,, | 2,128,646 | 14,314 |
| Manganese ore .. | ,, | 24,637 | 687 |
| Mica (crude) | ,, | 10,402 | 11,659 |
| Quartz and Silica .. | ,, | 21,140 | 353 |
| Steatite .. | ,, | 4,202 | 22 |
| Total value | | | 791,782 |

The districtwise distribution of the minerals (names of districts in brackets) is as follows:—

Apatite (Singhbhum); Asbestos (Singhbhum); Bauxite (Ranchi, Palamau & Monghyr); Chinaclay (Singhbhum, Bhagalpur, Santhalpargana, Ranchi); Chromite (Singhbhum); Coal (Dhanbad, Hazaribagh, Palamau & Santhalpargana); Copper Ore (Singhbhum); Crude Mica (Hazaribagh, Gaya, Monghyr); Dolomite (Singhbhum, Palamau, Shahabad, Hazaribagh); Felspar (Hazaribagh, Gaya, Monghyr); Fire-Clay (Dhanbad, Hazaribagh, Palamau & Santhal Pargana); Iron-Ore (Singhbhum, Palamau); Kyanite (Singhbhum); Limestone (Shahabad, Palamau, Hazaribagh, Singhbhum, Ranchi) Manganese Ore (Singhbhum); Pyrite (Shahabad) Quartz & Silica (Singhbhum, Dhanbad); Steatite (Singhbhum).

The State Government has formed a body known as the Mica Syndicate to improve the mica industry in Bihar. The State Government is also taking steps to set up cement factories, and investigations are in progress for the search of fresh lime stone deposits to feed these proposed factories. The site of the proposed sulphuric acid plant has been shifted to Sindri from Shahabad.

## AGRICULTURE

The population of Bihar, according to the 1961 census, is estimated at 46·46 millions. Bihar, with 5·71 per cent of the Union's land area, has 10·59 per cent of her population. It is the second most populous State in the country coming next only to Uttar Pradesh. In terms of area, however, Bihar's rank is eight. The rural population is estimated to be 91·56 per cent of the total population of the State. The proportion of total population depending on agriculture is estimated to be nearly 86 per cent.

The total geographical area of the State is estimated to be 42·82 million acres out of which nearly 20·63 million acres are cultivated. Including double cropping, the total gross cropped area of the State is estimated at 27·43 million acres. The areas under culturable waste and fallow lands are 1·39 and 5·04 million acres respectively. The gross irrigated area of the State was nearly 5·40 million acres.

The acreages (in million acres) under principal crops during 1961-62 are estimated to be:—

Rice 13·05; Wheat 1·63; Barley 0·91; Maize 1·86; Arhar 0·45; Sugarcane 0·41; Tobacco 0·04; Potato 0·20; Jute 0·42; Chillies 0·07.

The productions of important crops during 1961-62 are as shown below (in million tons):—

Rice 4·90; Wheat 0·39; Barley 0·20; Maize 0·59; Arhar 0·12; Sugarcane 6·75; Tobacco 0·01; Potato 0·63; Jute 0·93 (in million bales); Chillies 0·02.

Sugarcane is mostly grown in the districts of Champaran, Saran, Darbhanga and Muzaffarpur. Jute is cultivated in the districts of Purnea and Saharsa. Tobacco is grown in Muzaffarpur, Monghyr, Purnea and Darbhanga.

Various types of inland fishes are produced in the State. These are mainly carps, cat-fishes, feather backs, murrells etc. The estimated average annual production of fish is nearly 10 lakh mds. which is mostly exported outside the State. The estimated fishing population is a little more than two millions.

There were 358 Blocks in June 1960. Of these 286 were C. D. Blocks of stage I, 46 of stage II and 24 C. D. Blocks of the old pattern.

They covered 42,000 villages with an area of approximately 43,000 square miles and a population of 23·5 millions.

As at end of June 1960, the money value of the peoples' contribution was estimated at Rs. 13·15 crores as against Government expenditure of Rs. 8·94 crores.

Under the Community Development Programme 6,000 villages have been provided with radio sets uptill Dec. 1961.

The Government sanctioned a loan of Rs. 16,25,000 to farmers for purchasing potato seeds (July 1963). In the districts of Bhagalpur, Saharsha and Purnea about 10,000 acres were expected to be brought under potato cultivation.

### FORESTS (1965-66)

| Main forest produce | Quantity |
|---|---|
| Timber .. .. .. | 1,26,00,000 cft. |
| Fuel .. .. .. | 1,70,00,000 ,, |
| Bamboo .. .. .. | 1,70,000 tons |
| Sabaigrass .. .. | 2,39,600 mds. |

The total area of reserved, protected and unclassed forests in Bihar is 12,147 sq. miles. There are two national parks, 17 games sanctuaries and 227 shooting blocks in the State.

Revenue and expenditure of the forests in Bihar for 1965-66 are expected to be Rs. 2,65,54,300 and Rs. 1,84,78,000 respectively.

The Second Plan allotment of Rs. 293·00 lakhs was fully utilised for improvement of forests on all fronts such as afforestation, roads, development of lac, opening of saw mills, seasoning kilns and timber treating plants.

1,36,200 acres of land had been afforested in the first four years of the Third Plan. It was proposed to afforest over 35,000 acres of denuded forest lands during the final year of the Third Plan.

Special emphasis has been laid on the plantation of industrial species such as teak, shishum, bamboo and eucalyptus.

An exclusive scheme for bamboo plantation in 15,000 acres to meet the needs of the paper industry is a special feature o ithe Third Plan.

Upto 1964-65, bamboo had been planted over 12,000 acres and eucalyptus over 6,300 acres. During 1965-66, it was proposed to plant bamboo over 3,000 acres and eucalyptus over 3,700 acres.

It was also proposed to rehabilitate Sabai Baris of the Rajmahal Hills during the Third Plan. The scheme is likely to assure 3·5 lakh maunds of Sabai grass in the Third Plan.

(See also under 'Forests' for other particulars).

## ROAD TRANSPORT CORPORATION

"Sultan Palace", Patna

The Corporation operated 835 schedules on different routes at the end of the year 1964-65. The total fleet strength on the last day of the year was 1,120. The fare was 5 Paise per passenger mile inclusive of 12·5 per cent passenger tax.

The Corporation serves 14 districts, 3 in North Bihar and 11 in South Bihar. Patna, the Headquarters of the Corporation, is connected by direct bus services with some important towns such as Darbhanga & Jainagar in North Bihar and Arrah, Gaya, Rajgir, Bhagalpur, Hazaribagh, Dhanbad, Ranchi, Daltonganj, Jamshedpur, and Giridih in South Bihar.

The Corporation has 6 operating divisions as below. 1. Patna, 2. Gaya, 3. Ranchi, 4. Bhagalpur, 5. Jamshedpur and 6. Muzaffarpur. Under these divisions there are 23 depots. The Corporation has also its Central Workshop located in Phulwarisharif with divisional and depot workshops to cater to the field requirements.

## IRRIGATION

The water resources available and the present possibilities of utilising the same through various assured irrigation schemes in the three natural divisions of this State, (*i*) South Bihar Plains; (*ii*) Chotanagpur and Santhal Parganas; and (*iii*) North Bihar, have been assessed on the basis of the rain-fall pattern and failure of crops and a master-plan of irrigation in Bihar has been prepared. The irrigation schemes of this department proposed under this Master Plan aim at bringing 104 lakh acres of culturable land under assured irrigation at a cost of Rs. 184 crores.

Irrigation Schemes are under the control of the Irrigation Department and the River Valley Projects Department.

Before the beginning of the First Five Year Plan, 10·37 lakh acres of land only were under assured irrigation in this State. As a result of execution of the various irrigation schemes during the First Plan period, an irrigation potential of 5·13 lakh acres was created, but out of this increased irrigation potential, only 3·16 lakh acres of land were actually irrigated by the end of the First Plan period. By the end of the Second Five Year Plan period a total irrigation potential of 23·60 lakh acres was created by the various medium and minor irrigation and the flood control schemes executed by the Irrigation Department. Out of this total irrigation potential of 23·60 lakh acres, only 20·35 lakh acres of irrigation potential could be utilised by the end of the Second Plan period.

Before the inception of the First Five Year Plan only 5·4 *per cent* of the total culturable land in the State had been brought under assured irrigation. But due to the execution of the various irrigation schemes during the First and the Second Five Year Plan, 11 *per cent* of the total culturable land had been brought under assured irrigation.

By drainage of chaurs only 37,000 acres of land had been reclaimed before the beginning of the First Five Year Plan. During the First and Second Five Year Plan 2,28,000 acres and 1,82,000 acres of land respectively were reclaimed. By the end of the Second Five Year Plan period, 4,47,000 acres of such land had been reclaimed.

The Third Five Year Plan envisaged a total outlay of Rs. 12·82 crores over medium irrigation schemes besides major projects like the Kosi, the Gandak and the Sone Barrage. Eleven new medium irrigation schemes were approved for execution out of which nine schemes are already under execution and the remaining two schemes are to be taken up shortly, (June 1964). During the first three years of the Third Plan, a sum of Rs. 7·70 crores had been spent and the programme for 1964-65 and 1965-66 is to spend more than Rs. seven crores, thus exceeding the Third Plan ceiling. The total benefit during the Third Plan is expected to be an additional irrigation potential of 5·90 lakh acres and utilisation of 5·51 lakh acres. Big projects like Badua Reservoir (Bhagalpur), Kanchi Weir (Ranchi), Roro (Singhbhum), Kamla Weir (Darbhanga) are nearing completion (June 1964).

In the flood control section, the Third Plan ceiling was to spend Rs. 2·20 crores over Flood Control Schemes excluding the Kosi Project and to protect an additional area of 3·50 lakh acres from ravages of floods. A sum of Rs. 1·85 crores had been spent during the first three years of Third Plan and nearly Rs. 1·5 crores was expected to be spent during the last two years of the Third Plan.

**Badua Dam :** The Rs. 4·26 crore Badua Dam project in Bhagalpur district was expected to be completed by the end of June 1963.

The catchment area of the dam would be a little over 185 sq. miles. Its reservoir would have a gross storage capacity of 1,04,000-acre feet of flood and rain water.

## POWER

During the First Five Year Plan period, the Electricity Department spent Rs. 8·27 crores and during the Second Plan period Rs. 20·55 crores on electricity development in the State.

A provision of Rs. 79·55 crores, including a contribution of Rs. 20·04 crores for the Power programme of the D.V.C., had been envisaged in the Third Plan.

The Electricity Board has taken up the installation of two big Power generating stations, one at Barauni of 145 MW and other at Patratu of 400 MW at an estimated cost of Rs. 1,347·35 lakhs and Rs. 4,600 lakhs respectively. The expenditure incurred during 1962-63 was Rs. 923 lakhs on various power projects.

**The Bihar State Electricity Board :** The Bihar State Electricity Board was formed on 1st April, 1958, in pursuance of the provisions of the Electricity (Supply) Act 1948.

The progress of electrification in the State is given below :—

| Item | Achievement at the beginning of the First Plan | Achievement at the end of the First Plan | Achievement upto 31-3-1958 | Achievement at the end of the Second Plan | Achievement during 1961-63 (upto December) | Progressive total |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Diesel Stations .. .. | •630 KW | 7,000 KW | 9,400 KW | 11,000KW | — | 13,276KW |
| H. T. Line Miles .. | 200 | 2,928 | 5,249 | 7,814 | 1,041 | 8,855 |
| L. T. Line (Miles) .. | 50 | 853 | 1,995 | 3,536 | 352·5 | 3,889 |
| Sub-Station (Nos.) .. | 75 | 1,532 | 2,289 | 3,733 | 383 | 4,116 |
| Tubewells and Surface Wells .. .. .. | 110 | 1,653 | 2,402 | 4,527 | 1,051 | 5,578 |
| Towns and Villages Electrified .. .. .. | 10 | 363 | 790 | 1,758 | 748 | 3,240 |

During the Second Plan period, a few private electricity undertakings were acquired by the Government.

The tube-wells and surface wells provided assured irrigation to about 4·5 lakh acres of land in the State by the end of the Second Plan. The per capita consumption rose from 6-7 units at the beginning of the Plan to 24 units at the end of the Plan as compared to the All India figure of 45 units.

**Third Five Year Plan.** The important schemes taken up during the Third Five Year Plan are the following :—

An outlay of about Rs. 77·58 crores had been approved for the annual plan of Bihar for 1965-66.

The tentative allocations for the main sectors are : agricultural programmes : Rs. 10·65 crores ; community development and co-operation : Rs. 7·45 crores ; irrigation and power : Rs. 37·48 crores ; industry and mining : Rs. 2·67 crores ; transport and communications : Rs. 3·71 crores ; social service : Rs. 15·36 crores ; and miscellaneous : Rs. 0·26 crores .

The Third Plan outlay for Bihar is of the order of Rs. 337·04 crores, of which the total expenditure up to the end of the 1965-66 is estimated at Rs. 241·32 crores.

The draft Fourth Plan for Bihar envisages an outlay of Rs. 939·52 crores.

*Barauni Thermal Station :*—Two sets of 15 MW each were sanctioned during the Second Plan and a third 15 MW set during the Third Plan. These first two 15 MW sets have been commissioned and most of the erection of equipments for the Third 15 MW set is complete. The revised estimated cost of the Barauni Thermal Power Station is now about Rs. 15 crores.

*Patratu Thermal Power Station :*—Its estimated cost is Rs. 46·20 crores. The work on the scheme was started in 1960-61. The total installation will consist of four 50 MW sets and two 100 MW sets.

Construction of a Dam on Nalkar Nala was also taken up for supply of water to the township and power station. The details of supply of plants, equipment, etc. were finalised by the U.S.S.R. authorities. The first 50 MW set is scheduled to be commissioned by June, 1965 and the other unit at successive five months interval.

*Gandak Hydel Project :*—It is proposed to construct a power house with 3 sets of 5 MW. each on the Western Canal of the Gandak Project. The estimated plan provision is Rs. 2·02 crores. The Generating Station is however expected to go into commission during the beginning of the 4th Five Year Plan.

*Kosi Project :*—A multi-purpose project with emphasis on irrigation and flood control, it is

estimated to cost Rs. 63·46 crores (revised) on the old schemes comprising (*a*) barrage and headworks (*b*) flood banks and protective measures (*c*) Eastern Kosi canal system (including Phulkaha distributary) with annual irrigation of 14·34 lakh acres and the cost of village channels upto two cusecs capacity. Barrage and headworks were completed during 1963. Flood embankments on both sides were completed in 1958-59 thereby affording protection to an area of 6·55 lakh acres from annual spill. The Eastern Kosi canal is almost complete. The expenditure incurred on the project upto the end of Dec. 1964 was Rs. 53·54 crores.

New schemes under the project that have been sanctioned in the Third Plan period are (*a*) extension of eastern and western levels (*b*) Rajpur canal system for irrigating 3·97 lakh acres (*c*) Western Kosi canal system for irrigating eight lakh acres and (*d*) investigation of Kothar Dam. They are estimated to cost Rs. 19·19 crores.

Steady progress is being maintained on the project.

The work on Kosi Hydel Power Station is also in progress. This has a potential of generating 20,000 KW of power in the main Eastern Kosi canal, half of which has been earmarked for use in Nepal.

*Railway Track Electrification :*—The scheme was taken up during the latter period of the Second Five Year Plan for giving supply to the Railway for track electrification at the following points:—(*i*) Chandil (*ii*) Rajkharswan (*iii*) Goelkera (*iv*) Kendposi (*v*) Dalbhumgarh (*vi*) Karmanasa (*vii*) Sonenagar and (*viii*) Gaya, by availing bulk supply at 132 KV. from Rihand, D.V.C. and Hirakud. The total estimated cost of the scheme is Rs. 3·99 crores out of which a sum of Rs. 2·70 crores had been spent during the Second Plan period. The supply has already been commenced at Chandil, Goelkera, Khandposi, Dalbhumgarh, Sone Sagar, Gaya, Rajkharswan and Khandposi to the Railways.

The work has now been completed in all respects.

*Maithon-Sultanganj lines :*—To cater to the demand for power in East Bihar area (Monghyr, Bhagalpur and Santhal Parganas), a 120 mile long 132 K.V. transmission line from Maithon to Sultanjganj has been constructed. The total estimated cost of the scheme is Rs. 267·69 lakhs, out of which Rs. 241·86 lakhs had already been spent by the end of March, 1963 and a further sum of Rs. 29·50 lakhs has been spent during 1964-65.

*Transmission :*—For transmitting the power generated at Barauni, Gandak, Kosi and Patratu stations, it is proposed to have a big net-work of 132 K.V. transmission lines together with 132/33 K.V. grid substations at various load centres all over the State. The total estimated cost of this work is Rs. 17·44 crores against which a provision of Rs. 8·31 crores has been made in the 3rd Plan.

*Distribution :*—For distributing the power available from the D.V.C. as well as from the Board's generating stations, eight distribution schemes have been prepared. A provision of Rs. 4·73 crores had been made in the 3rd Plan. However, the expenditure against these schemes upto March, 1964 was Rs. 6·93 crores and the proposed outlay during 1964-65 was Rs. 2·5 crores. It is estimated that the total expenditure against these scheme during the Third Plan will be about Rs. 14·81 crores. It was proposed to make arrangements for supplying energy to about 2,000 surface pump wells in this area during the Plan period.

*Rural Electrification :*—Upto March, 1962, 2,757 towns and villages were electrified. The provision for rural electrification in the Third Plan was Rs. three crores for extension of supply to 1,250 villages. It was expected that at the end of the Third Plan about 4,000 towns and villages would have been electrified.

It is estimated that the total requirement of power at the end of the Third Five Year Plan will be 104 MW. in North Bihar. Barauni Thermal power station will have a firm capacity of 95 MW. by the end of the Third Five Year Plan. The saleable capacity will be 83 MW. and the nett deficit 21 MW. The estimated requirement of power in South Bihar to be met by the Board at the end of the Third Five Year Plan is 510 MWs. The D.V.C. have already agreed to supply 143 MW. from their existing plants. It is expected that they will supply 57 MWs. more from their new plants. 258 MWs. will be produced at Patratu and 23 MW. will be received from Rihand. There will be a deficit of 29 MW at the end of the Third Plan.

It was expected that by the end of this Plan, the per capita consumption in the State will increase from 24 units to 67·5 units (excluding self generating units), while the corresponding figure for the whole country will be 79 units.

**Financial Position of the Board:** The Electricity Department of the Government had incurred a capital expenditure of Rs. 14·94 crores upto 31st March 1958, when the Board was formed. Subsequently, the Board has incurred a capital expenditure of Rs. 14·91 crores upto 31-3-61 the total capital investments on the electricity schemes up to this date being about Rs. 30·0 crores. The expected capital investment during the Third Plan is Rs. 59·91 crores, exclusive of the State Government's contribution of Rs. 20·0 crores to the D.V.C.

## LAND TENURE

The land tenure system in Bihar is governed by the following Tenancy Acts: The Bihar Tenancy Act, 1885, The Chota Nagpur Tenancy Act, 1908; the Santal Parganas Tenancy (Supplementary Provision) Act, 1949 ; The Kosi Area (Restoration of Lands to Raiyats) Act, 1951 ; The Bihar Privileged Persons Homestead Tenancy Act, 1947 ; The Bihar Bakast Dispute Settlement Act, 1947 ; and the Ranchi District Tana Bhagat Raiyats Agricultural Land Restoration Act, 1947. The above Acts protect all types of raiyats against eviction and ensure special privileges to scheduled castes and scheduled tribes against alienation.

The Raiyats in Bihar may be classified into the following classes:—(*i*) Occupancy raiyats (*i.e.* raiyats having right of occupancy in the land held by them), (*ii*) Non-occupancy raiyats (*i.e.* raiyats not having the right of occupancy); (*iii*) Under raiyats (*i.e.* tenants holding immediately or mediately under raiyats). In the Chota Nagpur Division there are two more classes of raiyats *viz.* (*i*) Raiyats having Khuntkatti Rights ; (*ii*) Mundari Khurtkattidaris.

The Government of Bihar enacted the Bihar Land Reforms Act, 1950 which provides for the liquidation of Zamindari system in the State.

The Bihar Land Reforms Act, 1950 was put into force with effect from 25th September 1950, and now all intermediary interests have been acquired by the Government. Actually the vesting of the estates started from May 1952. The Zamindari system in Bihar now stands completely abolished.

The Government has laid down a sliding scale for the assessment of compensation. Where the net income does not exceed Rs. 500, the compensation payable is twenty times the net income, and where the net income computed exceeds Rs. 1,00,000 it is payable at three times the amount subject to a minimum of Rs. 4 lakhs.

The total compensation is estimated at about Rs. 100 crores except the interest payable on bonds. Of this, a sum of Rs. 13·14 crores has already been paid in bonds upto 1964-1965 and another sum of Rs. 6·69 crores has also been paid otherwise, either in cash or by adjustment of arrears of various Government dues.

Provision has also been made for ad-interim payment. A total sum of Rs. 15·59 crores has also been paid upto the period ending 31st March 1965 on this account.

The assessment of compensation for mines and minerals has either to be fixed by agreement or by a tribunal appointed for the purpose.

As for funds to finance compensation, the proposal for Zamindari abolition in Bihar has been drawn up as a self-liquidating scheme.

The gross rental from the agricultural land, forests, royalty from mines and other miscellaneous sources in the State is about Rs. 10 crores, which is likely to increase further as a result of reclamation of waste lands, the development as well as expansion of the forests, mines, sairats, etc.

The amount of compensation will be paid in cash or in bonds or partly in cash and partly in bonds. The bonds will be either negotiable and transferable, and will be payable in forty equal instalments, and carry interest at two and a half per cent per annum with effect from the date of issue.

The tenant in Bihar has to pay rent in cash.

A ceiling on land holdings has been imposed under the Bihar Land Reforms (fixation of ceiling area and acquisition of surplus land) Act, 1961, which was brought into force with effect from April 19, 1962. This Act is being implemented in the State.

### Waste Land Reclamation

During the Second Plan period, 21,000 acres of waste land were reclaimed through manual labour with the help of subsidy at the rate of Rs. 100 per acre in the lateretic region of South Bihar.

26,591 acres of waste land were reclaimed in the hilly areas of South Bihar through the heavy tractors of private contractors. For this the scale of subsidy admissible is Rs. 400 per acre out of which Rs. 325 per acre is paid to the tractor company and Rs. 75 per acre is spent on ploughing and post reclamation measures.

During 1962-63, 15,734 acres and during 1963-64, 4,701 acres were reclaimed both by tractors and by manual labour.

The programme for 1964-65 was to reclaim 20,700 acres both by manual labour and tractors with Rs. 30·24 lakhs.

During the Third Plan, 75,000 acres were expected to be reclaimed by manual labour and by tractors.

## BHOODAN MOVEMENT

*Grant-in-Aid to the Bihar Bhoodan Yagna Committee :* A sum of Rs. 14·46 lakhs has been sanctioned by the Government of Bihar to the Committee from 1955-56 to 1964-65.

The execution of ten pilot projects for the resettlement of 250 families of landless agricultural workers on Bhoodan lands in Bihar had been sanctioned during 1957-58 at a total cost of Rs. 2,50,000. The schemes have been taken up for execution through Co-operative Societies known as Sarvodaya Sahayog Samities which have been constituted by the Bihar Bhoodan Yagna Committee. A sum of Rs. 1,70,109 as subsidy and Rs. 50,057 as loan have been spent. 186 Bhoodan families have been settled and 900 acres of land have been reclaimed.

A scheme for resettlement of 10,000 landless agricultural workers on Bhoodan lands had been sanctioned by the Government of India during 1957-58 at a cost of Rs. 30 lakhs, 75 per cent of which was given as subsidy and the balance of 25 per cent as loan. The entire expenditure has been borne by the Government of India and accordingly they have sanctioned Rs. 22,50,000 as subsidy and Rs. 7,50,000 as loan.

In addition to the above schemes, the Bihar Bhoodan Yagna Committee has sponsored another scheme of twenty pilot projects for the resettlement of 500 families of landless agricultural workers on Bhoodan lands at an estimated cost of Rs. five lakhs out of which Rs. 1·25 lakhs will be in the shape of loan and Rs. 3·75 lakhs as subsidy. The scheme is under the consideration of the Government of Bihar.

## RELIEF-MEASURES

During 1964-65, an expenditure of Rs. 22·88 lakhs was incurred due to famine, drought or other natural calamities.

Under "Loans and Advances" an amount of Rs. 37·08 lakhs was spent during 1964-65. Break-up (in Rs.): Land Improvement Loans Act 2,21,534; Agriculturists Loans Act 33,44,148; Natural Calamity Loans Act 1,42,290.

## COMMUNITY DEVELOPMENT AND PANCHAYATS

The whole State of Bihar has now been covered by Community Development Blocks. In April, 1965, 575 Blocks were in operation, twelve of which were further delimited to facilitate intensive development of tribal areas. Out of the total of these 587 Blocks, 248 Blocks are functioning in C.D. stage I, 292 in C.D. stage II and 47 in post stage II phases. This includes 59 C.D. Blocks.

As in other States, the Panchayat Raj scheme in the State has also three tiers of local administration—Village Panchayats at the Block level, Panchayat Samities at the Block level and Zila Parishads at the district level.

The Panchayat Raj scheme has been introduced in the four divisional headquarter districts, namely, Patna, Muzaffarpur, Bhagalpur and Ranchi in the first instance. Various provisions of Zila Parishad and Panchayat Samities Act 1961, have accordingly been made applicable to these districts. The scheme was inaugurated in the districts of Bhagalpur and Ranchi in Oct., 1964. The scheme was expected to be inaugurated in 1965 at Patna and Muzaffarpur.

## CO-OPERATION

Figures as of June 1964.

Number of Cooperative Societies of all types—37,822; Membership—23·14 lakhs; Working capital Rs. 3,958·40 lakhs.

Share Capital—Rs. 715·80 lakhs; Reserve fund—Rs. 300·76 lakhs.

Types of Cooperative Societies and number of each type as on 30th June 1964.

Provincial and Central Cooperative Banks 36; other central societies 80; Cooperative Farming Societies 300; Primary Agricultural Credit Societies 19,568; Weavers' Cooperative Societies 1,077; Oilmen's Cooperative Societies 1,494; Fishermen Cooperative Societies 219; Cooperative Stores 403; Cane Marketing Unions 72; Canegrowers Cooperative Societies 9,098; Milk Societies 113; Industrial Societies 1,544; Marketing Societies 245; Other types of societies 3,573.

*Bihar State Cooperative Bank:* Paid-up Share capital Rs. 57·63 lakhs; Deposits Rs. 298·42 lakhs; Loans from other sources Rs. 173·36 lakhs; Reserves Rs. 41·37 lakhs; Loans advanced to Central Co-operative Banks and others Rs. 474·62 lakhs.

*Central Cooperative Bank:* Number of Banks 28; The percentage of recovery rose from 39 per cent in 1957-58 to 68 per cent in 1963-64.

*Bihar State Cooperative Land Mortgage Bank:* 17 branches of the bank are working in the State. Out of a share capital of Rs. 14 lakhs by the State Government, the bank has already advanced Rs. 9·62 lakhs.

*Bihar State Marketing Union:* The Union sold goods worth Rs. 438·40 lakhs; Fertilisers sold Rs. 434·40 lakhs.

*Weavers' Societies:* No. of societies as on 30th June, 1964—1,077; value of goods produced Rs. 338·44 lakhs.

## LIVESTOCK

According to the Livestock Census 1961, Bihar possesses the following livestock (in million): Cattle 16·18; Buffaloes 3·69; Sheep 1·15; Goat 8·67; Pig 0·80; Poultry 12·35.

*Cattle Development:* At present seven Govt. Cattle breeding farms are functioning in the State to produce improved bulls. In addition, 43 key village blocks, 10 large town A.1 centres, 107 artificial insemination centres, three semen banks and two intensive cattle development blocks under crash Programme are functioning in the State for upgrading the local cattle, more milk yield and better draught performance. 7,330 improved bulls have been distributed in the Community Development Blocks for natural mating till 1964-65.

*Piggery Development:* There are now 13 Piggery Development Blocks and four Piggery Development Units functioning in the State. Under the crash Programme, a pig breeding farm cum bacon factory has been started at Ranchi with ten piggery development blocks around it. 4,030 pigs have been distributed in the C.D. Blocks till 1964-65.

*Sheep & Goat Development:* Two sheep and goat breeding farms are functioning in the State. Besides, 20 Sheep and Wool Extension Centres have been established for the production of quality wool and mutton. 1,363 rams and 2,380 ducks have been distributed in C. D. Blocks till 1964-65 for grading up the local sheep and goat population.

*Poultry Development:* For the development of poultry, birds of improved breeds are being introduced in the State through four range poultry farms, 21 poultry extension centres, 12 poultry development centres, 11 poultry farms at C. D. Block headquarters in the industrial belt, 92 poultry hatching and rearing centres, two intensive poultry development blocks and two intensive egg and poultry production cum marketing centres. A small poultry dressing plant has been started at Patna under the Crash Programme to meet the demand of dressed poultry meat; 2,76,775 improved birds, 3,04,423 eggs, 1,71,326 day old chicks have been distributed in the State during the Third Plan till the end of 1964-65.

A Duck Extension Centre is also functioning in the State.

*Disease control:* 632 veterinary hospitals and dispensaries including 18 mobile veterinary dispensaries are functioning in the State.

*Other Institutions:* Bihar Veterinary College, Patna; Veterinary College, Ranchi; Livestock Research Station, Patna; Animal Production Research Institute, Pusa; Stockman Training Centre, Dumraon; Stockman Training Centre, Gauriakarma; Extension Training Centre, Bhagalpur.

## HEALTH SERVICES

The following particulars are for 1962-63:

Allopathic hospitals 116; Allopathic dispensaries 778; Primary health centres 490; Beds in allopathic hospitals 10,161; Ayurvedic and Unani dispensaries 125; T.B. Hospitals 1; Mental Hospitals 2; Beds in T.B. hospitals 1,200 and in Mental hospitals 1,794.

Allopathic doctors 7,452; Nurses 396; Student Nurses 245; Trained dais in urban and rural areas 846; Compounders 4,575; Ayurvedic and Unani doctors 125; Compounders in Government employment 691.

Number of Medical Colleges (Allopathic) 2, Government Ayurvedic 1; Private 3; Government Unani 1.

There is one Govt. sanatorium at Itki, two T.B. Demonstration Centres one at Patna and the other at Darbhanga, one Govt. Hospital at Koilwar, three private sanatoria, two at Ranchi and one at Dehri-on-Sone (Shahabad).

There is a leprosarium at Brahmbe near Ranchi with a provision of 150 beds. Two leper asylums one at Gaya and the other at Deoghar with bed capacity of 150 and 100 respectively are also functioning.

A separate infectious diseases hospital has been opened in Patna city with a capacity of 50 beds.

Under health schemes the programmes for the eradication of malaria and small-pox, and family planning have been intensified during the year 1962-63. During 1962-63, 490 primary health centres were functioning in the State.

Small-pox eradication programme had started at a cost of Rs. 42 lakhs. 450 vaccinators were working in a mass vaccination scheme to vaccinate the entire population.

## LABOUR

Number of registered factories as on Dec. 31, 1963: 9,791; number of workers employed: 2,14,878.

Number of employees covered by the Employees State Insurance Scheme as on March 31, 1965: 55,000.

Industries in which minimum wage is fixed: Agricultural employment; Woollen carpet making and shawl making; Rice, flour, dal and oil milling; Bidi making; Lac manufacturing; Road construction and building operation; Stone breaking and stone crushing; Employment in public motor transport; Tanneries and leather manufacturing; Mica works; Tea plantations; Employment in local bodies; Printing press; Automobile engineering shop; Dam construction; Irrigation works and brick laying employment, Cinema industries and Cold storage.

Important State laws affecting industrial labour: Bihar Workmen's Protection Act, 1948; Bihar Shops and Establishment Act, 1953.

Number of registered trade unions as on 31st March 1965: 660.

Number of Employment Exchanges during 1964: 25; Employment information and assistance Bureaux 6; University employment information and guidance bureax 2; Vacancies notified 54,637.

25 welfare centres opened till March, 1965 by the State Government. Provide opportunities for cultural activities and sports and training in crafts for supplementing the industrial income.

Number of factories covered under Apprenticeship Act 1961: 250 (Feb. 1965); Number of trainees: 2,000.

## HOUSING SCHEME

The progress of the various Housing Schemes since the inception of the Housing Department is given below:

Name of the scheme, provision, expenditure and physical achievement respectively are as follows. The provision and expenditure are given in rupees lakhs.

Subsidised Industrial Housing Scheme 145·27; 144·52; 3,307; Low-Income Group Housing Scheme 247·48; 245·59; 3,204*; Slum Clearance Scheme 31·01; 25·56; 64; Middle-Income Group Housing Scheme 72·15; 54·80; 270*; Land Acquisition and Development Scheme 38·65; 38·65; 250 acres of land acquired; Housing Scheme for Scheduled Castes 24·51; 21·34; 2,319; Rental Housing Scheme† 12·20; 0·50; Housing Scheme‡ for Scheduled Castes engaged in sweeping and scavenging etc. 0·57; 0·45; 48.

In the Third Five Year Plan, Housing Department was to execute the following schemes: 1. (*a*) Low-Income Group Housing Scheme (Loans), (*b*) Low Income Group Housing Scheme (Direct construction); 2. (*a*) Subsidised Industrial Housing Scheme for the industrial workers (Direct construction), (*b*) Subsidised Industrial Housing Scheme for the industrial workers (Loans and Subsidy to the employers); 3. Slum Clearance and Improvement Scheme; 4. Village Housing Projects Scheme; 5. (*a*) Middle-Income Group Housing Scheme (Loans), (*b*) Middle-Income Group Housing Scheme (Direct construction); 6. Land Acquisition and Development Scheme; 7. Rental Housing Scheme for the State Government employees; 8. Housing Scheme for the Scheduled Castes who are landless; 9. Housing Schemes for the Scheduled Castes

* This figure is true upto 31-3-1962. † Started from 1961-62. ‡ Introduced from 1961-62.

engaged in scavenging and other unclean occupation.

*Low Income Group Housing Scheme.*—150 Houses have been constructed at Shrikrishangar, Patna. Another 300 houses will be constructed at Kankarbagh near Patna Jn. at an estimated cost of Rs. 38·50 lakhs. 250 houses are being constructed at Bariatu in Ranchi.

*Subsidised Industrial Housing Scheme.*—Name of the centre, number of houses in each centre and the expenditure are as follows under different schemes:

Bagbera—1,100: Rs. 42 lakhs; Adityapur—2,152: Rs. 81·59 lakhs; Kumardhubi—575: Rs. 22·961 lakhs.

*Houses under construction:* Dalmianagar—500—Rs. 18·15 lakhs; Katihar 200—Rs. 7·45 lakhs.

Administrative approval has been given to construct 1,000 more houses at Jamshedpur.

*Rental Housing Scheme:* 150 houses at Ranchi and 100 houses at Adityapur near Jamshedpur will be constructed. Rs. 38 per month will be the rent per house.

Name of the scheme and the total outlay for the Third Plan period respectively are given below. (Figures in lakhs of rupees).

Subsidised Industrial Housing Scheme 225·00; Low-Income Group Housing Scheme 225·00; Village Housing Project Scheme 100·00; Slum Clearance Scheme 100·00; Land Acquisition and Development Scheme 150·00; Middle Income Group Housing Scheme 100·00; Housing Scheme for Scheduled Castes, engaged in sweeping, scavenging etc. in Central Sector 17·25; Rental Housing Scheme for State Government employees 100·00; Housing Scheme for Scheduled Castes in Central Sector 5·00; Total 1,022·25.

Under the subsidised industrial housing schemes, two projects of 1,500 and three projects of 2,644 houses have been taken up during 1962.

## EDUCATION

On March 31, 1963 there were 40,866 primary and junior basic schools with 66,573 teachers and 28,42,835 pupils (including 6,74,397 girls). The State Government provides free and compulsory primary education for all children of the age-group 6-11.

The percentage of pupils of the age-group 6-11 would be about 4·7 in 1962-63 and age-group 11-14, 32·6 per cent.

During 1962-63 there were 4 research institutions *viz.*: (*i*) Mithila Institute of Post-Graduate studies and Research in Sanskrit Learning at Darbhanga, (*ii*) Nava Nalanda Mahavihara at Nalanda, Patna, for research and Post-Graduate studies in Pali and allied subjects and Budhistic learning, (*iii*) Institute of Post-Graduate studies and Research in Arabic and Persian, Patna, and (*iv*) Prakrit and Jain Research Institute, Vaishali, Muzaffarpur for research and Post-Graduate Studies in Prakrit Ardh Magadhi, with a total number of 152 students (including 2 women) in them. During the same year, there were in this State 117 Colleges for general education (including 13 for women) with 84,971 pupils (including 6,466 women), 35 Colleges for professional education (including 1 for women) with 16,360 pupils (including 633 women), 27 Colleges for special education with 1,749 pupils (including 53 women), 1,790 High/Higher Secondary Multipurpose/Post Basic Schools (including 113 for girls) with 6,23,640 pupils (including 48,593 girls), 5,507 Middle and Senior Basic Schools (including 377 for girls) with 10,44,126 pupils (including 1,97,424 girls), 40,866 Primary and Junior Basic Schools (including 4,565 for girls) with 28,42,835 pupils (including 6,74,397 girls), 33 Nursery Schools (including 3 for girls) with 2,044 pupils (including 817 girls), 220 Schools for professional education (including 47 for girls) with 33,881 pupils (including 3,980 girls), 7,034 Schools for special education (including 919 for girls), with 2,54,511 pupils (including 33,213 girls) and 413 un-recognised schools of different categories (including 64 for girls) with 31,709 pupils (including 4,294 girls).

There are six universities, namely (1) the Patna University, a purely teaching university, its jurisdiction comprising the area of the Patna Municipal Corporation, (2) the Bihar University, a teaching-cum-affiliating University for the Tirhut division having its headquarters at Muzaffarpur, (3) Bhagalpur University, a teaching-cum-affiliating University for the Bhagalpur division, having its headquarters at Bhagalpur, (4) Ranchi University, a teaching-cum-affiliating University for Chotanagpur division, having its headquarters at Ranchi, (5) Kameshwar Sanskrit University, having its headquarters at Darbhanga and (6) Magadh University, a teaching-cum-affiliating University for Patna Division having its headquarters at Bodh Gaya.

The control over High Schools is exercised through the Board of Secondary Education which accords recognition to schools and also distributes the grants sanctioned by Government.

The conduct of the Secondary School Examination (the final public examination after the completion of secondary stage) as a qualifying examination for admission to the pre-university course and the Higher Secondary School examination for admission to the Three-year degree course or to similar other courses is in the hands of an autonomous body, namely the Bihar School Examination Board.

A University Service Commission was set up from March 1, 1962 to assist in the selection of candidates for appointment as teachers in the affiliated colleges of the Universities. A second body, namely the Bihar State University Commission was also set up with effect from March 1, 1962 to coordinate the activities of all the Universities in the State.

Students are taught through their mother-tongue upto Class VII in ordinary schools and up to class VIII in basic schools. Hindi is the medium of instruction from class VIII to XI. Teaching of Hindi as compulsory subject begins from Class IV. From January 1959, English is being taught as a compulsory subject from Class VI.

The percentage of literacy in the State as a whole is 18·40.

Total direct and indirect expenditure on all recognised institutions (including expenditure on direction and inspection from all sources) amounted to Rs. 24,94,72,584 during the year 1961-62.

(*For more details like number of institutions, etc. see the main article on Education.*)

### Law and Order (1964)

The police force is under an Inspector General of Police. There is a policeman to every 1,308 of the population.

The High Court at Patna consists of one Chief Justice and 13 puisne Judges with one additional Judge. On the Criminal side of the subordinate Judiciary there are Sessions Judges and Additional Sessions Judges, Assistant Sessions Judges, Stipendiary and honorary magistrates. For the administration of civil justice there are District Judges, Additional District Judges, Subordinate Judges and Munsiffs.

## BUDGET 1965-66

(*See State Budgets*)

## POPULATION

See *article on Population.*

## BHAGALPUR UNIVERSITY

Bhagalpur.

(Founded—1960.)

*Chancellor:* M. Ananthasayanam Ayyangar.

*Vice-Chancellor:* Kalimuddin Ahmad, B.A. (Cantab), (Ag.).

*Treasurer:* B. N. Mehta, M.A., M.L.A.

*Registrar:* Amrendra Narayan, M.Sc.

*Finance Officer:* Pandey Shrikant Sharma, M.A., Dip-in-Ed.

Bhagalpur University is a teaching and affiliating University.

The medium of instruction in all the non-language subjects for the Pre-University, 3-year Degree Course, B.A., B.Sc., B.Com., Examinations in Arts, Science and Commerce is Hindi provided that technical terms in English may be used for the present. The medium of instruction in non-language subjects for all other examinations is English.

Provision for teaching upto the Post-Graduate Standard exists in the following subjects:—(*a*) Hindi. (*b*) Commerce. (*c*) Rural Economics & Cooperation. (*d*) Sociology. (*e*) Labour and Social Welfare. (*f*) Statistics. (*g*) English. (*h*) Political Science. (*i*) Philosophy. (*j*) Mathematics. (*k*) Economics. (*l*) History. (*m*) Psychology. (*n*) Physics. (*o*) Chemistry. There is also provision for research by scholars for higher degrees under the University. There is also provision for research work by scholars for doctorate degrees.

Number of Colleges: *Constituent colleges* 3. *Affiliated:* Technical & Professional 5; others 35.

Number of Students:—22,775.

*Constituent Colleges:*—Tej Narain Banaili College, Bhagalpur 7; Sundarvati Mahila Mahavidyalaya, Bhagalpur; Raja Deokinandan & Diamond Jubilee College, Monghyr.

*Technical & Professional Colleges (affiliated):*—Bihar Agricultural College, Sabour (Bhagalpur); Tej Narain Banaili Law College, Bhagalpur; Bhagalpur College of Engineering, Barari (Bhagalpur).

*Affiliated Colleges:*

Jai Prakash College, Narainpur; Murarka College, Sultanganj; Marwari College, Bhagalpur; Gajadhar Bhagat College, Naugachhia; Pandit Bali Ram Sharma College, Banka; B. N. M. College, Berahiya; Balmiki Rajniti Mahila Mahavidyalaya, Monghyr; Ganesh Dutta, College, Begusarai; Jagjiwan Ram Shramik Mahavidyalaya, Jamalpur; K. M. D. College, Parbatta; Kosi College, Khagaria; K. K. Memorial College, Jamui; Ramaswarath College Tarapur; Sri Krishna Ramruchi College, Barbigha; Srikrishna Mahila College, Begusarai; A.P.S.M. College, Barauni; Deoghar College, Deoghar; Godda College, Godda; Sahibganj College, Sahibganj; Santhal Paragans College, Dumka; Forbesganj College, Forbesganj; Gorelal Mahta College, Banmankhi; Purnea College, Purnea; Darshan Sah College, Katihar; Harihar Saha College, Kishunganu; Saharsa College, Saharsa; B. S. S. College, Supaul (Saharsa); Thakur Prasad College, Madhepura; Marwari College, Kishanganj (Purnea): Hari Singh Mahavidyalaya, Kharagpur (Monghyr); J. M. S. College, Monghyr; S. R. T. College, Dhamri; Ramdeo Sharda Mahavidyalaya, Salmari.

### BUDGET ESTIMATES (1964-65)

| | |
|---|---|
| Income .. .. .. | Rs. 1,22,13,892 |
| Expenditure .. .. | Rs. 1,30,22,304 |

### Grant From The State Government

| | |
|---|---|
| Recurring .. .. | Rs. 16,33,742 |
| Non-Recurring .. .. | Rs. 5,90,859 |

## UNIVERSITY OF BIHAR

Muzaffarpur.

Founded 1952, Remodelled in July 1960.

*Chancellor*, M. Ananthasayanam Ayyangar.

*Vice-Chancellor*, Col. P. L. Srivastava, M.A., D.Phill. (Oxon.), F.N.I.

*Treasurer*, N. P. Sinha, M.L.A.

*Registrar*, Dr. K. S. Varma, M.A., Ph.D.

*Dy. Registrar:* R. S. Singh, M.A.

*Finance Officer:* Pinak Pani Roy Chowdhury, B.Sc.

The Bihar University is a teaching-cum-affiliating University.

Medium of instruction : Hindi upto Bachelor's degree in the Faculties of Arts, Science and Commerce.

Provision for teaching up to the Post-graduate standard has been made in the following subjects: English, Hindi, History, Economics, Political Science, Physics, Chemistry, Psychology, Philosophy, Sanskrit, Botany, Maithili, M.Com., Zoology and Mathematics. Scholars work under Professors and submit their theses for research degrees.

Number of colleges affiliated : Constituent Colleges : 3 ; Technical and Professional Colleges : 6 ; Affiliated Colleges : 34.

Number of students : 30,364 (1963-64).

Income (1964-65 budget estimates): Rs. 1,34,07,810.

**Colleges**

*Constituent Colleges :* Langat Singh College, Muzaffarpur ; Chandradhari Mithila College, Darbhanga ; Mahanth Dasran Das Mahila College, Muzaffarpur.

*Technical and Professional Colleges :* Darbhanga Medical College, Darbhanga ; Muzaffarpur Institute of Technology, Muzaffarpur ; Tirhut College of Agriculture, Dholi, Mazaffarpur; Shri Krishna Jubilee Law College, Muzaffarpur ; Teachers' Training College, Turki Teachers' Training College, Samastipur.

*Affiliated Colleges :* D. A. V. Colleges, Siwan ; D. B. College, Jainagar (Darbhanga) ; Dr. S. K. Sinha Women's College, Motihari; Gopalganj College, Gopalganj ; Gopeshwar College, Hathwa; G. M. R. D. College, Mohanpur (Darbhanga) ; J. S. College, Chandauli-Belsand (Muzaffarpur) ; Jagdam College, Chapra ; Jagdish Nandan College, Madhubani (Darbhanga) ; Jai Prakash Mahila College, Chapra ; Janta College, Jhajiharpur (Darbhanga) ; Janta College, Parsa (Saran); Prabhunath College, Dighwara (Chapra); Lakshmi Narayan College, Bhagwanpur (Muzaffarpur); Maharani Janki Kunwar College, Bettaih (Champaran); M. L. S. College, Sarisabpahi (Darbhanga); Marwari Mahavidyalaya, Darbhanga ; Millat College, Laheriasarai (Darbhanga); Munshi Singh College, Motihari ; R. B. College, Dalsingsarai (Darbhanga); M. S. S. G. College, Areraj (Champaran) ; Pandaul College, Pandaul (Darbhanga); R. B. G. R. College, Maharajganj (Chapra); Raghav Prasad Singh College, Jaintpur (Muzaffarpur); Rajendra College, Chapra ; Raj Narain College, Hajipur ; Ram Dayalusingh College, Muzaffarpur ; Ram Krishna College, Madhubani ; Rosera College, Rosera (Darbhanga) ; S. R. K. Goenka College, Sitamarhi (Muzaffarpur) ; Acharya Narendra Deva College, Shahpur Patoree (Dharbhanga) ; Samastipur College, Samsaripur.

## MAGADH UNIVERSITY

Bodh Gaya

(Camp-Gaya, Bihar)

*Nature :* Teaching-cum-affiliating University.

*Courses provided at present and Degree :—* Pre-University Course in English, Hindi, Urdu and Bengali Composition, Principal Hindi, Urdu and Bengali, Sanskrit, Economics, Civics, Logic, Psychology, Pali, Persian, Geography, Domestic Science, Mathematics, Chemistry, Physics, and Zoology.

3 Years Degree Course in English, Hindi, Urdu, Bengali Composition. Principal Hindi, Urdu and Bengali, Sanskrit, Economics, Political Science, Philosophy, Psychology, Pali, Persian, Geography, Domestic Science, Mathematics, Chemistry, Physics, Geology, Biology, Botany and Zoology.

Honours Courses in English, Hindi, Urdu, Sanskrit, Economics, Political Science, Philosophy, Pali, Geography, Mathematics, History, Botany, Zoology, Chemistry, Physics & Psychology.

*Technical Degree Course :* B.V.Sc. and M.V.Sc. Courses in Veterinary Science,

Post-Graduate Course in English, Hindi, Economics, Mathematics, History, Philosophy, Geography, Sanskrit and Prakrit, Political Science, Ancient Indian & Asian Studies, Commerce and Veterinary Science.

*Courses in Law up to B. L. Degree : University Departments and Constituent College :* Post-graduate departments in English, Hindi, Economics, Mathematics, History, Philosophy. Sanskrit and Prakrit, Political Science, Ancient Indian & Asian Studies, Applied Economics and Commerce and Geography.

Gaya College, Gaya and H. D. Jain College, Arrah.

Medium of instruction :—English in Post-Graduate Classes and Hindi up to Degree Standard.

*Number of Students :* 21,195.

*Chancellor :* Ananthasayanam Ayyangar, Governor of Bihar.

*Vice-Chancellor :* Zawar Hussain.

*Registrar :* K. P. Sinha, M.Sc.

*Treasurer :* Dr. Y. Masih.

**BUDGET (1964-65)**

*Receipts :* Rs. 1,26,00,179 ; *Expenditure :* Rs. 1,27,86,727.

## KAMESHWARA SINGH DARBHANGA SANSKRIT UNIVERSITY

Camp 4, Circular Road, Patna.

(Founded in 1961.)

*Chancellor :* M. Ananthasayanam Ayyangar, Governor of Bihar.

*Vice-Chancellor :* Col. S. V. Sohoni, M.A. (Bom.)., B.A. (Cantab)., I.C.S.

*Registrar :* D. P. Pandeya, M.A. (Double), Vyakaranashastracharya, Vidyalankar.

The other officers of the University have not been appointed so far.

Kameshwara Singh Darbhanga Sanskrit University is a teaching-cum-affiliating University established on 26th January 1961.

The University provides teaching in all branches of Sanskrit learning from Prathma up to Acharya Examinations, which is the highest standard of teaching. Sanskrit is the official language of the University.

The subjects taught are :—Veda, Darshan, Vyakaran, Jyotish, Dharmashastra, Puran, Arthashastra, Sahitya and Ayurveda etc., etc. along with a comparative study of these with the advancement of modern allied subjects.

It provides higher researches in all the above-mentioned branches of Sanskrit learning.

Number of Colleges: Government Colleges 4, Affiliated Colleges 12. Besides, 400 Sanskrit Institutions teaching up to the highest standard from the beginning are affiliated to the University.

Number of Students: 10,000 (1960-61).

University Colleges : Awadha Bihar Sanskrit Mahavidyalaya, Rahimpur ; Baidyanath Pandeya Arya Sanskrit Mahavidyalaya, Siwan ; Balanand Sanskrit Mahavidyalaya, Karambad Ashram ; Batho Sanskrit College, Shivaram, Darbhanga ; Braj Bhushan Sanskrit Mahavidyalaya, Kharakhura ; Govt. College, Bhagalpur; Govt. College, Muzaffarpur ; Govt. College, Patna ; Govt. College, Ranchi ; Mahantha Keshav Sanskrit Mahavidyalaya, Fatuha ; Mithila Sanskrit College, Darbhanga ; M. M. Latha Sanskrit Vidyapitha, Lohana ; M. R. L. Vidyalaya, Darbhanga ; P. N. S. Mahavidyalaya, Lakshmipur ; Raghuvendra Sanskrit Mahavidyalaya, Tarailapali ; R. N. D. M. Sanskrit Mahavidyalaya, Patna ; Shri N. K. B. Sanskrit Mahavidyalaya, Dhanamath ; Sidheswari Sanskrit Mahavidyalaya, Pacharukhia.

The authorities of the University :—Senate, Syndicate and Academic Council.

Grant from the the State Government :— Rs. 1,60,000 (1963-64) ; Estimates submitted to the Government for 1964-65 : Rs. 7,20,000.

It awards degrees of Shastri, Acharyas, which are equivalent to post-graduate degrees of B.A. and M.A. in modern University and also the research degrees of Ph.D., D.Litt.

## PATNA UNIVERSITY

Patna 5.

*Chancellor :* M. Ananthasayanam Ayyangar, Governor of Bihar.

*Vice-Chancellor :* Dr. K. K. Datta, M.A., Ph.D., P.R.S.

*Treasurer :* M. P. Sinha.

*Registrar :* Sita Ram Prasad, M.A.

*Dy. Registrar :* Nageshwar Prasad, B.A.

*Asstt. Registrars :* A. K. Ghosh, B. K. Verma.

*Finance Officer :* J. D. Chaudhary, B.Com.

*Deans of the Faculties : Arts,* Dr. P. Dayal, M.A., Ph.D. (Lond) ; *Science,* Dr. B. N. Singh, M.Sc., D.Sc. (Lond.); *Law,* B. N. Srivastava, M.A., M.L.

*Education :* Deva Narayan Singh, M.A., M.ED. ; *Medicine,* Dr. T. P. Sinha, M.B.B.S., M.S. ; *Engineering,* R. K. Verma, B.Sc. (Eng.) ; *Commerce,* Dr. P. Dayal, M.A., Ph.D. (Lond.).

*Constituent Colleges :* Bihar College of Engineering ; Bihar National College ; Magadh Mahila College ; Patna College ; Patna Law College ; Patna Training College ; Patna Women's College ; Prince of Wales Medical College ; Patna Science College ; Women's Training College.

*University Departments :* Ancient Indian History and Archaeology ; Bengali ; Botany ; Chemistry ; Applied Economics and Commerce ; Economics ; Education ; English ; Psychology ; Geography ; Geology ; Hindi ; History ; Labour and Social Welfare ; Mathematics ; Philosophy ; Physics ; Political Science; Sanskrit ; Sociology ; Statistics ; Urdu ; Arabic ; Persian ; Zoology ; Maithili ; Anatomy ; Physiology ; Pharmacology ; Pathology ; Medicine ; Surgery ; Obstetrics and Gynaecology ; Ophthalmology and Otorhinolaryngology ; Orthopaedic Surgery ; Pediatrics ; Plastic Surgery ; Radiology ; Radiotherapy ; Anaesthesiology and Law.

*Institutes :* Institute of Psychological Research & Services ; Institute of Public Administration; Institute of Music.

Number of teachers in the University : 700.

Number of students in the University : 11,297 (Men 9,247 ; Women 2,050).

The language of instruction is Hindi in all under graduate classes, and English in all the post-graduate classes for the present.

**BUDGET (1964-65)**

Income : Rs. 1,57,91,044. (This includes income from Government grant also). Recurring Rs. 1,17,96,349 and non-recurring Rs. 39,94,695.

Expenditure : Rs. 1,52,40,457.

## RANCHI UNIVERSITY, RANCHI

(Founded in July, 1960)

*Chancellor :* M. Ananthasayanam Ayyangar.

*Vice-Chancellor :* Col. Sarangdhar Sinha, M.B.L.

*Treasurer :* H. K. Lal, M.L.C.

*Registrar :* Dr. P. N. Ojha, M.A., Ph.D.

*Deputy Registrar :* D. P. Verma, M.A.

*Assistant Registrar :* H. P. Roy, M.A., B.L.

The Ranchi University is a teaching-cum-affiliating University.

Medium of Instruction : Hindi upto Bachelor's degree in Arts, Science and Commerce. In the Honours and Post-graduate classes and rest of the Faculty the Medium of Instruction is English.

Provision for teaching upto Post-graduate standard has been made in the following subjects: English, Hindi, History, Economics, Political Science, Philosophy, Geography, Anthropology, Psychology, Physics, Chemistry, Botany, Zoology, Geology and Mathematics.

Number of Colleges affiliated: Constituent Colleges : Four ; Technical and Professional Colleges : Ten ; Other Affiliated Colleges : 20,

Number of students : 21,747 (1963-64).
Income : Rs. 1,24,89,519 (1964-65).
Expenditure : Rs. 91,81,108 (1964-65).
Grant from the State Government and U.G.C. Recurring Rs. 23,69,862 (1964-65). Non-recurring Rs. 9,04,705 (1964-65).

University Colleges :—
Bihar Institute of Technology, Sindri.
Birla Institute of Technology, Ranchi.
Birsa College, Khumti.
Chatra College, Chatra.
Chotanagpur Law College, Ranchi.
Doranda College, Ranchi.
Ganesh Lal Agrawal College, Daltonganj.
Giridih College, Giridih.
Gumla College, Gumla.
Hospital for Mental Diseases, Kanke.
Indian School of Mines and Applied Geology, Dhanbad.
Jagannath Jain College, Jhumri Tilaiya.
Jamshedpur Co-operative College, Jamshedpur.
Jamshedpur Women's College, Jamshedpur.
Jamshedpur Workers' College, Sakehi, Jamshedpur.
Johardaga College, Lohardaga.
K. B. Sahay College, Bermo.
Marwari College, Ranchi.
P. K. Roy Memorial College, Dhanbad.
Raja Sahib Pd. College, Jharia.
Ramsahaimull More College, Govindpur, Dhanbad.
Ranchi Agricultural College, Ranchi.
Ranchi College, Ranchi.
Ranchi Medical College, Ranchi.
Ranchi Veterinary College, Kanke.
Ranchi Women's College, Ranchi.
Regional Institute of Technology, Jamshedpur.
Simdega College, Simdega.
Sindri College, Sindri.
Sri Lakshmi Narain Trust Mahila Mahavidyalaya, Dhanbad.
St. Columba's College, Hazaribagh.
St. Xavier's College, Ranchi.
Tata College, Chaibasa.
Teachers' Training College, Ranchi.

## ASSOCIATIONS, INSTITUTIONS

### ABDUL KALAM ACADEMY
Park View, Near Birla Mandir, Sabjibagh, Patna 4.

### AGRICULTURAL RESEARCH INSTITUTE
Sabour (Bhagalpur).

*Regional Director :* R. S. Roy, M.Sc. (Calif.), M.S.S. (U.S.A.).

### ALL INDIA ADIBASI MAHASABHA
Ranchi.

### ALL INDIA JHARKHAND PARTY
Pathal Kuduwa, Ranchi.

### BHARTIYA NRITYA KALA MANDIR
(College of Indian Traditional Dances).
Chajjubagh, Patna 1.

### THE BIHAR CHAMBER OF COMMERCE
(Estd. 1926).

Judges' Court Road, P.O. Box No. 71, Patna 1.

*Objects :*—To promote and protect the Commercial and Industrial interests of the State and also to stand for the cause of the trading community. The Chamber has been given seats on various Advisory Committees of both the Central & State Governments and other local bodies and thus plays an effective role in the economic life of the State and the country. Membership of the Chamber is open to Commercial and Industrial Companies and persons interested in trade, commerce and industry. It also publishes a fortnightly bulletin "B.C.C. News Bulletin," containing information relating to trade and industries.

*President :* K. N. Sahaya, M.L.C. ; *Vice-Presidents :* S. N. Kabra, C. L. Datta ; *Hon. Treasurer :* C. L. Poddar ; *Hon. Secretary :* K. C. Bhargava, M.A., B.A. (Hons.).

### BIHAR INDUSTRIES ASSOCIATION
Sinha Library Road, Patna-1.

*President :* Shanti Prasad Jain ; *Chairman :* Gouri Shankar Dalmia, M.L.C. ; *Dy. Chairman :* P. Mukerji and V. Podder ; *Treasurer :* P. Lal ; *Secretary :* S. N. Dutta.

### BIHAR PAPER MERCHANTS' ASSOCIATION
D Block, New Area, Kadamkuan, Patna 3.

### BIHAR PIPE DISTRIBUTORS ASSOCIATION
Govind Mitra Road, Patna 4.

### BIHAR RASHTRABHASHA PARISHAD
Rajendranagar, Patna 4.

Research Institute for Hindi Literature and Language.

*President :* Satyendra Narayan Sinha ; *Director :* Dr. Bhuvneshwar Nath Mishra "Madhav", M.A., Ph.D.

### BIHAR RESEARCH SOCIETY
Museum Buildings, Patna.

### BIHAR STATE CANE GROWERS' CO-OPERATIVE ASSOCIATION LTD.
Co-operative Federation Bldg., Budh Marg, Patna.

### EASTERN BIHAR CHAMBER OF COMMERCE
Bhagalpur 2.

### GOVERNMENT SILK INSTITUTE
Bhagalpur.

### GOVERNMENT VACCINE INSTITUTE AND PASTEUR INSTITUTE
Namkum (Ranchi).

### HINDI NIRMAN PARISHAD
P.O. Mandar Vidyapith (Dt. Bhagalpur)

### INDIAN COAL MERCHANTS' ASSOCIATION
P. Box 113, Jharia.

*President :* B. P. Doshi ; *Vice-President :* D. N. Agarwal.

### INDIAN COLLIERY OWNERS ASSOCIATION
I.C.O. Association Road, P.O. Box No. 70, P. O. Dhanbad, Dist. Dhanbad.

### INDIAN CONFERENCE OF SOCIAL WORK
Bihar State Branch, Annie Besant Road, Patna 4.

*President :* Pandit Binodanand Jha ; *Secretary :* Nagendra Narayan Sinha.

### THE INDIAN INSTITUTE FOR CULTURAL STUDIES
P.O. Mandar Vidyapith (Dt. Bhagalpur).

### INDIAN SCHOOL OF MINES
Dhanbad.

Estd. in 1926. Is a high grade technical institution imparting training in (i) Mining Engineering leading to the award of B.Sc. (with Hons.) in Mining, (ii) Applied Geology leading to the award of M.Sc. Applied Geology, (iii) Petroleum Technology leading to the award of B.Sc. Hons. Petroleum Technology (Petroleum Engineering) and (iv) Applied Geophysics, leading to the award of M.Sc. Applied Geophysics of the Ranchi University to which the Institution is at present affiliated, as well as the diploma (A.I.S.M.) of the Institution. Facilities are now available for postgraduate research degrees in all the above branches.

*Director*, Prof. D. N. Prasad.

### INDIAN SUGAR MILLS ASSOCIATION, BIHAR BRANCH
Exhibition Road, Patna 1.

*President :* M. Nopany ; *Vice-President :* Paramananda ; *Secretary :* O. J. Mehta.

### INSTITUTE OF INDUSTRIAL DESIGNS
Boring Road, Patna.

### THE INSTITUTION OF ENGINEERS (INDIA)
Huda House, Gandhi Maidan Road, P.B. 77, Patna 1.

### THE JAMSHEDPUR CHAMBER OF COMMERCE
35, Laxmi Mansion, Jamshedpur.

*President :* S. Taunk ; *Vice-Presidents :* John P. Costa, P. Sharma, P. Agarwalla ; *Hony. Secretary :* S. N. Motilal ; *Hon. Treasurer :* K. Agarwalla.

### K. P. JAYASWAL RESEARCH INSTITUTE
Museum Buildings, Patna-1.

Research in Indian History and publication of Tibetan Sanskrit Works Series & Historical Works Series.

### LEELA DIPNARAIN INDUSTRIAL TRAINING INSTITUTE
Barari, Bhagalpur.

### MANDAR VIDYAPITH
P.O. Mandar Vidyapith, Via Barahat, Dist. Bhagalpur.

*Kulapati :* Anand Shankar Madhawan ; *Upakulapati :* Acharya Govind Prasad Jha ; *Principal :* Krishna Kinkar Sinha.

### MITHILA INSTITUTE OF POST-GRADUATE STUDIES AND RESEARCH IN SANSKRIT LEARNING
Darbhanga.

### MUZAFFARNAGAR CHAMBER OF COMMERCE
Muzaffarnagar.

### NAVA NALANDA MAHAVIHARA
(Nalanda Institute of Post Graduate & Research in Buddhist Learning and Pali).
Nalanda (Dt. Patna).

*Director :* Bhikkhu Jagadish Kashyap, M.A., Tripitakacharya ; *Registrar :* Birbal Sharma, M.A., Acharya.

### RABINDRA PARISHAD
Rabindra Bhawan, Gardiner Road, Patna 1.

### RESEARCH INSTITUTE OF PRAKRIT, JAINOLOGY & AHIMSA
Vaishali (Dt. Muzaffarpur)

*Director :* Dr. N. Tatia.

### RURAL INSTITUTE
Birouli (Dt. Darbhanga).

### SHILPA KALA PARISHAD
C/o Govt. School of Arts & Crafts, Patna 1.

### SOIL CONSERVATION SOCIETY OF INDIA
15, Bayley Road, Patna.

### VINDHYA KALA MANDIR
Kazipur, Patna 4.

Affiliated to Bhatkhande Sangeet Vidyapeeth, Lucknow and recognised by the Sangeet Natak Akadami, New Delhi.

*President :* Mahabir Prasad ; *Secretary :* S. C. Varma.

### YOGODA SAT-SANGA VIDYALAYA
Ranchi.

Imparts academical and spiritual education. Medium—English. Is conducted by Yogoda Sat-Sanga Society of India and Self-Realization Fellowship of America. Yogoda Sat-Sanga Seva Ashram (Dispensary) at Ranchi is a subsidiary institution of the Society.

*Secretary :* B. N. Dubey.

# ORISSA

**Capital : Bhubaneshwar.**

**Area : 60,164 sq. miles.**

**Total Population : 17,548,846 (Males 8,770,586 and Females 8,778,260) (1961 Census). Increase over the 1951 census : 19·82 per cent ; Literacy : 21·7 per cent ; Density of persons per sq. mile : 292.**

*Administrative Divisions :* **The whole of the State is divided into 13 Districts. The following are the Administrative Districts with names of district headquarters :**

**Cuttack (Cuttack); Puri (Puri); Dhenkanal (Dhenkanal); Baudh—Khondmals (Phulbani); Balasore (Balasore); Sambalpur (Sambalpur); Ganjam (Chatrapur); Koraput (Koraput); Mayurbhanj (Baripada); Sundergarh (Sundergarh); Bolangir (Bolangir-patna); Keonjhar (Keonjhargarh).**

**For area and population of districts according to 1961 census, see article "Population".**

**Districts showing within brackets, the names of talukas and their area in sq. miles :**

**Balasore Dist. (Bhadrak, 1,076 ; Nilgiri, 263 ; Sadar, 1,168); Bolangir Dist. (Bolangir, 868 ; Patangarh, 727 ; Sonepur, 882 ; Titlagarh, 935); Cuttack Dist. (Athgarh, 556 ; Jaipur, 1,115 ; Kendrapara, 977 ; Sadar, 1,562); Dhenkanal Dist. (Angul, 902 ; Athmalik, 711 ; Hindol, 312 ; Kamakhyanagar, 864 ; Pal-Lahara, 451 ; Sadar, 598 ; Talcher, 388); Ganjam Dist. (Berhanpur, 886 ; Chattrapur, 827 ; Ghumsur, 1,558 ; Parlakimedi, 1,454); Kalahandi Dist. (Dharamgarh, 1,142 ; Nawapara, 1,312; Sadar, 2,066) ; Koraput Dist. (Koraput Sadar, 2,060 ; Nowrangpur, 5,512 ; Rayaghada ; 2,347); Mayurbhanj Dist. (Bamanghaty, 737 ; Kaptipada, 478 ; Panchpir, 1,188 ; Sadar, 1,618) ; Baudh–Khondmals Dist. (Balliguda, 2,173 ; Baudh 1,330 ; Khondmals 779) ; Puri Dist. (Bhubaneswar 332 ; Khurda 739 ; Nayagarh 1,563 ; Sadar 1,409) ; Sambalpur Dist. (Bargarh 2,252 ; Deogarh 1,044 ; Kuchinda 944 ; Nairakhol 833 ; Sadar 1,692); Sundargarh Dist. (Bonai 1,296 ; Panposh 711 ; Sundargarh 1,781).**

**Number of Revenue Sub-Divisions 52 consisting of a number of Tahsils and Thanas.**

**Number of Municipalities : 19 (1961).**

**Number of Notified Area Councils : 28 (1961).**

**Number of villages : 52,125 (1961).**

**Panchayat Samiti was inaugurated throughout the State on Jan. 26, 1961, an important stage in the process of democratic decentralization of administration.**

## LARGE-SCALE INDUSTRY

**Main large scale industries of State.**

**Textiles ; Cement ; Refrigerators ; Paper ; Glass ; Sugar ; Iron and Steel ; Potteries ; Spinning Mills ; Tube Mill ; Refractories and pipes ; Ferro-manganese ; Chlorine and Caustic Soda ; Low Shaft Furnace : Structural Transmission Towers ; Coil and Coil Products Aluminium Ingots ; Aluminium Cables ; Steel Reinforced ; Cast Iron Specials ; Cast Iron spun pipes ; Cast Iron Castings ; Paper.**

## CHIEF INDUSTRIAL UNITS

**The Orissa Textile Mills, Chowdwar, Cuttack; The Orissa Cement Factory, Rajgangpur ; The Kalinga Tube Ltd., Chowdwar ; The Kalinga Industries Ltd., Cuttack ; Orient Paper Mills, Brajrajnagar, Shree Durga Glass Works Ltd., Baranga ; Orissa Industries Ltd., Baranga ; The Titagarh Paper Mills, Chowdwar ; The National Foundry and Rolling Mills Ltd., Cuttack ; The Mayurbhanj Glass Works Ltd., Bahalda Road, Mayurbhanj ; Tata Ferro-manganese Plant, Joda ; Ferro-manganese Plant, Rayagada ; Orient Weaving Mills Ltd., Cuttack ; Mayurbhanj Textiles, Baripada ; Mayurbhanj Potteries, Baripada; Refractory Plant, Rajgangpur ; Hindustan Steel Ltd., Rourkela ; Belpahar Refractories, Belpahar, Sambalpur ; Straw Products Ltd., Jakeypore, Koraput; Indian Metal Ferro Alloys Ltd., Rayagada ; Kalinga Textiles, Rajagangpur ; Indian Aluminium Co. Ltd., Hirakud ; Orissa Ceramics Industries, Jharsuguda ; Jeypore Sugar Co. Ltd., Rayagada ; Kalinga Iron Works Ltd., Barbil ; Cement Factory, Bargarh.**

**The Rs. 3-crore paper mill of the Titaghur** Paper Mills Co., Ltd., was opened at Chowdwar in Cuttack district on March 12, 1960.

**A new smelter plant of the Indian Aluminium Company called the Hirakud Reduction Plant was inaugurated by the Chief Minister of Orissa on February 12, 1959.**

**Situated a little more than a stone's throw from the Hirakud multi-purpose project, the smelter has been built at a cost of Rs. 5 crores by the Indian Aluminium Company and forms part of a Rs. 14 crore integrated expansion project involving bauxite, alumina and metal production facilities.**

**It has an installed capacity of 10,000 tons of aluminium which saves the nation Rs. 2·5 crores of foreign exchange annually.**

**The Rourkela steel plant which has started production has a capacity of one million tons a year.**

## SMALL & COTTAGE INDUSTRIES

**Small and cottage industries with their locations in brackets are: Biscuit Factory (Cuttack, Berhampur, Rourkela), Steel (Parlakhimedi, Cuttack), Salt (Ganjam, Puri, Cuttack), Fire Bricks (Rajgangpur, Baranga, Jharsuguda), Foundry (Tapang, Berhampur, Dhanmandal Rourkela, Baripada, Sambalpur, Balasore), Wood work (Cuttack, Bhubaneswar, Baripada, Jharsuguda), Tannery (Baud and Titlagarh), Footwear (Puri, Cuttack), Roofing tiles (Cuttack, Puri, Balasore, Ganjam, Sambalpur) ; Radio Manufacturing (Cuttack, Rourkela), Glazed wall Tile (Baranga, Rourkela), Agricultural implements (Cuttack), Cycle parts, Tin containers (Parlakimedi, Cuttack); Railway-sleepers (Rairangpur, Dhanmandal and Sambalpur); Boats and Launches (Cuttack) ; Sports Goods (Cuttack) ; Mathematical Instruments (Berhampur); Aluminium Utensils (Rourkela, Puri); Cashew nuts and Oil (Puri); Watch making (Berhampur); Leatherbag (Rourkela); Ice factory (Rourkela, Cuttack); Hard boards (Cuttack); Paints (Cuttack); Bucket (Cuttack, Jaipur).**

**Handloom, Hides and Skins, Salt manufactures, Horn works, Bell metal, Potteries, Filigree, Blacksmithy, Carpentry, Tailoring, Cane Works, Soap making, Trunk manufacturing and Paddy husking, Eri rearing, Rope-making, Toys, Bamboo works, Mats, Weaving, Spinning, Flaying of hides and horns, Tasar rearing, Stone carving, Insense and Perfumery, Golden Grass Products, Ivory works, Brass fish-work, Applione works.**

**A number of small and cottage industries have been started under the Panjayat Samiti Industries Programme for 1962-63 and 1963-64. The following are the different categories with their number of units : Crystal Sugar units 7 ; tile units 21 ; carpentry units 10 ; blacksmithy units 10.**

**1963-64 : Sugar units 4 ; tile units 3 ; rice mills 3, saw mills 8 ; oil mills 8 ; aluminium utensils unit 1 ; rice hullers 3; bucket industry 1 ; carpentry unit 1 ; deep sea fishing 1, and cold storage 2.**

**1964-65 : Saw mills 2 ; rice mills 8 ; sugar 2; stone crushing 1 ; tile 4 ; tile with brick kiln 1 ; hume pipe 1 ; rice huller with oil expeller 2 ; wood screw ; aluminium 1 ; jute twine 1 ; bucket-cum-trunk 1 ; light engineering 1 ; hinges 1 ; wire nail manufacturing unit 1 ; oil mills 2.**

## MINERALS, METALS

**Orissa's mineral potential is enormous. Her reserves of Iron Ore, Manganese Ore, Chromite Limestone and Graphite are among the very best in India. The minerals which are worked in large quantities include besides those stated above, Coal, Dolomite Galena, Fire clay and China Clay. Deposits of Bauxite, Vanadiferous Magnetite, Kyanite, Galena, Asbestos, Soapstone and Mica also occur in the State.**

*Location :—*

*Iron Ore :*—Badampahar, Gorumahisani, Hatisikhli, Thakurani, Joda, Bolani, Sakradihi, Pipokri*, Gandhamaradan*, Jhiling, Tomka, Daitari* and Hirapur*. Total estimated reserves : Over 8,000 million tons.

*Manganese Ore :* Thakurani, Joda, Bamebari, Gurda, Kalaparbat, Siljora, Dalpahar, Bhutura, Korra valley and Kuttinga. Total estimated reserves : over 20 million tons of all grades.

*Chromite :*—Baula—Nuasahi, Saraubil, Sukraugi, Bhimtangar, Kaliapani. Total estimated reserves : Around five million tons.

*Coal :*—Talchir (Deulbera, Dera, Talchir, S. Balanda) and Rampur (Hingir—Rampur and Orient collieries) are the two coal fields of the State producing non-coking coal. The reserves in those fields may be of the order of several thousand million tons.

*Limestone :*—Birmitrapur, Hatibari, Purnapani, Lanjihera, Dungri,* Umpavalle, Kottameta—Nandiveda*. The total reserves may exceed 500 million tons.

*Dolomite :*—Birmitrapur in Sundargarh district.

*Graphite :*—Sargipali, Matupali, Dharuakhaman, Bamuni, Sigjhran, Loitera, Densurgi, Tumudibandh, Majhibhelum, Kariguda and Athamalik.

*China Clay :*—Khola, Joshipur, Chanachbani and Jamkesar.

*Fire Clay :*—Belpahar, Talabira, Darlipali, Jaganath Prasad, Gopalpur* and Ratansara.

*Bauxite :*—Gandhamaradan Plateau, Kahipur Tiluk, Khariar, Karlapat plateaux. Total reserves : About two million tons.

*Vandiferous Magnetite :*—Huasahi, Betai, Rangamatia, Betharan, Kumardubi, Hatichar, Kesam, Majurbeka.

## PORTS

*Paradeep :* **With the concurrence of Government of India and the Planning Commission, the project for the development of Paradeep into a modern deep-sea port has been included in the State's Third Five Year Plan. The target fixed for this Project is to build up Port facilities at Paradeep capable of handling 2 million tons of traffic in iron-ore by October 1965. The main items of work to be completed by the target date are construction of Breakwater, dredging of approach channel, entrance channel and the turning basin, construction of one iron-ore berth, installation of necessary ore handling equipment capable of loading 2,500 tons per hour, acquisition of maintenance dredger and construction of necessary staff quarters buildings and services such as water-supply arrangements, drainage schemes and construction of roads inside the Port area, etc., etc.**

**125 residential and 11 non-residential buildings have been completed, the breakwater has gone up to a length of about 1,800 feet, the extension of the Taldanda canal to the Port area joining the Atharbanki creek has been completed ; the bridges over Atharbanki and the road to the Port for the movement of the construction materials has also been completed.**

**The Port is expected to be commissioned in October 1965.**

* Indicates occurrences which have not been worked.

*Chandbali & Gopalpur Ports :* Provision for providing additional port facilities at Chandbali Port and for reviving the activities at Gopalpur Port at an estimated cost of Rs. 4·80 lakhs and Rs. 1 lakh respectively for the introduction of regular coastal shipping, has been included in the Third Plan and steps are being taken by the State Government to execute all the schemes for development of Chandbali and Gopalpur Ports.

## AGRICULTURE

The latest available position (1963-64) is as follows. The first figure in brackets shows the area in acres, and the second the yield in tons :

Rice (106,47,000 ; 42,40,000) ; Wheat (38,000 ; 8,000) ; Jowar (18,000 ; 4,000) ; Maize (34,000 ; 7,000) ; Bajra (14,000 ; 2,000) ; Gram (66,000 ; 13,000) ; Tur (10,000 ; 22,000) ; Other kharif pulses (3,58,000 ; 76,000) ; Other rabi pulses (15,57,000 ; 3,16,000) ; Ground nut (1,41,000 ; 69,000) ; Linseed (46,000 ; 5,000) ; Sesamum (2,55,000 ; 27,000) ; Rape and mustard (1,48,000 ; 16,000) ; Cotton (4,000 ; 670 bales) ; Jute (1,35,000 ; 3,60,000 bales) ; Mista (31,000 ; 71,000 bales) ; Sugarcane (1,00,000 ; 1,92,000).

## LAND REFORMS

Some of the important steps taken under Land Reforms include Estate Abolition, abolition of Hereditary Village Office System in the district of Ganjam, abolition of village office system in ex-State areas and reorganisation of Tahsils. About 3 lakhs of rent-free estates have been vested in Government by blanket notification under Orissa Estate Abolition (Amendment) Act, 1963, and the claims of the intermediaries are being finalised by holding Camp Courts and spot visits.

Provisions of the Orissa Irrigation Act, 1959 came into force from June 1, 1961 in all the districts of the State except in the old districts of Cuttack, Balasore and Ganjam. From June 1 1963 water rates were levied in the districts of Cuttack and Balasore under the provisions of the Orissa Irrigation Act, 1959 and from July 1, 1963 in districts of Ganjam.

## FORESTS

The total forest area of the State is estimated to be 25,358·21 square miles which account for 42 per cent of the land area.

The major portion of the forest area is covered by protected forests, Khesra forests and ex-zamindari and private forests. Sixty per cent only is well-demarcated and supports forest growth of reasonable value. Even within the demarcated forests 80 per cent of the available species are utilised as fire wood. At the beginning of the Third Plan they were yielding a revenue of about Rs. 3 Crores. With proper planning and investment the revenue is expected to go up. During the Third Plan, survey of forest resources, demarcation of more forest areas, plantation of fast growing species, development of forests of Commercial importance, improved methods of logging, farm forestry, afforestation and enrichment of depleted forests and provision of better communication facilities and wild life protection have been taken up.

The Forest Corporation, set up in 1962, continued its work of exploitation of forest resources of the State satisfactorily.

Sal is the most important species in the State. The other important timber species are Bija, Sissoo, Kusum, Simul, Bandhan, Gambhar, Champa, Teak etc. Bamboos occur extensively in the State and besides meeting the local requirements for various purposes, feed the various paper mills. Kendu leaves bring in a substantial revenue to the State.

The forests occur in all the thirteen districts of the State, but their distribution is rather uneven in the coastal districts, like Puri, Cuttack and Balasore.

Total revenue from the forest for the year (till Sept. 30, 1963)—42·71 lakhs.

Total expenditure on the State forests during the year —Rs .15 lakhs.

## LAND RECLAMATION

Reclamation of saline inundated lands in the foreshore of Chitka lake, taken up during the Second Plan period, continued its work in the Third Plan. The target of the Third Plan is to reclaim 8,000 acres of saline inundated areas of Cuttack, Puri, Ganjam and Balasore districts.

Reclafmed land : 10,286·27 acres in reclamation centre.

Destumped area and waste land (fit for cultivation) : 1,371·75 acres. Total : 11,598·02 acres.

Till the end of December 1961, 8,448·27 acres of the reclaimed lands had been settled with displaced persons, leaving a balance of 3,149·75 acres.

**Resettlement of Landless Workers :—** Under the scheme for resettlement of landless workers 8 farming societies were organised in the Second Plan period and financial assistance in the shape of loan and subsidy was given to these societies for meeting reclamation cost, cultivation expenses and managerial subsidy. In the Third Plan period these societies are to be given subsidy according to the revised pattern and a provision of Rs. 2 lakhs has been made. Out of these 8 Societies, 2 Farming Societies at Lachhida and Lahanda in Sambalpur district were taken up outside the Pilot project scheme during 1962-63. These societies were continued in 1963-64.

**Settlement of Landless Agricultural Labourers :—** A new scheme for settlement of landless agricultural labourers in compact blocks of land of 250 acres has been taken up under the centrally sponsored programmes. Government of India provide assistance at the rate of Rs. 1,250 per family towards reclamation and resettlement. The entire cost of reclamation is treated as grant to the landless agricultural labourers and shared between Government of India and the State Government equally. 75 per cent of the resettlement cost is shared by Government of India and the remaining 25 per cent is loan.

In 1964-65 it was proposed to cover an area of about one lakh acres. After the survey was completed the work of settlement was to begin.

## TRANSPORT

Position in 1962 :
Total mileage of roads : 6,795.
Mileage of metalled roads : 2,225.
Mileage of unmetalled roads : 4,570.
Total mileage of railways in the State : 898 (1962).
Total mileage of water-ways : All the canals and some of the rivers are also navigable (767).
Number of aerodromes : 2 (Bhubaneshwar and Jharsuguda). Airstrips : 15, out of which nine are in working condition.
Number of passenger service buses : 1,217.
Number of goods-carrying trucks, lorries : 8,090.
Number of motor cars : 7,766.

During 1963-64 upto the end of Sept. 1963, 137 miles of existing roads had been improved, 16 miles of new roads constructed, 14 bridges completed and work on 21 new bridges was taken up.

### State Transport
(as on 31st March 1962)

Transport has been nationalised in the State from 1-1-48.

Name of Transport Authority : The State Transport Services, Orissa.

Operates passenger transport service in the districts of Sambalpur, Sundergarh, Bolangir, Kalahandi, Koraput, Keonjhar, Mayurbhanj, Dhenkanal, and Balasore and on the north of the Mahanadi river.

Capital invested (Progressive) : Rs. 85·11 lakhs (subject to audit).
Number of routes covered : 211.
Number of goods vehicles owned : 7.
Total number of passengers carried : 1,08,97,865.
Total volume of goods carried : 3,60,514 mds.

| | Rs. |
|---|---|
| Total expenses of authority | 110·1 lakhs (subject to audit) |
| Total revenue .. .. | 144·00 lakhs (subject to audit) |
| Profit (Net) .. .. | 33·9 lakhs (subject to audit) |

Number of men employed after nationalisation : 2,587.
Total mileage : 98,07,895 (1962-63).
Number of passenger vehicles owned : 454 (1962-63).

### Orissa Road Transport Company Ltd.

The Orissa Road Transport Company came into being with effect from the 1st January 1951 with the participation of the State Government, Central Government and members of the public.

Out of the paid-up capital of Rs. 30,00,725 the State Government and Central Government own shares to the extent of Rs. 23,36,300 and Rs. 6,00,000 respectively. Shares to the extent of Rs. 63,700 are held by the public besides forfeited shares of Rs. 725. The State Government's shares work out 78 per cent of the total paid up capital.

The State Government have received Rs. 17,96,654 in shape of dividends up to the end of 1962-63 including dividend of Rs. 2,33,630 for 1962-63. A similar amount was expected during 1963-64.

The Orissa Road Transport Company is at present operating their services in the districts of Ganjam, Phulbani, Puri and a part of Cuttack district (to the South of River Mahanadi).

Capital invested : Rs. 29,99,925.
Total mileage covered : 51,75,024.
Number of routes covered : 80.
Number of passenger vehicles : 182.
Number of suburban bus services : Nil.
Total number of passengers carried : 77,76,105.
Total expenses of authority : Rs. 54,54,046.
Total revenue : Rs. 81,72,412.
Profit : Rs. 27,18,366.

## CO-OPERATIVES

Position as on June 30, 1964.

Total number of Co-operative Societies (including State Co-op. Bank : 11,246.

Total membership of all types of societies : 14,89,628.

Paid-up Share Capital : Rs. 708·60 lakhs.

Total agricultural credit advances including loans advanced by Grain Golas : Rs. 776·86 lakhs.

Total working capital : Rs. 4,779·25 lakhs.

The Orissa State Co-operative Bank is one of the biggest organisations in the co-operative banking channel. Its financial particulars are given below :

Working Capital : Rs. 654·01 lakhs.
Deposits : Rs. 223·14 lakhs.
Paid-up Share Capital : Rs. 46·44 lakhs.
Reserve and other funds : Rs. 17·91 lakhs.
Net Profit for the year 1963-64 : 7·42 lakhs.

## PUBLIC HEALTH

Position in 1964.

Commonest diseases in State and mortality from each of these in 1964 : Cholera (attacks 1,047, deaths 458) ; Small-pox (attacks 906, deaths 204) ; Fevers (including malaria etc.) 1,08,787.*

Allopathic Hospitals 176 ;* Allopathic Dispensaries 296 ;* No. of Allopathic beds 7,484 ;* Maternity Homes 3 ; Maternity Centres 32 ; Maternity & Child Welfare Centres 34 ; Primary Health Centres 178 ; Family Planning Clinics 124 ; No. of Doctors registered 1,847 ; No. of Doctors employed 800 ; No. of Nurses registered 699 ; No. of Nurses employed 420 ; No. of Midwives registered 487 ; No. of Dais registered 334 ; No. of Health Visitors (employed) 111 ; No. of Ayurvedic Hospitals 3 ; No. of Ayurvedic Dispensaries 121.

* Figures for 1963.

## EDUCATION (1962-63)

| | Primary Schools | Middle Schools | High Schools | Higher Secondary Schools |
|---|---|---|---|---|
| Number of Schools .. .. | 22,222 | 1,992 | 516 | 13 |
| Total enrolment .. .. | 14,46,714 | 1,36,418 | 1,25,608 | 5,991 |
| Number of Teachers .. | 42,116 | 6,734 | 6,493 | — |
| Total direct expenditure (Rs.) | 3,50,13,174 | 9,65,66,169 | 1,35,57,715 | 10,51,179 |

(See under article on education for other particulars).

## LABOUR, HOUSING

**Position in 1962:**

Names of industries in which minimum wage is fixed: Rice Mill, Flour Mill and Dal Mill, Tobacco (including bidi and gudakhu making) manufactory, road construction, building operations and stone breaking or stone crushing, Public Motor Transport, employment in agricultural operations and employment under Local Authority (excepting Gram Panchayats, Anchal Sasan and Notified Area Councils).

The minimum rates for wages in respect of the following scheduled employments were revised with effect from 26-11-1960: (1) Rice Mill, Flour Mill or Dal Mill, (2) Tobacco (including bidi making and gudakhu making) manufactory, (3) Agricultural operation, (4) Road construction or building operation and stone breaking or stone crushing within the notified area of Rourkela.

The following employments have been added to Part I of the Schedule appended to the Minimum Wages Act 1948—Salt pans, printing presses, tile and brick making, private road transport, hotels, eating houses and restaurants, distilleries, shops and establishments, metal industries, cinema industry, saw mills, handloom and hosiery.

Number of registered factories: 721.

Average daily number of workers in registered factories: 27,557.

Average number of workers employed daily in the mines: 36,434.

Average monthly earnings of industrial workers: Rs. 79·70.

Number of Trade Unions in the State: 120.

Total membership of trade unions: 76,221.

Number of Labour Welfare Centres: 46 (34 managed by private bodies and 12 managed by State Govt.).

Number of houses built under Subsidised Industrial Housing Scheme: By private enterprises: 1,513. By Government: 1,174.

Number of houses constructed under the Low Income Group Scheme upto the end of Dec. 1962: 1,287.

Number of Houses completed under the Middle Income Group Housing Scheme upto June 1962: 101.

## POWER AND IRRIGATION

**Power:**—The Electricity schemes may be divided in two parts, namely, generations of electricity and construction of power projects on the one hand and transmission and distribution of power to consumers on the other. The former are in the direct charge of the State Government while the latter are the responsibility of the State Electricity Board.

The more important schemes of generation:

(*i*) Hirakud Stage II.

(*ii*) Talcher Thermal Station, and

(*iii*) Balimela Hydro-Electric Project.

**Hirakud Stage II:**—At Hirakud, during the Third Plan period the fifth and sixth units have been commissioned. At Chiplima the first and second units were put to commercial use in July and February, 1962 respectively. The third unit was completed in September, 1963. With the commissioning of this set, Stage II of Hirakud Project was completed. It has now a scheduled capacity of 270 MW and is capable of supplying 121 MW of firm power.

**Talcher Thermal Scheme:**—The Talcher Thermal Scheme envisages setting up of four units of 62·5 MW each at Talcher. Of 259 MW generated 230 MW will be available for sale. This station will be interconnected with Hirakud Grid on the one hand and Machkund and Balimela systems on the other. It will draw coal from the coal mines operated by the National Coal Development Corporation at Talcher. The present programme is that the first of the four units will be commissioned in Nov., 1965, with subsequent units coming up at intervals of three months thereafter. The estimate of the Scheme is Rs. 30·35 crores. A provision of Rs. 9·3 crores has been made in the 1965-66 Plan for this scheme.

**Balimela Hydro-Electric Project:**— An agreement was reached between Governments of Andhra Pradesh and Orissa on 4th September, 1962, regarding the construction of the dam on river Sileru at Balimela for generation of electricity. The total estimated cost of the dam is Rs. 24 crores. The share of Andhra Pradesh has been pegged at Rs. 12 crores. The cost of the power portion is estimated at Rs. 21·83 crores. This project will have a capacity of generating 360 MW of power or 135 MW of firm power at 100 per cent L.F. The tail water will subsequently be used for irrigating about 2·4 lakhs acres of land in the Malkangiri Motu plains. An amount of Rs. 9·7 crores has been provided in the Third Plan.

**Rural Electrification:**—The progress of rural electrification in Orissa was very slow up to the end of the Second Plan. By the end of the Second Plan period the total number of places electrified were 176. The rural electrification scheme of the Third Plan provides for an outlay of Rs. 3·35 crores for electrifying 400 villages.

**Balimela Transmission Schemes:**—Rayagada-Talcher 220 KV Transmission line is a part of the Balimela Transmission system. The object of this scheme is to link up the Talcher Thermal Station with the Balimela Power-House. This scheme will provide the essential link between all the power systems, Talcher Thermal and the hydel systems of Hirakud, Machkund and Balimela.

**Transmission and Distribution Schemes:**—Transmission and Distribution Scheme includes all the 33/11 KV lines which are being laid in the State. The Third Plan provision is Rs. 6·03 crores. This programme is to meet the needs of Block industries, Panchayat Samiti industries, other Small scale industries and lift irrigation. By the end of 1963-64 expenditure on this programme was Rs. 3·95 crores. The anticipated expenditure for 1964-65 was Rs. 1·6 crores. A provision of Rs. 47·12 lakhs has been made for 1965-66.

**Talcher Transmission Scheme:**—Under the Talcher Transmission scheme a double circuit 132 KV line is being constructed between Talcher and Jaipur Road and a 220 KV line between Talcher and Joda. The total cost of the scheme is Rs. 4·95 crores. An amount of Rs. 4·32 crores has been provided in the Plan. Work is proceeding according to schedule.

## IRRIGATION

(See also tables under 'Irrigation').

At present the following existing irrigation projects are providing irrigation facilities to the extent mentioned against each (in acres): Rushikulya canals 1,64,400; Mahanadi Delta canals 2,00,000; Hirakud Dam Project (canals) 2,77,793; High Level Canal Range III 40,000; Jaipur Canals 35,465; Haldia and Baldia Projects 18,000.

**Hirakud Dam Project (Stage I):** The project is complete. By this multi-purpose river valley project, irrigation potential for the entire ayacut of 3·8 lakh acres was created by Oct., 1960. The actual utilisation upto the end of 1963-64 was 2,77,783 acres khariff and 1,07,653 acres rabi.

The total culturable commandable area of the Hirakud Canal system is 3·8 lakh acres, out of which 3·2 lakh acres are cultivated at present.

**Mahanadi Delta Irrigation Scheme:** The execution of this project is in full swing. Upto the end of 1963-64, a gross area of 3,93,780 acres of land received irrigation facilities out of which khariff area was 3,00,570 acres and rabi area was 93,210 acres.

The project cost will be about Rs. 34·34 crores and on completion it will irrigate 7,77,000 acres in Cuttack and Puri districts in addition to the existing 2,00,000 acres of irrigated land under existing Delta Canals in Cuttack district. With 167 per cent of intensity, the gross irrigation after completion will stand at 16,08,000 acres.

**Salandi Project:** The works on main dam, spillway and barrage of canals and distributaries are in progress. By the end of the Third Plan 7,000 acres of gross potential will be created and 4,000 acres will be utilised. On completion, it will irrigate 1,13,000 acres of land.

**Anandapur Barrage Project:** This is a new scheme and finds a place in the Third Plan. It is under investigation.

**Medium Projects:** Salki project is expected to be completed in the first year of the Fourth Plan and Joro-Harbhangi by the end of the Fourth Plan. Other medium projects are likely to be completed by the second year of the Fourth Plan. In Salki project, the head works right side canal with distributaries have been completed and an area of 25,430 acres of land is now being irrigated.

Under Hiradharbati project, irrigation potential for 6,000 acres has already been created and irrigation is being given to these areas. During 1964-65, additional potential for 4,500 acres was expected to be created and utilised. Under Dhanoi project, potential for 8,000 acres is expected to be created during 1965-66, out of which utilisation would be 6,000 acres. The Bahuda project is likely to irrigate about 4,000 acres by June, 1966.

By the end of the Third Plan, an additional area of 55,000 acres of land was expected to be irrigated from the medium projects under construction.

Some of the important medium irrigation projects are given below. The estimated cost in rupees lakhs and the area in acres to be irrigated on completion respectively are given in brackets:

Bahuda State I (57·39; 26,100); Joro-Harbhangi (366; 80,250); Pitamahal (46·29; 12,000); Hiradharbati (31·37; 14,750); Salia (227·36; 26,750); Salki (143·34; 45,000); Dorjang (372·36; 24,000); Dhanoi (113·85; 12,540); Gudohado (105; 10,880); Budhabudhiani (100·74; 8,700).

## COMMUNITY DEVELOPMENT

(See under article on Community Development projects.)

## PANCHAYATS

Panchayati Raj has been introduced in the State since 26 January 1961 with three tier system of administration. Gram Panchayats

existed in the State. Panchayat Samitis were constituted with area co-terminus with the area of a Block. Zilla Parishads have been constituted with area co-terminus with the area of a district. There are 2,358 Gram Panchayats, 307 Panchayat Samitis and 13 Zilla Parishads in the State.

The Gram Panchayat is the main executive agency of all developmental programmes in its area. The Panchayat Samiti is responsible for planning, execution and supervision of all the development programmes including that of Community Development and Tribal Development Block programmes. But the Zilla Parishad is a supervisory body and it is responsible for coordinating the Block plans and to prepare a consolidated plan for the district.

The higher tier has powers to supervise the activities of the lower tier but the power of supervision shall be exercised so as to guide and assist the lower body in discharging the functions assigned to it. An officer of O.A.S. (I) rank has been appointed as Executive Officer of the Zilla Parishad. The Block Development Officers are the Executive Officers of the Panchayat Samiti. Both the Executive Officer of the Parishad and the Executive Officer of the Panchayat Samiti are under the administrative control of the Chairman of the Zilla Parishad and the Chairman of the Panchayat Samiti respectively. The Parishad or the Samiti have no separate income of their own. They get all grants from Government and from All India Bodies for those schemes which are transferred to their control and management. Primary Education has been transferred to the control of the Panchayat Samiti for management.

The income of Panchayats in Orissa through pisciculture in 1962-63 was Rs. 5·9 lakhs, about 22 per cent of the total income from non-tax sources of the panchayats in the State.

### BUDGET 1965-66

(*See State Budgets*)

## UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

Bhubaneswar.

*Chancellor :* Dr. A. N. Khosla, Governor, Orissa.

*Vice-Chancellor :* M. C. Pradhan, M.A., B.L., Dip-in-Edn. (Edin.).

*Registrar :* N. R. Patnaik, I.A.S. (Retd.)

*Comptroller :* Y. Pasayat, B.A.

*Constituent Colleges :* Utkal Krushi Mahavidyalaya, Bhubaneswar ; Orissa College of Veterinary Science and Animal Husbandry, Bhubaneswar ; College of Basic Science and Humanities, Bhubaneswar.

*Colleges on way of establishment :* College of Agricultural Engineering ; College of Home Science.

*Degrees awarded :* B.Sc. (Ag.) ; M.Sc. (Ag.) ; B. V.Sc. & A.H.

### BUDGET FOR 1965-66

*Income :* Rs. 37,44,000 ; Expenditure Rs. 41,67,400.

## UTKAL UNIVERSITY

Cuttack 1.

*Chancellor*, Governor of Orissa.

*Vice-Chancellor*, Commandant Col. Dr. P. K. Parija, Padma Bhushan, O.B.E., D.Sc., M.A. (Cantab.), I.E.S. (Retd.), F.N.I.

*Registrar*, G. C. Rath, M.A., Dip-in-L.Sc.

*Deputy Registrar*, D. P. Baral, M.A., Dip. Ed.

Affiliating-cum-Teaching University.

Subjects for Post-graduate teaching and Research : Oriya, Sanskrit, Philosophy, English, Economics, History, Mathematics, Physics, Chemistry, Botany, Geology, Psychology, Political Science, Statistics, Anthropology, Commerce and Zoology.

The medium of instruction at the University stage is English

Number of colleges affiliated to the University : 63.

Number of teaching departments under its control : 16 including University College of Engineering, and M. S. Law College.

Annual income (including Government grants, donations and endowments during the year 1963-64) : Rs. 1,41,18,445.

### AFFILIATED COLLEGES

Atal Bihari College, Basudevpur, Balasore.
Anandapur College, Anandapur.
Banki College, Banki.
Bhadrak College, Bhadrak (Balasore).
Bhanjanagar College, Bhanjanagar, Ganjam.
B. J. B. College, Bhubaneshwar, Puri.
Christ College, Cuttack.
Deogarh College, Deogarh, Sambalpur.
Dhenkanal College, Dhenkanal.
Engineering College, Rourkela.
Fakir Mohan College, Balasore.
Gangadhar Mehar College, Sambalpur.
Godabarish College, Banpur, Puri.
Gopabandhu Science College, Athagarh, Cuttack.
Government College, Phulbani.
Government Training College, Angul (Dhenkanal).
Government Training College, Sambalpur.
Gramapanchayat College, Baragarh.
Hinjilicut Science College, Hinjilicut, Ganjam.
Intermediate College for Women, Berhampur (Ganjam).
Intermediate Science College, Angul (Dhenkanal).
Intermediate Science College, Keonjhar, Keonjhar Garh.
Jawaharlal College, Patnagar, Sambalpur.
Kalahandi Science College, Kalahandi.
Karanjia College, Karanjia.
Kendrapara College, Kendrapara (Cuttack).
Khallikote College, Berhampur (Ganjam).
Khurda College, Khurda, Puri.
Lala Lajpat Rai College, Kuchinda, Sambalpur.
Larambha College, Larambha, Sambalpur.
Maharaja Purna Chandra College, Baripada (Mayurbhanj).
Mahila College, Puri.
Medical College, Berhanpur.
Medical College, Burla, Sambalpur.
Mohan Subudhi College, Baramba, Cuttack.
Narsing Chaudhury College, Jaipur (Cuttack).
Nayagarh College, Nayagarh.
Nimapara College, Nimapara, Puri.
Nirakarpur College, Nirakarpur, Puri.
North Balasore College, Jaleswar, Balasore.
Radhanath Training College, Cuttack.
Rairangapur College, Rairangapur, Mayurbhanj.
Rajendra College, Bolangir.
R. C. M. College, Khallikote, Ganjam.
Ravenshaw College, Cuttack.
Regional College of Education, Bhubaneswar.
Science College, Rourkela.
Science College, Sundergarh.
Shailabala Women's College, Cuttack.
Samanta Chandra Sekhar College, Puri.
Salipur College, Salipur, Cuttack.
Sonepur College, Sonepur.
Sri K.C.G. College, Parlakhimedi (Ganjam).
S.C.B. Medical College, Cuttack.
Stewart Science College, Cuttack.
S.V.M. Science College, Jagatsingpur, Cuttack.
Upendranath College, Sore, Balasore.
Vikram Dev College, Jeypore (Koraput).
Women's College, Sambalpur.
Women's College, Balasore.
Women's College, Bolangir.
Women's College, Bhubaneswar.

### UNIVERSITY TEACHING DEPARTMENTS

University College of Engineering, Burla P.O., Dt. Sambalpur.
Madhusudan Law College of the Utkal University, Cuttack 3.
Russian Languages at Vani Vihar, Bhubaneswar.
Post-Graduate Department in Commerce.
Post-Graduate Department in Geology.
Post-Graduate Department in Philosophy.
Post-Graduate Department in Sanskrit.
Post-Graduate Department in Zoology.
Post-Graduate Department in Political Science
Post-Graduate Department in Anthropology.
Post-Graduate Department in Psychology.
Post-Graduate Department in Statistics.
Post-Graduate Department in History.
Department of Rural Economics and Sociology.
Diploma Course in Statistics.
Diploma Course in Social Science, Methodology.

### ASSOCIATIONS

THE BERHAMPUR CHAMBER OF COMMERCE, BERHAMPUR (Dt. Ganjam).—It has about 178 members on its roll and publishes a monthly review.

*President :* P. Parthasarathi ; *Secy. Cum Treasurer :* I. Ramamurthy.

CUTTACK CHAMBER OF COMMERCE
Malgodown, Cuttack 3.

*President :* B. Mohanty, *Vice-President :* G. N. Agrawalla ; *Gen. Secy. :* B. Halan ; *Secy. :* S. K. Ghose.

MAYURBHANJ CHHOW NRUTIYA PRATISTHAN
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MUKTI KALA MANDIR
Bakharabad, Cuttack 2.

NATIONAL MUSIC ASSOCIATION
Buxi Bazar, Cuttack 1.

ORISSA CHAMBER OF COMMERCE AND INDUSTRY
Barbati Stadium, Cuttack 1.

*President :* G. C. Patnaik ; *Vice-Presidents :* S. C. Parija, J. K. Jhunjhunwalla ; *Honorary General Secretary :* L. K. Narayanan ; *Honorary Joint Secretaries :* R. K. Mishra, V. K. Rathor ; *Honorary Treasurer :* K. G. Ghatak.

ORISSA SAHITYA AKADEMI
P.O. Box 56, Bhubaneswar.

ORISSA SANGITA PARISADA
Chitrakara Lane, Puri.

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Chauliaganj, Cuttack 3.

*President :* C. M. Misra ; *Vice-President :* J. K. Jhunjhunwalla, *Hon. Secretary :* N. C. Pradhan.

UTKAL NATYA SANGHA
K. V. K. Buildings, Cuttack 1.

UTKAL SAHITYA SAMAJ
Sriramchandra Bhaban, Cuttack 1.

*President :* K. C. Panigrahi ; *Vice-President :* Smt. Sarla Devi ; *Secretaries :* B. N. Kar (Joint Editor, *Matrubhumi*), P. Patnaik (Lecturer).

UTKAL SANGIT SAMAJ
Purighat Road, Cuttack 1.

# TRIPURA

***Capital :*** **Agartala.**

**Area : 4,116 sq. miles ; Population (1961 Census) 1,142,005 (males 591,237 ; females 550,768). Rural population 1,039,008 ; Urban 102,997. Density 277 per sq. mile. No. of females per 1,000 males 932. Percentage increase since 1951 : 78·63. Percentage of literacy 22·2.**

**Number of towns : 6.**

**There are only one District—Tripura, one municipality and Panchayat.**

**The Territory is divided into ten administrative Sub-Divisions—Sadar, Khowai, Kailasahar, Dharmanagar, Sonamura, Udaipur, Belonia, Sabroom, Kamalpur and Amarpur.**

**Sadar Sub-Division is divided into ten Tahsils —Sadar, Puranagartala, Bamutia, Mohanpur, Simna, Ishanchandranagar, Kamalasagar, Takarjala, Bishalgar, Charilam.**

**Khowai Sub-Division is divided into four Tahsils—Khowai, Kalyanpur, Asharambari and Teliamura.**

**Kailasahar Sub-Division is divided into three Tahsils — Kailasahar, Fatikroy and Chomanu.**

**Dharmanagar Sub-Division is divided into five Tahsils—Dharmanagar, Brajendranagar, Kurti, Kanchanpur and Longai.**

**Sonamura Sub-Division is divided into five Tahsils—Sonamura, Kathalia, Bakshanagar, Dhanpur and Matinagar.**

**Udaipur Sub-Division is divided into two Tahsils—Radhakishorepore and Salgarh.**

**Belonia Sub-Division is divided into seven Tahsils—Belonia, Rajnagar, Radhanagar, Puranrajbari, Sidhinagar, Rishyamukh and Muharipur.**

**Sabroom Sub-Division is divided into five Tahsils—Sabroom, Manu, Amilghat, Samarendraganj and Gorakapa.**

**Kamalpur Sub-Division is divided into two Tahsils—Kamalpur and Kulai.**

**Amarpur Sub-Division is divided into three Tahsils—Birganj, Omphi and Dumboornagar.**

## GEOGRAPHY

Cut off from the rest of India and surrounded on three sides by East Pakistan with an international boundary of 528 miles, it forms an almost isolated pocket connected with the main land by a 125 mile access road through the hills to the border of Cachar District in Assam. Very recently a railway line has been extended upto Dharmanagar town, the northern most subdivisional headquarters of this Territory. Agartala, the capital of this Territory, is situated to the east of Calcutta at distance of 197 miles by air & 1,050 miles by land route through the Assam rail-link.

## ADMINISTRATION

The administration of this Territory is carried on by the Chief Commissioner. The Government of Union Territories Act, 1963 came into force from 1st July 1963. With the enforcement of the Act, a Legislative Assembly has been setup for the Union Territory of Tripura and a Council of Ministers has been formed with effect from 1st July 1963, with the Chief Minister at the head to aid and advise the Chief Commissioner in the exercise of his functions in relation to matters with respect to which the Legislative Assembly of the Union Territory has power to make laws. The Council of Ministers consists of the Chief Minister and another Minister. Besides, there are three Deputy Ministers. The Ministers are assisted by the Chief Secretary, Development Commissioner, Two Secretaries, one Deputy Development Commissioner, seven Deputy/Under Secretaries and one Assistant Legal Remembrancer. The Principal Engineer, the Director of Education and the Director of Rehabilitation also act as Ex-Officio Secretaries for their respective Departments.

Tripura is a one District Territory with one District Magistrate & Collector. In addition, there are three Additional District Magistrates and Collectors and one Senior Deputy Magistrate. For administrative purpose the Territory has been divided into ten Revenue Sub-divisions each being under the charge of an Additional Sub-Divisional Officer (recently designated as Sub-deputy Collector) with the exception of Khowai Sub-division which is under a full-fledged Sub-Divisioal Officer (recently designnated as Deputy Collector). The other nine Sub-Divisions have been grouped into three Zones, each being under a Zonal Sub-Divisional Officer (recently designated as Deputy Collector).

The Court of the Judicial Commissioner is the highest Judiciary in this Territory. There are one District and Sessions Judge, one Additional District and Sessions Judge, one Subordinate and Assistant Sessions Judge, one Additional Sub-Judge and eight Munsiffs having a separate court for each. Four Munsiffs have been vested with the powers of Magistrates.

Popular Ministry consisting of Chief Minister and one Minister.

Budget for 1965-66 : *See under "State Budgets"*

## ECONOMY

The Agricultural wealth of the Territory consists of rice, jute, cotton, tea and fruits, while its forests yield timber, firewood and charcoal. Paddy is the main source of revenue. Area in '000 acres under the crop and production in '000 tons respectively are : Winter rice : 282·50 ; 113·32 ; Autumn rice : 161·50 ; 57·27 ; Summer rice : 10·00 ; 3·35 ; Pulses : (Khariff) : 1·15 ; 0·21 ; Rabi Pulses : 3·20 ; 0·57 ; Fibres : Jute : 29·50 ; 81·12 ; Mesta : 33·00 ; 74·25 ; Cotton : 17·00 ; 6·29 ; Rape & Mustard : 9·90 ; 1·66 ; Sesmum : 8·40 ; 1·41 ; Sugarcane : 7·20 ; 9·62 ; Potato : 6·00 ; 15·00 : Area & Classification of Area (1962-63) : Total geographical area of the Territory : 26,34,240 acres ; Area under forest : 15,70,000 acres ; Total cropped area : 6,59,000 acres ; Net area shown : 5,61,500 acres.

## EDUCATION

Number of schools/colleges and total number of students during 1963-64 (as on 31st March, 1964).

Total No. of Pre-Primary schools-358 ; total No. of Primary schools (Basic and Non-Basic)—1,333 ; Total No. of Middle Schools (Basic and Non-Basic)—136 ; Total No. of High/Higher Secondary Schools—49 ; Total No. of schools for professional and special education—555 ; (Agricultural Trg. Institute—1 ; Nursing Trg. Centre—1 ; Industrial Trg. Centres—4 ; Music Schools—2 ; Schools for Oriental studies—23 ; Social Workers Trg. School—1 ; Adult Social Education Centres—504; Hindi Prachar Centre—19 ;) Total No. of students in schools for General Education (including Pre-Primary Students)—1,62,621 (Boys—1,02,939 and Girls—59,682). Total No. of students in Colleges for General Education—1,777 (Boys—1,336 and Girls—441).

Total No. of students in Colleges for professional and special education—532 (212) Boys—405 (29) and Girls 127 (183).

Total No. of students in Polytechnics—253 (Boys—253). Total No. of students in Schools for professional and special education—17,004 (1,203) Boys—11,757 (784) and Girls—5,247 (419).

N.B.—Figures within bracket indicate the number of students reading in these schools, but belonging to other educational institutions.

## CO-OPERATIVE

State Co-op. Bank 1, Land Mortgage Bank 1, Service Societies 150, Multipurpose Societies 185, Large-Sized Societies 25, Small-Sized Societies with un-limited liabilities 12, Small-sized Societies with limited liabilities 17, Farming Societies 8; Non-Agricultural Credit Societies 9, Apex Marketing Societies 1, Primary Marketing Societies 14, Purchase & Sale Societies 26, State Consumers Societies 1, Primary Consumers' Societies 32, Fishery Societies 6, Milk Supply Societies 2, Housing Societies 2, Processing Societies 6, Non-Agricultural Non-Credit Societies 16, State Coop. Union 1, Supervising unions 2, Weavers' Societies 66, Other Industrial Societies 78.

## INDUSTRIES

The Industries in the Territory include cottage and small Industries like handloom weaving, carpentry, blacksmithy, bid making, soap making, basketry, pottery, manufacture of footwear and other leather goods, fruit canning etc. But efforts have now been initiated for starting large industries and other organised small industrial units. A licence has been issued by the Government of India for the establishment of a 15,000-spindles Spinning Mill in Tripura. Feasibility studies for setting up a paper plant in Tripura has also been completed during this year. Preliminary actions are also being taken for setting up a jute mill, plywood factory, a sugar factory, powerlooms on decentralised basis and forest and agro-based industrial complexes.

**Total cattle 4,94,960 ; buffaloes 42,564; horses and ponies 1,097 ; sheep 3,351 : goats 1,57,815 ; other livestock 35,218 ; total poultry 7,57,295 (1961 census).**

**The fishing population may be reckoned as 2,500 families.**

## TRANSPORT

**Total length of roads is 1,242 Km. out of which metalled 170 Km. and black topped 430 Km. There is a new railway link to Dharmanagar Most of the rivers in the Territory carry country boat traffic. There are four aerodromes in this Territory.**

**Tripura is linked with Assam through the Assam-Agartala road. There are no big irrigation works in this Territory.**

## ELECTRICITY

The source of power in the Territory is from diesel stations located at Agartala Dharamnagar, Kailasahar, Udaipur and Khowai. Two more diesel stations one at Ambassa and the other at Bagafa are in the process of being established. The aggreegate installed capacity of the generating stations is 1,753 Kw which is expeeted to increase to 3,128 Kw by the end of the Third Plan. By the end of Third Plan power facilities are expected to be provided to 40 localities.

## LAND REFORMS

**With a view to providing for the abolition of intermediaries, regulation of rights of owners and tenants, fixation of ceilings on existing holdings and future acquisitions and prevention of fragmentation, The Tripura Land Revenue and Land Reforms Act, 1960 was passed in 1960 and had received the assent of the President. The Administration has made the rules called "The Tripura Land Revenue and Land Reforms Rules, 1961", "The Tripura Land Revenue and Land Reforms (Allotment of Land) Rules, 1962", "The Tripura Land Revenue and Land Reforms (Amendment) Rules, 1962" and "The Tripura Land Revenue & Land Reforms (Amendment) Rules, 1963." The provisions of the Act are being gradually implemented. The provision regarding acquisition of intermediary estates has been implemented throughout Tripura.**

## EMPLOYMENT EXCHANGE

**Figures for 1963 (upto December) : Number of registrations 7,933 ; No. of vacancies notified 1,603 ; No. of candidates whose particulars**

were submitted to employers 10,331; No. of candidates placed 594; No. in the waiting list in the Live Register 5,633.

Employment Market Information Programme :—Employment Market Report for the quarter ending Sept., 1963 had been prepared in which 102 Establishments in the private sector and 75 Establishments in the public sector responded.

Total No. of employees : 15,569. (5,660 private sector ; 19,909 public sector).

*Rehabilitation :* The number of refugees :— 3,74,000 (1961); Expenditure incurred Rs. 72 lakhs.

*Tribes :* 38 Tribal Colonies have been set up for Jhumias (shifting cultivation) at various places and the people are gradually taking to settled cultivation. A sum of Rs. 15·73 lakhs had been spent on these schemes upto 1962-63. Betterment of ex-servicemen and labourers is also receiving due attention.

### HEALTH

Dispensaries 92; No. of beds 761; No. of doctors 164; No. of nurses 187; V. D. and Skin Clinic 1; Eye Clinic 1; T.B. Chest Clinic 1; Leprosy Clinic 1; Dental Clinic 1; Family Planning Centres 13.

### PANCHAYAT

The U. P. Panchayat Raj Act, 1947 was extended to Tripura and the Tripura Panchayat Raj Rules were framed thereunder in 1961. Thus the work of setting up Panchayats in Tripura was started in the Third Plan period.

Total No. of Gram Panchayats : 215. Nyaya Panchayats are also being established simultaneously with Gram Panchayats. Village Volunteer Forces have been organised and Defence Labour Banks organised in Gram Panchayats.

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# UTTAR PRADESH

Area : 113,454 square miles.

Population : 7,36,72,906 (1961 census).

Males : 3,86,64,463 ; Females : 3,50,88,451. Density : 384 per sq. mile. Percentage of increase 16·54 from 1951 Census.

Capital : Lucknow.

Uttar Pradesh is a member of the Central Zone of which the other member is Madhya Pradesh. The headquarters of the zone is at Allahabad.

Number of Districts : 54 ; Tahsils : 231 ; Antarim Zila Parishads : 51 ; Municipalities : 137 ; Town Areas : 274 ; Notified Areas : 37 ; Panchayats : 72,333 ; Villages : 1,11,742.

There are eleven revenue divisions under 11 full-fledged commissionerships namely Meerut (Hqrs. Meerut), Allahabad (Hqrs. Allahabad), Varanasi (Hqrs. Varanasi), Lucknow (Hqrs. Lucknow), Agra (Hqrs. Agra), Gorakhpur (Hqrs. Gorakhpur), Faizabad (Hqrs. Faizabad) and Rohilkhand (Hqrs. Bareilly), Jhansi (Hqrs. Jhansi), the Kumaon (Hqrs. Nainital) and Uttarakhand (Hqrs. Lucknow).

Names of the eleven revenue divisions with the districts comprising each :

*Meerut Division :* Dehra Dun, Saharanpur, Muzaffarnagar, Meerut, Bulandshahr.

*Agra Division :* Aligarh, Agra, Mainpuri, Etah, Mathura.

*Allahabad Division :* Farukhabad (Fategarh), Etawah, Kanpur, Fatehpur, Allahabad.

*Rohilkhand Division :* Bareilly, Bijnor, Budaun, Moradabad, Rampur, Shahjahanpur, Pilibhit.

*Jhansi Division :* Jhansi, Jalaun (Orai), Hamirpur, Banda.

*Varanasi Division :* Varanasi, Mirzapur, Jaunpur, Ghazipur, Ballia.

*Gorakhpur Division :* Gorakhpur, Deoria, Basti, Azamgarh.

*Kumaun Division :* Naini Tal, Almora, Garhwal (Pauri), Tehri-Garhwal (Narendranagar).

*Lucknow Division :* Lucknow, Unnao, Rae Bareli, Sitapur, Hardoi, Kheri (Lakhimpur).

*Faizabad Division :* Faizabad, Gonda, Bahraich, Sultanpur, Pratapgarh, Barabanki.

*Uttarakhand Division :* Uttar Kashi, Chamoli, Pithorgarh.

(*See under "Population" for area and population of Tahsils*).

### DISPUTE OVER BOUNDARY

Mr. C. M. Trivedi, a former Punjab Governor, was appointed as arbitrator by the then Prime Minister, Mr. Nehru to settle the border dispute between Uttar Pradesh and Bihar. As a result of the adjustment of the boundaries, U. P. gets 119 villages and Bihar 73 under the Trivedi Award. Fifteen villages which were forming part of Bihar State have been opted for U. P. and 22 U. P. villages were preferred to go to Bihar. Since 1950 to 1964 jurisdiction over another 48 villages has changed due to river action. According to the arbitrator they should remain in that State to which they belonged in 1950. The Survey of India was expected to fix the boundary pillars, which were to be maintained by the respective States.

### RETIREMENT AGE

The State Government has raised the retirement age of the employees to 58.

### PANCHAYATI RAJ

In pursuance of the policy of 'democratic decentralisation' of power embodied in the Report of the Committee on Plan Projects popularly known as Balvantray Mehta Committee, Panchayati Raj has been established in this State. Accordingly a three-tier structure of local bodies, *viz.* Gaon Sabhas, Kshettra Samitis and Zilla Parishads at village, block and district levels respectively is being built up.

The Gaon Sabhas were already functioning under the U.P. Panchayat Raj Act, 1947. Kshettra Samitis were constituted under the U.P. Kshettra Samitis and Zilla Parishads Adhiniyam, 1961. Zila Parishads came into being on June 30, 1963 in the State and replaced the Antarim Zila Parishads. With the establishment of this institution, the process of Panchayati Raj has been completed in the State. These different bodies shall in addition to discharging the local governmental functions, also have the responsibility of preparing plans of development and executing them in their respective areas themselves.

### AGRICULTURE

Main food crops : Wheat, barley, gram, rice, juar, bajra and maize.

Main cash crops : Sugar-cane, linseed, rape seed, mustard, groundnut, til, cotton and jute.

Figures are for 1959-60. Latest available :

Total foodgrains (cereals and pulses) production (1959–60) : 1,32,22,667 tons.

Production of individual food crops in tons for 1959–60 : Rice 24,25,509 ; Wheat 32,41,640 ; Barley 14,62,220 ; Juar 5,81,848 ; Bajra 6,09,362 ; Maize 10,13,326 ; Mandua 87,785 ; Sawan 69,941 ; Kodon 1,69,363 ; Kakun 2,923 ; Kutki 959 ; Gram 14,86,514 ; Peas 11,90,911 ; Arhar 7,43,503; Masur 73,000 ; Urd 55,975 ; Moong 4,064 ; Moth 3,824 ; Potato 8,52,024; Sugar-cane 3,22,31,865 (in terms of cane).

Production of individual non-food crops in tons for 1959–60 : Til 79,635 ; Groundnut 1,78,490 ; Rapeseed and Mustard 6,91,578 ; Linseed 1,28,448 ; Castor 1,253 ; Total oilseeds 10,79,404 ; Cotton 64,574 bales of 392 lbs. ; Jute 91,504 bales of 400 lbs. ; Sann-Hemp (for fibre) 21,952 ; Tobacco 13,439 ; Indigo (for dye) not available.

Position as in 1959–60 : (*Latest available*) :

Area of State in acres : 7,29,78,929.

Area cultivated : 4,23,40,909 acres ; Area uncultivated : 3,06,38,020 acres ; Area cultivated more than once : 1,13,64,053 acres.

Area under wet cultivation : 1,27,33,616 acres ; Area under dry cultivation : 2,96,07,293 acres.

Area under food crops : 5,01,35,749 acres ; Area under non-food crops : 35,69,213 acres.

Area under individual food crops (in acres) for 1959–60 : Rice 1,02,50,770 ; Wheat 95,78,829 ; Barley 45,60,999 ; Juar 22,51,804 ; Bajra 26,60,449 ; Maize 26,97,526 ; Mandua 4,77,751 ; Sawan 4,85,806 ; Kodon 9,97,962 ; Kakun 27,612 ; Kutki 10,775 ; Gram 66,56,914 ; Peas 23,59,896 ; Arhar 16,31,402 ; Masur 4,67,694 ; Urd 4,23,321 ; Moong 30,993 ; Moth 36,582 ; Potato 2,95,427 ; Sugar-cane 29,43,715 ; Other fruits and vegetables 5,00,639 ; Other food crops 7,88,883.

Area under individual non-food crops (in acres) for 1959–60 : Til ((Sown pure) 1,93,038 ; Groundnut 4,57,658 ; Rapeseed and Mustard (Sown pure) 3,17,253 ; Linseed (Sown pure) 1,74,697 ; Castor 5,798 ; Cotton 1,60,244 ; Jute 32,704 ; Sann-Hemp (for fibre) 1,71,108 ; Sann Hemp (for manure) 71,354 ; Tobacco 42,869 ; Opium 25,249.

Area possibly available for further cultivation through reclamation measures (for plains only) : 73,09,373 acres.

Total forest area of State : 93,79,158 acres.

Three types of trees are planted in the State : (*a*) Fruit trees ; (*b*) Fuel trees and (*c*) Timber trees.

Area of plantation and new orchards in 1959–60 : 23,211 acres.

Number of plantation : (*i*) Fruit trees 16,94,836 ; (*ii*) Fuel and Timber trees 11,31,317.

The total loans sanctioned by the Central Government to the State Government from 1955-56 to 1961-62 for financing expenditure on flood control schemes amounted to Rs. 11·55 crores, the amount for 1961-62 alone being Rs. 80·20 lacks.

### LIVESTOCK

The following figures are for the period ending June 1962 : No. of Cow bulls (at stud) 7,206 ; No. of Buffalow bulls (at stud) 2,244 ; No. of rams (at stud) 1,467 ; No. of bucks 1,076 ; No. of boars 365 ; No. of Horses and donkey Stallion stands 37 ; No. of circle laboratories 7 ; No. of Central laboratory 1 ; No. of Veterinary hospitals 717 ; No. of Stockmen centres 1,039.

*Cattle Breeding :* Intensive cattle breeding work was done during the year throughout the State. At all the 14 State Cattle Breeding Farms, pure bred cattle and buffaloes of the allocated breeds were maintained in each of the 9 cattle breeding zones of the State. A total of 11 cattle breeding extension centres are functioning where

30,444 cows were served naturally by the bulls and 19,613 animal castrations and 1,87,634 inoculations performed.

The Key Village Scheme was implemented to bring about all round development in the State. 83 Artificial Insemination Centres were established in the State under Key Village Scheme, 40 functioning with the financial assistance from the Government of India while the remaining 43 were run entirely at the expense of the State Government.

New Artificial Insemination Sub-centres were established in 100 Development Blocks. During the year 1961-62 the following operations were carried out in the areas covered with the scheme. (1) Insemination: 1,51,603; (2) Castration: 53,041; (3) Inoculations: 7,68,512.

In addition to the above about 1,747 calves were under subsidy during 1961-62.

At the close of the year there were 9 sheep farms and 21 stud Ram centres and 3 sheep and wool extension centres in the hills and one sheep farm and 13 stud Ram centres in the plains. Besides these, 45 sheep and wool extension centres were functioning in the State.

*Disease Control:* No. of outbreaks of animal contagious disease during the year: 2,152; 2,252 villages involving 43,367 were affected by these outbreaks.

No. of veterinary hospitals in the State: 717; No. of indoor patients treated during the year 8,617; outdoor patients 23,49,153.

No. of cattle inoculated against Rinderpest: 42,72,604.

In order to eradicate the menace caused by the stray and wild cattle in rural and urban areas the Animal Husbandry Dept. launched the scheme of licensing of cattle, rounding up of stray cattle (under this a total of 3,230 animals were dealt with) and catching and taming of wild cows (under this 693 animals were caught and tamed).

*Position* 1962: *Fisheries:* No. of fry and fingerlings collected from the old and newly tapped spawning grounds and stored in nurseries 4,71,11,221.

Departmentally 125 tanks covering an area of 68,411 acres were stocked with 49,46,459 fingerlings of major carps. About 1,275 maunds of fish were netted out.

Export of fish from 14 selected centres of the State: 1,49,694 maunds. Quantity of fish sold to the public: 304 maunds valued at Rs. 13,868.

50,46,910 fingerlings were distributed to private pisciculturists, Gram Samaj, community projects, extension blocks and other interested parties at subsidised rates. One fishermen co-operative marketing and development union was organised at Bareilly.

*Poultry Development:* No. of State Poultry Farms at the close of June 1962: 10; No. of Poultry Demonstration units in hills 15; No. of Poultry Extension Centres 21; No. of Farm birds issued 59,407 (approximately); No. of Farm eggs issued 4,40,684 (approximately).

*Central Dairy Farm, Aligarh:* During the year 1962 a total quantity of 2,23,088 litres of milk was collected and sold.

Quantity of dairy products produced: Butter 1,97,467 kg.; cream cheese 1,860 tins; Ghee 65,292 kg.; Lunch cheese 183 kg.

The Bacon Factory at the farm produced fresh pork sausages 4,033 kg.; Sausages in tins 46,737 tins; Ham 11,379 tins; Bacon pork 3,861 kg.; Smoked Ham 2,173 kg.; Cooked Ham 11,956 kg.; Back Bacon 10,160 kg.; Streaky Bacon 3,139 kg.; Luncheon meat 29,600 tins; Pork in Brine 265 tins; Skinless Sausages 3,111 tins; Tongue Sausages 97 tins; Pickled Ham 70 kg.

## FOOD & CIVIL SUPPLIES

Foodgrains distribution through fair price shops remained in force. The number of fair price shops in the State in March, 1964 was 11,138.

The releases of foodgrains from the Government stocks during the financial year upto March 31, 1964 were: wheat 2,74,359 tonnes; rice 1,32,053 tonnes.

During the financial year 1963-64, the State Govt. obtained from the Government of India 3,37,057 tonnes of wheat.

The purchases of rice were made through the levy system. The total purchases during the financial year upto March 31, 1964 were 1,16,898 tonnes for State Government and 49,775 tonnes for the Govt. of India.

Under the U.P. Sugar Dealers' Licensing order, 1962, all persons engaged in the sale of sugar in quantities exceeding 50 quintals at a time are required to take licences.

## LAND TENURE

With the vesting of zamindaris, following the enforcement of the U.P. Zamindari and Land Reforms Act, 1950, on July 1, 1952 in 48 out of the State's 51 districts, estates of nearly 20 lakh zamindars were taken over resulting in direct contact with 12,800,000 Kisans. The area of land taken over from intermediaries is about 6 crore acres. There are now only a few tracts where Zamindari has not yet been abolished.

Liquidated zamindars retain such of Sir, Khudkast and groves of which they have become Bhumidhars.

The new land tenures under the U.P. Zamindari Abolition and Land Reforms Act are: Bhumidhar, Sirdar and Asami.

The main features of the Zamindari Abolition and Land Reforms Act are: Extinction of intermediaries' rights; Payment of equitable compensation; Payment of rehabilitation grant to ex-intermediaries who paid land revenue upto Rs. 10,000 per annum; Undisturbed possession of land by actual tillers of soil and conferment of greater rights upon them; Undisturbed possession by every person of his house, well or grove; No landlord-tenant system to be in force in future *i.e.* prohibition of sub-letting except in restricted cases of disabled persons; Prevention of uneconomic holdings; restriction on future acquisition of land by way of purchase or gift by Bhumidars already holding 12½ acres or more land; and ownership of all common land in the village community with powers of land management.

Every ex-intermediary (ex-zamindar) is entitled to compensation at the rate of eight times his net assets. In addition, every ex-intermediary, whose annual land revenue did not exceed Rs. 10,000 would be given rehabilitation grant at a graduated specified scale.

The abolition of zamindaris released 4,54,42,000 acres, that is, 96·8 per cent of the total land holdings, in the State. Two classes of cultivators, *bhumidhars* (owners of land) and *sirdars* (wielders of the plough), enjoy different rights.

Of the alienated lands, nearly ten million acres of waste land were made over to the village communities for management. Another 2,400,000 acres of waste land and private forests were handed over to the Forest Department for development.

The final zamindari abolition compensation payable to ex-intermediaries is assessed at Rs. 69·53 crores. Upto the end of Dec. 1963, compensation to the tune of Rs. 66·24 crores (approximate) had been paid to them of which a sum of Rs. 49,90,66,350 was paid in 2½ per cent interest bearing transferable 40 year bonds and the balance in cash. In addition, a sum of Rs. 2,51,250 has been paid in stock certificate.

Rehabilitation grants payable to ex-intermediaries have been estimated at about Rs. 70 crores. Upto the end of Dec. 1963, grants totalling about Rs. 55·75 crores had been paid, of which Rs. 53,37,81,950 were paid in 25 years non-interest bearing transferable bonds and the balance in cash.

The State Government are also paying compensation to former landholders of adhivasis who were declared as sirdars in 1954. Their number is about 38,11,973. The amount of compensation payable to their erstwhile landholders is estimated at about Rs. 13 crores. Till the end of Dec. 1963, compensation on this account amounting to Rs. 9,78,07,352 has been paid to them in cash and Rs. 29,23,500 in bonds.

The first step under the U.P. Urban Areas Zamindari and Land Reforms Act, 1956, was taken in 1961, when the notification under Section 8 was issued vesting all the agricultural areas in 167 urban areas in the State from July 1, 1961. Zamindari has by now been abolished in 332 urban areas.

The State Government have also enacted legislation to impose ceiling on land holdings and to acquire on payment of compensation surplus land with a view to providing for a more equitable distribution of land by making it available to landless agricultural labourers, cultivation on cooperative basis, conservation of part of available land resources to increase food production and building up to reserve stocks against lean years by carrying on cultivation on modern scientific lines in State-owned farms. The ceiling area applicable to a tenure-holder having a family up to five members, is 40 acres of fair quality land. In the case of a family having more than five members, every additional member will be allowed eight acres of fair quality land subject to a maximum of 64 acres of such land for the entire family. As a result of imposition of ceiling, it is estimated that about two lakh acres of surplus land will be available for distribution among the landless.

Upto March 1964, the total area finally declared surplus under Section 14(1) of the Act stood at 1,43,714 acres, out of which possession was taken over of 1,07,633 acres out of which an area of 44,339 acres was temporarily settled. Compensation was finalised in 783 cases involving an amount of Rs. 14,34,335, out of which Rs. 4,35,452 were paid in cash.

*Consolidation of holdings:* Operations under the scheme are being carried out in 105 tehsils of 38 districts of the State, comprising 38,968 villages having a cultivated area of about 162·57 lakh acres. Till Jan. 31, 1964 the scheme of consolidation had been completed and chaks transferred in 29,307 villages. The scheme affected 37,65,412 tenure holders who held 2,84,14,660 plots, which were transformed into 49,14,384 chaks.

*Bhoodan:* Land gifts amounted to 4,34,052 acres at the end of March 1963 out of which 1,81,100 acres had been distributed by the Bhoodan Committee.

## IRRIGATION

Area irrigated by State Irrigation works (1962–63): 93,00,321 acres.

Number of tube-wells energised and brought into operation till March 1963: 7,125. Area irrigated by tube-wells 20,03,759 acres; by canals 72,96,562 acres (including canals, lakes, tanks and bundhies).

Total additional area brought under irrigation from State irrigation works of the first and second plans during 1962–63 was 42·6 lakh acres.

Names of irrigation projects in execution with the area in thousand acres which will be irrigated, total cost in lakhs of rupees and probable date of completion wherever available, respectively within brackets:

803 miles extension of Sarda Canal (176·00; 49·00; 1956–57); 1,062 miles extension of Sarda Canal (176·00; 116·56; 1956–57); Pratapgarh Branch (extension of Sarda Canal) (47·41; 73·71; 1958–59); Transkalyani project (extension of Sarda Canal) (47·10; 81·61; 1956–57); Sarda Sagar, Stage I (167·40; 479·49; 1959–60); increasing capacity of Upper Ganga Canal (89·00; 15·85; 1957–58); Belan and Tons Canal (101·50; 294·09; 1958–59). Lalitpur Dam (43·00; 54·10; 1956–57); Shahganj Distributory (19·95; 18·69; 1956–57); Rangwan Dam (93·00;

117·18; 1956–57); Saprar Dam (42·00; 96·18; 1956–57); Nagwa Dam (67·30; 72·06; 1957–58); Kabrai Lake (4·80; 23·23; 1956–57); Chandra Prabha Dam (35·00; 87·71; 1957–58); Naugarh Dam (86·00; 132·97; 1959–60); Naraini Gandak Pokhra Canal (50·50; 92·11; 1960–61); Banganga Canal (22·00; 43·10; 1957–58); Afzalgarh Canal (10·00; 16·63; 1957–58); Arjun Dam (26·00; 114·99; 1956–57); Ahraura Dam (21·93; 59·02; 1956-57); Gandak Canal (713·82; 1,515·69; IV Plan); constructing 40 miles channels in Dhampur distributory (14·08; 6·69; 1963-64).

**Continuing Schemes :** Names of the schemes not mentioned in the above list with the irrigation benefits in thousand acres and probable or actual date of completion respectively within brackets: Matatila Dam (409·58; 1963–64); Ramganga Multipurpose project (1,706·10, spillover to Fourth Plan); Sarda Sagar Stage II (185·15; 1962–63); Nanak Sagar (132·72; 1962–63); Meja Reservoir (52·38; 1965–66); Kwano Pumped Canal (21·23; 1962–63); Dohrighat Pumped Canal (118·80; 1962–63); Tanda Pumped Canal (67·90; 1961–62); Remodelling Eastern Yamuna Canal (22·00; 1961–62); Remodelling Agra Canal (27·40; 1961–62); Balmiki Reservoir (15·50; 1961–62); Jirgo Reservoir (64·00; 1961–62); Tumaria Reservoir (40·00; 1962–63); Upper Kahjuri Reservoir (18·00; 1961–62).

### Minor Irrigation (1965).

The State Govt. has launched an intensive drive for construction of private minor irrigation works and has offered various types of incentives to farmers.

The State bids fair this year in minor irrigation.

Against 84,973 masonry wells constructed in the first three years of the Third Plan, as many as 91,246 wells were expected to be completed during 1965.

The State Govt. has sanctioned an intensification of minor irrigation programme in the areas not covered by crash or intensive minor irrigation programme by giving loan upto Rs. 2,000 for the construction of masonry wells allowing 25 per cent subsidy on the loan. Loan up to Rs. 400 is also allowed for repair of old wells, upto Rs. 500 for boring wells, upto Rs. 650 for Persian wheels, upto Rs. 6,500 for pumping plant, upto Rs. 10,000 for private tube wells and Rs. 5,000 for construction of 'bundhis' with a subsidy of 25 per cent and Rs. 2,500 for repairing old 'bundhis'.

Under the crash programme 50 per cent subsidy is given on the construction of wells and borings and 25 per cent on water lifting devices and tube wells.

Under the Third Plan the target under minor irrigation included those of construction of 2,35,978 masonry wells, boring of 1,21,345 wells, installation of 1,33,898 Persian wheels and 12,948 pumping sets. During the preceding three years 84,973 masonry wells were constructed, 41,992 wells were bored, 57,391 Persian wheels and 7,275 pumping sets were installed. During the fourth year of the Third Plan, upto Nov. 1964, 37,498 wells were constructed, 12,991 wells bored, 16,970 Persian wheels and 2,804 pumping sets installed. By the end of 1965, 91,246 masonry wells would have been completed, 42,971 wells bored, 44,045 Persian wheels and 5,126 pumping sets installed. For the year 1966, it is proposed to construct 1,00,000 masonry wells, bore 48,000 wells, and install 35,000 Persian wheels and 20,000 pumping sets. Under the Third Plan a provision of Rs. 24·32 crores of loan was made and Rs. 17·74 crores were spent in the first three years. At the end of the Third Plan, it is expected the total expenditure would come to Rs. 46 crores, and the area covered by the irrigation work would be 96·99 lakh acres of land.

*Drainage and floods :* 446 miles of marginal embankments completed, 4,329 villages raised completely and 512 partially. 718 miles drains completed, 60 miles roads raised, besides protection to a number of towns and wide-scale flood surveys and discharge observations, upto March 1961. Total area benefited from Flood Works upto the end of II Plan was 10·72 lakh acres.

Names of certain irrigation systems with the total area irrigated during 1962-63 : Upper Ganga Canal 17,90,724; Lower Ganga Canal 13,77,758; Eastern Yamuna Canal 5,16,077; Agra Canal 3,88,497; Batwa Canal 3,74,099; Ramganga Canal 18,722; State Tube wells 19,88,854; Banganga Canal 6,941; Sarda Canal 15,10,275; Rohilkhand Canal 53,288; Ghagra Canal 40,959; Ken Canal 2,50,760; Canals in Tarai Division 50,315; Canals in Kumaon Division 7,710; Dhasan Canal 95,088; Belan Canal 46,293; Doharighat pumped Canal 46,130; Chakia and Chandauli Canals 1,97,173; Lakes and Tanks 62,023; Bundhies 19,015; Rampur Canal 52,068; Dun Canal 29,384; Total area irrigated 89,22,223; Minor irrigation and other systems 3,78,098. The grand total of area irrigated during 1962-63 was 93,00,321 arcres.

Total irrigation potential created by Plan projects upto March 1963 : 117·6 lakh acres.

Total utilisation of irrigation potential anticipated up to March 1963 was 108·9 lakhs acres.

**Community Projects :** The Community Development programme covers over 62,000 villages. During the year ended March 31, 1961, 92 new pre-extension blocks were opened in two series. Seventy-one pre-extension blocks, opened last year had entered Stage I. Nine shadow blocks of border districts were also converted to Stage I blocks without being given the pre-extension stage, as a special case, in order to give particular attention to the development activities in the blocks of the border areas. Thirty-five intensive development blocks had completed their extended period in the intensive development phase and were converted to Stage II.

The total number of the blocks of various types functioning in March 1961 was 598, covering approximately 60·6 per cent of the total area, about 54·6 per cent of the total population and 63·2 per cent of the rural population of the State. The percentage figures do not include the coverage achieved by the pre-extension blocks.

Details of the over-all position of functioning blocks in the State on March 31, 1961 were : Stage I blocks 391; Stage II blocks 96; Intensive Development blocks 19; Pre-extension blocks 92.

(See main article "Community Development Projects".)

### POWER

Total installed capacity in State till March, 1963.

| | | |
|---|---|---|
| (a) Hydel Unit of U.P. State Electricity Board .. | 2,70,415 | kW |
| (b) Rihand Project of U.P. State Electricity Department .. .. | 2,50,000 | kW |
| (c) Kanpur Electric Supply Administration .. | 79,500 | kW |
| (d) Licensees .. .. | 77,965 | kW |
| Total .. .. | 6,77,880 | kW |

Total installed capacity of the power stations under the Hydel Unit of the U.P. State Electricity Board and Electricity Department till March 1963 : 6,05,415 kW.

Total effective capacity of power houses under the Hydel Unit of the U.P. State Electricity Board and Electricity Department till March 1963 : 3,31,470 kW.

Total production of the U.P. State Electricity Board and Electricity Department during 1962-63 : 1,68,04,01,932 units.

The following are the names of power houses in operation in March 1963 showing their location iand nstalled capacity in kW within brackets.

Palra Hydro (Bulandshahr : 600); Bhola H. (Meerut : 2,700); Nigrajni H. (Muzaffarnagar : 5,000); Chitaura H. (Muzaffarnagar : 3,000); Salawa H. (Muzaffarnagar : 3,000); Sumera H. (Aligarh : 1,200); Mohammadpur H. (Saharanpur : 9,300); Pathri H. (Saharanpur : 20,400); Tehri H. (Tehri : 50); Khatima H. (Naini Tal: 41,400); Bageshwar H. (Almora : 20); Chandausi Thermal (Moradabad : 9,600); Harduaganj Thermal (Aligarh : 1,00,000); Sohwal T. (Faizabad : 19,500); Mainpuri T. (Mainpuri: 10,000); Rampur T. (Rampur : 4,200); Mau T. (Azamgarh : 15,000); Gorakhpur T. (Gorakhpur : 15,000); Moradabad Diesel (Moradabad : 600); Aligarh Diesel (Aligarh : 2,100); Tundla D. (Agra : 200); Lhaskar D. (Saharanpur : 50); Meerut D. (Meerut : 850); Saharanpur D. (Saharanpur : 250); Bahraich D. (Bahraich : 3,234); Dhakrani D. (Dehra Dun : 2,424); Pauri D. (Garhwal : 137); Hamirpur D. (Hamirpur : 211); Mahoba D. (Hamirpur : 331); Aligarh Sudamapuri Diesel (Aligarh : 200); Hapui Diesel (Meerut : 300); Lohia Head Diesel (Naini Tal : 1,780); Bhadoi Diesel (Varanasi : 3,328); Mau Diesel (Azamgarh : 900); Sohwal Diesel (Faizabad : 750); Palra D. (Bulandshahr : 400); Ghaziabad D. (Meerut : 5,380); Mainpuri D. (Mainpuri : 750); Gorakhpur D. (Gorakhpur : 3,090); Matatila D. (Jhansi : 404); Banda D. (Banda : 275); Rihand (Mirzapur : 2,50,000); Kanpur (Kanpur : 79,500).

The following generation schemes are included in the Third Five Year Plan besides those which have been commissioned already and shown above.

They are included in the table given below :

**Projects Under Execution**

| Name of Power House | Installed Capacity in kW. | District | Cost in lakhs of rupees | When started | Completion |
|---|---|---|---|---|---|
| Yamuna Hydel : | | | | | |
| Stage I .. .. .. | 84,750 | Dehra Dun .. .. | 6,238.15 | 1961–62 | 1966–67 |
| Stage II .. .. .. | 3,60,000 | | | | 1971–72 |
| Matatila Hydel .. .. .. | 30,000 | Jhansi .. .. .. | 823.00 | 1960–61 | 1965–66 |
| Ramganga .. .. .. | 1,65,000 | Moradabad .. .. | 1,931.77 | 1962–63 | 1971–72 |
| Obra Thermal .. .. .. | 2,50,000 | Mirzapur .. .. .. | 2,300.00 | 1962–63 | 1967–68 |
| Obra-Hydel .. .. .. | 1,00,000 | Mirzapur .. .. .. | 1,059.00 | 1961–62 | 1967–68 |
| New Thermal at Kanpur .. | 64,000 | Kanpur .. .. .. | 681.61 | 1962–63 | 1965–66 |
| Sixth Unit at Rihand .. .. | 50,000 | Mirzapur .. .. .. | 78.58 | 1962–63 | 1965–66 |
| Harduaganj Stage III .. .. | 1,00,000 | Aligarh .. .. .. | 1,190.00 | 1963–64 | 1966–67 |
| Hill Schemes .. .. .. | 12,000 | Almora, Nainital, Tehri Garhwal | 73.67 | 1962–63 | 1965–66 |

## LARGE-SCALE INDUSTRIES

Important industries of the State: Sugar, Edible Oils, Hydrogenated Oil, Tobacco products, Industrial Machinery, Machine Tools, Electrical Machinery and Electrical Accessories, cycle and cycle parts, Foundries, Iron Rolling and Foundries, Leather Tanning and Leather goods, Woollen Textiles, Cotton Textiles, Glass and Glass Bangles, Jute Textiles, Paper, Straw Board, Electric Lamps, Chemicals, Fertilizers, Distilleries and Breweries, Rayon, Match, Rosin and Turpentine, Cement etc.

In the public sector, the State Government runs two projects namely, Government Cement Factory, Churk, district Mirzapur and the Government Precision Instruments Factory, Lucknow. The production capacity of the cement factory is 1,400 metric tons per day. The factory produced 3,90,425 metric tons of cement during 1963-64. Another Cement Factory is being set up at Dalla with an investment of Rs. 6 crores in order to utilise the vast belt of lime stone available near Chopan at Kajrahat and Dalla Billi. The capacity of production of this factory would be 1,200 metric tons per day. The Government Precision Instruments Factory, Lucknow, which has produced 43,113 water-meters and 459 microscope in the beginning of the Plan period, is expected to produce 1,08,000 water-meters and 900 microscopes by the end of 1965-66. During 1963-64, the Factory produced 51,844 water-meters, 401 microscopes and 950 Pressure gauges. A Research-cum-Design Centre, as a non-commercial organisation, has been set up in the premises of the Factory where designs for the production of precision instruments and proto-types of various items of manufacture would be evolved. A licence has been obtained from the Government of India for setting up an Optical Instruments Factory and land for the same has been acquired. The factory is expected to employ 500 persons and to produce goods worth Rs. 40 lakhs per year.

Under the Central Sector Projects, the Anti-Biotics Factory at Rishikesh which is being set up at a cost of Rs. 20 crores is expected to start production by the end of 1965. The Fertilizer Factory, being set up with an investment of Rs. 27 crores, is expected to start production by the end of 1965. Considerable progress has been made in the setting up of the Heavy Electrical plant at Ranipur, Saharanpur and the production is expected to start by the end of 1965-66. Hydraulic turbines, Generators and Heavy Electric motors would be produced in the factory. The production has already started in Diesel Locomotive Factory, Varanasi and the production target is expected to reach 54 engines by the end of the Third Plan period. In the Singrauli coal fields, where large deposits of coal are available, mining of coal is expected to start by the end of 1965, which will help the setting up of a Thermal Plant at Obra having a capacity of 250 mega watts. Large number of ancillary units are expected to come up around these big projects.

The U.P. State Industrial Corporation has so far (Oct. 1964) under-written shares of 11 units valuing about Rs. 171·50 lakhs. Out of these, 5 units have already gone into the market. Besides, industrial areas are being developed at eight places viz., Ghaziabad, Bareilly, Hardwar, Lucknow, Varanasi, Kanpur, Mirzapur and Gorakhpur. 1,300·75 acres of land at Ghaziabad, 367 acres at Bareilly, 20 acres at Hardwar and 33 acres of land at Lucknow have already been acquired.

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The Corporation has also received a licence for the production of 36,000 tons of magnesite every year. A mining lease has also been granted for developing the large deposits of lime stone at Kajrahat. It is proposed to produce 500 tons of lime stone every day and to develop lime burning industry in the area.

Two large industrial estates were set up at Kanpur and Agra during the Second Plan period. Out of 97 units constructed and allotted at Kanpur Industrial Estate, 78 factories have gone nto production. At Agra, out of 121 units, 115 have been constructed and 6 plots have been given on rent (Oct. 1964).

49 licences were granted during 1963-64 under the Industrial (Development and Regulation) Act. Since the inception of Third Plan, 52 licensed units have already gone into production, which include the following industries: Metallurgical; Transportation; Industrial Machinery; Machine Tools; Mechanical Instruments; Fertilisers; Chemicals; Textiles; Sugar; Fermentation; Glass and Ceramics; Food and Vanaspati.

Some of the important lines of manufacture into which the licensed units have started production are A.C.S.R. Conductors (Ghaziabad), Sugar Mill Machinery (Allahabad), Electric Meters (Ghaziabad), Sugar in Co-operative Sector (Sarsawan, Saharanpur), Breweries and Malt Extract (Ghaziabad), Synthetic (Rubber Bareilly), Aluminium Ingots (Mirzapur), Railway Wagons (Ghaziabad), Fertilizers (Unnao), Electrodes (Modinagar), Calcium Carbonate (Rishikesh), Auto Parts (Ghaziabad), Machine tools (Bareilly) and Cement (Mirzapur), expansion project of Churk Cement Factory. The Camphor Factory at Bareilly, first of its kind in India, has also since gone into production. Besides, the following projects have started production:—Railway Wagon Plant at Kanpur; Milk Power Factories at Muzaffarnagar and Etah.

*The Aluminium Factory at Pimpri, Mirzapur:* The Aluminium Factory at Pimpri, Mirzapur has a capacity of 20,000 tonnes per annum of aluminium ingots and the licence for the expansion of the production capacity of the unit to 50,000 tonnes was obtained in January, 1963. This unit started production in April, 1963. During 1963, it produced goods worth Rs. 7·64 crores.

At present (Oct. 1964) 71 sugar factories are working in the State which produced sugar worth Rs. 9,635·24 lakhs during 1963. These factories employed 55,201 workers. The concentration of sugar factories is at Deoria (14), Meerut (8), Gorakhpur (50), Saharanpur (5), Basti (4), Gonda (4), Muzaffarnagar (4).

Thirty one textile units are functioning in the State, which produced goods worth Rs. 5,435·74 lakhs and employed 69,067 workers during 1963. Out of these 31 textiles units, twenty four are cotton textiles, 4 jute textiles and 2 woollen textiles. 11 such factories are at Kanpur which is the biggest centre of cotton textile. They produced textiles worth Rs. 3,408·82 lakhs and employed 45,591 persons during 1963.

Hydrogenated oil is being manufactured by three factories in district Meerut, one at Aligarh and one at Kanpur. The factories produced Vanaspati valued at Rs. 1,984·07 lakhs and employed 1,983 persons during 1963.

Engineering units, iron rolling and foundries are mainly located at Kanpur, Ghaziabad, Meerut, Bareilly, Allahabad, Aligarh and Agra. In all, 32 such factories were working during 1963 which produced engineering goods worth Rs. 1,812·67 lakhs and employed 8,676 persons during 1963.

Seven leather tanneries and leather goods manufacturing units are carrying on production on large scale in the State. Kanpur is the biggest manufacturing centre of leather goods. These are located at Kanpur which have produced goods worth Rs. 6·83 crores and employed 4,196 persons.

There are two large-scale glass and glass product manufacturing units located at Moradabad and Allahabad. These factories produced goods worth Rs. 42·90 lakhs and employed 537 persons during 1963.

## SMALL SCALE AND COTTAGE INDUSTRIES

Some of the important small scale industries of the State are Iron Casting, Brass and Aluminium utensils, Locks and Cutlery, Agricultural implements, Industrial Machinery and Machine Tools, Cycle and Cycle parts, Edible Oil, Khandsari, manufacture of Shoes and Boots (Leather), Leather Tanning and Finishing, Fine Pharmaceuticals and Chemicals, Glass and Glass Products including Glass Bangles, Tube Making and Wire Drawing.

Out of 2,633 registered (reporting) units at the end of 1963 in the State, 2,367 come under the category of Small-Scale Industries. These industries contribute 28 per cent of the total value of production and give employment to 38 per cent of the total number of persons engaged in all the registered factories.

Important cottage industries of the State are Handloom, Gur, Leather Tanning, Leather Shoes, Durries and Carpets, Brasswares, Calico Printing, Cane Bamboo Articles, Yarn Spinning, Ghani, Pottery, Wood Working, Locks etc. Besides this, U.P. is famous for its handicrafts such as artistic handloom fabrics of Tanda (Faizabad), Mau Nath Bhanjan (Azamgarh), Etawah, Sandila (Hardoi), Ghazipur, Varanasi, Meerut, Allahabad, Zari goods of Agra and Lucknow, Varanasi, Bareilly, Calico Printing of Farrukhabad, Lucknow, Bharatganj (Allahabad), Pilkhuwa (Meerut), Mathura, Wooden Toys of Bareilly, Dehra Dun, Varanasi, Ivory Articles of Lucknow and Varanasi, Pottery of Khurja and Chunar, Tarkashi of Mainpuri, Ebony goods of Nagina, Silk Brocades of Varanasi, Carpets of Mirzapur and Bhadohi, wood carving of Saharanpur, Marble articles of Agra, Horn goods of Sambhal (Moradabad), Artistic brass and copper-ware of Varanasi and Moradabad.

The number of registered handlooms in the State at the end of the Second Plan period was about 2,69,000 out of which 1,92,500 were in the co-operative fold. The number of looms registered by the end of 1963-64 was 2,88,431 (2,01,930 in co-operative fold and 86,601 out side co-operative fold). On June 1964, the number of textile co-operative societies was 1,573 and their membership stood at 1,26,905. At present (Oct. 1964) 596 production-cum-marketing societies, 187 sale depots, 66 Dye-Houses and 4 Silk Dye-Houses are functioning all over the State. During the first three years (till March 1964) of the Third Plan, 334·85 million metres of handloom cloth was produced under the powerloom scheme. Two yarn preparatory factories have been set up at Khalilabad and Tanda. The Co-operative Spinning Mill, Etawah has since gone into production.

The total number of Industrial Co-operatives in the State is 4,717 with a membership of 1,95,374 persons on June 30, 1963. For Quality Marking of goods so far (Oct. 1964) 31 inspection depots are functioning in the State and goods worth Rs. 300·63 lakhs have been quality marked during 1963-64. Under the Training-cum-Extension Scheme 3,000 trainees have been benefited till the end of March, 1964. One Electroplating Plant is already functioning at Kanpur while another Plant is being set up at Moradabad. 51 Industrial Estates were sanctioned for the 3rd Plan period out of which 5 have been deferred. In the remaining 46 estates, land has been taken in 45 cases and construction work started. The construction of 9 estates has been completed and other steps are being taken to provide power and development facilities.

Five Rural Industries Projects have already been set up under a Centrally sponsored programme at Ghazipur, Mau-Ranipur (Jhansi), Tarikhet (Almora), Poolpur (Allahabad), and Deoband (Saharanpur).

A sum of Rs. 41·397 lakhs has been provided in the budget for 1964-65.

In accordance with the recommendations of the Joint Study Team, programme for intensive development of Industry has been launched in four eastern districts of U.P., viz., Jaunpur, Ghazipur, Azamgarh and Deoria. The existing schemes are being accelerated and new schemes are being introduced in the Village and Small Scale Industries sector at a cost of Rs. 76 lakhs in the remaining period of the Plan.

(*For sugar industry see article "Sugar Industry."*)

## TRANSPORT (31-3-1964)

Total mileage of roads : 38,062.

Mileage of metalled roads: 15,180 under the P.W.D. and 1,716 under District Boards.

Number of passenger service buses : 3,863 (excluding roadways vehicles). Number of goods carrying lorries, trucks : 14,179. Number of taxis : 532.

Fleet of motor vehicles (roadways fleet): Passenger buses 3,359; trucks 192 ; taxis 84.

The State owns a transport service under the name of U. P. Government Roadways, managed as a Government Department with the Transport Commissioner as the head,

The State is divided into eight regions namely Agra, Allahabad, Bareilly, Kumaon, Gorakhpur, Kanpur, Lucknow and Meerut. Each region is in the charge of a General Manager.

The U.P. Road Transport Service (Development) Act, 1955, provides for the grant of compensation to the displaced operators who were not provided alternative routes.

The headquarters of the Transport Commissioner is Lucknow.

Capital invested : Rs. 14·89 crores (1962-63).

Number of routes operated 767. Mileage of routes : 44,440. Road mileage covered: 10,019.

By the end of the Second Five Year Plan it was expected to cover 6,964 miles of roads in the State.

Total kilometres covered (1963-64): 20,54,60,667.

Number of vehicles owned by authority on Dec. 31, 1963 : Buses : 4,018 ; Trucks : 15,525 ; Taxis : 595.

Number of nationalised city bus services : 59.

Cities where Roadways operate city bus services : Kanpur, Allahabad, Bareilly, Lucknow, Varanasi and Agra.

Names of places where suburban bus services operate : Mathura-Vrindaban, Fatehgarh-Farrukhabad and Dehra Dun-Premnagar-Clement Town.

Names of inter-State routes operated by the Government Roadways : Varanasi-Bhabua, Allahabad-Rewa, Agra-Gwalior, Dehra Dun-Ambala and Hardwar-Pehowa.

Roadways have 56 depot workshops and regional workshops undertaking maintenance and repairs of Roadways fleet. There is a Central Workshop at Kanpur undertaking heavy repairs, reconditioning of engines, chassis, manufacture of bus bodies and batteries, etc. in addition to training of technical personnel.

Special tourist buses have been provided to carry tourists to places of interest and scenic beauty.

Number of passengers carried by Roadways buses (1963-64) : 17,83,37,648.

Total revenue (1962-63) : Rs. 12,95,35,180.

Profit : Rs. 212 lakhs approximately (1962-63).

No. of persons employed (March, 1964) 23,485.

Rates of bus fare for lower class : 2·5 paise per passenger per kilometre.

Goods service has not been nationalised.

The U. P. Government proposes to nationalise 4,000 miles of road transport during the next five years to bring a total of 14,000 miles of road transport under nationalisation by 1971.

## CO-OPERATION

More than 65,216 co-operative societies having almost 51 lakh families as members operated in the State till June 30,1962. The loan sanctioned by the co-operative institutions has increased from Rs. 4 crores to 38 crores. The total working capital of the movement is Rs. 138·98 crores of which Rs. 37·17 crores are its owned capital consisting of shares and reserves.

The Reserve Bank of India sanctioned credit limits to the extent of Rs. 16·81 crores without any guarantee from the State Govt. The primary societies increased their owned funds from a sum of Rs. 3·99 to 12·72 crores during the second year of the Third Plan. The rise in the owned funds of the Central Bank and co-operative banks reached Rs. 9·47 crores from Rs. 3·1 crores, while the owned fund of the co-operative banks was Rs. 6 crores.

As many as 19,035 service cooperatives now function in the State. They distributed loans to the tune of Rs. 17·46 crores and handled large quantities of fertilizers. Nearly 1,600 seed stores distributed over 25·75 lakh maunds of seed on *sawai* to cultivators till June 30, 1962.

(See main article "Co-operative Movement").

## HOUSING

Under the Subsidised Industrial Housing Scheme during the Second Five Year Plan Government had sanctioned construction of about 25,500 tenements at an estimated cost of Rs. 799 lakhs. Out of this 23,040 tenements had been completed and a sum of Rs. 716 lakhs utilised for the purpose.

During the Third Plan period, an allocation of Rs. 300 lakhs has been approved for the scheme and the number of tenements expected to be completed is 7,830. Out of this 2,080 tenements have already been completed and a sum of about Rs. 70 lakhs utilised for the purpose. Government have also sanctioned construction of 1,692 new tenements at Lucknow, Kanpur, Govindpuri and Bareilly under phase VII of the scheme at an estimated cost of Rs. 70,73,200. A sum of Rs. 41·5 lakhs was spent during 1963-64. For 1964-65, Rs. 35·08 lakhs have been provided in the budget.

**Low Income Group Housing Scheme** Under the Low Income Group Housing Scheme, during the First Plan period a sum of Rs. 1·4 crores was disbursed as loans to various local bodies, U.P. Cooperative Bank, Educational and charitable Institutions and Government servants and 710 houses were completed. During the IInd Plan period loans amounting to Rs. 3·9 crores were disbursed and 6,229 houses were completed. An allocation of Rs. 300·00 lakhs has been made for the Scheme during the Third Five Year Plan. During 1961-62 a sum of Rs. 51·314 lakhs was disbursed to the local bodies, U.P. Cooperative Bank and the Educational Institutions. 944 houses were completed during that year. During 1962-63 Rs. 54·153 lakhs were disbursed to the executing agencies. During 1963-64, an expenditure of Rs. 41·5 lakhs was incurred under the scheme and for 1964-65, Rs. 46 lakhs have been provided in the budget.

**Slum Clearance Scheme :** This scheme was taken up in Kanpur, Lucknow, Agra, Varanasi and Allahabad in 1957 and loans and subsidy to the extent of Rs. 186 lakhs were sanctioned to the local bodies of these towns during the II Plan period for construction of 6,950 tenements in the above mentioned towns and development of 17 plots at Lucknow. The financial assistance was in the shape of 50 per cent loan and 50 per cent subsidy in respect of Kanpur and for other places it was 62½ per cent loan and 37½ per cent subsidy. Contribution of the State Government in the above assistance was to the extent of 25 per cent in the shape of 12½ per cent loan and 12½ per cent subsidy, the balance being contributed by the Central Government. Upto the end of the II Plan period 4,080 tenements had been constructed.

An allocation of Rs. 300 lakhs has been made for the slum clearance and improvement schemes under the Third Plan for construction of 9,700 tenements and development of open developed plots.

During 1961-62, loans amounting to Rs. 20,60,000 and subsidy amounting to Rs. 2,400,600 were sanctioned to the Municipal Corporations for completion of the spill-over schemes of the II plan. During 1962-63 and 1963-64, Rs. two lakhs and Rs. 0·13 lakhs respectively were spent on the scheme. For 1964-65, Rs. six lakhs have been provided in the budget.

**Regional Planning Scheme :** In order to check the haphazard growth of cities and towns and industrial potential areas and to regulate their development on a planned basis, the Regional Planning Scheme was sponsored by the Government of India in 1962. Under this scheme, the preparation of Master Plans of cities and towns and regional plans of industrial potential areas is envisaged. The expenditure on preparation of Master Regional Plans is to be met by the Government of India in the shape of 100 per cent grant-in-aid. This scheme was taken up in U.P. from Feb. 1962 and preparation of Master Plans for various cities has since been taken up.

**Village Housing Projects Scheme :** It envisages financial asistance to the villagers in the form of loans for the construction/improvement of residential houses in rural areas. During the Second Plan period a total sum of Rs. 31·97 lakhs was distributed for the construction of 3,696 houses in 580 selected villages. Socio-economic surveys in 318 villages had been completed and Master Plan of 503 villages had been prepared. Upto March 31, 1961, 585 houses had been completed and the remaining were either under construction or were to be constructed in due course.

During the Third Plan period it is proposed to disburse loans amounting to Rs. 225 lakhs. Under the scheme during the first three years of the Third Plan. Rs. 23·09 lakhs were spent and Rs. five lakhs have been provided for 1964-65.

Other Housing and Land Development Schemes in the State include the Middle Income Group Housing Scheme, Plantation Labour Housing and Land Acquisition and Development Schemes. Middle Income Group Housing Scheme was introduced in U.P. in 1958-59 and during the Second Plan period, loans amounting to Rs. 101 lakhs were disbursed through the U.P. Cooperative Bank and various local bodies for construction of houses. During the 3rd Plan period upto March 31, 1964, loans amounting to Rs. 127 lakhs have been released to the various local bodies and U.P. Cooperative Bank for disbursement or for construction of houses. The Land Acquisition and Development Scheme was introduced in 1959-60 and a total sum of Rs. 265 lakhs was disbursed to various local bodies for large scale acquisition of land for the implementation of various housing schemes upto March 31, 1964. The Sweepers Housing Scheme is also becoming popular amongst the local bodies for providing housing accommodation to their sweeper employees.

## MEDICAL AND PUBLIC HEALTH

*Vital Statistics :*

Death Rate (per thousand) 8·8 ; Birth Rate (per thousand) 15·00 (1962).

Total number of deaths from : Cholera 988 ; Plague Nil ; Small-Pox 11,753 ; Malaria 23,860 (1962).

Number of Civil Hospitals and Dispensaries : 1,594 (1962).

Allopathic 865 : Indigenous 651 (1962).

Maternity & Child Welfare Centres 2,070 ; Maternity Houses 7 (1963).

Number of patients treated in State Hospitals and Dispensaries : Indoor 8,86,593 ; Outdoor 2,06,56,497 (1961).

Number of beds in State Hospitals: 27,294 (1963).

Number of operations performed in State-owned hospitals and dispensaries: 2,15,43,095 (1961).

Number of Doctors in Government Service: 2,056 (April 1964).

Number of Doctors registered in U.P.: 9,221 (1963).

Number of Nurses: 3,143 (1963).

Number of Registered Vaids and Hakims: 39,150 (1963).

Number of Vaids and Hakims in Government service: 734 (1963).

Number of Ayurvedic and Unani dispensaries: 1,074 (1962).

State budget on Medical Department: Rs. 6,51,22,844 (1963-64).

State budget on Public Health (1963-64): Rs. 2,91,60,600.

With the assistance of the W.H.O. and UNICEF, 200 child welfare centres have been opened since 1947.

Number of T.B. Sanatoria: 12; T.B. Isolation Hospitals 5; T.B. Clinics: 42. Total number of beds in the T.B. Sanatoria and clinics: 2,006; T.B. Wards 22 (1963).

Number of leprosy asylums: 18.

Number of beds: 1,561 (1963).

One study and treatment centre at Dehra Dun and 8 subsidiary centres at Gorakhpur, Basti, Varanasi, Bahraich, Moradabad, Kheri, Barabanki and Azamgarh also function in the State under Government of India's Pilot Project Scheme for control of leprosy. Also there are 3 leprosy clinics at Kanpur, Varanasi and Deoria and 2 mobile leprosy units at Hamirpur and Jhansi.

A venereal disease hospital functions at Chakrata in Dehra Dun District. No. of V. D. Clinics 5 (1962).

Number of women's & Dufferin hospitals under Govt. supervision: 170 (1963).

The Employees' State Insurance scheme is in operation in Kanpur, Lucknow, Agra, Saharanpur, Allahabad, Varanasi, Rampur, Aligarh, Hathras, Bareilly, Shikohabad, Modinagar, Ghaziabad, Mirzapur and Sahjanwa in Gorakhpur District, Meerut, Firozabad, Moradabad, Jhansi, Izatnagar, Roorkee, Hapar, Mathura, Dehra Dun, Churk, Silapur, Ghazipur and Hirangaon.

From November 1959, families of workers insured under this scheme are also being provided medical treatment. The total number of dispensaries opened under the scheme has since risen from 40 to 76 including nine mobile dispensaries (Sept. 1964).

Under Family Planning Scheme 70 urban and 695 rural family planning clinics were opened till the end of Aug. 1964. In addition, 10 mobile family planning clinics and 6 mobile vaccination teams were also set up.

67 National Malaria Eradication units are functioning in the State.

## LABOUR

Total number of registered factories in the State 2,947 of which 2,629 have submitted returns (1961); Daily average number of the workers as per returns submitted 3,27,263.

Total no. of women workers 29,776 (1962).

Industries in which minimum wage is fixed: Rice, Flour, or Dal Mills, Tobacco (including Bidi making), Manufactory Cinchona Rubber, Tea or Coffee Plantation in Dehra Dun District only, Oil, Road Construction or Building operations, Stone Breaking or Stone Crushing, Lac Manufactory, Tanneries and Leather Goods Manufactory, Public Motor Transport and Woollen Carpet Industry.

There occurred 96 strikes till June, 1963 involving 1,88,954 workers resulting in a loss of 5,07,804 man-days.

The industrial lay-offs claimed another loss of 11,04,925 man-days and involved 57,289 workers. The number of the lay-offs was 1,391 in 1963.

State Govt. Acts for the welfare of the labourers:

(1) U.P. Shops and Commercial Establishment Act (1947), (2) U.P. Industrial Disputes Act, (3) U.P. Maternity Welfare Act, (4) U.P. Sugar and Alcohol Industry Labour Welfare and Development Fund Act, (5) U.P. Industrial Housing Act (1955).

Trade Unions: 1,102 (March 1964).

Labour Welfare Centres: 70 (March 1964).

Under subsidised Industrial Housing Scheme 20,690 houses were constructed till Dec. 31, 1963. Under the sugar factory labour housing scheme, 1,538 houses were constructed in 62 sugar mills at a cost of Rs. 45,54,186.

Provident Fund Scheme covers 1,80,488 employees in 1,454 factories. Employees' State Insurance Scheme has been enforced in 28 industrial towns, covering 3,15,460 employees. On Dec. 31, 1963, the number of living old age pension holders was 10,539.

Number of employment exchanges and that of Industrial Training Institutes, both run by the Directorate of Training & Employment are 51 each.

The Directorate also runs schemes for collection of employment market information and vocational guidance.

*Social Welfare Department:* The Department runs a scheme for women welfare in 39 districts, looks after the administration of Suppression of Immoral Women and Children's Institution Act and Probation Acts, runs a couple of centres for youth and child welfare.

The department runs five homes at the State level and 21 centres at the district level for the after-care treatment of destitute persons, both men and women.

The Samaj Kalyan Samiti Scheme is one of the most important schemes of the Department run for creating community consciousness in urban people in all district level quarter cities.

*Community Development:* As many as 876 development blocks have covered the rural population of the State. Schemes for the agricultural and industrial development of the rural population are being implemented by these blocks. The Government machinery at the block level is now under the complete control of the elected block presidents who have been vested with statutory powers.

## EDUCATION (1961-2)

Total number of Basic Primary Schools 46,533; total enrolment; 42,13,036; total number of teachers 1,05,738.

Total number of Senior High Schools 4,439; total enrolment 5,79,100; total number of teachers 23,607.

Total number of Higher Secondary Schools 1,858; total enrolment 9,79,978; total number of teachers 37,862.

Total number of Universities 9; total enrolment 33,940; total number of teachers. 2,303.

Total number of Degree Colleges 142; total enrolment 71,642; total number of teachers 3,789.

Total number of Sanskrit Pathshalas 1,059; total enrolment 40,644; total number of teachers 4,545.

Primary education upto class VI was made free from 1957–58.

Compulsory education for boys introduced in 95 municipalities; for girls in the whole area of ten municipalities; and 1,687 villages.

Budget for education in 1962-63 was Rs. 25,95,30,400 while budget for 1963-64 was Rs. 27·92 crores.

## JUDICIARY

The scheme of separation of Executive from Judiciary, which is one of the directive principles of the Constitution, was started in 1949. It was gradually extended to other districts, and now the scheme is in operation in all the districts of the State, except in the seven hill districts of the Kumaun and Uttarkhand Divisions.

Letters patent appeals against the appellate jurisdiction of the single judges have been abolished by the U.P. High Court Act, 1962.

## BUDGET (1965-66)

(See *State Budgets*)

## U.P. FINANCIAL CORPORATION

(See *State Corporations*)

## UNIVERSITIES

### Agra University

*Chancellor:* Governor, Uttar Pradesh (*Ex-officio*).
*Vice-Chancellor:* Dr. Ranjan, M.Sc., D.Sc., F.N.I.
*Registrar:* R. S. Agarwal.
Affiliated Colleges 135; Students 56,085 (approx.)

### CONSTITUENT COLLEGES

K. M. Institute of Hindi Studies and Linguistics, Agra. Institute of Social Sciences, Agra University, Agra.

### AFFILIATED COLLEGES

Agra College, Agra; Agricultural College, Kanpur; A. K. College, Shikohabad; A. S. Jat College, Lakhaoti; Almora Degree College, Almora; Babu Shivnath Agarwal Degree College, Mathura; Balwant Rajput College, Agra; Barhseni College, Aligarh; Bareilly College; Bareilly; Brahman Sanskrit Mahavidyalaya, Roorkee; Bundelkhand Degree College, Jhansi; Christ Church College, Kanpur; D. A. V. College, Bulandshahr; D. A. V. College, Dehra Dun; D. A. V. College, Kanpur; D. A. V. College, Muzaffarnagar; D. N. Degree College, Fatehgarh; D. S. B. Government Degree College, Nainital; D. S. M. College, Kanth (Moradabad); Dayanand College of Law, Kanpur; Dayanand Subhas National College, Unnao; Dayanand Vedic College, Oral; Dayanand Women's Training College, Kanpur; Deva Nagri College, Meerut; Dharmsamaj College, Aligarh; Digamber Jain College, Baraut; Engineering College, Dayalbagh, Agra; G. F. College, Shahjahanpur; Ganjdundwara Degree College, Ganjdundwara (Etah); Gokul Dass Hindu Girls' College, Moradabad; Govt. Central Textile Institute, Kanpur; Govt. Raza College, Rampur; College of Science, Gurukul, Kangri; Harcourt Butler Technological Institute, Kanpur; Hindu College, Moradabad; Post Graduate College of Animal Science (I.V.R.I.), Izatnagar; J. V. Jain College, Saharanpur; Jat Vedic College Baraut; K. G. K. College, Moradabad; K. V. Degree College, Machhra (Meerut); Kishori Raman College, Mathura; Kishori Raman Girls' College, Mathura; K. N. Govt. College, Gyanpur (Varanasi); Mahadevi Kanya Pathshala, Dehra Dun; Maharaj Singh College, Saharanpur; Meerut College, Meerut; M. M. H. College, Ghaziabad; Multanimal Modi Degree College, Modinagar (Meerut); N. R. E. C. College, Khurja; Nanak Chand Anglo-Sanskrit College, Meerut; Narain College, Shikohabad; Seth Phool Chand Bagla Degree College, Hathras; Radhaswami Educational Institute, Dayalbagh, Agra; Ragunath Girls' College, Meerut; Raja Mahendra Pratap Prem Vidyalaya College, Narsan (Saharanpur); Rastriya Kisan College, Shamli (Muzaffarnagar); R. S. K. College, Shimbhaoli (Meerut); R. S. M. College, Dhampur (Bijnor); S. D. College, Muzaffarnagar; Shri Saraswati Vidyalaya Degree College, Hapur; S. M. College, Chandausi; S. N. Medical College, Agra; S. N. Sen Balika Vidyalaya Degree College, Kanpur; St. John's College, Agra; Tika Ram Kanya Mahavidyalaya, Aligarh; U. P. College of Vet. Science and Animal Husbandry, Mathura; Vasish College, Shamli (Muzaffarnagar); V. S. S. D. College, Kanpur;

Women's Training College, Dayalbagh, Agra; Y. D. College, Lakhimpur-Kheri; Arya Kanya Pathshala Degree College, Hapur; Bipin Bihari College, Jhansi; Dayanand Brijendra Swarup Degree College, Kanpur; Dayanand Girls' College, Kanpur; Gujar Agricultural College, Rampur Manhyaran (Saharanpur); Halim Muslim College, Kanpur; Janta College, Ajitmal (Etawah); Janta College, Bakewar (Etawah); Jat College, Muzzaffarnagar; Jatan Swaroop Degree College, Sikandrabad (Bulandshahr); Krishak College, Mewana (Meerut); Kurmi Kshattriya College, Etawah; M. M. College, Khekra (Meerut); P. P. N. Degree College, Kanpur; S. R. K. Degree College, Firozabad, (Agra); Sir Chhadami Lal Jain Degree College, Firozabad; Attarra Degree College, Attarra; K. L. D. A. V. College, Roorkee; Digambar College, Dibai (Bulandshahr); Sri Vardhman College, Bijnor; Dayanand Arya Kanya Degree College, Moradabad; B. N. V. College, Rath (Hamirpur); Kanya Mahavidyalaya College, Bareilly; Rajput Shiksha Shivir Degree College, Dhaulana (Meerut); Badri Vishal College, Farrukabad; J. S. Hindu College, Amroha; S. A. V. Degree College, Bhartana; Feroze Gandhi Degree College, Rae-Bareli; Guru Ram Rai Degree College, Dehra Dun; Kulbhaskar Ashram Degree College, Allahabad; Lala Moti Ram Babu Ram College, Haldwani; Jai Bharat Sadhu Mahavidyalaya, Hardwar; Shambhu Dayal Degree College, Ghaziabad; Kanya Kubja Degree College, Kanpur; Chitragupta Degree College, Manipuri; Dayanand Women's Training College, Dehra Dun; Dayanand Brijendra Swarup College, Dehra Dun; A. S. Degree College, Fatehpur; Vidyawati Mukund Lal Girls' Degree College, Ghaziabad; R. M. P. Degree College, Sitapur; Hindu Kanya Mahavidyalaya, Sitapur; National Homoeopathic College, Lucknow; K. K. Jain Degree College, Khatauli; National Degree College Bhongaon; Birla Government Degree College, Srinagar; A. S. Degree College, Mawana; Ismail National Degree College for Women, Meerut; Gulab Singh Hindu Degree College, Chandpur; G. B. Pant Degree College, Kachla; Sri Juhari Devi Marwari Balika Vidyapith, Kanpur; Jwala Devi Vidya Mandir, Kanpur; Sri Ganesh Degree College, Kasganj; Arya Kanya Mahavidyalaya, Jhansi; Municipal Degree College, Mussoorie; Jain Kanya Pathshala Degree College, Muzaffarnagar; Govt. Degree College, Pithorgarh; Acharya Narendra Deo Mahakalika Mahila Degree College, Kanpur; Institute of Oriental Philosophy, Vrindaban (Mathura); Bhagwandin Arya Kanya Degree College, Lakhimpur; Smt. B. D. Jain Girls' Degree College, Agra Cantt.; Swami Sukhdevanand College, Mumukshu Ashram, Shahjahanpur; Jawaharlal Nehru Memorial Degree College, Barabanki; Pt. Jawaharlal Nehru Degree College, Banda; Bhartiya Municipal Girls' Degree College, Chandausi.

The medium of instruction and examination is English. But the teachers have the option to give lectures in Hindi. Students have the option to answer question papers in Hindi for the B.A., M.A., B.T., LL.B., B.Com., M.Com., B.Sc. (Ag.) examinations.

BUDGET ESTIMATES FOR 1964-65

Total income : Rs. 35,35,390.

Total expenditure : Rs. 36,97,649.

### Aligarh Muslim University

Aligarh

*Chancellor :* Vacant.

*Pro-Chancellor :* Nawab Saidul Mulk Dr. Hafiz Mohd. Ahmad Said Khan of Chhatari.

*Vice-Chancellor :* Dr. Nawab Ali Yawar Jung Bahadur, B.A. (Hons.) (Oxford), Padma Bhushan.

*Pro-Vice-Chancellor :* Mohammed Fazlur Rahman.

*Registrar :* M. M. Siddiqi.

Residential Students 4,000 (approx.).

MAINTAINED INSTITUTIONS

Women's College, Aligarh; College of Engineering and Technology, Aligarh; University Polytechnic, Aligarh; Tibbiya College, Aligarh; Institute of Islamic Studies, Aligarh; Institute of Ophthalmology, Aligarh; M. U. Medical College, Aligarh; Muslim University High School, Aligarh; Muslim University city High School, Aligarh; Muslim University Girls' High School, Aligarh; Aligarh Muslim University Ahmadi School for the Blind.

BUDGET ESTIMATES FOR 1965-66

(Normal)

| | Rs. |
|---|---|
| Anticipated income .. .. | 98,50,000 |
| Anticipated expenditure .. | 99,65,800 |
| Central Govt. Grants .. .. | 79,22,500 |
| Income from other sources .. | 19,27,500 |
| Total .. .. .. .. | 98,50,000 |

PLANNED DEVELOPMENT (1965-66)

| | |
|---|---|
| Anticipated Income .. | Rs. 1,88,88,751 |
| Anticipated Expenditure .. | Rs. 1,89,20,905 |

From the academic year 1957-58, the University has instituted a one-year Pre-University and a three year integrated degree course in place of the Intermediate and the two year degree courses.

The medium of instruction in all classes of the University is English.

### Allahabad University

*Chancellor :* Biswanath Das, Governor of U.P.

*Vice-Chancellor :* R. K. Nehru.

*Registrar :* K. P. Mohitey, M.A.

Unitary, teaching, residential; Colleges 6; Students 6,182.

LIST OF COLLEGES

Allahabad Agricultural Institute, Naini, Allahabad.

Chaudhari Mahadeo Prasad Degree College, Allahabad.

Ewing Christian College, Allahabad.

Agarwal Vidyalaya College, Allahabad.

Moti Lal Nehru Regional Engineering College, Allahabad.

Moti Lal Nehru Medical College, Allahabad.

BUDGET ESTIMATES, 1965-66

| | |
|---|---|
| Total income : | Rs. 68,59,340. |
| Total Expenditure : | Rs. 68,59,340. |
| State Govt. Grant : Recurring Rs. | 48,13,713 |
| Total .. Rs. | 1,85,32,393 |

ACTUALS FOR 1964-65

Total income : Rs. 59,26,335.

Total expenditure : Rs. 61,76,200.

State Govt. Grant : Rs. 26,90,955.

English and Hindi are the media of instruction for graduate course and English is the medium of instruction for post-graduate course.

### Banaras Hindu University

Varanasi 5.

*Chancellor :* His Highness Dr. Karan Singh, Governor, Jammu & Kashmir.

*Pro-Chancellor :* His Highness Dr. Vibhuti Narayan Singh.

*Pro-Vice-Chancellor :* M. C. Bijawat, B.Sc., B.E.

*Registrar :* Major S. L. Dar, M.A., LL.B.

Residential; Constituent Colleges 14; Affiliated Colleges 5; Students 7,414 (1963-64).

CONSTITUENT COLLEGES

Central Hindu College; Central Hindu College (Kamachha), Varanasi; College of Agriculture; College of Indology; College of Mining and Metallurgy; College of Music and Fine Arts; College of Science; College of Technology; Engineering College; Law College; Sanskrit Mahavidyalaya; Teachers' Training College; Women's College; College of Medical Sciences.

AFFILIATED COLLEGES

Rajghat Besant School, Rajghat, Varanasi; D.A.V. (Degree) College, Varanasi; Vasanta College for Women, Rajghat, Varanasi; Arya Mahila Degree College, Varanasi; Vasant Kanya Mahavidyalaya, Varanasi.

BUDGET ESTIMATES FOR 1964-65

Income : Rs. 2,26,02,460 (plus Block grant).

Expenditure : Rs. 2,94,29,054.

### Gorakhpur University

*Chancellor :* Governor, Uttar Pradesh (*Ex-officio*).

*Vice-Chancellor :* Prof. Madan Mohan, M.A., M.L.C.

*Registrar :* S. M. Kar, M.Sc.

Teaching and Affiliation.

Constituent College : M. P. University College, Gorakhpur.

*Affiliated Colleges :* 35.

Students : 16,442.

AFFILIATED COLLEGES

St. Andrew's College, Gorakhpur; S. N. College, Azamgarh; M. L. K. Degree College, Balrampur, Gonda; T. D. College, Ballia; S. C. College, Ballia; B. R. D. Degree College, Deoria, B. D. College, Kushinagar, Deoria; T. D. College, Jaunpur; D. A. V. Degree College, Azamgarh; Degree College, Ghazipur; H. D. College, Zamania, Ghazipur; S. D. J. College, Chandesar, Azamgarh; R. S. K. D. Degree College, Jaunpur; K. B. Degree College, Dubahar, Ballia; Kisan Degree College, Basti; K. B. Degree College, Mirzapur; K. S. Saket Mahavidyalaya, Faizabad; Udai Pratap College, Varanasi; Harish Chandra College, Varanasi; Degree College, Pratapgarh; Kisan Degree, College, Bahraich; National Degree College, Barhalganj; Triloknath Degree College, Tanda, Faizabad; Ranvir Ranjaya Degree College Amethi, Sultanpur; Gandhi Smarak Degree College, Samodhpur, Jaunpur; Sant Vinoba Degree College, Deoria; Udit Narain Degree College, Padrauna, Deoria; Madan Mohan Malviya Engineering College, Gorakhpur; Madan Mohan Malviya Mahavidyalaya, Bhatpar Rani, Deoria; Pratap Bahadur Degree College, Pratapgarh; Swami Devanand Degree College, Mathlar, Deoria; Sheopati Degree College, Shoharatgarh; Dharam Pal Degree College, Sarnath, Varanasi; Sri Ganesh Rai Degree College, Dobhi, Jaunpur; G. B. Pant Degree College, Pratapganj, Jaunpur.

BUDGET ESTIMATES FOR 1964-65

Total income : Rs. 1,18,26,769.

Total Expenditure : Rs. 1,18,26,769.

State Govt. Grant : Recurring Rs. 28,04,785.

State Govt. Grant : Non-recurring Rs. 25,60,080.

The medium of instruction in all undergraduate classes of the University is Hindi and for post-graduate classes English except Hindi subject.

### Lucknow University

Residential, Unitary and Teaching University.

*Chancellor,* Governor of Uttar Pradesh.

*Vice-Chancellor :* Dr. A. V. Rao, M.A., Ph.D. (Lond.), Bar-at-Law.

*Registrar :* P. C. Mital, M.A.

*Librarian :* Dr. P. N. Sharma, D.Sc.

Number of students : 15,056 including 3,498 women students and 245 research scholars for 1965.

LIST OF ASSOCIATED COLLEGES

Isabella Thoburn College, Lucknow; Kanya Kubja College, Lucknow; Karamat Husain Muslim Girls' College, Lucknow; Lucknow Christian College, Lucknow; Mahila Vidyalaya College, Lucknow; Shia College, Lucknow; Kanya Kubja Vocational College, Lucknow; D. A. V. College, Lucknow; Vidyant Hindu College, Lucknow; Jubilee Girls' College; Loreto Convent Degree College, Lucknow; Khunkhunji Girls' College, Lucknow; Shashi Bhushan Balika Vidyalaya Degree College, Lucknow; Nari Shiksha Niketan, Lucknow; Nav Yug Kanya Vidyalaya, Lucknow.

The medium of instruction in graduate classes is Hindi.

Budget (1964-65)

| | Rs. |
|---|---|
| Income (estimate) .. .. .. | 54,27,185 |
| Actuals .. .. .. .. | 42,44,390 |
| Expenditure (estimate) .. .. | 54,12,333 |
| Actuals .. .. .. .. | 47,17,001 |

**Roorkee University**
Roorkee

*Chancellor :* Biswanath Das, Governor of Uttar Pradesh.

*Vice-Chancellor :* G. Pande, M.I.E.

*Registrar :* V. N. Kak, M.A.

Unitary, Teaching and Residential, Students (1963-64) : Full time 2,375 (Men 2,345) (Women 30). New Admissions 494 (Men 480, Women 14). Post-Graduate : Full time 141 (Men 141).

Students from other countries—49 (Nepal 40, South Africa 2, East Africa 1, Sikkim 1, North Borneo 1, Uganda 2, Kenya 1, Bhutan 1). The medium of instruction is English.

**Budget (1963-64)**

*Income :*

| | Rs. |
|---|---|
| Grant received from Central Govt. | 93,780 |
| Grant in aid from State Govt. .. | 54,13,060 |
| Grant received from U.G.C. .. | 15,78,173 |
| Grant received from C.S.I.R., New Delhi .. .. .. .. | 2,55,573 |
| Other sources (Students fee, rent income from buildings and miscellaneous income) .. .. | 20,13,800 |
| Total .. .. .. .. | 93,54,386 |

*Expenditure :* Rs. 93,54,386.

**U. P. Agricultural University**
Pant Nagar (District Nainital).

This University set up on the model of the Land Grant Colleges of U.S.A., aims at developing rural leadership and competence.

The University, which is the first of its kind in the country, has four constituent colleges and one school of basic sciences & humanities — an Agricultural College, a College of Animal Husbandry and Veterinary Sciences and a College of Agricultural Engineering and Technology and a Post-Graduate College. The University provides comprehensive education on Agriculture and allied subjects on the basis of an integrated system of teaching, research and extension. The first batch of students was admitted in July 1960. It has a capacity to train 325 candidates per year for undergraduate and 60 for Post-graduate studies—25 per cent of the seats being specifically reserved for students from outside the State.

**Budget (1964-65)**

| | Rs. |
|---|---|
| Recurring .. .. .. | 21·50 lakhs. |
| Non-recurring .. .. | 7·81 lakhs. |

*Vice-Chancellor :* Bajrang Bhadur Singh Raja Bhadri ; *Registrar :* P. K. Jain.

## ASSOCIATIONS, ETC.

### ACADEMY OF ZOOLOGY
**164, Civil Lines, Agra.**

*President :* Beni Charan Mahendra ; *Secretary :* C. P. Singh ; *Treasurer :* S. S. P. Capoor.

### AGRA IRON FOUNDERS' ASSOCIATION
**G. G. Industries P.O., Belanganj, Agra.**

### THE AGRA MERCHANTS' CHAMBER LTD.
**Bari Kothi, Belanganj, Agra.**

### AGRA PRODUCTIVITY COUNCIL
**G. G. Industries Post Office, Agra.**

*President :* Shripat, I.A.S. ; *Vice-Presidents :* S. N. Sarin, B. D. Sathi ; *Secretary :* P. D. Paliwal ; *Executive-Secretary :* M. M. Agarwal.

### AGRA SHOE MANUFACTURERS' ASSOCIATION
**1244, Pili Kothi, Shahganj, Agra.**

*President :* A. N. Varma ; *Vice-President :* Kishan Chand ; *Hon. General Secretary :* S. P. Dhir.

### AKATHIT ACADEMY
**"Nand Bhavan", Gautam Budh Marg, Lucknow.**

*Secretary and Director :* Dr. S. N. Pandia, M.A., Ph.D.(U.S.A.),C.E.T.D. (London), C.T.D. (Birm.).

### AKHIL BHARAT SARVA SEVA SANGH
Sadhna Kendra, Rajghat, Varanasi.

The Sangh was founded consequent on a resolution passed at a meeting of the representatives of several constructive work organisations (formerly working under the guidance of Mahatma Gandhi) held on March 13, 1948 at Sevagram (Wardha). The Sangh was originally formed as a federation of these organisations. Later, several of these organisations merged themselves into the Sangh, which has thus become the chief executive organ for constructive work. The objects of the Sangh are as follows :

To establish a social order free from all exploitation and based on the principles of Truth and Non-violence, and with this object to foster village mindedness in the citizens of India.

The programme includes various constructive work items like communal harmony, Khadi, removal of untouchability, basic education, relief to the poor (by securing employment, living wage, security and unemployment benefit, educational and medical facilities), research in hand spinning and weaving.

The Sangh believes in decentralisation of authority whether economic or political in the political sphere. It has faith in direct democracy which it calls 'Gram Swaraj'. The village is accepted by the Sangh as the basic unit for political organisation and economic self-sufficiency.

At present the Sangh is concentrating on the Gramdan, Sarvodaya Patra and Shanti Sena movement started by Acharya Vinboa Bhave, a close associate and disciple of Mahatma Gandhi.

Literature about Bhoodan, Gramdan, Sampattidan and other Dan Yajna movements can be had from Sarva Seva Sangh, Publication Division, Rajghat Kashi (Banaras) ; or Nava Jeevan Prakashan Mandir, Ahmedabad ; or Sarvodaya Prachuralaya 24, Srinivasapuram, Tanjore, South India. The Sangh also publishes one weekly paper namely Bhoodan Yajna (Hindi) two fortnightly papers namely Bhoodan Tahrik (Urdu) and Bhoodan (English) and two monthlies Sarvodaya (English) and Nai Talim (Hindi). Sarvodaya Press Service (SPS) is also run by the Sangh with its branches at Calcutta, Kashi, Indore, Poona and Baroda. Nearly 100 papers are served by SPS by news in Hindi, English and Marathi.

The Sangh has a general body consisting at present of 300 members, unanimously elected by Lok Sewaks, or their respective districts. The Executive organ of the Sangh is known as the Prabandh Samiti of 25 members. It has a president, a Secretary, one Joint Secretary and four regional Secretaries and a Treasurer. The Sangh has a Board of Trustees who hold the property of the Sangh in trust.

The Sangh has sponsored "Gandhian Institute of Studies" which conducts researches in various subjects relating to Gandhian philosophy as well as bringing it nearer to the scientific methods and technique of present day social sciences and vice-versa. It is situated at Rajghat, P.O. Sarva Seva Sangh, Varanasi-1.

Shanti Sena Mandal is doing peace work in the country in general and in border areas in particular on half of the Sangh. There are nearly 12,000 Shanti Sainiks throughout the country. Shanti Sena Mandal has decided to observe 30th January Death Anniversary Day of Gandhiji as "Peace Day" (every year) all over the country.

Four well known associations which merged into the Sarva Seva Sangh are : All India Spinners' Association ; All India Village Industries Association ; Go-Sewa Sangh and Hindustani Talimi Sangh.

### ALIGARH LOCK MANUFACTURERS & TRADERS' ASSOCIATION
**Aligarh.**

*President :* Mirza Ibrahim Beg ; *Senior Vice-President :* Pyarelal Varshney ; *Junior Vice-President :* K. Bahadur Johri ; *Secretary :* Babulal Gupta ; *Treasurer :* Bhagwan Dass Gupta.

### ALL INDIA CRIME PREVENTION SOCIETY
(Recognised by the Social Defence section of the United Nations).

*Offices :* Behari Niwas, Kanpur and Balaganj, Lucknow.

*President :* Paripurnanand Varma ; *General Secretary :* Dr. B. S. Haikerwal.

Supported by : State Govts. and Government of India.

### ALL INDIA FEDERATION OF EDUCATIONAL ASSOCIATIONS
**Jha-Seshadri-Khattry Bhawan, Post Box 52, Kanpur.**

*President,* D. C. Sharma, M.A., M.P., *Vice-President;* Dr. R. K. Bhan, *Jt. Secy. and Treasurer,* A. P. Khatry,

### ALL INDIA KASHIRAJ TRUST
**Fort Ramnagar, Varanasi.**

*Objects :* Among others, advancement and propagation of the Sanskrit language, Sanskritic learning and Indology.

A research bulletin 'PURANA' is published by the Trust in English and Sanskrit dealing with Puranic studies.

Other publications of the Trust so far are as follows :

(*i*) An authenticated edition of the 'Ramcharit Manas' edited by Pt. Vishwanath Pd. Misra of Varanasi.

(*ii*) 'Devi Mahatmya' and

(*iii*) 'Matsya-Purana—A Study' both edited by Dr. V. S. Agrawala of the Banaras Hindu University, Varanasi.

The Trust maintains a South Indian Pilgrims Information Bureau at Varanasi to help the pilgrims from South India.

**H.H. the Maharaja of Banaras,** *Chairman ;* Ramesh Chandra De, *General Secretary.*

### ALL-INDIA NATURE CURE ASSOCIATION
**52, Gwynne Road, Lucknow.**

*President :* Kameshwar Dayal ; *Hony. Secretary :* Dr. S. J. Singh.

### ALL INDIA SEVA SAMITI
**Seva Samiti Buildings,**
**Seva Samiti Road, Allahabad 3.**

The Samiti conducts a library called the Chintamani Memorial Library with over 12,000 volumes, which is also on Seva Samiti Road. The Samiti conducts at Allahabad in addition a hospital called the Seva Samiti Hospital and several other dispensaries in pilgrim centres elsewhere.

It also runs a Seva Samiti Vidyamandir Higher Secondary School in which girls also read upto sixth standard. The Samiti has affiliated branches in various places and has a Northern India branch office at Ludhiana. The Samiti is an institutional member of the Indian Conference of Social Work.

*President,* G. S. Pathak, M.P.
*General Secretary,* Dr. H. N. Kunzru.
*Organizing Secretary,* S. R. Bharatya, M.A.

### ALLAHABAD AGRICULTURAL INSTITUTE
**Allahabad.**

*Principal :* Dr. J. B. Chitambar ; *Vice-Principal :* Dr. C. O. Das ; *Registrar :* B. N. Lall ; *Treasurer :* B. S. Massey.

### ALLAHABAD TRADERS' ASSOCIATION
125, Kamta Prasad Kacker Marg, Allahabad 3.

*President :* Beni Prasad Agarwal ; *Vice-President :* N. C. Goel ; *Secretary :* Luxmi Narayan Agarwal.

### ARCHAEOLOGICAL MUSEUM
Dampier Park, Mathura.

**This Museum was established in 1874.**

Almost the entire collection is from Mathura and its neighbourhood. There are about 15,000 antiquities consisting of sculptures, terracottas, inscriptions, coins, seals and sealings, bronzes and paintings from 5th Cent. B.C. to 19th Cent. A.D. Majority of objects are of Kushana and Gupta periods (1st Cent. A.D. to 6th Cent. A.D.). Railing pillars with *Jataka* stories and beautiful female figures, portrait sculptures showing some of the Kushana Emperors such as Wema Kadphasis and Kaniskha, Buddha and Jina figures of the Kushana and Gupta age, Brahmanical divinities like Siva, Vishnu, Surya, Karttikeya, Indra, Balarama, Lakshmi etc., Naga, Nagis and Yakshas are some of the excellent exhibits. Mathura terracottas constitute a fascinating branch of study. These include figures of mother-goddesses, foreigners, *Dampatis*, various gods and goddesses, moulds for such figures, exquisitely carved decorative wall panels and birds and animal figurines scientifically arranged in a newly organised Terracotta Gallery. There are also modelling and photographic sections.

*Curator*, Dr. N. P. Joshi.

### ARYA BHASHA PUSTAKALAYA
Banaras

**The biggest Hindi public library in India, maintained by the Nagari Pracharini Sabha. No. of books, over 45,000. Specially rich in ancient mss. and early Hindi books and periodicals, of great use to research scholars. Relative reference books in English, Sanskrit, Prakrit, Pali, Nepalese, Russian and in the different regional languages also available. Combined Reading Room. All leading Hindi papers and journals, and selected English periodicals also available.**

### BHARAT KALA BHAVAN
(Museum of Indian Art and Archaeology).
Banaras Hindu University, Banaras 5.

*Hony. Director :* Rai Krishnadasa ; *Dy. Director :* Dr. Anand Krishna, Ph.D. ; *Asstt. Curator :* Vijay Krishna.

### THE BHARAT SCOUTS AND GUIDES UTTAR PRADESH
17, Katra Road, Allahabad.

*President :* A. G. Kher ; *State Chief Commissioner :* B. Mukerji ; *State Secretary :* P. N Sharma.

### BHARATA GANITA PARISAD (FORMERLY BENARAS MATHEMATICAL SOCIETY)
Mathematics Dept., Lucknow University, Lucknow.

### BHARATIYA HINDI PARISHAD
Office : Hindi Department, University of Allahabad, Allahabad.

### BHARATIYA SANGEET TATHA LALITKALA VIDYAPITH
British Radio Building, The Mall, Kanpur.

*Kulpati :* Virendra Swaroop, M.L.C. ; *Pro-Kulpati :* Dr. Krishna Rao Shanker Pandit ; *Founder and Upa-Kulpati :* S. C. Kaushal.

### BIRBAL SAHNI INSTITUTE OF PALAEOBOTANY
53, University Road, Lucknow (U.P.).

*President :* Mrs. Savitri Sahni ; *Director :* Dr. K. R. Surange.

### PALAEOBOTANICAL SOCIETY
*President :* Mrs. Savitri Sahni ; *Secretary :* Dr. K. R. Surange.

### THE CHAMBER OF COMMERCE
Chandausi.

### THE CHAMBER OF COMMERCE
Hapur, Dist. Meerut.

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Specialists in Chikan Art Industry.

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### DEFENCE INSTITUTE OF WORK STUDY
Landour Cant., Mussoorie.

The Defence Institute of Work Study, set up in Mussoorie in 1962, has a three-fold function : to train officers and men from the Defence Services and the Defence Organisations in Work Study and allied Management subjects ; to render assistance to 'User' organisations in the conduct of practical projects and case studies ; to act as a central co-ordinating body for Work Study in the Defence Services. Types of Courses run : Advanced Work Study (12 weeks) ; Basic Work Study (5 weeks) ; Production Planning & Control (3 weeks) ; Organisation & Methods (3 weeks) ; Management Appreciation Course (1 week) ; Refresher Course (1 week) ; Work Study Appreciation Conference (6 hours) ; Seminar (3 days).

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*Dy. Director and Chief Instructor :* Lt. Col. M. L. Garg.

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*President :* R. K. Trivedi, I.A.S. ; *Vice-President :* G. P. Tiwari ; *Hon. Secretary :* U. C. Rastogi, M.A.

### THE DIVINE LIFE SOCIETY
P.O. Sivanandanagar, Dist. Tehri-Garhwal, U.P.

Propagates yoga and vedanta and the ethical and spiritual culture of India, promotes universal love, the unity of religions, the ideal of brotherhood, and the spirit of service among mankind.

*Founder :* H. H. Swami Sivananda.

*President :* H. H. Swami Chidananda.

### EMPLOYERS' ASSOCIATION OF NORTHERN INDIA
(14-77, Civil Lines, Post Box No. 344, Kanpur.)

*Chairman :* R. Jaipuria.
*Secretary :* Dr. K. P. Agarwal, D. Litt.

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79/7, Latouche Road, Kanpur.

*President :* Lala Ram Manohar Gupta ; *Hon. Gen. Secy. :* S. Shamsher Singh ; *Secretary :* A. D. Shukla.

### ETHNOGRAPHIC AND FOLK CULTURE SOCIETY
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*President :* Dr. A. V. Rao ; *Vice-Presidents :* Dr. D. D. Gupta, Dr. B. G. Prasad ; *Hony. Secretary :* Dr. K. S. Mathur.

### GANGANATHA JHA RESEARCH INSTITUTE
Motilal Nehru Park, Allahabad.

### GOVERNMENT CENTRAL PEDAGOGICAL INSTITUTE
Mahatma Gandhi Marg, Allahabad.

### GOVERNMENT CENTRAL TEXTILE INSTITUTE
Smt. Parvati Bagla Road, Kanpur.

### GOVERNMENT CENTRAL WOOD WORKING INSTITUTE
26, Civil Lines, Bareilly.

### GOVT. HANDMADE PAPER PRODUCTION CUM-RESEARCH CENTRE
Kalpi (Jalaun), U.P.

### GOVERNMENT PRECISION INSTRUMENTS FACTORY
Aishbagh Road, Post Box 153, Lucknow.

### GOVERNMENT WOOD WORKING INSTITUTE
5, Katra Road, Allahabad.

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P.O. Gurukul Kangri (Dt. Saharanpur).

*Governor & Vice-Chancellor :* Col. Satyavrata Siddantalankar ; *Acharya :* Pt. Priya Vrata Vedavachaspati ; *Asstt. Governor and Registrar :* Pt. Dharampal Vidyalankar.

### H. B. TECHNOLOGICAL INSTITUTE
Company Gardens, Kanpur, U.P.

### HIDE MERCHANTS' ASSOCIATION
Farrashkhana, Kanpur.

### HIND KUSHT NIVARAN SANGH
(U.P. Branch).
C/o Director of Medical and Health Services U.P., Lucknow.

### HINDI SAMITI
Pradarshan. Bhawan, Lucknow.

### HINDUSTANI ACADEMY
4, Kamla Nehru Road, Allahabad.

*President :* C. B. Rao ; *Hon. Secretary :* Vidya Bhaskar.

### INDIA VILLAGE SERVICE
(Sattal, P.O. Bhowali, Dist. Naini Tal, U.P.).

**The aim of the service is to enable the village people to meet their needs by living and working among them. The programme of work includes health, sanitation, agriculture, handwork, child care, literacy, citizenship and action research projects in rural development.**

Work is located at Marehra (Dist. Etah), Mahanagar (Dist. Lucknow), Gillava (Dist. Etah), Sattal (Dist. Naini Tal), U.P. and in other Centres where co-operative agreements exist with the Y. W. C. A. and local church bodies. Enquiries, however, should be sent to Marehra. Funds are largely raised from private sources both in India and abroad.

### INDIAN BRISTLE MERCHANTS ASSOCIATION
18-45, Mahatma Gandhi Road, Kanpur.

### INDIAN CERAMIC SOCIETY
Banaras Hindu University, Banaras 5.

### INDIAN CONFERENCE OF SOCIAL WORK
J. K. Institute Bldg.,
Lucknow University, Lucknow.

### INDIAN INSTITUTE OF TECHNOLOGY
P. Box 130, Kanpur.

### INDIAN POLITICAL SCIENCE ASSOCIATION
Muslim University, Aligarh, U.P.

### INSTITUTE OF OPHTHALMOLOGY

Gandhi Eye Hospital, Aligarh.

*Director :* B. R. Shukla.

Established in 1952 by the Aligarh Muslim University for post-graduate diploma in Ophthalmology. At present 20 medical graduates are admitted on all India basis and the candidates are selected by a selection committee. The last date for receipt of applications is June 30, and the selections are made on the basis of merit. The last date for completing the final admission, etc. is July 31. From 1964 the M.S. Course in Ophthalmology has also been introduced.

### INSTITUTE OF ORIENTAL PHILOSOPHY

Vrindaban (Dist. Mathura).

Affiliated to Agra University for B.A. (in seven subjects), M.A. and Ph.D. (in Philosophy and Sanskrit) and recognised by Punjab University as a Research Centre for Ph.D. and D.Litt. Degrees. Hostel facilities available.

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### INSTITUTION OF ENGINEERS (INDIA)

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*President :* Mr. Justice Nasirullah Beg ; *Working President :* Sri Ram Jee ; *Secretary-General :* Prof. Govind Ram.

### J. K. INSTITUTE OF SOCIOLOGY, ECOLOGY AND HUMAN RELATIONS

University of Lucknow, Lucknow.

### THE KAMBOJ SAPTAKALA NIKETAN

564, Lashmi Bhawan, Meerut.

*Founder-Director :* M. S. Kamboj, M. Mus. (Gayanvadanacharya) ; *President :* Data Ram Singhal ; *Secretary :* J. S. Tiagi.

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Varanasi.

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12, Cariappa Road, Allahabad.

### MAHABIR BEOPAR MANDAL LIMITED

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(Home for women in distress run by Municipal Corpn.)

Motinagar, Lucknow.

### MANOVIGYAN SHALA

(Bureau of Psychology.)

Allahabad.

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*President :* Mahadeo Prasad ; *Vice-Pres. :* Sheonath Prasad ; *Secy. :* Gurbachan Singh.

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### METROPOLITAN CHURCH ASSOCIATION

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### NAGARI PRACHARINI SABHA BANARAS

Hindi institution devoted to the propagation and development of Hindi language and literature in particular, and Indian literature and culture in general.

It maintains the biggest Hindi Library in India—Arya Bhasha Pustakalaya containing also rare Hindi manuscripts and periodicals.

It has published about 400 standard works in Hindi on different subjects and brought out Hindi dictionary, Hindi Grammar, English, Hindi Terminologies on various subjects. A Hindi Encyclopaedia in 10 Volumes is under compilation of which four volumes are already published. Its main organ *Nagari Pracharini Patrika*, is one of the oldest Hindi Periodicals. It has its own printing Press.

*President :* Pt. Kamalapathi Tripathi ; *Vice-Presidents :* Sahdeva Singh, Dr. V. S. Jha ; *Hon. Gen. Secretary :* Pt. Shivaprasad Misraj 'Rudra', (*Lecturer*, Deptt. of Hindi, Banaras Hindu University).

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(Lajpat Rai Road, Allahabad 2.)

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### NATIONAL CHAMBER OF INDUSTRIES AND COMMERCE, U. P.

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### NATURE CURE RESEARCH ASSOCIATION

Incorporating

### NATURE CURE COUNCIL OF MEDICAL RESEARCH

52-57, Gwynne Road, Lucknow.

Dr. S. J. Singh, *Founder-President* ; Dr. M. M. Bhamgara, *Vice-President* ; Dr. Mrs. R. K. Sahney, *Secretary*.

### NATURE CURE RESEARCH HOSPITAL

52-57, Gwynne Road, Lucknow, U.P.

*Director :* Dr. S. J. Singh, M.A., B.Sc., N.D. (London), F.N.F.U. (Ceylon), M.N.T.S. (Eng.).

### NORTH INDIA CHRISTIAN LITERATURE SOCIETY

18, Clive Road, Allahabad.

*President :* M. G. Shome ; *Treasurer :* Dr. M. A. Sadique ; *Secretary :* Rev. Paul Das.

### NUMISMATIC SOCIETY OF INDIA

P. O. Banaras Hindu University, Varanasi 5.

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### RAMAKRISHNA MISSION SEVASHRAM

Aminabad, Lucknow.

Has a charitable dispensary with X-Ray, Dentistry, Physiotherapy and T.B. Clinic. Treated 2,55,684 patients during 1962-63 free of charge, without any distinction of caste, creed or colour. Conducts regular religious and philosophical discourses daily. Has a library and reading room with over 8,500 volumes and about 30 periodicals and 8 dailies.

### SARVODAYA SAMAJ

Sadhna Kendra, Rajghat, Kashi.

The Samaj is not an organization in the accepted sense of the term. After the death of Mahatma Gandhi constructive workers from all over India met in a conference in March 1948 at Sevagram in Wardha. They decided to form a voluntary brotherhood of all who believe in the ideal of truth and non-violence.

The Samaj has, however, an executive organ, the Sarva Seva Sangh with its Headquarters at Kashi, Varanasi, U.P.

Loksevaks of every district form the district Sarvodaya Mandal and elect their representative for the All-India body, who again elect the president for a term of three years. The President nominates his executive (for three years), which is called the Prabandh Samiti. All the elections and decisions of the Sangh are unanimous. Apart from the President the Sangh has a Secretary and five Joint Secretaries and a Treasurer. The Sangh has a board of Trustees who hold the property of the Sangh in trust.

Moreover the Sangh has its Khadi Gramodyog Gram-Swarajya Samiti with its headquarters at Tirupur, Madras State, to co-ordinate and propagate Khadi and Village Industries throughout the country. Similarly the Krishi Goseva Samiti with its headquarters at New Delhi works for the furtherance of agriculture and improvement of the cattle wealth. The Prayog Samiti or the research department has its headquarters at Sabarmati Ashram, Ahmedabad, and works for the constant improvement of the Ambar Charkas.

It insists on the purity of the means as that of the ends.

For the achievement of the aim, the following programme is followed :

Communal harmony (fellowship between followers of different faiths and sects) ; Removal of untouchability ; Abolition of class distinctions ; Prohibition ; Promotion of khadi and other home industries ; Village sanitation ; Basic Education ; Equality of status and rights, for both men and women ; Health and hygiene ; Development of provincial languages ; Removal of provincialism ; Propagation of Hindustani as the national language ; Economic equality ; Development of agriculture ; Organization of labour ; Welfare of aboriginals ; Organization of students ; Service of leprosy patients ; Relief-work ; Cow protection ; Naturopathy, etc. Also engaged in promoting and organising Bhoodan, Gramdan and Shanti Sena Work all over the country.

The deliberations of the Samaj are of an advisory nature and not mandatory in any way.

### SHAHJAHANPUR MERCHANTS' CHAMBER

Shahjahanpur.

*Director :* Janki Prasad ; *President :* Deoki Nandan Mehrotra ; *Secretary :* Lakshmi Narain.

### SHEILA DHAR INSTITUTE OF SOIL SCIENCE

University of Allahabad, 2-D, Bell Road, Allahabad.

**THE SUGAR TECHNOLOGISTS' ASSOCIATION OF INDIA**
Kalyanpur, Kanpur (U.P.).

*President :* S. K. Somaiya ; *Vice-Presidents :* J. M. Saha, Bansi Dhar, S. C. Gupta ; *Hon. Secretary :* S. L. Saxena ; *Hon. Treasurer :* J. P. Shukla ; *Hony. Editor :* S. Mukhorji.

**THE TANNERS' FEDERATION OF INDIA**
14/69, Civil Lines, Kanpur.

*Chairman :* Mohammed Yaqub ; *Vice-Chairman :* R. Poulter ; *Secretary :* R. K. Mehra.

**TEXTILE ASSOCIATION (INDIA) REGD.**
(U.P. Branch)
14/1, Civil Lines, Kanpur.

**THEOSOPHICAL SOCIETY**
(Indian Section)
(Kamachha, Varanasi 1.)

*General Secretary :* Smt. Radha S. Burnier.
National Journal : *The Theosophical Review.*

**TRADERS CHAMBER OF UTTAR PRADESH**
Meston Road, Kanpur.

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*Hony. General Secretary :* D. S. Pande.

*President :* K. N. Khanna ; *Vice-President :* Krishan Kapur ; *Genl. Secretary :* K. K. Agarwal.

**U.P. BARBED WIRE MANUFACTURERS' ASSOCIATION**
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**U.P. BISCUIT MANUFACTURERS ASSOCIATION**
84/67, G.T. Road, Kanpur.

**U. P. CHAMBER OF COMMERCE**
15-197, Civil Lines, Kanpur.

**U.P. GLASS MANUFACTURERS' SYNDICATE**
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**U.P. GOVERNMENT APPROVED PRINTERS' ASSOCIATION**
Suraj Press Lane, 60, Gautam Budh Marg, Lucknow.

**U. P. GUR AND KHANDSARI ASSOCIATION**
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106/377, 'P' Road, Kanpur.

**UPPER INDIA CHAMBER OF COMMERCE**
(Post Box No. 63, Kanpur.)

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*Vice-President :* A. H. West.
*Secretary :* Bhagwat Dayal, I.F.S. (Retd.).

**THE UPPER INDIA SUGAR EXCHANGE LTD**
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**UTTAR PRADESH PUBLISHERS' ASSOCIATION**
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**VARANASEYA SANSKRIT VISHVA VIDYALAYA, VARANASI**

Teaching-cum-affiliating. Has the richest collection of Sanskrit Manuscripts. Has taken up the work of compilation of Bibliography of Sanskrit and allied subjects. Publishes rare Sanskrit texts and books on Sanskrit learning.

*Chancellor :* Governor of U.P. ; *Vice-Chancellor :* Surati Narain Mani Tripathi ; *Registrar :* Ram Naresh Mishra ; *Treasurer :* Dr. Rai Govinda Chandra ; *Librarian :* Dr. Subhadra Jha ; *Director of Research Institute :* Bal Deva Upadhyaya.

**VIJAI BEOPAR CHAMBER LTD.**
New Mandi, Muzaffarnagar.

*Chairman :* Deep Chandra.
*Vice-Chairman :* Gulshan Rai.
*Secretary :* Trilok Chand.

**THE VIJNANA PARISHAD**
The Vijnana Parishad Bhawan, Thornhill Road, Muir College Buildings, Allahabad 2.

Scientific—Hindi Science Academy of India for Propagation of Science in Hindi.

Publishes a popular monthly magazine "Vijnana" containing articles on scientific subjects in Hindi. Publishes a quarterly research journal "Vijnana Parishad Anusandhan Patrika" containing scientific subjects in Hindi. The academy has by now brought out more than sixty books on scientific subjects.

*President :* Prof. B. N. Prasad, M.P., Padma Bibhusan.

**VIVEKANANDA LABORATORY, ALMORA.**

**WESTERN U.P. CHAMBER OF COMMERCE**
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*President :* Raizada Seth K. N. Modi ; *Senior Vice-President :* Seth Sultan Singh Jain ; *Junior Vice-President :* K. C. Elhance ; *Secretary:* R. K. Jain.

**THE YOGA-VEDANTA FOREST ACADEMY**
The Divine Life Society, Sivananda Ashram, Sivananda Nagar Post, *via* Rishikesh.

*Nature of Body :* Dissemination of knowledge and spiritual uplift of mankind ; teaches art of attaining health and longevity through Yoga ; gives training in the practice of the Synthesis of Yoga.

*Founder of the Academy and Founder of the Divine Life Society :* Late Swami Sivananda ; *President :* Swami Chidananda ; *General Secretary of the Divine Life Society and Principal of the Yoga Vedanta Forest Academy :* Swami Krishnananda.

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# MAHARASHTRA—(*Contd.*)

## IRRIGATION

Total area irrigated : 22·62 lakh acres.

Below are given particulars about projects in operation.

Bhatghar Dam and Nira Canals :—on Bhatghar, Poona Dt. Completed in 1938, irrigates 1,55,482 acres in Poona, Sholapur and Satara Dts. The cost of the scheme is Rs. 7·20 crores.

Khadakwasla Dam and Mutha Canals System :—on Khadakwasla in Poona Dt. Completed in 1897, irrigates 11,469 acres in Poona. Cost of scheme Rs. 70·42 lakhs.

Bhandara Dam and Pravara Canals System :—on Bhandardara in Ahmednagar Dt. Completed in 1926, irrigates 65,912 acres in Ahmednagar. Cost Rs. 1·62 crores.

Darana Dam and Godavari Canals System :—at Darana in Nasik Dt. Completed in 1916, irrigates 69,117 acres in Ahmednagar and Nasik Dts. Cost Rs. 3·51 crores.

Chankapur Tank and Girnal Canals :—at Chankapur in Dt. Nasik. Completed in 1910, irrigates 10,348 acres in Nasik. Cost Rs. 21 lakhs.

Gangapur Dam :—at Gangapur in Nasik Dt. Stage I was to be completed in 1963-64, would irrigate 45,000 acres in Nasik. Cost Rs. 3·66 crores. Stage II would be completed in the Third Plan ; would irrigate 19,000 acres in Nasik. Cost Rs. 94·61 lakhs. Out of the total estimated cost of the project a sum of Rs. 4·95 crores was spent till March 1963.

The following table shows particulars about some of the bigger projects under construction.

| Project. | Location. | When started. | Date of completion. | Area to be irrigated. (Acres). | District benefited. | Estimated cost. Rs. in lakhs. | Amount spent upto 31-3-1964. Rs. in lakhs |
|---|---|---|---|---|---|---|---|
| Vir. | Vir, Taluka Purandar, Dt. Poona. | 1956 | 1965 | 66,000 | Satara and Sholapur. | 541·13 (Revised anticipated) | 410·70 |
| Warna. | Chandoli, Taluka Shirala, Dt. Sangli. | — | Not fixed | 20,000 | Kolhapur and Sangli. | 163·25 | 26·38 |
| Ghod. | Chinchani, Taluka Sirur, Dt. Poona. | April 1954. | 1965 | 60,800 | Ahmednagar and Poona. | 556·15 (Revised anticipated) | 504·74 |
| Girna. | Panzan, Taluka Nandgaon, Dt. Nasik. | 1958 | 1967-68 | 1,41,350 | Jalgaon. | 1,319·32 (—do.—) | 814·17 |
| Mula. | Baregaon Mandur, Dt. Ahmednagar. | 1957 | 1973 | 2,10,000 | Ahmednagar. | 1,616·00 (—do.—) | 408·10 |
| Karwand. | Pimparala Village, Taluka Sirpur, Dt. Dhulia. | 1964-65 | 1967-68 | 11,200 | Dhulia. | 147·55 | 31·50 |
| Bor. | Bori, Taluka, and Dt. Wardha. | 1958 | 1966 | 33,000 | Wardha. | 212 | 212·94 |
| Nalganga. | Sanglad Khurd and Budruk, Taluka Malkapur, Dt. Buldana. | 1958 | 1967 | 21,600 | Buldana. | 207·31 (—do.—) | 306·02 |
| Katepurna. | Vastipur village, Taluka and Dt. Akola. | 1958 | 1968 | 24,640 | Akola. | 233·32 | 90·96 |
| Bagh. | Sirpur Village, Taluka Gondia, Dt. Bhandara. | 1958 | 1969 | 60,000 | Bhandara. | 584·28 | 47·42 |
| Dina. | Regree village, Taluka Gadchiroli, Dt. Chanda. | 1958 | 1968 | 30,500 | Chanda. | 226·01 | 52·89 |
| Itiadoh. | Gothangaon village, Taluka Sakoli, Dt. Bhandara. | 1958 | 1970 | 74,500 | Bhandara and Chanda. | 692·02 | 42·59 |
| Purna. | Sidheshwar, Taluka Hingoli, Yeldari, Taluka Jintur, Dt. Parbhani. | 1957 | 1966-67 | 1,52,000 | Parbhani and Nanded. | 1,491·00 (Revised anticipated) | 928·88 |
| Manar. | Warwant, Taluka Kandhar, Dt. Nanded. | 1959 | 1965-66 | 25,000 | Nanded. | 223·08 | 203·35 |

**Medium and Minor Projects**

The medium and minor irrigation projects also play a very important part in the development of the State.

In the First Plan 16 medium projects were started. Another 16 projects had been taken up in the Second Plan. This included Kurnoor Project which was treated as Major in II Plan but medium in Third Plan. The work of remaining Major Projects of II Plan viz. Khadakwasla Project Stage I is also being accelerated. Rs. 38 crores were provided in the Second Plan for these spill-over and new works. It is expected that when completed and fully developed these schemes will bring an additional area of 12,09,140 acres under irrigation. In the First Plan 291 minor irrigation works were completed at a cost of Rs. 40·11 lakhs.

These works have brought an additional area of 47,040 acres under irrigation. In the Second Plan as many as 212 minor irrigation works including 135 spill over projects from the First Plan have been completed. By the end of Second Plan additional irrigation potential of 1,41,270 acres was created.

**Major and Medium Projects**

In the Third Plan, in all 27 new major and medium irrigation projects were included in addition to the 49 spill over schemes, for a total outlay of Rs. 69·06 crores which included flood protection works, extension and improvement survey and investigation of major and medium irrigation projects.

Out of the schemes which were under execution in the Third Plan, as many as 33 were physically completed and have started yielding benefits.

By the end of the Third Plan, an additional area to the tune of 4,46,350 acres was likely to be benefited by these major and medium irrigation works. An additional irrigation potential of 1,08,000 acres will be created at the end of the Third Plan.

The names of the major and medium projects and the proposed outlays for 1965-66 respectively for each were as follows: Vir, Rs. 15·27 lakhs; Karwand, Rs. 29·00 lakhs; Girna, Rs. 179·00 lakhs; Ghod, Rs. 26·00 lakhs; Mula, Rs. 210·00 lakhs; Bor, Rs. 34·00 lakhs; Dimanadi, Rs. 30·00 lakhs; Nalganga, Rs. 8·00 lakhs; Bagh River, Rs. 50·00 lakhs; Katepurna, Rs. 42·00 lakhs; Mohasangvi, Rs. 0·01 lakhs; Purna Rs. 204·22 lakhs; Manar, Rs. 8·66 lakhs.

Outlay for minor irrigation works for 1965-66 is Rs. 495·76 lakhs.

THIRD PLAN SCHEMES: New major and medium irrigation schemes being and likely to be undertaken in Third Plan are as under:—

*Western Maharashtra:* Bhima Irrigation Scheme, Upper Tapi Project Stage I, Krishna River Project, Godavari Project Stage I (Karanjwan), Kukdi Project Stage I, Kal River Projects Irrigation Tank at Malangaon and Storage, in Upper Girna Catchment.

*Vidarbha:* Pus River Project, Upper Wardha Project, Morna River Project, Gyangapur River Project, Managarh Tank Project, Sangrampur Tank Project, Wunna River Project and Khuni River Project.

*Marathwada:* Kayadhu River Project, Jayakwadi (Sindaphana) Project Stage I and Ghirni River Project.

## EMPLOYEES' STATE INSURANCE SCHEME

The following particulars show the position as on Dec. 31, 1963 in relation to the Greater Bombay and Vidarbha Region where the scheme is in force.

Total No. of insured workers: 8,22,028 (Bombay).

Total number of panel doctors: 1,607 (1,141 Allopathic, 466 Ayurvedic and Unani).

Total attendance at the Insurance Medical Practitioners' dispensaries during the year 49,79,694 in respect of I.P.s and 19,17,955 in respect of family members.

Total number of general beds sanctioned: 780.

Total T.B. beds sanctioned: 620.

Number of diagnostic centres: 11; number of ambulances: 3.

Number of persons X-Rayed: 32,214.
Number of Screening done: 11,678.
Number of approved chemists: 136.
Number of E.S.I.S. Medical Stores: 4.
Number of costly drugs: 241.

In Greater Bombay, including the talukas of Kalyan, Thana and Bhiwandi, the benefits of the E.S.I. Scheme have been extended to cover the families of over 7,00,000 of insured workers from Jan. 1962. This would afford cover in case of sickness and maternity to all their family members, old and young.

The Rs. 167-lakh Mahatma Gandhi Memorial Hospital for industrial workers covered by the E.S.I.C. in Bombay started functioning from March 29, 1962, has a total bed strength of 642.

In the eight districts of Vidarbha the scheme has so far been implemented in three towns: Nagpur, Akola and Hinganghat.

Number of Insured Persons covered under the scheme as on 31-12-1963: 48,954.

Number of family units registered: 44,000.

Number of family members under benefits: 75,929.

Total number of Insured Persons treated as on 31-12-1963: 6,87,961.

Diagnostic and special treatment is provided at the Mayo Hospital and the Medical College Hospital, Nagpur.

General medical treatment is provided under the service system, that is, in the State Insurance Dispensaries.

The number of beds reserved in Nagpur: 80 (includes 25 T.B. and 10 maternity beds); in Akola 5, in Hinganghat 6.

In addition to the above five, five more T.B. beds are reserved in the T.B. Sanatorium at Buldhana, for Akola and 5 T. B. beds for Hinganghat at Mayo Hospital, Nagpur.

The Employees' State Insurance Scheme has been extended to the families of insured workers at Nagpur, Akola and Hinganghat on Dec. 22, 1960, May 1, 1961 and Oct. 19, 1961 respectively.

The Scheme has been extended to Sholapur with effect from 17th Nov. 1963 and to Poona from 15th Aug. 1965.

The Offices concerned are:

1. Employees' State Insurance Corporation, Bombay Regional Office, Colaba Causeway, Bombay 5.
2. Administrative Medical Officer, the Employees' State Insurance Scheme, Maharashtra State, 103, Sion, Bombay 22.
3. Administrative Medical Officer, Employees' State Insurance Scheme, Vidarbha Region, Nagpur.
4. Administrative Medical Officer, Employees' State Insurance Scheme, Western Maharashtra Region, Poona.

# EDUCATION—(*Contd.*)

## UNIVERSITY EDUCATION

Position on 31st December 1963 :—

No. of Universities : 55.

No. of Institutions deemed to be Universities :† 7. Arts, Science & Commerce colleges 1,418. Total no. of students (excluding Intermediate Board of Education in U.P.): 11,84,697. No. of professional colleges : 693.

Figures as on March 31, 1963 :

No. of Colleges 1,938 (university colleges 133 ; affiliated colleges 1,805). These figures do not include colleges under Intermediate Boards. Number of Arts, Science and Commerce colleges 1,283 (university colleges 73 ; affiliated colleges 1,210).

The total number of Women's colleges that came up in 1962–63 was 24 thus raising the total of such colleges to 235.

Total enrolment of students in the universities and colleges rose to 12,72,666 which showed an increase of 10·5 per cent *i.e.* 1,17,266 over the enrolment for 1961–62. Out of 12,72,666 about 2.23 lakhs were women students. Total number of teachers in the universities and colleges : 66,370 including tutors and demonstrators but exclusive of teachers in intermediate colleges.

The Third Plan allotment, for development of University Education, to be placed at the disposal of Univ. Grants Commission, was Rs. 37 crores. This is exclusive of the allocation for Engineering and Technology at the Universities.

The policy in regard to university education is largely the one recommended by the Indian University Education Commission which made a report in 1949. (This report is summarized in a previous edition.)

There is now a University Grants Commission. (See also the note below.) Its duty is to take such steps as it thinks fit for the promotion and co-ordination of university education and for the determination and maintenance of the standards of teaching, examination and research.

The U.G.C. continued its grant giving activities during 1963–64 and grants were released not only for development schemes in the various fields under Humanities, Science and Technology, but also assistance was given to universities and colleges towards the implementation of minor projects like establishment of Students Aid Fund, Hobby Workshop, construction of Health Centres, Non-resident student centres, purchase of library books, etc.

*Admissions :* The U.G.C. has suggested to the universities that for the present, as a first step, the minimum age of 16 might be prescribed for admission to the first degree course in arts, science and commerce. A majority of the universities have accepted the suggestion.

### Universities

There are in all 62 universities in India. The University Grants Commission has appointed a committee to prepare a broad outline plan for the new Universities to be established during the Third Plan period, taking into account the requirements of the country and the resources available for the purpose.

The Central Universities are four : Aligarh, Banaras, Visva Bharati and Delhi.

It may be mentioned here that for purposes of employment under the Central Government the degrees and diplomas of various institutions besides the universities mentioned below are recognized.

Among the institutions are : Gurukul Vishwa Vidyalaya, Hardwar; Jamia Millia Islamia, Delhi; Kashi Vidyapith, Varanasi ; Gujarat Vidyapith (degrees awarded during 1920-22) ; Tilak Maharashtra Vidyapith, Poona (degrees awarded prior to 1932) ; Tata Institute of Social Sciences, Bombay ; National Council of Rural Higher Education ; and Qaumi Vidyapith, Lahor degrees awarded upto 1927).

The names of the Universities with the names of Vice-Chancellors are given below :—

*Agra University.*—Dr. Ranjan.
*Aligarh University.*—Dr. Nawab (Mirza Ali Yar Khan) Ali Yavar Jung Bahadur, B.A. (Hons.), (Oxford.), Padma Bhushan.
*Allahabad University.*—R. K. Nehru.
*Andhra University.* (Waltair).—Dr. A. L. Narayana, M.A., D.Sc., F.I.P.
*Andhra Pradesh Agricultural University* (Hyderabad) : O. Pulla Reddy, I.C.S. (Rtd.).
*Annamalai University* (Annamalainagar).—Dr. C. P. Ramaswami Aiyar.
*Banaras Hindu University.*—M. C. Bijawat, (Acting).
*Bangalore University.*—T. V. Janakiraman.
*Bhagalpur University.*—Dr. B. N. Singh.
*Bihar University* (Muzaffarpur).—Dr. P. L. Srivastava.
*Bombay University.*—P. B. Gajendragadkar, M.A., LL.B.
*Burdwan University.*—B. K. Guha, I.C.S. (Retd.).
*Calcutta University.*—Bidhubhusan Malik.
*Delhi University.*—Dr. C. D. Deshmukh.
*Gauhati University.*—M. N. Goswami.
*Gorakhpur University.*—Prof. Madan Mohan.
*Gujarat University* (Ahmedabad).—Lalbhai Ratanji Desai, B.A., B.T., T.D. (Lond.).
*Indira Kala Sangeet Vishvavidyalaya* (Khairagarh).—P. N. Chinchore, M.A.M. Mus.
*Indore University.*—H. S. Kamath.
*Jabalpur University* (Jabalpur).—Dhirendra Verma.
*Jadavpur University* (Calcutta 32).—Dr. T. Sen, Eng. (Munich), M.I.E. (Ind.).
*Jammu & Kashmir University* (Srinagar).—T. M. Advani, M.A., LL.B.
*Jawaharlal Nehru Krishi Vishwavidyalaya, Jabalpur.*—Dr. J. S. Patel.
*Jiwaji University, Gwalior.*—S. S. Bhandarkar.
*Jodhpur University.*—Dr. Ram Behari.
*Kalyani University.*—Dr. S. N. Das Gupta.
*Kameshwar Singh Darbhanga Sanskrit Vishwavidyalaya* (Darbhanga). Mahamahopadhaya S. V. Sohoni.
*Karnatak University* (Dharwar).—D. C. Pavate, M.A. (Cantab.).
*Kerala University* (Trivandrum).—Samuel Mathai.
*Kurukshetra University* (Kurukshetra).—Bhool Chand.
*Lucknow University.*—Dr. A. V. Rao.
*Madras University.*—Lt.-Col. Diwan Bahadur Sir A. Lakshmanaswami Mudaliar, B.A., M.D., LL.D., D.Sc., D.C.L. (Oxon), D.Litt., F.R.C.O.G., F.A.C.S.
*Magadh University.*—Zawar Hussain.
*Maharaja Sayajirao Univ. of Baroda.*—Dr. C. S. Patel, B.A., M.Sc. (Bom.), Ph. D. (Leeds.).
*Marathwada University* (Aurangabad).—Dr. N. R. Tawde ; B.A. (Hons.), B.Sc. (Bom.), M.Sc. (Bom.), Ph.D. (Lond.), F. Inst. P., F.N.I., F.A.Sc.
*Mysore University.*—Dr. K. L. Shrimali, M.A., Ph.D.
*Nagpur University.*—P. P. Deo.
*North Bengal University* (Siliguri).—B. N. Das Gupta.
*Orissa University of Agriculture and Technology* (Bhubaneswar).—M. C. Pradhan (President).
*Osmania University* (Hyderabad).—Dr. D. S. Reddi. M.A. (Oxon.).
*Punjab University* (Chandigarh).—Suraj Bhan, M.A. (Pb.) ; M.A. (Lond.).
*Patna University.*—Dr. K. K. Datta.
*Poona University.*—Vacant.
*Punjab Agricultural University* (Ludhiana).—P. N. Thapar.
*Punjabi University* (Patiala).—Kirpal Singh Narang.
*Rabindra Bharati* (Calcutta).—H. Banerji.
*Rajasthan University* (Jaipur).—Dr. Mohan Sinha Mehta, M.A., LL.B., Ph.D., Bar-at-Law.
*Ranchi University.*—Sarangdhar Sinha.
*Ravishanker University, Raipur.*—Dr. B. R. Saxena.
*Roorkee University.*—G. Pande, I.S.E. (Retd.).
*Sardar Vallabhbhai Vidyapeeth* (Vallabh Vidyanagar, Kaira Dist., Gujarat).—I. J. Patel, M.A., B.T.
*Saugar University.*—Dr. M. P. Sharma.
*S. N. D. T. Women's University* (Bombay).—Dr. (Smt.) Premlila V. Thackersey, D.Litt. (Banaras).
*Shivaji University* (Kolhapur).—Dr. A. G. Pawar.
*Sri Venkateswara University* (Tirupati, Andhra). —Dr. V. C. Vaman Rao, M.A., Ph.D. (Dublin).
*U. P. Agricultural University* (Pant Nagar).—Rai Bajrang Bahadur Singh.
*Udaipur University* (Udaipur)—Dr. G. S. Mahajani, B.A. (Bom.), M.A. (Cantab.), Ph.D. (Cantab.).
*University of Agricultural Science, Hebbal, Bangalore.*—Dr. K. C. Naik.
*Utkal University* (Bhubaneswar).—Dr. P. K Parija, M.A. (Cantab.), I.E.S. (Retd.), F.N.I.
*Varnaseya Sanskrit Vishvavidyalaya* (Varanasi). —S. N. M. Tripathi.
*Vikram University* (Ujjain).—N. D. Vajpeyi.
*Visva Bharati University* (Santiniketan).—Sudhi Ranjan Das, Barrister-at-Law, LL.D.

Names of institutions deemed to be universities :

*Birla Institute of Technology and Science, Pilani.* —Director : Prof. V. Lakshmi Narayan.
*Gujarat Vidyapith* (Ahmedabad): *Vice-Chancellor :* Thakorbhai Desai.
*Gurukul Kangri Vishvavidyalaya* (Hardwar): *Vice-Chancellor :* Col. Satyavrata Sidhantalankar.
*Indian Agricultural Research Institute* (New Delhi): *Director :* Dr. B. P. Pal.
*Indian Institute of Science* (Bangalore): *Director :* Dr. S. Dhawan.
*Indian School of International Studies* (New Delhi) : *Director :* Dr. M. S. Rajan.
*Jamia Milia Islamia* (New Delhi): *Vice-Chancellor :* Prof. M. Mujeeb.
*Kashi Vidyapith* (Varanasi): *Vice-Chancellor :* Birbal Singh.
*Tata Institute of Social Sciences* (Bombay): Vice-Chancellor : M. S. Gore.

The following are some of the major Schemes, being implemented during the Third Plan period out of assistance from the University Grants Commission.

(1) Institution of permanent Chairs or Lecturerships named after Dr. Rabindra Nath Tagore in selected Universities ; (2) Setting up of Film Clubs in Universities ; (3) Schemes for teaching languages of other regions ; (4) Research in Social Tensions ; (5) Research in Social Welfare ; (6) Collection, preservation and utilisation of manuscripts in university libraries ; (7) Scheme for publication of approved research or learned research works ; (8) Extension work by University teachers ; (9) Establishment of Priority Presses in Universities ; (10) Construction of staff clubs-cum-guest houses ; (11) Development of Museology in Indian Universities ; (12) Development of Department of Archaeology in selected universities ; (13) Development of Linguistic Studies in universities; (14) Establishment of Advance Centre of Studies ; (15) Organisation of Summer Institutes and Seminars ; (16) Establishment and improvement of Central Workshops in Universities ; (17) Development of Post-graduate Education in Science subjects in selected affiliated Colleges ; (18) Scheme for setting up Industrial Estates in selected universities ; (19) Construction of Gandhi Bhawans in selected universities ; (20) Scheme for scholarships for study of regional languages ; (21) Grants to affiliated Colleges for :—(*a*) Non-Resident Students' Centres (Maximum

† Indian Agricultural Research Institute, New Delhi ; Indian Institute of Science, Bangalore ; Indian School of International Studies, New Delhi ; Jamia Millia Islamia, New Delhi ; Gujarat Vidyapeeth, Ahmedabad ; Kashi Vidyapeeth, Varanasi and Gurukula Kangri Vishwavidyalaya, Hardwar.

Rs. 35,000); (*b*) Hobby Workshops (Maximum Rs. 20,000); (*c*) Construction of Hostels (50 : 50); (*d*) Extension of Libraries, including purchase of books (2/3 : 1/3); (*e*) Extension of Laboratories and purchase of equipment after taking into account the assistance that may have been given or may be given under the Three-Year Degree Course Scheme (2/3 : 1/3); (*f*) Construction of staff quarters (50 : 50); and Revision of salary scales of teachers in Universities and affiliated colleges.

Under a programme jointly sponsored by the Gandhi Smarak Nidhi and University Grants Commission, Gandhi Bhawans are to be set up in universities to promote and facilitate the study of Gandhiji's ideals and his way of life. Initially, construction of Gandhi Bhawans is to be undertaken in nine universities including Delhi, Kerala, Allahabad, Andhra, Karnatak, Mysore, Punjab, Nagpur and Rajasthan.

The total cost of the building at Delhi University, which has been designed by Stein, Chatterjee and Polk, architects, is estimated at Rs. 1,60,000 which will be shared between the Gandhi Smarak Nidhi and University Grants Commission.

The main object in establishing these Bhawans is to provide within the university campus a suitable place to keep Gandhian literature; to hold study classes and discussions on the life, ideals and work of Mahatma Gandhi; to arrange for lectures on these topics and to encourage students to undertake such items of constructive work as can be done inside or close to the campus, which will reflect the ideas and methods of work indicated by Mahatma Gandhi.

The University Grants Commission has selected 39 colleges from 17 universities, which fulfil the prescribed conditions, for introducing the scheme of hobby workshops.

The universities are: Agra, Andhra, Bombay, Calcutta, Delhi, Gauhati, Gorakhpur, Gujarat, Kerala, Madras, Mysore, Nagpur, Punjab, Poona, Rajasthan, Saugar and S. V. Vidyapeeth.

So far, assistance has been given for the establishment of 13 workshops in universities and 68 in colleges. During 1962-63, the U.G.C. paid Rs. 1,82,840 to colleges and Rs. 29,767 to universities for the establishment of hobby workshops.

**Medium of Regional Languages in Universities**

The progress made so far (Aug. 1962) in respect of imparting education through the medium of the regional languages in the universities:

Out of 58 universities, 34 provided facilities for teaching through the medium of Hindi or regional languages. Students of these universities were allowed to answer question papers in Hindi or in the regional languages.

Four universities — Agra, Banaras, Jabalpur and Vikram — offered courses in Hindi up to M.A. and M.Com. standards. Seventeen universities — Aligarh, Allahabad, Bhagalpur, Bihar-Delhi, Gorakhpur, Indra Kala Sangeet, Kurukshetra, Lucknow, Magadh, Osmania, Patna, Punjab, Rajasthan, Ranchi, Varanaseya Sanskrit Vishwavidyalaya and Saugar — provided facilities for examinations in Hindi up to the degree level.

Thirteen other universities — Bombay, Burdwan, Calcutta, Gujarat, Kalyani, Madras, Marathwada, M. S. University of Baroda, Nagpur, Poona, Sardar Vallabhbhai Vidyapith, S.N.D.T. and Visvabharati—permitted the use of regional languages for instructions up to the degree level.

Twelve universities — Andhra, Annamalai, Gauhati, Jadavpur, Jammu and Kashmir, Karnatak, Kerala, Mysore, Roorkee, Sri Venkateswara, U.P. Agricultural and Utkal — continue to provide teaching examination through the medium of English.

Information on the medium of instruction was still awaited from 12 universities — Agricultural University, Ludhiana, Punjabi University, Patiala, Jodhpur University, Jodhpur, Rajasthan Agricultural University, Udaipur, Rabindra Bharati, Calcutta, North Bengal University, Siliguri, K. S. Darbhanga Sanskrit University, Indian Institute of Science, Bangalore, Indian Agricultural Research Institute, New Delhi, Indian School of International Studies, New Delhi, Gurukula Kangri Vishwavidyalaya, Hardwar and Jamia Millia Islamia, New Delhi.

Thirteen universities had adopted Hindi as the medium of instruction in different courses, the names of which are Banaras, Bhagalpur, Bihar, Indra Kala Sangeet Vishwavidyalaya, Jabalpur, Jodhpur, Lucknow, Magadh, Patna, Ranchi, Sardar Vallabhbhai Vidyapeeth, Saugar and Vikram.

## AWARDS—(*Contd.*)

Prokash Karmakar, J. Sultan Ali, Ambadas, D. K. Das Gupta, Bal Chhabda, Surya Prakash, Ram Singh Bawa, M. K. Bardhan, K. S. Kulkarni and P. V. Janakiram have been selected for Lalit Kala Akademi awards for 1966.

Eleven artistes have been selected for the Sangeet Natak Akademi awards and five for the Akademi fellowships for 1964-65. The awards include 3 for dance and four each for drama and music.

Twenty five master craftsmen have been selected for the National Awards in 1966.

## CIVIL AVIATION

During Jan.–June 1965, I.A.C. flew 16,402,275 kilometres, carrying 6,45,817 passengers, 11,051, 823 kilograms of cargo and 4,674,636 kilograms of mail. Air India flew 8,326,843 kilometres with 102,287 passengers, 3,863,928 kilograms of cargo and 452,025 kilograms of mail during Jan.-June 1965.

## COLOMBO PLAN

The fourteenth annual report of the Colombo Plan for Technical Co-operation in South and South-East Asia, shows that total expenditure in 1964–65 on the provision of experts, training places and technical equipment rose to £39,500,000 compared with £36,400,000 the previous year.

Training places provided rose from 4,551 in the previous year to 4,920, bringing the total number of trainees who have acquired specialised training since the plan began to 37,966.

A record total of 1,186 experts took up new assignments in the year, and technical equipment to the value of £14,700,000 was provided. This brought the cumulative expenditure for equipment to £84,500,000.

Member countries are: Australia, Britain, Canada, Ceylon, India, New Zealand, Pakistan, Cambodia, Laos, America, Vietnam, Burma, Nepal, Indonesia, Japan, Philippines, Thailand, Malaysia, Singapore, Bhutan, Korea, Afghanistan and the Maldive Islands.

## FOOD CORPORATION

Mr. K. T. Chandy has been appointed Chairman, Food Corporation of India with effect from Feb. 1966 in place of Mr. T. A. Pai, who had resigned.

## INSURANCE

New business completed by Life Insurance Corporation during the first seven months of 1965-66 amounted to Rs. 291 crores, showing an increase of Rs. 18·75 crores over the corresponding period last year.

Foreign business amounted to Rs. 3·86 crores.

The number of policies issued stood at 5·97 lakhs. For the same period the number of people insured during 1964-65 was 5·69 lakhs.

## MINES AND MINERALS

The total foreign exchange earned by India through the export of ores and minerals (including those from Goa) during January-April 1965 was Rs. 287 millions against Rs. 280 millions during January-April last year, showing an increase of Rs. 7 millions.

The value of imports of ores and minerals amounted to Rs. 65 millions during January-April 1965 against Rs. 50 millions in the corresponding period last year.

## MISCELLANEOUS INDUSTRY

The Government of India have not accepted the recommendation of the Tariff Commission for continuance of protection to the Ball Bearings Industry beyond Dec. 31, 1965.

## POPULATION

According to a United Nations report issued in Nov. 1965, India's population was 471,624,000 in mid-1964.

# COMMUNITY DEVELOPMENT—(*Contd.*)

## ACHIEVEMENT (STATE-WISE)

*Average achievement (State-wise) per block (for 1964–65.)*

| States/Territories | Agriculture | | | | | Animal Husbandry | | |
|---|---|---|---|---|---|---|---|---|
| | Improved seeds distributed Mds. | Chemical fertilizers distributed Mds. | Improved implements distributed Nos. | Agricultural demonstrations Nos. | Compost pits dug Nos. | Improved animals supplied Nos. | Improved birds supplied Nos. | Animals castrated Nos. |
| Andhra Pradesh* | 14,34,277 | 99,99,046 | 45,947 | 2,33,982 | 1,15,650 | 3,267 | 87,281 | 2,52,879 |
| Assam[4] | 725 | 130 | 113·7 | 55·8 | 1,172 | 9·9 | 39 | 458 |
| Bihar* | 6,34,530 | 16,70,889 | 27,515 | 98,377 | 2,01,137 | 1,753 | 36,263 | 27,830 |
| Gujarat* | 6,00,924 | 21,83,319 | 32,613 | 21,806 | 45,853 | 1,473 | 24,960 | 25,038 |
| Jammu & Kashmir* | 6,450[2] | 50,318[2] | 1,159 | 5,275 | 17,093 | 32 | 3,090 | 18,954[1] |
| Kerala | 14·6[5] | 59,649[5] | 7,957 | N.A. | 88,761 | 116 | 89,014 | 25,627 |
| Madhya Pradesh | 1,180[3] | 2,395[3] | 44 | 304·26 | 1,663·19 | 5·17 | 125·79 | 943·94 |
| Madras | 18·43[5] | 377·09[5] | 272·66 | 198·36 | 388·19 | 330·87 | 167·48 | 345·77 |
| Maharashtra | 1,953 | 11,916 | 29 | 218 | 520 | 6 | 305 | 598 |
| Mysore* | 6,51,436 | 7,15,726 | 7,354 | 23,858 | 13,820 | 228 | 9,247 | 90,906 |
| Orissa** | 7,21,755 | 3,47,171 | 3,711 | 4,767 | 2,57,249 | 7,149 | 19,541 | 4,74,820 |
| Punjab | 9,387[2] | 12,333[2] | 1,177 | 603 | 1,412 | 24 | 828 | 1,204 |
| Rajasthan* | 6,417 | 171 | 357 | 126 | 396 | 20 | 279 | 1,285 |
| Uttar Pradesh | 3,491·05 | N.A. | 283·12 | 182·45 | 4,665·25 | 7·72 | 41·48 | 816·83 |
| West Bengal | 576[3] | 6,267[3] | 49 | 152 | 1,447 | 5·6 | 108 | 27 |
| Union Territories[1] | 362 | 1,317 | 83 | 118 | 386 | 4·6 | 141 | 537 |

## ACHIEVEMENT (STATE-WISE) Table (Contd.)

| States/Territories | Social Education | | | | | | | | Health & Rural Sanitation | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Adult literacy centres Nos. | Adults made literate Nos. | Youth and Farmers' Clubs: Reading Rooms Nos. | Youth and Farmers' Clubs Nos. | Youth and Farmers' Clubs: Members | Mahila Samitis Nos. | Mahila Samitis: No. of members | Balwadies Nurseries Nos. | Rural latrines Nos. | Drains constructed Yds. |
| Andhra Pradesh* | 1,799 | 25,832 | 1,132 | 3,511 | 87,612 | 3,647 | 61,070 | 199 | 12,289 | 1,26,556 |
| Assam[4] | 12·8 | 218·3 | 12·3 | 20·5 | 417·5 | 7·4 | 152·8 | 3·6 | 101 | N.A. |
| Bihar | 754 | 26,904 | 770 | 997 | 13,482 | 685 | 12,099 | N.A. | 6,156 | 1,398 |
| Gujarat* | 672 | 11,953 | 253 | 948 | 17,920 | 425 | 8,974 | N.A. | 3,137 | 12,287 |
| Jammu & Kashmir* | 46 | 1,042 | 89 | 453 | 7,873 | 64 | 967 | 30 | 562 | 642[3] |
| Kerala | 90 | 2,472 | 212 | 629 | 24,491 | 266 | 21,681 | 257 | 10,740 | 1,429[3] |
| Madhya Pradesh | 4·29 | 78·69 | 3·0 | 35·0 | 479·0 | 18·78 | 253·3 | 2·82 | 19·93 | 142·28 |
| Madras | N.A. | 50·40 | 4·97 | 5·90 | 74·13 | 6·44 | 139·59 | 0·17 | 5·12 | 80·29 |
| Maharashtra | 74 | 1,134 | 7 | 7 | 216 | 4 | 90 | 1 | 20 | 170 |
| Mysore* | 172 | 2,611 | 197 | 272 | 6,158 | 60 | 1,765 | 71 | 236 | 10.362 |
| Orissa** | 2,882 | 40,609 | 1,168 | 2,298 | 67,638 | 2,568 | 52,160 | 107 | 7,831 | 6,124 |
| Punjab | 4 | 66 | 4 | 4 | 95 | 7 | 126 | 3·9 | 14·3 | 1,853[3] |
| Rajasthan* | 46 | 401 | 3 | 5 | N.A. | N.A. | N.A. | N.A. | 7 | 75 |
| Uttar Pradesh[4] | 13·19 | 300·87 | 2·87 | 13·42 | N.A. | 6·56 | 106·25 | 9·25 | 26·97 | 1·626 |
| West Bengal | 3·8 | 110 | 2·6 | 3·9 | 101 | 1·8 | 47 | 0·8 | 8 | 24 |
| Union Territories[1] | 14 | 293 | 3·1 | 7·2 | 144 | 4·0 | 84 | 3·0 | 41 | 830 |

## Table (Concld.)

| States/Territories | Health & Sanitary | | Communications | | | Village & Small-scale Industries | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Drinking water wells constructed Nos. | Drinking water wells renovated Nos. | Kacha roads constructed Miles | Existing kacha roads improved Miles | Culverts constructed Nos. | Ambar Charkas introduced | Bricks manufactured Nos. | Sewing machines distributed Nos. | Improved ghanis introduced Nos. |
| Andhra Pradesh* | 4,938 | 4,666 | 1,629 | 1,204 | 3,537 | 395 | 14,76,30 | 475 | 18 |
| Assam[4] | 23·6 | 23·3 | 21·6 | 38·8 | 25·6 | 1,500 | 42·4 | 5·2 | 0·7 |
| Bihar | 2,231 | 1,176 | 125 | 247 | 1,217 | 1,180 | 14,15,318 | 73 | N.A. |
| Gujarat* | 779 | 942 | 586 | 2,808 | 244 | N.A. | N.A. | N.A. | N.A. |
| Jammu & Kashmir* | 135 | 266 | 233[4] | 185[4] | 360 | 120 | 9.18,000 | 2 | 4 |
| Kerala | 1,071 | 760 | 542[4] | 662[4] | 282 | 186 | 24,63,727 | 144 | 5 |
| Madhya Pradesh | 13·63 | 16·29 | 7·00[4] | 17·00[4] | 0·87 | 56·00 | 7,35,076 | 5·59 | 0·35 |
| Madras | 6·94 | 4·83 | 6·04[4] | 5·81[4] | 6·21 | 2·86 | 2.57,240 | 1·47 | N.A. |
| Maharashtra | 7 | 6 | 4 | 4 | 3 | 1 | 9,00,000 | 5 | 3 |
| Mysore | 403 | 335 | 342 | 307 | 166 | 419.000 | N.A. | 182 | 22 |
| Orissa** | 3,203 | 1,499 | 3,523[4] | 5,057[4] | 514 | 382 | 3,10,535 | 844 | 6 |
| Punjab | 6·5 | 6·25 | 18·8 | 22·6[4] | 34·5 | 0·38 | 2,212 | 6·9 | N.A. |
| Rajasthan | 7 | 11 | 3 | 4 | N.A. | 2 | N.A. | N.A. | N.A. |
| Uttar Pradesh[4] | 20·65 | 29·17 | 88·58[4] | 26·46[4] | 10·03 | N.A. | N.A. | N.A. | N.A. |
| West Bengal | 5 | 11 | 15[4] | 10[4] | 8·8 | 0·4 | 3,94,000 | 0·4 | 0·1 |
| Union Territories[1] | 11 | 6·4 | 15 | 15 | 10 | 0·8 | 432 | 6·6 | 0·3 |

* Figures are for all the Blocks in the State.
[1]Figures are for 1961–62.
[2]Figures are in Quintals.
[3]No. of metres.
[4]Kilometres.
[5]M. tons.
[6]Figures are for 1963–64.

# MERCHANT NAVY TRAINING BOARD

Commerce House, Ballard Estate, Bombay 1.

At present there are six training establishments in India for the training of Merchant Navy personnel. These institutions are run by the Government of India. The Dufferin was set up in 1927. It provides a pre-sea training course of 2 years for navigating cadets. The annual output of the Dufferin is 80. Efforts are being made to replace the existing training ship by a new one when the annual intake is proposed to be increased from 80 to 125. The Directorate of Marine Engineering Training was set up in 1948. It provides a four years pre-sea course for engineering cadets. Its present intake is 100 cadets per annum but efforts are being made to increase it to 150 before long. The Nautical and Engineering College provides post-sea instructional courses for both navigating and engineering cadets and apprentices who are preparing for Ministry of Transport Certificate of Competency Examinations. There is no limitation as to the intake of this institution and all cadets who have completed their pre-sea training followed by requisite sea service and apprentices who are otherwise eligible to appear for certificate of competency examination are granted admission in the College. The Training Ship Bhadra, the Training Ship Mekhala and the Training Ship Naulakshi are ratings training establishments. The first two were started in 1950 while the third one was started in 1955. These institutions provide a three months' course for deck, engineroom and saloon ratings. The Government are presently considering a proposal to extend the period of training to four months to intensify the training of ratings. The combined monthly intake capacity of these institutions is 140 trainees but the actual number of admissions is varying from time to time, according to the needs of the industry. Till 31st March 1965 the Government have spent about 5·31 crores on all these institutions and about 26,000 candidates have been trained in them, since 1947.

In 1959, the Govt. of India set up the Merchant Navy Training Board, an advisory body comprising the representatives of Parliament, shipowners, seafarers, Port Trusts, Chambers of Commerce and Government, for advising Government on all matters pertaining to the training of Merchant Navy personnel. The Board is reconstituted every two years and the term of the present Board expires by July 1967. The Principal, Nautical and Engineering College, Bombay is the Member Secretary of the Board and its address is C/o Nautical and Engineering College, Hay Bunder, Tank Road, Bombay 33.

With a view to focussing attention of general public on the problems connected with the life and service of seafarers, and the role they play in promoting the economy, it was decided to observe National Maritime Day on the 5th of April every year, commencing from the year 1964. The celebrations of the year 1965 which is the year of International Cooperation, are very significant in that foreign diplomats, foreign shipping interests and other non-Indian interests connected with the Shipping, participated in the celebrations.

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# ALL INDIA CORPORATIONS—(*Contd.*)

## THE INDUSTRIAL FINANCE CORPORATION OF INDIA

(Head Office: Reserve Bank Building, 6, Parliament Street, New Delhi.

Authorised Capital: Rs. 10 crores; Issued and Paid-up Capital: 8·35 crores.

Board of Directors: A. Baksi (Chairman), S. Ranganathan, S. S. Shiralkar, Charat Ram, S. R. Vasavada, M. V. Jathur, K. C. Mittra, B. K. Dutta, S. D. Srinivasan, Smt. Raksha Saran, P. S. Rajagopal Naidu, N. A. Kalyani.

C. A. Subrahmanyam (General Manager), C. D. Khanna (Secretary), Baldev Pasricha (Comptroller).

The effective rate of interest charged on both rupee loans and sub-loans in foreign currencies—U.S. Dollars, Deustche Marks and French Francs—is 8 per cent per annum.

Total assistance sanctioned by the I.F.C. upto 30th June, 1965 is Rs. 226·96 crores in respect of 774 applications from 390 industrial units out of which assistance to the extent of Rs. 156·37 crores had been disbursed. Total assistance outstanding on 30th June 1965 aggregated Rs. 117·15 crores.

During 1964-65, 134 applications aggregating Rs. 33·44 crores were sanctioned to 98 industrial units. This was made up of rupee and foreign currency loans of Rs. 26·03 crores, underwriting of Rs. 4·59 crores and guarantee for deferred payments and for loans from abroad of Rs. 2·82 crores. The quantum of assistance disbursed during the year was Rs. 31·92 crores out of which cash outgoings amounted to Rs. 21·96 crores. The corresponding figures for the preceding year were Rs. 21·88 crores and Rs. 17·99 crores respectively.

The gross income for the year was Rs. 612·56 lakhs as against Rs. 507·28 lakhs for the preceding year. Deducting interest of Rs. 342·02 lakhs on borrowings and other expenses of Rs. 28·33 lakhs, the gross profit was Rs. 242·21 lakhs from which a sum of Rs. 110·79 lakhs was provided for taxation. The net profit, for the year, came to Rs. 131·42 lakhs as against Rs. 125·44 lakhs for the preceding year.

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# STATE CORPORATIONS—(*Contd.*)

## ORISSA INDUSTRIAL DEVELOPMENT CORPORATION

(A Govt. of Orissa Undertaking)
Bhubaneswar.

The Industrial Development Corporation of Orissa Limited has been registered as a Public Limited Company with an authorised capital of Rs. 50 crores in March, 1962.

All the shares in this Company are held by the Government of Orissa and their nominees.

During these three years of its existence the Corporation has taken up a number of projects. These projects are intended to lay a firm base of the heavy and medium industries by utilisation of raw material resources and skills available in this State. At present the Corporation has two running industries—(1) Kalinga Iron Works and (2) Hirakud Industrial Works.

The Kalinga Iron Works at Barbil in the district of Keonjhar is engaged in the manufacture of superior foundry grade pig iron. The existing plant has a noted capacity of 30,000 tonnes of pig iron per annum. The expansion programme taken in hand would increase the production capacity to one lakh tonnes per annum. The expansion programme provides for conversion of a part of the pig iron for the manufacture of 36,000 tonnes of Spun Pipes and 6,000 tonnes of special castings and generation of 12 MW of power by utilising blast furnace gases.

The Hirakud Industrial Works, taken over from the Government of Orissa in November, 1962 is a structural and fabrication workshop and is engaged in the manufacture of small machines like Pug Mills, Tile Presses, Rice Hullers, Crystal Sugar Plants, Machinery and equipments required for rural industrialisation, sheep-foot rollers, Pen-stock head gates, Irrigation Canal Shutters, screw rods and fabrication of high tension electric transmission line towers.

The Hirakud Workshop has also got a railway siding over a distance of 8 miles approximately connected to Sambalpur station with Hirakud.

This siding handles the Railway traffic for the Hirakud Industrial Works, The Indian Aluminium Company and the Government of Orissa.

In addition to the running Units stated above, the Corporation has taken up a number of major industrial projects like establishment of a Cement Factory, Re-rolling Mill, an Electrical Cable Industry, Ferro-Chrome Plant, a Mangalore Pattern making Tile Factory. At present, these are under erection and construction.

The Corporation is contemplating to promote two subsidiary Companies—one for the manufacture of Industrial Grade Salt and a Power Tillers Plant. A complex unit to manufacture low temperature Coke, Pig Iron, Nitrogenous Fertiliser and many other by-products, Vanadium Pig Iron and Ferro Vanadium. The Corporation will also be the State Government's agency to plan and execute the Panchayat Samiti Industries by putting up a Plant for the manufacture of building boards out of the rice straws and an Engineering Industry.

*Chairman:* D. L. Purkhayastha, I.A.S.; *Secretary:* A. K. Biswal, O.A.S.

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# GOVT. INDUSTRIAL UNDERTAKINGS—(*Contd.*)

## GARDEN REACH WORKSHOPS LTD.

**43/46, Garden Reach, Calcutta 24.**

Garden Reach Workshops were originally established in 1916 as a partnership Company combining the interests of The Rivers Steam Navigation Co. Ltd., and The British India Steam Navigation Co. Ltd. Successors to the partnership Company, Garden Reach Workshops Private Ltd., were acquired in April 1960 by the Government of India in the Ministry of Defence.

The site of Garden Reach Workshops covers 64 acres with a river frontage of half a mile and offers slipway and dry-dock facilities for inland water craft up to 2,000 tons and building berths for shallow-draft vessels up to 1,200 tons launching weight. Repairs to deep sea vessels are handled in the stream and in dry-docks and repair berths allotted by the Commissioners for the Port of Calcutta.

The Workshops are fully equipped to undertake marine repairs of all descriptions and having modern Machine Shops and Foundries. The Workshops have become an important industrial unit in the field of general engineering, especially in connection with the manufacture of overhead Travelling Cranes, Deep Well Turbine Pumps, Colliery Haulages and Chain Conveyors. Other established activities include production and repair of electric motors up to 50 H.P., complete electrical contracting, pattern-making, chain-testing up to 100 tons, saw-mill and timber processing and vitreous enamelling of cast iron etc. Complete servicing facilities are available for M.A.N. Diesel Engines.

The Workshops have a development programme which includes the manufacture of ROAD ROLLERS of 8-10 ton capacity and ROTARY-VANE AIR-COMPRESSORS of 160 cfm, 250 cfm, 340 cfm and 600 cfm. It is expected that both these products will be in the market during 1966. The programme also envisages the setting up of facilities for the construction of Coastal Ships and the construction of dry dock within the Workshops for repair of ocean-going ships.

The Workshops employ approximately 5,000 workmen throughout the year and proper attention is also given to the training of apprentices, for eventual absorption by the Workshops and other industrial units.

**The Company has made a profit of Rs. 12·89 lakhs in 1964-65 after providing for normal depreciation.**

**Repairs, new construction and engineering sales for the year under review amounted to Rs. 268·69 lakhs.** The company repaired a total of 488 ocean ships during 1964-65.

## HINDUSTAN CABLES LIMITED

**Ministry of Industry and Supply**
**Govt. of India.**

**(P. O. Hindustan Cables,**
**Rupnarainpur Rly. Station,**
**Burdwan Dt., West Bengal)**

Hindustan Cables Ltd. is the only organisation in the country engaged in the manufacture of various types of telecommunication Cables and wires. It is a public sector organisation under the Ministry of Industry and Supply, Govt. of India.

Envisaged soon after the independence of the Country, the factory, situated near Chittaranjan, first went into production in September, 1954. Technical collaboration was provided by Messrs. Standard Telephones & Cables, London.

### Local Exchange Cables

The first line of manufacture was for Dry Core paper insulated lead sheathed and steel tape armoured underground telephone Cable ranging from sizes 20 pairs to 1,000 pairs. This type of cables still forms the basic product of the Company. These cables are primarily intended for local exchange systems as also for tool working.

Commencing with a modest production of 180 Kilometers in 1954-55, the Company manufactured over 3,300 Kilometers of this type of Cables during the financial year ending on 31st March, 1965. It is expected that in the year 1965-66, the production of this type of Cables may reach 4,000 Kilometers.

### Co-axial Cables

In late 1960, Hindustan Cables Limited set up a manufacturing unit for production of 2 core ·375 PDWI Co-axial Cables suitable for 960 channel long distance working. This unit was set up to fit in with the Indian P & T Department's ambitious plan to link up the major trunk centres in the country with a Co-axial Cables network. The production during the financial year ending on 31st March 1965 reached 366 Kilometers.

The capacity has been further added by the Company which will enable it to step up its production of two tube Co-axial Cables to 1,200 Kilometers a year. Besides this ·375 type Co-axial Cables, a plant for the manufacture of ·163B Small Co-axial Cables, a plant for 300 channel long distance workings has been set up recently and regular production has also commenced.

### Plastic Cables and Wires

The Company has also lately gone into production of a few varieties of Plastic insulated Cables and wires required by the P & T Departments and other users for Telephone Communication. Some of these are suitable for underground use and some others for indoor and overhead outdoor use. The Company manufactured over 4,700 Core km of these products in 1964-65.

### Expansions

To meet the rapid increase in the demand of telecommunication Cables in the Country and to achieve self-sufficiency by the end of the 4th Plan period, the Company has already taken up schemes for further expansion which include the setting up of additional manufacturing capacity as below :—

(*a*) Setting up of an Aluminium sheathed Telecommunication Cables Project of capacity of 1,000 km per annum.

(*b*) Expansion of capacity at Rupnarainpur to 8,000 km per annum for underground Telephone Cables.

(*c*) Setting up of a second factory elsewhere at the rated capacity of 8,000 km per annum for underground Telephone Cables.

### General

With the factory, the township is also fast growing. Rupnarainpur, situated only 150 miles away from Calcutta, is rapidly developing into an Industrial Complex. The Company employs more than 2,000 people at present who work round the clock to meet the ever increasing demand for telephone Cables.

The Company runs its own township which is developing rapidly. It has provided several welfare and other amenities. To cite a few, it provides free education in the Company's schools to children of lower grade employees. Free tiffin and uniforms are provided to all school going children. The Company actively assists the Employees' Co-operative Society which supplies ration and food stuffs, general provisions etc. and runs a fair vegetable shop and a laundry.

The Company also assists the employees recreational club as also the Women's Organisation which look after several welfare matters. The Company has also opened a cinema hall and regular film shows are running on there.

Hindustan Cables is thus developing fast and growing into one of the premier industries of the country and as one of the most successful public sector undertakings, has been recognised through Presidental Awards for three consecutive years, 1960-61, 1961-62 and 1962-63.

## HINDUSTAN STEEL LIMITED

**P. O. Hinoo, Ranchi.**

**(Under the Ministry of Steel and Mines)**

*Board of Directors :* M. S. Rao (*Chairman*); Michael John ; K. L. Ghei ; P. L. Tandon ; T. S. Krishna ; Dr. B. R. Nijhawan ; T. R. Gupta ; H. Bhaya (*Secretary*) ; H. R. Rakshit (*P.R.O.*).

**Hindustan Steel (Private) Limited was incorporated on 19th January, 1954 as a private limited company with an authorised capital of Rs. 100 crores with the object of establishing a steel plant at Rourkela in Orissa State.**

**With effect from the 1st of April, 1957, the Bhilai and Durgapur Steel Projects were also transferred to the management of Hindustan Steel (Private) Limited. The authorized capital was increased to Rs. 800 crores.**

**In March 1959 this was renamed Hindustan Steel Ltd.**

**In April 1963 the Board of Directors was reconstituted as the posts of functional directors were abolished. Now, excepting the Chairman, all the directors are part-time directors. The** Chairman functions as the chief executive of the Company.

### Finance

**The company has now an authorised capital of Rs. 600 crores, out of which the subscribed capital upto 31st March, 1965 is Rs. 528 crores. In addition, the company has drawn from the** Central Government a total loan of Rs. 357 crores upto the end of 31st March, 1965.

PROFIT : After providing Rs. 38·7 crores for depreciation and Rs. 18 crores for interest, Hindustan Steel has made a net profit of Rs. 2·14 crores—an extraordinary achievement in view of the introduction of higher rate of depreciation from the year and runaway increase in the cost of transport, stores and different services etc. An additional provision of depreciation alone has reduced the margin of profit by Rs. 5·5 crores. However, the net surplus of earnings before depreciation and interest this year is Rs. 58·84 crores, about Rs. 12 crores higher than 1963-64. Besides, the stock in trade is valued at Rs. 20·6 crores. So far HSL has generated a cash surplus of Rs. 90 crores which has been utilised for expansion and for provision of full working capital and to that extent relieved the pressure on the public exchequer.

The profit was possible due to intensive cost reduction efforts and success in maximising production against heavy odds. For example, besides the additional effort needs for exceeding the rated capacity of the various units of the three steel plants, the expansion work continuously tends to hamper day-to-day production due to limitations of the general services, like transport, power and gas supplied etc. as there have to be shared between the units under production and the work under construction.

The sales during the current year have improved by Rs. 18 crores—from Rs. 186·5 crores in 1963-64 to Rs. 204·8 crores in 1964-65. In term of foreign exchange saving it can be said that it is exactly the cost of Bhilai Steel Plant at the million-tonne stage.

### Performance

The most heartening feature of this year's result is the performance of Rourkela — it had earned a net profit of Rs. 3·5 crores. It is all the more remarkable, because one of the Blast Furnaces was shut down for part of the year for relining.

The increase in the earning of Rourkela was the result of a great upsurge in production. Both in plate mill and cold rolling mill, production

reached and crosses 100 per cent of the rated capacity, in the hot strip mill it was 95 per cent and ingot steel 98 per cent. The output of pipe plant was only 34 per cent of the rated capacity due to lack of orders, otherwise the result of Rourkela would have been much better.

Bhilai also has shown a profit of 50 lakhs. However, its production figures were impressive. In pig iron it was 106 per cent of the rated capacity, in billet mill 132 per cent of the rated capacity, in rail & structural mill 99 per cent and merchant mill 117 per cent of the rated capacity.

Durgapur contributed Rs. 53 lakhs to the profit of the company. Compared to last year its production also showed remarkable progress. Production of pig iron was 102 per cent of the rated capacity, ingot steel 99 per cent, merchant mill 100 per cent, sleepers 111 per cent and section mill 98 per cent and wheel & axle plant 80 per cent of its rated capacity.

The Coal Washeries of the Company has also contributed Rs. 23 lakhs. But the Fertilizer Plant, which was transferred to Hindustan Steel Ltd. by the Fertilizer Corporation of India last year suffered a loss of Rs. 2·6 crores. This was mainly because the Fertilizer Plant could not be operated to its full capacity, due to non-availability of gas for various reasons. The Fertilizer Plant, however, would be worked to its full capacity when the new Coke Oven Batteries which are being built come up. By taking this loss into account, the total profit of Hindustan Steel was reduced from Rs. 3·76 crores to Rs. 2·14 crores. However, all in all 1964-65 was a great year for Hindustan Steel.

**Production**

During the year under review, production of ingot steel rose to 3,116,000 tonnes, a 6·9 per cent rise over the previous year, saleable steel has gone upto 2,316,000 tonnes, an increase of 7·2 per cent over the previous year.

PRODUCTION (1964-65)

in tonnes

| | Bhilai | Rourkela | Durgapur | Total | |
|---|---|---|---|---|---|
| *Production* | | | | | |
| Hot Metal | 12,57,000 | 13,13,300 | 9,86,000 | 35,56,000 | |
| Ingots Steel | 11,31,000 | 10,06,000 | 9,79,000 | 31,16,000 | |
| Saleable Steel | 9,07,000 | 7,21,000 | 6,88,000 | 23,16,000 | |
| Tar Products | 50,900 | 49,700 | 45,000 | 1,45,600 | |
| Benzol Products | 11,500 | 3,700 | 5,500 | 20,600 | KL |
| Sulphuric Acid | 13,400 | 15,800 | — | 29,200 | |
| Amm. Sulphate | 15,600 | 18,100 | — | 33,700 | |
| Calcium Amm. Nitrate | — | — | 1,81,300 | 1,81,369 | |

**Training**

The following table indicates the number of engineers and operatives who were sent abroad for training and have since returned to take up their training in different steel plants upto 31st March 1965.

| Countries | Engineers | | Operatives | |
|---|---|---|---|---|
| | Sent | Returned | Sent | Returned |
| U.S.S.R. | 434 | 418 | 387 | 387 |
| U.S.A. | 576 | 576 | 4 | 4 |
| U.K. | 322 | 322 | 62 | 62 |
| W. Germany | 128 | 128 | 33 | 16 |
| Australia | 122 | 108 | 17 | 17 |
| Canada | 75 | 33 | 22 | 7 |
| Japan | 16 | — | — | — |
| | 1,673 | 1,585 | 525 | 493 |

In Feb. 1962, the company started its own Management Training Institute—the first of its kind among the public sector projects. Executives of all levels from the three steel plants, coal washeries and other units of the company will receive their training in this Institute. About 735 Executives have been trained so far (Sept. 1966 in this Institute in the various courses.

The total number of graduate engineers, senior and junior operatives and artisans trained so far, till December 1964 in the Technical Institutes of Rourkela, Bhilai and Durgapur is 6,776.

**Central Designs Organisation**

During the year 1961-62, the Central Designs Organisation prepared a Detailed Project Report including lay-out, technical specifications and estimates for the Rourkela Expansion and also the Project Report for Durgapur Expansion. The Organisation has already prepared the Report for the Fourth Year Plan Expansion of the Durgapur Steel Project and its next task will be the Project Report of the Fourth Plan of Rourkela Steel Plant, and it is also acting as a Consultant for setting up new steel plants in the country.

Bhilai Design Cell, also prepared a Detailed Project Report for the 6th Blast Furnace Complex and its ancillaries with the help of the Soviet Experts. This will form the first phase of expansion in the 4th Five Year Plan.

At present (Aug. 1965), the strength of the Organisation is 490 including 193 Engineers and 77 Design Assistants.

**Bokaro Steel Project**

Bokaro Steel Project is now functioning separately as a new company—Bokaro Steel Limited. (For more details see under Bokaro Steel Ltd.)

**Rourkela Steel Plant**

Hindustan Steels first Steel Plant, Rourkela, set up with financial and technical help of West Germany is in Orissa. The present annual capacity of the Rourkela Steel Plant is one million tons of steel ingots capable of being turned into about 720,000 tons of finished plates, sheets, strips and tin plates.

The plant consists of 3 Coke Oven Batteries of 70 ovens each, a By-product Plant and 3 Blast Furnaces each producing 1,000 tons of pig iron a day. The Steel Melting Shop consists of 4 Open Hearth Furnaces (of 80 tons capacity each) and 3 L.D. Converters (of 40 tons capacity each) which will produce 250,000 tons and 750,000 tons of ingot steel respectively.

Rourkela has its own captive mines at Barsua and Purnapani for Iron Ore & Limestone respectively.

The Limestone from Purnapani quarries is being supplemented from Satna and other sources. Fully mechanised operation of the Purnapani quarries is expected to commence shortly. A scheme for mechanisation of Gatitnagar dolomite quarry is under consideration.

Saleable products: Heavy Plates 200,000 tonnes; Medium Plates & Wide Strips 300,000 tonnes; Sheets and Strips 170,000 tonnes; Tin Plates 50,000 tonnes.

*Expansion:* The Plant is now being expanded to the capacity of 1·8 million tons during the Third Plan. After the expansion programme the output of finished products is expected to increase from 720,000 tons to 1,240,000 tons.

The By-product Plant will deal with 130 tons of tar per day and produce benzol, creosote, napthalene and other products. The By-product Plant being laid out under the expansion programme will handle 35,000 Ncbm per hour of gas to accommodate any further expansion of the Coke Oven Battery.

In addition by-products like benzol, toluene, xylene, solvent naptha, creosote oil, wash oil, anthracene oil, napthalene, crude anthracene, crude phenol etc. are produced.

A Sintering Plant to utilise iron ore fines, coke breeze, limestone chips etc. and designed to produce 5,000 tons of sinter on an average per day of three shifts has gone into production. The second big casting machine forming part of the expansion programme has already been commissioned in 1964. The new units under the Third Plan expansion are nearing completion serially and it is expected that all the units will go into production before the end of 1966.

The total expansion cost of Rourkela Steel Plant will be Rs. 135 crores.

*General Manager:* A. N. Banerjee; *Public Relations Officer:* S. K. Bishnoi.

**Bhilai Steel Plant**

The Bhilai Steel Plant was set up with the help of U.S.S.R. The plant is designed to produce one million tons of ingot steel to be rolled into 770,000 tons of heavy and medium structurals—steel and 300,000 tons of pig iron.

Construction started at Bhilai in the spring of 1957. Production of pig iron began on the 4th of Feb. 1959 and the production of steel on 12th October, 1959.

The Bhilai Steelworks comprise: 3 Coke Oven Batteries with 65 ovens each; 3 Blast Furnaces; 6 Open Hearth Furnaces (250 tons capacity each) for steel making and 4 Rolling Mills, consisting of a Blooming Mill, Continuous Billet Mill, Rail and Structural Mill and a Merchant Mill.

The entire requirements of iron ore and limestone are being met from the plant's own captive mines at Rajhara and Nandini. Both the mines have been mechanised. Dolomite, manganese and quartzite are also being obtained from the plant's captive mines at Hirri, Balaghat and Balod.

Bhilai is drawing its requirement of coal from Kargali/Bokaro & Jharia Coal Fields. Saleable production in tonnes: Rails (Standard gauge) 100,000; Rails (Narrow gauge) 10,000; Heavy Structural 284,000; Crossing Sleepers 90,000; and Billets 150,000.

About 60,000 tonnes of various by-products like coal tar, ammonium sulphate, benzol, toluene, are expected to be recovered annually by treatment of the gases given out from coal during its conversion into coke.

*Expansion :* The capacity of the plant will be expanded to 2·5 million tonnes under the Third Five Year Plan, with the technical and financial assistance of the U.S.S.R.

The expansion of the Bhilai Steel Plant will involve an expenditure of Rs. 178 crores including the cost of township, ore mines and such other ancillary expenditure. One most significant feature in the expansion of the Bhilai Steel Plant is the construction of the Blast Furnace Slag Processing Plant located in the Slag Dump Yard and a cement plant with an annual production capacity of 600,000 tonnes of portland cement.

The expansion of the Steel Plant is proceeding according to schedule. The 4th Blast Furnace, the 4th Coke Oven Battery and Open Hearth Furnaces 7 & 8, the Slag Granulation Plant, Slag Aggregate Plant and the 6th group of Soaking Pits have already been commissioned. It is expected that by the middle of 1966 all of its units will be completed. In the meantime, contract has also been made with the Soviet authorities on 3rd August, 1965 for setting up the 6th Blast Furnace Complex, with a capacity of 1,719 cu.m. and with an annual output of 500,000 tonnes of pig iron, it is expected to go into production by the end of 1967. This Blast furnace meant for 4th Plan, has been advanced so as to meet the rising demand of foundry pig iron in the country.

However its Steel Melting Shop No. 2 comprising one ten tonnes ore furnace and two induction furnaces of 2 tonnes and half tonne capacity respectively has already been commissioned. The Plant is expected to be completed by 1967. However, in 1965 and 1966 some of its units will go into production.

*General Manager :* Indrajit Singh ; *Public Relations Officer :* F. M. Tahilramani.

**Durgapur Steel Plant :** The steel plant at Durgapur in West Bengal is the third one in the public sector set up with the financial and technical help of the United Kingdom. This will produce one million tons of ingot steel to be rolled into about 800,000 tons of light and medium sections and bars, in addition to 350,000 tons of pig iron for internal sale and export. It is proposed to expand the steel plant during the Third Plan to produce 1·6 million tons of ingot steel.

Durgapur has no captive mines of its own. The supply of iron ore is being drawn from Bolani Ore Mines.

Coal is being obtained from Jharia and Boraker Fields and Limestone from Birmitrapur. The plant has its own washery to wash the Jharia coal.

The Plant has the following units : 3 coke oven batteries, 3 blast furnaces, 8 open hearth furnaces, 2 blooming mills, one continuous billet mill, one 24" section mill, one continuous merchant mill, one sleeper plant and one wheel and axle plant.

*Saleable Products in Tonnes :* Heavy Forging Blooms 10,000 ; Forging Bars 60,000 ; Merchant Sections 240,000 ; Sleeper Bars 60,000 ; Light & Medium sections 200,000 ; Wheels & Axles 50,000 ; Billets for sale 150,000.

In the meantime the fifth Blast Furnace complex of Durgapur is being advanced to meet the rising foundry grade pig iron in the country.

In addition, it produces 350,000 tonnes of foundry grade pig iron.

*Expansion :*

After expansion the following additional units will be constructed :

One Coke Oven Battery, one 1,500 ton blast furnace, one 220 ton open hearth furnace, six Soaking pits, one Skelp mill, one sintering plant. Besides, the existing capacity of other units is being expanded.

*Saleable Products in Tonnes :* Forging blooms 100,000 ; Merchant sections 240,000 ; Forging bars 60,000 ; Sleeper Bars 60,000 ; Billets 150,000; Light sections 200,000 ; Forging blooms 30,000 ; Wheels & Axles sets for Railways 500,000 and Pig iron for sale 350,000.

The various by-products include ammonium sulphate, benzole, toluene, xylene, solvent naptha, napthalene, road tar, wood preserving creosote.

The cost of the expansion of the Durgapur Steel Plant will be Rs. 72 crores including the township and other ancillary units. In addition to existing 10,300 houses, the construction of another 5,000 houses has been taken in hand. The construction of the new units under expansion is expected to be completed by 1966. But the fifth Plate Finishing Plant with a capacity of 11,000 per year has already gone into production.

*General Manager :* R. K. Chatterjee ; *Public Relations Officer :* B. K. Basu.

**Alloy Steels Project**

The fourth steel unit of the company—Alloy Steels Project at Durgapur is under construction.

The plant will have an initial capacity of 100,000 tonnes of ingots capable of expansion to 300,000 tonnes of ingots per annum. The initial 100,000 tonnes of ingots will produce 60,000 tonnes of finished steel which would save the country nearly 20 crores of rupees worth of foreign exchange. Nearly 35 per cent of the production will consist of stainless steel. The project is being erected at a cost of Rs. 73 crores.

The product-mix of this plant would be as follows in tonnes : High Speed Steel 2,250 ; Carbon Tool Steel 8,250 ; Allied Tool & Die Steel 4,000 ; Allied Structural Steel 18,000 ; Case Hardening Steel 7,000 ; Ball Bearing Steel 2,500 ; Stainless Steel 18,000.

*Gen. Manager :* Dr. D. P. Chatterjee.

**Coal Washeries**

The company has installed three coal washeries at Dugda, Bhojudih and Patherdih. Dugda is about 30 miles and Patherdih is about 10 miles from Dhanbad, in Bihar. Bhojudih in West Bengal, is about 20 miles from Dhanbad. Dugda I Washery with a capacity of 2·4 million tonnes of raw coal per annum, completed in the year 1962, is supplying washed coal to the steel plants at Bhilai and Rourkela. Bhojudih Washery with a capacity of 1·2 million tonnes, has been in operation since 1962 and has been expanded to 2 million tonnes capacity. The expanded unit has been in operation since the end of 1963. It supplies washed coal to TISCO and Rourkela. The construction of Patherdih Coal Washery has been completed and washed coal from this washery is proposed to be supplied to Indian Iron & Steel Works. Dugda Washery again is being expanded by installing another unit Dugda II, with a capacity of 2·4 million tonnes. It is expected to be commissioned in 1966.

*Sales :*

With the increase in sales, the Sales Organisation of Hindustan Steel Limited is being expanded to provide better facilities to steel consumers and traders in the country. The Sales Office of HSL is at Calcutta with branch offices at Madras, Bombay, Delhi, Kanpur, Bangalore Cochin, Hyderabad and Ahmedabad.

### RADIO & ELECTRICALS MFG. CO. LTD.

Mysore Road, Bangalore-26.

The Company was incorporated in 1946 with the name "Mysore Airmec Ltd." with a capital of Rs. 25 lakhs. The name of Radio & Electricals Mfg. Co. Ltd., (popularly known as Remco) was adopted in 1949. The present authorised capital is Rs. one crore and subscribed capital is Rs. 79,85,900. Sixty per cent of the paid-up capital is held by the Government of Mysore and the remaining forty per cent by the public.

The Company's business operations began with the sale of imported radio receivers and was followed by manufacturing activities for the production of radio receivers, electronic components, plastic insulated wires and cables, electricity meters and water meters. Among the components produced in Remco are (1) all metal parts, (2) mains transformers, (3) audio transformers, (4) I.F. transformers, (5) Coils, (6) wave change switches, (7) Paper Capacitors and (8) electrolytic capacitors. The production of band switches in technical collaboration with Messrs. A. B. Metal Products Ltd., U.K. commenced in May 1958. The principal electronic equipment manufactured in Remco are (1) domestic radio receivers, (2) community receivers and (3) intercommunication sets. Besides these, a large variety of test equipment utilising electronic circuits have also been designed and built by Remco mostly for its own use. The production of transistorised radio receivers will be started in April 1966.

The manufacture of Polyvinyl Chloride covered wires and Cables for use in low tension circuits was commenced in 1948. The production of single phase electricity meters was commenced in 1952 and polyphase electricity meters in 1964 in technical collaboration with Messrs. Tokyo Shibaura Electric Co. Ltd., Japan. The production of electricity meters has registered a rapid rise from 200 meters per day in 1952 to 1,000 meters per day at present. There are over 1·87 million of Remco meters in service in various parts of the country. The Company has been sanctioned a capacity of 2,00,000 single-phase electricity meters and 48,000 polyphase electricity meters per annum. The Company is also producing polyphase electricity meters.

Remco commenced manufacture of multijet inferential type water meters in technical collaboration with Messrs. Aquametro Water Meter Works Ltd., Switzerland in 1956.

# 1966-67 BUDGET PROPOSALS

We give below the Railway Budget for 1966–67 and the Central Government Budget for 1966–67 presented before the Parliament on Feb. 15, 1966 and Feb. 28, 1966 respectively. At the time of writing this, discussions have not concluded. So, only the proposals as they were presented are given.

## RAILWAY BUDGET 1966-67

Net surplus in Railway during 1966–67 is expected to be Rs. 22·19 crores according to the Budget estimates presented before the Parliament by the Railway Minister on Feb. 15, 1966.

The freight on goods will rise by 3 per cent as a result of a surcharge provided in the Railway Budget for 1966–67. There will, however, be no change in passenger fares. Manganese-ore and iron-ore meant for export and high-rated goods have been exempted from the surcharge.

### Relief For Some Commodities

The Railway Minister has reduced the freight rates on certain commodities of common use. The decrease in rates for distances up to 500 km., 800 km., 1,000 km., 1,500 km. and 2,000 km., respectively, per tonne is :

SUGAR : Rs. 6·10, Rs. 9·10 ; Rs. 8·50 ; Rs. 6 and Rs. 1·40.

HYDROGENATED OIL : Rs. 10·70 ; Rs. 15·70 ; Rs. 15·60 ; Rs. 13·70 and Rs. 8·70.

GHEE : Rs. 10·70, Rs. 15·70, Rs. 15·60, Rs. 13·70 and Rs. 8·70.

BETELNUTS : Rs. 10·70, Rs. 15·70, Rs. 15·60, Rs. 13·70 and Rs. 8·70.

Cigarettes : Rs. 12·20 ; Rs. 18·10 ; Rs. 18·10 ; Rs. 16·50 and Rs. 11·70.

CIGARS (Country) : Rs. 12·20 ; Rs. 18·10 ; Rs. 18·10 ; Rs. 16·50 and Rs. 11·70.

CIGARS (imported) : Rs. 12·20 ; Rs. 17·90 ; Rs. 17·80 ; Rs. 15 and Rs. 8·80.

TOBACCO (country) : Rs. 12·20 ; Rs. 18·10 ; Rs. 18·10 ; Rs. 16·50 and Rs. 11·70.

CONFECTIONERY : Rs. 12·20 ; Rs. 18·10 ; Rs. 18·10 ; Rs. 16·50 and Rs. 11·70.

TEA : Rs. 12·20 ; Rs. 18·10 ; Rs. 18·10 ; Rs. 16·50 and Rs. 11·70.

BISCUITS : Rs. 12·20, Rs. 17·90, Rs. 17·80 ; Rs. 15 and Rs. 8·80.

MEDICINES : Rs. 12·20 ; Rs. 17·90, Rs. 17·80 ; Rs. 15 and Rs. 8·80.

RUBBER : Rs. 12·20 ; Rs. 18·10 ; Rs. 18·10 ; Rs. 16·50 and Rs. 11·70.

HARDWARE : Rs. 12·20 ; Rs. 18·10 ; Rs. 18·10; Rs. 16·50 and Rs. 11·70.

HABERDASHERY (miscellaneous small wares) : Rs. 12·20 ; Rs. 17·90 ; Rs. 17·80 ; Rs. 15 and Rs. 8·80.

## ESTIMATES AT A GLANCE

(Rupees in Crores)

| | 1964–65 Actuals | 1965–66 Budget | 1965–66 Revised | 1966–67 Budget |
|---|---|---|---|---|
| Gross Traffic Receipts .. .. .. .. | 660·85 | 716·00 | 741·80 | 795·33(A) |
| Working Expenses Net .. .. .. .. | 433·45 | 457·84 | 482·04 | 508·68 |
| Depreciation Reserve Fund .. .. .. .. | 83·00 | 85·00 | 85·00 | 100·00 |
| Pension Fund .. .. .. .. | 11·50 | 12·00 | 12·00 | 13·50 |
| Net Miscellaneous Expenditure .. .. .. | 14·79 | 16·02 | 16·52 | 17·47 |
| TOTAL .. .. .. .. | 542·74 | 570·86 | 595·56 | 639·65 |
| Net Railway Revenue .. .. .. .. | 118·11 | 145·14 | 146·24 | 155·68 |
| Payments to General Revenue (B) | | | | |
| (i) Dividend .. .. .. .. .. | 92·43 | 103·40 | 103·75 | 133·49 |
| (ii) In Lieu of Passenger Fare Tax for States | 12·50 | 12·50 | 12·50 | — |
| NET SURPLUS .. .. .. | 13·18 | 29·24 | 29·99 | 22·19 |

(*A*) This includes Rs. 18·10 crores expected as additional revenue as a result of the adjustments proposed in freight rates.

(*B*) The dividend to general revenues from 1966–67 is in accordance with the 1965 Convention and is calculated at 5·5 per cent on the element of dividend-paying-capital up to 1963–64 and 6 per cent on capital provided by general revenues thereafter. The payment of a dividend on the basis of the enhanced new dividend rates with effect from 1966–67 will absorb the two separate payments that are now being made as dividend and as a special payment of Rs. 12·5 crores for transfer to the States. The increase in the dividend liability under the new basis is of the order of Rs. 7 crores in 1966–67, the benefit of most of which will go to the States, which will receive an average of about Rs. 18 crores in all each year during the Fourth Plan from the railway dividend as against Rs. 12·5 crores each year in the Third Plan.

## CENTRAL BUDGET 1966-67

### AT A GLANCE

(In Crores of Rupees)

| | Budget 1965–66 | Revised 1965–66 | Budget 1966–67 |
|---|---|---|---|
| Receipts .. .. .. .. .. .. | 2345·87 | 2469·51 | 2617·12 plus 101·51 (=) |
| Disbursements .. .. .. .. .. | 2116·48 | 2187·42 | 2407·41 |
| Deficit (—) Surplus (+) .. .. .. .. .. | (+) 229·39 (=) | (+) 282·09 | (+) 209·71 (+) 101·51 (—) |
| | | | (=) Effect of budget proposals |

### CAPITAL BUDGET

| | | | |
|---|---|---|---|
| Receipts .. .. .. .. .. .. | 2166·24 | 2162·86 | 2160·50 (+) 92·12 (=) |
| Disbursements .. .. .. .. .. | 2083·30 | 2247·86 | 1952·50 |
| | | | (=) Effect of budget proposals |

A medley of concessions to the corporate sector and small income earners has been matched more or less evenly by flat increases in direct and indirect taxation over a wide field in the new budget proposals for 1966–67 presented to Parliament on Feb. 28, 1966 by the Finance Minister, Mr. Sachin Chaudhuri. The budget also converts for the first time the excise duty into a regulator of demand in the economy.

The expenditure tax and the 12·5 per cent tax on bonus issues as also the tax on the notional gain in the value of bonus shares have been abolished. The rate of surtax on profits has been reduced from 40 to 35 per cent. The dividend tax on companies has been modified so that only equity dividend in excess of 10 per cent of the paid-up capital will be attracted.

As against these major concessions of some tangible and considerable value, the effective rates of the basic corporate tax have been enhanced by approximately 10 per cent. Simultaneously, excise duties have been raised on a dozen odd commodities including sugar, cigarettes and textiles, and new duties levied on bleaching agents and synthetic detergents.

### PROPOSALS IN BRIEF

Excise duty on crystal sugar raised from Rs. 28·65 to Rs. 37 per quintal. Corresponding rise on khandsari. Additional revenue Rs. 21·93 crores.

Duty on cigars and cigarettes and unmanufactured tobacco raised by 25 to 30 per cent. Additional revenue Rs. 9·01 crores.

Excise on light diesel oil raised from Rs. 60 per kilo litre. Additional revenue Rs. 5·35 crores.

Duties on cotton yarn and cotton fabrics and rayon and synthetic yarn increased. Additional revenue on cotton yarn Rs. 7·23 crores, on fabrics Rs. 6·3 crores and rayon and synthetic yarns Rs. 50 lakhs.

Excise on sodium silicate and carbon dioxide raised and slab concessions on paper boards reduced ; Additional revenue Rs. 1·46 crores.

Yield from optical bleaching agents and synthetic detergents Rs. 58 lakhs.

Ad valorem 5 per cent duty on motor vehicle trailers by small establishments abolished.

Total additional yield from revision in excise duties Rs. 52·86 crores, including States' share Rs. 10·07 crores.

Income-tax exemption limit for individuals raised from Rs. 3,000 to Rs. 3,500 ; personal allowance of an unmarried individual from Rs. 2,000 to Rs. 2,500 ; and personal allowance of a married individual with more than one dependent child from Rs. 4,300 to Rs. 4,800. Revenue reduction by Rs. 3·5 crores.

Exemption limit for annuity deposits raised from Rs. 15,000 to Rs. 25,000. Reduction in receipts Rs. 7 crores.

A flat special surcharge of 10 per cent of the amount of income-tax and surcharge on earned and unearned income. Additional revenue Rs. 25·6 crores.

Expenditure tax abolished. Loss in revenue Rs. 60 lakhs.

Rates of gift tax revised. Exemption limit raised from Rs. 5,000 to Rs. 10,000, the rate on slab from Rs. 10,000 to Rs. 25,000 reduced from 8 to 5 per cent, and rates on subsequent slabs, up to Rs. 15,00,000, by varying percentages. Existing marginal rate of 50 per cent will operate on slab beyond Rs. 15 lakhs.

Estate duty on slabs Rs. 1 lakh to Rs. 2 lakhs raised from 8 to 10 per cent, Rs. 3·5 lakhs to Rs. 5 lakhs from 15 per cent to 25 per cent from Rs. 5 lakhs to Rs. 10 lakhs from 25 to 30 per cent. Loss in revenue due to changes in Gift Tax Rs. 1·71 crores. Additional revenue from Estate Duty (going to States) Rs. 70 lakhs.

Estates of members of police forces killed in action, like those of members of armed forces, exempt from duty.

Income-tax abolished on national capital gain from equity shareholder holding bonus share. Loss of revenue Rs. 7 lakhs.

General rates of tax on corporate incomes increased by approximately 10 per cent. Yield net of other concessions Rs. 36·70 crores.

12·5 per cent tax on bonus issues abolished (loss Rs. 9 lakhs).

Dividend tax of 7·5 per cent modified to apply in excess of 10 per cent of paid-up equity capital (loss Rs. 4·8 crores).

Company profits surtax reduced from 40 to 35 per cent (loss Rs. 2·5 crores).

Tax for closely-held domestic companies raised from 60 to 65 per cent.

Concessional rate of 25 per cent tax on dividends received by an Indian company with foreign collaboration.

Incentives to tea plantations; newsprint and printing machinery industry also included in the priority category.

Income up to Rs. 1,000 from Unit Trust will be excluded from total income irrespective of other income.

Central sales tax on inter-State sales raised from 2 to 3 per cent. Yield Rs. 19 crores to States annually and Rs. 9·5 crores in 1966–67.

Ceiling on sales tax on goods of special importance in inter-State trade raised from 2 to 3 per cent. Additional revenue Rs. 7·5 crores in next financial year and Rs. 15 crores in one full year.

Following is the table of tax (including surcharges) payable by a married individual with more than one child (resident tax-payer):

| Income before deduction of annuity deposit | Annuity deposit | | Total income | | AMOUNT OF TAX | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Wholly Earned income | | Wholly unearned income | |
| | 1965–66 | 1966–67 | 1965–66 | 1966–67 | 1965–66 | 1966–67 | 1965–66 | 1966–67 |
| 4,500 | — | — | 4,500 | 4,500 | 10 | Nil | 10 | Nil |
| 5,000 | — | — | 5,000 | 5,000 | 35 | 11 | 35 | 11 |
| 6,000 | — | — | 6,000 | 6,000 | 135 | 121 | 135 | 121 |
| 7,400 | — | — | 7,400 | 7,400 | 275 | 275 | 275 | 275 |
| 10,000 | — | — | 10,000 | 10,000 | 535 | 561 | 535 | 561 |
| 12,500 | — | — | 12,500 | 12,500 | 910 | 974 | 910 | 974 |
| 15,000 | — | — | 15,000 | 15,000 | 1,285 | 1,386 | 1,285 | 1,386 |
| 18,000 | 900 | 900 | 17,100 | 17,100 | 1,705 | 1,848 | 1,789 | 1,940 |
| 20,000 | 1,000 | 1,000 | 19,000 | 19,000 | 2,085 | 2,266 | 2,245 | 2,442 |
| 24,000 | 1,800 | 18,000 | 22,200 | 22,200 | 2,945 | 3,212 | 3,277 | 3,577 |
| 25,000 | 1,880 | 1,880 | 23,120 | 23,120 | 3,221 | 3,516 | 3,608 | 3,942 |
| 36,000 | 2,700 | 2,700 | 33,300 | 33,300 | 7,435 | 8,151 | 8,665 | 9,504 |
| 40,000 | 3,000 | 3,000 | 37,000 | 37,000 | 9,285 | 10,186 | 10,885 | 11,946 |
| 48,000 | 4,800 | 4,800 | 43,200 | 43,200 | 12,385 | 13,596 | 14,605 | 16,038 |
| 60,000 | 6,000 | 6,000 | 54,000 | 54,000 | 18,185 | 19,975 | 21,685 | 23,826 |
| 70,000 | 7,080 | 7,000 | 63,000 | 63,000 | 23,585 | 25,916 | 28,435 | 31,251 |
| 72,000 | 8,000 | 8,000 | 64,000 | 64,000 | 24,185 | 26,576 | 29,185 | 32,076 |
| 1,00,000 | 12,500 | 12,500 | 87,500 | 87,500 | 39,160 | 43,049 | 47,904 | 52,667 |
| 2,00,000 | 25,000 | 25,000 | 1,75,000 | 1,75,000 | 98,473 | 1,08,292 | 1,18,998 | 1,30,870 |

It will be seen from the figures in the above table that the amount of tax payable under the proposals in the Bill, on incomes below Rs. 7,400, is less than the amount payable in accordance with the rates prescribed by the Finance Act of 1965 (On Rs. 4,500, the tax payable under the Bill is nil, as against the tax of Rs. 10 under the Finance Act of 1965). On an income of Rs. 7,400, the amount of tax payable under the Bill is the same as under the Finance Act of 1965. On incomes above Rs. 7,400, the amount of tax payable under proposals in the Bill is a little higher than under the Finance Act of 1965. On incomes between Rs. 10,000 and Rs. 15,000, the rate of increase over the total income ranges between 0·26 per cent, and 0·673 per cent on earned income of Rs. 25,000, the rate of increase is 1·18 per cent, on Rs. 48,000, 2·52 per cent, on Rs. 60,000 2·98 per cent, on Rs. 72,000 3·32 per cent, on Rs. 1,00,000 3·89 per cent, and on Rs. 2,00,000 it is 4·91 per cent.

## SUMMARY OF FINAL ESTIMATES

STATEMENT A

**Revenue Budget**

(In Crores of Rupees)

| | Budget 1965–66 | Revised 1965–66 | Budget 1966–67 |
|---|---|---|---|
| *Receipts* | | | |
| Customs | 419·50* | 531·20 | 560·00 (+ 0·52†) |
| Union excise duties | 819·19* | 861·35 | 969·70 (+ 42·27‡) |
| Corporation tax | 371·60 | 330·00 | 340·00 (+ 36·07†) |
| Taxes on income | 291·50 | 260·00 | 270·00 (+ 24·45†) |
| Estate duty | 7·40 | 7·00 | 7·40 (+ 0·70†) |
| Taxes on wealth | 13·50 | 14·00 | 14·00 |
| Expenditure tax | 1·55 | 0·75 | 0·75 (— 0·60†) |
| Gift tax | 3·10 | 3·00 | 3·00 (— 1·71†) |
| Other heads | 23·87 | 24·76 | 26·47 (+ 0·50†) |
| Debt services | 296·73 | 316·46 | 360·62 |
| Administrative services | 9·51 | 9·36 | 9·45 |
| Social and Developmental services | 23·57 | 24·19 | 22·56 |
| Multi-purpose River Schemes, etc. | 0·13 | 0·12 | 0·12 |
| Public Works, etc. | 3·94 | 4·22 | 4·15 |
| Transport and Communications | 6·75 | 8·20 | 8·45 |
| Currency and Mint | 61·69 | 62·55 | 64·94 |
| Miscellaneous | 25·47 | 26·69 | 19·07 |
| Contributions and Miscellaneous adjustments | 34·81 | 35·07 | 43·34 |
| Extraordinary items | 60·50 | 80·72 | 30·66 |
| Deduct — share of income | — | — | — |
| Tax payable to States | 121·27 | —123·34 | —130·45 |
| Deduct — share of estate duty payable to States | — 7·17 | — 6·79 | — 7·11 (— 0·69†) |
| TOTAL | 2345·87 | 2469·51 | 2617·12 (+101·51†) |
| *Disbursements* | | | |
| Collection of taxes, duties and other principal revenues | 28·88 | 29·64 | 30·84 |
| Debt services | 356·11 | 372·61 | 414·83 |
| Administrative services | 91·36 | 92·21 | 110·08 |
| Social and Developmental services | 184·66 | 177·73 | 195·57 |
| Multi-purpose River Schemes | 1·98 | 1·90 | 2·03 |
| Public Works, etc. | 22·98 | 21·77 | 23·83 |
| Transport and Communications | 10·62 | 10·94 | 10·94 |
| Currency and Mint | 16·40 | 17·03 | 17·82 |
| Miscellaneous | 116·27 | 127·36 | 152·35 |
| Contributions and Miscellaneous adjustments: | | | |
| Grants to States and Union Territory Governments | 327·11 | 334·95 | 396·30 |
| States' share of Union Excise Duties | 140·84 | 145·92 | 212·75 |
| Other Expenditure | 4·69 | 4·82 | 5·02 |
| Extraordinary items | 65·84 | 81·48 | 37·38 |
| Defence Services (net) | 748·74 | 769·06 | 797·67 |
| TOTAL | 2116·48 | 2187·42 | 2407·41 |
| Deficit (—) Surplus (+) | + 229·39* | + 282·09 | + 209·71 (+101·51†) |

* In addition the measures introduced through Finance (No. 2) Act, 1965, were expected to yield Rs. 80·33 crores under customs and Rs. 25·92 crores under Union Excise Duties making a total of Rs. 106·25 crores, thereby increasing the revenue surplus to Rs. 335·64 crores.

† Effect of Budget proposals.

‡ Excludes Rs. 10·07 crores being the share of Union Excise Duties, payable to States, which has been taken in reduction of revenue.

## STATEMENT B

### Capital Budget

(In Crores of Rupees)

| | Budget 1965–66 | Revised 1965–66 | Budget 1966–67 |
|---|---|---|---|
| *Receipts* | | | |
| Revenue surplus | 229·39* | 282·09 | 209·71<br>(+ 101·51†) |
| *Public Debt :* | | | |
| Raised in India | 270·00 | 286·37 | 284·00 |
| Floating debt (other than Treasury Bills) | — | 53·57 | — 1·21 |
| *Raised abroad :* | | | |
| Loans other than P.L. 480 loans | 588·86 | 536·90 | 459·85 |
| P.L. 480 loans | 80·00 | 80·00 | 325·00 |
| *Repayment of loans and advances :* | | | |
| States and Union Territories | 273·69 | 281·64 | 288·00 |
| Others | 60·00 | 61·00 | 82·00 |
| Small savings (net) | 135·00 | 134·90 | 135·00 |
| Provident funds (net) | 54·66 | 55·05 | 57·58 |
| Income-tax, Annuity Deposits (net) | 65·00 | 45·40 | 44·40<br>(— 9·39†) |
| Deposits of P.L. 480 funds (net) | 191·00 | 150·00 | —119·00 |
| Special Development Fund (net) | 143·16 | 109·74 | 349·12 |
| Railway and P and T funds (net) | 48·23 | 37·80 | 26·57 |
| Other debt, deposits, etc. (net) | 27·25 | 48·40 | 19·48 |
| TOTAL | 2166·24 | 2162·86 | 2160·50<br>(+ 92·12†) |
| *Disbursements* | | | |
| *Capital Expenditure :* | | | |
| Civil | 359·73 | 372·37 | 301·93 |
| Defence | 130·05 | 119·33 | 120·60 |
| Railways | 240·00 | 239·89 | 180·60 |
| P and T | 32·83 | 29·99 | 24·25 |
| *Repayment of Debt :* | | | |
| Raised in India | 170·00 | 173·00 | 193·60 |
| Raised abroad | 97·29 | 96·44 | 120·59 |
| *Loans and Advances :* | | | |
| States and Union Territories | 703·46 | 823·38 | 665·93 |
| Others | 349·94 | 393·46 | 345·00 |
| TOTAL | 2083·30 | 2247·86 | 1952·50 |
| *Add*—National transfer of loan assistance to the Special Development Fund | 80·00 | 80·00 | 325·00 |
| Total Disbursements | 2163·30 | 2327·86 | 2277·50 |
| Overall deficit (—) Surplus (+) | + 2·94 | — 165·00 | — 117·00<br>(+ 92·12†) |

* This would increase to Rs. 335·64 crores as explained under Statement A.

† Effect of Budget proposals.

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**ADDITIONS : UNDER SIEMENS ENGINEERING & MANUFACTURING CO. OF INDIA LTD., ON PAGE 763.**
**W. MUELLER—ALTERNATE DIRECTOR FOR DR. G. TACKE.**

# ELECTRIC POWER DEVELOPMENT

(By courtesy of the Central Water and Power Commission, Power Wing.)

IT is estimated that well about 80 per cent of India's power requirements are at present obtained from animal dung, wood, agricultural waste, etc. and from living energy (animal and human effort).

India's requirement of domestic fuel is about 83 million tons in wood equivalent, which is 40 per cent of the total energy consumption in the country.

About industrial energy, about 80 per cent comes from coal; petroleum products account for about 14 per cent and the balance comes from hydro-electricity.

The revised figures in respect of the aggregate generating capacity in kW for 1961-62 and the provisional figures for 1962-63 are given below: 1961-62 : 5,201,883 ; 1962-63 : 5,779,795.

The total installed capacity at the end of March, 1963 was 5,779,795 kW, of which 2,916,300 kW was water power ; 2,536,343 kW steam and 327,152 kW oil power. Out of the total capacity of 6·9 million kW on 31st March 1963, which includes public utilities and non-utilities, electricity supply undertakings in the public sector accounted for 4·3 million kW, public limited companies 1·5 million kW and industrial establishments meeting their own requirements 1·1 kW million.

The *per capita* generation of electric power in India is ridiculously low being 48·9 kW hours during 1962-63 as against 11,700 in Norway, 6,840 in Canada, 5,640 in Sweden, 5,160 in the U.S.A. and 4,248 in Switzerland. The *per capita* consumption in India during 1962-63 was 48·3 kW hours. The latest estimates place the hydro-electric power potential of India at 41 million kW, but only about 3·04 million kW have been tapped so far.

The production and sale of electric power for the years 1961-62 (revised) and 1962-63 were as follows (in million kWh):

| | Generated | Sold |
|---|---|---|
| 1961-62 (revised figures) | 19,669·95 | 16,448·30 |
| 1962-63 .. .. | 22,364·97 | 18,639·021 |

An analysis of electric power consumption in million kWh is given below. The figures in brackets show the percentage of total energy consumption.

| | 1962–63 | 1963–64 |
|---|---|---|
| Domestic or Residential light and small power .. | 1,917·833 ( 10·3) | 2,062·399 ( 9·6) |
| Commercial light and small power .. .. .. | 1,048·594 ( 5·6) | 1,179·716 ( 5·5) |
| Industrial Power .. .. .. .. .. | 13,109·832 ( 70·2) | 15,705·179 ( 73·4) |
| Traction .. .. .. .. .. .. | 723·844 ( 3·9)* | 505·167 ( 2·4) |
| Public lighting .. .. .. .. .. .. | 244·852 ( 1·3) | 244·470 ( 1·1) |
| Irrigation .. .. .. .. .. .. | 1,103·527 ( 5·9) | 1,153·180 ( 5·4) |
| Water Works .. .. .. .. .. .. | 530·539 ( 2·8) | 556·797 ( 2·6) |
| TOTAL .. .. .. .. .. .. | 18,679·021 (100·0) | 21,406·908 (100·0) |

* 1962–63 fig. includes 362·585 mill. kWh used for traction purposes by Railways from their own generation of Bhola Power Station.

The following statement shows the number of electrified towns and villages at the end of 1962–63.

| Population | Number of towns or villages | Number with electric supply | Percentage with electric supply to total |
|---|---|---|---|
| Over 100,000 .. .. .. .. | 75 | 75 | 100·00 |
| 50,000 to 100,000 .. .. .. .. | 111 | 111 | 100·00 |
| 10,000 to 50,000 .. .. .. .. | 1,272 | 1,194 | 93·87 |
| Below 10,000 .. .. .. .. | 5,70,051 | 39,800 | 7·14 |
| TOTAL .. .. .. .. | 5,71,509 | 41,180 | 7·21 |

## INSTALLED CAPACITY

Some individual industries have power-stations of their own. The number of installations and the installed capacity are as follows (as on 31st March, 1964):

| Industry | No. | Capacity (kW) |
|---|---|---|
| Aluminium (Primary) | 4 | 22,832 |
| Aluminium (Secondary) | 9 | 250 |
| Cement (Primary) .. | 26 | 125,514 |
| Cement (Secondary) .. | 28 | 460 |
| Chemicals .. .. | 34 | 22,985 |
| Collieries .. .. | 148 | 269,144 |
| Copper (Primary) .. | 1 | 8,975 |
| Copper (Secondary) .. | 1 | .. |
| Cotton Textiles .. | 324 | 126,472 |
| Ferromanganese .. | 6 | 32 |
| Fertilisers .. .. | 5 | 82,302 |
| Gold .. .. .. | 1 | 6,700 |
| Iron (Primary) .. | 7 | 326,698 |
| Iron & Steel (Secondary) | 39 | 2,455 |
| Jute .. .. .. | 74 | 28,249 |
| Oil & Petroleum .. | 5 | 9,591 |
| Paper .. .. .. | 23 | 75,284 |
| Silk .. .. .. | 10 | 1,480 |
| Soap .. .. .. | 10 | 532 |
| Sugar .. .. .. | 95 | 99,311 |
| Tanneries .. .. | 7 | 737 |
| Wool .. .. .. | 10 | 3,574 |
| Miscellaneous .. .. | 2 | 380 |
| TOTAL .. | 872 | 1,213,957 |

The generating plant capacity (in public utilities) by ownership is as follows:

Capacity (kW)

| | 1961-62 | 1962-63 | 1963–64 |
|---|---|---|---|
| State owned (Public Sector) | 3,861,734 | 4,305,644 | 4,741·709 |
| Companies (Private Sector) | 1,340,149 | 1,474,151 | 1,486·824 |
| | 5,201,883 | 5,779,795 | 6,228·583 |

The number of generating undertakings reckoned on ownership basis at the end of 1962-63 & 1963-64 was distributed as follows:

| | 1962-63 | 1963-64 |
|---|---|---|
| State Government .. State Electricity Board } | 17 | 20 |
| Power Corporation .. | 1 | 1 |
| Municipality .. .. | 20 | 23 |
| Companies .. .. | 99 | 80 |
| TOTAL .. .. | 143 | 124 |

It may be pointed out that in 1962-63, six large cities—Bombay (Tata), Calcutta, Ahmedabad, Kanpur, Madras and Delhi accounted for 23·6 per cent of the country's installed capacity and 27·7 per cent of the generated energy. The total number of consumers at the end of 1962-63 was 5,698,727 in all (Domestic 4,303,230; Commercial 913,760; Industrial 210,588; Public lighting 18,173; Irrigation 252,976).

The State-wise analysis of plant, generation and sales for 1963-64 is as follows:

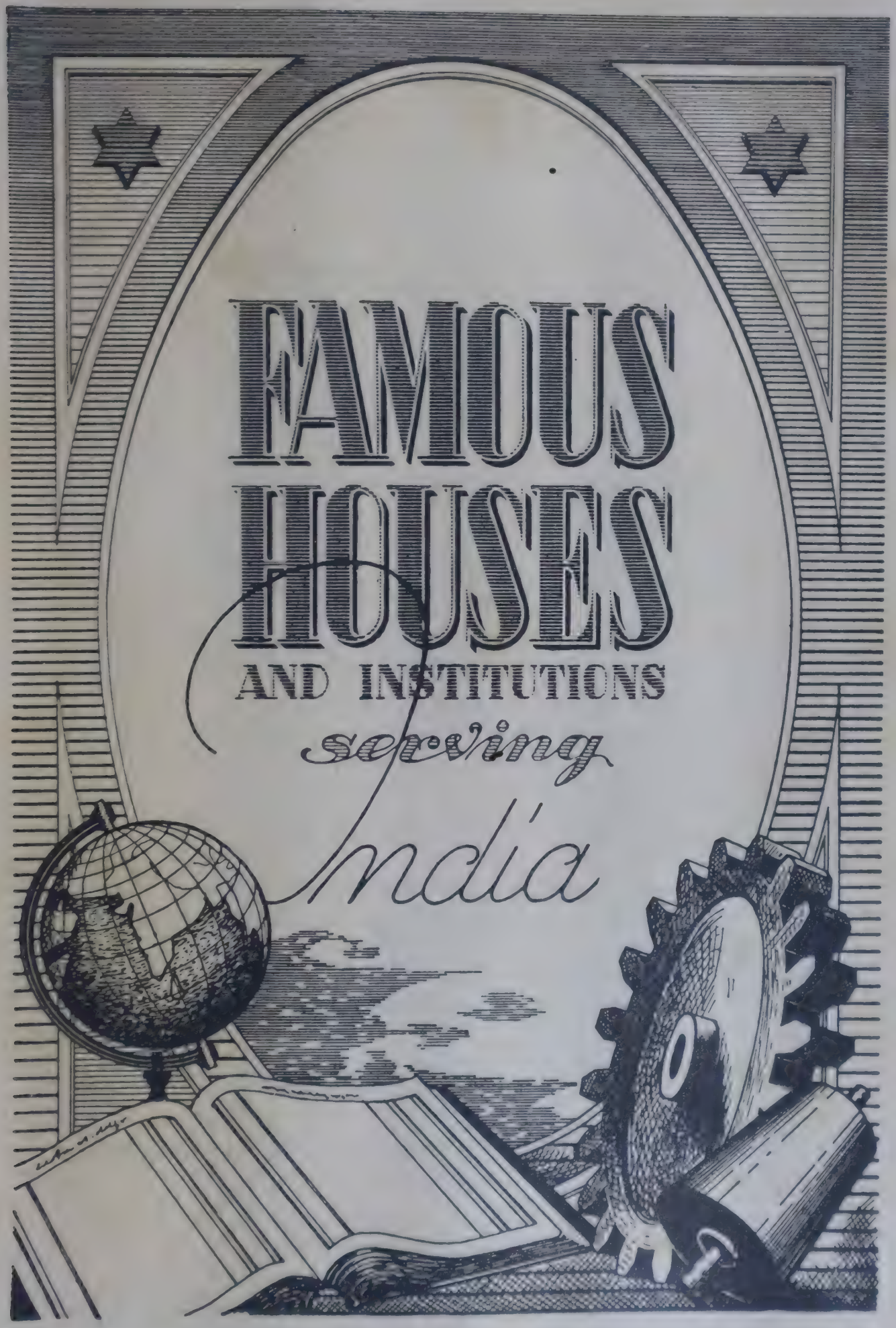
| State | No. of generating stations* | Installed capacity (kW) | Energy generated (mln. kWh) | Energy sold (mln. kWh) | Capacity in industrial Establishments (kW) | Annual *per capita* consumption (excluding self-gen. industries & railways) (kWh) | Annual *per capita* consumption (including self-gen. industries & railways) (kWh) |
|---|---|---|---|---|---|---|---|
| Andhra Pradesh | 74 | 296,851 | 1,274·648 | 822·345 | 48,255 | 21·88 | 26·32 |
| Assam | 36 | 29,365 | 57·102 | 49·302 | 9,516 | 3·80 | 6·03 |
| Bihar | 32 | 380,474 | 2,077·765 | 1,528·164 | 290,427 | 31·15 | 53·68 |
| Gujarat | 111 | 420,499 | 1,699·951 | 1,386·383 | 35,643 | 62·55 | 67·80 |
| Jammu & Kashmir | 9 | 32,288 | 89·491 | 97·474 | — | 26·63 | 26·63 |
| Kerala | 10 | 193,705 | 758·777 | 638·304 | 2,951 | 35·40 | 35·65 |
| Madhya Pradesh | 96 | 294,090 | 1,115·098 | 729·482 | 72,037 | 21·12 | 28·88 |
| Madras | 11 | 631,250 | 2,330·164 | 2,384·859 | 228,859 | 68·47 | 75·82 |
| Maharashtra | 103 | 885,504 | 4,338·840 | 3,548·303 | 63,485 | 84·20 | 95·38 |
| Mysore | 38 | 257,696 | 1,316·521 | 1,133·268 | 34,530 | 45·29 | 49·67 |
| Orissa | 32 | 288,210 | 911·071 | 729·270 | 121,914 | 39·39 | 65·32 |
| Punjab | 31 | 689,556 | 2,997·931 | 2,255·402 | 19,957 | 103·65 | 106·97 |
| Rajasthan | 59 | 77,239 | 80·410 | 285·732 | 40,631 | 13·21 | 30·01 |
| Uttar Pradesh | 81 | 765,368 | 2,483·767 | 1,651·096 | 67,417 | 21·37 | 22·76 |
| West Bengal | 27 | 860,757 | 3,656·982 | 3,598·206 | 148,281 | 94·56 | 108·28 |
| UNION TERRITORIES— | | | | | | | |
| Delhi | 7 | 114,230 | 291·596 | 510·580 | 29,459 | 169·06 | 200·74 |
| Andaman & Nicobar Islands | 13@ | 1,430 | 2·034 | 1·534 | — | 19·18 | 19·18 |
| Goa, Daman & Diu | — | 5,562 | 7·380 | 6·213 | — | 10·02 | 10·02 |
| Himachal Pradesh | — | 990 | 1·100 | 5·628 | — | 3·93 | 3·93 |
| Laccadive & Minicoy | — | 141 | 0·029 | 0·020 | — | 1·00 | 1·00 |
| Manipur | — | 850 | 2·721 | 1·683 | — | 1·98 | 1·98 |
| Nagaland | — | 725 | 0·871 | 0·674 | — | 1·64 | 1·64 |
| Pondicherry | — | — | 0·259 | 40·176 | 595 | 103·02 | 103·02 |
| Tripura | — | 1,753 | 3·264 | 2·810 | — | 2·07 | 2·07 |
| TOTAL | 770 | 6,228,533 | 25,497·772 | 21,406·908 | 1,213,957<br>201,827† | 46·16 | 54·66 |

* Figures are for 1962–63. @ For all the Union Territories excluding Delhi. † Capacity of Railways.

Installed capacity in kW for 1963–64 in the public utilities by source is given below:

| State | Steam | Hydro | Oil | Total |
|---|---|---|---|---|
| Andhra Pradesh | 103,500 | 180,000 | 13,351 | 296,851 |
| Assam | — | 9,940 | 19,425 | 29,365 |
| Bihar | 58,770 | — | 22,704 | 81,474 |
| Gujarat | 355,600 | — | 64,899 | 420,499 |
| Jammu and Kashmir | 1,500 | 29,252 | 1,536 | 32,288 |
| Kerala | — | 192,500 | 1,205 | 193,705 |
| Madhya Pradesh | 174,000 | 92,000 | 28,090 | 294,090 |
| Madras | 101,500 | 529,750 | — | 631,250 |
| Maharashtra | 307,250 | 523,888 | 54,366 | 885,504 |
| Mysore | 11,100 | 230,400 | 16,196 | 257,696 |
| Orissa | 5,750 | 270,000 | 12,460 | 288,210 |
| Punjab | 18,100 | 654,836 | 16,620 | 689,556 |
| Rajasthan | 47,850 | — | 29,389 | 77,239 |
| Uttar Pradesh | 380,710 | 341,970 | 42,688 | 765,368 |
| West Bengal | 618,150 | 7,508 | 10,099 | 635,757 |
| UNION TERRITORIES— | | | | |
| Delhi | 91,600 | — | 22,630 | 114,230 |
| Andaman and Nicobar Islands | 1,100 | — | 330 | 1,430 |
| Goa, Daman and Diu | — | — | 5,562 | 5,562 |
| Himachal Pradesh | — | 720 | 270 | 990 |
| Laccadive and Minicoy | — | — | 141 | 141 |
| Manipur | — | — | 850 | 850 |
| Nagaland | — | — | 725 | 725 |
| Pondicherry | — | — | — | — |
| Tripura | — | — | 1,753 | 1,753 |
| D.V.C. | 420,000 | 104,000 | — | 524,000 |
| TOTAL | 2,696,480 | 3,166,764 | 365,289 | 6,228,533 |

*Note:* The installed capacities of power plants jointly owned by participating States have been included in the States in which the plants are located.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In 1925, the proprietors decided to convert their firm into a Private Limited Company—J. B. Advani & Co. Ltd.—with a capital of Rs. 6,00,000.

In 1925, the management began to explore the Punjab market more energetically with a view to developing the business handled by the Head Office at Karachi and a Branch was accordingly opened in Lahore. This was followed by the opening of a Branch in Madras in 1927, which has made steady progress year by year. Three years later, another Branch was opened, this time in Calcutta. Branches have since been opened in Delhi, Jullundur, Cochin and Visakhapatnam.

The Directors of this Company started a new concern under the name and style of J. B. Advani & Co. (Mysore) Private Ltd. at Bangalore.

After partition of India, the Company's interests in Pakistan were converted into a non-resident company.—J. B. Advani & Co. (Pakistan) Ltd., with Head Office at Karachi and a branch at Lahore.

With its network of branches in all the important centres in India, J. B. Advani & Co. Private Ltd. today reaches every notable consuming centre in India.

The Company has a Paid-up Capital of Rs. 34,50,000. Besides, it has the substantial backing of its Directors and their relatives, and the Working Capital is actually in the vicinity of Rs. 1,00,00,000. The Company, with its branches and its tradition of over half a century as the largest importers of Paper in India with a turnover of Rs. 1,25,00,000 per annum, have since the last few years entered and specialised in machinery trade, dealing in Refractory Products. Arc & Resistance Welding Machinery & Equipment, Machine Tools, Plate & Sheet Metal Working Machinery, Building Machinery, Graphite Electrodes, all precision Machines to manufacture clocks, Time-pieces, watches and parts, bicycle parts, Refrigerator parts, etc. of Swiss and German origin, Gas or Oil fired Furnaces, Printing Inks etc. and is open to take up representation of Indian and foreign manufacturers of Paper and Machinery. The Company also exports, specially Tea, Textiles and Malabar Hill products.

In 1951 some of the Directors jointly started a modern Printing Ink Factory in collaboration with foreign experts at Bhandup, Bombay and today J. B. A. PRINTING INKS PRIVATE LIMITED have their vast clientele spread all over India and the neighbouring countries.

Another enterprise with which they are associated is the one for the manufacture of Welding Electrodes, probably the first major attempt in this field of industry in India. In partnership with the Oerlikon Machine Tool Works (Messrs. Buehrle & Co.), Zurich, Switzerland, the world famous manufacturers of Welding Electrodes, a new company has been floated under the name of J. B. ADVANI-OERLIKON ELECTRODES PRIVATE LTD. with 80 per cent of the share capital subscribed by J. B. Advani & Co. Private Ltd. With an uptodate factory and most modern production line, this factory, situated at BHANDUP (Central Rly.), Greater Bombay, is producing now some of the best Welding Electrodes in the world. They have amongst their patrons, Government, Railways, Shipyards, and Great Steel fabricators of India. A branch factory to manufacture electrodes has been set up in 1961 at Raipur while a new factory with Czech collaboration is set up at Chinchwad, Poona to manufacture Arc Welding Generators. It is now in production.

A third enterprise with which they are connected is the one for the manufacture of Drinking Straws and Waterproof Kraft Paper. Messrs. IDEAL WRAPPERS PRIVATE LTD. have the leading Aerated Water manufacturers and Textile Mills as their patrons. This factory is also located at Bhandup.

Now they have their own factory at Hay Bunder, Sewri, manufacturing Arc Welding Transformers accepted by users as perhaps some of the best, comparable with similar types manufactured in advanced Western countries.

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*Branches :* CALCUTTA — DELHI — MADRAS — JULLUNDUR — COCHIN — VISAKHAPATNAM

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# GENERAL INDEX

## A


PAGE

Aarey Milk Colony .. .. .. .. .. .. 619
Abrasives .. .. .. .. .. .. 465, 584, 724, 1057
Academy of Administration, National .. .. .. 266
Accounting Machines .. .. .. .. .. 465, 774, 1057
Acids & Allied Products .. .. .. .. 774, 1057
Adding and Calculating Machines .. .. .. 465, 774, 1057
Addressing & Listing Machines .. 465, 512, 584, 775, 1058
Administration of Justice .. .. .. .. .. 98
High Courts .. .. .. .. .. .. 99
Hindu Law Reform .. .. .. .. .. 101
Law Commission Report .. .. .. .. 102
Supreme Court .. .. .. .. .. 99, 105
Administrative Personnel, Central Govt. .. .. .. 1142
,, ,, States .. .. .. 1121–1141
Advertising Agencies Assocn. of India .. .. .. .. 629
Advertising Agents and Consultants .. .. .. 584, 775, 1058
,, and Publicity Agents .. .. .. 465, 512
,, Gifts & Novelties .. .. .. .. 775
Aerated Water Manufacturers .. .. .. 427, 465, 512, 777
,, ,, Requisites .. .. .. .. 585, 777, 1060
Aerodromes (Civil Aviation) .. .. .. .. .. 388
Aeronautical Communication Service .. .. .. .. 389
Age Groups (Population) .. .. .. .. .. 209
Agency for International Development, (U.S. Aid to India) .. 251
Agents and General Merchants .. .. .. .. 778, 1061
Agents, Insurance .. .. .. .. .. 779
Agents/Representatives of Overseas Firms in Bombay .. 683
Agra University .. .. .. .. .. .. .. 1341
Agricultural Colleges .. .. .. .. .. .. 344
,, Credit Societies .. .. .. .. .. 123
,, Implements and Requisites .. 396, 427, 780, 1063
,, Labour .. .. .. .. .. .. 369
,, Machinery .. .. .. 396, 466, 780, 1063
,, Marketing and Processing Societies .. .. 124
,, Production .. .. .. .. .. .. 348
,, Re-Finance Corporation .. .. .. .. 83
,, Science University .. .. .. .. .. 1005
Agricultural Universities .. .. .. 427, 1005, 1021
Agriculture .. .. .. .. .. .. .. 340
Co-operative Farming .. .. .. .. .. 346
Land Policy .. .. .. .. .. .. .. 344
Research .. .. .. .. .. .. .. 343
Statistics .. .. .. .. .. .. .. 347, 353
Tenancy Reform .. .. .. .. .. .. 345
Ahmedabad District .. .. .. .. .. .. 506
Classified List of Trades and Professions .. .. 512
Commercial Firms .. .. .. .. .. 511
Gujarat University .. .. .. .. .. 507
Ahmednagar District .. .. .. .. .. .. 977
Aid to India, Foreign .. .. .. .. .. .. 302
,, ,, ,, U.N. .. .. .. .. .. .. 64
,, ,, ,, U.S. .. .. .. .. .. .. 251
Air Agreements .. .. .. .. .. .. .. 390
,, Compressors .. .. .. .. .. .. 780, 1063
,, Conditioning & Refrigeration .. 427, 466, 512, 780, 1063
Aircraft, Aircraft Parts & Accessories .. .. 781, 1064
Air Force, Indian .. .. .. .. .. .. 75
,, India .. .. .. .. .. .. .. 187, 388
,, Training (Civil Aviation) .. .. .. .. .. 389
AIR Stations (Broadcasting) .. .. .. .. .. 95
Airlines Corporation, Indian .. .. .. .. 187, 388
Airway Companies .. .. .. .. .. 185, 1315
Akashvani .. .. .. .. .. .. .. 93
Akhil Bharat Hindu Mahasabha .. .. .. .. 1271
,, Sarva Seva Sangh .. .. .. .. 1343
Akola District .. .. .. .. .. .. .. 977
Alcohol Industry .. .. .. .. .. .. 390
Aligarh University .. .. .. .. .. .. 1342
Allahabad University .. .. .. .. .. .. 1342
All India Boy Scouts Association .. .. .. .. 443
All-India Corporations .. .. .. .. .. 83, 1351
,, Forward Bloc .. .. .. .. .. 1271
,, Harijan Sevak Sangh .. .. .. .. 443
All India Institute of Local Self Government .. .. 666
All India Institute of Physical Medicine and Rehabilitation 666
,, Radio .. .. .. .. .. .. .. 93
,, Services (Public Services) .. .. .. .. 265
,, Trade Union Congress .. .. .. .. 444
All-India Women's Conference .. .. .. .. 1175
Aluminium (Non-Ferrous Industry) .. .. .. .. 284
Aluminium Ladder Mfrs. .. .. .. .. 783, 1066
,, Manufacturers and Dealers .. .. .. .. 1058


## B


PAGE

Aluminium Products .. .. .. .. .. 783, 1066
,, Sheets, Rods etc. .. .. .. .. .. 783
Ambar Charkha (Cottage Industries) .. .. .. .. 165
Ambassadors, Indian .. .. .. .. .. .. 1162
,, Foreign .. .. .. .. .. .. 1168
Amendment of the Constitution .. .. .. .. 107
Amplifier Mfrs. & Exporters .. .. .. .. .. 783
Amravati District .. .. .. .. .. .. 978
Amreli District .. .. .. .. .. .. .. 535
Analysts .. .. .. .. .. .. .. 585, 783
Andaman and Nicobar Islands .. .. .. .. .. 415
Andhra Pradesh .. .. .. .. .. .. 417
Andhra University .. .. .. .. .. .. 421
Associations, Institutions, etc. .. .. . .. 423
Classified List of Trades & Professions .. .. .. 427
Commercial Firms .. .. .. .. .. .. 425
Fisheries .. .. .. .. .. .. .. 155
Osmania University .. .. .. .. .. .. 421
Sri Venkateswara University, Tirupati .. .. .. 422
Andhra Paper Mills .. .. .. .. .. .. 143
Andhra Pradesh Industrial Development Corpn. .. .. 108
Andhra Pradesh Mining Corporation .. .. .. .. 108, 143
,, State Financial Corporation .. .. .. .. 108
Annamalai University .. .. .. .. .. .. 572
Anodizing .. .. .. .. .. .. 784, 1067
Antimony (Non-Ferrous Industry) .. .. .. .. 283
Appellate Tribunal (Labour) .. .. .. .. .. 359
Architects and Surveyors .. .. .. .. 784, 1067
Arecanut Industry .. .. .. .. .. .. 35
Armed Forces Medical Services (Defence Services) .. .. 72
Arms and Ammunition .. .. .. .. .. .. 785
Army, Indian (Defence Services) .. .. .. .. 73
Aromatic Chemicals .. .. .. .. .. .. 785
Arts and Crafts Manufacturers & Dealers .. .. .. 467
Asbestos Products .. .. .. .. 427, 467, 585, 785
Assam Govt. Construction Corporation .. .. .. 108
Assam State .. .. .. .. .. .. .. 434
Associations .. .. .. .. .. .. 437
N.E.F.A. .. .. .. .. .. .. 438
University of Gauhati .. .. .. .. .. 437
Assam State Financial Corporation .. .. .. .. 108
Associations (*See under each State*)
Atomic Energy (Research) .. .. .. .. .. 162
,, Minerals (Research) .. .. .. .. .. 163
,, Power Stations, Tarapur .. .. .. .. .. 143
,, Reactors (Govt. Industrial Undertakings) .. .. 132
Attorneys and Solicitors' Firms .. .. .. .. 786
Auctioneers .. .. .. .. .. .. .. 787
Audit Bureau of Circulations Ltd. .. .. .. .. 630
Aurangabad District .. .. .. .. .. .. 978
Automobile and Automobile Parts and Accessories Dealers and Engineers .. .. 427, 467, 513, 586, 1059
,, Engineers .. .. .. .. 427, 469, 513, 787
,, Industry .. .. .. .. .. 1279
,, Parts & Accessories .. .. .. .. 787
,, (Trucks, Motor-cars and Motor-cycles) .. .. 585
Auxilary Air Force .. .. .. .. .. .. 76
Awards & Prizes .. .. .. .. .. .. 277
Ayurvedic and Unani Institutions (Public Health) .. 338

Bakelite .. .. .. .. .. .. .. .. 790
Bakery & Confectionery .. .. .. .. .. .. 790
Balak Mandir .. .. .. .. .. .. .. 666
Ball and Roller Bearings .. .. 398, 469, 512, 587, 790
Balkan-Ji-Bari .. .. .. .. .. .. .. 649
Banaras Hindu University .. .. .. .. .. 1342
Banaskantha District .. .. .. .. .. .. 535
Bangalore District .. .. .. .. .. .. 1009
,, Municipal Corporation .. .. .. .. 1009
,, Trades and Professions .. .. .. .. 1010
,, University .. .. .. .. .. .. 1005
Banking .. .. .. .. .. .. .. .. 385
Banks & Bankers (Maharashtra) .. .. .. .. 677
Baptist Churches .. .. .. .. .. .. 255
Baroda District .. .. .. .. .. .. 535
,, Trades & Professions .. .. .. .. .. 537
,, University .. .. .. .. .. .. 536
Basic Education .. .. .. .. .. .. 320
Battery Mfrs. and Dealers .. .. .. .. 513, 791
Bearings & Shaftings .. .. .. .. .. .. 792

## B—*Contd.*


| | Page |
|---|---|
| Banks and Industry | 166 |
| Belting Manufacturers and Dealers | 792 |
| Benevolent Institutions in Greater Bombay | 637 |
| Bhadra Project (Irrigation) | 190 |
| Bhagalpur University | 1328 |
| Bhakra-Nangal Project (Irrigation) | 190 |
| Bhandara District | 979 |
| Bhandarkar Oriental Research Institute | 987 |
| Bharat Earth Movers Ltd. | 133 |
| Bharat Electronics Ltd. (Govt. of India Undertakings) | 138 |
| ,, Heavy Electricals Ltd. | 136 |
| ,, Sewak Samaj | 444 |
| Bharata Intensive Sahakarikaran Mandala | 987 |
| Bharatiya Adimjati Sevak Sangh | 445 |
| ,, Jan Sangh | 1271 |
| ,, Navjiwan Sangh | 445 |
| ,, Vidya Bhawan | 667 |
| Bhavnagar District | 539 |
| Bhir District | 979 |
| Bhilai Steel Project (Govt. of India Undertakings) | 1366 |
| Bhiwandi | 82 |
| Bhopal (Misc. Industries) | 898 |
| Bihar State | 1323 |
| Bihar University | 1328 |
| Bihar State Financial Corporation | 108 |
| ,, ,, Industrial Development Corporation | 108 |
| ,, ,, Insurance Survey | 144 |
| ,, ,, Small Industries Corpn. Ltd. | 109 |
| ,, ,, Superphosphate Factory | 144 |
| Biscuit Manufacturers | 792 |
| Blood Sampling Institution | 15 |
| Boilers | 793 |
| Board of Film Censors, Central | 172 |
| Bolts | 513, 793 |
| Boiler—Agents, Preservatives and Compositions | 793 |
| Bokaro Steel Plant | 135 |
| Bolts, Nuts & Screws | 427, 470, 514, 587, 794 |
| Bombay Agents/Representatives of Overseas Firms | 683–699 |
| ,, Associations (Trade and Commercial) | 629 |
| ,, Benevolent Institutions | 637 |
| ,, Chambers of Commerce | 643 |
| ,, Churches | 644 |
| ,, Cinemas | 646 |
| ,, Classified List of Overseas Firms | 683 |
| ,, Classified List of Trades & Professions | 774 |
| ,, Clubs | 646 |
| ,, Commercial and Technical Schools | 664 |
| ,, Commercial Firms | 700, 773 |
| ,, Cultural and Scientific Institutions | 648 |
| ,, Hindu Temples Institutions | 667 |
| ,, Educational Institutions | 660 |
| ,, Hospitals | 672 |
| ,, Missionary and Religious Societies | 675 |
| ,, Municipal Corporation | 622 |
| ,, ,, People's Education Society | 670 |
| ,, Railway Personnel | 1134 |
| ,, Rainfall | 628 |
| ,, Reading Rooms & Libraries | 676 |
| ,, Swimming Pools and Baths | 676 |
| ,, Technical Institutions | 664 |
| ,, University | 660 |
| Bonus Commission (Labour) | 372 |
| Book-binding (Machine Mfrs. & Dealers | 794 |
| Booksellers, Printers & Publishers | 795 |
| ,, and Publishers | 470, 587, 795 |
| Bottles & books | 796 |
| Box Manufacturers | 796 |
| Brass (Non-Ferrous Industry) | 285 |
| Breweries | 797 |
| Brick and Tile Manufacturers and Merchants | 797 |
| British Council, The | 667 |
| British Information Services (The Press) | 820 |
| Broach District | 540 |
| Broadcasting | 93 |
| Brokers (Stock & Share) | 588, 797 |
| Brush Manufacturers | 471, 798 |
| Buckets, Barrels, Drums and Hollow-ware Manufacturers | 799 |
| Budget (Central) | 291, 1125 |
| ,, (State) | 10, 1134 |
| Buildings (Misc. Industries) | 871 |
| Buildings & Constructors | 799, 1104 |
| ,, Hardware | 471, 799 |
| Buildings Construction Corpn. Ltd., National | 86 |
| ,, Materials | 834 |
| Bulsar District | 979 |
| Bureau | 867, 869 |
| Bulsar District | 540 |
| Burmah-Shell Refineries Ltd. | 788 |


## C


| | Page |
|---|---|
| Cables & Wire Mfrs. | 472, 515, 800 |
| Calcutta Municipal Corporation | 1080 |
| ,, University | 1052 |
| Calendar Manufacturers | 472, 802 |
| Calex Oil Refining (India) Ltd. | 788 |
| Canners (Fruits and Vegetables) | 802 |
| Canning and Confectionery Works | 472 |
| Canteen Stores Suppliers | 802 |
| Capital Market | 1263 |
| ,, Capital Issues | 1263 |
| ,, Gilt Edged Market | 1270 |
| ,, Public Companies | 1256 |
| Card Board Box Mfrs. | 472, 803 |
| Card Clothing | 515, 803 |
| CARE | 446 |
| Carpets Manufacturers, Exporters & Dealers | 472, 803 |
| Casein Manufacturers | 804 |
| Cast Iron Castings | 804 |
| Cast Iron Pipes & Specials | 472, 515, 804 |
| Catholic Churches | 205, 644 |
| Catering College (Education) | 829 |
| Cement and Concrete Companies | 804 |
| ,, and Soil Testing Equipment | 804 |
| ,, Industry | 1317 |
| ,, Corporation of India Ltd. | 83 |
| Census (Population) 1961 | 194 |
| Central Board of Film Censors, Film Industry | 172 |
| ,, Bureau of Investigation | 1359 |
| ,, Bureau of Investigation | 295 |
| ,, Cooperative Banks | 128 |
| ,, Govt. Health Scheme | 859 |
| ,, Labour Institute | 371 |
| ,, Land Mortgage Banks (Cooperative Movement) | 124 |
| ,, Machine Tool Institute | 1096 |
| ,, Road Transport Corporation Ltd. | 86 |
| ,, Silk Board | 177 |
| ,, Social Welfare Board | 86 |
| Central Wage Board (Textile Industry) | 179 |
| Central Warehousing Corporation | 83 |
| Chain Pulley Blocks | 804 |
| Chains (Short Link & Cable) | 805 |
| Chambers of Commerce in Bombay | 643 |
| Chanda District | 979 |
| Chemical & Pharmaceutical Industry | 1348 |
| ,, ,, Machinery | 1096 |
| Chemical and Pharmaceutical Product Mfrs. | 473, 589, 1096 |
| ,, Engineering Equipment | 473, 805 |
| ,, Manufacturers | 805 |
| ,, (Importers and Stockists) | 807, 1096 |
| ,, (Pharmaceuticals) | 810 |
| Chemists & Druggists | 474, 517, 811, 1070 |
| Chittaranjan Locomotive Works (G.L.U.) | 134 |
| Christian Missions in India | 257 |
| Chromite | 48 |
| Churches in Greater Bombay | 644 |
| Churches in India | 255 |
| Cinemas in Greater Bombay | 646 |
| Cinema and Motion Pictures | 818 |
| ,, Machinery | 815 |
| Cinematograph Act | 173 |
| Cinematograph Importers | 815 |
| Circulars | 815 |
| Cities and population | 197 |
| Civil Aviation | 387 |
| Classified List of Overseas Firms and their Bombay Agents | 683 |
| Classified List of Trades & Professions | 427, 465, 512, 584, 696, 774 |
| Clearing and Forwarding Agents | 475, 815, 1072 |
| Cloth Merchants, Wholesale and Retail | 816 |
| Clubs in Bombay | 646 |
| Coal Mines and Minerals) | 46 |
| Coal and Coke | 817 |
| Coal Mines Welfare Fund | 368 |
| Coastal Refineries Ltd. | 145 |
| Cocks and Valves | 475, 517, 817, 1073 |
| Code of Discipline (Labour) | 370 |
| Coffee Industry | 86 |
| ,, Board | 87 |
| Coimbatore District | 571, 695 |
| ,, Commercial Firms | 695 |
| ,, Trades and Professions | 695 |
| Coke Industry | 87 |
| Collapsible Tubes | 818 |
| Collection Equipment | 144 |
| Colombo Plan | 65 |
| Colour Merchants | 818 |

## C—*Contd.*


PAGE

Commercial Associations in Greater Bombay .. .. 929
.. [illegible] Arts, Sciences and [illegible] .. 361
.. Firms (*See under each State and District*)
.. & Technical schools, Bombay .. .. .. 964
Communist Party of India .. .. .. .. 1272
Community Development Projects and Panchayats .. .. 272
.. .. [illegible] .. .. .. 1359
Company Law [Industrial structure and Policy] .. .. 1291
Compulsory Education .. .. .. .. .. 347
Condiment Manufacturers .. .. .. .. .. 819
Confectionery Manufacturers .. .. .. .. 476
Congress, Indian National .. .. .. .. 1274
Constitution of India .. .. .. .. .. 103
Consular Offices in India, Foreign .. .. .. .. 1179
Consulates-General, and Consulates, Indian .. .. .. 1185
Consulting Engineers .. .. .. .. .. 519
Consumer Price Index Numbers .. .. .. .. 271
Containment Houses .. .. .. .. .. 672
Cooley Fund [U.S. Aid] .. .. .. .. .. 252
Co-operative Banks .. .. .. .. .. .. 123
.. Farming .. .. .. .. .. .. 346
.. for American Relief Everywhere .. .. .. 446
Co-operative Movement, The .. .. .. .. .. 123
Co-operative Sugar Factories .. .. .. .. .. 43, 124
Land Mortgage Banks .. .. .. .. .. 124
Taxes .. .. .. .. .. .. 126, 131
Co-operative Societies .. .. .. .. .. .. 124
Copper .. .. .. .. .. .. .. 48, 242
Copper and Brassware Mfrs. and Dealers .. .. .. 519
Corporations, All India .. .. .. .. .. .. 93
.. State .. .. .. .. .. .. 103
Corrugated Manufacturers .. .. .. .. .. 820
Cottage Industries .. .. .. .. .. .. 144
Mineral Industry .. .. .. .. .. 167
Cotton .. .. .. .. .. .. 179, 342
Cotton and Yarn Merchants .. .. .. .. .. 825
.. Dealers .. .. .. .. .. .. 820
.. Export Promotion .. .. .. .. .. 1254
.. Mills .. .. .. .. .. .. 518, 823
.. Piece-goods Exporters .. .. .. .. .. 825
.. Waste .. .. .. .. .. .. 826, 1078
Council of Agricultural Economic Research, National .. .. 452
.. of Scientific and Industrial Research .. .. .. 140
.. of World Affairs, Indian .. .. .. .. 449
Credit & Investment Corporation of India Ltd., Industrial .. .. 85
Crockery .. .. .. .. .. .. .. 826
Crucibles Manufacturers and Dealers .. .. .. .. 826
Cultural, Political, Professional Institutions in Bombay .. .. 945
.. Scholarships .. .. .. .. .. .. 206
Curio Dealers .. .. .. .. .. .. .. 827
Cutlery Mfrs. and Merchants .. .. .. .. .. 827
Cuttack Iron & Steel Products Ltd. .. .. .. .. 145
Cycle & Cycle Accessories Importers & Dealers .. 520, 827, 1073


## D


Dadra and Nagar Haveli .. .. .. .. .. 501
Dairy Companies .. .. .. .. .. .. 824
Dairying (Livestock) .. .. .. .. .. .. 214
Daman & Diu, Goa .. .. .. .. .. .. 499
Damodar Valley Project (Irrigation) .. .. .. .. 191
Damp Courses .. .. .. .. .. .. 429, 520, 824
Dandakaranya Scheme (Refugees & Rehabilitation) .. .. 376
Dangs District .. .. .. .. .. .. .. 540
Dearness Allowance .. .. .. .. .. .. 309
Debt Position (Public Finance) .. .. .. .. .. 262
Deccan College Post-Graduate and Research Institute .. .. 147
Decorators .. .. .. .. .. .. .. 824
Defence Services .. .. .. .. .. .. 73
Gallantry Awards .. .. .. .. .. .. 75
Indian Air Force .. .. .. .. .. .. 74
Indian Army .. .. .. .. .. .. .. 73
Indian Navy .. .. .. .. .. .. .. 74
Delhi .. .. .. .. .. .. .. .. 440
Associations, Societies, etc. .. .. .. .. .. 448
Classified Trades and Professions .. .. .. .. 456
Commercial Firms .. .. .. .. .. .. 442
Municipal Corporation .. .. .. .. .. 448
University .. .. .. .. .. .. .. 448
Dental Education .. .. .. .. .. .. 1084
.. Goods .. .. .. .. .. .. 824
Deposit Insurance Corporation .. .. .. .. .. 84
Development in Trade Policy (Import & Export Trade) .. .. 111
Dhanbad District .. .. .. .. .. .. .. 440
Dhulia District .. .. .. .. .. .. .. 44
Diamond Mines and Minerals) .. .. .. .. .. 244
.. Processing Trade .. .. .. .. .. 824
Diamond Precious Stone and Pearl Merchants .. .. .. 824
Diesel Engines .. .. .. .. 396, 429, 476, 520, 824
.. .. Importers & Manufacturers .. .. .. .. 824
Directorate of Advertising & Visual Publicity .. .. .. 824
Disinfectants and Insecticides Mfrs. .. .. .. .. 820
Displaced Persons from Pakistan .. .. .. .. 376
Dock Workers Act (Labour) .. .. .. .. .. 356
Domestic Electric Appliances .. .. .. .. .. 824
Dravida Munnetra Kazhagam .. .. .. .. .. 1276
Drawing Material Dealers .. .. .. .. .. 824
Drawing Office and Survey Requisites .. .. 476, 824, 1074
Drug Research Laboratories .. .. .. .. .. 144
Drugs (Prices Control) .. .. .. .. .. .. 309
Drums and Containers Mfrs. .. .. .. .. 476, 824
"Dufferin," Training Ship .. .. .. .. .. 1084
Durgapur Steel (Govt. Industrial Undertakings) .. .. .. 1154
Dyeing, Printing & Bleaching Companies .. .. .. 520, 824
Dyes and Chemicals Dealers .. .. .. .. 476, 824
Dyestuffs .. .. .. .. .. .. 824, 832


## E


Earthmoving & Material Handling Equipment .. 477, 484, 1075
Education .. .. .. .. .. .. 309, 1084
Educational Institutions (*See under individual States and Districts*)
.. Statistics .. .. .. .. .. 405—415
Elections (General) (1962) .. .. .. .. .. 214
Electric Fans .. .. .. .. .. .. 477, 484, 1075
.. Goods (Importers, Stockists & Dealers) .. .. 836, 1075
.. Motor Starters .. .. .. .. .. 837
.. .. Generators and Sets .. .. .. 609, 836
.. Power Development .. .. .. .. .. 1154
.. Switchgear Mfrs. .. .. .. .. 837, 1076
Electrical and Mechanical Engineers and Contractors .. .. .. .. 396, 477, 520, 692
.. Engineers, Mfrs. & Dealers in Electric Goods .. .. 396, 429, 520, 692, 836, 1076
.. Goods and Appliances .. 476, 692, 836, 842, 1076
.. Heating Elements .. .. .. .. .. 842
.. Industries .. .. .. .. .. .. 821
.. Instruments and Meters .. .. .. .. .. 842
Electronics .. .. .. .. .. 479, 691, 843, 1077
Electroplaters, Electrotypers & Gilders .. .. .. .. 842
Electroplating Materials Mfrs. and Dealers .. .. 479, 842, 1077
Embassies, Abroad, Indian .. .. .. .. .. 1182
.. in India, Foreign .. .. .. .. .. 1185
Embroideries .. .. .. .. .. .. 844
Emergency Provisions (Constitution of India) .. .. 107
Emigrant Labour Act, Tea Districts .. .. .. .. 998
Emigration Laws .. .. .. .. .. .. 77
Employees' Provident Fund Act .. .. .. .. 359
.. State Insurance Corporation (Labour) .. .. 364
Employment & Training (Labour) .. .. .. .. 354
.. Act, Industrial .. .. .. .. .. 347
.. Exchanges .. .. .. .. .. .. 354
.. in Foreign Companies .. .. .. .. 367
.. for the Handicapped .. .. .. .. 371
.. in Mines (table) .. .. .. .. .. 356
Employers' Federation of India .. .. .. .. 622
Engineering .. .. .. .. .. .. .. 1075
.. and Technology, Institutions (*see also under each State*) .. .. .. .. .. .. 321
.. Faculty .. .. .. .. .. .. 321
.. Research .. .. .. .. .. .. 162
.. Stores (Importers & Dealers) .. .. .. 844
.. Tools .. .. .. .. .. .. .. 845
Engineers and Contractors .. .. .. .. 521, 840
Engineers—Electrical and Mechanical .. .. .. .. 1077
Engines (Diesel and Oil) .. .. .. .. .. 502
Engravers and Die Sinkers .. .. .. .. .. 845
Essential Oils .. .. .. .. .. .. 847
Essences .. .. .. .. .. .. .. 845
Esso Refinery .. .. .. .. .. .. 844
Estimates Committee .. .. .. .. .. .. 144
Events of the Year 1965 .. .. .. .. .. 1
Exchange Controls, Foreign .. .. .. .. .. 1
Excise Duties, Union (Public Finance) .. .. .. .. 264
Expanded Metal and Wire Netting .. .. .. .. 1
Expenditure (Central Govt.) .. .. .. .. .. 240
Export and Import Trade .. .. .. .. .. 114
.. .. Methods .. .. .. .. .. .. 50
Export-Import Bank .. .. .. .. .. .. 253
.. Credit and Guarantee Corpn. Ltd. .. .. .. 84
Exports Corporation, The Handicrafts & Handlooms .. .. 85
Express Highways (Roads) .. .. .. .. .. 243


## F


Factories Act, 1948 .. .. .. .. .. .. 254
Family Planning .. .. .. .. .. .. 18
.. .. Association .. .. .. .. .. 636
Famous Houses .. .. .. .. .. .. .. 1361
Federation of Cooperative Sugar Factories .. .. .. 453
Federation of Indian Chambers of Commerce and Industry .. 447
.. of National Churches, All India .. .. .. 644
.. of University Women's Assocn. .. .. .. 1175

## F—*Contd.*


| | PAGE |
|---|---|
| Fertiliser Corporation of India Ltd. | 134 |
| Fertilisers (Chem. & Pharm. Industry) | 1319 |
| Fertilisers & Chemicals | 134, 850, 1080 |
| ,, ,, ,, (Travancore Ltd.) | 134 |
| ,, ,, Manures (Food) | 249 |
| Fibre Industry (Cottage Industries) | 168 |
| Film Finance Corporation | 84 |
| ,, Awards | 172 |
| ,, Industry | 170 |
| Films Division | 171 |
| Filter & Filter Installations | 1080 |
| Finance, Public | 260 |
| Budget (1965–66) (Central) | 260 |
| Capital Account | 261 |
| Income-tax | 264 |
| ,, ,, Industrial | 86 |
| Fire-Bricks & Refractories | 480, 521, 850, 1080 |
| Fire Fighting Appliances | 522, 850, 1080 |
| Fireworks Mfrs. and Dealers | 851 |
| Fisheries | 153 |
| Livestock | 214 |
| Roads | 243 |
| Five-Year Plans | 1301 |
| Fixation of Ceiling on Holding (Agriculture) | 346 |
| Flood Control and Soil Conservation (Irrigation) | 190 |
| Flooring Tile and Compositions Mfrs. | 522, 852 |
| Fluorescent Tubes and Fittings Mfrs. | 852 |
| Food | 247 |
| Food & Agricultural Organisation | 1173 |
| Food Corporation of India | 84 |
| Footwear Industry (Hides, Skins & Leather) | 392 |
| Ford Foundation | 447 |
| Foreign Aid to India | 302 |
| ,, Consular Offices in India | 1170 |
| ,, Business Investments | 27 |
| ,, Exchange Controls | 380 |
| ,, Liabilities & Assets—1961, India's | 20 |
| ,, News Agencies (The Press) | 328 |
| ,, Trade (Import and Export Trade) | 114 |
| ,, ,, by Country (tables) | 117 |
| Foreigners in India (Population) | 209 |
| Forests | 269 |
| Founders and Foundry Equipment | 480, 522, 853 |
| Foundry and Foundry Requisites | 1081 |
| Fountain Pens Importers, Mfrs. & Dealers | 400, 480, 592, 854 |
| Fourth Five Year Plan Targets | 1312 |
| Free and Compulsory Education | 317 |
| Freight Brokers | 854 |
| Frontier With China | 1292 |
| Fruit (Agriculture) | 342 |
| Fuel Injection Equipment | 480, 593, 854 |
| Fundamental Rights (Constitution of India) | 104 |
| Furniture and Fitting Mfrs. and Dealers | 480, 854, 1082 |


## G


| | |
|---|---|
| Gallantry Awards (Defence Services) | 73 |
| Galvanised Sheet Merchants | 1082 |
| Gandak Project (Irrigation) | 193 |
| Gandhisagar Power Station | 561 |
| Gandhi Smarak Nidhi | 447 |
| Garden Reach Workshops Ltd. (Govt. Ind. Und.) | 1352 |
| Gas & Chemical Plants | 1082 |
| ,, Mantle Manufacturers | 1082 |
| Gauges & Instruments | 1082 |
| Gauhati University | 437 |
| General Elections (1962) | 216 |
| Geography (Physiography) | 1 |
| Gilt Edged Market (Capital Market) | 1283 |
| Glass | 481, 856 |
| ,, Industry | 281 |
| ,, Manufacturers and Merchants | 857 |
| Glassware Merchants | 1083 |
| Goa, Daman & Diu | 499 |
| Gold and Silver (Bullion) | 879 |
| ,, Mining Undertakings, Kolar | 141 |
| Gorakhpur University | 1342 |
| Government Administrative Personnel | 1142 |
| ,, ,, ,, (States) | 1121-41 |
| Government Central Industrial Workshop | 146 |
| ,, Ceramic Factory | 144 |
| ,, Electric Factory | 146 |
| Government Industrial Undertakings | 132, 1352 |
| Atomic Reactors | 132 |
| Bharat Electronics Ltd. | 133 |
| Bokaro Steel Ltd. | 133 |
| Chittaranjan Locomotive Works | 134 |
| Fertilizer Corporation | 134 |
| Indian Drugs and Pharmaceuticals Ltd. | 139 |
| ,, Rare Earths Ltd. | 140 |
| ,, Telephone Industries Ltd. | 140 |
| Integral Coach Factory | 141 |
| Kolar Gold Mining | 141 |
| Neyveli Lignite Corporation | 142 |
| State-Owned and State Aided Undertakings | 143 |
| Government of India Personnel | 1142 |
| ,, ,, ,, Constitution | 103 |
| ,, ,, ,, Trade Representatives Abroad | 1169 |
| ,, Porcelain Factory | 146 |
| ,, Precision Instruments Factory | 148 |
| ,, Sandalwood Oil Factories | 147 |
| ,, Services | 265 |
| ,, Shellac Factory | 144 |
| ,, Soap Factory | 147 |
| Greater Bombay | 621 |
| Associations, Institutions etc. | 629 |
| Greeting Cards | 858 |
| Grinding & Pulverising (Powdering) | 481, 858 |
| Guide to Taxes on Income | 264 |
| Gujarat Industrial Development Corporation | 109 |
| ,, Mineral Development Corporation Ltd. | 109 |
| Gujarat Research Society | 652 |
| Gujarat State | 502 |
| Ahmedabad District | 506 |
| Associations, etc. | 508 |
| Commercial Firms | 511 |
| Educational Institutions | 507 |
| Fisheries | 155 |
| Irrigation Projects | 505 |
| Gujarat Small Industries Corpn. | 109 |
| ,, State Financial Corporation | 109 |
| ,, University | 507 |
| Gunny Bags, Hessian Cloth & Twine Merchants | 859 |
| ,, Traders & Exporters | 1084 |
| Gur and Khandsari (Cottage Industries) | 167 |
| Gypsum (Mines and Minerals) | 48 |


## H


| | |
|---|---|
| Handicrafts | 169 |
| ,, Manufacturers, Dealers and Exporters | 481 |
| ,, and Handlooms Exports Corpn. of India Ltd. | 85 |
| Handloom Board, All India | 1147 |
| ,, Merchants & Exporters | 593 |
| Handlooms (Cottage Industries) | 165 |
| Handmade Paper Industries | 166 |
| Hard Board | 859, 1085 |
| Hardware Dealers & Iron Mongers | 482, 594, 859, 1085 |
| ,, Importers | 861 |
| Health, Public | 330 |
| Heavy Electricals Ltd. (Govt. Ind. Undertakings) | 135 |
| ,, Engg. Corpn. (Govt. Ind. Undertakings) | 135 |
| ,, Vehicles Factory (Govt. Ind. Undertakings) | 136 |
| Hides, Skins and Leather | 391, 595 |
| ,, & Skins | 862, 1086 |
| High Commissions in India (Foreign) | 1170 |
| ,, ,, Abroad, Indian | 1168 |
| ,, Courts (Administration of Justice) | 99 |
| Highways (Roads) | 244 |
| Himachal Pradesh | 546 |
| Hindi, Propagation of | 308 |
| Hindu Law Reform | 102 |
| ,, Mahasabha, Akhil Bharat | 1271 |
| Hindustan Aeronautics Ltd. (Govt. Ind. Undertakings) | 136 |
| ,, Antibiotics Ltd. (Govt. Ind. Undertakings) | 137 |
| ,, Cables Ltd. (Govt. Ind. Undertakings) | 137 |
| ,, Housing Factory Ltd. (Govt. Ind. Undertakings) | 137 |
| ,, Insecticides Ltd. (Govt. Ind. Undertakings) | 137 |
| ,, Machine Tools Ltd. (Govt. Ind. Undertakings) | 137 |
| ,, Organic Chemicals Ltd. (Govt. Ind. Undertakings) | 138 |
| ,, Photo Film Mfg. Co. Ltd. (Govt. Ind. Undertakings) | 138 |
| ,, Salts Ltd. (Govt. Ind. Undertakings) | 138 |
| ,, Shipyard Ltd. (Govt. Ind. Undertakings) | 138 |
| ,, Steel Ltd. (Govt. Ind. Undertakings) | 1352 |
| ,, Teleprinters Ltd. (Govt. Ind. Undertakings) | 139 |
| Hirakud Dam Project (Irrigation) | 191 |
| Hoisting Machinery | 862 |
| Honorary Presidency Magistrates & J.P.s of Bombay | 1134 |
| Hoses (Rubber & Canvas) | 862 |
| Hosiery Manufacturers & Dealers | 483, 863, 1087 |
| Hospital Equipment and Supplies | 483, 1088 |
| Hospitals, Maternity and Nursing Homes in Greater Bombay | 672 |
| Hotels (Tourist's Guide) | 62 |
| & Restaurants | 430, 483, 523, 595, 864 |
| House and Estate Agents | 864 |
| Housing | 96 |
| Hutti Gold Mines Co. Ltd. | 147 |
| Hyderabad Municipal Corporation | 423 |
| ,, & Secunderabad Commercial Firms | 425 |
| ,, ,, Trades & Professions | 427 |
| ,, Tanneries Ltd. | 144 |

## I


PAGE

Ice Factories .. .. .. .. .. .. .. 865
I.D.A., World Bank and .. .. .. .. .. .. 70
I.L.O. .. .. .. .. .. .. .. 372
IMC Economic Research & Training Foundation .. .. 669
Import & Export Firms .. .. .. .. .. 865
,, ,, ,, Trade .. .. .. .. .. .. 114
,, of Metals and Alloys .. .. .. .. .. 50
Importers, Exporters and Stockists .. .. .. 484, 595, 1089
Incandesant Lamps & Gas Mantles .. .. .. .. 869
Income-Tax (Public Finance) .. .. .. .. .. 264
Index Numbers of Wholesale Prices .. .. .. .. 271
,, Foundation .. .. .. .. .. 988
,, Government Silver Refinery .. .. .. .. 139
,, Tourism Corporation .. .. .. .. .. 85
Indian Air Force (Defence Services) .. .. .. .. 75
,, ,, Lines Corporation .. .. .. .. 187, 388
,, Army (Defence Services) .. .. .. .. .. 73
,, Cancer Society .. .. .. .. .. 653
,, Central Cotton Committee .. .. .. .. 1151
,, Conference of Social Work .. .. .. .. 653
,, Constitution .. .. .. .. .. 103
,, Council for Cultural Relations .. .. .. .. 448
,, ,, of Medical Research .. .. .. .. 448
,, ,, ,, World Affairs .. .. .. .. 449
,, Drugs and Pharmaceuticals Ltd. (G.I.U.) .. .. 139
,, Govt. Trade Representatives Abroad .. .. .. 1167
,, Institute of Public Administration .. .. .. 449
,, ,, ,, Science .. .. .. .. 1006
,, ,, ,, Technology .. .. .. .. 669
,, Investment Centre .. .. .. .. .. 449
,, Motion Pictures Export Corpn. Ltd. .. .. .. 85
,, National Congress .. .. .. .. .. 1274
,, ,, Trade Union Congress .. .. .. .. 449
,, Navy (Defence Services) .. .. .. .. .. 75
,, Nursing Council .. .. .. .. .. 449
,, Oil Corporation Ltd. .. .. .. .. 140, 288
,, Political Representatives Abroad .. .. .. 1162
,, Rare Earths Ltd. (G.I.U.) .. .. .. .. 140
,, Red Cross Society .. .. .. .. 449, 639
,, School of International Studies .. .. .. 450
,, ,, of Public Administration .. .. .. 450
,, Soldiers', Sailors' and Airmen's Board .. .. 73
,, Standards Institution .. .. .. .. 450
,, Telephone Industries Ltd. (G.I.U.) .. .. .. 140
,, Tourism Hotel Corporation .. .. .. .. 85
Indians Overseas .. .. .. .. .. .. .. 77
India's Foreign Liabilities and Assets .. .. .. .. 20
India's Frontier with China .. .. .. .. .. 1292
Indo-American Technical Assistance .. .. .. .. 253
Indo-Pakistan Relations .. .. .. .. .. 1297
Indore University .. .. .. .. .. .. 563
Industrial and Commercial Management & Cost Consultants .. 484
,, ,, Scientific Instruments .. .. .. .. 1090
,, Credit and Investment Corporation .. .. 85
,, Development Bank of India .. .. .. .. 85
,, Disputes Act .. .. .. .. .. .. 358
,, Estates (Small Scale Industries) .. .. .. 297
,, Finance Corporation of India .. .. .. 85
,, Housing Scheme .. .. .. .. .. 96
,, Management Pool .. .. .. .. .. 266
,, Production 1964 .. .. .. .. .. 16
,, Safety and Respiratory Equipment .. 484, 595, 1090
,, Structure and Policy .. .. .. .. 1287
,, Undertakings .. .. .. .. .. 132
Information Services (The Press) .. .. .. .. 328
Ink Manufacturers .. .. .. .. 485, 523, 1090
Institute for Training in Industrial Engg. .. .. .. 670
,, of Communicable Diseases .. .. .. .. 332
,, ,, Medical Science .. .. .. .. .. 444
,, ,, Office Management in India .. .. .. 451
,, ,, Public Administration .. .. .. .. 449
Institution of Work Study .. .. .. .. .. 451
Institutions for Degree or Diploma Engineering, Technology, Commerce (Non-affiliated) .. .. .. .. .. 321
Institutions for the Blind in India .. .. .. .. 15
,, for Research in Humanities .. .. .. .. 163
Insulation Materials .. .. .. .. .. 485, 871, 1090
Insurance .. .. .. .. .. .. .. 89
,, Companies .. .. .. .. .. 430, 872, 1090
Integral Coach Factory (G.I.U.) .. .. .. .. 141
International Chamber of Commerce .. .. .. .. 451
,, Commission on Irrigation & Drainage .. .. 451
,, Confederation of Free Trade Unions .. .. 451
,, Cultural Centre .. .. .. .. .. 451
,, Development Agency, U.S.A. .. .. .. 251
,, Highways (Roads) .. .. .. .. .. 245
,, Labour Organisation, India and .. .. .. 372
,, Welfare Agencies .. .. .. .. .. 35



PAGE

INTUC .. .. .. .. .. .. .. .. 449
Iron Ore (Mines and Minerals) .. .. .. .. .. 47
Iron, Steel & Brass Works .. .. .. .. 523, 873
Iron & Steel Merchants .. .. .. .. .. 523, 874
Irrigation .. .. .. .. .. .. .. 188


## J


Jabalpur University .. .. .. .. .. .. 563
Jadavpur University .. .. .. .. .. .. 1033
Jalgaon District .. .. .. .. .. .. 980
Jammu and Kashmir State .. .. .. .. .. 547
Jammu & Kashmir State Financial Corporation .. .. 109
Jamnagar District .. .. .. .. .. .. 540
Jan Sangh, Bharatiya .. .. .. .. .. .. 1271
Jawaharlal Nehru Krishi Vishwa Vidyalaya .. .. .. 564
Jewellers, Gold & Silversmiths .. .. .. 430, 875
Jiwaji University .. .. .. .. .. .. 564
Jodhpur University .. .. .. .. .. .. 1025
Junagadh District .. .. .. .. .. .. 541
Jute & Jute Products .. .. .. .. .. .. 1093
,, Balers & Exporters .. .. .. .. .. 1092
,, Fabrics and Shippers .. .. .. .. .. 1093
,, Industry .. .. .. .. .. .. .. 38
,, Merchants & Exporters .. .. .. .. .. 1093
,, Mills .. .. .. .. .. .. 39, 401, 1094


## K


Kadana Project .. .. .. .. .. .. .. 505
Kaira District .. .. .. .. .. .. .. 541
Kalyani University .. .. .. .. .. .. 1033
,, Spinning Mills Ltd. .. .. .. .. .. 148
Kameshwara Singh Darbhanga Sanskrit University .. 1329
Karnatak University .. .. .. .. .. .. 1004
Kashmir State, Jammu & .. .. .. .. .. .. 547
Kasturba Gandhi National Memorial Trust .. .. .. 565
Kerala State .. .. .. .. .. .. .. 549
,, ,, Financial Corporation .. .. .. .. 110
,, ,, Industrial Development Corporation .. .. 110
,, ,, Small Industries Corporation Ltd. .. .. 110
Khadi and Village Industries Commission .. .. .. 164
,, ,, ,, ,, Boards .. .. .. .. 164
Khandala .. .. .. .. .. .. .. .. 985
Kolaba District .. .. .. .. .. .. 981
Kolar Gold Mining Undertakings .. .. .. .. 141
Kolhapur District .. .. .. .. .. .. 981
Korba Thermal Station .. .. .. .. .. .. 561
Kosi Project (Irrigation) .. .. .. .. .. 192
Kurukshetra University .. .. .. .. .. .. 1020
Kutch District .. .. .. .. .. .. .. 542


## L


Laboratory Chemicals .. .. .. .. 486, 597, 876, 1095
Laboratory Equipment .. .. .. .. .. 486, 876
Labour .. .. .. .. .. .. .. .. 354
Accidents .. .. .. .. .. .. .. 367
Administration .. .. .. .. .. .. 371
Agricultural Labour .. .. .. .. .. 369
Central Labour Institute .. .. .. .. .. 371
Code of Discipline .. .. .. .. .. 370
Employees' State Insurance Corporation .. .. .. 366
Employment and Training .. .. .. .. 364
Labour Appellate Tribunal .. .. .. .. 359
Maternity Benefit Act .. .. .. .. 357
Tripartite Labour Machinery .. .. .. .. 371
Wages, Minimum .. .. .. .. .. 369
Welfare Activities .. .. .. .. .. 368
Workers' Participation in Management .. .. .. 370
Lac Industry .. .. .. .. .. .. .. 39
Lac Merchant & Exporters .. .. .. .. .. 1095
Laccadive, Minicoy and Amindivi Islands .. .. .. 557
Ladakh .. .. .. .. .. .. .. 1293
Lalit Kala Akadami .. .. .. .. .. .. 452
Land Acquisition and Development Scheme .. .. .. 98
,, Mortgage Banks (Co-operative Movement) .. .. 124
,, Policy (Agriculture) .. .. .. .. .. 344
Language Problem, Official .. .. .. .. .. 307
Late Particulars .. .. .. .. .. .. 1271
Laws of 1963 .. .. .. .. .. .. .. 102
Lead (Non-Ferrous Industry) .. .. .. .. 283
Leather, Hides, Skins & .. .. .. .. .. 391
Leather Goods .. .. .. .. .. 524, 879, 1096
,, ,, Manufacturers and Dealers .. .. .. 597, 880
Legations Abroad, Indian .. .. .. .. .. 1165
,, in India .. .. .. .. .. .. 1169
Legislative Councils, Assemblies .. .. .. 106, 222-240
Libraries and Reading Rooms in Greater Bombay .. .. 676
Lighthouses (Ports) .. .. .. .. .. .. 149
Lignite Corporation Ltd., Neyveli .. .. .. .. 142
Lime Manufacturing Industry .. .. .. .. .. 168
Literacy Rate (Population) .. .. .. .. 194, 199

## L—*Contd.*


| | Page |
|---|---|
| Livestock | 212 |
| Loan Scholarships | 316 |
| Lock & Safe Merchants | 881 |
| Locomotive Works, Chittaranjan | 134 |
| Lok Sabha | 241 |
| Lonavala | 985 |
| Low-Income Group Housing Scheme | 97 |
| Lubricating Oil and Greases | 881 |
| Lucknow University | 1342 |
| Lutheran Societies | 257 |


## M


| | Page |
|---|---|
| Machine Tool Prototype Factory (G.I.U.) | 141 |
| ,, Tools | 397, 486, 881, 1096 |
| Machinery and Precision Tools Mfrs. | 488 |
| ,, Manufacturers, Importers and Dealers | 430, 524, 597, 611, 882, 1097 |
| Machkund Hydro-Electric Scheme | 419 |
| Madhya Pradesh | 558 |
| Associations, Societies, etc. | 564 |
| Five-Year Plans | 563 |
| Indira Kala Sangeet Vishwavidyalaya | 563 |
| Irrigation Schemes | 562 |
| Jabalpur University | 563 |
| Saugar University | 564 |
| Vikram University | 564 |
| Madhya Pradesh Financial Corporation | 110 |
| ,, ,, State Industries Corporation Ltd. | 110 |
| ,, ,, Mining Corporation | 111 |
| Madras State | 565 |
| Annamalai University | 572 |
| Associations, Societies | 573 |
| Classified List of Trades and Professions | 584 |
| Coimbatore District | 571 |
| Commercial Firms | 570 |
| Educational Institutions | 571 |
| Fisheries | 156 |
| Industrial Investment Corporation Ltd. | 111 |
| Madras University | 571 |
| Madras State Warehousing Corporation | 111 |
| Magadh University | 1329 |
| Magnesite (Mines & Minerals) | 48 |
| Mahableshwar | 992 |
| Maharaja Sayajirao University of Baroda | 536 |
| Maharashtra Electricity Board | 617 |
| ,, Industrial Development Corporation | 111 |
| ,, Small-Scale Industries Development Corpn. Ltd. | 111 |
| Maharashtra State | 614 |
| Associations (Trade & Commercial) in Greater Bombay | 629 |
| Basic Facts & Figures | 614 |
| Benevolent Institutions in Greater Bombay | 637 |
| Chambers of Commerce in Gr. Bombay | 643 |
| Churches in Gr. Bombay | 644 |
| Districts | 977-994 |
| Educational Institutions in Greater Bombay | 660 |
| Electric Power Development | 617 |
| Fisheries | 156 |
| Greater Bombay | 621 |
| Greater Bombay Corpn. | 622 |
| Housing | 618 |
| Irrigation | 620 |
| Milk Scheme | 619 |
| Rainfall of Bombay | 628 |
| Road Transport | 618 |
| Maharashtra State Farming Corpn. Ltd. | 111 |
| ,, ,, Financial Corporation | 111 |
| ,, ,, Warehousing Corporation | 112 |
| Manganese Ore | 47 |
| Manipur | 994 |
| Marble and Tile Mfrs. & Dealers | 885 |
| Maritime Union of India | 635 |
| Matches | 400 |
| Material and Mechanical Handling & Conveyors | 526, 597, 885 |
| Mazagon Dock Ltd. (G.I.U.) | 141 |
| Maternity and Nursing Home | 672 |
| Measures, Metric System of Weights & | 5 |
| Measuring Tapes & Instruments | 886 |
| Medical Council of India | 452 |
| ,, Education (Public Health) | 338 |
| ,, Research | 163 |
| Mehsana District | 543 |
| Merchant Navy Training Board | 999 |
| Metal Cutting Tools | 886 |
| Metal Mfrs. & Merchants | 488, 526, 597, 887, 1097 |
| Metallizing | 888, 1098 |
| Meteorology | 2 |
| Metric System of Weights & Measures | 5 |
| Mica | 48 |
| Middle Income Group Housing | 97 |
| Military and Government Contractors | 888 |
| ,, Assistance to India | 404 |
| Milk Colony, Aarey | 619 |
| Mill & Gin Stores Suppliers | 431, 488, 889, 1098 |
| Mill Stores | 1098 |
| Mineral Development Corporation, National | 87 |
| Mineral Merchants | 891, 1099 |
| Minerals & Metals Trading Corporation of India Ltd. | 86 |
| Mines and Minerals | 45 |
| Minicoy & Amindivi Islands | 557 |
| Mining Corporation, Andhra Pradesh | 108 |
| Minimum Wages Act, 1948 | 356 |
| Ministries (States) (Central) | 1121, 1142 |
| Miscellaneous Industries | 396 |
| Missionary & Religious Societies in Greater Bombay | 675 |
| Money Supply | 259 |
| Monsoon, Rainfall Summary | 4 |
| Motion Pictures Export Corporation, Indian | 85 |
| Motors & Trucks (Automobiles) | 892 |
| ,, Body Builders | 893, 1099 |
| ,, Body Building Materials | 598, 893 |
| ,, Transport Workers Act, 1961 | 362 |
| ,, Tyres and Accessories | 893 |
| ,, Vehicles (Roads) | 245 |
| Moulding Machines and Boxes | 893 |
| Mysore Crome Tanning Co. Ltd. | 147 |
| Mysore Govt. Silk Wvg. Factory | 147 |
| Mysore Iron and Steel Ltd. | 147 |
| ,, Small Industries Corpn. | 112 |
| Mysore State | 995 |
| Association, Societies, etc. | 1005 |
| Bangalore District | 1009 |
| Educational Institutions | 1004 |
| Fisheries | 158 |
| Mysore District | 1009 |
| Mysore University | 1005 |
| Trades and Professions, Bangalore | 1010 |
| Mysore State Financial Corpn. | 112 |
| ,, ,, Handicrafts Development Corpn. | 112 |
| ,, ,, Industrial Development Corporation Ltd. | 112 |


## N


| | Page |
|---|---|
| Nagaland | 1014 |
| Nagarjunasagar Project (Irrigation) | 193 |
| Nagpur District | 982 |
| ,, University | 982 |
| Nahan Foundry Ltd. (G.I.U.) | 142 |
| Nanded District | 983 |
| Nangal Fertilizer Unit | 135 |
| Narmada Project | 193, 505 |
| Nasik District | 984 |
| National Academy of Sciences | 1845 |
| National Association for the Blind | 641 |
| National Awards & Prizes | 277 |
| ,, Book Trust of India | 452 |
| ,, Buildings and Construction Corporation | 86 |
| ,, Cadet Corps (Defence Services) | 72 |
| ,, Christian Council of India | 258 |
| ,, Coal Development Corpn. Ltd. | 86 |
| ,, Cooperative Development Corpn. | 87 |
| ,, Council of Applied Economic Research | 452 |
| ,, ,, of Educational Research and Training | 319 |
| ,, ,, for Women in India | 1175 |
| ,, Development Council | 1157 |
| ,, Discipline Scheme | 310 |
| ,, Highways (Roads) | 244 |
| ,, Income | 882 |
| ,, Industrial Development Corporation | 87 |
| ,, Institute for Training in Industrial Engineering | 670 |
| ,, ,, of Communicable Diseases | 332 |
| ,, Instruments Ltd. (Govt. of India Undertakings) | 142 |
| ,, Laboratories | 160 |
| ,, Mineral Development Corporation | 87 |
| ,, Newsprint and Paper Mills Ltd. | 146 |
| ,, Productivity Council | 453 |
| ,, Projects Construction Corporation | 87 |
| ,, Prototypes | 5 |
| ,, Research Development Corporation | 88 |
| ,, Scholarships | 319 |
| ,, Seeds Corporation Ltd. | 88 |
| ,, Small Industries Corporation | 88 |
| Natural Gas Commission | 287 |
| Navy Indian (Defence Services) | 75 |
| NEFA | 438 |
| Newspapers (The Press) | 328 |
| ,, & Periodicals | 325, 894 |
| Newsprint | 286 |
| Newsprint Control Order | 330 |
| News-reels (Film Industry) | 172 |
| Neyveli Lignite Corporation Ltd. | 142 |

## N—*Contd.*


PAGE

Nicobar Islands, Andaman .. .. .. .. .. 415
Non-Affiliatated Institutions for Degree & Diploma in Engg., Tech., Commerce etc. .. .. .. .. 321
Non-Agricultural Credit Societies .. .. .. .. 124
Non-Credit Societies .. .. .. .. .. 125
Non-edible Oils (Cottage Industries) .. .. .. .. 167
Non-Ferrous Industry .. .. .. .. .. .. 282
,, Metals .. .. .. .. .. 529, 896, 1099
North Bengal University .. .. .. .. .. 1033
North-East Frontier Agency .. .. .. .. .. 438
Nuclear Research and Atomic Energy (Research) .. .. 162
Nursing (Public Health) .. .. .. .. .. 337
Nursing Homes, Hospitals (Bombay) .. .. .. .. 672


## O


Office Equipment .. .. .. .. 489, 598, 897, 1099
Official Language (Constitution of India) .. .. .. 107
,, Language Problem .. .. .. .. .. 307
Oil and Natural Gas Commission .. .. .. .. 287
,, Engines & Spares .. .. .. .. .. 898
,, Exploration and Production .. .. .. .. 287
,, Industry, Vegetable .. .. .. .. .. 394
,, Mills .. .. .. .. .. .. .. 899
,, Mills Machinery Manufacturers & Dealers .. .. 899
Optical Glass .. .. .. .. .. .. 143
Opticians and Optical Goods Mfrs. .. .. .. 489, 900, 1099
Ordnance Factories (Defence Services) .. .. .. 71
Orissa .. .. .. .. .. .. .. 1331
Orissa Construction Corporation Ltd. .. .. .. 112
,, Fisheries .. .. .. .. .. 158
,, Industrial Development Corpn. .. .. .. 1351
,, State Financial Corporation .. .. .. .. 112
Osmanabad District .. .. .. .. .. 984
Osmania University .. .. .. .. .. 421
Overseas Communications Service .. .. .. .. 15
,, Firms, Agents for .. .. .. .. .. 683
Oxygen and Gas Factories .. .. .. .. .. 900


## P


Package Programme (Food) .. .. .. .. .. 250
Packaging .. .. .. 489, 598, 612, 900, 1100
Packings & Jointings .. .. .. .. .. .. 901
Paint Raw Materials .. .. .. .. .. 599, 902
Painting Contractors .. .. .. .. .. 901
Paints, Enamels & Varnishes .. .. .. .. 489, 902, 1100
Palm-Gur (Cottage Industries) .. .. .. .. .. 167
Panchayati Raj .. .. .. .. .. .. .. 273
Panch Mahals District .. .. .. .. .. .. 543
Panchgani .. .. .. .. .. .. .. 992
Panjab University .. .. .. .. .. .. 1020
Paper & Board Mill Machinery Mfrs. & Suppliers .. .. 904
,, Convertors .. .. .. .. .. .. .. 904
,, Industry .. .. .. .. .. .. .. 285
,, Merchants .. .. .. .. .. .. 904, 1101
,, Mills .. .. .. .. .. .. .. 1103
Parbhani District .. .. .. .. .. .. 984
Parliament .. .. .. .. .. .. 105, 241
Patna University .. .. .. .. .. .. 1329
Pay Commission, Central .. .. .. .. .. 268
,, Commission Report (Public Services) .. .. .. 268
Payment of Wages Act .. .. .. .. .. .. 355
Pearls Manufacturers .. .. .. .. .. .. 906
Peasants' and Workers' Party .. .. .. .. .. 1276
People's Education Society, Bombay .. .. .. .. 670
Perforated Metal Sheets Manufacturers .. .. .. 906
Perfumes and Cosmetics .. .. .. .. .. 599
Perfumers and Perfumery Raw Materials .. .. .. 906
Pest Control .. .. .. 431, 490, 529, 600, 612, 907, 1103
Petroleum and Oil Companies .. .. .. .. .. 907
Petroleum Products .. .. .. .. .. .. 907
Petroleum Industry .. .. .. .. .. .. 286
Pharmaceutical Industry .. .. .. .. .. 1318
,, Machinery and Supplies .. .. .. .. .. 910
Pharmaceuticals .. .. .. .. .. .. 490, 907, 1103
Photographers .. .. .. .. .. .. 490, 529, 910
Photographic Materials Importers & Dealers .. 431, 911, 1103
Physical Education .. .. .. .. .. 311, 323
Physiography .. .. .. .. .. .. .. 1
Picture Dealers & Frame Makers .. .. .. .. 911
Piece-goods (Cotton, Silk and Woollen) .. .. .. .. 911
Pipes & Fittings Mfrs. and Merchants .. 491, 530, 601, 915
Pipes and Pipe Fittings .. .. .. .. 431, 601, 1104
P.L. 480 (U.S. Public Law) .. .. .. .. .. 252
Planning Commission .. .. .. .. .. 1157
Plantation Labour Act, 1951 (Labour) .. .. .. .. 361
,, ,, Housing Scheme .. .. .. .. 96
Plastic Machinery Mfrs. .. .. .. .. .. 530, 917
,, Products Manufacturers and Dealers .. .. 431, 491, 1104



PAGE

Plastics .. .. .. .. .. .. .. .. 917
,, Industry .. .. .. .. .. .. .. 289
Plywood Industries .. .. .. .. .. .. 400
,, Manufacturers & Dealers .. .. .. 919, 1106
Political Parties of India .. .. .. .. .. 1271
,, Representatives, Indian .. .. .. .. 1162
Pondicherry State .. .. .. .. .. .. 1015
Poona District .. .. .. .. .. .. 985
,, University .. .. .. .. .. .. 987
Population (1961 Census) .. .. .. .. .. 194
Ports .. .. .. .. .. .. .. .. 148
Posts and Telegraphs .. .. .. .. .. .. 30
Telegraphs .. .. .. .. .. .. 31
Pottery Industry (Cottage Industries) .. .. .. 168
Poultry (Livestock) .. .. .. .. .. .. 213
Praja Socialist Party .. .. .. .. .. .. 1276
Precision Tools .. .. .. .. .. .. 920
Presentation Articles .. .. .. .. .. .. 921
Press, The .. .. .. .. .. .. .. 324
Distribution of Newspapers (Tables) .. .. .. 325
Newsprint Control Order .. .. .. .. .. 330
Press Associations, Societies .. .. .. .. 329
Press Commission .. .. .. .. .. .. 329
Press Council .. .. .. .. .. .. 330
Press Laws .. .. .. .. .. .. 328
Primary Education .. .. .. .. .. .. 311
,, Land Mortgage Banks .. .. .. .. .. 124
Printing Ink Mfrs. .. .. .. .. .. .. 921
,, Press Material and Machinery .. .. .. .. 921
,, Presses .. .. .. .. .. .. 492, 530, 922
Prizes and Awards .. .. .. .. .. .. 277
Process Block Makers .. .. .. .. .. .. 923
Production, Agricultural .. .. .. .. .. 83
,, (Industrial), 1964 .. .. .. .. .. 16
Prohibition .. .. .. .. .. .. .. 401
Propagation of Hindi .. .. .. .. .. 308, 320
Protestant Churches .. .. .. .. .. .. 255
Provident Funds Act (Labour) .. .. .. .. .. 359
Provision Merchants .. .. .. .. .. .. 924
Public Accounts Committee .. .. .. .. .. 243
,, Companies (Capital Market) .. .. .. .. 1286
,, Finance .. .. .. .. .. .. .. 260
Public Health .. .. .. .. .. .. .. 330
Vital Statistics .. .. .. .. .. .. 330
Public Service Commission, Union .. .. .. .. 1161
Public Services .. .. .. .. .. .. .. 265
Pumps and Pumping Sets Manufacturers and Dealers .. .. .. 432, 492, 531, 612
Punjab .. .. .. .. .. .. .. .. 1017
,, Agricultural University .. .. .. .. .. 1021
,, Export Promotion Corporation Ltd. .. .. .. 113
,, Financial Corporation .. .. .. .. .. 113
,, State Small Industries Corporation Ltd. .. .. 113
Punjabi University .. .. .. .. .. .. 1021
P. V. C. Leather Cloth Mfrs. .. .. .. .. .. 925
Pyrites and Chemicals Development Co. Ltd. .. .. 143


## R


Radio & Electricals Manufacturing Co. Ltd. .. .. .. 147
,, Manufacturers, Dealers and Part Suppliers .. 432, 492, 531, 602, 612, 925
Railway Budgets .. .. .. .. .. .. 10, 1354
Railways .. .. .. .. .. .. .. .. 7
Rainfall of Bombay .. .. .. .. .. .. 628
,, of India .. .. .. .. .. .. .. 4
Rajasthan State .. .. .. .. .. .. 1022
,, Agricultural University (now called University of Udaipur) .. .. .. .. .. 1026
,, Financial Corporation .. .. .. .. 113
,, Trades & Professions .. .. .. .. 1027
,, University .. .. .. .. .. .. 1025
Rajkot District .. .. .. .. .. .. .. 544
Rajya Sabha .. .. .. .. .. .. .. 240
Ranchi University .. .. .. .. .. .. 1329
Rare Earths Ltd. .. .. .. .. .. .. .. 162
,, Metals (Mines & Minerals) .. .. .. .. .. 49
Ratnagiri District .. .. .. .. .. .. 990
Ravishankar University .. .. .. .. .. .. 564
Rayon Industry .. .. .. .. .. .. .. 290
Razor Blades .. .. .. .. .. .. .. 400
Reading Rooms and Libraries in Greater Bombay .. .. 676
Refineries .. .. .. .. .. .. .. .. 287
Refractories .. .. .. .. .. .. 400, 493, 926
Refrigerators (Domestic) .. .. .. .. .. 432, 531, 927
Refugees and Rehabilitation .. .. .. .. .. 375
Regional Languages .. .. .. .. .. .. 309
Regulated Markets (Agriculture) .. .. .. .. 342
Rehabilitation Industries Corporation Ltd. .. .. .. 88
Religious Societies in Gr. Bombay .. .. .. .. 675

## R—*Contd.*


| | PAGE |
|---|---|
| Rental Housing Scheme | 98 |
| Representatives/Agents of Overseas Firms | 683 |
| ,, (Manufacturers) | 927 |
| Republican Party of India | 1276 |
| Re-rolling Mills (Steel Industry) | 299 |
| Research | 159 |
| Research (Agriculture) | 343 |
| ,, Bodies | 162 |
| ,, (Defence) | 70 |
| ,, (Fisheries) | 153 |
| ,, Development Corporation, National | 88 |
| ,, and Development (Defence Services) | 71 |
| ,, in Humanities | 163 |
| Revenue, Central Govt. | 261 |
| Revolutionary Socialist Party | 1277 |
| Revenue and Expenditure, Sources of | 260 |
| Rice (Agriculture) | 341 |
| River Valley Projects (Irrigation) | 190 |
| Road Building Equipment and Machinery | 494, 602, 928 |
| ,, Transport Reorganisation Cttee. | 247 |
| Roads | 243 |
| Rockefeller Foundation | 454 |
| Rolling Shutters Manufacturers | 929 |
| Roman Catholic Church | 255, 644 |
| Roof Waterproofing | 433, 532 |
| Roorkee University | 1343 |
| Roperies | 929 |
| Rosin & Turpentine | 929 |
| Rourkela Steel Plant | 1353 |
| Rubber Industry | 292 |
| ,, Goods Manufacturers | 494, 532, 930 |
| Rural Education | 315 |
| ,, Employment Bureau | 365 |
| ,, Higher Education | 314 |


## S


| | |
|---|---|
| Sabarkantha District | 544 |
| Sadachar Samiti | 454 |
| Sahitya Akademi (Delhi) | 454 |
| Salt (Mines and Minerals) | 49 |
| Salvation Army | 258 |
| Samyukta Socialist Party | 1277 |
| Sangeet Natak Akadami (Delhi) | 454 |
| Sangli District | 991 |
| Sanitary Engineers | 433, 494, 931 |
| Sanitary Wares, Pipes and Fittings | 433, 494, 931 |
| Samyukta Sadachar Samiti | 454 |
| Sardar Vallabhbhai Vidyapeeth | 541 |
| Sarvodaya Samaj | 1345 |
| Satara District | 992 |
| Satpura Thermal Station | 561 |
| Saugar University | 564 |
| Scholarships for Teachers' Children | 319 |
| Scholarships (Awards & Prizes) | 280 |
| Scientific and Surgical Apparatus | 1110 |
| ,, Instruments | 494, 603, 933 |
| ,, Research | 160 |
| ,, Societies (Research) | 159 |
| Scientists' Pool | 266 |
| Sea Cadet Corps | 657 |
| Secondary Education | 311 |
| ,, ,, Board | 321 |
| Secretariat Training School | 267 |
| Seeds Corpn. Ltd., National | 88 |
| Sericulture and Silk | 174 |
| Service Medals (Defence Services) | 73 |
| Sewing Machines | 398, 934 |
| ,, Thread Manufacturers | 934 |
| Shaftings | 934 |
| Share Market (Capital Market) | 1283 |
| Sheep (Livestock) | 213 |
| Sheet Metal Working Machines | 934 |
| Shellac Factory | 144 |
| Ship Builders | 934 |
| Shipchandlers | 935 |
| Shipping Agents | 936 |
| ,, Companies and Airways | 181, 1315 |
| ,, Industry | 293 |
| Shiromani Akali Dal | 1277 |
| ,, Gurdwara Parbandhak Committee, Amritsar | 1021 |
| Shoe Making Material & Machinery | 936 |
| Sholapur District | 993 |
| Shops and Commercial Establishments Acts | 361 |
| Silk Board, Central | 177 |
| Silk Industry | 174 |
| Silk & Art Silk Mills and Factories | 936 |
| Silver Refinery, India Govt. | 139 |
| Sindri Fertilizers (Fertilizer Corpn.) Ltd. | 134 |
| Singareni Collieries | 144 |
| Sizing Materials | 938 |
| Slum Clearance Improvement Scheme | 97 |
| Small-Scale Industries | 295 |
| Industrial Estates | 297 |
| S.N.D.Thackersey Women's University | 663 |
| Snow-bound Areas (population) | 196 |
| Soap Factories | 399, 495, 939 |
| ,, and Oils Ltd. (Kerala Soap Institute) | 145 |
| Social Education | 317 |
| ,, Institutions in Gr. Bombay | 648 |
| ,, Welfare in India | 32 |
| Soil Conservation | 343 |
| Soldiers', Sailors' and Airmen's Board (Defence Services) | 73 |
| Solvent Extraction Plant | 939 |
| Solvents (Organic & Inorganic) | 939 |
| Space Research (Research) | 163 |
| Special Courts (Administration of Justice) | 100 |
| Sports | 403 |
| ,, Goods Manufacturers & Dealers | 940 |
| Spring Manufacturers | 940 |
| Sri Venkateswara University, Tirupati | 422 |
| Srisailam Hydro-Electric Scheme | 419 |
| St. John Ambulance Association | 455 |
| Stainless Steel | 941 |
| State Bank of India | 682 |
| ,, Budgets, 1965-66 | 373 |
| ,, Co-operative Banks | 123 |
| ,, Corporations | 108, 1351 |
| State-Owned or State-Aided Undertakings | 143 |
| State Trading Corporation of India | 89 |
| State Transports (Roads) | 247 |
| State-wise Distribution of Newspapers | 325 |
| ,, ,, of Population | 194 |
| States Adm. Personnel | 1121 |
| Stationery Mfrs. and Dealers | 495, 941 |
| Steam Traps and Valves | 943 |
| Steamship Agents | 943 |
| ,, Companies | 943 |
| Steel | 944 |
| ,, Doors and Windows | 495, 944 |
| ,, Furniture Mfrs. | 496, 533, 944 |
| ,, Industry | 298 |
| ,, Projects (G.I.U.) | 1352 |
| ,, Re-Rolling Mills | 299 |
| Stevedores and Dubashes | 533, 945 |
| Stock Exchange | 1283 |
| Straw-Boards | 946 |
| Structural Engineers & Contractors | 946 |
| Subsidised Industrial Housing Scheme | 96 |
| Sugar Industry | 41 |
| ,, Merchants | 947 |
| ,, Mill Machinery & Other Requirements Suppliers | 948 |
| ,, Mills | 949 |
| Sulphur (Mines and Minerals) | 48 |
| Superphosphate Factory | 144 |
| Supreme Court of India | 99, 1161 |
| Surat District | 544 |
| Surendranagar District | 546 |
| Surgical Instruments and Appliances | 949 |
| ,, Instruments Factory | 143 |
| Surveying & Measuring Instruments | 950 |
| Swatantra Party | 1278 |
| Swimming Pools & Baths in Greater Bombay | 676 |
| Synthetic Drugs Project | 140, 144 |
| ,, Fibres (Rayon Industry) | 290 |
| ,, Rubber (Rubber Industry) | 292 |


## T


| | |
|---|---|
| Tablet Making Machines | 950 |
| Tallow Importers, Dealers and Mfrs. | 950 |
| Talukas, Area & Population | 201 |
| Tank Manufacturers | 496, 950 |
| Tanks and Wells (Irrigation) | 189 |
| Tanneries Ltd., Hyderabad | 144 |
| Tapes, Twines & Bandings | 951 |
| Tarapur Atomic Power Station | 143 |
| Tariff Commission (Import and Export Trade) | 117 |
| Tarpaulin | 951 |
| Tata Institute of Fundamental Research | 671 |
| ,, ,, of Social Sciences | 671 |
| ,, Memorial Hospital | 674 |
| Tawa Project | 193, 561 |
| Tax Proposals (Public Finance) | 264 |
| Taxation Policy (Industrial Structure & Policy) | 1291 |
| Tea Districts Emigrant Labour Act | 360 |
| Tea Industry | 393 |
| ,, & Coffee Mfrs. & Merchants | 401, 952 |
| Technical Education | 314 |
| ,, Institutions, Bombay | 664 |
| Telephone Engineers and Contractors | 952 |

## T—*Contd.*


| | PAGE |
|---|---|
| Telephones (Post and Telegraphs) | 31 |
| Teleprinters Ltd., Hindustan | 139 |
| Television (Broadcasting) | 93 |
| Tenancy Reform (Agriculture) | 345 |
| Territorial Army (Defence Services) | 74 |
| Textile Auxiliaries, Mfrs. & Dealers | 533, 952 |
| „ Engineers | 953 |
| „ Enquiry Committee | 179 |
| „ Industry | 178 |
| „ Machinery Mfrs. and Dealers | 533, 613, 954 |
| Textile Wooden Articles | 956 |
| Textiles | 954 |
| Thana District | 993 |
| Thermos Flasks | 400 |
| Third & Fourth Five-Year Plans | 1301 |
| Timber Merchants | 956 |
| Tin Printers and Box Mfrs. | 496, 957 |
| Tobacco Industry | 44 |
| Toiletries | 958 |
| Tool, Alloy and Special Steel Merchants | 960 |
| „ Mfrs. and Merchants | 433, 958 |
| Tourist Centres | 56 |
| Tourist's Guide, A | 54 |
| Towns (Population) | 198 |
| Toys and Fancy Goods Dealers & Mfrs. | 962 |
| Traco Cable Company | 145 |
| Tractors and Spares | 497, 962 |
| Trade Agreements (Import & Export Trade) | 117 |
| „ & Commercial Associations in Greater Bombay | 629 |
| „ Commissions | 1173 |
| „ Foreign | 118 |
| „ Representatives Abroad, Govt. of India | 1169 |
| „ Unions, Statistics | 358 |
| Trades & Professions (*See under States and Districts*) | |
| Training Colleges | 320 |
| „ Institutions (Defence Services) | 72, 74, 76 |
| Transformers Manufacturers | 962 |
| Transport Bodies | 247 |
| Transport Contractors | 963 |
| Travancore Plywood Industries | 145 |
| Travel Agencies (A Tourist's Guide) | 55 |
| „ Agents | 497, 604 |
| Travel and Studies (Foreign Exchange Controls) | 381 |
| Tripartite Labour Machinery (Labour) | 371 |
| Tripura | 1335 |
| Trombay Atomic Energy Establishment | 162 |
| Tube-wells (Irrigation) | 189, 497 |
| Tungabhadra Hydro Electric Scheme | 419 |
| „ Project | 192 |
| „ Steel Products Ltd. | 147 |
| Type Manufacturers & Dealers | 965 |
| Typewriters and Accessories | 400, 497, 965 |
| Tyre Manufacturers & Distributors | 966 |


## U


| | |
|---|---|
| Ukai Project (Gujarat) | 505 |
| Udaipur University | 1026 |
| U.N. Aid to India | 64 |
| U.N. Bodies in India | 1173 |
| U. N. Children's Fund (UNICEF) | 1173 |
| U. S. Agency for International Development | 251 |
| Umbrellas Mfrs. & Merchants | 966 |
| Unani Institutions | 338 |
| UNESCO Research Centre | 1173 |
| Union Parliament (Constitution of India) | 105 |
| „ Public Service Commission | 1161 |
| „ Territories (Constitution of India) | 106 |
| Unit Trust of India | 89 |
| Universities (*See also under each State*) | |
| University Grants Commission | 313 |
| U.S. Aid to India | 251 |
| U.S. Information Service (The Press) | 329 |
| U. S. Technicians | 254 |
| Upholstery Materials | 966 |
| Utkal University | 1334 |
| Uttar Pradesh | 1336 |
| Associations | 1343 |
| Uttar Pradesh Financial Corporation | 113 |
| „ „ Small Industries Corporation | 113 |
| „ „ State Industrial Development Corpn. Ltd. | 113 |


## V


| | PAGE |
|---|---|
| Vanaspati (Vegetable Oil Industry) | 396 |
| Varanaseya Sanskrit Viswa Vidyalaya | 1346 |
| Vee Belts | 967 |
| Vegetable Oil Industry | 394 |
| Vegetable Products (Ghee) | 967 |
| Victoria Jubilee Technical Institute | 671 |
| VijnanMandirs (Education) | 317 |
| Vikram University | 564 |
| „ Leather Industry | 167 |
| „ Oil (Cottage Industries) | 165 |
| „ Pottery Industry | 168 |
| Village Housing Projects | 97 |
| Village Small Industries | 164 |
| Viswabharati University | 1033 |
| Visva Yoga Bharati | 659 |
| Vividh Bharati | 94 |


## W


| | |
|---|---|
| Wage Board for Working Journalists and Non-Journalists | 329 |
| Wages (Labour) | 362 |
| Wardha District | 994 |
| Ware Houses (Food) | 248 |
| Warehousing Corporation, Central | 83 |
| Washeries (Govt. Ind. Undertakings) | 143 |
| Watch & Clock Importers & Dealers | 400, 968 |
| Water Meters | 969 |
| Waterproofing Products Mfrs. & Dealers | 433, 969 |
| Weighing Machine Manufacturers, Dealers and Repairers | 971 |
| Weights and Measures | 5 |
| Welding Set & Materials | 498, 604, 972 |
| Welfare Board, Social | 35 |
| West Bengal | 1027 |
| Chambers of Commerce | 1041 |
| Commercial Firms | 1043 |
| Corporation, Calcutta | 1031 |
| Educational Institutions | 1032 |
| Societies, Associations, etc. | 1034 |
| Trades and Professions | 1057 |
| University of Calcutta | 1032 |
| Visva-Bharati University | 1033 |
| West Bengal Financial Corporation | 114 |
| „ „ Small Industries Corpn. Ltd. | 114 |
| Western Railway, Statistics | 10 |
| Wheat (Agriculture) | 341 |
| Who's Who in India | 1176 |
| Winches | 973 |
| Wine & Spirit Merchants | 498, 918 |
| Wire Products Mfrs. and Dealers | 973 |
| „ Ropes | 974 |
| Wireless | 31 |
| Women's Associations | 1175 |
| „ Education | 318 |
| „ University, S.N.D. Thackersey | 663 |
| Wood Working Tools, Saws & Machinery | 974 |
| Woollen Industry | 300 |
| Woollen Mills | 975 |
| Woollen Piecegoods | 975 |
| Workers Education Scheme | 368 |
| Workers' Participation in Management (Labour) | 370 |
| Working Class under Different Categories (Population) | 210 |
| Workmen's Compensation Act (Labour) | 356 |
| Workshop Machinery | 975 |
| World Bank & I.D.A. | 70 |
| Worli Dairy | 619 |


## Y


| | |
|---|---|
| Yarn Merchants | 976 |
| Yeotmal District | 994 |
| Yoga-Vedanta Forest Academy | 1346 |


## Z


| | |
|---|---|
| Zinc (Non-Ferrous Industry) | 283 |
| Zip Fasteners Mfrs. | 976 |
| Zonal Councils (Constitution of India) | 105 |


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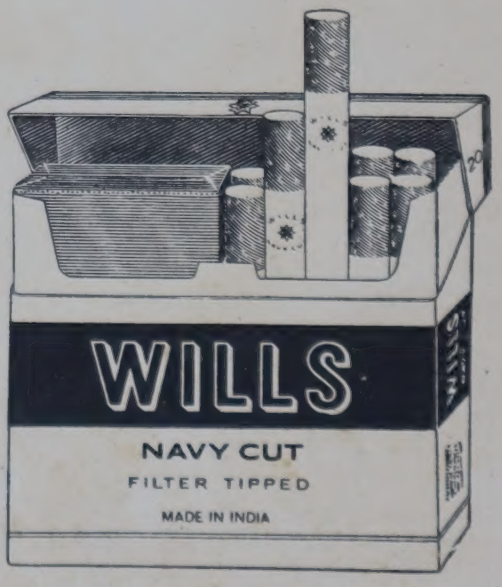


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